2023 ANNUAL GROUNDWATER QUALITY REPORT

FOR THE
BENTON COUNTY SANITARY LANDFILL
06-SDP-02-81P
BLAIRSTOWN, IOWA

by:
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March, 2024

6043-23A.320

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Certification

Prepared by:  Date: 3-18-2024

Typed: Todd Whipple, CPG

Section 1.0 Background Information

1.1 Report Priority

It is recommended that the detection monitoring and assessment monitoring continue to be performed on a semi-annual basis at the monitoring points listed in Table 1.

MW-9, MW-20, MW-24, and AW-3 should remain in Assessment Monitoring.

A separate report was issued to IDNR related to water quality at AW-2 on March 1, 2024 (Doc # 109398). The report documented the improvements in water quality at AW-2 over time while the background water quality was established for the site. At this time a Statistically Significant Level (SSL) does not exist at AW-2 based on the 95% LCL values. Based on this information Assessment of Corrective Measures (ACM) activities are deemed to be unwarranted at AW-2.

It is recommended that Corrective Action Monitoring be continued at AW-2 and AW-9.

1.2 Period of Report Coverage

Water quality data evaluation is based on a running compilation of data beginning in February 4, 2008. Statistical evaluations herein are based on the most recent water quality data collected September 28, 2023.

1.3 Current Site Map

Figure 1 and Figure 2 are attached illustrating the current site features, monitoring well locations, leachate piezometer locations, and subsurface gas probe locations.

1.4 Site Status and Applicable Rules

Site Location

The Benton County Sanitary Landfill is located in Section 35, T82N, R11W, Benton County, Iowa. The portion of the site that encompasses the waste footprint is limited to approximately 40 acres. An additional 80 acres (approximate) of land comprises the site (40 acres to the south of the waste footprint and 40 acres to the west of the waste footprint). The facility is situated approximately 2 miles south of Blairstown, Iowa. The facility operates under the Iowa Department of Natural Resources (IDNR) Permit Number 06-SDP-02-81P.

Landfill Layout

The site is situated on land described as loess (up to 20 feet thick) overlying glacial till soils. The Hydrogeologic Investigation Report was submitted on May 28, 1991 (Doc #1984).

The facility includes several closed landfill cells adjoined to operating RCRA Subtitle D Expansion Areas that are actively receiving waste from the planning area.

Applicable Rules

Iowa Administrative Code (IAC) 567-113 is applicable to the site. The original landfill cells (closed) and the adjoining RCRA Subtitle D landfill cells are regulated under (IAC) 567-113.

1.5 Summary of Hydrologic Monitoring System Plan (HMSP)

The HMSP includes background monitoring point MW-6, MW-7, MW-26, MW-27, and MW-28. Downgradient points include MW-9, MW-12, MW-14, MW-20, AW-4, MW-24, MW-25, AW-2, AW-3, and AW-9.

The site monitoring wells are evaluated by interwell statistical methods to determine whether a statistically significant increase (SSI) is documented in the vicinity of the landfill.

The Site Plan and the approved monitoring network is illustrated on Figure 2. The Water Table Contour Map is included as Figure 3. Monitoring Well Maintenance Performance Reevaluation activities associated with the HMSP monitoring wells are discussed in the information presented in Appendix A.

Table 1 - Current Status of the Hydrologic Monitoring System Plan (HMSP) & Planned Sampling

WELL	Monitoring Phase	Most Recent Appendix II	3/2024	9/2024
MW-6 (b)	Detection Monitoring	3/2012	Appendix I	Appendix I
MW-7 (b)	Detection Monitoring	---	Appendix I	Appendix I
MW-26 (b)	Detection Monitoring	---	Appendix I	Appendix I
MW-27 (b)	Detection Monitoring	---	Appendix I	Appendix I
MW-28 (b)	Detection Monitoring	---	Appendix I	Appendix I
MW-9	Assessment Monitoring	4/23/09, 4/27/10, 3/24/11, 3/20/12, 3/17/2017, 9/28/2023	Appendix I(2)	Appendix I(2)
MW-12	Detection Monitoring(1)	4/23/09, 4/27/10, 3/24/11, 3/20/12, 3/17/2017	Appendix I	Appendix I
MW-14	Detection Monitoring(1)	4/23/09, 4/27/10, 3/24/11, 3/20/12, 3/17/2017	Appendix I	Appendix I
MW-20	Assessment Monitoring	3/20/12, 8/28/12, 3/17/2017, 3/31/2022	Appendix I(3)	Appendix I(3)
AW-4	Detection Monitoring		Appendix I	Appendix I
MW-24	Assessment Monitoring	3/20/12, 3/17/2017, 3/31/2022	Appendix I(2)	Appendix I(2)
MW-25	Detection Monitoring(1)	3/17/17, 9/12/2018	Appendix I	Appendix I
AW-2	**CA-POC**	3/20/12, 3/17/2017, 3/31/2022	Appendix I(2)	Appendix I(2)
AW-9	**CA - SOW**	---	As, Co	As, Co
AW-3	Assessment Monitoring	3/20/12, 3/17/2017, 3/31/2022	Appendix I(2)	Appendix I(2)
Duplicate	QA/QC		Appendix I	Appendix I

(1) Returned to detection monitoring 1/1/2022
(2) Appendix I plus no detected Appendix II Compounds
(3) Sulfide

CA-POC = Corrective Action – Point of Compliance
CA-SOW = Corrective Action – Step-out Well

Section 2.0 Reporting Period Monitoring Activities

Appendix B includes information related to the Monitoring Activities at this facility. A summary of all well testing beginning February 4, 2008 is included in Appendix B.1.

Field sampling forms (IDNR Form 542-1322) for the March 7, 2023, June 6, 2023, and September 28, 2023 sampling episodes are included in Appendix B.2.

A comprehensive summary of Analytical Data for the episodes between February 4, 2008 and September 28, 2023 is included in Appendix C.

2.1 Current Detection Monitoring Activities

The background wells are MW-6, MW-7, MW-26, MW-27, and MW-28. Downgradient detection monitoring wells include MW-12, MW-14, AW-4, and MW-25.

2.2 Current Assessment Monitoring Activities

Assessment monitoring wells include MW-9, MW-20, MW-24, AW-2, and AW-3.

A minimum of two (2) rounds of full Appendix II sampling are completed at every assessment monitoring/corrective action well. The full Appendix II sampling has an alternate sampling frequency of once per five (5) years based on the Special Provision X.4.i. of the Permit dated February 13, 2024 (Doc #108845).

2.3 Current Corrective Action Activities

GU-1, GU-2, and GU-3 were connected to the leachate collection system in satisfaction of IAC 567-113(10)2(3) and were removed from the HMSP in 2016.

Exploration for the waste boundary along the west side of the site was completed May 9, 2017 in accordance with the July 22, 2016 Workplan (Doc #86856).

Section 3.0 Data Evaluation and Summary

Statistical Evaluations are prepared by Otter Creek Environmental Services for each monitoring episode. The Groundwater Statistics Report for the Benton County Sanitary Landfill, First Semi-Annual Monitoring Event in 2023, dated April, 2023 is included in Appendix D.1. The Groundwater Statistics Report for the Benton County Sanitary Landfill, Second Semi-Annual Monitoring Event in 2023, dated October, 2023 is included in Appendix D.2.

The Keystone Analytical Reports for the laboratory testing on samples collected March 7, 2023; June 6, 2023, and September 28, 2023 are included in Appendix E.

QUALITY ASSURANCE/QUALITY CONTROL

A blind duplicate sample was collected at MW-28 during the March 7, 2023 sampling episode. A blind duplicate sample was collected at AW-27 during the September 28, 2023 sampling episode.

The purpose of the field duplicate is to evaluate the precision of sample collection and analysis process from the field through the laboratory. The calculation of the Relative Percent Difference (RPD) for duplicate pair results is used as a means to evaluate the precision.

The Quality Control (QC) limit for the RPD on field duplicates is established at thirty percent (30%) for duplicate pairs that have reported concentrations five (5) times greater than the laboratory Reporting Limit. For samples and respective duplicates with reported analyte concentrations nearer the Reporting Limit, the RPD calculations demonstrate greater variability and the RPD can be very large. RPD values are considered non-representative in the following conditions:

a) Both the original and the duplicate results are less than five (5) times the Reporting Limit.
b) One or both results are qualified, flagged, or estimated.
c) One or both results are non-detected.

The results of the blind duplicate and the monitoring well results for both the March 7, 2023 and the September 28, 2023 sampling episodes were within the limits established and indicate that the data quality is acceptable without restriction.

BACKGROUND DATA VALIDATION

On July 10, 2014 an unnumbered Permit Amendment and Memo was issued by the IDNR regarding turbidity (Doc # 80723). A TSS and Field Turbidity Correlation Report was prepared and submitted on February 2, 2017 (Doc# 88357). IDNR approval of the report is included in Special Provision X.4.f. of the Permit dated September 5, 2017 (Doc #90238) and Permit Revision #1, dated November 15, 2017 (Doc #90822). A summary of the recorded field turbidity measurements to date is included in Appendix D.3.

The background data utilized herein has been restricted to include only sample results collected since October, 2014.

Upgradient Data, Table 1, Attachment B, to the October, 2023 Statistical Evaluation Report (Appendix D.2) includes a summary of the background data utilized in this evaluation. The data is tested for statistical outlier values. Any statistical outlier is excluded from use in calculating the Prediction Limits. The current inorganic compound prediction limits are considered valid. Prediction limits for VOC compounds are set at the Laboratory Method detection limits and are considered valid.

SITE SPECIFIC GWPS

The comparison of the site prediction limits (see Summary Statistics and Prediction Limits, Table 5, Attachment B of the *Fall Statistical Evaluation Report* (Appendix D.2)) to the Groundwater Protection Standards (GWPS) in the Statewide Standards for Protected Groundwater in Iowa Administrative Code 567, Chapter 137 indicate that calculated Prediction Limits for arsenic and cobalt exceed the GWPS.

The following Site-Specific GWPS are utilized herein:

Compound	***Site-Specific GWPS***	***IAC 137 GWPS***
Arsenic	51.3 ug/L	10.0 ug/L
Cobalt	12.2 ug/L	2.1 ug/L

The Site-Specific GWPS should not be set lower than the Site Prediction Limit calculated from the site background data. For this report, the Site-Specific GWPS for arsenic and cobalt listed above are utilized. For all other compounds the published IAC 567, Chapter 137 Statewide Standard are utilized

STATISTICALLY SIGNIFICANT INCREASES (SSI)

The detected concentrations of each compound are compared to the site prediction limit for each respective compound calculated based on the background data set. A detected concentration for a compound that is in excess of the calculated site prediction limit is recorded as a Statistically Significant Increase (SSI). A side-by-side comparison of the result to the prediction limit is offered in the tables in Appendix F. A result that exceeds the prediction limit is highlighted in brown in the tables in Appendix F.

There are no new detection monitoring wells that have recorded a prediction limit exceedance. Only current Assessment Monitoring wells had recorded exceedances. The exceedances are not required to be reported as SSI, but a running summary of recorded exceedances is included in Appendix D.4. The current year exceedances are itemized in Table 2 below.

Based on the absence of SSI for several years, MW-12, MW-14, and MW-25 were returned to the Detection Monitoring System on January 1, 2022.

Table 2 – Exceedances of the Prediction Limits

Spring, 2023		**Fall, 2023**	
AW-2	Cobalt	AW-2	None
	Nickel		
AW-3	1,4-dichlorobenzene	AW-3	1,4-dichlorobenzene
	Benzene		Benzene
	Chloroethane		Chloroethane
	cis-1,2-dichloroethylene		cis-1,2-dichloroethylene
MW-9	Nickel	MW-9	None
MW-20	Arsenic	MW-20	1,4-dichlorobenzene
	1,4-dichlorobenzene		Benzene
	Benzene		Chlorobenzene
	Chlorobenzene		
MW-24	Nickel	MW-24	None

ASSESSMENT MONITORING SUMMARY

A five (5) year frequency for full Appendix II sampling was approved in Special Provision X.4.i. of the Permit dated February 13, 2024 (Doc #109266).

Full Appendix II monitoring has been completed at least three (3) times at all assessment monitoring wells. A summary of all compounds detected to date beyond the Appendix I list are included in Tables 3a – 3c. The full Appendix II sample collection events are highlighted in green.

The full Appendix II sampling will be in accordance with the approved five (5) year frequency.

Table 3a -Appendix II Assessment Monitoring Summary – bis(2-ethylhexyl)phthalate (ug/L)

Date	**MW-20**	**MW-24**	**AW-2**	**AW-3**	**MW-9**
4/23/09	NT	NT	NT	NT	<1.87
8/24/09	NT	NT	NT	NT	NT
4/27/10	NT	NT	NT	NT	<10
3/24/11	NT	NT	NT	NT	<10
3/20/12	<10	<10	<20	<10	<10
8/28/12	<10	NT	NT	NT	NT
3/15/13	NT	NT	NT	NT	NT
10/20/14	NT	NT	NT	NT	NT
6/22/15	NT	NT	NT	NT	NT
11/12/15	NT	NT	NT	NT	NT
4/11/16	NT	NT	NT	NT	NT
9/16/16	NT	NT	NT	NT	NT
3/17/17	<8	<8	<8	**16.0**	<8
9/27/17	NT	NT	NT	<6	NT
3/14/18	NT	NT	NT	<6	NT
9/12/18	NT	NT	NT	<6	NT
4/1/19	NT	NT	NT	<6	NT

10/12/19	NT	NT	NT	<6	NT
5/6/20	NT	NT	NT	<6	NT
9/3/20	NT	NT	NT	NT	NT
3/30/21	NT	NT	NT	NT	NT
9/8/2021	NT	NT	NT	NT	NT
3/31/2022	<6	<6	<6	<6	NT
8/30/2022	NT	NT	NT	NT	NT
3/7/2023	NT	NT	NT	NT	NT
9/28/2023	NT	NT	NT	NT	<6

green highlights = full Appendix II sample collection events

Table 3b -Appendix II Assessment Monitoring Summary – cyanide (ug/L)

Date	MW-20	MW-24	AW-2	AW-3	MW-9
4/23/09	NT	NT	NT	NT	<10
8/24/09	NT	NT	NT	NT	NT
4/27/10	NT	NT	NT	NT	<10
3/24/11	NT	NT	NT	NT	<10
3/20/12	<10	<10	<10	<10	<10
8/28/12	<10	NT	NT	NT	NT
3/15/13	<10	NT	NT	NT	NT
10/20/14	NT	NT	NT	NT	NT
6/22/15	NT	NT	NT	NT	NT
11/12/15	NT	NT	NT	NT	NT
4/11/16	NT	NT	NT	NT	NT
9/16/16	NT	NT	NT	NT	NT
3/17/17	<5	<5	**9.0**	<5	<5
9/27/17	NT	NT	<5	NT	NT
3/14/18	NT	NT	NT	NT	NT
9/12/18	NT	NT	<5	NT	NT
4/1/19	NT	NT	<5	NT	NT
10/12/19	NT	NT	<5	NT	NT
5/6/2020	NT	NT	<5	NT	NT
9/3/20	NT	NT	NT	NT	NT
3/30/21	NT	NT	NT	NT	NT
9/8/2021	NT	NT	NT	NT	NT
3/31/2022	<5	<5	<5	<5	NT
8/30/2022	NT	NT	NT	NT	NT
3/7/2023	NT	NT	NT	NT	NT
9/28/2023	NT	NT	NT	NT	<5

green highlights = full Appendix II sample collection events

Table 3c - Appendix II Assessment Monitoring Summary – sulfide (mg/L)

Date	MW-20	MW-24	AW-2	AW-3	MW-9
4/23/09	NT	NT	NT	NT	<0.2
8/24/09	NT	NT	NT	NT	NT
4/27/10	NT	NT	NT	NT	<0.2
3/24/11	NT	NT	NT	NT	<0.2
3/20/12	<0.2	<0.2	<0.2	<0.2	<0.2
8/28/12	<0.2	NT	NT	NT	NT
3/15/13	<10	NT	NT	NT	NT
10/20/14	NT	NT	NT	NT	NT
6/22/15	NT	NT	NT	NT	NT
11/12/15	NT	NT	NT	NT	NT
4/11/16	NT	NT	NT	NT	NT
9/16/16	NT	NT	NT	NT	NT
3/17/17	<0.2	<0.2	<0.2	<0.2	<0.2
9/27/17	NT	NT	<5	NT	NT
3/14/18	NT	NT	NT	NT	NT
9/12/18	NT	NT	<5	NT	NT
4/1/19	NT	NT	<5	NT	NT
10/12/19	NT	NT	<5	NT	NT
5/6/2020	NT	NT	<5	NT	NT
9/3/20	NT	NT	NT	NT	NT
3/30/21	NT	NT	NT	NT	NT
9/8/2021	NT	NT	NT	NT	NT
3/31/2022	**0.33**	<0.2	<0.2	<0.2	NT
8/30/2022	**0.23**	NT	NT	NT	NT
3/7/2023	**0.16**	NT	NT	NT	NT
9/28/2023	**0.44**	NT	NT	NT	<0.1

green highlights = full Appendix II sample collection events

STATISTICALLY SIGNIFICANT LEVELS

Confidence Intervals (the 95% lower confidence limits (LCL) and the 95% upper control limits (UCL)) are calculated in accordance with the 2009 Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities by US EPA. The 95% LCL values are compared to applicable GWPS. Any 95% LCL value that exceeds an applicable GWPS is recorded as an SSL. All wells with a recorded SSL require the plume of impact to be defined in the horizontal and vertical directions and require completion of an Assessment of Corrective Measures (ACM).

The calculation of the confidence intervals is based on the most recent four (4) data points for each parameter that has exceeded a prediction limit. Tables in Appendix F report the 95% LCL values in comparison to the GWPS.

Any 95% LCL value that exceeds the GWPS is designated as a Statistically Significant Level (SSL) and is highlighted in yellow. The designation of an SSL remains in effect until such time as the 95% UCL value no longer exceeds the GWPS for a period of three (3) consecutive years (IAC 567-113.10(9)"e"(2)). For the SSL, the 95% UCL values that remain above the GWPS are highlighted in green. Brown highlights indicate the SSI.

Arsenic at AW-2 is the only compound that has historically demonstrated a 95% LCL and 95% UCL exceedance of the GWPS.

The 95% LCL for arsenic has been below the GWPS since March 30, 2021.

The 95% UCL for arsenic has been below the GWPS since August 30, 2022 (three (3) consecutive episodes).

The SSLs at AW-2 no longer exist. If the steady or downward trend continues in the 95% UCL the arsenic SSL will be remedied in 2025.

AW-2 has been designated a Corrective Action Monitoring Well placed at the point of compliance (CA-POC) and AW-9 is a step-out well to AW-2 that is sampled in order to confirm water compliance is maintained.

Based on the absence of SSL, MW-9, MW-20, MW-24, and AW-3 continue to be designated Assessment Monitoring Wells.

DELINEATION & ASSESSMENT OF CORRECTIVE MEASURES (ACM)

On April 23, 2021 a letter was submitted to IDNR (Doc # 100318) requesting that the deadline for determining whether an ACM is warranted be postponed until June 30, 2024. This request was approved by IDNR on September 15, 2021 (Doc # 101213). Drainage improvements in the vicinity of AW-2 were made in late 2020. The basis of the postponement request was that additional data pertaining to the confidence interval at AW-2 over time would benefit interpretation of the reported findings. As noted above the confidence interval values for arsenic continue to decrease and are now at or below the GWPS.

A separate report was issued to IDNR related to water quality at AW-2 on March 1, 2024 (Doc # 109398). The report documented the improvements in water quality at AW-2 over time while the background water quality was established for the site. At this time a Statistically Significant Level (SSL) does not exist at AW-2 based on the 95% LCL values. Based on this information Assessment of Corrective Measures (ACM) activities are deemed to be unwarranted at AW-2.

Monitoring Well AW-2 is located 43.7 feet from the waste boundary based on excavations in the field. Groundwater flow is south-southwest in the vicinity (Figure 3). Existing well AW-9 (installed 2012) is situated approximately 100 feet downgradient of AW-2.

AW-9 is designated as a Corrective Action step-out well and AW-9 is incorporated into the semi-annual sample collection events. It is proposed that water samples collected from AW-9 be analyzed for arsenic again in 2024 (see Table 1). A summary of arsenic testing at AW-9 is summarized below. Results indicate that arsenic has remained undetected.

Table 4 – Arsenic at Step-Out Well AW-9

Well	Date	Compound	Turbidity (NTU)	Result (ug/L)	Prediction Limit (ug/L)	GWPS (ug/L)
AW-9	3/16/2017	Arsenic	2.35	<4.0	51.3	51.3
AW-9	4/1/2019	Arsenic	15.5	<4.0	51.3	51.3
AW-9	9/12/2019	Arsenic	20.28	<4.0	51.3	51.3
AW-9	5/6/2020	Arsenic	38.7	<4.0	51.3	51.3
AW-9	3/30/21	Arsenic	11.2	<4.0	51.3	51.3
AW-9	9/8/2021	Arsenic	2.97	<4.0	51.3	51.3
AW-9	3/31/2022	Arsenic	5.46	<4.0	51.3	51.3
AW-9	8/30/2022	Arsenic	3.76	<4.0	51.3	51.3
AW-9	3/7/2023	Arsenic	7.24	<4.0	51.3	51.3
AW-9	9/28/2023	Arsenic	20.17	<4.0	51.3	51.3

MONITORING WELL MAINTENANCE PERFORMANCE EVALUATION

The HMSP and the existing HMSP monitoring points are interpreted to be effective for on-going detection, assessment, and corrective action system monitoring at the facility. Monitoring Well Maintenance Performance Reevaluation activities associated with the HMSP monitoring wells are discussed in the information presented in Appendix A.

LEACHATE COLLECTION SYSTEM PERFORMANCE EVALUATION

See Appendix G.

GAS MONITORING EVALUATION

See Appendix H.

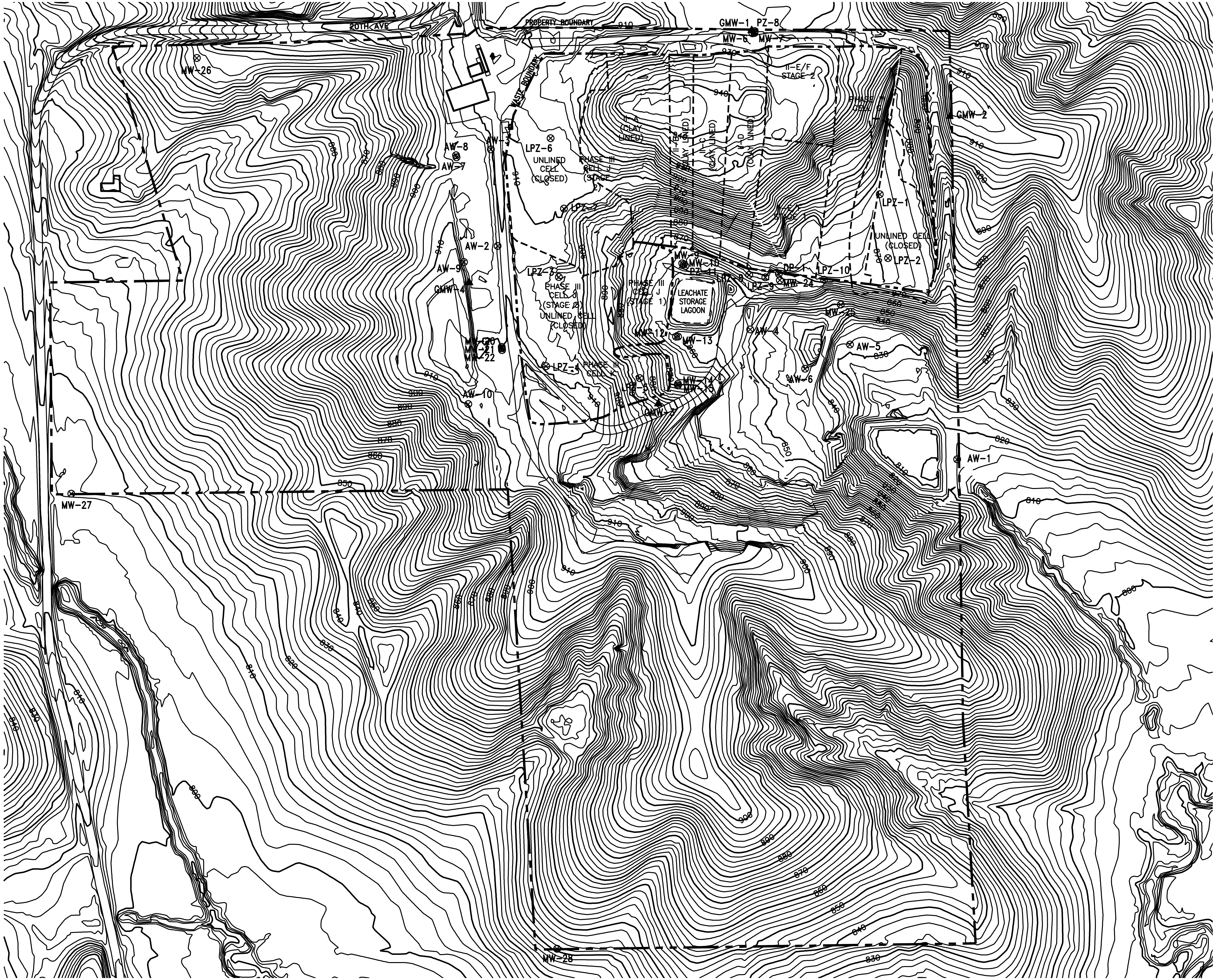
Section 4.0 Recommendations

It is recommended that the detection monitoring and assessment monitoring continue to be performed on a semi-annual basis at the monitoring points listed in Table 1.

MW-9, MW-20, MW-24, and AW-3 should remain in Assessment Monitoring.

It is also recommended that Corrective Action Monitoring be continued at AW-2 and AW-9 through 2025. We recommend review of this document concurrent with the water quality summary report for AW-2 submitted on March 1, 2024 (Doc # 109398).

Figures



0 100 200 400
LIDAR FLY DATE: 3-30-10

SITE PLAN – ALL PROPERTY

BENTON COUNTY SANITARY LANDFILL
BLAIRSTOWN, IOWA

FIGURE:	1	
REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6043	DATE 1-24-24

HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146

HLW Engineering Group

20TH AVE

PROPERTY BOUNDARY

WASTE BOUNDARY

GMW-1 PZ-8

MW-6 MW-7

II-E/F STAGE 2

II-A (CLAY LINED)

II-B (CLAY LINED)

II-C (CLAY LINED)

II-D (CLAY LINED)

PHASE III CELL G

GMW-2

AW-8

AW-7

AW-

LPZ-6 UNLINED CELL (CLOSED)

PHASE III CELL J (STAGE 2)

LPZ-7

II-E/F STAGE 1

LPZ-1

UNLINED CELL (CLOSED)

LPZ-2

LIFT STATION

MW-9

MW-10

PZ-11

LPZ-8

LPZ-9

MW-24

DP-1

LPZ-10

AW-2

AW-9

GMW-4

LPZ-3

PHASE III CELL J (STAGE 3) UNLINED CELL (CLOSED)

PHASE III CELL J (STAGE 1)

LEACHATE STORAGE LAGOON

GU-3

MW-25

AW-4

MW-12

MW-13

MW-20

MW-21

MW-22

LPZ-4 PHASE III CELL K

AW-5

AW-6

LPZ-5

MW-14

MW-15

AW-10

GMW-3

AW-1

0 100 200 400

LIDAR FLY DATE: 3-30-10

FIGURE: 2

REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6043	DATE 1-24-24

SITE PLAN – PERMITTED AREA

BENTON COUNTY SANITARY LANDFILL
BLAIRSTOWN, IOWA

HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146

HLW Engineering Group

WATER ELEVATION SEP 28, 2023	
WELL	ELEV.
MW-6	904.31
MW-9	853.61
MW-12	854.45
MW-14	861.95
MW-20	893.96
MW-24	858.80
MW-25	838.88
MW-26	857.66
MW-27	797.44
MW-28	805.53
AW-1	803.69
AW-2	893.67
AW-3	895.07
AW-4	845.56
AW-5	823.66
AW-6	836.30
AW-7	893.05
AW-9	891.87
AW-10	889.67
LPZ-3	898.64
LPZ-4	897.62
LPZ-5	877.14
LPZ-6	909.14
LPZ-7	902.91

TABLE NOTE:
ELEVATION FOR MW-28 FROM MAR 7, 2023.

0 100 200 400
LIDAR FLY DATE: 3-30-10

FIGURE: 3

REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6043	DATE 1-24-24

GROUNDWATER CONTOURS

BENTON COUNTY SANITARY LANDFILL
BLAIRSTOWN, IOWA

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HLW Engineering Group

Appendix A
Monitoring Well Maintenance and Performance Re-evaluation

MONITORING WELL MAINTENANCE AND PERFORMANCE REEVALUATION

The table below outlines the status of well performance and maintenance activities as required by IAC 567-113.10(2) f.

Table A1 – Maintenance Activities Schedule

Years	2016	2017	2018	2019	2020	2021	2022	2023	2024
Annual water-quality report	X	X	X	X	X	X	X	X	O
High and low water levels	X	X	X	X	X	X	X	X	O
Six-month water levels	X	X	X	X	X	X	X	X	O
Well-depth measurement	X	X	X	X	X	X	X	X	O
Evaluation of recharge rates and chemistry		X	X		X		X		O

X, completed; O, scheduled.

Well Recharge Evaluation

Monitoring well recharge reevaluation is due biennially according to 113.10(2)f. Well recharge was evaluated on March 31, 2022. Each well was purged of 1 to 3 well volumes and water drawdown levels were recorded. Recovery was then recorded at each well 2 to 8 hours following purging.

Review of the data indicates that the wells recover by 90% within 8 hours of purging. Based on the information collected on March 31, 2022, recharge to each well from the formation is considered sufficient to promote the collection of representative water quality samples. Each well functions as intended. Well recharge should be evaluated again in 2024.

Well Depth Evaluation

The well depth is utilized in an effort to document significant well sedimentation that may occur over time. Table A2 summarizes the estimated sedimentation recorded at each well.

The recorded sedimentation in each well is recorded to be 1.0 ft or less based on well depth measurements with the exception of:

AW-2 – 1.1 feet of sediment

The interpreted sedimentation is *not* considered to be detrimental to well performance.

Table A2 – Well Depth Changes Over Time

Well	Installed Depth (ft)	Measured Depth (ft) (9/28/2023)	Difference (ft)
MW-6 (b)	32.4	32.7	-0.3
MW-7 (b)	67.7	67.7	0.0
MW-26 (b)	32.45	32.45	0.0
MW-27 (b)	27.35	27.35	0.0
MW-28 (b)	51.75	51.75*	0.0
MW-9	35.7	36.00	-0.3
MW-12	18.8	19.0	-0.2
MW-14	20.0	20.2	0.2
MW-20	20.1	20.2	-0.1
AW-4	23.0	23.15	-0.15
MW-24	29.2	29.50	-0.30
MW-25	23.18	23.3	-0.12
AW-2	22.8	21.7	1.1
AW-3	23.4	23.7	-0.3
AW-9	25.45	25.45	0.0

* = March 7, 2023 measurement

Water Elevation Information

Water level data for the entire site is summarized in the tables presented in Appendix A.1. Review of the 2023 data does not indicate excessive variability compared to historic water elevation data.

A Water Table Contour Map (Figure 3) dated September 28, 2023 is included in the body of the report. Review of the map confirms the water table surface in the Original Landfill and in the RCRA Subtitle D Landfill. Figure 3 Water Table Contour Map appears similar to previously recorded Water Table surfaces at the site, and no significant changes are noted.

The monitoring wells are interpreted to be properly located to detect impact from the landfill, should it occur. Based on the apparent static condition of the water table, the semi-annual water elevation data is sufficient to adequately monitor the hydrologic condition of the Site.

No Changes to the site monitoring wells are recommended.

Upcoming HMSP modifications

The HMSP will be modified in 2024 following the March 2024 sampling event. In accordance with the approved plan (Doc #108809) dated January 15, 2024, monitoring wells MW-9, MW-10, PZ-11, MW-23, AW-4, AW-5, and AW-6 will be plugged and abandoned by methods described in IAC 113.10(2)"d". The former monitoring well MW-19 (plugged 4/17/23 – Doc #108597) will be replaced by MW-41 in 2024. Existing well AW-1 will be utilized as the downgradient monitoring point to the future lagoon.

Appendix A.1 - Historic Water Elevation Data

03/07/2023 Benton County Water Elevations

Well	TOC	Depth	3/7/2023 SWL	3/7/2023 SW Elev.	screen length
MW-6	926.39	32.7	17.15	909.24	10
MW-7	926.25	67.7	17.53	908.72	10
PZ-8	925.76	88.5	26.21	899.55	2.5
MW-9	867.67	36.2	12.91	854.76	15
MW-10	866.21	66.4	13.93	852.28	10
PZ-11	857.98	86.9	20.28	837.7	2.5
MW-12	861.63	18.6	5.37	856.26	10
MW-13	861.93	39.2	6.7	855.23	10
MW-14	871.53	20	2.98	868.55	10
MW-15	871.1	50.2	6.96	864.14	10
MW-19	851.58	25.2	removed	removed	10
MW-20	912.52	19.95	14.46	898.06	10
MW-21	912.74	43.2	15.19	897.55	10
MW-22	913.41	67.6	20.21	893.2	10
MW-23	859.41	37.1			10
MW-24	870.24	29.5	20.95	849.29	10
MW-25	852.02	25.2	11.9	840.12	15
MW-26	877.75	32.45	15.55	862.2	10
MW-27	810.29	27.35	8.33	801.96	10
MW-28	833.99	51.75	28.46	805.53	10
MW-29	818.85	102.55	8.3	810.55	10
MW-30	857.25	26.1			10
MW-31	856.55	76.5			10
MW-32	838.32	26.4			10
MW-33	837.98	76.25			10
MW-34	854.31	26.4			10
MW-35	853.82	76.6			10
MW-36	834.47	65.9			5
MW-37	880.34	26.15			10
MW-38	879.75	76.75			5
AW-1	818.11	16.9	10.6	807.51	10
AW-2	911.22	22.35	13.62	897.6	15
AW-3	912.46	23.35	12.48	899.98	15
AW-4	855.96	22.9	6.54	849.42	10
AW-5	833.75	21.4	3.36	830.39	10
AW-6	845.37	20	3.62	841.75	10
AW-7	907.01	25.4	8.9	898.11	15
AW-8	907.29	72.05	16.79	890.5	15
AW-9	907.49	25.45	7.76	899.73	15
AW-10	912.06	25.45	18.63	893.43	15
LPZ-2	868.05	22.9		850.9	
LPZ-3	909.16	31		898	
LPZ-4	914.13	23.7		898.68	
LPZ-5	890.07	18.7		877.69	
LPZ-6	922.45	44.7		912.89	
LPZ-7	918.82	24.1		904.41	

09/28/2023 Benton County Water Elevations

Well	TOC	Depth	9/28/2023 SWL	9/28/2023 SW Elev.	screen length
MW-6	926.39	32.7	22.08	904.31	10
MW-7	926.25	67.7	22.11	904.14	10
PZ-8	925.76	88.5	21.25	904.51	2.5
MW-9	867.67	36.2	14.06	853.61	15
MW-10	866.21	66.4	13.98	852.23	10
PZ-11	857.98	86.9	21.25	836.73	2.5
MW-12	861.63	18.6	7.18	854.45	10
MW-13	861.93	39.2	6.95	854.98	10
MW-14	871.53	20	9.58	861.95	10
MW-15	871.1	50.2	8.46	862.64	10
MW-19	851.58	25.2	removed	removed	10
MW-20	912.52	19.95	18.56	893.96	10
MW-21	912.74	43.2	18.71	894.03	10
MW-22	913.41	67.6	22.18	891.23	10
MW-23	859.41	37.1			10
MW-24	870.24	29.5	11.44	858.8	10
MW-25	852.02	25.2	13.14	838.88	15
MW-26	877.75	32.45	20.09	857.66	10
MW-27	810.29	27.35	12.85	797.44	10
MW-28	833.99	51.75			10
MW-29	818.85	102.55	11.39	807.46	10
MW-30	857.25	26.1			10
MW-31	856.55	76.5			10
MW-32	838.32	26.4			10
MW-33	837.98	76.25			10
MW-34	854.31	26.4			10
MW-35	853.82	76.6			10
MW-36	834.47	65.9			5
MW-37	880.34	26.15			10
MW-38	879.75	76.75			5
AW-1	818.11	16.9	14.42	803.69	10
AW-2	911.22	22.35	17.55	893.67	15
AW-3	912.46	23.35	17.39	895.07	15
AW-4	855.96	22.9	10.4	845.56	10
AW-5	833.75	21.4	10.09	823.66	10
AW-6	845.37	20	9.07	836.3	10
AW-7	907.01	25.4	13.96	893.05	15
AW-8	907.29	72.05	18.7	888.59	15
AW-9	907.49	25.45	15.62	891.87	15
AW-10	912.06	25.45	22.39	889.67	15
LPZ-2	868.05	22.9	17.79	850.26	
LPZ-3	909.16	31	10.52	898.64	
LPZ-4	914.13	23.7	16.51	897.62	
LPZ-5	890.07	18.7	12.93	877.14	
LPZ-6	922.45	44.7	13.31	909.14	
LPZ-7	918.82	24.1	15.91	902.91	

03/31/2022 Benton County Water Elevations

Well	TOC	Depth	3/31/2022 SWL	3/31/2022 SW Elev.	screen length
MW-6	926.39	32.7	19.6	906.79	10
MW-7	926.25	67.7	19.87	906.38	10
PZ-8	925.76	88.5	26.2	899.56	2.5
MW-9	867.67	36.2	15.05	852.62	15
MW-10	866.21	66.4	13.82	852.39	10
PZ-11	857.98	86.9	10.25	847.73	2.5
MW-12	861.63	18.6	4.75	856.88	10
MW-13	861.93	39.2	6.4	855.53	10
MW-14	871.53	20	2.5	869.03	10
MW-15	871.1	50.2	7	864.1	10
MW-19	851.58	25.2	8.96	842.62	10
MW-20	912.52	19.95	14.88	897.64	10
MW-21	912.74	43.2	15.45	897.29	10
MW-22	913.41	67.6	20.65	892.76	10
MW-23	859.41	37.1	18.69	840.72	10
MW-24	870.24	29.5	22.1	848.14	10
MW-25	852.02	25.2	11.41	840.61	15
MW-26	877.75	32.45	16.36	861.39	10
MW-27	810.29	27.35	8.79	801.5	10
MW-28	833.99	51.75	28.07	805.92	10
MW-29	818.85	102.55			10
MW-30	857.25	26.1			10
MW-31	856.55	76.5			10
MW-32	838.32	26.4			10
MW-33	837.98	76.25			10
MW-34	854.31	26.4			10
MW-35	853.82	76.6			10
MW-36	834.47	65.9			5
MW-37	880.34	26.15			10
MW-38	879.75	76.75			5
AW-1	818.11	16.9	2.79	815.32	10
AW-2	911.22	22.35	13.09	898.13	15
AW-3	912.46	23.35	12.38	900.08	15
AW-4	855.96	22.9	4.41	851.55	10
AW-5	833.75	21.4	2.85	830.9	10
AW-6	845.37	20	2.9	842.47	10
AW-7	907.01	25.4	8.6	898.41	15
AW-8	907.29	72.05	17.65	889.64	15
AW-9	907.49	25.45	8.19	899.3	15
AW-10	912.06	25.45	20.65	891.41	15

08/30/2022 Benton County Water Elevations

Well	TOC	Depth	8/30/2022 SWL	8/30/2022 SW Elev.	screen length
MW-6	926.39	32.7	19.96	906.43	10
MW-7	926.25	67.7	20.14	906.11	10
PZ-8	925.76	88.5	23.73	902.03	2.5
MW-9	867.67	36.2	16.82	850.85	15
MW-10	866.21	66.4	14.33	851.88	10
PZ-11	857.98	86.9	15.9	842.08	2.5
MW-12	861.63	18.6	6.46	855.17	10
MW-13	861.93	39.2	6.45	855.48	10
MW-14	871.53	20	7.5	864.03	10
MW-15	871.1	50.2	7.61	863.49	10
MW-19	851.58	25.2	10.4	841.18	10
MW-20	912.52	19.95	16.48	896.04	10
MW-21	912.74	43.2	16.58	896.16	10
MW-22	913.41	67.6	19.63	893.78	10
MW-23	859.41	37.1			10
MW-24	870.24	29.5	24.43	845.81	10
MW-25	852.02	25.2	11.88	840.14	15
MW-26	877.75	32.45	19.16	858.59	10
MW-27	810.29	27.35	11.3	798.99	10
MW-28	833.99	51.75			10
MW-29	818.85	102.55	8.13	810.72	10
MW-30	857.25	26.1			10
MW-31	856.55	76.5			10
MW-32	838.32	26.4			10
MW-33	837.98	76.25			10
MW-34	854.31	26.4			10
MW-35	853.82	76.6			10
MW-36	834.47	65.9			5
MW-37	880.34	26.15			10
MW-38	879.75	76.75			5
AW-1	818.11	16.9	12.14	805.97	10
AW-2	911.22	22.35	16.05	895.17	15
AW-3	912.46	23.35	15.55	896.91	15
AW-4	855.96	22.9	10.56	845.4	10
AW-5	833.75	21.4	9.74	824.01	10
AW-6	845.37	20	7.47	837.9	10
AW-7	907.01	25.4	12.22	894.79	15
AW-8	907.29	72.05	16.91	890.38	15
AW-9	907.49	25.45	12.61	894.88	15
AW-10	912.06	25.45	18.41	893.65	15

03/30/2021 Benton County Water Elevations

Well	TOC	Depth	3/30/2021 SWL	3/30/2021 SW Elev.	screen length
MW-6	926.39	32.7	10.86	915.53	10
MW-7	926.25	67.7	11.51	914.74	10
PZ-8	925.76	88.5	24.77	900.99	2.5
MW-9	867.67	36.2	12.31	855.36	15
MW-10	866.21	66.4	12.22	853.99	10
PZ-11	857.98	86.9	19.05	838.93	2.5
MW-12	861.63	18.6	3.56	858.07	10
MW-13	861.93	39.2	5.3	856.63	10
MW-14	871.53	20	2.2	869.33	10
MW-15	871.1	50.2	5.73	865.37	10
MW-19	851.58	25.2	5.44	846.14	10
MW-20	912.52	19.95	8.71	903.81	10
MW-21	912.74	43.2	8.93	903.81	10
MW-22	913.41	67.6	15.4	898.01	10
MW-23	859.41	37.1	16.2	843.21	10
MW-24	870.24	29.5	11.15	859.09	10
MW-25	852.02	25.2	10.5	841.52	15
MW-26	877.75	32.45	11.2	866.55	10
MW-27	810.29	27.35	6.9	803.39	10
MW-28	833.99	51.75	22.22	811.77	10
MW-29	818.85	102.55	7.65	811.2	10
MW-30	857.25	26.1	9.58	847.67	10
MW-31	856.55	76.5	22.55	834	10
MW-32	838.32	26.4	17.29	821.03	10
MW-33	837.98	76.25	52.82	785.16	10
MW-34	854.31	26.4	12.93	841.38	10
MW-35	853.82	76.6	63	790.82	10
MW-36	834.47	65.9	34.15	800.32	5
MW-37	880.34	26.15	8.15	872.19	10
MW-38	879.75	76.75	37.52	842.23	5
AW-1	818.11	16.9	2.82	815.29	10
AW-2	911.22	22.35	11.75	899.47	15
AW-3	912.46	23.35	10.78	901.68	15
AW-4	855.96	22.9	5.61	850.35	10
AW-5	833.75	21.4	2.95	830.8	10
AW-6	845.37	20	3	842.37	10
AW-7	907.01	25.4	8.18	898.83	15
AW-8	907.29	72.05	15.67	891.62	15
AW-9	907.49	25.45	6.18	901.31	15
AW-10	912.06	25.45	9.12	902.94	15

9/8/2021

Well	TOC	Depth	9/8/2021 SWL	9/8/2021 SW Elev.	screen length
MW-6	926.39	32.7	20.63	905.76	10
MW-7	926.25	67.7	20.71	905.54	10
PZ-8	925.76	88.5	24.29	901.47	2.5
MW-9	867.67	36.2	16.54	851.13	15
MW-10	866.21	66.4	14.45	851.76	10
PZ-11	857.98	86.9	20.95	837.03	2.5
MW-12	861.63	18.6	7.18	854.45	10
MW-13	861.93	39.2	7.29	854.64	10
MW-14	871.53	20	8.23	863.3	10
MW-15	871.1	50.2	7.98	863.12	10
MW-19	851.58	25.2	9.23	842.35	10
MW-20	912.52	19.95	16.18	896.34	10
MW-21	912.74	43.2	16.31	896.43	10
MW-22	913.41	67.6	19.79	893.62	10
MW-23	859.41	37.1	20.18	839.23	10
MW-24	870.24	29.5	24.42	845.82	10
MW-25	852.02	25.2	12.04	839.98	15
MW-26	877.75	32.45	19.45	858.3	10
MW-27	810.29	27.35	11.89	798.4	10
MW-28	833.99	51.75			10
MW-29	818.85	102.55	7.98	810.87	10
AW-1	818.11	16.9	12.14	805.97	10
AW-2	911.22	22.35	15.22	896	15
AW-3	912.46	23.35	14.72	897.74	15
AW-4	855.96	22.9	10.45	845.51	10
AW-5	833.75	21.4	9.96	823.79	10
AW-6	845.37	20	7.23	838.14	10
AW-7	907.01	25.4	11.11	895.9	15
AW-8	907.29	72.05	18.46	888.83	15
AW-9	907.49	25.45	12.5	894.99	15
AW-10	912.06	25.45	20.8	891.26	15

05/06/2020 Benton County Water Elevations

Well	TOC	Depth	5/6/2020 SWL	5/6/2020 SW Elev.	screen length
MW-6	926.39	32.7	18.09	908.3	10
MW-7	926.25	67.7	18.1	908.15	10
PZ-8	925.76	88.5	21.02	904.74	2.5
MW-9	867.67	36.2	12.45	855.22	15
MW-10	866.21	66.4	11.42	854.79	10
PZ-11	857.98	86.9	8.75	849.23	2.5
MW-12	861.63	18.6	3.9	857.73	10
MW-13	861.93	39.2	5.18	856.75	10
MW-14	871.53	20	2.81	868.72	10
MW-15	871.1	50.2	5.17	865.93	10
MW-19	851.58	25.2	4.84	846.74	10
MW-20	912.52	19.95	11.9	900.62	10
MW-21	912.74	43.2	11.98	900.76	10
MW-22	913.41	67.6	15.4	898.01	10
MW-23	859.41	37.1	15.57	843.84	10
MW-24	870.24	29.5	18.99	851.25	10
MW-25	852.02	25.2	10.92	841.1	15
MW-26	877.75	32.45	15.7	862.05	10
MW-27	810.29	27.35	8.03	802.26	10
MW-28	833.99	51.75	24.77	809.22	10
AW-1	818.11	16.9	4.18	813.93	10
AW-2	911.22	22.35	13.64	897.58	15
AW-3	912.46	23.35	13.05	899.41	15
AW-4	855.96	22.9	3.43	852.53	10
AW-5	833.75	21.4	3.42	830.33	10
AW-6	845.37	20	3.28	842.09	10
AW-7	907.01	25.4	9.95	897.06	15
AW-8	907.29	72.05	15.25	892.04	15
AW-9	907.49	25.45	9.82	897.67	15
AW-10	912.06	25.45	13.39	898.67	15

09/03/2020 Benton County Water Elevations

Well	TOC	Depth	9/3/2020 SWL	9/3/2020 SW Elev.	screen length
MW-6	926.39	32.7	20.3	906.09	10
MW-7	926.25	67.7	20.35	905.9	10
PZ-8	925.76	88.5	22.68	903.08	2.5
MW-9	867.67	36.2	14.97	852.7	15
MW-10	866.21	66.4	13.2	853.01	10
PZ-11	857.98	86.9	15.72	842.26	2.5
MW-12	861.63	18.6	7.25	854.38	10
MW-13	861.93	39.2	6.83	855.1	10
MW-14	871.53	20	10.11	861.42	10
MW-15	871.1	50.2	7.32	863.78	10
MW-19	851.58	25.2	7.16	844.42	10
MW-20	912.52	19.95	14.67	897.85	10
MW-21	912.74	43.2	14.31	898.43	10
MW-22	913.41	67.6	17.85	895.56	10
MW-23	859.41	37.1	18.51	840.9	10
MW-24	870.24	29.5	20.16	850.08	10
MW-25	852.02	25.2	11.14	840.88	15
MW-26	877.75	32.45	19.23	858.52	10
MW-27	810.29	27.35	11.43	798.86	10
MW-28	833.99	51.75	25.45	808.54	10
AW-1	818.11	16.9	7.95	810.16	10
AW-2	911.22	22.35	15.31	895.91	15
AW-3	912.46	23.35	15.21	897.25	15
AW-4	855.96	22.9	10.1	845.86	10
AW-5	833.75	21.4	10	823.75	10
AW-6	845.37	20	7.1	838.27	10
AW-7	907.01	25.4	12.18	894.83	15
AW-8	907.29	72.05	16.7	890.59	15
AW-9	907.49	25.45	12.52	894.97	15
AW-10	912.06	25.45	16.96	895.1	15

04/01/2019 Benton County Water Elevations

Well	TOC	Depth	4/1/2019 SWL	4/1/2019 SW Elev.	screen length
MW-6	926.39	32.7	14.32	912.07	10
MW-7	926.25	67.7	14.52	911.73	10
PZ-8	925.76	88.5	21.86	903.9	2.5
MW-9	867.67	36.2	11.4	856.27	15
MW-10	866.21	66.4	11.39	854.82	10
PZ-11	857.98	86.9	3.35	854.63	2.5
MW-12	861.63	18.6	3.71	857.92	10
MW-13	861.93	39.2	5.27	856.66	10
MW-14	871.53	20	2.3	869.23	10
MW-15	871.1	50.2	5.24	865.86	10
MW-19	851.58	25.2	5.8	845.78	10
MW-20	912.52	19.95	8.35	904.17	10
MW-21	912.74	43.2	8.46	904.28	10
MW-22	913.41	67.6	13.95	899.46	10
MW-23	859.41	37.1	15.17	844.24	10
MW-24	870.24	29.5	17.27	852.97	10
MW-25	852.02	25.2	11.59	840.43	15
MW-26	877.75	32.45	12.63	865.12	10
MW-27	810.29	27.35	7.8	802.49	10
MW-28	833.99	51.75	25.38	808.61	10
AW-1	818.11	16.9	3.83	814.28	10
AW-2	911.22	22.35	10.44	900.78	15
AW-3	912.46	23.35	10.78	901.68	15
AW-4	855.96	22.9		855.96	10
AW-5	833.75	21.4	3.27	830.48	10
AW-6	845.37	20	3.08	842.29	10
AW-7	907.01	25.4	8.8	898.21	15
AW-8	907.29	72.05	14.67	892.62	15
AW-9	907.49	25.45	4.19	903.3	15
AW-10	912.06	25.45	9.49	902.57	15

09/12/2019 Benton County Water Elevations

Well	TOC	Depth	9/12/2019 SWL	9/12/2019 SW Elev.	screen length
MW-6	926.39	32.7	16.47	909.92	10
MW-7	926.25	67.7	16.75	909.5	10
PZ-8	925.76	88.5	20.81	904.95	2.5
MW-9	867.67	36.2	12.41	855.26	15
MW-10	866.21	66.4	12.64	853.57	10
PZ-11	857.98	86.9	11.35	846.63	2.5
MW-12	861.63	18.6	6.48	855.15	10
MW-13	861.93	39.2	6.21	855.72	10
MW-14	871.53	20	7.11	864.42	10
MW-15	871.1	50.2	6.51	864.59	10
MW-19	851.58	25.2	7.03	844.55	10
MW-20	912.52	19.95	12.2	900.32	10
MW-21	912.74	43.2	12.31	900.43	10
MW-22	913.41	67.6	15.92	897.49	10
MW-23	859.41	37.1	16.03	843.38	10
MW-24	870.24	29.5	11	859.24	10
MW-25	852.02	25.2	10.98	841.04	15
MW-26	877.75	32.45	17.76	859.99	10
MW-27	810.29	27.35	8.22	802.07	10
MW-28	833.99	51.75		833.99	10
AW-1	818.11	16.9	10.72	807.39	10
AW-2	911.22	22.35	12.12	899.1	15
AW-3	912.46	23.35	11.92	900.54	15
AW-4	855.96	22.9	7.9	848.06	10
AW-5	833.75	21.4		833.75	10
AW-6	845.37	20	4.9	840.47	10
AW-7	907.01	25.4	8.89	898.12	15
AW-8	907.29	72.05	15.65	891.64	15
AW-9	907.49	25.45	7.76	899.73	15
AW-10	912.06	25.45	14.44	897.62	15

09/2016 Benton County Water Elevations

Well	TOC	Depth	9/15/2016 SWL	9/15/2016 SW Elev.	screen length
MW-6	926.39	32.7	13.45	912.94	10
MW-7	926.25	67.7	17.99	908.26	10
PZ-8	925.76	88.5	24.72	901.04	2.5
MW-9	867.67	36.2	13.87	853.8	15
MW-10	866.21	66.4	7.03	859.18	10
PZ-11	857.98	86.9	6.16	851.82	2.5
MW-12	861.63	18.6	4.8	856.83	10
MW-13	861.93	39.2	5.3	856.63	10
MW-14	871.53	20	2.15	869.38	10
MW-15	871.1	50.2	6.85	864.25	10
MW-19	851.58	25.2	6.04	845.54	10
MW-20	912.52	19.95	8.86	903.66	10
MW-21	912.74	43.2	9.3	903.44	10
MW-22	913.41	67.6	17.15	896.26	10
MW-23	859.41	37.1	17.85	841.56	10
MW-24	870.24	29.5	19.2	851.04	10
MW-25	852.02	25.2	11.56	840.46	15
MW-26	877.75	32.45	16.92	860.83	10
MW-27	810.29	27.35	8.76	801.53	10
MW-28	833.99	51.75	26.15	807.84	10
AW-1	818.11	16.9	7.01	811.1	10
AW-2	911.22	22.35	9.93	901.29	15
AW-3	912.46	23.35	10.12	902.34	15
AW-4	855.96	22.9	5.45	850.51	10
AW-5	833.75	21.4	3.6	830.15	10
AW-6	845.37	20	3.11	842.26	10
AW-7	907.01	25.4	5.77	901.24	15
AW-8	907.29	72.05	15.6	891.69	15
AW-9	907.49	25.45	5.76	901.73	15
AW-10	912.06	25.45	12.45	899.61	15

Appendix B

Monitoring Activities Information

Appendix B.1 – Summary of All Well Testing Activities

Table B.1 -- Itemized Summary of Monitoring at HMSP Points (to date)

WELL	**2/4/0/08**	**4/4/08**	**6/23/08**	**8/21/08**	**11/2/08**
MW-6 (b)	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-9	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-12	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-14	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-19	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-20	NT	NT	NT	NT	NT
MW-23	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-24	NT	NT	NT	NT	NT
MW-25	NT	NT	NT	NT	NT
AW-2	NT	NT	NT	NT	NT
AW-3	NT	NT	NT	NT	NT

WELL	**4/23/09**	**8/24/09**	**4/27/10**	**8/5/10**	**9/29/10**
MW-6 (b)	**Appendix II**	Appendix I	**Appendix II**	NT	Appendix I
MW-9	**Appendix II**	Appendix I	**Appendix II**	NT	Appendix I
MW-12	**Appendix II**	Appendix I	**Appendix II**	NT	Appendix I
MW-14	**Appendix II**	Appendix I	**Appendix II**	NT	Appendix I
MW-19	**Appendix II**	Appendix I	**Appendix II**	NT	Appendix I
MW-20	NT	NT	NT	Appendix I	Appendix I
MW-23	**Appendix II**	Appendix I	**Appendix II**	NT	Appendix I
MW-24	NT	NT	NT	NT	NT
MW-25	NT	NT	NT	NT	NT
AW-2	NT	NT	NT	Appendix I	Appendix I
AW-3	NT	NT	NT	Appendix I	Appendix I

WELL	**3/24/11**	**7/19/11**	**9/14/11**	**12/26/11**	**3/20/12**
MW-6 (b)	**Appendix II**	Appendix I	Appendix I	Appendix I	**Appendix II**
MW-9	**Appendix II**	NT	Appendix I	NT	**Appendix II**
MW-12	**Appendix II**	NT	Appendix I	NT	**Appendix II**
MW-14	**Appendix II**	NT	Appendix I	NT	**Appendix II**
MW-19	**Appendix II**	NT	Appendix I	NT	**Appendix II**
MW-20	Appendix I	Appendix I	Appendix I	Appendix I	**Appendix II**
MW-23	**Appendix II**	NT	Appendix I	NT	**Appendix II**
MW-24	Appendix I	Appendix I	Appendix I	Appendix I	**Appendix II**
MW-25	NT	NT	NT	NT	NT
AW-2	Appendix I	Appendix I	Appendix I	Appendix I	**Appendix II**
AW-3	Appendix I	Appendix I	Appendix I	Appendix I	**Appendix II**

WELL	8/28/12	10/15/12	3/15/13	9/7/13	3/17/14
MW-6 (b)	NT	Appendix I	Appendix I	Appendix I	Appendix I
MW-9	NT	Appendix I	NT	Appendix I	Appendix I
MW-12	NT	Appendix I	NT	Appendix I	Appendix I
MW-14	NT	Appendix I	NT	Appendix I	Appendix I
MW-19	NT	Appendix I	NT	Appendix I	Appendix I
MW-20	Appendix I	Appendix I	NT	Appendix I	Appendix I
MW-23	NT	Appendix I	NT	Appendix I	Appendix I
MW-24	NT	Appendix I	Appendix I	Appendix I	Appendix I
MW-25	NT	NT	NT	NT	NT
AW-2	NT	Appendix I	NT	Appendix I	Appendix I
AW-3	NT	Appendix I	NT	Appendix I	Appendix I

WELL	10/20/14	6/22/15	11/12/15	4/11/16	9/16/16
MW-6 (b)	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-9	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I[(1)]
MW-12	Appendix I[(1)]	Appendix I[(1)]	Appendix I[(1)]	Appendix I[(1)]	Appendix I[(1)]
MW-14	Appendix I[(1)]	Appendix I[(1)]	Appendix I[(1)]	Appendix I[(1)]	Appendix I[(1)]
MW-19	Appendix I[(1)]	Appendix I[(1)]	Appendix I[(1)]	Appendix I[(1)]	Appendix I[(1)]
MW-20	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-23	Appendix I[(1)]	Appendix I[(1)]	Appendix I[(1)]	Appendix I[(1)]	Appendix I[(1)]
MW-24	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-25	NT	NT	Appendix I	Appendix I	Appendix I
AW-2	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
AW-3	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
Duplicate	At MW-24	At MW-20	At MW-19	NT	At MW-20

WELL	10/31/2016	3/15/2017	5/9/2017	9/27/2017	12/13/2017
MW-6 (b)		Appendix I		Appendix I	
MW-7 (b)		App I - metals	App I - metals	App I - metals	R – Ni, Zn
MW-26 (b)	Appendix I	App I - metals		App I - metals	
MW-27 (b)	Appendix I	App I - metals		App I - metals	R – As, Ba, Zn
MW-28 (b)	Appendix I	App I - metals		No Sample	
MW-9		**Appendix II**		Appendix I[(4)]	R - As
MW-12		**Appendix II**		Appendix I[(4)]	
MW-14		**Appendix II**		Appendix I[(2)]	
MW-19		**Appendix II**		Appendix I[(4)]	
MW-20		**Appendix II**		Appendix I[(4)]	
MW-23		**Appendix II**		Appendix I[(4)]	
MW-24		**Appendix II**		Appendix I[(4)]	
MW-25		**Appendix II**		Appendix I[(3)]	
AW-2		**Appendix II**		Appendix I[(2)]	R - Zn
AW-3		**Appendix II**		Appendix I[(3)]	
Duplicate		MW-6		MW-19	

WELL	3/14/2018	6/5/2018	9/12/2018	4/1/2019	9/12/2019
MW-6 (b)	No Sample		Appendix I	Appendix I	Appendix I
MW-7 (b)	Appendix I		Appendix I	Appendix I	Appendix I
MW-26 (b)	Appendix I		Appendix I	Appendix I	Appendix I
MW-27 (b)	Appendix I		Appendix I	Appendix I	Appendix I
MW-28 (b)	Appendix I		Appendix I	Appendix I	No Sample
MW-9	Appendix I[4]		Appendix I[4]	Appendix I[4]	Appendix I[4]
MW-12	Appendix I[4]	R – Ni	Appendix I[4]	Appendix I[4]	Appendix I[4]
MW-14	Appendix I[4]		Appendix I[2]	Appendix I[2]	Appendix I[2]
MW-19	Appendix I[4]		Appendix I[4]	Appendix I[4]	Appendix I[4]
MW-20	Appendix I[4]		Appendix I[4]	Appendix I[4]	Appendix I[4]
MW-23	Appendix I[4]		Appendix I[4]	Appendix I[4]	Appendix I[4]
MW-24	Appendix I[4]		Appendix I[4]	Appendix I[4]	Appendix I[4]
MW-25	Appendix I[3]		**Appendix II**	Appendix I[3]	Appendix I[3]
AW-2	Appendix I[4]	R – As, Ni	Appendix I[2]	Appendix I[2]	Appendix I[2]
AW-3	Appendix I[3]	R - As	Appendix I[3]	Appendix I[3]	Appendix I[3]
AW-9	---	---	---	As, Co	As, Co
Duplicate	MW-25		MW-26	MW-28	MW-25

WELL	5/6/2020	9/3/2020	3/30/2021	9/8/2021	
MW-6 (b)	Appendix I	Appendix I	Appendix I	Appendix I	
MW-7 (b)	Appendix I	Appendix I	Appendix I	Appendix I	
MW-26 (b)	Appendix I	Appendix I	Appendix I	Appendix I	
MW-27 (b)	Appendix I	Appendix I	Appendix I	Appendix I	
MW-28 (b)	Appendix I	Appendix I	Appendix I	---	
MW-9	Appendix I[4]	Appendix I[4]	Appendix I	Appendix I	
MW-12	Appendix I[4]	Appendix I[4]	Appendix I	Appendix I	
MW-14	Appendix I[2]	Appendix I[4]	Appendix I	Appendix I	
MW-19	Appendix I[4]	Appendix I[4]	Appendix I	Appendix I	
MW-20	Appendix I[4]	Appendix I[4]	Appendix I	Appendix I	
MW-23	Appendix I[4]	Appendix I[4]	Appendix I	Appendix I	
MW-24	Appendix I[4]	Appendix I[4]	Appendix I	Appendix I	
MW-25	Appendix I[3]	Appendix I[4]	Appendix I	Appendix I	
AW-2	Appendix I[2]	Appendix I[4]	Appendix I	Appendix I	
AW-3	Appendix I[3]	Appendix I[4]	Appendix I	Appendix I	
AW-9	As, Co	As, Co	As, Co	As, Co	
Duplicate	MW-19	MW-25	MW-9	AW-3	

1) Tin
2) Cyanide
3) Bis(2-ethylhexyl)phthalate
4) No additional Appendix II compound were detected

WELL	3/31/2022	8/30/2022	11/11/2022		
MW-6 (b)	Appendix I	Appendix I			
MW-7 (b)	Appendix I	Appendix I			
MW-26 (b)	Appendix I	Appendix I			
MW-27 (b)	Appendix I	Appendix I			
MW-28 (b)	Appendix I	---			
MW-9	Appendix I	Appendix I	Toluene		
MW-12	Appendix I	Appendix I	Ni		
MW-14	Appendix I	Appendix I			
MW-19	**Appendix II**	Appendix I			
MW-20	**Appendix II**	Appendix I[(1)]			
MW-24	**Appendix II**	Appendix I			
MW-25	Appendix I	Appendix I			
AW-2	**Appendix II**	Appendix I			
AW-3	**Appendix II**	Appendix I			
AW-4	Appendix I	Appendix I			
AW-9	As, Co	As, Co			
Duplicate	MW-6	MW-26			

1) +Sulfide
2) +Bis(2-ethylhexyl)phthalate

WELL	3/7/2023	6/6/2023	9/28/2023		
MW-6 (b)	Appendix I		Appendix I		
MW-7 (b)	Appendix I		Appendix I		
MW-26 (b)	Appendix I		Appendix I		
MW-27 (b)	Appendix I		Appendix I		
MW-28 (b)	Appendix I		---		
MW-9	Appendix I	Ni	**Appendix II**		
MW-12	Appendix I		Appendix I		
MW-14	Appendix I		Appendix I		
MW-20	Appendix I[(1)]		Appendix I[(1)]		
MW-24	Appendix I		Appendix I		
MW-25	Appendix I		Appendix I		
AW-2	Appendix I		Appendix I		
AW-3	Appendix I		Appendix I		
AW-4	Appendix I		Appendix I		
AW-9	Appendix I		As, Co		
Duplicate	MW-28		MW-27		

1) +Sulfide
2) +Bis(2-ethylhexyl)phthalate

Appendix B.2 - Field Sampling Forms

Benton County Sanitary Landfill
PERMIT # 06-SDP-02-81P

3/7/2023 Sampled by: Todd Whipple Weather conditions: Partly cloudy, breezy, 42 degrees

IDNR Form 542-1322

Monitoring Well: MW-6 (ug)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	926.4
Well Depth	32.36
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	926.4
Well Depth	32.36
Top Screen	904.04
Bottom Screen	894.04
Bottom Well	894.04
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	27.00
Top sample	899.40
Bottom sample	895.40
Turbidity(NTU)	1.15

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	9:27	17.15	909.25	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.15
Appendix I	Metals	150	150		1.15
Appendix I	VOC	240	240		1.15
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	Sulfide, Tin	250			
Supplemental	BEHP	1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	926.40	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	32.36	Before purging	3/7/2023	9:27	17.15	909.25		0.0	No
		After purging				926.40			
		Top of Screen after construction				904.04			
						22.36	feet above (+) or below (-) top screen		
		Bottom of Well after construction				894.04			
		Bottom of Well	3/7/2023		32.70	893.70			
						-0.34	feet sedimentation		
		Before Sampling				926.40			
		Recovery				926.40			
		Recovery				926.40			
		Recovery				926.40			
		Recovery				926.40			

IDNR Form 542-1322

Monitoring Well: AW-2 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	911.22
Well Depth	22.75
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	911.25
Well Depth	22.75
Top Screen	903.47
Bottom Screen	888.47
Bottom Well	888.47
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	16.00
Top sample	895.25
Bottom sample	891.25
Turbidity(NTU)	1.32

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	10:20	13.62	897.6	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.32
Appendix I	Metals	150	150		1.32
Appendix I	VOC	240	240		1.32
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	Cyanide	250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	911.22	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	22.75	Before purging	3/7/2023	10:20	13.62	897.60	0	0.0	No
		After purging				911.22			
		Top of Screen after construction				903.47			
						7.75	feet above (+) or below (-) top screen		
		Bottom of Well after construction				888.47			
		Bottom of Well	3/7/2023		21.70	889.52			
						1.05	feet sedimentation		
		Before Sampling				911.22	App I		
		Recovery				911.22	App II		
		Recovery				911.22			
		Recovery				911.22			
		Recovery				911.22			

IDNR Form 542-1322

Monitoring Well: AW-3 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	912.46
Well Depth	23.35
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	912.46
Well Depth	23.35
Top Screen	904.11
Bottom Screen	889.11
Bottom Well	889.11
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	17.70
Top sample	894.76
Bottom sample	890.76
Turbidity(NTU)	4.01

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	9:44	12.48	899.98	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		4.01
Appendix I	Metals	150	150		4.01
Appendix I	VOC	240	240		4.01
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	912.46	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	23.35	Before purging	3/7/2023	9:44	12.48	899.98	0	0.0	No
		After purging				912.46			
		Top of Screen after construction				904.11			
						8.35	feet above (+) or below (-) top screen		
		Bottom of Well after construction				889.11			
		Bottom of Well	3/7/2023		23.70	888.76			
						-0.35	feet sedimentation		
		Before Sampling				912.46	App I		
		Recovery				912.46	Supplemental		
		Recovery				912.46			
		Recovery				912.46			
		Recovery				912.46			

IDNR Form 542-1322

Monitoring Well: MW-9 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	867.43
Well Depth	36.05
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	867.43
Well Depth	36.05
Top Screen	846.38
Bottom Screen	831.38
Bottom Well	831.38
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	30.00
Top sample	837.43
Bottom sample	833.43
Turbidity(NTU)	4.57

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	12:22	12.91	854.52	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		4.57
Appendix I	Metals	150	150		4.57
Appendix I	VOC	240	240		4.57
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	867.43	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	36.05	Before purging	3/7/2023	12:22	12.91	854.52	0	0.0	No
		After purging				867.43			
		Top of Screen after construction				846.38			
						21.05	feet above (+) or below (-) top screen		
		Bottom of Well after construction				831.38			
		Bottom of Well	3/7/2023		36.00	831.43			
						0.05	feet sedimentation		
		Before Sampling				867.43			
		Recovery				867.43			
		Recovery				867.43			
		Recovery				867.43			
		Recovery				867.43			

IDNR Form 542-1322

Monitoring Well: MW-12 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	861.74
Well Depth	18.60
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	861.74
Well Depth	18.60
Top Screen	853.14
Bottom Screen	843.14
Bottom Well	843.14
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	13.00
Top sample	848.74
Bottom sample	844.74
Turbidity(NTU)	197.10

red

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	11:48	5.37	856.37	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		197.10
Appendix I	Metals	150	150		197.10
Appendix I	VOC	240	240		197.10
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	861.74	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	18.60	Before purging	3/7/2023	11:48	5.37	856.37	0	0.0	No
		After purging				861.74			
		Top of Screen after construction				853.14			
						8.60	feet above (+) or below (-) top screen		
		Bottom of Well after construction				843.14			
		Bottom of Well	3/7/2023		19.00	842.74			
						-0.40	feet sedimentation		
		Before Sampling				861.74			
		Recovery				861.74			
		Recovery				861.74			
		Recovery				861.74			
		Recovery				861.74			

IDNR Form 542-1322

Monitoring Well: MW-14 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	871.5
Well Depth	20.21
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	871.5
Well Depth	20.21
Top Screen	861.29
Bottom Screen	851.29
Bottom Well	851.29
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	15.00
Top sample	856.50
Bottom sample	852.50
Turbidity(NTU)	1.20

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	11:30	2.98	868.52	Roots

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.20
Appendix I	Metals	150	150		1.20
Appendix I	VOC	240	240		1.20
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	Cyanide	250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	871.5	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	20.21	Before purging	3/7/2023	11:30	2.98	868.52	0	0.0	No
		After purging				871.50			
		Top of Screen after construction				861.29			
						10.21	feet above (+) or below (-) top screen		
		Bottom of Well after construction				851.29			
		Bottom of Well	3/7/2023		20.20	851.30			
						0.01	feet sedimentation		
		Before Sampling				871.50	App I		
		Recovery				871.50	Supplemental		
		Recovery				871.50			
		Recovery				871.50			
		Recovery				871.50			

IDNR Form 542-1322

Monitoring Well: MW-20 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	912.52
Well Depth	19.99
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	912.52
Well Depth	19.99
Top Screen	902.53
Bottom Screen	892.53
Bottom Well	892.53
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.50
Top sample	898.02
Bottom sample	894.02
Turbidity(NTU)	2.22

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	10:36	14.46	898.06	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		2.22
Appendix I	Metals	150	150		2.22
Appendix I	VOC	240	240		2.22
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	Sulfide	250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	912.52	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.99	Before purging	3/7/2023	10:36	14.46	898.06	0	0.0	Yes
		After purging				912.52			
		Top of Screen after construction				902.53			
						9.99	feet above (+) or below (-) top screen		
		Bottom of Well after construction				892.53			
		Bottom of Well	3/7/2023		20.20	892.32			
						-0.21	feet sedimentation		
		Before Sampling				912.52	App I		
		Recovery				912.52	App II		
		Recovery				912.52			
		Recovery				912.52			
		Recovery				912.52			

IDNR Form 542-1322

Monitoring Well: MW-24 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	870.24
Well Depth	29.20
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	870.24
Well Depth	29.20
Top Screen	851.04
Bottom Screen	841.04
Bottom Well	841.04
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	23.50
Top sample	846.74
Bottom sample	842.74
Turbidity(NTU)	2.52

