SCS ENGINEERS

Transmittal

West Des Moines, IA

PROJECT:	WRD,FY25 Env Comp,IA 27224309.25	DATE:	2/18/2025
SUBJECT:	WRD County Sanitary Landfill, South MSWLF Unit - 27-SDP-01-75P - 2024 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report	TRANSMITTAL ID:	00003
PURPOSE:	For your approval	VIA:	Info Exchange

FROM

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

TO

NAME	COMPANY	EMAIL	PHONE
Geoffrey Spain United States		geoffrey.spain@dnr.iowa.gov	

REMARKS:

Geoff -

Please find for your download the WRD County Sanitary Landfill, South MSWLF Unit 2024 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report. Let us know if you have any questions or comments.

Thanks,

Sean A. Marczewski
Project Professional
SCS Engineers
1690 All-State Court, Suite 100
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DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NOTES
1	2/18/2025	WRD Sanitary Landfill, South MSWLF Unit - 27-SDP-01-75P - 2024 Annual Water Quality Report, Leachate Control System Performance Report, and Landfill Gas Annual Report 02.18.2025.pdf	

Transmittal

DATE: 2/18/2025
TRANSMITTAL ID: 00003

COPIES:

Becky Jolly	
Doug Collier	(Wayne Ringgold Decatur Solid Waste Management Commission)
Sean Marczewski	(SCS Engineers)
Tim Buelow	(SCS Engineers)

February 18, 2025
File No. 27224309.25

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

Subject: 2024 Annual Water Quality Report, 2024 Leachate Control System Performance Evaluation Report, and 2024 Landfill Gas Annual Report
Wayne-Ringgold-Decatur County Sanitary Landfill
South MSWLF Unit
Permit No. 27-SDP-01-75P

Dear Geoff:

SCS Engineers, on behalf of the Wayne-Ringgold-Decatur County Solid Waste Management Commission, has completed the required groundwater monitoring and statistical evaluation for the Wayne-Ringgold-Decatur County Sanitary Landfill (Landfill) for the year 2024 and an evaluation of the leachate control system and methane monitoring network. Services were performed in general accordance with Iowa Administrative Code (IAC) 567-113.10, 113.7(5)"b"(14), 113.9, 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, 2024 Leachate Control System Performance Evaluation Report, and 2024 Landfill Gas Annual Report for the Landfill.

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

Sincerely,

Sean Marczewski
Project Professional
SCS Engineers

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

SAM/TCB

Copies: Ms. Sheila Caldwell and Mr. Doug Collier, WRD Sanitary Landfill

2024 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, And Landfill Gas Annual Report

Wayne-Ringgold-Decatur County Sanitary Landfill
South MSWLF Unit
Solid Waste Permit No. 27-SDP-01-75P

Prepared for:

Wayne-Ringgold-Decatur County Sanitary Landfill

SCS ENGINEERS

27224309.25 | February 18, 2025

1690 All-State Court, Suite 100
West Des Moines, IA 50265
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CERTIFICATION

Prepared by: _____ Date: 2/18/2025

Typed: Sean Marczewski

Reviewed by: _____ Date: 2/18/2025

Typed: Timothy C. Buelow, P.E.

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

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

EXECUTIVE SUMMARY

ES.1 Period of Report Coverage

The period of report coverage is from January to December 2024 and includes the May and September 2024 semi-annual sampling events.

ES.2 Report Priority

The following summarizes report priorities associated with groundwater compliance at the South municipal solid waste landfill unit (South MSWLF unit) at the Wayne-Ringgold-Decatur County Sanitary Landfill (Landfill):

- Department review urgency: Approved monitoring well abandonments are summarized in Section 6.3.
- 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: Active
- Types of waste accepted: MSW, Construction & Demolition (C&D)
- Applicable IAC rules: 2009 567-113.10

ES.4 Comments

There were no points of special emphasis during the 2024 reporting period.

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
COC = Chain of Custody
DNR = Iowa Department of Natural Resources
DO = Dissolved Oxygen
DQR = Double Quantification Rule
GWPS = Groundwater Protection Standard
LEL = Lower Explosive Limit
LCL = Lower Confidence Limit
LCS = Laboratory Control Sample
LN = Lognormal
MCL = EPA Maximum Contaminant Level
MS/MSD = Matrix Spike/Matrix Spike Duplicate
MSW = Municipal Solid Waste
N = Normal
NC = No Change
NM = Not Measured
NP = Non-Parametric
ORP = Oxidation-Reduction Potential
P = Parametric
PL = Prediction Limit
RL = Reporting Limit
RPD = Relative Percent Difference
SWS = DNR Statewide Standard for a protected groundwater source
SSI = Statistically Significant Increase above background
SSL = Statistically Significant Level above groundwater protection standard
SSS = Site-Specific Standard (Site-Specific GWPS)
TSS = Total Suspended Solids
UCL = Upper Confidence Limit
VOC = Volatile Organic Compound

1.0 SITE BACKGROUND

1.1 SITE LOCATION

The Landfill property is depicted on **Figure 1**, Approved Monitoring Network. The Landfill is located on a 156-acre plot of land west of Iowa Highway 294, one-half mile north of the junction of County Road R-15 and Iowa Highway 2. The Landfill is located approximately six miles south of Grand River, generally in the S ½, NE ¼, and the N ½, SE ¼ of Section 33, T69N, R27W, in Decatur County, Iowa.

1.2 FACILITY

The Landfill began accepting waste around 1973 and has been a permitted facility since 1975. The Landfill has received waste since that time. The Landfill is comprised of two areas: the North MSWLF unit, which was certified by the Iowa Department of Natural Resources (DNR) as closed as of November 25, 2008, and the South MSWLF unit, which is the active MSWLF unit currently consisting of the Phase 1, 2, 3, and 4 cells.

1.3 GEOLOGY AND HYDROGEOLOGY OF THE SITE

In the document entitled *Hydrogeological Assessment Report*, dated July 22, 2004, (2004 HAR, Doc #42526) prepared by Barker Lemar Engineering Consultants, the following geological description was included:

> *The site is located in the Southern Iowa Drift Plain (Cagle, 1973). These areas usually consist of loess caps on hills made of glacial till. Typically, loess may be absent on valley sideslopes due to erosion.*
>
> *Cross-sections and corresponding soil profiles from the 2004 HAR based on borings advanced in the vicinity of the North and South MSWLF units were provided in Appendix A of the Revised HMSP dated September 16, 2008 (Doc #31567). The December 1991 Green Environmental Services (1991 GES) document entitled The Hydrogeologic Investigation Report and Hydrologic Monitoring System Plan for the Wayne-Ringgold-Decatur County Sanitary Landfill (Doc #37535), stated that approximately six to seven and a half feet of loess are present naturally at the surface underlain by thick glacial till with intermittent sand lenses dispersed in the till layer. The glacial till layer was estimated to be between 80 and 150 feet thick. The 1991 GES report concluded that the thickness of this layer was adequate to prevent contamination by leachate of the local aquifers.*
>
> *The till is underlain by Pennsylvanian bedrock (1991 GES). The upper part of the Pennsylvanian bedrock consists mainly of interbedded shale and limestone. Deeper portions of the bedrock also contain some sandstone. The top of the bedrock is located between 950 and 975 feet above mean sea level (amsl) and is estimated as 735 feet thick just southeast of the Landfill. The Landfill is located on a bedrock high and is an adequate distance from the major aquifer channels (Hatfield, Leon, and Decatur) to not affect the quality of the water in these aquifers (1991 GES).*

The boring logs for monitoring wells MW-16, MW-19, and MW-21 indicated layers identified as alluvium 13 feet, 7 feet, and 6.5 feet thick (based on narrative description), respectively; however,

the boring logs for monitoring wells MW-26R and MW-31, which are located lower in the ravine where increased alluvial deposits would be expected, did not encounter alluvium.

According to the 2004 HAR, the groundwater table present in the upper layer of the glacial till is considered the uppermost aquifer. The 1991 GES report indicated that the groundwater beneath the east-west ridge along the north part of the property flows north and south from the high point of the ridge: "(The) horizontal flow directions in the upper saturated zone are to the north and converging toward the ravines in the southern part of the landfill property."

The 2004 HAR provided a description of the hydrogeological units at the Landfill as follows:

> *The stratigraphy in the proposed lateral expansion area agrees with the previous studies done at the site. Thin, intermittent layers of loess are underlain by a thick glacial till layer (Figures 4 through 7)* [not included in this report]. *The glacial till layer ranges from silty lean clay with traces of sand and gravel to sandy lean clay. Intermittent sand lenses were also encountered. The absence of an alluvial layer while boring to a depth of 100 feet for monitoring well MW-25 suggests either the alluvial layer deepens heading southwest or it discontinues altogether.*
>
> *As stated in Section 113.18(1), sand layers were encountered, which were described as intermittent sand lenses in the 1991 report. These sand layers were also encountered during recent drilling for the proposed lateral expansion area and were found to be relatively thin, generally one to two feet thick. Additionally, because of the relative locations of the wells with and without sand seams, no definite continuity of these sand layers could be established. This observation indicates that these sand layers are discontinuous sand lenses.*

2.0 FIGURES DISCUSSION

The following figures are attached.

2.1 FIGURE 1 – APPROVED MONITORING NETWORK

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

2.2 FIGURE 2 – GROUNDWATER CONTOURS

An evaluation of water level conditions in the monitoring wells to ensure that the effects of Landfill operation/development have not resulted in changes in the hydrologic setting and resultant flow paths was conducted. A groundwater contour map based on groundwater levels measured during the May 2024 sampling event is included in **Figure 2**. Leachate level elevations are included for reference but are not taken into consideration when determining the groundwater contours as the leachate in the South MSWLF unit is contained within composite-lined cells and can be assumed separate from the groundwater. It is not known whether the leachate levels measured in the North MSWLF unit are in hydraulic communication with the groundwater or represent perched leachate within the waste mass. The groundwater contours, which represent the surficial groundwater table elevations, indicate flow to the southeast beneath the South MSWLF unit. This flow direction is consistent with previous groundwater contour maps.

2.3 FIGURE 3 – REPORTING PERIOD DETECTION SUMMARY

Figure 3 shows the range of measured concentrations by monitoring point for the HMSP monitoring wells during this reporting period. Further discussion of the detected constituents is included in Section 5.0 – Data Evaluation and Summary of this report.

3.0 STANDARDS HISTORY GRAPHS

Standards history graphs are included in Appendix G. Standards history graphs for the following parameters are included:

- Arsenic
- Barium
- Cadmium
- Chromium
- Cobalt
- Copper
- Lead
- Nickel
- Selenium (Only MW-30L)
- Silver
- Thallium
- Vanadium
- Zinc

In all instances the prediction limit was below the GWPS. As antimony and beryllium were not detected in the monitoring network, graphs are not included.

4.0 QA/QC SUMMARY

The quality assurance/quality control (QA/QC) program for the Landfill followed 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, and blanks, accuracy, and precision. A summary of the laboratory QA/QC and data validation can be found in Appendices B-1, Laboratory Data, and B-2, Data Validation, respectively. The QA/QC review indicated that the data was acceptable.

5.0 DATA EVALUATION AND SUMMARY

Detection monitoring statistical evaluation in accordance with the requirements of IAC 567-113.10(5) were conducted for the groundwater analytical data collected during the 2024 semi-annual sampling events. The statistical evaluation for samples collected during this reporting period are located in Appendix D, Summary of Statistical Method and Output.

Groundwater monitoring for the Landfill consists of three monitoring points located southeast of the South MSWLF unit. The range of measured concentrations for the detected constituents during this reporting period is shown in Figure 3, Reporting Period Detection Summary.

5.1 DATA EVALUATION

In general, groundwater quality in the vicinity of the South MSWLF unit does not appear to have been impacted by a release from the Landfill. No volatile organic compounds (VOCs) were detected and there were no indicated statistically significant increases (SSIs) for the monitoring wells associated

with the South MSWLF unit during this reporting period. A total of four inorganic parameters were detected during this reporting period, three of which were measured as site-wide maximum concentrations in monitoring point UO-4. None of the detected parameters exceeded their respective GWPS. Monitoring point UO-4 was dry during the 2nd 2024 semi-annual sampling event and has insufficient data to perform prediction limit analysis at this time.

6.0 RECOMMENDATIONS

6.1 SITE IMPACT ON GROUNDWATER

There are no issues to be remedied regarding groundwater at the South MSWLF unit that are recommended at this time.

6.2 PROPOSED MONITORING

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

6.3 PROPOSED MONITORING WELL CHANGES

As part of the planned Cell 5 construction, a request to abandon monitoring wells MW-22, MW-23, MW-24, and MW-25 was made on December 17, 2024 (Doc #111504) and approved in DNR correspondence dated December 19, 2024 (Doc #111521).

Tables

Table 1
Monitoring Program Summary Table
2024 Annual Water Quality Report
South MSWLF Unit
WRD County Landfill
Permit No. 27-SDP-01-75P

Monitoring Well	Formation[1]	Current Monitoring Program	Change for Next Sampling Event	Constituents with SSI	Constituents with SSLs	Total Number of Samples in Each Monitoring Program		
						Detection Inorganic/Organic	Assessment Inorganic/Organic	Pre-Corrective Action Inorganic/Organic
HMSP Monitoring Points								
MW-30L	Clay	Detection	No change	None	Not Applicable	19/35	-	-
MW-31	Clay	Detection	No change	None	Not Applicable	19/35	-	-
UO-4	Underdrain	Detection	No change	None	Not Applicable	4/7	-	-
Other Monitoring Points								
MW-22	Clay, trace gravel	Water Level						
MW-23	Clay, trace sand and gravel, sand seam	Water Level						
MW-24	Clay, trace sand and gravel	Water Level						
MW-25	Clay, trace sand and gravel	Water Level						

Notes:

[1] Obtained from screened interval on boring logs.

SSI - Statistically Significant Increase above background.

SSL - Statistically Significant Level above groundwater protection standard.

Table 2
Monitoring Program Implementation Schedule
2024 Annual Water Quality Report
South MSWLF Unit
WRD County Landfill
Permit No. 27-SDP-01-75P

Monitoring Well	Upcoming Sampling Dates and Constituents		Upcoming Sampling Events		Full Appendix II Sample Dates	
	May 2024 Semi-Annual	September 2024 Semi-Annual	1st 2025 Semi-Annual	2nd 2025 Semi-Annual	Previously Collected	Next Event
MW-30L	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	NA	NA
MW-31	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	NA	NA
UO-4	Appendix I, TSS	None (Dry)	Appendix I, TSS	Appendix I, TSS	NA	NA

Notes:

TSS - Total Suspended Solids.

NA - Not Applicable - Monitoring points are in the detection monitoring program, therefore are not required to be sampled for Appendix II constituents. If any monitoring point has a confirmed SSI, then that monitoring point will be sampled for Appendix II parameters and placed in the assessment monitoring program.

Table 3
Monitoring Well Maintenance and Performance Re-Evaluation Schedule
2024 Annual Water Quality Report
South MSWLF Unit
WRD County Landfill
Permit No. 27-SDP-01-75P

Compliance with:	2022	2023	2024	2025
567 IAC 113.10(2)"f"(1) high and low water levels	Completed	Completed	Included[2]	Scheduled
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths	Completed	Completed	Included[1]	Scheduled
567 IAC 113.10(2)"f"(3) well depths	Completed	Completed	Included[2]	Scheduled
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry	Completed		Included[2]	

Notes:

[1] See Section 2.2 of this report.

[2] See Table 4.

Comments:

None.

Table 4
Monitoring Well Performance and Maintenance Summary
2024 Annual Water Quality Report
South MSWLF Unit
WRD County Landfill
Permit No. 27-SDP-01-75P

Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth Discrepancy (ft)	Initial Flow Rate (L/min) Date	Recent Flow Rate (L/min) Date	% Change
					5/15/2024	9/18/2024				
MW-30L	1026.75	1009.3	27.4	Groundwater Level (ft)	11.98	15.51	0.0	0.100 9/9/2015	0.175 9/18/2024	75%
				Groundwater Elevation (Ft MSL)	1014.77	1011.24				
				Measured Well Depth (ft)	27.4	27.4				
				Submerged screen	Y	Y				
MW-31	1031.12	998.6	42.6	Groundwater Level (ft)	14.55	15.82	0.5	0.100 9/9/2015	0.158 9/18/2024	58%
				Groundwater Elevation (Ft MSL)	1016.57	1015.30				
				Measured Well Depth (ft)	42.1	42.1				
				Submerged screen	Y	Y				

Comments:

1) Measured well depths were within 0.5 feet of the installed depths.

Table 5
Background and GWPS Summary Tables
2024 Annual Water Quality Report
South MSWLF Unit
WRD County Landfill
Permit No. 27-SDP-01-75P

Intrawell Background / GWPS - MW-30L										
Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	16	0	0.0005 (1/2 RL)	0.0015 (1/2 RL)	0.00072	< 0.003	DQR	0.006	MCL
Arsenic (As)	mg/L	16	2	0.0008975*	0.001745	0.00104	0.001745	PL (NP)	0.01	MCL
Barium (Ba)	mg/L	16	16	0.0847	0.1195	0.09770	0.122	PL (P)	2	MCL
Beryllium (Be)	mg/L	16	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.004	MCL
Cadmium (Cd)	mg/L	16	4	0.00005 (1/2 RL)	0.00025 (1/2 RL)	0.00011	0.00025	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	16	4	0.000662*	0.0039*	0.00240	0.0039	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	16	5	0.000072*	0.0005 (1/2 RL)	0.00024	0.0005	PL (NP)	0.0021	SWS
Copper (Cu)	mg/L	16	3	0.0007515*	0.00398	0.00238	0.00398	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	16	1	0.00025 (1/2 RL)	0.000294*	0.00025	0.000294	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	16	4	0.00077*	0.0025 (1/2 RL)	0.00220	0.0025	PL (NP)	0.1	SWS
Selenium (Se)	mg/L	10	10	0.00385*	0.00523	0.00443	0.005465	PL (P)	0.05	MCL
Silver (Ag)	mg/L	16	1	0.000146*	0.0005 (1/2 RL)	0.00046	0.0005	PL (NP)	0.1	SWS
Thallium (Tl)	mg/L	16	2	0.0000325*	0.001 (1/2 RL)	0.00049	0.001	PL (NP)	0.002	MCL
Vanadium (V)	mg/L	16	11	0.000665*	0.0038*	0.00168	0.003141	PL (P)	0.035	SWS
Zinc (Zn)	mg/L	16	1	0.005 (1/2 RL)	0.0789	0.01337	0.0789	PL (NP)	2	SWS

Intrawell Background / GWPS - MW-31										
Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	16	0	0.0005 (1/2 RL)	0.0015 (1/2 RL)	0.00072	< 0.003	DQR	0.006	MCL
Arsenic (As)	mg/L	16	1	0.001 (1/2 RL)	0.00161	0.00104	0.00161	PL (NP)	0.01	MCL
Barium (Ba)	mg/L	16	16	0.109	0.178	0.13428	0.1693	PL (P)	2	MCL
Beryllium (Be)	mg/L	16	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.004	MCL
Cadmium (Cd)	mg/L	18	16	0.000051*	0.00025 (1/2 RL)	0.00012	0.0002479	PL (P)	0.005	MCL
Chromium (Cr)	mg/L	16	2	0.00146*	0.004*	0.00253	0.004	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	16	7	0.000029*	0.0005 (1/2 RL)	0.00021	0.0005	PL (NP)	0.0021	SWS
Copper (Cu)	mg/L	16	2	0.000851*	0.0025 (1/2 RL)	0.00230	0.0025	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	16	1	0.00025 (1/2 RL)	0.000304*	0.00025	0.000304	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	16	13	0.00162*	0.00317	0.00232	0.003263	PL (P)	0.1	SWS
Selenium (Se)	mg/L	16	0	0.00125 (1/2 RL)	0.0025 (1/2 RL)	0.00242	< 0.005	DQR	0.05	MCL
Silver (Ag)	mg/L	16	2	0.000169*	0.0005 (1/2 RL)	0.00045	0.0005	PL (NP)	0.1	SWS
Thallium (Tl)	mg/L	16	3	0.000045*	0.001 (1/2 RL)	0.00045	0.001	PL (NP)	0.002	MCL
Vanadium (V)	mg/L	16	6	0.000473*	0.00392*	0.00212	0.00392	PL (NP)	0.035	SWS
Zinc (Zn)	mg/L	16	1	0.005 (1/2 RL)	0.076	0.01319	0.076	PL (NP)	2	SWS

Notes:

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

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

Acronyms/Abbreviations:

RL = Reporting Limit
GWPS = Groundwater Protection Standard (mg/L)
DQR = Double Quantification Rule
SSS = Site-Specific GWPS
SWS = Statewide Standard
PL = Prediction Limit
MCL = EPA Maximum Contaminant Level
NP = Non-Parametric
P = Parametric

Comments:

Water quality results and effectiveness of the statistical data evaluation criteria: Statistical evaluations consist of prediction limits.

Changes to the previous statistical method during reporting period: None.

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

Justification for data exclusion: Inorganic data from the sampling events that occurred prior to the implementation of low-flow sampling, which began during the 2nd 2015 semi-annual sampling event, were removed from statistical consideration beginning with the 2nd 2020 semi-annual statistical evaluation. This was due to the effect that high total suspended solids (TSS) concentrations likely had on inorganic concentrations.

Table 6
Summary of Well/Detected Constituent Pairs With No Previous SSIs
2024 Annual Water Quality Report
South MSWLF Unit
WRD County Landfill
Permit No. 27-SDP-01-75P

Well	Constituent	Units	Most Recent Result	Background Standard
None				

Notes:

[(1)] Criteria for inclusion in this table is a well/constituent pair with a statistically significant increase above background (SSI) during this current reporting period and no SSI in the immediately preceding reporting period.

[(2)] There were no newly recorded SSIs during this reporting period.

Comments:

1) **Problems with the current detection network:** Monitoring point UO-4 has only had four accepted inorganic samples obtained due to the monitoring point being generally consistently dry.
2) **Schedule to implement remedies:** Not applicable.
3) **Alternative constituent or sample frequency changes:** None.
4) **Significant changes to calculated prediction limits:** Inorganic data obtained prior to the implementation of low-flow sampling (fall 2015) was removed from statistical consideration during the 2nd 2020 semi-annual statistical evaluation. This was due to the effect that high total suspended solids concentrations likely had on inorganic concentrations.
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
South MSWLF Unit
WRD County Landfill
Permit No. 27-SDP-01-75P

Well	Constituent	Units	Most Recent Result	Background Standard	Lower Confidence Limit	GWPS	Sample Dates		
							Initial Exceedance	Resample(s)	5th background sample
None									

Notes:

There are no ongoing or newly identified confirmed SSIs at the South MSWLF unit.

Comments:

1) **Problems with the current assessment network:** None.
2) **Proposed remedies:** Not applicable.
3) **Alternative constituent or sample frequency changes:** None.
4) **Plume delineation strategies:** Not applicable.
5) **Property owner notifications:** Not applicable.

Table 8
Summary Table of Ongoing and Newly Identified SSLs
2024 Annual Water Quality Report
South MSWLF Unit
WRD County Landfill
Permit No. 27-SDP-01-75P

Well	Constituent	Units	Most Recent Result	Upper Confidence Limit	GWPS	Initial Exceedance	Upper Confidence Limit Below GWPS					
							1st Year		2nd Year		3rd Year	
None												

Notes:

There are no ongoing or newly identified SSLs at the South MSWLF unit, all monitoring wells are in the detection monitoring program.

Table 9
Summary of Groundwater Chemistry
2024 Annual Water Quality Report
South MSWLF Unit
WRD County Landfill
Permit No. 27-SDP-01-75P

The Summary of Groundwater Chemistry is located in Appendix C.

Table 10
Historical SSI and SSL
2024 Annual Water Quality Report
South MSWLF Unit
WRD County Landfill
Permit No. 27-SDP-01-75P

Key

SSI

SSL

Well	Constituent	Spring 2020	Fall 2020	Spring 2021	Fall 2021	Spring 2022	Fall 2022	Spring 2023	Fall 2023	Spring 2024	Fall 2024
None											

Comments:

There were no SSIs and/or SSLs confirmed since the 2020 reporting period at the Landfill.

Table 11
Corrective Action Trend Analysis
2024 Annual Water Quality Report
South MSWLF Unit
WRD County Landfill
Permit No. 27-SDP-01-75P

Well	Current SSL	Trend	Calculated S	Critical S	Total N	Projected Date to Completion
None						

Notes:

N - Number of Samples

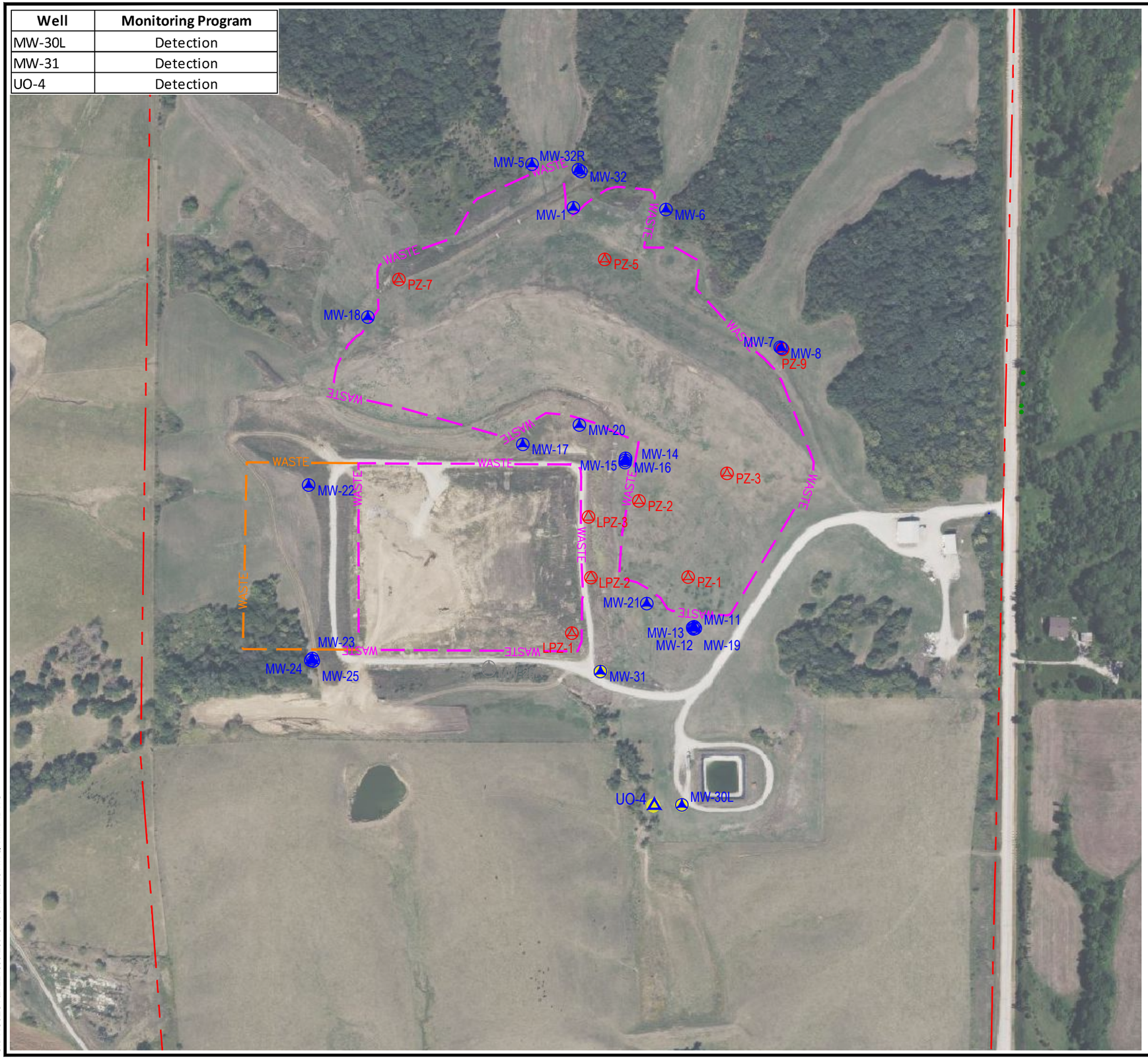
S - Mann-Kendall Statistic

Comments:

1) There are no SSLs at the South MSWLF unit, therefore a corrective action analysis is not required.

Figures

Well	Monitoring Program
MW-30L	Detection
MW-31	Detection
UO-4	Detection



LEGEND

- MW — HMSP MONITORING WELL
- MW — MONITORING WELL
- LPZ — LEACHATE PIEZOMETER
- CURRENT WASTE BOUNDARY
- FUTURE WASTE BOUNDARY
- APPROXIMATE PROPERTY BOUNDARY
- UO-4 — UNDERDRAIN

300 0 300

SCALE FEET

REV.	DATE	CK BY
△	-	-
△	-	-
△	-	-
△	-	-
△	-	-
△	-	-

SHEET TITLE
APPROVED MONITORING NETWORK SOUTH

PROJECT TITLE
WAYNE RINGGOLD DECATUR SANITARY LANDFILL
2025 ANNUAL WATER QUALITY REPORT

CLIENT
WAYNE RINGGOLD DECATUR SOILD WASTE MANAGMENT COMMISSION
21377 125TH AVENUE
GRAND RIVER, IOWA

SCS ENGINEERS
1690 ALL STATE COURT, SUITE 100
WEST DES MOINES, IOWA 50265
(515) 831-6160

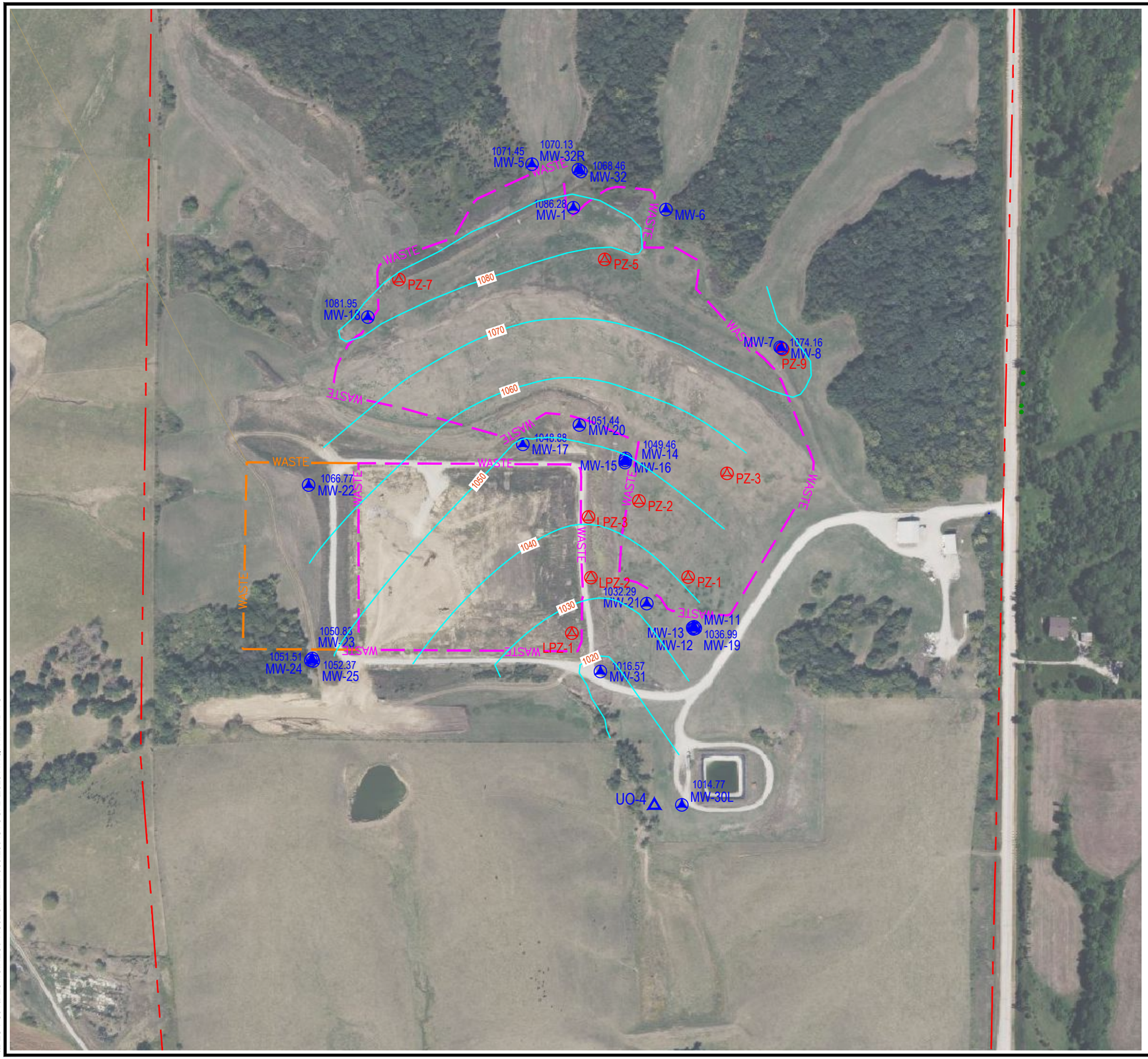
PROJ.NO. 27224309.25 | DSN. BY: ---- | DWN. BY: ---- | CHK. BY: SAM | PROJ. MGR: SAM

CADD FILE: 2025 AWQR MAP.DWG

DATE: 2/13/25

FIGURE NO. **1**

G:\PROJECT\27224309.25\AUTOCAD\2025 AWQR MAP.DWG



LEGEND

- APPROXIMATE GROUNDWATER CONTOURS BASED ON FIELD MEASUREMENTS TAKEN MAY 14, 2024
- MW — MONITORING WELL
- LPZ — LEACHATE PIEZOMETER
- CURRENT WASTE BOUNDARY
- FUTURE WASTE BOUNDARY
- APPROXIMATE PROPERTY BOUNDARY
- UO-4 — UNDERDRAIN

300 0 300

SCALE FEET

REV.	DATE	CK BY
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-

SHEET TITLE
GROUNDWATER CONTOURS

PROJECT TITLE
WAYNE RINGGOLD DECATUR SANITARY LANDFILL
2025 ANNUAL WATER QUALITY REPORT

CLIENT
WAYNE RINGGOLD DECATUR SOILD WASTE MANAGMENT COMMISSION
21377 125TH AVENUE
GRAND RIVER, IOWA

SCS ENGINEERS
1690 ALL STATE COURT, SUITE 100
WEST DES MOINES, IOWA 50265
(515) 831-6160

PROJ.NO 27224309.25 | DSN. BY: ---- | DWN. BY: ---- | CHK. BY: SAM | PROJ. MGR: SAM

CADD FILE: 2025 AWQR MAP.DWG

DATE: 2/14/25

FIGURE NO. **2**

\\DES-FS01\DESMOINES\PROJECT\27224309.25\AUTOCAD\2025 AWQR MAP.DWG

Constituent	Monitoring Point	Maximum Concentration
Barium (mg/L)	UO-4	0.254
Cadmium (mg/L)	MW-31	0.000225
Cobalt (mg/L)	UO-4	0.000824
Nickel (mg/L)	UO-4	0.011

MW-31	
Constituent (units)	**Concentration**
Barium (mg/L)	0.133 - 0.157 (2/2)
Cadmium (mg/L)	**0.000225 (1/2)**
Total Suspended Solids (mg/L)	2.63 (1/2)

UO-4	
Constituent (units)	**Concentration**
Barium (mg/L)	**0.254 (1/1)**
Cobalt (mg/L)	**0.000824 (1/1)**
Nickel (mg/L)	**0.011 (1/1)**
Total Suspended Solids (mg/L)	<1.88 (0/1)

MW-30L	
Constituent (units)	**Concentration**
Barium (mg/L)	0.0752 - 0.0896 (4/4)
Total Suspended Solids (mg/L)	<1.88 (0/4)

LEGEND

- MW-4C MONITORING WELL
- LPZ-1 LEACHATE PIEZOMETER
- CURRENT WASTE BOUNDARY
- FUTURE WASTE BOUNDARY
- APPROXIMATE PROPERTY BOUNDARY
- UO-4 UNDERDRAIN

300 0 300

SCALE FEET

REV.	DATE	CK BY
0	-	-
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-

SHEET TITLE
REPORTING PERIOD DETECTION SUMMARY SOUTH

PROJECT TITLE
WAYNE RINGGOLD DECATUR SANITARY LANDFILL
2025 ANNUAL WATER QUALITY REPORT

CLIENT
WAYNE RINGGOLD DECATUR SOILD WASTE MANAGMENT COMMISSION
21377 125TH AVENUE
GRAND RIVER, IOWA

SCS ENGINEERS
1690 ALL STATE COURT, SUITE 100
WEST DES MOINES, IOWA 50265
(515) 631-6160

PROJ. NO. 27224309.25
DSN. BY: CJD
DWN. BY: CJD
CHK. BY: SAM
PROJ. MGR: SAM

CADD FILE: 2025 AWQR MAP FIGURES 3 AND 4.DWG

DATE: 2/13/25

FIGURE NO. **3**

\\DES-FS01\DESMOINES\PROJECT\27224309.25\AUTOCAD\2025 AWQR MAP FIGURES 3 AND 4.DWG

Appendix A

Field Sampling Forms

FORM FOR GROUNDWATER SAMPLING

Project:	**Wayne-Ringgold-Decatur Country Landfill South**		
Monitoring Well/Piezometer ID:	**MW-30L**	Date:	**5/15/2024**
Gradient:	Down	Sampler:	Michael Morgan

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	27.4
Initial Static Water Level (feet):	11.98
Initial Groundwater Elevation (ft-amsl):	1014.77
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)	
8:32 AM	Purging start time.						
8:35 AM	12.4	3.7	834.2	6.76	118.8	2.0	
8:38 AM	12.4	3.0	837.8	6.77	126.1	2.2	
8:41 AM	12.4	2.9	838.2	6.82	128.7	2.5	
8:44 AM	12.4	2.8	837.3	6.82	132.7	2.7	
	Parameters stabilized, sample collected.						

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

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

Additional Comments:	Color:Clear Odor:None

FORM FOR GROUNDWATER SAMPLING

Project:	**Wayne-Ringgold-Decatur Country Landfill South**		
Monitoring Well/Piezometer ID:	**MW-31**	Date:	**5/15/2024**
Gradient:	Down	Sampler:	Michael Morgan

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	42.1
Initial Static Water Level (feet):	14.55
Initial Groundwater Elevation (ft-amsl):	1019.57
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
10:19 AM	Purging start time.						
10:22 AM	12.8	1.6	612.4	6.84	140.4	1.8	
10:25 AM	12.8	0.9	604.2	6.78	143.5	2.0	
10:28 AM	12.7	0.8	602.4	6.76	144.7	2.6	
10:31 AM	12.6	0.7	602.0	6.75	145.6	8.2	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

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

Additional Comments:	Color:Clear Odor:None

FORM FOR SURFACE WATER SAMPLING

Site Name: WRD County Sanitary Landfill
Permit No.: 27-SDP-01-75P
Surface Monitoring Point No.: UO-4
Date: 5/15/24

Name of Person Sampling: Michael Morgan

A. TYPE OF MOINITORING POINT

Stream		Open Tile	X
Road Ditch		Tile with Riser	
Drainage Ditch		Other	

B. PURPOSE OF MONITORING POINT

Upstream		Downstream	X
Within Landfill		Other	

C. MONITORING POINT CONDITIONS/LOCATION

Discharge point from leachate lagoon groundwater underdrain.

Was monitoring point dry?	No	Too little water to sample?	No
Was water flowing?	Yes	If yes, estimate quantity (cfs)	1L 2:38" ~~0.0002 cfs~~
Standing Water?	Yes	If yes, estimate depth (inches)	4 inch
		If yes, estimate width (inches)	12 in
Was water discolored?	Yes - algal/pond scum		
Does water have odor?	Y - Slight earthy smell		
Was ground discolored?	Yes - cattle use taken as drinking source		
Litter present?	No		

cfs ~ 0.81

cfs = cubic feet second

D. FIELD MEASUREMENTS

Weather Conditions: Overcast cloudy 61°F

Time: 9:36

Field Measurements:

Temperature	14.6	Units	Celsius
Equipment Used	YSI		
pH	6.51	Units	Standard units
Equipment Used	YSI		
Spec.Conductance	1298	Units	uS/cm
Equipment Used	YSI		

COMMENTS Pipe outlet concealed by thick grass. Removed w/ spade to gain access to outlet. U/S stream ft Nth of outlet is flowing water, down stream of outlet stream widens and is where greatest concentration of cow hoofprints located, standing water & mud * pics taken

FORM FOR GROUNDWATER SAMPLING

Project:	**Wayne-Ringgold-Decatur Country Landfill South**		
Monitoring Well/Piezometer ID:	**MW-30L**	Date:	**9/18/2024**
Gradient:	Down	Sampler:	Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	27.4
Initial Static Water Level (feet):	15.51
Initial Groundwater Elevation (ft-amsl):	1070.19
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)	
1:52 PM	Purging start time.						
1:55 PM	18.1	0.8	911.6	6.87	8.1	8.6	
1:58 PM	18.2	0.4	909.6	6.86	10.4	24.9	
2:01 PM	19.0	0.3	907.5	6.84	12.8	51.3	
2:04 PM	20.0	0.2	906.2	6.84	14.1	77.7	
	Parameters stabilized, sample collected.						

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

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

Additional Comments:	Color:Clear Odor:None

FORM FOR GROUNDWATER SAMPLING

Project:	**Wayne-Ringgold-Decatur Country Landfill South**		
Monitoring Well/Piezometer ID:	**MW-31**	Date:	**9/18/2024**
Gradient:	Down	Sampler:	Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	42.1
Initial Static Water Level (feet):	15.82
Initial Groundwater Elevation (ft-amsl):	1015.30
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)	
3:53 PM	Purging start time.						
3:56 PM	21.1	1.3	627.5	6.82	21.8	5.4	
3:59 PM	20.4	0.4	636.0	6.80	20.2	7.7	
4:02 PM	19.5	0.2	635.4	6.80	18.8	11.3	
4:05 PM	19.5	0.1	633.9	6.79	17.8	20.4	
	Parameters stabilized, sample collected.						

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

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

Additional Comments:	Color:Clear Odor:None

FORM FOR SURFACE WATER SAMPLING

Site Name: WRD County Sanitary Landfill
Permit No.: 27-SDP-01-75P
Surface Monitoring Point No.: UO-4
Date: 9-18-24

Name of Person Sampling: Konner Roth

A. TYPE OF MOINITORING POINT

Stream		Open Tile	X
Road Ditch		Tile with Riser	
Drainage Ditch		Other	

B. PURPOSE OF MONITORING POINT

Upstream		Downstream	X
Within Landfill		Other	

C. MONITORING POINT CONDITIONS/LOCATION

Discharge point from leachate lagoon groundwater underdrain.

Was monitoring point dry?	Yes	Too little water to sample?	Yes
Was water flowing?	X	If yes, estimate quantity (cfs)	
Standing Water?	No	If yes, estimate depth (inches)	X
		If yes, estimate width (inches)	
Was water discolored?	X		
Does water have odor?	X		
Was ground discolored?	X		
Litter present?	No		

D. FIELD MEASUREMENTS

Weather Conditions: cloudy 83°F, 10mph wind

Time: 14:30

Field Measurements:

Temperature		Units	Celsius
Equipment Used			
pH		Units	Standard units
Equipment Used			
Spec.Conductance		Units	uS/cm
Equipment Used			

COMMENTS: Dry

IDNR Form 542-1324

Appendix B-1

Laboratory Analytical Data Sheets

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 5/30/2024 2:33:36 PM

JOB DESCRIPTION

Wayne-Ringold-Decatur LF SOUTH 1st Semi-Annual GW

JOB NUMBER

310-281476-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

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

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

Authorization

Generated
5/30/2024 2:33:36 PM

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

Table of Contents

Job ID: 310-281476-1 Eurofins Cedar Falls

Job Narrative
310-281476-1

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 5/16/2024 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C.

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

Metals
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: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-281476-1	MW-30L	Water	05/15/24 09:09	05/16/24 16:15
310-281476-2	MW-31	Water	05/15/24 10:41	05/16/24 16:15
310-281476-3	UO-4	Water	05/15/24 09:36	05/16/24 16:15
310-281476-4	MW-DS	Water	05/15/24 09:09	05/16/24 16:15
310-281476-5	Trip Blank	Water	05/15/24 00:00	05/16/24 16:15

Detection Summary

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: MW-30L — Lab Sample ID: 310-281476-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0752		0.00200	0.000660	mg/L	1		6020B	Total/NA
Selenium	0.00440	J	0.00500	0.00140	mg/L	1		6020B	Total/NA

Client Sample ID: MW-31 — Lab Sample ID: 310-281476-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.133		0.00200	0.000660	mg/L	1		6020B	Total/NA

Client Sample ID: UO-4 — Lab Sample ID: 310-281476-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.254		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000186	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.000824		0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00278	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Nickel	0.0110		0.00500	0.00210	mg/L	1		6020B	Total/NA

Client Sample ID: MW-DS — Lab Sample ID: 310-281476-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0762		0.00200	0.000660	mg/L	1		6020B	Total/NA
Selenium	0.00431	J	0.00500	0.00140	mg/L	1		6020B	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-281476-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: MW-30L
Lab Sample ID: 310-281476-1
Date Collected: 05/15/24 09:09
Matrix: Water
Date Received: 05/16/24 16:15

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			05/22/24 06:58	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			05/22/24 06:58	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			05/22/24 06:58	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			05/22/24 06:58	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			05/22/24 06:58	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			05/22/24 06:58	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			05/22/24 06:58	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			05/22/24 06:58	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			05/22/24 06:58	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			05/22/24 06:58	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			05/22/24 06:58	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			05/22/24 06:58	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			05/22/24 06:58	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			05/22/24 06:58	1
2-Hexanone	<10.0		10.0	2.00	ug/L			05/22/24 06:58	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			05/22/24 06:58	1
Acetone	<10.0		10.0	3.10	ug/L			05/22/24 06:58	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			05/22/24 06:58	1
Benzene	<0.500		0.500	0.220	ug/L			05/22/24 06:58	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			05/22/24 06:58	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			05/22/24 06:58	1
Bromoform	<5.00		5.00	0.780	ug/L			05/22/24 06:58	1
Bromomethane	<4.00		4.00	1.10	ug/L			05/22/24 06:58	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			05/22/24 06:58	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			05/22/24 06:58	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			05/22/24 06:58	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			05/22/24 06:58	1
Chloroethane	<4.00		4.00	0.790	ug/L			05/22/24 06:58	1
Chloroform	<3.00		3.00	1.30	ug/L			05/22/24 06:58	1
Chloromethane	<3.00		3.00	0.610	ug/L			05/22/24 06:58	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			05/22/24 06:58	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			05/22/24 06:58	1
Dibromomethane	<1.00		1.00	0.330	ug/L			05/22/24 06:58	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			05/22/24 06:58	1
Iodomethane	<10.0		10.0	7.00	ug/L			05/22/24 06:58	1
Methylene chloride	<5.00		5.00	1.70	ug/L			05/22/24 06:58	1
Styrene	<1.00		1.00	0.370	ug/L			05/22/24 06:58	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			05/22/24 06:58	1
Toluene	<1.00		1.00	0.430	ug/L			05/22/24 06:58	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			05/22/24 06:58	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			05/22/24 06:58	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			05/22/24 06:58	1
Trichloroethene	<1.00		1.00	0.430	ug/L			05/22/24 06:58	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			05/22/24 06:58	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			05/22/24 06:58	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			05/22/24 06:58	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			05/22/24 06:58	1

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: MW-30L
Lab Sample ID: 310-281476-1
Date Collected: 05/15/24 09:09
Matrix: Water
Date Received: 05/16/24 16:15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*73 - 130*		*05/22/24 06:58*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/22/24 06:58*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*05/22/24 06:58*	*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		05/20/24 09:30	05/24/24 21:49	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/20/24 09:30	05/24/24 21:49	1
Barium	**0.0752**		0.00200	0.000660	mg/L		05/20/24 09:30	05/24/24 21:49	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		05/20/24 09:30	05/29/24 17:08	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/20/24 09:30	05/24/24 21:49	1
Chromium	<0.00500		0.00500	0.00120	mg/L		05/20/24 09:30	05/24/24 21:49	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		05/20/24 09:30	05/24/24 21:49	1
Copper	<0.00500		0.00500	0.00180	mg/L		05/20/24 09:30	05/24/24 21:49	1
Lead	<0.000500		0.000500	0.000260	mg/L		05/20/24 09:30	05/24/24 21:49	1
Nickel	<0.00500		0.00500	0.00210	mg/L		05/20/24 09:30	05/24/24 21:49	1
Selenium	**0.00440**	**J**	0.00500	0.00140	mg/L		05/20/24 09:30	05/24/24 21:49	1
Silver	<0.00100		0.00100	0.000500	mg/L		05/20/24 09:30	05/29/24 17:08	1
Thallium	<0.00100		0.00100	0.000570	mg/L		05/20/24 09:30	05/24/24 21:49	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		05/20/24 09:30	05/24/24 21:49	1
Zinc	<0.0200		0.0200	0.00970	mg/L		05/20/24 09:30	05/29/24 17:08	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			05/20/24 13:20	1

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: MW-31
Lab Sample ID: 310-281476-2
Date Collected: 05/15/24 10:41
Matrix: Water
Date Received: 05/16/24 16:15

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			05/22/24 07:20	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			05/22/24 07:20	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			05/22/24 07:20	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			05/22/24 07:20	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			05/22/24 07:20	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			05/22/24 07:20	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			05/22/24 07:20	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			05/22/24 07:20	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			05/22/24 07:20	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			05/22/24 07:20	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			05/22/24 07:20	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			05/22/24 07:20	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			05/22/24 07:20	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			05/22/24 07:20	1
2-Hexanone	<10.0		10.0	2.00	ug/L			05/22/24 07:20	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			05/22/24 07:20	1
Acetone	<10.0		10.0	3.10	ug/L			05/22/24 07:20	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			05/22/24 07:20	1
Benzene	<0.500		0.500	0.220	ug/L			05/22/24 07:20	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			05/22/24 07:20	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			05/22/24 07:20	1
Bromoform	<5.00		5.00	0.780	ug/L			05/22/24 07:20	1
Bromomethane	<4.00		4.00	1.10	ug/L			05/22/24 07:20	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			05/22/24 07:20	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			05/22/24 07:20	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			05/22/24 07:20	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			05/22/24 07:20	1
Chloroethane	<4.00		4.00	0.790	ug/L			05/22/24 07:20	1
Chloroform	<3.00		3.00	1.30	ug/L			05/22/24 07:20	1
Chloromethane	<3.00		3.00	0.610	ug/L			05/22/24 07:20	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			05/22/24 07:20	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			05/22/24 07:20	1
Dibromomethane	<1.00		1.00	0.330	ug/L			05/22/24 07:20	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			05/22/24 07:20	1
Iodomethane	<10.0		10.0	7.00	ug/L			05/22/24 07:20	1
Methylene chloride	<5.00		5.00	1.70	ug/L			05/22/24 07:20	1
Styrene	<1.00		1.00	0.370	ug/L			05/22/24 07:20	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			05/22/24 07:20	1
Toluene	<1.00		1.00	0.430	ug/L			05/22/24 07:20	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			05/22/24 07:20	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			05/22/24 07:20	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			05/22/24 07:20	1
Trichloroethene	<1.00		1.00	0.430	ug/L			05/22/24 07:20	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			05/22/24 07:20	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			05/22/24 07:20	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			05/22/24 07:20	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			05/22/24 07:20	1

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: MW-31
Lab Sample ID: 310-281476-2
Date Collected: 05/15/24 10:41
Matrix: Water
Date Received: 05/16/24 16:15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*73 - 130*		*05/22/24 07:20*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/22/24 07:20*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*05/22/24 07:20*	*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		05/20/24 09:30	05/24/24 21:51	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/20/24 09:30	05/24/24 21:51	1
Barium	**0.133**		0.00200	0.000660	mg/L		05/20/24 09:30	05/24/24 21:51	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		05/20/24 09:30	05/29/24 17:12	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/20/24 09:30	05/24/24 21:51	1
Chromium	<0.00500		0.00500	0.00120	mg/L		05/20/24 09:30	05/24/24 21:51	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		05/20/24 09:30	05/24/24 21:51	1
Copper	<0.00500		0.00500	0.00180	mg/L		05/20/24 09:30	05/24/24 21:51	1
Lead	<0.000500		0.000500	0.000260	mg/L		05/20/24 09:30	05/24/24 21:51	1
Nickel	<0.00500		0.00500	0.00210	mg/L		05/20/24 09:30	05/24/24 21:51	1
Selenium	<0.00500		0.00500	0.00140	mg/L		05/20/24 09:30	05/24/24 21:51	1
Silver	<0.00100		0.00100	0.000500	mg/L		05/20/24 09:30	05/29/24 17:12	1
Thallium	<0.00100		0.00100	0.000570	mg/L		05/20/24 09:30	05/24/24 21:51	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		05/20/24 09:30	05/24/24 21:51	1
Zinc	<0.0200		0.0200	0.00970	mg/L		05/20/24 09:30	05/29/24 17:12	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			05/20/24 13:20	1

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: UO-4
Lab Sample ID: 310-281476-3
Date Collected: 05/15/24 09:36
Matrix: Water
Date Received: 05/16/24 16:15

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			05/22/24 07:42	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			05/22/24 07:42	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			05/22/24 07:42	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			05/22/24 07:42	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			05/22/24 07:42	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			05/22/24 07:42	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			05/22/24 07:42	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			05/22/24 07:42	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			05/22/24 07:42	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			05/22/24 07:42	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			05/22/24 07:42	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			05/22/24 07:42	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			05/22/24 07:42	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			05/22/24 07:42	1
2-Hexanone	<10.0		10.0	2.00	ug/L			05/22/24 07:42	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			05/22/24 07:42	1
Acetone	<10.0		10.0	3.10	ug/L			05/22/24 07:42	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			05/22/24 07:42	1
Benzene	<0.500		0.500	0.220	ug/L			05/22/24 07:42	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			05/22/24 07:42	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			05/22/24 07:42	1
Bromoform	<5.00		5.00	0.780	ug/L			05/22/24 07:42	1
Bromomethane	<4.00		4.00	1.10	ug/L			05/22/24 07:42	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			05/22/24 07:42	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			05/22/24 07:42	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			05/22/24 07:42	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			05/22/24 07:42	1
Chloroethane	<4.00		4.00	0.790	ug/L			05/22/24 07:42	1
Chloroform	<3.00		3.00	1.30	ug/L			05/22/24 07:42	1
Chloromethane	<3.00		3.00	0.610	ug/L			05/22/24 07:42	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			05/22/24 07:42	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			05/22/24 07:42	1
Dibromomethane	<1.00		1.00	0.330	ug/L			05/22/24 07:42	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			05/22/24 07:42	1
Iodomethane	<10.0		10.0	7.00	ug/L			05/22/24 07:42	1
Methylene chloride	<5.00		5.00	1.70	ug/L			05/22/24 07:42	1
Styrene	<1.00		1.00	0.370	ug/L			05/22/24 07:42	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			05/22/24 07:42	1
Toluene	<1.00		1.00	0.430	ug/L			05/22/24 07:42	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			05/22/24 07:42	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			05/22/24 07:42	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			05/22/24 07:42	1
Trichloroethene	<1.00		1.00	0.430	ug/L			05/22/24 07:42	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			05/22/24 07:42	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			05/22/24 07:42	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			05/22/24 07:42	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			05/22/24 07:42	1

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: UO-4
Lab Sample ID: 310-281476-3

Date Collected: 05/15/24 09:36
Matrix: Water

Date Received: 05/16/24 16:15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*73 - 130*		*05/22/24 07:42*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/22/24 07:42*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*05/22/24 07:42*	*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		05/20/24 09:30	05/24/24 21:53	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/20/24 09:30	05/24/24 21:53	1
Barium	**0.254**		0.00200	0.000660	mg/L		05/20/24 09:30	05/24/24 21:53	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		05/20/24 09:30	05/29/24 17:15	1
Cadmium	**0.000186**	**J**	0.000200	0.000100	mg/L		05/20/24 09:30	05/24/24 21:53	1
Chromium	<0.00500		0.00500	0.00120	mg/L		05/20/24 09:30	05/24/24 21:53	1
Cobalt	**0.000824**		0.000500	0.000170	mg/L		05/20/24 09:30	05/24/24 21:53	1
Copper	**0.00278**	**J**	0.00500	0.00180	mg/L		05/20/24 09:30	05/24/24 21:53	1
Lead	<0.000500		0.000500	0.000260	mg/L		05/20/24 09:30	05/24/24 21:53	1
Nickel	**0.0110**		0.00500	0.00210	mg/L		05/20/24 09:30	05/24/24 21:53	1
Selenium	<0.00500		0.00500	0.00140	mg/L		05/20/24 09:30	05/24/24 21:53	1
Silver	<0.00100		0.00100	0.000500	mg/L		05/20/24 09:30	05/29/24 17:15	1
Thallium	<0.00100		0.00100	0.000570	mg/L		05/20/24 09:30	05/24/24 21:53	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		05/20/24 09:30	05/24/24 21:53	1
Zinc	<0.0200		0.0200	0.00970	mg/L		05/20/24 09:30	05/29/24 17:15	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			05/20/24 13:20	1

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: MW-DS
Lab Sample ID: 310-281476-4
Date Collected: 05/15/24 09:09
Matrix: Water
Date Received: 05/16/24 16:15

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			05/22/24 08:04	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			05/22/24 08:04	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			05/22/24 08:04	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			05/22/24 08:04	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			05/22/24 08:04	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			05/22/24 08:04	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			05/22/24 08:04	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			05/22/24 08:04	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			05/22/24 08:04	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			05/22/24 08:04	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			05/22/24 08:04	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			05/22/24 08:04	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			05/22/24 08:04	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			05/22/24 08:04	1
2-Hexanone	<10.0		10.0	2.00	ug/L			05/22/24 08:04	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			05/22/24 08:04	1
Acetone	<10.0		10.0	3.10	ug/L			05/22/24 08:04	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			05/22/24 08:04	1
Benzene	<0.500		0.500	0.220	ug/L			05/22/24 08:04	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			05/22/24 08:04	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			05/22/24 08:04	1
Bromoform	<5.00		5.00	0.780	ug/L			05/22/24 08:04	1
Bromomethane	<4.00		4.00	1.10	ug/L			05/22/24 08:04	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			05/22/24 08:04	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			05/22/24 08:04	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			05/22/24 08:04	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			05/22/24 08:04	1
Chloroethane	<4.00		4.00	0.790	ug/L			05/22/24 08:04	1
Chloroform	<3.00		3.00	1.30	ug/L			05/22/24 08:04	1
Chloromethane	<3.00		3.00	0.610	ug/L			05/22/24 08:04	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			05/22/24 08:04	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			05/22/24 08:04	1
Dibromomethane	<1.00		1.00	0.330	ug/L			05/22/24 08:04	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			05/22/24 08:04	1
Iodomethane	<10.0		10.0	7.00	ug/L			05/22/24 08:04	1
Methylene chloride	<5.00		5.00	1.70	ug/L			05/22/24 08:04	1
Styrene	<1.00		1.00	0.370	ug/L			05/22/24 08:04	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			05/22/24 08:04	1
Toluene	<1.00		1.00	0.430	ug/L			05/22/24 08:04	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			05/22/24 08:04	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			05/22/24 08:04	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			05/22/24 08:04	1
Trichloroethene	<1.00		1.00	0.430	ug/L			05/22/24 08:04	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			05/22/24 08:04	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			05/22/24 08:04	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			05/22/24 08:04	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			05/22/24 08:04	1

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: MW-DS
Lab Sample ID: 310-281476-4
Date Collected: 05/15/24 09:09
Matrix: Water
Date Received: 05/16/24 16:15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*73 - 130*		*05/22/24 08:04*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/22/24 08:04*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*05/22/24 08:04*	*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		05/20/24 09:30	05/24/24 21:56	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/20/24 09:30	05/24/24 21:56	1
Barium	**0.0762**		0.00200	0.000660	mg/L		05/20/24 09:30	05/24/24 21:56	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		05/20/24 09:30	05/29/24 17:19	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/20/24 09:30	05/24/24 21:56	1
Chromium	<0.00500		0.00500	0.00120	mg/L		05/20/24 09:30	05/24/24 21:56	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		05/20/24 09:30	05/24/24 21:56	1
Copper	<0.00500		0.00500	0.00180	mg/L		05/20/24 09:30	05/24/24 21:56	1
Lead	<0.000500		0.000500	0.000260	mg/L		05/20/24 09:30	05/24/24 21:56	1
Nickel	<0.00500		0.00500	0.00210	mg/L		05/20/24 09:30	05/24/24 21:56	1
Selenium	**0.00431**	**J**	0.00500	0.00140	mg/L		05/20/24 09:30	05/24/24 21:56	1
Silver	<0.00100		0.00100	0.000500	mg/L		05/20/24 09:30	05/29/24 17:19	1
Thallium	<0.00100		0.00100	0.000570	mg/L		05/20/24 09:30	05/24/24 21:56	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		05/20/24 09:30	05/24/24 21:56	1
Zinc	<0.0200		0.0200	0.00970	mg/L		05/20/24 09:30	05/29/24 17:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			05/20/24 13:20	1

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: Trip Blank
Lab Sample ID: 310-281476-5
Date Collected: 05/15/24 00:00
Matrix: Water
Date Received: 05/16/24 16:15

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			05/22/24 06:15	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			05/22/24 06:15	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			05/22/24 06:15	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			05/22/24 06:15	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			05/22/24 06:15	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			05/22/24 06:15	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			05/22/24 06:15	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			05/22/24 06:15	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			05/22/24 06:15	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			05/22/24 06:15	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			05/22/24 06:15	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			05/22/24 06:15	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			05/22/24 06:15	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			05/22/24 06:15	1
2-Hexanone	<10.0		10.0	2.00	ug/L			05/22/24 06:15	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			05/22/24 06:15	1
Acetone	<10.0		10.0	3.10	ug/L			05/22/24 06:15	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			05/22/24 06:15	1
Benzene	<0.500		0.500	0.220	ug/L			05/22/24 06:15	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			05/22/24 06:15	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			05/22/24 06:15	1
Bromoform	<5.00		5.00	0.780	ug/L			05/22/24 06:15	1
Bromomethane	<4.00		4.00	1.10	ug/L			05/22/24 06:15	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			05/22/24 06:15	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			05/22/24 06:15	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			05/22/24 06:15	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			05/22/24 06:15	1
Chloroethane	<4.00		4.00	0.790	ug/L			05/22/24 06:15	1
Chloroform	<3.00		3.00	1.30	ug/L			05/22/24 06:15	1
Chloromethane	<3.00		3.00	0.610	ug/L			05/22/24 06:15	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			05/22/24 06:15	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			05/22/24 06:15	1
Dibromomethane	<1.00		1.00	0.330	ug/L			05/22/24 06:15	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			05/22/24 06:15	1
Iodomethane	<10.0		10.0	7.00	ug/L			05/22/24 06:15	1
Methylene chloride	<5.00		5.00	1.70	ug/L			05/22/24 06:15	1
Styrene	<1.00		1.00	0.370	ug/L			05/22/24 06:15	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			05/22/24 06:15	1
Toluene	<1.00		1.00	0.430	ug/L			05/22/24 06:15	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			05/22/24 06:15	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			05/22/24 06:15	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			05/22/24 06:15	1
Trichloroethene	<1.00		1.00	0.430	ug/L			05/22/24 06:15	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			05/22/24 06:15	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			05/22/24 06:15	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			05/22/24 06:15	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			05/22/24 06:15	1

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: Trip Blank
Lab Sample ID: 310-281476-5
Date Collected: 05/15/24 00:00
Matrix: Water
Date Received: 05/16/24 16:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	96		73 - 130		05/22/24 06:15	1
Toluene-d8 (Surr)	100		80 - 120		05/22/24 06:15	1
4-Bromofluorobenzene (Surr)	105		80 - 120		05/22/24 06:15	1

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Qualifiers

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: SCS Engineers
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Job ID: 310-281476-1

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)
310-281476-1	MW-30L	97	99	105
310-281476-2	MW-31	98	100	106
310-281476-3	UO-4	98	100	104
310-281476-4	MW-DS	98	99	104
310-281476-5	Trip Blank	96	100	105
LCS 310-422316/6	Lab Control Sample	94	105	101
LCS 310-422316/7	Lab Control Sample	96	101	103
MB 310-422316/5	Method Blank	96	102	107

Surrogate Legend

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

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

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

Lab Sample ID: MB 310-422316/5
Matrix: Water
Analysis Batch: 422316

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			05/22/24 04:26	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			05/22/24 04:26	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			05/22/24 04:26	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			05/22/24 04:26	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			05/22/24 04:26	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			05/22/24 04:26	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			05/22/24 04:26	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			05/22/24 04:26	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			05/22/24 04:26	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			05/22/24 04:26	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			05/22/24 04:26	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			05/22/24 04:26	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			05/22/24 04:26	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			05/22/24 04:26	1
2-Hexanone	<10.0		10.0	2.00	ug/L			05/22/24 04:26	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			05/22/24 04:26	1
Acetone	<10.0		10.0	3.10	ug/L			05/22/24 04:26	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			05/22/24 04:26	1
Benzene	<0.500		0.500	0.220	ug/L			05/22/24 04:26	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			05/22/24 04:26	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			05/22/24 04:26	1
Bromoform	<5.00		5.00	0.780	ug/L			05/22/24 04:26	1
Bromomethane	<4.00		4.00	1.10	ug/L			05/22/24 04:26	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			05/22/24 04:26	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			05/22/24 04:26	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			05/22/24 04:26	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			05/22/24 04:26	1
Chloroethane	<4.00		4.00	0.790	ug/L			05/22/24 04:26	1
Chloroform	<3.00		3.00	1.30	ug/L			05/22/24 04:26	1
Chloromethane	<3.00		3.00	0.610	ug/L			05/22/24 04:26	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			05/22/24 04:26	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			05/22/24 04:26	1
Dibromomethane	<1.00		1.00	0.330	ug/L			05/22/24 04:26	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			05/22/24 04:26	1
Iodomethane	<10.0		10.0	7.00	ug/L			05/22/24 04:26	1
Methylene chloride	<5.00		5.00	1.70	ug/L			05/22/24 04:26	1
Styrene	<1.00		1.00	0.370	ug/L			05/22/24 04:26	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			05/22/24 04:26	1
Toluene	<1.00		1.00	0.430	ug/L			05/22/24 04:26	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			05/22/24 04:26	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			05/22/24 04:26	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			05/22/24 04:26	1
Trichloroethene	<1.00		1.00	0.430	ug/L			05/22/24 04:26	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			05/22/24 04:26	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			05/22/24 04:26	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			05/22/24 04:26	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			05/22/24 04:26	1

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

Lab Sample ID: MB 310-422316/5
Matrix: Water
Analysis Batch: 422316

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*96*		*73 - 130*		*05/22/24 04:26*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/22/24 04:26*	*1*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*05/22/24 04:26*	*1*

Lab Sample ID: LCS 310-422316/6
Matrix: Water
Analysis Batch: 422316

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	18.95		ug/L		95	71 - 120
1,1,1-Trichloroethane	20.0	18.50		ug/L		93	73 - 129
1,1,2,2-Tetrachloroethane	20.0	19.90		ug/L		99	68 - 124
1,1,2-Trichloroethane	20.0	19.62		ug/L		98	73 - 123
1,1-Dichloroethane	20.0	19.38		ug/L		97	70 - 127
1,1-Dichloroethene	20.0	19.25		ug/L		96	63 - 132
1,2,3-Trichloropropane	20.0	19.00		ug/L		95	65 - 127
1,2-Dibromo-3-chloropropane	20.0	20.85		ug/L		104	50 - 150
1,2-Dibromoethane (EDB)	20.0	18.58		ug/L		93	75 - 125
1,2-Dichlorobenzene	20.0	20.15		ug/L		101	74 - 120
1,2-Dichloroethane	20.0	18.13		ug/L		91	71 - 125
1,2-Dichloropropane	20.0	19.68		ug/L		98	73 - 124
1,4-Dichlorobenzene	20.0	19.20		ug/L		96	72 - 120
2-Butanone (MEK)	40.0	40.76		ug/L		102	50 - 150
2-Hexanone	40.0	43.91		ug/L		110	60 - 140
4-Methyl-2-pentanone (MIBK)	40.0	42.17		ug/L		105	60 - 139
Acetone	40.0	40.00		ug/L		100	50 - 150
Acrylonitrile	200	200.2		ug/L		100	50 - 150
Benzene	20.0	18.88		ug/L		94	72 - 124
Bromochloromethane	20.0	18.47		ug/L		92	73 - 130
Bromodichloromethane	20.0	17.97		ug/L		90	74 - 122
Bromoform	20.0	17.68		ug/L		88	61 - 122
Carbon disulfide	20.0	19.57		ug/L		98	59 - 135
Carbon tetrachloride	20.0	17.99		ug/L		90	67 - 132
Chlorobenzene	20.0	19.30		ug/L		96	76 - 120
Chlorodibromomethane	20.0	17.91		ug/L		90	71 - 121
Chloroform	20.0	17.92		ug/L		90	72 - 125
cis-1,2-Dichloroethene	20.0	18.22		ug/L		91	74 - 123
cis-1,3-Dichloropropene	20.0	19.48		ug/L		97	71 - 125
Dibromomethane	20.0	18.56		ug/L		93	74 - 125
Ethylbenzene	20.0	20.50		ug/L		103	74 - 122
Iodomethane	20.0	11.27		ug/L		56	10 - 150
Methylene chloride	20.0	20.79		ug/L		104	50 - 150
Styrene	20.0	19.95		ug/L		100	74 - 121
Tetrachloroethene	20.0	18.74		ug/L		94	71 - 130
Toluene	20.0	18.76		ug/L		94	74 - 123
trans-1,2-Dichloroethene	20.0	18.27		ug/L		91	70 - 126
trans-1,3-Dichloropropene	20.0	18.19		ug/L		91	69 - 123

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

Lab Sample ID: LCS 310-422316/6
Matrix: Water
Analysis Batch: 422316

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,4-Dichloro-2-butene	20.0	18.03		ug/L		90	50 - 150
Trichloroethene	20.0	18.98		ug/L		95	72 - 126
Vinyl acetate	40.0	34.12		ug/L		85	50 - 150
Xylenes, Total	40.0	40.78		ug/L		102	73 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*94*		*73 - 130*
Toluene-d8 (Surr)	*105*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*

Lab Sample ID: LCS 310-422316/7
Matrix: Water
Analysis Batch: 422316

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	15.84		ug/L		79	23 - 150
Chloroethane	20.0	19.50		ug/L		97	54 - 136
Chloromethane	20.0	21.50		ug/L		108	38 - 150
Trichlorofluoromethane	20.0	18.78		ug/L		94	54 - 149
Vinyl chloride	20.0	20.77		ug/L		104	56 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*73 - 130*
Toluene-d8 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-422060/1-A
Matrix: Water
Analysis Batch: 422792

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 422060

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		05/20/24 09:30	05/24/24 21:05	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/20/24 09:30	05/24/24 21:05	1
Barium	<0.00200		0.00200	0.000660	mg/L		05/20/24 09:30	05/24/24 21:05	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		05/20/24 09:30	05/24/24 21:05	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/20/24 09:30	05/24/24 21:05	1
Chromium	<0.00500		0.00500	0.00120	mg/L		05/20/24 09:30	05/24/24 21:05	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		05/20/24 09:30	05/24/24 21:05	1
Copper	<0.00500		0.00500	0.00180	mg/L		05/20/24 09:30	05/24/24 21:05	1
Lead	<0.000500		0.000500	0.000260	mg/L		05/20/24 09:30	05/24/24 21:05	1
Nickel	<0.00500		0.00500	0.00210	mg/L		05/20/24 09:30	05/24/24 21:05	1
Selenium	<0.00500		0.00500	0.00140	mg/L		05/20/24 09:30	05/24/24 21:05	1
Thallium	<0.00100		0.00100	0.000570	mg/L		05/20/24 09:30	05/24/24 21:05	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		05/20/24 09:30	05/24/24 21:05	1
Zinc	<0.0200		0.0200	0.00970	mg/L		05/20/24 09:30	05/24/24 21:05	1

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

Lab Sample ID: MB 310-422060/1-A
Matrix: Water
Analysis Batch: 423058

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 422060

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.000500		0.000500	0.000260	mg/L		05/20/24 09:30	05/29/24 16:18	1
Silver	<0.00100		0.00100	0.000500	mg/L		05/20/24 09:30	05/29/24 16:18	1

Lab Sample ID: LCS 310-422060/2-A
Matrix: Water
Analysis Batch: 422792

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 422060

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.1937		mg/L		97	80 - 120
Arsenic	0.200	0.2010		mg/L		101	80 - 120
Barium	0.100	0.1041		mg/L		104	80 - 120
Cadmium	0.100	0.09772		mg/L		98	80 - 120
Chromium	0.100	0.09367		mg/L		94	80 - 120
Cobalt	0.100	0.09697		mg/L		97	80 - 120
Copper	0.200	0.1940		mg/L		97	80 - 120
Lead	0.200	0.2066		mg/L		103	80 - 120
Nickel	0.200	0.2023		mg/L		101	80 - 120
Selenium	0.400	0.3865		mg/L		97	80 - 120
Thallium	0.100	0.1113		mg/L		111	80 - 120
Vanadium	0.100	0.09960		mg/L		100	80 - 120
Zinc	0.200	0.1768		mg/L		88	80 - 120

Lab Sample ID: LCS 310-422060/2-A
Matrix: Water
Analysis Batch: 423058

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 422060

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	0.100	0.09697		mg/L		97	80 - 120
Lead	0.200	0.2062		mg/L		103	80 - 120
Silver	0.100	0.1125		mg/L		112	80 - 120

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

Lab Sample ID: MB 310-422220/1
Matrix: Water
Analysis Batch: 422220

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			05/20/24 13:20	1

Lab Sample ID: LCS 310-422220/2
Matrix: Water
Analysis Batch: 422220

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	97.00		mg/L		97	81 - 116

QC Association Summary

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

GC/MS VOA

Analysis Batch: 422316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-281476-1	MW-30L	Total/NA	Water	8260D	
310-281476-2	MW-31	Total/NA	Water	8260D	
310-281476-3	UO-4	Total/NA	Water	8260D	
310-281476-4	MW-DS	Total/NA	Water	8260D	
310-281476-5	Trip Blank	Total/NA	Water	8260D	
MB 310-422316/5	Method Blank	Total/NA	Water	8260D	
LCS 310-422316/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-422316/7	Lab Control Sample	Total/NA	Water	8260D	

Metals

Prep Batch: 422060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-281476-1	MW-30L	Total/NA	Water	3005A	
310-281476-2	MW-31	Total/NA	Water	3005A	
310-281476-3	UO-4	Total/NA	Water	3005A	
310-281476-4	MW-DS	Total/NA	Water	3005A	
MB 310-422060/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-422060/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 422792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-281476-1	MW-30L	Total/NA	Water	6020B	422060
310-281476-2	MW-31	Total/NA	Water	6020B	422060
310-281476-3	UO-4	Total/NA	Water	6020B	422060
310-281476-4	MW-DS	Total/NA	Water	6020B	422060
MB 310-422060/1-A	Method Blank	Total/NA	Water	6020B	422060
LCS 310-422060/2-A	Lab Control Sample	Total/NA	Water	6020B	422060

Analysis Batch: 423058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-281476-1	MW-30L	Total/NA	Water	6020B	422060
310-281476-2	MW-31	Total/NA	Water	6020B	422060
310-281476-3	UO-4	Total/NA	Water	6020B	422060
310-281476-4	MW-DS	Total/NA	Water	6020B	422060
MB 310-422060/1-A	Method Blank	Total/NA	Water	6020B	422060
LCS 310-422060/2-A	Lab Control Sample	Total/NA	Water	6020B	422060

General Chemistry

Analysis Batch: 422220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-281476-1	MW-30L	Total/NA	Water	I-3765-85	
310-281476-2	MW-31	Total/NA	Water	I-3765-85	
310-281476-3	UO-4	Total/NA	Water	I-3765-85	
310-281476-4	MW-DS	Total/NA	Water	I-3765-85	
MB 310-422220/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-422220/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: MW-30L
Lab Sample ID: 310-281476-1
Date Collected: 05/15/24 09:09
Matrix: Water
Date Received: 05/16/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	422316	WSE8	EET CF	05/22/24 06:58
Total/NA	Prep	3005A			422060	KM3E	EET CF	05/20/24 09:30
Total/NA	Analysis	6020B		1	423058	NFT2	EET CF	05/29/24 17:08
Total/NA	Prep	3005A			422060	KM3E	EET CF	05/20/24 09:30
Total/NA	Analysis	6020B		1	422792	NFT2	EET CF	05/24/24 21:49
Total/NA	Analysis	I-3765-85		1	422220	HE7K	EET CF	05/20/24 13:20

Client Sample ID: MW-31
Lab Sample ID: 310-281476-2
Date Collected: 05/15/24 10:41
Matrix: Water
Date Received: 05/16/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	422316	WSE8	EET CF	05/22/24 07:20
Total/NA	Prep	3005A			422060	KM3E	EET CF	05/20/24 09:30
Total/NA	Analysis	6020B		1	423058	NFT2	EET CF	05/29/24 17:12
Total/NA	Prep	3005A			422060	KM3E	EET CF	05/20/24 09:30
Total/NA	Analysis	6020B		1	422792	NFT2	EET CF	05/24/24 21:51
Total/NA	Analysis	I-3765-85		1	422220	HE7K	EET CF	05/20/24 13:20

Client Sample ID: UO-4
Lab Sample ID: 310-281476-3
Date Collected: 05/15/24 09:36
Matrix: Water
Date Received: 05/16/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	422316	WSE8	EET CF	05/22/24 07:42
Total/NA	Prep	3005A			422060	KM3E	EET CF	05/20/24 09:30
Total/NA	Analysis	6020B		1	423058	NFT2	EET CF	05/29/24 17:15
Total/NA	Prep	3005A			422060	KM3E	EET CF	05/20/24 09:30
Total/NA	Analysis	6020B		1	422792	NFT2	EET CF	05/24/24 21:53
Total/NA	Analysis	I-3765-85		1	422220	HE7K	EET CF	05/20/24 13:20

Client Sample ID: MW-DS
Lab Sample ID: 310-281476-4
Date Collected: 05/15/24 09:09
Matrix: Water
Date Received: 05/16/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	422316	WSE8	EET CF	05/22/24 08:04
Total/NA	Prep	3005A			422060	KM3E	EET CF	05/20/24 09:30
Total/NA	Analysis	6020B		1	423058	NFT2	EET CF	05/29/24 17:19
Total/NA	Prep	3005A			422060	KM3E	EET CF	05/20/24 09:30
Total/NA	Analysis	6020B		1	422792	NFT2	EET CF	05/24/24 21:56
Total/NA	Analysis	I-3765-85		1	422220	HE7K	EET CF	05/20/24 13:20

Lab Chronicle

Client: SCS Engineers
Job ID: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

Client Sample ID: Trip Blank
Lab Sample ID: 310-281476-5

Date Collected: 05/15/24 00:00
Matrix: Water

Date Received: 05/16/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	422316	WSE8	EET CF	05/22/24 06:15

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: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

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: 310-281476-1
Project/Site: Wayne-Ringold-Decatur LF SOUTH 1st
Semi-Annual GW

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:

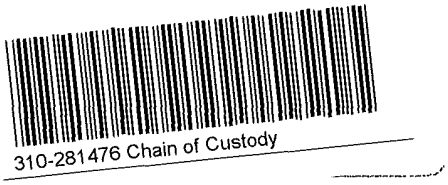
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

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

eurofins | Environment Testing America



Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS

City/State: CITY | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 5-16-24 | TIME 1615 | Received By: MC

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? ↓

All

Temperature Record

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

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

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

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

Sample Container Temperature

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

Exceptions Noted

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

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

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

Additional Comments

Eurofins 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

eurofins

Client Information	Sampler: Michael Morgan	Lab PM: Yang, Mary E	Carrier Tracking No(s):	COC No: 310-92973-22402.1
Client Contact: Ben Madson	Phone: 515 65 0-78	E-Mail: Mary Yang@ET EurofinsUS com	State of Origin	Page: Page 1 of 1
Company: SCS Engineers	PWSID:	Analysis Requested		Job #:
Address: 1690 All State Court Suite 100	Due Date Requested:			Preservation Codes: D - HNO3 A - HCL N - None
City: West Des Moines	TAT Requested (days):			
State, Zip: IA, 50265	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 27223236 24			
Email: bmadson@scsengineers com	WO #:			
Project Name: Wayne-Ringold-Decatur LF SOUTH 1st Semi-Annual GW	Project #: 31002357			
Site: Wayne-Ringold Decatur Landfill	SSOW#:			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 or II	8260D - Volatile Appendix I Sublist	I_3765_85 - Residue, Non-filterable (TSS)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	N		
MW-30L	5/5/24	909	G	Water			X	X	X		
MW-31	5/5/24	1041	G	Water			X	X	X		
UO-4	5/5/24	936	G	Water			X	X	X		
MW-DS	5/5/24	903	G	Water			X	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
Michael Morgan	5/10/24 1200	SCS	MV	5-10-24 1605	
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: 310-281476-1

Login Number: 281476

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Costello, Mackenzie K

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

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

ANALYTICAL REPORT

PREPARED FOR

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

Generated 10/1/2024 12:44:05 PM

JOB DESCRIPTION

WRD South Fall 2024

JOB NUMBER

310-291069-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

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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Authorized for release by
Samuel Miller, Project Management Assistant I
Samuel.Miller@et.eurofinsus.com
(319)277-2401

Table of Contents

Job Narrative
310-291069-1

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

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

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

Receipt
The samples were received on 9/19/2024 4:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C.

GC/MS VOA
Method 8260D: The method blank for analytical batch 310-433954 contained Toluene and Benzene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-analysis of samples was not performed.

Method 8260D: The method blank for preparation batch 310-433954 contained Toluene and Benzene above the method detection limit. There was insufficient sample to perform a re-analysis; therefore, the data have been reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-434388 recovered above the upper control limit for 2-Hexanone (32.2%D), trans-1,3-Dichloropropene (26.2%D), and 4-Methyl-2-pentanone (33.2%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 310-434388/3).

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

Metals
Method 6020B: The laboratory control sample (LCS) for preparation batch 310-433832 and analytical batch 310-434787 recovered outside control limits for the following analytes: Antimony. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 6020B: The low level continuing calibration verification (CCVL) associated with batch 310-434787 recovered above the upper control limit for Beryllium. The samples associated with this CCV were non-detects for the affected analytes; 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.

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

Sample Summary

Client: SCS Engineers
Project/Site: WRD South Fall 2024

Job ID: 310-291069-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-291069-1	MW-30L	Water	09/18/24 14:24	09/19/24 16:05
310-291069-2	MW-31	Water	09/18/24 16:17	09/19/24 16:05
310-291069-3	MW-D	Water	09/18/24 14:24	09/19/24 16:05
310-291069-4	Trip Blank	Water	09/18/24 00:00	09/19/24 16:05

Detection Summary

Client: SCS Engineers
Project/Site: WRD South Fall 2024

Job ID: 310-291069-1

Client Sample ID: MW-30L — Lab Sample ID: 310-291069-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0896		0.00200	0.000660	mg/L	1		6020B	Total/NA
Selenium	0.00463	J	0.00500	0.00140	mg/L	1		6020B	Total/NA

Client Sample ID: MW-31 — Lab Sample ID: 310-291069-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.157		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000225		0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.000493	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00240	J	0.00500	0.00210	mg/L	1		6020B	Total/NA
Total Suspended Solids	2.63		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-D — Lab Sample ID: 310-291069-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0882		0.00200	0.000660	mg/L	1		6020B	Total/NA
Selenium	0.00474	J	0.00500	0.00140	mg/L	1		6020B	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-291069-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.325	J B	0.500	0.220	ug/L	1		8260D	Total/NA
Toluene	0.797	J B	1.00	0.430	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: SCS Engineers
Project/Site: WRD South Fall 2024

Job ID: 310-291069-1

Client Sample ID: MW-30L
Date Collected: 09/18/24 14:24
Date Received: 09/19/24 16:05

Lab Sample ID: 310-291069-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			09/24/24 08:16	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/24/24 08:16	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/24/24 08:16	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/24/24 08:16	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			09/24/24 08:16	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/24/24 08:16	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/24/24 08:16	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/24/24 08:16	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/24/24 08:16	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/24/24 08:16	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/24/24 08:16	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			09/24/24 08:16	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/24/24 08:16	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/24/24 08:16	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/24/24 08:16	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/24/24 08:16	1
Acetone	<10.0		10.0	3.10	ug/L			09/24/24 08:16	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/24/24 08:16	1
Benzene	<0.500		0.500	0.220	ug/L			09/26/24 17:50	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/24/24 08:16	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/24/24 08:16	1
Bromoform	<5.00		5.00	0.780	ug/L			09/24/24 08:16	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/24/24 08:16	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/24/24 08:16	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/24/24 08:16	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/24/24 08:16	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/24/24 08:16	1
Chloroethane	<4.00		4.00	0.790	ug/L			09/24/24 08:16	1
Chloroform	<3.00		3.00	1.30	ug/L			09/24/24 08:16	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/24/24 08:16	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			09/24/24 08:16	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/24/24 08:16	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/24/24 08:16	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/24/24 08:16	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/24/24 08:16	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/24/24 08:16	1
Styrene	<1.00		1.00	0.370	ug/L			09/24/24 08:16	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/24/24 08:16	1
Toluene	<1.00		1.00	0.430	ug/L			09/26/24 17:50	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			09/24/24 08:16	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/24/24 08:16	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/24/24 08:16	1
Trichloroethene	<1.00		1.00	0.430	ug/L			09/24/24 08:16	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/24/24 08:16	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/24/24 08:16	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			09/24/24 08:16	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/24/24 08:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*108*		*73 - 130*		*09/24/24 08:16*	*1*

Client Sample ID: MW-30L
Date Collected: 09/18/24 14:24
Date Received: 09/19/24 16:05

Lab Sample ID: 310-291069-1
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*105*		*73 - 130*		*09/26/24 17:50*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*09/24/24 08:16*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*09/26/24 17:50*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*09/24/24 08:16*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*09/26/24 17:50*	*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		09/23/24 09:30	09/30/24 13:59	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		09/23/24 09:30	09/26/24 17:45	1
Barium	**0.0896**		0.00200	0.000660	mg/L		09/23/24 09:30	09/26/24 17:45	1
Beryllium	<0.00100	^3+	0.00100	0.000330	mg/L		09/23/24 09:30	09/30/24 13:59	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/23/24 09:30	09/26/24 17:45	1
Chromium	<0.00500		0.00500	0.00120	mg/L		09/23/24 09:30	09/26/24 17:45	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		09/23/24 09:30	09/26/24 17:45	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/23/24 09:30	09/26/24 17:45	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/23/24 09:30	09/26/24 17:45	1
Nickel	<0.00500		0.00500	0.00210	mg/L		09/23/24 09:30	09/26/24 17:45	1
Selenium	**0.00463**	**J**	0.00500	0.00140	mg/L		09/23/24 09:30	09/26/24 17:45	1
Silver	<0.00100		0.00100	0.000500	mg/L		09/23/24 09:30	09/26/24 17:45	1
Thallium	<0.00100		0.00100	0.000570	mg/L		09/23/24 09:30	09/26/24 17:45	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		09/23/24 09:30	09/26/24 17:45	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/23/24 09:30	09/26/24 17:45	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			09/23/24 10:43	1

Client Sample ID: MW-31
Date Collected: 09/18/24 16:17
Date Received: 09/19/24 16:05

Lab Sample ID: 310-291069-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			09/24/24 08:38	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/24/24 08:38	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/24/24 08:38	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/24/24 08:38	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			09/24/24 08:38	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/24/24 08:38	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/24/24 08:38	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/24/24 08:38	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/24/24 08:38	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/24/24 08:38	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/24/24 08:38	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			09/24/24 08:38	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/24/24 08:38	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/24/24 08:38	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/24/24 08:38	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/24/24 08:38	1
Acetone	<10.0		10.0	3.10	ug/L			09/24/24 08:38	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/24/24 08:38	1
Benzene	<0.500		0.500	0.220	ug/L			09/26/24 18:12	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/24/24 08:38	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/24/24 08:38	1
Bromoform	<5.00		5.00	0.780	ug/L			09/24/24 08:38	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/24/24 08:38	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/24/24 08:38	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/24/24 08:38	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/24/24 08:38	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/24/24 08:38	1
Chloroethane	<4.00		4.00	0.790	ug/L			09/24/24 08:38	1
Chloroform	<3.00		3.00	1.30	ug/L			09/24/24 08:38	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/24/24 08:38	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			09/24/24 08:38	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/24/24 08:38	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/24/24 08:38	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/24/24 08:38	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/24/24 08:38	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/24/24 08:38	1
Styrene	<1.00		1.00	0.370	ug/L			09/24/24 08:38	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/24/24 08:38	1
Toluene	<1.00		1.00	0.430	ug/L			09/26/24 18:12	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			09/24/24 08:38	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/24/24 08:38	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/24/24 08:38	1
Trichloroethene	<1.00		1.00	0.430	ug/L			09/24/24 08:38	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/24/24 08:38	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/24/24 08:38	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			09/24/24 08:38	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/24/24 08:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*73 - 130*		*09/24/24 08:38*	*1*

Client Sample ID: MW-31
Date Collected: 09/18/24 16:17
Date Received: 09/19/24 16:05

Lab Sample ID: 310-291069-2
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*105*		*73 - 130*		*09/26/24 18:12*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*09/24/24 08:38*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*09/26/24 18:12*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*09/24/24 08:38*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*09/26/24 18:12*	*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		09/23/24 09:30	09/30/24 14:02	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		09/23/24 09:30	09/26/24 17:49	1
Barium	**0.157**		0.00200	0.000660	mg/L		09/23/24 09:30	09/26/24 17:49	1
Beryllium	<0.00100	^3+	0.00100	0.000330	mg/L		09/23/24 09:30	09/30/24 14:02	1
Cadmium	**0.000225**		0.000200	0.000100	mg/L		09/23/24 09:30	09/26/24 17:49	1
Chromium	<0.00500		0.00500	0.00120	mg/L		09/23/24 09:30	09/26/24 17:49	1
Cobalt	**0.000493**	**J**	0.000500	0.000170	mg/L		09/23/24 09:30	09/26/24 17:49	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/23/24 09:30	09/26/24 17:49	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/23/24 09:30	09/26/24 17:49	1
Nickel	**0.00240**	**J**	0.00500	0.00210	mg/L		09/23/24 09:30	09/26/24 17:49	1
Selenium	<0.00500		0.00500	0.00140	mg/L		09/23/24 09:30	09/26/24 17:49	1
Silver	<0.00100		0.00100	0.000500	mg/L		09/23/24 09:30	09/26/24 17:49	1
Thallium	<0.00100		0.00100	0.000570	mg/L		09/23/24 09:30	09/26/24 17:49	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		09/23/24 09:30	09/26/24 17:49	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/23/24 09:30	09/26/24 17:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**2.63**		1.88	1.39	mg/L			09/23/24 13:20	1

Client: SCS Engineers
Project/Site: WRD South Fall 2024

Job ID: 310-291069-1

Client Sample ID: MW-D
Date Collected: 09/18/24 14:24
Date Received: 09/19/24 16:05

Lab Sample ID: 310-291069-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			09/24/24 09:01	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/24/24 09:01	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/24/24 09:01	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/24/24 09:01	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			09/24/24 09:01	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/24/24 09:01	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/24/24 09:01	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/24/24 09:01	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/24/24 09:01	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/24/24 09:01	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/24/24 09:01	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			09/24/24 09:01	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/24/24 09:01	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/24/24 09:01	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/24/24 09:01	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/24/24 09:01	1
Acetone	<10.0		10.0	3.10	ug/L			09/24/24 09:01	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/24/24 09:01	1
Benzene	<0.500		0.500	0.220	ug/L			09/24/24 09:01	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/24/24 09:01	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/24/24 09:01	1
Bromoform	<5.00		5.00	0.780	ug/L			09/24/24 09:01	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/24/24 09:01	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/24/24 09:01	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/24/24 09:01	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/24/24 09:01	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/24/24 09:01	1
Chloroethane	<4.00		4.00	0.790	ug/L			09/24/24 09:01	1
Chloroform	<3.00		3.00	1.30	ug/L			09/24/24 09:01	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/24/24 09:01	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			09/24/24 09:01	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/24/24 09:01	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/24/24 09:01	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/24/24 09:01	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/24/24 09:01	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/24/24 09:01	1
Styrene	<1.00		1.00	0.370	ug/L			09/24/24 09:01	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/24/24 09:01	1
Toluene	<1.00		1.00	0.430	ug/L			09/24/24 09:01	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			09/24/24 09:01	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/24/24 09:01	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/24/24 09:01	1
Trichloroethene	<1.00		1.00	0.430	ug/L			09/24/24 09:01	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/24/24 09:01	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/24/24 09:01	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			09/24/24 09:01	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/24/24 09:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*110*		*73 - 130*		*09/24/24 09:01*	*1*

Client Sample ID: MW-D
Date Collected: 09/18/24 14:24
Date Received: 09/19/24 16:05

Lab Sample ID: 310-291069-3
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*93*		*80 - 120*		*09/24/24 09:01*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*09/24/24 09:01*	*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		09/23/24 09:30	09/30/24 14:04	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		09/23/24 09:30	09/26/24 17:52	1
Barium	**0.0882**		0.00200	0.000660	mg/L		09/23/24 09:30	09/26/24 17:52	1
Beryllium	<0.00100	^3+	0.00100	0.000330	mg/L		09/23/24 09:30	09/30/24 14:04	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/23/24 09:30	09/26/24 17:52	1
Chromium	<0.00500		0.00500	0.00120	mg/L		09/23/24 09:30	09/26/24 17:52	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		09/23/24 09:30	09/26/24 17:52	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/23/24 09:30	09/26/24 17:52	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/23/24 09:30	09/26/24 17:52	1
Nickel	<0.00500		0.00500	0.00210	mg/L		09/23/24 09:30	09/26/24 17:52	1
Selenium	**0.00474**	**J**	0.00500	0.00140	mg/L		09/23/24 09:30	09/26/24 17:52	1
Silver	<0.00100		0.00100	0.000500	mg/L		09/23/24 09:30	09/26/24 17:52	1
Thallium	<0.00100		0.00100	0.000570	mg/L		09/23/24 09:30	09/26/24 17:52	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		09/23/24 09:30	09/26/24 17:52	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/23/24 09:30	09/26/24 17:52	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			09/23/24 10:43	1

Client: SCS Engineers
Project/Site: WRD South Fall 2024

Job ID: 310-291069-1

Client Sample ID: Trip Blank
Date Collected: 09/18/24 00:00
Date Received: 09/19/24 16:05

Lab Sample ID: 310-291069-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			09/24/24 05:37	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/24/24 05:37	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/24/24 05:37	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/24/24 05:37	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			09/24/24 05:37	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/24/24 05:37	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/24/24 05:37	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/24/24 05:37	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/24/24 05:37	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/24/24 05:37	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/24/24 05:37	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			09/24/24 05:37	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/24/24 05:37	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/24/24 05:37	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/24/24 05:37	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/24/24 05:37	1
Acetone	<10.0		10.0	3.10	ug/L			09/24/24 05:37	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/24/24 05:37	1
Benzene	**0.325**	**J B**	0.500	0.220	ug/L			09/24/24 05:37	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/24/24 05:37	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/24/24 05:37	1
Bromoform	<5.00		5.00	0.780	ug/L			09/24/24 05:37	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/24/24 05:37	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/24/24 05:37	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/24/24 05:37	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/24/24 05:37	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/24/24 05:37	1
Chloroethane	<4.00		4.00	0.790	ug/L			09/24/24 05:37	1
Chloroform	<3.00		3.00	1.30	ug/L			09/24/24 05:37	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/24/24 05:37	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			09/24/24 05:37	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/24/24 05:37	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/24/24 05:37	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/24/24 05:37	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/24/24 05:37	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/24/24 05:37	1
Styrene	<1.00		1.00	0.370	ug/L			09/24/24 05:37	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/24/24 05:37	1
Toluene	**0.797**	**J B**	1.00	0.430	ug/L			09/24/24 05:37	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			09/24/24 05:37	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/24/24 05:37	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/24/24 05:37	1
Trichloroethene	<1.00		1.00	0.430	ug/L			09/24/24 05:37	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/24/24 05:37	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/24/24 05:37	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			09/24/24 05:37	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/24/24 05:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*104*		*73 - 130*		*09/24/24 05:37*	*1*

Client Sample ID: Trip Blank
Date Collected: 09/18/24 00:00
Date Received: 09/19/24 16:05

Lab Sample ID: 310-291069-4
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*98*		*80 - 120*		*09/24/24 05:37*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*09/24/24 05:37*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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
^3+	Reporting Limit Check Standard 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.

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: WRD South Fall 2024

Job ID: 310-291069-1

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)
310-291069-1	MW-30L	108	98	99
310-291069-1	MW-30L	105	100	94
310-291069-1 MS	MW-30L	106	96	101
310-291069-1 MSD	MW-30L	102	100	103
310-291069-2	MW-31	102	94	100
310-291069-2	MW-31	105	100	94
310-291069-3	MW-D	110	93	102
310-291069-4	Trip Blank	104	98	101
LCS 310-433954/6	Lab Control Sample	101	99	106
LCS 310-433954/7	Lab Control Sample	107	94	97
LCS 310-434388/6	Lab Control Sample	92	104	98
LCS 310-434388/7	Lab Control Sample	102	99	93
MB 310-433954/5	Method Blank	103	97	103
MB 310-434388/5	Method Blank	99	99	94

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 310-433954/5
Matrix: Water
Analysis Batch: 433954

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			09/24/24 04:29	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/24/24 04:29	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/24/24 04:29	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/24/24 04:29	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			09/24/24 04:29	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/24/24 04:29	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/24/24 04:29	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/24/24 04:29	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/24/24 04:29	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/24/24 04:29	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/24/24 04:29	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			09/24/24 04:29	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/24/24 04:29	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/24/24 04:29	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/24/24 04:29	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/24/24 04:29	1
Acetone	<10.0		10.0	3.10	ug/L			09/24/24 04:29	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/24/24 04:29	1
Benzene	0.3975	J	0.500	0.220	ug/L			09/24/24 04:29	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/24/24 04:29	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/24/24 04:29	1
Bromoform	<5.00		5.00	0.780	ug/L			09/24/24 04:29	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/24/24 04:29	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/24/24 04:29	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/24/24 04:29	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/24/24 04:29	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/24/24 04:29	1
Chloroethane	<4.00		4.00	0.790	ug/L			09/24/24 04:29	1
Chloroform	<3.00		3.00	1.30	ug/L			09/24/24 04:29	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/24/24 04:29	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			09/24/24 04:29	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/24/24 04:29	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/24/24 04:29	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/24/24 04:29	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/24/24 04:29	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/24/24 04:29	1
Styrene	<1.00		1.00	0.370	ug/L			09/24/24 04:29	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/24/24 04:29	1
Toluene	0.9953	J	1.00	0.430	ug/L			09/24/24 04:29	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			09/24/24 04:29	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/24/24 04:29	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/24/24 04:29	1
Trichloroethene	<1.00		1.00	0.430	ug/L			09/24/24 04:29	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/24/24 04:29	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/24/24 04:29	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			09/24/24 04:29	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/24/24 04:29	1

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

Lab Sample ID: MB 310-433954/5
Matrix: Water
Analysis Batch: 433954

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*103*		*73 - 130*		*09/24/24 04:29*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*09/24/24 04:29*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*09/24/24 04:29*	*1*

Lab Sample ID: LCS 310-433954/6
Matrix: Water
Analysis Batch: 433954

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	19.42		ug/L		97	71 - 120
1,1,1-Trichloroethane	20.0	21.65		ug/L		108	73 - 129
1,1,2,2-Tetrachloroethane	20.0	18.19		ug/L		91	68 - 124
1,1,2-Trichloroethane	20.0	19.48		ug/L		97	73 - 123
1,1-Dichloroethane	20.0	20.37		ug/L		102	70 - 127
1,1-Dichloroethene	20.0	20.70		ug/L		104	63 - 132
1,2,3-Trichloropropane	20.0	20.69		ug/L		103	65 - 127
1,2-Dibromo-3-chloropropane	20.0	17.03		ug/L		85	50 - 150
1,2-Dibromoethane (EDB)	20.0	20.22		ug/L		101	75 - 125
1,2-Dichlorobenzene	20.0	19.02		ug/L		95	74 - 120
1,2-Dichloroethane	20.0	20.16		ug/L		101	71 - 125
1,2-Dichloropropane	20.0	19.89		ug/L		99	73 - 124
1,4-Dichlorobenzene	20.0	18.65		ug/L		93	72 - 120
2-Butanone (MEK)	40.0	35.59		ug/L		89	50 - 150
2-Hexanone	40.0	39.82		ug/L		100	60 - 140
4-Methyl-2-pentanone (MIBK)	40.0	35.71		ug/L		89	60 - 139
Acetone	40.0	35.73		ug/L		89	50 - 150
Acrylonitrile	200	190.4		ug/L		95	50 - 150
Benzene	20.0	20.28		ug/L		101	72 - 124
Bromochloromethane	20.0	20.68		ug/L		103	73 - 130
Bromodichloromethane	20.0	18.44		ug/L		92	74 - 122
Bromoform	20.0	18.01		ug/L		90	61 - 122
Carbon disulfide	20.0	17.70		ug/L		89	59 - 135
Carbon tetrachloride	20.0	18.70		ug/L		93	67 - 132
Chlorobenzene	20.0	19.47		ug/L		97	76 - 120
Chlorodibromomethane	20.0	18.54		ug/L		93	71 - 121
Chloroform	20.0	20.32		ug/L		102	72 - 125
cis-1,2-Dichloroethene	20.0	20.49		ug/L		102	74 - 123
cis-1,3-Dichloropropene	20.0	19.58		ug/L		98	71 - 125
Dibromomethane	20.0	19.70		ug/L		99	74 - 125
Ethylbenzene	20.0	19.08		ug/L		95	74 - 122
Iodomethane	20.0	17.20		ug/L		86	10 - 150
Methylene chloride	20.0	20.35		ug/L		102	50 - 150
Styrene	20.0	19.88		ug/L		99	74 - 121
Tetrachloroethene	20.0	20.15		ug/L		101	71 - 130
Toluene	20.0	20.07		ug/L		100	74 - 123
trans-1,2-Dichloroethene	20.0	20.63		ug/L		103	70 - 126
trans-1,3-Dichloropropene	20.0	19.00		ug/L		95	69 - 123
trans-1,4-Dichloro-2-butene	20.0	17.23		ug/L		86	50 - 150

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

Lab Sample ID: LCS 310-433954/6
Matrix: Water
Analysis Batch: 433954

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	21.85		ug/L		109	72 - 126		
Vinyl acetate			40.0	34.84		ug/L		87	50 - 150		
Xylenes, Total			40.0	37.79		ug/L		94	73 - 123		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*101*		*73 - 130*
Toluene-d8 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*

Lab Sample ID: LCS 310-433954/7
Matrix: Water
Analysis Batch: 433954

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	25.82		ug/L		129	23 - 150		
Chloroethane			20.0	18.67		ug/L		93	54 - 136		
Chloromethane			20.0	20.52		ug/L		103	38 - 150		
Trichlorofluoromethane			20.0	21.56		ug/L		108	54 - 149		
Vinyl chloride			20.0	20.37		ug/L		102	56 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*107*		*73 - 130*
Toluene-d8 (Surr)	*94*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*

Lab Sample ID: 310-291069-1 MS
Matrix: Water
Analysis Batch: 433954

Client Sample ID: MW-30L
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane	<1.00		25.0	21.16		ug/L		85	55 - 130		
1,1,1-Trichloroethane	<1.00		25.0	24.21		ug/L		97	52 - 130		
1,1,2,2-Tetrachloroethane	<1.00		25.0	20.04		ug/L		80	54 - 130		
1,1,2-Trichloroethane	<1.00		25.0	21.89		ug/L		88	58 - 130		
1,1-Dichloroethane	<1.00		25.0	21.03		ug/L		84	49 - 130		
1,1-Dichloroethene	<2.00		25.0	22.76		ug/L		91	37 - 132		
1,2,3-Trichloropropane	<1.00		25.0	20.46		ug/L		82	49 - 130		
1,2-Dibromo-3-chloropropane	<5.00		25.0	18.60		ug/L		74	38 - 150		
1,2-Dibromoethane (EDB)	<1.00		25.0	22.26		ug/L		89	60 - 130		
1,2-Dichlorobenzene	<1.00		25.0	20.75		ug/L		83	59 - 130		
1,2-Dichloroethane	<1.00		25.0	22.95		ug/L		92	51 - 130		
1,2-Dichloropropane	<1.00		25.0	21.23		ug/L		85	57 - 130		
1,4-Dichlorobenzene	<1.00		25.0	20.33		ug/L		81	57 - 130		
2-Butanone (MEK)	<10.0		50.0	39.22		ug/L		78	38 - 150		
2-Hexanone	<10.0		50.0	44.45		ug/L		89	46 - 140		
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	41.49		ug/L		83	47 - 139		
Acetone	<10.0		50.0	40.33		ug/L		81	31 - 150		
Acrylonitrile	<5.00		250	211.7		ug/L		85	40 - 150		

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

Lab Sample ID: 310-291069-1 MS
Matrix: Water
Analysis Batch: 433954

Client Sample ID: MW-30L
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.279	J B	25.0	20.96		ug/L		83	46 - 130
Bromochloromethane	<5.00		25.0	22.97		ug/L		92	57 - 130
Bromodichloromethane	<1.00		25.0	21.31		ug/L		85	57 - 130
Bromoform	<5.00		25.0	22.56		ug/L		90	44 - 130
Carbon disulfide	<1.00		25.0	21.66		ug/L		87	38 - 135
Carbon tetrachloride	<2.00		25.0	22.58		ug/L		90	45 - 132
Chlorobenzene	<1.00		25.0	20.40		ug/L		82	59 - 130
Chlorodibromomethane	<5.00		25.0	23.11		ug/L		92	54 - 130
Chloroform	<3.00		25.0	22.25		ug/L		89	51 - 130
cis-1,2-Dichloroethene	<1.00		25.0	22.99		ug/L		92	45 - 130
cis-1,3-Dichloropropene	<5.00		25.0	21.23		ug/L		85	53 - 130
Dibromomethane	<1.00		25.0	22.70		ug/L		91	59 - 130
Ethylbenzene	<1.00		25.0	20.24		ug/L		81	45 - 130
Iodomethane	<10.0		25.0	19.82		ug/L		79	10 - 150
Methylene chloride	<5.00		25.0	21.33		ug/L		85	37 - 150
Styrene	<1.00		25.0	20.73		ug/L		83	47 - 130
Tetrachloroethene	<1.00		25.0	23.49		ug/L		94	47 - 130
Toluene	0.553	J B	25.0	21.18		ug/L		83	51 - 130
trans-1,2-Dichloroethene	<1.00		25.0	22.61		ug/L		90	48 - 130
trans-1,3-Dichloropropene	<5.00		25.0	20.24		ug/L		81	50 - 130
trans-1,4-Dichloro-2-butene	<10.0		25.0	17.79		ug/L		71	26 - 150
Trichloroethene	<1.00		25.0	23.31		ug/L		93	51 - 130
Vinyl acetate	<10.0		50.0	33.73		ug/L		67	29 - 150
Xylenes, Total	<3.00		50.0	42.25		ug/L		85	43 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*106*		*73 - 130*
Toluene-d8 (Surr)	*96*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*

Lab Sample ID: 310-291069-1 MSD
Matrix: Water
Analysis Batch: 433954

Client Sample ID: MW-30L
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<1.00		25.0	21.69		ug/L		87	55 - 130	2	20
1,1,1-Trichloroethane	<1.00		25.0	23.45		ug/L		94	52 - 130	3	20
1,1,2,2-Tetrachloroethane	<1.00		25.0	20.92		ug/L		84	54 - 130	4	20
1,1,2-Trichloroethane	<1.00		25.0	21.48		ug/L		86	58 - 130	2	20
1,1-Dichloroethane	<1.00		25.0	19.97		ug/L		80	49 - 130	5	20
1,1-Dichloroethene	<2.00		25.0	21.00		ug/L		84	37 - 132	8	26
1,2,3-Trichloropropane	<1.00		25.0	21.82		ug/L		87	49 - 130	6	26
1,2-Dibromo-3-chloropropane	<5.00		25.0	20.68		ug/L		83	38 - 150	11	20
1,2-Dibromoethane (EDB)	<1.00		25.0	21.85		ug/L		87	60 - 130	2	20
1,2-Dichlorobenzene	<1.00		25.0	21.15		ug/L		85	59 - 130	2	20
1,2-Dichloroethane	<1.00		25.0	22.71		ug/L		91	51 - 130	1	20
1,2-Dichloropropane	<1.00		25.0	20.89		ug/L		84	57 - 130	2	20
1,4-Dichlorobenzene	<1.00		25.0	20.65		ug/L		83	57 - 130	2	20

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

Lab Sample ID: 310-291069-1 MSD
Matrix: Water
Analysis Batch: 433954

Client Sample ID: MW-30L
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Butanone (MEK)	<10.0		50.0	38.04		ug/L		76	38 - 150	3	20
2-Hexanone	<10.0		50.0	44.93		ug/L		90	46 - 140	1	20
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	41.63		ug/L		83	47 - 139	0	20
Acetone	<10.0		50.0	39.17		ug/L		78	31 - 150	3	29
Acrylonitrile	<5.00		250	208.7		ug/L		83	40 - 150	1	20
Benzene	0.279	J B	25.0	20.15		ug/L		79	46 - 130	4	20
Bromochloromethane	<5.00		25.0	23.41		ug/L		94	57 - 130	2	20
Bromodichloromethane	<1.00		25.0	20.91		ug/L		84	57 - 130	2	20
Bromoform	<5.00		25.0	23.48		ug/L		94	44 - 130	4	20
Carbon disulfide	<1.00		25.0	19.01		ug/L		76	38 - 135	13	30
Carbon tetrachloride	<2.00		25.0	21.93		ug/L		88	45 - 132	3	20
Chlorobenzene	<1.00		25.0	20.62		ug/L		82	59 - 130	1	20
Chlorodibromomethane	<5.00		25.0	22.95		ug/L		92	54 - 130	1	20
Chloroform	<3.00		25.0	21.09		ug/L		84	51 - 130	5	20
cis-1,2-Dichloroethene	<1.00		25.0	21.07		ug/L		84	45 - 130	9	20
cis-1,3-Dichloropropene	<5.00		25.0	20.26		ug/L		81	53 - 130	5	20
Dibromomethane	<1.00		25.0	22.19		ug/L		89	59 - 130	2	20
Ethylbenzene	<1.00		25.0	19.87		ug/L		79	45 - 130	2	20
Iodomethane	<10.0		25.0	18.60		ug/L		74	10 - 150	6	35
Methylene chloride	<5.00		25.0	19.64		ug/L		79	37 - 150	8	24
Styrene	<1.00		25.0	20.82		ug/L		83	47 - 130	0	20
Tetrachloroethene	<1.00		25.0	22.10		ug/L		88	47 - 130	6	20
Toluene	0.553	J B	25.0	20.14		ug/L		78	51 - 130	5	20
trans-1,2-Dichloroethene	<1.00		25.0	20.86		ug/L		83	48 - 130	8	22
trans-1,3-Dichloropropene	<5.00		25.0	19.59		ug/L		78	50 - 130	3	20
trans-1,4-Dichloro-2-butene	<10.0		25.0	18.45		ug/L		74	26 - 150	4	23
Trichloroethene	<1.00		25.0	22.63		ug/L		91	51 - 130	3	20
Vinyl acetate	<10.0		50.0	33.90		ug/L		68	29 - 150	1	23
Xylenes, Total	<3.00		50.0	41.73		ug/L		83	43 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*102*		*73 - 130*
Toluene-d8 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*

Lab Sample ID: MB 310-434388/5
Matrix: Water
Analysis Batch: 434388

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			09/26/24 14:33	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/26/24 14:33	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/26/24 14:33	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/26/24 14:33	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			09/26/24 14:33	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/26/24 14:33	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/26/24 14:33	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/26/24 14:33	1

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

Lab Sample ID: MB 310-434388/5
Matrix: Water
Analysis Batch: 434388

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/26/24 14:33	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/26/24 14:33	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/26/24 14:33	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			09/26/24 14:33	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/26/24 14:33	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/26/24 14:33	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/26/24 14:33	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/26/24 14:33	1
Acetone	<10.0		10.0	3.10	ug/L			09/26/24 14:33	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/26/24 14:33	1
Benzene	<0.500		0.500	0.220	ug/L			09/26/24 14:33	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/26/24 14:33	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/26/24 14:33	1
Bromoform	<5.00		5.00	0.780	ug/L			09/26/24 14:33	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/26/24 14:33	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/26/24 14:33	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/26/24 14:33	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/26/24 14:33	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/26/24 14:33	1
Chloroethane	<4.00		4.00	0.790	ug/L			09/26/24 14:33	1
Chloroform	<3.00		3.00	1.30	ug/L			09/26/24 14:33	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/26/24 14:33	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			09/26/24 14:33	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/26/24 14:33	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/26/24 14:33	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/26/24 14:33	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/26/24 14:33	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/26/24 14:33	1
Styrene	<1.00		1.00	0.370	ug/L			09/26/24 14:33	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/26/24 14:33	1
Toluene	<1.00		1.00	0.430	ug/L			09/26/24 14:33	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			09/26/24 14:33	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/26/24 14:33	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/26/24 14:33	1
Trichloroethene	<1.00		1.00	0.430	ug/L			09/26/24 14:33	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/26/24 14:33	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/26/24 14:33	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			09/26/24 14:33	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/26/24 14:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*73 - 130*		*09/26/24 14:33*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*09/26/24 14:33*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*09/26/24 14:33*	*1*

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

Lab Sample ID: LCS 310-434388/6
Matrix: Water
Analysis Batch: 434388

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	17.01		ug/L		85	71 - 120
1,1,1-Trichloroethane	20.0	18.01		ug/L		90	73 - 129
1,1,2,2-Tetrachloroethane	20.0	21.44		ug/L		107	68 - 124
1,1,2-Trichloroethane	20.0	18.09		ug/L		90	73 - 123
1,1-Dichloroethane	20.0	19.68		ug/L		98	70 - 127
1,1-Dichloroethene	20.0	18.96		ug/L		95	63 - 132
1,2,3-Trichloropropane	20.0	19.57		ug/L		98	65 - 127
1,2-Dibromo-3-chloropropane	20.0	21.56		ug/L		108	50 - 150
1,2-Dibromoethane (EDB)	20.0	17.76		ug/L		89	75 - 125
1,2-Dichlorobenzene	20.0	17.88		ug/L		89	74 - 120
1,2-Dichloroethane	20.0	17.55		ug/L		88	71 - 125
1,2-Dichloropropane	20.0	19.64		ug/L		98	73 - 124
1,4-Dichlorobenzene	20.0	18.28		ug/L		91	72 - 120
2-Butanone (MEK)	40.0	38.62		ug/L		97	50 - 150
2-Hexanone	40.0	45.78		ug/L		114	60 - 140
4-Methyl-2-pentanone (MIBK)	40.0	45.01		ug/L		113	60 - 139
Acetone	40.0	45.80		ug/L		114	50 - 150
Acrylonitrile	200	205.9		ug/L		103	50 - 150
Benzene	20.0	19.01		ug/L		95	72 - 124
Bromochloromethane	20.0	16.65		ug/L		83	73 - 130
Bromodichloromethane	20.0	16.66		ug/L		83	74 - 122
Bromoform	20.0	16.80		ug/L		84	61 - 122
Carbon disulfide	20.0	20.31		ug/L		102	59 - 135
Carbon tetrachloride	20.0	16.68		ug/L		83	67 - 132
Chlorobenzene	20.0	18.09		ug/L		90	76 - 120
Chlorodibromomethane	20.0	15.48		ug/L		77	71 - 121
Chloroform	20.0	18.27		ug/L		91	72 - 125
cis-1,2-Dichloroethene	20.0	17.72		ug/L		89	74 - 123
cis-1,3-Dichloropropene	20.0	18.25		ug/L		91	71 - 125
Dibromomethane	20.0	17.04		ug/L		85	74 - 125
Ethylbenzene	20.0	20.08		ug/L		100	74 - 122
Iodomethane	20.0	13.10		ug/L		66	10 - 150
Methylene chloride	20.0	19.51		ug/L		98	50 - 150
Styrene	20.0	19.12		ug/L		96	74 - 121
Tetrachloroethene	20.0	17.43		ug/L		87	71 - 130
Toluene	20.0	18.69		ug/L		93	74 - 123
trans-1,2-Dichloroethene	20.0	18.30		ug/L		91	70 - 126
trans-1,3-Dichloropropene	20.0	20.84		ug/L		104	69 - 123
trans-1,4-Dichloro-2-butene	20.0	21.46		ug/L		107	50 - 150
Trichloroethene	20.0	18.00		ug/L		90	72 - 126
Vinyl acetate	40.0	36.84		ug/L		92	50 - 150
Xylenes, Total	40.0	37.10		ug/L		93	73 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*92*		*73 - 130*
Toluene-d8 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*

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

Lab Sample ID: LCS 310-434388/7
Matrix: Water
Analysis Batch: 434388

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromomethane			20.0	17.01		ug/L		85	23 - 150		
Chloroethane			20.0	19.18		ug/L		96	54 - 136		
Chloromethane			20.0	24.36		ug/L		122	38 - 150		
Trichlorofluoromethane			20.0	18.13		ug/L		91	54 - 149		
Vinyl chloride			20.0	21.00		ug/L		105	56 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*102*		*73 - 130*
Toluene-d8 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-433832/1-A
Matrix: Water
Analysis Batch: 434220

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433832

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		09/23/24 09:30	09/24/24 20:03	1
Arsenic	0.02452		0.00200	0.000530	mg/L		09/23/24 09:30	09/24/24 20:03	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		09/23/24 09:30	09/24/24 20:03	1
Chromium	0.01684		0.00500	0.00120	mg/L		09/23/24 09:30	09/24/24 20:03	1
Cobalt	0.007034		0.000500	0.000170	mg/L		09/23/24 09:30	09/24/24 20:03	1
Copper	0.01513		0.00500	0.00180	mg/L		09/23/24 09:30	09/24/24 20:03	1
Selenium	<0.00500		0.00500	0.00140	mg/L		09/23/24 09:30	09/24/24 20:03	1
Silver	<0.00100		0.00100	0.000500	mg/L		09/23/24 09:30	09/24/24 20:03	1
Thallium	<0.00100		0.00100	0.000570	mg/L		09/23/24 09:30	09/24/24 20:03	1
Vanadium	0.01785		0.00500	0.00110	mg/L		09/23/24 09:30	09/24/24 20:03	1
Zinc	0.1265		0.0200	0.00970	mg/L		09/23/24 09:30	09/24/24 20:03	1

Lab Sample ID: MB 310-433832/1-A
Matrix: Water
Analysis Batch: 434498

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433832

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		09/23/24 09:30	09/26/24 16:04	1
Barium	<0.00200		0.00200	0.000660	mg/L		09/23/24 09:30	09/26/24 16:04	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		09/23/24 09:30	09/26/24 16:04	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/23/24 09:30	09/26/24 16:04	1
Chromium	<0.00500		0.00500	0.00120	mg/L		09/23/24 09:30	09/26/24 16:04	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		09/23/24 09:30	09/26/24 16:04	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/23/24 09:30	09/26/24 16:04	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/23/24 09:30	09/26/24 16:04	1
Nickel	<0.00500		0.00500	0.00210	mg/L		09/23/24 09:30	09/26/24 16:04	1
Selenium	<0.00500		0.00500	0.00140	mg/L		09/23/24 09:30	09/26/24 16:04	1
Silver	<0.00100		0.00100	0.000500	mg/L		09/23/24 09:30	09/26/24 16:04	1
Thallium	<0.00100		0.00100	0.000570	mg/L		09/23/24 09:30	09/26/24 16:04	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		09/23/24 09:30	09/26/24 16:04	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/23/24 09:30	09/26/24 16:04	1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-433832/1-A
Matrix: Water
Analysis Batch: 434787

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433832

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		09/23/24 09:30	09/30/24 13:36	1

Lab Sample ID: LCS 310-433832/2-A
Matrix: Water
Analysis Batch: 434498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433832

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2183		mg/L		109	80 - 120
Barium	0.100	0.09936		mg/L		99	80 - 120
Beryllium	0.100	0.09849		mg/L		98	80 - 120
Cadmium	0.100	0.09343		mg/L		93	80 - 120
Chromium	0.100	0.1029		mg/L		103	80 - 120
Cobalt	0.100	0.1048		mg/L		105	80 - 120
Copper	0.200	0.1996		mg/L		100	80 - 120
Lead	0.200	0.1981		mg/L		99	80 - 120
Nickel	0.200	0.2013		mg/L		101	80 - 120
Selenium	0.400	0.3683		mg/L		92	80 - 120
Silver	0.100	0.1039		mg/L		104	80 - 120
Thallium	0.100	0.08665		mg/L		87	80 - 120
Vanadium	0.100	0.09778		mg/L		98	80 - 120
Zinc	0.200	0.1866		mg/L		93	80 - 120

Lab Sample ID: LCS 310-433832/2-A
Matrix: Water
Analysis Batch: 434787

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433832

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2416		mg/L		121	80 - 120

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

Lab Sample ID: MB 310-433938/1
Matrix: Water
Analysis Batch: 433938

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			09/23/24 10:43	1

Lab Sample ID: LCS 310-433938/2
Matrix: Water
Analysis Batch: 433938

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	89.00		mg/L		89	81 - 116

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

Lab Sample ID: MB 310-433986/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 433986

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			09/23/24 13:20	1

Lab Sample ID: LCS 310-433986/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 433986

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	93.00		mg/L		93	81 - 116

GC/MS VOA

Analysis Batch: 433954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-291069-1	MW-30L	Total/NA	Water	8260D	
310-291069-2	MW-31	Total/NA	Water	8260D	
310-291069-3	MW-D	Total/NA	Water	8260D	
310-291069-4	Trip Blank	Total/NA	Water	8260D	
MB 310-433954/5	Method Blank	Total/NA	Water	8260D	
LCS 310-433954/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-433954/7	Lab Control Sample	Total/NA	Water	8260D	
310-291069-1 MS	MW-30L	Total/NA	Water	8260D	
310-291069-1 MSD	MW-30L	Total/NA	Water	8260D	

Analysis Batch: 434388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-291069-1	MW-30L	Total/NA	Water	8260D	
310-291069-2	MW-31	Total/NA	Water	8260D	
MB 310-434388/5	Method Blank	Total/NA	Water	8260D	
LCS 310-434388/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-434388/7	Lab Control Sample	Total/NA	Water	8260D	

Metals

Prep Batch: 433832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-291069-1	MW-30L	Total/NA	Water	3005A	
310-291069-2	MW-31	Total/NA	Water	3005A	
310-291069-3	MW-D	Total/NA	Water	3005A	
MB 310-433832/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-433832/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 434220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-433832/1-A	Method Blank	Total/NA	Water	6020B	433832

Analysis Batch: 434498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-291069-1	MW-30L	Total/NA	Water	6020B	433832
310-291069-2	MW-31	Total/NA	Water	6020B	433832
310-291069-3	MW-D	Total/NA	Water	6020B	433832
MB 310-433832/1-A	Method Blank	Total/NA	Water	6020B	433832
LCS 310-433832/2-A	Lab Control Sample	Total/NA	Water	6020B	433832

Analysis Batch: 434787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-291069-1	MW-30L	Total/NA	Water	6020B	433832
310-291069-2	MW-31	Total/NA	Water	6020B	433832
310-291069-3	MW-D	Total/NA	Water	6020B	433832
MB 310-433832/1-A	Method Blank	Total/NA	Water	6020B	433832
LCS 310-433832/2-A	Lab Control Sample	Total/NA	Water	6020B	433832

QC Association Summary

Client: SCS Engineers
Project/Site: WRD South Fall 2024

Job ID: 310-291069-1

General Chemistry

Analysis Batch: 433938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-291069-1	MW-30L	Total/NA	Water	I-3765-85	
310-291069-3	MW-D	Total/NA	Water	I-3765-85	
MB 310-433938/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-433938/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 433986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-291069-2	MW-31	Total/NA	Water	I-3765-85	
MB 310-433986/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-433986/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Project/Site: WRD South Fall 2024

Job ID: 310-291069-1

Client Sample ID: MW-30L

Lab Sample ID: 310-291069-1

Date Collected: 09/18/24 14:24
Matrix: Water
Date Received: 09/19/24 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	434388	WSE8	EET CF	09/26/24 17:50
Total/NA	Analysis	8260D		1	433954	WSE8	EET CF	09/24/24 08:16
Total/NA	Prep	3005A			433832	F5MW	EET CF	09/23/24 09:30
Total/NA	Analysis	6020B		1	434498	NFT2	EET CF	09/26/24 17:45
Total/NA	Prep	3005A			433832	F5MW	EET CF	09/23/24 09:30
Total/NA	Analysis	6020B		1	434787	NFT2	EET CF	09/30/24 13:59
Total/NA	Analysis	I-3765-85		1	433938	HE7K	EET CF	09/23/24 10:43

Client Sample ID: MW-31

Lab Sample ID: 310-291069-2

Date Collected: 09/18/24 16:17
Matrix: Water
Date Received: 09/19/24 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	434388	WSE8	EET CF	09/26/24 18:12
Total/NA	Analysis	8260D		1	433954	WSE8	EET CF	09/24/24 08:38
Total/NA	Prep	3005A			433832	F5MW	EET CF	09/23/24 09:30
Total/NA	Analysis	6020B		1	434498	NFT2	EET CF	09/26/24 17:49
Total/NA	Prep	3005A			433832	F5MW	EET CF	09/23/24 09:30
Total/NA	Analysis	6020B		1	434787	NFT2	EET CF	09/30/24 14:02
Total/NA	Analysis	I-3765-85		1	433986	HE7K	EET CF	09/23/24 13:20

Client Sample ID: MW-D

Lab Sample ID: 310-291069-3

Date Collected: 09/18/24 14:24
Matrix: Water
Date Received: 09/19/24 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	433954	WSE8	EET CF	09/24/24 09:01
Total/NA	Prep	3005A			433832	F5MW	EET CF	09/23/24 09:30
Total/NA	Analysis	6020B		1	434498	NFT2	EET CF	09/26/24 17:52
Total/NA	Prep	3005A			433832	F5MW	EET CF	09/23/24 09:30
Total/NA	Analysis	6020B		1	434787	NFT2	EET CF	09/30/24 14:04
Total/NA	Analysis	I-3765-85		1	433938	HE7K	EET CF	09/23/24 10:43

Client Sample ID: Trip Blank

Lab Sample ID: 310-291069-4

Date Collected: 09/18/24 00:00
Matrix: Water
Date Received: 09/19/24 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	433954	WSE8	EET CF	09/24/24 05:37

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: 310-291069-1
Project/Site: WRD South Fall 2024

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
Project/Site: WRD South Fall 2024

Job ID: 310-291069-1

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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310-291069 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SLS Engineers

City/State: CITY West Des Moines STATE IA Project:

Receipt Information

Date/Time Received: DATE 9/19/24 TIME 1605 Received By JJ

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

Condition of Cooler/Containers

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

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

Cooler Custody Seals Present? ☐ 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? 9/19 ☒ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

TB1, MW 30C, MW31, MW3

Temperature Record

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

Thermometer ID: 9 Correction Factor (°C): +0

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

Uncorrected Temp (°C): 1.4 Corrected Temp (°C): 1.4

• **Sample Container Temperature**

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

Exceptions Noted

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

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

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

Additional Comments

Eurofins 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

eurofins

Client Information	Sampler: Kramer Roth	Lab PM: Miller, Samuel	Carrier Tracking No(s):	COC No: 310-96633-26561 1
Client Contact: Sean Marczewski	Phone:	E-Mail: Samuel Miller@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: 515-631-6160	PO #: 27224309 25	
Email: SMarczewski@scsengineers.com	WO #:	
Project Name: WRD South Fall 2024	Project #: 31002357	
Site: WRD South	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	8260D - Volatile Appendix I Sublist	I_3765_85 - Residue, Non-filterable (TSS)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	N		
MW-30L	9-18-24	14:24	G	Water			x	x	x		
MW-31	9-18-24	16:17	G	Water			x	x	x		
UO-4			G	Water			x	x	x		
MW-D	9-18-24	1424	G	Water			x	x	x		

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Kramer Roth	9-19-24 / 12:00	SCS	Erin L	9/19/24 12:00	Eurofins
2						
3				XB	9/19/24 1605	ET

Custody Seals Intact: Δ Yes Δ No

Custody Seal No

Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-291069-1
SDG Number:

Login Number: 291069
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

Completed by: Konner Roth
Date of Sampling: 5/15/2024
Lab Report Date: 5/30/2024
Site Name: WRD Landfill - South
Project Type: 1st 2024 Semi-Annual Sampling Event
Lab Report Number: 310-281476-1

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			
Trip Blank Detections	X			
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates	X			A field duplicate sample was collected at MW-30L. RPD for analyzed parameters was <50%.

Completed by: Konner Roth
Date of Sampling: 9/18/2024
Lab Report Date: 10/1/2024
Site Name: WRD Landfill - South
Project Type: 2nd 2024 Semi-Annual Sampling Event
Lab Report Number: 310-291069-1

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections		X		Method 8260D: The method blank for analytical batch 310-433954 contained Toluene and Benzene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-analysis of samples was not performed. Method 8260D: The method blank for preparation batch 310-433954 contained Toluene and Benzene above the method detection limit. There was insufficient sample to perform a re-analysis; therefore, the data have been reported.
Trip Blank Detections		X		No detection with the exception of Benzene and Toluene which had measured J-Flag concentrations.
Accuracy				
ICV/CCV		X		Method 8260D: The continuing calibration verification (CCV) associated with batch 310-434388 recovered above the upper control limit for 2-Hexanone (32.2%D), trans-1,3-Dichloropropene (26.2%D), and 4-Methyl-2 pentanone (33.2%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 310-434388/3). Method 6020B: The low level continuing calibration verification (CCVL) associated with batch 310-434787 recovered above the upper control limit for Beryllium. The samples associated with this CCV were non detects for the affected analytes; therefore, the data have been reported.
LCS/LCSD		X		Method 6020B: The laboratory control sample (LCS) for preparation batch 310-433832 and analytical batch 310-434787 recovered outside control limits for the following analytes: Antimony. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.
MS/MSD	X			
Surrogates (organics only)	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates	X			A field duplicate sample was collected at MW-30L. RPD for analyzed parameters was <50%.

Appendix C

Summary of Groundwater Chemistry

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Antimony, mg/L (CAS NO - 7440-36-0)	2/1/2008	< 0.006	< 0.006	N/A
	4/29/2008	< 0.006	< 0.006	N/A
	7/8/2008	< 0.006	< 0.006	N/A
	9/16/2008	< 0.006	< 0.006	N/A
	9/16/2008	N/A	< 0.006	N/A
	12/5/2008	< 0.006	< 0.006	< 0.006
	3/14/2009	< 0.006	< 0.006	N/A
	9/18/2009	< 0.006	< 0.006	N/A
	4/12/2010	< 0.006	< 0.006	< 0.006
	4/12/2010	< 0.006	N/A	N/A
	8/10/2010	< 0.006	< 0.006	N/A
	3/24/2011	< 0.006	< 0.006	N/A
	9/23/2011	< 0.006	< 0.006	N/A
	9/23/2011	< 0.006	N/A	N/A
	3/6/2012	< 0.006	< 0.006	< 0.006
	3/6/2012	N/A	< 0.006	N/A
	7/23/2012	< 0.012	< 0.012	N/A
	2/20/2013	< 0.006	< 0.006	N/A
	2/20/2013	N/A	< 0.006	N/A
	7/31/2013	< 0.006	N/A	N/A
	7/31/2013	< 0.006	N/A	N/A
	2/27/2014	< 0.006	< 0.006	N/A
	2/27/2014	N/A	< 0.006	N/A
	10/15/2014	< 0.006	< 0.006	N/A
	10/15/2014	< 0.006	N/A	N/A
	4/21/2015	0.000798	< 0.001	N/A
	4/21/2015	N/A	0.000828	N/A
	9/9/2015	< 0.001	< 0.001	< 0.001
	9/9/2015	< 0.001	N/A	N/A
	3/3/2016	< 0.001	< 0.001	N/A
	3/3/2016	< 0.001	N/A	N/A
	10/24/2016	< 0.001	< 0.001	N/A
	10/24/2016	< 0.001	N/A	N/A
	3/3/2017	< 0.001	< 0.001	N/A
	3/3/2017	< 0.001	N/A	N/A
	9/25/2017	< 0.001	< 0.001	N/A
	9/25/2017	< 0.001	N/A	N/A
	2/27/2018	< 0.001	< 0.001	N/A
	2/27/2018	N/A	< 0.001	N/A
	9/18/2018	< 0.003	< 0.003	N/A
	9/18/2018	< 0.003	N/A	N/A
	4/2/2019	< 0.001	< 0.001	N/A
	4/2/2019	N/A	< 0.001	N/A
	8/22/2019	< 0.001	< 0.001	N/A
	8/22/2019	< 0.001	N/A	N/A
	4/23/2020	< 0.001	< 0.001	N/A
	4/23/2020	N/A	< 0.001	N/A
	10/6/2020	< 0.001	< 0.001	N/A
	10/6/2020	< 0.001	N/A	N/A
	3/29/2021	< 0.002	< 0.002	< 0.002
	3/29/2021	N/A	< 0.002	N/A
	7/22/2021	< 0.002	< 0.002	N/A
	7/22/2021	N/A	< 0.002	N/A
	6/10/2022	< 0.002	< 0.002	N/A
	6/10/2022	N/A	< 0.002	N/A
	9/6/2022	< 0.002	< 0.002	< 0.002
	9/6/2022	< 0.002	N/A	N/A
	4/5/2023	< 0.002	< 0.002	N/A
	4/5/2023	N/A	< 0.002	N/A
	9/8/2023	< 0.002	< 0.002	< 0.002
	9/8/2023	< 0.002	N/A	N/A
	5/15/2024	< 0.002	< 0.002	< 0.002
	5/15/2024	< 0.002	N/A	N/A
	9/18/2024	< 0.002	< 0.002	N/A
	9/18/2024	< 0.002	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Arsenic, mg/L (CAS NO - 7440-38-2)	2/1/2008	0.00624	0.0199	N/A
	4/29/2008	< 0.001	0.00455	N/A
	7/8/2008	0.00714	0.0671	N/A
	9/16/2008	< 0.001	0.002	N/A
	9/16/2008	N/A	0.0017	N/A
	12/5/2008	< 0.001	< 0.001	0.00621
	3/14/2009	< 0.001	0.0013	N/A
	9/18/2009	< 0.001	< 0.001	N/A
	4/12/2010	< 0.001	< 0.001	0.00147
	4/12/2010	< 0.001	N/A	N/A
	8/10/2010	< 0.001	0.00445	N/A
	3/24/2011	< 0.002	< 0.001	N/A
	9/23/2011	< 0.002	< 0.002	N/A
	9/23/2011	< 0.002	N/A	N/A
	3/6/2012	0.00231	0.0092	0.0257
	3/6/2012	N/A	0.00459	N/A
	7/23/2012	< 0.001	< 0.001	N/A
	2/20/2013	0.00208	0.00262	N/A
	2/20/2013	N/A	0.00342	N/A
	7/31/2013	< 0.001	N/A	N/A
	7/31/2013	0.000375	N/A	N/A
	2/27/2014	< 0.001	< 0.001	N/A
	2/27/2014	N/A	< 0.001	N/A
	10/15/2014	< 0.001	< 0.001	N/A
	10/15/2014	< 0.001	N/A	N/A
	4/21/2015	< 0.002	< 0.002	N/A
	4/21/2015	N/A	< 0.002	N/A
	9/9/2015	< 0.002	< 0.002	0.00187
	9/9/2015	< 0.002	N/A	N/A
	3/3/2016	< 0.002	< 0.002	N/A
	3/3/2016	0.000795*	N/A	N/A
	10/24/2016	< 0.002	< 0.002	N/A
	10/24/2016	< 0.002	N/A	N/A
	3/3/2017	< 0.002	< 0.002	N/A
	3/3/2017	< 0.002	N/A	N/A
	9/25/2017	< 0.002	< 0.002	N/A
	9/25/2017	< 0.002	N/A	N/A
	2/27/2018	< 0.002	< 0.002	N/A
	2/27/2018	N/A	< 0.002	N/A
	9/18/2018	**0.00184**	**0.00161**	N/A
	9/18/2018	**0.00165**	N/A	N/A
	4/2/2019	< 0.002	< 0.002	N/A
	4/2/2019	N/A	< 0.002	N/A
	8/22/2019	< 0.002	< 0.002	N/A
	8/22/2019	< 0.002	N/A	N/A
	4/23/2020	< 0.002	< 0.002	N/A
	4/23/2020	N/A	< 0.002	N/A
	10/6/2020	< 0.002	< 0.002	N/A
	10/6/2020	< 0.002	N/A	N/A
	3/29/2021	< 0.002	< 0.002	0.000962*
	3/29/2021	N/A	< 0.002	N/A
	7/22/2021	< 0.002	< 0.002	N/A
	7/22/2021	N/A	< 0.002	N/A
	6/10/2022	< 0.002	< 0.002	N/A
	6/10/2022	N/A	< 0.002	N/A
	9/6/2022	< 0.002	< 0.002	< 0.002
	9/6/2022	< 0.002	N/A	N/A
	4/5/2023	< 0.002	< 0.002	N/A
	4/5/2023	N/A	< 0.002	N/A
	9/8/2023	< 0.002	< 0.002	0.0012*
	9/8/2023	< 0.002	N/A	N/A
	5/15/2024	< 0.002	< 0.002	< 0.002
	5/15/2024	< 0.002	N/A	N/A
	9/18/2024	< 0.002	< 0.002	N/A
	9/18/2024	< 0.002	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Barium, mg/L (CAS NO - 7440-39-3)	2/1/2008	0.219	0.353	N/A
	4/29/2008	0.226	0.776	N/A
	7/8/2008	0.304	1.3	N/A
	9/16/2008	0.102	0.486	N/A
	9/16/2008	N/A	0.272	N/A
	12/5/2008	0.102	0.184	0.211
	3/14/2009	0.116	0.379	N/A
	9/18/2009	0.157	0.139	N/A
	4/12/2010	0.162	0.128	0.192
	4/12/2010	0.16	N/A	N/A
	8/10/2010	0.147	0.119	N/A
	3/24/2011	0.0957	0.0999	N/A
	9/23/2011	0.121	0.121	N/A
	9/23/2011	0.119	N/A	N/A
	3/6/2012	0.281	2.89	6.62
	3/6/2012	N/A	1.16	N/A
	4/26/2012	N/A	0.497	N/A
	7/23/2012	0.158	0.26	N/A
	2/20/2013	0.188	0.694	N/A
	2/20/2013	N/A	0.61	N/A
	7/31/2013	0.0956	N/A	N/A
	7/31/2013	0.101	N/A	N/A
	2/27/2014	0.128	0.23	N/A
	2/27/2014	N/A	0.228	N/A
	10/15/2014	0.141	0.272	N/A
	10/15/2014	0.131	N/A	N/A
	4/21/2015	0.107	0.26	N/A
	4/21/2015	N/A	0.248	N/A
	9/9/2015	**0.114**	**0.178**	0.39
	9/9/2015	**0.125**	N/A	N/A
	3/3/2016	**0.112**	**0.132**	N/A
	3/3/2016	**0.111**	N/A	N/A
	10/24/2016	**0.0922**	**0.109**	N/A
	10/24/2016	**0.095**	N/A	N/A
	3/3/2017	**0.0996**	**0.113**	N/A
	3/3/2017	**0.0941**	N/A	N/A
	9/25/2017	**0.103**	**0.128**	N/A
	9/25/2017	**0.0944**	N/A	N/A
	2/27/2018	**0.118**	**0.121**	N/A
	2/27/2018	N/A	**0.122**	N/A
	9/18/2018	**0.0902**	**0.126**	N/A
	9/18/2018	**0.0858**	N/A	N/A
	4/2/2019	**0.0958**	**0.138**	N/A
	4/2/2019	N/A	**0.128**	N/A
	8/22/2019	**0.099**	**0.139**	N/A
	8/22/2019	**0.099**	N/A	N/A
	4/23/2020	**0.0913**	**0.132**	N/A
	4/23/2020	N/A	**0.125**	N/A
	10/6/2020	**0.0956**	**0.137**	N/A
	10/6/2020	**0.0971**	N/A	N/A
	3/29/2021	**0.0855**	**0.131**	**0.22**
	3/29/2021	N/A	**0.129**	N/A
	7/22/2021	**0.092**	**0.139**	N/A
	7/22/2021	N/A	**0.139**	N/A
	6/10/2022	**0.0849**	**0.137**	N/A
	6/10/2022	N/A	**0.136**	N/A
	9/6/2022	**0.109**	**0.156**	**0.364**
	9/6/2022	**0.106**	N/A	N/A
	4/5/2023	**0.0847**	**0.144**	N/A
	4/5/2023	N/A	**0.14**	N/A
	9/8/2023	**0.0862**	**0.148**	**0.358**
	9/8/2023	**0.0876**	N/A	N/A
	5/15/2024	**0.0752**	**0.133**	**0.254**
	5/15/2024	**0.0762**	N/A	N/A
	9/18/2024	**0.0882**	**0.157**	N/A
	9/18/2024	**0.0896**	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Beryllium, mg/L (CAS NO - 7440-41-7)	2/1/2008	< 0.001	0.0029	N/A
	4/29/2008	< 0.001	0.005	N/A
	7/8/2008	< 0.001	0.00897	N/A
	9/16/2008	< 0.001	0.00163	N/A
	9/16/2008	N/A	0.00135	N/A
	12/5/2008	< 0.001	< 0.001	< 0.001
	3/14/2009	< 0.001	0.00256	N/A
	9/18/2009	< 0.001	< 0.001	N/A
	4/12/2010	< 0.001	< 0.001	< 0.001
	4/12/2010	< 0.001	N/A	N/A
	8/10/2010	< 0.001	< 0.001	N/A
	3/24/2011	< 0.001	< 0.001	N/A
	9/23/2011	< 0.001	< 0.001	N/A
	9/23/2011	< 0.001	N/A	N/A
	3/6/2012	< 0.001	0.008	0.0109
	3/6/2012	N/A	0.0119	N/A
	7/23/2012	< 0.001	< 0.001	N/A
	2/20/2013	0.00204	0.00378	N/A
	2/20/2013	N/A	0.0047	N/A
	6/20/2013	< 0.001	N/A	N/A
	7/31/2013	< 0.001	N/A	N/A
	7/31/2013	< 0.001	N/A	N/A
	2/27/2014	< 0.001	0.000911	N/A
	2/27/2014	N/A	0.000764	N/A
	10/15/2014	< 0.001	0.00132	N/A
	10/15/2014	< 0.001	N/A	N/A
	4/21/2015	< 0.001	< 0.001	N/A
	4/21/2015	N/A	0.000107	N/A
	9/9/2015	< 0.001	< 0.001	0.000677
	9/9/2015	< 0.001	N/A	N/A
	3/3/2016	< 0.001	< 0.001	N/A
	3/3/2016	< 0.001	N/A	N/A
	10/24/2016	< 0.001	< 0.001	N/A
	10/24/2016	< 0.001	N/A	N/A
	3/3/2017	< 0.001	< 0.001	N/A
	3/3/2017	< 0.001	N/A	N/A
	9/25/2017	< 0.001	< 0.001	N/A
	9/25/2017	< 0.001	N/A	N/A
	2/27/2018	< 0.001	< 0.001	N/A
	2/27/2018	N/A	< 0.001	N/A
	9/18/2018	< 0.001	< 0.001	N/A
	9/18/2018	< 0.001	N/A	N/A
	4/2/2019	< 0.001	< 0.001	N/A
	4/2/2019	N/A	< 0.001	N/A
	8/22/2019	< 0.001	< 0.001	N/A
	8/22/2019	< 0.001	N/A	N/A
	4/23/2020	< 0.001	< 0.001	N/A
	4/23/2020	N/A	< 0.001	N/A
	10/6/2020	< 0.001	< 0.001	N/A
	10/6/2020	< 0.001	N/A	N/A
	3/29/2021	< 0.001	< 0.001	< 0.001
	3/29/2021	N/A	< 0.001	N/A
	7/22/2021	< 0.001	< 0.001	N/A
	7/22/2021	N/A	< 0.001	N/A
	6/10/2022	< 0.001	< 0.001	N/A
	6/10/2022	N/A	< 0.001	N/A
	9/6/2022	< 0.001	< 0.001	< 0.001
	9/6/2022	< 0.001	N/A	N/A
	4/5/2023	< 0.001	< 0.001	N/A
	4/5/2023	N/A	< 0.001	N/A
	9/8/2023	< 0.001	< 0.001	< 0.001
	9/8/2023	< 0.001	N/A	N/A
	5/15/2024	< 0.001	< 0.001	< 0.001
	5/15/2024	< 0.001	N/A	N/A
	9/18/2024	< 0.001	< 0.001	N/A
	9/18/2024	< 0.001	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Cadmium, mg/L (CAS NO - 7440-43-9)	2/1/2008	< 0.0005	0.00096	N/A
	4/29/2008	< 0.0005	0.00282	N/A
	7/8/2008	< 0.0005	0.00324	N/A
	9/16/2008	< 0.0005	0.000799	N/A
	9/16/2008	N/A	0.000937	N/A
	12/5/2008	< 0.0005	< 0.0005	< 0.0005
	3/14/2009	< 0.0005	0.00139	N/A
	9/18/2009	< 0.0005	< 0.0005	N/A
	4/12/2010	< 0.0005	< 0.0005	< 0.0005
	4/12/2010	< 0.0005	N/A	N/A
	8/10/2010	< 0.0005	0.00062	N/A
	3/24/2011	< 0.0005	< 0.0005	N/A
	9/23/2011	< 0.0005	< 0.0005	N/A
	9/23/2011	< 0.0005	N/A	N/A
	3/6/2012	0.000583	0.00722	0.00574
	3/6/2012	N/A	0.00446	N/A
	4/26/2012	< 0.0005	0.00153	N/A
	7/23/2012	< 0.0005	0.000926	N/A
	2/20/2013	0.000592	0.00302	N/A
	2/20/2013	N/A	0.00261	N/A
	6/20/2013	0.00361	N/A	N/A
	7/31/2013	< 0.0005	N/A	N/A
	7/31/2013	< 0.0005	N/A	N/A
	2/27/2014	0.00039	0.000649	N/A
	2/27/2014	N/A	0.000745	N/A
	10/15/2014	0.00147	0.00158	N/A
	10/15/2014	0.00017	N/A	N/A
	3/16/2015	< 0.0005	N/A	N/A
	4/21/2015	0.000456	< 0.0005	N/A
	4/21/2015	N/A	0.000564	N/A
	9/9/2015	< 0.0005	< 0.0005	0.0011
	9/9/2015	< 0.0005	N/A	N/A
	3/3/2016	0.000042*	0.000051*	N/A
	3/3/2016	< 0.0005	N/A	N/A
	10/24/2016	0.00005*	0.000082*	N/A
	10/24/2016	0.000053*	N/A	N/A
	3/3/2017	0.000093*	0.000082*	N/A
	3/3/2017	0.000081*	N/A	N/A
	9/25/2017	0.000119*	0.000111*	N/A
	9/25/2017	0.00009*	N/A	N/A
	2/27/2018	< 0.0005	0.000067*	N/A
	2/27/2018	N/A	0.00007*	N/A
	9/18/2018	< 0.0005	< 0.0005	N/A
	9/18/2018	< 0.0005	N/A	N/A
	4/2/2019	< 0.0005	0.000106*	N/A
	4/2/2019	N/A	0.000116*	N/A
	8/22/2019	< 0.0001	**0.000143**	N/A
	8/22/2019	< 0.0001	N/A	N/A
	4/23/2020	< 0.0001	0.000079*	N/A
	4/23/2020	N/A	0.000088*	N/A
	10/6/2020	< 0.0001	0.00009*	N/A
	10/6/2020	< 0.0001	N/A	N/A
	3/29/2021	< 0.0001	0.000083*	**0.000234**
	3/29/2021	N/A	0.000078*	N/A
	7/22/2021	< 0.0001	**0.000157**	N/A
	7/22/2021	N/A	**0.000122**	N/A
	3/10/2022	N/A	**0.000177**	N/A
	4/12/2022	N/A	**0.000136**	N/A
	6/10/2022	< 0.0001	**0.000106**	N/A
	6/10/2022	N/A	**0.000106**	N/A
	9/6/2022	< 0.0001	**0.00011**	**0.000359**
	9/6/2022	< 0.0001	N/A	N/A
	4/5/2023	< 0.0002	0.000113*	N/A
	4/5/2023	N/A	0.0001*	N/A
	9/8/2023	< 0.0002	0.000139*	**0.000564**
	9/8/2023	< 0.0002	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Cadmium, mg/L (CAS NO - 7440-43-9)	5/15/2024	< 0.0002	< 0.0002	0.000186*
	5/15/2024	< 0.0002	N/A	N/A
	9/18/2024	< 0.0002	**0.000225**	N/A
	9/18/2024	< 0.0002	N/A	N/A
Chromium, mg/L (CAS NO - 7440-47-3)	2/1/2008	< 0.02	0.0564	N/A
	4/29/2008	< 0.02	< 0.02	N/A
	7/8/2008	0.0234	0.281	N/A
	9/16/2008	< 0.02	0.0945	N/A
	9/16/2008	N/A	< 0.02	N/A
	12/5/2008	< 0.02	0.0287	< 0.02
	3/14/2009	< 0.02	< 0.02	N/A
	9/18/2009	< 0.02	< 0.02	N/A
	4/12/2010	< 0.02	< 0.02	< 0.02
	4/12/2010	< 0.02	N/A	N/A
	8/10/2010	< 0.02	< 0.02	N/A
	3/24/2011	< 0.02	< 0.02	N/A
	9/23/2011	< 0.02	< 0.02	N/A
	9/23/2011	< 0.02	N/A	N/A
	3/6/2012	0.0268	0.034	< 0.1
	3/6/2012	N/A	0.0427	N/A
	4/26/2012	< 0.02	N/A	N/A
	7/23/2012	< 0.02	< 0.02	N/A
	2/20/2013	< 0.02	< 0.02	N/A
	2/20/2013	N/A	< 0.02	N/A
	7/31/2013	0.00286	N/A	N/A
	7/31/2013	0.00654	N/A	N/A
	2/27/2014	0.00278	0.00203	N/A
	2/27/2014	N/A	0.00164	N/A
	10/15/2014	< 0.02	< 0.02	N/A
	10/15/2014	< 0.02	N/A	N/A
	4/21/2015	< 0.005	0.00187	N/A
	4/21/2015	N/A	< 0.005	N/A
	9/9/2015	< 0.005	0.00146*	0.00156
	9/9/2015	< 0.005	N/A	N/A
	3/3/2016	0.000662*	< 0.005	N/A
	3/3/2016	0.000662*	N/A	N/A
	10/24/2016	< 0.005	< 0.005	N/A
	10/24/2016	< 0.005	N/A	N/A
	3/3/2017	0.000922*	< 0.005	N/A
	3/3/2017	0.000772*	N/A	N/A
	9/25/2017	< 0.005	< 0.005	N/A
	9/25/2017	< 0.005	N/A	N/A
	2/27/2018	< 0.005	< 0.005	N/A
	2/27/2018	N/A	< 0.005	N/A
	9/18/2018	0.00404*	0.004*	N/A
	9/18/2018	0.00376*	N/A	N/A
	4/2/2019	< 0.005	< 0.005	N/A
	4/2/2019	N/A	< 0.005	N/A
	8/22/2019	0.0035*	< 0.005	N/A
	8/22/2019	< 0.005	N/A	N/A
	4/23/2020	< 0.005	< 0.005	N/A
	4/23/2020	N/A	< 0.005	N/A
	10/6/2020	< 0.005	< 0.005	N/A
	10/6/2020	< 0.005	N/A	N/A
	3/29/2021	< 0.005	< 0.005	< 0.005
	3/29/2021	N/A	< 0.005	N/A
	7/22/2021	< 0.005	< 0.005	N/A
	7/22/2021	N/A	< 0.005	N/A
	6/10/2022	< 0.005	< 0.005	N/A
	6/10/2022	N/A	< 0.005	N/A
	9/6/2022	< 0.005	< 0.005	< 0.005
	9/6/2022	< 0.005	N/A	N/A
	4/5/2023	< 0.005	< 0.005	N/A
	4/5/2023	N/A	< 0.005	N/A
	9/8/2023	< 0.005	< 0.005	0.00111*
	9/8/2023	< 0.005	N/A	N/A