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	12:40	20.95	849.29	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		2.52
Appendix I	Metals	150	150		2.52
Appendix I	VOC	240	240		2.52
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	870.24	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	29.20	Before purging	3/7/2023	12:40	21.0	849.29	0	0.0	Yes
		After purging				870.24			
		Top of Screen after construction				851.04			
						19.20	feet above (+) or below (-) top screen		
		Bottom of Well after construction				841.04			
		Bottom of Well	3/7/2023		29.50	840.74			
						-0.30	feet sedimentation		
		Before Sampling				870.24	App I		
		Recovery				870.24	App II		
		Recovery				870.24			
		Recovery				870.24			
		Recovery				870.24			

IDNR Form 542-1322

Monitoring Well: MW-25 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	852.02
Well Depth	23.18
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	852.02
Well Depth	23.20
Top Screen	843.80
Bottom Screen	828.80
Bottom Well	828.80
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	17.00
Top sample	835.02
Bottom sample	831.02
Turbidity(NTU)	1.14

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	12:59	11.9	840.12	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.14
Appendix I	Metals	150	150		1.14
Appendix I	VOC	240	240		1.14
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	852.02	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	23.18	Before purging	3/7/2023	12:59	11.9	840.12	0	0.0	No
		After purging				852.02			
		Top of Screen after construction				843.80			
						8.22	feet above (+) or below (-) top screen		
		Bottom of Well after construction				828.80			
		Bottom of Well	3/7/2023		23.30	828.72			
						-0.08	feet sedimentation		
		Before Sampling				852.02	App I		
		Recovery				852.02	Supplemental		
		Recovery				852.02			
		Recovery				852.02			
		Recovery				852.02			

IDNR Form 542-1322

Monitoring Well: MW-26 (ug)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	877.75
Well Depth	32.45
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	877.75
Well Depth	32.45
Top Screen	855.55
Bottom Screen	845.55
Bottom Well	845.30
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	26.00
Top sample	851.75
Bottom sample	847.75
Turbidity(NTU)	1.73

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	8:55	15.55	862.2	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.73
Appendix I	Metals	150	150		1.73
Appendix I	VOC	240	240		1.73
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	877.75	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	32.45	Before purging	3/7/2023	8:55	15.55	862.20	0	0.0	No
		After purging				877.75			
		Top of Screen after construction				855.55			
						22.20	feet above (+) or below (-) top screen		
		Bottom of Well after construction				845.30			
		Bottom of Well	3/7/2023		32.45	845.30			
						0.00	feet sedimentation		
		Before Sampling				877.75			
		Recovery				877.75			
		Recovery				877.75			
		Recovery				877.75			
		Recovery				877.75			

IDNR Form 542-1322

Monitoring Well: MW-27 (ug)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	810.29
Well Depth	27.35
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	810.29
Well Depth	27.35
Top Screen	793.19
Bottom Screen	783.19
Bottom Well	782.94
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	21.00
Top sample	789.29
Bottom sample	785.29
Turbidity(NTU)	195.80

red

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	8:30	8.33	801.96	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		195.80
Appendix I	Metals	150	150		195.80
Appendix I	VOC	240	240		195.80
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	810.29	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	27.35	Before purging	3/7/2023	8:30	8.33	801.96	0	0.0	No
		After purging				810.29			
		Top of Screen after construction				793.19			
						17.10	feet above (+) or below (-) top screen		
		Bottom of Well after construction				782.94			
		Bottom of Well	3/7/2023		27.35	782.94			
						0.00	feet sedimentation		
		Before Sampling				810.29			
		Recovery				810.29			
		Recovery				810.29			
		Recovery				810.29			
		Recovery				810.29			

IDNR Form 542-1322

Monitoring Well: MW-28 (ug)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	833.99
Well Depth	51.75
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	833.99
Well Depth	51.75
Top Screen	792.49
Bottom Screen	782.49
Bottom Well	782.24
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	45.00
Top sample	788.99
Bottom sample	784.99
Turbidity(NTU)	6.16

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	11:00	28.46	805.53	No sample - crops in the field

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		6.16
Appendix I	Metals	150	150		6.16
Appendix I	VOC	240	240		6.16
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	833.99	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	51.75	Before purging	3/7/2023	11:00	28.46	805.53	0	0.0	No
		After purging				833.99			
		Top of Screen after construction				792.49			
						41.50	feet above (+) or below (-) top screen		
		Bottom of Well after construction				782.24			
		Bottom of Well	3/7/2023		51.75	782.24			
						0.00	feet sedimentation		
		Before Sampling				833.99			
		Recovery				833.99			
		Recovery				833.99			
		Recovery				833.99			
		Recovery				833.99			

IDNR Form 542-1322

Monitoring Well: MW-7 (ug)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	926.25
Well Depth	67.70
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	926.25
Well Depth	67.70
Top Screen	868.55
Bottom Screen	858.55
Bottom Well	858.55
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	60.00
Top sample	866.25
Bottom sample	862.25
Turbidity(NTU)	7.80

Date	Time	Water Level	Water Elevation	Notes
3/7/2023	9:16	17.53	908.72	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		7.80
Appendix I	Metals	150	150		7.80
Appendix I	VOC	240	240		7.80
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	926.25	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	67.70	Before purging	3/7/2023	9:16	17.53	816.46	0	0.0	No
		After purging				833.99			
		Top of Screen after construction				868.55			
						-34.56	feet above (+) or below (-) top screen		
		Bottom of Well after construction				858.55			
		Bottom of Well	3/7/2023		67.70	858.55			
						0.00	feet sedimentation		
		Before Sampling				833.99			
		Recovery				833.99			
		Recovery				833.99			
		Recovery				833.99			
		Recovery				833.99			

Benton County Sanitary Landfill
PERMIT # 06-SDP-02-81P

9/28/2023 | Sampled by: Todd Whipple | Weather conditions: Overcast, calm, 65-75 degrees

IDNR Form 542-1322

Monitoring Well: MW-6 (ug)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	926.4
Well Depth	32.36
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	926.4
Well Depth	32.36
Top Screen	904.04
Bottom Screen	894.04
Bottom Well	894.04
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	27.00
Top sample	899.40
Bottom sample	895.40
Turbidity(NTU)	1.69

Date	Time	Water Level	Water Elevation	Notes
9/28/2023	13:23	22.08	904.32	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.69
Appendix I	Metals	150	150		1.69
Appendix I	VOC	240	240		1.69
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	Sulfide, Tin	250			
Supplemental	BEHP	1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	926.40	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	32.36	Before purging	9/28/2023	13:23	22.08	904.32		0.0	No
		After purging				926.40			
		Top of Screen after construction				904.04			
						22.36	feet above (+) or below (-) top screen		
		Bottom of Well after construction				894.04			
		Bottom of Well	9/28/2023		32.70	893.70			
						-0.34	feet sedimentation		
		Before Sampling				926.40			
		Recovery				926.40			
		Recovery				926.40			
		Recovery				926.40			
		Recovery				926.40			

IDNR Form 542-1322

Monitoring Well: AW-2 (dg)

Primary Sampling Method: No-Purge for Appendix I

Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	911.22
Well Depth	22.75
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	911.25
Well Depth	22.75
Top Screen	903.47
Bottom Screen	888.47
Bottom Well	888.47
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	18.00
Top sample	893.25
Bottom sample	889.25
Turbidity(NTU)	4.13

Date	Time	Water Level	Water Elevation	Notes
9/28/2023	10:58	17.55	893.67	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		4.13
Appendix I	Metals	150	150		4.13
Appendix I	VOC	240	240		4.13
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	Cyanide	250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	911.22	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	22.75	Before purging	9/28/2023	10:58	17.55	893.67	0	0.0	No
		After purging				911.22			
		Top of Screen after construction				903.47			
						7.75	feet above (+) or below (-) top screen		
		Bottom of Well after construction				888.47			
		Bottom of Well	9/28/2023		21.70	889.52			
						1.05	feet sedimentation		
		Before Sampling				911.22	App I		
		Recovery				911.22	App II		
		Recovery				911.22			
		Recovery				911.22			
		Recovery				911.22			

IDNR Form 542-1322

Monitoring Well: AW-3 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	912.46
Well Depth	23.35
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	912.46
Well Depth	23.35
Top Screen	904.11
Bottom Screen	889.11
Bottom Well	889.11
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	17.00
Top sample	895.46
Bottom sample	891.46
Turbidity(NTU)	2.97

Date	Time	Water Level	Water Elevation	Notes
9/28/2023	10:15	17.39	895.07	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		2.97
Appendix I	Metals	150	150		2.97
Appendix I	VOC	240	240		2.97
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	912.46	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	23.35	Before purging	9/28/2023	10:15	17.39	895.07	0	0.0	No
		After purging				912.46			
		Top of Screen after construction				904.11			
						8.35	feet above (+) or below (-) top screen		
		Bottom of Well after construction				889.11			
		Bottom of Well	9/28/2023		23.70	888.76			
						-0.35	feet sedimentation		
		Before Sampling				912.46	App I		
		Recovery				912.46	Supplemental		
		Recovery				912.46			
		Recovery				912.46			
		Recovery				912.46			

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Monitoring Well: MW-9 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	867.43
Well Depth	36.05
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	867.43
Well Depth	36.05
Top Screen	846.38
Bottom Screen	831.38
Bottom Well	831.38
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	30.00
Top sample	837.43
Bottom sample	833.43
Turbidity(NTU)	6.28

Date	Time	Water Level	Water Elevation	Notes
9/28/2023	13:57	14.06	853.37	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		6.28
Appendix I	Metals	150	150		6.28
Appendix I	VOC	240	240		6.28
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	867.43	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	36.05	Before purging	9/28/2023	13:57	14.06	853.37	11	3.1	No
		After purging	9/28/2023	14:14	24.4	843.03			
		Top of Screen after construction				846.38			
						-3.35	feet above (+) or below (-) top screen		
		Bottom of Well after construction				831.38			
		Bottom of Well	9/28/2023		36.00	831.43			
						0.05	feet sedimentation		
		Before Sampling				867.43			
		Recovery				867.43			
		Recovery				867.43			
		Recovery				867.43			
		Recovery				867.43			

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Monitoring Well: MW-12 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	861.74
Well Depth	18.60
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	861.74
Well Depth	18.60
Top Screen	853.14
Bottom Screen	843.14
Bottom Well	843.14
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.00
Top sample	847.74
Bottom sample	843.74
Turbidity(NTU)	24.03

Date	Time	Water Level	Water Elevation	Notes
9/28/2023	12:55	7.18	854.56	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		24.03
Appendix I	Metals	150	150		24.03
Appendix I	VOC	240	240		24.03
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	861.74	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	18.60	Before purging	9/28/2023	12:55	7.18	854.56	0	0.0	No
		After purging				861.74			
		Top of Screen after construction				853.14			
						8.60	feet above (+) or below (-) top screen		
		Bottom of Well after construction				843.14			
		Bottom of Well	9/28/2023		19.00	842.74			
						-0.40	feet sedimentation		
		Before Sampling				861.74			
		Recovery				861.74			
		Recovery				861.74			
		Recovery				861.74			
		Recovery				861.74			

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Monitoring Well: MW-14 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	871.5
Well Depth	20.21
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	871.5
Well Depth	20.21
Top Screen	861.29
Bottom Screen	851.29
Bottom Well	851.29
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.50
Top sample	857.00
Bottom sample	853.00
Turbidity(NTU)	2.44

Date	Time	Water Level	Water Elevation	Notes
9/28/2023	13:08	9.58	861.92	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		2.44
Appendix I	Metals	150	150		2.44
Appendix I	VOC	240	240		2.44
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	Cyanide	250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	871.5	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	20.21	Before purging	9/28/2023	13:08	9.58	861.92	0	0.0	No
		After purging				871.50			
		Top of Screen after construction				861.29			
						10.21	feet above (+) or below (-) top screen		
		Bottom of Well after construction				851.29			
		Bottom of Well	9/28/2023		20.20	851.30			
						0.01	feet sedimentation		
		Before Sampling				871.50	App I		
		Recovery				871.50	Supplemental		
		Recovery				871.50			
		Recovery				871.50			
		Recovery				871.50			

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Monitoring Well: MW-20 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	912.52
Well Depth	19.99
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	912.52
Well Depth	19.99
Top Screen	902.53
Bottom Screen	892.53
Bottom Well	892.53
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	17.00
Top sample	895.52
Bottom sample	891.52
Turbidity(NTU)	3.29

Date	Time	Water Level	Water Elevation	Notes
9/28/2023	11:15	18.56	893.96	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		3.29
Appendix I	Metals	150	150		3.29
Appendix I	VOC	240	240		3.29
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	Sulfide	250	250		
Supplemental		1 - qt			
Total			650	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	912.52	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.99	Before purging	9/28/2023	11:15	18.56	893.96	0	0.0	Yes
		After purging				912.52			
		Top of Screen after construction				902.53			
						9.99	feet above (+) or below (-) top screen		
		Bottom of Well after construction				892.53			
		Bottom of Well	9/28/2023		20.20	892.32			
						-0.21	feet sedimentation		
		Before Sampling				912.52	App I		
		Recovery				912.52	App II		
		Recovery				912.52			
		Recovery				912.52			
		Recovery				912.52			

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Monitoring Well: MW-24 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	870.24
Well Depth	29.20
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	870.24
Well Depth	29.20
Top Screen	851.04
Bottom Screen	841.04
Bottom Well	841.04
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	24.00
Top sample	846.24
Bottom sample	842.24
Turbidity(NTU)	6.31

Date	Time	Water Level	Water Elevation	Notes
9/28/2023	12:32	11.44	858.8	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		6.31
Appendix I	Metals	150	150		6.31
Appendix I	VOC	240	240		6.31
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	870.24	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	29.20	Before purging	9/28/2023	12:32	11.4	858.80	0	0.0	Yes
		After purging				870.24			
		Top of Screen after construction				851.04			
						19.20	feet above (+) or below (-) top screen		
		Bottom of Well after construction				841.04			
		Bottom of Well	9/28/2023		29.50	840.74			
						-0.30	feet sedimentation		
		Before Sampling				870.24	App I		
		Recovery				870.24	App II		
		Recovery				870.24			
		Recovery				870.24			
		Recovery				870.24			

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Monitoring Well: MW-25 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	852.02
Well Depth	23.18
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	852.02
Well Depth	23.20
Top Screen	843.80
Bottom Screen	828.80
Bottom Well	828.80
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	17.50
Top sample	834.52
Bottom sample	830.52
Turbidity(NTU)	2.22

Date	Time	Water Level	Water Elevation	Notes
9/28/2023	12:13	13.14	838.88	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		2.22
Appendix I	Metals	150	150		2.22
Appendix I	VOC	240	240		2.22
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	852.02	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	23.18	Before purging	9/28/2023	12:13	13.14	838.88	0	0.0	No
		After purging				852.02			
		Top of Screen after construction				843.80			
						8.22	feet above (+) or below (-) top screen		
		Bottom of Well after construction				828.80			
		Bottom of Well	9/28/2023		23.30	828.72			
						-0.08	feet sedimentation		
		Before Sampling				852.02	App I		
		Recovery				852.02	Supplemental		
		Recovery				852.02			
		Recovery				852.02			
		Recovery				852.02			

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Monitoring Well: MW-26 (ug)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	877.75
Well Depth	32.45
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	877.75
Well Depth	32.45
Top Screen	855.55
Bottom Screen	845.55
Bottom Well	845.30
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	26.00
Top sample	851.75
Bottom sample	847.75
Turbidity(NTU)	3.48

Date	Time	Water Level	Water Elevation	Notes
9/28/2023	10:01	20.09	857.66	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		3.48
Appendix I	Metals	150	150		3.48
Appendix I	VOC	240	240		3.48
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	877.75	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	32.45	Before purging	9/28/2023	10:01	20.09	857.66	0	0.0	No
		After purging				877.75			
		Top of Screen after construction				855.55			
						22.20	feet above (+) or below (-) top screen		
		Bottom of Well after construction				845.30			
		Bottom of Well	9/28/2023		32.45	845.30			
						0.00	feet sedimentation		
		Before Sampling				877.75			
		Recovery				877.75			
		Recovery				877.75			
		Recovery				877.75			
		Recovery				877.75			

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Monitoring Well: MW-27 (ug)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	810.29
Well Depth	27.35
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	810.29
Well Depth	27.35
Top Screen	793.19
Bottom Screen	783.19
Bottom Well	782.94
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	21.00
Top sample	789.29
Bottom sample	785.29
Turbidity(NTU)	15.35

Date	Time	Water Level	Water Elevation	Notes
9/28/2023	9:32	12.85	797.44	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		15.35
Appendix I	Metals	150	150		15.35
Appendix I	VOC	240	240		15.35
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	810.29	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	27.35	Before purging	9/28/2023	9:32	12.85	797.44	0	0.0	No
		After purging				810.29			
		Top of Screen after construction				793.19			
						17.10	feet above (+) or below (-) top screen		
		Bottom of Well after construction				782.94			
		Bottom of Well	9/28/2023		27.35	782.94			
						0.00	feet sedimentation		
		Before Sampling				810.29			
		Recovery				810.29			
		Recovery				810.29			
		Recovery				810.29			
		Recovery				810.29			

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Monitoring Well: MW-28 (ug)

Primary Sampling Method: No-Purge for Appendix I

Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	833.99
Well Depth	51.75
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	833.99
Well Depth	51.75
Top Screen	792.49
Bottom Screen	782.49
Bottom Well	782.24
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	
Top sample	833.99
Bottom sample	829.99
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
9/28/2023			833.99	No sample - crops in the field

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10			0.00
Appendix I	Metals	150			0.00
Appendix I	VOC	240			0.00
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			0	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	833.99	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	51.75	Before purging	9/28/2023	0:00	0.00	833.99	0	0.0	No
		After purging				833.99			
		Top of Screen after construction				792.49			
						41.50	feet above (+) or below (-) top screen		
		Bottom of Well after construction				782.24			
		Bottom of Well	9/28/2023			833.99			
						51.75	feet sedimentation		
		Before Sampling				833.99			
		Recovery				833.99			
		Recovery				833.99			
		Recovery				833.99			
		Recovery				833.99			

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Monitoring Well: MW-7 (ug)

Primary Sampling Method: No-Purge for Appendix I

Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	926.25
Well Depth	67.70
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	926.25
Well Depth	67.70
Top Screen	868.55
Bottom Screen	858.55
Bottom Well	858.55
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	60.00
Top sample	866.25
Bottom sample	862.25
Turbidity(NTU)	1.62

Date	Time	Water Level	Water Elevation	Notes
9/28/2023	13:34	22.11	904.14	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.62
Appendix I	Metals	150	150		1.62
Appendix I	VOC	240	240		1.62
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental		250			
Supplemental		1 - qt			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	926.25	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	67.70	Before purging	9/28/2023	13:34	22.11	811.88	0	0.0	No
		After purging				833.99			
		Top of Screen after construction				868.55			
						-34.56	feet above (+) or below (-) top screen		
		Bottom of Well after construction				858.55			
		Bottom of Well	9/28/2023		67.70	858.55			
						0.00	feet sedimentation		
		Before Sampling				833.99			
		Recovery				833.99			
		Recovery				833.99			
		Recovery				833.99			
		Recovery				833.99			

Appendix C

Summary Tables

Table 1

Analytical Data Summary for AW-2

Constituents	Units	10/20/2014	6/22/2015	6/23/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
(3 4)-methylphenol	ug/L							<8
1,1,1,2-tetrachloroethane	ug/L	<1		<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1		<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1		<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1		<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1		<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<2		<2	<2	<2	<1	<1
1,1-dichloropropene	ug/L							<1
1,2,3-trichloropropane	ug/L	<1		<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L							<8
1,2,4-trichlorobenzene	ug/L							<1
1,2-dibromo-3-chloropropane	ug/L	<.12		<.50	<.50	<.50	<1.00	<1.00
1,2-dibromoethane	ug/L	<.13		<.13	<.13	<.13	<1.00	<1.00
1,2-dichlorobenzene	ug/L	<1		<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1		<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1		<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L							<8
1,3,5-trinitrobenzene	ug/L							<8
1,3-dichlorobenzene	ug/L							<1
1,3-dichloropropane	ug/L							<1
1,3-dinitrobenzene	ug/L							<8
1,4-dichlorobenzene	ug/L	<1		<1	<1	<1	<1	<1
1,4-naphthoquinone	ug/L							<8
1,4-phenylenediamine	ug/L							<8
1-naphthylamine	ug/L							<8
2,2-dichloropropane	ug/L							<1
2,3,4,6-tetrachlorophenol	ug/L							<8
2,4,5-t	ug/L							<.5
2,4,5-tp (silvex)	ug/L							<.5
2,4,5-trichlorophenol	ug/L							<8
2,4,6-trichlorophenol	ug/L							<8
2,4-d	ug/L							<2
2,4-dichlorophenol	ug/L							<8
2,4-dimethylphenol	ug/L							<8
2,4-dinitrophenol	ug/L							<8
2,4-dinitrotoluene	ug/L							<8
2,6-dichlorophenol	ug/L							<8
2,6-dinitrotoluene	ug/L							<8
2-acetylaminofluorene	ug/L							<8
2-butanone	ug/L	<10.0		<10.0	<10.0	<10.0	<5.0	<5.0
2-chloronaphthalene	ug/L							<8
2-chlorophenol	ug/L							<8
2-hexanone	ug/L	<10		<10	<10	<10	<5	<5
2-methylnaphthalene	ug/L							<8
2-methylphenol (o-cresol)	ug/L							<8
2-naphthylamine	ug/L							<8
2-nitroaniline	ug/L							<8
2-nitrophenol	ug/L							<8
3,3´-dichlorobenzidine	ug/L							<8
3,3-dimethylbenzidine	ug/L							<8
3-methylcholanthrene	ug/L							<8
3-nitroaniline	ug/L							<8
4,4`-ddd	ug/L							<.05
4,4`-dde	ug/L							<.05
4,4`-ddt	ug/L							<.05
4,6-dinitro-2-methylphenol	ug/L							<8
4-aminobiphenyl	ug/L							<8
4-bromophenyl phenyl ether	ug/L							<8
4-chloro-3-methylphenol	ug/L							<8
4-chloroaniline	ug/L							<8
4-chlorophenyl phenyl ether	ug/L							<8
4-methyl-2-pentanone	ug/L	<10		<10	<10	<10	<5	<5
4-nitroaniline	ug/L							<8
4-nitrophenol	ug/L							<8
5-nitro-o-toluidine	ug/L							<8
7,12-dimethylbenz [a] anthracene	ug/L							<8
Acenaphthene	ug/L							<8
Acenaphthylene	ug/L							<8
Acetone	ug/L	<10.0		<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile	ug/L							<10
Acetophenone	ug/L							<8
Acrolein	ug/L							<10
Acrylonitrile	ug/L	<10		<10	<10	<10	<5	<5
Aldrin	ug/L							<.05
Allyl chloride	ug/L							<1
Alpha-bhc	ug/L							<.05
Ammonia as n	mg/L			.391 *	.261 *	<.200 *		

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for AW-2

Constituents	9/27/2017	12/13/2017	3/14/2018	6/5/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
(3 4)-methylphenol									
1,1,1,2-tetrachloroethane	<1		<1		<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1		<1		<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1		<1		<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1		<1		<1	<1	<1	<1	<1
1,1-dichloroethane	<1		<1		<1	<1	<1	<1	<1
1,1-dichloroethene	<1		<1		<1	<1	<1	<1	<1
1,1-dichloropropene									
1,2,3-trichloropropane	<1		<1		<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene									
1,2,4-trichlorobenzene									
1,2-dibromo-3-chloropropane	<1.00		<1.00		<1.00	<1.00	<1.00	<5.00	<5.00
1,2-dibromoethane	<1.00		<1.00		<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1		<1		<1	<1	<1	<1	<1
1,2-dichloroethane	<1		<1		<1	<1	<1	<1	<1
1,2-dichloropropane	<1		<1		<1	<1	<1	<1	<1
1,2-dinitrobenzene									
1,3,5-trinitrobenzene									
1,3-dichlorobenzene									
1,3-dichloropropane									
1,3-dinitrobenzene									
1,4-dichlorobenzene	<1		<1		<1	<1	<1	<1	<1
1,4-naphthoquinone									
1,4-phenylenediamine									
1-naphthylamine									
2,2-dichloropropane									
2,3,4,6-tetrachlorophenol									
2,4,5-t									
2,4,5-tp (silvex)									
2,4,5-trichlorophenol									
2,4,6-trichlorophenol									
2,4-d									
2,4-dichlorophenol									
2,4-dimethylphenol									
2,4-dinitrophenol									
2,4-dinitrotoluene									
2,6-dichlorophenol									
2,6-dinitrotoluene									
2-acetylaminofluorene									
2-butanone	<5.0		<5.0		<5.0	<5.0	<5.0	<5.0	<5.0
2-chloronaphthalene									
2-chlorophenol									
2-hexanone	<5		<5		<5	<5	<5	<5	<5
2-methylnaphthalene									
2-methylphenol (o-cresol)									
2-naphthylamine									
2-nitroaniline									
2-nitrophenol									
3,3´-dichlorobenzidine									
3,3-dimethylbenzidine									
3-methylcholanthrene									
3-nitroaniline									
4,4`-ddd									
4,4`-dde									
4,4`-ddt									
4,6-dinitro-2-methylphenol									
4-aminobiphenyl									
4-bromophenyl phenyl ether									
4-chloro-3-methylphenol									
4-chloroaniline									
4-chlorophenyl phenyl ether									
4-methyl-2-pentanone	<5		<5		<5	<5	<5	<5	<5
4-nitroaniline									
4-nitrophenol									
5-nitro-o-toluidine									
7,12-dimethylbenz [a] anthracene									
Acenaphthene									
Acenaphthylene									
Acetone	14.4		<10.0		<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile									
Acetophenone									
Acrolein									
Acrylonitrile	<5		<5		<5	<5	<5	<5	<5
Aldrin									
Allyl chloride									
Alpha-bhc									
Ammonia as n									

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for AW-2

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
(3 4)-methylphenol			<8			
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1
1,1-dichloropropene			<1			
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene			<8			
1,2,4-trichlorobenzene			<1			
1,2-dibromo-3-chloropropane	<5.00	<5.00	<1.00	<5.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene			<8			
1,3,5-trinitrobenzene			<8			
1,3-dichlorobenzene			<1			
1,3-dichloropropane			<1			
1,3-dinitrobenzene			<8			
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone			<8			
1,4-phenylenediamine			<8			
1-naphthylamine			<8			
2,2-dichloropropane			<1			
2,3,4,6-tetrachlorophenol			<8			
2,4,5-t			<.5			
2,4,5-tp (silvex)			<.5			
2,4,5-trichlorophenol			<8			
2,4,6-trichlorophenol			<8			
2,4-d			<2			
2,4-dichlorophenol			<8			
2,4-dimethylphenol			<8			
2,4-dinitrophenol			<8			
2,4-dinitrotoluene			<8			
2,6-dichlorophenol			<8			
2,6-dinitrotoluene			<8			
2-acetylaminofluorene			<8			
2-butanone	<5.0	8.5	<5.0	<10.0	<10.0	<10.0
2-chloronaphthalene			<8			
2-chlorophenol			<8			
2-hexanone	<5	<5	<5	<5	<5	<5
2-methylnaphthalene			<8			
2-methylphenol (o-cresol)			<8			
2-naphthylamine			<8			
2-nitroaniline			<8			
2-nitrophenol			<8			
3,3´-dichlorobenzidine			<8			
3,3-dimethylbenzidine			<8			
3-methylcholanthrene			<8			
3-nitroaniline			<8			
4,4`-ddd			<.05			
4,4`-dde			<.05			
4,4`-ddt			<.05			
4,6-dinitro-2-methylphenol			<8			
4-aminobiphenyl			<8			
4-bromophenyl phenyl ether			<8			
4-chloro-3-methylphenol			<8			
4-chloroaniline			<8			
4-chlorophenyl phenyl ether			<8			
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5
4-nitroaniline			<8			
4-nitrophenol			<8			
5-nitro-o-toluidine			<8			
7,12-dimethylbenz [a] anthracene			<8			
Acenaphthene			<8			
Acenaphthylene			<8			
Acetone	<10.0	138.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile			<10			
Acetophenone			<8			
Acrolein			<10			
Acrylonitrile	<5	<5	<5	<5	<5	<5
Aldrin			<.05			
Allyl chloride			<1			
Alpha-bhc			<.05			
Ammonia as n						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for AW-2

Constituents	Units	10/20/2014	6/22/2015	6/23/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
Anthracene	ug/L							<8
Antimony, total	ug/L	<6		<1	<1	<1	<2	<2
Arochlor 1016	ug/L							<.1
Arochlor 1221	ug/L							<.2
Arochlor 1232	ug/L							<.2
Arochlor 1242	ug/L							<.2
Arochlor 1248	ug/L							<.2
Arochlor 1254	ug/L							<.1
Arochlor 1260	ug/L							<.1
Arsenic, total	ug/L	<1.0		43.2	48.4	62.0	50.5	49.4
Azobenzene	ug/L							<8
Barium, total	ug/L	893		188	281	213	122	113
Benzene	ug/L	1.870		1.950	.961	1.020	<1.000	<1.000
Benzo(a)anthracene	ug/L							<8
Benzo(a)pyrene	ug/L							<8
Benzo(b)fluoranthene	ug/L							<8
Benzo(g,h,i)perylene	ug/L							<8
Benzo(k)fluoranthene	ug/L							<8
Benzyl alcohol	ug/L							<8
Beryllium, total	ug/L	8.54		<1.00	<1.00	<1.00	<4.00	<4.00
Beta-bhc	ug/L							<.05
Bicarbonate alkalinity	mg/L as CaCO3			671 *	589 *			
Bis (2-chloroethoxy) methane	ug/L							<8
Bis(2-chloroethyl) ether	ug/L							<8
Bis(2-ethylhexyl) phthalate	ug/L							<8
Bis[2-chloroisopropyl]ether	ug/L							<8
Bromochloromethane	ug/L	<5		<5	<5	<5	<1	<1
Bromodichloromethane	ug/L	<1		<1	<1	<1	<1	<1
Bromoform	ug/L	<5		<5	<5	<5	<1	<1
Bromomethane	ug/L	<4		<4	<4	<4	<1	<1
Butyl benzyl phthalate	ug/L							<8
Cadmium, total	ug/L	1.39		<.50	<.50	1.42	<.80	<.80
Calcium, total	mg/L			179 *	154 *			
Carbon disulfide	ug/L	<1		<5	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<2		<2	<2	<2	<1	<1
Carbonate alkalinity	mg/L as CaCO3			<5 *	<5 *			
Chlordane	ug/L							<.1
Chloride	mg/L			5.94 *	3.86 *			
Chlorobenzene	ug/L	<1		<1	<1	<1	<1	<1
Chlorobenzilate	ug/L							<8
Chloroethane	ug/L	<4		<1	<4	<4	<1	<1
Chloroform	ug/L	<1		<1	<1	<1	<1	<1
Chloromethane	ug/L	<3		<3	<3	<3	<1	<1
Chloroprene	ug/L							<1
Chromium, total	ug/L	<20		<5	<5	<5	<8	<8
Chrysene	ug/L							<8
Cis-1,2-dichloroethene	ug/L	<1		<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<5		<5	<5	<5	<1	<1
Cobalt, total	ug/L	99.8		27.2	27.2	22.8	18.4	16.9
Copper, total	ug/L	<20.00		<2.00	2.88	11.00	<4.00	<4.00
Cyanide	mg/L							.009
Delta-bhc	ug/L							<.05
Diallate	ug/L							<8
Dibenzo(a,h)anthracene	ug/L							<8
Dibenzofuran	ug/L							<8
Dibromochloromethane	ug/L	<5		<5	<5	<5	<1	<1
Dibromomethane	ug/L						<1	<1
Dichlorodifluoromethane	ug/L							<1
Dieldrin	ug/L							<.05
Diethyl phthalate	ug/L							<8
Dimethoate	ug/L							<.4
Dimethylphthalate	ug/L							<8
Di-n-butyl phthalate	ug/L							<8
Di-n-octyl phthalate	ug/L							<8
Dinoseb	ug/L							<.5
Diphenylamine	ug/L							<8
Disulfoton	ug/L							<.4
Endosulfan i	ug/L							<.05
Endosulfan ii	ug/L							<.05
Endosulfan sulfate	ug/L							<.05
Endrin	ug/L							<.05
Endrin aldehyde	ug/L							<.05
Ethyl methacrylate	ug/L							<10
Ethyl methanesulfonate	ug/L							<8
Ethylbenzene	ug/L	<1		<1	<1	<1	<1	<1
Famphur	ug/L							<.4
Fluoranthene	ug/L							<8

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for AW-2

Constituents	9/27/2017	12/13/2017	3/14/2018	6/5/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
Anthracene									
Antimony, total	<2		<2		<2	<2	<2	<2	<2
Arochlor 1016									
Arochlor 1221									
Arochlor 1232									
Arochlor 1242									
Arochlor 1248									
Arochlor 1254									
Arochlor 1260									
Arsenic, total	37.4		54.5	50.2	46.8	66.6	62.9	69.2	55.7
Azobenzene									
Barium, total	117		211		214	137	101	118	122
Benzene	<1.000		<1.000		1.000	<1.000	<1.000	<1.000	<1.000
Benzo(a)anthracene									
Benzo(a)pyrene									
Benzo(b)fluoranthene									
Benzo(g,h,i)perylene									
Benzo(k)fluoranthene									
Benzyl alcohol									
Beryllium, total	<4.00		<4.00		<4.00	<4.00	<4.00	<4.00	<4.00
Beta-bhc									
Bicarbonate alkalinity									
Bis (2-chloroethoxy) methane									
Bis(2-chloroethyl) ether									
Bis(2-ethylhexyl) phthalate									
Bis[2-chloroisopropyl]ether									
Bromochloromethane	<1		<1		<1	<1	<1	<1	<1
Bromodichloromethane	<1		<1		<1	<1	<1	<1	<1
Bromoform	<1		<1		<1	<1	<1	<1	<1
Bromomethane	<1		<1		<1	<1	<1	<1	<1
Butyl benzyl phthalate									
Cadmium, total	<.80		<.80		<.80	<.80	<.80	<.80	<.80
Calcium, total									
Carbon disulfide	<1		<1		<1	<1	<1	<1	<1
Carbon tetrachloride	<1		<1		<1	<1	<1	<1	<1
Carbonate alkalinity									
Chlordane									
Chloride									
Chlorobenzene	<1		<1		<1	<1	<1	<1	<1
Chlorobenzilate									
Chloroethane	<1		<1		<1	<1	<1	<1	<1
Chloroform	<1		<1		<1	<1	<1	<1	<1
Chloromethane	<1		<1		<1	<1	<1	<1	<1
Chloroprene									
Chromium, total	<8		<8		<8	<8	<8	<8	<8
Chrysene									
Cis-1,2-dichloroethene	<1		<1		<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1		<1		<1	<1	<1	<1	<1
Cobalt, total	15.2		28.2		10.1	9.6	10.1	7.7	10.6
Copper, total	7.50		<4.00		<4.00	<4.00	<4.00	<4.00	<4.00
Cyanide	<.005				<.005	<.005	<.005	<.005	
Delta-bhc									
Diallate									
Dibenzo(a,h)anthracene									
Dibenzofuran									
Dibromochloromethane	<1		<1		<1	<1	<1	<1	<1
Dibromomethane	<1		<1		<1	<1	<1	<1	<1
Dichlorodifluoromethane									
Dieldrin									
Diethyl phthalate									
Dimethoate									
Dimethylphthalate									
Di-n-butyl phthalate									
Di-n-octyl phthalate									
Dinoseb									
Diphenylamine									
Disulfoton									
Endosulfan i									
Endosulfan ii									
Endosulfan sulfate									
Endrin									
Endrin aldehyde									
Ethyl methacrylate									
Ethyl methanesulfonate									
Ethylbenzene	<1		<1		<1	<1	<1	<1	<1
Famphur									
Fluoranthene									

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for AW-2

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Anthracene			<8			
Antimony, total	<2	<2	<2	<2	<2	<2
Arochlor 1016			<.1			
Arochlor 1221			<.2			
Arochlor 1232			<.2			
Arochlor 1242			<.2			
Arochlor 1248			<.2			
Arochlor 1254			<.1			
Arochlor 1260			<.1			
Arsenic, total	38.3	26.4	26.7	41.7	40.5	36.4
Azobenzene			<8			
Barium, total	126	145	182	120	133	150
Benzene	<1.000	1.400	<1.000	<1.000	<1.000	<1.000
Benzo(a)anthracene			<8			
Benzo(a)pyrene			<8			
Benzo(b)fluoranthene			<8			
Benzo(g,h,i)perylene			<8			
Benzo(k)fluoranthene			<8			
Benzyl alcohol			<8			
Beryllium, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Beta-bhc			<.05			
Bicarbonate alkalinity						
Bis (2-chloroethoxy) methane			<8			
Bis(2-chloroethyl) ether			<8			
Bis(2-ethylhexyl) phthalate			<6			
Bis[2-chloroisopropyl]ether			<8			
Bromochloromethane	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate			<8			
Cadmium, total	<.80	<.80	<.80	<.80	<.80	<.80
Calcium, total						
Carbon disulfide	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1
Carbonate alkalinity						
Chlordane			<.1			
Chloride						
Chlorobenzene	<1	<1	<1	<1	<1	<1
Chlorobenzilate			<8			
Chloroethane	<1	1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1
Chloroprene			<1			
Chromium, total	<8	<8	<8	<8	<8	<8
Chrysene			<8			
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1
Cobalt, total	8.8	10.0	8.9	12.0	12.5	5.4
Copper, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Cyanide			<.005			
Delta-bhc			<.05			
Diallate			<8			
Dibenzo(a,h)anthracene			<8			
Dibenzofuran			<8			
Dibromochloromethane	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane			<1			
Dieldrin			<.05			
Diethyl phthalate			<8			
Dimethoate			<.4			
Dimethylphthalate			<8			
Di-n-butyl phthalate			<8			
Di-n-octyl phthalate			<8			
Dinoseb			<.5			
Diphenylamine			<8			
Disulfoton			<.4			
Endosulfan i			<.05			
Endosulfan ii			<.05			
Endosulfan sulfate			<.05			
Endrin			<.05			
Endrin aldehyde			<.05			
Ethyl methacrylate			<10			
Ethyl methanesulfonate			<8			
Ethylbenzene	<1	<1	<1	<1	<1	<1
Famphur			<.4			
Fluoranthene			<8			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for AW-2

Constituents	Units	10/20/2014	6/22/2015	6/23/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
Fluorene	ug/L							<8
Gamma-bhc [lindane]	ug/L							<.05
Heptachlor	ug/L							<.05
Heptachlor epoxide	ug/L							<.05
Hexachlorobenzene	ug/L							<.05
Hexachlorobutadiene	ug/L							<8
Hexachlorocyclopentadiene	ug/L							<8
Hexachloroethane	ug/L							<8
Hexachloropropene	ug/L							<8
Indeno(1,2,3-cd)pyrene	ug/L							<8
Iodomethane	ug/L	<10		<10	<10	<10	<1	<1
Iron, total	ug/L			50600 *	50100 *	59900 *		
Isobutanol	mg/L							<1
Isodrin	ug/L							<8
Isophorone	ug/L							<8
Isosafrole	ug/L							<8
Kepone	ug/L							<8
Lead, total	ug/L	6.78		4.81	7.81	9.73	<4.00	<4.00
Magnesium, total	mg/L			73.6 *	75.6 *			
Manganese, total	ug/L			35000 *	36100 *	31900 *		
Mercury, total	ug/L							<.5
Methacrylonitrile	ug/L							<1
Methapyrilene	ug/L							<8
Methoxychlor	ug/L							<.05
Methyl methacrylate	ug/L							<1
Methyl methanesulfonate	ug/L							<8
Methyl parathion	ug/L							<.4
Methylene bromide	ug/L	<1		<1	<1	<1		
Methylene chloride	ug/L	<5		<5	<5	<5	<5	<5
Naphthalene	ug/L							<8
Nickel, total	ug/L	233.0		22.6	49.9	21.2	13.6	13.9
Nitrate as n	mg/L			<.10 *	<.10 *	1.17 *		
Nitrobenzene	ug/L							<8
N-nitrosodiethylamine	ug/L							<8
N-nitrosodimethylamine	ug/L							<8
N-nitrosodi-n-butylamine	ug/L							<8
N-nitroso-di-n-propylamine	ug/L							<8
N-nitrosodiphenylamine	ug/L							<8
N-nitrosomethylethylamine	ug/L							<8
N-nitrosopiperidine	ug/L							<8
N-nitrosopyrrolidine	ug/L							<8
O,o,o-triethyl phosphorothioate	ug/L							<.4
O-toluidine	ug/L							<8
P-(dimethylamino)azobenzene	ug/L							<8
Parathion	ug/L							<.4
Pentachlorobenzene	ug/L							<8
Pentachloronitrobenzene (pcnb)	ug/L							<8
Pentachlorophenol	ug/L							<8
Phenacetin	ug/L							<8
Phenanthrene	ug/L							<8
Phenol	ug/L							<8
Phorate	ug/L							<.4
Potassium, total	mg/L			<1 *	<1 *			
Pronamide	ug/L							<8
Propionitrile	ug/L							<10
Pyrene	ug/L							<8
Safrole	ug/L							<8
Selenium, total	ug/L	<5		<5	<5	<5	<4	<4
Silver, total	ug/L	<20		<1	<1	<1	<4	<4
Sodium, total	mg/L			14.1 *	14.2 *			
Styrene	ug/L	<1		<1	<1	<1	<1	<1
Sulfate	mg/L			136 *	121 *	144 *		
Sulfide	mg/L							<1.0
Tetrachloroethene	ug/L	<1		<1	<1	<1	<1	<1
Thallium, total	ug/L	<2		<2	<2	<2	<4	<4
Thionazin	ug/L							<.4
Tin, total	ug/L							<20
Toluene	ug/L	<1		<1	<1	<1	<1	<1
Total organic carbon	mg/L			6.00 *	7.09 *	5.26 *		
Total suspended solids	mg/L	6720 *	852	1264 *	2180 *	2120 *	107	4090
Toxaphene	ug/L							<.2
Trans-1,2-dichloroethene	ug/L	<1		<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<5		<5	<5	<5	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<10		<10	<10	<10	<5	<5
Trichloroethene	ug/L	<1		<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<4		<4	<4	<4	<1	<1
Vanadium, total	ug/L	131.00		8.38	15.00	11.20	<20.00	<20.00

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for AW-2

Constituents	9/27/2017	12/13/2017	3/14/2018	6/5/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
Fluorene									
Gamma-bhc [lindane]									
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene									
Hexachlorobutadiene									
Hexachlorocyclopentadiene									
Hexachloroethane									
Hexachloropropene									
Indeno(1,2,3-cd)pyrene									
Iodomethane	<1		<1		<1	<1	<1	<1	<1
Iron, total									
Isobutanol									
Isodrin									
Isophorone									
Isosafrole									
Kepone									
Lead, total	<4.00		<4.00		<4.00	<4.00	<4.00	<4.00	5.00
Magnesium, total									
Manganese, total									
Mercury, total									
Methacrylonitrile									
Methapyrilene									
Methoxychlor									
Methyl methacrylate									
Methyl methanesulfonate									
Methyl parathion									
Methylene bromide									
Methylene chloride	<5		<5		<5	<5	<5	<5	<5
Naphthalene									
Nickel, total	14.2		28.9	14.0	7.0	6.2	8.6	5.9	10.2
Nitrate as n									
Nitrobenzene									
N-nitrosodiethylamine									
N-nitrosodimethylamine									
N-nitrosodi-n-butylamine									
N-nitroso-di-n-propylamine									
N-nitrosodiphenylamine									
N-nitrosomethylethylamine									
N-nitrosopiperidine									
N-nitrosopyrrolidine									
O,o,o-triethyl phosphorothioate									
O-toluidine									
P-(dimethylamino)azobenzene									
Parathion									
Pentachlorobenzene									
Pentachloronitrobenzene (pcnb)									
Pentachlorophenol									
Phenacetin									
Phenanthrene									
Phenol									
Phorate									
Potassium, total									
Pronamide									
Propionitrile									
Pyrene									
Safrole									
Selenium, total	<4		<4		<4	<4	<4	<4	<4
Silver, total	<4		<4		<4	<4	<4	<4	<4
Sodium, total									
Styrene	<1		<1		<1	<1	<1	<1	<1
Sulfate									
Sulfide									
Tetrachloroethene	<1		<1		<1	<1	<1	<1	<1
Thallium, total	<4		<4		<4	<2	<2	<2	<2
Thionazin									
Tin, total									
Toluene	<1		<1		<1	<1	<1	<1	<1
Total organic carbon									
Total suspended solids									
Toxaphene									
Trans-1,2-dichloroethene	<1		<1		<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1		<1		<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5		<5		<5	<5	<5	<5	<5
Trichloroethene	<1		<1		<1	<1	<1	<1	<1
Trichlorofluoromethane	<1		<1		<1	<1	<1	<1	<1
Vanadium, total	<20.00		<20.00		<20.00	<20.00	<20.00	<20.00	<20.00

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for AW-2

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Fluorene			<8			
Gamma-bhc [lindane]			<.05			
Heptachlor			<.05			
Heptachlor epoxide			<.05			
Hexachlorobenzene			<.05			
Hexachlorobutadiene			<8			
Hexachlorocyclopentadiene			<8			
Hexachloroethane			<8			
Hexachloropropene			<8			
Indeno(1,2,3-cd)pyrene			<8			
Iodomethane	<1	<1	<2	<1	<1	<1
Iron, total						
Isobutanol			<1			
Isodrin			<8			
Isophorone			<8			
Isosafrole			<8			
Kepone			<8			
Lead, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Magnesium, total						
Manganese, total						
Mercury, total			<.5			
Methacrylonitrile			<1			
Methapyrilene			<8			
Methoxychlor			<.05			
Methyl methacrylate			<1			
Methyl methanesulfonate			<8			
Methyl parathion			<.4			
Methylene bromide						
Methylene chloride	<5	<5	<5	<5	<5	<5
Naphthalene			<8			
Nickel, total	8.5	11.1	8.7	11.0	11.6	5.0
Nitrate as n						
Nitrobenzene			<8			
N-nitrosodiethylamine			<8			
N-nitrosodimethylamine			<8			
N-nitrosodi-n-butylamine			<8			
N-nitroso-di-n-propylamine			<8			
N-nitrosodiphenylamine			<8			
N-nitrosomethylethylamine			<8			
N-nitrosopiperidine			<8			
N-nitrosopyrrolidine			<8			
O,o,o-triethyl phosphorothioate			<.4			
O-toluidine			<8			
P-(dimethylamino)azobenzene			<8			
Parathion			<.4			
Pentachlorobenzene			<8			
Pentachloronitrobenzene (pcnb)			<8			
Pentachlorophenol			<8			
Phenacetin			<8			
Phenanthrene			<8			
Phenol			<8			
Phorate			<.4			
Potassium, total						
Pronamide			<8			
Propionitrile			<10			
Pyrene			<8			
Safrole			<8			
Selenium, total	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4
Sodium, total						
Styrene	<1	<1	<1	<1	<1	<1
Sulfate						
Sulfide			<.2			
Tetrachloroethene	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2	<2
Thionazin			<.4			
Tin, total			<20			
Toluene	<1	<1	<1	<1	<1	<1
Total organic carbon						
Total suspended solids						
Toxaphene			<.2			
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1
Vanadium, total	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for AW-2

Constituents	Units	10/20/2014	6/22/2015	6/23/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
Vinyl acetate	ug/L	<10		<10	<10	<10	<5	<5
Vinyl chloride	ug/L	<1		<1	<1	<1	<1	<1
Xylenes, total	ug/L	<3		<3	<3	<3	<2	<2
Zinc, total	ug/L	161.0		22.7	64.2	27.0	<8.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for AW-2

Constituents	9/27/2017	12/13/2017	3/14/2018	6/5/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
Vinyl acetate	<5		<5		<5	<5	<5	<5	<5
Vinyl chloride	<1		<1		<1	<1	<1	<1	<1
Xylenes, total	<2		<2		<2	<2	<2	<2	<2
Zinc, total	24.8	<8.0	<8.0		31.9	49.1	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for AW-2

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Vinyl acetate	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for AW-3

Constituents	Units	10/20/2014	6/22/2015	6/23/2015	11/12/2015	11/13/2015	4/11/2016	9/16/2016
(3 4)-methylphenol	ug/L							
1,1,1,2-tetrachloroethane	ug/L	<1		<1		<1	<1	<1
1,1,1-trichloroethane	ug/L	<1		<1		<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1		<1		<1	<1	<1
1,1,2-trichloroethane	ug/L	<1		<1		<1	<1	<1
1,1-dichloroethane	ug/L	<1.00		<1.00		<1.00	1.02	1.20
1,1-dichloroethene	ug/L	<2		<2		<2	<2	<1
1,1-dichloropropene	ug/L							
1,2,3-trichloropropane	ug/L	<1		<1		<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L							
1,2,4-trichlorobenzene	ug/L							
1,2-dibromo-3-chloropropane	ug/L	<.12		<.50		<.50	<.50	<1.00
1,2-dibromoethane	ug/L	<.13		<.13		<.13	<.13	<1.00
1,2-dichlorobenzene	ug/L	<1		<1		<1	<1	<1
1,2-dichloroethane	ug/L	<1		<1		<1	<1	<1
1,2-dichloropropane	ug/L	<1		<1		<1	<1	<1
1,2-dinitrobenzene	ug/L							
1,3,5-trinitrobenzene	ug/L							
1,3-dichlorobenzene	ug/L							
1,3-dichloropropane	ug/L							
1,3-dinitrobenzene	ug/L							
1,4-dichlorobenzene	ug/L	2.8		<1.0		<1.0	<1.0	1.9
1,4-naphthoquinone	ug/L							
1,4-phenylenediamine	ug/L							
1-naphthylamine	ug/L							
2,2-dichloropropane	ug/L							
2,3,4,6-tetrachlorophenol	ug/L							
2,4,5-t	ug/L							
2,4,5-tp (silvex)	ug/L							
2,4,5-trichlorophenol	ug/L							
2,4,6-trichlorophenol	ug/L							
2,4-d	ug/L							
2,4-dichlorophenol	ug/L							
2,4-dimethylphenol	ug/L							
2,4-dinitrophenol	ug/L							
2,4-dinitrotoluene	ug/L							
2,6-dichlorophenol	ug/L							
2,6-dinitrotoluene	ug/L							
2-acetylaminofluorene	ug/L							
2-butanone	ug/L	<10		<10		<10	<10	<5
2-chloronaphthalene	ug/L							
2-chlorophenol	ug/L							
2-hexanone	ug/L	<10		<10		<10	<10	<5
2-methylnaphthalene	ug/L							
2-methylphenol (o-cresol)	ug/L							
2-naphthylamine	ug/L							
2-nitroaniline	ug/L							
2-nitrophenol	ug/L							
3,3´-dichlorobenzidine	ug/L							
3,3-dimethylbenzidine	ug/L							
3-methylcholanthrene	ug/L							
3-nitroaniline	ug/L							
4,4`-ddd	ug/L							
4,4`-dde	ug/L							
4,4`-ddt	ug/L							
4,6-dinitro-2-methylphenol	ug/L							
4-aminobiphenyl	ug/L							
4-bromophenyl phenyl ether	ug/L							
4-chloro-3-methylphenol	ug/L							
4-chloroaniline	ug/L							
4-chlorophenyl phenyl ether	ug/L							
4-methyl-2-pentanone	ug/L	<10		<10		<10	<10	<5
4-nitroaniline	ug/L							
4-nitrophenol	ug/L							
5-nitro-o-toluidine	ug/L							
7,12-dimethylbenz [a] anthracene	ug/L							
Acenaphthene	ug/L							
Acenaphthylene	ug/L							
Acetone	ug/L	<10.0		<10.0		<10.0	<10.0	<10.0
Acetonitrile	ug/L							
Acetophenone	ug/L							
Acrolein	ug/L							
Acrylonitrile	ug/L	<10		<10		<10	<10	<5
Aldrin	ug/L							
Allyl chloride	ug/L							
Alpha-bhc	ug/L							
Ammonia as n	mg/L			1.440 *		1.050 *	.535 *	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for AW-3

Constituents	3/15/2017	9/27/2017	3/14/2018	6/5/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
(3 4)-methylphenol	<8								
1,1,1,2-tetrachloroethane	<1	<1	<1		<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1		<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1		<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1		<1	<1	<1	<1	<1
1,1-dichloroethane	2.50	1.60	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00
1,1-dichloroethene	<1	<1	<1		<1	<1	<1	<1	<1
1,1-dichloropropene	<1								
1,2,3-trichloropropane	<1	<1	<1		<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	<8								
1,2,4-trichlorobenzene	<1								
1,2-dibromo-3-chloropropane	<1.00	<1.00	<1.00		<1.00	<1.00	<1.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1		<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1		<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1		<1	<1	<1	<1	<1
1,2-dinitrobenzene	<8								
1,3,5-trinitrobenzene	<8								
1,3-dichlorobenzene	<1								
1,3-dichloropropane	<1								
1,3-dinitrobenzene	<8								
1,4-dichlorobenzene	<1.0	1.1	3.5		4.0	2.6	<1.0	2.2	2.0
1,4-naphthoquinone	<8								
1,4-phenylenediamine	<8								
1-naphthylamine	<8								
2,2-dichloropropane	<1								
2,3,4,6-tetrachlorophenol	<8								
2,4,5-t	<.5								
2,4,5-tp (silvex)	<.5								
2,4,5-trichlorophenol	<8								
2,4,6-trichlorophenol	<8								
2,4-d	<2								
2,4-dichlorophenol	<8								
2,4-dimethylphenol	<8								
2,4-dinitrophenol	<8								
2,4-dinitrotoluene	<8								
2,6-dichlorophenol	<8								
2,6-dinitrotoluene	<8								
2-acetylaminofluorene	<8								
2-butanone	<5	<5	<5		6	<5	<5	<5	<5
2-chloronaphthalene	<8								
2-chlorophenol	<8								
2-hexanone	<5	<5	<5		<5	<5	<5	<5	<5
2-methylnaphthalene	<8								
2-methylphenol (o-cresol)	<8								
2-naphthylamine	<8								
2-nitroaniline	<8								
2-nitrophenol	<8								
3,3´-dichlorobenzidine	<8								
3,3-dimethylbenzidine	<8								
3-methylcholanthrene	<8								
3-nitroaniline	<8								
4,4`-ddd	<.05								
4,4`-dde	<.05								
4,4`-ddt	<.05								
4,6-dinitro-2-methylphenol	<8								
4-aminobiphenyl	<8								
4-bromophenyl phenyl ether	<8								
4-chloro-3-methylphenol	<8								
4-chloroaniline	<8								
4-chlorophenyl phenyl ether	<8								
4-methyl-2-pentanone	<5	<5	<5		<5	<5	<5	<5	<5
4-nitroaniline	<8								
4-nitrophenol	<8								
5-nitro-o-toluidine	<8								
7,12-dimethylbenz [a] anthracene	<8								
Acenaphthene	<8								
Acenaphthylene	<8								
Acetone	<10.0	<10.0	<10.0		<10.0	<10.0	11.4	<10.0	<10.0
Acetonitrile	<10								
Acetophenone	<8								
Acrolein	<10								
Acrylonitrile	<5	<5	<5		<5	<5	<5	<5	<5
Aldrin	<.05								
Allyl chloride	<1								
Alpha-bhc	<.05								
Ammonia as n									

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for AW-3

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
(3 4)-methylphenol			<8			
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-dichloroethene	<1	<1	<1	<1	<1	<1
1,1-dichloropropene			<1			
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene			<8			
1,2,4-trichlorobenzene			<1			
1,2-dibromo-3-chloropropane	<5.00	<5.00	<1.00	<5.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene			<8			
1,3,5-trinitrobenzene			<8			
1,3-dichlorobenzene			<1			
1,3-dichloropropane			<1			
1,3-dinitrobenzene			<8			
1,4-dichlorobenzene	2.8	3.8	2.3	2.2	2.7	3.4
1,4-naphthoquinone			<8			
1,4-phenylenediamine			<8			
1-naphthylamine			<8			
2,2-dichloropropane			<1			
2,3,4,6-tetrachlorophenol			<8			
2,4,5-t			<.5			
2,4,5-tp (silvex)			<.5			
2,4,5-trichlorophenol			<8			
2,4,6-trichlorophenol			<8			
2,4-d			<2			
2,4-dichlorophenol			<8			
2,4-dimethylphenol			<8			
2,4-dinitrophenol			<8			
2,4-dinitrotoluene			<8			
2,6-dichlorophenol			<8			
2,6-dinitrotoluene			<8			
2-acetylaminofluorene			<8			
2-butanone	<5	<5	<5	<10	<10	<10
2-chloronaphthalene			<8			
2-chlorophenol			<8			
2-hexanone	<5	<5	<5	<5	<5	<5
2-methylnaphthalene			<8			
2-methylphenol (o-cresol)			<8			
2-naphthylamine			<8			
2-nitroaniline			<8			
2-nitrophenol			<8			
3,3´-dichlorobenzidine			<8			
3,3-dimethylbenzidine			<8			
3-methylcholanthrene			<8			
3-nitroaniline			<8			
4,4`-ddd			<.05			
4,4`-dde			<.05			
4,4`-ddt			<.05			
4,6-dinitro-2-methylphenol			<8			
4-aminobiphenyl			<8			
4-bromophenyl phenyl ether			<8			
4-chloro-3-methylphenol			<8			
4-chloroaniline			<8			
4-chlorophenyl phenyl ether			<8			
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5
4-nitroaniline			<8			
4-nitrophenol			<8			
5-nitro-o-toluidine			<8			
7,12-dimethylbenz [a] anthracene			<8			
Acenaphthene			<8			
Acenaphthylene			<8			
Acetone	<10.0	<10.0	24.4	<10.0	<10.0	<10.0
Acetonitrile			<10			
Acetophenone			<8			
Acrolein			<10			
Acrylonitrile	<5	<5	<5	<5	<5	<5
Aldrin			<.05			
Allyl chloride			<1			
Alpha-bhc			<.05			
Ammonia as n						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for AW-3

Constituents	Units	10/20/2014	6/22/2015	6/23/2015	11/12/2015	11/13/2015	4/11/2016	9/16/2016
Anthracene	ug/L							
Antimony, total	ug/L	<6		<1		<1	<1	<2
Arochlor 1016	ug/L							
Arochlor 1221	ug/L							
Arochlor 1232	ug/L							
Arochlor 1242	ug/L							
Arochlor 1248	ug/L							
Arochlor 1254	ug/L							
Arochlor 1260	ug/L							
Arsenic, total	ug/L	<1.0		79.6		44.9	63.9	79.2
Azobenzene	ug/L							
Barium, total	ug/L	1060		471		496	498	634
Benzene	ug/L	4.19		4.98		1.53	1.62	1.00
Benzo(a)anthracene	ug/L							
Benzo(a)pyrene	ug/L							
Benzo(b)fluoranthene	ug/L							
Benzo(g,h,i)perylene	ug/L							
Benzo(k)fluoranthene	ug/L							
Benzyl alcohol	ug/L							
Beryllium, total	ug/L	<1		<1		<1	<1	<4
Beta-bhc	ug/L							
Bicarbonate alkalinity	mg/L as CaCO3			972 *		870 *		
Bis (2-chloroethoxy) methane	ug/L							
Bis(2-chloroethyl) ether	ug/L							
Bis(2-ethylhexyl) phthalate	ug/L							
Bis[2-chloroisopropyl]ether	ug/L							
Bromochloromethane	ug/L	<5		<5		<5	<5	<1
Bromodichloromethane	ug/L	<1		<1		<1	<1	<1
Bromoform	ug/L	<5		<5		<5	<5	<1
Bromomethane	ug/L	<4		<4		<4	<4	<1
Butyl benzyl phthalate	ug/L							
Cadmium, total	ug/L	<.5		<.5		<.5	<.5	<.8
Calcium, total	mg/L			236 *		210 *		
Carbon disulfide	ug/L	<1		<5		<1	<1	<1
Carbon tetrachloride	ug/L	<2		<2		<2	<2	<1
Carbonate alkalinity	mg/L as CaCO3			<5 *		<5 *		
Chlordane	ug/L							
Chloride	mg/L			19.8 *		22.6 *		
Chlorobenzene	ug/L	<1.0		<1.0		<1.0	<1.0	<1.0
Chlorobenzilate	ug/L							
Chloroethane	ug/L	7.13		8.62		<4.00	4.73	4.60
Chloroform	ug/L	<1		<1		<1	<1	<1
Chloromethane	ug/L	<3		<3		<3	<3	<1
Chloroprene	ug/L							
Chromium, total	ug/L	<10.00		<5.00		<5.00	6.96	<8.00
Chrysene	ug/L							
Cis-1,2-dichloroethene	ug/L	2.89		3.92		2.23	1.92	1.60
Cis-1,3-dichloropropene	ug/L	<5		<5		<5	<5	<1
Cobalt, total	ug/L	42.5		14.4		15.2	24.1	8.1
Copper, total	ug/L	<20.0		<2.0		<2.0	<5.0	<4.0
Cyanide	mg/L							
Delta-bhc	ug/L							
Diallate	ug/L							
Dibenzo(a,h)anthracene	ug/L							
Dibenzofuran	ug/L							
Dibromochloromethane	ug/L	<5		<5		<5	<5	<1
Dibromomethane	ug/L							<1
Dichlorodifluoromethane	ug/L							
Dieldrin	ug/L							
Diethyl phthalate	ug/L							
Dimethoate	ug/L							
Dimethylphthalate	ug/L							
Di-n-butyl phthalate	ug/L							
Di-n-octyl phthalate	ug/L							
Dinoseb	ug/L							
Diphenylamine	ug/L							
Disulfoton	ug/L							
Endosulfan i	ug/L							
Endosulfan ii	ug/L							
Endosulfan sulfate	ug/L							
Endrin	ug/L							
Endrin aldehyde	ug/L							
Ethyl methacrylate	ug/L							
Ethyl methanesulfonate	ug/L							
Ethylbenzene	ug/L	<1.0		2.1		<1.0	<1.0	<1.0
Famphur	ug/L							
Fluoranthene	ug/L							

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for AW-3

Constituents	3/15/2017	9/27/2017	3/14/2018	6/5/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
Anthracene	<8								
Antimony, total	<2	<2	<2		<2	<2	<2	<2	<2
Arochlor 1016	<.1								
Arochlor 1221	<.2								
Arochlor 1232	<.2								
Arochlor 1242	<.2								
Arochlor 1248	<.2								
Arochlor 1254	<.1								
Arochlor 1260	<.1								
Arsenic, total	26.2	26.8	84.6	36.7	45.4	10.5	34.0	25.3	41.8
Azobenzene	<8								
Barium, total	303	319	396		506	145	250	215	289
Benzene	<1.00	<1.00	5.60		4.10	<1.00	1.10	1.20	<1.00
Benzo(a)anthracene	<8								
Benzo(a)pyrene	<8								
Benzo(b)fluoranthene	<8								
Benzo(g,h,i)perylene	<8								
Benzo(k)fluoranthene	<8								
Benzyl alcohol	<8								
Beryllium, total	<4	<4	<4		<4	<4	<4	<4	<4
Beta-bhc	<.05								
Bicarbonate alkalinity									
Bis (2-chloroethoxy) methane	<8								
Bis(2-chloroethyl) ether	<8								
Bis(2-ethylhexyl) phthalate	16	<6	<6		<6	<6	<6	<6	
Bis[2-chloroisopropyl]ether	<8								
Bromochloromethane	<1	<1	<1		<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1		<1	<1	<1	<1	<1
Bromoform	<1	<1	<1		<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1		<1	<1	<1	<1	<1
Butyl benzyl phthalate	<8								
Cadmium, total	<.8	<.8	<.8		<.8	<.8	<.8	<.8	<.8
Calcium, total									
Carbon disulfide	<1	<1	<1		<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1		<1	<1	<1	<1	<1
Carbonate alkalinity									
Chlordane	<.1								
Chloride									
Chlorobenzene	1.1	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzilate	<8								
Chloroethane	6.80	4.60	5.50		3.00	1.20	<1.00	2.50	3.90
Chloroform	<1	<1	<1		<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1		<1	<1	<1	<1	<1
Chloroprene	<1								
Chromium, total	<8.00	<8.00	<8.00		<8.00	<8.00	<8.00	<8.00	<8.00
Chrysene	<8								
Cis-1,2-dichloroethene	3.00	2.10	<1.00		<1.00	<1.00	<1.00	1.20	2.70
Cis-1,3-dichloropropene	<1	<1	<1		<1	<1	<1	<1	<1
Cobalt, total	11.6	6.0	6.5		1.2	1.0	2.0	.8	1.2
Copper, total	<4.0	<4.0	<4.0		<4.0	4.1	5.1	<4.0	<4.0
Cyanide	<.005								
Delta-bhc	<.05								
Diallate	<8								
Dibenzo(a,h)anthracene	<8								
Dibenzofuran	<8								
Dibromochloromethane	<1	<1	<1		<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1		<1	<1	<1	<1	<1
Dichlorodifluoromethane	<1								
Dieldrin	<.05								
Diethyl phthalate	<8								
Dimethoate	<.4								
Dimethylphthalate	<8								
Di-n-butyl phthalate	<8								
Di-n-octyl phthalate	<8								
Dinoseb	<.5								
Diphenylamine	<8								
Disulfoton	<.4								
Endosulfan i	<.05								
Endosulfan ii	<.05								
Endosulfan sulfate	<.05								
Endrin	<.05								
Endrin aldehyde	<.05								
Ethyl methacrylate	<10								
Ethyl methanesulfonate	<8								
Ethylbenzene	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0
Famphur	<.4								
Fluoranthene	<8								

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for AW-3

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Anthracene			<8			
Antimony, total	<2	<2	<2	<2	<2	<2
Arochlor 1016			<.1			
Arochlor 1221			<.2			
Arochlor 1232			<.2			
Arochlor 1242			<.2			
Arochlor 1248			<.2			
Arochlor 1254			<.1			
Arochlor 1260			<.1			
Arsenic, total	11.0	50.8	35.6	87.6	11.1	38.3
Azobenzene			<8			
Barium, total	416	560	263	399	572	373
Benzene	5.20	4.10	1.40	2.30	2.60	2.60
Benzo(a)anthracene			<8			
Benzo(a)pyrene			<8			
Benzo(b)fluoranthene			<8			
Benzo(g,h,i)perylene			<8			
Benzo(k)fluoranthene			<8			
Benzyl alcohol			<8			
Beryllium, total	<4	<4	<4	<4	<4	<4
Beta-bhc			<.05			
Bicarbonate alkalinity						
Bis (2-chloroethoxy) methane			<8			
Bis(2-chloroethyl) ether			<8			
Bis(2-ethylhexyl) phthalate			<6			
Bis[2-chloroisopropyl]ether			<8			
Bromochloromethane	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate			<8			
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total						
Carbon disulfide	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1
Carbonate alkalinity						
Chlordane			<.1			
Chloride						
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzilate			<8			
Chloroethane	4.50	4.20	3.00	4.20	3.50	3.80
Chloroform	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1
Chloroprene			<1			
Chromium, total	<8.00	<8.00	<8.00	<8.00	<8.00	<8.00
Chrysene			<8			
Cis-1,2-dichloroethene	4.00	<1.00	<1.00	1.10	2.90	1.20
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1
Cobalt, total	.9	.7	.7	.5	.5	1.3
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide			<.005			
Delta-bhc			<.05			
Diallate			<8			
Dibenzo(a,h)anthracene			<8			
Dibenzofuran			<8			
Dibromochloromethane	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane			<1			
Dieldrin			<.05			
Diethyl phthalate			<8			
Dimethoate			<.4			
Dimethylphthalate			<8			
Di-n-butyl phthalate			<8			
Di-n-octyl phthalate			<8			
Dinoseb			<.5			
Diphenylamine			<8			
Disulfoton			<.4			
Endosulfan i			<.05			
Endosulfan ii			<.05			
Endosulfan sulfate			<.05			
Endrin			<.05			
Endrin aldehyde			<.05			
Ethyl methacrylate			<10			
Ethyl methanesulfonate			<8			
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Famphur			<.4			
Fluoranthene			<8			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for AW-3

Constituents	Units	10/20/2014	6/22/2015	6/23/2015	11/12/2015	11/13/2015	4/11/2016	9/16/2016
Fluorene	ug/L							
Gamma-bhc [lindane]	ug/L							
Heptachlor	ug/L							
Heptachlor epoxide	ug/L							
Hexachlorobenzene	ug/L							
Hexachlorobutadiene	ug/L							
Hexachlorocyclopentadiene	ug/L							
Hexachloroethane	ug/L							
Hexachloropropene	ug/L							
Indeno(1,2,3-cd)pyrene	ug/L							
Iodomethane	ug/L	<10		<10		<10	<10	<1
Iron, total	ug/L			77900 *		44600 *	52100 *	
Isobutanol	mg/L							
Isodrin	ug/L							
Isophorone	ug/L							
Isosafrole	ug/L							
Kepone	ug/L							
Lead, total	ug/L	<5.00		4.03		2.30	6.39	<4.00
Magnesium, total	mg/L			88.6 *		104.0 *		
Manganese, total	ug/L			14900 *		10500 *	17600 *	
Mercury, total	ug/L							
Methacrylonitrile	ug/L							
Methapyrilene	ug/L							
Methoxychlor	ug/L							
Methyl methacrylate	ug/L							
Methyl methanesulfonate	ug/L							
Methyl parathion	ug/L							
Methylene bromide	ug/L	<1		<1		<1	<1	
Methylene chloride	ug/L	<5		<1		<5	<5	<5
Naphthalene	ug/L							
Nickel, total	ug/L	183.0		22.4		54.3	76.8	15.3
Nitrate as n	mg/L			<.1 *		<.1 *	<.1 *	
Nitrobenzene	ug/L							
N-nitrosodiethylamine	ug/L							
N-nitrosodimethylamine	ug/L							
N-nitrosodi-n-butylamine	ug/L							
N-nitroso-di-n-propylamine	ug/L							
N-nitrosodiphenylamine	ug/L							
N-nitrosomethylethylamine	ug/L							
N-nitrosopiperidine	ug/L							
N-nitrosopyrrolidine	ug/L							
O,o,o-triethyl phosphorothioate	ug/L							
O-toluidine	ug/L							
P-(dimethylamino)azobenzene	ug/L							
Parathion	ug/L							
Pentachlorobenzene	ug/L							
Pentachloronitrobenzene (pcnb)	ug/L							
Pentachlorophenol	ug/L							
Phenacetin	ug/L							
Phenanthrene	ug/L							
Phenol	ug/L							
Phorate	ug/L							
Potassium, total	mg/L			<1.00 *		1.03 *		
Pronamide	ug/L							
Propionitrile	ug/L							
Pyrene	ug/L							
Safrole	ug/L							
Selenium, total	ug/L	<5		<5		<5	<5	<4
Silver, total	ug/L	<20		<1		<1	<1	<4
Sodium, total	mg/L			18.9 *		21.4 *		
Styrene	ug/L	<1		<1		<1	<1	<1
Sulfate	mg/L			34.3 *		42.3 *	30.1 *	
Sulfide	mg/L							
Tetrachloroethene	ug/L	<1		<1		<1	<1	<1
Thallium, total	ug/L	<2		<1		<1	<2	<4
Thionazin	ug/L							
Tin, total	ug/L							
Toluene	ug/L	<1		<1		<1	<1	<1
Total organic carbon	mg/L			9.21 *		6.40 *	5.97 *	
Total suspended solids	mg/L	7820 *	1310	911 *	1950	1950	657 *	126
Toxaphene	ug/L							
Trans-1,2-dichloroethene	ug/L	<1		<1		<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<5		<5		<5	<5	<1
Trans-1,4-dichloro-2-butene	ug/L	<10		<10		<10	<10	<5
Trichloroethene	ug/L	<1		<1		<1	<1	<1
Trichlorofluoromethane	ug/L	<4		<4		<4	<4	<1
Vanadium, total	ug/L	70.30		9.65		9.48	21.00	<20.00

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for AW-3

Constituents	3/15/2017	9/27/2017	3/14/2018	6/5/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
Fluorene	<8								
Gamma-bhc [lindane]	<.05								
Heptachlor	<.05								
Heptachlor epoxide	<.05								
Hexachlorobenzene	<.05								
Hexachlorobutadiene	<8								
Hexachlorocyclopentadiene	<8								
Hexachloroethane	<8								
Hexachloropropene	<8								
Indeno(1,2,3-cd)pyrene	<8								
Iodomethane	<1	<1	<1		<1	<1	<1	<1	<1
Iron, total									
Isobutanol	<1								
Isodrin	<8								
Isophorone	<8								
Isosafrole	<8								
Kepone	<8								
Lead, total	<4.00	<4.00	<4.00		<4.00	<4.00	<4.00	<4.00	<4.00
Magnesium, total									
Manganese, total									
Mercury, total	<.5								
Methacrylonitrile	<1								
Methapyrilene	<8								
Methoxychlor	<.05								
Methyl methacrylate	<1								
Methyl methanesulfonate	<8								
Methyl parathion	<.4								
Methylene bromide									
Methylene chloride	<5	<5	<5		<5	<5	<5	<5	<5
Naphthalene	<8								
Nickel, total	42.6	22.8	10.7		<4.0	<4.0	4.0	4.1	6.4
Nitrate as n									
Nitrobenzene	<8								
N-nitrosodiethylamine	<8								
N-nitrosodimethylamine	<8								
N-nitrosodi-n-butylamine	<8								
N-nitroso-di-n-propylamine	<8								
N-nitrosodiphenylamine	<8								
N-nitrosomethylethylamine	<8								
N-nitrosopiperidine	<8								
N-nitrosopyrrolidine	<8								
O,o,o-triethyl phosphorothioate	<.4								
O-toluidine	<8								
P-(dimethylamino)azobenzene	<8								
Parathion	<.4								
Pentachlorobenzene	<8								
Pentachloronitrobenzene (pcnb)	<8								
Pentachlorophenol	<8								
Phenacetin	<8								
Phenanthrene	<8								
Phenol	<8								
Phorate	<.4								
Potassium, total									
Pronamide	<8								
Propionitrile	<10								
Pyrene	<8								
Safrole	<8								
Selenium, total	<4	<4	<4		<4	<4	<4	<4	<4
Silver, total	<4	<4	<4		<4	<4	<4	<4	<4
Sodium, total									
Styrene	<1	<1	<1		<1	<1	<1	<1	<1
Sulfate									
Sulfide	<1.0								
Tetrachloroethene	<1	<1	<1		<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4		<4	<2	<2	<2	<2
Thionazin	<.4								
Tin, total	<20								
Toluene	<1	<1	<1		1	<1	<1	<1	<1
Total organic carbon									
Total suspended solids	1070								
Toxaphene	<.2								
Trans-1,2-dichloroethene	<1	<1	<1		<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1		<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5		<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1		<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1		<1	<1	<1	<1	<1
Vanadium, total	<20.00	<20.00	<20.00		<20.00	<20.00	<20.00	<20.00	<20.00

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for AW-3

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Fluorene			<8			
Gamma-bhc [lindane]			<.05			
Heptachlor			<.05			
Heptachlor epoxide			<.05			
Hexachlorobenzene			<.05			
Hexachlorobutadiene			<8			
Hexachlorocyclopentadiene			<8			
Hexachloroethane			<8			
Hexachloropropene			<8			
Indeno(1,2,3-cd)pyrene			<8			
Iodomethane	<1	<1	<2	<1	<1	<1
Iron, total						
Isobutanol			<1			
Isodrin			<8			
Isophorone			<8			
Isosafrole			<8			
Kepone			<8			
Lead, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Magnesium, total						
Manganese, total						
Mercury, total			<.5			
Methacrylonitrile			<1			
Methapyrilene			<8			
Methoxychlor			<.05			
Methyl methacrylate			<1			
Methyl methanesulfonate			<8			
Methyl parathion			<.4			
Methylene bromide						
Methylene chloride	<5	<5	<5	<5	<5	<5
Naphthalene			<8			
Nickel, total	<4.0	<4.0	<4.0	<4.0	<4.0	5.3
Nitrate as n						
Nitrobenzene			<8			
N-nitrosodiethylamine			<8			
N-nitrosodimethylamine			<8			
N-nitrosodi-n-butylamine			<8			
N-nitroso-di-n-propylamine			<8			
N-nitrosodiphenylamine			<8			
N-nitrosomethylethylamine			<8			
N-nitrosopiperidine			<8			
N-nitrosopyrrolidine			<8			
O,o,o-triethyl phosphorothioate			<.4			
O-toluidine			<8			
P-(dimethylamino)azobenzene			<8			
Parathion			<.4			
Pentachlorobenzene			<8			
Pentachloronitrobenzene (pcnb)			<8			
Pentachlorophenol			<8			
Phenacetin			<8			
Phenanthrene			<8			
Phenol			<8			
Phorate			<.4			
Potassium, total						
Pronamide			<8			
Propionitrile			<10			
Pyrene			<8			
Safrole			<8			
Selenium, total	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4
Sodium, total						
Styrene	<1	<1	<1	<1	<1	<1
Sulfate						
Sulfide			<.2			
Tetrachloroethene	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2	<2
Thionazin			<.4			
Tin, total			<20			
Toluene	<1	<1	<1	<1	<1	<1
Total organic carbon						
Total suspended solids						
Toxaphene			<.2			
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1
Vanadium, total	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for AW-3

Constituents	Units	10/20/2014	6/22/2015	6/23/2015	11/12/2015	11/13/2015	4/11/2016	9/16/2016
Vinyl acetate	ug/L	<10		<10		<10	<10	<5
Vinyl chloride	ug/L	<1.0		<1.0		<1.0	<1.0	<1.0
Xylenes, total	ug/L	<3		<1		<3	<3	<2
Zinc, total	ug/L	110.0		28.6		25.4	53.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for AW-3

Constituents	3/15/2017	9/27/2017	3/14/2018	6/5/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
Vinyl acetate	<5	<5	<5		<5	<5	<5	<5	<5
Vinyl chloride	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, total	<2	<2	<2		<2	<2	<2	<2	<2
Zinc, total	<8.0	<8.0	<8.0		48.1	25.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for AW-3

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Vinyl acetate	<5	<5	<5	<5	<5	<5
Vinyl chloride	2.1	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, total	<2	<2	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 3

Analytical Data Summary for AW-4

Constituents	Units	10/20/2014	6/23/2015	11/12/2015	4/11/2016	4/12/2016	1/21/2021	3/31/2022
1,1,1,2-tetrachloroethane	ug/L	<1						<1
1,1,1-trichloroethane	ug/L	<1						<1
1,1,2,2-tetrachloroethane	ug/L	<1						<1
1,1,2-trichloroethane	ug/L	<1						<1
1,1-dichloroethane	ug/L	<1						<1
1,1-dichloroethene	ug/L	<2						<1
1,2,3-trichloropropane	ug/L	<1						<1
1,2-dibromo-3-chloropropane	ug/L	<.12						<5.00
1,2-dibromoethane	ug/L	<.13						<1.00
1,2-dichlorobenzene	ug/L	<1						<1
1,2-dichloroethane	ug/L	<1						<1
1,2-dichloropropane	ug/L	<1						<1
1,4-dichlorobenzene	ug/L	<1						<1
2-butanone	ug/L	<10						<10
2-hexanone	ug/L	<10						<5
4-methyl-2-pentanone	ug/L	<10						<5
Acetone	ug/L	<10						<10
Acrylonitrile	ug/L	<10						<5
Ammonia as n	mg/L		<.2 *	<.2 *	<.2	<.2		
Antimony, total	ug/L	<6					<2	<2
Arsenic, total	ug/L	27.70		16.50		7.34	5.30	4.40
Barium, total	ug/L	78.10000					96.10001	71.50000
Benzene	ug/L	<.5						<1.0
Beryllium, total	ug/L	<1					<4	<4
Bicarbonate alkalinity	mg/L as CaCO3		360 *	432 *				
Bromochloromethane	ug/L	<5						<1
Bromodichloromethane	ug/L	<1						<1
Bromoform	ug/L	<5						<1
Bromomethane	ug/L	<4						<1
Cadmium, total	ug/L	<.5					<.8	<.8
Calcium, total	mg/L		282 *	286 *				
Carbon disulfide	ug/L	<1						<1
Carbon tetrachloride	ug/L	<2						<1
Carbonate alkalinity	mg/L as CaCO3		<5 *	<5 *				
Chloride	mg/L		17.3 *	22.8 *				
Chlorobenzene	ug/L	<1						<1
Chloroethane	ug/L	<4						<1
Chloroform	ug/L	<1						<1
Chloromethane	ug/L	<3						<1
Chromium, total	ug/L	<20					<8	<8
Cis-1,2-dichloroethene	ug/L	<1						<1
Cis-1,3-dichloropropene	ug/L	<5						<1
Cobalt, total	ug/L	11.200				.994	.400	.400
Copper, total	ug/L	<10					<4	<4
Dibromochloromethane	ug/L	<5						<1
Dibromomethane	ug/L							<1
Ethylbenzene	ug/L	<1						<1
Iodomethane	ug/L	<10						<1
Iron, total	ug/L		16000 *	7900 *	3660	3660		
Lead, total	ug/L	10.7					<4.0	<4.0
Magnesium, total	mg/L		67.8 *	85.0 *				
Manganese, total	ug/L		988.0 *	1370.0 *	24.9	24.9		
Methylene bromide	ug/L	<1						
Methylene chloride	ug/L	<5						<5
Nickel, total	ug/L	<30					<4	5
Nitrate as n	mg/L		<.100 *	.298 *	6.890	6.890		
Potassium, total	mg/L		1.76 *	2.14 *				
Selenium, total	ug/L	<5					<4	<4
Silver, total	ug/L	<20					<4	<4
Sodium, total	mg/L		14.7 *	19.0 *				
Styrene	ug/L	<1						<1
Sulfate	mg/L		589 *	655 *	725	725		
Tetrachloroethene	ug/L	<1						<1
Thallium, total	ug/L	<2					<2	<2
Toluene	ug/L	<1						<1
Total organic carbon	mg/L		3.15 *	4.35 *	3.69	3.69		
Total suspended solids	mg/L	575.0 *	113.5 *	52.8 *	31.1	31.1		
Trans-1,2-dichloroethene	ug/L	<1						<1
Trans-1,3-dichloropropene	ug/L	<5						<1
Trans-1,4-dichloro-2-butene	ug/L	<10						<5
Trichloroethene	ug/L	<1						<1
Trichlorofluoromethane	ug/L	<4						<1
Vanadium, total	ug/L	<20					<20	<20
Vinyl acetate	ug/L	<10						<5
Vinyl chloride	ug/L	<1						<1
Xylenes, total	ug/L	<3						<2
Zinc, total	ug/L	38.4					<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 3

Analytical Data Summary for AW-4

Constituents	8/30/2022	3/7/2023	9/28/2023
1,1,1,2-tetrachloroethane	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1
1,1-dichloroethane	<1	<1	<1
1,1-dichloroethene	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1
1,2-dibromo-3-chloropropane	<5.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1
1,2-dichloroethane	<1	<1	<1
1,2-dichloropropane	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1
2-butanone	<10	<10	<10
2-hexanone	<5	<5	<5
4-methyl-2-pentanone	<5	<5	<5
Acetone	<10	<10	<10
Acrylonitrile	<5	<5	<5
Ammonia as n			
Antimony, total	<2	<2	<2
Arsenic, total	<4.00	16.60	<4.00
Barium, total	167.00000	49.70000	305.00000
Benzene	<1.0	<1.0	<1.0
Beryllium, total	<4	<4	<4
Bicarbonate alkalinity			
Bromochloromethane	<1	<1	<1
Bromodichloromethane	<1	<1	<1
Bromoform	<1	<1	<1
Bromomethane	<1	<1	<1
Cadmium, total	<.8	<.8	<.8
Calcium, total			
Carbon disulfide	<1	<1	<1
Carbon tetrachloride	<1	<1	<1
Carbonate alkalinity			
Chloride			
Chlorobenzene	<1	<1	<1
Chloroethane	<1	<1	<1
Chloroform	<1	<1	<1
Chloromethane	<1	<1	<1
Chromium, total	<8	<8	<8
Cis-1,2-dichloroethene	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1
Cobalt, total	<.400	<.400	<.400
Copper, total	<4	<4	<4
Dibromochloromethane	<1	<1	<1
Dibromomethane	<1	<1	<1
Ethylbenzene	<1	<1	<1
Iodomethane	<1	<1	<1
Iron, total			
Lead, total	<4.0	<4.0	<4.0
Magnesium, total			
Manganese, total			
Methylene bromide			
Methylene chloride	<5	<5	<5
Nickel, total	<4	<4	<4
Nitrate as n			
Potassium, total			
Selenium, total	<4	<4	<4
Silver, total	<4	<4	<4
Sodium, total			
Styrene	<1	<1	<1
Sulfate			
Tetrachloroethene	<1	<1	<1
Thallium, total	<2	<2	<2
Toluene	<1	<1	<1
Total organic carbon			
Total suspended solids			
Trans-1,2-dichloroethene	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5
Trichloroethene	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1
Vanadium, total	<20	<20	<20
Vinyl acetate	<5	<5	<5
Vinyl chloride	<1	<1	<1
Xylenes, total	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for AW-9

Constituents	Units	10/20/2014	6/23/2015	11/12/2015	4/11/2016	3/16/2017	4/1/2019	9/12/2019	5/6/2020
1,1,1,2-tetrachloroethane	ug/L	<1							
1,1,1-trichloroethane	ug/L	<1							
1,1,2,2-tetrachloroethane	ug/L	<1							
1,1,2-trichloroethane	ug/L	<1							
1,1-dichloroethane	ug/L	<1							
1,1-dichloroethene	ug/L	<2							
1,2,3-trichloropropane	ug/L	<1							
1,2-dibromo-3-chloropropane	ug/L	<.12							
1,2-dibromoethane	ug/L	<.13							
1,2-dichlorobenzene	ug/L	<1							
1,2-dichloroethane	ug/L	<1							
1,2-dichloropropane	ug/L	<1							
1,4-dichlorobenzene	ug/L	<1							
2-butanone	ug/L	<10							
2-hexanone	ug/L	<10							
4-methyl-2-pentanone	ug/L	<10							
Acetone	ug/L	<10							
Acrylonitrile	ug/L	<10							
Ammonia as n	mg/L		<.2 *	<.2 *	<.2 *				
Antimony, total	ug/L	<6							
Arsenic, total	ug/L	<1.5			<1.0	<4.0			
Barium, total	ug/L	571				410			
Benzene	ug/L	<.5							
Beryllium, total	ug/L	<1							
Bicarbonate alkalinity	mg/L as CaCO3		528 *	541 *					
Bromochloromethane	ug/L	<5							
Bromodichloromethane	ug/L	<1							
Bromoform	ug/L	<5							
Bromomethane	ug/L	<4							
Cadmium, total	ug/L	1.16							
Calcium, total	mg/L		140 *	130 *					
Carbon disulfide	ug/L	<1							
Carbon tetrachloride	ug/L	<2							
Carbonate alkalinity	mg/L as CaCO3		<5 *	<5 *					
Chloride	mg/L		6.15 *	12.20 *					
Chlorobenzene	ug/L	<1							
Chloroethane	ug/L	<4							
Chloroform	ug/L	<1							
Chloromethane	ug/L	<3							
Chromium, total	ug/L	<20							
Cis-1,2-dichloroethene	ug/L	<1							
Cis-1,3-dichloropropene	ug/L	<5							
Cobalt, total	ug/L	45.60		3.17	3.08	<.80	23.30	10.50	5.40
Copper, total	ug/L	46.9							
Dibromochloromethane	ug/L	<5							
Dibromomethane	ug/L								
Ethylbenzene	ug/L	<1							
Iodomethane	ug/L	<10							
Iron, total	ug/L		471 *	341 *	1020 *				
Lead, total	ug/L	17.6							
Magnesium, total	mg/L		53.3 *	56.6 *					
Manganese, total	ug/L		3720 *	1080 *	329 *				
Methylene bromide	ug/L	<1							
Methylene chloride	ug/L	<5							
Nickel, total	ug/L	86.8				<4.0			
Nitrate as n	mg/L		1.05 *	1.67 *	3.36 *				
Potassium, total	mg/L		<1.0 *	1.2 *					
Selenium, total	ug/L	<5							
Silver, total	ug/L	<20							
Sodium, total	mg/L		16.7 *	18.1 *					
Styrene	ug/L	<1							
Sulfate	mg/L		27.6 *	25.4 *	21.2 *				
Tetrachloroethene	ug/L	<1							
Thallium, total	ug/L	<2							
Toluene	ug/L	<1							
Total organic carbon	mg/L		1.00 *	2.68 *	<1.00 *				
Total suspended solids	mg/L	754.0 *	70.5 *	184.0 *	58.5 *	20.0			
Trans-1,2-dichloroethene	ug/L	<1							
Trans-1,3-dichloropropene	ug/L	<5							
Trans-1,4-dichloro-2-butene	ug/L	<10							
Trichloroethene	ug/L	<1							
Trichlorofluoromethane	ug/L	<4							
Vanadium, total	ug/L	<20							
Vinyl acetate	ug/L	<10							
Vinyl chloride	ug/L	<1							
Xylenes, total	ug/L	<3							
Zinc, total	ug/L	34.9							

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for AW-9

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
1,1,1,2-tetrachloroethane					<1	<1
1,1,1-trichloroethane					<1	<1
1,1,2,2-tetrachloroethane					<1	<1
1,1,2-trichloroethane					<1	<1
1,1-dichloroethane					<1	<1
1,1-dichloroethene					<1	<1
1,2,3-trichloropropane					<1	<1
1,2-dibromo-3-chloropropane					<5.00	<5.00
1,2-dibromoethane					<1.00	<1.00
1,2-dichlorobenzene					<1	<1
1,2-dichloroethane					<1	<1
1,2-dichloropropane					<1	<1
1,4-dichlorobenzene					<1	<1
2-butanone					<10	<10
2-hexanone					<5	<5
4-methyl-2-pentanone					<5	<5
Acetone					<10	<10
Acrylonitrile					<5	<5
Ammonia as n						
Antimony, total					<2	<2
Arsenic, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Barium, total					208	447
Benzene					<1.0	<1.0
Beryllium, total					<4	<4
Bicarbonate alkalinity						
Bromochloromethane					<1	<1
Bromodichloromethane					<1	<1
Bromoform					<1	<1
Bromomethane					<1	<1
Cadmium, total					<.80	<.80
Calcium, total						
Carbon disulfide					<1	<1
Carbon tetrachloride					<1	<1
Carbonate alkalinity						
Chloride						
Chlorobenzene					<1	<1
Chloroethane					<1	<1
Chloroform					<1	<1
Chloromethane					<1	<1
Chromium, total					<8	<8
Cis-1,2-dichloroethene					<1	<1
Cis-1,3-dichloropropene					<1	<1
Cobalt, total	.40	.80	1.30	5.00	1.80	.80
Copper, total					<4.0	<4.0
Dibromochloromethane					<1	<1
Dibromomethane					<1	<1
Ethylbenzene					<1	<1
Iodomethane					<1	<1
Iron, total						
Lead, total					<4.0	<4.0
Magnesium, total						
Manganese, total						
Methylene bromide						
Methylene chloride					<5	<5
Nickel, total					<4.0	<4.0
Nitrate as n						
Potassium, total						
Selenium, total					<4	<4
Silver, total					<4	<4
Sodium, total						
Styrene					<1	<1
Sulfate						
Tetrachloroethene					<1	<1
Thallium, total					<2	<2
Toluene					<1	<1
Total organic carbon						
Total suspended solids						
Trans-1,2-dichloroethene					<1	<1
Trans-1,3-dichloropropene					<1	<1
Trans-1,4-dichloro-2-butene					<5	<5
Trichloroethene					<1	<1
Trichlorofluoromethane					<1	<1
Vanadium, total					<20	<20
Vinyl acetate					<5	<5
Vinyl chloride					<1	<1
Xylenes, total					<2	<2
Zinc, total					<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-12

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
(3 4)-methylphenol	ug/L							<8
1,1,1,2-tetrachloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L		<2	<2	<2	<2	<1	<1
1,1-dichloropropene	ug/L							<1
1,2,3-trichloropropane	ug/L		<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L							<8
1,2,4-trichlorobenzene	ug/L							<1
1,2-dibromo-3-chloropropane	ug/L		<.12	<.50	<.50	<.50	<1.00	<1.00
1,2-dibromoethane	ug/L		<.13	<.13	<.13	<.13	<1.00	<1.00
1,2-dichlorobenzene	ug/L		<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L		<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L							<8
1,3,5-trinitrobenzene	ug/L							<8
1,3-dichlorobenzene	ug/L							<1
1,3-dichloropropane	ug/L							<1
1,3-dinitrobenzene	ug/L							<8
1,4-dichlorobenzene	ug/L		<1	<1	<1	<1	<1	<1
1,4-naphthoquinone	ug/L							<8
1,4-phenylenediamine	ug/L							<8
1-naphthylamine	ug/L							<8
2,2-dichloropropane	ug/L							<1
2,3,4,6-tetrachlorophenol	ug/L							<8
2,4,5-t	ug/L							<.5
2,4,5-tp (silvex)	ug/L							<.5
2,4,5-trichlorophenol	ug/L							<8
2,4,6-trichlorophenol	ug/L							<8
2,4-d	ug/L							<2
2,4-dichlorophenol	ug/L							<8
2,4-dimethylphenol	ug/L							<8
2,4-dinitrophenol	ug/L							<8
2,4-dinitrotoluene	ug/L							<8
2,6-dichlorophenol	ug/L							<8
2,6-dinitrotoluene	ug/L							<8
2-acetylaminofluorene	ug/L							<8
2-butanone	ug/L		<10	<10	<10	<10	<5	<5
2-chloronaphthalene	ug/L							<8
2-chlorophenol	ug/L							<8
2-hexanone	ug/L		<10	<10	<10	<10	<5	<5
2-methylnaphthalene	ug/L							<8
2-methylphenol (o-cresol)	ug/L							<8
2-naphthylamine	ug/L							<8
2-nitroaniline	ug/L							<8
2-nitrophenol	ug/L							<8
3,3´-dichlorobenzidine	ug/L							<8
3,3-dimethylbenzidine	ug/L							<8
3-methylcholanthrene	ug/L							<8
3-nitroaniline	ug/L							<8
4,4`-ddd	ug/L							<.05
4,4`-dde	ug/L							<.05
4,4`-ddt	ug/L							<.05
4,6-dinitro-2-methylphenol	ug/L							<8
4-aminobiphenyl	ug/L							<8
4-bromophenyl phenyl ether	ug/L							<8
4-chloro-3-methylphenol	ug/L							<8
4-chloroaniline	ug/L							<8
4-chlorophenyl phenyl ether	ug/L							<8
4-methyl-2-pentanone	ug/L		<10	<10	<10	<10	<5	<5
4-nitroaniline	ug/L							<8
4-nitrophenol	ug/L							<8
5-nitro-o-toluidine	ug/L							<8
7,12-dimethylbenz [a] anthracene	ug/L							<8
Acenaphthene	ug/L							<8
Acenaphthylene	ug/L							<8
Acetone	ug/L		<10	<10	<10	<10	<10	<10
Acetonitrile	ug/L							<10
Acetophenone	ug/L							<8
Acrolein	ug/L							<10
Acrylonitrile	ug/L		<10	<10	<10	<10	<5	<5
Aldrin	ug/L							<.05
Allyl chloride	ug/L							<1
Alpha-bhc	ug/L							<.05
Anthracene	ug/L							<8

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-12

Constituents	9/27/2017	3/14/2018	6/5/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021
(3 4)-methylphenol									
1,1,1,2-tetrachloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1		<1	<1	<1	<1	<1	<1
1,1-dichloropropene									
1,2,3-trichloropropane	<1	<1		<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene									
1,2,4-trichlorobenzene									
1,2-dibromo-3-chloropropane	<1.00	<1.00		<1.00	<1.00	<1.00	<5.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1		<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1		<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene									
1,3,5-trinitrobenzene									
1,3-dichlorobenzene									
1,3-dichloropropane									
1,3-dinitrobenzene									
1,4-dichlorobenzene	<1	<1		<1	<1	<1	<1	<1	<1
1,4-naphthoquinone									
1,4-phenylenediamine									
1-naphthylamine									
2,2-dichloropropane									
2,3,4,6-tetrachlorophenol									
2,4,5-t									
2,4,5-tp (silvex)									
2,4,5-trichlorophenol									
2,4,6-trichlorophenol									
2,4-d									
2,4-dichlorophenol									
2,4-dimethylphenol									
2,4-dinitrophenol									
2,4-dinitrotoluene									
2,6-dichlorophenol									
2,6-dinitrotoluene									
2-acetylaminofluorene									
2-butanone	<5	<5		<5	<5	<5	<5	<5	<5
2-chloronaphthalene									
2-chlorophenol									
2-hexanone	<5	<5		<5	<5	<5	<5	<5	<5
2-methylnaphthalene									
2-methylphenol (o-cresol)									
2-naphthylamine									
2-nitroaniline									
2-nitrophenol									
3,3´-dichlorobenzidine									
3,3-dimethylbenzidine									
3-methylcholanthrene									
3-nitroaniline									
4,4`-ddd									
4,4`-dde									
4,4`-ddt									
4,6-dinitro-2-methylphenol									
4-aminobiphenyl									
4-bromophenyl phenyl ether									
4-chloro-3-methylphenol									
4-chloroaniline									
4-chlorophenyl phenyl ether									
4-methyl-2-pentanone	<5	<5		<5	<5	<5	<5	<5	<5
4-nitroaniline									
4-nitrophenol									
5-nitro-o-toluidine									
7,12-dimethylbenz [a] anthracene									
Acenaphthene									
Acenaphthylene									
Acetone	<10	<10		<10	<10	<10	<10	<10	<10
Acetonitrile									
Acetophenone									
Acrolein									
Acrylonitrile	<5	<5		<5	<5	<5	<5	<5	<5
Aldrin									
Allyl chloride									
Alpha-bhc									
Anthracene									

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-12

Constituents	9/8/2021	3/31/2022	8/30/2022	11/11/2022	3/7/2023	9/28/2023
(3 4)-methylphenol						
1,1,1,2-tetrachloroethane	<1	<1	<1		<1	<1
1,1,1-trichloroethane	<1	<1	<1		<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1		<1	<1
1,1,2-trichloroethane	<1	<1	<1		<1	<1
1,1-dichloroethane	<1	<1	<1		<1	<1
1,1-dichloroethene	<1	<1	<1		<1	<1
1,1-dichloropropene						
1,2,3-trichloropropane	<1	<1	<1		<1	<1
1,2,4,5-tetrachlorobenzene						
1,2,4-trichlorobenzene						
1,2-dibromo-3-chloropropane	<5.00	<5.00	<5.00		<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00		<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1		<1	<1
1,2-dichloroethane	<1	<1	<1		<1	<1
1,2-dichloropropane	<1	<1	<1		<1	<1
1,2-dinitrobenzene						
1,3,5-trinitrobenzene						
1,3-dichlorobenzene						
1,3-dichloropropane						
1,3-dinitrobenzene						
1,4-dichlorobenzene	<1	<1	<1		<1	<1
1,4-naphthoquinone						
1,4-phenylenediamine						
1-naphthylamine						
2,2-dichloropropane						
2,3,4,6-tetrachlorophenol						
2,4,5-t						
2,4,5-tp (silvex)						
2,4,5-trichlorophenol						
2,4,6-trichlorophenol						
2,4-d						
2,4-dichlorophenol						
2,4-dimethylphenol						
2,4-dinitrophenol						
2,4-dinitrotoluene						
2,6-dichlorophenol						
2,6-dinitrotoluene						
2-acetylaminofluorene						
2-butanone	<5	<10	<10		<10	<10
2-chloronaphthalene						
2-chlorophenol						
2-hexanone	<5	<5	<5		<5	<5
2-methylnaphthalene						
2-methylphenol (o-cresol)						
2-naphthylamine						
2-nitroaniline						
2-nitrophenol						
3,3´-dichlorobenzidine						
3,3-dimethylbenzidine						
3-methylcholanthrene						
3-nitroaniline						
4,4`-ddd						
4,4`-dde						
4,4`-ddt						
4,6-dinitro-2-methylphenol						
4-aminobiphenyl						
4-bromophenyl phenyl ether						
4-chloro-3-methylphenol						
4-chloroaniline						
4-chlorophenyl phenyl ether						
4-methyl-2-pentanone	<5	<5	<5		<5	<5
4-nitroaniline						
4-nitrophenol						
5-nitro-o-toluidine						
7,12-dimethylbenz [a] anthracene						
Acenaphthene						
Acenaphthylene						
Acetone	<10	<10	<10		<10	<10
Acetonitrile						
Acetophenone						
Acrolein						
Acrylonitrile	<5	<5	<5		<5	<5
Aldrin						
Allyl chloride						
Alpha-bhc						
Anthracene						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-12

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
Antimony, total	ug/L		<6	<1	<1	<1	<2	<2
Arochlor 1016	ug/L							<.1
Arochlor 1221	ug/L							<.2
Arochlor 1232	ug/L							<.2
Arochlor 1242	ug/L							<.2
Arochlor 1248	ug/L							<.2
Arochlor 1254	ug/L							<.1
Arochlor 1260	ug/L							<.1
Arsenic, total	ug/L		4.08	2.21	<10.00	10.60	<4.00	<4.00
Azobenzene	ug/L							<8
Barium, total	ug/L		313.0	319.0	316.0	285.0	247.0	253.0
Benzene	ug/L		<.5	<.5	<.5	<.5	<1.0	<1.0
Benzo(a)anthracene	ug/L							<8
Benzo(a)pyrene	ug/L							<8
Benzo(b)fluoranthene	ug/L							<8
Benzo(g,h,i)perylene	ug/L							<8
Benzo(k)fluoranthene	ug/L							<8
Benzyl alcohol	ug/L							<8
Beryllium, total	ug/L		<1	<1	<1	<1	<4	<4
Beta-bhc	ug/L							<.05
Bicarbonate alkalinity	mg/L as CaCO3			716 *	600 *			
Bis (2-chloroethoxy) methane	ug/L							<8
Bis(2-chloroethyl) ether	ug/L							<8
Bis(2-ethylhexyl) phthalate	ug/L							<8
Bis[2-chloroisopropyl]ether	ug/L							<8
Bromochloromethane	ug/L		<5	<5	<5	<5	<1	<1
Bromodichloromethane	ug/L		<1	<1	<1	<1	<1	<1
Bromoform	ug/L		<5	<5	<5	<5	<1	<1
Bromomethane	ug/L		<4	<4	<4	<4	<1	<1
Butyl benzyl phthalate	ug/L							<8
Cadmium, total	ug/L		1.23	<.50	<.50	<.50	<.80	<.80
Calcium, total	mg/L			201 *	209 *			
Carbon disulfide	ug/L		<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L		<2	<2	<2	<2	<1	<1
Carbonate alkalinity	mg/L as CaCO3			<5 *	<5 *			
Chlordane	ug/L							<.1
Chloride	mg/L			628 *	399 *			
Chlorobenzene	ug/L		<1	<1	<1	<1	<1	<1
Chlorobenzilate	ug/L							<8
Chloroethane	ug/L		<4	<4	<4	<4	<1	<1
Chloroform	ug/L		<1	<1	<1	<1	<1	<1
Chloromethane	ug/L		<3	<3	<3	<3	<1	<1
Chloroprene	ug/L							<1
Chromium, total	ug/L		<20	<5	<5	<5	<8	<8
Chrysene	ug/L							<8
Cis-1,2-dichloroethene	ug/L		<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L		<5	<5	<5	<5	<1	<1
Cobalt, total	ug/L		3.880	.944	1.340	<.800	<.800	<.800
Copper, total	ug/L		64.70	2.68	<2.00	<5.00	<4.00	<4.00
Cyanide	mg/L							<.005
Delta-bhc	ug/L							<.05
Diallate	ug/L							<8
Dibenzo(a,h)anthracene	ug/L							<8
Dibenzofuran	ug/L							<8
Dibromochloromethane	ug/L		<5	<5	<5	<5	<1	<1
Dibromomethane	ug/L						<1	<1
Dichlorodifluoromethane	ug/L							<1
Dieldrin	ug/L							<.05
Diethyl phthalate	ug/L							<8
Dimethoate	ug/L							<.4
Dimethylphthalate	ug/L							<8
Di-n-butyl phthalate	ug/L							<8
Di-n-octyl phthalate	ug/L							<8
Dinoseb	ug/L							<.5
Diphenylamine	ug/L							<8
Disulfoton	ug/L							<.4
Endosulfan i	ug/L							<.05
Endosulfan ii	ug/L							<.05
Endosulfan sulfate	ug/L							<.05
Endrin	ug/L							<.05
Endrin aldehyde	ug/L							<.05
Ethyl methacrylate	ug/L							<10
Ethyl methanesulfonate	ug/L							<8
Ethylbenzene	ug/L		<1	<1	<1	<1	<1	<1
Famphur	ug/L							<.4
Fluoranthene	ug/L							<8
Fluorene	ug/L							<8

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-12

Constituents	9/27/2017	3/14/2018	6/5/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021
Antimony, total	<2	<2		<2	<2	<2	<2	<2	<2
Arochlor 1016									
Arochlor 1221									
Arochlor 1232									
Arochlor 1242									
Arochlor 1248									
Arochlor 1254									
Arochlor 1260									
Arsenic, total	<4.00	<4.00		<4.00	<4.00	4.40	14.50	<4.00	5.30
Azobenzene									
Barium, total	229.0	154.0		94.4	124.0	127.0	310.0	187.0	166.0
Benzene	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene									
Benzo(a)pyrene									
Benzo(b)fluoranthene									
Benzo(g,h,i)perylene									
Benzo(k)fluoranthene									
Benzyl alcohol									
Beryllium, total	<4	<4		<4	<4	<4	<4	<4	<4
Beta-bhc									
Bicarbonate alkalinity									
Bis (2-chloroethoxy) methane									
Bis(2-chloroethyl) ether									
Bis(2-ethylhexyl) phthalate									
Bis[2-chloroisopropyl]ether									
Bromochloromethane	<1	<1		<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1		<1	<1	<1	<1	<1	<1
Bromoform	<1	<1		<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1		<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate									
Cadmium, total	<.80	<.80		<.80	<.80	<.80	<.80	<.80	<.80
Calcium, total									
Carbon disulfide	<1	<1		<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1		<1	<1	<1	<1	<1	<1
Carbonate alkalinity									
Chlordane									
Chloride									
Chlorobenzene	<1	<1		<1	<1	<1	<1	<1	<1
Chlorobenzilate									
Chloroethane	<1	<1		<1	<1	<1	<1	<1	<1
Chloroform	<1	<1		<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1		<1	<1	<1	<1	<1	<1
Chloroprene									
Chromium, total	<8	<8		<8	<8	<8	<8	<8	<8
Chrysene									
Cis-1,2-dichloroethene	<1	<1		<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1		<1	<1	<1	<1	<1	<1
Cobalt, total	1.200	<2.000		<.800	<.800	.900	.700	.900	<.400
Copper, total	<4.00	<4.00		<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Cyanide									
Delta-bhc									
Diallate									
Dibenzo(a,h)anthracene									
Dibenzofuran									
Dibromochloromethane	<1	<1		<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1		<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane									
Dieldrin									
Diethyl phthalate									
Dimethoate									
Dimethylphthalate									
Di-n-butyl phthalate									
Di-n-octyl phthalate									
Dinoseb									
Diphenylamine									
Disulfoton									
Endosulfan i									
Endosulfan ii									
Endosulfan sulfate									
Endrin									
Endrin aldehyde									
Ethyl methacrylate									
Ethyl methanesulfonate									
Ethylbenzene	<1	<1		<1	<1	<1	<1	<1	<1
Famphur									
Fluoranthene									
Fluorene									

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-12

Constituents	9/8/2021	3/31/2022	8/30/2022	11/11/2022	3/7/2023	9/28/2023
Antimony, total	<2	<2	<2		<2	<2
Arochlor 1016						
Arochlor 1221						
Arochlor 1232						
Arochlor 1242						
Arochlor 1248						
Arochlor 1254						
Arochlor 1260						
Arsenic, total	<4.00	<4.00	<4.00		5.10	<4.00
Azobenzene						
Barium, total	143.0	110.0	122.0		103.0	92.8
Benzene	<1.0	<1.0	<1.0		<1.0	<1.0
Benzo(a)anthracene						
Benzo(a)pyrene						
Benzo(b)fluoranthene						
Benzo(g,h,i)perylene						
Benzo(k)fluoranthene						
Benzyl alcohol						
Beryllium, total	<4	<4	<4		<4	<4
Beta-bhc						
Bicarbonate alkalinity						
Bis (2-chloroethoxy) methane						
Bis(2-chloroethyl) ether						
Bis(2-ethylhexyl) phthalate						
Bis[2-chloroisopropyl]ether						
Bromochloromethane	<1	<1	<1		<1	<1
Bromodichloromethane	<1	<1	<1		<1	<1
Bromoform	<1	<1	<1		<1	<1
Bromomethane	<1	<1	<1		<1	<1
Butyl benzyl phthalate						
Cadmium, total	<.80	<.80	<.80		<.80	<.80
Calcium, total						
Carbon disulfide	<1	<1	<1		<1	<1
Carbon tetrachloride	<1	<1	<1		<1	<1
Carbonate alkalinity						
Chlordane						
Chloride						
Chlorobenzene	<1	<1	<1		<1	<1
Chlorobenzilate						
Chloroethane	<1	<1	<1		<1	<1
Chloroform	<1	<1	<1		<1	<1
Chloromethane	<1	<1	<1		<1	<1
Chloroprene						
Chromium, total	<8	<8	<8		<8	<8
Chrysene						
Cis-1,2-dichloroethene	<1	<1	<1		<1	<1
Cis-1,3-dichloropropene	<1	<1	<1		<1	<1
Cobalt, total	.600	.600	2.100		.600	.700
Copper, total	<4.00	<4.00	<4.00		<4.00	<4.00
Cyanide						
Delta-bhc						
Diallate						
Dibenzo(a,h)anthracene						
Dibenzofuran						
Dibromochloromethane	<1	<1	<1		<1	<1
Dibromomethane	<1	<1	<1		<1	<1
Dichlorodifluoromethane						
Dieldrin						
Diethyl phthalate						
Dimethoate						
Dimethylphthalate						
Di-n-butyl phthalate						
Di-n-octyl phthalate						
Dinoseb						
Diphenylamine						
Disulfoton						
Endosulfan i						
Endosulfan ii						
Endosulfan sulfate						
Endrin						
Endrin aldehyde						
Ethyl methacrylate						
Ethyl methanesulfonate						
Ethylbenzene	<1	<1	<1		<1	<1
Famphur						
Fluoranthene						
Fluorene						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-12

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
Gamma-bhc [lindane]	ug/L							<.05
Heptachlor	ug/L							<.05
Heptachlor epoxide	ug/L							<.05
Hexachlorobenzene	ug/L							<.05
Hexachlorobutadiene	ug/L							<8
Hexachlorocyclopentadiene	ug/L							<8
Hexachloroethane	ug/L							<8
Hexachloropropene	ug/L							<8
Indeno(1,2,3-cd)pyrene	ug/L							<8
Iodomethane	ug/L		<10	<10	<10	<10	<1	<1
Isobutanol	mg/L							<1
Isodrin	ug/L							<8
Isophorone	ug/L							<8
Isosafrole	ug/L							<8
Kepone	ug/L							<8
Lead, total	ug/L		8.570	.577	.556	1.390	<4.000	<4.000
Magnesium, total	mg/L			83.2 *	84.7 *			
Mercury, total	ug/L							<.5
Methacrylonitrile	ug/L							<1
Methapyrilene	ug/L							<8
Methoxychlor	ug/L							<.05
Methyl methacrylate	ug/L							<1
Methyl methanesulfonate	ug/L							<8
Methyl parathion	ug/L							<.4
Methylene bromide	ug/L		<1	<1	<1	<1		
Methylene chloride	ug/L		<5	<5	<5	<5	<5	<5
Naphthalene	ug/L							<8
Nickel, total	ug/L		53.9	22.4	24.5	12.0	11.0	15.8
Nitrobenzene	ug/L							<8
N-nitrosodiethylamine	ug/L							<8
N-nitrosodimethylamine	ug/L							<8
N-nitrosodi-n-butylamine	ug/L							<8
N-nitroso-di-n-propylamine	ug/L							<8
N-nitrosodiphenylamine	ug/L							<8
N-nitrosomethylethylamine	ug/L							<8
N-nitrosopiperidine	ug/L							<8
N-nitrosopyrrolidine	ug/L							<8
O,o,o-triethyl phosphorothioate	ug/L							<.4
O-toluidine	ug/L							<8
P-(dimethylamino)azobenzene	ug/L							<8
Parathion	ug/L							<.4
Pentachlorobenzene	ug/L							<8
Pentachloronitrobenzene (pcnb)	ug/L							<8
Pentachlorophenol	ug/L							<8
Phenacetin	ug/L							<8
Phenanthrene	ug/L							<8
Phenol	ug/L							<8
Phorate	ug/L							<.4
Potassium, total	mg/L			1.26 *	1.50 *			
Pronamide	ug/L							<8
Propionitrile	ug/L							<10
Pyrene	ug/L							<8
Safrole	ug/L							<8
Selenium, total	ug/L		<5	<5	<5	<5	<4	<4
Silver, total	ug/L		<20	<1	<1	<1	<4	<4
Sodium, total	mg/L			153 *	144 *			
Styrene	ug/L		<1	<1	<1	<1	<1	<1
Sulfate	mg/L			89.3 *	86.5 *			
Sulfide	mg/L							<.1
Tetrachloroethene	ug/L		<1	<1	<1	<1	<1	<1
Thallium, total	ug/L		<2	<1	<1	<2	<4	<4
Thionazin	ug/L							<.4
Tin, total	ug/L	126	126	<5 *	<5 *	<5 *	<20	<20
Toluene	ug/L		<1	<1	<1	<1	<1	<1
Total suspended solids	mg/L	1380.0	1380.0	65.3 *	98.1 *	147.0 *	100.0	514.0
Toxaphene	ug/L							<.2
Trans-1,2-dichloroethene	ug/L		<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L		<5	<5	<5	<5	<1	<1
Trans-1,4-dichloro-2-butene	ug/L		<10	<10	<10	<10	<5	<5
Trichloroethene	ug/L		<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L		<4	<4	<4	<4	<1	<1
Vanadium, total	ug/L		<20	<5	<5	<5	<20	<20
Vinyl acetate	ug/L		<10	<10	<10	<10	<5	<5
Vinyl chloride	ug/L		<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L		<3	<3	<3	<3	<2	<2
Zinc, total	ug/L		26.9	<10.0	<10.0	<10.0	<8.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-12

Constituents	9/27/2017	3/14/2018	6/5/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021
Gamma-bhc [lindane]									
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene									
Hexachlorobutadiene									
Hexachlorocyclopentadiene									
Hexachloroethane									
Hexachloropropene									
Indeno(1,2,3-cd)pyrene									
Iodomethane	<1	<1		<1	<1	<1	<1	<1	<1
Isobutanol									
Isodrin									
Isophorone									
Isosafrole									
Kepone									
Lead, total	<4.000	<4.000		<4.000	<4.000	<4.000	<4.000	<4.000	<4.000
Magnesium, total									
Mercury, total									
Methacrylonitrile									
Methapyrilene									
Methoxychlor									
Methyl methacrylate									
Methyl methanesulfonate									
Methyl parathion									
Methylene bromide									
Methylene chloride	<5	<5		<5	<5	<5	<5	<5	<5
Naphthalene									
Nickel, total	11.7	29.7	12.7	8.4	7.6	7.9	8.9	11.1	7.6
Nitrobenzene									
N-nitrosodiethylamine									
N-nitrosodimethylamine									
N-nitrosodi-n-butylamine									
N-nitroso-di-n-propylamine									
N-nitrosodiphenylamine									
N-nitrosomethylethylamine									
N-nitrosopiperidine									
N-nitrosopyrrolidine									
O,o,o-triethyl phosphorothioate									
O-toluidine									
P-(dimethylamino)azobenzene									
Parathion									
Pentachlorobenzene									
Pentachloronitrobenzene (pcnb)									
Pentachlorophenol									
Phenacetin									
Phenanthrene									
Phenol									
Phorate									
Potassium, total									
Pronamide									
Propionitrile									
Pyrene									
Safrole									
Selenium, total	<4	<4		<4	<4	<4	<4	<4	<4
Silver, total	<4	<4		<4	<4	<4	<4	<4	<4
Sodium, total									
Styrene	<1	<1		<1	<1	<1	<1	<1	<1
Sulfate									
Sulfide									
Tetrachloroethene	<1	<1		<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4		<4	<2	<2	<2	<2	<2
Thionazin									
Tin, total									
Toluene	<1	<1		<1	<1	<1	<1	<1	<1
Total suspended solids									
Toxaphene									
Trans-1,2-dichloroethene	<1	<1		<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1		<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5		<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1		<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1		<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20		<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5		<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1		<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2		<2	<2	<2	<2	<2	<2
Zinc, total	<8.0	<8.0		32.9	23.8	<20.0	37.9	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-12

Constituents	9/8/2021	3/31/2022	8/30/2022	11/11/2022	3/7/2023	9/28/2023
Gamma-bhc [lindane]						
Heptachlor						
Heptachlor epoxide						
Hexachlorobenzene						
Hexachlorobutadiene						
Hexachlorocyclopentadiene						
Hexachloroethane						
Hexachloropropene						
Indeno(1,2,3-cd)pyrene						
Iodomethane	<1	<1	<1		<1	<1
Isobutanol						
Isodrin						
Isophorone						
Isosafrole						
Kepone						
Lead, total	<4.000	<4.000	<4.000		<4.000	<4.000
Magnesium, total						
Mercury, total						
Methacrylonitrile						
Methapyrilene						
Methoxychlor						
Methyl methacrylate						
Methyl methanesulfonate						
Methyl parathion						
Methylene bromide						
Methylene chloride	<5	<5	<5		<5	<5
Naphthalene						
Nickel, total	6.6	6.4	26.8	14.2	5.7	8.1
Nitrobenzene						
N-nitrosodiethylamine						
N-nitrosodimethylamine						
N-nitrosodi-n-butylamine						
N-nitroso-di-n-propylamine						
N-nitrosodiphenylamine						
N-nitrosomethylethylamine						
N-nitrosopiperidine						
N-nitrosopyrrolidine						
O,o,o-triethyl phosphorothioate						
O-toluidine						
P-(dimethylamino)azobenzene						
Parathion						
Pentachlorobenzene						
Pentachloronitrobenzene (pcnb)						
Pentachlorophenol						
Phenacetin						
Phenanthrene						
Phenol						
Phorate						
Potassium, total						
Pronamide						
Propionitrile						
Pyrene						
Safrole						
Selenium, total	<4	<4	<4		<4	<4
Silver, total	<4	<4	<4		<4	<4
Sodium, total						
Styrene	<1	<1	<1		<1	<1
Sulfate						
Sulfide						
Tetrachloroethene	<1	<1	<1		<1	<1
Thallium, total	<2	<2	<2		<2	<2
Thionazin						
Tin, total						
Toluene	<1	<1	<1		<1	<1
Total suspended solids						
Toxaphene						
Trans-1,2-dichloroethene	<1	<1	<1		<1	<1
Trans-1,3-dichloropropene	<1	<1	<1		<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5		<5	<5
Trichloroethene	<1	<1	<1		<1	<1
Trichlorofluoromethane	<1	<1	<1		<1	<1
Vanadium, total	<20	<20	<20		<20	<20
Vinyl acetate	<5	<5	<5		<5	<5
Vinyl chloride	<1	<1	<1		<1	<1
Xylenes, total	<2	<2	<2		<2	<2
Zinc, total	<20.0	<20.0	<20.0		<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for MW-14

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
(3 4)-methylphenol	ug/L							<8
1,1,1,2-tetrachloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L		2.46	1.52	<1.00	<1.00	<1.00	1.30
1,1-dichloroethene	ug/L		<2	<2	<2	<2	<1	<1
1,1-dichloropropene	ug/L							<1
1,2,3-trichloropropane	ug/L		<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L							<8
1,2,4-trichlorobenzene	ug/L							<1
1,2-dibromo-3-chloropropane	ug/L		<.12	<.50	<.50	<.50	<1.00	<1.00
1,2-dibromoethane	ug/L		<.13	<.13	<.13	<.13	<1.00	<1.00
1,2-dichlorobenzene	ug/L		<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L		<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L							<8
1,3,5-trinitrobenzene	ug/L							<8
1,3-dichlorobenzene	ug/L							<1
1,3-dichloropropane	ug/L							<1
1,3-dinitrobenzene	ug/L							<8
1,4-dichlorobenzene	ug/L		<1	<1	<1	<1	<1	<1
1,4-naphthoquinone	ug/L							<8
1,4-phenylenediamine	ug/L							<8
1-naphthylamine	ug/L							<8
2,2-dichloropropane	ug/L							<1
2,3,4,6-tetrachlorophenol	ug/L							<8
2,4,5-t	ug/L							<.5
2,4,5-tp (silvex)	ug/L							<.5
2,4,5-trichlorophenol	ug/L							<8
2,4,6-trichlorophenol	ug/L							<8
2,4-d	ug/L							<2
2,4-dichlorophenol	ug/L							<8
2,4-dimethylphenol	ug/L							<8
2,4-dinitrophenol	ug/L							<8
2,4-dinitrotoluene	ug/L							<8
2,6-dichlorophenol	ug/L							<8
2,6-dinitrotoluene	ug/L							<8
2-acetylaminofluorene	ug/L							<8
2-butanone	ug/L		<10	<10	<10	<10	<5	<5
2-chloronaphthalene	ug/L							<8
2-chlorophenol	ug/L							<8
2-hexanone	ug/L		<10	<10	<10	<10	<5	<5
2-methylnaphthalene	ug/L							<8
2-methylphenol (o-cresol)	ug/L							<8
2-naphthylamine	ug/L							<8
2-nitroaniline	ug/L							<8
2-nitrophenol	ug/L							<8
3,3´-dichlorobenzidine	ug/L							<8
3,3-dimethylbenzidine	ug/L							<8
3-methylcholanthrene	ug/L							<8
3-nitroaniline	ug/L							<8
4,4`-ddd	ug/L							<.05
4,4`-dde	ug/L							<.05
4,4`-ddt	ug/L							<.05
4,6-dinitro-2-methylphenol	ug/L							<8
4-aminobiphenyl	ug/L							<8
4-bromophenyl phenyl ether	ug/L							<8
4-chloro-3-methylphenol	ug/L							<8
4-chloroaniline	ug/L							<8
4-chlorophenyl phenyl ether	ug/L							<8
4-methyl-2-pentanone	ug/L		<10	<10	<10	<10	<5	<5
4-nitroaniline	ug/L							<8
4-nitrophenol	ug/L							<8
5-nitro-o-toluidine	ug/L							<8
7,12-dimethylbenz [a] anthracene	ug/L							<8
Acenaphthene	ug/L							<8
Acenaphthylene	ug/L							<8
Acetone	ug/L		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile	ug/L							<10
Acetophenone	ug/L							<8
Acrolein	ug/L							<10
Acrylonitrile	ug/L		<10	<10	<10	<10	<5	<5
Aldrin	ug/L							<.05
Allyl chloride	ug/L							<1
Alpha-bhc	ug/L							<.05
Anthracene	ug/L							<8

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for MW-14

Constituents	9/27/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021	9/8/2021
(3 4)-methylphenol									
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	1.10	<1.00	<1.00	1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene									
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene									
1,2,4-trichlorobenzene									
1,2-dibromo-3-chloropropane	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene									
1,3,5-trinitrobenzene									
1,3-dichlorobenzene									
1,3-dichloropropane									
1,3-dinitrobenzene									
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone									
1,4-phenylenediamine									
1-naphthylamine									
2,2-dichloropropane									
2,3,4,6-tetrachlorophenol									
2,4,5-t									
2,4,5-tp (silvex)									
2,4,5-trichlorophenol									
2,4,6-trichlorophenol									
2,4-d									
2,4-dichlorophenol									
2,4-dimethylphenol									
2,4-dinitrophenol									
2,4-dinitrotoluene									
2,6-dichlorophenol									
2,6-dinitrotoluene									
2-acetylaminofluorene									
2-butanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene									
2-chlorophenol									
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene									
2-methylphenol (o-cresol)									
2-naphthylamine									
2-nitroaniline									
2-nitrophenol									
3,3´-dichlorobenzidine									
3,3-dimethylbenzidine									
3-methylcholanthrene									
3-nitroaniline									
4,4`-ddd									
4,4`-dde									
4,4`-ddt									
4,6-dinitro-2-methylphenol									
4-aminobiphenyl									
4-bromophenyl phenyl ether									
4-chloro-3-methylphenol									
4-chloroaniline									
4-chlorophenyl phenyl ether									
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline									
4-nitrophenol									
5-nitro-o-toluidine									
7,12-dimethylbenz [a] anthracene									
Acenaphthene									
Acenaphthylene									
Acetone	12.9	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile									
Acetophenone									
Acrolein									
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin									
Allyl chloride									
Alpha-bhc									
Anthracene									

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for MW-14

Constituents	3/31/2022	8/30/2022	3/7/2023	9/28/2023
(3 4)-methylphenol				
1,1,1,2-tetrachloroethane	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1
1,1-dichloroethane	<1.00	<1.00	<1.00	<1.00
1,1-dichloroethene	<1	<1	<1	<1
1,1-dichloropropene				
1,2,3-trichloropropane	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene				
1,2,4-trichlorobenzene				
1,2-dibromo-3-chloropropane	<5.00	<5.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1
1,2-dinitrobenzene				
1,3,5-trinitrobenzene				
1,3-dichlorobenzene				
1,3-dichloropropane				
1,3-dinitrobenzene				
1,4-dichlorobenzene	<1	<1	<1	<1
1,4-naphthoquinone				
1,4-phenylenediamine				
1-naphthylamine				
2,2-dichloropropane				
2,3,4,6-tetrachlorophenol				
2,4,5-t				
2,4,5-tp (silvex)				
2,4,5-trichlorophenol				
2,4,6-trichlorophenol				
2,4-d				
2,4-dichlorophenol				
2,4-dimethylphenol				
2,4-dinitrophenol				
2,4-dinitrotoluene				
2,6-dichlorophenol				
2,6-dinitrotoluene				
2-acetylaminofluorene				
2-butanone	<10	<10	<10	<10
2-chloronaphthalene				
2-chlorophenol				
2-hexanone	<5	<5	<5	<5
2-methylnaphthalene				
2-methylphenol (o-cresol)				
2-naphthylamine				
2-nitroaniline				
2-nitrophenol				
3,3´-dichlorobenzidine				
3,3-dimethylbenzidine				
3-methylcholanthrene				
3-nitroaniline				
4,4`-ddd				
4,4`-dde				
4,4`-ddt				
4,6-dinitro-2-methylphenol				
4-aminobiphenyl				
4-bromophenyl phenyl ether				
4-chloro-3-methylphenol				
4-chloroaniline				
4-chlorophenyl phenyl ether				
4-methyl-2-pentanone	<5	<5	<5	<5
4-nitroaniline				
4-nitrophenol				
5-nitro-o-toluidine				
7,12-dimethylbenz [a] anthracene				
Acenaphthene				
Acenaphthylene				
Acetone	<10.0	<10.0	<10.0	<10.0
Acetonitrile				
Acetophenone				
Acrolein				
Acrylonitrile	<5	<5	<5	<5
Aldrin				
Allyl chloride				
Alpha-bhc				
Anthracene				

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for MW-14

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
Antimony, total	ug/L		<6	<1	<1	<1	<2	<2
Arochlor 1016	ug/L							<.1
Arochlor 1221	ug/L							<.2
Arochlor 1232	ug/L							<.2
Arochlor 1242	ug/L							<.2
Arochlor 1248	ug/L							<.2
Arochlor 1254	ug/L							<.1
Arochlor 1260	ug/L							<.1
Arsenic, total	ug/L		2.11	<2.00	<2.00	<1.00	<4.00	<4.00
Azobenzene	ug/L							<8
Barium, total	ug/L		469	274	296	244	276	272
Benzene	ug/L		<.5	<.5	<.5	<.5	<1.0	<1.0
Benzo(a)anthracene	ug/L							<8
Benzo(a)pyrene	ug/L							<8
Benzo(b)fluoranthene	ug/L							<8
Benzo(g,h,i)perylene	ug/L							<8
Benzo(k)fluoranthene	ug/L							<8
Benzyl alcohol	ug/L							<8
Beryllium, total	ug/L		<1	<1	<1	<1	<4	<4
Beta-bhc	ug/L							<.05
Bicarbonate alkalinity	mg/L as CaCO3			459 *	486 *			
Bis (2-chloroethoxy) methane	ug/L							<8
Bis(2-chloroethyl) ether	ug/L							<8
Bis(2-ethylhexyl) phthalate	ug/L							<8
Bis[2-chloroisopropyl]ether	ug/L							<8
Bromochloromethane	ug/L		<5	<5	<5	<5	<1	<1
Bromodichloromethane	ug/L		<1	<1	<1	<1	<1	<1
Bromoform	ug/L		<5	<5	<5	<5	<1	<1
Bromomethane	ug/L		<4	<4	<4	<4	<1	<1
Butyl benzyl phthalate	ug/L							<8
Cadmium, total	ug/L		.909	<.500	<.500	<.500	<.800	<.800
Calcium, total	mg/L			110 *	127 *			
Carbon disulfide	ug/L		<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L		<2	<2	<2	<2	<1	<1
Carbonate alkalinity	mg/L as CaCO3			<5 *	<5 *			
Chlordane	ug/L							<.1
Chloride	mg/L			41.8 *	44.4 *			
Chlorobenzene	ug/L		<1	<1	<1	<1	<1	<1
Chlorobenzilate	ug/L							<8
Chloroethane	ug/L		<4	<4	<4	<4	<1	<1
Chloroform	ug/L		<1	<1	<1	<1	<1	<1
Chloromethane	ug/L		<3	<3	<3	<3	<1	<1
Chloroprene	ug/L							<1
Chromium, total	ug/L		<20	<5	<5	<5	<8	<8
Chrysene	ug/L							<8
Cis-1,2-dichloroethene	ug/L		<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L		<5	<5	<5	<5	<1	<1
Cobalt, total	ug/L		5.1	<.8	<.8	<.8	<.8	<.8
Copper, total	ug/L		20.4	<2.0	<2.0	<2.0	11.3	<4.0
Cyanide	mg/L							.010
Delta-bhc	ug/L							<.05
Diallate	ug/L							<8
Dibenzo(a,h)anthracene	ug/L							<8
Dibenzofuran	ug/L							<8
Dibromochloromethane	ug/L		<5	<5	<5	<5	<1	<1
Dibromomethane	ug/L						<1	<1
Dichlorodifluoromethane	ug/L							<1
Dieldrin	ug/L							<.05
Diethyl phthalate	ug/L							<8
Dimethoate	ug/L							<.4
Dimethylphthalate	ug/L							<8
Di-n-butyl phthalate	ug/L							<8
Di-n-octyl phthalate	ug/L							<8
Dinoseb	ug/L							<.5
Diphenylamine	ug/L							<8
Disulfoton	ug/L							<.4
Endosulfan i	ug/L							<.05
Endosulfan ii	ug/L							<.05
Endosulfan sulfate	ug/L							<.05
Endrin	ug/L							<.05
Endrin aldehyde	ug/L							<.05
Ethyl methacrylate	ug/L							<10
Ethyl methanesulfonate	ug/L							<8
Ethylbenzene	ug/L		<1	<1	<1	<1	<1	<1
Famphur	ug/L							<.4
Fluoranthene	ug/L							<8
Fluorene	ug/L							<8

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for MW-14

Constituents	9/27/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021	9/8/2021
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016									
Arochlor 1221									
Arochlor 1232									
Arochlor 1242									
Arochlor 1248									
Arochlor 1254									
Arochlor 1260									
Arsenic, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Azobenzene									
Barium, total	300	311	272	320	353	318	330	302	388
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene									
Benzo(a)pyrene									
Benzo(b)fluoranthene									
Benzo(g,h,i)perylene									
Benzo(k)fluoranthene									
Benzyl alcohol									
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc									
Bicarbonate alkalinity									
Bis (2-chloroethoxy) methane									
Bis(2-chloroethyl) ether									
Bis(2-ethylhexyl) phthalate									
Bis[2-chloroisopropyl]ether									
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate									
Cadmium, total	<.800	<.800	<.800	<.800	1.200	<.800	<.800	<.800	<.800
Calcium, total									
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate alkalinity									
Chlordane									
Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate									
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene									
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene									
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	<.8	<2.0	<.8	1.5	<.8	.4	.9	<.4	3.2
Copper, total	<4.0	<4.0	<4.0	<4.0	4.2	<4.0	<4.0	<4.0	<4.0
Cyanide	<.005		<.005	<.005	<.005	<.005			
Delta-bhc									
Diallate									
Dibenzo(a,h)anthracene									
Dibenzofuran									
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane									
Dieldrin									
Diethyl phthalate									
Dimethoate									
Dimethylphthalate									
Di-n-butyl phthalate									
Di-n-octyl phthalate									
Dinoseb									
Diphenylamine									
Disulfoton									
Endosulfan i									
Endosulfan ii									
Endosulfan sulfate									
Endrin									
Endrin aldehyde									
Ethyl methacrylate									
Ethyl methanesulfonate									
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur									
Fluoranthene									
Fluorene									

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for MW-14

Constituents	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Antimony, total	<2	<2	<2	<2
Arochlor 1016				
Arochlor 1221				
Arochlor 1232				
Arochlor 1242				
Arochlor 1248				
Arochlor 1254				
Arochlor 1260				
Arsenic, total	<4.00	<4.00	<4.00	<4.00
Azobenzene				
Barium, total	326	290	399	421
Benzene	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene				
Benzo(a)pyrene				
Benzo(b)fluoranthene				
Benzo(g,h,i)perylene				
Benzo(k)fluoranthene				
Benzyl alcohol				
Beryllium, total	<4	<4	<4	<4
Beta-bhc				
Bicarbonate alkalinity				
Bis (2-chloroethoxy) methane				
Bis(2-chloroethyl) ether				
Bis(2-ethylhexyl) phthalate				
Bis[2-chloroisopropyl]ether				
Bromochloromethane	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1
Butyl benzyl phthalate				
Cadmium, total	<.800	<.800	<.800	<.800
Calcium, total				
Carbon disulfide	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1
Carbonate alkalinity				
Chlordane				
Chloride				
Chlorobenzene	<1	<1	<1	<1
Chlorobenzilate				
Chloroethane	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1
Chloroprene				
Chromium, total	<8	<8	<8	<8
Chrysene				
Cis-1,2-dichloroethene	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1
Cobalt, total	.6	<.4	<.4	<.4
Copper, total	<4.0	<4.0	<4.0	<4.0
Cyanide				
Delta-bhc				
Diallate				
Dibenzo(a,h)anthracene				
Dibenzofuran				
Dibromochloromethane	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1
Dichlorodifluoromethane				
Dieldrin				
Diethyl phthalate				
Dimethoate				
Dimethylphthalate				
Di-n-butyl phthalate				
Di-n-octyl phthalate				
Dinoseb				
Diphenylamine				
Disulfoton				
Endosulfan i				
Endosulfan ii				
Endosulfan sulfate				
Endrin				
Endrin aldehyde				
Ethyl methacrylate				
Ethyl methanesulfonate				
Ethylbenzene	<1	<1	<1	<1
Famphur				
Fluoranthene				
Fluorene				

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for MW-14

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
Gamma-bhc [lindane]	ug/L							<.05
Heptachlor	ug/L							<.05
Heptachlor epoxide	ug/L							<.05
Hexachlorobenzene	ug/L							<.05
Hexachlorobutadiene	ug/L							<8
Hexachlorocyclopentadiene	ug/L							<8
Hexachloroethane	ug/L							<8
Hexachloropropene	ug/L							<8
Indeno(1,2,3-cd)pyrene	ug/L							<8
Iodomethane	ug/L		<10	<10	<10	<10	<1	<1
Isobutanol	mg/L							<1
Isodrin	ug/L							<8
Isophorone	ug/L							<8
Isosafrole	ug/L							<8
Kepone	ug/L							<8
Lead, total	ug/L		<5.0	<.5	<.5	<.5	<4.0	<4.0
Magnesium, total	mg/L			40.7 *	47.5 *			
Mercury, total	ug/L							<.5
Methacrylonitrile	ug/L							<1
Methapyrilene	ug/L							<8
Methoxychlor	ug/L							<.05
Methyl methacrylate	ug/L							<1
Methyl methanesulfonate	ug/L							<8
Methyl parathion	ug/L							<.4
Methylene bromide	ug/L		<1	<1	<1	<1		
Methylene chloride	ug/L		<5	<5	<5	<5	<5	<5
Naphthalene	ug/L							<8
Nickel, total	ug/L		<30.00	<5.00	6.49	5.40	27.40	4.90
Nitrobenzene	ug/L							<8
N-nitrosodiethylamine	ug/L							<8
N-nitrosodimethylamine	ug/L							<8
N-nitrosodi-n-butylamine	ug/L							<8
N-nitroso-di-n-propylamine	ug/L							<8
N-nitrosodiphenylamine	ug/L							<8
N-nitrosomethylethylamine	ug/L							<8
N-nitrosopiperidine	ug/L							<8
N-nitrosopyrrolidine	ug/L							<8
O,o,o-triethyl phosphorothioate	ug/L							<.4
O-toluidine	ug/L							<8
P-(dimethylamino)azobenzene	ug/L							<8
Parathion	ug/L							<.4
Pentachlorobenzene	ug/L							<8
Pentachloronitrobenzene (pcnb)	ug/L							<8
Pentachlorophenol	ug/L							<8
Phenacetin	ug/L							<8
Phenanthrene	ug/L							<8
Phenol	ug/L							<8
Phorate	ug/L							<.4
Potassium, total	mg/L			<1.00 *	1.14 *			
Pronamide	ug/L							<8
Propionitrile	ug/L							<10
Pyrene	ug/L							<8
Safrole	ug/L							<8
Selenium, total	ug/L		<5	<5	<5	<5	<4	<4
Silver, total	ug/L		<20	<1	<1	<1	<4	<4
Sodium, total	mg/L			24.2 *	22.7 *			
Styrene	ug/L		<1	<1	<1	<1	<1	<1
Sulfate	mg/L			15.2 *	23.1 *			
Sulfide	mg/L							<.1
Tetrachloroethene	ug/L		<1	<1	<1	<1	<1	<1
Thallium, total	ug/L		<2	<1	<2	<2	<4	<4
Thionazin	ug/L							<.4
Tin, total	ug/L	139	139	<5 *	<5 *	<5 *	<20	<20
Toluene	ug/L		<1	<1	<1	<1	<1	<1
Total suspended solids	mg/L	1200.0	1200.0	33.4 *	43.1 *	122.0 *	36.0	985.0
Toxaphene	ug/L							<.2
Trans-1,2-dichloroethene	ug/L		<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L		<5	<5	<5	<5	<1	<1
Trans-1,4-dichloro-2-butene	ug/L		<10	<10	<10	<10	<5	<5
Trichloroethene	ug/L		<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L		<4	<4	<4	<4	<1	<1
Vanadium, total	ug/L		<20	<5	<5	<5	<20	<20
Vinyl acetate	ug/L		<10	<10	<10	<10	<5	<5
Vinyl chloride	ug/L		<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L		<3	<3	<3	<3	<2	<2
Zinc, total	ug/L		<20.0	12.9	<10.0	20.7	12.0	17.5

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for MW-14

Constituents	9/27/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021	9/8/2021
Gamma-bhc [lindane]									
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene									
Hexachlorobutadiene									
Hexachlorocyclopentadiene									
Hexachloroethane									
Hexachloropropene									
Indeno(1,2,3-cd)pyrene									
Iodomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isobutanol									
Isodrin									
Isophorone									
Isosafrole									
Kepone									
Lead, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Magnesium, total									
Mercury, total									
Methacrylonitrile									
Methapyrilene									
Methoxychlor									
Methyl methacrylate									
Methyl methanesulfonate									
Methyl parathion									
Methylene bromide									
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene									
Nickel, total	4.50	5.70	7.00	22.90	14.40	17.60	11.20	4.30	12.00
Nitrobenzene									
N-nitrosodiethylamine									
N-nitrosodimethylamine									
N-nitrosodi-n-butylamine									
N-nitroso-di-n-propylamine									
N-nitrosodiphenylamine									
N-nitrosomethylethylamine									
N-nitrosopiperidine									
N-nitrosopyrrolidine									
O,o,o-triethyl phosphorothioate									
O-toluidine									
P-(dimethylamino)azobenzene									
Parathion									
Pentachlorobenzene									
Pentachloronitrobenzene (pcnb)									
Pentachlorophenol									
Phenacetin									
Phenanthrene									
Phenol									
Phorate									
Potassium, total									
Pronamide									
Propionitrile									
Pyrene									
Safrole									
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate									
Sulfide									
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4	<2	<2	<2	<2	<2	<2
Thionazin									
Tin, total									
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total suspended solids									
Toxaphene									
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<8.0	15.3	31.3	29.4	29.9	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for MW-14

Constituents	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Gamma-bhc [lindane]				
Heptachlor				
Heptachlor epoxide				
Hexachlorobenzene				
Hexachlorobutadiene				
Hexachlorocyclopentadiene				
Hexachloroethane				
Hexachloropropene				
Indeno(1,2,3-cd)pyrene				
Iodomethane	<1	<1	<1	<1
Isobutanol				
Isodrin				
Isophorone				
Isosafrole				
Kepone				
Lead, total	<4.0	<4.0	<4.0	<4.0
Magnesium, total				
Mercury, total				
Methacrylonitrile				
Methapyrilene				
Methoxychlor				
Methyl methacrylate				
Methyl methanesulfonate				
Methyl parathion				
Methylene bromide				
Methylene chloride	<5	<5	<5	<5
Naphthalene				
Nickel, total	4.70	4.80	5.50	13.10
Nitrobenzene				
N-nitrosodiethylamine				
N-nitrosodimethylamine				
N-nitrosodi-n-butylamine				
N-nitroso-di-n-propylamine				
N-nitrosodiphenylamine				
N-nitrosomethylethylamine				
N-nitrosopiperidine				
N-nitrosopyrrolidine				
O,o,o-triethyl phosphorothioate				
O-toluidine				
P-(dimethylamino)azobenzene				
Parathion				
Pentachlorobenzene				
Pentachloronitrobenzene (pcnb)				
Pentachlorophenol				
Phenacetin				
Phenanthrene				
Phenol				
Phorate				
Potassium, total				
Pronamide				
Propionitrile				
Pyrene				
Safrole				
Selenium, total	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4
Sodium, total				
Styrene	<1	<1	<1	<1
Sulfate				
Sulfide				
Tetrachloroethene	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2
Thionazin				
Tin, total				
Toluene	<1	<1	<1	<1
Total suspended solids				
Toxaphene				
Trans-1,2-dichloroethene	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-20