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Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Chromium, mg/L (CAS NO - 7440-47-3)	5/15/2024	< 0.005	< 0.005	< 0.005
	5/15/2024	< 0.005	N/A	N/A
	9/18/2024	< 0.005	< 0.005	N/A
	9/18/2024	< 0.005	N/A	N/A
Cobalt, mg/L (CAS NO - 7440-48-4)	2/1/2008	< 0.02	0.0395	N/A
	4/29/2008	< 0.02	0.0227	N/A
	7/8/2008	< 0.02	0.16	N/A
	9/16/2008	< 0.02	< 0.02	N/A
	9/16/2008	N/A	0.0602	N/A
	12/5/2008	< 0.02	< 0.02	< 0.02
	3/14/2009	< 0.02	< 0.02	N/A
	9/18/2009	< 0.02	< 0.02	N/A
	4/12/2010	0.00247	0.00185	0.00465
	4/12/2010	0.00186	N/A	N/A
	8/10/2010	0.00256	< 0.00155	N/A
	3/24/2011	< 0.00155	< 0.00155	N/A
	9/23/2011	< 0.00155	< 0.00155	N/A
	9/23/2011	< 0.00155	N/A	N/A
	3/6/2012	0.0256	0.242	1.54
	3/6/2012	N/A	0.135	N/A
	4/26/2012	0.00285	N/A	N/A
	7/23/2012	< 0.00155	0.00337	N/A
	2/20/2013	0.0201	0.0341	N/A
	2/20/2013	N/A	0.0386	N/A
	6/20/2013	0.00275	N/A	N/A
	7/31/2013	< 0.00132	N/A	N/A
	7/31/2013	0.00153	N/A	N/A
	2/27/2014	0.00311	0.00229	N/A
	2/27/2014	N/A	0.00362	N/A
	10/15/2014	< 0.00241	0.00518	N/A
	10/15/2014	< 0.00241	N/A	N/A
	4/21/2015	0.000195	0.00113	N/A
	4/21/2015	N/A	0.000352	N/A
	9/9/2015	< 0.0005	0.000223*	0.00715
	9/9/2015	0.000065*	N/A	N/A
	3/3/2016	< 0.0005	0.000029*	N/A
	3/3/2016	0.000029*	N/A	N/A
	10/24/2016	0.000087*	0.000076*	N/A
	10/24/2016	0.000085*	N/A	N/A
	3/3/2017	< 0.0005	0.000066*	N/A
	3/3/2017	< 0.0005	N/A	N/A
	9/25/2017	< 0.0005	0.000056*	N/A
	9/25/2017	< 0.0005	N/A	N/A
	2/27/2018	0.000072*	0.000072*	N/A
	2/27/2018	N/A	0.000067*	N/A
	9/18/2018	< 0.001	< 0.001	N/A
	9/18/2018	< 0.001	N/A	N/A
	4/2/2019	< 0.0005	< 0.0005	N/A
	4/2/2019	N/A	< 0.0005	N/A
	8/22/2019	< 0.0005	< 0.0005	N/A
	8/22/2019	< 0.0005	N/A	N/A
	4/23/2020	< 0.0005	< 0.0005	N/A
	4/23/2020	N/A	< 0.0005	N/A
	10/6/2020	< 0.0005	< 0.0005	N/A
	10/6/2020	< 0.0005	N/A	N/A
	3/29/2021	< 0.0005	< 0.0005	**0.00254**
	3/29/2021	N/A	< 0.0005	N/A
	7/22/2021	0.000461*	0.000178*	N/A
	7/22/2021	N/A	0.000468*	N/A
	6/10/2022	< 0.0005	< 0.0005	N/A
	6/10/2022	N/A	< 0.0005	N/A
	9/6/2022	< 0.0005	< 0.0005	**0.001**
	9/6/2022	< 0.0005	N/A	N/A
	4/5/2023	< 0.0005	< 0.0005	N/A
	4/5/2023	N/A	< 0.0005	N/A
	9/8/2023	< 0.0005	< 0.0005	**0.009**
	9/8/2023	< 0.0005	N/A	N/A

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Summary of Groundwater Chemistry

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Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Cobalt, mg/L (CAS NO - 7440-48-4)	5/15/2024	< 0.0005	< 0.0005	**0.000824**
	5/15/2024	< 0.0005	N/A	N/A
	9/18/2024	< 0.0005	0.000493*	N/A
	9/18/2024	< 0.0005	N/A	N/A
Copper, mg/L (CAS NO - 7440-50-8)	2/1/2008	0.022	0.0422	N/A
	4/29/2008	< 0.02	0.0583	N/A
	7/8/2008	0.024	0.213	N/A
	9/16/2008	< 0.02	< 0.02	N/A
	9/16/2008	N/A	0.0663	N/A
	12/5/2008	< 0.02	< 0.02	< 0.02
	3/14/2009	< 0.02	0.0283	N/A
	9/18/2009	< 0.02	< 0.02	N/A
	4/12/2010	< 0.02	< 0.02	< 0.02
	4/12/2010	< 0.02	N/A	N/A
	8/10/2010	< 0.02	< 0.02	N/A
	3/24/2011	< 0.02	< 0.02	N/A
	9/23/2011	< 0.02	< 0.02	N/A
	9/23/2011	< 0.02	N/A	N/A
	3/6/2012	0.0344	0.141	< 0.1
	3/6/2012	N/A	0.368	N/A
	4/26/2012	< 0.02	0.0437	N/A
	7/23/2012	< 0.02	< 0.02	N/A
	2/20/2013	0.0201	0.0503	N/A
	2/20/2013	N/A	0.0593	N/A
	7/31/2013	0.0026	N/A	N/A
	7/31/2013	0.00264	N/A	N/A
	2/27/2014	0.00628	0.00869	N/A
	2/27/2014	N/A	0.00844	N/A
	10/15/2014	< 0.02	0.0136	N/A
	10/15/2014	< 0.02	N/A	N/A
	4/21/2015	0.000993	0.00134	N/A
	4/21/2015	N/A	0.00306	N/A
	9/9/2015	0.000815*	0.000851*	0.0114
	9/9/2015	0.000688*	N/A	N/A
	3/3/2016	< 0.005	< 0.005	N/A
	3/3/2016	< 0.005	N/A	N/A
	10/24/2016	< 0.005	< 0.005	N/A
	10/24/2016	< 0.005	N/A	N/A
	3/3/2017	**0.00546**	< 0.005	N/A
	3/3/2017	< 0.005	N/A	N/A
	9/25/2017	< 0.005	< 0.005	N/A
	9/25/2017	< 0.005	N/A	N/A
	2/27/2018	< 0.005	< 0.005	N/A
	2/27/2018	N/A	< 0.005	N/A
	9/18/2018	0.000916*	0.00089*	N/A
	9/18/2018	0.000803*	N/A	N/A
	4/2/2019	< 0.005	< 0.005	N/A
	4/2/2019	N/A	< 0.005	N/A
	8/22/2019	< 0.005	< 0.005	N/A
	8/22/2019	< 0.005	N/A	N/A
	4/23/2020	< 0.005	< 0.005	N/A
	4/23/2020	N/A	< 0.005	N/A
	10/6/2020	< 0.005	< 0.005	N/A
	10/6/2020	< 0.005	N/A	N/A
	3/29/2021	< 0.005	< 0.005	0.0031*
	3/29/2021	N/A	< 0.005	N/A
	7/22/2021	< 0.005	< 0.005	N/A
	7/22/2021	N/A	< 0.005	N/A
	6/10/2022	< 0.005	< 0.005	N/A
	6/10/2022	N/A	< 0.005	N/A
	9/6/2022	< 0.005	< 0.005	0.00253*
	9/6/2022	< 0.005	N/A	N/A
	4/5/2023	< 0.005	< 0.005	N/A
	4/5/2023	N/A	< 0.005	N/A
	9/8/2023	< 0.005	< 0.005	**0.00643**
	9/8/2023	< 0.005	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Copper, mg/L (CAS NO - 7440-50-8)	5/15/2024	< 0.005	< 0.005	0.00278*
	5/15/2024	< 0.005	N/A	N/A
	9/18/2024	< 0.005	< 0.005	N/A
	9/18/2024	< 0.005	N/A	N/A
Lead, mg/L (CAS NO - 7439-92-1)	2/1/2008	0.00658	0.0484	N/A
	4/29/2008	< 0.004	0.0329	N/A
	7/8/2008	0.00838	0.126	N/A
	9/16/2008	< 0.004	0.00713	N/A
	9/16/2008	N/A	0.00795	N/A
	12/5/2008	< 0.004	0.00411	< 0.004
	3/14/2009	< 0.004	0.0139	N/A
	9/18/2009	< 0.004	< 0.004	N/A
	4/12/2010	< 0.004	< 0.004	< 0.004
	4/12/2010	< 0.004	N/A	N/A
	8/10/2010	< 0.004	0.00484	N/A
	3/24/2011	< 0.004	< 0.004	N/A
	9/23/2011	< 0.004	< 0.004	N/A
	9/23/2011	< 0.004	N/A	N/A
	3/6/2012	0.00953	0.0739	0.00681
	3/6/2012	N/A	0.0295	N/A
	4/26/2012	< 0.004	N/A	N/A
	7/23/2012	< 0.004	0.0046	N/A
	2/20/2013	< 0.004	0.0248	N/A
	2/20/2013	N/A	0.00479	N/A
	7/31/2013	< 0.004	N/A	N/A
	7/31/2013	< 0.004	N/A	N/A
	2/27/2014	< 0.004	< 0.004	N/A
	2/27/2014	N/A	0.0012	N/A
	10/15/2014	< 0.004	0.00546	N/A
	10/15/2014	0.00368	N/A	N/A
	4/21/2015	0.000401	0.00185	N/A
	4/21/2015	N/A	0.000452	N/A
	9/9/2015	< 0.0005	0.000304*	0.0111
	9/9/2015	< 0.0005	N/A	N/A
	3/3/2016	< 0.0005	< 0.0005	N/A
	3/3/2016	< 0.0005	N/A	N/A
	10/24/2016	< 0.0005	< 0.0005	N/A
	10/24/2016	< 0.0005	N/A	N/A
	3/3/2017	< 0.0005	< 0.0005	N/A
	3/3/2017	< 0.0005	N/A	N/A
	9/25/2017	0.000338*	< 0.0005	N/A
	9/25/2017	< 0.0005	N/A	N/A
	2/27/2018	< 0.0005	< 0.0005	N/A
	2/27/2018	N/A	< 0.0005	N/A
	9/18/2018	< 0.0005	< 0.0005	N/A
	9/18/2018	< 0.0005	N/A	N/A
	4/2/2019	< 0.0005	< 0.0005	N/A
	4/2/2019	N/A	< 0.0005	N/A
	8/22/2019	< 0.0005	< 0.0005	N/A
	8/22/2019	< 0.0005	N/A	N/A
	4/23/2020	< 0.0005	< 0.0005	N/A
	4/23/2020	N/A	< 0.0005	N/A
	10/6/2020	< 0.0005	< 0.0005	N/A
	10/6/2020	< 0.0005	N/A	N/A
	3/29/2021	< 0.0005	< 0.0005	< 0.0005
	3/29/2021	N/A	< 0.0005	N/A
	7/22/2021	< 0.0005	< 0.0005	N/A
	7/22/2021	N/A	< 0.0005	N/A
	6/10/2022	< 0.0005	< 0.0005	N/A
	6/10/2022	N/A	< 0.0005	N/A
	9/6/2022	< 0.0005	< 0.0005	**0.0007**
	9/6/2022	< 0.0005	N/A	N/A
	4/5/2023	< 0.0005	< 0.0005	N/A
	4/5/2023	N/A	< 0.0005	N/A
	9/8/2023	0.000298*	< 0.0005	**0.000666**
	9/8/2023	< 0.0005	N/A	N/A

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Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Lead, mg/L (CAS NO - 7439-92-1)	5/15/2024	< 0.0005	< 0.0005	< 0.0005
	5/15/2024	< 0.0005	N/A	N/A
	9/18/2024	< 0.0005	< 0.0005	N/A
	9/18/2024	< 0.0005	N/A	N/A
Nickel, mg/L (CAS NO - 7440-02-0)	2/1/2008	< 0.05	0.0729	N/A
	4/29/2008	< 0.05	< 0.05	N/A
	7/8/2008	< 0.05	0.308	N/A
	9/16/2008	< 0.05	0.109	N/A
	9/16/2008	N/A	< 0.05	N/A
	12/5/2008	< 0.05	< 0.05	< 0.05
	3/14/2009	< 0.05	< 0.05	N/A
	9/18/2009	< 0.05	< 0.05	N/A
	4/12/2010	< 0.05	< 0.05	< 0.05
	4/12/2010	< 0.05	N/A	N/A
	8/10/2010	< 0.05	< 0.05	N/A
	3/24/2011	< 0.05	< 0.05	N/A
	9/23/2011	< 0.05	< 0.05	N/A
	9/23/2011	< 0.05	N/A	N/A
	3/6/2012	< 0.05	0.346	1.19
	3/6/2012	N/A	0.195	N/A
	7/23/2012	< 0.05	< 0.05	N/A
	2/20/2013	< 0.05	< 0.05	N/A
	2/20/2013	N/A	< 0.05	N/A
	7/31/2013	< 0.05	N/A	N/A
	7/31/2013	0.00252	N/A	N/A
	2/27/2014	0.00251	0.00399	N/A
	2/27/2014	N/A	0.00508	N/A
	10/15/2014	0.0185	0.028	N/A
	10/15/2014	0.0108	N/A	N/A
	4/21/2015	0.000939	0.00359	N/A
	4/21/2015	N/A	0.00229	N/A
	9/9/2015	0.000799*	0.0019*	0.022
	9/9/2015	0.000741*	N/A	N/A
	3/3/2016	< 0.005	< 0.005	N/A
	3/3/2016	< 0.005	N/A	N/A
	10/24/2016	0.00155*	0.00219*	N/A
	10/24/2016	0.00161*	N/A	N/A
	3/3/2017	< 0.005	0.00202*	N/A
	3/3/2017	< 0.005	N/A	N/A
	9/25/2017	< 0.005	0.00231*	N/A
	9/25/2017	< 0.005	N/A	N/A
	2/27/2018	< 0.005	0.00167*	N/A
	2/27/2018	N/A	0.00157*	N/A
	9/18/2018	0.000966*	**0.00317**	N/A
	9/18/2018	0.000841*	N/A	N/A
	4/2/2019	< 0.005	0.0017*	N/A
	4/2/2019	N/A	< 0.005	N/A
	8/22/2019	< 0.005	0.0029*	N/A
	8/22/2019	< 0.005	N/A	N/A
	4/23/2020	< 0.005	0.0021*	N/A
	4/23/2020	N/A	0.00206*	N/A
	10/6/2020	< 0.005	0.00227*	N/A
	10/6/2020	< 0.005	N/A	N/A
	3/29/2021	< 0.005	< 0.005	**0.0175**
	3/29/2021	N/A	< 0.005	N/A
	7/22/2021	0.00193*	0.00279*	N/A
	7/22/2021	N/A	0.00334*	N/A
	6/10/2022	< 0.005	0.00207*	N/A
	6/10/2022	N/A	0.00198*	N/A
	9/6/2022	< 0.005	0.00198*	**0.0158**
	9/6/2022	< 0.005	N/A	N/A
	4/5/2023	< 0.005	< 0.005	N/A
	4/5/2023	N/A	< 0.005	N/A
	9/8/2023	< 0.005	0.00217*	**0.0535**
	9/8/2023	< 0.005	N/A	N/A
	5/15/2024	< 0.005	< 0.005	**0.011**
	5/15/2024	< 0.005	N/A	N/A

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Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Nickel, mg/L (CAS NO - 7440-02-0)	9/18/2024	< 0.005	0.0024*	N/A
	9/18/2024	< 0.005	N/A	N/A
Selenium, mg/L (CAS NO - 7782-49-2)	2/1/2008	< 0.005	< 0.005	N/A
	4/29/2008	< 0.005	< 0.005	N/A
	7/8/2008	< 0.005	< 0.005	N/A
	9/16/2008	< 0.005	< 0.005	N/A
	9/16/2008	N/A	< 0.005	N/A
	12/5/2008	< 0.005	< 0.005	< 0.005
	3/14/2009	< 0.005	< 0.005	N/A
	9/18/2009	< 0.005	< 0.005	N/A
	4/12/2010	< 0.005	< 0.005	< 0.005
	4/12/2010	< 0.005	N/A	N/A
	8/10/2010	< 0.005	< 0.005	N/A
	3/24/2011	< 0.005	< 0.005	N/A
	9/23/2011	< 0.005	< 0.005	N/A
	9/23/2011	< 0.005	N/A	N/A
	3/6/2012	< 0.005	< 0.005	< 0.005
	3/6/2012	N/A	< 0.005	N/A
	7/23/2012	< 0.005	< 0.005	N/A
	2/20/2013	< 0.005	< 0.005	N/A
	2/20/2013	N/A	< 0.005	N/A
	7/31/2013	0.00197	N/A	N/A
	7/31/2013	0.00183	N/A	N/A
	2/27/2014	0.00376	< 0.005	N/A
	2/27/2014	N/A	0.00141	N/A
	10/15/2014	0.0057	< 0.005	N/A
	10/15/2014	0.00543	N/A	N/A
	3/16/2015	< 0.005	N/A	N/A
	4/21/2015	< 0.005	< 0.005	N/A
	4/21/2015	N/A	< 0.005	N/A
	9/9/2015	0.00383	< 0.005	< 0.005
	9/9/2015	0.00342	N/A	N/A
	3/3/2016	0.00308	< 0.005	N/A
	3/3/2016	0.00353	N/A	N/A
	10/24/2016	0.00297	< 0.005	N/A
	10/24/2016	0.00246	N/A	N/A
	3/3/2017	0.00208	< 0.005	N/A
	3/3/2017	0.00218	N/A	N/A
	9/25/2017	0.00346	< 0.005	N/A
	9/25/2017	0.00307	N/A	N/A
	2/27/2018	< 0.005	< 0.005	N/A
	2/27/2018	N/A	< 0.005	N/A
	9/18/2018	0.00289	< 0.0025	N/A
	9/18/2018	0.00293	N/A	N/A
	4/2/2019	0.00461*	< 0.005	N/A
	4/2/2019	N/A	< 0.005	N/A
	8/22/2019	0.00429*	< 0.005	N/A
	8/22/2019	0.00391*	N/A	N/A
	4/23/2020	**0.00523**	< 0.005	N/A
	4/23/2020	N/A	< 0.005	N/A
	7/17/2020	0.00464*	N/A	N/A
	10/6/2020	0.00394*	< 0.005	N/A
	10/6/2020	0.00376*	N/A	N/A
	3/29/2021	0.00462*	< 0.005	< 0.005
	3/29/2021	N/A	< 0.005	N/A
	7/22/2021	0.00461*	< 0.005	N/A
	7/22/2021	N/A	< 0.005	N/A
	6/10/2022	0.0042*	< 0.005	N/A
	6/10/2022	N/A	< 0.005	N/A
	9/6/2022	0.00466*	< 0.005	< 0.005
	9/6/2022	0.00429*	N/A	N/A
	4/5/2023	0.00395*	< 0.005	N/A
	4/5/2023	N/A	< 0.005	N/A
	9/8/2023	0.00385*	< 0.005	< 0.005
	9/8/2023	0.00409*	N/A	N/A
	5/15/2024	0.0044*	< 0.005	< 0.005
	5/15/2024	0.00431*	N/A	N/A

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Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Selenium, mg/L (CAS NO - 7782-49-2)	9/18/2024	0.00474*	< 0.005	N/A
	9/18/2024	0.00463*	N/A	N/A
Silver, mg/L (CAS NO - 7440-22-4)	2/1/2008	< 0.02	< 0.02	N/A
	4/29/2008	< 0.02	< 0.02	N/A
	7/8/2008	< 0.02	< 0.02	N/A
	9/16/2008	< 0.02	< 0.02	N/A
	9/16/2008	N/A	< 0.02	N/A
	12/5/2008	< 0.02	< 0.02	< 0.02
	3/14/2009	< 0.02	< 0.02	N/A
	9/18/2009	< 0.02	< 0.02	N/A
	4/12/2010	< 0.02	< 0.02	< 0.02
	4/12/2010	< 0.02	N/A	N/A
	8/10/2010	< 0.02	< 0.02	N/A
	3/24/2011	< 0.02	< 0.02	N/A
	9/23/2011	< 0.02	< 0.02	N/A
	9/23/2011	< 0.02	N/A	N/A
	3/6/2012	< 0.02	< 0.02	< 0.1
	3/6/2012	N/A	< 0.02	N/A
	7/23/2012	< 0.02	< 0.02	N/A
	2/20/2013	< 0.02	< 0.02	N/A
	2/20/2013	N/A	< 0.02	N/A
	7/31/2013	< 0.02	N/A	N/A
	7/31/2013	< 0.02	N/A	N/A
	2/27/2014	< 0.02	< 0.02	N/A
	2/27/2014	N/A	< 0.02	N/A
	10/15/2014	< 0.02	< 0.02	N/A
	10/15/2014	< 0.02	N/A	N/A
	4/21/2015	0.000185	0.000044	N/A
	4/21/2015	N/A	< 0.001	N/A
	9/9/2015	< 0.001	< 0.001	< 0.001
	9/9/2015	< 0.001	N/A	N/A
	3/3/2016	< 0.001	< 0.001	N/A
	3/3/2016	< 0.001	N/A	N/A
	10/24/2016	< 0.001	< 0.001	N/A
	10/24/2016	< 0.001	N/A	N/A
	3/3/2017	< 0.001	0.000169*	N/A
	3/3/2017	< 0.001	N/A	N/A
	9/25/2017	< 0.001	< 0.001	N/A
	9/25/2017	< 0.001	N/A	N/A
	2/27/2018	0.000146*	< 0.001	N/A
	2/27/2018	N/A	0.000151*	N/A
	9/18/2018	< 0.0005	< 0.0005	N/A
	9/18/2018	< 0.0005	N/A	N/A
	4/2/2019	< 0.001	< 0.001	N/A
	4/2/2019	N/A	< 0.001	N/A
	8/22/2019	< 0.001	< 0.001	N/A
	8/22/2019	< 0.001	N/A	N/A
	4/23/2020	< 0.001	< 0.001	N/A
	4/23/2020	N/A	< 0.001	N/A
	10/6/2020	< 0.001	< 0.001	N/A
	10/6/2020	< 0.001	N/A	N/A
	3/29/2021	< 0.001	< 0.001	< 0.001
	3/29/2021	N/A	< 0.001	N/A
	7/22/2021	< 0.001	< 0.001	N/A
	7/22/2021	N/A	< 0.001	N/A
	6/10/2022	< 0.001	< 0.001	N/A
	6/10/2022	N/A	< 0.001	N/A
	9/6/2022	< 0.001	< 0.001	< 0.001
	9/6/2022	< 0.001	N/A	N/A
	4/5/2023	< 0.001	< 0.001	N/A
	4/5/2023	N/A	< 0.001	N/A
	9/8/2023	< 0.001	< 0.001	< 0.001
	9/8/2023	< 0.001	N/A	N/A
	5/15/2024	< 0.001	< 0.001	< 0.001
	5/15/2024	< 0.001	N/A	N/A
	9/18/2024	< 0.001	< 0.001	N/A
	9/18/2024	< 0.001	N/A	N/A

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Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Thallium, mg/L (CAS NO - 7440-28-0)	2/1/2008	< 0.002	< 0.002	N/A
	4/29/2008	< 0.002	< 0.002	N/A
	7/8/2008	< 0.002	0.00231	N/A
	9/16/2008	< 0.002	< 0.002	N/A
	9/16/2008	N/A	< 0.002	N/A
	12/5/2008	< 0.002	< 0.002	< 0.002
	3/14/2009	< 0.002	< 0.002	N/A
	9/18/2009	< 0.002	< 0.002	N/A
	4/12/2010	< 0.002	< 0.002	< 0.002
	4/12/2010	< 0.002	N/A	N/A
	8/10/2010	< 0.002	< 0.002	N/A
	3/24/2011	< 0.002	< 0.002	N/A
	9/23/2011	< 0.002	< 0.002	N/A
	9/23/2011	< 0.002	N/A	N/A
	3/6/2012	< 0.002	< 0.002	< 0.002
	3/6/2012	N/A	< 0.002	N/A
	7/23/2012	< 0.002	< 0.002	N/A
	2/20/2013	< 0.002	< 0.002	N/A
	2/20/2013	N/A	< 0.002	N/A
	7/31/2013	< 0.002	N/A	N/A
	7/31/2013	< 0.002	N/A	N/A
	2/27/2014	< 0.002	< 0.002	N/A
	2/27/2014	N/A	< 0.002	N/A
	10/15/2014	< 0.002	< 0.002	N/A
	10/15/2014	< 0.002	N/A	N/A
	4/21/2015	< 0.001	< 0.001	N/A
	4/21/2015	N/A	< 0.001	N/A
	9/9/2015	< 0.001	< 0.001	0.000038
	9/9/2015	< 0.001	N/A	N/A
	3/3/2016	< 0.001	0.000045*	N/A
	3/3/2016	0.000033*	N/A	N/A
	10/24/2016	0.000027*	0.000049*	N/A
	10/24/2016	0.000038*	N/A	N/A
	3/3/2017	< 0.001	0.000071*	N/A
	3/3/2017	< 0.001	N/A	N/A
	9/25/2017	< 0.001	< 0.001	N/A
	9/25/2017	< 0.001	N/A	N/A
	2/27/2018	< 0.001	< 0.001	N/A
	2/27/2018	N/A	< 0.001	N/A
	9/18/2018	< 0.002	< 0.002	N/A
	9/18/2018	< 0.002	N/A	N/A
	4/2/2019	< 0.001	< 0.001	N/A
	4/2/2019	N/A	< 0.001	N/A
	8/22/2019	< 0.001	< 0.001	N/A
	8/22/2019	< 0.001	N/A	N/A
	4/23/2020	< 0.001	< 0.001	N/A
	4/23/2020	N/A	< 0.001	N/A
	10/6/2020	< 0.001	< 0.001	N/A
	10/6/2020	< 0.001	N/A	N/A
	3/29/2021	< 0.001	< 0.001	< 0.001
	3/29/2021	N/A	< 0.001	N/A
	7/22/2021	< 0.001	< 0.001	N/A
	7/22/2021	N/A	< 0.001	N/A
	6/10/2022	< 0.001	< 0.001	N/A
	6/10/2022	N/A	< 0.001	N/A
	9/6/2022	< 0.001	< 0.001	< 0.001
	9/6/2022	< 0.001	N/A	N/A
	4/5/2023	< 0.001	< 0.001	N/A
	4/5/2023	N/A	< 0.001	N/A
	9/8/2023	< 0.001	< 0.001	< 0.001
	9/8/2023	< 0.001	N/A	N/A
	5/15/2024	< 0.001	< 0.001	< 0.001
	5/15/2024	< 0.001	N/A	N/A
	9/18/2024	< 0.001	< 0.001	N/A
	9/18/2024	< 0.001	N/A	N/A

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Summary of Groundwater Chemistry

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Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Vanadium, mg/L (CAS NO - 7440-62-2)	2/1/2008	< 0.05	0.124	N/A
	4/29/2008	< 0.05	< 0.05	N/A
	7/8/2008	< 0.05	0.558	N/A
	9/16/2008	< 0.05	< 0.05	N/A
	9/16/2008	N/A	0.188	N/A
	12/5/2008	< 0.05	0.0555	< 0.05
	3/14/2009	< 0.05	< 0.05	N/A
	9/18/2009	< 0.05	< 0.05	N/A
	4/12/2010	< 0.05	< 0.05	< 0.05
	4/12/2010	< 0.05	N/A	N/A
	8/10/2010	< 0.05	< 0.05	N/A
	3/24/2011	< 0.05	< 0.05	N/A
	9/23/2011	< 0.05	< 0.05	N/A
	9/23/2011	< 0.05	N/A	N/A
	3/6/2012	0.0565	0.181	< 0.25
	3/6/2012	N/A	0.303	N/A
	4/26/2012	< 0.05	N/A	N/A
	7/23/2012	< 0.05	< 0.05	N/A
	2/20/2013	< 0.05	< 0.05	N/A
	2/20/2013	N/A	0.0528	N/A
	7/31/2013	< 0.05	N/A	N/A
	7/31/2013	< 0.05	N/A	N/A
	2/27/2014	0.00452	0.00664	N/A
	2/27/2014	N/A	0.00773	N/A
	10/15/2014	0.00324	0.00993	N/A
	10/15/2014	0.00302	N/A	N/A
	4/21/2015	0.00136	0.00145	N/A
	4/21/2015	N/A	0.0024	N/A
	9/9/2015	0.00115*	0.00112*	0.00701
	9/9/2015	0.00103*	N/A	N/A
	3/3/2016	0.00077*	0.000483*	N/A
	3/3/2016	0.000675*	N/A	N/A
	10/24/2016	0.000552*	0.000473*	N/A
	10/24/2016	0.000778*	N/A	N/A
	3/3/2017	0.00102*	< 0.005	N/A
	3/3/2017	0.000982*	N/A	N/A
	9/25/2017	0.00085*	< 0.005	N/A
	9/25/2017	< 0.005	N/A	N/A
	2/27/2018	0.000903*	< 0.005	N/A
	2/27/2018	N/A	< 0.005	N/A
	9/18/2018	0.00392*	0.00392*	N/A
	9/18/2018	0.00368*	N/A	N/A
	4/2/2019	0.000925*	< 0.005	N/A
	4/2/2019	N/A	< 0.005	N/A
	8/22/2019	< 0.005	< 0.005	N/A
	8/22/2019	< 0.005	N/A	N/A
	4/23/2020	0.000986*	< 0.005	N/A
	4/23/2020	N/A	< 0.005	N/A
	10/6/2020	0.00116*	0.000928*	N/A
	10/6/2020	0.00113*	N/A	N/A
	3/29/2021	< 0.005	< 0.005	< 0.005
	3/29/2021	N/A	< 0.005	N/A
	7/22/2021	< 0.005	< 0.005	N/A
	7/22/2021	N/A	< 0.005	N/A
	6/10/2022	< 0.005	< 0.005	N/A
	6/10/2022	N/A	< 0.005	N/A
	9/6/2022	< 0.005	< 0.005	< 0.005
	9/6/2022	< 0.005	N/A	N/A
	4/5/2023	0.00146*	0.00135*	N/A
	4/5/2023	N/A	< 0.005	N/A
	9/8/2023	< 0.005	< 0.005	< 0.005
	9/8/2023	< 0.005	N/A	N/A
	5/15/2024	< 0.005	< 0.005	< 0.005
	5/15/2024	< 0.005	N/A	N/A
	9/18/2024	< 0.005	< 0.005	N/A
	9/18/2024	< 0.005	N/A	N/A

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Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Zinc, mg/L (CAS NO - 7440-66-6)	2/1/2008	0.0412	0.115	N/A
	4/29/2008	0.0309	0.0867	N/A
	7/8/2008	0.093	0.516	N/A
	9/16/2008	< 0.02	0.042	N/A
	9/16/2008	N/A	0.154	N/A
	12/5/2008	0.0245	0.0623	< 0.02
	3/14/2009	0.0258	0.069	N/A
	9/18/2009	0.0401	0.0444	N/A
	4/12/2010	< 0.02	0.0683	< 0.02
	4/12/2010	0.925	N/A	N/A
	8/10/2010	< 0.02	0.0217	N/A
	3/24/2011	< 0.02	< 0.02	N/A
	9/23/2011	< 0.02	< 0.02	N/A
	9/23/2011	< 0.02	N/A	N/A
	3/6/2012	0.059	0.422	1.8
	3/6/2012	N/A	0.229	N/A
	7/23/2012	0.0254	0.0275	N/A
	2/20/2013	0.0697	0.122	N/A
	2/20/2013	N/A	0.14	N/A
	7/31/2013	0.00912	N/A	N/A
	7/31/2013	0.0314	N/A	N/A
	2/27/2014	0.00764	0.0346	N/A
	2/27/2014	N/A	0.0175	N/A
	10/15/2014	< 0.02	< 0.02	N/A
	10/15/2014	< 0.02	N/A	N/A
	4/21/2015	< 0.01	0.00832	N/A
	4/21/2015	N/A	< 0.01	N/A
	9/9/2015	< 0.01	< 0.01	0.0403
	9/9/2015	< 0.01	N/A	N/A
	3/3/2016	< 0.01	< 0.01	N/A
	3/3/2016	< 0.01	N/A	N/A
	10/24/2016	< 0.01	< 0.01	N/A
	10/24/2016	< 0.01	N/A	N/A
	3/3/2017	**0.0578**	**0.076**	N/A
	3/3/2017	< 0.2	N/A	N/A
	9/25/2017	< 0.02	< 0.02	N/A
	9/25/2017	< 0.02	N/A	N/A
	2/27/2018	< 0.02	< 0.02	N/A
	2/27/2018	N/A	< 0.02	N/A
	9/18/2018	< 0.02	< 0.02	N/A
	9/18/2018	< 0.02	N/A	N/A
	4/2/2019	< 0.02	< 0.02	N/A
	4/2/2019	N/A	< 0.02	N/A
	8/22/2019	< 0.02	< 0.02	N/A
	8/22/2019	< 0.02	N/A	N/A
	4/23/2020	< 0.02	< 0.02	N/A
	4/23/2020	N/A	< 0.02	N/A
	10/6/2020	< 0.02	< 0.02	N/A
	10/6/2020	< 0.02	N/A	N/A
	3/29/2021	< 0.02	< 0.02	< 0.02
	3/29/2021	N/A	< 0.02	N/A
	7/22/2021	< 0.02	< 0.02	N/A
	7/22/2021	N/A	< 0.02	N/A
	6/10/2022	< 0.02	< 0.02	N/A
	6/10/2022	N/A	< 0.02	N/A
	9/6/2022	< 0.02	< 0.02	< 0.02
	9/6/2022	< 0.02	N/A	N/A
	4/5/2023	< 0.02	< 0.02	N/A
	4/5/2023	N/A	< 0.02	N/A
	9/8/2023	< 0.02	< 0.02	0.0143*
	9/8/2023	< 0.02	N/A	N/A
	5/15/2024	< 0.02	< 0.02	< 0.02
	5/15/2024	< 0.02	N/A	N/A
	9/18/2024	< 0.02	< 0.02	N/A
	9/18/2024	< 0.02	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Total Metals Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Total Suspended Solids, mg/L (CAS NO - TSS)	10/15/2014	76	1330	N/A
	10/15/2014	77.5	N/A	N/A
	3/16/2015	29.3	N/A	N/A
	4/21/2015	23.6	20.5	N/A
	4/21/2015	N/A	168	N/A
	9/9/2015	1.38*	**18.4**	2080
	9/9/2015	**3.13**	N/A	N/A
	3/3/2016	< 1.88	< 1.88	N/A
	3/3/2016	< 1.88	N/A	N/A
	10/24/2016	< 1.88	0.625*	N/A
	10/24/2016	0.75*	N/A	N/A
	3/3/2017	< 1.88	< 1.88	N/A
	3/3/2017	0.875*	N/A	N/A
	9/25/2017	1.25*	1*	N/A
	9/25/2017	1.38*	N/A	N/A
	2/27/2018	1.5*	0.625*	N/A
	2/27/2018	N/A	0.625*	N/A
	9/18/2018	0.75*	1.13*	N/A
	9/18/2018	< 1.88	N/A	N/A
	4/2/2019	< 1.88	< 1.88	N/A
	4/2/2019	N/A	< 1.88	N/A
	8/22/2019	< 1.88	< 1.88	N/A
	8/22/2019	1*	N/A	N/A
	4/23/2020	< 1.88	< 1.88	N/A
	4/23/2020	N/A	< 1.88	N/A
	7/17/2020	< 1.88	N/A	N/A
	10/6/2020	< 1.88	< 1.88	N/A
	10/6/2020	< 1.88	N/A	N/A
	3/29/2021	< 1.88	0.75*	**3.38**
	3/29/2021	N/A	< 1.88	N/A
	7/22/2021	< 1.88	**4.5**	N/A
	7/22/2021	N/A	**5.37**	N/A
	3/10/2022	N/A	**9.33**	N/A
	4/12/2022	N/A	**8.67**	N/A
	6/10/2022	< 1.88	< 1.88	N/A
	6/10/2022	N/A	< 1.88	N/A
	9/6/2022	0.875*	< 1.88	**9.25**
	9/6/2022	< 1.88	N/A	N/A
	4/5/2023	< 1.88	< 1.88	N/A
	4/5/2023	N/A	< 1.88	N/A
	9/8/2023	0.875*	< 1.88	2*
	9/8/2023	< 1.88	N/A	N/A
	5/15/2024	< 1.88	< 1.88	< 1.88
	5/15/2024	< 1.88	N/A	N/A
	9/18/2024	< 1.88	**2.63**	N/A
	9/18/2024	< 1.88	N/A	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,1,1,2-Tetrachloroethane, ug/L (CAS NO - 630-20-6)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.33	< 0.33	N/A
	7/8/2008	< 0.33	< 0.33	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 5	< 5	< 5
	4/12/2010	< 5	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.19	< 0.19	N/A
	7/8/2008	< 0.19	< 0.19	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 4	< 4	< 4
	4/12/2010	< 4	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.23	< 0.23	N/A
	7/8/2008	< 0.23	< 0.23	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 4	< 4	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.37	< 0.37	N/A
	7/8/2008	< 0.37	< 0.37	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.19	< 0.19	N/A
	7/8/2008	< 0.19	< 0.19	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	2/1/2008	< 2	< 2	N/A
	4/29/2008	< 0.37	< 0.37	N/A
	7/8/2008	< 0.37	< 0.37	N/A
	9/16/2008	< 2	< 2	N/A
	9/16/2008	N/A	< 2	N/A
	12/5/2008	< 2	< 2	< 2
	3/14/2009	< 2	< 2	N/A
	9/18/2009	< 2	< 2	N/A
	4/12/2010	< 2	< 2	< 2
	4/12/2010	< 2	N/A	N/A
	8/10/2010	< 2	< 2	N/A
	3/24/2011	< 2	< 2	N/A
	9/23/2011	< 2	< 2	N/A
	9/23/2011	< 2	N/A	N/A
	3/6/2012	< 2	< 2	< 2
	3/6/2012	N/A	< 2	N/A
	7/23/2012	< 2	< 2	N/A
	2/20/2013	< 2	< 2	N/A
	2/20/2013	N/A	< 2	N/A
	7/31/2013	< 2	N/A	N/A
	7/31/2013	< 2	N/A	N/A
	2/27/2014	< 2	< 2	N/A
	2/27/2014	N/A	< 2	N/A
	10/15/2014	< 2	< 2	N/A
	10/15/2014	< 2	N/A	N/A
	4/21/2015	< 2	< 2	N/A
	4/21/2015	N/A	< 2	N/A
	9/9/2015	< 2	< 2	< 2
	9/9/2015	< 2	N/A	N/A
	3/3/2016	< 2	< 2	N/A
	3/3/2016	< 2	N/A	N/A
	10/24/2016	< 2	< 2	N/A
	10/24/2016	< 2	N/A	N/A
	3/3/2017	< 2	< 2	N/A
	3/3/2017	< 2	N/A	N/A
	9/25/2017	< 2	< 2	N/A
	9/25/2017	< 2	N/A	N/A
	2/27/2018	< 2	< 2	N/A
	2/27/2018	N/A	< 2	N/A
	9/18/2018	< 2	< 2	N/A
	9/18/2018	< 2	N/A	N/A
	4/2/2019	< 2	< 2	N/A
	4/2/2019	N/A	< 2	N/A
	8/22/2019	< 2	< 2	N/A
	8/22/2019	< 2	N/A	N/A
	4/23/2020	< 2	< 2	N/A
	4/23/2020	N/A	< 2	N/A
	10/6/2020	< 2	< 2	N/A
	10/6/2020	< 2	N/A	N/A
	3/29/2021	< 2	< 2	< 2
	3/29/2021	N/A	< 2	N/A
	7/22/2021	< 2	< 2	N/A
	7/22/2021	N/A	< 2	N/A
	6/10/2022	< 2	< 2	N/A
	6/10/2022	N/A	< 2	N/A
	9/6/2022	< 2	< 2	< 2
	9/6/2022	< 2	N/A	N/A
	4/5/2023	< 2	< 2	N/A
	4/5/2023	N/A	< 2	N/A
	9/8/2023	< 2	< 2	< 2
	9/8/2023	< 2	N/A	N/A
	5/15/2024	< 2	< 2	< 2
	5/15/2024	< 2	N/A	N/A
	9/18/2024	< 2	< 2	N/A
	9/18/2024	< 2	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.7	< 0.7	N/A
	7/8/2008	< 0.7	< 0.7	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	2/1/2008	< 10	< 10	N/A
	4/29/2008	< 0.86	< 0.86	N/A
	7/8/2008	< 0.86	< 0.86	N/A
	9/16/2008	< 0.86	< 0.86	N/A
	9/16/2008	N/A	< 0.86	N/A
	12/5/2008	< 0.86	< 0.86	< 0.86
	3/14/2009	< 0.86	< 0.86	N/A
	9/18/2009	< 0.498	< 0.498	N/A
	4/12/2010	< 0.498	< 0.498	< 0.498
	4/12/2010	< 0.498	N/A	N/A
	8/10/2010	< 0.498	< 0.498	N/A
	3/24/2011	< 0.12	< 0.12	N/A
	9/23/2011	< 0.12	< 0.12	N/A
	9/23/2011	< 0.12	N/A	N/A
	3/6/2012	< 0.12	< 0.12	< 0.12
	3/6/2012	N/A	< 0.12	N/A
	7/23/2012	< 0.12	< 0.12	N/A
	2/20/2013	< 0.12	< 0.12	N/A
	2/20/2013	N/A	< 0.12	N/A
	7/31/2013	< 0.12	N/A	N/A
	7/31/2013	< 0.12	N/A	N/A
	2/27/2014	< 0.12	< 0.12	N/A
	2/27/2014	N/A	< 0.12	N/A
	10/15/2014	< 0.12	< 0.12	N/A
	10/15/2014	< 0.12	N/A	N/A
	4/21/2015	< 0.5	< 0.5	N/A
	4/21/2015	N/A	< 0.5	N/A
	9/9/2015	< 0.5	< 0.5	< 0.5
	9/9/2015	< 0.5	N/A	N/A
	3/3/2016	< 0.5	< 0.5	N/A
	3/3/2016	< 0.5	N/A	N/A
	10/24/2016	< 0.5	< 0.5	N/A
	10/24/2016	< 0.5	N/A	N/A
	3/3/2017	< 0.5	< 0.5	N/A
	3/3/2017	< 0.5	N/A	N/A
	9/25/2017	< 0.5	< 0.5	N/A
	9/25/2017	< 0.5	N/A	N/A
	2/27/2018	< 0.5	< 0.5	N/A
	2/27/2018	N/A	< 0.5	N/A
	9/18/2018	< 0.5	< 0.5	N/A
	9/18/2018	< 0.5	N/A	N/A
	4/2/2019	< 1.2	< 1.2	N/A
	4/2/2019	N/A	< 1.2	N/A
	8/22/2019	< 1.2	< 1.2	N/A
	8/22/2019	< 1.2	N/A	N/A
	4/23/2020	< 5	< 5	N/A
	4/23/2020	N/A	< 5	N/A
	10/6/2020	< 5	< 5	N/A
	10/6/2020	< 5	N/A	N/A
	3/29/2021	< 1.2	< 1.2	< 1.2
	3/29/2021	N/A	< 1.2	N/A
	7/22/2021	< 5	< 5	N/A
	7/22/2021	N/A	< 5	N/A
	6/10/2022	< 5	< 5	N/A
	6/10/2022	N/A	< 5	N/A
	9/6/2022	< 5	< 5	< 5
	9/6/2022	< 5	N/A	N/A
	4/5/2023	< 5	< 5	N/A
	4/5/2023	N/A	< 5	N/A
	9/8/2023	< 5	< 5	< 5
	9/8/2023	< 5	N/A	N/A
	5/15/2024	< 5	< 5	< 5
	5/15/2024	< 5	N/A	N/A
	9/18/2024	< 5	< 5	N/A
	9/18/2024	< 5	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	2/1/2008	< 10	< 10	N/A
	4/29/2008	< 0.25	< 0.25	N/A
	7/8/2008	< 0.25	< 0.25	N/A
	9/16/2008	< 0.25	< 0.25	N/A
	9/16/2008	N/A	< 0.25	N/A
	12/5/2008	< 0.25	< 0.25	< 0.25
	3/14/2009	< 0.25	< 0.25	N/A
	9/18/2009	< 0.255	< 0.255	N/A
	4/12/2010	< 0.255	< 0.255	< 0.255
	4/12/2010	< 0.255	N/A	N/A
	8/10/2010	< 0.255	< 0.255	N/A
	3/24/2011	< 0.13	< 0.13	N/A
	9/23/2011	< 0.13	< 0.13	N/A
	9/23/2011	< 0.13	N/A	N/A
	3/6/2012	< 0.13	< 0.13	< 0.13
	3/6/2012	N/A	< 0.13	N/A
	7/23/2012	< 0.13	< 0.13	N/A
	2/20/2013	< 0.13	< 0.13	N/A
	2/20/2013	N/A	< 0.13	N/A
	7/31/2013	< 0.13	N/A	N/A
	7/31/2013	< 0.13	N/A	N/A
	2/27/2014	< 0.13	< 0.13	N/A
	2/27/2014	N/A	< 0.13	N/A
	10/15/2014	< 0.13	< 0.13	N/A
	10/15/2014	< 0.13	N/A	N/A
	4/21/2015	< 0.13	< 0.13	N/A
	4/21/2015	N/A	< 0.13	N/A
	9/9/2015	< 0.13	< 0.13	< 0.13
	9/9/2015	< 0.13	N/A	N/A
	3/3/2016	< 0.13	< 0.13	N/A
	3/3/2016	< 0.13	N/A	N/A
	10/24/2016	< 0.13	< 0.13	N/A
	10/24/2016	< 0.13	N/A	N/A
	3/3/2017	< 0.13	< 0.13	N/A
	3/3/2017	< 0.13	N/A	N/A
	9/25/2017	< 0.13	< 0.13	N/A
	9/25/2017	< 0.13	N/A	N/A
	2/27/2018	< 0.13	< 0.13	N/A
	2/27/2018	N/A	< 0.13	N/A
	9/18/2018	< 0.13	< 0.13	N/A
	9/18/2018	< 0.13	N/A	N/A
	4/2/2019	< 0.34	< 0.34	N/A
	4/2/2019	N/A	< 0.34	N/A
	8/22/2019	< 0.34	< 0.34	N/A
	8/22/2019	< 0.34	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 0.34	< 0.34	< 0.34
	3/29/2021	N/A	< 0.34	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.21	< 0.21	N/A
	7/8/2008	< 0.21	< 0.21	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.2	< 0.2	N/A
	7/8/2008	< 0.2	< 0.2	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	0.191*	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.4	< 0.4	N/A
	7/8/2008	< 0.4	< 0.4	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.16	< 0.16	N/A
	7/8/2008	< 0.16	< 0.16	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 4	< 4	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
2-Butanone, ug/L (CAS NO - 78-93-3)	2/1/2008	< 10	< 10	N/A
	4/29/2008	< 0.91	< 0.91	N/A
	7/8/2008	< 0.91	< 0.91	N/A
	9/16/2008	< 10	< 10	N/A
	9/16/2008	N/A	< 10	N/A
	12/5/2008	< 10	< 10	< 10
	3/14/2009	< 10	< 10	N/A
	9/18/2009	< 10	< 10	N/A
	4/12/2010	< 10	< 10	< 10
	4/12/2010	< 10	N/A	N/A
	8/10/2010	< 10	< 10	N/A
	3/24/2011	< 10	< 10	N/A
	9/23/2011	< 10	< 10	N/A
	9/23/2011	< 10	N/A	N/A
	3/6/2012	< 10	< 10	< 10
	3/6/2012	N/A	< 10	N/A
	7/23/2012	< 10	< 10	N/A
	2/20/2013	< 10	< 10	N/A
	2/20/2013	N/A	< 10	N/A
	7/31/2013	< 10	N/A	N/A
	7/31/2013	< 10	N/A	N/A
	2/27/2014	< 10	< 10	N/A
	2/27/2014	N/A	< 10	N/A
	10/15/2014	< 10	< 10	N/A
	10/15/2014	< 10	N/A	N/A
	4/21/2015	< 10	< 10	N/A
	4/21/2015	N/A	< 10	N/A
	9/9/2015	< 10	< 10	< 10
	9/9/2015	< 10	N/A	N/A
	3/3/2016	< 10	< 10	N/A
	3/3/2016	< 10	N/A	N/A
	10/24/2016	< 10	< 10	N/A
	10/24/2016	< 10	N/A	N/A
	3/3/2017	< 10	< 10	N/A
	3/3/2017	< 10	N/A	N/A
	9/25/2017	1.11*	1.45*	N/A
	9/25/2017	< 10	N/A	N/A
	2/27/2018	< 10	< 10	N/A
	2/27/2018	N/A	< 10	N/A
	9/18/2018	< 10	< 10	N/A
	9/18/2018	< 10	N/A	N/A
	4/2/2019	< 10	< 10	N/A
	4/2/2019	N/A	< 10	N/A
	8/22/2019	< 10	< 10	N/A
	8/22/2019	< 10	N/A	N/A
	4/23/2020	< 10	< 10	N/A
	4/23/2020	N/A	< 10	N/A
	10/6/2020	< 10	< 10	N/A
	10/6/2020	< 10	N/A	N/A
	3/29/2021	< 10	< 10	< 10
	3/29/2021	N/A	< 10	N/A
	7/22/2021	< 10	< 10	N/A
	7/22/2021	N/A	< 10	N/A
	6/10/2022	< 10	< 10	N/A
	6/10/2022	N/A	< 10	N/A
	9/6/2022	< 10	< 10	< 10
	9/6/2022	< 10	N/A	N/A
	4/5/2023	< 10	< 10	N/A
	4/5/2023	N/A	< 10	N/A
	9/8/2023	< 10	< 10	< 10
	9/8/2023	< 10	N/A	N/A
	5/15/2024	< 10	< 10	< 10
	5/15/2024	< 10	N/A	N/A
	9/18/2024	< 10	< 10	N/A
	9/18/2024	< 10	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
2-Hexanone, ug/L (CAS NO - 591-78-6)	2/1/2008	< 10	< 10	N/A
	4/29/2008	< 1.76	< 1.76	N/A
	7/8/2008	< 1.76	< 1.76	N/A
	9/16/2008	< 10	< 10	N/A
	9/16/2008	N/A	< 10	N/A
	12/5/2008	< 10	< 10	< 10
	3/14/2009	< 10	< 10	N/A
	9/18/2009	< 10	< 10	N/A
	4/12/2010	< 10	< 10	< 10
	4/12/2010	< 10	N/A	N/A
	8/10/2010	< 10	< 10	N/A
	3/24/2011	< 10	< 10	N/A
	9/23/2011	< 10	< 10	N/A
	9/23/2011	< 10	N/A	N/A
	3/6/2012	< 10	< 10	< 10
	3/6/2012	N/A	< 10	N/A
	7/23/2012	< 10	< 10	N/A
	2/20/2013	< 10	< 10	N/A
	2/20/2013	N/A	< 10	N/A
	7/31/2013	< 10	N/A	N/A
	7/31/2013	< 10	N/A	N/A
	2/27/2014	< 10	< 10	N/A
	2/27/2014	N/A	< 10	N/A
	10/15/2014	< 10	< 10	N/A
	10/15/2014	< 10	N/A	N/A
	4/21/2015	< 10	< 10	N/A
	4/21/2015	N/A	< 10	N/A
	9/9/2015	< 10	< 10	< 10
	9/9/2015	< 10	N/A	N/A
	3/3/2016	< 10	< 10	N/A
	3/3/2016	< 10	N/A	N/A
	10/24/2016	< 10	< 10	N/A
	10/24/2016	< 10	N/A	N/A
	3/3/2017	< 10	< 10	N/A
	3/3/2017	< 10	N/A	N/A
	9/25/2017	< 10	< 10	N/A
	9/25/2017	< 10	N/A	N/A
	2/27/2018	< 10	< 10	N/A
	2/27/2018	N/A	< 10	N/A
	9/18/2018	< 10	< 10	N/A
	9/18/2018	< 10	N/A	N/A
	4/2/2019	< 10	< 10	N/A
	4/2/2019	N/A	< 10	N/A
	8/22/2019	< 10	< 10	N/A
	8/22/2019	< 10	N/A	N/A
	4/23/2020	< 10	< 10	N/A
	4/23/2020	N/A	< 10	N/A
	10/6/2020	< 10	< 10	N/A
	10/6/2020	< 10	N/A	N/A
	3/29/2021	< 10	< 10	< 10
	3/29/2021	N/A	< 10	N/A
	7/22/2021	< 10	< 10	N/A
	7/22/2021	N/A	< 10	N/A
	6/10/2022	< 10	< 10	N/A
	6/10/2022	N/A	< 10	N/A
	9/6/2022	< 10	< 10	< 10
	9/6/2022	< 10	N/A	N/A
	4/5/2023	< 10	< 10	N/A
	4/5/2023	N/A	< 10	N/A
	9/8/2023	< 10	< 10	< 10
	9/8/2023	< 10	N/A	N/A
	5/15/2024	< 10	< 10	< 10
	5/15/2024	< 10	N/A	N/A
	9/18/2024	< 10	< 10	N/A
	9/18/2024	< 10	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	2/1/2008	< 10	< 10	N/A
	4/29/2008	< 0.31	< 0.31	N/A
	7/8/2008	< 0.31	< 0.31	N/A
	9/16/2008	< 10	< 10	N/A
	9/16/2008	N/A	< 10	N/A
	12/5/2008	< 10	< 10	< 10
	3/14/2009	< 10	< 10	N/A
	9/18/2009	< 10	< 10	N/A
	4/12/2010	< 10	< 10	< 10
	4/12/2010	< 10	N/A	N/A
	8/10/2010	< 10	< 10	N/A
	3/24/2011	< 10	< 10	N/A
	9/23/2011	< 10	< 10	N/A
	9/23/2011	< 10	N/A	N/A
	3/6/2012	< 10	< 10	< 10
	3/6/2012	N/A	< 10	N/A
	7/23/2012	< 10	< 10	N/A
	2/20/2013	< 10	< 10	N/A
	2/20/2013	N/A	< 10	N/A
	7/31/2013	< 10	N/A	N/A
	7/31/2013	< 10	N/A	N/A
	2/27/2014	< 10	< 10	N/A
	2/27/2014	N/A	< 10	N/A
	10/15/2014	< 10	< 10	N/A
	10/15/2014	< 10	N/A	N/A
	4/21/2015	< 10	< 10	N/A
	4/21/2015	N/A	< 10	N/A
	9/9/2015	< 10	< 10	< 10
	9/9/2015	< 10	N/A	N/A
	3/3/2016	< 10	< 10	N/A
	3/3/2016	< 10	N/A	N/A
	10/24/2016	< 10	< 10	N/A
	10/24/2016	< 10	N/A	N/A
	3/3/2017	< 10	< 10	N/A
	3/3/2017	< 10	N/A	N/A
	9/25/2017	< 10	< 10	N/A
	9/25/2017	< 10	N/A	N/A
	2/27/2018	< 10	< 10	N/A
	2/27/2018	N/A	< 10	N/A
	9/18/2018	< 10	< 10	N/A
	9/18/2018	< 10	N/A	N/A
	4/2/2019	< 10	< 10	N/A
	4/2/2019	N/A	< 10	N/A
	8/22/2019	< 10	< 10	N/A
	8/22/2019	< 10	N/A	N/A
	4/23/2020	< 10	< 10	N/A
	4/23/2020	N/A	< 10	N/A
	10/6/2020	< 10	< 10	N/A
	10/6/2020	< 10	N/A	N/A
	3/29/2021	< 10	< 10	< 10
	3/29/2021	N/A	< 10	N/A
	7/22/2021	< 10	< 10	N/A
	7/22/2021	N/A	< 10	N/A
	6/10/2022	< 10	< 10	N/A
	6/10/2022	N/A	< 10	N/A
	9/6/2022	< 10	< 10	< 10
	9/6/2022	< 10	N/A	N/A
	4/5/2023	< 10	< 10	N/A
	4/5/2023	N/A	< 10	N/A
	9/8/2023	< 10	< 10	< 10
	9/8/2023	< 10	N/A	N/A
	5/15/2024	< 10	< 10	< 10
	5/15/2024	< 10	N/A	N/A
	9/18/2024	< 10	< 10	N/A
	9/18/2024	< 10	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Acetone, ug/L (CAS NO - 67-64-1)	2/1/2008	< 10	< 10	N/A
	4/29/2008	< 4.62	< 4.62	N/A
	7/8/2008	< 4.62	< 4.62	N/A
	9/16/2008	< 10	< 10	N/A
	9/16/2008	N/A	< 10	N/A
	12/5/2008	< 10	< 10	**25.2**
	3/14/2009	< 10	< 10	N/A
	9/18/2009	< 10	< 10	N/A
	4/12/2010	< 10	< 10	< 10
	4/12/2010	< 10	N/A	N/A
	8/10/2010	< 10	< 10	N/A
	3/24/2011	< 10	< 10	N/A
	9/23/2011	< 10	< 10	N/A
	9/23/2011	< 10	N/A	N/A
	3/6/2012	< 10	< 10	< 10
	3/6/2012	N/A	< 10	N/A
	7/23/2012	< 10	< 10	N/A
	2/20/2013	< 10	< 10	N/A
	2/20/2013	N/A	< 10	N/A
	7/31/2013	< 10	N/A	N/A
	7/31/2013	< 10	N/A	N/A
	2/27/2014	< 10	< 10	N/A
	2/27/2014	N/A	< 10	N/A
	10/15/2014	< 10	< 10	N/A
	10/15/2014	< 10	N/A	N/A
	4/21/2015	< 10	< 10	N/A
	4/21/2015	N/A	< 10	N/A
	9/9/2015	< 10	< 10	< 10
	9/9/2015	< 10	N/A	N/A
	3/3/2016	2.73*	< 10	N/A
	3/3/2016	3.58*	N/A	N/A
	10/24/2016	< 10	< 10	N/A
	10/24/2016	< 10	N/A	N/A
	3/3/2017	2.45*	2.47*	N/A
	3/3/2017	< 10	N/A	N/A
	9/25/2017	2.17*	2.66*	N/A
	9/25/2017	< 10	N/A	N/A
	2/27/2018	< 10	< 10	N/A
	2/27/2018	N/A	< 10	N/A
	9/18/2018	< 10	< 10	N/A
	9/18/2018	< 10	N/A	N/A
	4/2/2019	< 10	< 10	N/A
	4/2/2019	N/A	< 10	N/A
	8/22/2019	< 10	< 10	N/A
	8/22/2019	< 10	N/A	N/A
	4/23/2020	< 10	< 10	N/A
	4/23/2020	N/A	< 10	N/A
	10/6/2020	< 10	< 10	N/A
	10/6/2020	< 10	N/A	N/A
	3/29/2021	< 10	< 10	< 10
	3/29/2021	N/A	< 10	N/A
	7/22/2021	< 10	< 10	N/A
	7/22/2021	N/A	< 10	N/A
	6/10/2022	< 10	< 10	N/A
	6/10/2022	N/A	< 10	N/A
	9/6/2022	< 10	< 10	< 10
	9/6/2022	< 10	N/A	N/A
	4/5/2023	< 10	< 10	N/A
	4/5/2023	N/A	< 10	N/A
	9/8/2023	< 10	< 10	3.82*
	9/8/2023	< 10	N/A	N/A
	5/15/2024	< 10	< 10	< 10
	5/15/2024	< 10	N/A	N/A
	9/18/2024	< 10	< 10	N/A
	9/18/2024	< 10	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Acrylonitrile, ug/L (CAS NO - 107-13-1)	2/1/2008	< 10	< 10	N/A
	4/29/2008	< 1.28	< 1.28	N/A
	7/8/2008	< 1.28	< 1.28	N/A
	9/16/2008	< 10	< 10	N/A
	9/16/2008	N/A	< 10	N/A
	12/5/2008	< 10	< 10	< 10
	3/14/2009	< 10	< 10	N/A
	9/18/2009	< 10	< 10	N/A
	4/12/2010	< 10	< 10	< 10
	4/12/2010	< 10	N/A	N/A
	8/10/2010	< 10	< 10	N/A
	3/24/2011	< 10	< 10	N/A
	9/23/2011	< 10	< 10	N/A
	9/23/2011	< 10	N/A	N/A
	3/6/2012	< 10	< 10	< 10
	3/6/2012	N/A	< 10	N/A
	7/23/2012	< 10	< 10	N/A
	2/20/2013	< 10	< 10	N/A
	2/20/2013	N/A	< 10	N/A
	7/31/2013	< 10	N/A	N/A
	7/31/2013	< 10	N/A	N/A
	2/27/2014	< 10	< 10	N/A
	2/27/2014	N/A	< 10	N/A
	10/15/2014	< 10	< 10	N/A
	10/15/2014	< 10	N/A	N/A
	4/21/2015	< 10	< 10	N/A
	4/21/2015	N/A	< 10	N/A
	9/9/2015	< 10	< 10	< 10
	9/9/2015	< 10	N/A	N/A
	3/3/2016	< 10	< 10	N/A
	3/3/2016	< 10	N/A	N/A
	10/24/2016	< 10	< 10	N/A
	10/24/2016	< 10	N/A	N/A
	3/3/2017	< 10	< 10	N/A
	3/3/2017	< 10	N/A	N/A
	9/25/2017	< 10	< 10	N/A
	9/25/2017	< 10	N/A	N/A
	2/27/2018	< 10	< 10	N/A
	2/27/2018	N/A	< 10	N/A
	9/18/2018	< 10	< 10	N/A
	9/18/2018	< 10	N/A	N/A
	4/2/2019	< 10	< 10	N/A
	4/2/2019	N/A	< 10	N/A
	8/22/2019	< 10	< 10	N/A
	8/22/2019	< 10	N/A	N/A
	4/23/2020	< 5	< 5	N/A
	4/23/2020	N/A	< 5	N/A
	10/6/2020	< 5	< 5	N/A
	10/6/2020	< 5	N/A	N/A
	3/29/2021	< 5	< 5	< 5
	3/29/2021	N/A	< 5	N/A
	7/22/2021	< 5	< 5	N/A
	7/22/2021	N/A	< 5	N/A
	6/10/2022	< 5	< 5	N/A
	6/10/2022	N/A	< 5	N/A
	9/6/2022	< 5	< 5	< 5
	9/6/2022	< 5	N/A	N/A
	4/5/2023	< 5	< 5	N/A
	4/5/2023	N/A	< 5	N/A
	9/8/2023	< 5	< 5	< 5
	9/8/2023	< 5	N/A	N/A
	5/15/2024	< 5	< 5	< 5
	5/15/2024	< 5	N/A	N/A
	9/18/2024	< 5	< 5	N/A
	9/18/2024	< 5	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Benzene, ug/L (CAS NO - 71-43-2)	2/1/2008	< 0.5	< 0.5	N/A
	4/29/2008	< 0.16	< 0.16	N/A
	7/8/2008	< 0.16	< 0.16	N/A
	9/16/2008	< 0.5	< 0.5	N/A
	9/16/2008	N/A	< 0.5	N/A
	12/5/2008	< 0.5	< 0.5	< 0.5
	3/14/2009	< 0.5	< 0.5	N/A
	9/18/2009	< 0.5	< 0.5	N/A
	4/12/2010	< 0.5	< 0.5	< 0.5
	4/12/2010	< 0.5	N/A	N/A
	8/10/2010	< 0.5	< 0.5	N/A
	3/24/2011	< 0.5	< 0.5	N/A
	9/23/2011	< 0.5	< 0.5	N/A
	9/23/2011	< 0.5	N/A	N/A
	3/6/2012	< 0.5	< 0.5	< 0.5
	3/6/2012	N/A	< 0.5	N/A
	7/23/2012	< 0.5	< 0.5	N/A
	2/20/2013	< 0.5	< 0.5	N/A
	2/20/2013	N/A	< 0.5	N/A
	7/31/2013	< 0.5	N/A	N/A
	7/31/2013	< 0.5	N/A	N/A
	2/27/2014	< 0.5	< 0.5	N/A
	2/27/2014	N/A	< 0.5	N/A
	10/15/2014	< 0.5	< 0.5	N/A
	10/15/2014	< 0.5	N/A	N/A
	4/21/2015	< 0.5	< 0.5	N/A
	4/21/2015	N/A	< 0.5	N/A
	9/9/2015	< 0.5	< 0.5	< 0.5
	9/9/2015	< 0.5	N/A	N/A
	3/3/2016	< 0.5	< 0.5	N/A
	3/3/2016	< 0.5	N/A	N/A
	10/24/2016	< 0.5	< 0.5	N/A
	10/24/2016	< 0.5	N/A	N/A
	3/3/2017	< 0.5	< 0.5	N/A
	3/3/2017	< 0.5	N/A	N/A
	9/25/2017	< 0.5	< 0.5	N/A
	9/25/2017	< 0.5	N/A	N/A
	2/27/2018	< 0.5	< 0.5	N/A
	2/27/2018	N/A	< 0.5	N/A
	9/18/2018	< 0.5	< 0.5	N/A
	9/18/2018	< 0.5	N/A	N/A
	4/2/2019	< 0.5	< 0.5	N/A
	4/2/2019	N/A	< 0.5	N/A
	8/22/2019	< 0.5	< 0.5	N/A
	8/22/2019	< 0.5	N/A	N/A
	4/23/2020	< 0.5	< 0.5	N/A
	4/23/2020	N/A	< 0.5	N/A
	10/6/2020	< 0.5	< 0.5	N/A
	10/6/2020	< 0.5	N/A	N/A
	3/29/2021	< 0.5	< 0.5	< 0.5
	3/29/2021	N/A	< 0.5	N/A
	7/22/2021	< 0.5	< 0.5	N/A
	7/22/2021	N/A	< 0.5	N/A
	6/10/2022	< 0.5	< 0.5	N/A
	6/10/2022	N/A	< 0.5	N/A
	9/6/2022	< 0.5	< 0.5	< 0.5
	9/6/2022	< 0.5	N/A	N/A
	4/5/2023	< 0.5	< 0.5	N/A
	4/5/2023	N/A	< 0.5	N/A
	9/8/2023	< 0.5	< 0.5	0.278*
	9/8/2023	< 0.5	N/A	N/A
	5/15/2024	< 0.5	< 0.5	< 0.5
	5/15/2024	< 0.5	N/A	N/A
	9/18/2024	< 0.5	< 0.5	N/A
	9/18/2024	< 0.5	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Bromochloromethane, ug/L (CAS NO - 74-97-5)	2/1/2008	< 5	< 5	N/A
	4/29/2008	< 0.76	< 0.76	N/A
	7/8/2008	< 0.76	< 0.76	N/A
	9/16/2008	< 5	< 5	N/A
	9/16/2008	N/A	< 5	N/A
	12/5/2008	< 5	< 5	< 5
	3/14/2009	< 5	< 5	N/A
	9/18/2009	< 5	< 5	N/A
	4/12/2010	< 5	< 5	< 5
	4/12/2010	< 5	N/A	N/A
	8/10/2010	< 5	< 5	N/A
	3/24/2011	< 5	< 5	N/A
	9/23/2011	< 5	< 5	N/A
	9/23/2011	< 5	N/A	N/A
	3/6/2012	< 5	< 5	< 5
	3/6/2012	N/A	< 5	N/A
	7/23/2012	< 5	< 5	N/A
	2/20/2013	< 5	< 5	N/A
	2/20/2013	N/A	< 5	N/A
	7/31/2013	< 5	N/A	N/A
	7/31/2013	< 5	N/A	N/A
	2/27/2014	< 5	< 5	N/A
	2/27/2014	N/A	< 5	N/A
	10/15/2014	< 5	< 5	N/A
	10/15/2014	< 5	N/A	N/A
	4/21/2015	< 5	< 5	N/A
	4/21/2015	N/A	< 5	N/A
	9/9/2015	< 5	< 5	< 5
	9/9/2015	< 5	N/A	N/A
	3/3/2016	< 5	< 5	N/A
	3/3/2016	< 5	N/A	N/A
	10/24/2016	< 5	< 5	N/A
	10/24/2016	< 5	N/A	N/A
	3/3/2017	< 5	< 5	N/A
	3/3/2017	< 5	N/A	N/A
	9/25/2017	< 5	< 5	N/A
	9/25/2017	< 5	N/A	N/A
	2/27/2018	< 5	< 5	N/A
	2/27/2018	N/A	< 5	N/A
	9/18/2018	< 5	< 5	N/A
	9/18/2018	< 5	N/A	N/A
	4/2/2019	< 5	< 5	N/A
	4/2/2019	N/A	< 5	N/A
	8/22/2019	< 5	< 5	N/A
	8/22/2019	< 5	N/A	N/A
	4/23/2020	< 5	< 5	N/A
	4/23/2020	N/A	< 5	N/A
	10/6/2020	< 5	< 5	N/A
	10/6/2020	< 5	N/A	N/A
	3/29/2021	< 5	< 5	< 5
	3/29/2021	N/A	< 5	N/A
	7/22/2021	< 5	< 5	N/A
	7/22/2021	N/A	< 5	N/A
	6/10/2022	< 5	< 5	N/A
	6/10/2022	N/A	< 5	N/A
	9/6/2022	< 5	< 5	< 5
	9/6/2022	< 5	N/A	N/A
	4/5/2023	< 5	< 5	N/A
	4/5/2023	N/A	< 5	N/A
	9/8/2023	< 5	< 5	< 5
	9/8/2023	< 5	N/A	N/A
	5/15/2024	< 5	< 5	< 5
	5/15/2024	< 5	N/A	N/A
	9/18/2024	< 5	< 5	N/A
	9/18/2024	< 5	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.2	< 0.2	N/A
	7/8/2008	< 0.2	< 0.2	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 10	< 10	< 10
	4/12/2010	< 10	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Bromoform, ug/L (CAS NO - 75-25-2)	2/1/2008	< 5	< 5	N/A
	4/29/2008	< 0.43	< 0.43	N/A
	7/8/2008	< 0.43	< 0.43	N/A
	9/16/2008	< 5	< 5	N/A
	9/16/2008	N/A	< 5	N/A
	12/5/2008	< 5	< 5	< 5
	3/14/2009	< 5	< 5	N/A
	9/18/2009	< 5	< 5	N/A
	4/12/2010	< 50	< 50	< 50
	4/12/2010	< 50	N/A	N/A
	8/10/2010	< 5	< 5	N/A
	3/24/2011	< 5	< 5	N/A
	9/23/2011	< 5	< 5	N/A
	9/23/2011	< 5	N/A	N/A
	3/6/2012	< 5	< 5	< 5
	3/6/2012	N/A	< 5	N/A
	7/23/2012	< 5	< 5	N/A
	2/20/2013	< 5	< 5	N/A
	2/20/2013	N/A	< 5	N/A
	7/31/2013	< 5	N/A	N/A
	7/31/2013	< 5	N/A	N/A
	2/27/2014	< 5	< 5	N/A
	2/27/2014	N/A	< 5	N/A
	10/15/2014	< 5	< 5	N/A
	10/15/2014	< 5	N/A	N/A
	4/21/2015	< 5	< 5	N/A
	4/21/2015	N/A	< 5	N/A
	9/9/2015	< 5	< 5	< 5
	9/9/2015	< 5	N/A	N/A
	3/3/2016	< 5	< 5	N/A
	3/3/2016	< 5	N/A	N/A
	10/24/2016	< 5	< 5	N/A
	10/24/2016	< 5	N/A	N/A
	3/3/2017	< 5	< 5	N/A
	3/3/2017	< 5	N/A	N/A
	9/25/2017	< 5	< 5	N/A
	9/25/2017	< 5	N/A	N/A
	2/27/2018	< 5	< 5	N/A
	2/27/2018	N/A	< 5	N/A
	9/18/2018	< 5	< 5	N/A
	9/18/2018	< 5	N/A	N/A
	4/2/2019	< 5	< 5	N/A
	4/2/2019	N/A	< 5	N/A
	8/22/2019	< 5	< 5	N/A
	8/22/2019	< 5	N/A	N/A
	4/23/2020	< 5	< 5	N/A
	4/23/2020	N/A	< 5	N/A
	10/6/2020	< 5	< 5	N/A
	10/6/2020	< 5	N/A	N/A
	3/29/2021	< 5	< 5	< 5
	3/29/2021	N/A	< 5	N/A
	7/22/2021	< 5	< 5	N/A
	7/22/2021	N/A	< 5	N/A
	6/10/2022	< 5	< 5	N/A
	6/10/2022	N/A	< 5	N/A
	9/6/2022	< 5	< 5	< 5
	9/6/2022	< 5	N/A	N/A
	4/5/2023	< 5	< 5	N/A
	4/5/2023	N/A	< 5	N/A
	9/8/2023	< 5	< 5	< 5
	9/8/2023	< 5	N/A	N/A
	5/15/2024	< 5	< 5	< 5
	5/15/2024	< 5	N/A	N/A
	9/18/2024	< 5	< 5	N/A
	9/18/2024	< 5	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Bromomethane, ug/L (CAS NO - 74-83-9)	2/1/2008	< 4	< 4	N/A
	4/29/2008	< 0.48	< 0.48	N/A
	7/8/2008	< 0.48	< 0.48	N/A
	9/16/2008	< 4	< 4	N/A
	9/16/2008	N/A	< 4	N/A
	12/5/2008	< 4	< 4	< 4
	3/14/2009	< 4	< 4	N/A
	9/18/2009	< 4	< 4	N/A
	4/12/2010	< 4	< 4	< 4
	4/12/2010	< 4	N/A	N/A
	8/10/2010	< 4	< 4	N/A
	3/24/2011	< 4	< 4	N/A
	9/23/2011	< 4	< 4	N/A
	9/23/2011	< 4	N/A	N/A
	3/6/2012	< 4	< 4	< 4
	3/6/2012	N/A	< 4	N/A
	7/23/2012	< 4	< 4	N/A
	2/20/2013	< 4	< 4	N/A
	2/20/2013	N/A	< 4	N/A
	7/31/2013	< 4	N/A	N/A
	7/31/2013	< 4	N/A	N/A
	2/27/2014	< 4	< 4	N/A
	2/27/2014	N/A	< 4	N/A
	10/15/2014	< 4	< 4	N/A
	10/15/2014	< 4	N/A	N/A
	4/21/2015	< 4	< 4	N/A
	4/21/2015	N/A	< 4	N/A
	9/9/2015	< 4	< 4	< 4
	9/9/2015	< 4	N/A	N/A
	3/3/2016	< 4	< 4	N/A
	3/3/2016	< 4	N/A	N/A
	10/24/2016	< 4	< 4	N/A
	10/24/2016	< 4	N/A	N/A
	3/3/2017	< 4	< 4	N/A
	3/3/2017	0.285*	N/A	N/A
	9/25/2017	0.479*	< 4	N/A
	9/25/2017	0.312*	N/A	N/A
	2/27/2018	< 4	< 4	N/A
	2/27/2018	N/A	< 4	N/A
	9/18/2018	< 4	< 4	N/A
	9/18/2018	< 4	N/A	N/A
	4/2/2019	< 4	< 4	N/A
	4/2/2019	N/A	< 4	N/A
	8/22/2019	< 4	< 4	N/A
	8/22/2019	< 4	N/A	N/A
	4/23/2020	< 4	< 4	N/A
	4/23/2020	N/A	< 4	N/A
	10/6/2020	< 4	< 4	N/A
	10/6/2020	< 4	N/A	N/A
	3/29/2021	< 4	< 4	< 4
	3/29/2021	N/A	< 4	N/A
	7/22/2021	< 4	< 4	N/A
	7/22/2021	N/A	< 4	N/A
	6/10/2022	< 4	< 4	N/A
	6/10/2022	N/A	< 4	N/A
	9/6/2022	< 4	< 4	< 4
	9/6/2022	< 4	N/A	N/A
	4/5/2023	< 4	< 4	N/A
	4/5/2023	N/A	< 4	N/A
	9/8/2023	< 4	< 4	< 4
	9/8/2023	< 4	N/A	N/A
	5/15/2024	< 4	< 4	< 4
	5/15/2024	< 4	N/A	N/A
	9/18/2024	< 4	< 4	N/A
	9/18/2024	< 4	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.18	< 0.18	N/A
	7/8/2008	< 0.18	< 0.18	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 4	< 4	N/A
	3/24/2011	< 4	< 4	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	0.196*	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	2/1/2008	< 2	< 2	N/A
	4/29/2008	< 0.31	< 0.31	N/A
	7/8/2008	< 0.31	< 0.31	N/A
	9/16/2008	< 2	< 2	N/A
	9/16/2008	N/A	< 2	N/A
	12/5/2008	< 2	< 2	< 2
	3/14/2009	< 2	< 2	N/A
	9/18/2009	< 2	< 2	N/A
	4/12/2010	< 4	< 4	< 4
	4/12/2010	< 4	N/A	N/A
	8/10/2010	< 5	< 5	N/A
	3/24/2011	< 4	< 4	N/A
	9/23/2011	< 4	< 4	N/A
	9/23/2011	< 4	N/A	N/A
	3/6/2012	< 2	< 2	< 2
	3/6/2012	N/A	< 2	N/A
	7/23/2012	< 2	< 2	N/A
	2/20/2013	< 2	< 2	N/A
	2/20/2013	N/A	< 2	N/A
	7/31/2013	< 2	N/A	N/A
	7/31/2013	< 2	N/A	N/A
	2/27/2014	< 2	< 2	N/A
	2/27/2014	N/A	< 2	N/A
	10/15/2014	< 2	< 2	N/A
	10/15/2014	< 2	N/A	N/A
	4/21/2015	< 2	< 2	N/A
	4/21/2015	N/A	< 2	N/A
	9/9/2015	< 2	< 2	< 2
	9/9/2015	< 2	N/A	N/A
	3/3/2016	< 2	< 2	N/A
	3/3/2016	< 2	N/A	N/A
	10/24/2016	< 2	< 2	N/A
	10/24/2016	< 2	N/A	N/A
	3/3/2017	< 2	< 2	N/A
	3/3/2017	< 2	N/A	N/A
	9/25/2017	< 2	< 2	N/A
	9/25/2017	< 2	N/A	N/A
	2/27/2018	< 2	< 2	N/A
	2/27/2018	N/A	< 2	N/A
	9/18/2018	< 2	< 2	N/A
	9/18/2018	< 2	N/A	N/A
	4/2/2019	< 2	< 2	N/A
	4/2/2019	N/A	< 2	N/A
	8/22/2019	< 2	< 2	N/A
	8/22/2019	< 2	N/A	N/A
	4/23/2020	< 2	< 2	N/A
	4/23/2020	N/A	< 2	N/A
	10/6/2020	< 2	< 2	N/A
	10/6/2020	< 2	N/A	N/A
	3/29/2021	< 2	< 2	< 2
	3/29/2021	N/A	< 2	N/A
	7/22/2021	< 2	< 2	N/A
	7/22/2021	N/A	< 2	N/A
	6/10/2022	< 2	< 2	N/A
	6/10/2022	N/A	< 2	N/A
	9/6/2022	< 2	< 2	< 2
	9/6/2022	< 2	N/A	N/A
	4/5/2023	< 2	< 2	N/A
	4/5/2023	N/A	< 2	N/A
	9/8/2023	< 2	< 2	< 2
	9/8/2023	< 2	N/A	N/A
	5/15/2024	< 2	< 2	< 2
	5/15/2024	< 2	N/A	N/A
	9/18/2024	< 2	< 2	N/A
	9/18/2024	< 2	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Chlorobenzene, ug/L (CAS NO - 108-90-7)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.17	< 0.17	N/A
	7/8/2008	< 0.17	< 0.17	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	0.429*
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	2/1/2008	< 5	< 5	N/A
	4/29/2008	< 0.26	< 0.26	N/A
	7/8/2008	< 0.26	< 0.26	N/A
	9/16/2008	< 5	< 5	N/A
	9/16/2008	N/A	< 5	N/A
	12/5/2008	< 5	< 5	< 5
	3/14/2009	< 5	< 5	N/A
	9/18/2009	< 5	< 5	N/A
	4/12/2010	< 20	< 20	< 20
	4/12/2010	< 20	N/A	N/A
	8/10/2010	< 10	< 10	N/A
	3/24/2011	< 5	< 5	N/A
	9/23/2011	< 5	< 5	N/A
	9/23/2011	< 5	N/A	N/A
	3/6/2012	< 5	< 5	< 5
	3/6/2012	N/A	< 5	N/A
	7/23/2012	< 5	< 5	N/A
	2/20/2013	< 5	< 5	N/A
	2/20/2013	N/A	< 5	N/A
	7/31/2013	< 5	N/A	N/A
	7/31/2013	< 5	N/A	N/A
	2/27/2014	< 5	< 5	N/A
	2/27/2014	N/A	< 5	N/A
	10/15/2014	< 5	< 5	N/A
	10/15/2014	< 5	N/A	N/A
	4/21/2015	< 5	< 5	N/A
	4/21/2015	N/A	< 5	N/A
	9/9/2015	< 5	< 5	< 5
	9/9/2015	< 5	N/A	N/A
	3/3/2016	< 5	< 5	N/A
	3/3/2016	< 5	N/A	N/A
	10/24/2016	< 5	< 5	N/A
	10/24/2016	< 5	N/A	N/A
	3/3/2017	< 5	< 5	N/A
	3/3/2017	< 5	N/A	N/A
	9/25/2017	< 5	< 5	N/A
	9/25/2017	< 5	N/A	N/A
	2/27/2018	< 5	< 5	N/A
	2/27/2018	N/A	< 5	N/A
	9/18/2018	< 5	< 5	N/A
	9/18/2018	< 5	N/A	N/A
	4/2/2019	< 5	< 5	N/A
	4/2/2019	N/A	< 5	N/A
	8/22/2019	< 5	< 5	N/A
	8/22/2019	< 5	N/A	N/A
	4/23/2020	< 5	< 5	N/A
	4/23/2020	N/A	< 5	N/A
	10/6/2020	< 5	< 5	N/A
	10/6/2020	< 5	N/A	N/A
	3/29/2021	< 5	< 5	< 5
	3/29/2021	N/A	< 5	N/A
	7/22/2021	< 5	< 5	N/A
	7/22/2021	N/A	< 5	N/A
	6/10/2022	< 5	< 5	N/A
	6/10/2022	N/A	< 5	N/A
	9/6/2022	< 5	< 5	< 5
	9/6/2022	< 5	N/A	N/A
	4/5/2023	< 5	< 5	N/A
	4/5/2023	N/A	< 5	N/A
	9/8/2023	< 5	< 5	< 5
	9/8/2023	< 5	N/A	N/A
	5/15/2024	< 5	< 5	< 5
	5/15/2024	< 5	N/A	N/A
	9/18/2024	< 5	< 5	N/A
	9/18/2024	< 5	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Chloroethane, ug/L (CAS NO - 75-00-3)	2/1/2008	< 4	< 4	N/A
	4/29/2008	0.858	< 0.5	N/A
	7/8/2008	< 0.5	< 0.5	N/A
	9/16/2008	< 4	< 4	N/A
	9/16/2008	N/A	< 4	N/A
	12/5/2008	< 4	< 4	< 4
	3/14/2009	< 4	< 4	N/A
	9/18/2009	< 4	< 4	N/A
	4/12/2010	< 4	< 4	< 4
	4/12/2010	< 4	N/A	N/A
	8/10/2010	< 4	< 4	N/A
	3/24/2011	< 4	< 4	N/A
	9/23/2011	< 4	< 4	N/A
	9/23/2011	< 4	N/A	N/A
	3/6/2012	< 4	< 4	< 4
	3/6/2012	N/A	< 4	N/A
	7/23/2012	< 4	< 4	N/A
	2/20/2013	< 4	< 4	N/A
	2/20/2013	N/A	< 4	N/A
	7/31/2013	< 4	N/A	N/A
	7/31/2013	< 4	N/A	N/A
	2/27/2014	< 4	< 4	N/A
	2/27/2014	N/A	< 4	N/A
	10/15/2014	< 4	< 4	N/A
	10/15/2014	< 4	N/A	N/A
	4/21/2015	< 4	< 4	N/A
	4/21/2015	N/A	< 4	N/A
	9/9/2015	< 4	< 4	< 4
	9/9/2015	< 4	N/A	N/A
	3/3/2016	< 4	< 4	N/A
	3/3/2016	< 4	N/A	N/A
	10/24/2016	< 4	< 4	N/A
	10/24/2016	< 4	N/A	N/A
	3/3/2017	< 4	< 4	N/A
	3/3/2017	< 4	N/A	N/A
	9/25/2017	< 4	< 4	N/A
	9/25/2017	< 4	N/A	N/A
	2/27/2018	< 4	< 4	N/A
	2/27/2018	N/A	< 4	N/A
	9/18/2018	< 4	< 4	N/A
	9/18/2018	< 4	N/A	N/A
	4/2/2019	< 4	< 4	N/A
	4/2/2019	N/A	< 4	N/A
	8/22/2019	< 4	< 4	N/A
	8/22/2019	< 4	N/A	N/A
	4/23/2020	< 4	< 4	N/A
	4/23/2020	N/A	< 4	N/A
	10/6/2020	< 4	< 4	N/A
	10/6/2020	< 4	N/A	N/A
	3/29/2021	< 4	< 4	< 4
	3/29/2021	N/A	< 4	N/A
	7/22/2021	< 4	< 4	N/A
	7/22/2021	N/A	< 4	N/A
	6/10/2022	< 4	< 4	N/A
	6/10/2022	N/A	< 4	N/A
	9/6/2022	< 4	< 4	< 4
	9/6/2022	< 4	N/A	N/A
	4/5/2023	< 4	< 4	N/A
	4/5/2023	N/A	< 4	N/A
	9/8/2023	< 4	< 4	< 4
	9/8/2023	< 4	N/A	N/A
	5/15/2024	< 4	< 4	< 4
	5/15/2024	< 4	N/A	N/A
	9/18/2024	< 4	< 4	N/A
	9/18/2024	< 4	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Chloroform, ug/L (CAS NO - 67-66-3)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.17	< 0.17	N/A
	7/8/2008	< 0.17	< 0.17	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 2.5	< 2.5	< 2.5
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 2	< 2	< 2
	4/12/2010	< 2	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 3	< 3	N/A
	9/18/2018	< 3	N/A	N/A
	4/2/2019	< 3	< 3	N/A
	4/2/2019	N/A	< 3	N/A
	8/22/2019	< 3	< 3	N/A
	8/22/2019	< 3	N/A	N/A
	4/23/2020	< 3	< 3	N/A
	4/23/2020	N/A	< 3	N/A
	10/6/2020	< 3	< 3	N/A
	10/6/2020	< 3	N/A	N/A
	3/29/2021	< 3	< 3	< 3
	3/29/2021	N/A	< 3	N/A
	7/22/2021	< 3	< 3	N/A
	7/22/2021	N/A	< 3	N/A
	6/10/2022	< 3	< 3	N/A
	6/10/2022	N/A	< 3	N/A
	9/6/2022	< 3	< 3	< 3
	9/6/2022	< 3	N/A	N/A
	4/5/2023	< 3	< 3	N/A
	4/5/2023	N/A	< 3	N/A
	9/8/2023	< 3	< 3	< 3
	9/8/2023	< 3	N/A	N/A
	5/15/2024	< 3	< 3	< 3
	5/15/2024	< 3	N/A	N/A
	9/18/2024	< 3	< 3	N/A
	9/18/2024	< 3	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Chloromethane, ug/L (CAS NO - 74-87-3)	2/1/2008	< 3	< 3	N/A
	4/29/2008	< 0.2	< 0.2	N/A
	7/8/2008	< 0.2	< 0.2	N/A
	9/16/2008	< 3	< 3	N/A
	9/16/2008	N/A	< 3	N/A
	12/5/2008	< 3	< 3	< 3
	3/14/2009	< 3	< 3	N/A
	9/18/2009	< 3	< 3	N/A
	4/12/2010	< 3	< 3	< 3
	4/12/2010	< 3	N/A	N/A
	8/10/2010	< 3	< 3	N/A
	3/24/2011	< 3	< 3	N/A
	9/23/2011	< 3	< 3	N/A
	9/23/2011	< 3	N/A	N/A
	3/6/2012	< 3	< 3	< 3
	3/6/2012	N/A	< 3	N/A
	7/23/2012	< 3	< 3	N/A
	2/20/2013	< 3	< 3	N/A
	2/20/2013	N/A	< 3	N/A
	7/31/2013	< 3	N/A	N/A
	7/31/2013	< 3	N/A	N/A
	2/27/2014	< 3	< 3	N/A
	2/27/2014	N/A	< 3	N/A
	10/15/2014	< 3	< 3	N/A
	10/15/2014	< 3	N/A	N/A
	4/21/2015	< 3	< 3	N/A
	4/21/2015	N/A	< 3	N/A
	9/9/2015	< 3	< 3	< 3
	9/9/2015	< 3	N/A	N/A
	3/3/2016	< 3	< 3	N/A
	3/3/2016	< 3	N/A	N/A
	10/24/2016	< 3	< 3	N/A
	10/24/2016	< 3	N/A	N/A
	3/3/2017	< 3	< 3	N/A
	3/3/2017	< 3	N/A	N/A
	9/25/2017	< 3	< 3	N/A
	9/25/2017	< 3	N/A	N/A
	2/27/2018	< 3	< 3	N/A
	2/27/2018	N/A	< 3	N/A
	9/18/2018	< 3	< 3	N/A
	9/18/2018	< 3	N/A	N/A
	4/2/2019	< 3	< 3	N/A
	4/2/2019	N/A	< 3	N/A
	8/22/2019	< 3	< 3	N/A
	8/22/2019	< 3	N/A	N/A
	4/23/2020	< 3	< 3	N/A
	4/23/2020	N/A	< 3	N/A
	10/6/2020	< 3	< 3	N/A
	10/6/2020	< 3	N/A	N/A
	3/29/2021	< 3	< 3	< 3
	3/29/2021	N/A	< 3	N/A
	7/22/2021	< 3	< 3	N/A
	7/22/2021	N/A	< 3	N/A
	6/10/2022	< 3	< 3	N/A
	6/10/2022	N/A	< 3	N/A
	9/6/2022	< 3	< 3	< 3
	9/6/2022	< 3	N/A	N/A
	4/5/2023	< 3	< 3	N/A
	4/5/2023	N/A	< 3	N/A
	9/8/2023	< 3	< 3	< 3
	9/8/2023	< 3	N/A	N/A
	5/15/2024	< 3	< 3	< 3
	5/15/2024	< 3	N/A	N/A
	9/18/2024	< 3	< 3	N/A
	9/18/2024	< 3	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.37	< 0.37	N/A
	7/8/2008	< 0.37	< 0.37	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	2/1/2008	< 5	< 5	N/A
	4/29/2008	< 0.23	< 0.23	N/A
	7/8/2008	< 0.23	< 0.23	N/A
	9/16/2008	< 5	< 5	N/A
	9/16/2008	N/A	< 5	N/A
	12/5/2008	< 5	< 5	< 5
	3/14/2009	< 5	< 5	N/A
	9/18/2009	< 5	< 5	N/A
	4/12/2010	< 20	< 20	< 20
	4/12/2010	< 20	N/A	N/A
	8/10/2010	< 10	< 10	N/A
	3/24/2011	< 5	< 5	N/A
	9/23/2011	< 5	< 5	N/A
	9/23/2011	< 5	N/A	N/A
	3/6/2012	< 5	< 5	< 5
	3/6/2012	N/A	< 5	N/A
	7/23/2012	< 5	< 5	N/A
	2/20/2013	< 5	< 5	N/A
	2/20/2013	N/A	< 5	N/A
	7/31/2013	< 5	N/A	N/A
	7/31/2013	< 5	N/A	N/A
	2/27/2014	< 5	< 5	N/A
	2/27/2014	N/A	< 5	N/A
	10/15/2014	< 5	< 5	N/A
	10/15/2014	< 5	N/A	N/A
	4/21/2015	< 5	< 5	N/A
	4/21/2015	N/A	< 5	N/A
	9/9/2015	< 5	< 5	< 5
	9/9/2015	< 5	N/A	N/A
	3/3/2016	< 5	< 5	N/A
	3/3/2016	< 5	N/A	N/A
	10/24/2016	< 5	< 5	N/A
	10/24/2016	< 5	N/A	N/A
	3/3/2017	< 5	< 5	N/A
	3/3/2017	< 5	N/A	N/A
	9/25/2017	< 5	< 5	N/A
	9/25/2017	< 5	N/A	N/A
	2/27/2018	< 5	< 5	N/A
	2/27/2018	N/A	< 5	N/A
	9/18/2018	< 5	< 5	N/A
	9/18/2018	< 5	N/A	N/A
	4/2/2019	< 5	< 5	N/A
	4/2/2019	N/A	< 5	N/A
	8/22/2019	< 5	< 5	N/A
	8/22/2019	< 5	N/A	N/A
	4/23/2020	< 5	< 5	N/A
	4/23/2020	N/A	< 5	N/A
	10/6/2020	< 5	< 5	N/A
	10/6/2020	< 5	N/A	N/A
	3/29/2021	< 5	< 5	< 5
	3/29/2021	N/A	< 5	N/A
	7/22/2021	< 5	< 5	N/A
	7/22/2021	N/A	< 5	N/A
	6/10/2022	< 5	< 5	N/A
	6/10/2022	N/A	< 5	N/A
	9/6/2022	< 5	< 5	< 5
	9/6/2022	< 5	N/A	N/A
	4/5/2023	< 5	< 5	N/A
	4/5/2023	N/A	< 5	N/A
	9/8/2023	< 5	< 5	< 5
	9/8/2023	< 5	N/A	N/A
	5/15/2024	< 5	< 5	< 5
	5/15/2024	< 5	N/A	N/A
	9/18/2024	< 5	< 5	N/A
	9/18/2024	< 5	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Ethylbenzene, ug/L (CAS NO - 100-41-4)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.25	< 0.25	N/A
	7/8/2008	< 0.25	< 0.25	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Iodomethane, ug/L (CAS NO - 74-88-4)	2/1/2008	< 10	< 10	N/A
	4/29/2008	< 0.4	< 0.4	N/A
	7/8/2008	< 0.4	< 0.4	N/A
	9/16/2008	< 10	< 10	N/A
	9/16/2008	N/A	< 10	N/A
	12/5/2008	< 10	< 10	< 10
	3/14/2009	< 10	< 10	N/A
	9/18/2009	< 20	< 20	N/A
	4/12/2010	< 10	< 10	< 10
	4/12/2010	< 10	N/A	N/A
	8/10/2010	< 10	< 10	N/A
	3/24/2011	< 50	< 50	N/A
	9/23/2011	< 10	< 10	N/A
	9/23/2011	< 10	N/A	N/A
	3/6/2012	< 10	< 10	< 10
	3/6/2012	N/A	< 10	N/A
	7/23/2012	< 10	< 10	N/A
	2/20/2013	< 10	< 10	N/A
	2/20/2013	N/A	< 10	N/A
	7/31/2013	< 10	N/A	N/A
	7/31/2013	< 10	N/A	N/A
	2/27/2014	< 10	< 10	N/A
	2/27/2014	N/A	< 10	N/A
	10/15/2014	< 10	< 10	N/A
	10/15/2014	< 10	N/A	N/A
	4/21/2015	< 10	< 10	N/A
	4/21/2015	N/A	< 10	N/A
	9/9/2015	< 10	< 10	< 10
	9/9/2015	< 10	N/A	N/A
	3/3/2016	< 10	< 10	N/A
	3/3/2016	< 10	N/A	N/A
	10/24/2016	< 10	< 10	N/A
	10/24/2016	< 10	N/A	N/A
	3/3/2017	< 10	< 10	N/A
	3/3/2017	< 10	N/A	N/A
	9/25/2017	< 10	< 10	N/A
	9/25/2017	< 10	N/A	N/A
	2/27/2018	< 10	< 10	N/A
	2/27/2018	N/A	< 10	N/A
	9/18/2018	< 10	< 10	N/A
	9/18/2018	< 10	N/A	N/A
	4/2/2019	< 10	< 10	N/A
	4/2/2019	N/A	< 10	N/A
	8/22/2019	< 10	< 10	N/A
	8/22/2019	< 10	N/A	N/A
	4/23/2020	< 10	< 10	N/A
	4/23/2020	N/A	< 10	N/A
	10/6/2020	< 10	< 10	N/A
	10/6/2020	< 10	N/A	N/A
	3/29/2021	< 10	< 10	< 10
	3/29/2021	N/A	< 10	N/A
	7/22/2021	< 10	< 10	N/A
	7/22/2021	N/A	< 10	N/A
	6/10/2022	< 10	< 10	N/A
	6/10/2022	N/A	< 10	N/A
	9/6/2022	< 10	< 10	< 10
	9/6/2022	< 10	N/A	N/A
	4/5/2023	< 10	< 10	N/A
	4/5/2023	N/A	< 10	N/A
	9/8/2023	< 10	< 10	< 10
	9/8/2023	< 10	N/A	N/A
	5/15/2024	< 10	< 10	< 10
	5/15/2024	< 10	N/A	N/A
	9/18/2024	< 10	< 10	N/A
	9/18/2024	< 10	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Methylene Bromide, ug/L (CAS NO - 74-95-3)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.3	< 0.3	N/A
	7/8/2008	< 0.3	< 0.3	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Methylene Chloride, ug/L (CAS NO - 75-09-2)	2/1/2008	< 5	< 5	N/A
	4/29/2008	< 0.45	< 0.45	N/A
	7/8/2008	< 0.45	< 0.45	N/A
	9/16/2008	< 5	< 5	N/A
	9/16/2008	N/A	< 5	N/A
	12/5/2008	< 5	< 5	< 5
	3/14/2009	< 5	< 5	N/A
	9/18/2009	< 5	< 5	N/A
	4/12/2010	< 5	< 5	< 5
	4/12/2010	< 5	N/A	N/A
	8/10/2010	< 5	< 5	N/A
	3/24/2011	< 5	< 5	N/A
	9/23/2011	< 5	< 5	N/A
	9/23/2011	< 5	N/A	N/A
	3/6/2012	< 5	< 5	< 5
	3/6/2012	N/A	< 5	N/A
	7/23/2012	< 5	< 5	N/A
	2/20/2013	< 5	< 5	N/A
	2/20/2013	N/A	< 5	N/A
	7/31/2013	0.282*	N/A	N/A
	7/31/2013	0.421*	N/A	N/A
	2/27/2014	< 5	< 5	N/A
	2/27/2014	N/A	< 5	N/A
	10/15/2014	< 5	< 5	N/A
	10/15/2014	< 5	N/A	N/A
	4/21/2015	< 5	< 5	N/A
	4/21/2015	N/A	< 5	N/A
	9/9/2015	< 5	< 5	< 5
	9/9/2015	< 5	N/A	N/A
	3/3/2016	< 5	< 5	N/A
	3/3/2016	< 5	N/A	N/A
	10/24/2016	0.316*	0.314*	N/A
	10/24/2016	0.256*	N/A	N/A
	3/3/2017	< 5	< 5	N/A
	3/3/2017	< 5	N/A	N/A
	9/25/2017	< 5	< 5	N/A
	9/25/2017	< 5	N/A	N/A
	2/27/2018	< 5	< 5	N/A
	2/27/2018	N/A	< 5	N/A
	9/18/2018	< 5	< 5	N/A
	9/18/2018	< 5	N/A	N/A
	4/2/2019	< 5	< 5	N/A
	4/2/2019	N/A	< 5	N/A
	8/22/2019	< 5	< 5	N/A
	8/22/2019	< 5	N/A	N/A
	4/23/2020	< 5	< 5	N/A
	4/23/2020	N/A	< 5	N/A
	10/6/2020	< 5	< 5	N/A
	10/6/2020	< 5	N/A	N/A
	3/29/2021	< 5	< 5	< 5
	3/29/2021	N/A	< 5	N/A
	7/22/2021	< 5	< 5	N/A
	7/22/2021	N/A	< 5	N/A
	6/10/2022	< 5	< 5	N/A
	6/10/2022	N/A	< 5	N/A
	9/6/2022	< 5	< 5	< 5
	9/6/2022	< 5	N/A	N/A
	4/5/2023	< 5	< 5	N/A
	4/5/2023	N/A	< 5	N/A
	9/8/2023	< 5	< 5	< 5
	9/8/2023	< 5	N/A	N/A
	5/15/2024	< 5	< 5	< 5
	5/15/2024	< 5	N/A	N/A
	9/18/2024	< 5	< 5	N/A
	9/18/2024	< 5	N/A	N/A

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Summary of Groundwater Chemistry

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Styrene, ug/L (CAS NO - 100-42-5)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.19	< 0.19	N/A
	7/8/2008	< 0.19	< 0.19	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 4	< 4	< 4
	4/12/2010	< 4	N/A	N/A
	8/10/2010	< 4	< 4	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	2/1/2008	< 1	< 1	N/A
	4/29/2008	**0.458**	**0.637**	N/A
	7/8/2008	< 0.38	< 0.38	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Toluene, ug/L (CAS NO - 108-88-3)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.14	< 0.14	N/A
	7/8/2008	< 0.14	< 0.14	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	0.334*	0.409*	N/A
	2/27/2018	N/A	0.308*	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.31	< 0.31	N/A
	7/8/2008	< 0.31	< 0.31	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	2/1/2008	< 5	< 5	N/A
	4/29/2008	< 0.17	< 0.17	N/A
	7/8/2008	< 0.17	< 0.17	N/A
	9/16/2008	< 5	< 5	N/A
	9/16/2008	N/A	< 5	N/A
	12/5/2008	< 5	< 5	< 5
	3/14/2009	< 5	< 5	N/A
	9/18/2009	< 5	< 5	N/A
	4/12/2010	< 20	< 20	< 20
	4/12/2010	< 20	N/A	N/A
	8/10/2010	< 10	< 10	N/A
	3/24/2011	< 5	< 5	N/A
	9/23/2011	< 5	< 5	N/A
	9/23/2011	< 5	N/A	N/A
	3/6/2012	< 5	< 5	< 5
	3/6/2012	N/A	< 5	N/A
	7/23/2012	< 5	< 5	N/A
	2/20/2013	< 5	< 5	N/A
	2/20/2013	N/A	< 5	N/A
	7/31/2013	< 5	N/A	N/A
	7/31/2013	< 5	N/A	N/A
	2/27/2014	< 5	< 5	N/A
	2/27/2014	N/A	< 5	N/A
	10/15/2014	< 5	< 5	N/A
	10/15/2014	< 5	N/A	N/A
	4/21/2015	< 5	< 5	N/A
	4/21/2015	N/A	< 5	N/A
	9/9/2015	< 5	< 5	< 5
	9/9/2015	< 5	N/A	N/A
	3/3/2016	< 5	< 5	N/A
	3/3/2016	< 5	N/A	N/A
	10/24/2016	< 5	< 5	N/A
	10/24/2016	< 5	N/A	N/A
	3/3/2017	< 5	< 5	N/A
	3/3/2017	< 5	N/A	N/A
	9/25/2017	< 5	< 5	N/A
	9/25/2017	< 5	N/A	N/A
	2/27/2018	< 5	< 5	N/A
	2/27/2018	N/A	< 5	N/A
	9/18/2018	< 5	< 5	N/A
	9/18/2018	< 5	N/A	N/A
	4/2/2019	< 5	< 5	N/A
	4/2/2019	N/A	< 5	N/A
	8/22/2019	< 5	< 5	N/A
	8/22/2019	< 5	N/A	N/A
	4/23/2020	< 5	< 5	N/A
	4/23/2020	N/A	< 5	N/A
	10/6/2020	< 5	< 5	N/A
	10/6/2020	< 5	N/A	N/A
	3/29/2021	< 5	< 5	< 5
	3/29/2021	N/A	< 5	N/A
	7/22/2021	< 5	< 5	N/A
	7/22/2021	N/A	< 5	N/A
	6/10/2022	< 5	< 5	N/A
	6/10/2022	N/A	< 5	N/A
	9/6/2022	< 5	< 5	< 5
	9/6/2022	< 5	N/A	N/A
	4/5/2023	< 5	< 5	N/A
	4/5/2023	N/A	< 5	N/A
	9/8/2023	< 5	< 5	< 5
	9/8/2023	< 5	N/A	N/A
	5/15/2024	< 5	< 5	< 5
	5/15/2024	< 5	N/A	N/A
	9/18/2024	< 5	< 5	N/A
	9/18/2024	< 5	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	2/1/2008	< 10	< 10	N/A
	4/29/2008	< 1.8	< 1.8	N/A
	7/8/2008	< 1.8	< 1.8	N/A
	9/16/2008	< 10	< 10	N/A
	9/16/2008	N/A	< 10	N/A
	12/5/2008	< 10	< 10	< 10
	3/14/2009	< 10	< 10	N/A
	9/18/2009	< 10	< 10	N/A
	4/12/2010	< 10	< 10	< 10
	4/12/2010	< 10	N/A	N/A
	8/10/2010	< 10	< 10	N/A
	3/24/2011	< 10	< 10	N/A
	9/23/2011	< 10	< 10	N/A
	9/23/2011	< 10	N/A	N/A
	3/6/2012	< 10	< 10	< 10
	3/6/2012	N/A	< 10	N/A
	7/23/2012	< 10	< 10	N/A
	2/20/2013	< 10	< 10	N/A
	2/20/2013	N/A	< 10	N/A
	7/31/2013	< 10	N/A	N/A
	7/31/2013	< 10	N/A	N/A
	2/27/2014	< 10	< 10	N/A
	2/27/2014	N/A	< 10	N/A
	10/15/2014	< 10	< 10	N/A
	10/15/2014	< 10	N/A	N/A
	4/21/2015	< 10	< 10	N/A
	4/21/2015	N/A	< 10	N/A
	9/9/2015	< 10	< 10	< 10
	9/9/2015	< 10	N/A	N/A
	3/3/2016	< 10	< 10	N/A
	3/3/2016	< 10	N/A	N/A
	10/24/2016	< 10	< 10	N/A
	10/24/2016	< 10	N/A	N/A
	3/3/2017	< 10	< 10	N/A
	3/3/2017	< 10	N/A	N/A
	9/25/2017	< 10	< 10	N/A
	9/25/2017	< 10	N/A	N/A
	2/27/2018	< 10	< 10	N/A
	2/27/2018	N/A	< 10	N/A
	9/18/2018	< 10	< 10	N/A
	9/18/2018	< 10	N/A	N/A
	4/2/2019	< 10	< 10	N/A
	4/2/2019	N/A	< 10	N/A
	8/22/2019	< 10	< 10	N/A
	8/22/2019	< 10	N/A	N/A
	4/23/2020	< 10	< 10	N/A
	4/23/2020	N/A	< 10	N/A
	10/6/2020	< 10	< 10	N/A
	10/6/2020	< 10	N/A	N/A
	3/29/2021	< 10	< 10	< 10
	3/29/2021	N/A	< 10	N/A
	7/22/2021	< 10	< 10	N/A
	7/22/2021	N/A	< 10	N/A
	6/10/2022	< 10	< 10	N/A
	6/10/2022	N/A	< 10	N/A
	9/6/2022	< 10	< 10	< 10
	9/6/2022	< 10	N/A	N/A
	4/5/2023	< 10	< 10	N/A
	4/5/2023	N/A	< 10	N/A
	9/8/2023	< 10	< 10	< 10
	9/8/2023	< 10	N/A	N/A
	5/15/2024	< 10	< 10	< 10
	5/15/2024	< 10	N/A	N/A
	9/18/2024	< 10	< 10	N/A
	9/18/2024	< 10	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Trichloroethene, ug/L (CAS NO - 79-01-6)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.24	< 0.24	N/A
	7/8/2008	< 0.24	< 0.24	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	2/1/2008	< 4	< 4	N/A
	4/29/2008	< 0.26	< 0.26	N/A
	7/8/2008	< 0.26	< 0.26	N/A
	9/16/2008	< 4	< 4	N/A
	9/16/2008	N/A	< 4	N/A
	12/5/2008	< 4	< 4	< 4
	3/14/2009	< 4	< 4	N/A
	9/18/2009	< 4	< 4	N/A
	4/12/2010	< 4	< 4	< 4
	4/12/2010	< 4	N/A	N/A
	8/10/2010	< 4	< 4	N/A
	3/24/2011	< 4	< 4	N/A
	9/23/2011	< 4	< 4	N/A
	9/23/2011	< 4	N/A	N/A
	3/6/2012	< 4	< 4	< 4
	3/6/2012	N/A	< 4	N/A
	7/23/2012	< 4	< 4	N/A
	2/20/2013	< 4	< 4	N/A
	2/20/2013	N/A	< 4	N/A
	7/31/2013	< 4	N/A	N/A
	7/31/2013	< 4	N/A	N/A
	2/27/2014	< 4	< 4	N/A
	2/27/2014	N/A	< 4	N/A
	10/15/2014	< 4	< 4	N/A
	10/15/2014	< 4	N/A	N/A
	4/21/2015	< 4	< 4	N/A
	4/21/2015	N/A	< 4	N/A
	9/9/2015	< 4	< 4	< 4
	9/9/2015	< 4	N/A	N/A
	3/3/2016	< 4	< 4	N/A
	3/3/2016	< 4	N/A	N/A
	10/24/2016	< 4	< 4	N/A
	10/24/2016	< 4	N/A	N/A
	3/3/2017	< 4	< 4	N/A
	3/3/2017	< 4	N/A	N/A
	9/25/2017	< 4	< 4	N/A
	9/25/2017	< 4	N/A	N/A
	2/27/2018	< 4	< 4	N/A
	2/27/2018	N/A	< 4	N/A
	9/18/2018	< 4	< 4	N/A
	9/18/2018	< 4	N/A	N/A
	4/2/2019	< 4	< 4	N/A
	4/2/2019	N/A	< 4	N/A
	8/22/2019	< 4	< 4	N/A
	8/22/2019	< 4	N/A	N/A
	4/23/2020	< 4	< 4	N/A
	4/23/2020	N/A	< 4	N/A
	10/6/2020	< 4	< 4	N/A
	10/6/2020	< 4	N/A	N/A
	3/29/2021	< 4	< 4	< 4
	3/29/2021	N/A	< 4	N/A
	7/22/2021	< 4	< 4	N/A
	7/22/2021	N/A	< 4	N/A
	6/10/2022	< 4	< 4	N/A
	6/10/2022	N/A	< 4	N/A
	9/6/2022	< 4	< 4	< 4
	9/6/2022	< 4	N/A	N/A
	4/5/2023	< 4	< 4	N/A
	4/5/2023	N/A	< 4	N/A
	9/8/2023	< 4	< 4	< 4
	9/8/2023	< 4	N/A	N/A
	5/15/2024	< 4	< 4	< 4
	5/15/2024	< 4	N/A	N/A
	9/18/2024	< 4	< 4	N/A
	9/18/2024	< 4	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	2/1/2008	< 2	< 2	N/A
	4/29/2008	< 1.36	< 1.36	N/A
	7/8/2008	< 1.36	< 1.36	N/A
	9/16/2008	< 2	< 2	N/A
	9/16/2008	N/A	< 2	N/A
	12/5/2008	< 2	< 2	< 2
	3/14/2009	< 2	< 2	N/A
	9/18/2009	< 2	< 2	N/A
	4/12/2010	< 2	< 2	< 2
	4/12/2010	< 2	N/A	N/A
	8/10/2010	< 2	< 2	N/A
	3/24/2011	< 2	< 2	N/A
	9/23/2011	< 2	< 2	N/A
	9/23/2011	< 2	N/A	N/A
	3/6/2012	< 10	< 10	< 10
	3/6/2012	N/A	< 10	N/A
	7/23/2012	< 2	< 2	N/A
	2/20/2013	< 2	< 2	N/A
	2/20/2013	N/A	< 2	N/A
	7/31/2013	< 2	N/A	N/A
	7/31/2013	< 2	N/A	N/A
	2/27/2014	< 2	< 2	N/A
	2/27/2014	N/A	< 2	N/A
	10/15/2014	< 10	< 10	N/A
	10/15/2014	< 10	N/A	N/A
	4/21/2015	< 10	< 10	N/A
	4/21/2015	N/A	< 10	N/A
	9/9/2015	< 10	< 10	< 10
	9/9/2015	< 10	N/A	N/A
	3/3/2016	< 10	< 10	N/A
	3/3/2016	< 10	N/A	N/A
	10/24/2016	< 10	< 10	N/A
	10/24/2016	< 10	N/A	N/A
	3/3/2017	< 10	< 10	N/A
	3/3/2017	< 10	N/A	N/A
	9/25/2017	< 10	< 10	N/A
	9/25/2017	< 10	N/A	N/A
	2/27/2018	< 10	< 10	N/A
	2/27/2018	N/A	< 10	N/A
	9/18/2018	< 10	< 10	N/A
	9/18/2018	< 10	N/A	N/A
	4/2/2019	< 10	< 10	N/A
	4/2/2019	N/A	< 10	N/A
	8/22/2019	< 10	< 10	N/A
	8/22/2019	< 10	N/A	N/A
	4/23/2020	< 10	< 10	N/A
	4/23/2020	N/A	< 10	N/A
	10/6/2020	< 10	< 10	N/A
	10/6/2020	< 10	N/A	N/A
	3/29/2021	< 10	< 10	< 10
	3/29/2021	N/A	< 10	N/A
	7/22/2021	< 10	< 10	N/A
	7/22/2021	N/A	< 10	N/A
	6/10/2022	< 10	< 10	N/A
	6/10/2022	N/A	< 10	N/A
	9/6/2022	< 10	< 10	< 10
	9/6/2022	< 10	N/A	N/A
	4/5/2023	< 10	< 10	N/A
	4/5/2023	N/A	< 10	N/A
	9/8/2023	< 10	< 10	< 10
	9/8/2023	< 10	N/A	N/A
	5/15/2024	< 10	< 10	< 10
	5/15/2024	< 10	N/A	N/A
	9/18/2024	< 10	< 10	N/A
	9/18/2024	< 10	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	2/1/2008	< 1	< 1	N/A
	4/29/2008	< 0.26	< 0.26	N/A
	7/8/2008	< 0.26	< 0.26	N/A
	9/16/2008	< 1	< 1	N/A
	9/16/2008	N/A	< 1	N/A
	12/5/2008	< 1	< 1	< 1
	3/14/2009	< 1	< 1	N/A
	9/18/2009	< 1	< 1	N/A
	4/12/2010	< 1	< 1	< 1
	4/12/2010	< 1	N/A	N/A
	8/10/2010	< 1	< 1	N/A
	3/24/2011	< 1	< 1	N/A
	9/23/2011	< 1	< 1	N/A
	9/23/2011	< 1	N/A	N/A
	3/6/2012	< 1	< 1	< 1
	3/6/2012	N/A	< 1	N/A
	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	N/A
	7/31/2013	< 1	N/A	N/A
	7/31/2013	< 1	N/A	N/A
	2/27/2014	< 1	< 1	N/A
	2/27/2014	N/A	< 1	N/A
	10/15/2014	< 1	< 1	N/A
	10/15/2014	< 1	N/A	N/A
	4/21/2015	< 1	< 1	N/A
	4/21/2015	N/A	< 1	N/A
	9/9/2015	< 1	< 1	< 1
	9/9/2015	< 1	N/A	N/A
	3/3/2016	< 1	< 1	N/A
	3/3/2016	< 1	N/A	N/A
	10/24/2016	< 1	< 1	N/A
	10/24/2016	< 1	N/A	N/A
	3/3/2017	< 1	< 1	N/A
	3/3/2017	< 1	N/A	N/A
	9/25/2017	< 1	< 1	N/A
	9/25/2017	< 1	N/A	N/A
	2/27/2018	< 1	< 1	N/A
	2/27/2018	N/A	< 1	N/A
	9/18/2018	< 1	< 1	N/A
	9/18/2018	< 1	N/A	N/A
	4/2/2019	< 1	< 1	N/A
	4/2/2019	N/A	< 1	N/A
	8/22/2019	< 1	< 1	N/A
	8/22/2019	< 1	N/A	N/A
	4/23/2020	< 1	< 1	N/A
	4/23/2020	N/A	< 1	N/A
	10/6/2020	< 1	< 1	N/A
	10/6/2020	< 1	N/A	N/A
	3/29/2021	< 1	< 1	< 1
	3/29/2021	N/A	< 1	N/A
	7/22/2021	< 1	< 1	N/A
	7/22/2021	N/A	< 1	N/A
	6/10/2022	< 1	< 1	N/A
	6/10/2022	N/A	< 1	N/A
	9/6/2022	< 1	< 1	< 1
	9/6/2022	< 1	N/A	N/A
	4/5/2023	< 1	< 1	N/A
	4/5/2023	N/A	< 1	N/A
	9/8/2023	< 1	< 1	< 1
	9/8/2023	< 1	N/A	N/A
	5/15/2024	< 1	< 1	< 1
	5/15/2024	< 1	N/A	N/A
	9/18/2024	< 1	< 1	N/A
	9/18/2024	< 1	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
Xylenes, total, ug/L (CAS NO - 1330-20-7)	2/1/2008	< 3	< 3	N/A
	4/29/2008	< 0.3	< 0.3	N/A
	7/8/2008	< 0.3	< 0.3	N/A
	9/16/2008	< 3	< 3	N/A
	9/16/2008	N/A	< 3	N/A
	12/5/2008	< 3	< 3	< 3
	3/14/2009	< 3	< 3	N/A
	9/18/2009	< 3	< 3	N/A
	4/12/2010	< 6	< 6	< 6
	4/12/2010	< 6	N/A	N/A
	8/10/2010	< 3	< 3	N/A
	3/24/2011	< 3	< 3	N/A
	9/23/2011	< 3	< 3	N/A
	9/23/2011	< 3	N/A	N/A
	3/6/2012	< 3	< 3	< 3
	3/6/2012	N/A	< 3	N/A
	7/23/2012	< 3	< 3	N/A
	2/20/2013	< 3	< 3	N/A
	2/20/2013	N/A	< 3	N/A
	7/31/2013	< 3	N/A	N/A
	7/31/2013	< 3	N/A	N/A
	2/27/2014	< 3	< 3	N/A
	2/27/2014	N/A	< 3	N/A
	10/15/2014	< 3	< 3	N/A
	10/15/2014	< 3	N/A	N/A
	4/21/2015	< 3	< 3	N/A
	4/21/2015	N/A	< 3	N/A
	9/9/2015	< 3	< 3	< 3
	9/9/2015	< 3	N/A	N/A
	3/3/2016	< 3	< 3	N/A
	3/3/2016	< 3	N/A	N/A
	10/24/2016	< 3	< 3	N/A
	10/24/2016	< 3	N/A	N/A
	3/3/2017	< 3	< 3	N/A
	3/3/2017	< 3	N/A	N/A
	9/25/2017	< 3	< 3	N/A
	9/25/2017	< 3	N/A	N/A
	2/27/2018	0.281*	0.194*	N/A
	2/27/2018	N/A	0.202*	N/A
	9/18/2018	< 3	< 3	N/A
	9/18/2018	< 3	N/A	N/A
	4/2/2019	< 3	< 3	N/A
	4/2/2019	N/A	< 3	N/A
	8/22/2019	< 3	< 3	N/A
	8/22/2019	< 3	N/A	N/A
	4/23/2020	< 3	< 3	N/A
	4/23/2020	N/A	< 3	N/A
	10/6/2020	< 3	< 3	N/A
	10/6/2020	< 3	N/A	N/A
	3/29/2021	< 3	< 3	< 3
	3/29/2021	N/A	< 3	N/A
	7/22/2021	< 3	< 3	N/A
	7/22/2021	N/A	< 3	N/A
	6/10/2022	< 3	< 3	N/A
	6/10/2022	N/A	< 3	N/A
	9/6/2022	< 3	< 3	< 3
	9/6/2022	< 3	N/A	N/A
	4/5/2023	< 3	< 3	N/A
	4/5/2023	N/A	< 3	N/A
	9/8/2023	< 3	< 3	< 3
	9/8/2023	< 3	N/A	N/A
	5/15/2024	< 3	< 3	< 3
	5/15/2024	< 3	N/A	N/A
	9/18/2024	< 3	< 3	N/A
	9/18/2024	< 3	N/A	N/A

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Summary of Groundwater Chemistry

Wayne-Ringgold-Decatur Sanitary Landfill - 27-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-30L DNG	MW-31 DNG	UO-4 DNG
M&P-Xylene, ug/L (CAS NO - 179601-23-1)	7/23/2012	< 2	< 2	N/A
	2/20/2013	< 2	< 2	N/A
	2/20/2013	N/A	< 2	N/A
O-Xylene, ug/L (CAS NO - 95-47-6)	7/23/2012	< 1	< 1	N/A
	2/20/2013	< 1	< 1	N/A
	2/20/2013	N/A	< 1	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

Summary of Statistical Method and Output

SUMMARY OF STATISTICAL METHODOLOGY

Purpose

The purpose of this document is to provide the statistical method used in the evaluation of groundwater analytical data collected from the groundwater monitoring network of the South municipal solid waste landfill (MSWLF) unit at the Wayne-Ringgold-Decatur County Sanitary Landfill (Landfill).

Statistical Method

Diagnostic and Exploratory Evaluations and Tests of Assumptions

The detection monitoring statistical programs includes 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 of the dataset. If non-detects comprise greater than 50% of the available data, non-parametric statistical methods are used.

Management of Outliers

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

Management of Data (ND data < 75%)

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

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

In accordance with the Ohio EPA Method, if a statistically significant outlier is not found using the above tests, but the highest value data point 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". Intrawell prediction limits with retesting were selected as the appropriate statistical method for the determination of statistically significant increases (SSIs) over background for inorganic constituents with historic 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.

Intrawell Prediction Limits with Retesting

- If the dataset has a normal distribution (or can be transformed to a normal distribution using Ladder of Powers), parametric intrawell prediction limits are calculated if at least five datasets have been collected from the background dataset.
- 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, non-parametric intrawell prediction limits are calculated if at least five datasets have been collected from the background dataset.
- If an SSI above the prediction limit is indicated, retesting samples using the 1-of-3 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 all of the retesting results are above the prediction limit, the SSI is confirmed, and the monitoring point should be placed into the assessment monitoring program. If any retesting sample concentration is below the prediction limit, the SSI is not confirmed, and the monitoring point continues in the detection monitoring program.

Updating the Background Dataset for Intrawell Prediction Limits

If no SSI is confirmed for any two-year period, the intrawell background dataset is updated using the following procedure:

- Test the new dataset for normal distribution either outright or through a transformation using Ladder of Powers using the Shapiro-Wilk test.
- Test the new dataset for statistically significant outliers using the Ohio EPA Method, and remove the confirmed outliers (see the "Management of Outliers" section).
- Test the new dataset for statistically significant trends using the Mann-Kendall/Sen's Slope trend test. If a statistically significantly increasing trend is detected, the monitoring point will be placed into the assessment monitoring program or treated with the leachate, whichever is appropriate.
- If the dataset has a normal distribution and no statistically significant increasing trend is present, a two-sample Welch's t-test at a 0.01 significance level is performed to compare current background to the most recent two years of detection monitoring data. If the Welch's t-test is significant and shows that the most recent two years of concentration data appear to be increasing, the background will not be updated.
- If the dataset does not have a normal distribution and no statistically significant increasing trend is present, a two-sample non-parametric Wilcoxon rank-sum test (also known as the Mann-Whitney test) at a 0.01 significance level is performed to compare current background to the most recent two years of detection monitoring data. If the Wilcoxon rank-sum test is significant and shows that the most recent two years of concentration data appear to be increasing, the background will not be updated.
- If the Welch's t-test or the Wilcoxon rank-sum tests are not significant, the most recent two years of detection data will be added to the intrawell background dataset.

The process will repeat every two years in which an SSI is not confirmed.

Double Quantification Method

The quasi-statistical "double quantification" method is used for constituents not detected in the background monitoring 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 for prior to 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 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). In the event that a monitoring well enters into assessment monitoring, the assessment monitoring statistical evaluations will be 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 monitoring statistical evaluation will be established using the process below. Transformation of the distribution will not be considered.

Confidence Intervals or Confidence Bands

- A parametric confidence interval around a normal mean will be calculated if the dataset has a normal distribution and no statistically significant trend is present.
- A non-parametric confidence interval around a median will be 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 will be calculated if the dataset has a statistically significant trend.

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

Statistical Software Output

Statistical output for the reporting period statistical evaluations are included in Attachment A, Spring 2024 Statistical Evaluation Output, and Attachment B, Fall 2024 Statistical Evaluation Output.

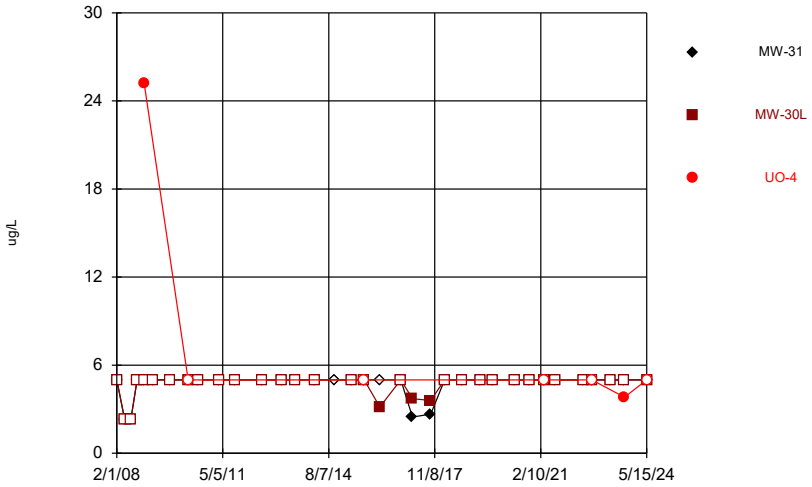
Attachment A

Spring 2024 Statistical Evaluation Output

Time Series Plots

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

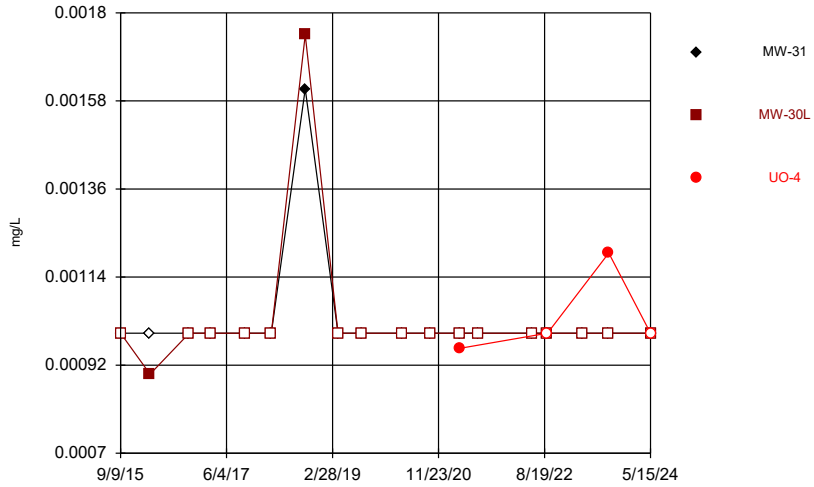
Time Series



Constituent: Acetone Analysis Run 8/2/2024 5:03 PM View: 2024SSN Time Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

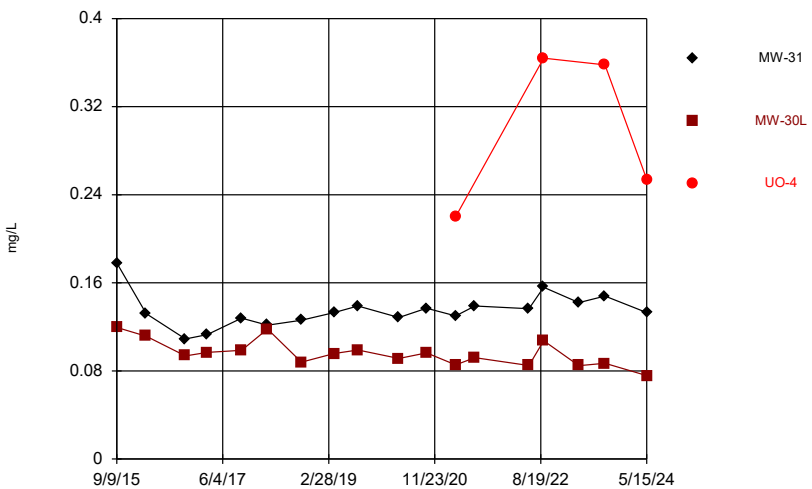
Time Series



Constituent: Arsenic Analysis Run 8/2/2024 5:03 PM View: 2024SSN Time Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

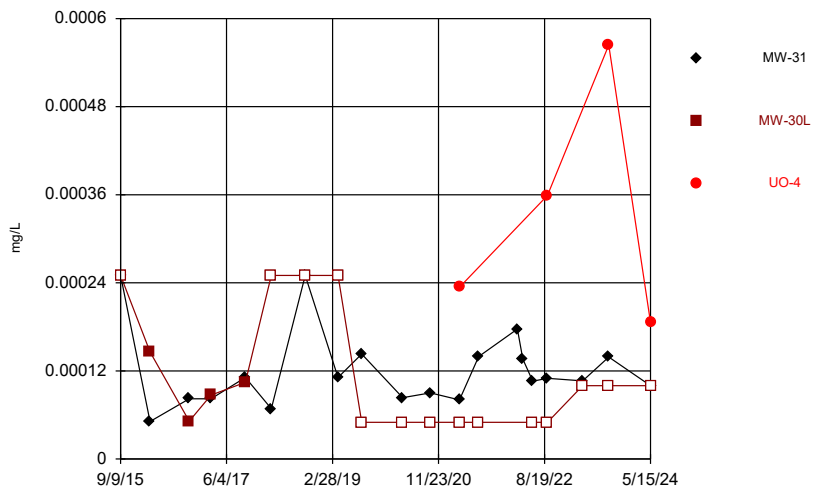
Time Series



Constituent: Barium Analysis Run 8/2/2024 5:03 PM View: 2024SSN Time Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

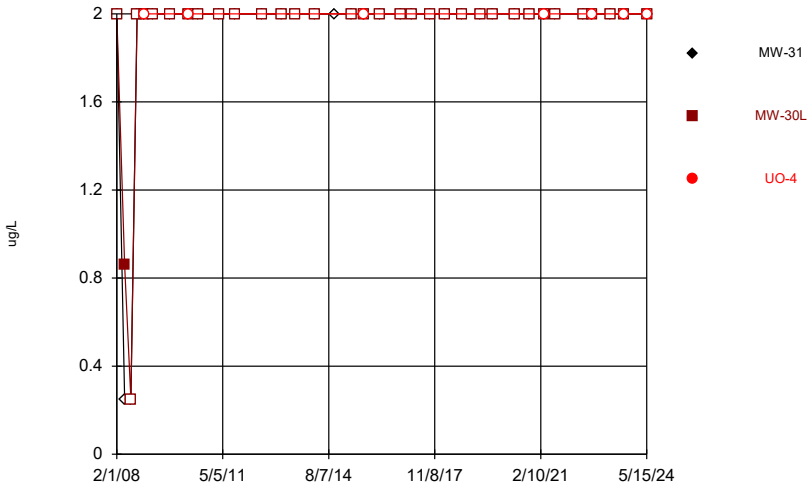
Time Series



Constituent: Cadmium Analysis Run 8/2/2024 5:03 PM View: 2024SSN Time Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

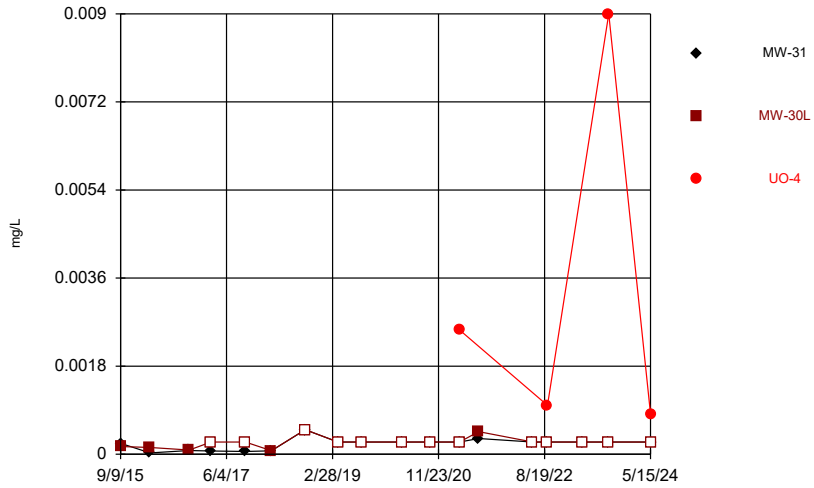
Time Series



Constituent: Chloroethane Analysis Run 8/2/2024 5:03 PM View: 2024SSN Time Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

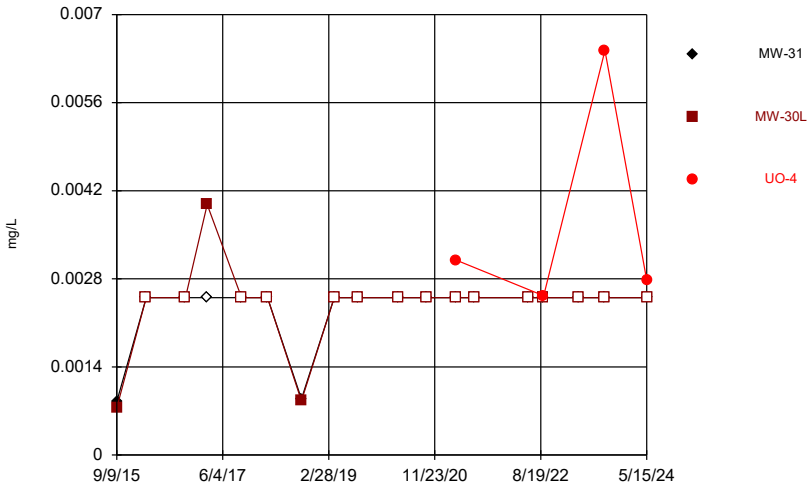
Time Series



Constituent: Cobalt Analysis Run 8/2/2024 5:03 PM View: 2024SSN Time Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

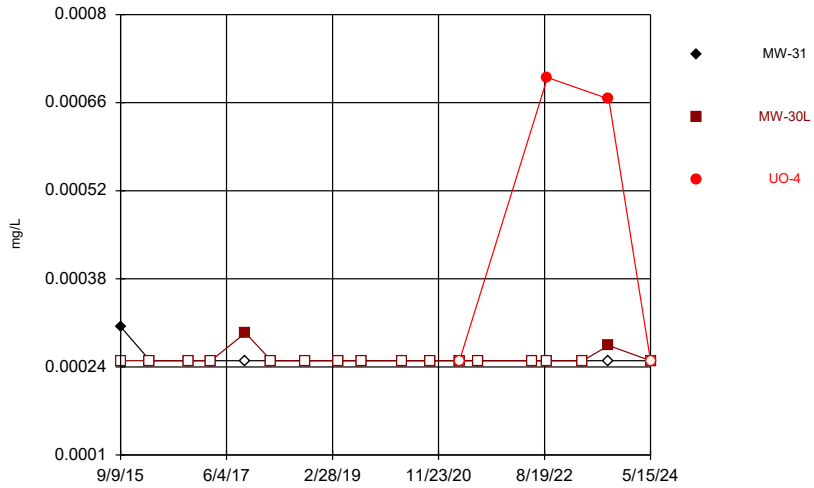
Time Series



Constituent: Copper Analysis Run 8/2/2024 5:03 PM View: 2024SSN Time Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

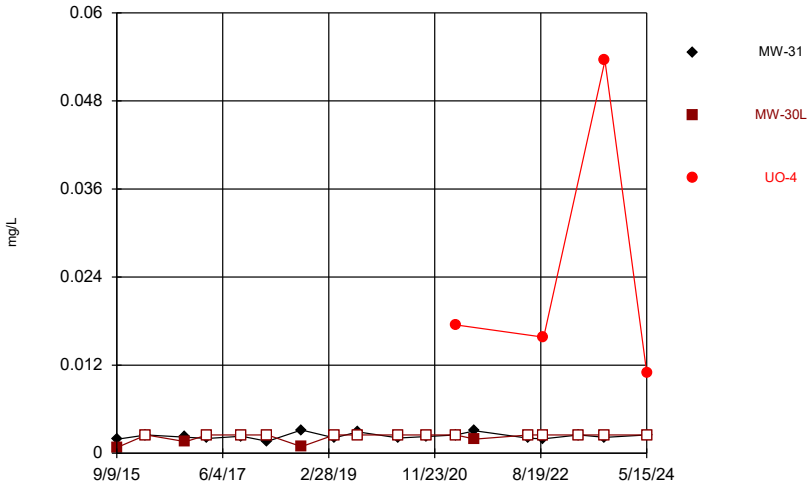
Time Series



Constituent: Lead Analysis Run 8/2/2024 5:03 PM View: 2024SSN Time Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Time Series



Constituent: Nickel Analysis Run 8/2/2024 5:03 PM View: 2024SSN Time Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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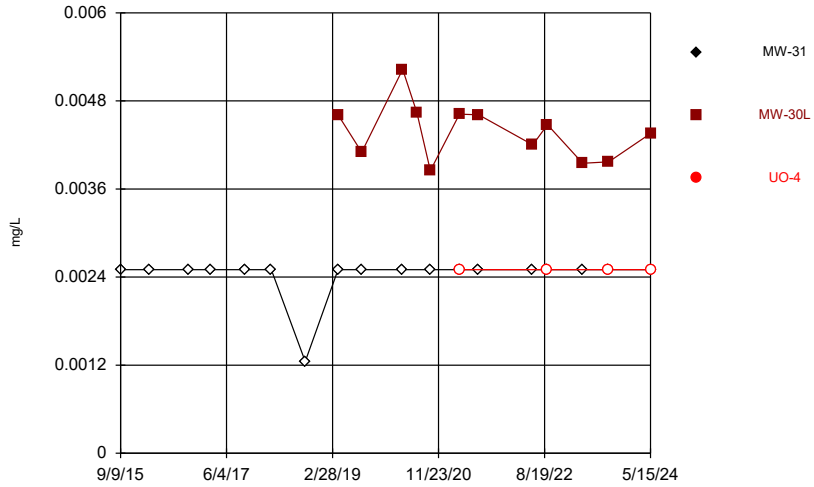
Hollow symbols indicate censored values.