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	6/23/2015	11/12/2015	4/11/2016	9/16/2016
(3 4)-methylphenol	ug/L							
1,1,1,2-tetrachloroethane	ug/L		<1		<1	<1	<1	<1
1,1,1-trichloroethane	ug/L		<1		<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L		<1		<1	<1	<1	<1
1,1,2-trichloroethane	ug/L		<1		<1	<1	<1	<1
1,1-dichloroethane	ug/L		<1		<1	<1	<1	<1
1,1-dichloroethene	ug/L		<2		<2	<2	<2	<1
1,1-dichloropropene	ug/L							
1,2,3-trichloropropane	ug/L		<1		<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L							
1,2,4-trichlorobenzene	ug/L							
1,2-dibromo-3-chloropropane	ug/L		<.12		<.50	<.50	<.50	<1.00
1,2-dibromoethane	ug/L		<.13		<.13	<.13	<.13	<1.00
1,2-dichlorobenzene	ug/L		<1		<1	<1	<1	<1
1,2-dichloroethane	ug/L		<1		<1	<1	<1	<1
1,2-dichloropropane	ug/L		<1		<1	<1	<1	<1
1,2-dinitrobenzene	ug/L							
1,3,5-trinitrobenzene	ug/L							
1,3-dichlorobenzene	ug/L							
1,3-dichloropropane	ug/L							
1,3-dinitrobenzene	ug/L							
1,4-dichlorobenzene	ug/L		<1.0		<1.0	<1.0	<1.0	3.4
1,4-naphthoquinone	ug/L							
1,4-phenylenediamine	ug/L							
1-naphthylamine	ug/L							
2,2-dichloropropane	ug/L							
2,3,4,6-tetrachlorophenol	ug/L							
2,4,5-t	ug/L							
2,4,5-tp (silvex)	ug/L							
2,4,5-trichlorophenol	ug/L							
2,4,6-trichlorophenol	ug/L							
2,4-d	ug/L							
2,4-dichlorophenol	ug/L							
2,4-dimethylphenol	ug/L							
2,4-dinitrophenol	ug/L							
2,4-dinitrotoluene	ug/L							
2,6-dichlorophenol	ug/L							
2,6-dinitrotoluene	ug/L							
2-acetylaminofluorene	ug/L							
2-butanone	ug/L		<10		<10	<10	<10	<5
2-chloronaphthalene	ug/L							
2-chlorophenol	ug/L							
2-hexanone	ug/L		<10		<10	<10	<10	<5
2-methylnaphthalene	ug/L							
2-methylphenol (o-cresol)	ug/L							
2-naphthylamine	ug/L							
2-nitroaniline	ug/L							
2-nitrophenol	ug/L							
3,3´-dichlorobenzidine	ug/L							
3,3-dimethylbenzidine	ug/L							
3-methylcholanthrene	ug/L							
3-nitroaniline	ug/L							
4,4`-ddd	ug/L							
4,4`-dde	ug/L							
4,4`-ddt	ug/L							
4,6-dinitro-2-methylphenol	ug/L							
4-aminobiphenyl	ug/L							
4-bromophenyl phenyl ether	ug/L							
4-chloro-3-methylphenol	ug/L							
4-chloroaniline	ug/L							
4-chlorophenyl phenyl ether	ug/L							
4-methyl-2-pentanone	ug/L		<10		<10	<10	<10	<5
4-nitroaniline	ug/L							
4-nitrophenol	ug/L							
5-nitro-o-toluidine	ug/L							
7,12-dimethylbenz [a] anthracene	ug/L							
Acenaphthene	ug/L							
Acenaphthylene	ug/L							
Acetone	ug/L		<10.0		14.8	<10.0	467.0	33.3
Acetonitrile	ug/L							
Acetophenone	ug/L							
Acrolein	ug/L							
Acrylonitrile	ug/L		<10		<10	<10	<10	<5
Aldrin	ug/L							
Allyl chloride	ug/L							
Alpha-bhc	ug/L							
Ammonia as n	mg/L				.535 *	1.180 *	.687 *	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-20

Constituents	3/15/2017	9/27/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021
(3 4)-methylphenol	<8								
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	<1								
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	<8								
1,2,4-trichlorobenzene	<1								
1,2-dibromo-3-chloropropane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	<8								
1,3,5-trinitrobenzene	<8								
1,3-dichlorobenzene	<1								
1,3-dichloropropane	<1								
1,3-dinitrobenzene	<8								
1,4-dichlorobenzene	1.2	1.4	1.7	3.0	2.9	<1.0	2.5	1.6	2.6
1,4-naphthoquinone	<8								
1,4-phenylenediamine	<8								
1-naphthylamine	<8								
2,2-dichloropropane	<1								
2,3,4,6-tetrachlorophenol	<8								
2,4,5-t	<.5								
2,4,5-tp (silvex)	<.5								
2,4,5-trichlorophenol	<8								
2,4,6-trichlorophenol	<8								
2,4-d	<2								
2,4-dichlorophenol	<8								
2,4-dimethylphenol	<8								
2,4-dinitrophenol	<8								
2,4-dinitrotoluene	<8								
2,6-dichlorophenol	<8								
2,6-dinitrotoluene	<8								
2-acetylaminofluorene	<8								
2-butanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene	<8								
2-chlorophenol	<8								
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene	<8								
2-methylphenol (o-cresol)	<8								
2-naphthylamine	<8								
2-nitroaniline	<8								
2-nitrophenol	<8								
3,3´-dichlorobenzidine	<8								
3,3-dimethylbenzidine	<8								
3-methylcholanthrene	<8								
3-nitroaniline	<8								
4,4`-ddd	<.05								
4,4`-dde	<.05								
4,4`-ddt	<.05								
4,6-dinitro-2-methylphenol	<8								
4-aminobiphenyl	<8								
4-bromophenyl phenyl ether	<8								
4-chloro-3-methylphenol	<8								
4-chloroaniline	<8								
4-chlorophenyl phenyl ether	<8								
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline	<8								
4-nitrophenol	<8								
5-nitro-o-toluidine	<8								
7,12-dimethylbenz [a] anthracene	<8								
Acenaphthene	<8								
Acenaphthylene	<8								
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile	<10								
Acetophenone	<8								
Acrolein	<10								
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	<.05								
Allyl chloride	<1								
Alpha-bhc	<.05								
Ammonia as n									

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-20

Constituents	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
(3 4)-methylphenol		<8			
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1
1,1-dichloropropene		<1			
1,2,3-trichloropropane	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene		<8			
1,2,4-trichlorobenzene		<1			
1,2-dibromo-3-chloropropane	<5.00	<1.00	<5.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1
1,2-dinitrobenzene		<8			
1,3,5-trinitrobenzene		<8			
1,3-dichlorobenzene		<1			
1,3-dichloropropane		<1			
1,3-dinitrobenzene		<8			
1,4-dichlorobenzene	2.9	2.4	2.8	2.8	3.4
1,4-naphthoquinone		<8			
1,4-phenylenediamine		<8			
1-naphthylamine		<8			
2,2-dichloropropane		<1			
2,3,4,6-tetrachlorophenol		<8			
2,4,5-t		<.5			
2,4,5-tp (silvex)		<.5			
2,4,5-trichlorophenol		<8			
2,4,6-trichlorophenol		<8			
2,4-d		<2			
2,4-dichlorophenol		<8			
2,4-dimethylphenol		<8			
2,4-dinitrophenol		<8			
2,4-dinitrotoluene		<8			
2,6-dichlorophenol		<8			
2,6-dinitrotoluene		<8			
2-acetylaminofluorene		<8			
2-butanone	<5	<5	<10	<10	<10
2-chloronaphthalene		<8			
2-chlorophenol		<8			
2-hexanone	<5	<5	<5	<5	<5
2-methylnaphthalene		<8			
2-methylphenol (o-cresol)		<8			
2-naphthylamine		<8			
2-nitroaniline		<8			
2-nitrophenol		<8			
3,3´-dichlorobenzidine		<8			
3,3-dimethylbenzidine		<8			
3-methylcholanthrene		<8			
3-nitroaniline		<8			
4,4`-ddd		<.05			
4,4`-dde		<.05			
4,4`-ddt		<.05			
4,6-dinitro-2-methylphenol		<8			
4-aminobiphenyl		<8			
4-bromophenyl phenyl ether		<8			
4-chloro-3-methylphenol		<8			
4-chloroaniline		<8			
4-chlorophenyl phenyl ether		<8			
4-methyl-2-pentanone	<5	<5	<5	<5	<5
4-nitroaniline		<8			
4-nitrophenol		<8			
5-nitro-o-toluidine		<8			
7,12-dimethylbenz [a] anthracene		<8			
Acenaphthene		<8			
Acenaphthylene		<8			
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile		<10			
Acetophenone		<8			
Acrolein		<10			
Acrylonitrile	<5	<5	<5	<5	<5
Aldrin		<.05			
Allyl chloride		<1			
Alpha-bhc		<.05			
Ammonia as n					

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-20

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	6/23/2015	11/12/2015	4/11/2016	9/16/2016
Anthracene	ug/L							
Antimony, total	ug/L		<6		<6	<6	<1	<2
Arochlor 1016	ug/L							
Arochlor 1221	ug/L							
Arochlor 1232	ug/L							
Arochlor 1242	ug/L							
Arochlor 1248	ug/L							
Arochlor 1254	ug/L							
Arochlor 1260	ug/L							
Arsenic, total	ug/L		55.1		78.2	80.9	151.0	63.8
Azobenzene	ug/L							
Barium, total	ug/L		415		335	419	368	319
Benzene	ug/L		2.51		3.59	3.67	2.67	3.70
Benzo(a)anthracene	ug/L							
Benzo(a)pyrene	ug/L							
Benzo(b)fluoranthene	ug/L							
Benzo(g,h,i)perylene	ug/L							
Benzo(k)fluoranthene	ug/L							
Benzyl alcohol	ug/L							
Beryllium, total	ug/L		<1		<1	<1	<1	<4
Beta-bhc	ug/L							
Bicarbonate alkalinity	mg/L as CaCO3				572 *	519 *		
Bis (2-chloroethoxy) methane	ug/L							
Bis(2-chloroethyl) ether	ug/L							
Bis(2-ethylhexyl) phthalate	ug/L							
Bis[2-chloroisopropyl]ether	ug/L							
Bromochloromethane	ug/L		<5		<5	<5	<5	<1
Bromodichloromethane	ug/L		<1		<1	<1	<1	<1
Bromoform	ug/L		<5		<5	<5	<5	<1
Bromomethane	ug/L		<4		<4	<4	<4	<1
Butyl benzyl phthalate	ug/L							
Cadmium, total	ug/L		<.5		<.5	<.5	<.5	<.8
Calcium, total	mg/L				101 *	102 *		
Carbon disulfide	ug/L		<1		<5	<1	<1	<1
Carbon tetrachloride	ug/L		<2		<2	<2	<2	<1
Carbonate alkalinity	mg/L as CaCO3				<5 *	<5 *		
Chlordane	ug/L							
Chloride	mg/L				3.87 *	8.87 *		
Chlorobenzene	ug/L		2.42		3.25	<1.00	<1.00	3.10
Chlorobenzilate	ug/L							
Chloroethane	ug/L		<4.0		<4.0	<4.0	<1.0	1.4
Chloroform	ug/L		<1		<1	<1	<1	<1
Chloromethane	ug/L		<3		<3	<3	<3	<1
Chloroprene	ug/L							
Chromium, total	ug/L		<20		<5	<5	<5	<8
Chrysene	ug/L							
Cis-1,2-dichloroethene	ug/L		<1		<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L		<5		<5	<5	<5	<1
Cobalt, total	ug/L		4.48		1.06	2.19	1.72	6.10
Copper, total	ug/L		27.00		<2.00	2.73	<2.00	6.20
Cyanide	mg/L							
Delta-bhc	ug/L							
Diallate	ug/L							
Dibenzo(a,h)anthracene	ug/L							
Dibenzofuran	ug/L							
Dibromochloromethane	ug/L		<5		<5	<5	<5	<1
Dibromomethane	ug/L							<1
Dichlorodifluoromethane	ug/L							
Dieldrin	ug/L							
Diethyl phthalate	ug/L							
Dimethoate	ug/L							
Dimethylphthalate	ug/L							
Di-n-butyl phthalate	ug/L							
Di-n-octyl phthalate	ug/L							
Dinoseb	ug/L							
Diphenylamine	ug/L							
Disulfoton	ug/L							
Endosulfan i	ug/L							
Endosulfan ii	ug/L							
Endosulfan sulfate	ug/L							
Endrin	ug/L							
Endrin aldehyde	ug/L							
Ethyl methacrylate	ug/L							
Ethyl methanesulfonate	ug/L							
Ethylbenzene	ug/L		<1		<1	<1	<1	<1
Famphur	ug/L							
Fluoranthene	ug/L							

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-20

Constituents	3/15/2017	9/27/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021
Anthracene	<8								
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016	<.1								
Arochlor 1221	<.2								
Arochlor 1232	<.2								
Arochlor 1242	<.2								
Arochlor 1248	<.2								
Arochlor 1254	<.1								
Arochlor 1260	<.1								
Arsenic, total	89.5	26.8	23.7	44.9	19.5	72.0	42.3	50.6	38.9
Azobenzene	<8								
Barium, total	384	355	301	435	289	321	284	280	286
Benzene	2.50	2.60	1.70	2.70	2.40	2.80	2.50	2.70	1.90
Benzo(a)anthracene	<8								
Benzo(a)pyrene	<8								
Benzo(b)fluoranthene	<8								
Benzo(g,h,i)perylene	<8								
Benzo(k)fluoranthene	<8								
Benzyl alcohol	<8								
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc	<.05								
Bicarbonate alkalinity									
Bis (2-chloroethoxy) methane	<8								
Bis(2-chloroethyl) ether	<8								
Bis(2-ethylhexyl) phthalate	<8								
Bis[2-chloroisopropyl]ether	<8								
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate	<8								
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total									
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate alkalinity									
Chlordane	<.1								
Chloride									
Chlorobenzene	1.40	1.60	<1.00	3.10	2.60	3.60	2.20	1.70	2.20
Chlorobenzilate	<8								
Chloroethane	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene	<1								
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene	<8								
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	2.00	<.80	<2.00	<.80	.90	<.80	.50	.70	7.90
Copper, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Cyanide	<.005								
Delta-bhc	<.05								
Diallate	<8								
Dibenzo(a,h)anthracene	<8								
Dibenzofuran	<8								
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	<1								
Dieldrin	<.05								
Diethyl phthalate	<8								
Dimethoate	<.4								
Dimethylphthalate	<8								
Di-n-butyl phthalate	<8								
Di-n-octyl phthalate	<8								
Dinoseb	<.5								
Diphenylamine	<8								
Disulfoton	<.4								
Endosulfan i	<.05								
Endosulfan ii	<.05								
Endosulfan sulfate	<.05								
Endrin	<.05								
Endrin aldehyde	<.05								
Ethyl methacrylate	<10								
Ethyl methanesulfonate	<8								
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur	<.4								
Fluoranthene	<8								

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-20

Constituents	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Anthracene		<8			
Antimony, total	<2	<2	<2	<2	<2
Arochlor 1016		<.1			
Arochlor 1221		<.2			
Arochlor 1232		<.2			
Arochlor 1242		<.2			
Arochlor 1248		<.2			
Arochlor 1254		<.1			
Arochlor 1260		<.1			
Arsenic, total	40.2	44.1	23.3	106.0	37.5
Azobenzene		<8			
Barium, total	308	285	338	279	313
Benzene	2.80	2.30	3.60	2.20	2.60
Benzo(a)anthracene		<8			
Benzo(a)pyrene		<8			
Benzo(b)fluoranthene		<8			
Benzo(g,h,i)perylene		<8			
Benzo(k)fluoranthene		<8			
Benzyl alcohol		<8			
Beryllium, total	<4	<4	<4	<4	<4
Beta-bhc		<.05			
Bicarbonate alkalinity					
Bis (2-chloroethoxy) methane		<8			
Bis(2-chloroethyl) ether		<8			
Bis(2-ethylhexyl) phthalate		<6			
Bis[2-chloroisopropyl]ether		<8			
Bromochloromethane	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1
Butyl benzyl phthalate		<8			
Cadmium, total	<.8	<.8	<.8	<.8	<.8
Calcium, total					
Carbon disulfide	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1
Carbonate alkalinity					
Chlordane		<.1			
Chloride					
Chlorobenzene	2.70	2.60	3.10	2.50	3.40
Chlorobenzilate		<8			
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1
Chloroprene		<1			
Chromium, total	<8	<8	<8	<8	<8
Chrysene		<8			
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1
Cobalt, total	2.70	.60	.40	<.40	2.80
Copper, total	<4.00	<4.00	<4.00	<4.00	<4.00
Cyanide		<.005			
Delta-bhc		<.05			
Diallate		<8			
Dibenzo(a,h)anthracene		<8			
Dibenzofuran		<8			
Dibromochloromethane	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1
Dichlorodifluoromethane		<1			
Dieldrin		<.05			
Diethyl phthalate		<8			
Dimethoate		<.4			
Dimethylphthalate		<8			
Di-n-butyl phthalate		<8			
Di-n-octyl phthalate		<8			
Dinoseb		<.5			
Diphenylamine		<8			
Disulfoton		<.4			
Endosulfan i		<.05			
Endosulfan ii		<.05			
Endosulfan sulfate		<.05			
Endrin		<.05			
Endrin aldehyde		<.05			
Ethyl methacrylate		<10			
Ethyl methanesulfonate		<8			
Ethylbenzene	<1	<1	<1	<1	<1
Famphur		<.4			
Fluoranthene		<8			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-20

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	6/23/2015	11/12/2015	4/11/2016	9/16/2016
Fluorene	ug/L							
Gamma-bhc [lindane]	ug/L							
Heptachlor	ug/L							
Heptachlor epoxide	ug/L							
Hexachlorobenzene	ug/L							
Hexachlorobutadiene	ug/L							
Hexachlorocyclopentadiene	ug/L							
Hexachloroethane	ug/L							
Hexachloropropene	ug/L							
Indeno(1,2,3-cd)pyrene	ug/L							
Iodomethane	ug/L		<10		<10	<10	<10	<1
Iron, total	ug/L				64700 *	60600 *	55100 *	
Isobutanol	mg/L							
Isodrin	ug/L							
Isophorone	ug/L							
Isosafrole	ug/L							
Kepone	ug/L							
Lead, total	ug/L		<4.000		.804	1.730	1.730	<4.000
Magnesium, total	mg/L				44.1 *	50.5 *		
Manganese, total	ug/L				10200 *	11700 *	8180 *	
Mercury, total	ug/L							
Methacrylonitrile	ug/L							
Methapyrilene	ug/L							
Methoxychlor	ug/L							
Methyl methacrylate	ug/L							
Methyl methanesulfonate	ug/L							
Methyl parathion	ug/L							
Methylene bromide	ug/L		<1		<1	<1	<1	
Methylene chloride	ug/L		<5		<5	<5	<5	<5
Naphthalene	ug/L							
Nickel, total	ug/L		<30.00		<5.00	7.80	5.35	8.00
Nitrate as n	mg/L				<.10 *	<.10 *	1.35 *	
Nitrobenzene	ug/L							
N-nitrosodiethylamine	ug/L							
N-nitrosodimethylamine	ug/L							
N-nitrosodi-n-butylamine	ug/L							
N-nitroso-di-n-propylamine	ug/L							
N-nitrosodiphenylamine	ug/L							
N-nitrosomethylethylamine	ug/L							
N-nitrosopiperidine	ug/L							
N-nitrosopyrrolidine	ug/L							
O,o,o-triethyl phosphorothioate	ug/L							
O-toluidine	ug/L							
P-(dimethylamino)azobenzene	ug/L							
Parathion	ug/L							
Pentachlorobenzene	ug/L							
Pentachloronitrobenzene (pcnb)	ug/L							
Pentachlorophenol	ug/L							
Phenacetin	ug/L							
Phenanthrene	ug/L							
Phenol	ug/L							
Phorate	ug/L							
Potassium, total	mg/L				<1 *	<1 *		
Pronamide	ug/L							
Propionitrile	ug/L							
Pyrene	ug/L							
Safrole	ug/L							
Selenium, total	ug/L		<5		<5	<5	<5	<4
Silver, total	ug/L		<20		<1	<1	<1	<4
Sodium, total	mg/L				13.6 *	13.4 *		
Styrene	ug/L		<1		<1	<1	<1	<1
Sulfate	mg/L				1.60 *	<5.00 *	5.42 *	
Sulfide	mg/L							
Tetrachloroethene	ug/L		<1		<1	<1	<1	<1
Thallium, total	ug/L		<2		<1	<1	<2	<4
Thionazin	ug/L							
Tin, total	ug/L							
Toluene	ug/L		3.15		3.09	<1.00	<1.00	1.40
Total organic carbon	mg/L				18.7 *	16.1 *	12.1 *	
Total suspended solids	mg/L	92.0	92.0	55.5 *	55.2 *	115.0 *	318.0 *	87.0
Toxaphene	ug/L							
Trans-1,2-dichloroethene	ug/L		<1		<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L		<5		<5	<5	<5	<1
Trans-1,4-dichloro-2-butene	ug/L		<10		<10	<10	<10	<5
Trichloroethene	ug/L		<1		<1	<1	<1	<1
Trichlorofluoromethane	ug/L		<4		<4	<4	<4	<1
Vanadium, total	ug/L		<5.0		<5.0	5.8	<5.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-20

Constituents	3/15/2017	9/27/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021
Fluorene	<8								
Gamma-bhc [lindane]	<.05								
Heptachlor	<.05								
Heptachlor epoxide	<.05								
Hexachlorobenzene	<.05								
Hexachlorobutadiene	<8								
Hexachlorocyclopentadiene	<8								
Hexachloroethane	<8								
Hexachloropropene	<8								
Indeno(1,2,3-cd)pyrene	<8								
Iodomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Iron, total									
Isobutanol	<1								
Isodrin	<8								
Isophorone	<8								
Isosafrole	<8								
Kepone	<8								
Lead, total	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000
Magnesium, total									
Manganese, total									
Mercury, total	<.5								
Methacrylonitrile	<1								
Methapyrilene	<8								
Methoxychlor	<.05								
Methyl methacrylate	<1								
Methyl methanesulfonate	<8								
Methyl parathion	<.4								
Methylene bromide									
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	<8								
Nickel, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Nitrate as n									
Nitrobenzene	<8								
N-nitrosodiethylamine	<8								
N-nitrosodimethylamine	<8								
N-nitrosodi-n-butylamine	<8								
N-nitroso-di-n-propylamine	<8								
N-nitrosodiphenylamine	<8								
N-nitrosomethylethylamine	<8								
N-nitrosopiperidine	<8								
N-nitrosopyrrolidine	<8								
O,o,o-triethyl phosphorothioate	<.4								
O-toluidine	<8								
P-(dimethylamino)azobenzene	<8								
Parathion	<.4								
Pentachlorobenzene	<8								
Pentachloronitrobenzene (pcnb)	<8								
Pentachlorophenol	<8								
Phenacetin	<8								
Phenanthrene	<8								
Phenol	<8								
Phorate	<.4								
Potassium, total									
Pronamide	<8								
Propionitrile	<10								
Pyrene	<8								
Safrole	<8								
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate									
Sulfide	<.10								
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4	<4	<2	<2	<2	<2	<2
Thionazin	<.4								
Tin, total	<20								
Toluene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Total organic carbon									
Total suspended solids	152.0								
Toxaphene	<.2								
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-20

Constituents	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Fluorene		<8			
Gamma-bhc [lindane]		<.05			
Heptachlor		<.05			
Heptachlor epoxide		<.05			
Hexachlorobenzene		<.05			
Hexachlorobutadiene		<8			
Hexachlorocyclopentadiene		<8			
Hexachloroethane		<8			
Hexachloropropene		<8			
Indeno(1,2,3-cd)pyrene		<8			
Iodomethane	<1	<2	<1	<1	<1
Iron, total					
Isobutanol		<1			
Isodrin		<8			
Isophorone		<8			
Isosafrole		<8			
Kepone		<8			
Lead, total	<4.000	<4.000	<4.000	<4.000	<4.000
Magnesium, total					
Manganese, total					
Mercury, total		<.5			
Methacrylonitrile		<1			
Methapyrilene		<8			
Methoxychlor		<.05			
Methyl methacrylate		<1			
Methyl methanesulfonate		<8			
Methyl parathion		<.4			
Methylene bromide					
Methylene chloride	<5	<5	<5	<5	<5
Naphthalene		<8			
Nickel, total	6.10	<4.00	<4.00	<4.00	7.40
Nitrate as n					
Nitrobenzene		<8			
N-nitrosodiethylamine		<8			
N-nitrosodimethylamine		<8			
N-nitrosodi-n-butylamine		<8			
N-nitroso-di-n-propylamine		<8			
N-nitrosodiphenylamine		<8			
N-nitrosomethylethylamine		<8			
N-nitrosopiperidine		<8			
N-nitrosopyrrolidine		<8			
O,o,o-triethyl phosphorothioate		<.4			
O-toluidine		<8			
P-(dimethylamino)azobenzene		<8			
Parathion		<.4			
Pentachlorobenzene		<8			
Pentachloronitrobenzene (pcnb)		<8			
Pentachlorophenol		<8			
Phenacetin		<8			
Phenanthrene		<8			
Phenol		<8			
Phorate		<.4			
Potassium, total					
Pronamide		<8			
Propionitrile		<10			
Pyrene		<8			
Safrole		<8			
Selenium, total	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4
Sodium, total					
Styrene	<1	<1	<1	<1	<1
Sulfate					
Sulfide		.33	.23	.16	.44
Tetrachloroethene	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2
Thionazin		<.4			
Tin, total		<20			
Toluene	<1.00	<1.00	2.10	<1.00	<1.00
Total organic carbon					
Total suspended solids					
Toxaphene		<.2			
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1
Vanadium, total	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-20

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	6/23/2015	11/12/2015	4/11/2016	9/16/2016
Vinyl acetate	ug/L		<10		<10	<10	<10	<5
Vinyl chloride	ug/L		<1		<1	<1	<1	<1
Xylenes, total	ug/L		<3		<3	<3	<3	<2
Zinc, total	ug/L		22.8		<10.0	13.5	<10.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-20

Constituents	3/15/2017	9/27/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<8.0	<8.0	<8.0	55.1	36.2	27.7	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-20

Constituents	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Vinyl acetate	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-24

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	6/23/2015	11/12/2015	4/11/2016	4/12/2016
(3 4)-methylphenol	ug/L							
1,1,1,2-tetrachloroethane	ug/L		<1		<1	<1		<1
1,1,1-trichloroethane	ug/L		<1		<1	<1		<1
1,1,2,2-tetrachloroethane	ug/L		<1		<1	<1		<1
1,1,2-trichloroethane	ug/L		<1		<1	<1		<1
1,1-dichloroethane	ug/L		<1		<1	<1		<1
1,1-dichloroethene	ug/L		<2		<2	<2		<2
1,1-dichloropropene	ug/L							
1,2,3-trichloropropane	ug/L		<1		<1	<1		<1
1,2,4,5-tetrachlorobenzene	ug/L							
1,2,4-trichlorobenzene	ug/L							
1,2-dibromo-3-chloropropane	ug/L		<.12		<.50	<.50		<.50
1,2-dibromoethane	ug/L		<.13		<.13	<.13		<.13
1,2-dichlorobenzene	ug/L		<1		<1	<1		<1
1,2-dichloroethane	ug/L		<1		<1	<1		<1
1,2-dichloropropane	ug/L		<1		<1	<1		<1
1,2-dinitrobenzene	ug/L							
1,3,5-trinitrobenzene	ug/L							
1,3-dichlorobenzene	ug/L							
1,3-dichloropropane	ug/L							
1,3-dinitrobenzene	ug/L							
1,4-dichlorobenzene	ug/L		<1		<1	<1		<1
1,4-naphthoquinone	ug/L							
1,4-phenylenediamine	ug/L							
1-naphthylamine	ug/L							
2,2-dichloropropane	ug/L							
2,3,4,6-tetrachlorophenol	ug/L							
2,4,5-t	ug/L							
2,4,5-tp (silvex)	ug/L							
2,4,5-trichlorophenol	ug/L							
2,4,6-trichlorophenol	ug/L							
2,4-d	ug/L							
2,4-dichlorophenol	ug/L							
2,4-dimethylphenol	ug/L							
2,4-dinitrophenol	ug/L							
2,4-dinitrotoluene	ug/L							
2,6-dichlorophenol	ug/L							
2,6-dinitrotoluene	ug/L							
2-acetylaminofluorene	ug/L							
2-butanone	ug/L		<10		<10	<10		<10
2-chloronaphthalene	ug/L							
2-chlorophenol	ug/L							
2-hexanone	ug/L		<10		<10	<10		<10
2-methylnaphthalene	ug/L							
2-methylphenol (o-cresol)	ug/L							
2-naphthylamine	ug/L							
2-nitroaniline	ug/L							
2-nitrophenol	ug/L							
3,3´-dichlorobenzidine	ug/L							
3,3-dimethylbenzidine	ug/L							
3-methylcholanthrene	ug/L							
3-nitroaniline	ug/L							
4,4`-ddd	ug/L							
4,4`-dde	ug/L							
4,4`-ddt	ug/L							
4,6-dinitro-2-methylphenol	ug/L							
4-aminobiphenyl	ug/L							
4-bromophenyl phenyl ether	ug/L							
4-chloro-3-methylphenol	ug/L							
4-chloroaniline	ug/L							
4-chlorophenyl phenyl ether	ug/L							
4-methyl-2-pentanone	ug/L		<10		<10	<10		<10
4-nitroaniline	ug/L							
4-nitrophenol	ug/L							
5-nitro-o-toluidine	ug/L							
7,12-dimethylbenz [a] anthracene	ug/L							
Acenaphthene	ug/L							
Acenaphthylene	ug/L							
Acetone	ug/L		<10.0		<10.0	<10.0		<10.0
Acetonitrile	ug/L							
Acetophenone	ug/L							
Acrolein	ug/L							
Acrylonitrile	ug/L		<10		<10	<10		<10
Aldrin	ug/L							
Allyl chloride	ug/L							
Alpha-bhc	ug/L							
Ammonia as n	mg/L				1.51 *	1.54 *	1.11	1.11

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-24

Constituents	9/16/2016	3/15/2017	9/27/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
(3 4)-methylphenol		<8							
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene		<1							
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene		<8							
1,2,4-trichlorobenzene		<1							
1,2-dibromo-3-chloropropane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene		<8							
1,3,5-trinitrobenzene		<8							
1,3-dichlorobenzene		<1							
1,3-dichloropropane		<1							
1,3-dinitrobenzene		<8							
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone		<8							
1,4-phenylenediamine		<8							
1-naphthylamine		<8							
2,2-dichloropropane		<1							
2,3,4,6-tetrachlorophenol		<8							
2,4,5-t		<.5							
2,4,5-tp (silvex)		<.5							
2,4,5-trichlorophenol		<8							
2,4,6-trichlorophenol		<8							
2,4-d		<2							
2,4-dichlorophenol		<8							
2,4-dimethylphenol		<8							
2,4-dinitrophenol		<8							
2,4-dinitrotoluene		<8							
2,6-dichlorophenol		<8							
2,6-dinitrotoluene		<8							
2-acetylaminofluorene		<8							
2-butanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene		<8							
2-chlorophenol		<8							
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene		<8							
2-methylphenol (o-cresol)		<8							
2-naphthylamine		<8							
2-nitroaniline		<8							
2-nitrophenol		<8							
3,3´-dichlorobenzidine		<8							
3,3-dimethylbenzidine		<8							
3-methylcholanthrene		<8							
3-nitroaniline		<8							
4,4`-ddd		<.05							
4,4`-dde		<.05							
4,4`-ddt		<.05							
4,6-dinitro-2-methylphenol		<8							
4-aminobiphenyl		<8							
4-bromophenyl phenyl ether		<8							
4-chloro-3-methylphenol		<8							
4-chloroaniline		<8							
4-chlorophenyl phenyl ether		<8							
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline		<8							
4-nitrophenol		<8							
5-nitro-o-toluidine		<8							
7,12-dimethylbenz [a] anthracene		<8							
Acenaphthene		<8							
Acenaphthylene		<8							
Acetone	<10.0	<10.0	13.6	<10.0	<10.0	25.0	<10.0	<10.0	<10.0
Acetonitrile		<10							
Acetophenone		<8							
Acrolein		<10							
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin		<.05							
Allyl chloride		<1							
Alpha-bhc		<.05							
Ammonia as n									

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-24

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
(3 4)-methylphenol			<8			
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1
1,1-dichloropropene			<1			
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene			<8			
1,2,4-trichlorobenzene			<1			
1,2-dibromo-3-chloropropane	<5.00	<5.00	<1.00	<5.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene			<8			
1,3,5-trinitrobenzene			<8			
1,3-dichlorobenzene			<1			
1,3-dichloropropane			<1			
1,3-dinitrobenzene			<8			
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone			<8			
1,4-phenylenediamine			<8			
1-naphthylamine			<8			
2,2-dichloropropane			<1			
2,3,4,6-tetrachlorophenol			<8			
2,4,5-t			<.5			
2,4,5-tp (silvex)			<.5			
2,4,5-trichlorophenol			<8			
2,4,6-trichlorophenol			<8			
2,4-d			<2			
2,4-dichlorophenol			<8			
2,4-dimethylphenol			<8			
2,4-dinitrophenol			<8			
2,4-dinitrotoluene			<8			
2,6-dichlorophenol			<8			
2,6-dinitrotoluene			<8			
2-acetylaminofluorene			<8			
2-butanone	<5	<5	<5	<10	<10	<10
2-chloronaphthalene			<8			
2-chlorophenol			<8			
2-hexanone	<5	<5	<5	<5	<5	<5
2-methylnaphthalene			<8			
2-methylphenol (o-cresol)			<8			
2-naphthylamine			<8			
2-nitroaniline			<8			
2-nitrophenol			<8			
3,3´-dichlorobenzidine			<8			
3,3-dimethylbenzidine			<8			
3-methylcholanthrene			<8			
3-nitroaniline			<8			
4,4`-ddd			<.05			
4,4`-dde			<.05			
4,4`-ddt			<.05			
4,6-dinitro-2-methylphenol			<8			
4-aminobiphenyl			<8			
4-bromophenyl phenyl ether			<8			
4-chloro-3-methylphenol			<8			
4-chloroaniline			<8			
4-chlorophenyl phenyl ether			<8			
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5
4-nitroaniline			<8			
4-nitrophenol			<8			
5-nitro-o-toluidine			<8			
7,12-dimethylbenz [a] anthracene			<8			
Acenaphthene			<8			
Acenaphthylene			<8			
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile			<10			
Acetophenone			<8			
Acrolein			<10			
Acrylonitrile	<5	<5	<5	<5	<5	<5
Aldrin			<.05			
Allyl chloride			<1			
Alpha-bhc			<.05			
Ammonia as n						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-24

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	6/23/2015	11/12/2015	4/11/2016	4/12/2016
Anthracene	ug/L							
Antimony, total	ug/L		<6		<1	<1		<1
Arochlor 1016	ug/L							
Arochlor 1221	ug/L							
Arochlor 1232	ug/L							
Arochlor 1242	ug/L							
Arochlor 1248	ug/L							
Arochlor 1254	ug/L							
Arochlor 1260	ug/L							
Arsenic, total	ug/L		<1.0		36.3	20.4		10.8
Azobenzene	ug/L							
Barium, total	ug/L		130.0		339.0	393.0		374.0
Benzene	ug/L		<.5		<.5	<.5		<.5
Benzo(a)anthracene	ug/L							
Benzo(a)pyrene	ug/L							
Benzo(b)fluoranthene	ug/L							
Benzo(g,h,i)perylene	ug/L							
Benzo(k)fluoranthene	ug/L							
Benzyl alcohol	ug/L							
Beryllium, total	ug/L		<1.00		<1.00	1.40		1.04
Beta-bhc	ug/L							
Bicarbonate alkalinity	mg/L as CaCO3				780 *	740 *		
Bis (2-chloroethoxy) methane	ug/L							
Bis(2-chloroethyl) ether	ug/L							
Bis(2-ethylhexyl) phthalate	ug/L							
Bis[2-chloroisopropyl]ether	ug/L							
Bromochloromethane	ug/L		<5		<5	<5		<5
Bromodichloromethane	ug/L		<1		<1	<1		<1
Bromoform	ug/L		<5		<5	<5		<5
Bromomethane	ug/L		<4		<4	<4		<4
Butyl benzyl phthalate	ug/L							
Cadmium, total	ug/L		.547		<.500	.582		.706
Calcium, total	mg/L				196 *	257 *		
Carbon disulfide	ug/L		<1		<5	<1		<1
Carbon tetrachloride	ug/L		<2		<2	<2		<2
Carbonate alkalinity	mg/L as CaCO3				<5 *	<5 *		
Chlordane	ug/L							
Chloride	mg/L				11.0 *	19.9 *		
Chlorobenzene	ug/L		<1		<1	<1		<1
Chlorobenzilate	ug/L							
Chloroethane	ug/L		<4.0		<4.0	<4.0		<4.0
Chloroform	ug/L		<1		<1	<1		<1
Chloromethane	ug/L		<3		<3	<3		<3
Chloroprene	ug/L							
Chromium, total	ug/L		<20		<5	<5		<5
Chrysene	ug/L							
Cis-1,2-dichloroethene	ug/L		<1		<1	<1		<1
Cis-1,3-dichloropropene	ug/L		<5		<5	<5		<5
Cobalt, total	ug/L		6.800		.834	11.700		11.800
Copper, total	ug/L		<10.0		<2.0	<2.0		<5.0
Cyanide	mg/L							
Delta-bhc	ug/L							
Diallate	ug/L							
Dibenzo(a,h)anthracene	ug/L							
Dibenzofuran	ug/L							
Dibromochloromethane	ug/L		<5		<5	<5		<5
Dibromomethane	ug/L							
Dichlorodifluoromethane	ug/L							
Dieldrin	ug/L							
Diethyl phthalate	ug/L							
Dimethoate	ug/L							
Dimethylphthalate	ug/L							
Di-n-butyl phthalate	ug/L							
Di-n-octyl phthalate	ug/L							
Dinoseb	ug/L							
Diphenylamine	ug/L							
Disulfoton	ug/L							
Endosulfan i	ug/L							
Endosulfan ii	ug/L							
Endosulfan sulfate	ug/L							
Endrin	ug/L							
Endrin aldehyde	ug/L							
Ethyl methacrylate	ug/L							
Ethyl methanesulfonate	ug/L							
Ethylbenzene	ug/L		<1.0		<1.0	<1.0		<1.0
Famphur	ug/L							
Fluoranthene	ug/L							

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-24

Constituents	9/16/2016	3/15/2017	9/27/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
Anthracene		<8							
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016		<.1							
Arochlor 1221		<.2							
Arochlor 1232		<.2							
Arochlor 1242		<.2							
Arochlor 1248		<.2							
Arochlor 1254		<.1							
Arochlor 1260		<.1							
Arsenic, total	32.6	26.4	27.2	22.9	25.6	100.0	23.8	6.5	12.8
Azobenzene		<8							
Barium, total	333.0	544.0	567.0	632.0	382.0	665.0	310.0	303.0	149.0
Benzene	<1.0	1.3	<1.0	<1.0	<1.0	2.1	<1.0	<1.0	<1.0
Benzo(a)anthracene		<8							
Benzo(a)pyrene		<8							
Benzo(b)fluoranthene		<8							
Benzo(g,h,i)perylene		<8							
Benzo(k)fluoranthene		<8							
Benzyl alcohol		<8							
Beryllium, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Beta-bhc		<.05							
Bicarbonate alkalinity									
Bis (2-chloroethoxy) methane		<8							
Bis(2-chloroethyl) ether		<8							
Bis(2-ethylhexyl) phthalate		<8							
Bis[2-chloroisopropyl]ether		<8							
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate		<8							
Cadmium, total	<.800	<.800	<.800	<.800	<.800	<.800	<.800	<.800	.800
Calcium, total									
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate alkalinity									
Chlordane		<.1							
Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate		<8							
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	<1.0
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene		<1							
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene		<8							
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	1.000	.800	1.000	1.400	3.500	21.900	19.000	5.100	16.100
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	4.0	<4.0	<4.0	10.7
Cyanide		<.005							
Delta-bhc		<.05							
Diallate		<8							
Dibenzo(a,h)anthracene		<8							
Dibenzofuran		<8							
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane		<1							
Dieldrin		<.05							
Diethyl phthalate		<8							
Dimethoate		<.4							
Dimethylphthalate		<8							
Di-n-butyl phthalate		<8							
Di-n-octyl phthalate		<8							
Dinoseb		<.5							
Diphenylamine		<8							
Disulfoton		<.4							
Endosulfan i		<.05							
Endosulfan ii		<.05							
Endosulfan sulfate		<.05							
Endrin		<.05							
Endrin aldehyde		<.05							
Ethyl methacrylate		<10							
Ethyl methanesulfonate		<8							
Ethylbenzene	1.2	1.9	<1.0	<1.0	<1.0	4.8	<1.0	<1.0	<1.0
Famphur		<.4							
Fluoranthene		<8							

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-24

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Anthracene			<8			
Antimony, total	<2	<2	<2	<2	<2	<2
Arochlor 1016			<.1			
Arochlor 1221			<.2			
Arochlor 1232			<.2			
Arochlor 1242			<.2			
Arochlor 1248			<.2			
Arochlor 1254			<.1			
Arochlor 1260			<.1			
Arsenic, total	22.3	20.5	<4.0	5.1	<4.0	17.1
Azobenzene			<8			
Barium, total	179.0	302.0	96.2	82.7	65.1	298.0
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene			<8			
Benzo(a)pyrene			<8			
Benzo(b)fluoranthene			<8			
Benzo(g,h,i)perylene			<8			
Benzo(k)fluoranthene			<8			
Benzyl alcohol			<8			
Beryllium, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Beta-bhc			<.05			
Bicarbonate alkalinity						
Bis (2-chloroethoxy) methane			<8			
Bis(2-chloroethyl) ether			<8			
Bis(2-ethylhexyl) phthalate			<6			
Bis[2-chloroisopropyl]ether			<8			
Bromochloromethane	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate			<8			
Cadmium, total	<.800	<.800	<.800	<.800	<.800	<.800
Calcium, total						
Carbon disulfide	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1
Carbonate alkalinity						
Chlordane			<.1			
Chloride						
Chlorobenzene	<1	<1	<1	<1	<1	<1
Chlorobenzilate			<8			
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1
Chloroprene			<1			
Chromium, total	<8	<8	<8	<8	<8	<8
Chrysene			<8			
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1
Cobalt, total	14.200	3.500	8.000	12.000	5.200	7.400
Copper, total	<4.0	7.7	8.2	<4.0	8.1	<4.0
Cyanide			<.005			
Delta-bhc			<.05			
Diallate			<8			
Dibenzo(a,h)anthracene			<8			
Dibenzofuran			<8			
Dibromochloromethane	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane			<1			
Dieldrin			<.05			
Diethyl phthalate			<8			
Dimethoate			<.4			
Dimethylphthalate			<8			
Di-n-butyl phthalate			<8			
Di-n-octyl phthalate			<8			
Dinoseb			<.5			
Diphenylamine			<8			
Disulfoton			<.4			
Endosulfan i			<.05			
Endosulfan ii			<.05			
Endosulfan sulfate			<.05			
Endrin			<.05			
Endrin aldehyde			<.05			
Ethyl methacrylate			<10			
Ethyl methanesulfonate			<8			
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Famphur			<.4			
Fluoranthene			<8			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-24

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	6/23/2015	11/12/2015	4/11/2016	4/12/2016
Fluorene	ug/L							
Gamma-bhc [lindane]	ug/L							
Heptachlor	ug/L							
Heptachlor epoxide	ug/L							
Hexachlorobenzene	ug/L							
Hexachlorobutadiene	ug/L							
Hexachlorocyclopentadiene	ug/L							
Hexachloroethane	ug/L							
Hexachloropropene	ug/L							
Indeno(1,2,3-cd)pyrene	ug/L							
Iodomethane	ug/L		<10		<10	<10		<10
Iron, total	ug/L				49200 *	70800 *	32300	32300
Isobutanol	mg/L							
Isodrin	ug/L							
Isophorone	ug/L							
Isosafrole	ug/L							
Kepone	ug/L							
Lead, total	ug/L		6.390		.901	6.340		10.400
Magnesium, total	mg/L				68.5 *	99.8 *		
Manganese, total	ug/L				2180 *	3680 *	2090	2090
Mercury, total	ug/L							
Methacrylonitrile	ug/L							
Methapyrilene	ug/L							
Methoxychlor	ug/L							
Methyl methacrylate	ug/L							
Methyl methanesulfonate	ug/L							
Methyl parathion	ug/L							
Methylene bromide	ug/L		<1		<1	<1		<1
Methylene chloride	ug/L		<5		<5	<5		<5
Naphthalene	ug/L							
Nickel, total	ug/L		<30.0		<5.0	29.1		27.1
Nitrate as n	mg/L				<.1 *	<.1 *	<.1	<.1
Nitrobenzene	ug/L							
N-nitrosodiethylamine	ug/L							
N-nitrosodimethylamine	ug/L							
N-nitrosodi-n-butylamine	ug/L							
N-nitroso-di-n-propylamine	ug/L							
N-nitrosodiphenylamine	ug/L							
N-nitrosomethylethylamine	ug/L							
N-nitrosopiperidine	ug/L							
N-nitrosopyrrolidine	ug/L							
O,o,o-triethyl phosphorothioate	ug/L							
O-toluidine	ug/L							
P-(dimethylamino)azobenzene	ug/L							
Parathion	ug/L							
Pentachlorobenzene	ug/L							
Pentachloronitrobenzene (pcnb)	ug/L							
Pentachlorophenol	ug/L							
Phenacetin	ug/L							
Phenanthrene	ug/L							
Phenol	ug/L							
Phorate	ug/L							
Potassium, total	mg/L				3.45 *	4.17 *		
Pronamide	ug/L							
Propionitrile	ug/L							
Pyrene	ug/L							
Safrole	ug/L							
Selenium, total	ug/L		<5		<5	<5		<5
Silver, total	ug/L		<20		<1	<1		<1
Sodium, total	mg/L				16.1 *	22.7 *		
Styrene	ug/L		<1		<1	<1		<1
Sulfate	mg/L				35.1 *	200.0 *	23.0	23.0
Sulfide	mg/L							
Tetrachloroethene	ug/L		<1		<1	<1		<1
Thallium, total	ug/L		<2		<1	<1		<2
Thionazin	ug/L							
Tin, total	ug/L							
Toluene	ug/L		<1.0		<1.0	<1.0		<1.0
Total organic carbon	mg/L				8.87 *	6.09 *	6.80	6.80
Total suspended solids	mg/L	583.0 *	420.0	209.0	126.5 *	1740.0 *	272.0	272.0
Toxaphene	ug/L							
Trans-1,2-dichloroethene	ug/L		<1		<1	<1		<1
Trans-1,3-dichloropropene	ug/L		<5		<5	<5		<5
Trans-1,4-dichloro-2-butene	ug/L		<10		<10	<10		<10
Trichloroethene	ug/L		<1		<1	<1		<1
Trichlorofluoromethane	ug/L		<4		<4	<4		<4
Vanadium, total	ug/L		<10.0		<5.0	14.2		23.4

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-24

Constituents	9/16/2016	3/15/2017	9/27/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
Fluorene		<8							
Gamma-bhc [lindane]		<.05							
Heptachlor		<.05							
Heptachlor epoxide		<.05							
Hexachlorobenzene		<.05							
Hexachlorobutadiene		<8							
Hexachlorocyclopentadiene		<8							
Hexachloroethane		<8							
Hexachloropropene		<8							
Indeno(1,2,3-cd)pyrene		<8							
Iodomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Iron, total									
Isobutanol		<1							
Isodrin		<8							
Isophorone		<8							
Isosafrole		<8							
Kepone		<8							
Lead, total	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000
Magnesium, total									
Manganese, total									
Mercury, total		<.5							
Methacrylonitrile		<1							
Methapyrilene		<8							
Methoxychlor		<.05							
Methyl methacrylate		<1							
Methyl methanesulfonate		<8							
Methyl parathion		<.4							
Methylene bromide									
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<8							
Nickel, total	<4.0	8.6	8.0	10.9	14.3	61.1	16.2	14.9	30.6
Nitrate as n									
Nitrobenzene		<8							
N-nitrosodiethylamine		<8							
N-nitrosodimethylamine		<8							
N-nitrosodi-n-butylamine		<8							
N-nitroso-di-n-propylamine		<8							
N-nitrosodiphenylamine		<8							
N-nitrosomethylethylamine		<8							
N-nitrosopiperidine		<8							
N-nitrosopyrrolidine		<8							
O,o,o-triethyl phosphorothioate		<.4							
O-toluidine		<8							
P-(dimethylamino)azobenzene		<8							
Parathion		<.4							
Pentachlorobenzene		<8							
Pentachloronitrobenzene (pcnb)		<8							
Pentachlorophenol		<8							
Phenacetin		<8							
Phenanthrene		<8							
Phenol		<8							
Phorate		<.4							
Potassium, total									
Pronamide		<8							
Propionitrile		<10							
Pyrene		<8							
Safrole		<8							
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate									
Sulfide		<.1							
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4	<4	<4	<2	<2	<2	<2
Thionazin		<.4							
Tin, total		<20							
Toluene	5.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total organic carbon									
Total suspended solids	66.0	289.0							
Toxaphene		<.2							
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-24

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Fluorene			<8			
Gamma-bhc [lindane]			<.05			
Heptachlor			<.05			
Heptachlor epoxide			<.05			
Hexachlorobenzene			<.05			
Hexachlorobutadiene			<8			
Hexachlorocyclopentadiene			<8			
Hexachloroethane			<8			
Hexachloropropene			<8			
Indeno(1,2,3-cd)pyrene			<8			
Iodomethane	<1	<1	<2	<1	<1	<1
Iron, total						
Isobutanol			<1			
Isodrin			<8			
Isophorone			<8			
Isosafrole			<8			
Kepone			<8			
Lead, total	4.700	<4.000	<4.000	<4.000	<4.000	<4.000
Magnesium, total						
Manganese, total						
Mercury, total			<.5			
Methacrylonitrile			<1			
Methapyrilene			<8			
Methoxychlor			<.05			
Methyl methacrylate			<1			
Methyl methanesulfonate			<8			
Methyl parathion			<.4			
Methylene bromide						
Methylene chloride	<5	<5	<5	<5	<5	<5
Naphthalene			<8			
Nickel, total	17.9	13.4	66.7	43.0	48.0	29.4
Nitrate as n						
Nitrobenzene			<8			
N-nitrosodiethylamine			<8			
N-nitrosodimethylamine			<8			
N-nitrosodi-n-butylamine			<8			
N-nitroso-di-n-propylamine			<8			
N-nitrosodiphenylamine			<8			
N-nitrosomethylethylamine			<8			
N-nitrosopiperidine			<8			
N-nitrosopyrrolidine			<8			
O,o,o-triethyl phosphorothioate			<.4			
O-toluidine			<8			
P-(dimethylamino)azobenzene			<8			
Parathion			<.4			
Pentachlorobenzene			<8			
Pentachloronitrobenzene (pcnb)			<8			
Pentachlorophenol			<8			
Phenacetin			<8			
Phenanthrene			<8			
Phenol			<8			
Phorate			<.4			
Potassium, total						
Pronamide			<8			
Propionitrile			<10			
Pyrene			<8			
Safrole			<8			
Selenium, total	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4
Sodium, total						
Styrene	<1	<1	<1	<1	<1	<1
Sulfate						
Sulfide			<.2			
Tetrachloroethene	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2	<2
Thionazin			<.4			
Tin, total			<20			
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total organic carbon						
Total suspended solids						
Toxaphene			<.2			
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1
Vanadium, total	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-24

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	6/23/2015	11/12/2015	4/11/2016	4/12/2016
Vinyl acetate	ug/L		<10		<10	<10		<10
Vinyl chloride	ug/L		<1		<1	<1		<1
Xylenes, total	ug/L		<3.0		<3.0	<3.0		<3.0
Zinc, total	ug/L		33.2		10.7	53.8		97.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-24

Constituents	9/16/2016	3/15/2017	9/27/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	2.2	2.3	<2.0	<2.0	<2.0	6.2	<2.0	<2.0	<2.0
Zinc, total	15.1	8.1	<8.0	8.7	24.5	69.3	<20.0	<20.0	25.7

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-24

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
Vinyl acetate	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1
Xylenes, total	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Zinc, total	<20.0	<20.0	27.2	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 11

Analytical Data Summary for MW-25

Constituents	Units	11/12/2015	2/1/2016	4/11/2016	4/12/2016	9/16/2016	3/15/2017	9/27/2017
(3 4)-methylphenol	ug/L						<8	
1,1,1,2-tetrachloroethane	ug/L	<1	<1		<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1		<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1		<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1		<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1		<1	<1	<1	<1
1,1-dichloroethene	ug/L	<2	<2		<2	<1	<1	<1
1,1-dichloropropene	ug/L						<1	
1,2,3-trichloropropane	ug/L	<1	<1		<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L						<8	
1,2,4-trichlorobenzene	ug/L						<1	
1,2-dibromo-3-chloropropane	ug/L	<.5	<.5		<.5	<1.0	<1.0	<1.0
1,2-dibromoethane	ug/L	<.13	<.13		<.13	<1.00	<1.00	<1.00
1,2-dichlorobenzene	ug/L	<1	<1		<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1		<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1		<1	<1	<1	<1
1,2-dinitrobenzene	ug/L						<8	
1,3,5-trinitrobenzene	ug/L						<8	
1,3-dichlorobenzene	ug/L						<1	
1,3-dichloropropane	ug/L						<1	
1,3-dinitrobenzene	ug/L						<8	
1,4-dichlorobenzene	ug/L	<1	<1		<1	<1	<1	<1
1,4-naphthoquinone	ug/L						<8	
1,4-phenylenediamine	ug/L						<8	
1-naphthylamine	ug/L						<8	
2,2-dichloropropane	ug/L						<1	
2,3,4,6-tetrachlorophenol	ug/L						<8	
2,4,5-t	ug/L						<.5	
2,4,5-tp (silvex)	ug/L						<.5	
2,4,5-trichlorophenol	ug/L						<8	
2,4,6-trichlorophenol	ug/L						<8	
2,4-d	ug/L						<2	
2,4-dichlorophenol	ug/L						<8	
2,4-dimethylphenol	ug/L						<8	
2,4-dinitrophenol	ug/L						<8	
2,4-dinitrotoluene	ug/L						<8	
2,6-dichlorophenol	ug/L						<8	
2,6-dinitrotoluene	ug/L						<8	
2-acetylaminofluorene	ug/L						<8	
2-butanone	ug/L	<10	<10		<10	<5	<5	<5
2-chloronaphthalene	ug/L						<8	
2-chlorophenol	ug/L						<8	
2-hexanone	ug/L	<10	<10		<10	<5	<5	<5
2-methylnaphthalene	ug/L						<8	
2-methylphenol (o-cresol)	ug/L						<8	
2-naphthylamine	ug/L						<8	
2-nitroaniline	ug/L						<8	
2-nitrophenol	ug/L						<8	
3,3´-dichlorobenzidine	ug/L						<8	
3,3-dimethylbenzidine	ug/L						<8	
3-methylcholanthrene	ug/L						<8	
3-nitroaniline	ug/L						<8	
4,4`-ddd	ug/L						<.05	
4,4`-dde	ug/L						<.05	
4,4`-ddt	ug/L						<.05	
4,6-dinitro-2-methylphenol	ug/L						<8	
4-aminobiphenyl	ug/L						<8	
4-bromophenyl phenyl ether	ug/L						<8	
4-chloro-3-methylphenol	ug/L						<8	
4-chloroaniline	ug/L						<8	
4-chlorophenyl phenyl ether	ug/L						<8	
4-methyl-2-pentanone	ug/L	<10	<10		<10	<5	<5	<5
4-nitroaniline	ug/L						<8	
4-nitrophenol	ug/L						<8	
5-nitro-o-toluidine	ug/L						<8	
7,12-dimethylbenz [a] anthracene	ug/L						<8	
Acenaphthene	ug/L						<8	
Acenaphthylene	ug/L						<8	
Acetone	ug/L	<10.0	<10.0		<10.0	<10.0	<10.0	13.1
Acetonitrile	ug/L						<10	
Acetophenone	ug/L						<8	
Acrolein	ug/L						<10	
Acrylonitrile	ug/L	<10	<10		<10	<5	<5	<5
Aldrin	ug/L						<.05	
Allyl chloride	ug/L						<1	
Alpha-bhc	ug/L						<.05	
Anthracene	ug/L						<8	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 11

Analytical Data Summary for MW-25

Constituents	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021	9/8/2021	3/31/2022
(3 4)-methylphenol		<8							
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene		<1							
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene		<8							
1,2,4-trichlorobenzene		<1							
1,2-dibromo-3-chloropropane	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-dibromoethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene		<8							
1,3,5-trinitrobenzene		<8							
1,3-dichlorobenzene		<1							
1,3-dichloropropane		<1							
1,3-dinitrobenzene		<8							
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone		<8							
1,4-phenylenediamine		<8							
1-naphthylamine		<8							
2,2-dichloropropane		<1							
2,3,4,6-tetrachlorophenol		<8							
2,4,5-t		<.5							
2,4,5-tp (silvex)		<.5							
2,4,5-trichlorophenol		<8							
2,4,6-trichlorophenol		<8							
2,4-d		<2							
2,4-dichlorophenol		<8							
2,4-dimethylphenol		<8							
2,4-dinitrophenol		<8							
2,4-dinitrotoluene		<8							
2,6-dichlorophenol		<8							
2,6-dinitrotoluene		<8							
2-acetylaminofluorene		<8							
2-butanone	<5	<5	<5	<5	<5	<5	<5	<5	<10
2-chloronaphthalene		<8							
2-chlorophenol		<8							
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene		<8							
2-methylphenol (o-cresol)		<8							
2-naphthylamine		<8							
2-nitroaniline		<8							
2-nitrophenol		<8							
3,3´-dichlorobenzidine		<8							
3,3-dimethylbenzidine		<8							
3-methylcholanthrene		<8							
3-nitroaniline		<8							
4,4`-ddd		<.05							
4,4`-dde		<.05							
4,4`-ddt		<.05							
4,6-dinitro-2-methylphenol		<8							
4-aminobiphenyl		<8							
4-bromophenyl phenyl ether		<8							
4-chloro-3-methylphenol		<8							
4-chloroaniline		<8							
4-chlorophenyl phenyl ether		<8							
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline		<8							
4-nitrophenol		<8							
5-nitro-o-toluidine		<8							
7,12-dimethylbenz [a] anthracene		<8							
Acenaphthene		<8							
Acenaphthylene		<8							
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile		<10							
Acetophenone		<8							
Acrolein		<10							
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin		<.05							
Allyl chloride		<1							
Alpha-bhc		<.05							
Anthracene		<8							

* - The displayed value is the arithmetic mean of multiple database matches.

Table 11

Analytical Data Summary for MW-25

Constituents	8/30/2022	3/7/2023	9/28/2023
(3 4)-methylphenol			
1,1,1,2-tetrachloroethane	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1
1,1-dichloroethane	<1	<1	<1
1,1-dichloroethene	<1	<1	<1
1,1-dichloropropene			
1,2,3-trichloropropane	<1	<1	<1
1,2,4,5-tetrachlorobenzene			
1,2,4-trichlorobenzene			
1,2-dibromo-3-chloropropane	<5.0	<5.0	<5.0
1,2-dibromoethane	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1
1,2-dichloroethane	<1	<1	<1
1,2-dichloropropane	<1	<1	<1
1,2-dinitrobenzene			
1,3,5-trinitrobenzene			
1,3-dichlorobenzene			
1,3-dichloropropane			
1,3-dinitrobenzene			
1,4-dichlorobenzene	<1	<1	<1
1,4-naphthoquinone			
1,4-phenylenediamine			
1-naphthylamine			
2,2-dichloropropane			
2,3,4,6-tetrachlorophenol			
2,4,5-t			
2,4,5-tp (silvex)			
2,4,5-trichlorophenol			
2,4,6-trichlorophenol			
2,4-d			
2,4-dichlorophenol			
2,4-dimethylphenol			
2,4-dinitrophenol			
2,4-dinitrotoluene			
2,6-dichlorophenol			
2,6-dinitrotoluene			
2-acetylaminofluorene			
2-butanone	<10	<10	<10
2-chloronaphthalene			
2-chlorophenol			
2-hexanone	<5	<5	<5
2-methylnaphthalene			
2-methylphenol (o-cresol)			
2-naphthylamine			
2-nitroaniline			
2-nitrophenol			
3,3´-dichlorobenzidine			
3,3-dimethylbenzidine			
3-methylcholanthrene			
3-nitroaniline			
4,4`-ddd			
4,4`-dde			
4,4`-ddt			
4,6-dinitro-2-methylphenol			
4-aminobiphenyl			
4-bromophenyl phenyl ether			
4-chloro-3-methylphenol			
4-chloroaniline			
4-chlorophenyl phenyl ether			
4-methyl-2-pentanone	<5	<5	<5
4-nitroaniline			
4-nitrophenol			
5-nitro-o-toluidine			
7,12-dimethylbenz [a] anthracene			
Acenaphthene			
Acenaphthylene			
Acetone	<10.0	<10.0	<10.0
Acetonitrile			
Acetophenone			
Acrolein			
Acrylonitrile	<5	<5	<5
Aldrin			
Allyl chloride			
Alpha-bhc			
Anthracene			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 11

Analytical Data Summary for MW-25

Constituents	Units	11/12/2015	2/1/2016	4/11/2016	4/12/2016	9/16/2016	3/15/2017	9/27/2017
Antimony, total	ug/L	<6	<6		<1	<2	<2	<2
Arochlor 1016	ug/L						<.1	
Arochlor 1221	ug/L						<.2	
Arochlor 1232	ug/L						<.2	
Arochlor 1242	ug/L						<.2	
Arochlor 1248	ug/L						<.2	
Arochlor 1254	ug/L						<.1	
Arochlor 1260	ug/L						<.1	
Arsenic, total	ug/L	<10.00	4.03		5.04	<4.00	<4.00	<4.00
Azobenzene	ug/L						<8	
Barium, total	ug/L	38.4	52.4		34.5	29.4	33.8	32.0
Benzene	ug/L	<.5	<.5		<.5	<1.0	<1.0	<1.0
Benzo(a)anthracene	ug/L						<8	
Benzo(a)pyrene	ug/L						<8	
Benzo(b)fluoranthene	ug/L						<8	
Benzo(g,h,i)perylene	ug/L						<8	
Benzo(k)fluoranthene	ug/L						<8	
Benzyl alcohol	ug/L						<8	
Beryllium, total	ug/L	<1	<1		<1	<4	<4	<4
Beta-bhc	ug/L						<.05	
Bicarbonate alkalinity	mg/L as CaCO3	513 *						
Bis (2-chloroethoxy) methane	ug/L						<8	
Bis(2-chloroethyl) ether	ug/L						<8	
Bis(2-ethylhexyl) phthalate	ug/L						17	8
Bis[2-chloroisopropyl]ether	ug/L						<8	
Bromochloromethane	ug/L	<5	<5		<5	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1		<1	<1	<1	<1
Bromoform	ug/L	<5	<5		<5	<1	<1	<1
Bromomethane	ug/L	<4	<4		<4	<1	<1	<1
Butyl benzyl phthalate	ug/L						<8	
Cadmium, total	ug/L	<.5	<.5		<.5	<.8	<.8	<.8
Calcium, total	mg/L	520 *						
Carbon disulfide	ug/L	<1	<1		<1	<1	<1	<1
Carbon tetrachloride	ug/L	<2	<2		<2	<1	<1	<1
Carbonate alkalinity	mg/L as CaCO3	<5 *						
Chlordane	ug/L						<.1	
Chloride	mg/L	9.45 *						
Chlorobenzene	ug/L	<1	<1		<1	<1	<1	<1
Chlorobenzilate	ug/L						<8	
Chloroethane	ug/L	<4	<4		<4	<1	<1	<1
Chloroform	ug/L	<1	<1		<1	<1	<1	<1
Chloromethane	ug/L	<3	<3		<3	<1	<1	<1
Chloroprene	ug/L						<1	
Chromium, total	ug/L	<5	<5		<5	<8	<8	<8
Chrysene	ug/L						<8	
Cis-1,2-dichloroethene	ug/L	<1	<1		<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<5	<5		<5	<1	<1	<1
Cobalt, total	ug/L	4.86	9.31		8.82	2.10	10.40	2.60
Copper, total	ug/L	4.20	7.84		8.08	<4.00	<4.00	<4.00
Cyanide	mg/L						<.005	
Delta-bhc	ug/L						<.05	
Diallate	ug/L						<8	
Dibenzo(a,h)anthracene	ug/L						<8	
Dibenzofuran	ug/L						<8	
Dibromochloromethane	ug/L	<5	<5		<5	<1	<1	<1
Dibromomethane	ug/L					<1	<1	<1
Dichlorodifluoromethane	ug/L						<1	
Dieldrin	ug/L						<.05	
Diethyl phthalate	ug/L						<8	
Dimethoate	ug/L						<.4	
Dimethylphthalate	ug/L						<8	
Di-n-butyl phthalate	ug/L						<8	
Di-n-octyl phthalate	ug/L						<8	
Dinoseb	ug/L						<.5	
Diphenylamine	ug/L						<8	
Disulfoton	ug/L						<.4	
Endosulfan i	ug/L						<.05	
Endosulfan ii	ug/L						<.05	
Endosulfan sulfate	ug/L						<.05	
Endrin	ug/L						<.05	
Endrin aldehyde	ug/L						<.05	
Ethyl methacrylate	ug/L						<10	
Ethyl methanesulfonate	ug/L						<8	
Ethylbenzene	ug/L	<1	<1		<1	<1	<1	<1
Famphur	ug/L						<.4	
Fluoranthene	ug/L						<8	
Fluorene	ug/L						<8	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 11

Analytical Data Summary for MW-25

Constituents	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021	9/8/2021	3/31/2022
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016		<.1							
Arochlor 1221		<.2							
Arochlor 1232		<.2							
Arochlor 1242		<.2							
Arochlor 1248		<.2							
Arochlor 1254		<.1							
Arochlor 1260		<.1							
Arsenic, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Azobenzene		<8							
Barium, total	24.5	32.1	22.2	18.4	21.2	19.7	22.6	25.7	24.7
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene		<8							
Benzo(a)pyrene		<8							
Benzo(b)fluoranthene		<8							
Benzo(g,h,i)perylene		<8							
Benzo(k)fluoranthene		<8							
Benzyl alcohol		<8							
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc		<.05							
Bicarbonate alkalinity									
Bis (2-chloroethoxy) methane		<8							
Bis(2-chloroethyl) ether		<8							
Bis(2-ethylhexyl) phthalate	7	<6	<6	<6	<6				
Bis[2-chloroisopropyl]ether		<8							
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate		<8							
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total									
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate alkalinity									
Chlordane		<.1							
Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate		<8							
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene		<1							
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene		<8							
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	3.00	<.80	2.80	<.80	<.40	<.40	1.90	.40	1.80
Copper, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Cyanide		<.005							
Delta-bhc		<.05							
Diallate		<8							
Dibenzo(a,h)anthracene		<8							
Dibenzofuran		<8							
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane		<1							
Dieldrin		<.05							
Diethyl phthalate		<8							
Dimethoate		<.4							
Dimethylphthalate		<8							
Di-n-butyl phthalate		<8							
Di-n-octyl phthalate		<8							
Dinoseb		<.5							
Diphenylamine		<8							
Disulfoton		<.4							
Endosulfan i		<.05							
Endosulfan ii		<.05							
Endosulfan sulfate		<.05							
Endrin		<.05							
Endrin aldehyde		<.05							
Ethyl methacrylate		<10							
Ethyl methanesulfonate		<8							
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur		<.4							
Fluoranthene		<8							
Fluorene		<8							

* - The displayed value is the arithmetic mean of multiple database matches.