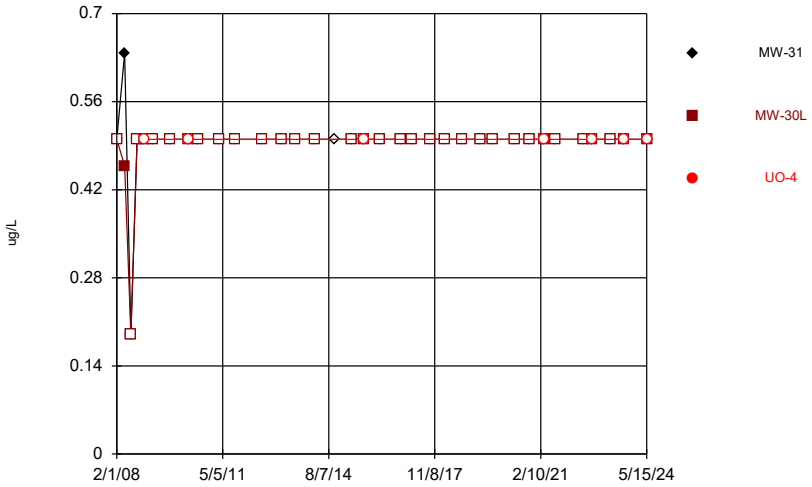
Time Series



Constituent: Selenium Analysis Run 8/2/2024 5:03 PM View: 2024SSN Time Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

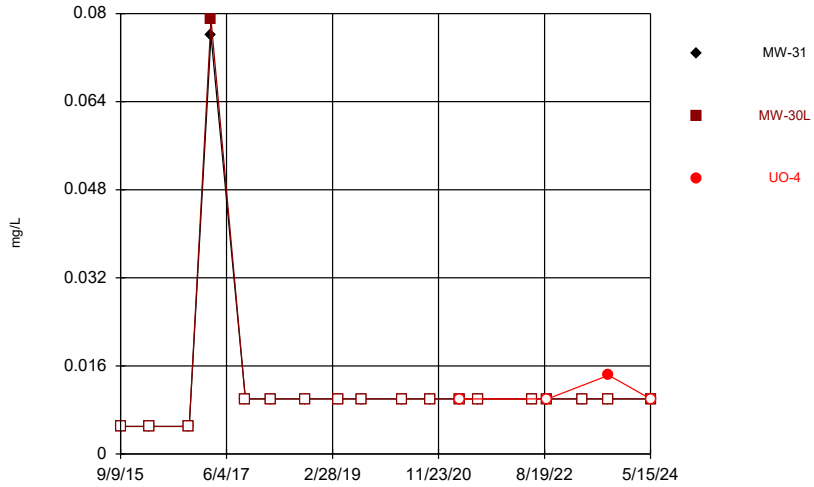
Time Series



Constituent: Tetrachloroethene Analysis Run 8/2/2024 5:03 PM View: 2024SSN Time Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Time Series



Constituent: Zinc Analysis Run 8/2/2024 5:03 PM View: 2024SSN Time Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Outliers Summary Table and Graphs

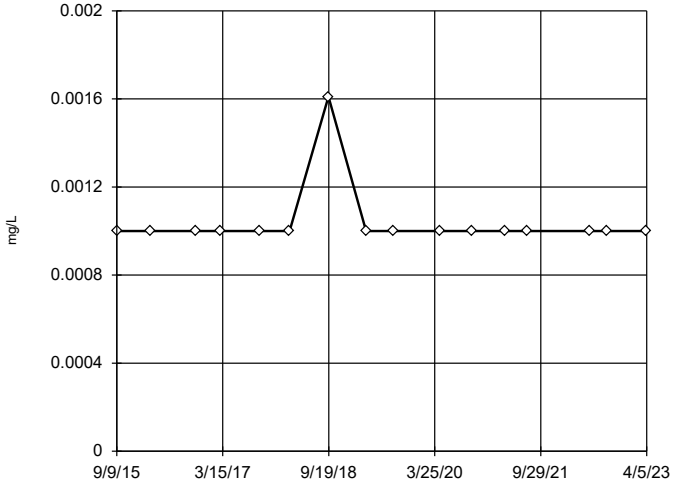
BG Outlier Analysis

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master Printed 8/2/2024, 5:31 PM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Normality Test
Arsenic (mg/L)	MW-31	No	n/a	n/a	OH	NaN	16	0.001038	0.0001525	n/a
Arsenic (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.00104	0.0001897	n/a
Barium (mg/L)	**MW-31**	**Yes**	**0.178**	**9/9/2015**	**Dixon/OH**	**0.01**	**16**	**0.1343**	**0.01617**	**ShapiroWilk**
Barium (mg/L)	MW-30L	No	n/a	n/a	EPA/OH	0.05	16	0.0977	0.0111	ShapiroWilk
Cadmium (mg/L)	MW-31	No	n/a	n/a	EPA/OH	0.05	18	0.000121	0.0000558	ShapiroWilk
Cadmium (mg/L)	**MW-30L**	**Yes**	**0.00025,0.00025,0.00025,0.00025**	**9/9/2015,2/27/2018,9/18/2018,4/2/2019**	**OH**	**NaN**	**16**	**0.0001149**	**0.00008508**	**n/a**
Chromium (mg/L)	MW-31	No	n/a	n/a	OH	NaN	16	0.002529	0.0004703	n/a
Chromium (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.002401	0.0007377	n/a
Cobalt (mg/L)	MW-31	No	n/a	n/a	NP (nrm)/OH	NaN	16	0.0002089	0.0001224	ShapiroWilk
Cobalt (mg/L)	**MW-30L**	**Yes**	**0.0005,0.000461**	**9/18/2018,7/22/2021**	**NP (nrm)/OH**	**NaN**	**16**	**0.0002448**	**0.0001113**	**ShapiroWilk**
Copper (mg/L)	MW-31	No	n/a	n/a	OH	NaN	16	0.002296	0.0005566	n/a
Copper (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.002381	0.000717	n/a
Lead (mg/L)	MW-31	No	n/a	n/a	OH	NaN	16	0.0002534	0.0000135	n/a
Lead (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.0002528	0.000011	n/a
Nickel (mg/L)	MW-31	No	n/a	n/a	EPA/OH	0.05	16	0.002321	0.0004317	ShapiroWilk
Nickel (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.002199	0.0005923	n/a
Selenium (mg/L)	MW-30L	No	n/a	n/a	EPA/OH	0.05	10	0.004429	0.0004104	ShapiroWilk
Silver (mg/L)	MW-31	No	n/a	n/a	OH	NaN	16	0.0004528	0.0001055	n/a
Silver (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.0004623	0.0001049	n/a
Thallium (mg/L)	MW-31	No	n/a	n/a	OH	NaN	16	0.0004478	0.0002311	n/a
Thallium (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.0004874	0.0001863	n/a
Zinc (mg/L)	**MW-31**	**Yes**	**0.076**	**3/3/2017**	**OH**	**NaN**	**16**	**0.01319**	**0.01687**	**n/a**
Zinc (mg/L)	**MW-30L**	**Yes**	**0.0789**	**3/3/2017**	**OH**	**NaN**	**16**	**0.01337**	**0.01759**	**n/a**

Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

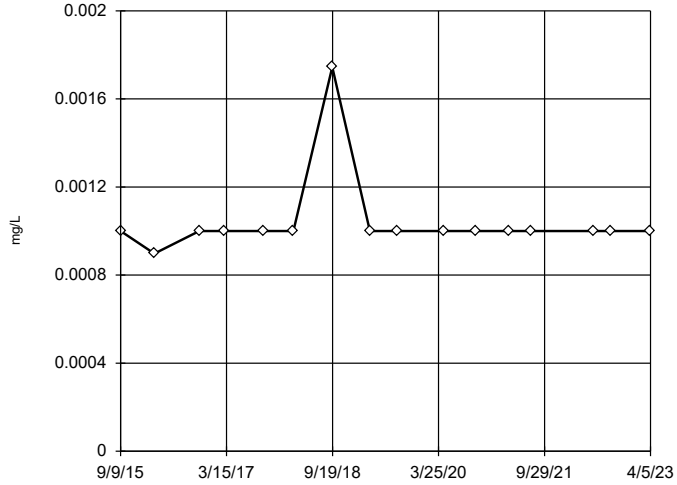
No statistical outliers.

Constituent: Arsenic Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

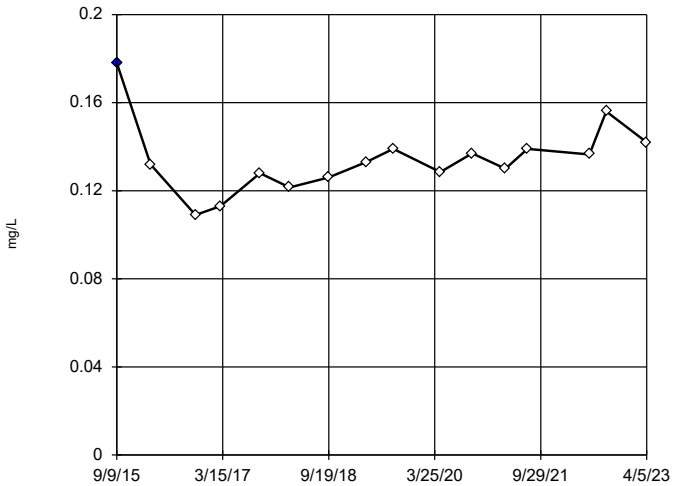
No statistical outliers.

Constituent: Arsenic Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

Statistical outlier is drawn as solid.
Testing for 1 high outlier.
Mean = 0.1343.
Std. Dev. = 0.01617.
0.178: c = 0.6372
tabl = 0.595.
Alpha = 0.01.

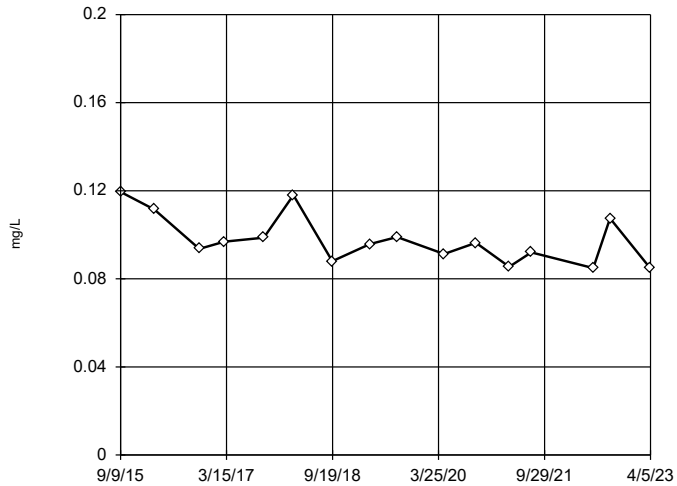
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9662
Critical = 0.835
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Barium Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

EPA Screening (suspected outliers for Dixon's Test)

MW-30L



n = 16

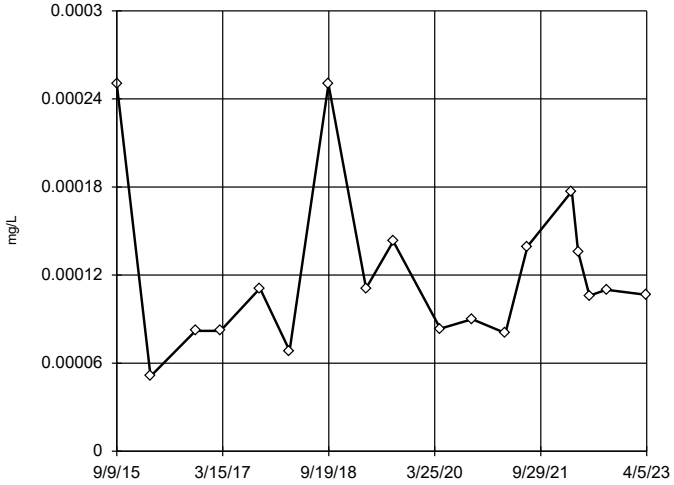
Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.0977, std. dev. 0.0111, critical Tn 2.443

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.901
Critical = 0.844
The distribution was found to be normally distributed.

Constituent: Barium Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

EPA Screening (suspected outliers for Dixon's Test)

MW-31



n = 18

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.000121, std. dev. 0.0000558, critical Tn 2.504

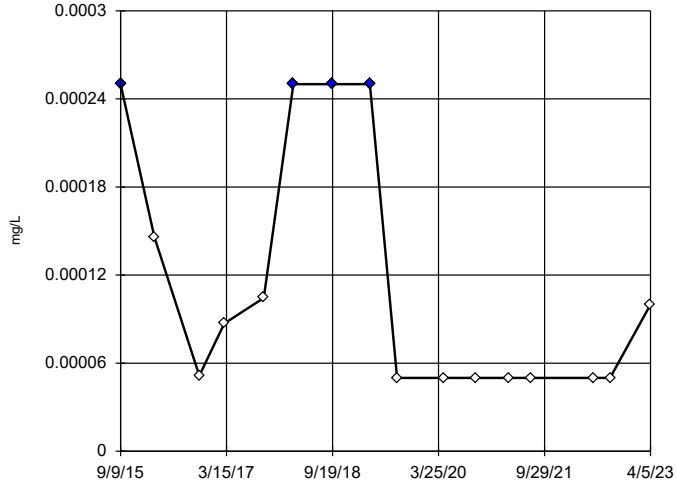
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9517
Critical = 0.858 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Cadmium Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

Statistical outliers are drawn as solid.
Outliers per Ohio method.

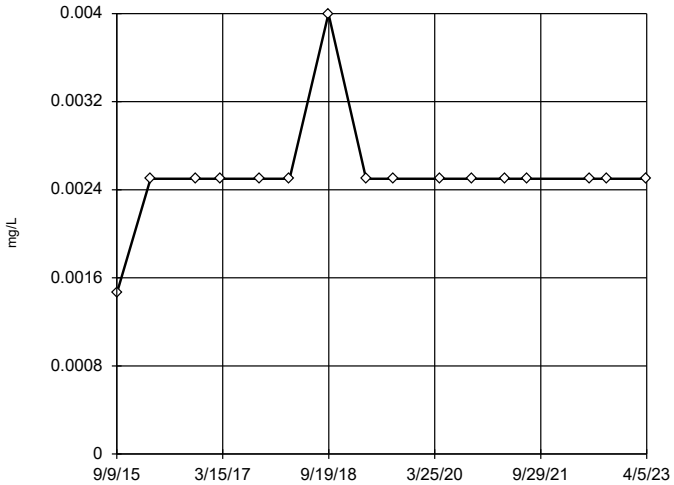
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9517
Critical = 0.858 (after natural log transformation)
The distribution, after removal of suspect values, was found to be log-normal.

Constituent: Cadmium Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

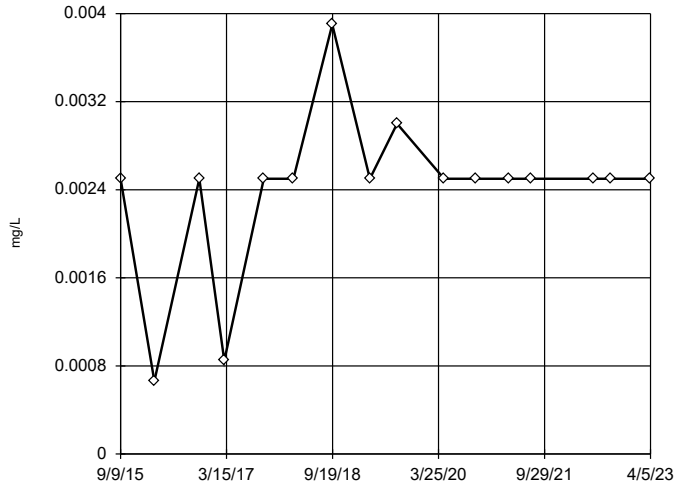
No statistical outliers.

Constituent: Chromium Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

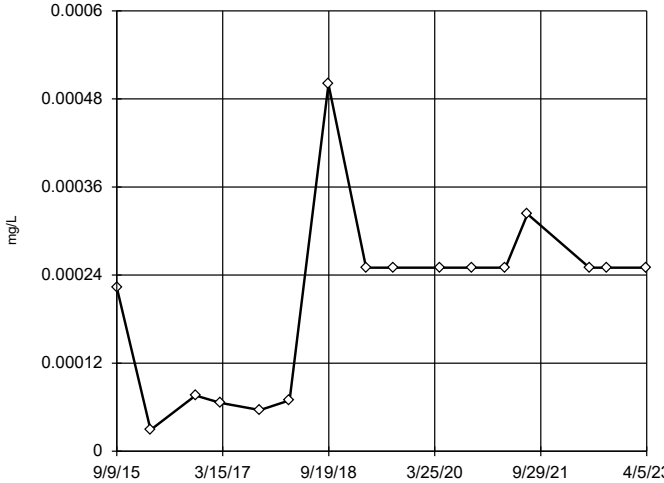
No statistical outliers.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9517
Critical = 0.858 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Chromium Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

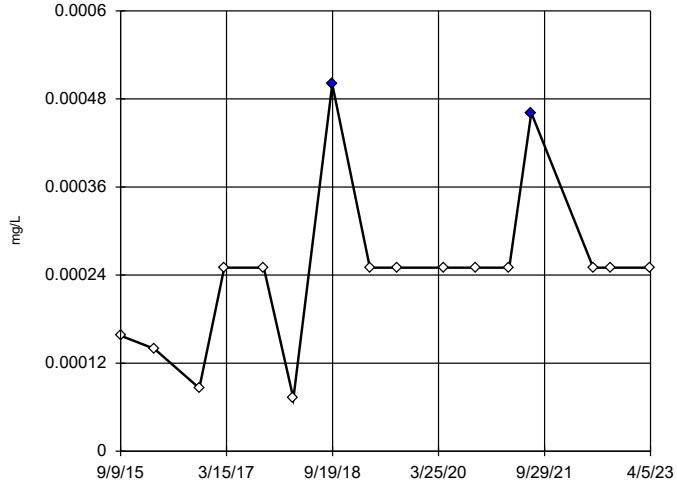
High cutoff = 0.0007818, low cutoff = -0.000459, based on IQR multiplier of 3.

Constituent: Cobalt Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

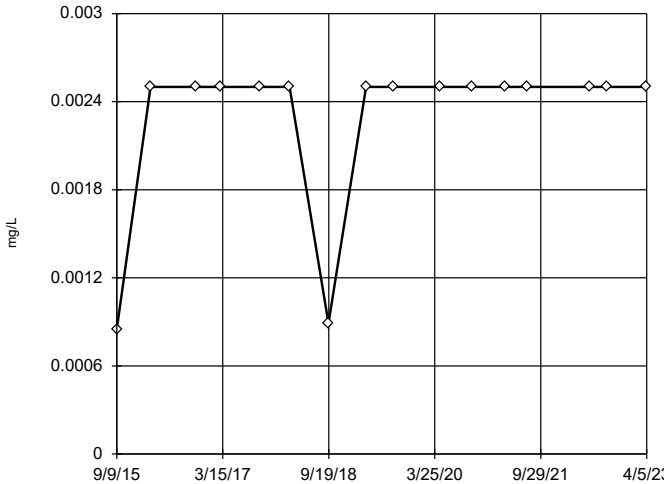
High cutoff = 0.0003888, low cutoff = 0.000065, based on IQR multiplier of 3.

Constituent: Cobalt Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

No statistical outliers.

Constituent: Copper Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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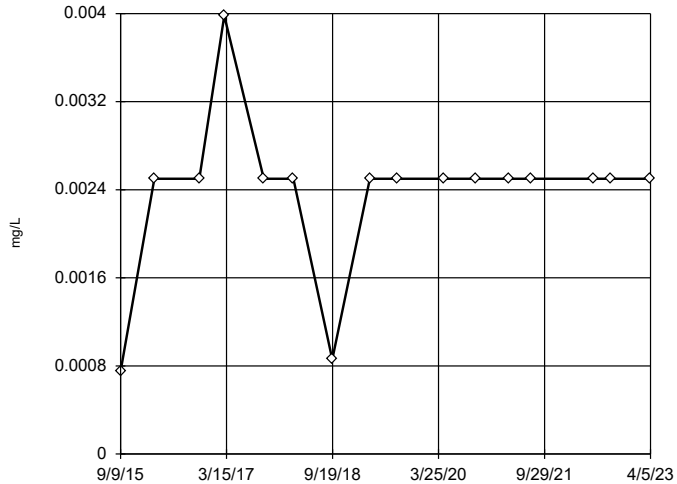
Ohio EPA 0715 Outlier Algorithm

MW-30L



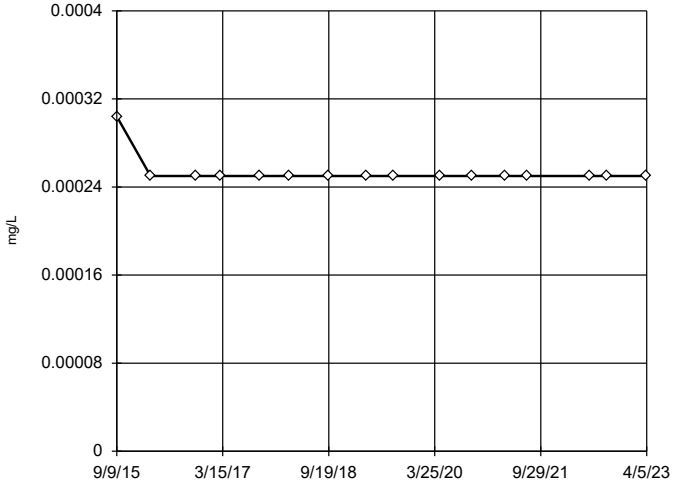
n = 16

No statistical outliers.

Constituent: Copper Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

No statistical outliers.

Constituent: Lead Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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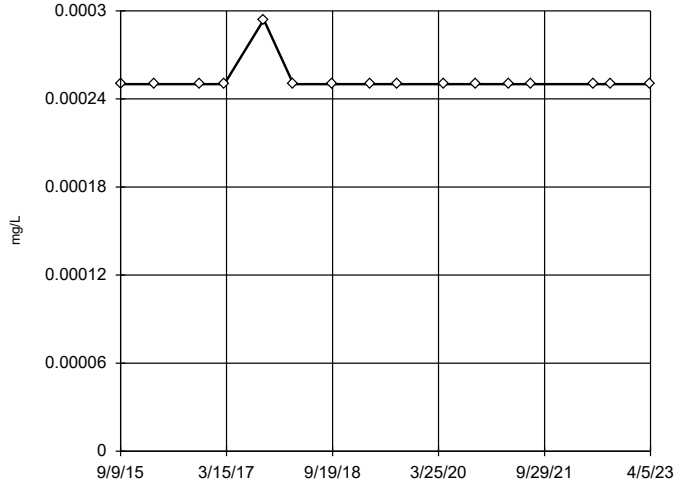
Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

No statistical outliers.

Constituent: Lead Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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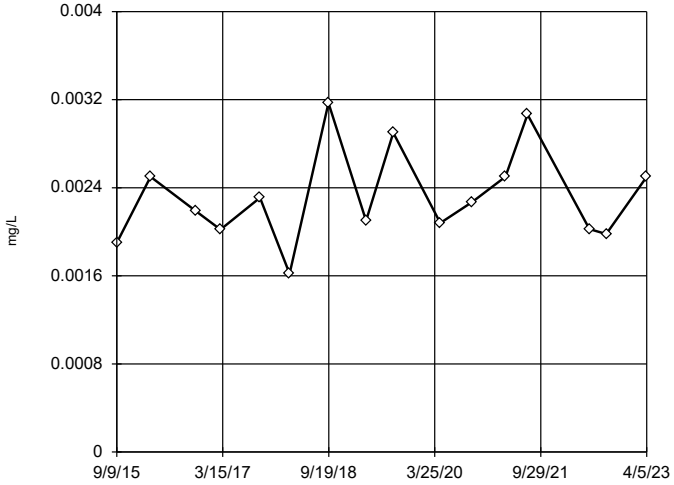
EPA Screening (suspected outliers for Dixon's Test)

MW-31



n = 16

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.002321, std. dev. 0.0004317, critical Tn 2.443

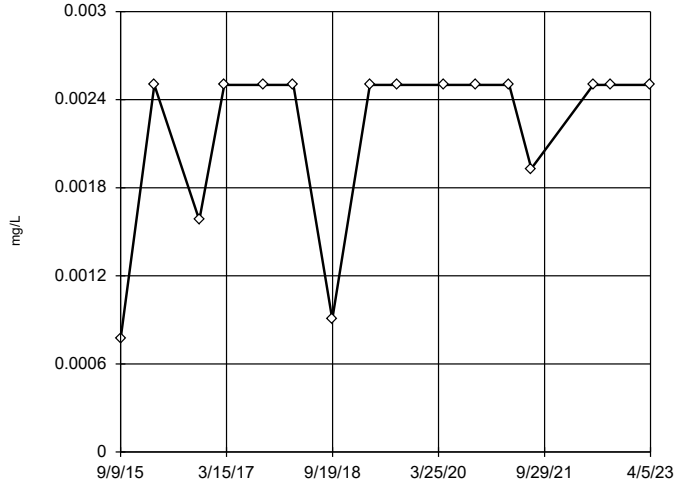
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9352
Critical = 0.844
The distribution was found to be normally distributed.

Constituent: Nickel Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

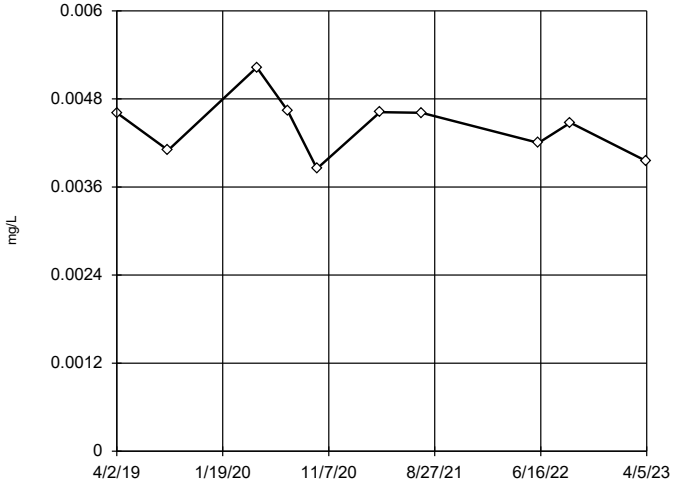
No statistical outliers.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9352
Critical = 0.844
The distribution was found to be normally distributed.

Constituent: Nickel Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

EPA Screening (suspected outliers for Dixon's Test)

MW-30L



n = 10

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.004429, std. dev. 0.0004104, critical Tn 2.176

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.928
Critical = 0.781
The distribution was found to be normally distributed.

Constituent: Selenium Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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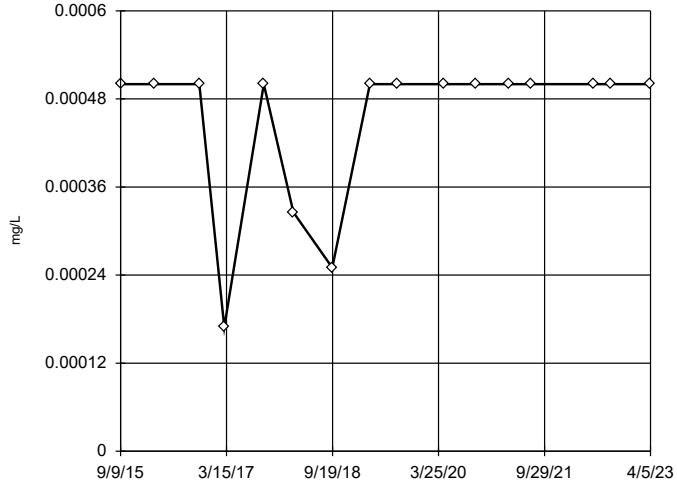
Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

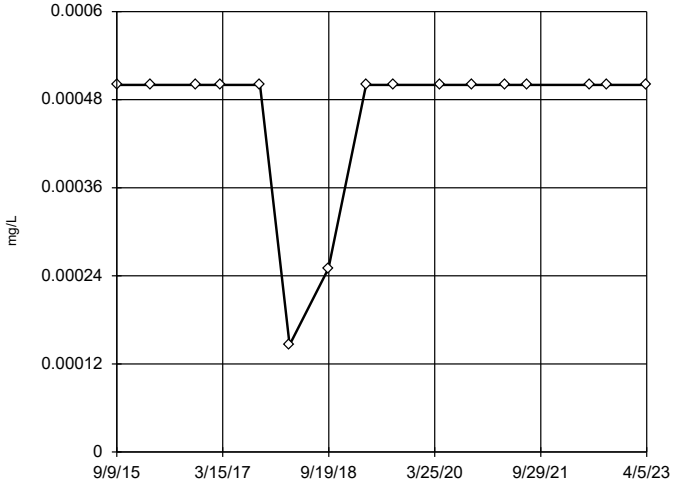
No statistical outliers.

Constituent: Silver Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

No statistical outliers.

Constituent: Silver Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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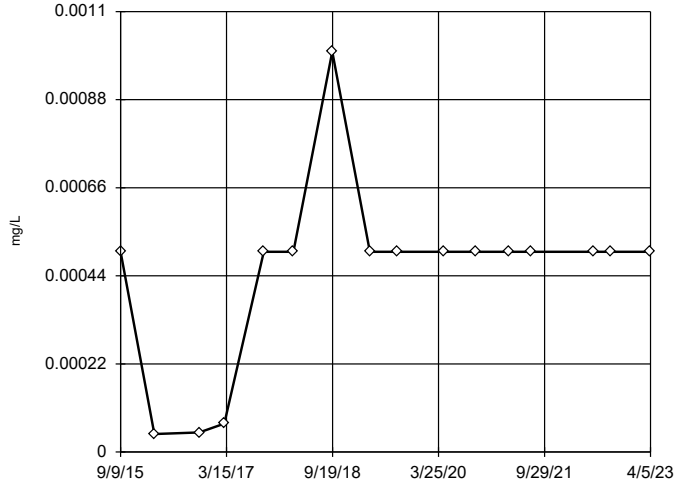
Ohio EPA 0715 Outlier Algorithm

MW-31



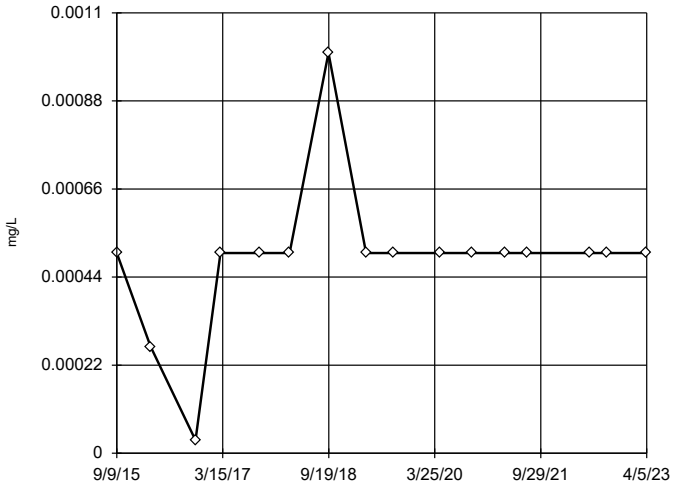
n = 16

No statistical outliers.

Constituent: Thallium Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

No statistical outliers.

Constituent: Thallium Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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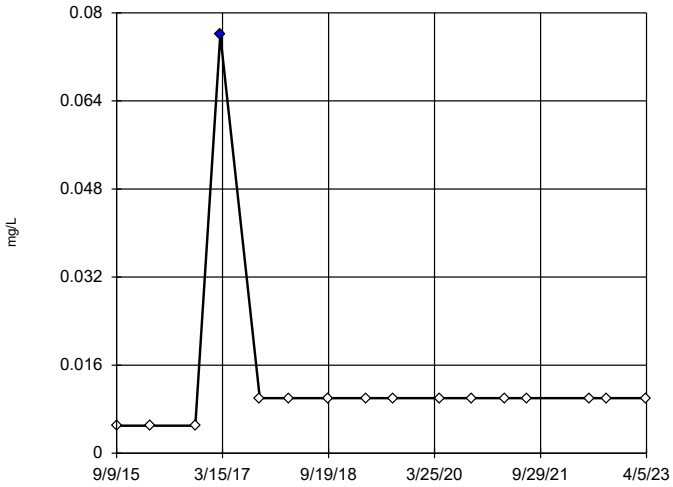
Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

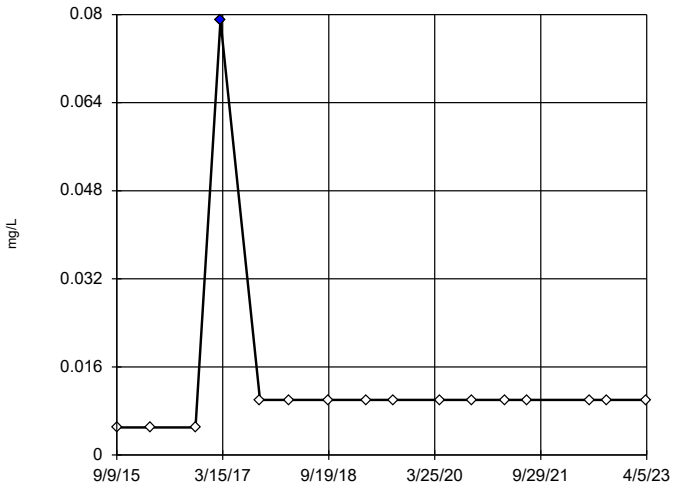
Statistical outlier is drawn as solid.
Outlier per Ohio method.

Constituent: Zinc Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

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

Constituent: Zinc Analysis Run 8/2/2024 5:29 PM View: 2024SSN BGdataset Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Prediction Limits Summary Table and Graphs

Prediction Limit

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master Printed 8/5/2024, 9:17 AM

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-30L	0.001745	n/a	5/15/2024	0.001ND	No	16	n/a	n/a	n/a	87.5	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Barium (mg/L)	MW-30L	0.122	n/a	5/15/2024	0.0757	No	16	n/a	0.0977	0.0111	0	None	No	0.00135	Param Intra 1 of 2
Cadmium (mg/L)	MW-30L	0.00025	n/a	5/15/2024	0.0001ND	No	16	n/a	n/a	n/a	75	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Chromium (mg/L)	MW-30L	0.0039	n/a	5/15/2024	0.0025ND	No	16	n/a	n/a	n/a	75	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-30L	0.0005	n/a	5/15/2024	0.00025ND	No	16	n/a	n/a	n/a	68.75	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Copper (mg/L)	MW-30L	0.00398	n/a	5/15/2024	0.0025ND	No	16	n/a	n/a	n/a	81.25	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Lead (mg/L)	MW-30L	0.000294	n/a	5/15/2024	0.00025ND	No	16	n/a	n/a	n/a	93.75	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Nickel (mg/L)	MW-30L	0.0025	n/a	5/15/2024	0.0025ND	No	16	n/a	n/a	n/a	75	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Selenium (mg/L)	MW-30L	0.005465	n/a	5/15/2024	0.004355J	No	10	n/a	0.004429	0.0004104	0	None	No	0.00135	Param Intra 1 of 2
Silver (mg/L)	MW-30L	0.0005	n/a	5/15/2024	0.0005ND	No	16	n/a	n/a	n/a	93.75	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Thallium (mg/L)	MW-30L	0.001	n/a	5/15/2024	0.0005ND	No	16	n/a	n/a	n/a	87.5	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-30L	0.003141	n/a	5/15/2024	0.0025ND	No	16	n/a	0.001307	0.000837	31.25	Kaplan-Meier	No	0.00135	Param Intra 1 of 2
Zinc (mg/L)	MW-30L	0.0789	n/a	5/15/2024	0.01ND	No	16	n/a	n/a	n/a	93.75	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2

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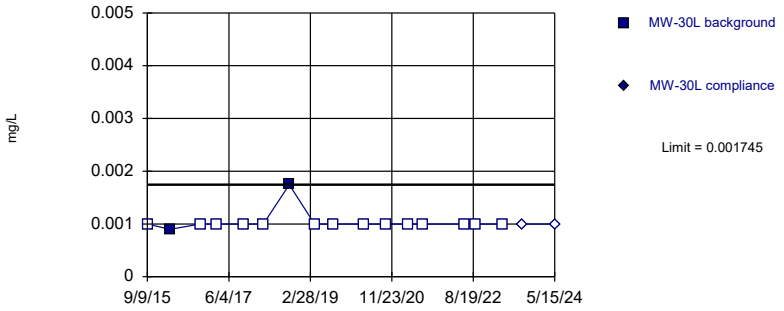
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Arsenic Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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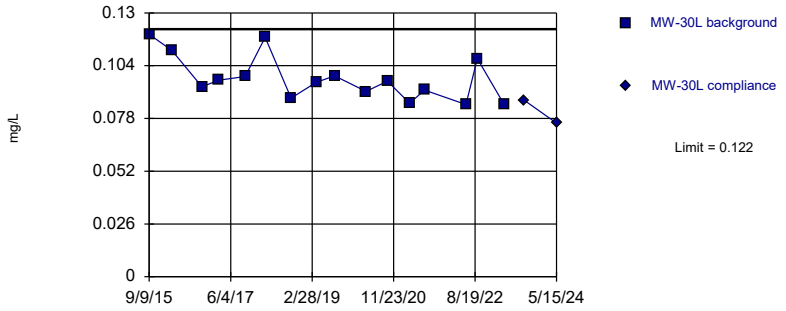
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.0977, Std. Dev.=0.0111, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.901, critical = 0.844. Kappa = 2.192 (c=13, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.00135.

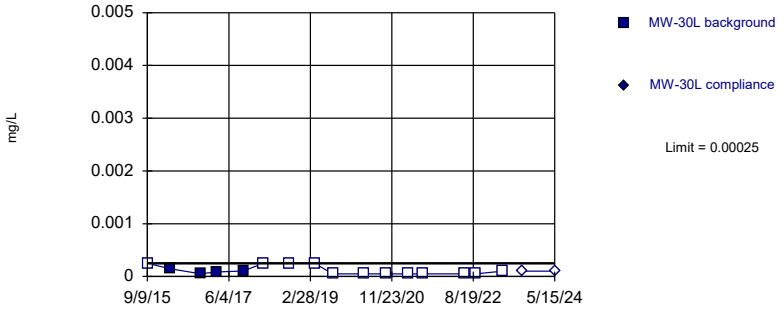
Constituent: Barium Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

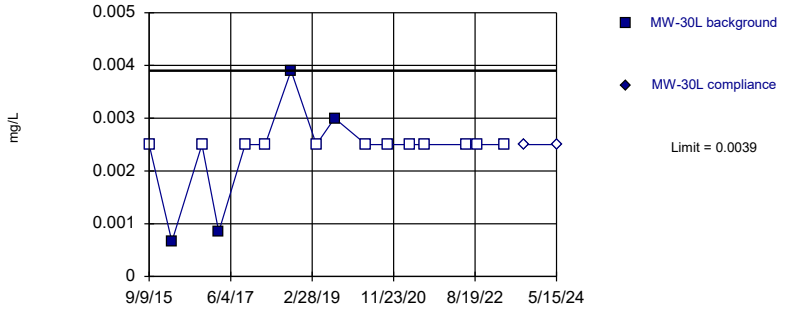
Constituent: Cadmium Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

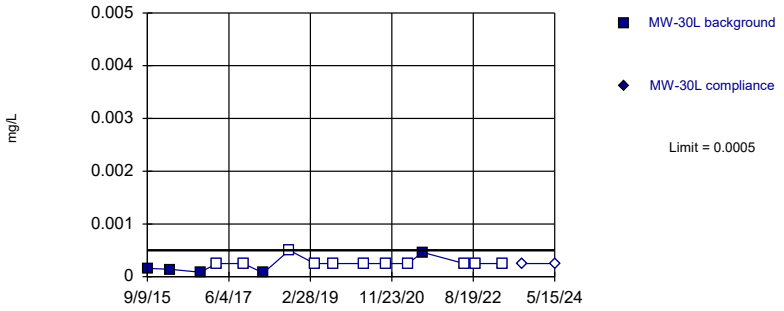
Constituent: Chromium Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 68.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Cobalt Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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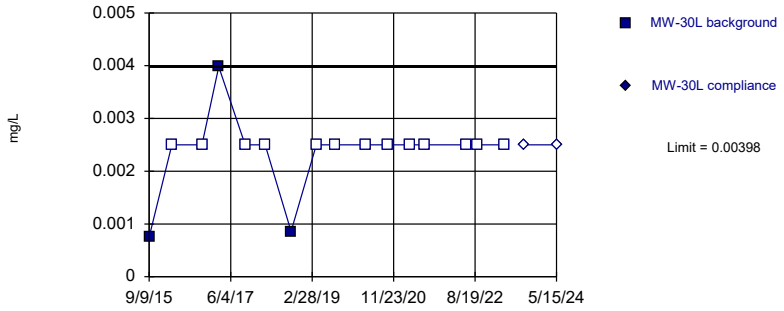
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 81.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

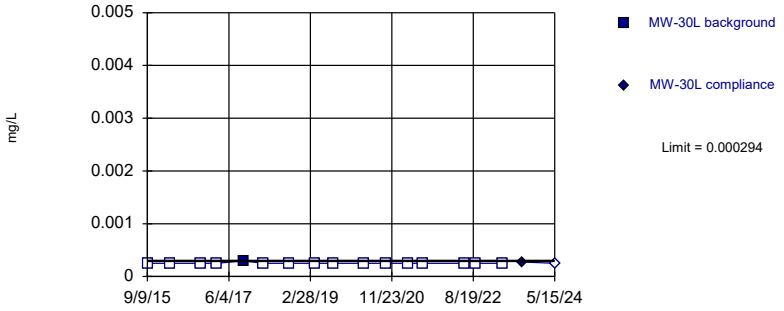
Constituent: Copper Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

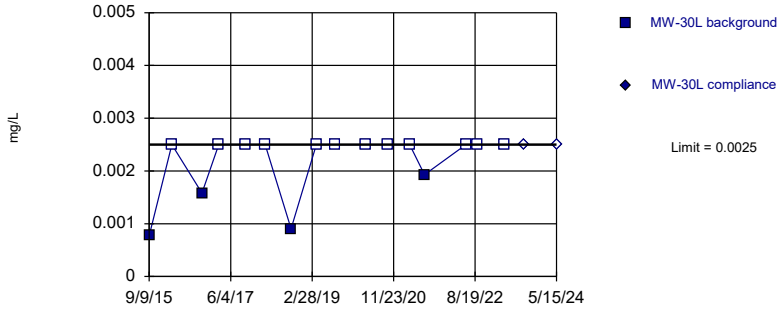
Constituent: Lead Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Within Limit

Prediction Limit

Intrawell Non-parametric



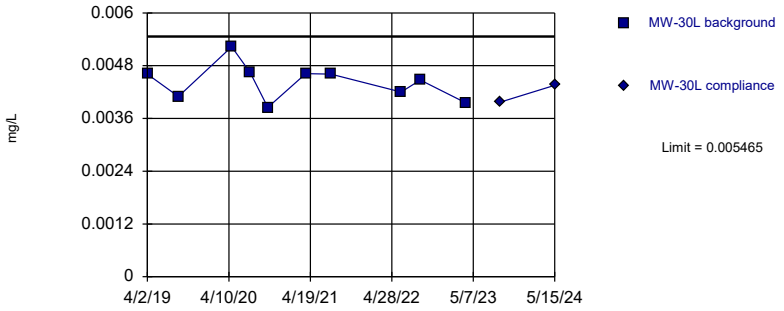
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Nickel Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.004429, Std. Dev.=0.0004104, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.928, critical = 0.781. Kappa = 2.526 (c=13, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.00135.

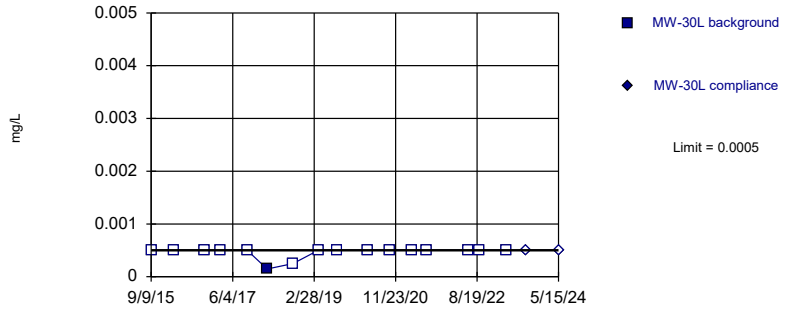
Constituent: Selenium Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

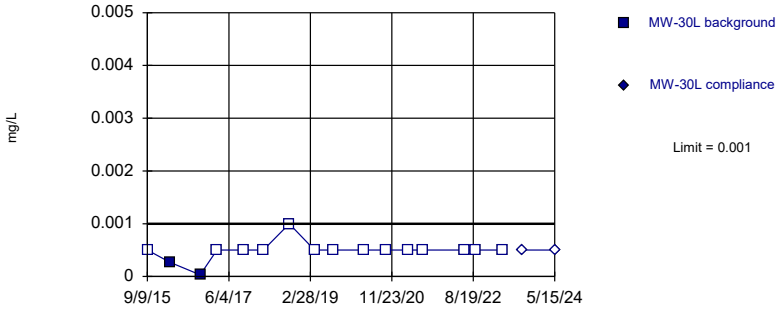
Constituent: Silver Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

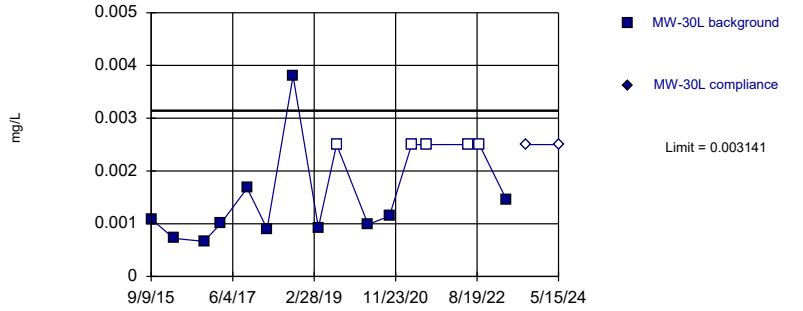
Constituent: Thallium Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.001307, Std. Dev.=0.000837, n=16, 31.25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8581, critical = 0.844. Kappa = 2.192 (c=13, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.00135.

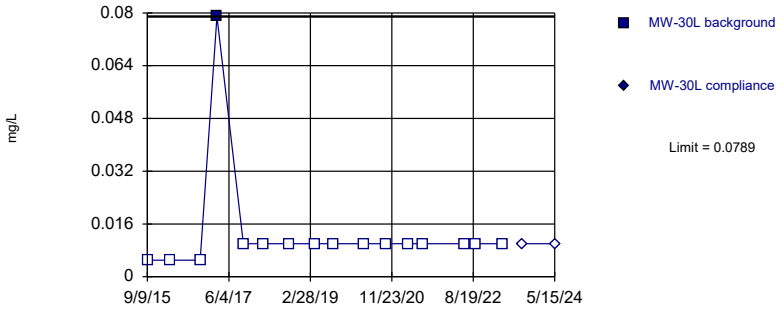
Constituent: Vanadium Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Zinc Analysis Run 8/5/2024 9:16 AM View: 2024SSN - MW-30L IntraPL

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Prediction Limit

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master Printed 8/5/2024, 9:28 AM

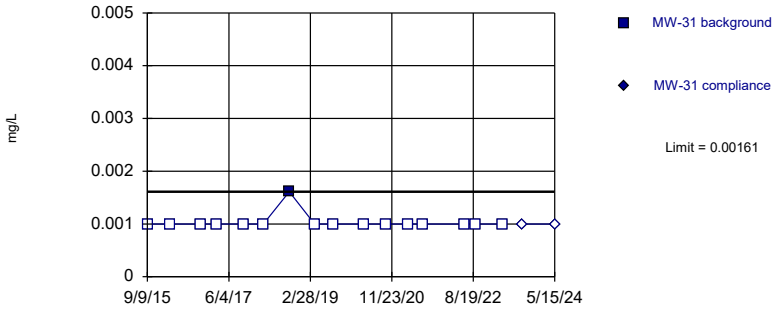
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	MW-31	0.00161	n/a	5/15/2024	0.001ND	No	16	n/a	n/a	n/a	93.75	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Barium (mg/L)	MW-31	0.1693	n/a	5/15/2024	0.133	No	16	n/a	0.1343	0.01617	0	None	No	0.001462	Param Intra 1 of 2
Cadmium (mg/L)	MW-31	0.0002479	n/a	5/15/2024	0.0001ND	No	18	n/a	0.01076	0.002351	11.11	None	sqrt(x)	0.001462	Param Intra 1 of 2
Chromium (mg/L)	MW-31	0.004	n/a	5/15/2024	0.0025ND	No	16	n/a	n/a	n/a	87.5	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-31	0.0005	n/a	5/15/2024	0.00025ND	No	16	n/a	n/a	n/a	56.25	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Copper (mg/L)	MW-31	0.0025	n/a	5/15/2024	0.0025ND	No	16	n/a	n/a	n/a	87.5	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Lead (mg/L)	MW-31	0.000304	n/a	5/15/2024	0.00025ND	No	16	n/a	n/a	n/a	93.75	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Nickel (mg/L)	MW-31	0.003263	n/a	5/15/2024	0.0025ND	No	16	n/a	0.002279	0.0004538	18.75	Kaplan-Meier	No	0.001462	Param Intra 1 of 2
Silver (mg/L)	MW-31	0.0005	n/a	5/15/2024	0.0005ND	No	16	n/a	n/a	n/a	87.5	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Thallium (mg/L)	MW-31	0.001	n/a	5/15/2024	0.0005ND	No	16	n/a	n/a	n/a	81.25	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-31	0.00392	n/a	5/15/2024	0.0025ND	No	16	n/a	n/a	n/a	62.5	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Zinc (mg/L)	MW-31	0.076	n/a	5/15/2024	0.01ND	No	16	n/a	n/a	n/a	93.75	n/a	n/a	0.006456	NP Intra (NDs) 1 of 2

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

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Arsenic Analysis Run 8/5/2024 9:27 AM View: 2024SSN - MW-31 IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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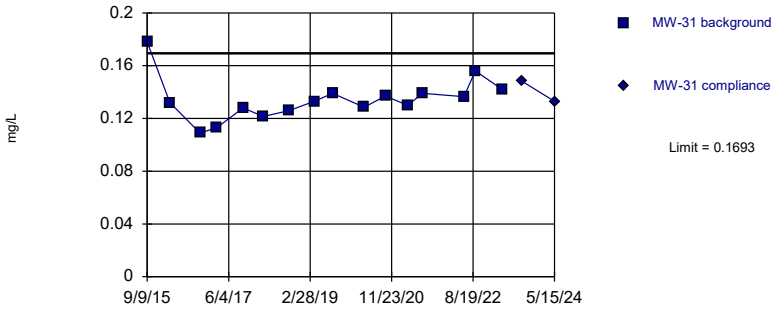
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1343, Std. Dev.=0.01617, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.905, critical = 0.844. Kappa = 2.168 (c=12, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.001462.

Constituent: Barium Analysis Run 8/5/2024 9:27 AM View: 2024SSN - MW-31 IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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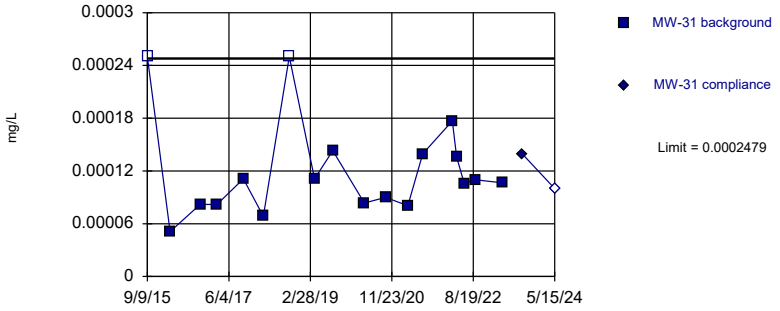
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.01076, Std. Dev.=0.002351, n=18, 11.11% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9054, critical = 0.858. Kappa = 2.121 (c=12, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.001462.

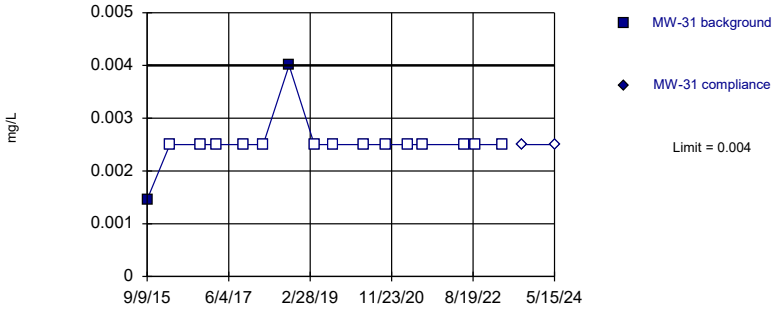
Constituent: Cadmium Analysis Run 8/5/2024 9:27 AM View: 2024SSN - MW-31 IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

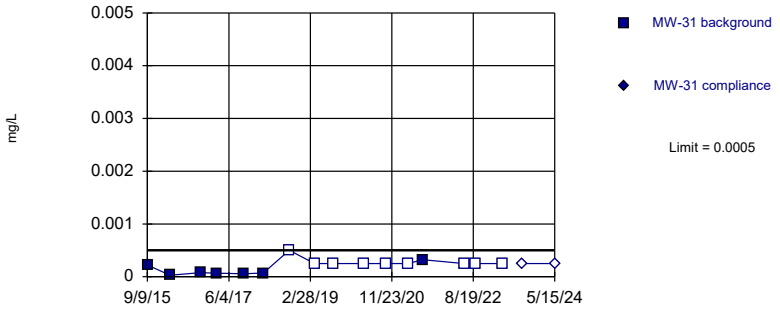
Constituent: Chromium Analysis Run 8/5/2024 9:27 AM View: 2024SSN - MW-31 IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 56.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

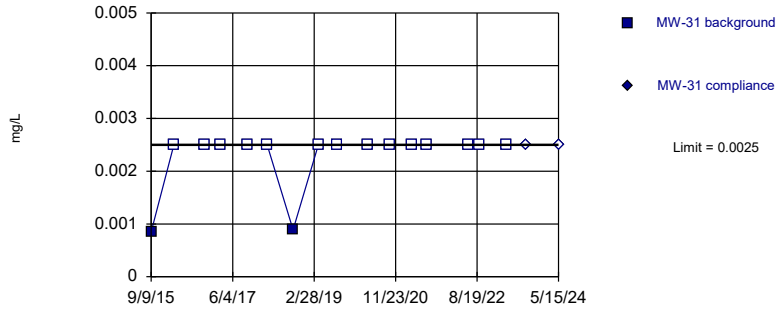
Constituent: Cobalt Analysis Run 8/5/2024 9:27 AM View: 2024SSN - MW-31 IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Copper Analysis Run 8/5/2024 9:27 AM View: 2024SSN - MW-31 IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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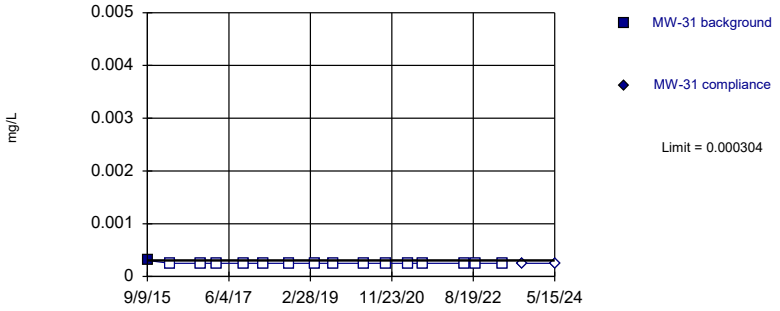
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

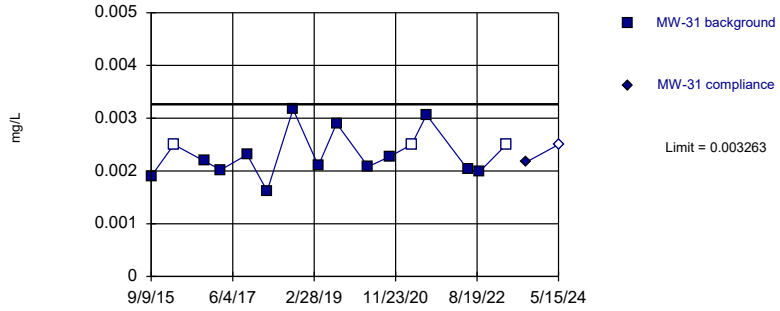
Constituent: Lead Analysis Run 8/5/2024 9:27 AM View: 2024SSN - MW-31 IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.002279, Std. Dev.=0.0004538, n=16, 18.75% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9352, critical = 0.844. Kappa = 2.168 (c=12, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.001462.