Table 11

Analytical Data Summary for MW-25

Constituents	8/30/2022	3/7/2023	9/28/2023
Antimony, total	<2	<2	<2
Arochlor 1016			
Arochlor 1221			
Arochlor 1232			
Arochlor 1242			
Arochlor 1248			
Arochlor 1254			
Arochlor 1260			
Arsenic, total	<4.00	<4.00	<4.00
Azobenzene			
Barium, total	18.3	22.7	22.9
Benzene	<1.0	<1.0	<1.0
Benzo(a)anthracene			
Benzo(a)pyrene			
Benzo(b)fluoranthene			
Benzo(g,h,i)perylene			
Benzo(k)fluoranthene			
Benzyl alcohol			
Beryllium, total	<4	<4	<4
Beta-bhc			
Bicarbonate alkalinity			
Bis (2-chloroethoxy) methane			
Bis(2-chloroethyl) ether			
Bis(2-ethylhexyl) phthalate			
Bis[2-chloroisopropyl]ether			
Bromochloromethane	<1	<1	<1
Bromodichloromethane	<1	<1	<1
Bromoform	<1	<1	<1
Bromomethane	<1	<1	<1
Butyl benzyl phthalate			
Cadmium, total	<.8	<.8	<.8
Calcium, total			
Carbon disulfide	<1	<1	<1
Carbon tetrachloride	<1	<1	<1
Carbonate alkalinity			
Chlordane			
Chloride			
Chlorobenzene	<1	<1	<1
Chlorobenzilate			
Chloroethane	<1	<1	<1
Chloroform	<1	<1	<1
Chloromethane	<1	<1	<1
Chloroprene			
Chromium, total	<8	<8	<8
Chrysene			
Cis-1,2-dichloroethene	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1
Cobalt, total	<.40	.90	.60
Copper, total	<4.00	<4.00	<4.00
Cyanide			
Delta-bhc			
Diallate			
Dibenzo(a,h)anthracene			
Dibenzofuran			
Dibromochloromethane	<1	<1	<1
Dibromomethane	<1	<1	<1
Dichlorodifluoromethane			
Dieldrin			
Diethyl phthalate			
Dimethoate			
Dimethylphthalate			
Di-n-butyl phthalate			
Di-n-octyl phthalate			
Dinoseb			
Diphenylamine			
Disulfoton			
Endosulfan i			
Endosulfan ii			
Endosulfan sulfate			
Endrin			
Endrin aldehyde			
Ethyl methacrylate			
Ethyl methanesulfonate			
Ethylbenzene	<1	<1	<1
Famphur			
Fluoranthene			
Fluorene			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 11

Analytical Data Summary for MW-25

Constituents	Units	11/12/2015	2/1/2016	4/11/2016	4/12/2016	9/16/2016	3/15/2017	9/27/2017
Gamma-bhc [lindane]	ug/L						<.05	
Heptachlor	ug/L						<.05	
Heptachlor epoxide	ug/L						<.05	
Hexachlorobenzene	ug/L						<.05	
Hexachlorobutadiene	ug/L						<8	
Hexachlorocyclopentadiene	ug/L						<8	
Hexachloroethane	ug/L						<8	
Hexachloropropene	ug/L						<8	
Indeno(1,2,3-cd)pyrene	ug/L						<8	
Iodomethane	ug/L	<10	<10		<10	<1	<1	<1
Isobutanol	mg/L						<1	
Isodrin	ug/L						<8	
Isophorone	ug/L						<8	
Isosafrole	ug/L						<8	
Kepone	ug/L						<8	
Lead, total	ug/L	2.40	4.35		8.22	<4.00	<4.00	<4.00
Magnesium, total	mg/L	202 *						
Mercury, total	ug/L						<.5	
Methacrylonitrile	ug/L						<1	
Methapyrilene	ug/L						<8	
Methoxychlor	ug/L						<.05	
Methyl methacrylate	ug/L						<1	
Methyl methanesulfonate	ug/L						<8	
Methyl parathion	ug/L						<.4	
Methylene bromide	ug/L	<1	<1		<1			
Methylene chloride	ug/L	<5	<5		<5	<5	<5	<5
Naphthalene	ug/L						<8	
Nickel, total	ug/L	27.1	28.0		21.7	18.1	26.5	18.9
Nitrobenzene	ug/L						<8	
N-nitrosodiethylamine	ug/L						<8	
N-nitrosodimethylamine	ug/L						<8	
N-nitrosodi-n-butylamine	ug/L						<8	
N-nitroso-di-n-propylamine	ug/L						<8	
N-nitrosodiphenylamine	ug/L						<8	
N-nitrosomethylethylamine	ug/L						<8	
N-nitrosopiperidine	ug/L						<8	
N-nitrosopyrrolidine	ug/L						<8	
O,o,o-triethyl phosphorothioate	ug/L						<.4	
O-toluidine	ug/L						<8	
P-(dimethylamino)azobenzene	ug/L						<8	
Parathion	ug/L						<.4	
Pentachlorobenzene	ug/L						<8	
Pentachloronitrobenzene (pcnb)	ug/L						<8	
Pentachlorophenol	ug/L						<8	
Phenacetin	ug/L						<8	
Phenanthrene	ug/L						<8	
Phenol	ug/L						<8	
Phorate	ug/L						<.4	
Potassium, total	mg/L	8.41 *						
Pronamide	ug/L						<8	
Propionitrile	ug/L						<10	
Pyrene	ug/L						<8	
Safrole	ug/L						<8	
Selenium, total	ug/L	<5	<5		<5	<4	<4	<4
Silver, total	ug/L	<1	<1		<1	<4	<4	<4
Sodium, total	mg/L	39.1 *						
Styrene	ug/L	<1	<1		<1	<1	<1	<1
Sulfate	mg/L	1490 *						
Sulfide	mg/L						<.1	
Tetrachloroethene	ug/L	<1	<1		<1	<1	<1	<1
Thallium, total	ug/L	<2	<2		<2	<4	<4	<4
Thionazin	ug/L						<.4	
Tin, total	ug/L						<20	
Toluene	ug/L	<1	<1		<1	<1	<1	<1
Total suspended solids	mg/L	109 *	277 *	503	503	23	2070	
Toxaphene	ug/L						<.2	
Trans-1,2-dichloroethene	ug/L	<1	<1		<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<5	<5		<5	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<10	<10		<10	<5	<5	<5
Trichloroethene	ug/L	<1	<1		<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<4	<4		<4	<1	<1	<1
Vanadium, total	ug/L	<5.00	8.27		17.20	<20.00	<20.00	<20.00
Vinyl acetate	ug/L	<10	<10		<10	<5	<5	<5
Vinyl chloride	ug/L	<1	<1		<1	<1	<1	<1
Xylenes, total	ug/L	<3	<3		<3	<2	<2	<2
Zinc, total	ug/L	11.7	24.6		30.5	<8.0	8.4	9.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 11

Analytical Data Summary for MW-25

Constituents	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021	9/8/2021	3/31/2022
Gamma-bhc [lindane]		<.05							
Heptachlor		<.05							
Heptachlor epoxide		<.05							
Hexachlorobenzene		<.05							
Hexachlorobutadiene		<8							
Hexachlorocyclopentadiene		<8							
Hexachloroethane		<8							
Hexachloropropene		<8							
Indeno(1,2,3-cd)pyrene		<8							
Iodomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isobutanol		<1							
Isodrin		<8							
Isophorone		<8							
Isosafrole		<8							
Kepone		<8							
Lead, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Magnesium, total									
Mercury, total		<.5							
Methacrylonitrile		<1							
Methapyrilene		<8							
Methoxychlor		<.05							
Methyl methacrylate		<1							
Methyl methanesulfonate		<8							
Methyl parathion		<.4							
Methylene bromide									
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<8							
Nickel, total	9.7	18.3	15.4	4.9	9.7	4.2	15.6	8.4	10.5
Nitrobenzene		<8							
N-nitrosodiethylamine		<8							
N-nitrosodimethylamine		<8							
N-nitrosodi-n-butylamine		<8							
N-nitroso-di-n-propylamine		<8							
N-nitrosodiphenylamine		<8							
N-nitrosomethylethylamine		<8							
N-nitrosopiperidine		<8							
N-nitrosopyrrolidine		<8							
O,o,o-triethyl phosphorothioate		<.4							
O-toluidine		<8							
P-(dimethylamino)azobenzene		<8							
Parathion		<.4							
Pentachlorobenzene		<8							
Pentachloronitrobenzene (pcnb)		<8							
Pentachlorophenol		<8							
Phenacetin		<8							
Phenanthrene		<8							
Phenol		<8							
Phorate		<.4							
Potassium, total									
Pronamide		<8							
Propionitrile		<10							
Pyrene		<8							
Safrole		<8							
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate									
Sulfide		<.1							
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<2	<2	<2	<2	<2	<2	<2
Thionazin		<.4							
Tin, total		<20							
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total suspended solids									
Toxaphene		<.2							
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<8.0	25.8	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 11

Analytical Data Summary for MW-25

Constituents	8/30/2022	3/7/2023	9/28/2023
Gamma-bhc [lindane]			
Heptachlor			
Heptachlor epoxide			
Hexachlorobenzene			
Hexachlorobutadiene			
Hexachlorocyclopentadiene			
Hexachloroethane			
Hexachloropropene			
Indeno(1,2,3-cd)pyrene			
Iodomethane	<1	<1	<1
Isobutanol			
Isodrin			
Isophorone			
Isosafrole			
Kepone			
Lead, total	<4.00	<4.00	<4.00
Magnesium, total			
Mercury, total			
Methacrylonitrile			
Methapyrilene			
Methoxychlor			
Methyl methacrylate			
Methyl methanesulfonate			
Methyl parathion			
Methylene bromide			
Methylene chloride	<5	<5	<5
Naphthalene			
Nickel, total	4.2	9.0	5.7
Nitrobenzene			
N-nitrosodiethylamine			
N-nitrosodimethylamine			
N-nitrosodi-n-butylamine			
N-nitroso-di-n-propylamine			
N-nitrosodiphenylamine			
N-nitrosomethylethylamine			
N-nitrosopiperidine			
N-nitrosopyrrolidine			
O,o,o-triethyl phosphorothioate			
O-toluidine			
P-(dimethylamino)azobenzene			
Parathion			
Pentachlorobenzene			
Pentachloronitrobenzene (pcnb)			
Pentachlorophenol			
Phenacetin			
Phenanthrene			
Phenol			
Phorate			
Potassium, total			
Pronamide			
Propionitrile			
Pyrene			
Safrole			
Selenium, total	<4	<4	<4
Silver, total	<4	<4	<4
Sodium, total			
Styrene	<1	<1	<1
Sulfate			
Sulfide			
Tetrachloroethene	<1	<1	<1
Thallium, total	<2	<2	<2
Thionazin			
Tin, total			
Toluene	<1	<1	<1
Total suspended solids			
Toxaphene			
Trans-1,2-dichloroethene	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5
Trichloroethene	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1
Vanadium, total	<20.00	<20.00	<20.00
Vinyl acetate	<5	<5	<5
Vinyl chloride	<1	<1	<1
Xylenes, total	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 12

Analytical Data Summary for MW-26

Constituents	Units	10/31/2016	3/16/2017	9/27/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020
1,1,1,2-tetrachloroethane	ug/L	<1			<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1			<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1			<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1			<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1			<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1			<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1			<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1			<1	<1	<1	<1	<5	<5
1,2-dibromoethane	ug/L	<1			<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1			<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1			<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1			<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1			<1	<1	<1	<1	<1	<1
2-butanone	ug/L	<5			<5	<5	<5	<5	<5	<5
2-hexanone	ug/L	<5			<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	ug/L	<5			<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10			<10	<10	<10	<10	<10	<10
Acrylonitrile	ug/L	<5			<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	ug/L	155	161	155	201	170	176	158	158	148
Benzene	ug/L	<1			<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1			<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1			<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1			<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1			<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1			<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1			<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1			<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1			<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1			<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1			<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	ug/L	<1			<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1			<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<.8	<.8	<.8	<2.0	<.8	<.8	<.8	<.4	<.4
Copper, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	ug/L	<1			<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1			<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1			<1	<1	<1	<1	<1	<1
Iodomethane	ug/L	<2			<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methylene chloride	ug/L	<5			<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Styrene	ug/L	<1			<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1			<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<2	<2	<2	<2
Toluene	ug/L	<1			<1	<1	<1	<1	<1	<1
Total suspended solids	mg/L	11	5							
Trans-1,2-dichloroethene	ug/L	<1			<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1			<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5			<5	<5	<5	<5	<5	<5
Trichloroethene	ug/L	<1			<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1			<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<10			<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1			<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2			<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	<8.0	<8.0	<8.0	<8.0	<20.0	<20.0	12.5	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 12

Analytical Data Summary for MW-26

Constituents	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1
2-butanone	<5	<5	<10	<10	<10	<10
2-hexanone	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5
Acetone	<10	<10	<10	<10	<10	<10
Acrylonitrile	<5	<5	<5	<5	<5	<5
Antimony, total	<2	<2	<2	<2	<2	<2
Arsenic, total	<4	<4	<4	<4	<4	<4
Barium, total	154	141	178	156	174	170
Benzene	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1
Cobalt, total	<.4	<.4	<.4	<.4	<.4	<.4
Copper, total	<4	<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1
Iodomethane	<1	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4	<4
Methylene chloride	<5	<5	<5	<5	<5	<5
Nickel, total	<4	<4	<4	<4	<4	<4
Selenium, total	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4
Styrene	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1	<1
Total suspended solids						
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 13

Analytical Data Summary for MW-27

Constituents	Units	10/31/2016	3/16/2017	9/27/2017	12/13/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020
1,1,1,2-tetrachloroethane	ug/L	<1				<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1				<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1				<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1				<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1				<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1				<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1				<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1				<1	<1	<1	<1	<5
1,2-dibromoethane	ug/L	<1				<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1				<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1				<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1				<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1				<1	<1	<1	<1	<1
2-butanone	ug/L	<5				<5	<5	<5	<5	<5
2-hexanone	ug/L	<5				<5	<5	<5	<5	<5
4-methyl-2-pentanone	ug/L	<5				<5	<5	<5	<5	<5
Acetone	ug/L	<10				<10	<10	<10	<10	<10
Acrylonitrile	ug/L	<5				<5	<5	<5	<5	<5
Antimony, total	ug/L	<2	<2	<2		<2	<2	<2	<2	<2
Arsenic, total	ug/L	<4.0	9.3	84.4	8.8	43.9	26.3	51.3	18.8	9.2
Barium, total	ug/L	143	113	501	134	302	189	289	182	138
Benzene	ug/L	<1				<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4		<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1				<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1				<1	<1	<1	<1	<1
Bromoform	ug/L	<1				<1	<1	<1	<1	<1
Bromomethane	ug/L	<1				<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8		<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1				<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1				<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1				<1	<1	<1	<1	<1
Chloroethane	ug/L	<1				<1	<1	<1	<1	<1
Chloroform	ug/L	<1				<1	<1	<1	<1	<1
Chloromethane	ug/L	<1				<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8		<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	ug/L	<1				<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1				<1	<1	<1	<1	<1
Cobalt, total	ug/L	<.8	<.8	1.3		<2.0	<.8	.8	<.8	1.0
Copper, total	ug/L	<4.0	<4.0	6.3		<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	ug/L	<1				<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1				<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1				<1	<1	<1	<1	<1
Iodomethane	ug/L	<1				<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4		<4	<4	<4	<4	<4
Methylene chloride	ug/L	<5				<5	<5	<5	<5	<5
Nickel, total	ug/L	<4	<4	<4		<4	<4	<4	<4	<4
Selenium, total	ug/L	<4	<4	<4		<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4		<4	<4	<4	<4	<4
Styrene	ug/L	<1				<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1				<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4		<4	<4	<2	<2	<2
Toluene	ug/L	<1				<1	<1	<1	<1	<1
Total suspended solids	mg/L	58	78							
Trans-1,2-dichloroethene	ug/L	<1				<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1				<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5				<5	<5	<5	<5	<5
Trichloroethene	ug/L	<1				<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1				<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20		<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5				<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1				<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2				<2	<2	<2	<2	<2
Zinc, total	ug/L	<8.0	<8.0	24.2	<8.0	<8.0	31.9	<20.0	8.2	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 13

Analytical Data Summary for MW-27

Constituents	9/3/2020	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1
2-butanone	<5	<5	<5	<10	<10	<10	<10
2-hexanone	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5
Acetone	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5
Antimony, total	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	<4.0	8.6	5.6	<4.0	13.5	<4.0	5.3
Barium, total	124	127	111	106	134	107	112
Benzene	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	.8	.7	.6	.7	.6	.7	.6
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1
Iodomethane	<1	<1	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4	<4	<4
Methylene chloride	<5	<5	<5	<5	<5	<5	<5
Nickel, total	<4	<4	<4	<4	<4	<4	<4
Selenium, total	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4
Styrene	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1	<1	<1
Total suspended solids							
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 14

Analytical Data Summary for MW-28

Constituents	Units	10/31/2016	3/16/2017	3/14/2018	9/12/2018	4/1/2019	5/6/2020	9/3/2020	3/30/2021	3/31/2022
1,1,1,2-tetrachloroethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1		<1	<1	<1	<5	<5	<5	<5
1,2-dibromoethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
2-butanone	ug/L	<5		<5	<5	<5	<5	<5	<5	<10
2-hexanone	ug/L	<5		<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	ug/L	<5		<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10		<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	ug/L	<5		<5	<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	ug/L	37.1	71.6	50.3	37.0	35.1	26.2	24.6	27.2	31.1
Benzene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	.9	1.7	<2.0	<.8	<.8	<.4	<.4	.6	1.0
Copper, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Iodomethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methylene chloride	ug/L	<5		<5	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	4.1	<4.0
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Styrene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<2	<2	<2	<2	<2
Toluene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Total suspended solids	mg/L	692	14							
Trans-1,2-dichloroethene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5		<5	<5	<5	<5	<5	<5	<5
Trichloroethene	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5		<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1		<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2		<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	<8.0	<8.0	<8.0	33.2	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 14

Analytical Data Summary for MW-28

Constituents	3/7/2023
1,1,1,2-tetrachloroethane	<1
1,1,1-trichloroethane	<1
1,1,2,2-tetrachloroethane	<1
1,1,2-trichloroethane	<1
1,1-dichloroethane	<1
1,1-dichloroethene	<1
1,2,3-trichloropropane	<1
1,2-dibromo-3-chloropropane	<5
1,2-dibromoethane	<1
1,2-dichlorobenzene	<1
1,2-dichloroethane	<1
1,2-dichloropropane	<1
1,4-dichlorobenzene	<1
2-butanone	<10
2-hexanone	<5
4-methyl-2-pentanone	<5
Acetone	<10
Acrylonitrile	<5
Antimony, total	<2
Arsenic, total	<4
Barium, total	27.3
Benzene	<1
Beryllium, total	<4
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<1
Cadmium, total	<.8
Carbon disulfide	<1
Carbon tetrachloride	<1
Chlorobenzene	<1
Chloroethane	<1
Chloroform	<1
Chloromethane	<1
Chromium, total	<8
Cis-1,2-dichloroethene	<1
Cis-1,3-dichloropropene	<1
Cobalt, total	.4
Copper, total	<4
Dibromochloromethane	<1
Dibromomethane	<1
Ethylbenzene	<1
Iodomethane	<1
Lead, total	<4
Methylene chloride	<5
Nickel, total	<4.0
Selenium, total	<4
Silver, total	<4
Styrene	<1
Tetrachloroethene	<1
Thallium, total	<2
Toluene	<1
Total suspended solids	
Trans-1,2-dichloroethene	<1
Trans-1,3-dichloropropene	<1
Trans-1,4-dichloro-2-butene	<5
Trichloroethene	<1
Trichlorofluoromethane	<1
Vanadium, total	<20
Vinyl acetate	<5
Vinyl chloride	<1
Xylenes, total	<2
Zinc, total	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 15

Analytical Data Summary for MW-6

Constituents	Units	10/20/2014	6/22/2015	6/23/2015	11/12/2015	11/13/2015	4/11/2016	9/16/2016
1,1,1,2-tetrachloroethane	ug/L	<1		<1		<1	<1	<1
1,1,1-trichloroethane	ug/L	<1		<1		<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1		<1		<1	<1	<1
1,1,2-trichloroethane	ug/L	<1		<1		<1	<1	<1
1,1-dichloroethane	ug/L	<1		<1		<1	<1	<1
1,1-dichloroethene	ug/L	<2		<2		<2	<2	<1
1,2,3-trichloropropane	ug/L	<1		<1		<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<.12		<.50		<.50	<.50	<1.00
1,2-dibromoethane	ug/L	<.13		<.13		<.13	<.13	<1.00
1,2-dichlorobenzene	ug/L	<1		<1		<1	<1	<1
1,2-dichloroethane	ug/L	<1		<1		<1	<1	<1
1,2-dichloropropane	ug/L	<1		<1		<1	<1	<1
1,4-dichlorobenzene	ug/L	<1		<1		<1	<1	<1
2-butanone	ug/L	<10		<10		<10	<10	<5
2-hexanone	ug/L	<10		<10		<10	<10	<5
4-methyl-2-pentanone	ug/L	<10		<10		<10	<10	<5
Acetone	ug/L	<10		<10		<10	<10	<10
Acrylonitrile	ug/L	<10		<10		<10	<10	<5
Ammonia as n	mg/L			<.2 *		<.2 *	<.2 *	
Antimony, total	ug/L	<6		<6		<6	<6	<2
Arsenic, total	ug/L	1.69		<2.00		<2.00	<10.00	<4.00
Barium, total	ug/L	346		237		294	279	316
Benzene	ug/L	<.5		<.5		<.5	<.5	<1.0
Beryllium, total	ug/L	<1		<1		<1	<1	<4
Bicarbonate alkalinity	mg/L as CaCO3			508 *		557 *		
Bromochloromethane	ug/L	<5		<5		<5	<5	<1
Bromodichloromethane	ug/L	<1		<1		<1	<1	<1
Bromoform	ug/L	<5		<5		<5	<5	<1
Bromomethane	ug/L	<4		<4		<4	<4	<1
Cadmium, total	ug/L	<.5		<.5		<.5	<.5	<.8
Calcium, total	mg/L			136 *		161 *		
Carbon disulfide	ug/L	<1		<1		<1	<1	<1
Carbon tetrachloride	ug/L	<2		<2		<2	<2	<1
Carbonate alkalinity	mg/L as CaCO3			<5 *		<5 *		
Chloride	mg/L			4.52 *		6.64 *		
Chlorobenzene	ug/L	<1		<1		<1	<1	<1
Chloroethane	ug/L	<4		<4		<4	<4	<1
Chloroform	ug/L	<1		<1		<1	<1	<1
Chloromethane	ug/L	<3		<3		<3	<3	<1
Chromium, total	ug/L	<5		<5		<5	<5	<8
Cis-1,2-dichloroethene	ug/L	<1		<1		<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<5		<5		<5	<5	<1
Cobalt, total	ug/L	7.43		<.80		<.80	<.80	<.80
Copper, total	ug/L	25.70		<2.00		2.68	<2.00	<4.00
Dibromochloromethane	ug/L	<5		<5		<5	<5	<1
Dibromomethane	ug/L							<1
Ethylbenzene	ug/L	<1		<1		<1	<1	<1
Iodomethane	ug/L	<10		<10		<10	<10	<1
Iron, total	ug/L			366 *		337 *	248 *	
Lead, total	ug/L	6.030		.608		.503	<.500	<4.000
Magnesium, total	mg/L			55.5 *		62.4 *		
Manganese, total	ug/L			51.5 *		67.9 *	54.4 *	
Methylene bromide	ug/L	<1		<1		<1	<1	
Methylene chloride	ug/L	<5		<5		<5	<5	<5
Nickel, total	ug/L	<30.0		<5.0		<5.0	<5.0	<4.0
Nitrate as n	mg/L			<.1 *		<.1 *	<.1 *	
Potassium, total	mg/L			<1.00 *		1.08 *		
Selenium, total	ug/L	<5		<5		<5	<5	<4
Silver, total	ug/L	<20		<1		<1	<1	<4
Sodium, total	mg/L			9.37 *		15.10 *		
Styrene	ug/L	<1		<1		<1	<1	<1
Sulfate	mg/L			59.4 *		49.6 *	103.0 *	
Tetrachloroethene	ug/L	<1		<1		<1	<1	<1
Thallium, total	ug/L	<2		<1		<1	<2	<4
Tin, total	ug/L		<5	<5				
Toluene	ug/L	<1		<1		<1	<1	<1
Total organic carbon	mg/L			<1.00 *		2.88 *	<1.00 *	
Total suspended solids	mg/L	512.0 *	53.5	56.5 *	47.1	47.1	14.0 *	3.0
Trans-1,2-dichloroethene	ug/L	<1		<1		<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<5		<5		<5	<5	<1
Trans-1,4-dichloro-2-butene	ug/L	<10		<10		<10	<10	<5
Trichloroethene	ug/L	<1		<1		<1	<1	<1
Trichlorofluoromethane	ug/L	<4		<4		<4	<4	<1
Vanadium, total	ug/L	<20		<5		<5	<5	<20
Vinyl acetate	ug/L	<10		<10		<10	<10	<5
Vinyl chloride	ug/L	<1		<1		<1	<1	<1
Xylenes, total	ug/L	<3		<3		<3	<3	<2

* - The displayed value is the arithmetic mean of multiple database matches.

Table 15

Analytical Data Summary for MW-6

Constituents	3/15/2017	9/27/2017	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021	9/8/2021	3/31/2022
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ammonia as n										
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Barium, total	326	193	333	409	349	477	299	264	197	227
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bicarbonate alkalinity										
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total										
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbonate alkalinity										
Chloride										
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	<.80	<.80	<.80	<.80	<.80	<.40	<.40	<.40	<.40	1.10
Copper, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Iodomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Iron, total										
Lead, total	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000
Magnesium, total										
Manganese, total										
Methylene bromide										
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	7.8	8.4	7.3	6.9	5.5	5.0	5.7	9.9
Nitrate as n										
Potassium, total										
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total										
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate										
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4	<2	<2	<2	<2	<2	<2	<2
Tin, total										
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total organic carbon										
Total suspended solids	18.0									
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

* - The displayed value is the arithmetic mean of multiple database matches.

Table 15

Analytical Data Summary for MW-6

Constituents	8/30/2022	3/7/2023	9/28/2023
1,1,1,2-tetrachloroethane	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1
1,1-dichloroethane	<1	<1	<1
1,1-dichloroethene	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1
1,2-dibromo-3-chloropropane	<5.00	<5.00	<5.00
1,2-dibromoethane	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1	<1	<1
1,2-dichloroethane	<1	<1	<1
1,2-dichloropropane	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1
2-butanone	<10	<10	<10
2-hexanone	<5	<5	<5
4-methyl-2-pentanone	<5	<5	<5
Acetone	<10	<10	<10
Acrylonitrile	<5	<5	<5
Ammonia as n			
Antimony, total	<2	<2	<2
Arsenic, total	<4.00	<4.00	<4.00
Barium, total	208	253	237
Benzene	<1.0	<1.0	<1.0
Beryllium, total	<4	<4	<4
Bicarbonate alkalinity			
Bromochloromethane	<1	<1	<1
Bromodichloromethane	<1	<1	<1
Bromoform	<1	<1	<1
Bromomethane	<1	<1	<1
Cadmium, total	<.8	<.8	<.8
Calcium, total			
Carbon disulfide	<1	<1	<1
Carbon tetrachloride	<1	<1	<1
Carbonate alkalinity			
Chloride			
Chlorobenzene	<1	<1	<1
Chloroethane	<1	<1	<1
Chloroform	<1	<1	<1
Chloromethane	<1	<1	<1
Chromium, total	<8	<8	<8
Cis-1,2-dichloroethene	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1
Cobalt, total	<.40	11.40	1.80
Copper, total	<4.00	<4.00	<4.00
Dibromochloromethane	<1	<1	<1
Dibromomethane	<1	<1	<1
Ethylbenzene	<1	<1	<1
Iodomethane	<1	<1	<1
Iron, total			
Lead, total	<4.000	<4.000	<4.000
Magnesium, total			
Manganese, total			
Methylene bromide			
Methylene chloride	<5	<5	<5
Nickel, total	11.3	29.5	25.3
Nitrate as n			
Potassium, total			
Selenium, total	<4	<4	<4
Silver, total	<4	<4	<4
Sodium, total			
Styrene	<1	<1	<1
Sulfate			
Tetrachloroethene	<1	<1	<1
Thallium, total	<2	<2	<2
Tin, total			
Toluene	<1	<1	<1
Total organic carbon			
Total suspended solids			
Trans-1,2-dichloroethene	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5
Trichloroethene	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1
Vanadium, total	<20	<20	<20
Vinyl acetate	<5	<5	<5
Vinyl chloride	<1	<1	<1
Xylenes, total		<2	<2

* - The displayed value is the arithmetic mean of multiple database matches.

Table 15

Analytical Data Summary for MW-6

Constituents	Units	10/20/2014	6/22/2015	6/23/2015	11/12/2015	11/13/2015	4/11/2016	9/16/2016
Zinc, total	ug/L	22.6		<10.0		<10.0	<10.0	21.7

* - The displayed value is the arithmetic mean of multiple database matches.

Table 15

Analytical Data Summary for MW-6

Constituents	3/15/2017	9/27/2017	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021	9/8/2021	3/31/2022
Zinc, total	<8.0	10.1	21.6	44.1	<8.0	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 15

Analytical Data Summary for MW-6

Constituents	8/30/2022	3/7/2023	9/28/2023
Zinc, total	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 16

Analytical Data Summary for MW-7

Constituents	Units	3/15/2017	5/9/2017	9/27/2017	12/13/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020
1,1,1,2-tetrachloroethane	ug/L					<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L					<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L					<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L					<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L					<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L					<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L					<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L					<1	<1	<1	<1	<5
1,2-dibromoethane	ug/L					<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L					<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L					<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L					<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L					<1	<1	<1	<1	<1
2-butanone	ug/L					<5	<5	<5	<5	<5
2-hexanone	ug/L					<5	<5	<5	<5	<5
4-methyl-2-pentanone	ug/L					<5	<5	<5	<5	<5
Acetone	ug/L					<10	<10	<10	<10	<10
Acrylonitrile	ug/L					<5	<5	<5	<5	<5
Antimony, total	ug/L	<2	<2	<2		<2	<2	<2	<2	<2
Arsenic, total	ug/L	6.5	<4.0	<4.0		<4.0	6.3	<4.0	13.9	<4.0
Barium, total	ug/L	331	224	380		214	325	235	386	191
Benzene	ug/L					<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4		<4	<4	<4	<4	<4
Bromochloromethane	ug/L					<1	<1	<1	<1	<1
Bromodichloromethane	ug/L					<1	<1	<1	<1	<1
Bromoform	ug/L					<1	<1	<1	<1	<1
Bromomethane	ug/L					<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8		<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L					<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L					<1	<1	<1	<1	<1
Chlorobenzene	ug/L					<1	<1	<1	<1	<1
Chloroethane	ug/L					<1	<1	<1	<1	<1
Chloroform	ug/L					<1	<1	<1	<1	<1
Chloromethane	ug/L					<1	<1	<1	<1	<1
Chromium, total	ug/L	16.5	<8.0	<8.0		<8.0	14.6	<8.0	31.6	<8.0
Cis-1,2-dichloroethene	ug/L					<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L					<1	<1	<1	<1	<1
Cobalt, total	ug/L	5.9	<.8	3.4		<2.0	5.8	1.9	12.2	.4
Copper, total	ug/L	13.7	<4.0	10.6		<4.0	12.7	<4.0	25.8	<4.0
Dibromochloromethane	ug/L					<1	<1	<1	<1	<1
Dibromomethane	ug/L					<1	<1	<1	<1	<1
Ethylbenzene	ug/L					<1	<1	<1	<1	<1
Iodomethane	ug/L					<1	<1	<1	<1	<1
Lead, total	ug/L	6.8	<4.0	<4.0		<4.0	6.6	<4.0	13.1	<4.0
Methylene chloride	ug/L					<5	<5	<5	<5	<5
Nickel, total	ug/L	19.0	<4.0	11.4	<4.0	<4.0	17.4	7.4	34.2	<4.0
Selenium, total	ug/L	<4.0	<4.0	<4.0		<4.0	<4.0	<4.0	<4.0	<4.0
Silver, total	ug/L	<4	<4	<4		<4	<4	<4	<4	<4
Styrene	ug/L					<1	<1	<1	<1	<1
Tetrachloroethene	ug/L					<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4		<4	<4	<2	<2	<2
Toluene	ug/L					<1	<1	<1	<1	<1
Total suspended solids	mg/L	253								
Trans-1,2-dichloroethene	ug/L					<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L					<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L					<5	<5	<5	<5	<5
Trichloroethene	ug/L					<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L					<1	<1	<1	<1	<1
Vanadium, total	ug/L	26.5	<20.0	<20.0		<20.0	23.0	<20.0	55.0	<20.0
Vinyl acetate	ug/L					<5	<5	<5	<5	<5
Vinyl chloride	ug/L					<1	<1	<1	<1	<1
Xylenes, total	ug/L					<2	<2	<2	<2	<2
Zinc, total	ug/L	34.2	<8.0	26.9	<8.0	<8.0	63.4	28.5	69.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 16

Analytical Data Summary for MW-7

Constituents	9/3/2020	3/30/2021	9/8/2021	3/31/2022	8/30/2022	3/7/2023	9/28/2023
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1
2-butanone	<5	<5	<5	<10	<10	<10	<10
2-hexanone	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5
Acetone	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5
Antimony, total	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	<4.0	35.8	<4.0	18.6	<4.0	<4.0	<4.0
Barium, total	172	880	163	569	211	166	161
Benzene	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	<.8	1.7	<.8	1.0	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1
Chromium, total	<8.0	77.5	<8.0	49.5	<8.0	<8.0	<8.0
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	<.4	39.3	<.4	22.9	2.1	<.4	<.4
Copper, total	<4.0	83.4	<4.0	47.2	4.8	<4.0	4.1
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1
Iodomethane	<1	<1	<1	<1	<1	<1	<1
Lead, total	<4.0	43.4	<4.0	25.8	5.5	<4.0	<4.0
Methylene chloride	<5	<5	<5	<5	<5	<5	<5
Nickel, total	<4.0	105.0	<4.0	61.9	6.5	<4.0	<4.0
Selenium, total	<4.0	5.8	<4.0	6.2	<4.0	<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4	<4	<4
Styrene	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1	<1	<1
Total suspended solids							
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20.0	120.0	<20.0	75.9	<20.0	<20.0	<20.0
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<20.0	615.0	<20.0	116.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 17

Analytical Data Summary for MW-9

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
(3 4)-methylphenol	ug/L							<8
1,1,1,2-tetrachloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L		<2	<2	<2	<2	<1	<1
1,1-dichloropropene	ug/L							<1
1,2,3-trichloropropane	ug/L		<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L							<8
1,2,4-trichlorobenzene	ug/L							<1
1,2-dibromo-3-chloropropane	ug/L		<.12	<.50	<.50	<.50	<1.00	<1.00
1,2-dibromoethane	ug/L		<.13	<.13	<.13	<.13	<1.00	<1.00
1,2-dichlorobenzene	ug/L		<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L		<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L		<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L							<8
1,3,5-trinitrobenzene	ug/L							<8
1,3-dichlorobenzene	ug/L							<1
1,3-dichloropropane	ug/L							<1
1,3-dinitrobenzene	ug/L							<8
1,4-dichlorobenzene	ug/L		<1	<1	<1	<1	<1	<1
1,4-naphthoquinone	ug/L							<8
1,4-phenylenediamine	ug/L							<8
1-naphthylamine	ug/L							<8
2,2-dichloropropane	ug/L							<1
2,3,4,6-tetrachlorophenol	ug/L							<8
2,4,5-t	ug/L							<.5
2,4,5-tp (silvex)	ug/L							<.5
2,4,5-trichlorophenol	ug/L							<8
2,4,6-trichlorophenol	ug/L							<8
2,4-d	ug/L							<2
2,4-dichlorophenol	ug/L							<8
2,4-dimethylphenol	ug/L							<8
2,4-dinitrophenol	ug/L							<8
2,4-dinitrotoluene	ug/L							<8
2,6-dichlorophenol	ug/L							<8
2,6-dinitrotoluene	ug/L							<8
2-acetylaminofluorene	ug/L							<8
2-butanone	ug/L		<10	<10	<10	<10	<5	<5
2-chloronaphthalene	ug/L							<8
2-chlorophenol	ug/L							<8
2-hexanone	ug/L		<10	<10	<10	<10	<5	<5
2-methylnaphthalene	ug/L							<8
2-methylphenol (o-cresol)	ug/L							<8
2-naphthylamine	ug/L							<8
2-nitroaniline	ug/L							<8
2-nitrophenol	ug/L							<8
3,3´-dichlorobenzidine	ug/L							<8
3,3-dimethylbenzidine	ug/L							<8
3-methylcholanthrene	ug/L							<8
3-nitroaniline	ug/L							<8
4,4`-ddd	ug/L							<.05
4,4`-dde	ug/L							<.05
4,4`-ddt	ug/L							<.05
4,6-dinitro-2-methylphenol	ug/L							<8
4-aminobiphenyl	ug/L							<8
4-bromophenyl phenyl ether	ug/L							<8
4-chloro-3-methylphenol	ug/L							<8
4-chloroaniline	ug/L							<8
4-chlorophenyl phenyl ether	ug/L							<8
4-methyl-2-pentanone	ug/L		<10	<10	<10	<10	<5	<5
4-nitroaniline	ug/L							<8
4-nitrophenol	ug/L							<8
5-nitro-o-toluidine	ug/L							<8
7,12-dimethylbenz [a] anthracene	ug/L							<8
Acenaphthene	ug/L							<8
Acenaphthylene	ug/L							<8
Acetone	ug/L		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile	ug/L							<10
Acetophenone	ug/L							<8
Acrolein	ug/L							<10
Acrylonitrile	ug/L		<10	<10	<10	<10	<5	<5
Aldrin	ug/L							<.05
Allyl chloride	ug/L							<1
Alpha-bhc	ug/L							<.05
Anthracene	ug/L							<8

* - The displayed value is the arithmetic mean of multiple database matches.

Table 17

Analytical Data Summary for MW-9

Constituents	9/27/2017	12/13/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021
(3 4)-methylphenol									
1,1,1,2-tetrachloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene									
1,2,3-trichloropropane	<1		<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene									
1,2,4-trichlorobenzene									
1,2-dibromo-3-chloropropane	<1.00		<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<5.00
1,2-dibromoethane	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-dichlorobenzene	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene									
1,3,5-trinitrobenzene									
1,3-dichlorobenzene									
1,3-dichloropropane									
1,3-dinitrobenzene									
1,4-dichlorobenzene	<1		<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone									
1,4-phenylenediamine									
1-naphthylamine									
2,2-dichloropropane									
2,3,4,6-tetrachlorophenol									
2,4,5-t									
2,4,5-tp (silvex)									
2,4,5-trichlorophenol									
2,4,6-trichlorophenol									
2,4-d									
2,4-dichlorophenol									
2,4-dimethylphenol									
2,4-dinitrophenol									
2,4-dinitrotoluene									
2,6-dichlorophenol									
2,6-dinitrotoluene									
2-acetylaminofluorene									
2-butanone	<5		<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene									
2-chlorophenol									
2-hexanone	<5		<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene									
2-methylphenol (o-cresol)									
2-naphthylamine									
2-nitroaniline									
2-nitrophenol									
3,3´-dichlorobenzidine									
3,3-dimethylbenzidine									
3-methylcholanthrene									
3-nitroaniline									
4,4`-ddd									
4,4`-dde									
4,4`-ddt									
4,6-dinitro-2-methylphenol									
4-aminobiphenyl									
4-bromophenyl phenyl ether									
4-chloro-3-methylphenol									
4-chloroaniline									
4-chlorophenyl phenyl ether									
4-methyl-2-pentanone	<5		<5	<5	<5	<5	<5	<5	<5
4-nitroaniline									
4-nitrophenol									
5-nitro-o-toluidine									
7,12-dimethylbenz [a] anthracene									
Acenaphthene									
Acenaphthylene									
Acetone	17.4		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile									
Acetophenone									
Acrolein									
Acrylonitrile	<5		<5	<5	<5	<5	<5	<5	<5
Aldrin									
Allyl chloride									
Alpha-bhc									
Anthracene									

* - The displayed value is the arithmetic mean of multiple database matches.

Table 17

Analytical Data Summary for MW-9

Constituents	9/8/2021	3/31/2022	8/30/2022	11/11/2022	3/7/2023	6/6/2023	9/28/2023
(3 4)-methylphenol							<8
1,1,1,2-tetrachloroethane	<1	<1	<1		<1		<1
1,1,1-trichloroethane	<1	<1	<1		<1		<1
1,1,2,2-tetrachloroethane	<1	<1	<1		<1		<1
1,1,2-trichloroethane	<1	<1	<1		<1		<1
1,1-dichloroethane	<1	<1	<1		<1		<1
1,1-dichloroethene	<1	<1	<1		<1		<1
1,1-dichloropropene							<1
1,2,3-trichloropropane	<1	<1	<1		<1		<1
1,2,4,5-tetrachlorobenzene							<8
1,2,4-trichlorobenzene							<1
1,2-dibromo-3-chloropropane	<5.00	<5.00	<5.00		<5.00		<1.00
1,2-dibromoethane	<1.00	<1.00	<1.00		<1.00		<1.00
1,2-dichlorobenzene	<1	<1	<1		<1		<1
1,2-dichloroethane	<1	<1	<1		<1		<1
1,2-dichloropropane	<1	<1	<1		<1		<1
1,2-dinitrobenzene							<8
1,3,5-trinitrobenzene							<8
1,3-dichlorobenzene							<1
1,3-dichloropropane							<1
1,3-dinitrobenzene							<8
1,4-dichlorobenzene	<1	<1	<1		<1		<1
1,4-naphthoquinone							<8
1,4-phenylenediamine							<8
1-naphthylamine							<8
2,2-dichloropropane							<1
2,3,4,6-tetrachlorophenol							<8
2,4,5-t							<.5
2,4,5-tp (silvex)							<.5
2,4,5-trichlorophenol							<8
2,4,6-trichlorophenol							<8
2,4-d							<2
2,4-dichlorophenol							<8
2,4-dimethylphenol							<8
2,4-dinitrophenol							<8
2,4-dinitrotoluene							<8
2,6-dichlorophenol							<8
2,6-dinitrotoluene							<8
2-acetylaminofluorene							<8
2-butanone	<5	<10	<10		<10		<5
2-chloronaphthalene							<8
2-chlorophenol							<8
2-hexanone	<5	<5	<5		<5		<5
2-methylnaphthalene							<8
2-methylphenol (o-cresol)							<8
2-naphthylamine							<8
2-nitroaniline							<8
2-nitrophenol							<8
3,3´-dichlorobenzidine							<8
3,3-dimethylbenzidine							<8
3-methylcholanthrene							<8
3-nitroaniline							<8
4,4`-ddd							<.05
4,4`-dde							<.05
4,4`-ddt							<.05
4,6-dinitro-2-methylphenol							<8
4-aminobiphenyl							<8
4-bromophenyl phenyl ether							<8
4-chloro-3-methylphenol							<8
4-chloroaniline							<8
4-chlorophenyl phenyl ether							<8
4-methyl-2-pentanone	<5	<5	<5		<5		<5
4-nitroaniline							<8
4-nitrophenol							<8
5-nitro-o-toluidine							<8
7,12-dimethylbenz [a] anthracene							<8
Acenaphthene							<8
Acenaphthylene							<8
Acetone	<10.0	<10.0	<10.0		<10.0		<10.0
Acetonitrile							<10
Acetophenone							<8
Acrolein							<10
Acrylonitrile	<5	<5	<5		<5		<5
Aldrin							<.05
Allyl chloride							<1
Alpha-bhc							<.05
Anthracene							<8

* - The displayed value is the arithmetic mean of multiple database matches.

Table 17

Analytical Data Summary for MW-9

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
Antimony, total	ug/L		<6	<1	<1	<1	<2	<2
Arochlor 1016	ug/L							<.1
Arochlor 1221	ug/L							<.2
Arochlor 1232	ug/L							<.2
Arochlor 1242	ug/L							<.2
Arochlor 1248	ug/L							<.2
Arochlor 1254	ug/L							<.1
Arochlor 1260	ug/L							<.1
Arsenic, total	ug/L		16.30	6.62	3.53	2.66	4.20	<4.00
Azobenzene	ug/L							<8
Barium, total	ug/L		687	540	487	410	501	505
Benzene	ug/L		<.5	<.5	<.5	<.5	<1.0	<1.0
Benzo(a)anthracene	ug/L							<8
Benzo(a)pyrene	ug/L							<8
Benzo(b)fluoranthene	ug/L							<8
Benzo(g,h,i)perylene	ug/L							<8
Benzo(k)fluoranthene	ug/L							<8
Benzyl alcohol	ug/L							<8
Beryllium, total	ug/L		<1	<1	<1	<1	<4	<4
Beta-bhc	ug/L							<.05
Bicarbonate alkalinity	mg/L as CaCO3			651 *	665 *			
Bis (2-chloroethoxy) methane	ug/L							<8
Bis(2-chloroethyl) ether	ug/L							<8
Bis(2-ethylhexyl) phthalate	ug/L							<8
Bis[2-chloroisopropyl]ether	ug/L							<8
Bromochloromethane	ug/L		<5	<5	<5	<5	<1	<1
Bromodichloromethane	ug/L		<1	<1	<1	<1	<1	<1
Bromoform	ug/L		<5	<5	<5	<5	<1	<1
Bromomethane	ug/L		<4	<4	<4	<4	<1	<1
Butyl benzyl phthalate	ug/L							<8
Cadmium, total	ug/L		4.44	<.50	<.50	<.50	<.80	<.80
Calcium, total	mg/L			215 *	201 *			
Carbon disulfide	ug/L		<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L		<2	<2	<2	<2	<1	<1
Carbonate alkalinity	mg/L as CaCO3			<5 *	<5 *			
Chlordane	ug/L							<.1
Chloride	mg/L			125 *	135 *			
Chlorobenzene	ug/L		<1	<1	<1	<1	<1	<1
Chlorobenzilate	ug/L							<8
Chloroethane	ug/L		<4	<1	<1	<4	<1	<1
Chloroform	ug/L		<1	<1	<1	<1	<1	<1
Chloromethane	ug/L		<3	<3	<3	<3	<1	<1
Chloroprene	ug/L							<1
Chromium, total	ug/L		<20	<5	<5	<5	<8	<8
Chrysene	ug/L							<8
Cis-1,2-dichloroethene	ug/L		<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L		<5	<5	<5	<5	<1	<1
Cobalt, total	ug/L		10.30	2.25	2.95	2.56	1.70	2.20
Copper, total	ug/L		37.50	2.16	2.88	<2.00	<4.00	<4.00
Cyanide	mg/L							<.005
Delta-bhc	ug/L							<.05
Diallate	ug/L							<8
Dibenzo(a,h)anthracene	ug/L							<8
Dibenzofuran	ug/L							<8
Dibromochloromethane	ug/L		<5	<5	<5	<5	<1	<1
Dibromomethane	ug/L						<1	<1
Dichlorodifluoromethane	ug/L		<3					<1
Dieldrin	ug/L							<.05
Diethyl phthalate	ug/L							<8
Dimethoate	ug/L							<.4
Dimethylphthalate	ug/L							<8
Di-n-butyl phthalate	ug/L							<8
Di-n-octyl phthalate	ug/L							<8
Dinoseb	ug/L							<.5
Diphenylamine	ug/L							<8
Disulfoton	ug/L							<.4
Endosulfan i	ug/L							<.05
Endosulfan ii	ug/L							<.05
Endosulfan sulfate	ug/L							<.05
Endrin	ug/L							<.05
Endrin aldehyde	ug/L							<.05
Ethyl methacrylate	ug/L							<10
Ethyl methanesulfonate	ug/L							<8
Ethylbenzene	ug/L		<1	<1	<1	<1	<1	<1
Famphur	ug/L							<.4
Fluoranthene	ug/L							<8
Fluorene	ug/L							<8

* - The displayed value is the arithmetic mean of multiple database matches.

Table 17

Analytical Data Summary for MW-9

Constituents	9/27/2017	12/13/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021
Antimony, total	<2		<2	<2	<2	<2	<2	<2	<2
Arochlor 1016									
Arochlor 1221									
Arochlor 1232									
Arochlor 1242									
Arochlor 1248									
Arochlor 1254									
Arochlor 1260									
Arsenic, total	21.80	4.50	<4.00	4.60	<4.00	15.20	8.20	5.30	14.80
Azobenzene									
Barium, total	614		470	477	492	971	546	493	574
Benzene	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene									
Benzo(a)pyrene									
Benzo(b)fluoranthene									
Benzo(g,h,i)perylene									
Benzo(k)fluoranthene									
Benzyl alcohol									
Beryllium, total	<4		<4	<4	<4	<4	<4	<4	<4
Beta-bhc									
Bicarbonate alkalinity									
Bis (2-chloroethoxy) methane									
Bis(2-chloroethyl) ether									
Bis(2-ethylhexyl) phthalate									
Bis[2-chloroisopropyl]ether									
Bromochloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Bromoform	<1		<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1		<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate									
Cadmium, total	<.80		<.80	<.80	<.80	<.80	<.80	<.80	<.80
Calcium, total									
Carbon disulfide	<1		<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1		<1	<1	<1	<1	<1	<1	<1
Carbonate alkalinity									
Chlordane									
Chloride									
Chlorobenzene	<1		<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate									
Chloroethane	<1		<1	<1	<1	<1	<1	<1	<1
Chloroform	<1		<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Chloroprene									
Chromium, total	<8		<8	<8	<8	<8	<8	<8	<8
Chrysene									
Cis-1,2-dichloroethene	<1		<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1		<1	<1	<1	<1	<1	<1	<1
Cobalt, total	2.90		2.00	1.60	2.20	5.30	2.90	2.40	2.80
Copper, total	<4.00		<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Cyanide									
Delta-bhc									
Diallate									
Dibenzo(a,h)anthracene									
Dibenzofuran									
Dibromochloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1		<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane									
Dieldrin									
Diethyl phthalate									
Dimethoate									
Dimethylphthalate									
Di-n-butyl phthalate									
Di-n-octyl phthalate									
Dinoseb									
Diphenylamine									
Disulfoton									
Endosulfan i									
Endosulfan ii									
Endosulfan sulfate									
Endrin									
Endrin aldehyde									
Ethyl methacrylate									
Ethyl methanesulfonate									
Ethylbenzene	<1		<1	<1	<1	<1	<1	<1	<1
Famphur									
Fluoranthene									
Fluorene									

* - The displayed value is the arithmetic mean of multiple database matches.

Table 17

Analytical Data Summary for MW-9

Constituents	9/8/2021	3/31/2022	8/30/2022	11/11/2022	3/7/2023	6/6/2023	9/28/2023
Antimony, total	<2	<2	<2		<2		<2
Arochlor 1016							<.2
Arochlor 1221							<.2
Arochlor 1232							<.2
Arochlor 1242							<.2
Arochlor 1248							<.2
Arochlor 1254							<.2
Arochlor 1260							<.2
Arsenic, total	15.90	<4.00	12.10		<4.00		4.90
Azobenzene							<8
Barium, total	544	462	545		481		486
Benzene	<1.0	<1.0	<1.0		<1.0		<1.0
Benzo(a)anthracene							<8
Benzo(a)pyrene							<8
Benzo(b)fluoranthene							<8
Benzo(g,h,i)perylene							<8
Benzo(k)fluoranthene							<8
Benzyl alcohol							<8
Beryllium, total	<4	<4	<4		<4		<4
Beta-bhc							<.05
Bicarbonate alkalinity							
Bis (2-chloroethoxy) methane							<8
Bis(2-chloroethyl) ether							<8
Bis(2-ethylhexyl) phthalate							<6
Bis[2-chloroisopropyl]ether							<8
Bromochloromethane	<1	<1	<1		<1		<1
Bromodichloromethane	<1	<1	<1		<1		<1
Bromoform	<1	<1	<1		<1		<1
Bromomethane	<1	<1	<1		<1		<1
Butyl benzyl phthalate							<8
Cadmium, total	<.80	<.80	<.80		<.80		<.80
Calcium, total							
Carbon disulfide	<1	<1	<1		<1		<1
Carbon tetrachloride	<1	<1	<1		<1		<1
Carbonate alkalinity							
Chlordane							<.1
Chloride							
Chlorobenzene	<1	<1	<1		<1		<1
Chlorobenzilate							<8
Chloroethane	<1	<1	<1		<1		<1
Chloroform	<1	<1	<1		<1		<1
Chloromethane	<1	<1	<1		<1		<1
Chloroprene							<1
Chromium, total	<8	<8	<8		<8		<8
Chrysene							<8
Cis-1,2-dichloroethene	<1	<1	<1		<1		<1
Cis-1,3-dichloropropene	<1	<1	<1		<1		<1
Cobalt, total	2.80	1.90	2.60		2.70		1.90
Copper, total	<4.00	<4.00	<4.00		<4.00		<4.00
Cyanide							<.005
Delta-bhc							<.05
Diallate							<8
Dibenzo(a,h)anthracene							<8
Dibenzofuran							<8
Dibromochloromethane	<1	<1	<1		<1		<1
Dibromomethane	<1	<1	<1		<1		<1
Dichlorodifluoromethane							<1
Dieldrin							<.05
Diethyl phthalate							<8
Dimethoate							<.4
Dimethylphthalate							<8
Di-n-butyl phthalate							<8
Di-n-octyl phthalate							<8
Dinoseb							<.5
Diphenylamine							<8
Disulfoton							<.4
Endosulfan i							<.05
Endosulfan ii							<.05
Endosulfan sulfate							<.05
Endrin							<.05
Endrin aldehyde							<.05
Ethyl methacrylate							<10
Ethyl methanesulfonate							<8
Ethylbenzene	<1	<1	<1		<1		<1
Famphur							<.4
Fluoranthene							<8
Fluorene							<8

* - The displayed value is the arithmetic mean of multiple database matches.

Table 17

Analytical Data Summary for MW-9

Constituents	Units	10/20/2014	10/21/2014	6/22/2015	11/12/2015	4/11/2016	9/16/2016	3/15/2017
Gamma-bhc [lindane]	ug/L							<.05
Heptachlor	ug/L							<.05
Heptachlor epoxide	ug/L							<.05
Hexachlorobenzene	ug/L							<.05
Hexachlorobutadiene	ug/L							<8
Hexachlorocyclopentadiene	ug/L							<8
Hexachloroethane	ug/L							<8
Hexachloropropene	ug/L							<8
Indeno(1,2,3-cd)pyrene	ug/L							<8
Iodomethane	ug/L		<10	<10	<10	<10	<1	<1
Isobutanol	mg/L							<1
Isodrin	ug/L							<8
Isophorone	ug/L							<8
Isosafrole	ug/L							<8
Kepone	ug/L							<8
Lead, total	ug/L		13.200	<.500	.838	.754	<4.000	<4.000
Magnesium, total	mg/L			73.5 *	70.2 *			
Mercury, total	ug/L							<.5
Methacrylonitrile	ug/L							<1
Methapyrilene	ug/L							<8
Methoxychlor	ug/L							<.05
Methyl methacrylate	ug/L							<1
Methyl methanesulfonate	ug/L							<8
Methyl parathion	ug/L							<.4
Methylene bromide	ug/L		<1	<1	<1	<1		
Methylene chloride	ug/L		<5	<5	<5	<5	<5	<5
Naphthalene	ug/L							<8
Nickel, total	ug/L		<50.0	12.1	14.6	12.7	11.7	14.5
Nitrobenzene	ug/L							<8
N-nitrosodiethylamine	ug/L							<8
N-nitrosodimethylamine	ug/L							<8
N-nitrosodi-n-butylamine	ug/L							<8
N-nitroso-di-n-propylamine	ug/L							<8
N-nitrosodiphenylamine	ug/L							<8
N-nitrosomethylethylamine	ug/L							<8
N-nitrosopiperidine	ug/L							<8
N-nitrosopyrrolidine	ug/L							<8
O,o,o-triethyl phosphorothioate	ug/L							<.4
O-toluidine	ug/L							<8
P-(dimethylamino)azobenzene	ug/L							<8
Parathion	ug/L							<.4
Pentachlorobenzene	ug/L							<8
Pentachloronitrobenzene (pcnb)	ug/L							<8
Pentachlorophenol	ug/L							<8
Phenacetin	ug/L							<8
Phenanthrene	ug/L							<8
Phenol	ug/L							<8
Phorate	ug/L							<.4
Potassium, total	mg/L			<1 *	<1 *			
Pronamide	ug/L							<8
Propionitrile	ug/L							<10
Pyrene	ug/L							<8
Safrole	ug/L							<8
Selenium, total	ug/L		<5	<5	<5	<5	<4	<4
Silver, total	ug/L		<20	<1	<1	<1	<4	<4
Sodium, total	mg/L			22.7 *	21.9 *			
Styrene	ug/L		<1	<1	<1	<1	<1	<1
Sulfate	mg/L			6.78 *	6.50 *			
Sulfide	mg/L							<.1
Tetrachloroethene	ug/L		<1	<1	<1	<1	<1	<1
Thallium, total	ug/L		<2	<1	<1	<2	<4	<4
Thionazin	ug/L							<.4
Tin, total	ug/L	122	122	<5 *	<5 *	<5 *	<20	<20
Toluene	ug/L		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total suspended solids	mg/L	556.0	556.0	64.9 *	236.0 *	131.0 *	29.0	414.0
Toxaphene	ug/L							<.2
Trans-1,2-dichloroethene	ug/L		<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L		<5	<5	<5	<5	<1	<1
Trans-1,4-dichloro-2-butene	ug/L		<10	<10	<10	<10	<5	<5
Trichloroethene	ug/L		<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L		<4	<4	<4	<4	<1	<1
Vanadium, total	ug/L		<20	<5	<5	<5	<20	<20
Vinyl acetate	ug/L		<10	<10	<10	<10	<5	<5
Vinyl chloride	ug/L		<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L		<3	<3	<3	<3	<2	<2
Zinc, total	ug/L		31.1	<10.0	<10.0	<10.0	<8.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 17

Analytical Data Summary for MW-9

Constituents	9/27/2017	12/13/2017	3/14/2018	9/12/2018	4/1/2019	9/12/2019	5/6/2020	9/3/2020	3/30/2021
Gamma-bhc [lindane]									
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene									
Hexachlorobutadiene									
Hexachlorocyclopentadiene									
Hexachloroethane									
Hexachloropropene									
Indeno(1,2,3-cd)pyrene									
Iodomethane	<1		<1	<1	<1	<1	<1	<1	<1
Isobutanol									
Isodrin									
Isophorone									
Isosafrole									
Kepone									
Lead, total	<4.000		<4.000	<4.000	<4.000	<4.000	<4.000	<4.000	<4.000
Magnesium, total									
Mercury, total									
Methacrylonitrile									
Methapyrilene									
Methoxychlor									
Methyl methacrylate									
Methyl methanesulfonate									
Methyl parathion									
Methylene bromide									
Methylene chloride	<5		<5	<5	<5	<5	<5	<5	<5
Naphthalene									
Nickel, total	12.9		13.5	13.6	13.2	25.5	13.9	14.2	16.0
Nitrobenzene									
N-nitrosodiethylamine									
N-nitrosodimethylamine									
N-nitrosodi-n-butylamine									
N-nitroso-di-n-propylamine									
N-nitrosodiphenylamine									
N-nitrosomethylethylamine									
N-nitrosopiperidine									
N-nitrosopyrrolidine									
O,o,o-triethyl phosphorothioate									
O-toluidine									
P-(dimethylamino)azobenzene									
Parathion									
Pentachlorobenzene									
Pentachloronitrobenzene (pcnb)									
Pentachlorophenol									
Phenacetin									
Phenanthrene									
Phenol									
Phorate									
Potassium, total									
Pronamide									
Propionitrile									
Pyrene									
Safrole									
Selenium, total	<4		<4	<4	<4	<4	<4	<4	<4
Silver, total	<4		<4	<4	<4	<4	<4	<4	<4
Sodium, total									
Styrene	<1		<1	<1	<1	<1	<1	<1	<1
Sulfate									
Sulfide									
Tetrachloroethene	<1		<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4		<4	<4	<2	<2	<2	<2	<2
Thionazin									
Tin, total									
Toluene	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total suspended solids									
Toxaphene									
Trans-1,2-dichloroethene	<1		<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1		<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5		<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1		<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1		<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20		<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5		<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1		<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2		<2	<2	<2	<2	<2	<2	<2
Zinc, total	<8.0		<8.0	41.5	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 17

Analytical Data Summary for MW-9

Constituents	9/8/2021	3/31/2022	8/30/2022	11/11/2022	3/7/2023	6/6/2023	9/28/2023
Gamma-bhc [lindane]							<.05
Heptachlor							<.05
Heptachlor epoxide							<.05
Hexachlorobenzene							<.05
Hexachlorobutadiene							<8
Hexachlorocyclopentadiene							<8
Hexachloroethane							<8
Hexachloropropene							<8
Indeno(1,2,3-cd)pyrene							<8
Iodomethane	<1	<1	<1		<1		<2
Isobutanol							<1
Isodrin							<8
Isophorone							<8
Isosafrole							<8
Kepone							<8
Lead, total	<4.000	<4.000	<4.000		<4.000		<4.000
Magnesium, total							
Mercury, total							<.5
Methacrylonitrile							<1
Methapyrilene							<8
Methoxychlor							<.05
Methyl methacrylate							<1
Methyl methanesulfonate							<8
Methyl parathion							<.4
Methylene bromide							
Methylene chloride	<5	<5	<5		<5		<5
Naphthalene							<8
Nickel, total	14.3	13.8	13.9		15.4	15.3	15.2
Nitrobenzene							<8
N-nitrosodiethylamine							<8
N-nitrosodimethylamine							<8
N-nitrosodi-n-butylamine							<8
N-nitroso-di-n-propylamine							<8
N-nitrosodiphenylamine							<8
N-nitrosomethylethylamine							<8
N-nitrosopiperidine							<8
N-nitrosopyrrolidine							<8
O,o,o-triethyl phosphorothioate							<.4
O-toluidine							<8
P-(dimethylamino)azobenzene							<8
Parathion							<.4
Pentachlorobenzene							<8
Pentachloronitrobenzene (pcnb)							<8
Pentachlorophenol							<8
Phenacetin							<8
Phenanthrene							<8
Phenol							<8
Phorate							<.4
Potassium, total							
Pronamide							<8
Propionitrile							<10
Pyrene							<8
Safrole							<8
Selenium, total	<4	<4	<4		<4		<4
Silver, total	<4	<4	<4		<4		<4
Sodium, total							
Styrene	<1	<1	<1		<1		<1
Sulfate							
Sulfide							<.1
Tetrachloroethene	<1	<1	<1		<1		<1
Thallium, total	<2	<2	<2		<2		<2
Thionazin							<.4
Tin, total							<20
Toluene	<1.0	<1.0	1.8	<1.0	<1.0		<1.0
Total suspended solids							
Toxaphene							<.2
Trans-1,2-dichloroethene	<1	<1	<1		<1		<1
Trans-1,3-dichloropropene	<1	<1	<1		<1		<1
Trans-1,4-dichloro-2-butene	<5	<5	<5		<5		<5
Trichloroethene	<1	<1	<1		<1		<1
Trichlorofluoromethane	<1	<1	<1		<1		<1
Vanadium, total	<20	<20	<20		<20		<20
Vinyl acetate	<5	<5	<5		<5		<5
Vinyl chloride	<1	<1	<1		<1		<1
Xylenes, total	<2	<2	<2		<2		<2
Zinc, total	<20.0	<20.0	<20.0		<20.0		<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Appendix D

Statistical Report

APPENDIX D.1 –Spring Statistical Evaluation

Results of the Ground Water Statistics

for Benton County Sanitary Landfill

First Semi-Annual Monitoring Event in 2023

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INTRODUCTION

This report contains the results of the statistical analyses used to evaluate the ground water data obtained during the first semi-annual monitoring event in 2023 at Benton County Sanitary Landfill. The ground water at Benton County Sanitary Landfill is monitored by a network of wells including AW-2, AW-3, MW-12, MW-14, MW-19, MW-20, MW-23, MW-24, MW-25, MW-26, MW-27, MW-28, MW-6, MW-7, and MW-9. Ground water well MW-23 is to be replaced with AW-4 in the HMSP. Monitoring wells AW-2, AW-3, AW-4, AW-9, MW-12, MW-14, MW-20, MW-24, MW-25, MW-26, MW-27, MW-28, MW-6, MW-7, and MW-9 were sampled on March 7, 2023 and analyzed for the parameters required by permit. The statistical plan is designed to detect a release from the facility at the earliest indication so that it is protective of human health and the environment. The interwell methodology is described and then applied to the Benton County Sanitary Landfill data. The statistical plan conforms with IAC 567, Chapter 113.10, USEPA Guidance document ("*Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Unified Guidance"*, March 2009), and the American Society for Testing and Materials (ASTM) standard D6312-98, *Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs*.

Ground Water Monitoring Program

Each of the groundwater monitoring wells is to be sampled at least semiannually and analyzed for the detection monitoring parameters listed in 113.10(5), which includes 15 inorganic constituents and 47 organic compounds, summarized below.

Detection monitoring constituents listed in Appendix I of IAC 567, Chapter 113.

Organic Compounds:

Acetone	*trans*-1,4-Dichloro-2-butene	Iodomethane
Acrylonitrile	1,1-Dichloroethane	4-Methyl-2-pentanone
Benzene	1,2-Dichloroethane	Styrene
Bromochloromethane	1,1-Dichloroethene	1,1,1,2-Tetrachloroethane
Bromodichloromethane	*cis*-1,2-Dichloroethene	1,1,2,2-Tetrachloroethane
Bromoform	*trans*-1,2-Dichloroethene	Tetrachloroethene
Carbon disulfide	1,2-Dichloropropane	Toluene
Carbon tetrachloride	*cis*-1,3-Dichloropropene	1,1,1-Trichloroethane
Chlorobenzene	*trans*-1,3-Dichloropropene	1,1,2-Trichloroethane
Chloroethane	Ethylbenzene	Trichloroethene
Chloroform	2-Hexanone	Trichlorofluoromethane
Dibromochloromethane	Bromomethane	1,2,3-Trichloropropane
1,2-Dibromo-3-chloropropane	Chloromethane	Vinyl acetate
1,2-Dibromoethane	Dibromomethane	Vinyl chloride
1,2-Dichlorobenzene	Methylene chloride	Xylenes (Total)
1,4-Dichlorobenzene	2-Butanone	

Inorganic constituents:

Antimony, Total	Chromium, Total	Selenium, Total
Arsenic, Total	Cobalt, Total	Silver, Total
Barium, Total	Copper, Total	Thallium, Total
Beryllium, Total	Lead, Total	Vanadium, Total
Cadmium, Total	Nickel, Total	Zinc, Total

The ground water data obtained during the first semi-annual monitoring event in 2023 are summarized in Attachment A.

STATISTICAL METHODOLOGIES FOR DETECTION MONITORING

IAC 567, Chapter 113.10(4) provides several options for statistically evaluating the ground water data at those wells that monitor the open cells or contiguous MSWLF units. The preferred methods for comparing ground water data are using either prediction limits or using control charts. The site prediction limit method was applied to the Benton County Sanitary Landfill data using the DUMPStat® statistical program. DUMPStat® is a program for the statistical analysis of groundwater monitoring data using methods described in "Statistical Methods for Groundwater Monitoring" by Dr. Robert D. Gibbons. The DUMPStat program is completely consistent with all USEPA regulations and guidance and the ASTM D6312-98 guidance.

Ground water statistics are to be done on the inorganic constituents listed. The organic constituents are compared to maximum contaminant levels (MCLs) or practical quantitation limits (PQLs), in lieu of statistical comparisons to historical concentrations.

Interwell Statistics: Upgradient versus Downgradient Comparisons

Interwell statistics are appropriate when the upgradient and downgradient wells monitor the same ground water formation and there is similar variability in the upgradient and downgradient zones. Site prediction limits are determined by pooling the historical ground water data from hydraulically upgradient wells. This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances. The type of prediction limit utilized (e.g., parametric or nonparametric) is based on the detection frequency and the data distribution of each parameter in the background data. The distribution of the background data is tested for normality using the Shapiro-Wilk test (Gibbons, 1994 and USEPA 1992). If the constituent is normally distributed, a normal prediction limit is used. If normality is rejected by the Shapiro-Wilk test, the background data is transformed by taking the natural logarithm. The Shapiro-Wilk test is then reapplied on the transformed data. If it is not rejected, lognormal prediction limits are used. If after transforming the data, normality is still rejected, nonparametric prediction limits are used for that analyte. The nonparametric prediction limit is the largest determination in the background measurements. For constituents where the background detection frequency is greater than 0% but less than 50%, nonparametric prediction limits will be used. If the detection frequency is 0% after thirteen samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit.

Results of the Interwell Statistics

The background data used in this statistical analysis includes the ground water data collected from ground water wells MW-6, MW-7, MW-26, MW-27, and MW-28 during the period from October 2014 through the current data. A summary of the background data from monitoring wells MW-6, MW-7, MW-26, MW-27, and MW-28 is listed in Attachment B, Table 1 "Upgradient Data". This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances.

Table 2 "Most Current Downgradient Monitoring Data", summarizes the current data from downgradient wells AW-2, AW-3, AW-4, AW-9, MW-12, MW-14, MW-20, MW-24, MW-25, and MW-9, compared to

the site prediction limits once sufficient data are available. Prediction limit exceedances are flagged with asterisks. For the most current data, the site prediction limit exceedances detected are summarized in the table below.

Trace Metal Prediction Limit Exceedances during the First Semi-Annual Monitoring Event in 2023

Well	Trace Metal Detected	Result, µg/L	Prediction Limit, µg/L	Prediction Limit Type	Verified/ Awaiting verification
AW-2	Cobalt	12.5	12.2000	Nonparametric	Awaiting verification
	Nickel	11.6	11.4000	Nonparametric	Awaiting verification
MW-20	Arsenic	106	51.3000	Nonparametric	Awaiting verification
MW-24	Nickel	48.0	11.4000	Nonparametric	Verified
MW-9	Nickel	15.4	11.4000	Nonparametric	Verified

The detection frequencies of the parameters in the up and down gradient monitoring wells are summarized in Table 3. Only barium was detected at a frequency greater than or equal to 50% in the upgradient well so only this metal was tested for normality. The remainder of the metals are rarely detected (less than 50%) in the upgradient wells so nonparametric prediction limits were be used in those cases.

Table 4 summarizes the results of the Shapiro-Wilk test. Table 5 is a summary of the statistics and prediction limits determined for the metals. Time series graphs of each of the parameters at each well with the corresponding prediction limits are attached.

A statistical power curve indicates the expected false assessments for the site as a whole. The false positive rate for interwell analyses is the percentage of failures when the upgradient versus downgradient true mean difference equals zero. False negative rate indicates the chance of missing contamination at a single well for a single constituent. The statistical power is a function of the number of wells included, the number of constituents compared, the detection frequencies, and the data distributions involved. For interwell analysis, the site-wide false positive rate is 1% and the test becomes sensitive to 3 standard deviation unit increases over background.

The past and current trace metal exceedances were evaluated against the ground water protection standards (GWPS) using confidence limits calculated in accordance with the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, USEPA, March 2009. The analysis was conducted to evaluate whether verified concentrations are significantly above the water quality standard. The 95% lower confidence limit (LCL) for the mean of the historical data was used to evaluate whether the regulated unit is in compliance with the ground-water protection standards under 40 CFR 264 (e.g. whether the verified constituent is detected at a significant level above the GWPS). An exceedance is verified if the LCL is above the Regulatory GWPS. The calculated 95% LCLs for the verified trace metal exceedances are included in Attachment C.

The 95% LCL for arsenic at AW-2 (23.926 µg/L) exceeds the USEPA MCL of 10 µg/L, though the current concentration (40.5 µg/L) does not exceed the site prediction limit of 51.3 µg/L.

The 95% LCL for cobalt at AW-2 (8.862 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L.

The 95% LCL for arsenic at MW-20 (10.807 µg/L) exceeds the USEPA MCL of 10 µg/L.

The 95% LCL for cobalt at MW-24 (2.807 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, though the current concentration (5.2 µg/L) does not exceed the site prediction limit of 12.2 µg/L.

The calculated 95% LCLs for the remainder of the verified trace metal exceedances are below the respective GWPS.

Intrawell Comparisons

Intrawell statistics are appropriate for facilities where the upgradient wells do not accurately characterize the natural ground water conditions downgradient from the facility. This may be due to different hydrogeological conditions where the wells are screened, having too few upgradient wells to account for the spatial variability, or the site exhibiting no definable hydraulic gradient. Intrawell statistics compare new measurements to the historical data at each ground water monitoring well independently. It is recommended that at least eight background samples be obtained prior to performing the statistics to control the number of false assessments.

The most useful technique for intrawell comparisons is the combined Shewhart-CUSUM control chart. This control chart procedure is useful because it will detect releases both in terms of the constituent concentration and cumulative increases. This method is also extremely sensitive to sudden and gradual releases. A requirement for constructing these control charts is that the parameter is detected at a frequency greater than or equal to 25%, otherwise the data variance is not properly defined.

Many ground water monitoring parameters are not detected at a frequency great enough to generate the combined Shewhart-CUSUM control charts. For constituents that are detected less than 25% of the time monitored at a particular well, the data should be plotted as a time series until a sufficient number of data points are available to provide a 99% confidence nonparametric prediction limit. Nonparametric prediction limits are the largest value detected during background at that well for that parameter.

In developing the statistical background, the historical data must be thoroughly screened for anomalous data due to sampling error, analytical error, or simply by chance alone. An erroneous data point, if not removed prior to the mean and variance computations, would yield a larger control limit thus increasing the false negative rate. The DUMPStat® program screens for outliers using the Dixon test. If the Dixon test indicates an outlier, the value is compared to three times the median value for intrawell analyses. If the value fails both criteria of the two-stage screening, the value is considered a statistical outlier and will not be used in the mean and variance determinations. Anomalous data will still be plotted on the graphs (with a unique symbol) but will not be included in the calculations.

The verification resample plan is an integral function of the statistical plan to reduce the probability that anomalous data obtained after the background has been established is indicative of a landfill release. The outliers have generally not been substantiated by either the resample events or the subsequent routine monitoring event.

The background data is tested for existing trends using Sen's slope test. If contamination exists prior to completing the background, the control limits could be potentially high and this control chart method would not be able to detect an increasing trend unless the increase is severe.

Results of the Intrawell Statistics

The trace metals data for monitoring well MW24 were evaluated using the combined Shewhart-CUSUM control chart method. The background data previously included ground water data obtained from October 2014 through 2020. As ground water monitoring at a municipal solid waste facility proceeds, it is recommended to update background data sets periodically with valid detection monitoring results that are representative of background groundwater quality not affected by leakage from a monitored unit. Failure to update background will exclude factors such as natural temporal variation, changes in field or laboratory methodologies, and changes in the water table due to meteorological conditions or other influences. Since there were no exceedances attributed to the landfill, the background was updated to include data collected from October 2014 through 2022.

A summary of the intrawell statistics is included in Attachment D, Table 1 "Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts". The control charts or time series graphs follow the summary table. For the parameters compared using the combined Shewhart-CUSUM control chart, there were no control limit exceedances detected.

The background range was tested for increasing trends using Sen's Test. An increasing trend was detected in the background data for nickel at MW-24. For intrawell analysis, the site-wide false positive rate is 2% and the test becomes sensitive to 3 standard deviation unit increases over background.

Volatile Organic Compounds

Volatile Organic Compounds (VOCs) are generally man-made compounds not present in ambient ground water. If VOCs are detected above their statistical limit (i.e., the laboratory PQL or reporting limit), a verification resample will be conducted at the next scheduled sampling event. A statistical exceedance will be indicated if the VOC detection is confirmed by the subsequent monitoring. VOCs detected in the ground water at Benton County Sanitary Landfill during the first semi-annual monitoring event in 2023 are summarized below.

VOCs detected during the first semi-annual monitoring period in 2023

Well	VOC Detected	Result, µg/L	Reporting Limit, µg/L	Verified/ Awaiting verification	Water Quality Standard
AW-3	1,4-Dichlorobenzene	2.7	1	Verified	75[a]
	Benzene	2.6	1	Verified	5[a]
	Chloroethane	3.5	1	Verified	2800[b]
	cis-1,2-Dichloroethene	2.9	1	Verified	70[a]
MW-20	1,4-Dichlorobenzene	2.8	1	Verified	75[a]
	Benzene	2.2	1	Verified	5[a]
	Chlorobenzene	2.5	1	Verified	100[a]

a - USEPA MCL, b- Iowa Statewide Standard for a protected groundwater source

Historical detections from October 2014 to the present are summarized in Attachment E.

The verified VOC detections were evaluated against the ground water protection standards (GWPS) using confidence limits calculated in accordance with the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, USEPA, March 2009. The analysis was conducted to evaluate whether verified concentrations are significantly above the water quality standard. The 95% lower confidence limit (LCL) for the mean of the historical data was used to evaluate whether the regulated unit is in compliance with the ground-water protection standards under 40 CFR 264 (e.g. whether the verified constituent is detected at a significant level above the GWPS). An exceedance is verified if the LCL is above the Regulatory GWPS. The calculated 95% LCLs for each of the verified VOCs are below the respective GWPS (Attachment F).

CONCLUSIONS

This document describes a comprehensive statistical plan designated for the Benton County Sanitary Landfill. The groundwater monitoring network for Benton County Sanitary Landfill includes wells AW-2, AW-3, AW-4, AW-9, MW-12, MW-14, MW-19, MW-20, MW-24, MW-25, MW-26, MW-27, MW-28, MW-6, MW-7, and MW-9. Each of the groundwater monitoring wells is to be sampled at least semiannually and analyzed for the detection monitoring parameters listed in 113.10(5), which includes 15 inorganic constituents and 47 organic compounds.

The ground water data was compared to background using prediction limits (interwell). For the most current data, there is a verified site prediction limit exceedance for nickel at MW-24 and a verified site prediction limit exceedance for nickel at MW-9.

There are verified detections of 1,4-dichlorobenzene, benzene, and chloroethane, and *cis*-1,2-dichloroethene at AW-3 and 1,4-dichlorobenzene, benzene, and chlorobenzene at MW-20 during the first semi-annual monitoring event in 2023. The VOCs did not exceed GWPS.

Attachment A

Ground Water Data obtained during the First Semi-Annual Monitoring Event in 2023

Table 1

Analytical Data Summary for 3/7/2023

Constituents	Units	AW-2	AW-3	AW-4	AW-9	MW-12	MW-14	MW-20	MW-24	MW-25	MW-26	MW-27	MW-28
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1.0	2.7	<1.0	<1.0	<1.0	<1.0	2.8	<1.0	<1.0	<1.0	<1.0	<1.0
2-butanone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-hexanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	40.5	11.1	16.6	<4.0	5.1	<4.0	106.0	<4.0	<4.0	<4.0	<4.0	<4.0
Barium, total	ug/L	133.0	572.0	49.7	208.0	103.0	399.0	279.0	65.1	22.7	174.0	107.0	27.3
Benzene	ug/L	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	<1.0	<1.0
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	<1.0	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	ug/L	<1.0	2.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	12.5	.5	<.4	1.8	.6	<.4	<.4	5.2	.9	<.4	.7	.4
Copper, total	ug/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	8.1	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Iodomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	11.6	<4.0	<4.0	<4.0	5.7	5.5	<4.0	48.0	9.0	<4.0	<4.0	<4.0
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide	mg/L							.16					
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for 3/7/2023

Constituents	MW-6	MW-7	MW-9	West Tile System
1,1,1,2-tetrachloroethane	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1
1,4-dichlorobenzene	<1.0	<1.0	<1.0	<1.0
2-butanone	<10	<10	<10	<10
2-hexanone	<5	<5	<5	<5
4-methyl-2-pentanone	<5	<5	<5	<5
Acetone	<10	<10	<10	<10
Acrylonitrile	<5	<5	<5	<5
Antimony, total	<2	<2	<2	<2
Arsenic, total	<4.0	<4.0	<4.0	<4.0
Barium, total	253.0	166.0	481.0	164.0
Benzene	<1.0	<1.0	<1.0	<1.0
Beryllium, total	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1
Chlorobenzene	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Chloroform	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8
Cis-1,2-dichloroethene	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	<1	<1	<1	<1
Cobalt, total	11.4	<.4	2.7	<.4
Copper, total	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1
Iodomethane	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4
Methylene chloride	<5	<5	<5	<5
Nickel, total	29.5	<4.0	15.4	<4.0
Selenium, total	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4
Styrene	<1	<1	<1	<1
Sulfide				
Tetrachloroethene	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2
Toluene	<1	<1	<1	<1
Trans-1,2-dichloroethene	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2
Zinc, total	<20	<20	<20	<20

* - The displayed value is the arithmetic mean of multiple database matches.

Attachment B

Summary Tables and Graphs for the Interwell Comparisons

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, total	ug/L	MW-26	10/31/2016	ND	2.0000		
Antimony, total	ug/L	MW-26	03/16/2017	ND	2.0000		
Antimony, total	ug/L	MW-26	09/27/2017	ND	2.0000		
Antimony, total	ug/L	MW-26	03/14/2018	ND	2.0000		
Antimony, total	ug/L	MW-26	09/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-26	04/01/2019	ND	2.0000		
Antimony, total	ug/L	MW-26	09/12/2019	ND	2.0000		
Antimony, total	ug/L	MW-26	05/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-26	09/03/2020	ND	2.0000		
Antimony, total	ug/L	MW-26	03/30/2021	ND	2.0000		
Antimony, total	ug/L	MW-26	09/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-26	03/31/2022	ND	2.0000		
Antimony, total	ug/L	MW-26	08/30/2022	ND	2.0000		
Antimony, total	ug/L	MW-26	03/07/2023	ND	2.0000		
Arsenic, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Arsenic, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Arsenic, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Arsenic, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Arsenic, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Arsenic, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Arsenic, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Arsenic, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Arsenic, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Arsenic, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Arsenic, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Arsenic, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Arsenic, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Barium, total	ug/L	MW-26	10/31/2016		155.0000		
Barium, total	ug/L	MW-26	03/16/2017		161.0000		
Barium, total	ug/L	MW-26	09/27/2017		155.0000		
Barium, total	ug/L	MW-26	03/14/2018		201.0000		
Barium, total	ug/L	MW-26	09/12/2018		170.0000		
Barium, total	ug/L	MW-26	04/01/2019		176.0000		
Barium, total	ug/L	MW-26	09/12/2019		158.0000		
Barium, total	ug/L	MW-26	05/06/2020		158.0000		
Barium, total	ug/L	MW-26	09/03/2020		148.0000		
Barium, total	ug/L	MW-26	03/30/2021		154.0000		
Barium, total	ug/L	MW-26	09/08/2021		141.0000		
Barium, total	ug/L	MW-26	03/31/2022		178.0000		
Barium, total	ug/L	MW-26	08/30/2022		156.0000		
Barium, total	ug/L	MW-26	03/07/2023		174.0000		
Beryllium, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Beryllium, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Beryllium, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Beryllium, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Beryllium, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Beryllium, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Beryllium, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Beryllium, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Beryllium, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Beryllium, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Beryllium, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Cadmium, total	ug/L	MW-26	10/31/2016	ND	0.8000		
Cadmium, total	ug/L	MW-26	03/16/2017	ND	0.8000		
Cadmium, total	ug/L	MW-26	09/27/2017	ND	0.8000		
Cadmium, total	ug/L	MW-26	03/14/2018	ND	0.8000		
Cadmium, total	ug/L	MW-26	09/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-26	04/01/2019	ND	0.8000		
Cadmium, total	ug/L	MW-26	09/12/2019	ND	0.8000		
Cadmium, total	ug/L	MW-26	05/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-26	09/03/2020	ND	0.8000		
Cadmium, total	ug/L	MW-26	03/30/2021	ND	0.8000		
Cadmium, total	ug/L	MW-26	09/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-26	03/31/2022	ND	0.8000		
Cadmium, total	ug/L	MW-26	08/30/2022	ND	0.8000		
Cadmium, total	ug/L	MW-26	03/07/2023	ND	0.8000		
Chromium, total	ug/L	MW-26	10/31/2016	ND	8.0000		
Chromium, total	ug/L	MW-26	03/16/2017	ND	8.0000		
Chromium, total	ug/L	MW-26	09/27/2017	ND	8.0000		
Chromium, total	ug/L	MW-26	03/14/2018	ND	8.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chromium, total	ug/L	MW-26	09/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-26	04/01/2019	ND	8.0000		
Chromium, total	ug/L	MW-26	09/12/2019	ND	8.0000		
Chromium, total	ug/L	MW-26	05/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-26	09/03/2020	ND	8.0000		
Chromium, total	ug/L	MW-26	03/30/2021	ND	8.0000		
Chromium, total	ug/L	MW-26	09/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-26	03/31/2022	ND	8.0000		
Chromium, total	ug/L	MW-26	08/30/2022	ND	8.0000		
Chromium, total	ug/L	MW-26	03/07/2023	ND	8.0000		
Cobalt, total	ug/L	MW-26	10/31/2016	ND	0.8000		
Cobalt, total	ug/L	MW-26	03/16/2017	ND	0.8000		
Cobalt, total	ug/L	MW-26	09/27/2017	ND	0.8000		
Cobalt, total	ug/L	MW-26	03/14/2018	ND	2.0000	0.8000	**
Cobalt, total	ug/L	MW-26	09/12/2018	ND	0.8000		
Cobalt, total	ug/L	MW-26	04/01/2019	ND	0.8000		
Cobalt, total	ug/L	MW-26	09/12/2019	ND	0.8000		
Cobalt, total	ug/L	MW-26	05/06/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	09/03/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	03/30/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	09/08/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	03/31/2022	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	08/30/2022	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	03/07/2023	ND	0.4000	0.8000	**
Copper, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Copper, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Copper, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Copper, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Copper, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Copper, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Copper, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Copper, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Copper, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Copper, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Copper, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Copper, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Copper, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Copper, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Lead, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Lead, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Lead, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Lead, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Lead, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Lead, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Lead, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Lead, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Lead, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Lead, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Lead, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Lead, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Lead, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Lead, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Nickel, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Nickel, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Nickel, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Nickel, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Nickel, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Nickel, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Nickel, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Nickel, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Nickel, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Nickel, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Nickel, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Nickel, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Selenium, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Selenium, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Selenium, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Selenium, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Selenium, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Selenium, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Selenium, total	ug/L	MW-26	05/06/2020	ND	4.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Selenium, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Selenium, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Selenium, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Selenium, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Selenium, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Silver, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Silver, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Silver, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Silver, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Silver, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Silver, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Silver, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Silver, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Silver, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Silver, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Silver, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Silver, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Silver, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Silver, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Thallium, total	ug/L	MW-26	10/31/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-26	03/16/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-26	09/27/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-26	03/14/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-26	09/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-26	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-26	09/12/2019	ND	2.0000		
Thallium, total	ug/L	MW-26	05/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-26	09/03/2020	ND	2.0000		
Thallium, total	ug/L	MW-26	03/30/2021	ND	2.0000		
Thallium, total	ug/L	MW-26	09/08/2021	ND	2.0000		
Thallium, total	ug/L	MW-26	03/31/2022	ND	2.0000		
Thallium, total	ug/L	MW-26	08/30/2022	ND	2.0000		
Thallium, total	ug/L	MW-26	03/07/2023	ND	2.0000		
Vanadium, total	ug/L	MW-26	10/31/2016	ND	20.0000		
Vanadium, total	ug/L	MW-26	03/16/2017	ND	20.0000		
Vanadium, total	ug/L	MW-26	09/27/2017	ND	20.0000		
Vanadium, total	ug/L	MW-26	03/14/2018	ND	20.0000		
Vanadium, total	ug/L	MW-26	09/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-26	04/01/2019	ND	20.0000		
Vanadium, total	ug/L	MW-26	09/12/2019	ND	20.0000		
Vanadium, total	ug/L	MW-26	05/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-26	09/03/2020	ND	20.0000		
Vanadium, total	ug/L	MW-26	03/30/2021	ND	20.0000		
Vanadium, total	ug/L	MW-26	09/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-26	03/31/2022	ND	20.0000		
Vanadium, total	ug/L	MW-26	08/30/2022	ND	20.0000		
Vanadium, total	ug/L	MW-26	03/07/2023	ND	20.0000		
Zinc, total	ug/L	MW-26	10/31/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-26	03/16/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-26	09/27/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-26	03/14/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-26	09/12/2018	ND	20.0000		
Zinc, total	ug/L	MW-26	04/01/2019	ND	20.0000		
Zinc, total	ug/L	MW-26	09/12/2019		12.5000		
Zinc, total	ug/L	MW-26	05/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-26	09/03/2020	ND	20.0000		
Zinc, total	ug/L	MW-26	03/30/2021	ND	20.0000		
Zinc, total	ug/L	MW-26	09/08/2021	ND	20.0000		
Zinc, total	ug/L	MW-26	03/31/2022	ND	20.0000		
Zinc, total	ug/L	MW-26	08/30/2022	ND	20.0000		
Zinc, total	ug/L	MW-26	03/07/2023	ND	20.0000		
Antimony, total	ug/L	MW-27	10/31/2016	ND	2.0000		
Antimony, total	ug/L	MW-27	03/16/2017	ND	2.0000		
Antimony, total	ug/L	MW-27	09/27/2017	ND	2.0000		
Antimony, total	ug/L	MW-27	03/14/2018	ND	2.0000		
Antimony, total	ug/L	MW-27	09/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-27	04/01/2019	ND	2.0000		
Antimony, total	ug/L	MW-27	09/12/2019	ND	2.0000		
Antimony, total	ug/L	MW-27	05/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-27	09/03/2020	ND	2.0000		
Antimony, total	ug/L	MW-27	03/30/2021	ND	2.0000		
Antimony, total	ug/L	MW-27	09/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-27	03/31/2022	ND	2.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, total	ug/L	MW-27	08/30/2022	ND	2.0000		
Antimony, total	ug/L	MW-27	03/07/2023	ND	2.0000		
Arsenic, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Arsenic, total	ug/L	MW-27	03/16/2017		9.3000		
Arsenic, total	ug/L	MW-27	09/27/2017		84.4000		*
Arsenic, total	ug/L	MW-27	12/13/2017		8.8000		
Arsenic, total	ug/L	MW-27	03/14/2018		43.9000		
Arsenic, total	ug/L	MW-27	09/12/2018		26.3000		
Arsenic, total	ug/L	MW-27	04/01/2019		51.3000		
Arsenic, total	ug/L	MW-27	09/12/2019		18.8000		
Arsenic, total	ug/L	MW-27	05/06/2020		9.2000		
Arsenic, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Arsenic, total	ug/L	MW-27	03/30/2021		8.6000		
Arsenic, total	ug/L	MW-27	09/08/2021		5.6000		
Arsenic, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Arsenic, total	ug/L	MW-27	08/30/2022		13.5000		
Arsenic, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Barium, total	ug/L	MW-27	10/31/2016		143.0000		
Barium, total	ug/L	MW-27	03/16/2017		113.0000		
Barium, total	ug/L	MW-27	09/27/2017		501.0000		
Barium, total	ug/L	MW-27	12/13/2017		134.0000		
Barium, total	ug/L	MW-27	03/14/2018		302.0000		
Barium, total	ug/L	MW-27	09/12/2018		189.0000		
Barium, total	ug/L	MW-27	04/01/2019		289.0000		
Barium, total	ug/L	MW-27	09/12/2019		182.0000		
Barium, total	ug/L	MW-27	05/06/2020		138.0000		
Barium, total	ug/L	MW-27	09/03/2020		124.0000		
Barium, total	ug/L	MW-27	03/30/2021		127.0000		
Barium, total	ug/L	MW-27	09/08/2021		111.0000		
Barium, total	ug/L	MW-27	03/31/2022		106.0000		
Barium, total	ug/L	MW-27	08/30/2022		134.0000		
Barium, total	ug/L	MW-27	03/07/2023		107.0000		
Beryllium, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Beryllium, total	ug/L	MW-27	03/16/2017	ND	4.0000		
Beryllium, total	ug/L	MW-27	09/27/2017	ND	4.0000		
Beryllium, total	ug/L	MW-27	03/14/2018	ND	4.0000		
Beryllium, total	ug/L	MW-27	09/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-27	04/01/2019	ND	4.0000		
Beryllium, total	ug/L	MW-27	09/12/2019	ND	4.0000		
Beryllium, total	ug/L	MW-27	05/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Beryllium, total	ug/L	MW-27	03/30/2021	ND	4.0000		
Beryllium, total	ug/L	MW-27	09/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Beryllium, total	ug/L	MW-27	08/30/2022	ND	4.0000		
Beryllium, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Cadmium, total	ug/L	MW-27	10/31/2016	ND	0.8000		
Cadmium, total	ug/L	MW-27	03/16/2017	ND	0.8000		
Cadmium, total	ug/L	MW-27	09/27/2017	ND	0.8000		
Cadmium, total	ug/L	MW-27	03/14/2018	ND	0.8000		
Cadmium, total	ug/L	MW-27	09/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-27	04/01/2019	ND	0.8000		
Cadmium, total	ug/L	MW-27	09/12/2019	ND	0.8000		
Cadmium, total	ug/L	MW-27	05/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-27	09/03/2020	ND	0.8000		
Cadmium, total	ug/L	MW-27	03/30/2021	ND	0.8000		
Cadmium, total	ug/L	MW-27	09/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-27	03/31/2022	ND	0.8000		
Cadmium, total	ug/L	MW-27	08/30/2022	ND	0.8000		
Cadmium, total	ug/L	MW-27	03/07/2023	ND	0.8000		
Chromium, total	ug/L	MW-27	10/31/2016	ND	8.0000		
Chromium, total	ug/L	MW-27	03/16/2017	ND	8.0000		
Chromium, total	ug/L	MW-27	09/27/2017	ND	8.0000		
Chromium, total	ug/L	MW-27	03/14/2018	ND	8.0000		
Chromium, total	ug/L	MW-27	09/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-27	04/01/2019	ND	8.0000		
Chromium, total	ug/L	MW-27	09/12/2019	ND	8.0000		
Chromium, total	ug/L	MW-27	05/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-27	09/03/2020	ND	8.0000		
Chromium, total	ug/L	MW-27	03/30/2021	ND	8.0000		
Chromium, total	ug/L	MW-27	09/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-27	03/31/2022	ND	8.0000		
Chromium, total	ug/L	MW-27	08/30/2022	ND	8.0000		
Chromium, total	ug/L	MW-27	03/07/2023	ND	8.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cobalt, total	ug/L	MW-27	10/31/2016	ND	0.8000		
Cobalt, total	ug/L	MW-27	03/16/2017	ND	0.8000		
Cobalt, total	ug/L	MW-27	09/27/2017		1.3000		
Cobalt, total	ug/L	MW-27	03/14/2018	ND	2.0000	0.8000	**
Cobalt, total	ug/L	MW-27	09/12/2018	ND	0.8000		
Cobalt, total	ug/L	MW-27	04/01/2019		0.8000		
Cobalt, total	ug/L	MW-27	09/12/2019	ND	0.8000		
Cobalt, total	ug/L	MW-27	05/06/2020		1.0000		
Cobalt, total	ug/L	MW-27	09/03/2020		0.8000		
Cobalt, total	ug/L	MW-27	03/30/2021		0.7000		
Cobalt, total	ug/L	MW-27	09/08/2021		0.6000		
Cobalt, total	ug/L	MW-27	03/31/2022		0.7000		
Cobalt, total	ug/L	MW-27	08/30/2022		0.6000		
Cobalt, total	ug/L	MW-27	03/07/2023		0.7000		
Copper, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Copper, total	ug/L	MW-27	03/16/2017	ND	4.0000		
Copper, total	ug/L	MW-27	09/27/2017		6.3000		
Copper, total	ug/L	MW-27	03/14/2018	ND	4.0000		
Copper, total	ug/L	MW-27	09/12/2018	ND	4.0000		
Copper, total	ug/L	MW-27	04/01/2019	ND	4.0000		
Copper, total	ug/L	MW-27	09/12/2019	ND	4.0000		
Copper, total	ug/L	MW-27	05/06/2020	ND	4.0000		
Copper, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Copper, total	ug/L	MW-27	03/30/2021	ND	4.0000		
Copper, total	ug/L	MW-27	09/08/2021	ND	4.0000		
Copper, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Copper, total	ug/L	MW-27	08/30/2022	ND	4.0000		
Copper, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Lead, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Lead, total	ug/L	MW-27	03/16/2017	ND	4.0000		
Lead, total	ug/L	MW-27	09/27/2017	ND	4.0000		
Lead, total	ug/L	MW-27	03/14/2018	ND	4.0000		
Lead, total	ug/L	MW-27	09/12/2018	ND	4.0000		
Lead, total	ug/L	MW-27	04/01/2019	ND	4.0000		
Lead, total	ug/L	MW-27	09/12/2019	ND	4.0000		
Lead, total	ug/L	MW-27	05/06/2020	ND	4.0000		
Lead, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Lead, total	ug/L	MW-27	03/30/2021	ND	4.0000		
Lead, total	ug/L	MW-27	09/08/2021	ND	4.0000		
Lead, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Lead, total	ug/L	MW-27	08/30/2022	ND	4.0000		
Lead, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Nickel, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Nickel, total	ug/L	MW-27	03/16/2017	ND	4.0000		
Nickel, total	ug/L	MW-27	09/27/2017	ND	4.0000		
Nickel, total	ug/L	MW-27	03/14/2018	ND	4.0000		
Nickel, total	ug/L	MW-27	09/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-27	04/01/2019	ND	4.0000		
Nickel, total	ug/L	MW-27	09/12/2019	ND	4.0000		
Nickel, total	ug/L	MW-27	05/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Nickel, total	ug/L	MW-27	03/30/2021	ND	4.0000		
Nickel, total	ug/L	MW-27	09/08/2021	ND	4.0000		
Nickel, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Nickel, total	ug/L	MW-27	08/30/2022	ND	4.0000		
Nickel, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Selenium, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Selenium, total	ug/L	MW-27	03/16/2017	ND	4.0000		
Selenium, total	ug/L	MW-27	09/27/2017	ND	4.0000		
Selenium, total	ug/L	MW-27	03/14/2018	ND	4.0000		
Selenium, total	ug/L	MW-27	09/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-27	04/01/2019	ND	4.0000		
Selenium, total	ug/L	MW-27	09/12/2019	ND	4.0000		
Selenium, total	ug/L	MW-27	05/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Selenium, total	ug/L	MW-27	03/30/2021	ND	4.0000		
Selenium, total	ug/L	MW-27	09/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Selenium, total	ug/L	MW-27	08/30/2022	ND	4.0000		
Selenium, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Silver, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Silver, total	ug/L	MW-27	03/16/2017	ND	4.0000		
Silver, total	ug/L	MW-27	09/27/2017	ND	4.0000		
Silver, total	ug/L	MW-27	03/14/2018	ND	4.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Silver, total	ug/L	MW-27	09/12/2018	ND	4.0000		
Silver, total	ug/L	MW-27	04/01/2019	ND	4.0000		
Silver, total	ug/L	MW-27	09/12/2019	ND	4.0000		
Silver, total	ug/L	MW-27	05/06/2020	ND	4.0000		
Silver, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Silver, total	ug/L	MW-27	03/30/2021	ND	4.0000		
Silver, total	ug/L	MW-27	09/08/2021	ND	4.0000		
Silver, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Silver, total	ug/L	MW-27	08/30/2022	ND	4.0000		
Silver, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Thallium, total	ug/L	MW-27	10/31/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-27	03/16/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-27	09/27/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-27	03/14/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-27	09/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-27	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-27	09/12/2019	ND	2.0000		
Thallium, total	ug/L	MW-27	05/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-27	09/03/2020	ND	2.0000		
Thallium, total	ug/L	MW-27	03/30/2021	ND	2.0000		
Thallium, total	ug/L	MW-27	09/08/2021	ND	2.0000		
Thallium, total	ug/L	MW-27	03/31/2022	ND	2.0000		
Thallium, total	ug/L	MW-27	08/30/2022	ND	2.0000		
Thallium, total	ug/L	MW-27	03/07/2023	ND	2.0000		
Vanadium, total	ug/L	MW-27	10/31/2016	ND	20.0000		
Vanadium, total	ug/L	MW-27	03/16/2017	ND	20.0000		
Vanadium, total	ug/L	MW-27	09/27/2017	ND	20.0000		
Vanadium, total	ug/L	MW-27	03/14/2018	ND	20.0000		
Vanadium, total	ug/L	MW-27	09/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-27	04/01/2019	ND	20.0000		
Vanadium, total	ug/L	MW-27	09/12/2019	ND	20.0000		
Vanadium, total	ug/L	MW-27	05/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-27	09/03/2020	ND	20.0000		
Vanadium, total	ug/L	MW-27	03/30/2021	ND	20.0000		
Vanadium, total	ug/L	MW-27	09/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-27	03/31/2022	ND	20.0000		
Vanadium, total	ug/L	MW-27	08/30/2022	ND	20.0000		
Vanadium, total	ug/L	MW-27	03/07/2023	ND	20.0000		
Zinc, total	ug/L	MW-27	10/31/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-27	03/16/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-27	09/27/2017		24.2000		
Zinc, total	ug/L	MW-27	12/13/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-27	03/14/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-27	09/12/2018		31.9000		
Zinc, total	ug/L	MW-27	04/01/2019	ND	20.0000		
Zinc, total	ug/L	MW-27	09/12/2019		8.2000		
Zinc, total	ug/L	MW-27	05/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-27	09/03/2020	ND	20.0000		
Zinc, total	ug/L	MW-27	03/30/2021	ND	20.0000		
Zinc, total	ug/L	MW-27	09/08/2021	ND	20.0000		
Zinc, total	ug/L	MW-27	03/31/2022	ND	20.0000		
Zinc, total	ug/L	MW-27	08/30/2022	ND	20.0000		
Zinc, total	ug/L	MW-27	03/07/2023	ND	20.0000		
Antimony, total	ug/L	MW-28	10/31/2016	ND	2.0000		
Antimony, total	ug/L	MW-28	03/16/2017	ND	2.0000		
Antimony, total	ug/L	MW-28	03/14/2018	ND	2.0000		
Antimony, total	ug/L	MW-28	09/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-28	04/01/2019	ND	2.0000		
Antimony, total	ug/L	MW-28	05/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-28	09/03/2020	ND	2.0000		
Antimony, total	ug/L	MW-28	03/30/2021	ND	2.0000		
Antimony, total	ug/L	MW-28	03/31/2022	ND	2.0000		
Antimony, total	ug/L	MW-28	03/07/2023	ND	2.0000		
Arsenic, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Arsenic, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Arsenic, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Arsenic, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Arsenic, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Arsenic, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Arsenic, total	ug/L	MW-28	03/30/2021	ND	4.0000		
Arsenic, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Arsenic, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Barium, total	ug/L	MW-28	10/31/2016		37.1000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Barium, total	ug/L	MW-28	03/16/2017		71.6000		
Barium, total	ug/L	MW-28	03/14/2018		50.3000		
Barium, total	ug/L	MW-28	09/12/2018		37.0000		
Barium, total	ug/L	MW-28	04/01/2019		35.1000		
Barium, total	ug/L	MW-28	05/06/2020		26.2000		
Barium, total	ug/L	MW-28	09/03/2020		24.6000		
Barium, total	ug/L	MW-28	03/30/2021		27.2000		
Barium, total	ug/L	MW-28	03/31/2022		31.1000		
Barium, total	ug/L	MW-28	03/07/2023		27.3000		
Beryllium, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Beryllium, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Beryllium, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Beryllium, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Beryllium, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Beryllium, total	ug/L	MW-28	03/30/2021	ND	4.0000		
Beryllium, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Beryllium, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Cadmium, total	ug/L	MW-28	10/31/2016	ND	0.8000		
Cadmium, total	ug/L	MW-28	03/16/2017	ND	0.8000		
Cadmium, total	ug/L	MW-28	03/14/2018	ND	0.8000		
Cadmium, total	ug/L	MW-28	09/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-28	04/01/2019	ND	0.8000		
Cadmium, total	ug/L	MW-28	05/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-28	09/03/2020	ND	0.8000		
Cadmium, total	ug/L	MW-28	03/30/2021	ND	0.8000		
Cadmium, total	ug/L	MW-28	03/31/2022	ND	0.8000		
Cadmium, total	ug/L	MW-28	03/07/2023	ND	0.8000		
Chromium, total	ug/L	MW-28	10/31/2016	ND	8.0000		
Chromium, total	ug/L	MW-28	03/16/2017	ND	8.0000		
Chromium, total	ug/L	MW-28	03/14/2018	ND	8.0000		
Chromium, total	ug/L	MW-28	09/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-28	04/01/2019	ND	8.0000		
Chromium, total	ug/L	MW-28	05/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-28	09/03/2020	ND	8.0000		
Chromium, total	ug/L	MW-28	03/30/2021	ND	8.0000		
Chromium, total	ug/L	MW-28	03/31/2022	ND	8.0000		
Chromium, total	ug/L	MW-28	03/07/2023	ND	8.0000		
Cobalt, total	ug/L	MW-28	10/31/2016		0.9000		
Cobalt, total	ug/L	MW-28	03/16/2017		1.7000		
Cobalt, total	ug/L	MW-28	03/14/2018	ND	2.0000	0.8000	**
Cobalt, total	ug/L	MW-28	09/12/2018	ND	0.8000		
Cobalt, total	ug/L	MW-28	04/01/2019	ND	0.8000		
Cobalt, total	ug/L	MW-28	05/06/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-28	09/03/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-28	03/30/2021		0.6000		
Cobalt, total	ug/L	MW-28	03/31/2022		1.0000		
Cobalt, total	ug/L	MW-28	03/07/2023		0.4000		
Copper, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Copper, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Copper, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Copper, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Copper, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Copper, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Copper, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Copper, total	ug/L	MW-28	03/30/2021	ND	4.0000		
Copper, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Copper, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Lead, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Lead, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Lead, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Lead, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Lead, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Lead, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Lead, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Lead, total	ug/L	MW-28	03/30/2021	ND	4.0000		
Lead, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Lead, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Nickel, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Nickel, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Nickel, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Nickel, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-28	04/01/2019	ND	4.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Nickel, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Nickel, total	ug/L	MW-28	03/30/2021		4.1000		
Nickel, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Nickel, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Selenium, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Selenium, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Selenium, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Selenium, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Selenium, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Selenium, total	ug/L	MW-28	03/30/2021	ND	4.0000		
Selenium, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Selenium, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Silver, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Silver, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Silver, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Silver, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Silver, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Silver, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Silver, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Silver, total	ug/L	MW-28	03/30/2021	ND	4.0000		
Silver, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Silver, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Thallium, total	ug/L	MW-28	10/31/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-28	03/16/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-28	03/14/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-28	09/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-28	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-28	05/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-28	09/03/2020	ND	2.0000		
Thallium, total	ug/L	MW-28	03/30/2021	ND	2.0000		
Thallium, total	ug/L	MW-28	03/31/2022	ND	2.0000		
Thallium, total	ug/L	MW-28	03/07/2023	ND	2.0000		
Vanadium, total	ug/L	MW-28	10/31/2016	ND	20.0000		
Vanadium, total	ug/L	MW-28	03/16/2017	ND	20.0000		
Vanadium, total	ug/L	MW-28	03/14/2018	ND	20.0000		
Vanadium, total	ug/L	MW-28	09/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-28	04/01/2019	ND	20.0000		
Vanadium, total	ug/L	MW-28	05/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-28	09/03/2020	ND	20.0000		
Vanadium, total	ug/L	MW-28	03/30/2021	ND	20.0000		
Vanadium, total	ug/L	MW-28	03/31/2022	ND	20.0000		
Vanadium, total	ug/L	MW-28	03/07/2023	ND	20.0000		
Zinc, total	ug/L	MW-28	10/31/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-28	03/16/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-28	03/14/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-28	09/12/2018		33.2000		
Zinc, total	ug/L	MW-28	04/01/2019	ND	20.0000		
Zinc, total	ug/L	MW-28	05/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-28	09/03/2020	ND	20.0000		
Zinc, total	ug/L	MW-28	03/30/2021	ND	20.0000		
Zinc, total	ug/L	MW-28	03/31/2022	ND	20.0000		
Zinc, total	ug/L	MW-28	03/07/2023	ND	20.0000		
Antimony, total	ug/L	MW-6	10/20/2014	ND	6.0000	2.0000	**
Antimony, total	ug/L	MW-6	06/23/2015	ND	6.0000	2.0000	**
Antimony, total	ug/L	MW-6	11/13/2015	ND	6.0000	2.0000	**
Antimony, total	ug/L	MW-6	04/11/2016	ND	6.0000	2.0000	**
Antimony, total	ug/L	MW-6	09/16/2016	ND	2.0000		
Antimony, total	ug/L	MW-6	03/15/2017	ND	2.0000		
Antimony, total	ug/L	MW-6	09/27/2017	ND	2.0000		
Antimony, total	ug/L	MW-6	09/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-6	04/01/2019	ND	2.0000		
Antimony, total	ug/L	MW-6	09/12/2019	ND	2.0000		
Antimony, total	ug/L	MW-6	05/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-6	09/03/2020	ND	2.0000		
Antimony, total	ug/L	MW-6	03/30/2021	ND	2.0000		
Antimony, total	ug/L	MW-6	09/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-6	03/31/2022	ND	2.0000		
Antimony, total	ug/L	MW-6	08/30/2022	ND	2.0000		
Antimony, total	ug/L	MW-6	03/07/2023	ND	2.0000		
Arsenic, total	ug/L	MW-6	10/20/2014		1.6900		
Arsenic, total	ug/L	MW-6	06/23/2015	ND	2.0000	4.0000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Arsenic, total	ug/L	MW-6	11/13/2015	ND	2.0000	4.0000	**
Arsenic, total	ug/L	MW-6	04/11/2016	ND	10.0000	4.0000	**
Arsenic, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Arsenic, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Arsenic, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Arsenic, total	ug/L	MW-6	09/12/2018	ND	4.0000		
Arsenic, total	ug/L	MW-6	04/01/2019	ND	4.0000		
Arsenic, total	ug/L	MW-6	09/12/2019	ND	4.0000		
Arsenic, total	ug/L	MW-6	05/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-6	09/03/2020	ND	4.0000		
Arsenic, total	ug/L	MW-6	03/30/2021	ND	4.0000		
Arsenic, total	ug/L	MW-6	09/08/2021	ND	4.0000		
Arsenic, total	ug/L	MW-6	03/31/2022	ND	4.0000		
Arsenic, total	ug/L	MW-6	08/30/2022	ND	4.0000		
Arsenic, total	ug/L	MW-6	03/07/2023	ND	4.0000		
Barium, total	ug/L	MW-6	10/20/2014		346.0000		
Barium, total	ug/L	MW-6	06/23/2015		237.0000		
Barium, total	ug/L	MW-6	11/13/2015		294.0000		
Barium, total	ug/L	MW-6	04/11/2016		279.0000		
Barium, total	ug/L	MW-6	09/16/2016		316.0000		
Barium, total	ug/L	MW-6	03/15/2017		326.0000		
Barium, total	ug/L	MW-6	09/27/2017		193.0000		
Barium, total	ug/L	MW-6	09/12/2018		333.0000		
Barium, total	ug/L	MW-6	04/01/2019		409.0000		
Barium, total	ug/L	MW-6	09/12/2019		349.0000		
Barium, total	ug/L	MW-6	05/06/2020		477.0000		
Barium, total	ug/L	MW-6	09/03/2020		299.0000		
Barium, total	ug/L	MW-6	03/30/2021		264.0000		
Barium, total	ug/L	MW-6	09/08/2021		197.0000		
Barium, total	ug/L	MW-6	03/31/2022		227.0000		
Barium, total	ug/L	MW-6	08/30/2022		208.0000		
Barium, total	ug/L	MW-6	03/07/2023		253.0000		
Beryllium, total	ug/L	MW-6	10/20/2014	ND	1.0000	4.0000	**
Beryllium, total	ug/L	MW-6	06/23/2015	ND	1.0000	4.0000	**
Beryllium, total	ug/L	MW-6	11/13/2015	ND	1.0000	4.0000	**
Beryllium, total	ug/L	MW-6	04/11/2016	ND	1.0000	4.0000	**
Beryllium, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Beryllium, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Beryllium, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Beryllium, total	ug/L	MW-6	09/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-6	04/01/2019	ND	4.0000		
Beryllium, total	ug/L	MW-6	09/12/2019	ND	4.0000		
Beryllium, total	ug/L	MW-6	05/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-6	09/03/2020	ND	4.0000		
Beryllium, total	ug/L	MW-6	03/30/2021	ND	4.0000		
Beryllium, total	ug/L	MW-6	09/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-6	03/31/2022	ND	4.0000		
Beryllium, total	ug/L	MW-6	08/30/2022	ND	4.0000		
Beryllium, total	ug/L	MW-6	03/07/2023	ND	4.0000		
Cadmium, total	ug/L	MW-6	10/20/2014	ND	0.5000	0.8000	**
Cadmium, total	ug/L	MW-6	06/23/2015	ND	0.5000	0.8000	**
Cadmium, total	ug/L	MW-6	11/13/2015	ND	0.5000	0.8000	**
Cadmium, total	ug/L	MW-6	04/11/2016	ND	0.5000	0.8000	**
Cadmium, total	ug/L	MW-6	09/16/2016	ND	0.8000		
Cadmium, total	ug/L	MW-6	03/15/2017	ND	0.8000		
Cadmium, total	ug/L	MW-6	09/27/2017	ND	0.8000		
Cadmium, total	ug/L	MW-6	09/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-6	04/01/2019	ND	0.8000		
Cadmium, total	ug/L	MW-6	09/12/2019	ND	0.8000		
Cadmium, total	ug/L	MW-6	05/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-6	09/03/2020	ND	0.8000		
Cadmium, total	ug/L	MW-6	03/30/2021	ND	0.8000		
Cadmium, total	ug/L	MW-6	09/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-6	03/31/2022	ND	0.8000		
Cadmium, total	ug/L	MW-6	08/30/2022	ND	0.8000		
Cadmium, total	ug/L	MW-6	03/07/2023	ND	0.8000		
Chromium, total	ug/L	MW-6	10/20/2014	ND	5.0000	8.0000	**
Chromium, total	ug/L	MW-6	06/23/2015	ND	5.0000	8.0000	**
Chromium, total	ug/L	MW-6	11/13/2015	ND	5.0000	8.0000	**
Chromium, total	ug/L	MW-6	04/11/2016	ND	5.0000	8.0000	**
Chromium, total	ug/L	MW-6	09/16/2016	ND	8.0000		
Chromium, total	ug/L	MW-6	03/15/2017	ND	8.0000		
Chromium, total	ug/L	MW-6	09/27/2017	ND	8.0000		
Chromium, total	ug/L	MW-6	09/12/2018	ND	8.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chromium, total	ug/L	MW-6	04/01/2019	ND	8.0000		
Chromium, total	ug/L	MW-6	09/12/2019	ND	8.0000		
Chromium, total	ug/L	MW-6	05/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-6	09/03/2020	ND	8.0000		
Chromium, total	ug/L	MW-6	03/30/2021	ND	8.0000		
Chromium, total	ug/L	MW-6	09/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-6	03/31/2022	ND	8.0000		
Chromium, total	ug/L	MW-6	08/30/2022	ND	8.0000		
Chromium, total	ug/L	MW-6	03/07/2023	ND	8.0000		
Cobalt, total	ug/L	MW-6	10/20/2014		7.4300		
Cobalt, total	ug/L	MW-6	06/23/2015	ND	0.8000		
Cobalt, total	ug/L	MW-6	11/13/2015	ND	0.8000		
Cobalt, total	ug/L	MW-6	04/11/2016	ND	0.8000		
Cobalt, total	ug/L	MW-6	09/16/2016	ND	0.8000		
Cobalt, total	ug/L	MW-6	03/15/2017	ND	0.8000		
Cobalt, total	ug/L	MW-6	09/27/2017	ND	0.8000		
Cobalt, total	ug/L	MW-6	09/12/2018	ND	0.8000		
Cobalt, total	ug/L	MW-6	04/01/2019	ND	0.8000		
Cobalt, total	ug/L	MW-6	09/12/2019	ND	0.8000		
Cobalt, total	ug/L	MW-6	05/06/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-6	09/03/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-6	03/30/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-6	09/08/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-6	03/31/2022		1.1000		
Cobalt, total	ug/L	MW-6	08/30/2022	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-6	03/07/2023		11.4000		
Copper, total	ug/L	MW-6	10/20/2014		25.7000		*
Copper, total	ug/L	MW-6	06/23/2015	ND	2.0000	4.0000	**
Copper, total	ug/L	MW-6	11/13/2015		2.6800		
Copper, total	ug/L	MW-6	04/11/2016	ND	2.0000	4.0000	**
Copper, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Copper, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Copper, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Copper, total	ug/L	MW-6	09/12/2018	ND	4.0000		
Copper, total	ug/L	MW-6	04/01/2019	ND	4.0000		
Copper, total	ug/L	MW-6	09/12/2019	ND	4.0000		
Copper, total	ug/L	MW-6	05/06/2020	ND	4.0000		
Copper, total	ug/L	MW-6	09/03/2020	ND	4.0000		
Copper, total	ug/L	MW-6	03/30/2021	ND	4.0000		
Copper, total	ug/L	MW-6	09/08/2021	ND	4.0000		
Copper, total	ug/L	MW-6	03/31/2022	ND	4.0000		
Copper, total	ug/L	MW-6	08/30/2022	ND	4.0000		
Copper, total	ug/L	MW-6	03/07/2023	ND	4.0000		
Lead, total	ug/L	MW-6	10/20/2014		6.0300		
Lead, total	ug/L	MW-6	06/23/2015		0.6080		
Lead, total	ug/L	MW-6	11/13/2015		0.5030		
Lead, total	ug/L	MW-6	04/11/2016	ND	0.5000	4.0000	**
Lead, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Lead, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Lead, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Lead, total	ug/L	MW-6	09/12/2018	ND	4.0000		
Lead, total	ug/L	MW-6	04/01/2019	ND	4.0000		
Lead, total	ug/L	MW-6	09/12/2019	ND	4.0000		
Lead, total	ug/L	MW-6	05/06/2020	ND	4.0000		
Lead, total	ug/L	MW-6	09/03/2020	ND	4.0000		
Lead, total	ug/L	MW-6	03/30/2021	ND	4.0000		
Lead, total	ug/L	MW-6	09/08/2021	ND	4.0000		
Lead, total	ug/L	MW-6	03/31/2022	ND	4.0000		
Lead, total	ug/L	MW-6	08/30/2022	ND	4.0000		
Lead, total	ug/L	MW-6	03/07/2023	ND	4.0000		
Nickel, total	ug/L	MW-6	10/20/2014	ND	30.0000		*
Nickel, total	ug/L	MW-6	06/23/2015	ND	5.0000	4.0000	**
Nickel, total	ug/L	MW-6	11/13/2015	ND	5.0000	4.0000	**
Nickel, total	ug/L	MW-6	04/11/2016	ND	5.0000	4.0000	**
Nickel, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Nickel, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Nickel, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Nickel, total	ug/L	MW-6	09/12/2018		7.8000		
Nickel, total	ug/L	MW-6	04/01/2019		8.4000		
Nickel, total	ug/L	MW-6	09/12/2019		7.3000		
Nickel, total	ug/L	MW-6	05/06/2020		6.9000		
Nickel, total	ug/L	MW-6	09/03/2020		5.5000		
Nickel, total	ug/L	MW-6	03/30/2021		5.0000		
Nickel, total	ug/L	MW-6	09/08/2021		5.7000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Nickel, total	ug/L	MW-6	03/31/2022		9.9000		
Nickel, total	ug/L	MW-6	08/30/2022		11.3000		
Nickel, total	ug/L	MW-6	03/07/2023		29.5000		*
Selenium, total	ug/L	MW-6	10/20/2014	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-6	06/23/2015	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-6	11/13/2015	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-6	04/11/2016	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Selenium, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Selenium, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Selenium, total	ug/L	MW-6	09/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-6	04/01/2019	ND	4.0000		
Selenium, total	ug/L	MW-6	09/12/2019	ND	4.0000		
Selenium, total	ug/L	MW-6	05/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-6	09/03/2020	ND	4.0000		
Selenium, total	ug/L	MW-6	03/30/2021	ND	4.0000		
Selenium, total	ug/L	MW-6	09/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-6	03/31/2022	ND	4.0000		
Selenium, total	ug/L	MW-6	08/30/2022	ND	4.0000		
Selenium, total	ug/L	MW-6	03/07/2023	ND	4.0000		
Silver, total	ug/L	MW-6	10/20/2014	ND	20.0000	4.0000	**
Silver, total	ug/L	MW-6	06/23/2015	ND	1.0000	4.0000	**
Silver, total	ug/L	MW-6	11/13/2015	ND	1.0000	4.0000	**
Silver, total	ug/L	MW-6	04/11/2016	ND	1.0000	4.0000	**
Silver, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Silver, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Silver, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Silver, total	ug/L	MW-6	09/12/2018	ND	4.0000		
Silver, total	ug/L	MW-6	04/01/2019	ND	4.0000		
Silver, total	ug/L	MW-6	09/12/2019	ND	4.0000		
Silver, total	ug/L	MW-6	05/06/2020	ND	4.0000		
Silver, total	ug/L	MW-6	09/03/2020	ND	4.0000		
Silver, total	ug/L	MW-6	03/30/2021	ND	4.0000		
Silver, total	ug/L	MW-6	09/08/2021	ND	4.0000		
Silver, total	ug/L	MW-6	03/31/2022	ND	4.0000		
Silver, total	ug/L	MW-6	08/30/2022	ND	4.0000		
Silver, total	ug/L	MW-6	03/07/2023	ND	4.0000		
Thallium, total	ug/L	MW-6	10/20/2014	ND	2.0000		
Thallium, total	ug/L	MW-6	06/23/2015	ND	1.0000	2.0000	**
Thallium, total	ug/L	MW-6	11/13/2015	ND	1.0000	2.0000	**
Thallium, total	ug/L	MW-6	04/11/2016	ND	2.0000		
Thallium, total	ug/L	MW-6	09/16/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-6	03/15/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-6	09/27/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-6	09/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-6	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-6	09/12/2019	ND	2.0000		
Thallium, total	ug/L	MW-6	05/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-6	09/03/2020	ND	2.0000		
Thallium, total	ug/L	MW-6	03/30/2021	ND	2.0000		
Thallium, total	ug/L	MW-6	09/08/2021	ND	2.0000		
Thallium, total	ug/L	MW-6	03/31/2022	ND	2.0000		
Thallium, total	ug/L	MW-6	08/30/2022	ND	2.0000		
Thallium, total	ug/L	MW-6	03/07/2023	ND	2.0000		
Vanadium, total	ug/L	MW-6	10/20/2014	ND	20.0000		
Vanadium, total	ug/L	MW-6	06/23/2015	ND	5.0000	20.0000	**
Vanadium, total	ug/L	MW-6	11/13/2015	ND	5.0000	20.0000	**
Vanadium, total	ug/L	MW-6	04/11/2016	ND	5.0000	20.0000	**
Vanadium, total	ug/L	MW-6	09/16/2016	ND	20.0000		
Vanadium, total	ug/L	MW-6	03/15/2017	ND	20.0000		
Vanadium, total	ug/L	MW-6	09/27/2017	ND	20.0000		
Vanadium, total	ug/L	MW-6	09/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-6	04/01/2019	ND	20.0000		
Vanadium, total	ug/L	MW-6	09/12/2019	ND	20.0000		
Vanadium, total	ug/L	MW-6	05/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-6	09/03/2020	ND	20.0000		
Vanadium, total	ug/L	MW-6	03/30/2021	ND	20.0000		
Vanadium, total	ug/L	MW-6	09/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-6	03/31/2022	ND	20.0000		
Vanadium, total	ug/L	MW-6	08/30/2022	ND	20.0000		
Vanadium, total	ug/L	MW-6	03/07/2023	ND	20.0000		
Zinc, total	ug/L	MW-6	10/20/2014		22.6000		
Zinc, total	ug/L	MW-6	06/23/2015	ND	10.0000	20.0000	**
Zinc, total	ug/L	MW-6	11/13/2015	ND	10.0000	20.0000	**

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Zinc, total	ug/L	MW-6	04/11/2016	ND	10.0000	20.0000	**
Zinc, total	ug/L	MW-6	09/16/2016		21.7000		
Zinc, total	ug/L	MW-6	03/15/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-6	09/27/2017		10.1000		
Zinc, total	ug/L	MW-6	09/12/2018		21.6000		
Zinc, total	ug/L	MW-6	04/01/2019		44.1000		
Zinc, total	ug/L	MW-6	09/12/2019	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-6	05/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-6	09/03/2020	ND	20.0000		
Zinc, total	ug/L	MW-6	03/30/2021	ND	20.0000		
Zinc, total	ug/L	MW-6	09/08/2021	ND	20.0000		
Zinc, total	ug/L	MW-6	03/31/2022	ND	20.0000		
Zinc, total	ug/L	MW-6	08/30/2022	ND	20.0000		
Zinc, total	ug/L	MW-6	03/07/2023	ND	20.0000		
Antimony, total	ug/L	MW-7	03/15/2017	ND	2.0000		
Antimony, total	ug/L	MW-7	05/09/2017	ND	2.0000		
Antimony, total	ug/L	MW-7	09/27/2017	ND	2.0000		
Antimony, total	ug/L	MW-7	03/14/2018	ND	2.0000		
Antimony, total	ug/L	MW-7	09/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-7	04/01/2019	ND	2.0000		
Antimony, total	ug/L	MW-7	09/12/2019	ND	2.0000		
Antimony, total	ug/L	MW-7	05/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-7	09/03/2020	ND	2.0000		
Antimony, total	ug/L	MW-7	03/30/2021	ND	2.0000		*
Antimony, total	ug/L	MW-7	09/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-7	03/31/2022	ND	2.0000		
Antimony, total	ug/L	MW-7	08/30/2022	ND	2.0000		
Antimony, total	ug/L	MW-7	03/07/2023	ND	2.0000		
Arsenic, total	ug/L	MW-7	03/15/2017		6.5000		
Arsenic, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Arsenic, total	ug/L	MW-7	09/27/2017	ND	4.0000		
Arsenic, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Arsenic, total	ug/L	MW-7	09/12/2018		6.3000		
Arsenic, total	ug/L	MW-7	04/01/2019	ND	4.0000		
Arsenic, total	ug/L	MW-7	09/12/2019		13.9000		*
Arsenic, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Arsenic, total	ug/L	MW-7	03/30/2021		35.8000		*
Arsenic, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Arsenic, total	ug/L	MW-7	03/31/2022		18.6000		*
Arsenic, total	ug/L	MW-7	08/30/2022	ND	4.0000		
Arsenic, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Barium, total	ug/L	MW-7	03/15/2017		331.0000		
Barium, total	ug/L	MW-7	05/09/2017		224.0000		
Barium, total	ug/L	MW-7	09/27/2017		380.0000		
Barium, total	ug/L	MW-7	03/14/2018		214.0000		
Barium, total	ug/L	MW-7	09/12/2018		325.0000		
Barium, total	ug/L	MW-7	04/01/2019		235.0000		
Barium, total	ug/L	MW-7	09/12/2019		386.0000		
Barium, total	ug/L	MW-7	05/06/2020		191.0000		
Barium, total	ug/L	MW-7	09/03/2020		172.0000		
Barium, total	ug/L	MW-7	03/30/2021		880.0000		*
Barium, total	ug/L	MW-7	09/08/2021		163.0000		
Barium, total	ug/L	MW-7	03/31/2022		569.0000		
Barium, total	ug/L	MW-7	08/30/2022		211.0000		
Barium, total	ug/L	MW-7	03/07/2023		166.0000		
Beryllium, total	ug/L	MW-7	03/15/2017	ND	4.0000		
Beryllium, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Beryllium, total	ug/L	MW-7	09/27/2017	ND	4.0000		
Beryllium, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Beryllium, total	ug/L	MW-7	09/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-7	04/01/2019	ND	4.0000		
Beryllium, total	ug/L	MW-7	09/12/2019	ND	4.0000		
Beryllium, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Beryllium, total	ug/L	MW-7	03/30/2021	ND	4.0000		*
Beryllium, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-7	03/31/2022	ND	4.0000		
Beryllium, total	ug/L	MW-7	08/30/2022	ND	4.0000		
Beryllium, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Cadmium, total	ug/L	MW-7	03/15/2017	ND	0.8000		
Cadmium, total	ug/L	MW-7	05/09/2017	ND	0.8000		
Cadmium, total	ug/L	MW-7	09/27/2017	ND	0.8000		
Cadmium, total	ug/L	MW-7	03/14/2018	ND	0.8000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cadmium, total	ug/L	MW-7	09/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-7	04/01/2019	ND	0.8000		
Cadmium, total	ug/L	MW-7	09/12/2019	ND	0.8000		
Cadmium, total	ug/L	MW-7	05/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-7	09/03/2020	ND	0.8000		
Cadmium, total	ug/L	MW-7	03/30/2021		1.7000		*
Cadmium, total	ug/L	MW-7	09/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-7	03/31/2022		1.0000		
Cadmium, total	ug/L	MW-7	08/30/2022	ND	0.8000		
Cadmium, total	ug/L	MW-7	03/07/2023	ND	0.8000		
Chromium, total	ug/L	MW-7	03/15/2017		16.5000		
Chromium, total	ug/L	MW-7	05/09/2017	ND	8.0000		
Chromium, total	ug/L	MW-7	09/27/2017	ND	8.0000		
Chromium, total	ug/L	MW-7	03/14/2018	ND	8.0000		
Chromium, total	ug/L	MW-7	09/12/2018		14.6000		
Chromium, total	ug/L	MW-7	04/01/2019	ND	8.0000		
Chromium, total	ug/L	MW-7	09/12/2019		31.6000		*
Chromium, total	ug/L	MW-7	05/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-7	09/03/2020	ND	8.0000		
Chromium, total	ug/L	MW-7	03/30/2021		77.5000		*
Chromium, total	ug/L	MW-7	09/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-7	03/31/2022		49.5000		*
Chromium, total	ug/L	MW-7	08/30/2022	ND	8.0000		
Chromium, total	ug/L	MW-7	03/07/2023	ND	8.0000		
Cobalt, total	ug/L	MW-7	03/15/2017		5.9000		
Cobalt, total	ug/L	MW-7	05/09/2017	ND	0.8000		
Cobalt, total	ug/L	MW-7	09/27/2017		3.4000		
Cobalt, total	ug/L	MW-7	03/14/2018	ND	2.0000	0.8000	**
Cobalt, total	ug/L	MW-7	09/12/2018		5.8000		
Cobalt, total	ug/L	MW-7	04/01/2019		1.9000		
Cobalt, total	ug/L	MW-7	09/12/2019		12.2000		
Cobalt, total	ug/L	MW-7	05/06/2020		0.4000		
Cobalt, total	ug/L	MW-7	09/03/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-7	03/30/2021		39.3000		*
Cobalt, total	ug/L	MW-7	09/08/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-7	03/31/2022		22.9000		*
Cobalt, total	ug/L	MW-7	08/30/2022		2.1000		
Cobalt, total	ug/L	MW-7	03/07/2023	ND	0.4000	0.8000	**
Copper, total	ug/L	MW-7	03/15/2017		13.7000		
Copper, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Copper, total	ug/L	MW-7	09/27/2017		10.6000		
Copper, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Copper, total	ug/L	MW-7	09/12/2018		12.7000		
Copper, total	ug/L	MW-7	04/01/2019	ND	4.0000		
Copper, total	ug/L	MW-7	09/12/2019		25.8000		*
Copper, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Copper, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Copper, total	ug/L	MW-7	03/30/2021		83.4000		*
Copper, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Copper, total	ug/L	MW-7	03/31/2022		47.2000		*
Copper, total	ug/L	MW-7	08/30/2022		4.8000		
Copper, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Lead, total	ug/L	MW-7	03/15/2017		6.8000		
Lead, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Lead, total	ug/L	MW-7	09/27/2017	ND	4.0000		
Lead, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Lead, total	ug/L	MW-7	09/12/2018		6.6000		
Lead, total	ug/L	MW-7	04/01/2019	ND	4.0000		
Lead, total	ug/L	MW-7	09/12/2019		13.1000		*
Lead, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Lead, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Lead, total	ug/L	MW-7	03/30/2021		43.4000		*
Lead, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Lead, total	ug/L	MW-7	03/31/2022		25.8000		*
Lead, total	ug/L	MW-7	08/30/2022		5.5000		
Lead, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Nickel, total	ug/L	MW-7	03/15/2017		19.0000		*
Nickel, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Nickel, total	ug/L	MW-7	09/27/2017		11.4000		
Nickel, total	ug/L	MW-7	12/13/2017	ND	4.0000		
Nickel, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Nickel, total	ug/L	MW-7	09/12/2018		17.4000		*
Nickel, total	ug/L	MW-7	04/01/2019		7.4000		
Nickel, total	ug/L	MW-7	09/12/2019		34.2000		*

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Nickel, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Nickel, total	ug/L	MW-7	03/30/2021		105.0000		*
Nickel, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Nickel, total	ug/L	MW-7	03/31/2022		61.9000		*
Nickel, total	ug/L	MW-7	08/30/2022		6.5000		
Nickel, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Selenium, total	ug/L	MW-7	03/15/2017	ND	4.0000		
Selenium, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Selenium, total	ug/L	MW-7	09/27/2017	ND	4.0000		
Selenium, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Selenium, total	ug/L	MW-7	09/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-7	04/01/2019	ND	4.0000		
Selenium, total	ug/L	MW-7	09/12/2019	ND	4.0000		
Selenium, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Selenium, total	ug/L	MW-7	03/30/2021		5.8000		*
Selenium, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-7	03/31/2022		6.2000		*
Selenium, total	ug/L	MW-7	08/30/2022	ND	4.0000		
Selenium, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Silver, total	ug/L	MW-7	03/15/2017	ND	4.0000		
Silver, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Silver, total	ug/L	MW-7	09/27/2017	ND	4.0000		
Silver, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Silver, total	ug/L	MW-7	09/12/2018	ND	4.0000		
Silver, total	ug/L	MW-7	04/01/2019	ND	4.0000		
Silver, total	ug/L	MW-7	09/12/2019	ND	4.0000		
Silver, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Silver, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Silver, total	ug/L	MW-7	03/30/2021	ND	4.0000		*
Silver, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Silver, total	ug/L	MW-7	03/31/2022	ND	4.0000		
Silver, total	ug/L	MW-7	08/30/2022	ND	4.0000		
Silver, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Thallium, total	ug/L	MW-7	03/15/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-7	05/09/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-7	09/27/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-7	03/14/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-7	09/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-7	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-7	09/12/2019	ND	2.0000		
Thallium, total	ug/L	MW-7	05/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-7	09/03/2020	ND	2.0000		
Thallium, total	ug/L	MW-7	03/30/2021	ND	2.0000		*
Thallium, total	ug/L	MW-7	09/08/2021	ND	2.0000		
Thallium, total	ug/L	MW-7	03/31/2022	ND	2.0000		
Thallium, total	ug/L	MW-7	08/30/2022	ND	2.0000		
Thallium, total	ug/L	MW-7	03/07/2023	ND	2.0000		
Vanadium, total	ug/L	MW-7	03/15/2017		26.5000		
Vanadium, total	ug/L	MW-7	05/09/2017	ND	20.0000		
Vanadium, total	ug/L	MW-7	09/27/2017	ND	20.0000		
Vanadium, total	ug/L	MW-7	03/14/2018	ND	20.0000		
Vanadium, total	ug/L	MW-7	09/12/2018		23.0000		
Vanadium, total	ug/L	MW-7	04/01/2019	ND	20.0000		
Vanadium, total	ug/L	MW-7	09/12/2019		55.0000		*
Vanadium, total	ug/L	MW-7	05/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-7	09/03/2020	ND	20.0000		
Vanadium, total	ug/L	MW-7	03/30/2021		120.0000		*
Vanadium, total	ug/L	MW-7	09/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-7	03/31/2022		75.9000		*
Vanadium, total	ug/L	MW-7	08/30/2022	ND	20.0000		
Vanadium, total	ug/L	MW-7	03/07/2023	ND	20.0000		
Zinc, total	ug/L	MW-7	03/15/2017		34.2000		
Zinc, total	ug/L	MW-7	05/09/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-7	09/27/2017		26.9000		
Zinc, total	ug/L	MW-7	12/13/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-7	03/14/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-7	09/12/2018		63.4000		
Zinc, total	ug/L	MW-7	04/01/2019		28.5000		
Zinc, total	ug/L	MW-7	09/12/2019		69.0000		
Zinc, total	ug/L	MW-7	05/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-7	09/03/2020	ND	20.0000		
Zinc, total	ug/L	MW-7	03/30/2021		615.0000		*

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Zinc, total	ug/L	MW-7	09/08/2021	ND	20.0000		
Zinc, total	ug/L	MW-7	03/31/2022		116.0000		*
Zinc, total	ug/L	MW-7	08/30/2022	ND	20.0000		
Zinc, total	ug/L	MW-7	03/07/2023	ND	20.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, total	ug/L	AW-2	03/07/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	AW-2	03/07/2023		40.5000		51.3000
Barium, total	ug/L	AW-2	03/07/2023		133.0000		989.7889
Beryllium, total	ug/L	AW-2	03/07/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	AW-2	03/07/2023	ND	0.8000		1.0000
Chromium, total	ug/L	AW-2	03/07/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	AW-2	03/07/2023		12.5000	*	12.2000
Copper, total	ug/L	AW-2	03/07/2023	ND	4.0000		13.7000
Lead, total	ug/L	AW-2	03/07/2023	ND	4.0000		6.8000
Nickel, total	ug/L	AW-2	03/07/2023		11.6000	*	11.4000
Selenium, total	ug/L	AW-2	03/07/2023	ND	4.0000		4.0000
Silver, total	ug/L	AW-2	03/07/2023	ND	4.0000		4.0000
Thallium, total	ug/L	AW-2	03/07/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	AW-2	03/07/2023	ND	20.0000		26.5000
Zinc, total	ug/L	AW-2	03/07/2023	ND	20.0000		69.0000
Antimony, total	ug/L	AW-3	03/07/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	AW-3	03/07/2023		11.1000	**	51.3000
Barium, total	ug/L	AW-3	03/07/2023		572.0000		989.7889
Beryllium, total	ug/L	AW-3	03/07/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	AW-3	03/07/2023	ND	0.8000		1.0000
Chromium, total	ug/L	AW-3	03/07/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	AW-3	03/07/2023		0.5000		12.2000
Copper, total	ug/L	AW-3	03/07/2023	ND	4.0000		13.7000
Lead, total	ug/L	AW-3	03/07/2023	ND	4.0000		6.8000
Nickel, total	ug/L	AW-3	03/07/2023	ND	4.0000		11.4000
Selenium, total	ug/L	AW-3	03/07/2023	ND	4.0000		4.0000
Silver, total	ug/L	AW-3	03/07/2023	ND	4.0000		4.0000
Thallium, total	ug/L	AW-3	03/07/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	AW-3	03/07/2023	ND	20.0000		26.5000
Zinc, total	ug/L	AW-3	03/07/2023	ND	20.0000		69.0000
Antimony, total	ug/L	AW-4	03/07/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	AW-4	03/07/2023		16.6000		51.3000
Barium, total	ug/L	AW-4	03/07/2023		49.7000		989.7889
Beryllium, total	ug/L	AW-4	03/07/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	AW-4	03/07/2023	ND	0.8000		1.0000
Chromium, total	ug/L	AW-4	03/07/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	AW-4	03/07/2023	ND	0.4000		12.2000
Copper, total	ug/L	AW-4	03/07/2023	ND	4.0000		13.7000
Lead, total	ug/L	AW-4	03/07/2023	ND	4.0000		6.8000
Nickel, total	ug/L	AW-4	03/07/2023	ND	4.0000		11.4000
Selenium, total	ug/L	AW-4	03/07/2023	ND	4.0000		4.0000
Silver, total	ug/L	AW-4	03/07/2023	ND	4.0000		4.0000
Thallium, total	ug/L	AW-4	03/07/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	AW-4	03/07/2023	ND	20.0000		26.5000
Zinc, total	ug/L	AW-4	03/07/2023	ND	20.0000		69.0000
Antimony, total	ug/L	AW-9	03/07/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	AW-9	03/07/2023	ND	4.0000		51.3000
Barium, total	ug/L	AW-9	03/07/2023		208.0000		989.7889
Beryllium, total	ug/L	AW-9	03/07/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	AW-9	03/07/2023	ND	0.8000	**	1.0000
Chromium, total	ug/L	AW-9	03/07/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	AW-9	03/07/2023		1.8000		12.2000
Copper, total	ug/L	AW-9	03/07/2023	ND	4.0000	**	13.7000
Lead, total	ug/L	AW-9	03/07/2023	ND	4.0000	**	6.8000
Nickel, total	ug/L	AW-9	03/07/2023	ND	4.0000		11.4000
Selenium, total	ug/L	AW-9	03/07/2023	ND	4.0000		4.0000
Silver, total	ug/L	AW-9	03/07/2023	ND	4.0000		4.0000
Thallium, total	ug/L	AW-9	03/07/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	AW-9	03/07/2023	ND	20.0000		26.5000
Zinc, total	ug/L	AW-9	03/07/2023	ND	20.0000		69.0000
Antimony, total	ug/L	MW-12	03/07/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW-12	03/07/2023		5.1000		51.3000
Barium, total	ug/L	MW-12	03/07/2023		103.0000		989.7889
Beryllium, total	ug/L	MW-12	03/07/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-12	03/07/2023	ND	0.8000		1.0000
Chromium, total	ug/L	MW-12	03/07/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	MW-12	03/07/2023		0.6000		12.2000
Copper, total	ug/L	MW-12	03/07/2023	ND	4.0000		13.7000
Lead, total	ug/L	MW-12	03/07/2023	ND	4.0000		6.8000
Nickel, total	ug/L	MW-12	03/07/2023		5.7000	**	11.4000
Selenium, total	ug/L	MW-12	03/07/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-12	03/07/2023	ND	4.0000		4.0000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Thallium, total	ug/L	MW-12	03/07/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-12	03/07/2023	ND	20.0000		26.5000
Zinc, total	ug/L	MW-12	03/07/2023	ND	20.0000		69.0000
Antimony, total	ug/L	MW-14	03/07/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW-14	03/07/2023	ND	4.0000		51.3000
Barium, total	ug/L	MW-14	03/07/2023		399.0000		989.7889
Beryllium, total	ug/L	MW-14	03/07/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-14	03/07/2023	ND	0.8000		1.0000
Chromium, total	ug/L	MW-14	03/07/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	MW-14	03/07/2023	ND	0.4000		12.2000
Copper, total	ug/L	MW-14	03/07/2023	ND	4.0000		13.7000
Lead, total	ug/L	MW-14	03/07/2023	ND	4.0000		6.8000
Nickel, total	ug/L	MW-14	03/07/2023		5.5000		11.4000
Selenium, total	ug/L	MW-14	03/07/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-14	03/07/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-14	03/07/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-14	03/07/2023	ND	20.0000		26.5000
Zinc, total	ug/L	MW-14	03/07/2023	ND	20.0000		69.0000
Antimony, total	ug/L	MW-20	03/07/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW-20	03/07/2023		106.0000	*	51.3000
Barium, total	ug/L	MW-20	03/07/2023		279.0000		989.7889
Beryllium, total	ug/L	MW-20	03/07/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-20	03/07/2023	ND	0.8000		1.0000
Chromium, total	ug/L	MW-20	03/07/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	MW-20	03/07/2023	ND	0.4000		12.2000
Copper, total	ug/L	MW-20	03/07/2023	ND	4.0000		13.7000
Lead, total	ug/L	MW-20	03/07/2023	ND	4.0000		6.8000
Nickel, total	ug/L	MW-20	03/07/2023	ND	4.0000		11.4000
Selenium, total	ug/L	MW-20	03/07/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-20	03/07/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-20	03/07/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-20	03/07/2023	ND	20.0000		26.5000
Zinc, total	ug/L	MW-20	03/07/2023	ND	20.0000		69.0000
Antimony, total	ug/L	MW-24	03/07/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW-24	03/07/2023	ND	4.0000		51.3000
Barium, total	ug/L	MW-24	03/07/2023		65.1000		989.7889
Beryllium, total	ug/L	MW-24	03/07/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-24	03/07/2023	ND	0.8000		1.0000
Chromium, total	ug/L	MW-24	03/07/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	MW-24	03/07/2023		5.2000		12.2000
Copper, total	ug/L	MW-24	03/07/2023		8.1000		13.7000
Lead, total	ug/L	MW-24	03/07/2023	ND	4.0000		6.8000
Nickel, total	ug/L	MW-24	03/07/2023		48.0000	***	11.4000
Selenium, total	ug/L	MW-24	03/07/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-24	03/07/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-24	03/07/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-24	03/07/2023	ND	20.0000		26.5000
Zinc, total	ug/L	MW-24	03/07/2023	ND	20.0000		69.0000
Antimony, total	ug/L	MW-25	03/07/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW-25	03/07/2023	ND	4.0000		51.3000
Barium, total	ug/L	MW-25	03/07/2023		22.7000		989.7889
Beryllium, total	ug/L	MW-25	03/07/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-25	03/07/2023	ND	0.8000		1.0000
Chromium, total	ug/L	MW-25	03/07/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	MW-25	03/07/2023		0.9000		12.2000
Copper, total	ug/L	MW-25	03/07/2023	ND	4.0000		13.7000
Lead, total	ug/L	MW-25	03/07/2023	ND	4.0000		6.8000
Nickel, total	ug/L	MW-25	03/07/2023		9.0000		11.4000
Selenium, total	ug/L	MW-25	03/07/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-25	03/07/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-25	03/07/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-25	03/07/2023	ND	20.0000		26.5000
Zinc, total	ug/L	MW-25	03/07/2023	ND	20.0000		69.0000
Antimony, total	ug/L	MW-9	03/07/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW-9	03/07/2023	ND	4.0000		51.3000
Barium, total	ug/L	MW-9	03/07/2023		481.0000		989.7889
Beryllium, total	ug/L	MW-9	03/07/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-9	03/07/2023	ND	0.8000		1.0000
Chromium, total	ug/L	MW-9	03/07/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	MW-9	03/07/2023		2.7000		12.2000
Copper, total	ug/L	MW-9	03/07/2023	ND	4.0000		13.7000
Lead, total	ug/L	MW-9	03/07/2023	ND	4.0000		6.8000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	MW-9	03/07/2023		15.4000	***	11.4000
Selenium, total	ug/L	MW-9	03/07/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-9	03/07/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-9	03/07/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-9	03/07/2023	ND	20.0000		26.5000
Zinc, total	ug/L	MW-9	03/07/2023	ND	20.0000		69.0000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table 3

Detection Frequencies in Upgradient and Downgradient Wells

Constituent	Detect	Upgradient N	Proportion	Detect	Downgradient N	Proportion
Antimony, total	0	68	0.000	6	254	0.024
Arsenic, total	13	66	0.197	188	274	0.686
Barium, total	69	69	1.000	267	267	1.000
Beryllium, total	0	68	0.000	9	258	0.035
Cadmium, total	1	68	0.015	19	258	0.074
Chromium, total	2	66	0.030	4	255	0.016
Cobalt, total	24	67	0.358	164	267	0.614
Copper, total	6	65	0.092	29	258	0.112
Lead, total	6	66	0.091	36	258	0.140
Nickel, total	13	63	0.206	137	259	0.529
Selenium, total	0	67	0.000	0	253	0.000
Silver, total	0	68	0.000	0	253	0.000
Thallium, total	0	68	0.000	0	253	0.000
Vanadium, total	2	66	0.030	16	255	0.063
Zinc, total	15	69	0.217	107	267	0.401

N = Total number of measurements in all wells.
Detect = Total number of detections in all wells.
Proportion = Detect/N.

Table 4

Shapiro-Wilk Multiple Group Test of Normality

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, total	0	68	0.000									nonpar
Arsenic, total	13	66	0.197	2.202	0.687					2.326	normal	nonpar
Barium, total	69	69	1.000	4.141	1.682					2.326	lognor	lognor
Beryllium, total	0	68	0.000									nonpar
Cadmium, total	1	68	0.015									nonpar
Chromium, total	2	66	0.030									nonpar
Cobalt, total	24	67	0.358	0.772	0.270					2.326	normal	nonpar
Copper, total	6	65	0.092	0.447	1.153					2.326	normal	nonpar
Lead, total	6	66	0.091	1.740	1.271					2.326	normal	nonpar
Nickel, total	13	63	0.206	0.077	0.612					2.326	normal	nonpar
Selenium, total	0	67	0.000									nonpar
Silver, total	0	68	0.000									nonpar
Thallium, total	0	68	0.000									nonpar
Vanadium, total	2	66	0.030									nonpar
Zinc, total	15	69	0.217	1.027	0.921					2.326	normal	nonpar

* - Distribution override for that constituent.
Fit to distribution is confirmed if G <= critical value.
Model type may not match distributional form when detection frequency < 50%.