Constituent: Nickel Analysis Run 8/5/2024 9:27 AM View: 2024SSN - MW-31 IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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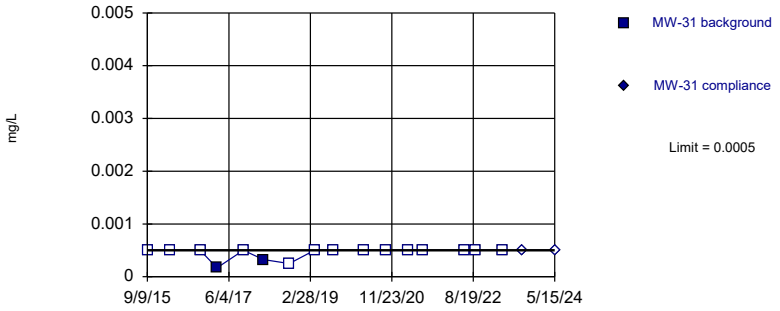
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Silver Analysis Run 8/5/2024 9:27 AM View: 2024SSN - MW-31 IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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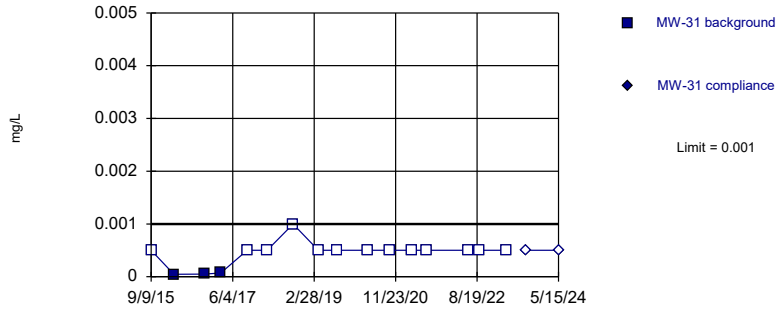
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 81.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

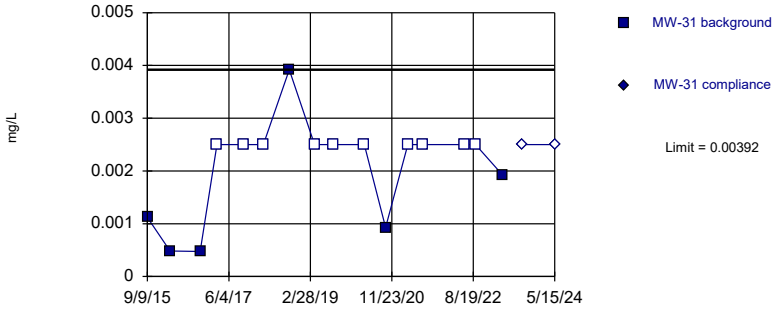
Constituent: Thallium Analysis Run 8/5/2024 9:27 AM View: 2024SSN - MW-31 IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

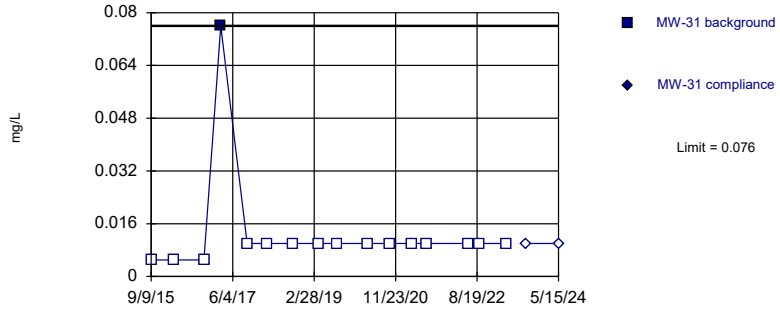
Constituent: Vanadium Analysis Run 8/5/2024 9:27 AM View: 2024SSN - MW-31 IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Zinc Analysis Run 8/5/2024 9:27 AM View: 2024SSN - MW-31 IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

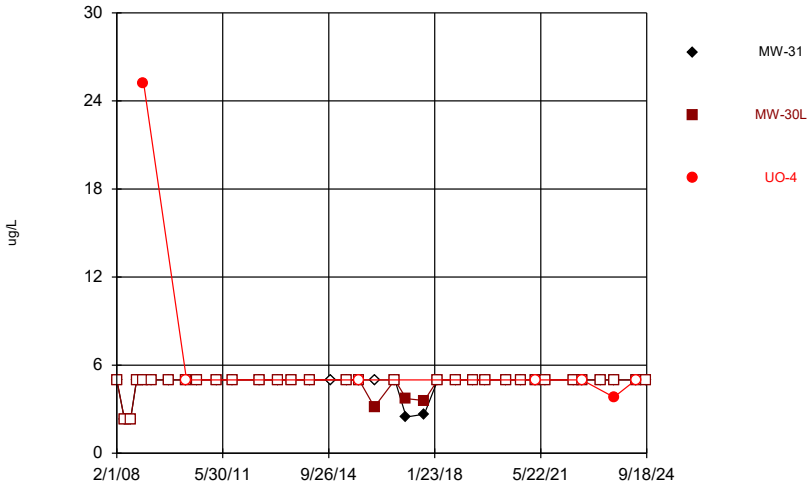
Attachment B

Fall 2024 Statistical Evaluation Output

Time Series Plots

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

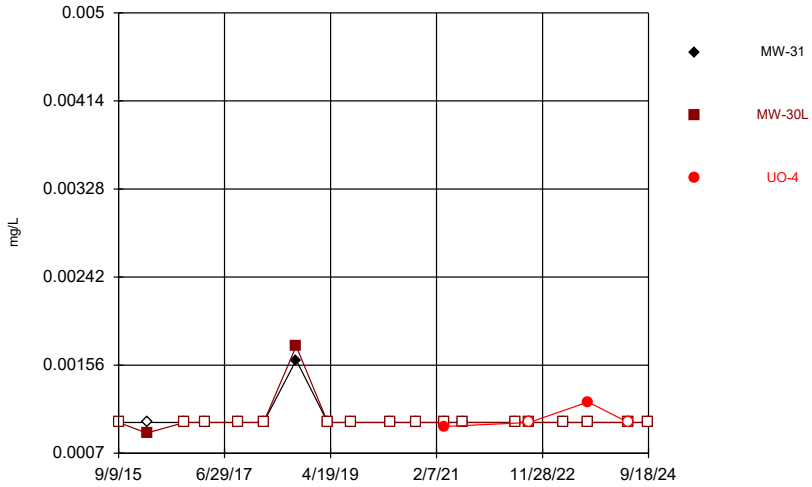
Time Series



Constituent: Acetone Analysis Run 2/4/2025 10:37 AM View: 2024AWQR-Time_Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

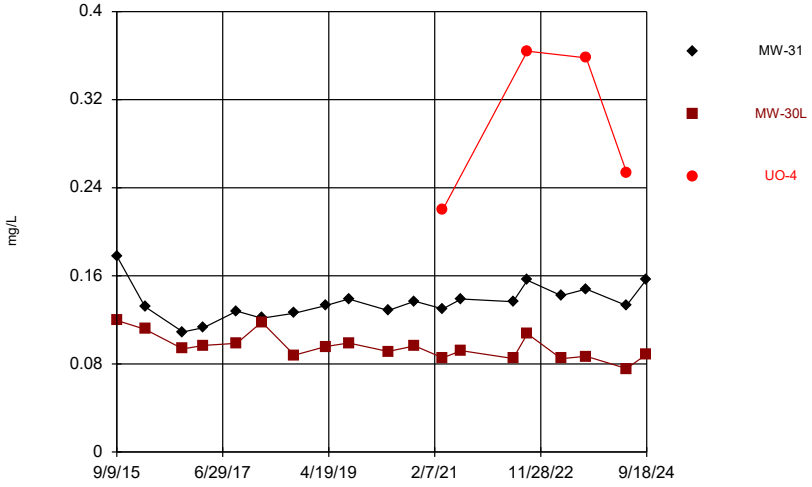
Time Series



Constituent: Arsenic Analysis Run 2/4/2025 10:37 AM View: 2024AWQR-Time_Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

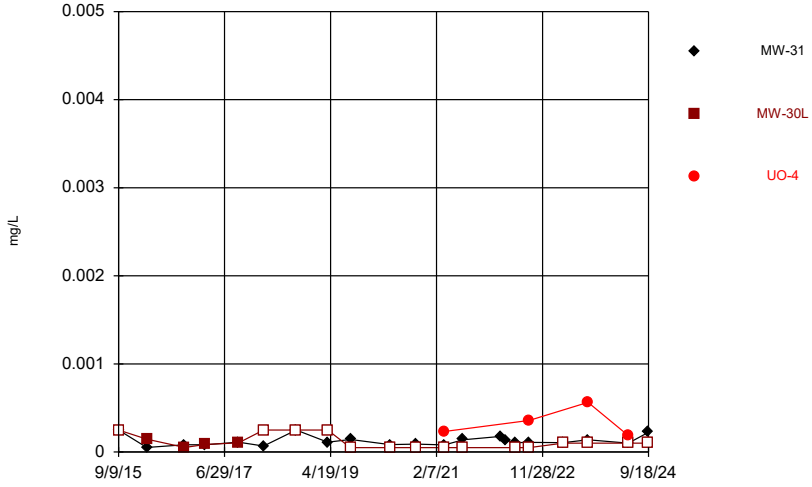
Time Series



Constituent: Barium Analysis Run 2/4/2025 10:37 AM View: 2024AWQR-Time_Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

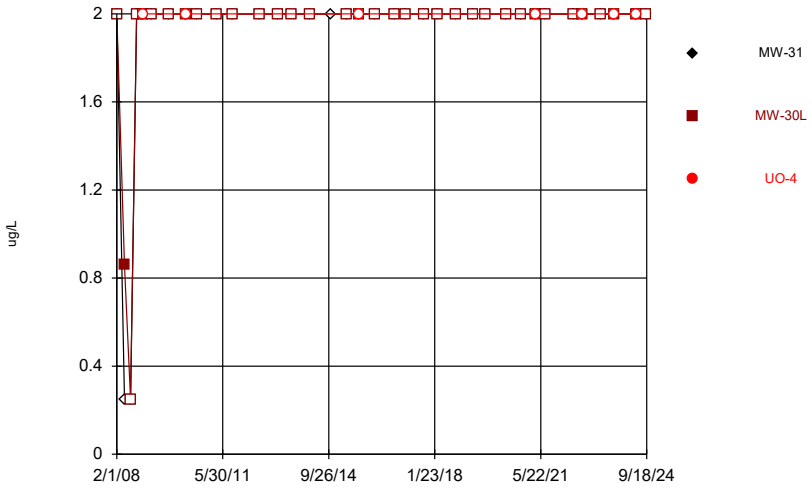
Time Series



Constituent: Cadmium Analysis Run 2/4/2025 10:37 AM View: 2024AWQR-Time_Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

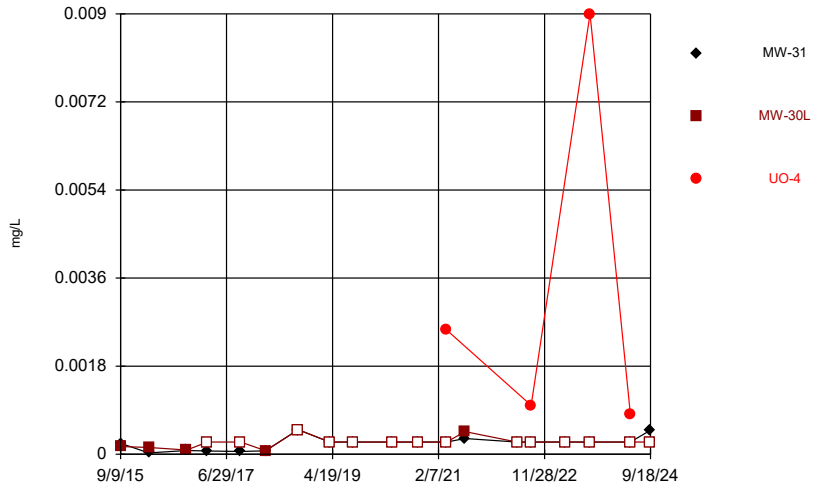
Time Series



Constituent: Chloroethane Analysis Run 2/4/2025 10:37 AM View: 2024AWQR-Time_Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

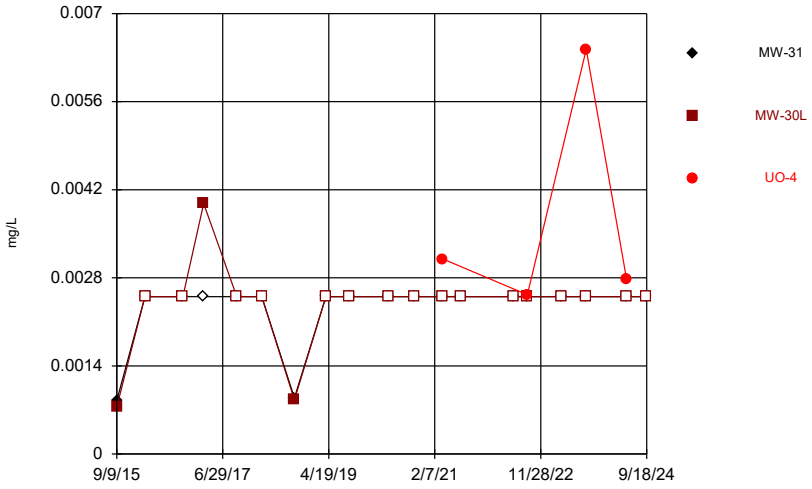
Time Series



Constituent: Cobalt Analysis Run 2/4/2025 10:37 AM View: 2024AWQR-Time_Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

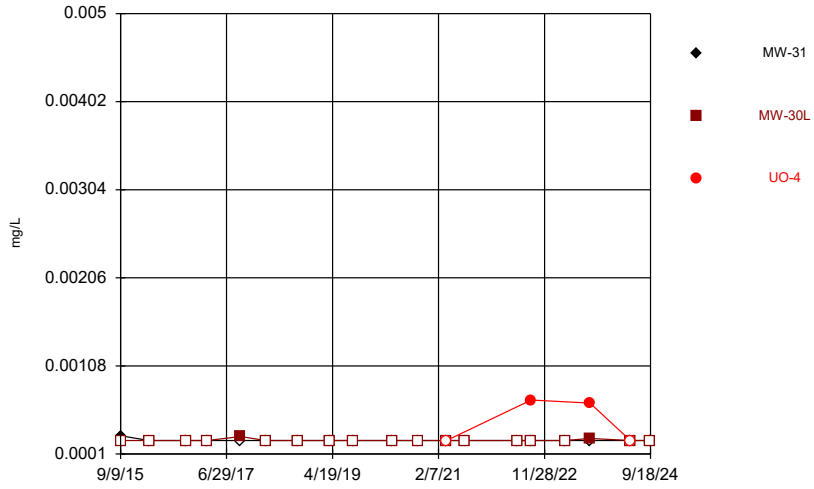
Time Series



Constituent: Copper Analysis Run 2/4/2025 10:37 AM View: 2024AWQR-Time_Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

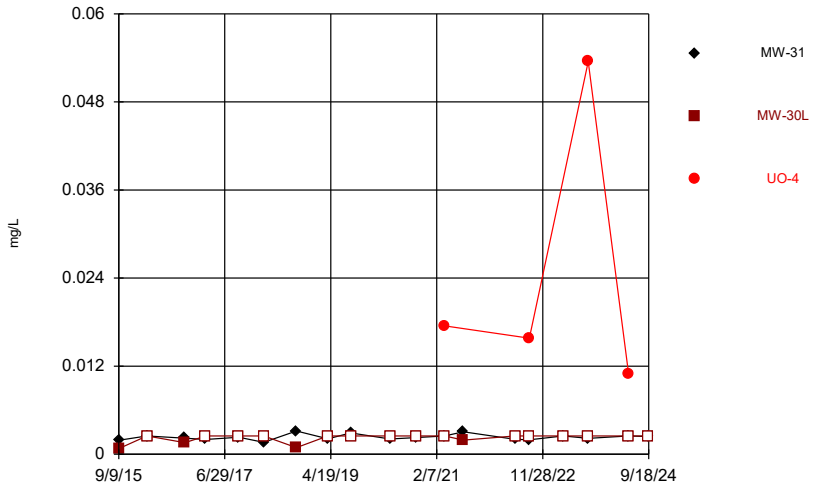
Time Series



Constituent: Lead Analysis Run 2/4/2025 10:37 AM View: 2024AWQR-Time_Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

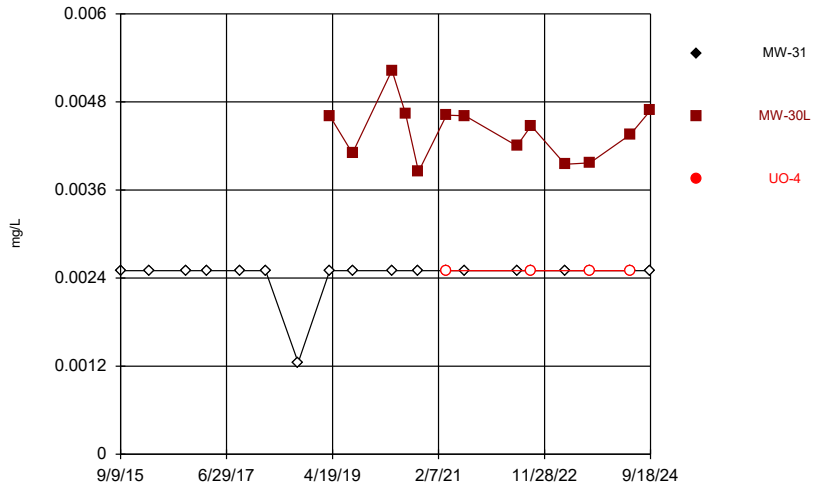
Time Series



Constituent: Nickel Analysis Run 2/4/2025 10:37 AM View: 2024AWQR-Time_Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

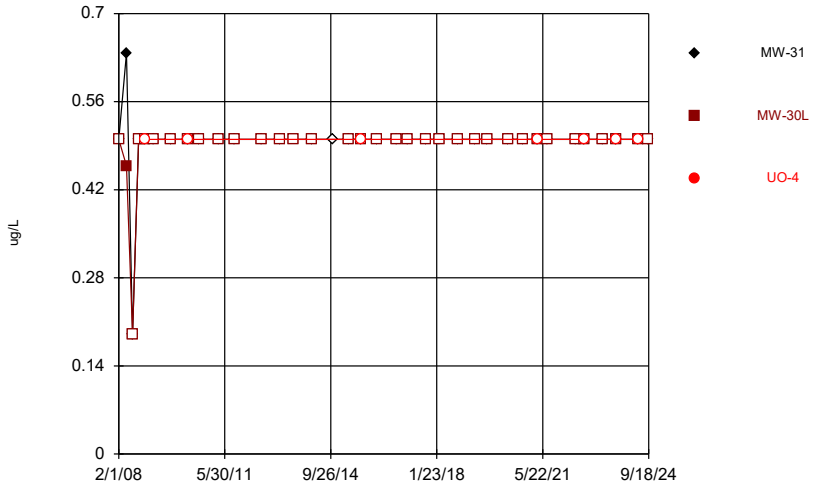
Time Series



Constituent: Selenium Analysis Run 2/4/2025 10:37 AM View: 2024AWQR-Time_Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

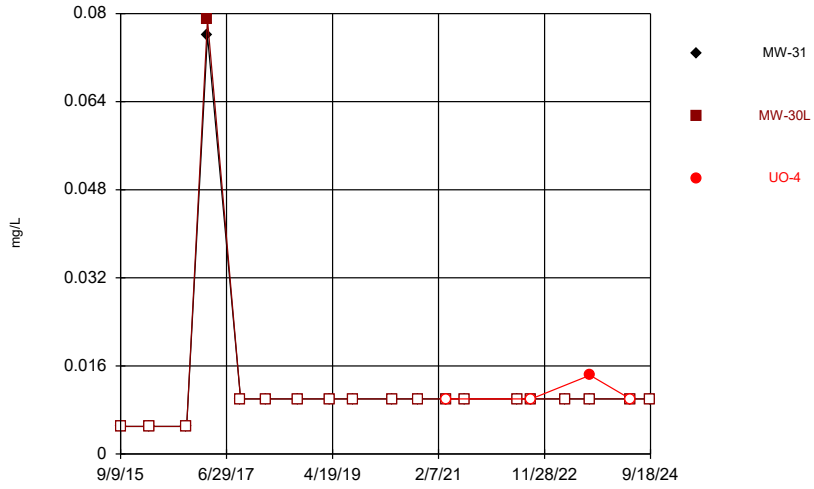
Time Series



Constituent: Tetrachloroethene Analysis Run 2/4/2025 10:37 AM View: 2024AWQR-Time_Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 2/4/2025 10:37 AM View: 2024AWQR-Time_Series
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Outliers Summary Table and Graphs

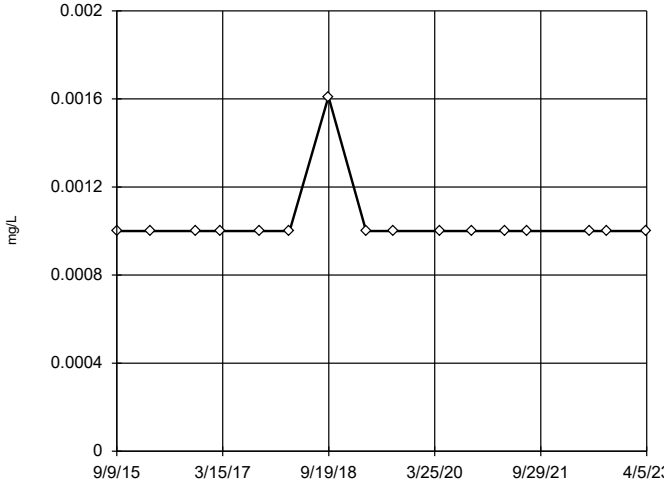
BG Outlier Analysis

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master Printed 2/4/2025, 1:45 PM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Arsenic (mg/L)	MW-31	No	n/a	n/a	OH	NaN	16	0.001038	0.0001525	n/a	n/a
Arsenic (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.00104	0.0001897	n/a	n/a
Barium (mg/L)	**MW-31**	**Yes**	**0.178**	**9/9/2015**	**Dixon/OH**	**0.01**	**16**	**0.1343**	**0.01617**	**normal**	**ShapiroWilk**
Barium (mg/L)	MW-30L	No	n/a	n/a	EPA/OH	0.05	16	0.0977	0.0111	normal	ShapiroWilk
Cadmium (mg/L)	MW-31	No	n/a	n/a	EPA/OH	0.05	18	0.000121	0.0000558	ln(x)	ShapiroWilk
Cadmium (mg/L)	**MW-30L**	**Yes**	**0.00025,0.00025,0.00025,0.00025**	**9/9/2015,2/27/2018,9/18/2018,4/2/2019**	**OH**	**NaN**	**16**	**0.0001149**	**0.00008508**	**n/a**	**n/a**
Chromium (mg/L)	MW-31	No	n/a	n/a	OH	NaN	16	0.002529	0.0004703	n/a	n/a
Chromium (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.002401	0.0007377	n/a	n/a
Cobalt (mg/L)	MW-31	No	n/a	n/a	NP (nrm)/OH	NaN	16	0.0002089	0.0001224	unknown	ShapiroWilk
Cobalt (mg/L)	**MW-30L**	**Yes**	**0.0005,0.000461**	**9/18/2018,7/22/2021**	**NP (nrm)/OH**	**NaN**	**16**	**0.0002448**	**0.0001113**	**unknown**	**ShapiroWilk**
Copper (mg/L)	MW-31	No	n/a	n/a	OH	NaN	16	0.002296	0.0005566	n/a	n/a
Copper (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.002381	0.000717	n/a	n/a
Lead (mg/L)	MW-31	No	n/a	n/a	OH	NaN	16	0.0002534	0.0000135	n/a	n/a
Lead (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.0002528	0.000011	n/a	n/a
Nickel (mg/L)	MW-31	No	n/a	n/a	EPA/OH	0.05	16	0.002321	0.0004317	normal	ShapiroWilk
Nickel (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.002199	0.0005923	n/a	n/a
Selenium (mg/L)	MW-30L	No	n/a	n/a	EPA/OH	0.05	10	0.004429	0.0004104	normal	ShapiroWilk
Silver (mg/L)	MW-31	No	n/a	n/a	OH	NaN	16	0.0004528	0.0001055	n/a	n/a
Silver (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.0004623	0.0001049	n/a	n/a
Thallium (mg/L)	MW-31	No	n/a	n/a	OH	NaN	16	0.0004478	0.0002311	n/a	n/a
Thallium (mg/L)	MW-30L	No	n/a	n/a	OH	NaN	16	0.0004874	0.0001863	n/a	n/a
Vanadium (mg/L)	MW-31	No	n/a	n/a	NP (nrm)/OH	NaN	16	0.002116	0.0009141	unknown	ShapiroWilk
Vanadium (mg/L)	MW-30L	No	n/a	n/a	EPA/OH	0.05	16	0.00168	0.0009166	normal	ShapiroWilk
Zinc (mg/L)	**MW-31**	**Yes**	**0.076**	**3/3/2017**	**OH**	**NaN**	**16**	**0.01319**	**0.01687**	**n/a**	**n/a**
Zinc (mg/L)	**MW-30L**	**Yes**	**0.0789**	**3/3/2017**	**OH**	**NaN**	**16**	**0.01337**	**0.01759**	**n/a**	**n/a**

Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

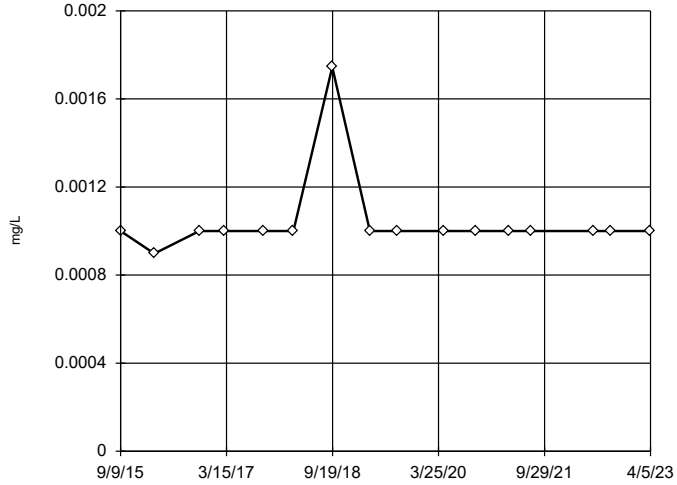
No statistical outliers.

Constituent: Arsenic Analysis Run 2/4/2025 1:43 PM View: 2024AWQR-BG_Outliers

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

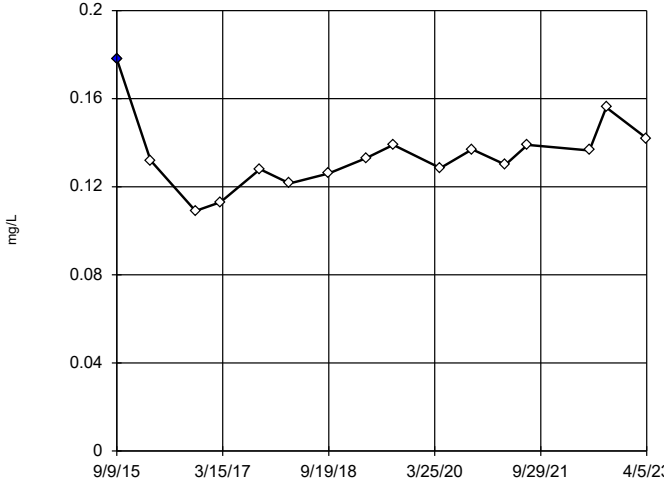
No statistical outliers.

Constituent: Arsenic Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

Statistical outlier is drawn as solid.
Testing for 1 high outlier.
Mean = 0.1343.
Std. Dev. = 0.01617.
0.178: c = 0.6372
tabl = 0.595.
Alpha = 0.01.

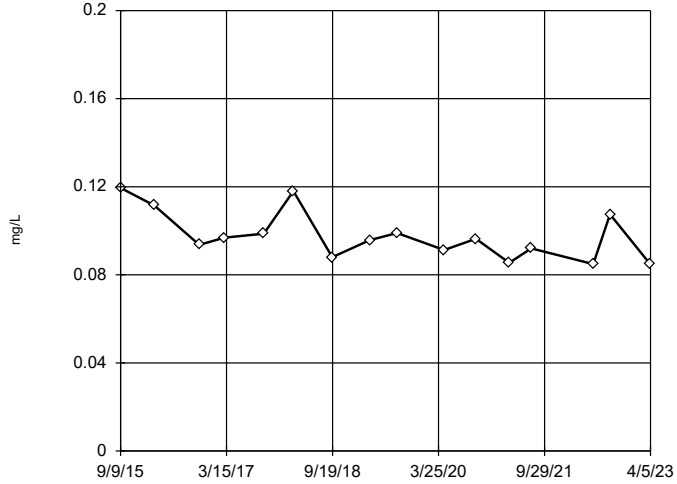
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9662
Critical = 0.835
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Barium Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

EPA Screening (suspected outliers for Dixon's Test)

MW-30L



n = 16

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.0977, std. dev. 0.0111, critical Tn 2.443

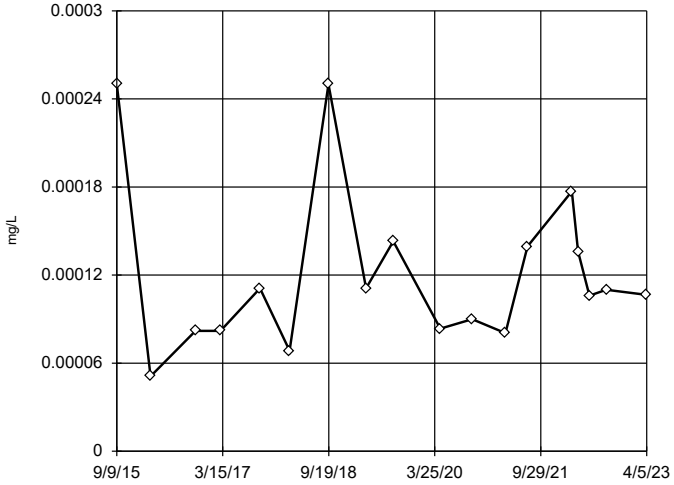
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.901
Critical = 0.844
The distribution was found to be normally distributed.

Constituent: Barium Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

EPA Screening (suspected outliers for Dixon's Test)

MW-31



n = 18

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.000121, std. dev. 0.0000558, critical Tn 2.504

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9517
Critical = 0.858 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Cadmium Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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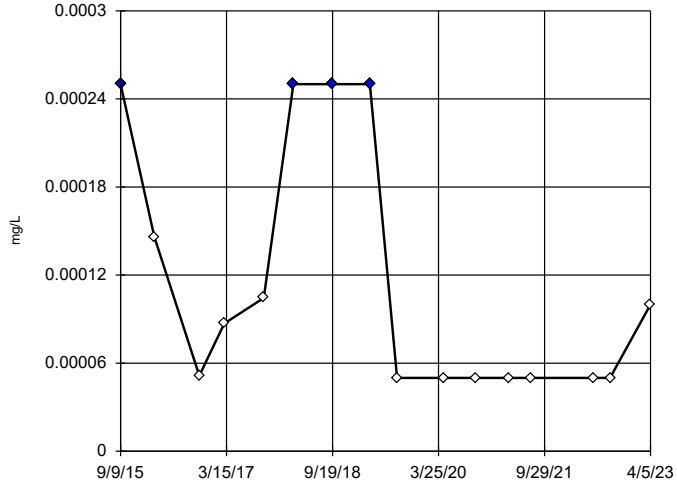
Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

Statistical outliers are drawn as solid.
Outliers per Ohio method.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9517
Critical = 0.858 (after natural log transformation)
The distribution, after removal of suspect values, was found to be log-normal.

Constituent: Cadmium Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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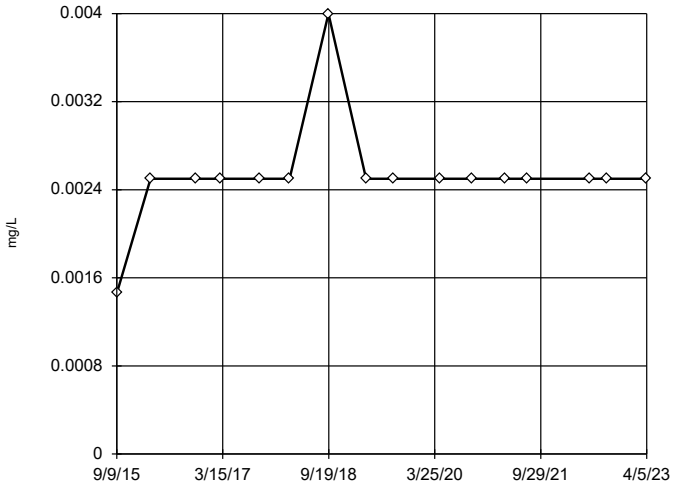
Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

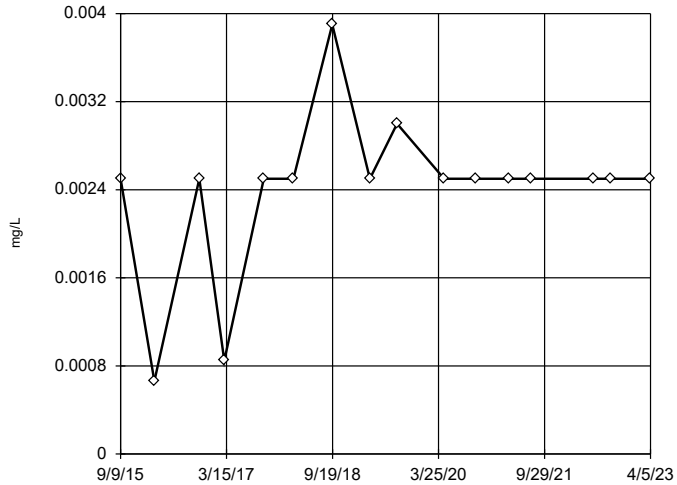
No statistical outliers.

Constituent: Chromium Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

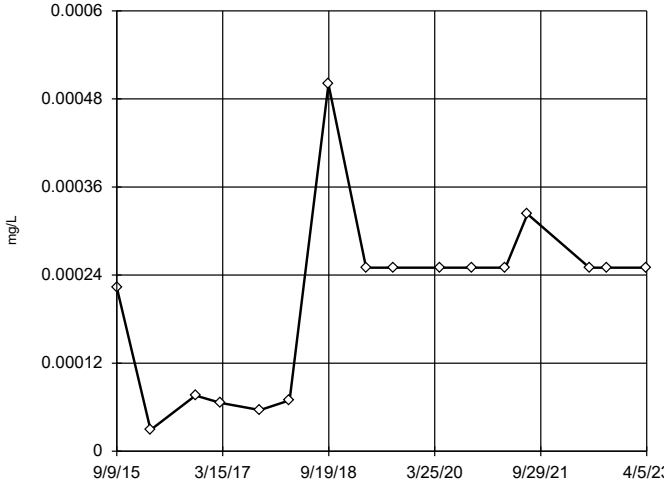
No statistical outliers.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9517
Critical = 0.858 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Chromium Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

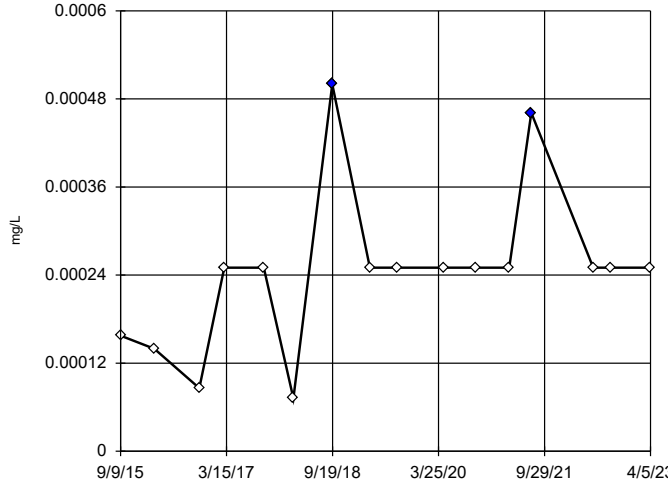
High cutoff = 0.0007818, low cutoff = -0.000459, based on IQR multiplier of 3.

Constituent: Cobalt Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

High cutoff = 0.0003888, low cutoff = 0.000065, based on IQR multiplier of 3.

Constituent: Cobalt Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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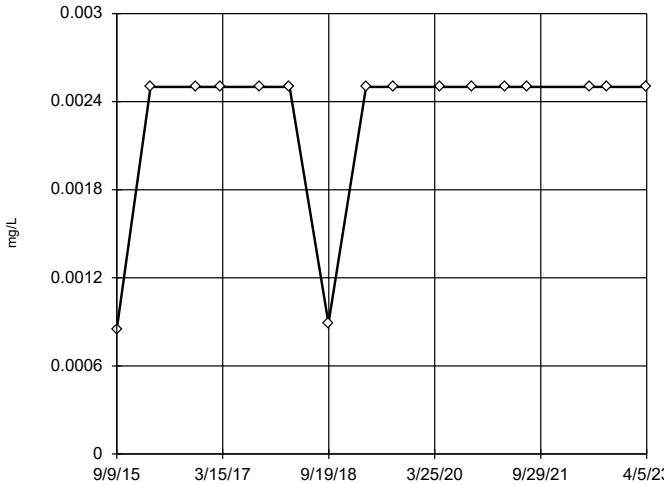
Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

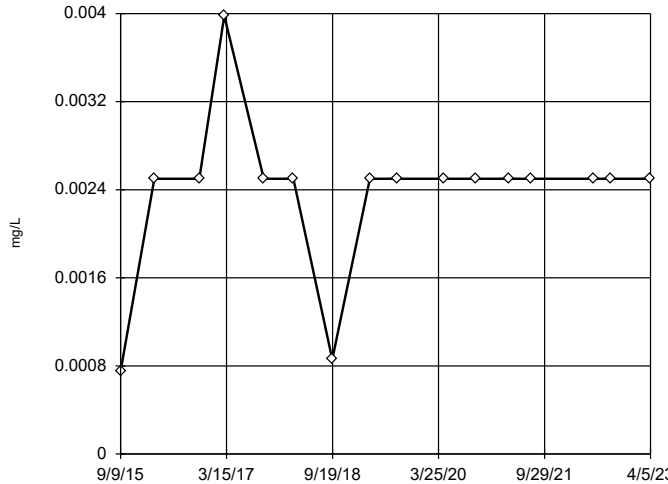
No statistical outliers.

Constituent: Copper Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm

MW-30L



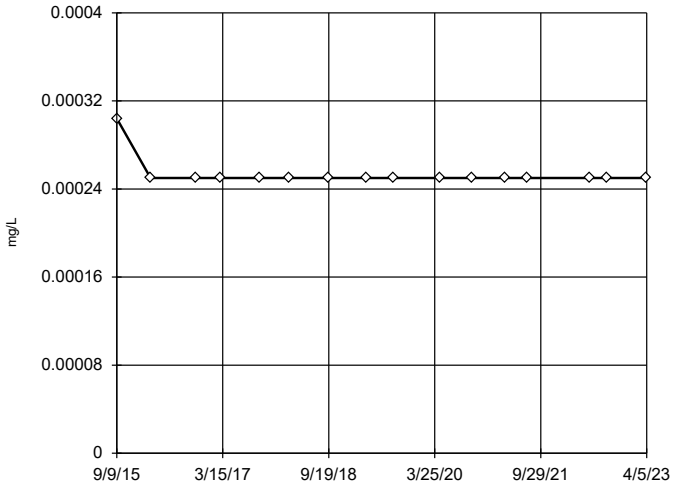
n = 16

No statistical outliers.

Constituent: Copper Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

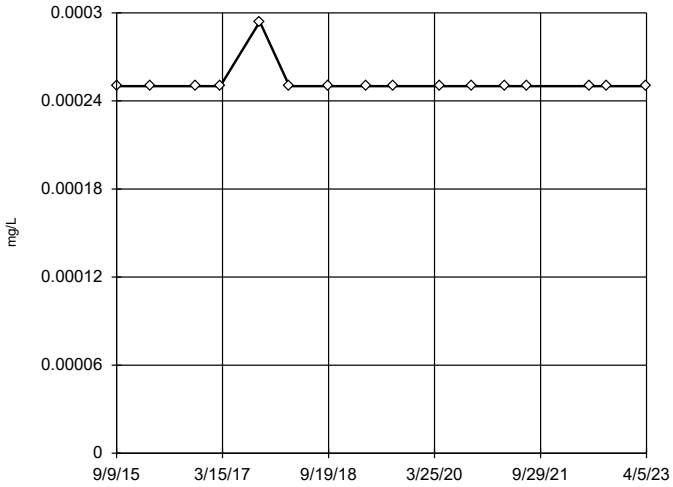
No statistical outliers.

Constituent: Lead Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

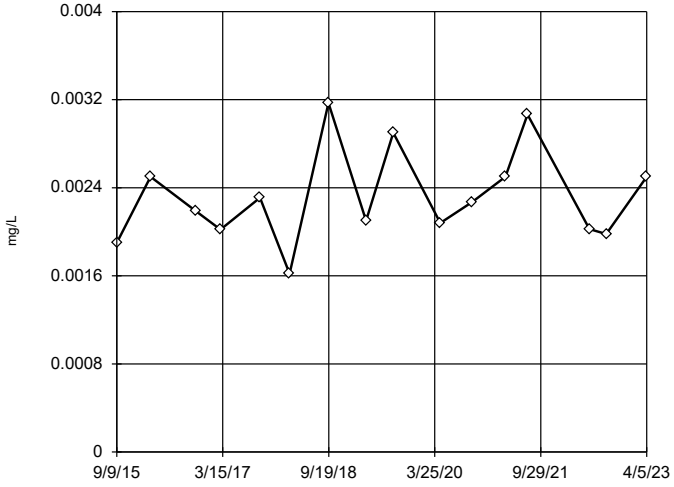
No statistical outliers.

Constituent: Lead Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

EPA Screening (suspected outliers for Dixon's Test)

MW-31



n = 16

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.002321, std. dev. 0.0004317, critical Tn 2.443

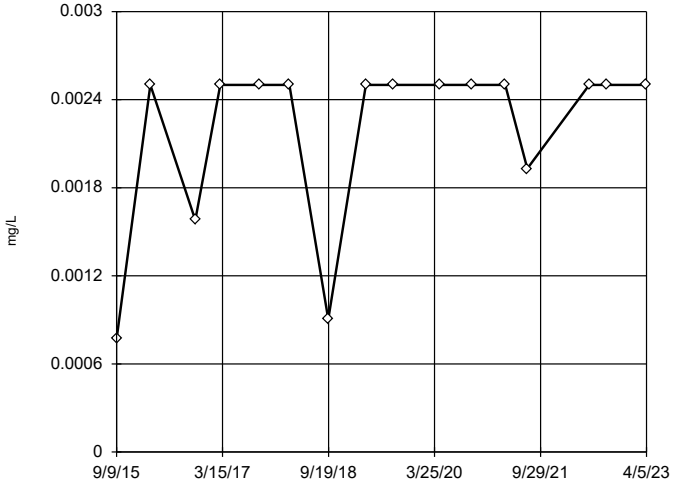
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9352
Critical = 0.844
The distribution was found to be normally distributed.

Constituent: Nickel Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

No statistical outliers.

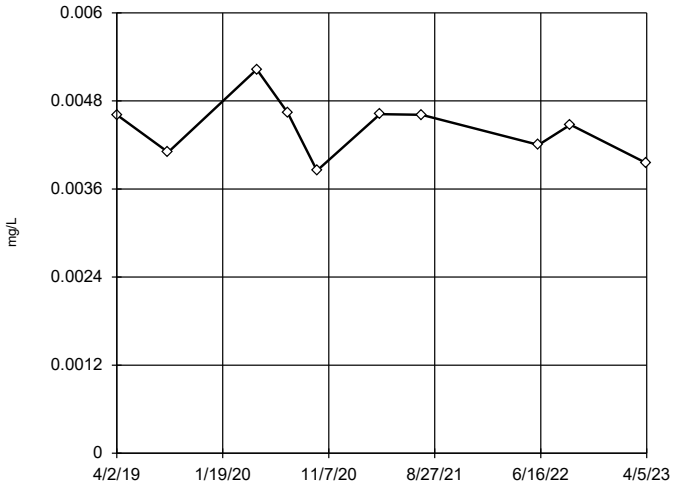
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9352
Critical = 0.844
The distribution was found to be normally distributed.

Constituent: Nickel Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

EPA Screening (suspected outliers for Dixon's Test)

MW-30L



n = 10

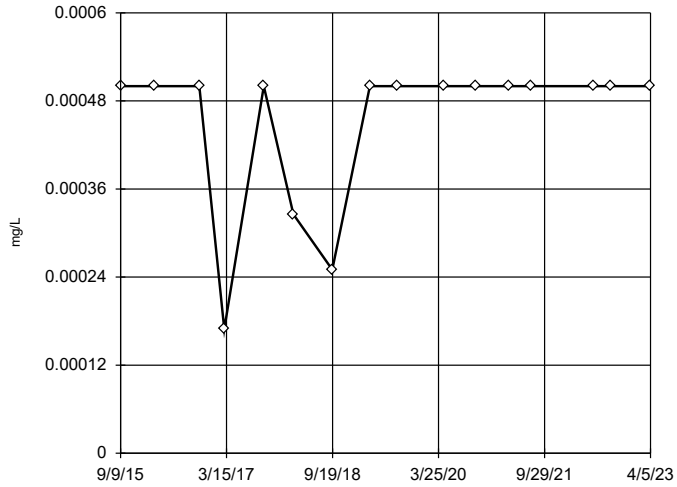
Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.004429, std. dev. 0.0004104, critical Tn 2.176

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.928
Critical = 0.781
The distribution was found to be normally distributed.

Constituent: Selenium Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Ohio EPA 0715 Outlier Algorithm

MW-31



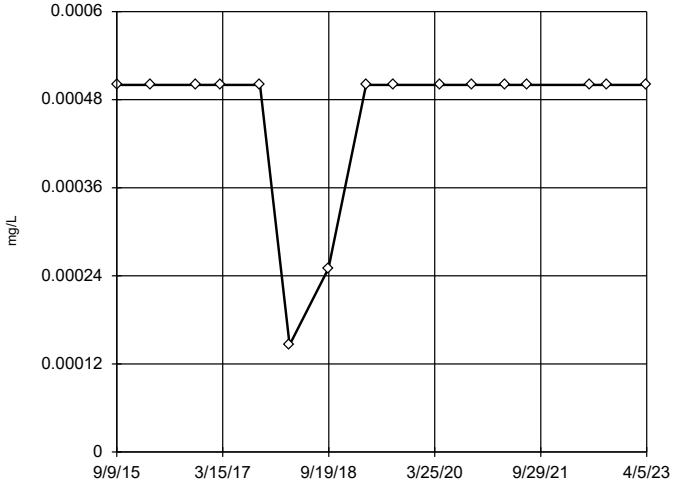
n = 16

No statistical outliers.

Constituent: Silver Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Ohio EPA 0715 Outlier Algorithm

MW-30L



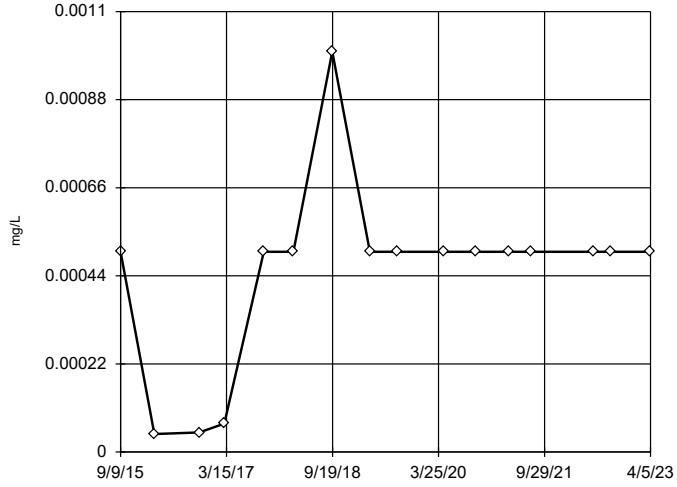
n = 16

No statistical outliers.

Constituent: Silver Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Ohio EPA 0715 Outlier Algorithm

MW-31



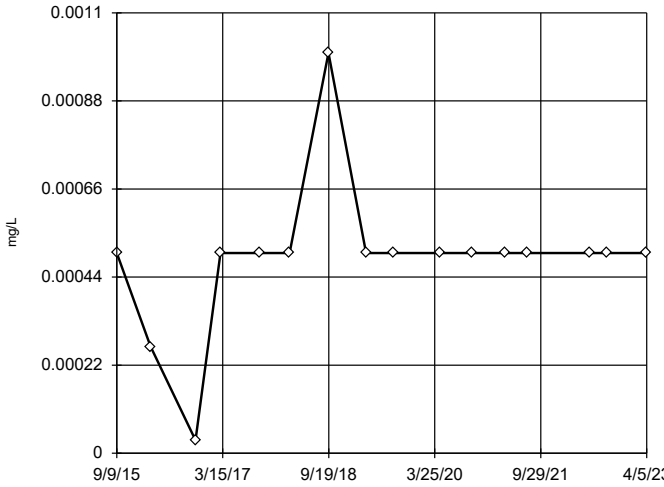
n = 16

No statistical outliers.

Constituent: Thallium Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

No statistical outliers.

Constituent: Thallium Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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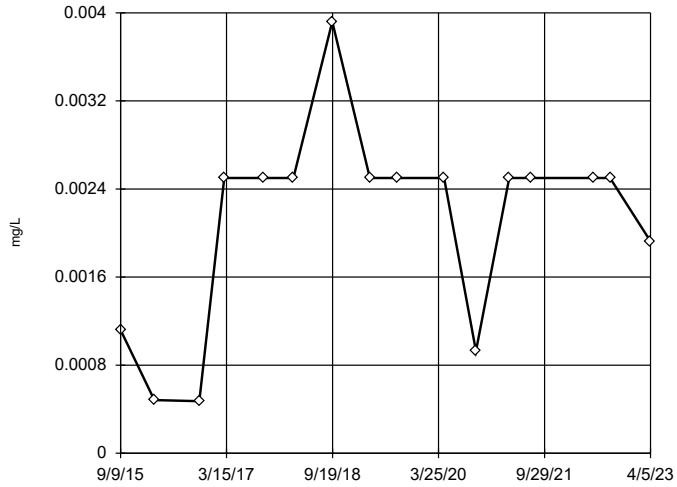
Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-31



n = 16

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

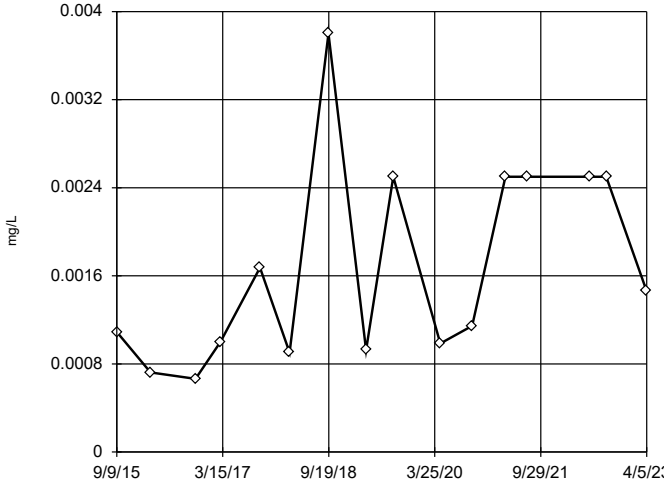
High cutoff = 0.005432, low cutoff = -0.00141, based on IQR multiplier of 3.

Constituent: Vanadium Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

EPA Screening (suspected outliers for Dixon's Test)

MW-30L



n = 16

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.00168, std. dev. 0.0009166, critical Tn 2.443

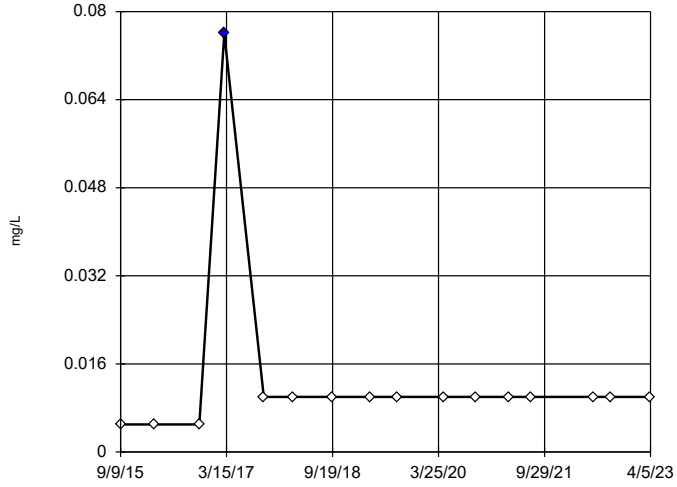
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8581
Critical = 0.844
The distribution was found to be normally distributed.

Constituent: Vanadium Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm

MW-31



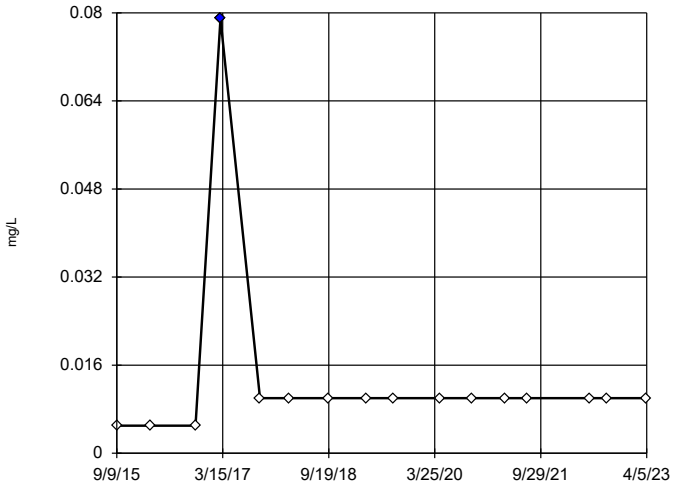
n = 16

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

Constituent: Zinc Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Ohio EPA 0715 Outlier Algorithm

MW-30L



n = 16

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

Constituent: Zinc Analysis Run 2/4/2025 1:44 PM View: 2024AWQR-BG_Outliers
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Prediction Limits Summary Table and Graphs

MW-30L IntraPrediction Limit

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master Printed 2/4/2025, 1:58 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	MW-30L	0.001745	n/a	9/18/2024	0.001ND	No	16	n/a	87.5	n/a	0.006456	NP Intra (NDs) 1 of 2
Barium (mg/L)	MW-30L	0.122	n/a	9/18/2024	0.0889	No	16	n/a	0	No	0.00135	Param Intra 1 of 2
Cadmium (mg/L)	MW-30L	0.00025	n/a	9/18/2024	0.0001ND	No	16	n/a	75	n/a	0.006456	NP Intra (NDs) 1 of 2
Chromium (mg/L)	MW-30L	0.0039	n/a	9/18/2024	0.0025ND	No	16	n/a	75	n/a	0.006456	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-30L	0.0005	n/a	9/18/2024	0.00025ND	No	16	n/a	68.75	n/a	0.006456	NP Intra (NDs) 1 of 2
Copper (mg/L)	MW-30L	0.00398	n/a	9/18/2024	0.0025ND	No	16	n/a	81.25	n/a	0.006456	NP Intra (NDs) 1 of 2
Lead (mg/L)	MW-30L	0.000294	n/a	9/18/2024	0.00025ND	No	16	n/a	93.75	n/a	0.006456	NP Intra (NDs) 1 of 2
Nickel (mg/L)	MW-30L	0.0025	n/a	9/18/2024	0.0025ND	No	16	n/a	75	n/a	0.006456	NP Intra (NDs) 1 of 2
Selenium (mg/L)	MW-30L	0.005465	n/a	9/18/2024	0.004685J	No	10	n/a	0	No	0.00135	Param Intra 1 of 2
Silver (mg/L)	MW-30L	0.0005	n/a	9/18/2024	0.0005ND	No	16	n/a	93.75	n/a	0.006456	NP Intra (NDs) 1 of 2
Thallium (mg/L)	MW-30L	0.001	n/a	9/18/2024	0.0005ND	No	16	n/a	87.5	n/a	0.006456	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-30L	0.003141	n/a	9/18/2024	0.0025ND	No	16	n/a	31.25	No	0.00135	Param Intra 1 of 2
Zinc (mg/L)	MW-30L	0.0789	n/a	9/18/2024	0.01ND	No	16	n/a	93.75	n/a	0.006456	NP Intra (NDs) 1 of 2

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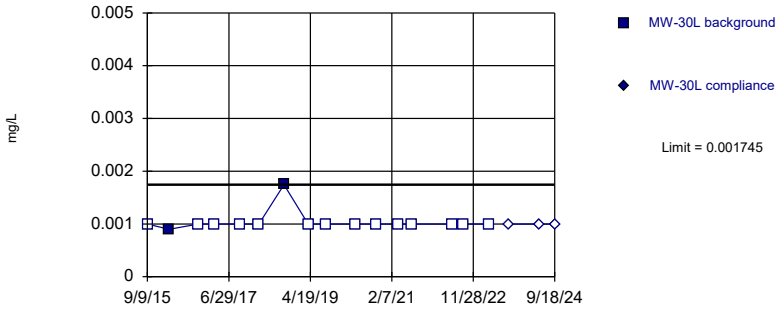
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

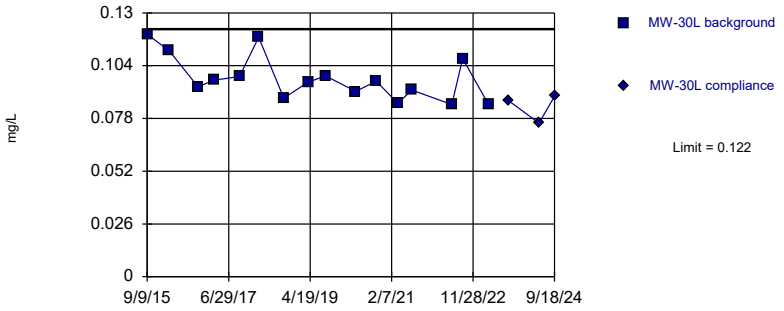
Constituent: Arsenic Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.0977, Std. Dev.=0.0111, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.901, critical = 0.844. Kappa = 2.192 (c=13, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.00135.

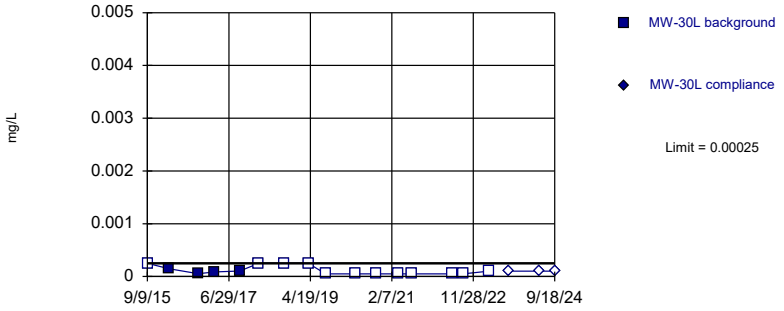
Constituent: Barium Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

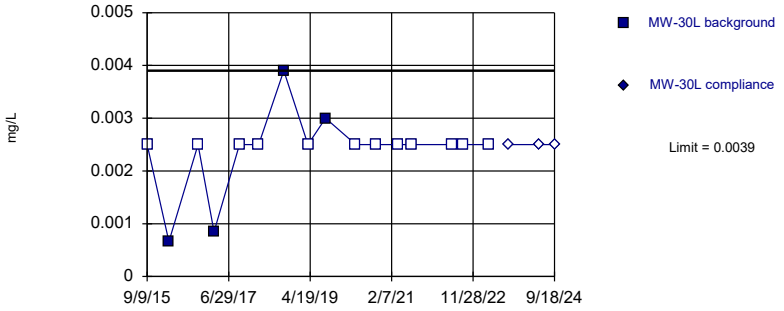
Constituent: Cadmium Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Chromium Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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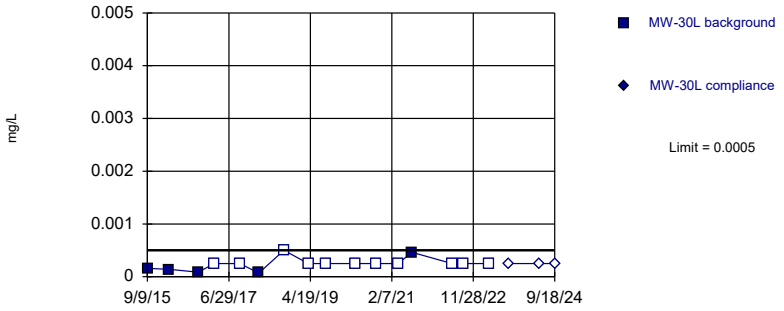
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 68.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Cobalt Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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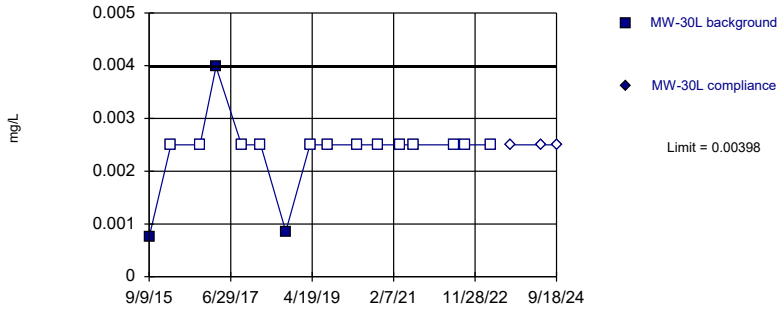
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 81.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Copper Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

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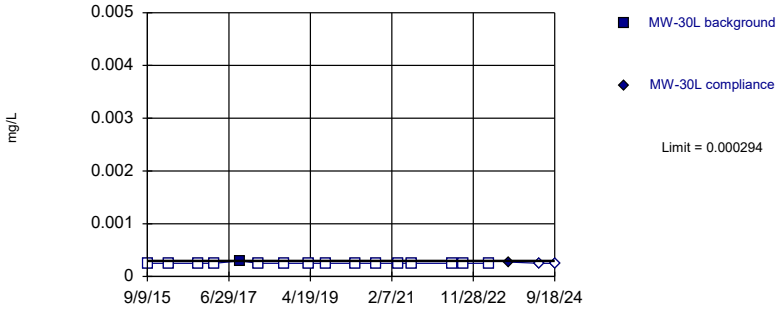
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

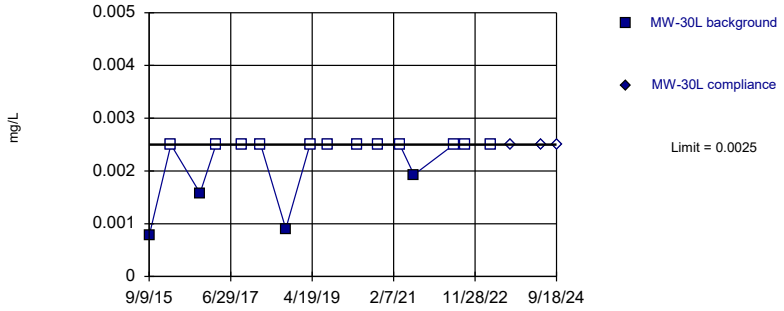
Constituent: Lead Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



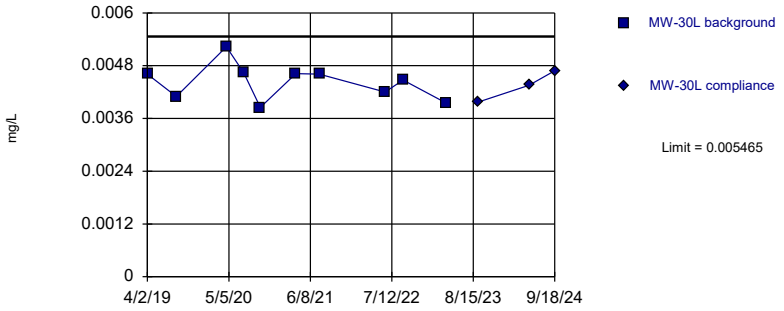
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Nickel Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.004429, Std. Dev.=0.0004104, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.928, critical = 0.781. Kappa = 2.526 (c=13, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.00135.

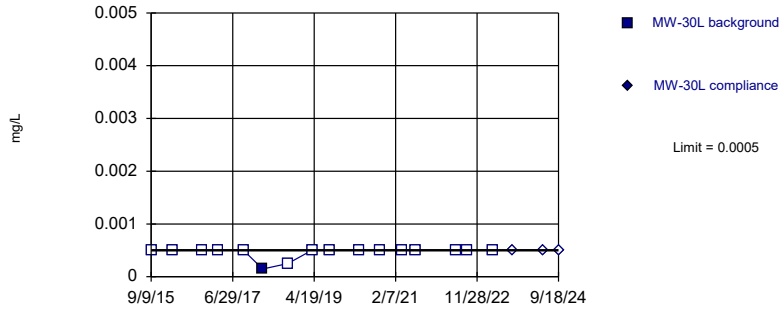
Constituent: Selenium Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

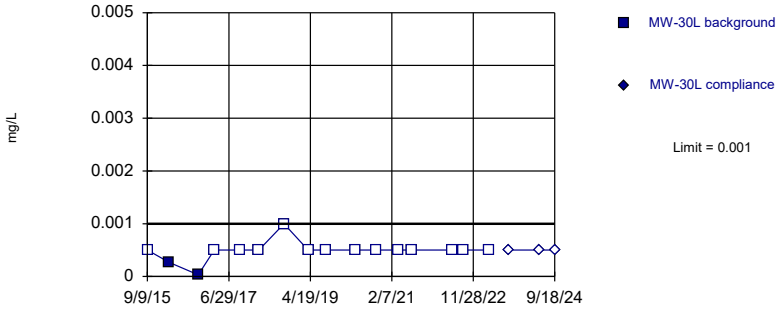
Constituent: Silver Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

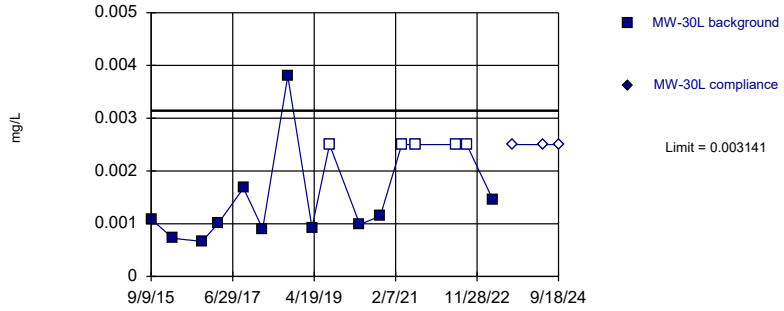
Constituent: Thallium Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.001307, Std. Dev.=0.000837, n=16, 31.25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8581, critical = 0.844. Kappa = 2.192 (c=13, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.00135.

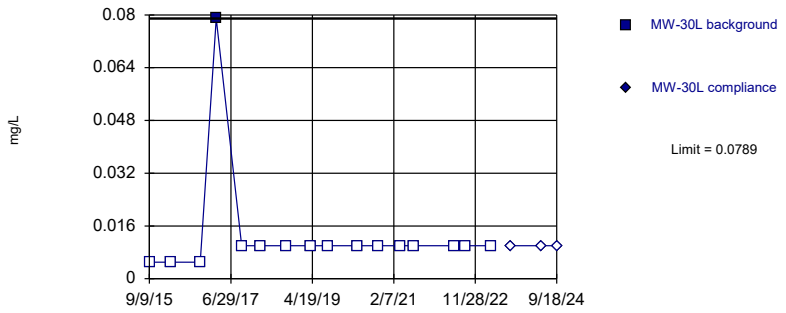
Constituent: Vanadium Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Zinc Analysis Run 2/4/2025 1:55 PM View: 2024AWQR-MW-30L_IntraPL

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

MW-31 IntraPrediction Limit

Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master Printed 2/4/2025, 2:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	MW-31	0.00161	n/a	9/18/2024	0.001ND	No	16	n/a	93.75	n/a	0.006456	NP Intra (NDs) 1 of 2
Barium (mg/L)	MW-31	0.1693	n/a	9/18/2024	0.157	No	16	n/a	0	No	0.001462	Param Intra 1 of 2
Cadmium (mg/L)	MW-31	0.0002479	n/a	9/18/2024	0.000225	No	18	n/a	11.11	sqrt(x)	0.001462	Param Intra 1 of 2
Chromium (mg/L)	MW-31	0.004	n/a	9/18/2024	0.0025ND	No	16	n/a	87.5	n/a	0.006456	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-31	0.0005	n/a	9/18/2024	0.000493J	No	16	n/a	56.25	n/a	0.006456	NP Intra (NDs) 1 of 2
Copper (mg/L)	MW-31	0.0025	n/a	9/18/2024	0.0025ND	No	16	n/a	87.5	n/a	0.006456	NP Intra (NDs) 1 of 2
Lead (mg/L)	MW-31	0.000304	n/a	9/18/2024	0.00025ND	No	16	n/a	93.75	n/a	0.006456	NP Intra (NDs) 1 of 2
Nickel (mg/L)	MW-31	0.003263	n/a	9/18/2024	0.0024J	No	16	n/a	18.75	No	0.001462	Param Intra 1 of 2
Silver (mg/L)	MW-31	0.0005	n/a	9/18/2024	0.0005ND	No	16	n/a	87.5	n/a	0.006456	NP Intra (NDs) 1 of 2
Thallium (mg/L)	MW-31	0.001	n/a	9/18/2024	0.0005ND	No	16	n/a	81.25	n/a	0.006456	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-31	0.00392	n/a	9/18/2024	0.0025ND	No	16	n/a	62.5	n/a	0.006456	NP Intra (NDs) 1 of 2
Zinc (mg/L)	MW-31	0.076	n/a	9/18/2024	0.01ND	No	16	n/a	93.75	n/a	0.006456	NP Intra (NDs) 1 of 2

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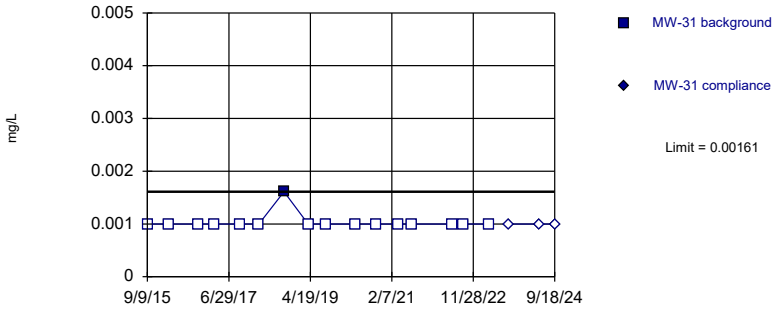
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

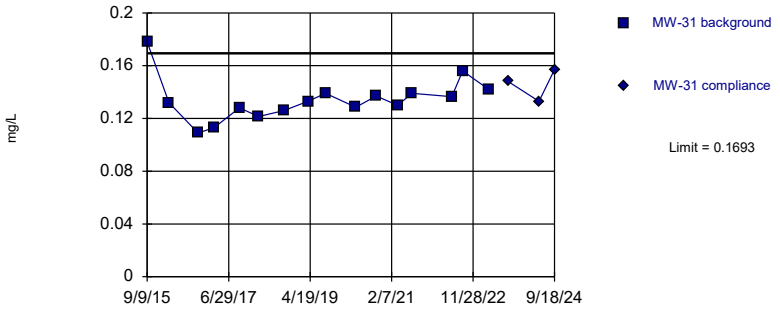
Constituent: Arsenic Analysis Run 2/4/2025 2:04 PM View: 2024AWQR-MW-31_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1343, Std. Dev.=0.01617, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.905, critical = 0.844. Kappa = 2.168 (c=12, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.001462.

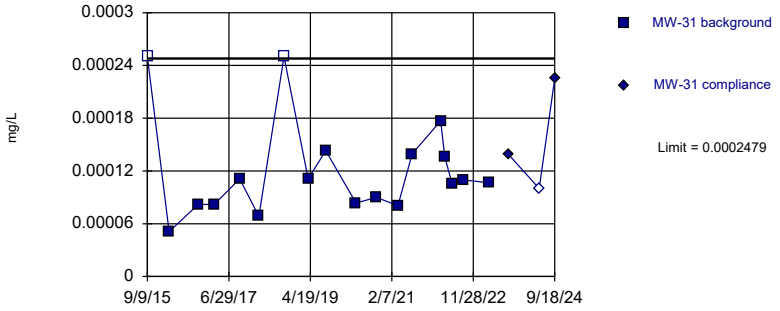
Constituent: Barium Analysis Run 2/4/2025 2:04 PM View: 2024AWQR-MW-31_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.01076, Std. Dev.=0.002351, n=18, 11.11% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9054, critical = 0.858. Kappa = 2.121 (c=12, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.001462.

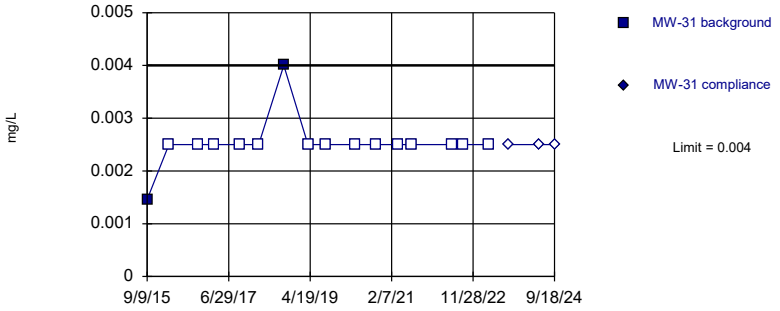
Constituent: Cadmium Analysis Run 2/4/2025 2:04 PM View: 2024AWQR-MW-31_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

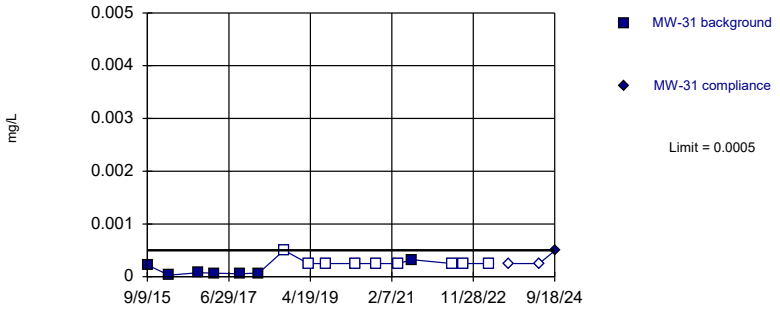
Constituent: Chromium Analysis Run 2/4/2025 2:04 PM View: 2024AWQR-MW-31_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 56.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

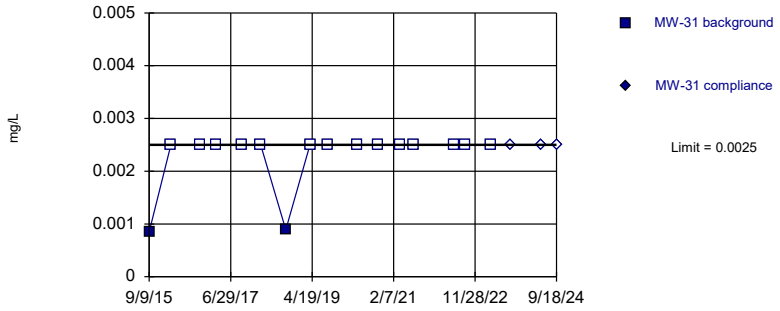
Constituent: Cobalt Analysis Run 2/4/2025 2:05 PM View: 2024AWQR-MW-31_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

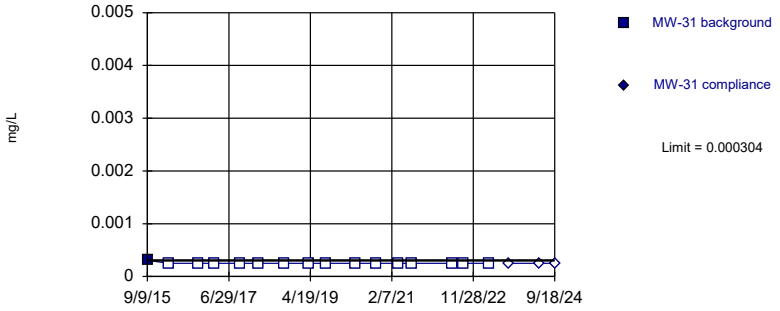
Constituent: Copper Analysis Run 2/4/2025 2:05 PM View: 2024AWQR-MW-31_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

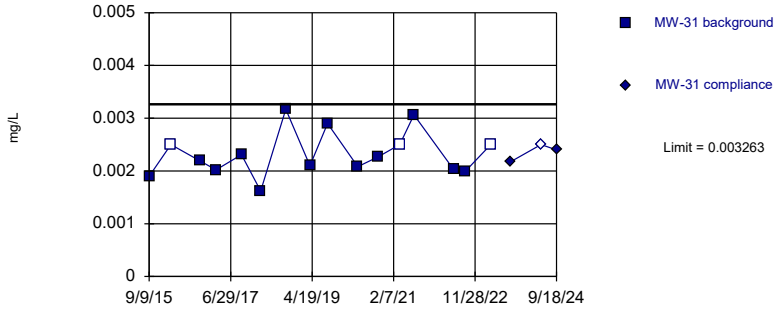
Constituent: Lead Analysis Run 2/4/2025 2:05 PM View: 2024AWQR-MW-31_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.002279, Std. Dev.=0.0004538, n=16, 18.75% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9352, critical = 0.844. Kappa = 2.168 (c=12, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.001462.