Table 5

Summary Statistics and Prediction Limits

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type		Conf
Antimony, total	ug/L	0	68					2.0000	nonpar	***	0.99
Arsenic, total	ug/L	13	66					51.3000	nonpar		0.99
Barium, total	ug/L	69	69	5.0881	0.7540	0.0100	2.3996	989.7889	lognor		
Beryllium, total	ug/L	0	68					4.0000	nonpar	***	0.99
Cadmium, total	ug/L	1	68					1.0000	nonpar		0.99
Chromium, total	ug/L	2	66					16.5000	nonpar		0.99
Cobalt, total	ug/L	24	67					12.2000	nonpar		0.99
Copper, total	ug/L	6	65					13.7000	nonpar		0.99
Lead, total	ug/L	6	66					6.8000	nonpar		0.99
Nickel, total	ug/L	13	63					11.4000	nonpar		0.99
Selenium, total	ug/L	0	67					4.0000	nonpar	***	0.99
Silver, total	ug/L	0	68					4.0000	nonpar	***	0.99
Thallium, total	ug/L	0	68					2.0000	nonpar	***	0.99
Vanadium, total	ug/L	2	66					26.5000	nonpar		0.99
Zinc, total	ug/L	15	69					69.0000	nonpar		0.99

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).
* - Insufficient Data.
** - Calculated limit raised to Manual Reporting Limit.
*** - Nonparametric limit based on ND value.
For transformed data, mean and SD in transformed units and prediction limit in original units.
All sample sizes and statistics are based on outlier free data.
For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

Table 6

Dixon's Test Outliers
5% Significance Level

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Nickel, total	ug/L	MW-6	10/20/2014	30.0000	< 30.0000	10/20/2014-03/07/2023	17	0.5054
Nickel, total	ug/L	MW-6	03/07/2023	29.5000		10/20/2014-03/07/2023	17	0.5054
Arsenic, total	ug/L	MW-7	09/12/2019	13.9000		03/15/2017-03/07/2023	13	0.5454
Arsenic, total	ug/L	MW-7	03/31/2022	18.6000		03/15/2017-03/07/2023	13	0.5454
Nickel, total	ug/L	MW-7	03/15/2017	19.0000		03/15/2017-03/07/2023	12	0.5745
Nickel, total	ug/L	MW-7	09/12/2018	17.4000		03/15/2017-03/07/2023	12	0.5745

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

Table 8

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Arsenic, total	ug/L	AW-3	09/07/2013		16.2000		51.3000
Arsenic, total	ug/L	AW-3	03/17/2014		19.8000		51.3000
Arsenic, total	ug/L	AW-3	10/20/2014	ND	1.0000		51.3000
Arsenic, total	ug/L	AW-3	06/23/2015		79.6000	*	51.3000
Arsenic, total	ug/L	AW-3	11/13/2015		44.9000		51.3000
Arsenic, total	ug/L	AW-3	04/11/2016		63.9000	*	51.3000
Arsenic, total	ug/L	AW-3	09/16/2016		79.2000	*	51.3000
Arsenic, total	ug/L	AW-3	03/15/2017		26.2000		51.3000
Arsenic, total	ug/L	AW-3	09/27/2017		26.8000		51.3000
Arsenic, total	ug/L	AW-3	03/14/2018		84.6000	*	51.3000
Arsenic, total	ug/L	AW-3	06/05/2018		36.7000		51.3000
Arsenic, total	ug/L	AW-3	09/12/2018		45.4000		51.3000
Arsenic, total	ug/L	AW-3	04/01/2019		10.5000		51.3000
Arsenic, total	ug/L	AW-3	09/12/2019		34.0000		51.3000
Arsenic, total	ug/L	AW-3	05/06/2020		25.3000		51.3000
Arsenic, total	ug/L	AW-3	09/03/2020		41.8000		51.3000
Arsenic, total	ug/L	AW-3	03/30/2021		11.0000		51.3000
Arsenic, total	ug/L	AW-3	09/08/2021		50.8000		51.3000
Arsenic, total	ug/L	AW-3	03/31/2022		35.6000		51.3000
Arsenic, total	ug/L	AW-3	08/30/2022		87.6000	*	51.3000
Arsenic, total	ug/L	AW-3	03/07/2023		11.1000		51.3000
Cadmium, total	ug/L	AW-9	08/28/2012	ND	0.5000		1.0000
Cadmium, total	ug/L	AW-9	10/15/2012	ND	0.5000		1.0000
Cadmium, total	ug/L	AW-9	03/15/2013	ND	0.5000		1.0000
Cadmium, total	ug/L	AW-9	09/07/2013	ND	0.5000		1.0000
Cadmium, total	ug/L	AW-9	03/17/2014	ND	0.5000		1.0000
Cadmium, total	ug/L	AW-9	10/20/2014		1.1600	*	1.0000
Cadmium, total	ug/L	AW-9	03/07/2023	ND	0.8000		1.0000
Copper, total	ug/L	AW-9	08/28/2012	ND	20.0000		13.7000
Copper, total	ug/L	AW-9	10/15/2012	ND	20.0000		13.7000
Copper, total	ug/L	AW-9	03/15/2013	ND	20.0000		13.7000
Copper, total	ug/L	AW-9	09/07/2013	ND	20.0000		13.7000
Copper, total	ug/L	AW-9	03/17/2014	ND	20.0000		13.7000
Copper, total	ug/L	AW-9	10/20/2014		46.9000	*	13.7000
Copper, total	ug/L	AW-9	03/07/2023	ND	4.0000		13.7000
Lead, total	ug/L	AW-9	08/28/2012	ND	4.0000		6.8000
Lead, total	ug/L	AW-9	10/15/2012	ND	4.0000		6.8000
Lead, total	ug/L	AW-9	03/15/2013	ND	4.0000		6.8000
Lead, total	ug/L	AW-9	09/07/2013	ND	4.0000		6.8000
Lead, total	ug/L	AW-9	03/17/2014	ND	4.0000		6.8000
Lead, total	ug/L	AW-9	10/20/2014		17.6000	*	6.8000
Lead, total	ug/L	AW-9	03/07/2023	ND	4.0000		6.8000
Nickel, total	ug/L	MW-12	02/04/2008	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	04/04/2008	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	06/23/2008	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	08/21/2008	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	11/02/2008	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	04/23/2009	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	08/24/2009	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	04/27/2010	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	09/29/2010	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	03/24/2011	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	09/14/2011	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	03/20/2012	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	10/15/2012	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	03/15/2013	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	09/07/2013	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	03/17/2014	ND	50.0000		11.4000
Nickel, total	ug/L	MW-12	10/21/2014		53.9000	*	11.4000
Nickel, total	ug/L	MW-12	06/22/2015		22.4000	*	11.4000
Nickel, total	ug/L	MW-12	11/12/2015		24.5000	*	11.4000
Nickel, total	ug/L	MW-12	04/11/2016		12.0000	*	11.4000
Nickel, total	ug/L	MW-12	09/16/2016		11.0000		11.4000
Nickel, total	ug/L	MW-12	03/15/2017		15.8000	*	11.4000
Nickel, total	ug/L	MW-12	09/27/2017		11.7000	*	11.4000
Nickel, total	ug/L	MW-12	03/14/2018		29.7000	*	11.4000
Nickel, total	ug/L	MW-12	06/05/2018		12.7000	*	11.4000
Nickel, total	ug/L	MW-12	09/12/2018		8.4000		11.4000
Nickel, total	ug/L	MW-12	04/01/2019		7.6000		11.4000
Nickel, total	ug/L	MW-12	09/12/2019		7.9000		11.4000
Nickel, total	ug/L	MW-12	05/06/2020		8.9000		11.4000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

Table 8

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	MW-12	09/03/2020		11.1000		11.4000
Nickel, total	ug/L	MW-12	03/30/2021		7.6000		11.4000
Nickel, total	ug/L	MW-12	09/08/2021		6.6000		11.4000
Nickel, total	ug/L	MW-12	03/31/2022		6.4000		11.4000
Nickel, total	ug/L	MW-12	08/30/2022		26.8000	*	11.4000
Nickel, total	ug/L	MW-12	11/11/2022		14.2000	*	11.4000
Nickel, total	ug/L	MW-12	03/07/2023		5.7000		11.4000
Arsenic, total	ug/L	MW-20	08/05/2010		24.9000		51.3000
Arsenic, total	ug/L	MW-20	09/29/2010		24.8000		51.3000
Arsenic, total	ug/L	MW-20	03/24/2011		11.3000		51.3000
Arsenic, total	ug/L	MW-20	07/19/2011		19.9000		51.3000
Arsenic, total	ug/L	MW-20	09/14/2011		26.6000		51.3000
Arsenic, total	ug/L	MW-20	12/26/2011		15.8000		51.3000
Arsenic, total	ug/L	MW-20	03/20/2012		18.1000		51.3000
Arsenic, total	ug/L	MW-20	08/28/2012		17.1000		51.3000
Arsenic, total	ug/L	MW-20	10/15/2012		11.1000		51.3000
Arsenic, total	ug/L	MW-20	03/15/2013		26.7000		51.3000
Arsenic, total	ug/L	MW-20	09/07/2013		13.6000		51.3000
Arsenic, total	ug/L	MW-20	03/17/2014		7.0400		51.3000
Arsenic, total	ug/L	MW-20	10/21/2014		55.1000	*	51.3000
Arsenic, total	ug/L	MW-20	06/23/2015		78.2000	*	51.3000
Arsenic, total	ug/L	MW-20	11/12/2015		80.9000	*	51.3000
Arsenic, total	ug/L	MW-20	04/11/2016		151.0000	*	51.3000
Arsenic, total	ug/L	MW-20	09/16/2016		63.8000	*	51.3000
Arsenic, total	ug/L	MW-20	03/15/2017		89.5000	*	51.3000
Arsenic, total	ug/L	MW-20	09/27/2017		26.8000		51.3000
Arsenic, total	ug/L	MW-20	03/14/2018		23.7000		51.3000
Arsenic, total	ug/L	MW-20	09/12/2018		44.9000		51.3000
Arsenic, total	ug/L	MW-20	04/01/2019		19.5000		51.3000
Arsenic, total	ug/L	MW-20	09/12/2019		72.0000	*	51.3000
Arsenic, total	ug/L	MW-20	05/06/2020		42.3000		51.3000
Arsenic, total	ug/L	MW-20	09/03/2020		50.6000		51.3000
Arsenic, total	ug/L	MW-20	03/30/2021		38.9000		51.3000
Arsenic, total	ug/L	MW-20	09/08/2021		40.2000		51.3000
Arsenic, total	ug/L	MW-20	03/31/2022		44.1000		51.3000
Arsenic, total	ug/L	MW-20	08/30/2022		23.3000		51.3000
Arsenic, total	ug/L	MW-20	03/07/2023		106.0000	*	51.3000
Nickel, total	ug/L	MW-24	03/24/2011	ND	50.0000		11.4000
Nickel, total	ug/L	MW-24	07/19/2011		112.0000	*	11.4000
Nickel, total	ug/L	MW-24	09/14/2011		91.9000	*	11.4000
Nickel, total	ug/L	MW-24	12/26/2011	ND	50.0000		11.4000
Nickel, total	ug/L	MW-24	03/20/2012		62.4000	*	11.4000
Nickel, total	ug/L	MW-24	10/15/2012		56.4000	*	11.4000
Nickel, total	ug/L	MW-24	03/15/2013	ND	50.0000		11.4000
Nickel, total	ug/L	MW-24	09/07/2013	ND	50.0000		11.4000
Nickel, total	ug/L	MW-24	03/17/2014	ND	50.0000		11.4000
Nickel, total	ug/L	MW-24	10/21/2014	ND	30.0000		11.4000
Nickel, total	ug/L	MW-24	06/23/2015	ND	5.0000		11.4000
Nickel, total	ug/L	MW-24	11/12/2015		29.1000	*	11.4000
Nickel, total	ug/L	MW-24	04/12/2016		27.1000	*	11.4000
Nickel, total	ug/L	MW-24	09/16/2016	ND	4.0000		11.4000
Nickel, total	ug/L	MW-24	03/15/2017		8.6000		11.4000
Nickel, total	ug/L	MW-24	09/27/2017		8.0000		11.4000
Nickel, total	ug/L	MW-24	03/14/2018		10.9000		11.4000
Nickel, total	ug/L	MW-24	09/12/2018		14.3000	*	11.4000
Nickel, total	ug/L	MW-24	04/01/2019		61.1000	*	11.4000
Nickel, total	ug/L	MW-24	09/12/2019		16.2000	*	11.4000
Nickel, total	ug/L	MW-24	05/06/2020		14.9000	*	11.4000
Nickel, total	ug/L	MW-24	09/03/2020		30.6000	*	11.4000
Nickel, total	ug/L	MW-24	03/30/2021		17.9000	*	11.4000
Nickel, total	ug/L	MW-24	09/08/2021		13.4000	*	11.4000
Nickel, total	ug/L	MW-24	03/31/2022		66.7000	*	11.4000
Nickel, total	ug/L	MW-24	08/30/2022		43.0000	*	11.4000
Nickel, total	ug/L	MW-24	03/07/2023		48.0000	*	11.4000
Nickel, total	ug/L	MW-9	02/04/2008	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	04/04/2008	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	06/23/2008	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	08/21/2008	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	11/02/2008	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	04/23/2009	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	08/24/2009	ND	50.0000		11.4000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

Table 8

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	MW-9	04/27/2010	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	09/29/2010	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	03/24/2011	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	09/14/2011	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	03/20/2012	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	10/15/2012	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	03/15/2013	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	09/07/2013	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	03/17/2014	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	10/21/2014	ND	50.0000		11.4000
Nickel, total	ug/L	MW-9	06/22/2015		12.1000	*	11.4000
Nickel, total	ug/L	MW-9	11/12/2015		14.6000	*	11.4000
Nickel, total	ug/L	MW-9	04/11/2016		12.7000	*	11.4000
Nickel, total	ug/L	MW-9	09/16/2016		11.7000	*	11.4000
Nickel, total	ug/L	MW-9	03/15/2017		14.5000	*	11.4000
Nickel, total	ug/L	MW-9	09/27/2017		12.9000	*	11.4000
Nickel, total	ug/L	MW-9	03/14/2018		13.5000	*	11.4000
Nickel, total	ug/L	MW-9	09/12/2018		13.6000	*	11.4000
Nickel, total	ug/L	MW-9	04/01/2019		13.2000	*	11.4000
Nickel, total	ug/L	MW-9	09/12/2019		25.5000	*	11.4000
Nickel, total	ug/L	MW-9	05/06/2020		13.9000	*	11.4000
Nickel, total	ug/L	MW-9	09/03/2020		14.2000	*	11.4000
Nickel, total	ug/L	MW-9	03/30/2021		16.0000	*	11.4000
Nickel, total	ug/L	MW-9	09/08/2021		14.3000	*	11.4000
Nickel, total	ug/L	MW-9	03/31/2022		13.8000	*	11.4000
Nickel, total	ug/L	MW-9	08/30/2022		13.9000	*	11.4000
Nickel, total	ug/L	MW-9	03/07/2023		15.4000	*	11.4000
Cobalt, total	ug/L	AW-2	08/05/2010		59.8000	*	12.2000
Cobalt, total	ug/L	AW-2	09/29/2010		41.3000	*	12.2000
Cobalt, total	ug/L	AW-2	03/24/2011		24.3000	*	12.2000
Cobalt, total	ug/L	AW-2	07/19/2011		23.1000	*	12.2000
Cobalt, total	ug/L	AW-2	09/14/2011		27.3000	*	12.2000
Cobalt, total	ug/L	AW-2	12/26/2011		23.7000	*	12.2000
Cobalt, total	ug/L	AW-2	03/20/2012		27.6000	*	12.2000
Cobalt, total	ug/L	AW-2	10/15/2012		25.5000	*	12.2000
Cobalt, total	ug/L	AW-2	03/15/2013		32.3000	*	12.2000
Cobalt, total	ug/L	AW-2	09/07/2013		44.0000	*	12.2000
Cobalt, total	ug/L	AW-2	03/17/2014		33.3000	*	12.2000
Cobalt, total	ug/L	AW-2	10/20/2014		99.8000	*	12.2000
Cobalt, total	ug/L	AW-2	06/23/2015		27.2000	*	12.2000
Cobalt, total	ug/L	AW-2	11/12/2015		27.2000	*	12.2000
Cobalt, total	ug/L	AW-2	04/11/2016		22.8000	*	12.2000
Cobalt, total	ug/L	AW-2	09/16/2016		18.4000	*	12.2000
Cobalt, total	ug/L	AW-2	03/15/2017		16.9000	*	12.2000
Cobalt, total	ug/L	AW-2	09/27/2017		15.2000	*	12.2000
Cobalt, total	ug/L	AW-2	03/14/2018		28.2000	*	12.2000
Cobalt, total	ug/L	AW-2	09/12/2018		10.1000		12.2000
Cobalt, total	ug/L	AW-2	04/01/2019		9.6000		12.2000
Cobalt, total	ug/L	AW-2	09/12/2019		10.1000		12.2000
Cobalt, total	ug/L	AW-2	05/06/2020		7.7000		12.2000
Cobalt, total	ug/L	AW-2	09/03/2020		10.6000		12.2000
Cobalt, total	ug/L	AW-2	03/30/2021		8.8000		12.2000
Cobalt, total	ug/L	AW-2	09/08/2021		10.0000		12.2000
Cobalt, total	ug/L	AW-2	03/31/2022		8.9000		12.2000
Cobalt, total	ug/L	AW-2	08/30/2022		12.0000		12.2000
Cobalt, total	ug/L	AW-2	03/07/2023		12.5000	*	12.2000
Nickel, total	ug/L	AW-2	08/05/2010		113.0000	*	11.4000
Nickel, total	ug/L	AW-2	09/29/2010		83.5000	*	11.4000
Nickel, total	ug/L	AW-2	03/24/2011	ND	50.0000		11.4000
Nickel, total	ug/L	AW-2	07/19/2011	ND	50.0000		11.4000
Nickel, total	ug/L	AW-2	09/14/2011	ND	50.0000		11.4000
Nickel, total	ug/L	AW-2	12/26/2011	ND	50.0000		11.4000
Nickel, total	ug/L	AW-2	03/20/2012	ND	50.0000		11.4000
Nickel, total	ug/L	AW-2	10/15/2012	ND	50.0000		11.4000
Nickel, total	ug/L	AW-2	03/15/2013	ND	50.0000		11.4000
Nickel, total	ug/L	AW-2	09/07/2013		76.5000	*	11.4000
Nickel, total	ug/L	AW-2	03/17/2014		62.1000	*	11.4000
Nickel, total	ug/L	AW-2	10/20/2014		233.0000	*	11.4000
Nickel, total	ug/L	AW-2	06/23/2015		22.6000	*	11.4000
Nickel, total	ug/L	AW-2	11/12/2015		49.9000	*	11.4000
Nickel, total	ug/L	AW-2	04/11/2016		21.2000	*	11.4000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

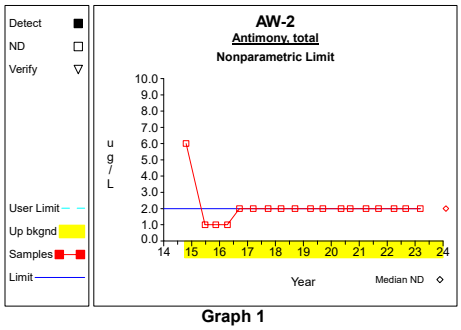
Table 8

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

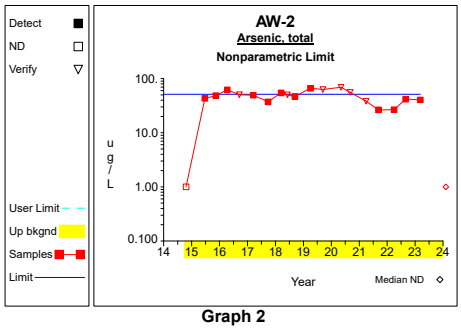
Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	AW-2	09/16/2016		13.6000	*	11.4000
Nickel, total	ug/L	AW-2	03/15/2017		13.9000	*	11.4000
Nickel, total	ug/L	AW-2	09/27/2017		14.2000	*	11.4000
Nickel, total	ug/L	AW-2	03/14/2018		28.9000	*	11.4000
Nickel, total	ug/L	AW-2	06/05/2018		14.0000	*	11.4000
Nickel, total	ug/L	AW-2	09/12/2018		7.0000		11.4000
Nickel, total	ug/L	AW-2	04/01/2019		6.2000		11.4000
Nickel, total	ug/L	AW-2	09/12/2019		8.6000		11.4000
Nickel, total	ug/L	AW-2	05/06/2020		5.9000		11.4000
Nickel, total	ug/L	AW-2	09/03/2020		10.2000		11.4000
Nickel, total	ug/L	AW-2	03/30/2021		8.5000		11.4000
Nickel, total	ug/L	AW-2	09/08/2021		11.1000		11.4000
Nickel, total	ug/L	AW-2	03/31/2022		8.7000		11.4000
Nickel, total	ug/L	AW-2	08/30/2022		11.0000		11.4000
Nickel, total	ug/L	AW-2	03/07/2023		11.6000	*	11.4000
Arsenic, total	ug/L	AW-3	08/05/2010		38.3000		51.3000
Arsenic, total	ug/L	AW-3	09/29/2010		27.3000		51.3000
Arsenic, total	ug/L	AW-3	03/24/2011		37.2000		51.3000
Arsenic, total	ug/L	AW-3	07/19/2011		30.0000		51.3000
Arsenic, total	ug/L	AW-3	09/14/2011		36.7000		51.3000
Arsenic, total	ug/L	AW-3	12/26/2011		52.1000	*	51.3000
Arsenic, total	ug/L	AW-3	03/20/2012		59.6000	*	51.3000
Arsenic, total	ug/L	AW-3	10/15/2012		17.3000		51.3000
Arsenic, total	ug/L	AW-3	03/15/2013		52.5000	*	51.3000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

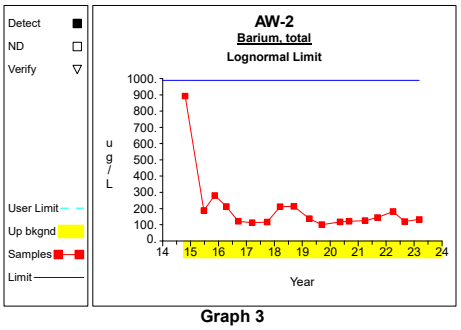
Up vs. Down Prediction Limits



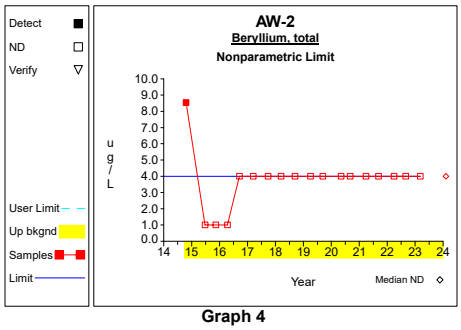
Graph 1



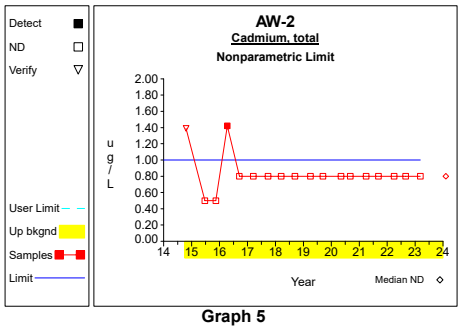
Graph 2



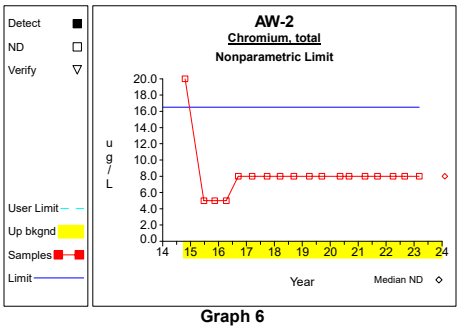
Graph 3



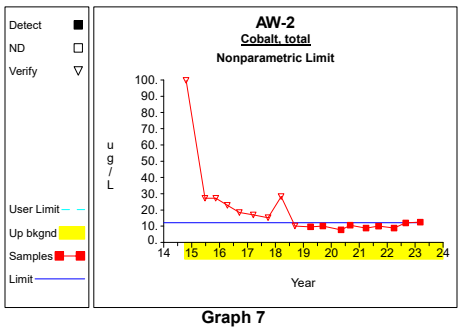
Graph 4



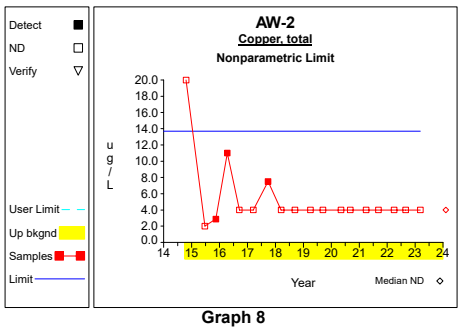
Graph 5



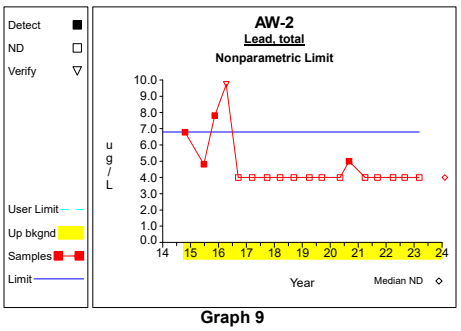
Graph 6



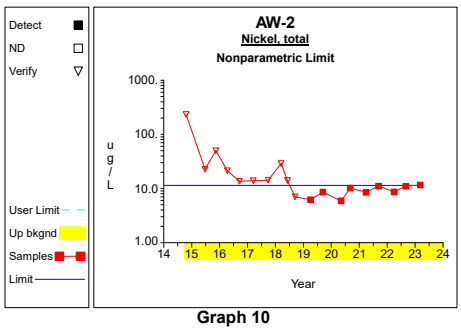
Graph 7



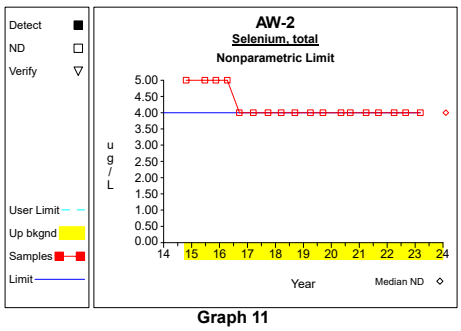
Graph 8



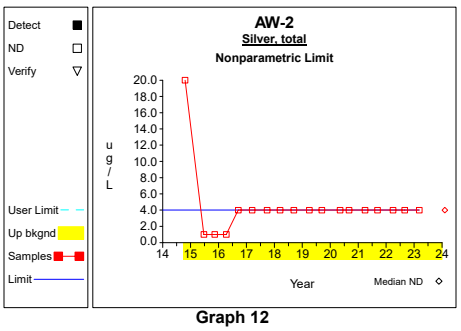
Graph 9



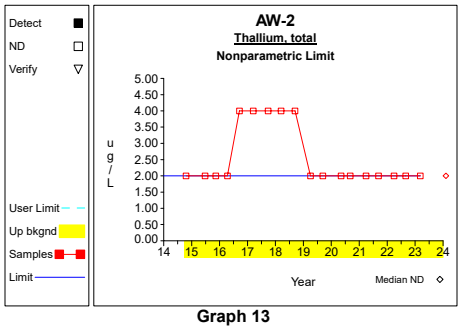
Graph 10



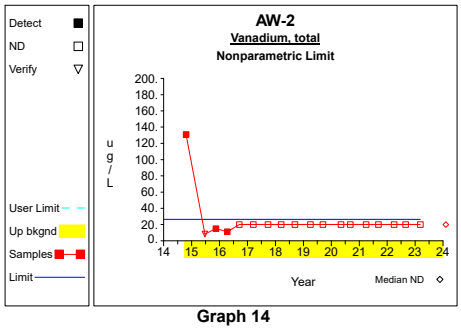
Graph 11



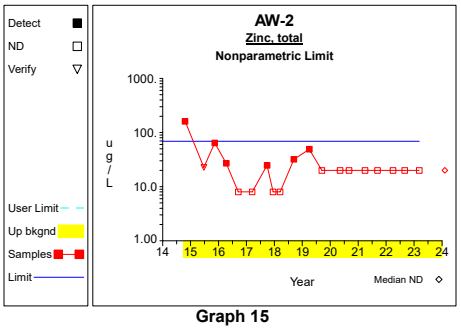
Graph 12



Graph 13



Graph 14



Graph 15

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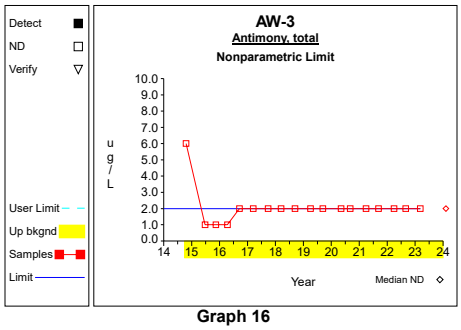
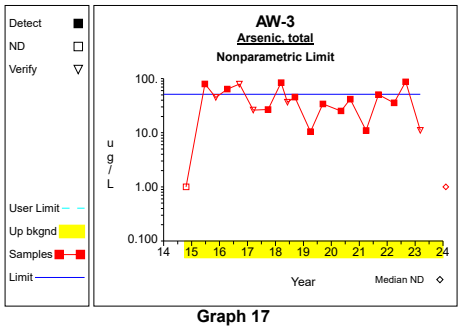
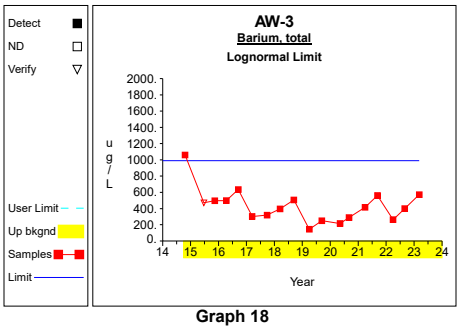
Up vs. Down Prediction Limits



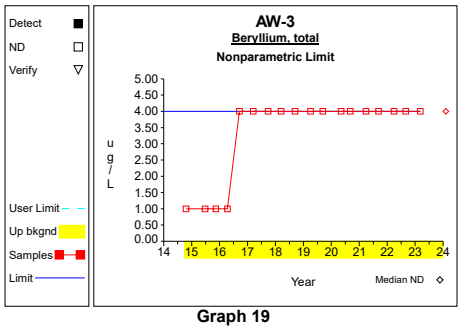
Graph 16



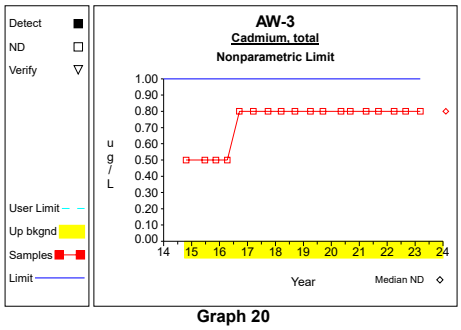
Graph 17



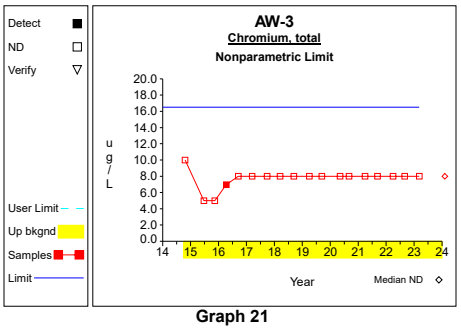
Graph 18



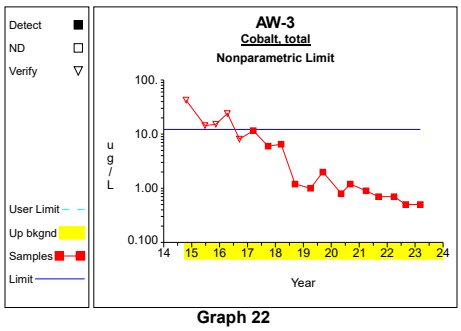
Graph 19



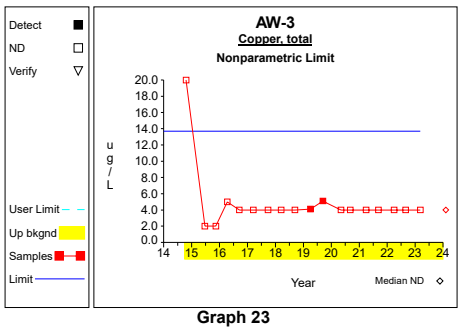
Graph 20



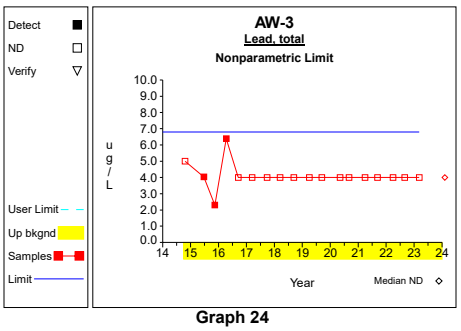
Graph 21



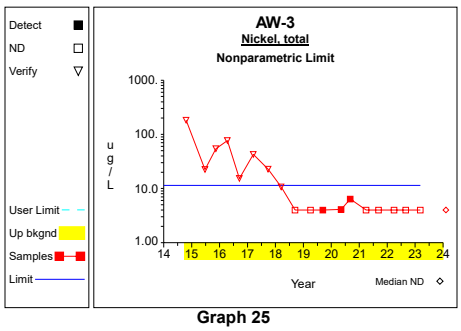
Graph 22



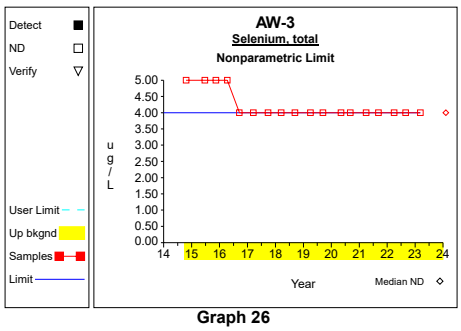
Graph 23



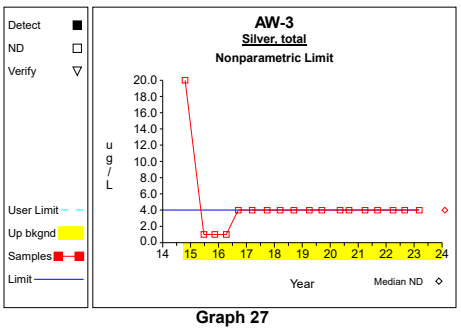
Graph 24



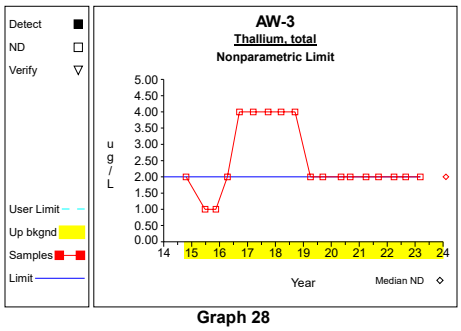
Graph 25



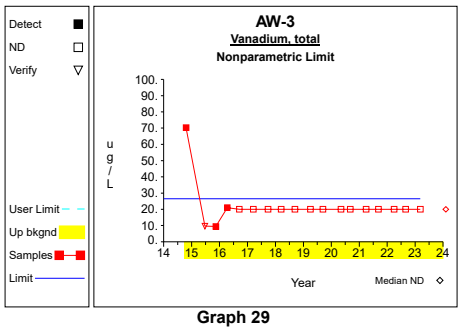
Graph 26



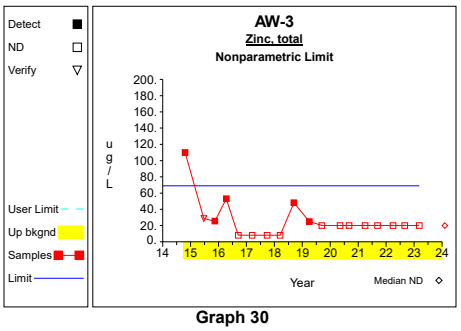
Graph 27



Graph 28



Graph 29



Graph 30

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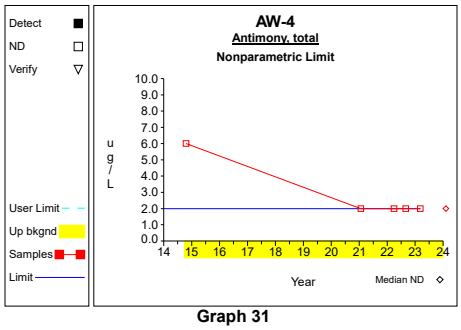
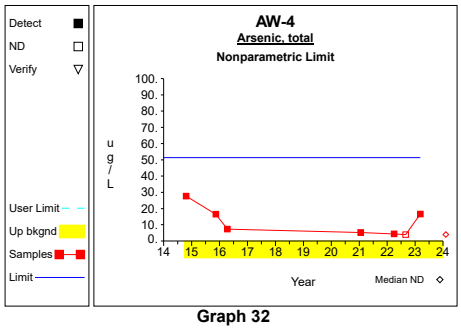
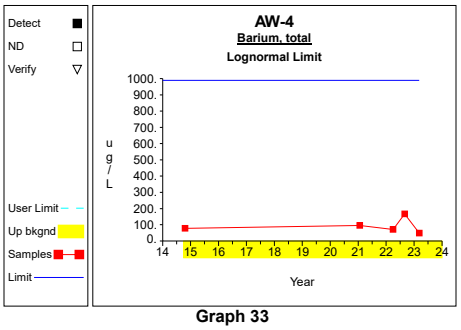
Up vs. Down Prediction Limits



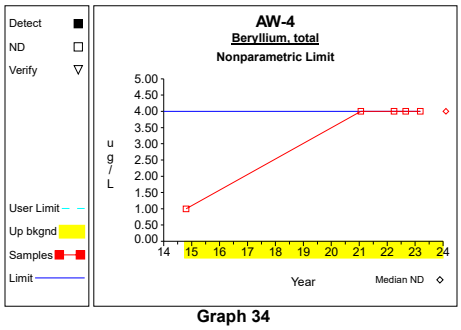
Graph 31



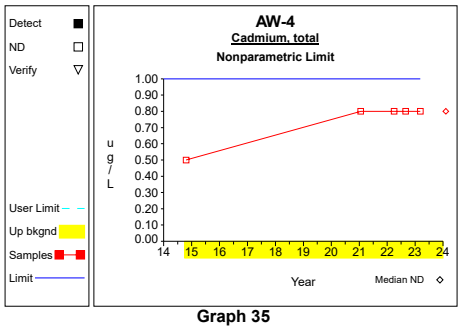
Graph 32



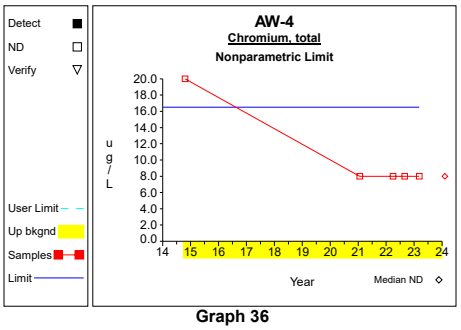
Graph 33



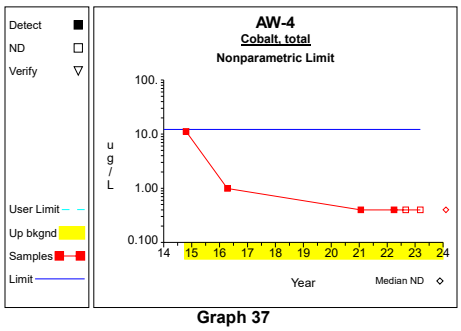
Graph 34



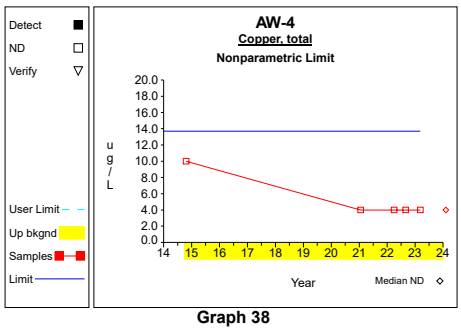
Graph 35



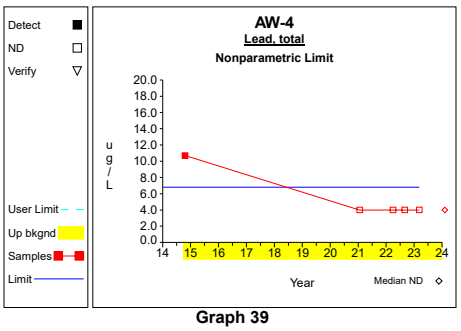
Graph 36



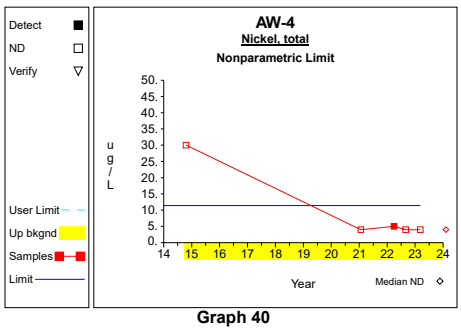
Graph 37



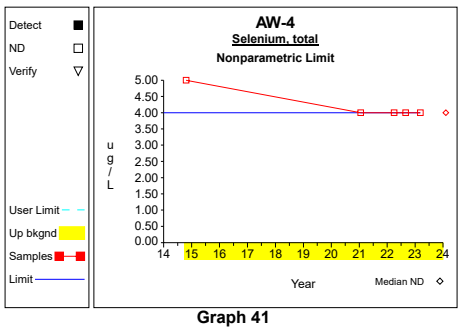
Graph 38



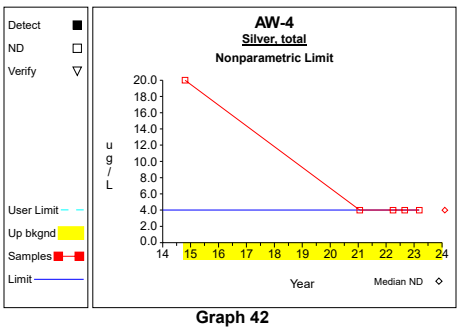
Graph 39



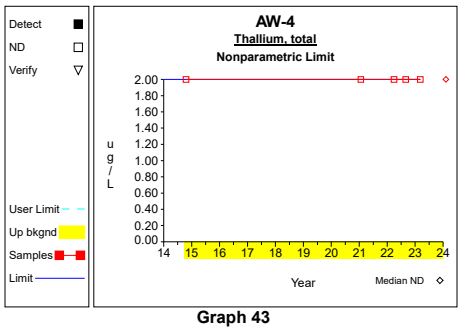
Graph 40



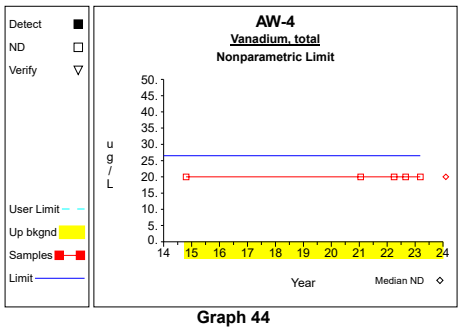
Graph 41



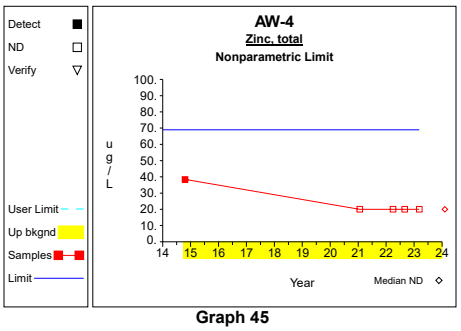
Graph 42



Graph 43



Graph 44



Graph 45

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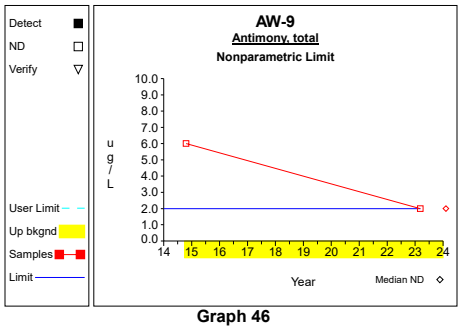
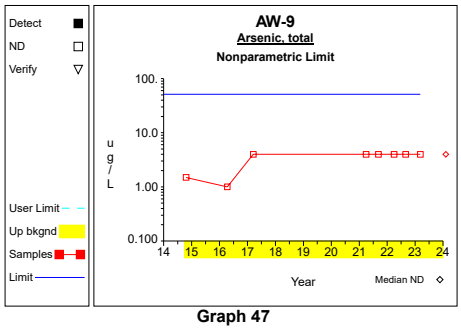
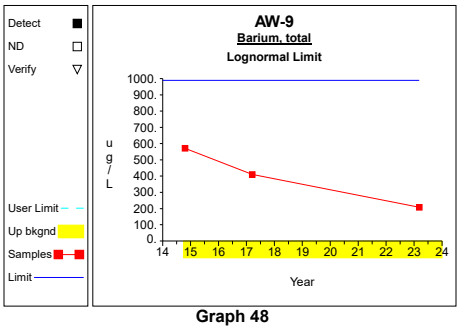
Up vs. Down Prediction Limits



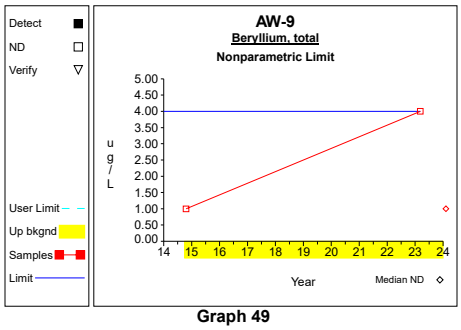
Graph 46



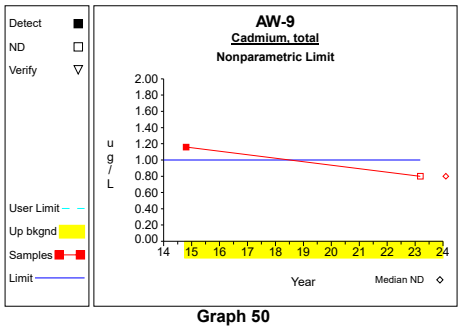
Graph 47



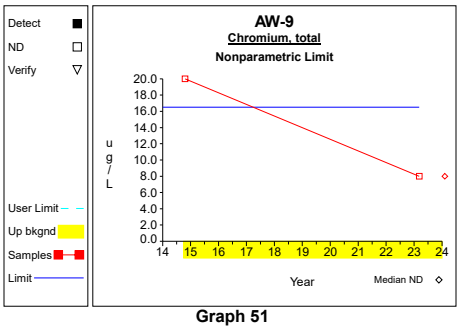
Graph 48



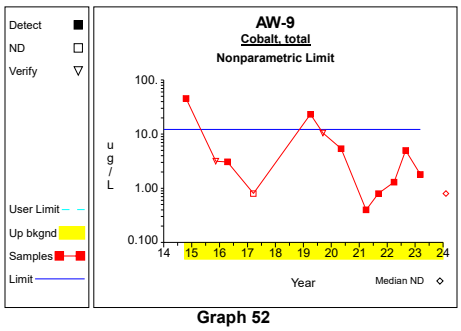
Graph 49



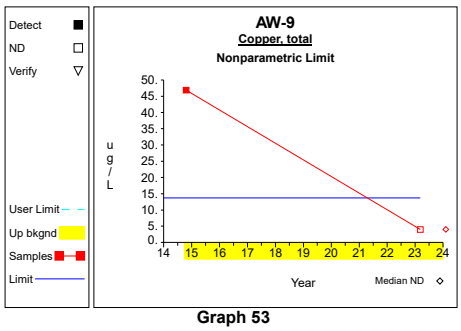
Graph 50



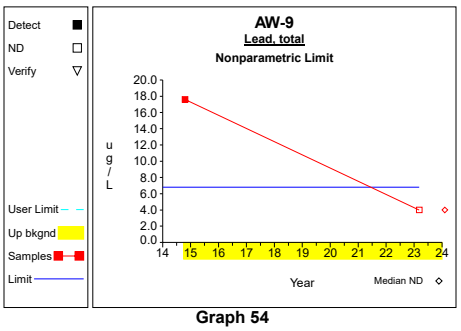
Graph 51



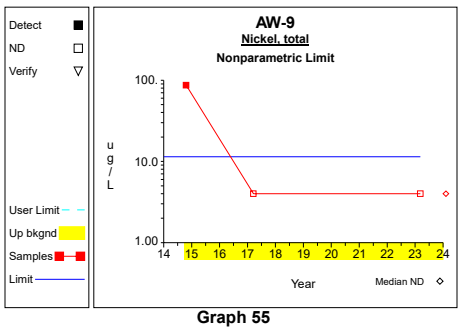
Graph 52



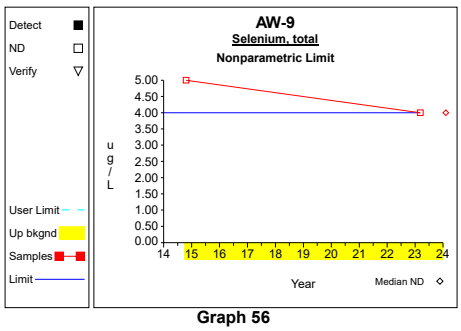
Graph 53



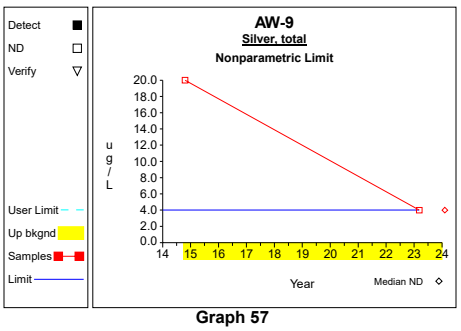
Graph 54



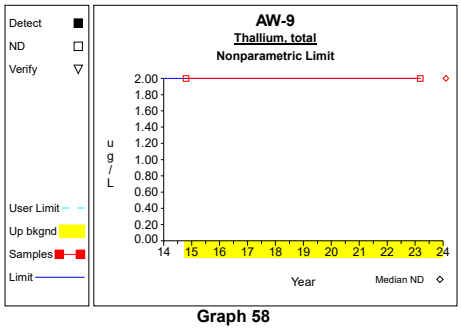
Graph 55



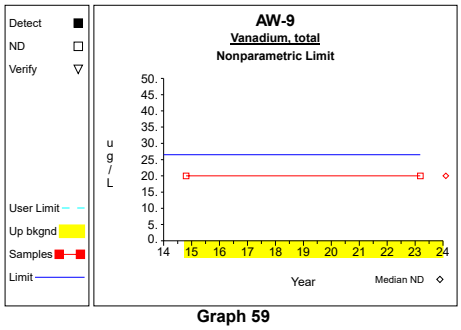
Graph 56



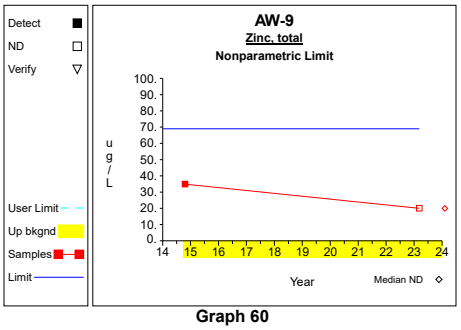
Graph 57



Graph 58



Graph 59



Graph 60

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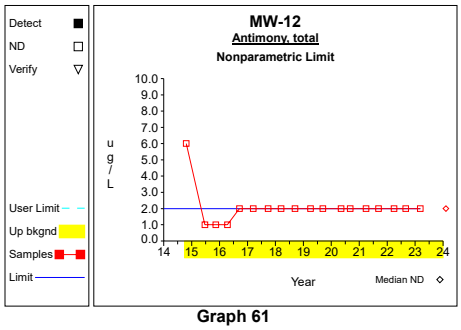
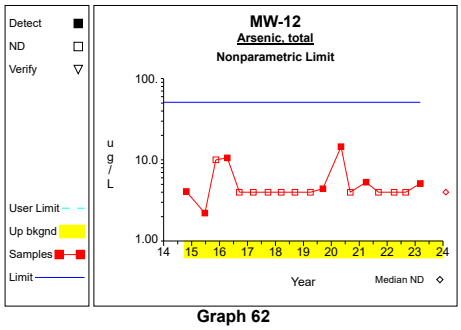
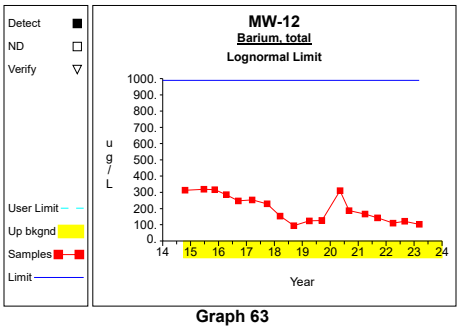
Up vs. Down Prediction Limits



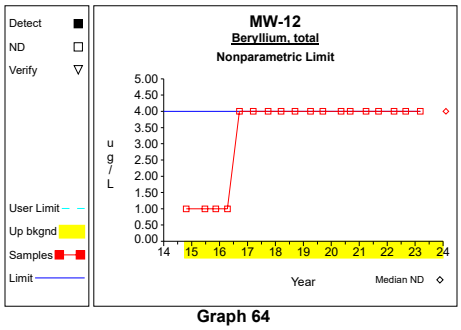
Graph 61



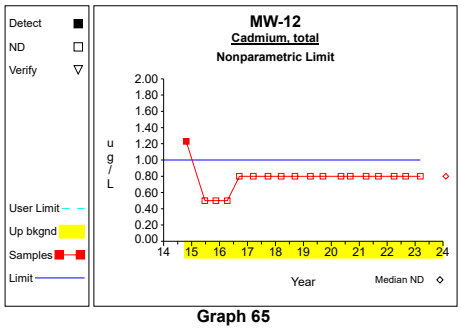
Graph 62



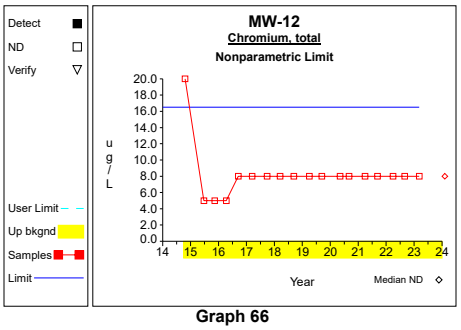
Graph 63



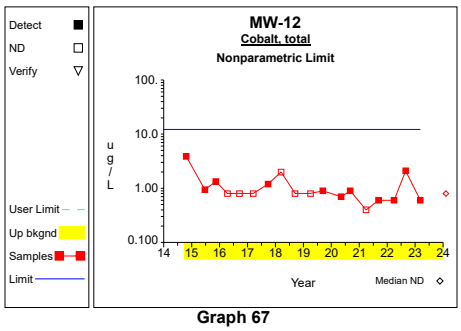
Graph 64



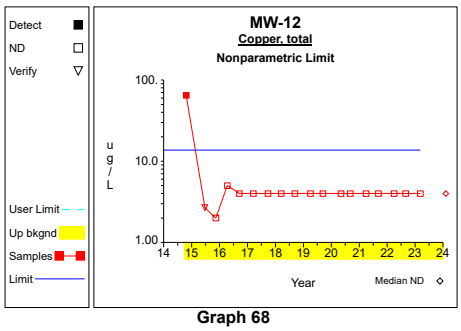
Graph 65



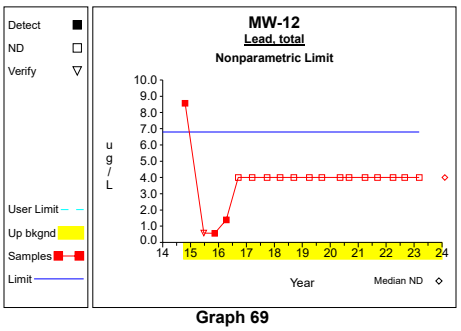
Graph 66



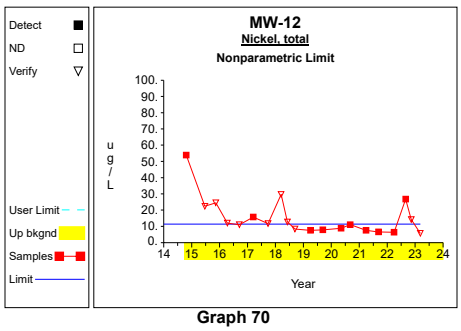
Graph 67



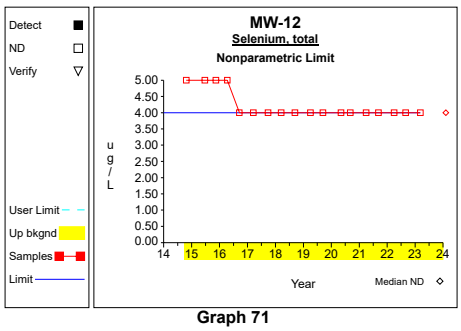
Graph 68



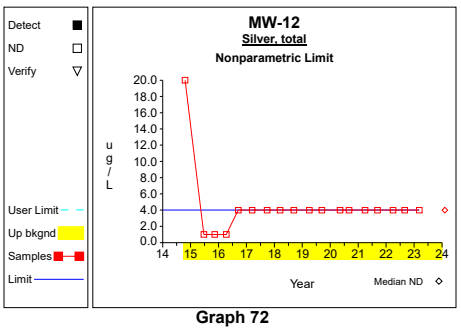
Graph 69



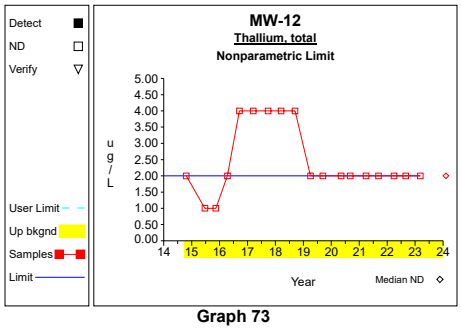
Graph 70



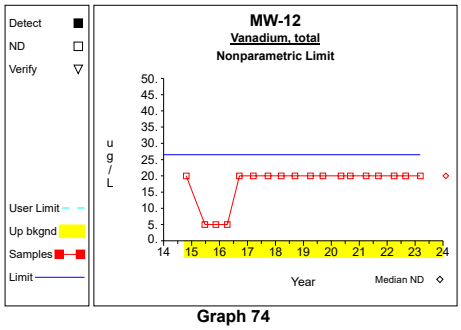
Graph 71



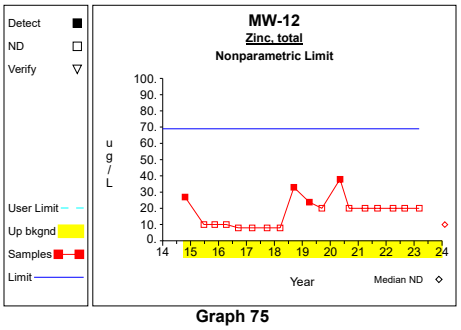
Graph 72



Graph 73



Graph 74



Graph 75

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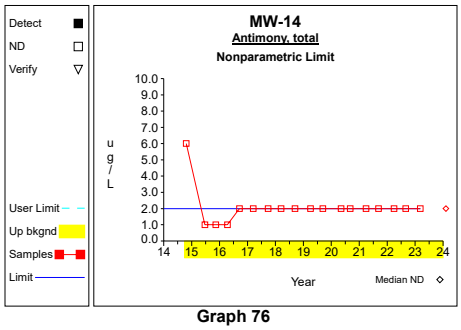
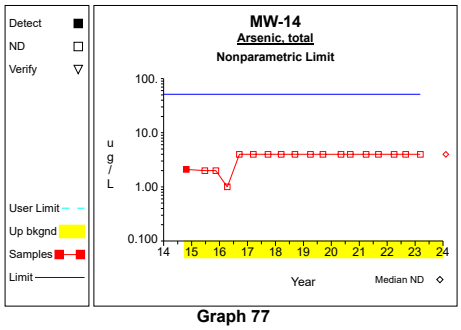
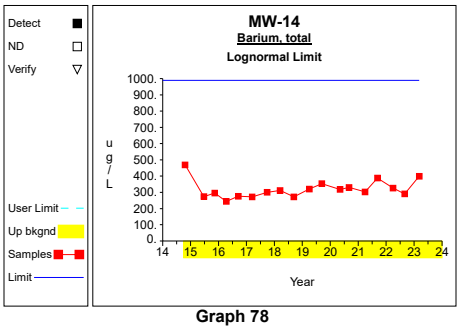
Up vs. Down Prediction Limits



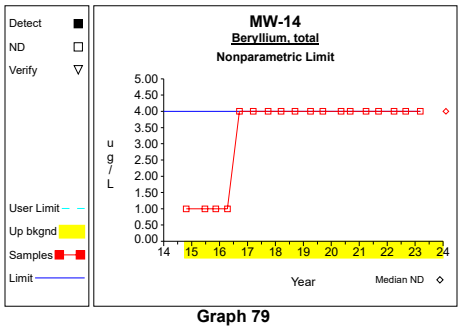
Graph 76



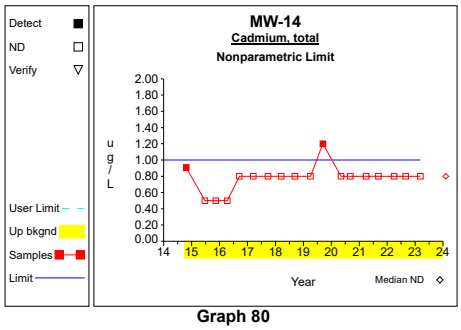
Graph 77



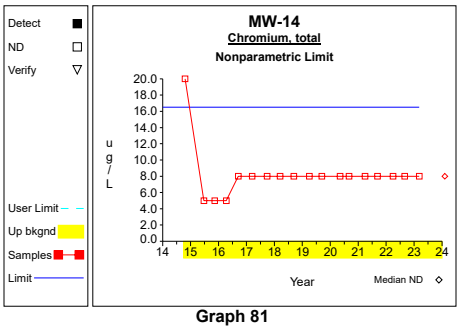
Graph 78



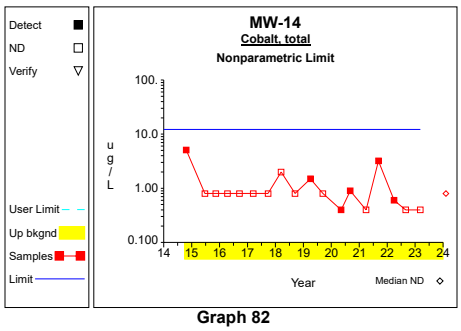
Graph 79



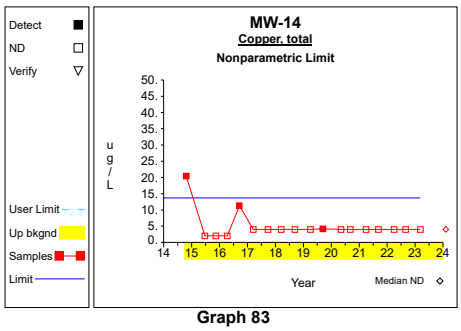
Graph 80



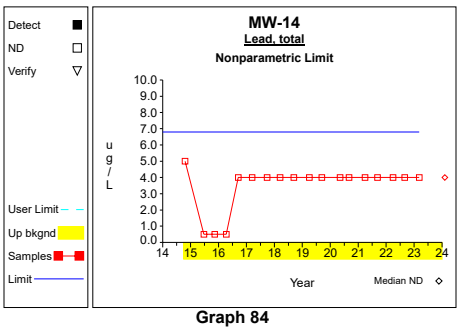
Graph 81



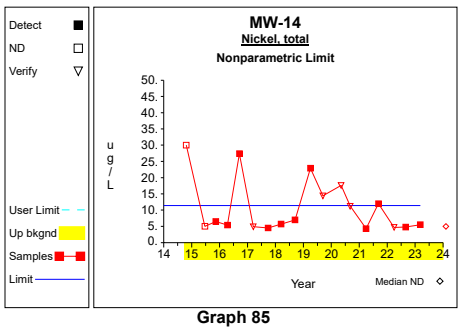
Graph 82



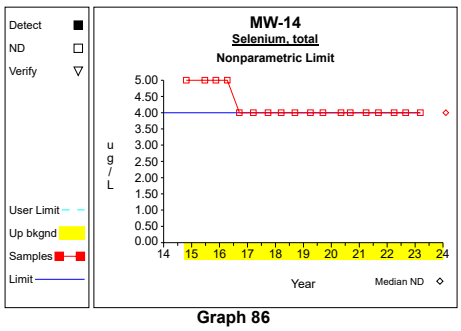
Graph 83



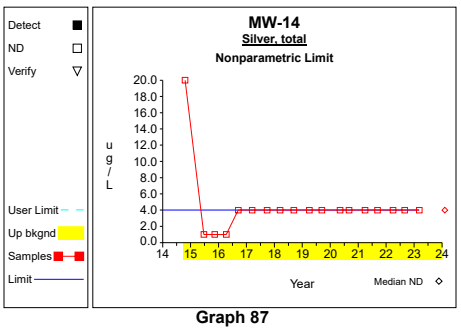
Graph 84



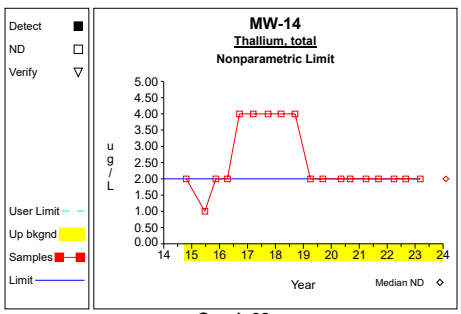
Graph 85



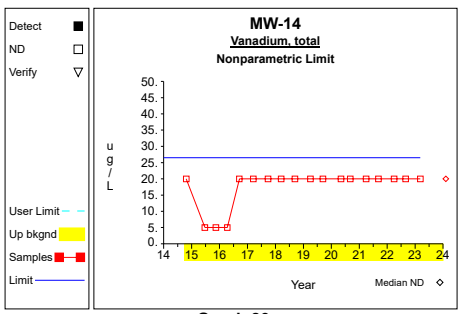
Graph 86



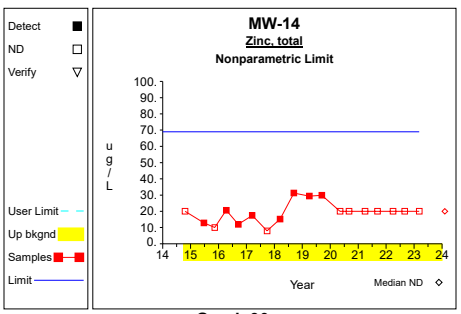
Graph 87



Graph 88



Graph 89



Graph 90

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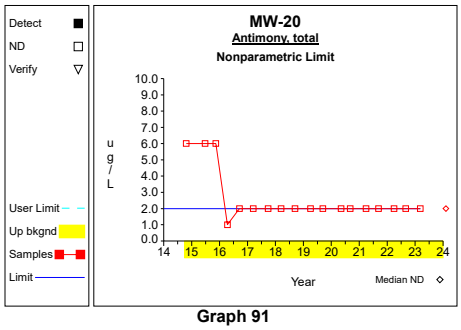
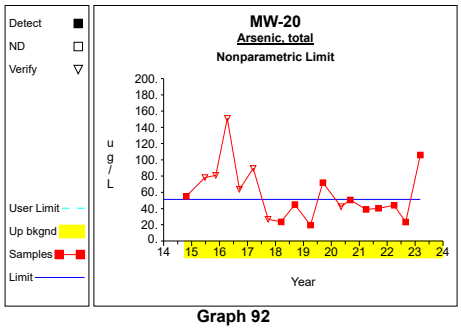
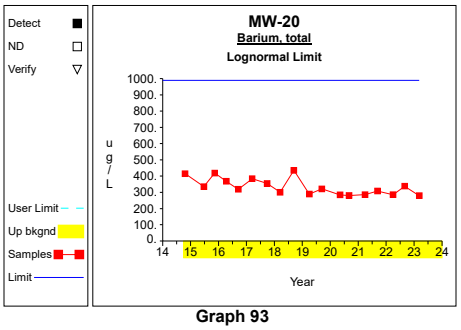
Up vs. Down Prediction Limits



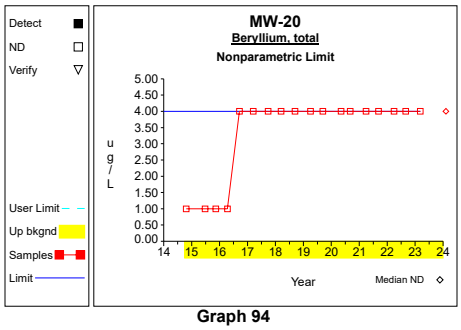
Graph 91



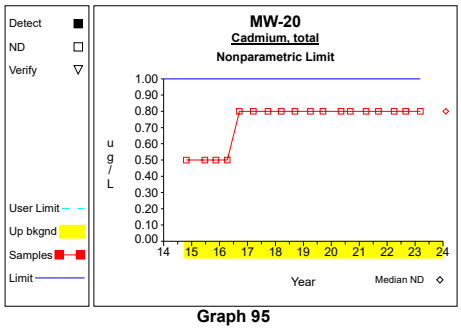
Graph 92



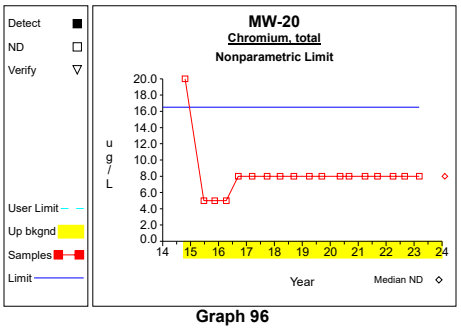
Graph 93



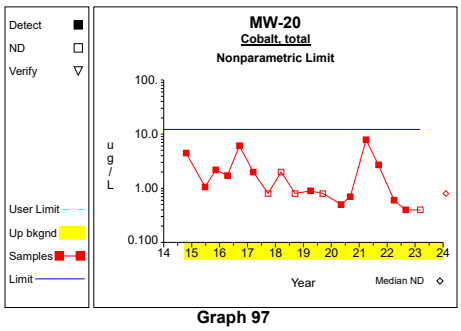
Graph 94



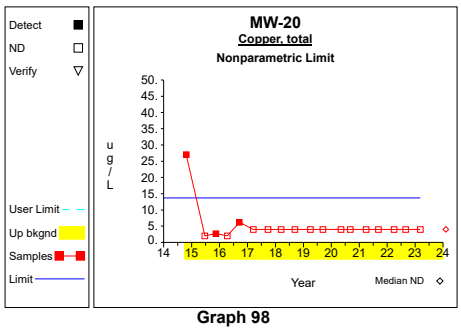
Graph 95



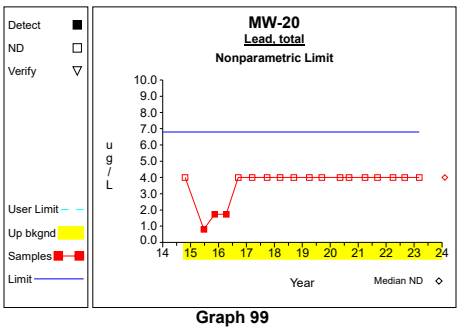
Graph 96



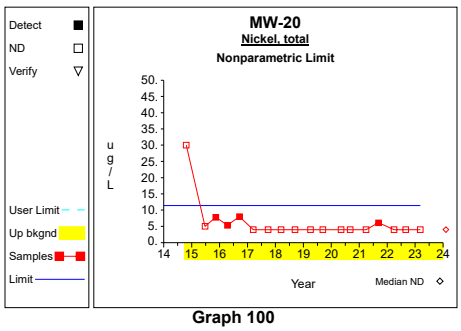
Graph 97



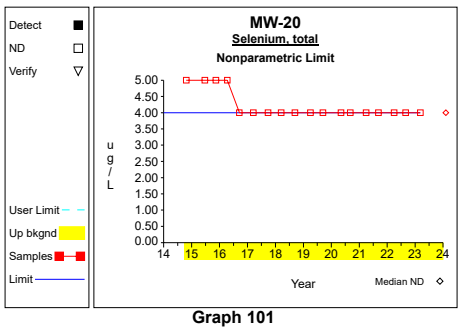
Graph 98



Graph 99



Graph 100



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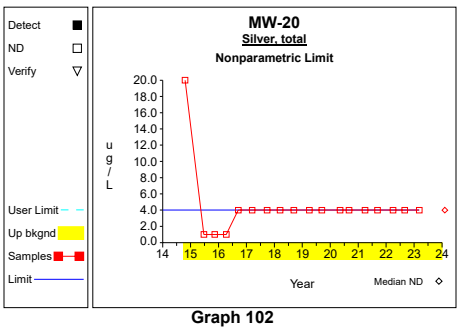
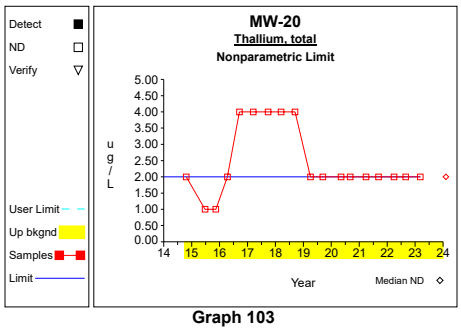
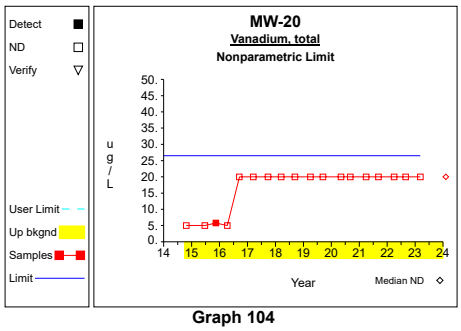