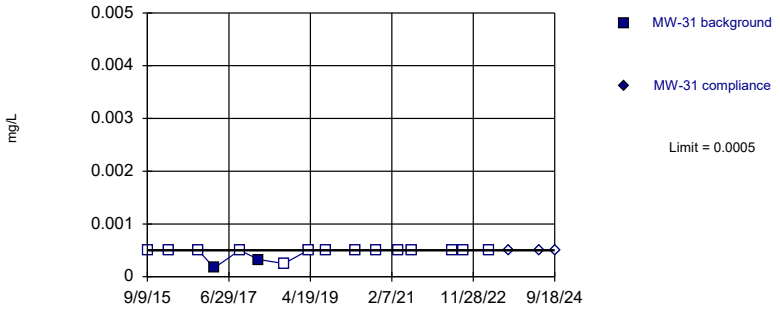
Constituent: Nickel Analysis Run 2/4/2025 2:05 PM View: 2024AWQR-MW-31_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

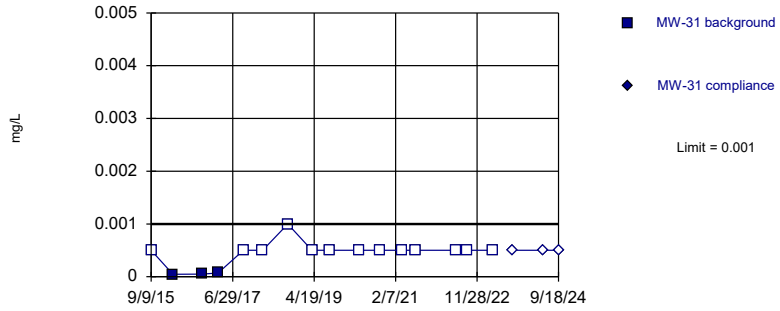
Constituent: Silver Analysis Run 2/4/2025 2:05 PM View: 2024AWQR-MW-31_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 81.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

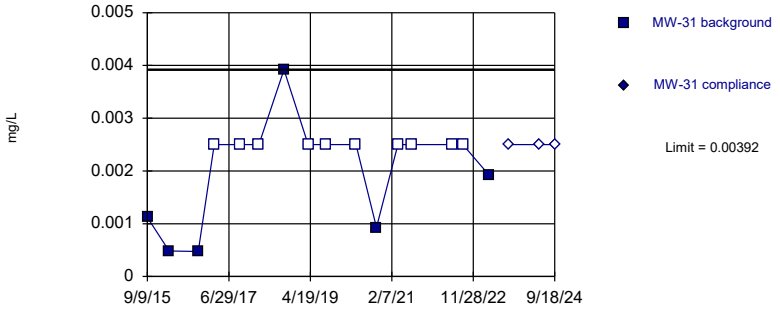
Constituent: Thallium Analysis Run 2/4/2025 2:05 PM View: 2024AWQR-MW-31_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

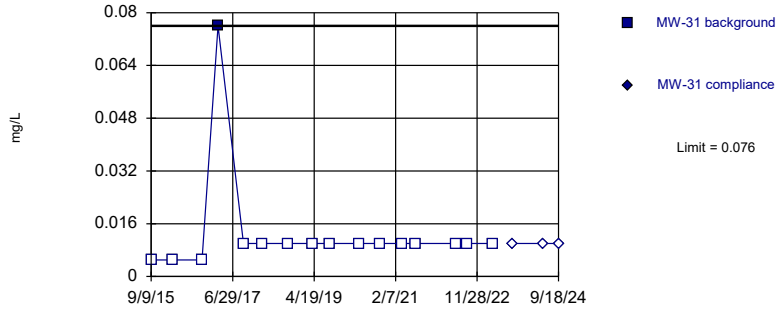
Constituent: Vanadium Analysis Run 2/4/2025 2:05 PM View: 2024AWQR-MW-31_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Zinc Analysis Run 2/4/2025 2:05 PM View: 2024AWQR-MW-31_IntraPL
Wayne-Ringgold-Decatur SLF Client: SCS Engineers Data: Sanitas WRDLF South master

Appendix E

2024 Leachate Control System Performance Evaluation Report

Leachate Management Summary
2024 Leachate Collection System Performance Evaluation Report
Wayne-Ringgold-Decatur County Sanitary Landfill
Permit No. 27-SDP-01-75P

Month	Unlined Cells - Column Thickness (ft)					Lined Cells - Maximum Head on Liner (ft)			City of Corning	Precipitation
	PZ-1	PZ-2	PZ-3	PZ-5	PZ-7	LPZ-1	LPZ-2	LPZ-3	POTW (gal)	(in)
January 2024										2.17
February 2024										0.21
March 2024	5.6	5.3	11.4	NM	Dry	Dry	Dry	Dry		2.57
April 2024										3.89
May 2024										7.44
June 2024	5.4	6.2	11.3	13.5	Dry	Dry	Dry	Dry		3.65
July 2024										3.44
August 2024										3.63
September 2024	5.2	5.6	11.3	12.1	Dry	Dry	Dry	Dry		4.13
October 2024										2.29
November 2024										2.61
December 2024	5.0	4.9	11.5	10.7	Dry	Dry	Dry	Dry		1.41
Reporting Period Total									622,425	37.44

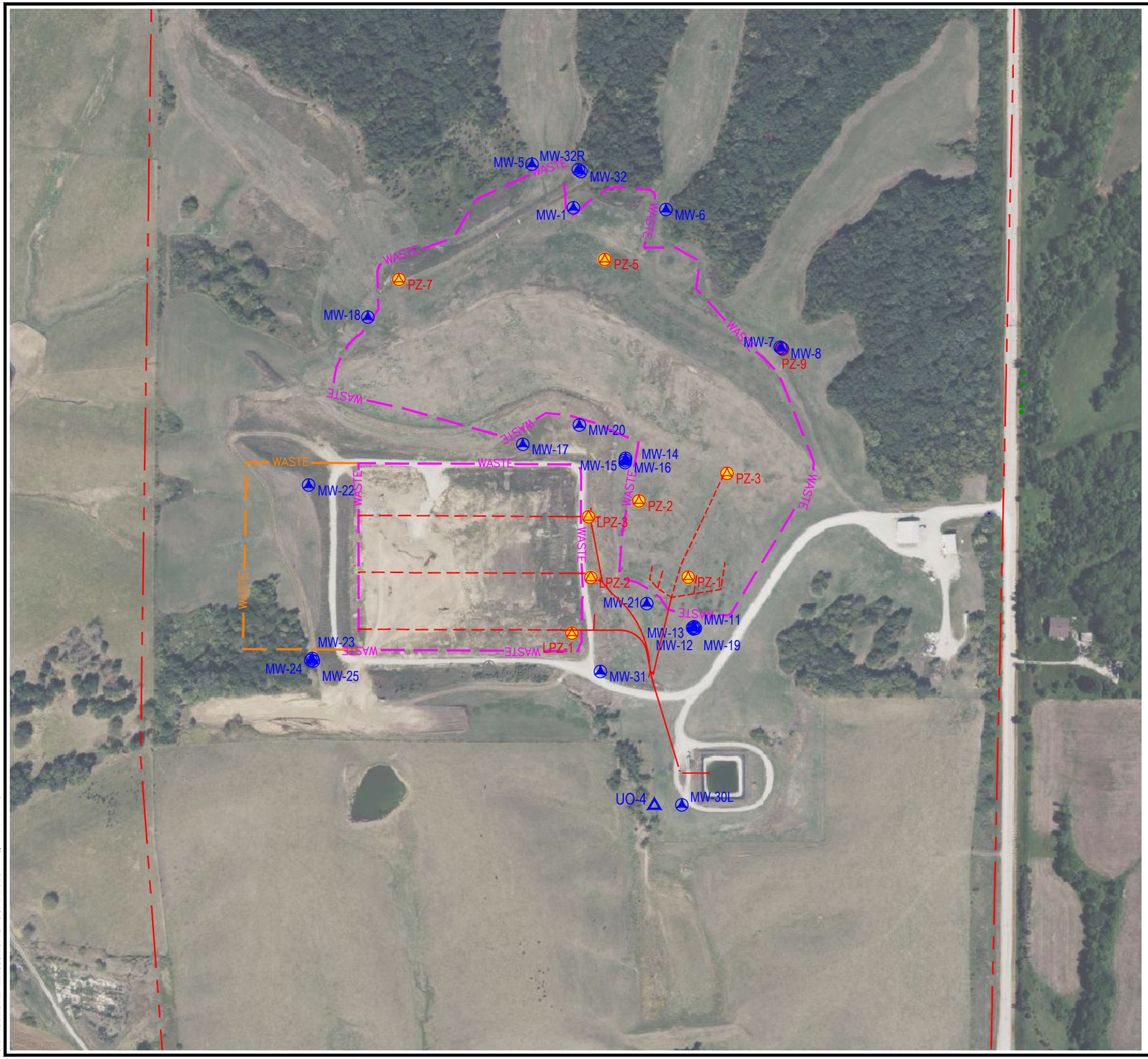
Leachate measurements are collected by Landfill staff.

Notes:

1) Leachate column thicknesses generally remained consistent with historical measurements. Historical leachate levels and graphs are provided in Attachment A.
2) The Commission was issued a Hauled Waste Discharge Permit by the Des Moines Metropolitan Wastewater Reclamation Authority authorizing the disposal of leachate at the Des Moines Metropolitan Wastewater Reclamation Facility. The permit expired on June 30, 2024. Per landfill staff, no leachate was hauled to this facility during the reporting period. The Commission executed a Service Agreement for Disposal of Leachate at the City of Corning Wastewater Plant on November 13, 2023. Per landfill staff, all leachate was hauled to the City of Corning Wastewater Plant during this reporting period.
3) The revised operating permit issued July 9, 2020 approved the abandonment documentation for PZ-13 and PZ-14.
4) The storage capacity of the leachate lagoon is approximately 692,000 gallons with two feet of freeboard or approximately 926,000 gallons total.
5) Precipitation data obtained from https://mesonet.agron.iastate.edu/ASOS/reports/mon_prec.php?year=2024.
6) NM - No Measurement

Comments:

Reporting Period: January - December 2024.
Approved Changes to Leachate Collection System: There were no new approved changes to the leachate collection system during this reporting period.
Recommended Changes to Leachate Collection System: None.
Maintenance Performed on Leachate Collection System: None.
Last Date of Cleaning and Inspection: November 2022
Date of Next Cleaning and Inspection: Leachate line cleaning and inspection will be performed next in 2025.
Volume of Leachate Recirculated: None.
Volume of Leachate Treated Off-Site: 622,425 gallons were hauled to the City of Corning POTW during this reporting period.
Leachate Quality Testing Results: Leachate quality testing results for the reporting period are provided in Attachment B.



LEGEND

- MW — MONITORING WELL
- LPZ — LEACHATE PIEZOMETER
- CURRENT WASTE BOUNDARY
- FUTURE WASTE BOUNDARY
- APPROXIMATE PROPERTY BOUNDARY
- LEACHATE PIPE - SOLID
- LEACHATE PIPE - PERFORATED
- UO-4 — UNDERDRAIN

300 0 300

SCALE FEET

REV.	DATE	CK BY
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	-	-
	-	-

SHEET TITLE
LEACHATE CONTROL SYSTEM

PROJECT TITLE
WAYNE RINGGOLD DECATUR SANITARY LANDFILL
2025 ANNUAL WATER QUALITY REPORT

CLIENT
WAYNE RINGGOLD DECATUR SOILD WASTE MANAGMENT COMMISSION
21377 125TH AVENUE
GRAND RIVER, IOWA

SCS ENGINEERS
1690 ALL STATE COURT, SUITE 100
WEST DES MOINES, IOWA 50265
(515) 831-6160

PROJ. NO.	DWN. BY	PROJ. MGR
27224309.25	CJD	SAM
DSN. BY	CHK. BY	
CJD	SAM	

CADD FILE: 2025 AWQR MAP.DWG

DATE: 2/13/25

FIGURE NO. **1**

G:\PROJECT\27224309.25\AUTOCAD\2025 AWQR MAP.DWG

Attachment A

Table E-1
Historical Leachate Column Thicknesses
2023 Leachate Collection System Performance Evaluation Report
Wayne-Ringgold-Decatur County Sanitary Landfill
Permit No. 27-SDP-01-75P

	Leachate Piezometer							
	Unlined					Lined		
Date	PZ-1	PZ-2	PZ-3	PZ-5	PZ-7	LPZ-1	LPZ-2	LPZ-3
Piezometer Depth	13.21	12.92	25.38	32.62	23.6	NA	NA	17.67
06/17/02	7.15	7.16	22.66	5.80	2.24	NI	NI	NI
09/11/02	7.35	5.77	22.74	8.80	2.72	NI	NI	NI
12/11/02	5.63	5.80	21.20	9.26	2.34	NI	NI	NI
03/04/03	4.35	5.30	20.90	9.10	2.94	NI	NI	NI
06/23/03	7.19	7.02	22.76	9.40	3.76	NI	NI	NI
09/09/03	5.75	6.34	21.38	9.30	1.68	NI	NI	NI
12/11/03	9.11	7.20	22.82	12.56	1.98	NI	NI	NI
03/22/04	9.35	7.32	22.80	12.52	2.22	NI	NI	NI
06/15/04	9.27	7.70	23.42	12.84	2.32	NI	NI	NI
06/29/04	4.95	7.62	15.82	NM	NM	NI	NI	NI
10/04/04	4.89	7.24	13.90	11.96	2.14	NI	NI	NI
12/13/04	Dry	5.50	11.90	11.34	1.84	NI	NI	NI
03/03/05	Dry	6.06	12.74	16.20	2.08	NI	NI	NI
06/07/05	4.93	6.92	13.10	17.98	1.72	NI	NI	NI
09/13/05	4.81	5.92	13.58	16.98	2.20	NI	NI	NI
12/15/05	4.51	4.98	12.66	16.22	2.20	NI	NI	NI
03/02/06	4.71	4.67	12.93	16.22	2.20	NI	NI	NI
06/07/06	4.79	5.40	12.98	17.00	1.92	NI	NI	NI
09/18/06	5.01	5.82	14.28	16.52	2.00	NI	NI	NI
12/27/06	5.11	5.72	13.98	17.42	2.20	NI	NI	NI
03/20/07	4.91	4.92	13.18	17.42	2.50	NI	NI	NI
06/15/07	4.91	6.02	13.28	19.02	2.50	NI	NI	NI
09/27/07	4.86	5.87	13.48	18.52	2.10	Dry	NI	NI
12/06/07	3.91	6.22	12.68	20.02	2.00	Dry	NI	NI
03/26/08	5.21	6.02	12.28	18.12	2.30	Dry	NI	NI
06/18/08	5.11	7.22	13.18	20.12	2.30	Dry	NI	NI
09/16/08	5.31	7.12	13.85	21.85	2.14	NA [1]	NI	NI
12/08/08	5.11	6.42	13.28	18.72	1.20	Dry	NA	NI
01/21/09	4.91	5.52	12.58	17.82	2.00	Dry	NA	NI
02/24/09	4.81	5.02	12.28	17.42	2.20	Dry	NA	NI
03/12/09	5.81	5.57	11.88	18.72	2.20	Dry	Dry	NI
03/20/09	6.21	5.82	12.08	17.82	2.20	Dry	Dry	NI
04/17/09	5.31	5.92	11.88	17.82	2.10	0.10	0.11	NI
05/20/09	5.11	6.22	12.38	18.72	2.20	Dry	Dry	NI
06/29/09	5.21	6.52	12.28	19.12	2.10	Dry	Dry	NI
07/22/09	4.91	6.22	12.18	18.72	2.00	Dry	Dry	NI
08/24/09	4.91	5.92	12.08	18.82	1.90	Dry	Dry	NI
09/18/09	4.99	6.16	12.18	19.32	2.04	Dry	Dry	NI
10/12/09	4.81	5.72	11.88	19.02	2.00	Dry	Dry	NI
11/23/09	5.41	6.72	12.08	21.72	2.90	Dry	Dry	NI
12/21/09	5.01	5.92	11.58	27.62	1.80	Dry	Dry	NI

Table E-1
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Wayne-Ringgold-Decatur County Sanitary Landfill
Permit No. 27-SDP-01-75P

	Leachate Piezometer							
	Unlined					Lined		
Date	PZ-1	PZ-2	PZ-3	PZ-5	PZ-7	LPZ-1	LPZ-2	LPZ-3
Piezometer Depth	13.21	12.92	25.38	32.62	23.6	NA	NA	17.67
01/26/10	5.61	6.12	11.08	NM	2.00	Dry	Dry	NI
02/25/10	4.91	5.62	11.18	20.62	1.70	Dry	Dry	NI
03/31/10	5.51	6.52	11.68	23.62	2.30	Dry	Dry	NI
04/12/10	5.25	6.48	11.09	32.55	2.29	Dry	Dry	NI
05/27/10	5.51	6.42	11.38	30.72	2.20	Dry	Dry	NI
06/30/10	5.01	7.02	11.68	22.42	2.10	Dry	Dry	NI
07/28/10	5.11	7.22	11.48	22.92	2.40	Dry	Dry	NI
08/10/10	4.90	6.69	11.79	21.55	1.91	Dry	Dry	NI
09/21/10	5.51	7.22	11.88	23.02	2.50	Dry	Dry	NI
10/11/10	4.81	6.32	11.98	19.22	2.20	Dry	Dry	NI
11/09/10	4.71	6.02	11.78	17.82	2.20	Dry	Dry	NI
12/08/10	4.51	5.82	11.38	17.42	1.90	Dry	Dry	NI
01/06/11	4.81	5.62	11.28	18.22	1.90	Dry	Dry	NI
02/22/11	5.51	5.02	10.68	17.62	1.70	Dry	Dry	NI
03/18/11	5.01	5.52	10.68	17.32	2.10	Dry	Dry	NI
04/25/11	5.31	6.72	11.08	20.82	2.50	Dry	Dry	NI
05/09/11	5.01	6.12	11.28	19.72	2.40	Dry	Dry	NI
06/24/11	5.01	6.82	10.98	19.82	2.10	Dry	Dry	NI
07/28/11	4.91	6.32	11.28	19.02	2.00	Dry	Dry	NI
08/26/11	4.91	6.42	11.28	19.22	2.10	Dry	Dry	NI
09/23/11	4.71	5.82	11.58	18.72	1.90	Dry	Dry	NI
10/31/11	5.21	6.52	11.18	18.92	2.00	Dry	Dry	NI
11/19/11	4.41	5.72	11.58	18.72	1.90	Dry	Dry	NI
12/08/11	5.01	6.12	10.98	Dry	1.30	Dry	Dry	NI
01/09/12	4.91	5.62	10.78	Dry	1.80	Dry	Dry	NI
02/02/12	4.61	5.32	10.68	Dry	1.90	Dry	Dry	NI
03/15/12	5.31	6.12	10.78	Dry	1.70	Dry	Dry	NI
04/06/12	5.01	5.92	10.88	Dry	1.80	Dry	Dry	NI
05/10/12	5.21	6.52	10.88	Dry	2.10	Dry	Dry	NI
06/15/12	4.71	5.82	10.68	Dry	1.90	Dry	Dry	NI
07/17/12	4.81	5.62	11.08	Dry	1.90	Dry	Dry	NI
08/02/12	4.51	5.42	11.18	Dry	1.80	Dry	Dry	NI
09/07/12	4.51	5.22	11.78	Dry	1.70	Dry	Dry	NI
10/11/12	4.31	4.62	11.48	Dry	1.70	Dry	Dry	NI
11/01/12	4.71	4.52	11.58	18.22	1.90	Dry	Dry	NI
12/03/12	4.21	4.42	11.68	18.32	2.00	Dry	Dry	NI
01/09/13	4.01	3.72	10.88	Dry	1.90	Dry	Dry	NI
02/04/13	4.01	3.62	10.78	Dry	1.70	Dry	Dry	NI
03/29/13	3.71	3.52	10.58	Dry	1.60	Dry	Dry	NI
04/03/13	3.71	3.52	10.58	Dry	1.60	Dry	Dry	NI
05/01/13	5.31	5.22	11.88	Dry	1.90	Dry	Dry	NI
06/03/13	5.31	6.82	11.58	26.52	2.30	Dry	Dry	NI
07/15/13	4.91	6.92	11.18	20.62	1.90	Dry	Dry	NI
08/02/13	5.01	7.22	11.78	20.32	1.10	Dry	Dry	NI
09/01/13	4.51	6.22	11.78	18.92	1.30	Dry	Dry	NI
10/01/13	5.01	6.02	11.68	18.82	1.20	Dry	Dry	NI
11/01/13	4.91	6.12	11.78	18.92	1.50	Dry	Dry	NI
12/01/13	4.41	5.32	11.68	18.92	1.70	Dry	Dry	NI

Table E-1
Historical Leachate Column Thicknesses
2023 Leachate Collection System Performance Evaluation Report
Wayne-Ringgold-Decatur County Sanitary Landfill
Permit No. 27-SDP-01-75P

	Leachate Piezometer							
	Unlined					Lined		
Date	PZ-1	PZ-2	PZ-3	PZ-5	PZ-7	LPZ-1	LPZ-2	LPZ-3
Piezometer Depth	13.21	12.92	25.38	32.62	23.6	NA	NA	17.67
01/01/14	5.01	4.52	10.88	18.52	1.80	Dry	Dry	NI
02/01/14	4.61	4.52	10.78	18.32	1.60	Dry	Dry	NI
03/01/14	4.81	4.02	10.48	18.02	1.80	Dry	Dry	NI
04/01/14	4.91	4.02	10.48	17.92	1.70	Dry	Dry	NI
05/01/14	5.21	5.52	10.88	19.82	2.10	Dry	Dry	NI
06/01/14	5.11	6.52	11.08	18.82	1.50	Dry	Dry	NI
07/01/14	5.31	6.92	11.18	19.72	1.90	Dry	Dry	NA
08/02/14	5.01	5.72	11.48	19.42	2.00	Dry	Dry	NA
09/04/14	4.91	5.62	11.48	20.32	2.00	Dry	Dry	NA
10/20/14	5.41	6.92	11.68	20.02	2.00	Dry	Dry	NA
11/03/14	5.31	6.32	10.88	19.82	1.80	Dry	Dry	NA
12/23/14	5.11	6.02	10.78	19.62	2.10	Dry	Dry	NA
01/19/15	4.81	4.02	10.48	19.20	1.80	Dry	Dry	5.25
02/24/15	4.91	4.02	10.48	19.95	1.70	Dry	Dry	5.09
03/24/15	5.21	5.52	10.88	19.45	2.10	Dry	Dry	5.00
04/14/15	5.11	6.52	11.08	20.04	1.50	Dry	Dry	4.92
05/07/15	5.31	6.92	11.18	20.45	1.90	Dry	Dry	4.67
06/18/15	5.46	7.22	11.28	17.12	2.20	Dry	Dry	5.67
07/09/15	5.54	7.42	11.38	19.87	2.30	Dry	Dry	5.92
08/13/15	5.41	7.22	11.18	20.20	2.20	Dry	Dry	Dry
09/28/15	4.71	6.62	11.38	19.87	2.10	Dry	Dry	Dry
10/05/15	5.51	7.22	11.18	19.37	2.20	Dry	Dry	Dry
11/03/15	5.04	5.50	11.30	18.92	2.02	Dry	Dry	Dry
12/31/15	5.54	5.67	11.13	19.62	1.93	Dry	Dry	Dry
01/13/16	5.46	7.17	11.05	21.02	2.02	Dry	Dry	Dry
02/05/16	6.46	5.92	10.71	20.02	2.10	Dry	Dry	Dry
03/11/16	5.21	6.17	11.05	19.82	2.27	Dry	Dry	Dry
04/26/16	5.63	7.34	11.13	20.62	2.60	Dry	Dry	Dry
05/12/16	5.13	6.92	11.21	20.52	2.18	Dry	Dry	Dry
06/27/16	5.13	6.92	11.30	19.42	2.27	Dry	Dry	Dry
07/06/16	5.11	5.67	11.63	19.62	2.27	Dry	Dry	Dry
08/02/16	5.11	6.42	11.38	19.42	2.18	Dry	Dry	Dry
09/02/16	5.01	5.72	11.48	19.22	2.00	Dry	Dry	Dry
10/28/16	4.91	5.62	11.48	19.12	2.00	Dry	Dry	Dry
11/14/16	5.41	6.92	11.68	19.32	2.00	Dry	Dry	Dry
12/21/16	5.31	6.32	10.88	19.22	1.80	Dry	Dry	Dry
01/13/17	4.51	3.82	10.48	18.62	1.90	Dry	Dry	Dry
02/14/17	5.01	4.42	11.08	19.12	1.90	Dry	Dry	Dry
03/20/17	4.81	4.22	10.58	18.92	2.00	Dry	Dry	Dry
04/24/17	5.51	5.72	11.28	21.12	2.40	Dry	Dry	Dry
05/03/17	6.01	6.02	10.98	21.02	2.50	Dry	Dry	Dry
06/27/17	5.11	6.12	11.08	20.52	1.00	Dry	Dry	Dry
07/10/17	5.11	6.12	11.38	20.32	0.80	Dry	Dry	Dry
08/14/17	5.11	5.82	11.48	19.32	2.00	Dry	Dry	Dry
09/29/17	4.91	5.22	11.18	19.42	1.80	Dry	Dry	Dry
10/13/17	5.01	5.22	11.38	19.52	1.90	Dry	Dry	Dry
11/16/17	4.91	5.22	10.88	19.12	2.10	Dry	Dry	Dry
12/04/17	4.71	5.12	10.88	19.02	1.90	Dry	Dry	Dry

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Wayne-Ringgold-Decatur County Sanitary Landfill
Permit No. 27-SDP-01-75P

	Leachate Piezometer							
	Unlined					Lined		
Date	PZ-1	PZ-2	PZ-3	PZ-5	PZ-7	LPZ-1	LPZ-2	LPZ-3
Piezometer Depth	13.21	12.92	25.38	32.62	23.6	NA	NA	17.67
01/29/18	4.61	4.02	10.08	19.02	1.90	Dry	Dry	Dry
02/12/18	4.51	3.92	9.98	19.02	2.60	Dry	Dry	Dry
03/30/18	6.01	4.42	10.28	20.52	2.60	Dry	Dry	Dry
04/30/18	5.61	4.92	10.08	21.42	2.50	Dry	Dry	Dry
05/24/18	5.61	5.22	10.58	22.92	2.40	Dry	Dry	Dry
06/30/18	5.61	5.72	10.78	22.62	2.00	Dry	Dry	Dry
07/30/18	5.21	5.82	11.08	22.12	1.90	Dry	Dry	Dry
08/27/18	5.61	5.62	11.18	21.42	1.70	Dry	Dry	Dry
09/20/18	5.21	6.62	11.18	24.22	Dry	Dry	Dry	Dry
10/24/18	5.21	6.62	10.78	23.22	Dry	Dry	Dry	Dry
11/30/18	6.31	6.22	10.78	23.32	Dry	Dry	Dry	Dry
12/28/18	5.61	6.32	11.08	24.22	Dry	Dry	Dry	Dry
01/31/19	5.61	6.72	11.28	24.02	Dry	Dry	Dry	Dry
02/26/19	5.21	6.32	10.98	24.62	Dry	Dry	Dry	Dry
03/28/19	4.91	6.32	10.98	24.42	Dry	Dry	Dry	Dry
04/26/19	5.21	6.42	11.28	22.22	Dry	Dry	Dry	Dry
05/28/19	5.01	6.32	10.98	24.02	Dry	Dry	Dry	Dry
06/29/19	5.11	6.32	10.98	23.42	Dry	Dry	Dry	Dry
07/29/19	4.81	6.32	11.38	23.62	Dry	Dry	Dry	Dry
08/30/19	5.11	6.32	10.88	0.00	Dry	Dry	Dry	Dry
09/30/19	5.01	6.32	10.98	0.00	Dry	Dry	Dry	Dry
10/23/19	5.11	6.22	10.88	33.19	Dry	Dry	Dry	Dry
11/20/19	4.91	6.32	10.78	32.92	Dry	Dry	Dry	Dry
12/31/19	4.91	6.62	11.18	30.92	Dry	Dry	Dry	Dry
01/31/20	5.31	6.32	10.78	30.82	Dry	Dry	Dry	Dry
02/29/20	4.91	6.42	11.08	31.02	Dry	Dry	Dry	Dry
03/31/20	4.91	6.52	10.98	31.02	Dry	Dry	Dry	Dry
04/30/20	5.61	7.72	14.68	29.52	Dry	Dry	Dry	Dry
05/29/20	5.31	7.69	14.58	30.02	Dry	Dry	Dry	Dry
06/30/20	5.11	6.32	11.28	28.92	Dry	Dry	Dry	Dry
07/31/20	5.11	5.92	11.28	33.02	Dry	Dry	Dry	Dry
08/25/20	5.21	6.12	11.28	32.32	Dry	Dry	Dry	Dry
09/30/20	5.11	6.62	11.18	31.32	Dry	Dry	Dry	Dry
10/30/20	5.11	6.42	11.38	31.32	Dry	Dry	Dry	Dry
11/30/20	5.21	6.52	11.38	31.12	Dry	Dry	Dry	Dry
12/28/20	5.01	6.72	11.28	31.02	Dry	Dry	Dry	Dry

Table E-1
Historical Leachate Column Thicknesses
2023 Leachate Collection System Performance Evaluation Report
Wayne-Ringgold-Decatur County Sanitary Landfill
Permit No. 27-SDP-01-75P

	Leachate Piezometer							
	Unlined					Lined		
Date	PZ-1	PZ-2	PZ-3	PZ-5	PZ-7	LPZ-1	LPZ-2	LPZ-3
Piezometer Depth	13.21	12.92	25.38	32.62	23.6	NA	NA	17.67
03/29/21	5.61	7.12	11.78	22.42	3.40	Dry	Dry	Dry
06/29/21	5.31	6.82	11.48	31.32	Dry	Dry	Dry	Dry
09/23/21	5.41	9.82	11.58	31.62	Dry	Dry	Dry	Dry
12/02/21	5.55	6.62	11.72	24.12	3.30	Dry	Dry	Dry
03/09/22	5.71	5.42	10.98	28.42	Dry	Dry	Dry	Dry
06/22/22	5.46	6.72	ME	28.42	Dry	Dry	Dry	Dry
09/28/22	4.91	5.32	11.08	21.12	Dry	Dry	Dry	Dry
12/09/22	5.01	5.22	11.48	21.12	Dry	Dry	Dry	Dry
03/29/23	6.11	6.72	14.68	26.82	Dry	Dry	Dry	Dry
06/16/23	5.21	6.52	11.48	22.12	Dry	Dry	Dry	Dry
09/07/23	5.21	6.52	11.98	22.42	Dry	Dry	Dry	Dry
12/22/23	4.51	4.67	11.28	20.92	Dry	Dry	Dry	Dry
03/19/24	5.61	5.32	11.38	NM	Dry	Dry	Dry	Dry
06/12/24	5.41	6.22	11.38	13.52	Dry	Dry	Dry	Dry
09/06/24	5.21	5.62	11.38	12.12	Dry	Dry	Dry	Dry
12/16/24	5.01	4.92	11.38	10.72	Dry	Dry	Dry	Dry

Notes:

Leachate levels measured by landfill staff.

NM - Not Measured, NA - Not Available, NI - Not Installed, ME - Measurement Error

Piezometer Depth based on historical documentation and adjusted within the leachate thickness calculation as follows:

PZ-5 extended four feet on 09/17/03, another four feet on 01/15/04, and another four feet on 1/3/07

PZ-6 was extended 4 feet on 8/10/05

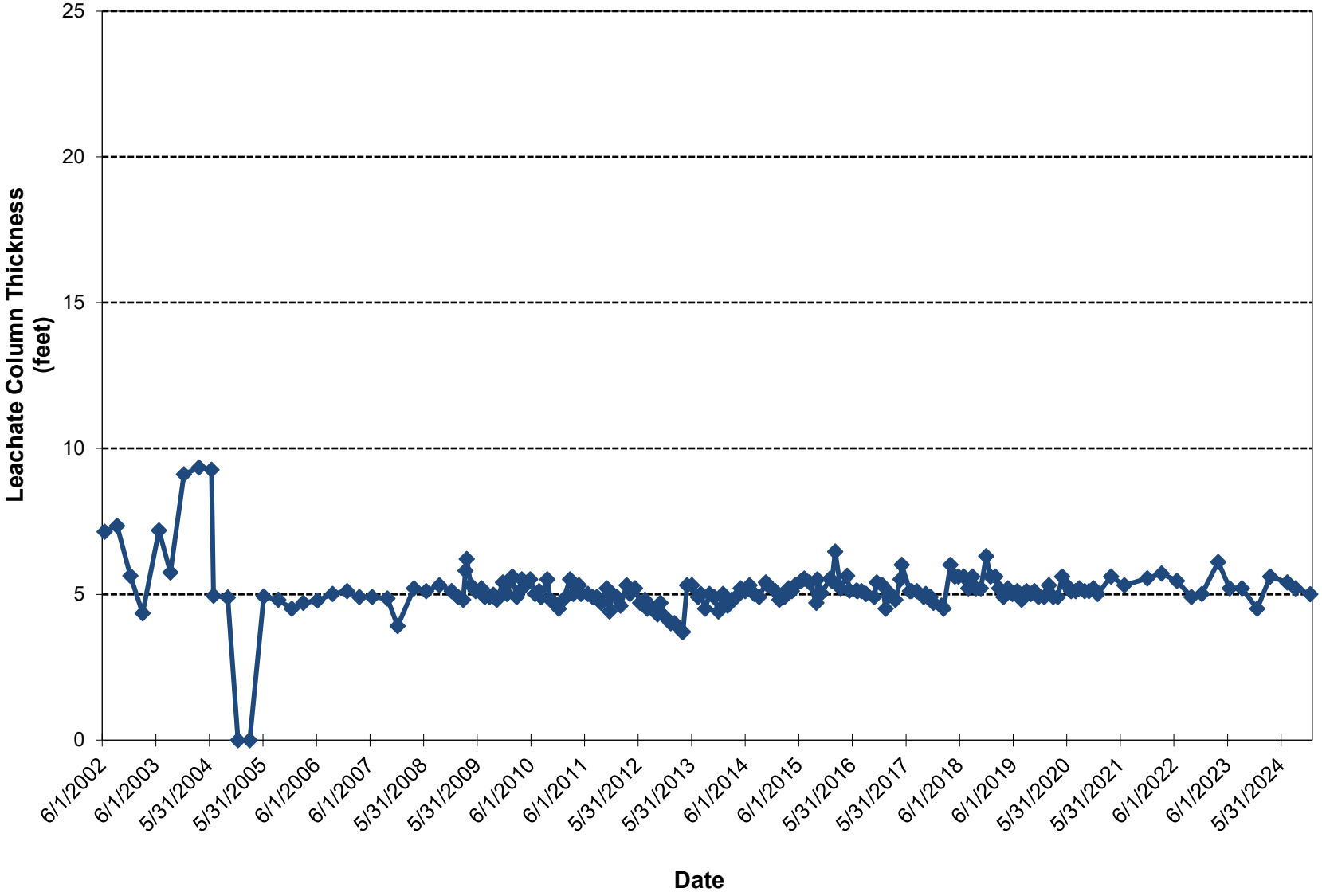
PZ-8 was abandoned on 6/6/00

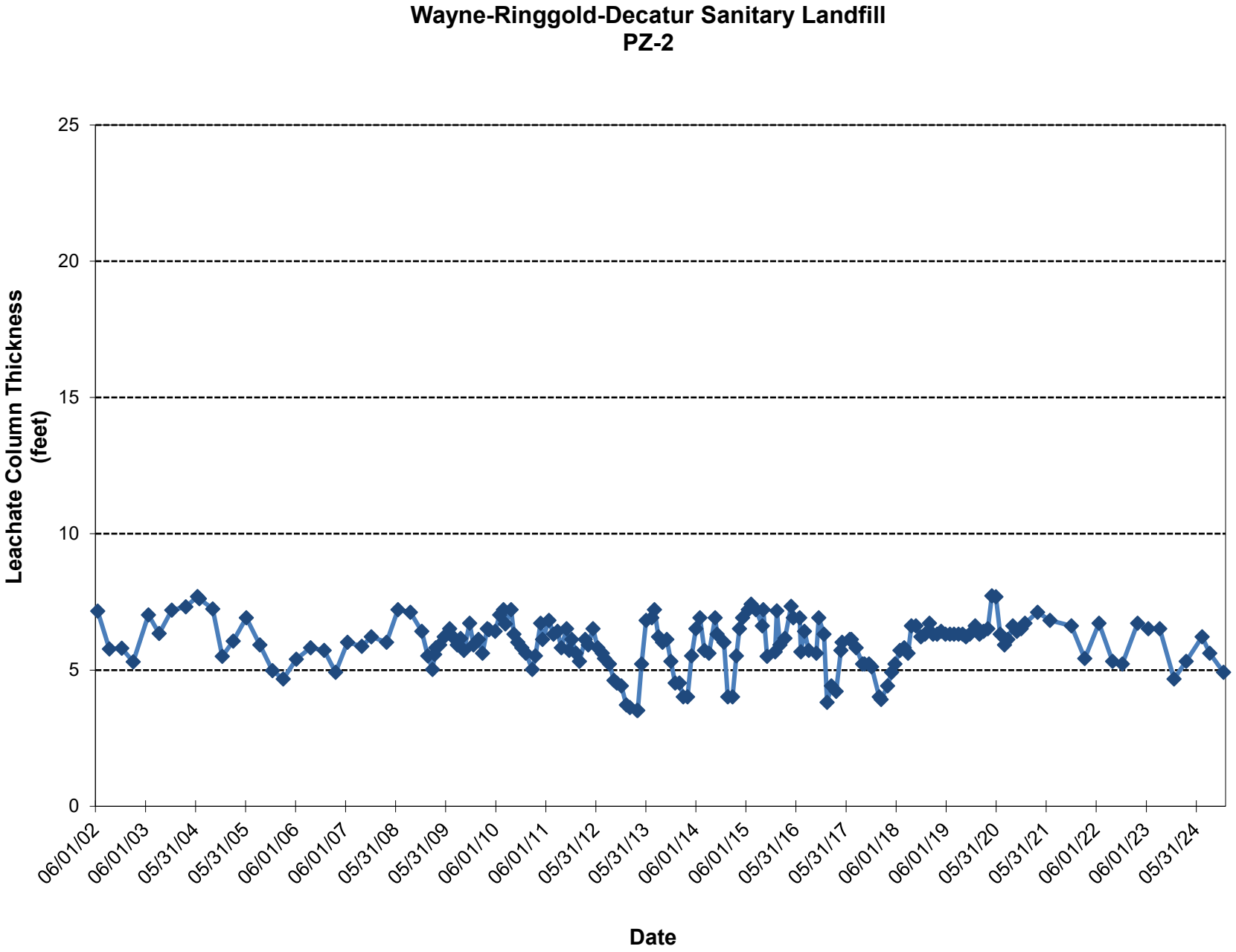
PZ-6 was abandoned on 9/27/05

PZ-4 was abandoned on 8/4/06

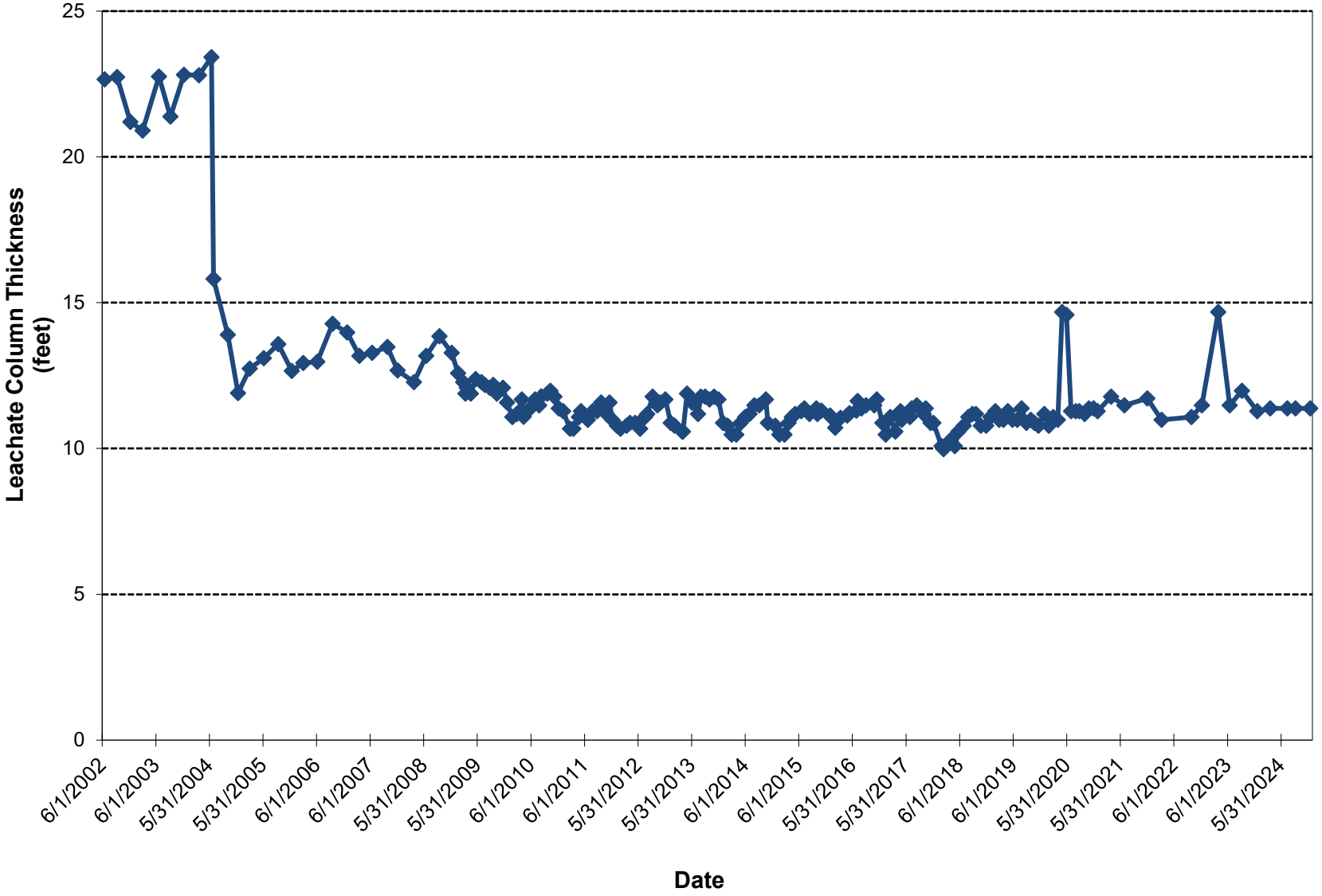
(1) This measurement is assumed to be an anomaly based on previous and subsequent measurements.

Wayne-Ringgold-Decatur Sanitary Landfill
PZ-1

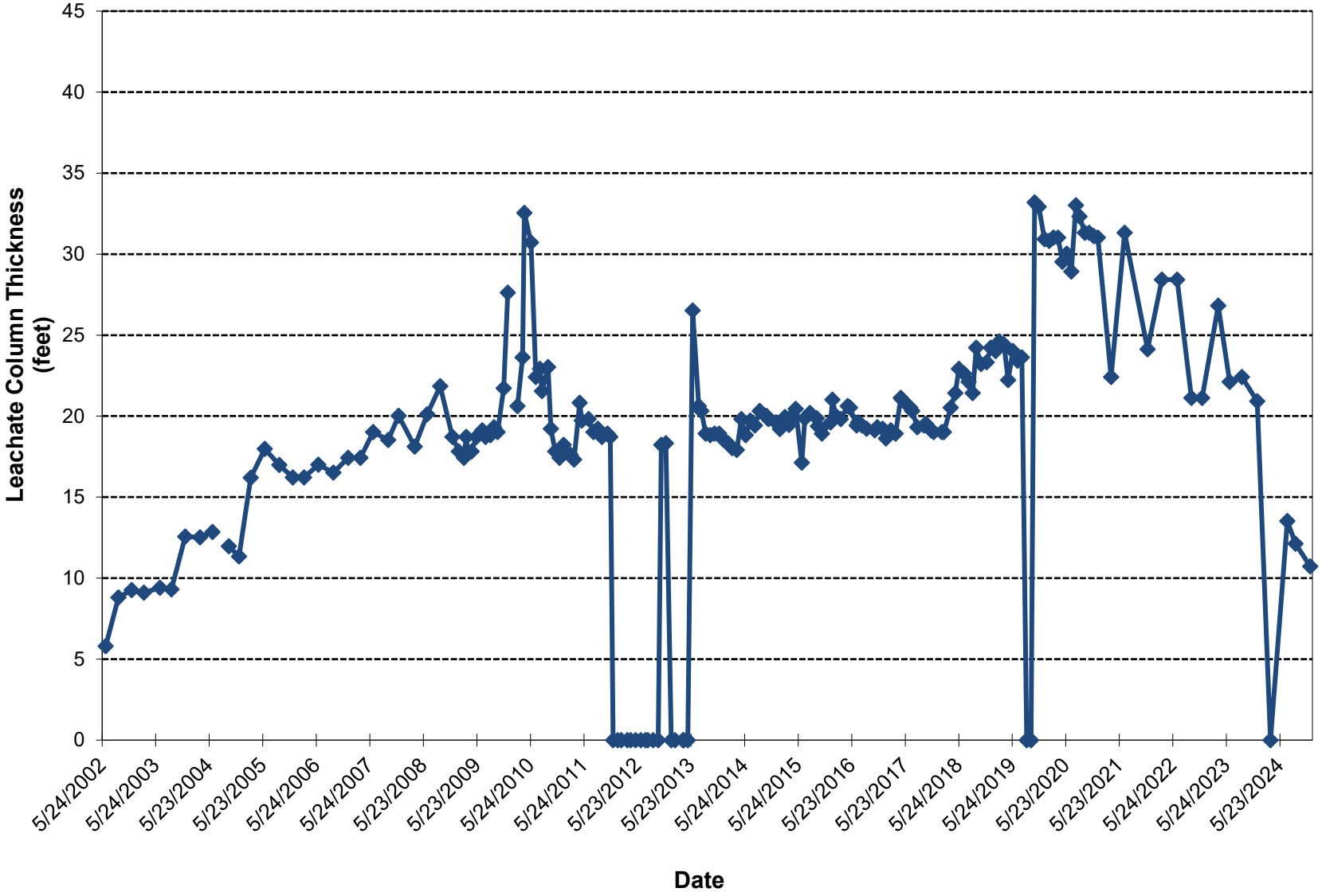



Wayne-Ringgold-Decatur Sanitary Landfill
PZ-2
Leachate Column Thickness (feet)
25
20
15
10
5
0
06/01/02
06/01/03
05/31/04
05/31/05
06/01/06
06/01/07
05/31/08
05/31/09
06/01/10
06/01/11
05/31/12
05/31/13
06/01/14
06/01/15
05/31/16
05/31/17
06/01/18
06/01/19
05/31/20
05/31/21
06/01/22
06/01/23
05/31/24
Date

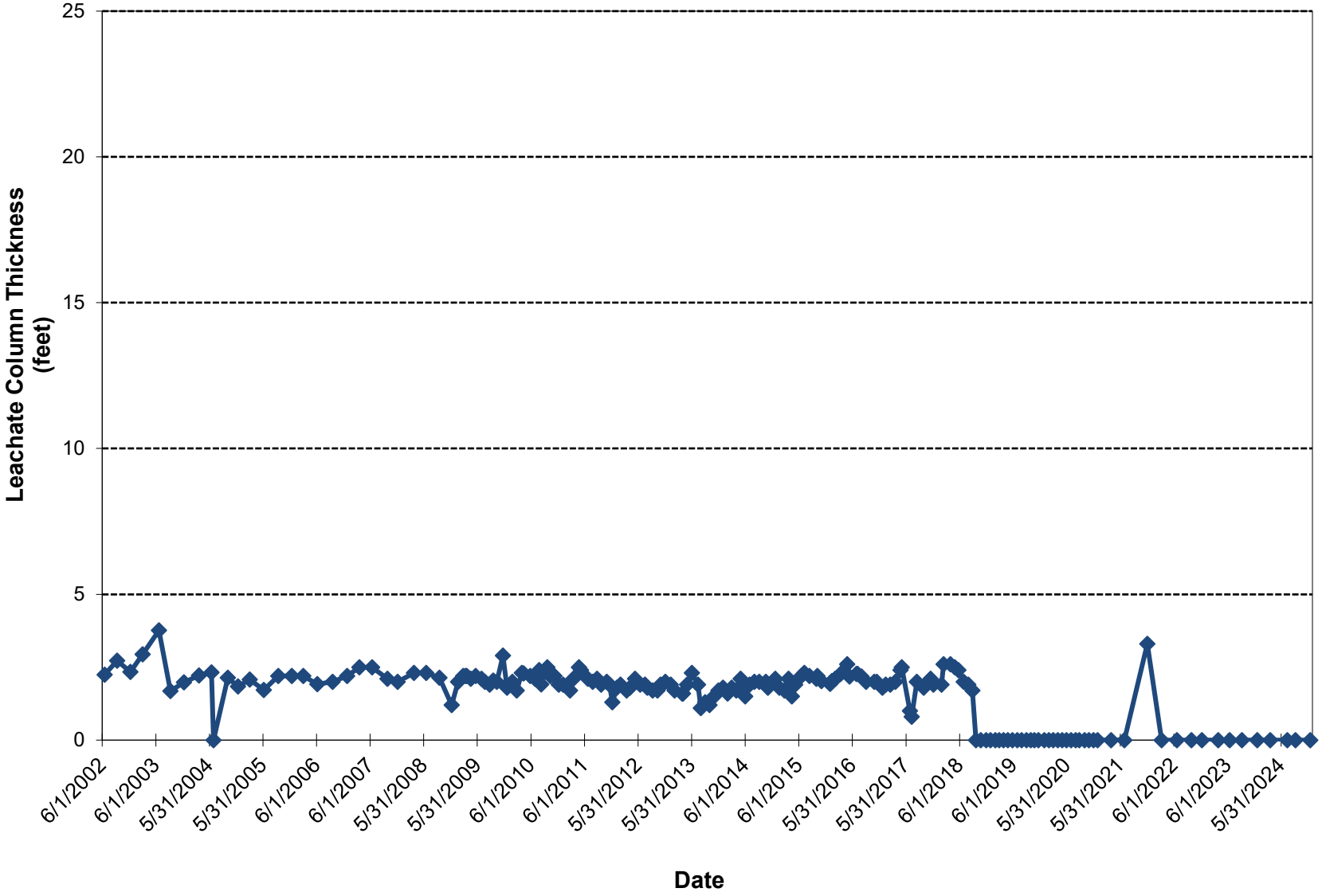
Wayne-Ringgold-Decatur Sanitary Landfill
PZ-3

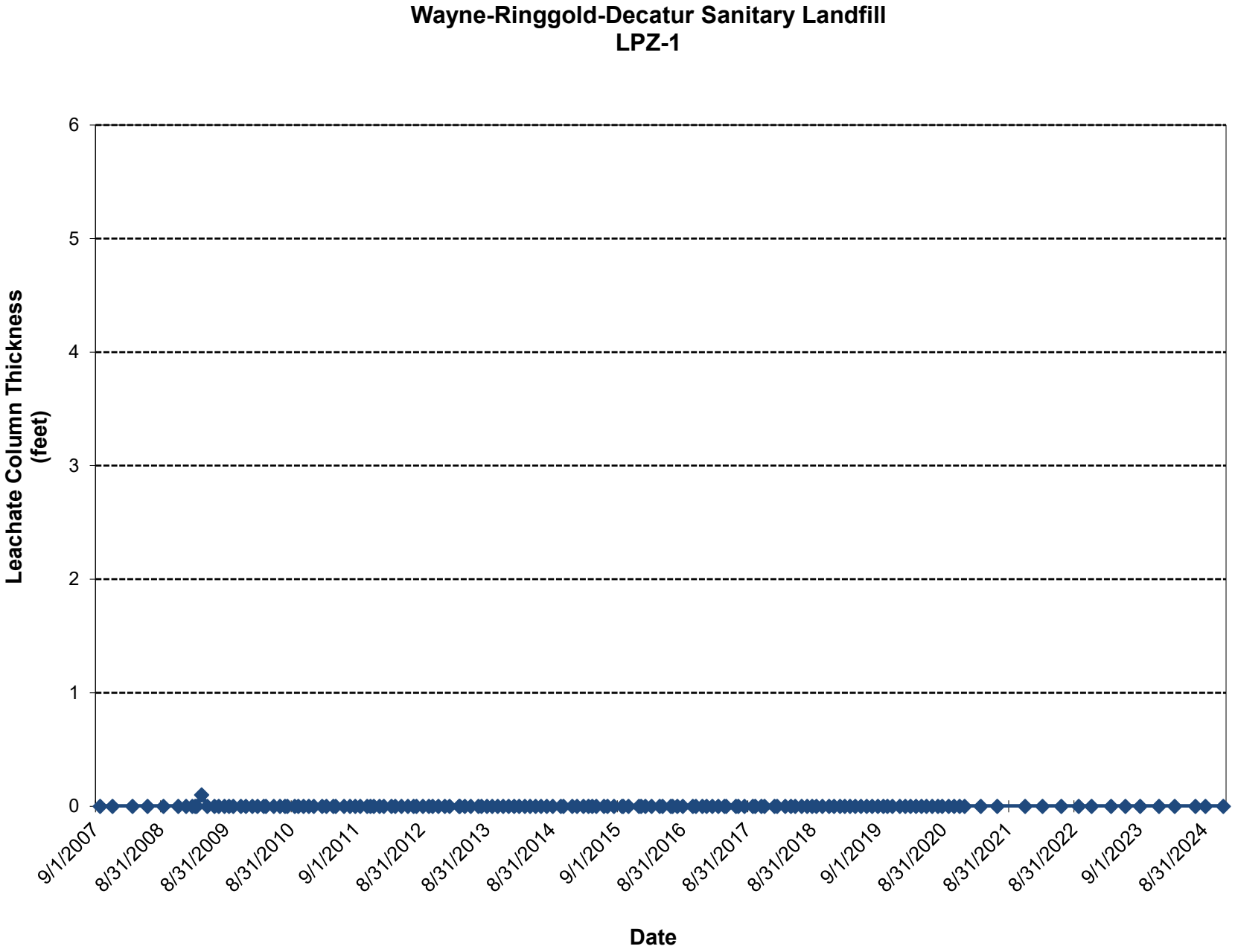


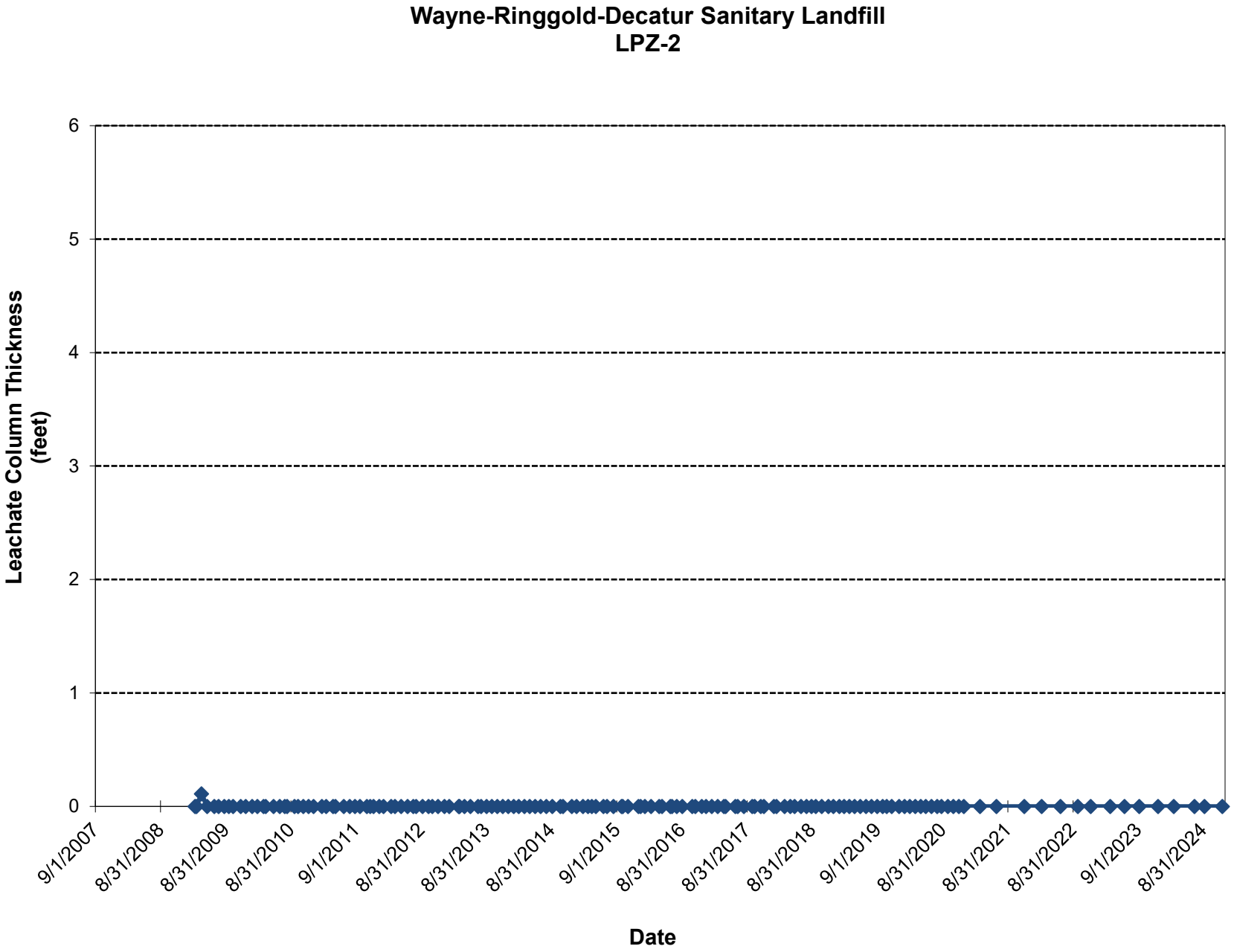
Wayne-Ringgold-Decatur Sanitary Landfill
PZ-5

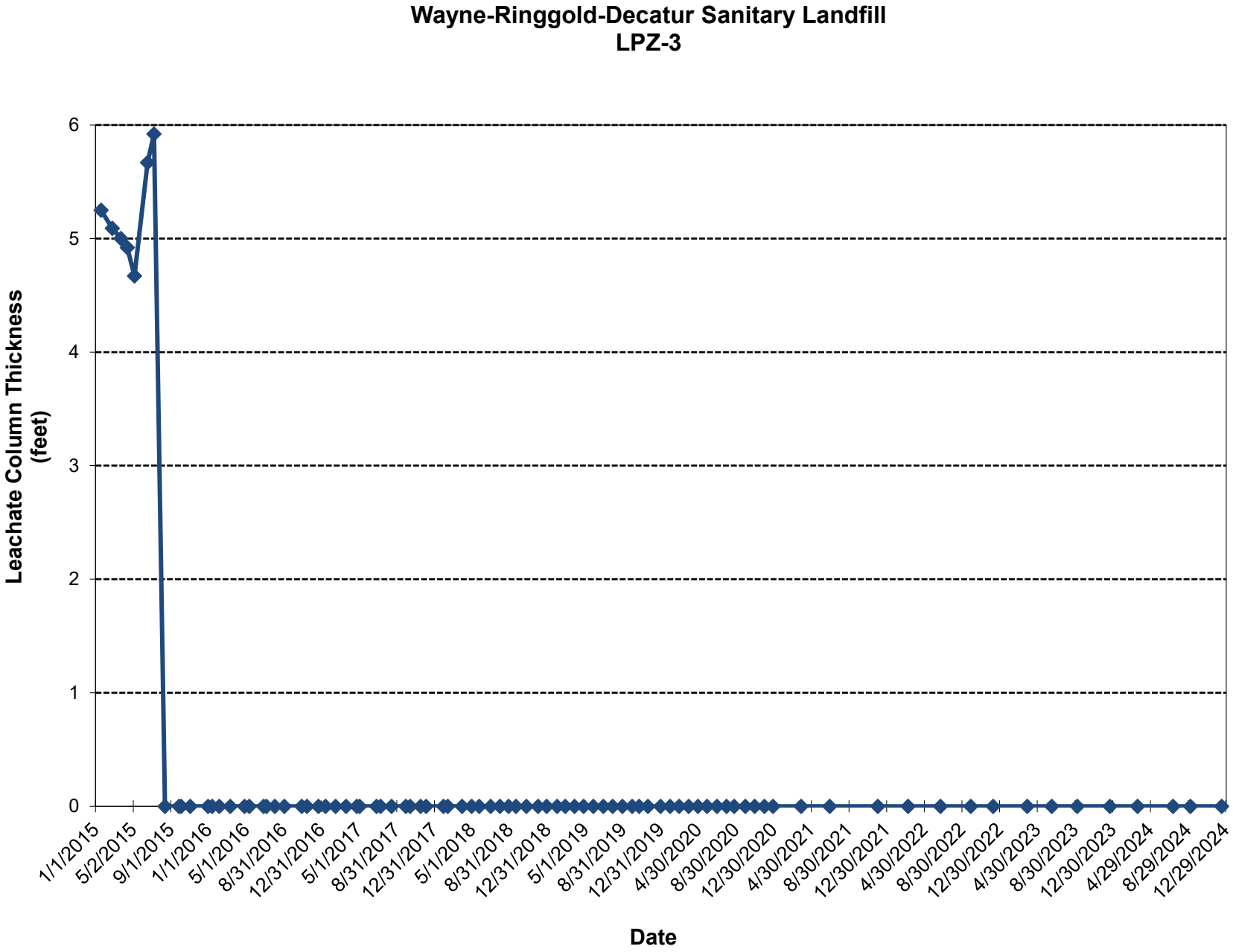


Wayne-Ringgold-Decatur Sanitary Landfill
PZ-7




Wayne-Ringgold-Decatur Sanitary Landfill
LPZ-1
Leachate Column Thickness (feet)
6
5
4
3
2
1
0
9/1/2007
8/31/2008
8/31/2009
8/31/2010
9/1/2011
8/31/2012
8/31/2013
8/31/2014
9/1/2015
8/31/2016
8/31/2017
8/31/2018
9/1/2019
8/31/2020
8/31/2021
8/31/2022
9/1/2023
8/31/2024
Date


Wayne-Ringgold-Decatur Sanitary Landfill
LPZ-2
Leachate Column Thickness (feet)
6
5
4
3
2
1
0
9/1/2007
8/31/2008
8/31/2009
8/31/2010
9/1/2011
8/31/2012
8/31/2013
8/31/2014
9/1/2015
8/31/2016
8/31/2017
8/31/2018
9/1/2019
8/31/2020
8/31/2021
8/31/2022
9/1/2023
8/31/2024
Date


Wayne-Ringgold-Decatur Sanitary Landfill
LPZ-3
Leachate Column Thickness (feet)
6
5
4
3
2
1
0
1/1/2015
5/2/2015
9/1/2015
1/1/2016
5/1/2016
8/31/2016
12/31/2016
5/1/2017
8/31/2017
12/31/2017
5/1/2018
8/31/2018
12/31/2018
5/1/2019
8/31/2019
12/31/2019
4/30/2020
8/30/2020
12/30/2020
4/30/2021
8/30/2021
12/30/2021
4/30/2022
8/30/2022
12/30/2022
4/30/2023
8/30/2023
12/30/2023
4/29/2024
8/29/2024
12/29/2024
Date

Attachment B

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Sheila Caldwell
Wayne-Ringgold-Decatur
21377 125th Avenue
Grand River, Iowa 50108

Generated 4/2/2024 11:50:41 AM

JOB DESCRIPTION

WRD-Lanfill Leachate

JOB NUMBER

310-277166-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

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Authorization

Generated
4/2/2024 11:50:41 AM

Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job ID: 310-277166-1 — Eurofins Cedar Falls

Job Narrative
310-277166-1

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 sample was received on 3/20/2024 12:25 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C.

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

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

PCBs
Method 608.3_PCB_PREC: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 310-416698. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

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

Pesticides
Method 608.3_Pest_PREC: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 310-416698. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 608.3_Pest_PREC: The laboratory control sample (LCS) for preparation batch 310-416698 and analytical batch 310-416847 recovered outside control limits for the following analytes: Aldrin.

Method 608.3_Pest_PREC: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 310-416698 and analytical batch 310-416847 recovered outside control limits for the following analytes: Aldrin and Endosulfan I.

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: Wayne-Ringgold-Decatur
Project/Site: WRD-Lanfill Leachate

Job ID: 310-277166-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-277166-1	Leachate Sample	Water	03/19/24 08:15	03/20/24 12:25

Detection Summary

Client: Wayne-Ringgold-Decatur
Project/Site: WRD-Lanfill Leachate

Job ID: 310-277166-1

Client Sample ID: Leachate Sample

Lab Sample ID: 310-277166-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.09		0.500		ug/L	1		624.1	Total/NA
Toluene	1.20		1.00		ug/L	1		624.1	Total/NA
Barium	0.273		0.0100		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	3.05		0.500		mg/L	1		200.7 Rev 4.4	Total/NA
Ammonia	39.1		2.50		mg/L	1		350.1	Total/NA
Nitrogen, Kjeldahl	44.7		5.00		mg/L	1		351.2	Total/NA
Total Suspended Solids	54.0		15.0		mg/L	1		I-3765-85	Total/NA
Total Dissolved Solids	1180		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.9	HF	1.0		SU	1		SM 4500 H+ B	Total/NA
Biochemical Oxygen Demand	20.1		3.00		mg/L	1		SM 5210B	Total/NA
Total Organic Carbon	48.3	F1	10.0		mg/L	10		SM 5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Wayne-Ringgold-Decatur
Project/Site: WRD-Lanfill Leachate

Job ID: 310-277166-1

Client Sample ID: Leachate Sample

Date Collected: 03/19/24 08:15
Date Received: 03/20/24 12:25

Lab Sample ID: 310-277166-1

Matrix: Water

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<1.00		1.00		ug/L			03/21/24 21:57	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			03/21/24 21:57	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			03/21/24 21:57	1
1,1-Dichloroethane	<1.00		1.00		ug/L			03/21/24 21:57	1
1,1-Dichloroethene	<2.00		2.00		ug/L			03/21/24 21:57	1
1,2-Dichloroethane	<1.00		1.00		ug/L			03/21/24 21:57	1
1,2-Dichloropropane	<1.00		1.00		ug/L			03/21/24 21:57	1
1,3-Dichloropropene, Total	<5.00		5.00		ug/L			03/21/24 21:57	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			03/21/24 21:57	1
2-Chloroethyl vinyl ether	<2.00		2.00		ug/L			03/21/24 21:57	1
Benzene	**1.09**		0.500		ug/L			03/21/24 21:57	1
Bromodichloromethane	<1.00		1.00		ug/L			03/21/24 21:57	1
Bromoform	<5.00		5.00		ug/L			03/21/24 21:57	1
Bromomethane	<4.00		4.00		ug/L			03/21/24 21:57	1
Carbon tetrachloride	<2.00		2.00		ug/L			03/21/24 21:57	1
Chlorobenzene	<1.00		1.00		ug/L			03/21/24 21:57	1
Chlorodibromomethane	<5.00		5.00		ug/L			03/21/24 21:57	1
Chloroethane	<4.00		4.00		ug/L			03/21/24 21:57	1
Chloroform	<3.00		3.00		ug/L			03/21/24 21:57	1
Chloromethane	<3.00		3.00		ug/L			03/21/24 21:57	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			03/21/24 21:57	1
Ethylbenzene	<1.00		1.00		ug/L			03/21/24 21:57	1
Methylene Chloride	<5.00		5.00		ug/L			03/21/24 21:57	1
Tetrachloroethene	<1.00		1.00		ug/L			03/21/24 21:57	1
Toluene	**1.20**		1.00		ug/L			03/21/24 21:57	1
Trichloroethene	<1.00		1.00		ug/L			03/21/24 21:57	1
Vinyl chloride	<1.00		1.00		ug/L			03/21/24 21:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*111*		*70 - 130*		*03/21/24 21:57*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*03/21/24 21:57*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*03/21/24 21:57*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
1,2-Dichlorobenzene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
1,3-Dichlorobenzene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
1,4-Dichlorobenzene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
2,4,5-Trichlorophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
2,4,6-Trichlorophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
2,4-Dichlorophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
2,4-Dimethylphenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
2,4-Dinitrophenol	<20.0		20.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
2,4-Dinitrotoluene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
2,6-Dinitrotoluene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
2-Chloronaphthalene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
2-Chlorophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
2-Nitrophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
3,3'-Dichlorobenzidine	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1

Client: Wayne-Ringgold-Decatur
Project/Site: WRD-Lanfill Leachate

Job ID: 310-277166-1

Client Sample ID: Leachate Sample
Date Collected: 03/19/24 08:15
Date Received: 03/20/24 12:25

Lab Sample ID: 310-277166-1
Matrix: Water

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
4-Bromophenyl phenyl ether	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
4-Chloro-3-methylphenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
4-Chlorophenyl phenyl ether	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
4-Nitrophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Acenaphthene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Acenaphthylene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Anthracene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Benzo[a]anthracene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Benzo[a]pyrene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Benzo[b]fluoranthene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Benzo[g,h,i]perylene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Benzo[k]fluoranthene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Benzoic acid	<100		100		ug/L		03/21/24 11:00	03/22/24 23:33	1
Benzyl alcohol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Bis(2-chloroethoxy)methane	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Bis(2-chloroethyl)ether	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
bis (2-chloroisopropyl) ether	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Bis(2-ethylhexyl) phthalate	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Butyl benzyl phthalate	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Chrysene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Dibenz(a,h)anthracene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Dibenzofuran	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Diethyl phthalate	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Dimethyl phthalate	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Di-n-butyl phthalate	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Di-n-octyl phthalate	<20.0		20.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Fluoranthene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Fluorene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Hexachlorobenzene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Hexachlorobutadiene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Hexachlorocyclopentadiene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Hexachloroethane	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Indeno[1,2,3-cd]pyrene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Isophorone	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Naphthalene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Nitrobenzene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
N-Nitrosodi-n-propylamine	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
N-Nitrosodiphenylamine	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Pentachlorophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Phenanthrene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1
Pyrene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*72*		*25 - 110*	*03/21/24 11:00*	*03/22/24 23:33*	*1*
Phenol-d5 (Surr)	*67*		*21 - 110*	*03/21/24 11:00*	*03/22/24 23:33*	*1*
Nitrobenzene-d5 (Surr)	*98*		*45 - 129*	*03/21/24 11:00*	*03/22/24 23:33*	*1*
2-Fluorobiphenyl (Surr)	*80*		*39 - 118*	*03/21/24 11:00*	*03/22/24 23:33*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*27 - 136*	*03/21/24 11:00*	*03/22/24 23:33*	*1*
Terphenyl-d14 (Surr)	*105*		*12 - 144*	*03/21/24 11:00*	*03/22/24 23:33*	*1*

Client Sample ID: Leachate Sample

Date Collected: 03/19/24 08:15
Date Received: 03/20/24 12:25

Lab Sample ID: 310-277166-1
Matrix: Water

Method: EPA 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
4,4'-DDE	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
4,4'-DDT	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
Aldrin	<0.0640	*-	0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
beta-BHC	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
Chlordane (technical)	<2.00		2.00		ug/L		03/22/24 08:48	03/25/24 13:28	1
delta-BHC	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
Dieldrin	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
Endosulfan I	<0.0640	*-	0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
Endosulfan II	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
Endosulfan sulfate	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
Endrin	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
Endrin aldehyde	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
gamma-BHC (Lindane)	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
Heptachlor	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
Heptachlor epoxide	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 13:28	1
Toxaphene	<2.00		2.00		ug/L		03/22/24 08:48	03/25/24 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*51*		*10 - 136*	*03/22/24 08:48*	*03/25/24 13:28*	*1*
Tetrachloro-m-xylene	*66*		*10 - 130*	*03/22/24 08:48*	*03/25/24 13:28*	*1*

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 13:28	1
PCB-1221	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 13:28	1
PCB-1232	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 13:28	1
PCB-1242	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 13:28	1
PCB-1248	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 13:28	1
PCB-1254	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 13:28	1
PCB-1260	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*51*		*10 - 136*	*03/22/24 08:48*	*03/25/24 13:28*	*1*
Tetrachloro-m-xylene (Surr)	*66*		*10 - 130*	*03/22/24 08:48*	*03/25/24 13:28*	*1*

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0800		0.0800		mg/L		03/21/24 16:09	03/22/24 16:44	1
Barium	**0.273**		0.0100		mg/L		03/21/24 16:09	03/22/24 16:44	1
Cadmium	<0.0200		0.0200		mg/L		03/21/24 16:09	03/22/24 16:44	1
Chromium	<0.0200		0.0200		mg/L		03/21/24 16:09	03/22/24 16:44	1
Copper	<0.0200		0.0200		mg/L		03/21/24 16:09	03/22/24 16:44	1
Iron	**3.05**		0.500		mg/L		03/21/24 16:09	03/22/24 16:44	1
Lead	<0.100		0.100		mg/L		03/21/24 16:09	03/22/24 16:44	1
Nickel	<0.0500		0.0500		mg/L		03/21/24 16:09	03/22/24 16:44	1
Silver	<0.0200		0.0200		mg/L		03/21/24 16:09	03/22/24 16:44	1
Selenium	<0.100		0.100		mg/L		03/21/24 16:09	03/22/24 16:44	1
Zinc	<0.0400		0.0400		mg/L		03/21/24 16:09	03/22/24 16:44	1

Client: Wayne-Ringgold-Decatur
Project/Site: WRD-Lanfill Leachate

Job ID: 310-277166-1

Client Sample ID: Leachate Sample
Date Collected: 03/19/24 08:15
Date Received: 03/20/24 12:25

Lab Sample ID: 310-277166-1
Matrix: Water

Method: EPA 245.2 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/01/24 10:18	04/01/24 15:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease) (1664A)	<5.1		5.1		mg/L		03/25/24 14:00	03/25/24 14:00	1
Cyanide, Total (EPA 335.4)	<0.0100		0.0100		mg/L		03/22/24 08:29	03/22/24 18:30	1
Ammonia (EPA 350.1)	**39.1**		2.50		mg/L		03/26/24 10:32	03/26/24 21:30	1
Nitrogen, Kjeldahl (EPA 351.2)	**44.7**		5.00		mg/L		03/25/24 05:23	03/25/24 21:21	1
Total Suspended Solids (USGS I-3765-85)	**54.0**		15.0		mg/L			03/21/24 11:21	1
Total Dissolved Solids (SM 2540C)	**1180**		50.0		mg/L			03/21/24 14:24	1
Biochemical Oxygen Demand (SM 5210B)	**20.1**		3.00		mg/L			03/20/24 17:16	1
Total Organic Carbon (SM 5310C)	**48.3**	**F1**	10.0		mg/L			03/22/24 03:49	10

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.9**	**HF**	1.0		SU			03/20/24 16:56	1

Client: Wayne-Ringgold-Decatur
Job ID: 310-277166-1
Project/Site: WRD-Lanfill Leachate

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: Wayne-Ringgold-Decatur
Project/Site: WRD-Lanfill Leachate

Job ID: 310-277166-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
310-277166-1	Leachate Sample	111	97	102
LCS 310-416633/6	Lab Control Sample	100	101	102
LCS 310-416633/7	Lab Control Sample	115	99	102
MB 310-416633/5	Method Blank	111	98	101

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPHL
Lab Sample ID	Client Sample ID	(25-110)	(21-110)	(45-129)	(39-118)	(27-136)	(12-144)
310-277166-1	Leachate Sample	72	67	98	80	84	105
LCS 310-416599/2-A	Lab Control Sample	72	60	93	84	102	106
MB 310-416599/1-A	Method Blank	66	56	88	76	84	94

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

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

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB1	TCX1
Lab Sample ID	Client Sample ID	(10-136)	(10-130)
310-277166-1	Leachate Sample	51	66
LCS 310-416698/4-A	Lab Control Sample	63	65
LCSD 310-416698/5-A	Lab Control Sample Dup	71	73
MB 310-416698/1-A	Method Blank	66	60

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB1	TCX1
Lab Sample ID	Client Sample ID	(10-136)	(10-130)
310-277166-1	Leachate Sample	51	66
LCS 310-416698/2-A	Lab Control Sample	61	60
LCSD 310-416698/3-A	Lab Control Sample Dup	72	75

Surrogate Summary

Client: Wayne-Ringgold-Decatur
Job ID: 310-277166-1
Project/Site: WRD-Lanfill Leachate

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

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

		Percent Surrogate Recovery (Acceptance Limits)									
		DCB1	TCX1								
Lab Sample ID	Client Sample ID	(10-136)	(10-130)								
MB 310-416698/1-A	Method Blank	66	60								

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 310-416633/5
Matrix: Water
Analysis Batch: 416633

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-Trichloroethane	<1.00		1.00		ug/L			03/21/24 14:21	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			03/21/24 14:21	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			03/21/24 14:21	1
1,1-Dichloroethane	<1.00		1.00		ug/L			03/21/24 14:21	1
1,1-Dichloroethene	<2.00		2.00		ug/L			03/21/24 14:21	1
1,2-Dichloroethane	<1.00		1.00		ug/L			03/21/24 14:21	1
1,2-Dichloropropane	<1.00		1.00		ug/L			03/21/24 14:21	1
1,3-Dichloropropene, Total	<5.00		5.00		ug/L			03/21/24 14:21	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			03/21/24 14:21	1
2-Chloroethyl vinyl ether	<2.00		2.00		ug/L			03/21/24 14:21	1
Benzene	<0.500		0.500		ug/L			03/21/24 14:21	1
Bromodichloromethane	<1.00		1.00		ug/L			03/21/24 14:21	1
Bromoform	<5.00		5.00		ug/L			03/21/24 14:21	1
Bromomethane	<4.00		4.00		ug/L			03/21/24 14:21	1
Carbon tetrachloride	<2.00		2.00		ug/L			03/21/24 14:21	1
Chlorobenzene	<1.00		1.00		ug/L			03/21/24 14:21	1
Chlorodibromomethane	<5.00		5.00		ug/L			03/21/24 14:21	1
Chloroethane	<4.00		4.00		ug/L			03/21/24 14:21	1
Chloroform	<3.00		3.00		ug/L			03/21/24 14:21	1
Chloromethane	<3.00		3.00		ug/L			03/21/24 14:21	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			03/21/24 14:21	1
Ethylbenzene	<1.00		1.00		ug/L			03/21/24 14:21	1
Methylene Chloride	<5.00		5.00		ug/L			03/21/24 14:21	1
Tetrachloroethene	<1.00		1.00		ug/L			03/21/24 14:21	1
Toluene	<1.00		1.00		ug/L			03/21/24 14:21	1
Trichloroethene	<1.00		1.00		ug/L			03/21/24 14:21	1
Vinyl chloride	<1.00		1.00		ug/L			03/21/24 14:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*111*		*70 - 130*		*03/21/24 14:21*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*03/21/24 14:21*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*03/21/24 14:21*	*1*

Lab Sample ID: LCS 310-416633/6
Matrix: Water
Analysis Batch: 416633

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-Trichloroethane	20.0	23.57		ug/L		118	70 - 130
1,1,2,2-Tetrachloroethane	20.0	21.96		ug/L		110	68 - 130
1,1,2-Trichloroethane	20.0	22.17		ug/L		111	70 - 130
1,1-Dichloroethane	20.0	22.49		ug/L		112	70 - 130
1,1-Dichloroethene	20.0	22.24		ug/L		111	63 - 132
1,2,4-Trichlorobenzene	20.0	23.33		ug/L		117	68 - 130
1,2-Dichlorobenzene	20.0	22.25		ug/L		111	70 - 130
1,2-Dichloroethane	20.0	23.40		ug/L		117	70 - 130
1,2-Dichloropropane	20.0	22.80		ug/L		114	70 - 130
1,3-Dichlorobenzene	20.0	23.38		ug/L		117	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 310-416633/6
Matrix: Water
Analysis Batch: 416633

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	20.0	22.66		ug/L		113	70 - 130
2-Chloroethyl vinyl ether	20.0	22.27		ug/L		111	48 - 150
Acrylonitrile	200	226.3		ug/L		113	60 - 140
Benzene	20.0	22.38		ug/L		112	70 - 130
Bromodichloromethane	20.0	23.34		ug/L		117	70 - 130
Bromoform	20.0	21.17		ug/L		106	70 - 130
Carbon tetrachloride	20.0	24.28		ug/L		121	70 - 130
Chlorobenzene	20.0	22.92		ug/L		115	70 - 130
Chlorodibromomethane	20.0	22.87		ug/L		114	70 - 130
Chloroform	20.0	20.42		ug/L		102	70 - 130
cis-1,2-Dichloroethene	20.0	21.64		ug/L		108	70 - 130
Ethylbenzene	20.0	22.71		ug/L		114	70 - 130
Methylene Chloride	20.0	19.79		ug/L		99	60 - 140
Tetrachloroethene	20.0	22.91		ug/L		115	70 - 130
Toluene	20.0	23.09		ug/L		115	70 - 130
trans-1,2-Dichloroethene	20.0	22.42		ug/L		112	70 - 130
Trichloroethene	20.0	22.69		ug/L		113	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCS 310-416633/7
Matrix: Water
Analysis Batch: 416633

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	19.40		ug/L		97	23 - 150
Chloroethane	20.0	21.48		ug/L		107	54 - 136
Chloromethane	20.0	19.76		ug/L		99	38 - 150
Vinyl chloride	20.0	22.21		ug/L		111	56 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*115*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 310-416599/1-A
Matrix: Water
Analysis Batch: 416737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416599

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
1,2-Dichlorobenzene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
1,3-Dichlorobenzene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 310-416599/1-A
Matrix: Water
Analysis Batch: 416737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416599

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
2,4,5-Trichlorophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
2,4,6-Trichlorophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
2,4-Dichlorophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
2,4-Dimethylphenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
2,4-Dinitrophenol	<20.0		20.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
2,4-Dinitrotoluene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
2,6-Dinitrotoluene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
2-Chloronaphthalene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
2-Chlorophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
2-Nitrophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
3,3'-Dichlorobenzidine	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
4,6-Dinitro-2-methylphenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
4-Bromophenyl phenyl ether	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
4-Chloro-3-methylphenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
4-Chlorophenyl phenyl ether	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
4-Nitrophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Acenaphthene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Acenaphthylene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Anthracene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Benzo[a]anthracene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Benzo[a]pyrene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Benzo[b]fluoranthene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Benzo[g,h,i]perylene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Benzo[k]fluoranthene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Benzoic acid	<100		100		ug/L		03/21/24 11:00	03/22/24 15:07	1
Benzyl alcohol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Bis(2-chloroethoxy)methane	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Bis(2-chloroethyl)ether	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
bis (2-chloroisopropyl) ether	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Bis(2-ethylhexyl) phthalate	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Butyl benzyl phthalate	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Chrysene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Dibenz(a,h)anthracene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Dibenzofuran	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Diethyl phthalate	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Dimethyl phthalate	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Di-n-butyl phthalate	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Di-n-octyl phthalate	<20.0		20.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Fluoranthene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Fluorene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Hexachlorobenzene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Hexachlorobutadiene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Hexachlorocyclopentadiene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Hexachloroethane	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Indeno[1,2,3-cd]pyrene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Isophorone	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Naphthalene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Nitrobenzene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 310-416599/1-A
Matrix: Water
Analysis Batch: 416737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416599

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
N-Nitrosodiphenylamine	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Pentachlorophenol	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Phenanthrene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1
Pyrene	<10.0		10.0		ug/L		03/21/24 11:00	03/22/24 15:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*66*		*25 - 110*	*03/21/24 11:00*	*03/22/24 15:07*	*1*
Phenol-d5 (Surr)	*56*		*21 - 110*	*03/21/24 11:00*	*03/22/24 15:07*	*1*
Nitrobenzene-d5 (Surr)	*88*		*45 - 129*	*03/21/24 11:00*	*03/22/24 15:07*	*1*
2-Fluorobiphenyl (Surr)	*76*		*39 - 118*	*03/21/24 11:00*	*03/22/24 15:07*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*27 - 136*	*03/21/24 11:00*	*03/22/24 15:07*	*1*
Terphenyl-d14 (Surr)	*94*		*12 - 144*	*03/21/24 11:00*	*03/22/24 15:07*	*1*

Lab Sample ID: LCS 310-416599/2-A
Matrix: Water
Analysis Batch: 416737

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416599

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	100	69.74		ug/L		70	44 - 110
1,2-Dichlorobenzene	100	66.45		ug/L		66	31 - 110
1,2-Diphenylhydrazine	100	84.62		ug/L		85	48 - 121
1,3-Dichlorobenzene	100	63.76		ug/L		64	28 - 110
1,4-Dichlorobenzene	100	66.56		ug/L		67	28 - 110
2,4,5-Trichlorophenol	100	94.66		ug/L		95	35 - 133
2,4,6-Trichlorophenol	100	89.08		ug/L		89	37 - 139
2,4-Dichlorophenol	100	87.64		ug/L		88	41 - 124
2,4-Dimethylphenol	100	75.81		ug/L		76	32 - 120
2,4-Dinitrophenol	200	149.5		ug/L		75	10 - 138
2,4-Dinitrotoluene	100	88.07		ug/L		88	47 - 137
2,6-Dinitrotoluene	100	95.62		ug/L		96	51 - 130
2-Chloronaphthalene	100	81.24		ug/L		81	60 - 110
2-Chlorophenol	100	84.33		ug/L		84	44 - 117
2-Nitrophenol	100	86.71		ug/L		87	41 - 129
4,6-Dinitro-2-methylphenol	200	202.9		ug/L		101	22 - 143
4-Bromophenyl phenyl ether	100	89.24		ug/L		89	53 - 119
4-Chloro-3-methylphenol	100	91.14		ug/L		91	49 - 130
4-Chlorophenyl phenyl ether	100	86.17		ug/L		86	44 - 116
4-Nitrophenol	200	125.8		ug/L		63	18 - 110
Acenaphthene	100	86.80		ug/L		87	47 - 110
Acenaphthylene	100	87.30		ug/L		87	40 - 110
Anthracene	100	96.57		ug/L		97	51 - 120
Benzo[a]anthracene	100	94.25		ug/L		94	51 - 123
Benzo[a]pyrene	100	97.10		ug/L		97	48 - 125
Benzo[b]fluoranthene	100	95.39		ug/L		95	49 - 129
Benzo[g,h,i]perylene	100	102.5		ug/L		102	43 - 139
Benzo[k]fluoranthene	100	102.3		ug/L		102	47 - 130
Benzyl alcohol	100	84.74		ug/L		85	39 - 128

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 310-416599/2-A
Matrix: Water
Analysis Batch: 416737

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416599

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-chloroethoxy)methane	100	87.08		ug/L		87	48 - 121
Bis(2-chloroethyl)ether	100	87.99		ug/L		88	43 - 123
bis (2-chloroisopropyl) ether	100	90.67		ug/L		91	36 - 123
Bis(2-ethylhexyl) phthalate	100	101.9		ug/L		102	43 - 143
Butyl benzyl phthalate	100	100.6		ug/L		101	46 - 135
Chrysene	100	97.29		ug/L		97	51 - 125
Dibenz(a,h)anthracene	100	98.23		ug/L		98	38 - 149
Dibenzofuran	100	85.15		ug/L		85	45 - 112
Diethyl phthalate	100	91.39		ug/L		91	43 - 120
Dimethyl phthalate	100	93.26		ug/L		93	43 - 120
Di-n-butyl phthalate	100	105.3		ug/L		105	50 - 120
Di-n-octyl phthalate	100	99.78		ug/L		100	34 - 146
Fluoranthene	100	102.2		ug/L		102	47 - 128
Fluorene	100	89.53		ug/L		90	59 - 119
Hexachlorobenzene	100	87.75		ug/L		88	48 - 119
Hexachlorobutadiene	100	69.57		ug/L		70	32 - 110
Hexachlorocyclopentadiene	100	57.72		ug/L		58	10 - 110
Hexachloroethane	100	63.15		ug/L		63	40 - 110
Indeno[1,2,3-cd]pyrene	100	99.60		ug/L		100	37 - 150
Isophorone	100	84.11		ug/L		84	50 - 125
Naphthalene	100	75.33		ug/L		75	38 - 110
Nitrobenzene	100	86.35		ug/L		86	47 - 116
N-Nitrosodimethylamine	100	73.10		ug/L		73	37 - 111
N-Nitrosodi-n-propylamine	100	89.82		ug/L		90	45 - 130
N-Nitrosodiphenylamine	100	90.00		ug/L		90	49 - 121
Pentachlorophenol	200	179.5		ug/L		90	26 - 133
Phenanthrene	100	85.65		ug/L		86	54 - 117
Phenol	100	61.45		ug/L		61	29 - 110
Pyrene	100	98.33		ug/L		98	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*72*		*25 - 110*
Phenol-d5 (Surr)	*60*		*21 - 110*
Nitrobenzene-d5 (Surr)	*93*		*45 - 129*
2-Fluorobiphenyl (Surr)	*84*		*39 - 118*
2,4,6-Tribromophenol (Surr)	*102*		*27 - 136*
Terphenyl-d14 (Surr)	*106*		*12 - 144*

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 310-416698/1-A
Matrix: Water
Analysis Batch: 416847

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416698

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
4,4'-DDE	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
4,4'-DDT	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
Aldrin	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: MB 310-416698/1-A
Matrix: Water
Analysis Batch: 416847

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416698

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
Chlordane (technical)	<2.00		2.00		ug/L		03/22/24 08:48	03/25/24 10:51	1
delta-BHC	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
Dieldrin	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
Endosulfan I	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
Endosulfan II	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
Endosulfan sulfate	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
Endrin	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
Endrin aldehyde	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
gamma-BHC (Lindane)	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
Heptachlor	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
Heptachlor epoxide	<0.0640		0.0640		ug/L		03/22/24 08:48	03/25/24 10:51	1
Toxaphene	<2.00		2.00		ug/L		03/22/24 08:48	03/25/24 10:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*66*		*10 - 136*	*03/22/24 08:48*	*03/25/24 10:51*	*1*
Tetrachloro-m-xylene	*60*		*10 - 130*	*03/22/24 08:48*	*03/25/24 10:51*	*1*

Lab Sample ID: LCS 310-416698/4-A
Matrix: Water
Analysis Batch: 416847

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416698

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.00	0.6215		ug/L		62	36 - 141
4,4'-DDE	1.00	0.5916		ug/L		59	34 - 130
4,4'-DDT	1.00	0.6146		ug/L		61	25 - 150
Aldrin	1.00	0.4089	*-	ug/L		41	42 - 120
alpha-BHC	1.00	0.6271		ug/L		63	37 - 127
beta-BHC	1.00	0.6257		ug/L		63	37 - 136
delta-BHC	1.00	0.5915		ug/L		59	33 - 134
Dieldrin	1.00	0.6681		ug/L		67	39 - 130
Endosulfan I	1.00	0.2731	*-	ug/L		27	45 - 120
Endosulfan II	1.00	0.3350		ug/L		34	14 - 120
Endosulfan sulfate	1.00	0.7817		ug/L		78	36 - 144
Endrin	1.00	0.6305		ug/L		63	39 - 140
Endrin aldehyde	1.00	0.6311		ug/L		63	32 - 137
gamma-BHC (Lindane)	1.00	0.5919		ug/L		59	36 - 132
Heptachlor	1.00	0.4872		ug/L		49	34 - 120
Heptachlor epoxide	1.00	0.6309		ug/L		63	38 - 133
Methoxychlor	1.00	0.6152		ug/L		62	10 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*63*		*10 - 136*
Tetrachloro-m-xylene	*65*		*10 - 130*

Method: 608.3 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCSD 310-416698/5-A
Matrix: Water
Analysis Batch: 416847

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 416698

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			1.00	0.6242		ug/L		62	36 - 141	0	35
4,4'-DDE			1.00	0.5938		ug/L		59	34 - 130	0	35
4,4'-DDT			1.00	0.6169		ug/L		62	25 - 150	0	35
Aldrin			1.00	0.4359		ug/L		44	42 - 120	6	35
alpha-BHC			1.00	0.6121		ug/L		61	37 - 127	2	35
beta-BHC			1.00	0.6212		ug/L		62	37 - 136	1	35
delta-BHC			1.00	0.5810		ug/L		58	33 - 134	2	35
Dieldrin			1.00	0.6639		ug/L		66	39 - 130	1	35
Endosulfan I			1.00	0.2747	*-	ug/L		27	45 - 120	1	28
Endosulfan II			1.00	0.3342		ug/L		33	14 - 120	0	35
Endosulfan sulfate			1.00	0.7663		ug/L		77	36 - 144	2	35
Endrin			1.00	0.6167		ug/L		62	39 - 140	2	35
Endrin aldehyde			1.00	0.6260		ug/L		63	32 - 137	1	35
gamma-BHC (Lindane)			1.00	0.5798		ug/L		58	36 - 132	2	35
Heptachlor			1.00	0.5096		ug/L		51	34 - 120	4	35
Heptachlor epoxide			1.00	0.6250		ug/L		62	38 - 133	1	26
Methoxychlor			1.00	0.6168		ug/L		62	10 - 150	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*71*		*10 - 136*
Tetrachloro-m-xylene	*73*		*10 - 130*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 310-416698/1-A
Matrix: Water
Analysis Batch: 416848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416698

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 10:51	1
PCB-1221	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 10:51	1
PCB-1232	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 10:51	1
PCB-1242	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 10:51	1
PCB-1248	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 10:51	1
PCB-1254	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 10:51	1
PCB-1260	<0.800		0.800		ug/L		03/22/24 08:48	03/25/24 10:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*66*		*10 - 136*	*03/22/24 08:48*	*03/25/24 10:51*	*1*
Tetrachloro-m-xylene (Surr)	*60*		*10 - 130*	*03/22/24 08:48*	*03/25/24 10:51*	*1*

Lab Sample ID: LCS 310-416698/2-A
Matrix: Water
Analysis Batch: 416848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416698

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			10.0	5.999		ug/L		60	50 - 133		
PCB-1260			10.0	6.492		ug/L		65	31 - 133		

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 310-416698/2-A
Matrix: Water
Analysis Batch: 416848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416698

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	*61*		*10 - 136*
Tetrachloro-m-xylene (Surr)	*60*		*10 - 130*

Lab Sample ID: LCSD 310-416698/3-A
Matrix: Water
Analysis Batch: 416848

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 416698

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016			10.0	7.168		ug/L		72	50 - 133	18	35
PCB-1260			10.0	7.401		ug/L		74	31 - 133	13	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	*72*		*10 - 136*
Tetrachloro-m-xylene (Surr)	*75*		*10 - 130*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 310-416656/1-A
Matrix: Water
Analysis Batch: 416854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416656

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0800		0.0800		mg/L		03/21/24 16:09	03/22/24 16:24	1
Barium	<0.0100		0.0100		mg/L		03/21/24 16:09	03/22/24 16:24	1
Cadmium	<0.0200		0.0200		mg/L		03/21/24 16:09	03/22/24 16:24	1
Chromium	<0.0200		0.0200		mg/L		03/21/24 16:09	03/22/24 16:24	1
Copper	<0.0200		0.0200		mg/L		03/21/24 16:09	03/22/24 16:24	1
Iron	<0.500		0.500		mg/L		03/21/24 16:09	03/22/24 16:24	1
Lead	<0.100		0.100		mg/L		03/21/24 16:09	03/22/24 16:24	1
Nickel	<0.0500		0.0500		mg/L		03/21/24 16:09	03/22/24 16:24	1
Silver	<0.0200		0.0200		mg/L		03/21/24 16:09	03/22/24 16:24	1
Selenium	<0.100		0.100		mg/L		03/21/24 16:09	03/22/24 16:24	1
Zinc	<0.0400		0.0400		mg/L		03/21/24 16:09	03/22/24 16:24	1

Lab Sample ID: LCS 310-416656/2-A
Matrix: Water
Analysis Batch: 416854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416656

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic			2.00	1.929		mg/L		96	85 - 115
Barium			1.00	0.9928		mg/L		99	85 - 115
Cadmium			1.00	0.9369		mg/L		94	85 - 115
Chromium			1.00	0.9493		mg/L		95	85 - 115
Copper			2.00	1.910		mg/L		96	85 - 115
Iron			2.00	1.956		mg/L		98	85 - 115
Lead			2.00	1.874		mg/L		94	85 - 115
Magnesium			20.0	19.23		mg/L		96	85 - 115
Manganese			1.00	0.9753		mg/L		98	85 - 115
Nickel			2.00	1.884		mg/L		94	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 310-416656/2-A
Matrix: Water
Analysis Batch: 416854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416656

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	0.100	0.09738		mg/L		97	85 - 115
Selenium	4.00	3.849		mg/L		96	85 - 115
Zinc	2.00	1.924		mg/L		96	85 - 115

Method: 245.2 - Mercury (CVAA)

Lab Sample ID: MB 310-417476/1-A
Matrix: Water
Analysis Batch: 417517

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417476

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/01/24 10:18	04/01/24 15:30	1

Lab Sample ID: LCS 310-417476/2-A
Matrix: Water
Analysis Batch: 417517

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417476

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001650		mg/L		99	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 310-416782/1-A
Matrix: Water
Analysis Batch: 416924

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416782

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.0		5.0		mg/L		03/25/24 14:00	03/25/24 14:00	1

Lab Sample ID: LCS 310-416782/2-A
Matrix: Water
Analysis Batch: 416924

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416782

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM (Oil & Grease)	40.0	34.30		mg/L		86	78 - 114

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 310-416695/1-A
Matrix: Water
Analysis Batch: 416784

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416695

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0100		0.0100		mg/L		03/22/24 08:29	03/22/24 18:14	1

Lab Sample ID: LCS 310-416695/24-A
Matrix: Water
Analysis Batch: 416784

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.200	0.1917		mg/L		96	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 310-416807/1-A
Matrix: Water
Analysis Batch: 416926

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 416807

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	<1.00		1.00		mg/L		03/25/24 05:23	03/25/24 21:15	1

Lab Sample ID: LCS 310-416807/2-A
Matrix: Water
Analysis Batch: 416926

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 416807

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	4.01	3.906		mg/L		97	90 - 110

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

Lab Sample ID: MB 310-416600/1
Matrix: Water
Analysis Batch: 416600

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	<5.0		5.0		mg/L			03/21/24 11:21	1

Lab Sample ID: LCS 310-416600/2
Matrix: Water
Analysis Batch: 416600

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	99.00		mg/L		99	75 - 116

Lab Sample ID: 310-277166-1 DU
Matrix: Water
Analysis Batch: 416600

Client Sample ID: Leachate Sample
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	54.0		50.00		mg/L		8	35

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-416645/1
Matrix: Water
Analysis Batch: 416645

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			03/21/24 14:24	1

Lab Sample ID: LCS 310-416645/2
Matrix: Water
Analysis Batch: 416645

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	930.0		mg/L		93	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-416521/1
Matrix: Water
Analysis Batch: 416521

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100	98 - 102		

Lab Sample ID: 310-277166-1 DU
Matrix: Water
Analysis Batch: 416521

Client Sample ID: Leachate Sample
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.9	HF		7.9		SU				0.3	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 310-416457/1
Matrix: Water
Analysis Batch: 416457

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<3.00		3.00		mg/L			03/20/24 10:45	1

Lab Sample ID: LCS 310-416457/2
Matrix: Water
Analysis Batch: 416457

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Biochemical Oxygen Demand			198	175.0		mg/L		88	85 - 115		

Method: SM 5310C - TOC

Lab Sample ID: MB 310-416754/14
Matrix: Water
Analysis Batch: 416754

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.00		1.00		mg/L			03/21/24 16:23	1

Lab Sample ID: LCS 310-416754/15
Matrix: Water
Analysis Batch: 416754

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			9.99	10.24		mg/L		103	85 - 115		

Lab Sample ID: 310-277166-1 MS
Matrix: Water
Analysis Batch: 416754

Client Sample ID: Leachate Sample
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon	48.3	F1	49.9	51.20	F1	mg/L		6	85 - 115		

GC/MS VOA

Analysis Batch: 416633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	624.1	
MB 310-416633/5	Method Blank	Total/NA	Water	624.1	
LCS 310-416633/6	Lab Control Sample	Total/NA	Water	624.1	
LCS 310-416633/7	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 416599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	625	
MB 310-416599/1-A	Method Blank	Total/NA	Water	625	
LCS 310-416599/2-A	Lab Control Sample	Total/NA	Water	625	

Analysis Batch: 416737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	625.1	416599
MB 310-416599/1-A	Method Blank	Total/NA	Water	625.1	416599
LCS 310-416599/2-A	Lab Control Sample	Total/NA	Water	625.1	416599

GC Semi VOA

Prep Batch: 416698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	608	
MB 310-416698/1-A	Method Blank	Total/NA	Water	608	
LCS 310-416698/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 310-416698/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 310-416698/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 310-416698/5-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 416847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	608.3	416698
MB 310-416698/1-A	Method Blank	Total/NA	Water	608.3	416698
LCS 310-416698/4-A	Lab Control Sample	Total/NA	Water	608.3	416698
LCSD 310-416698/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	416698

Analysis Batch: 416848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	608.3	416698
MB 310-416698/1-A	Method Blank	Total/NA	Water	608.3	416698
LCS 310-416698/2-A	Lab Control Sample	Total/NA	Water	608.3	416698
LCSD 310-416698/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	416698

Metals

Prep Batch: 416656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	200.7	
MB 310-416656/1-A	Method Blank	Total/NA	Water	200.7	
LCS 310-416656/2-A	Lab Control Sample	Total/NA	Water	200.7	

Metals

Analysis Batch: 416854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	200.7 Rev 4.4	416656
MB 310-416656/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	416656
LCS 310-416656/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	416656

Prep Batch: 417476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	245.1	
MB 310-417476/1-A	Method Blank	Total/NA	Water	245.1	
LCS 310-417476/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 417517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	245.2	417476
MB 310-417476/1-A	Method Blank	Total/NA	Water	245.2	417476
LCS 310-417476/2-A	Lab Control Sample	Total/NA	Water	245.2	417476

General Chemistry

Analysis Batch: 416457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	SM 5210B	
USB 310-416457/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 310-416457/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 416521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	SM 4500 H+ B	
LCS 310-416521/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-277166-1 DU	Leachate Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 416600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	I-3765-85	
MB 310-416600/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-416600/2	Lab Control Sample	Total/NA	Water	I-3765-85	
310-277166-1 DU	Leachate Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 416645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	SM 2540C	
MB 310-416645/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-416645/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Prep Batch: 416695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	Distill/CN	
MB 310-416695/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 310-416695/24-A	Lab Control Sample	Total/NA	Water	Distill/CN	

QC Association Summary

Client: Wayne-Ringgold-Decatur
Project/Site: WRD-Lanfill Leachate

Job ID: 310-277166-1

General Chemistry

Analysis Batch: 416754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	SM 5310C	
MB 310-416754/14	Method Blank	Total/NA	Water	SM 5310C	
LCS 310-416754/15	Lab Control Sample	Total/NA	Water	SM 5310C	
310-277166-1 MS	Leachate Sample	Total/NA	Water	SM 5310C	

Prep Batch: 416782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	1664A	
MB 310-416782/1-A	Method Blank	Total/NA	Water	1664A	
LCS 310-416782/2-A	Lab Control Sample	Total/NA	Water	1664A	

Analysis Batch: 416784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	335.4	416695
MB 310-416695/1-A	Method Blank	Total/NA	Water	335.4	416695
LCS 310-416695/24-A	Lab Control Sample	Total/NA	Water	335.4	416695

Prep Batch: 416807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	351.2	
MB 310-416807/1-A	Method Blank	Total/NA	Water	351.2	
LCS 310-416807/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 416924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	1664A	416782
MB 310-416782/1-A	Method Blank	Total/NA	Water	1664A	416782
LCS 310-416782/2-A	Lab Control Sample	Total/NA	Water	1664A	416782

Analysis Batch: 416926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	351.2	416807
MB 310-416807/1-A	Method Blank	Total/NA	Water	351.2	416807
LCS 310-416807/2-A	Lab Control Sample	Total/NA	Water	351.2	416807

Prep Batch: 416993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 417035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-277166-1	Leachate Sample	Total/NA	Water	350.1	416993

Lab Chronicle

Client: Wayne-Ringgold-Decatur
Job ID: 310-277166-1
Project/Site: WRD-Lanfill Leachate

Client Sample ID: Leachate Sample
Lab Sample ID: 310-277166-1

Date Collected: 03/19/24 08:15
Matrix: Water

Date Received: 03/20/24 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	416633	FE5V	EET CF	03/21/24 21:57
Total/NA	Prep	625			416599	JT8P	EET CF	03/21/24 11:00
Total/NA	Analysis	625.1		1	416737	L0FS	EET CF	03/22/24 23:33
Total/NA	Prep	608			416698	JT8P	EET CF	03/22/24 08:48
Total/NA	Analysis	608.3		1	416847	BW2O	EET CF	03/25/24 13:28
Total/NA	Prep	608			416698	JT8P	EET CF	03/22/24 08:48
Total/NA	Analysis	608.3		1	416848	BW2O	EET CF	03/25/24 13:28
Total/NA	Prep	200.7			416656	QTZ5	EET CF	03/21/24 16:09
Total/NA	Analysis	200.7 Rev 4.4		1	416854	ZRI4	EET CF	03/22/24 16:44
Total/NA	Prep	245.1			417476	A6US	EET CF	04/01/24 10:18
Total/NA	Analysis	245.2		1	417517	A6US	EET CF	04/01/24 15:43
Total/NA	Prep	1664A			416782	D7CP	EET CF	03/25/24 14:00
Total/NA	Analysis	1664A		1	416924	D7CP	EET CF	03/25/24 14:00
Total/NA	Prep	Distill/CN			416695	WZC8	EET CF	03/22/24 08:29
Total/NA	Analysis	335.4		1	416784	ZJX4	EET CF	03/22/24 18:30
Total/NA	Prep	Distill/Ammonia			416993	MQ8M	EET CF	03/26/24 10:32
Total/NA	Analysis	350.1		1	417035	ZJX4	EET CF	03/26/24 21:30
Total/NA	Prep	351.2			416807	W9YR	EET CF	03/25/24 05:23
Total/NA	Analysis	351.2		1	416926	ZJX4	EET CF	03/25/24 21:21
Total/NA	Analysis	I-3765-85		1	416600	DGU1	EET CF	03/21/24 11:21
Total/NA	Analysis	SM 2540C		1	416645	ENB7	EET CF	03/21/24 14:24
Total/NA	Analysis	SM 4500 H+ B		1	416521	A3GU	EET CF	03/20/24 16:56
Total/NA	Analysis	SM 5210B		1	416457	W9YR	EET CF	03/20/24 17:16
Total/NA	Analysis	SM 5310C		10	416754	WZC8	EET CF	03/22/24 03:49

Laboratory References:

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

Accreditation/Certification Summary

Client: Wayne-Ringgold-Decatur
Project/Site: WRD-Lanfill Leachate

Job ID: 310-277166-1

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

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

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,3-Dichloropropene, Total
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
625.1	625	Water	Dibenzofuran

Method Summary

Client: Wayne-Ringgold-Decatur
Project/Site: WRD-Lanfill Leachate

Job ID: 310-277166-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET CF
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CF
608.3	Organochlorine Pesticides in Water	EPA	EET CF
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET CF
200.7 Rev 4.4	Metals (ICP)	EPA	EET CF
245.2	Mercury (CVAA)	EPA	EET CF
1664A	HEM and SGT-HEM	1664A	EET CF
335.4	Cyanide, Total	EPA	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
SM 5210B	BOD, 5-Day	SM	EET CF
SM 5310C	TOC	SM	EET CF
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CF
200.7	Preparation, Total Metals	EPA	EET CF
245.1	Preparation, Mercury	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
608	Liquid-Liquid Extraction (Separatory Funnel)	EPA	EET CF
625	Liquid-Liquid Extraction	EPA	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF
Distill/CN	Distillation, Cyanide	None	EET CF

Protocol References:

1664A = EPA-821-98-002
EPA = US Environmental Protection Agency
None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"
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

eurofins | Environment Testing America

310-277166 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Wayne Ringgold Decatur

City/State: CITY | STATE

Project:

Receipt Information

Date/Time Received: DATE 3/20/24 | TIME 1225

Received By: AM

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

Condition of Cooler/Containers

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

Temperature Record

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

Thermometer ID: X

Correction Factor (°C): 0

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

Uncorrected Temp (°C):

Corrected Temp (°C):

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:	250 mL plastic	
Uncorrected Temp (°C):	0.9	
Corrected Temp (°C):	0.9	

Exceptions Noted

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

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

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

Additional Comments

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

Chain of Custody Record

eurofins

Client Information	Sampler: David Pearce	Lab PM: Michels, Bob C	Carrier Tracking No(s):	COC No: 310-89148-14676 1
Client Contact: Sheila Caldwell	Phone: 641-773-5229	E-Mail: Bob.Michels@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Wayne-Ringgold-Decatur	PWSID:			Job #:
Address: 21377 125th Avenue	Due Date Requested:			
City: Grand River	TAT Requested (days):			
State, Zip: IA, 50108	Compliance Project: Δ Yes Δ No			
Phone: 641-773-5229	PO #: Purchase Order not required			
Email: wrdlandf@grm net	WO #:			
Project Name: WRD-Lanfill Leachate	Project #: 31003034			
Site:	SSOW#:			

Analysis Requested

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)	350 1, 351 2	200 7_CWA, 245.2	5310C - Total Organic Carbon	624_5ml - (MOD) Volatile TTO Sublist	608_PCB, 608_Pest, 625	2540C_Calcd, I_3765_85, SM4500_H+, SM5210B_Calc	335.4 - Cyanide, Total	624_5ml_UP - (MOD) Volatile TTO Sublist	1664A - Oil and Grease	SM5310B - Sublist for summary and 2 reps only				Total Number of containers	Special Instructions/Note.
			Preservation Code:		X	X	S	D	S	A	N	N	B	N	S	S				X	
Leachate Sample	3-19-24	8:15		Water																	

Preservation Codes.

A - HCL
B - NaOH
C - Zn Acetate
D Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W pH 4-5
Y - Trizma
Z - other (specify)
Other:

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
			MC	3-20-24 1225	
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: 06/08/2021

4/2/2024

Login Sample Receipt Checklist

Client: Wayne-Ringgold-Decatur

Job Number: 310-277166-1

Login Number: 277166

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Costello, Mackenzie K

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

Appendix F

2024 Landfill Gas Annual Report

Table F1
Gas Monitoring Summary
2024 Gas Monitoring Report
WRD County Landfill
Permit No. 27-SDP-01-75P

Monitoring Points				Methane Results (% LEL)							
Name		Type	Description	3/26/2024	S (Y/N)	5/14/2024	S (Y/N)	9/18/2024	S (Y/N)	12/16/2024	S (Y/N)
#1	HHM/Office	Indoor	HHM Building and Office	0%		0%		0%		0%	
#2	Scale	Indoor	Scale	0%		0%		0%		0%	
#3	Shop	Indoor	Shop	0%		0%		0%		0%	
#9	UO-4	Subsurface	UO-4	0%		0%		0%		0%	
#10	LFGW-W1	Subsurface	LFGW-W1 (subsurface W1)	0%	N	0%	NM	0%	NM	0%	NM
#11	LFGW-W2	Subsurface	LFGW-W2 (subsurface W2)	0%	Y	0%	NM	0%	NM	0%	NM

Notes:

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

NM - Indicates not measured.

LEGEND

- MW-4C MONITORING WELL
- LFGW-1 LANDFILL GAS WELL
- LPZ-1 LEACHATE PIEZOMETER
- CURRENT WASTE BOUNDARY
- FUTURE WASTE BOUNDARY
- APPROXIMATE PROPERTY BOUNDARY
- METHANE MONITORING POINT
- UO-4 UNDERDRAIN

Monitoring Points			
Name		Type	Description
#1	HHM/Office	Indoor	HHM Building and Office
#2	Scale	Indoor	Scale
#3	Shop	Indoor	Shop
#9	UO-4	Subsurface	UO-4
#10	LFGW-W1	Subsurface	LFGW-W1 (subsurface W1)
#11	LFGW-W2	Subsurface	LFGW-W2 (subsurface W2)

300 0 300

SCALE FEET

REV.	DATE	CK BY
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-

SHEET TITLE
METHANE MONITORING NETWORK

PROJECT TITLE
WAYNE RINGGOLD DECATUR SANITARY LANDFILL
2025 ANNUAL WATER QUALITY REPORT

CLIENT
WAYNE RINGGOLD DECATUR SOILD WASTE MANAGMENT COMMISSION
21377 125TH AVENUE
GRAND RIVER, IOWA

SCS ENGINEERS
1690 ALL STATE COURT, SUITE 100
WEST DES MOINES, IOWA 50265
(515) 631-6160

PROJ.NO. 27224309.25
DSN. BY: CJD
DWN. BY: CJD
CHK. BY: SAM
PROJ. MGR: SAM

CADD FILE: 2025 MMR.DWG

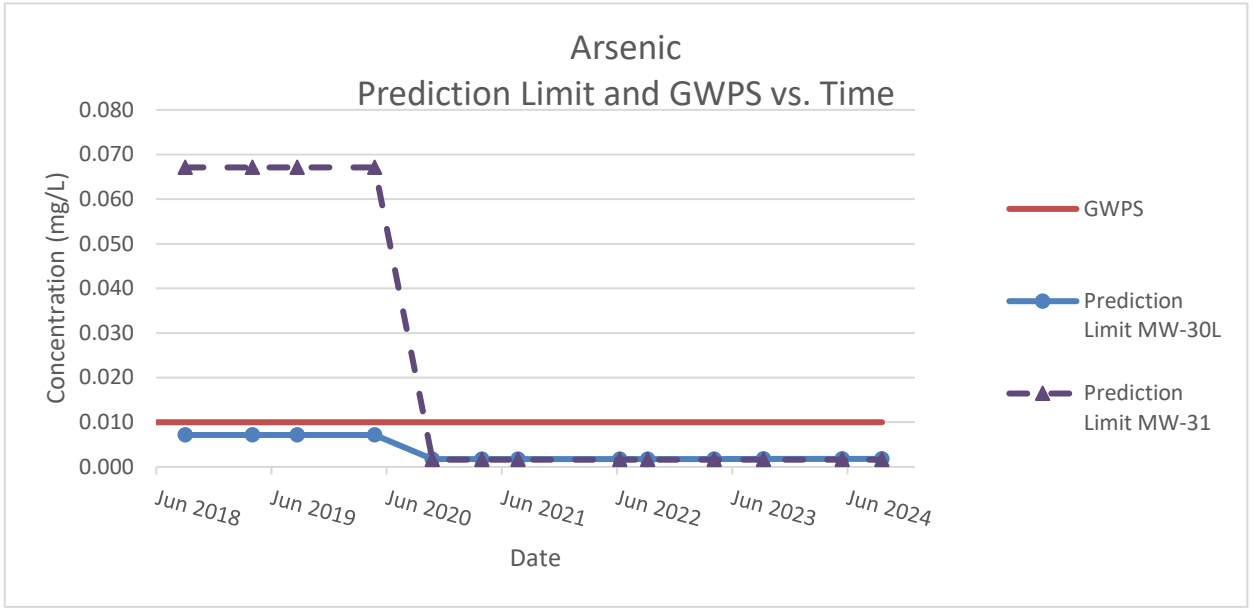
DATE: 2/13/25

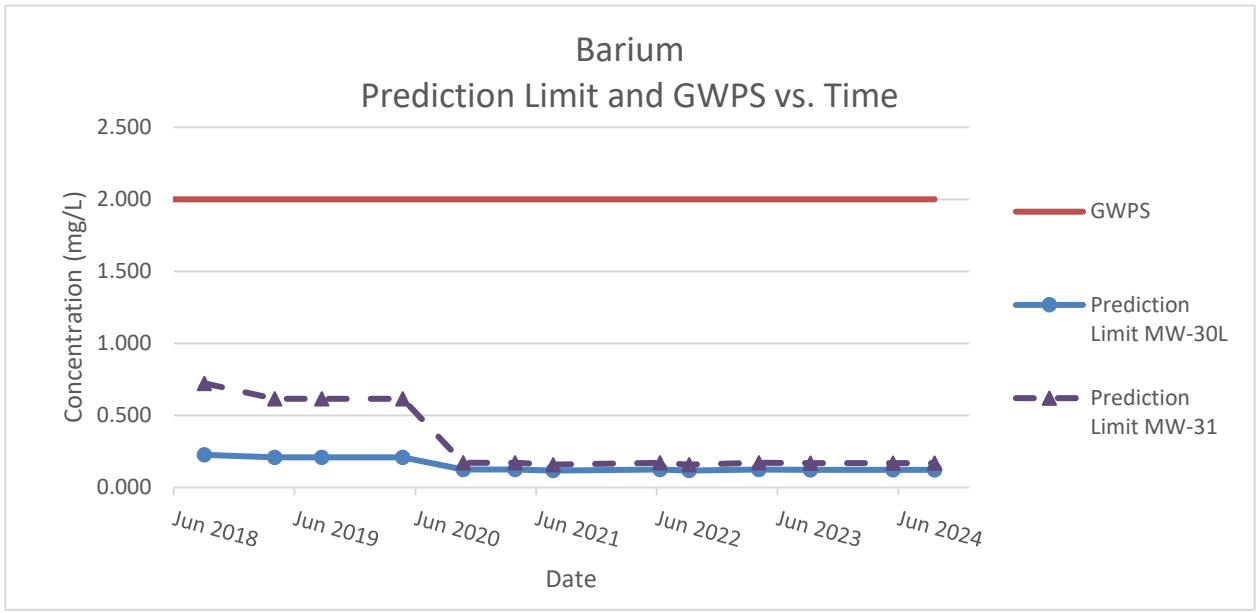
FIGURE NO. **1**

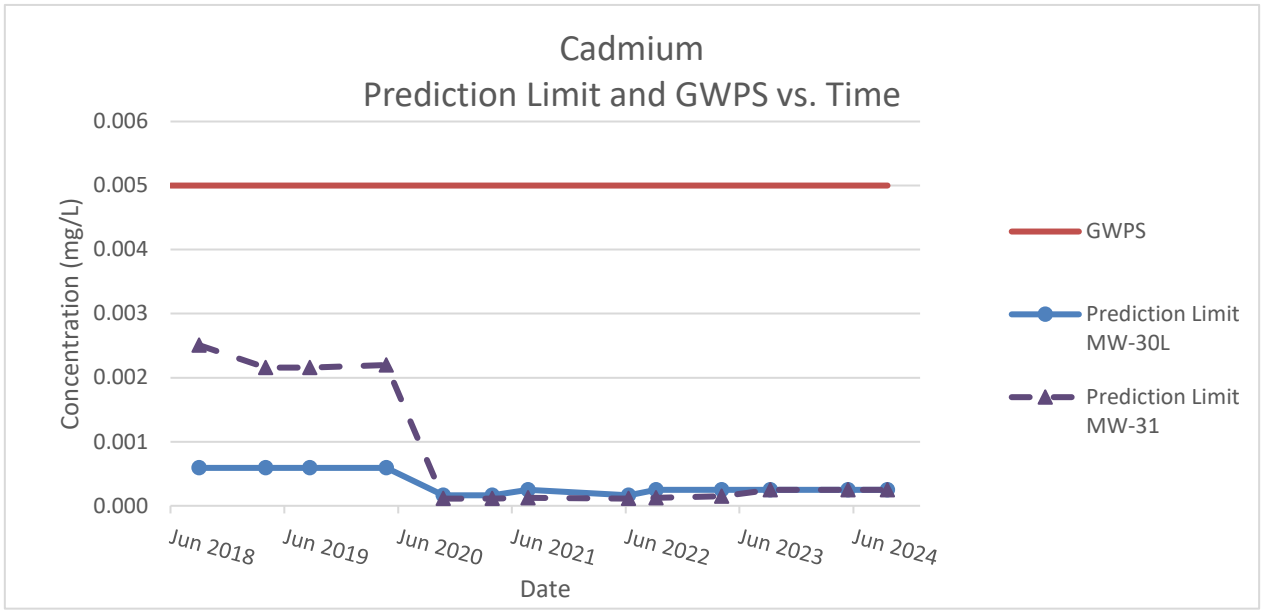
G:\PROJECT\27224309.25\AUTOCAD\2025 MMR.DWG

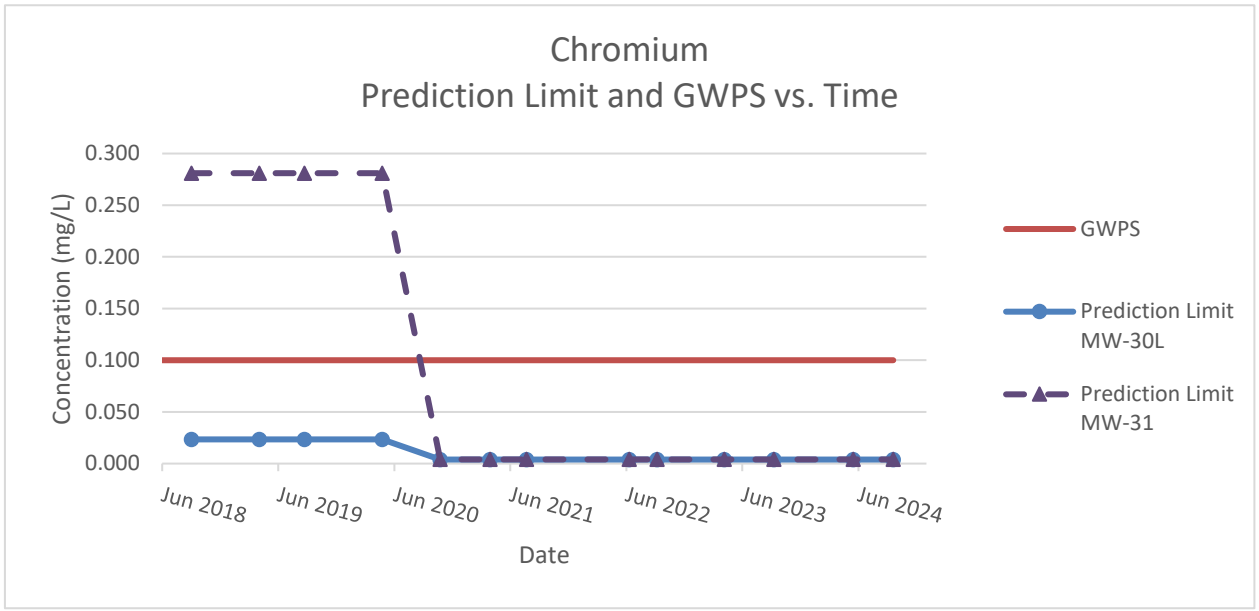
Appendix G

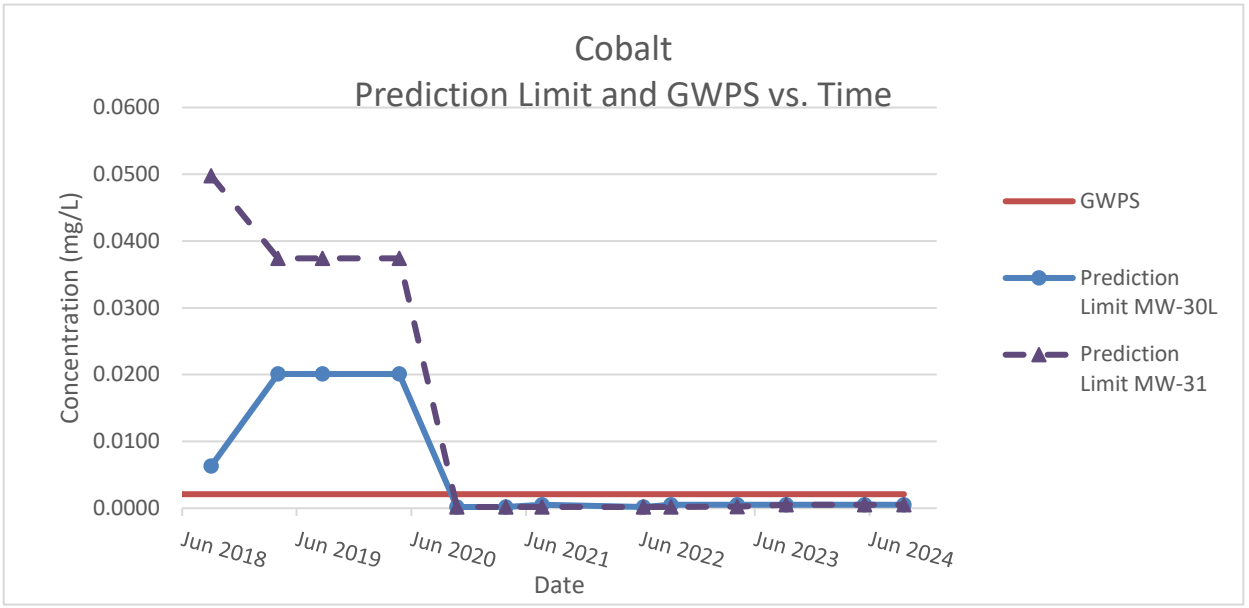
Standards History Graphs

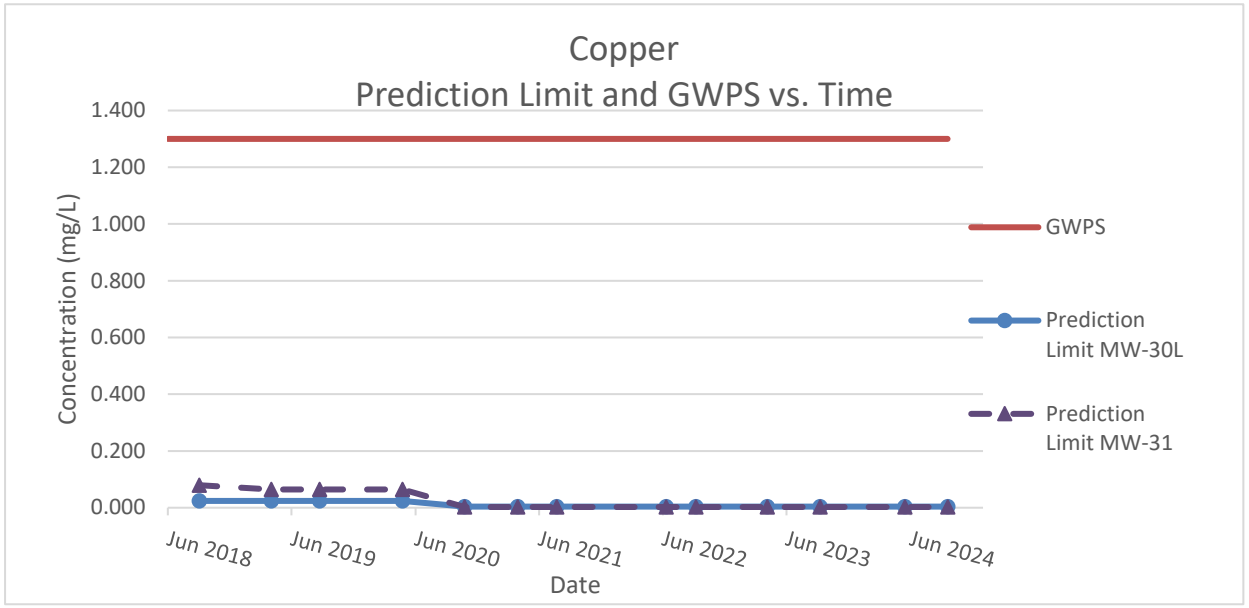

Arsenic
Prediction Limit and GWPS vs. Time
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
Concentration (mg/L)
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L
Prediction Limit MW-31

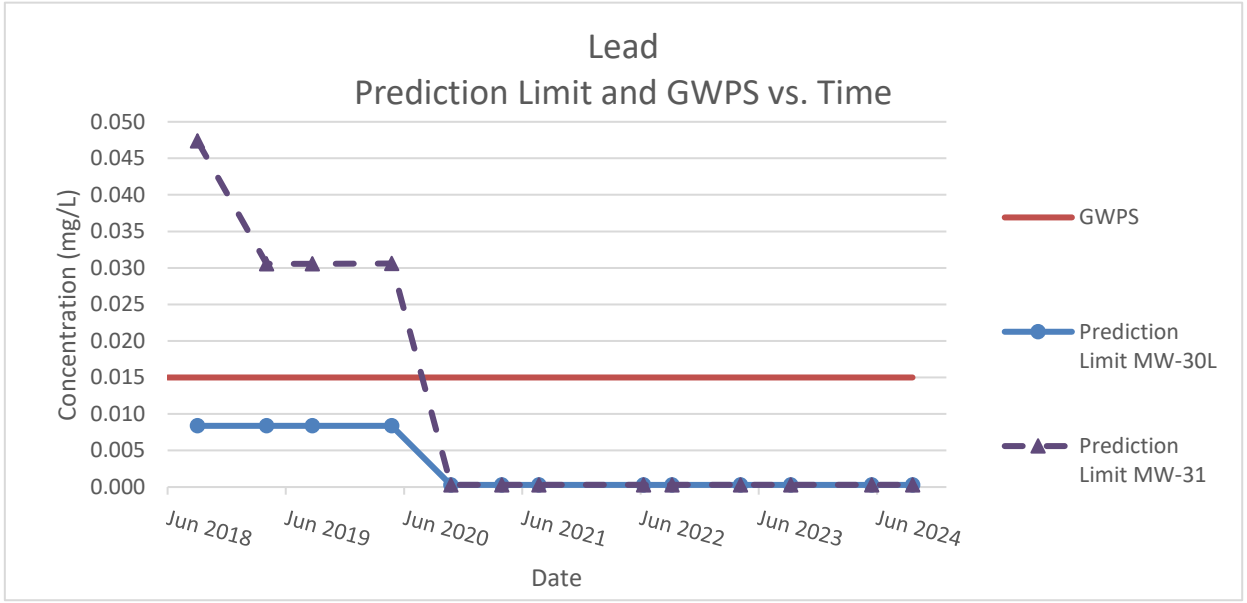

Barium
Prediction Limit and GWPS vs. Time
2.500
2.000
1.500
1.000
0.500
0.000
Concentration (mg/L)
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L
Prediction Limit MW-31

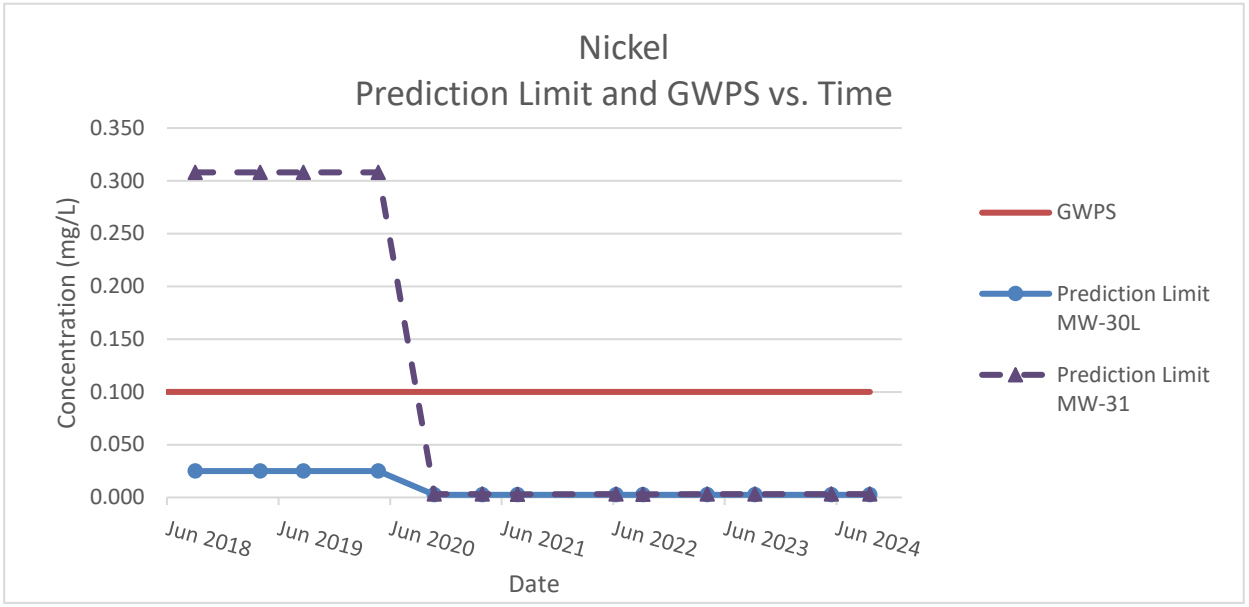

Cadmium
Prediction Limit and GWPS vs. Time
0.006
0.005
0.004
0.003
0.002
0.001
0.000
Concentration (mg/L)
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L
Prediction Limit MW-31

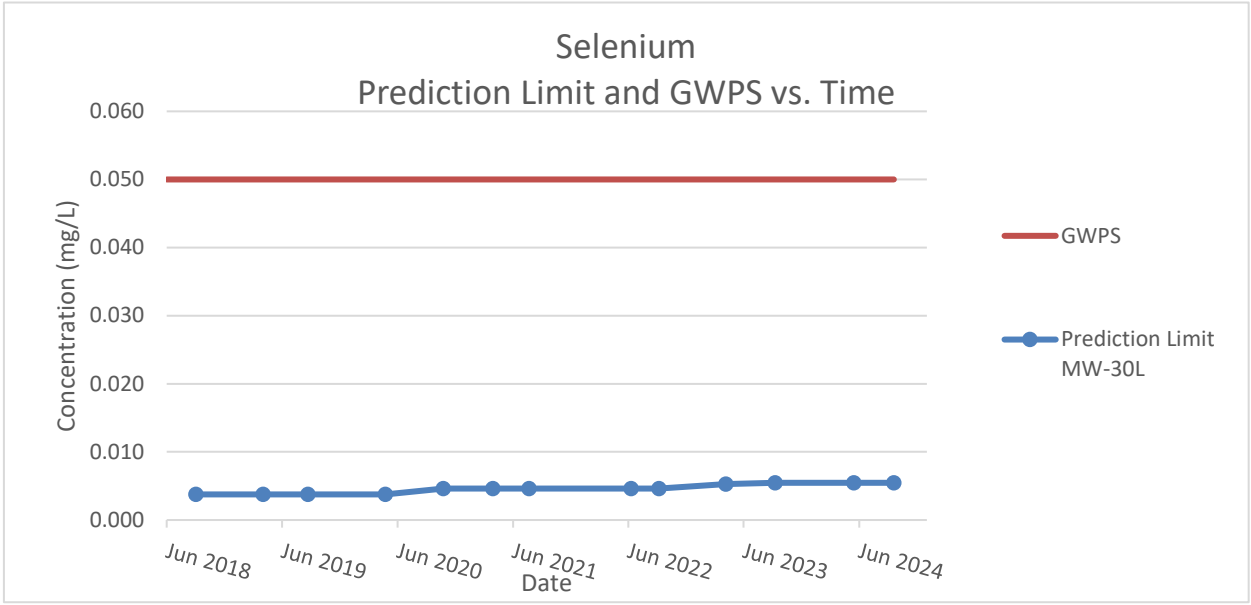

Chromium
Prediction Limit and GWPS vs. Time
0.300
0.250
0.200
0.150
0.100
0.050
0.000
Concentration (mg/L)
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L
Prediction Limit MW-31

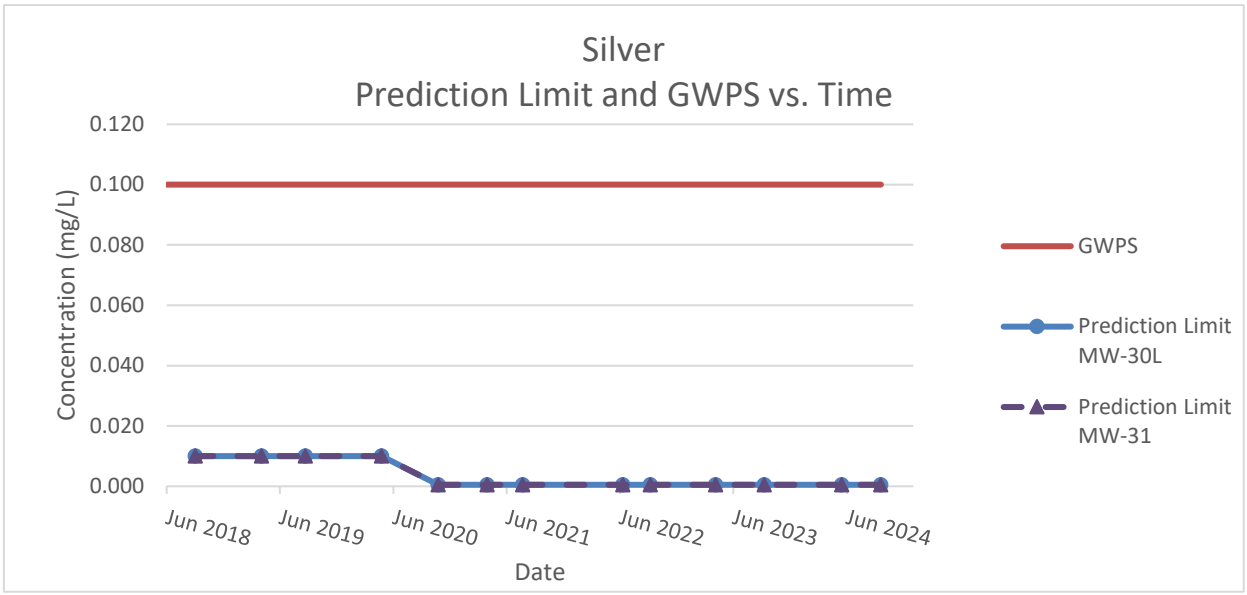

Cobalt
Prediction Limit and GWPS vs. Time
0.0600
0.0500
0.0400
0.0300
0.0200
0.0100
0.0000
Concentration (mg/L)
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L
Prediction Limit MW-31

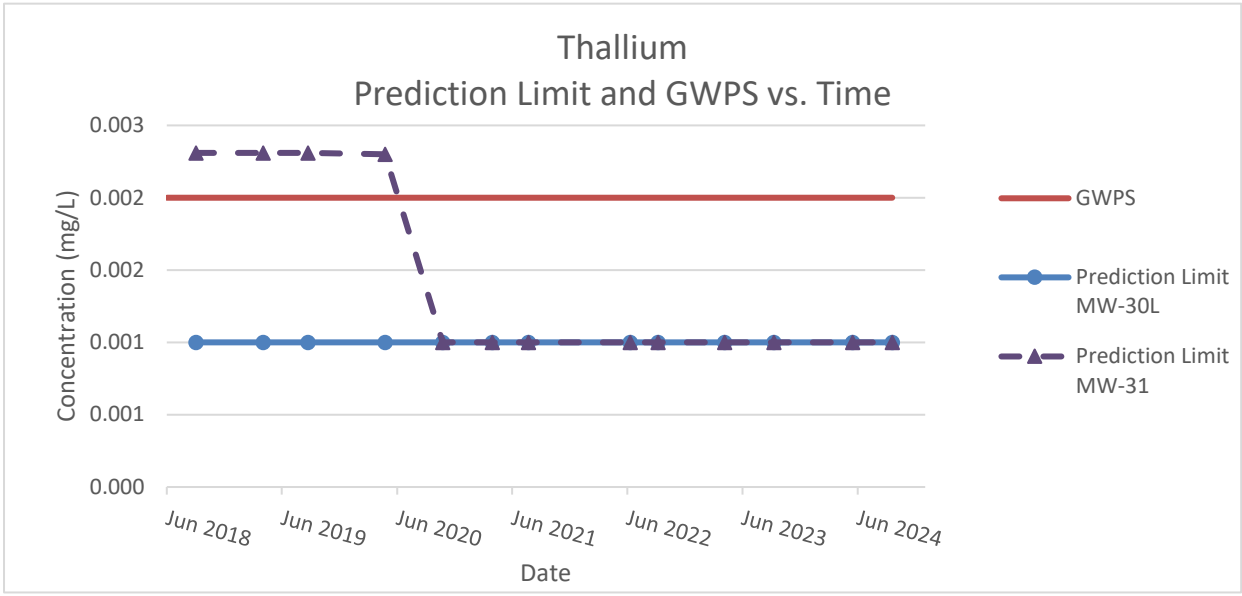

Copper
Prediction Limit and GWPS vs. Time
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
Concentration (mg/L)
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L
Prediction Limit MW-31

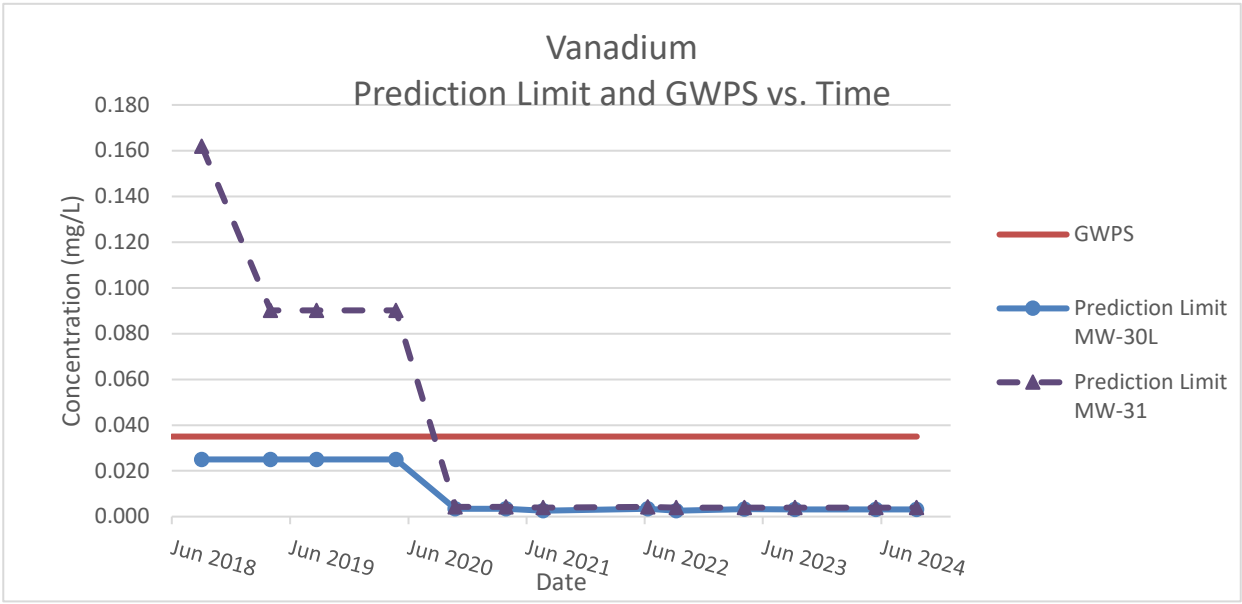

Lead
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.050
0.045
0.040
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L
Prediction Limit MW-31

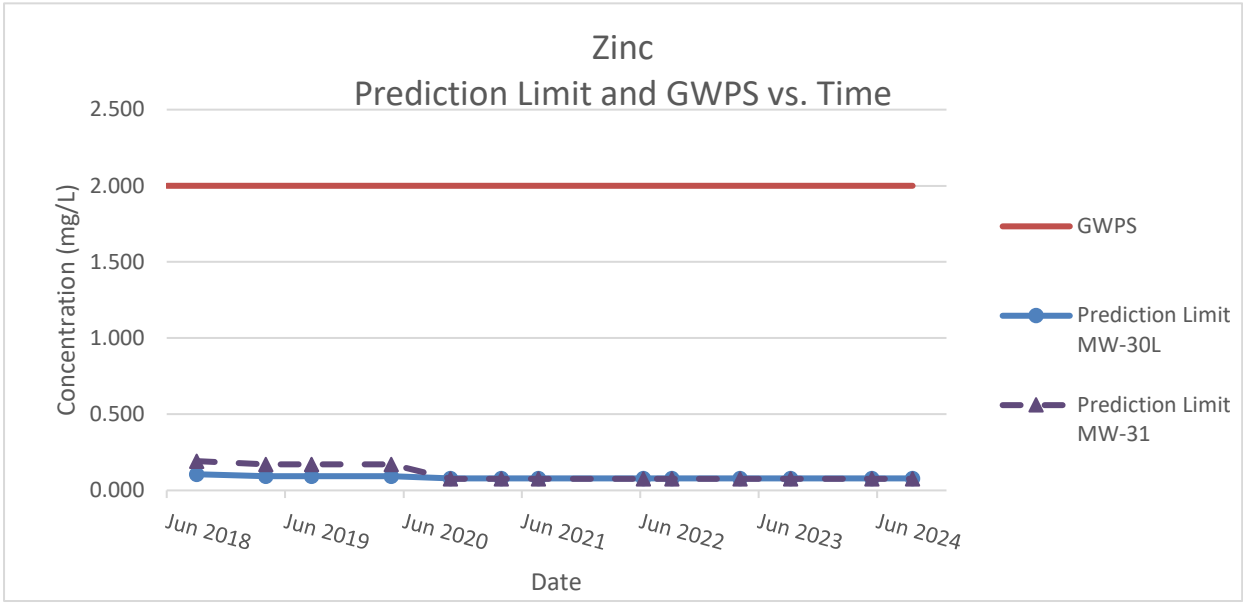

Nickel
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.350
0.300
0.250
0.200
0.150
0.100
0.050
0.000
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L
Prediction Limit MW-31


Selenium
Prediction Limit and GWPS vs. Time
0.060
0.050
0.040
0.030
0.020
0.010
0.000
Concentration (mg/L)
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L


Silver
Prediction Limit and GWPS vs. Time
0.120
0.100
0.080
0.060
0.040
0.020
0.000
Concentration (mg/L)
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L
Prediction Limit MW-31


Thallium
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.003
0.002
0.002
0.001
0.001
0.000
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L
Prediction Limit MW-31


Vanadium
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.180
0.160
0.140
0.120
0.100
0.080
0.060
0.040
0.020
0.000
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L
Prediction Limit MW-31


Zinc
Prediction Limit and GWPS vs. Time
2.500
2.000
1.500
1.000
0.500
0.000
Concentration (mg/L)
Jun 2018
Jun 2019
Jun 2020
Jun 2021
Jun 2022
Jun 2023
Jun 2024
Date
GWPS
Prediction Limit MW-30L
Prediction Limit MW-31