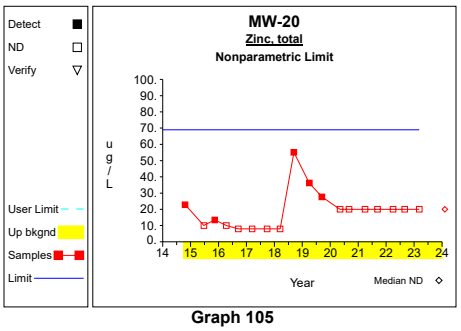
Graph 102



Graph 103



Graph 104



Graph 105

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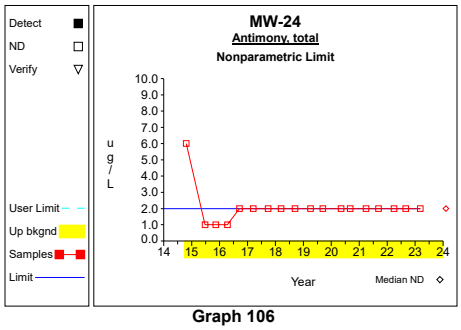
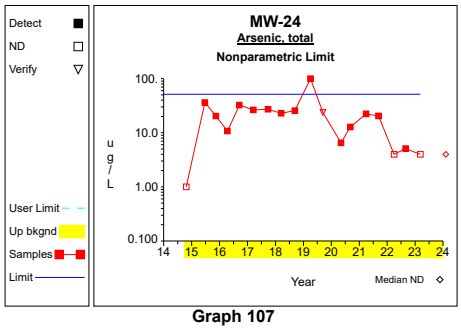
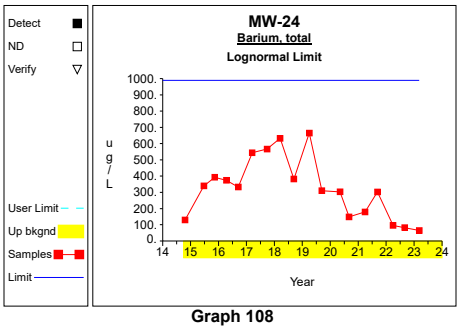
Up vs. Down Prediction Limits



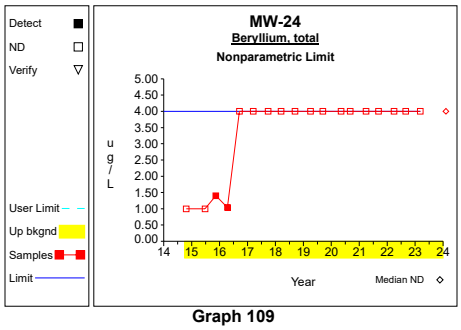
Graph 106



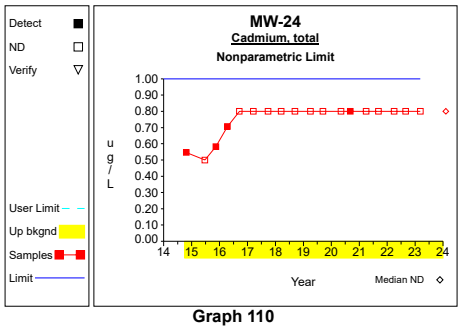
Graph 107



Graph 108



Graph 109



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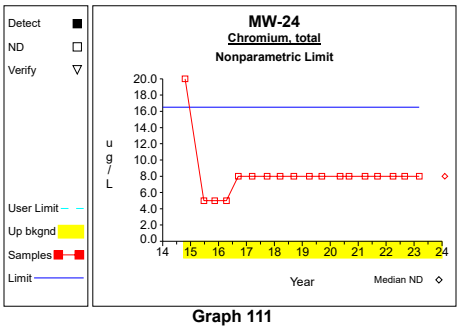

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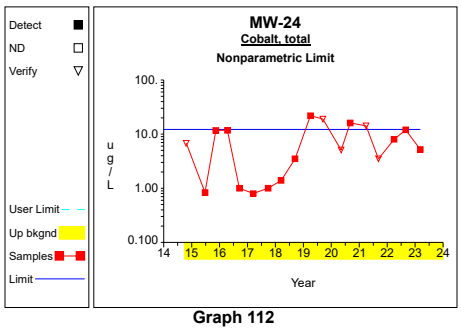
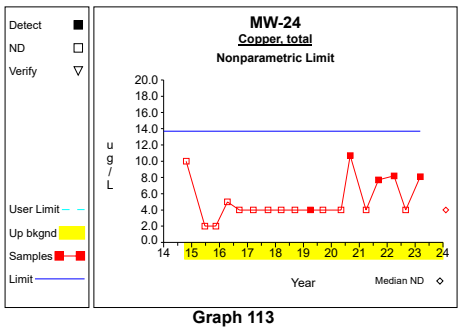
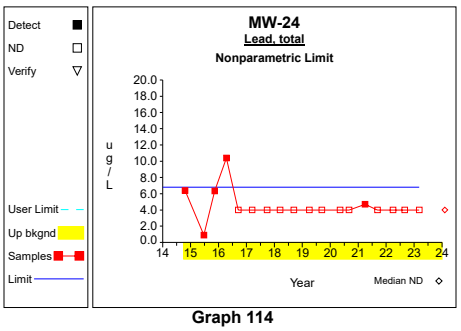


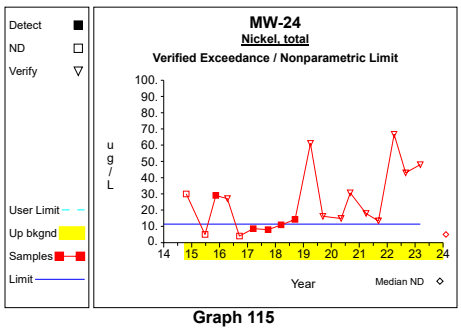
Graph 112



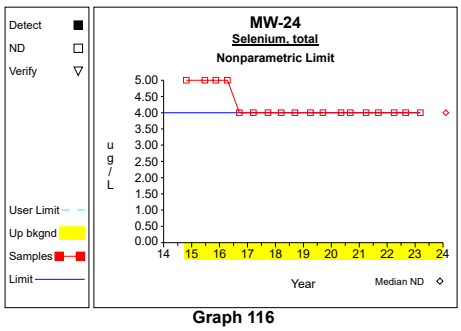
Graph 113



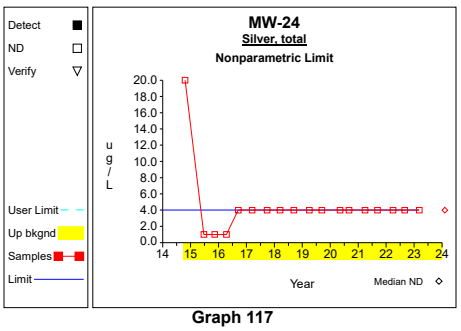
Graph 114



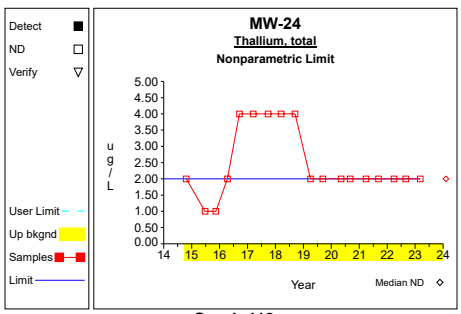
Graph 115



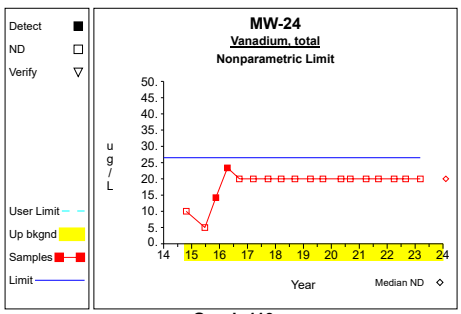
Graph 116



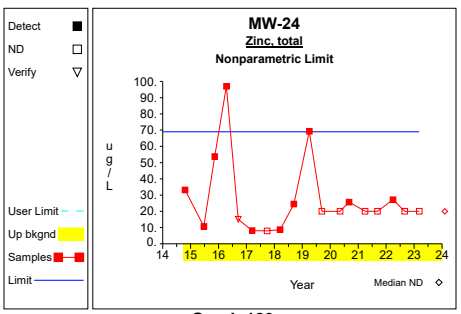
Graph 117



Graph 118



Graph 119



Graph 120

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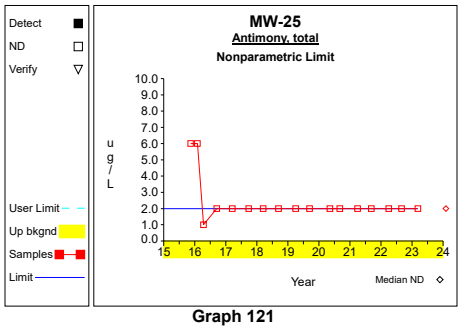
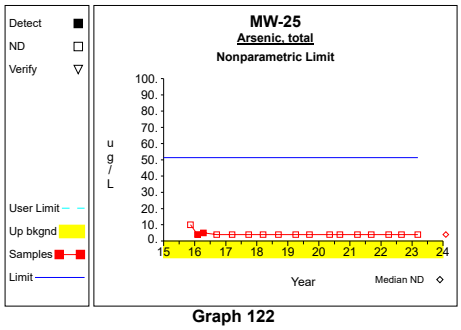
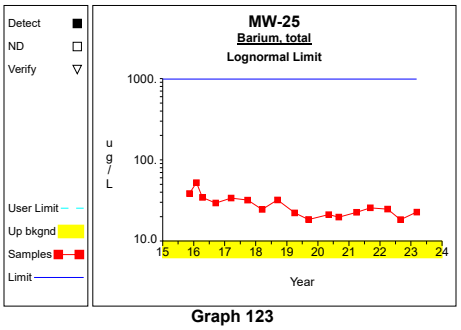
Up vs. Down Prediction Limits



Graph 121



Graph 122



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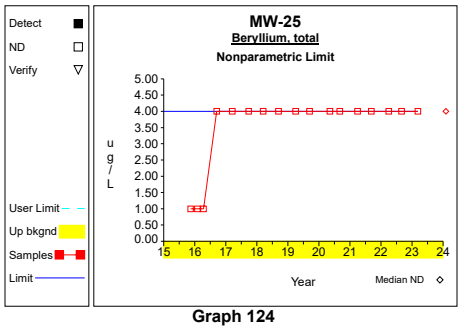
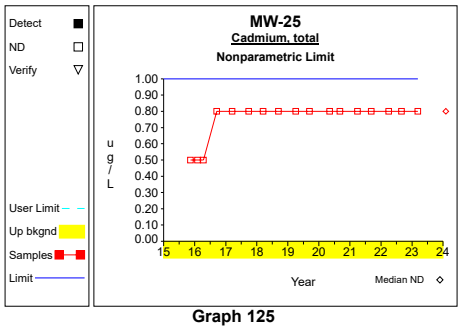
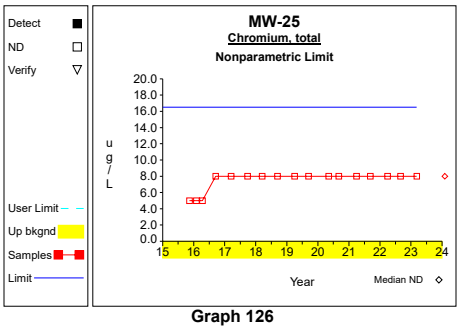


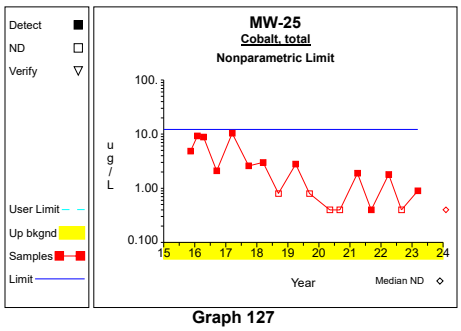
Graph 124



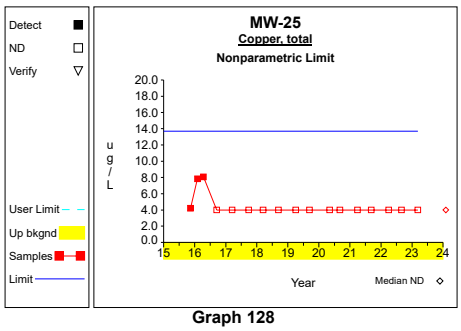
Graph 125



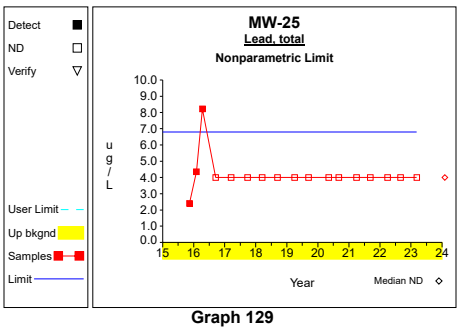
Graph 126



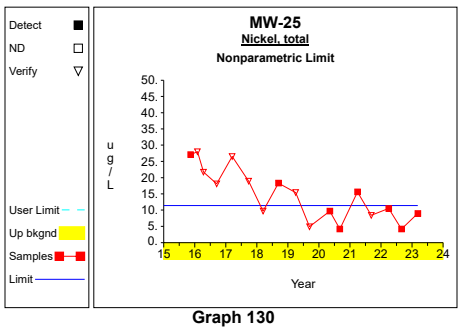
Graph 127



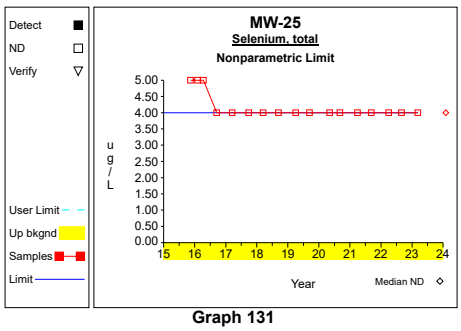
Graph 128



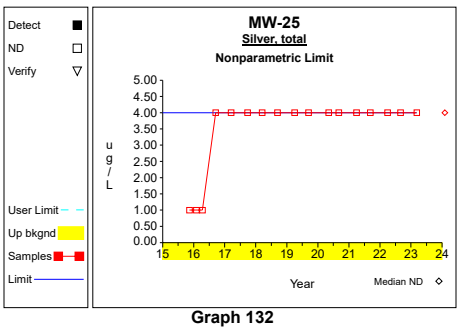
Graph 129



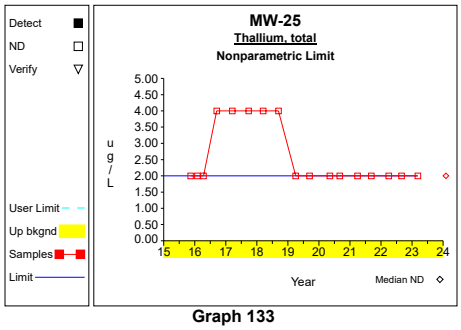
Graph 130



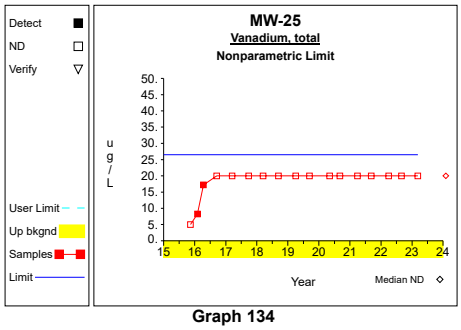
Graph 131



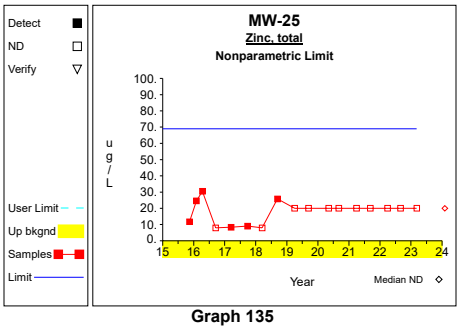
Graph 132



Graph 133



Graph 134



Graph 135

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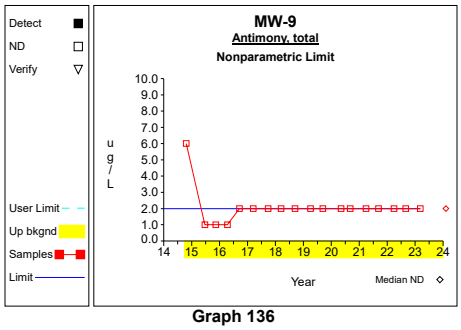
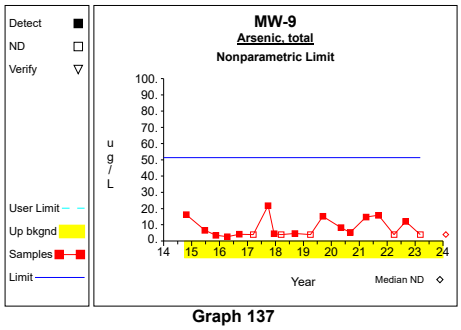
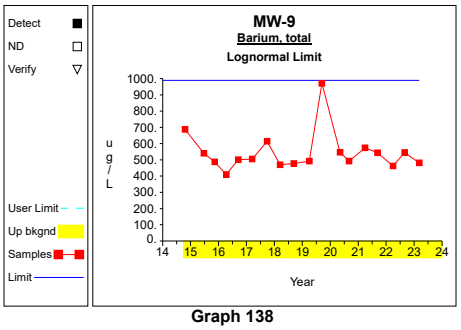
Up vs. Down Prediction Limits



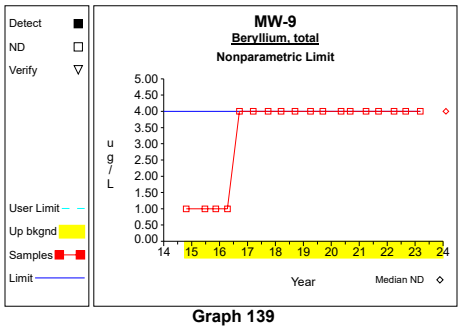
Graph 136



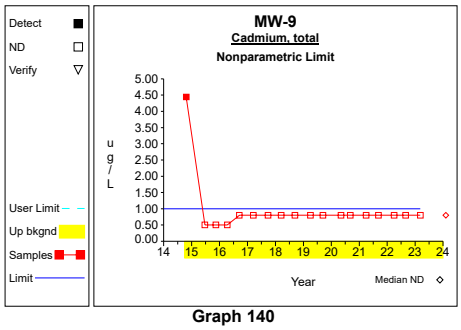
Graph 137



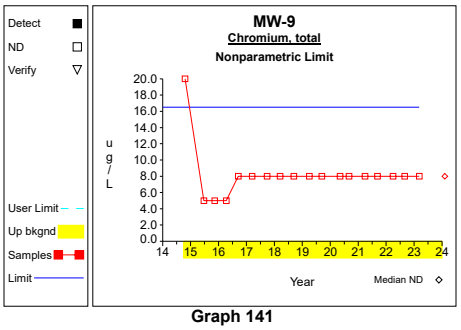
Graph 138



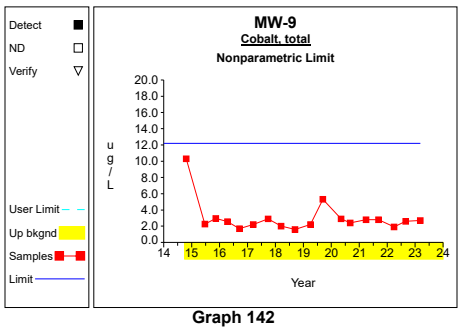
Graph 139



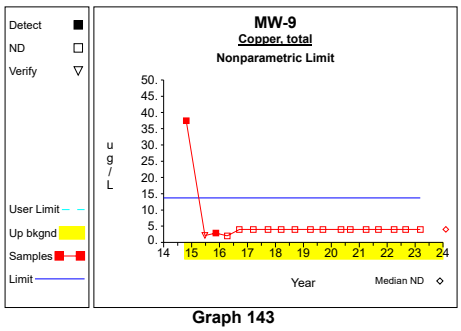
Graph 140



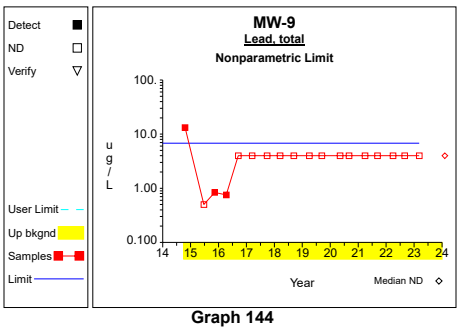
Graph 141



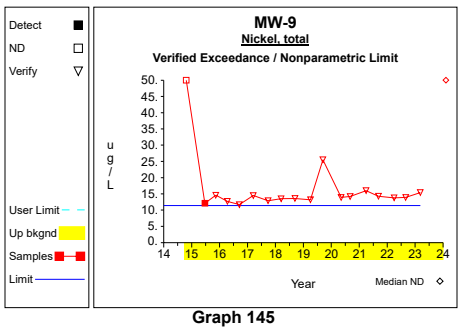
Graph 142



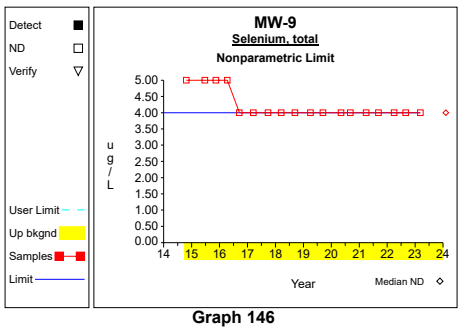
Graph 143



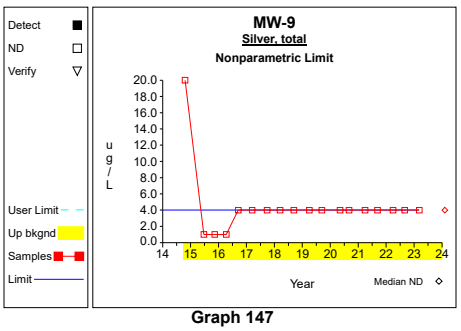
Graph 144



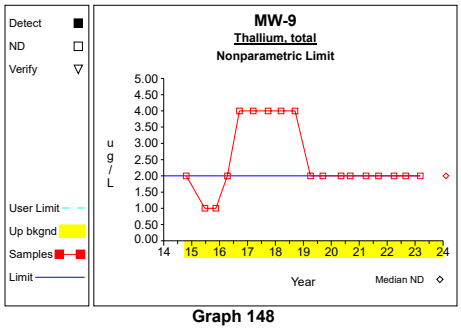
Graph 145



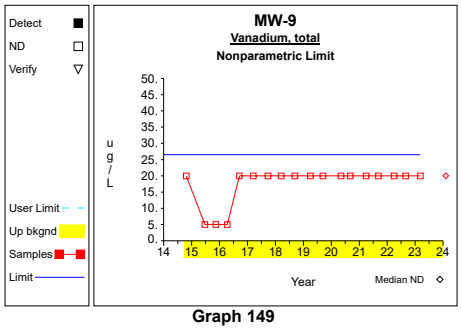
Graph 146



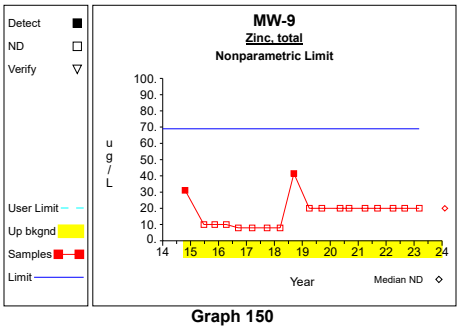
Graph 147



Graph 148



Graph 149

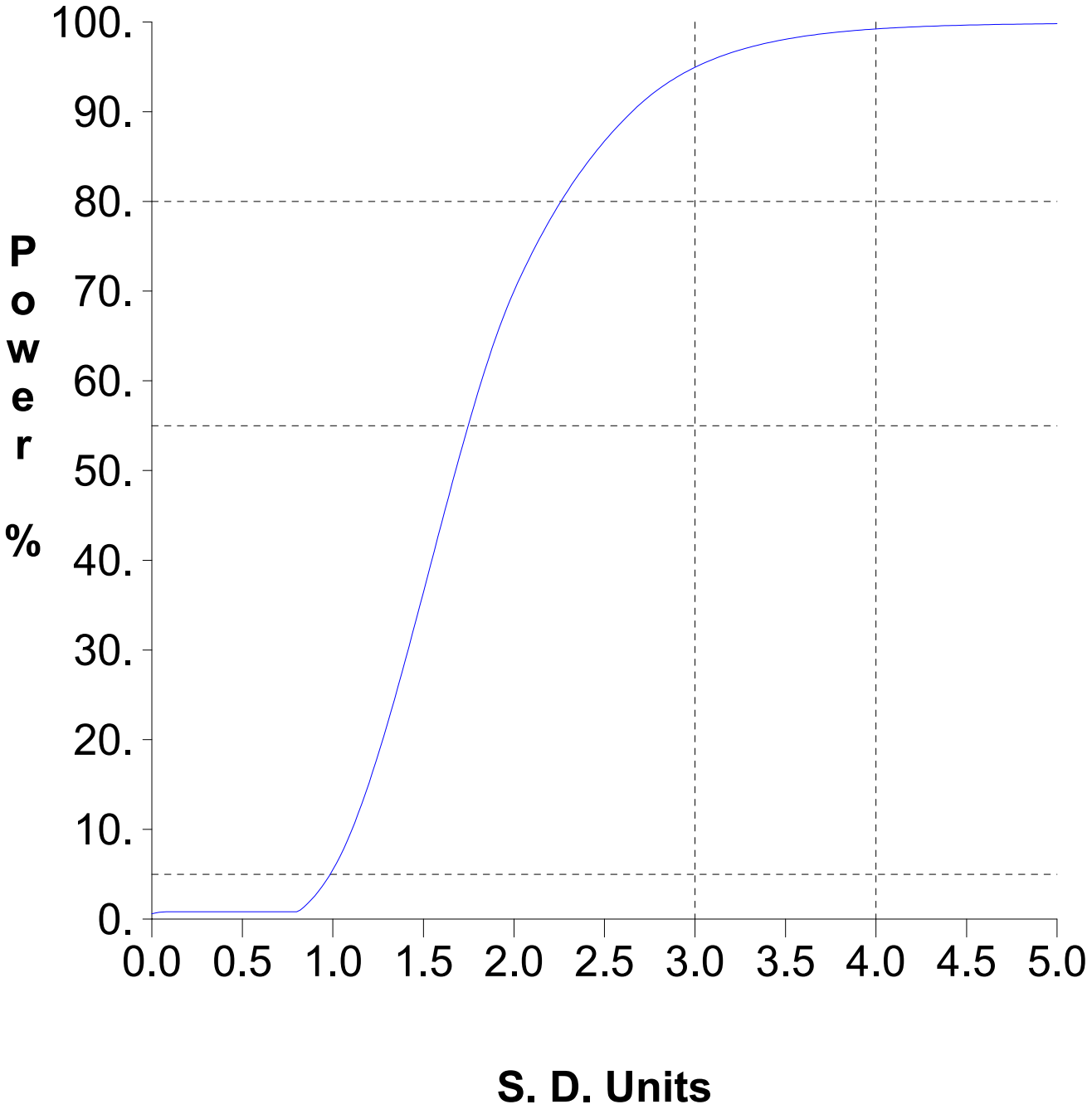


Graph 150

Prepared by: Otter Creek Environmental

False Positive and False Negative Rates for Current

Upgradient vs. Downgradient Monitoring Program



Attachment C

Assessment Statistics for Trace Metals

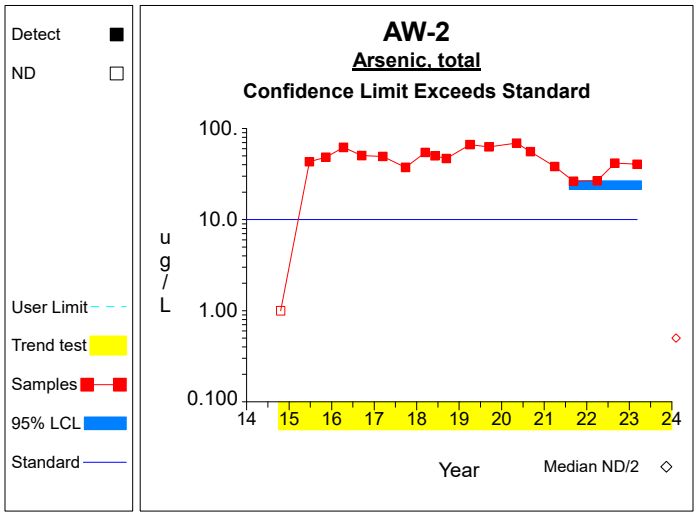
Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

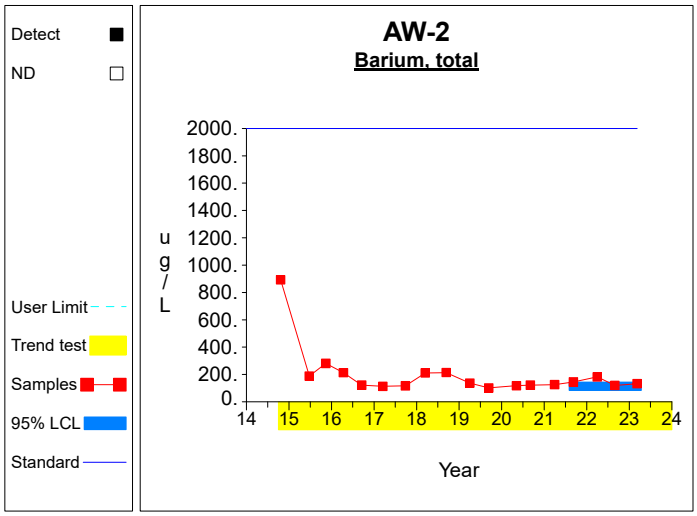
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Arsenic, total	ug/L	AW-2	4	33.825	8.416	1.176	23.926	43.724	10.000		**
Barium, total	ug/L	AW-2	4	145.000	26.696	1.176	113.598	176.402	2000.000		
Cobalt, total	ug/L	AW-2	4	10.850	1.690	1.176	8.862	12.838	2.100	dec	**
Nickel, total	ug/L	AW-2	4	10.600	1.294	1.176	9.078	12.122	100.000	dec	
Zinc, total	ug/L	AW-2	4	10.000	0.000	1.176	10.000	10.000	2000.000		
Arsenic, total	ug/L	AW-3	4	46.275	32.039	1.176	8.588	83.962	10.000		
Barium, total	ug/L	AW-3	4	448.500	146.680	1.176	275.962	621.038	2000.000		
Cobalt, total	ug/L	AW-3	4	0.600	0.115	1.176	0.464	0.736	2.100	dec	
Nickel, total	ug/L	AW-3	4	2.000	0.000	1.176	2.000	2.000	100.000	dec	
Zinc, total	ug/L	AW-3	4	10.000	0.000	1.176	10.000	10.000	2000.000		
Arsenic, total	ug/L	MW-12	4	2.775	1.550	1.176	0.952	4.598	10.000		
Barium, total	ug/L	MW-12	4	119.500	17.521	1.176	98.890	140.110	2000.000	dec	
Cobalt, total	ug/L	MW-12	4	0.975	0.750	1.176	0.093	1.857	2.100		
Nickel, total	ug/L	MW-12	4	13.275	9.805	1.176	1.741	24.809	100.000	dec	
Zinc, total	ug/L	MW-12	4	5.000	0.000	1.176	5.000	5.000	2000.000		
Arsenic, total	ug/L	MW-14	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-14	4	350.750	51.700	1.176	289.936	411.564	2000.000		
Cobalt, total	ug/L	MW-14	4	1.150	1.370	1.176	0.000	2.761	2.100		
Nickel, total	ug/L	MW-14	4	6.750	3.518	1.176	2.612	10.888	100.000		
Zinc, total	ug/L	MW-14	4	10.000	0.000	1.176	10.000	10.000	2000.000		
Arsenic, total	ug/L	MW-20	4	53.400	36.210	1.176	10.807	95.993	10.000		**
Barium, total	ug/L	MW-20	4	302.500	26.764	1.176	271.017	333.983	2000.000	dec	
Cobalt, total	ug/L	MW-20	4	1.025	1.121	1.176	0.000	2.343	2.100		
Nickel, total	ug/L	MW-20	4	3.025	2.050	1.176	0.614	5.436	100.000		
Zinc, total	ug/L	MW-20	4	10.000	0.000	1.176	10.000	10.000	2000.000		
Arsenic, total	ug/L	MW-24	4	7.400	8.855	1.176	0.000	17.816	10.000		
Barium, total	ug/L	MW-24	4	136.500	111.066	1.176	5.855	267.145	2000.000		
Cobalt, total	ug/L	MW-24	4	7.175	3.713	1.176	2.807	11.543	2.100		**
Nickel, total	ug/L	MW-24	4	42.775	22.081	1.176	16.802	68.748	100.000	inc	
Zinc, total	ug/L	MW-24	4	14.300	8.600	1.176	4.184	24.416	2000.000		
Arsenic, total	ug/L	MW-25	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-25	4	22.850	3.280	1.176	18.992	26.708	2000.000	dec	
Cobalt, total	ug/L	MW-25	4	0.825	0.714	1.176	0.000	1.664	2.100		
Nickel, total	ug/L	MW-25	4	8.025	2.699	1.176	4.851	11.199	100.000	dec	
Zinc, total	ug/L	MW-25	4	10.000	0.000	1.176	10.000	10.000	2000.000		
Arsenic, total	ug/L	MW-9	4	8.000	7.100	1.176	0.000	16.351	10.000		
Barium, total	ug/L	MW-9	4	508.000	42.856	1.176	457.589	558.411	2000.000		
Cobalt, total	ug/L	MW-9	4	2.500	0.408	1.176	2.020	2.980	2.100		
Nickel, total	ug/L	MW-9	4	14.350	0.733	1.176	13.488	15.212	100.000		
Zinc, total	ug/L	MW-9	4	10.000	0.000	1.176	10.000	10.000	2000.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

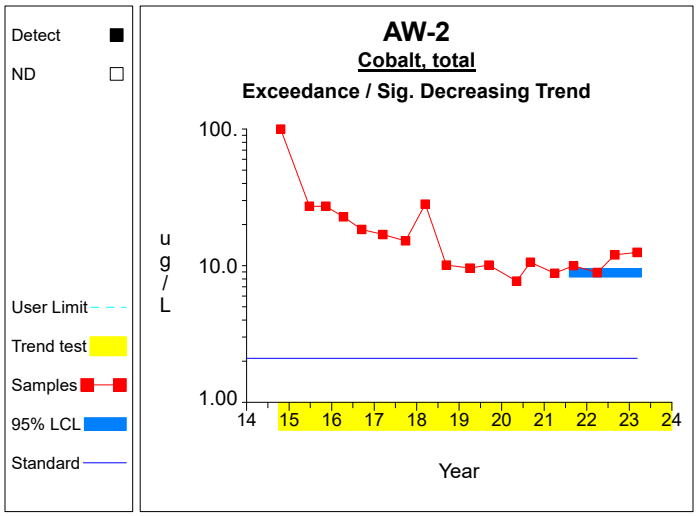
Confidence Limits (Assessment)



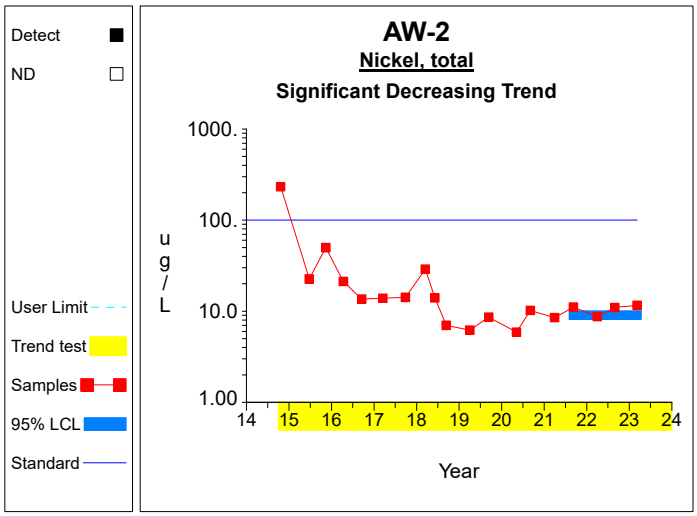
Graph 1



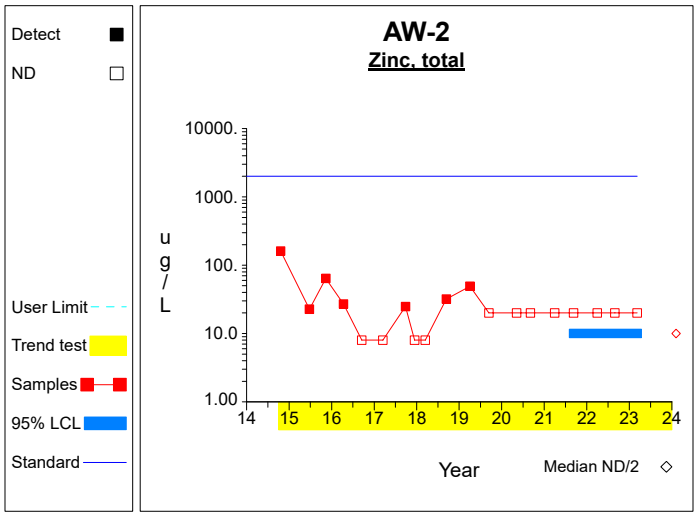
Graph 2



Graph 3



Graph 4



Graph 5

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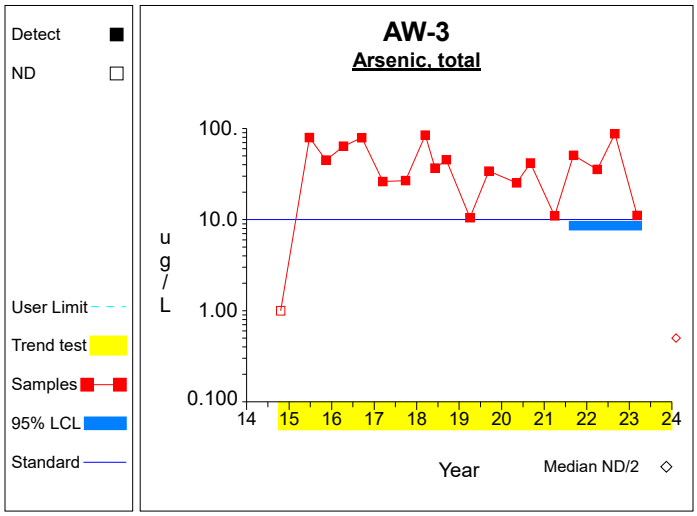
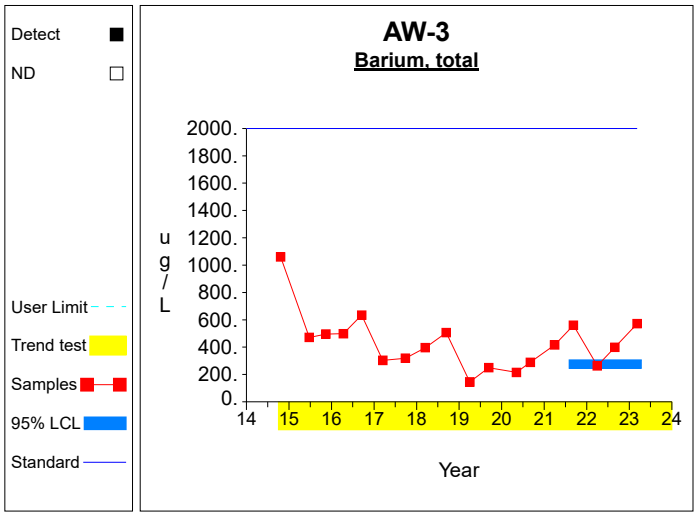
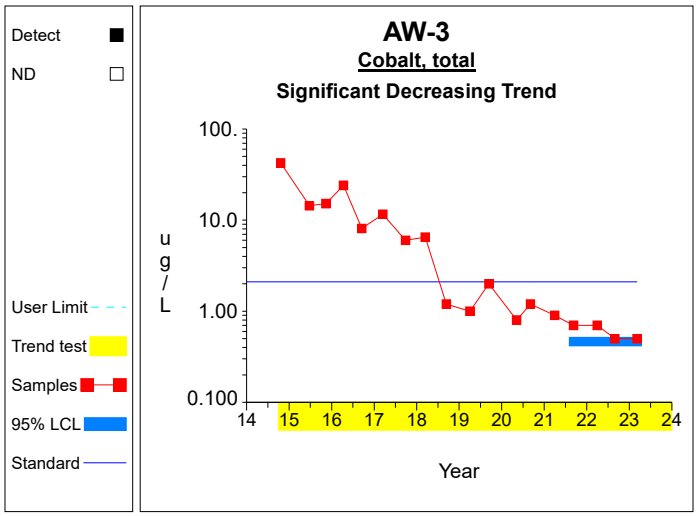
Confidence Limits (Assessment)



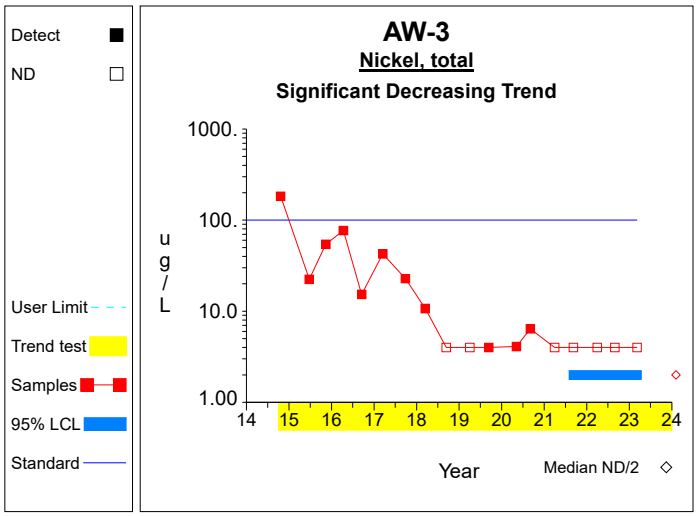
Graph 6



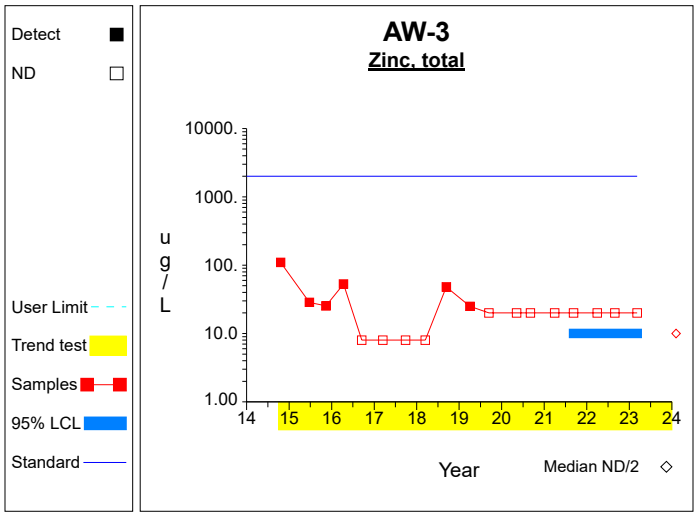
Graph 7



Graph 8



Graph 9



Graph 10

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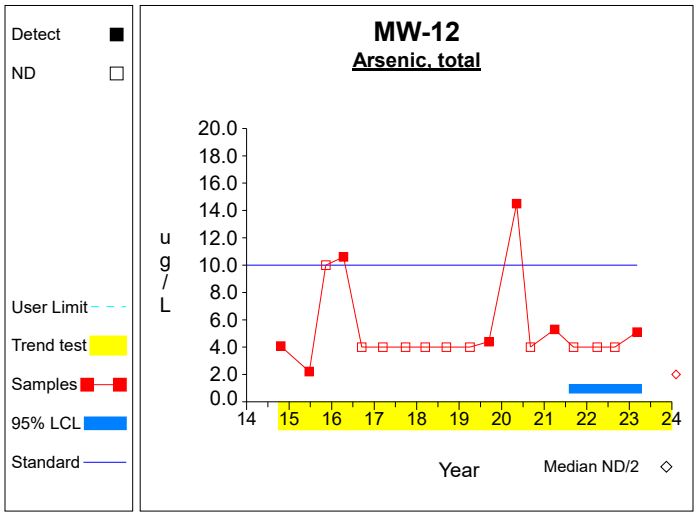
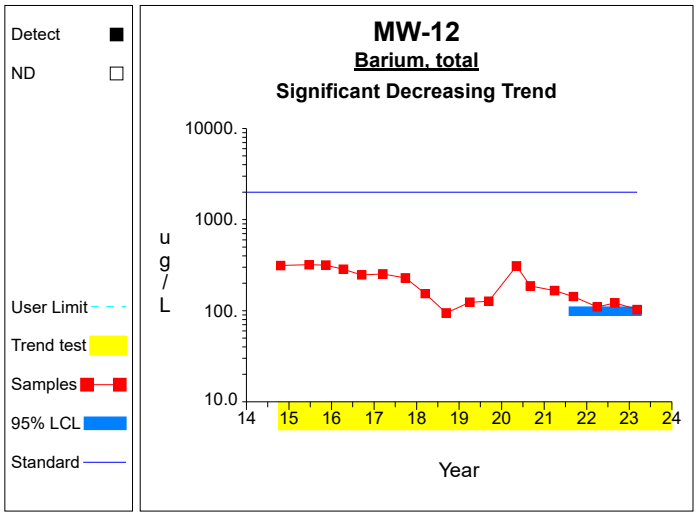
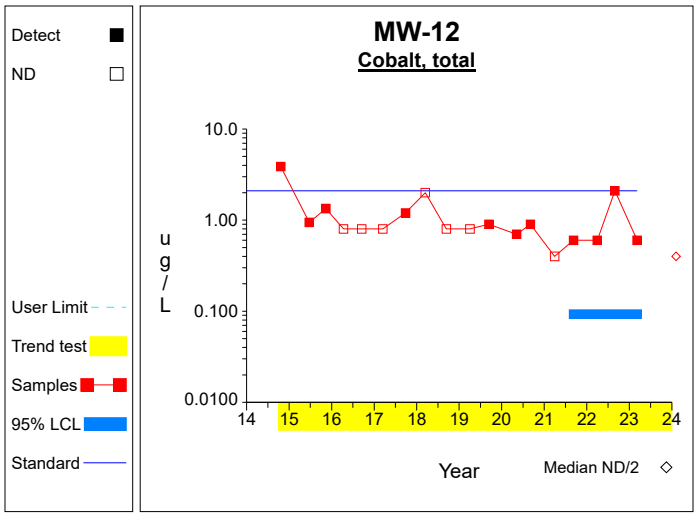
Confidence Limits (Assessment)



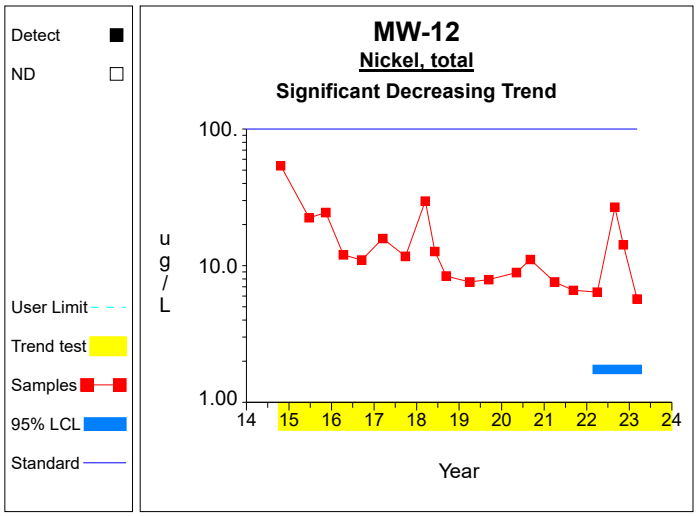
Graph 11



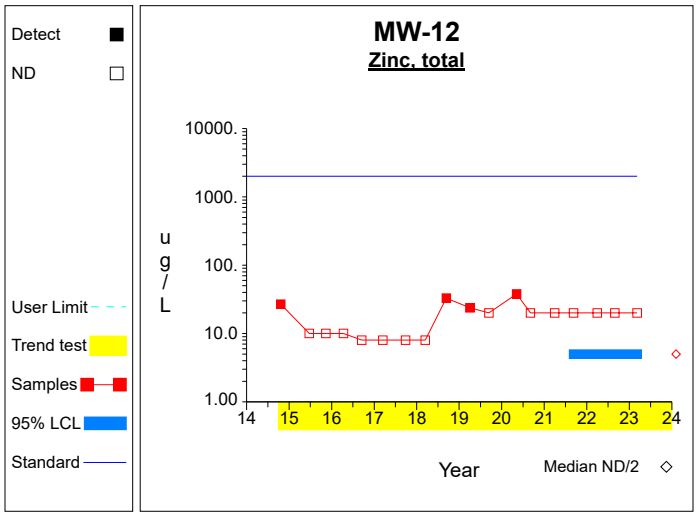
Graph 12



Graph 13



Graph 14



Graph 15

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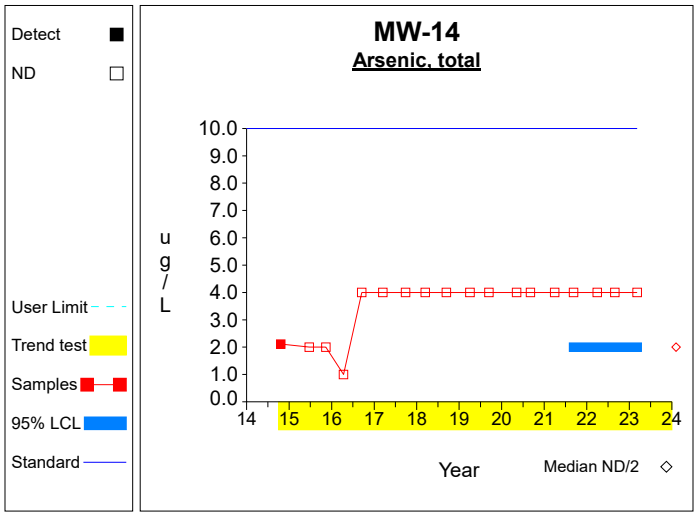
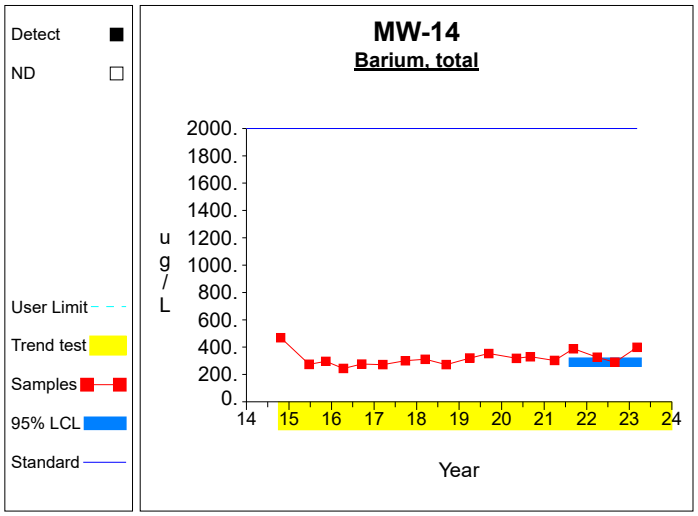
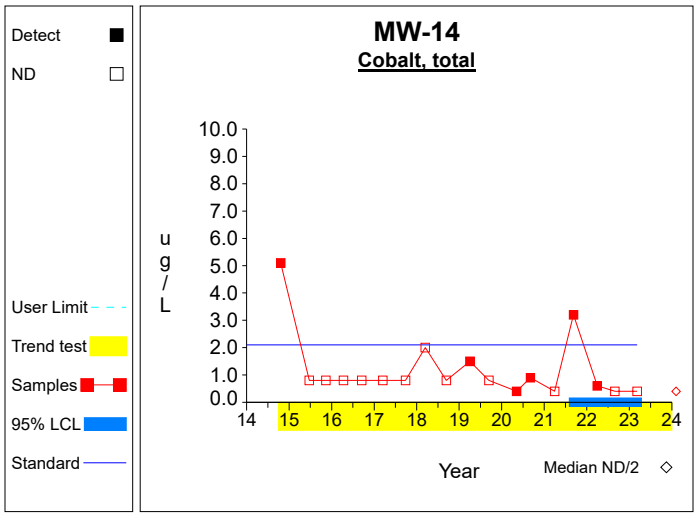
Confidence Limits (Assessment)



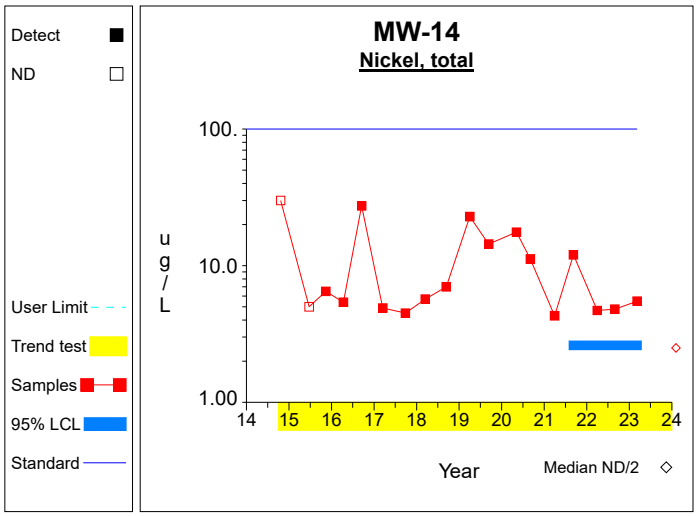
Graph 16



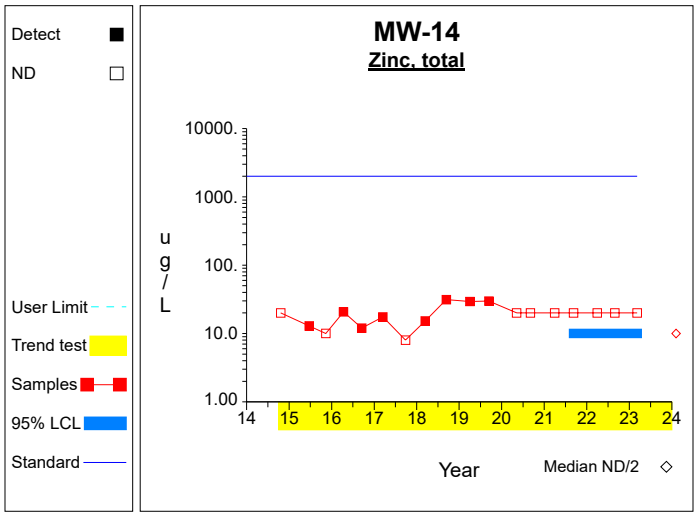
Graph 17



Graph 18

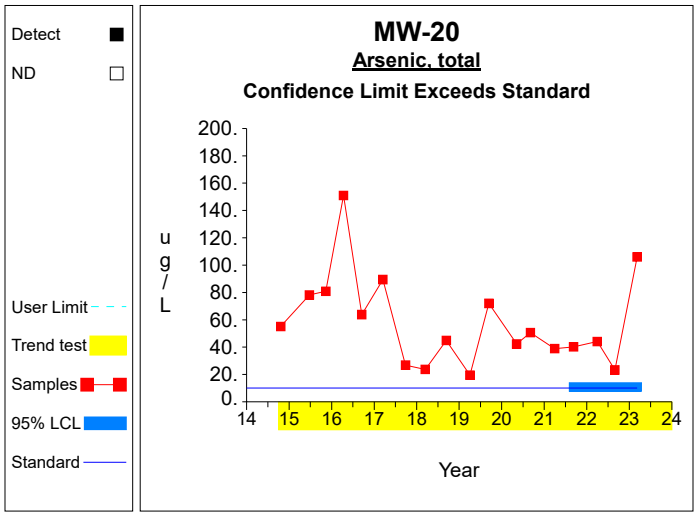


Graph 19

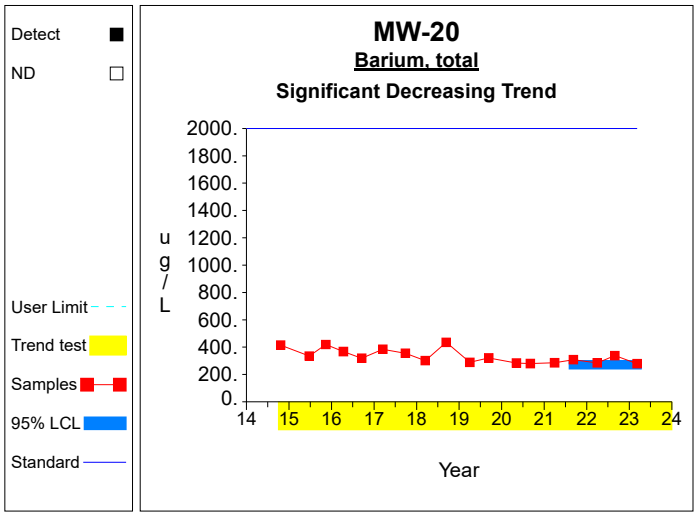


Graph 20

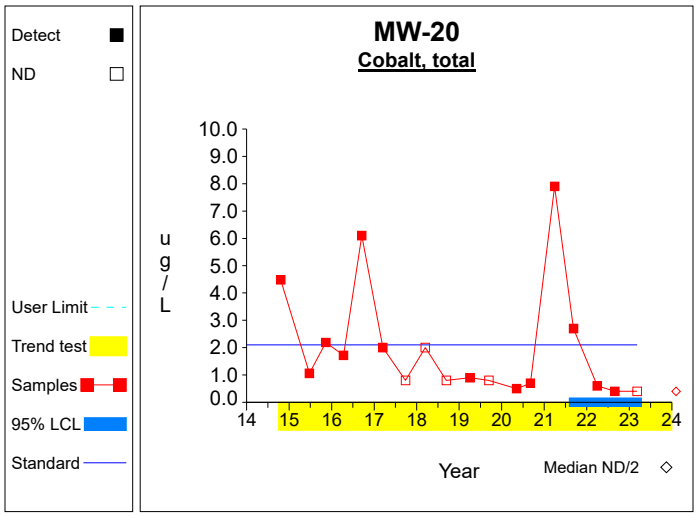
Confidence Limits (Assessment)



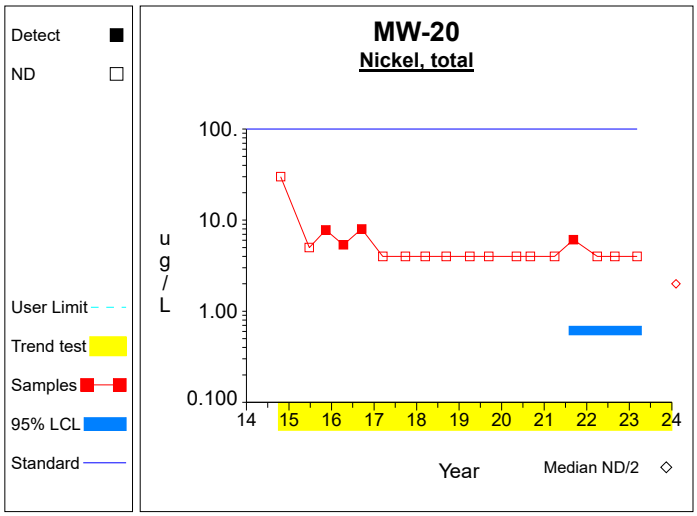
Graph 21



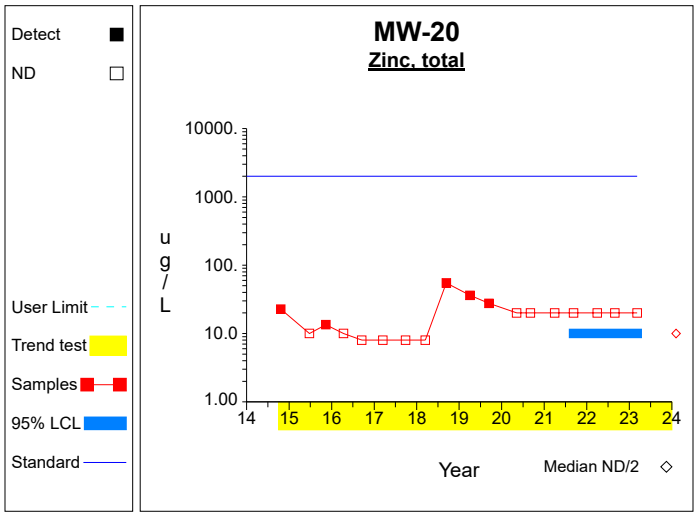
Graph 22



Graph 23



Graph 24



Graph 25

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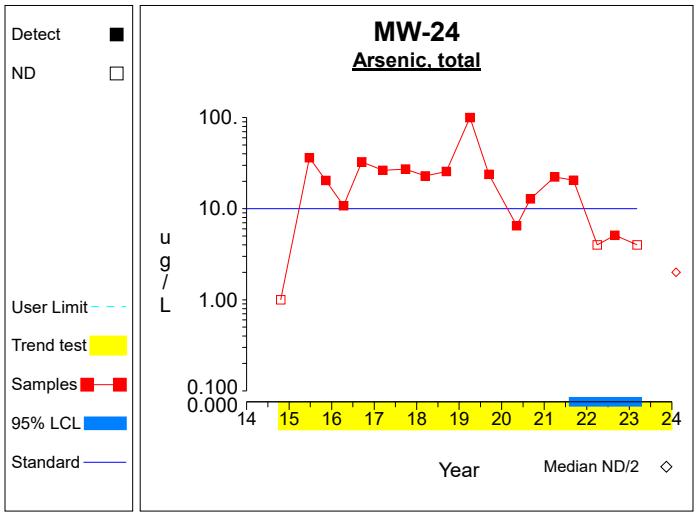
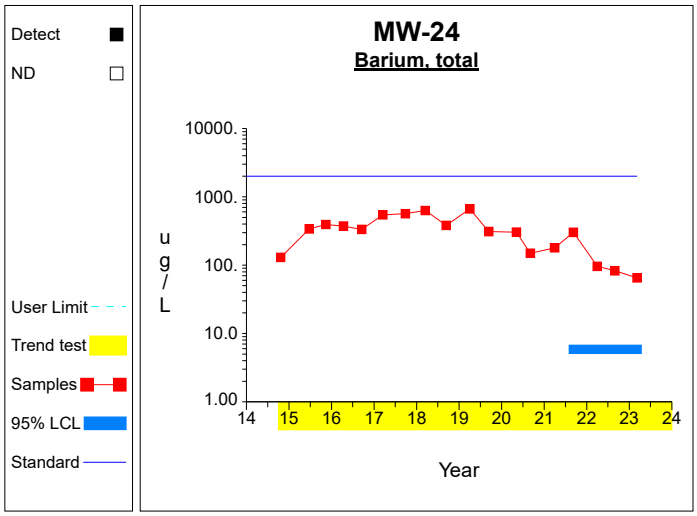
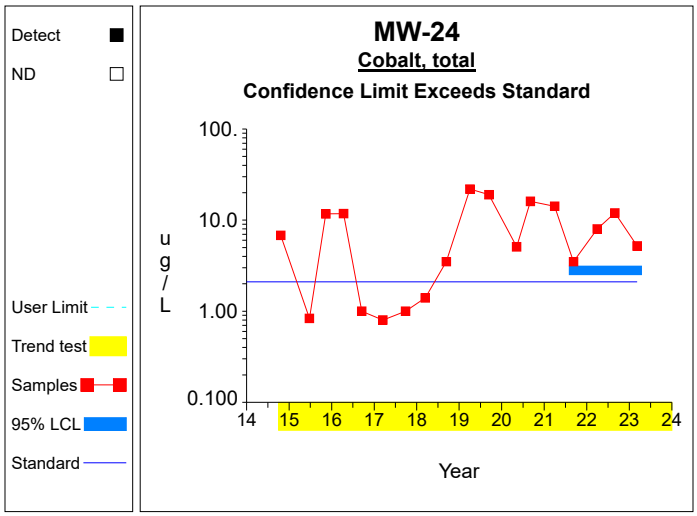
Confidence Limits (Assessment)



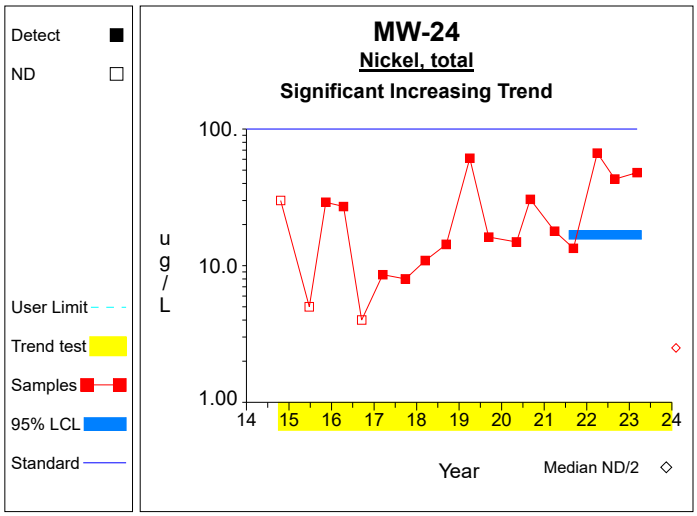
Graph 26



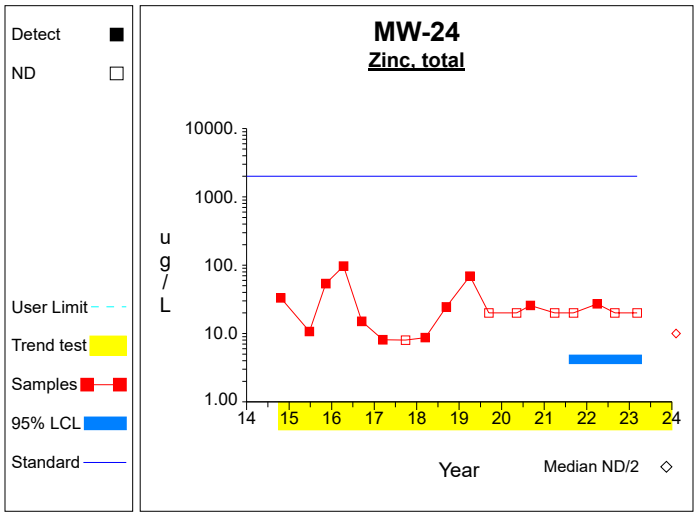
Graph 27



Graph 28

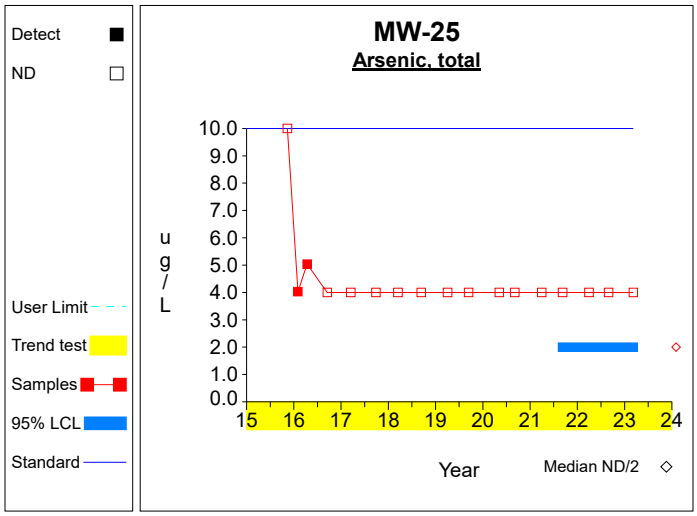


Graph 29

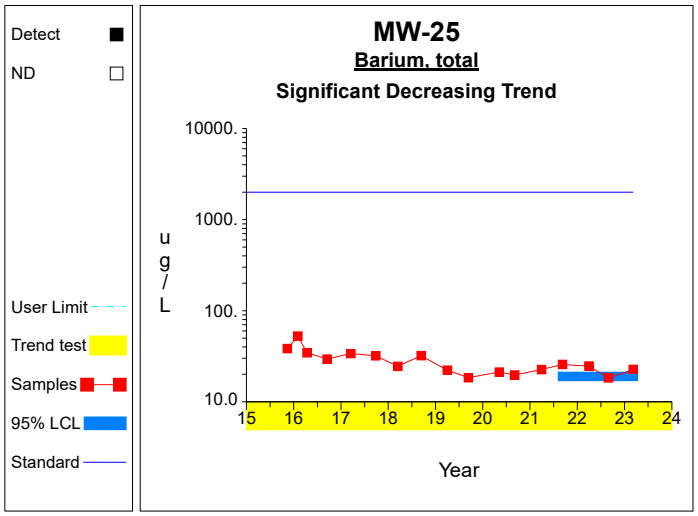


Graph 30

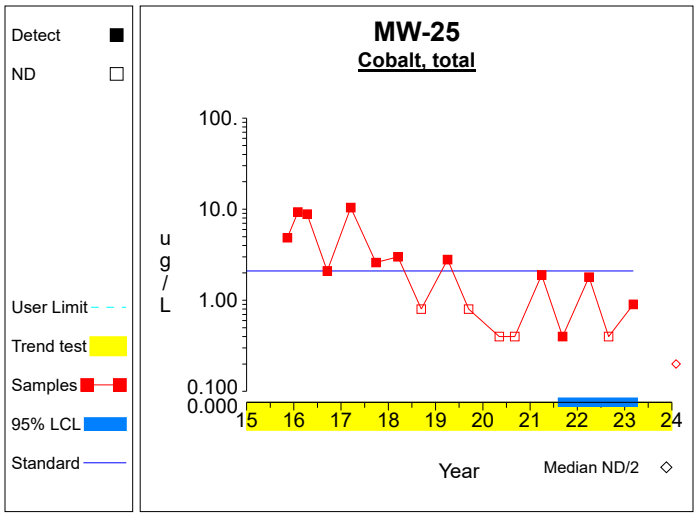
Confidence Limits (Assessment)



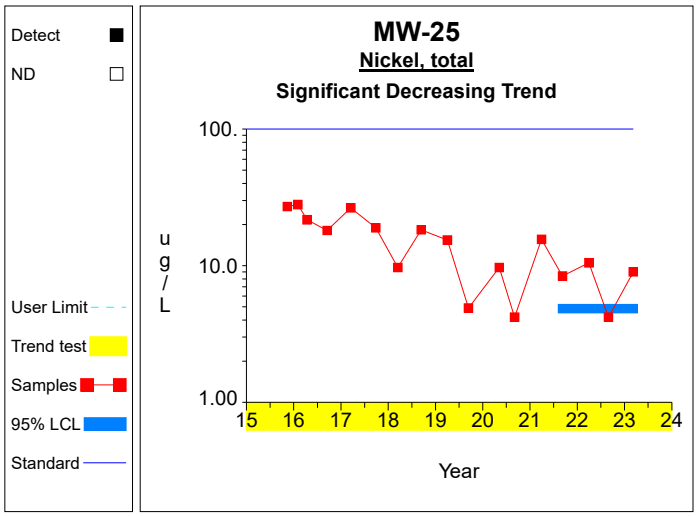
Graph 31



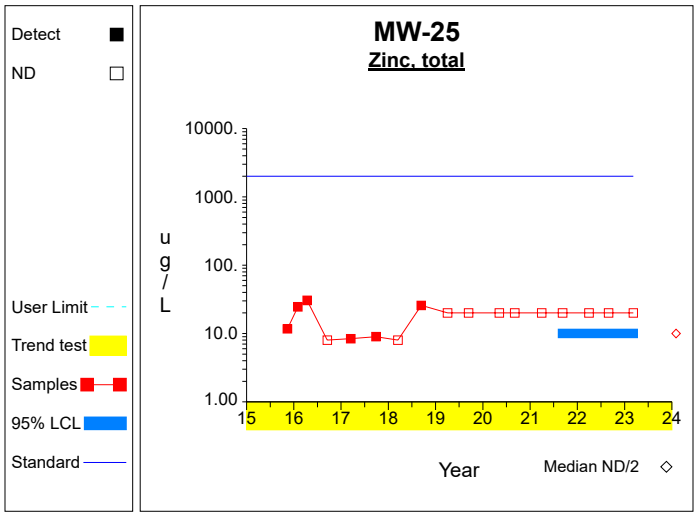
Graph 32



Graph 33



Graph 34



Graph 35

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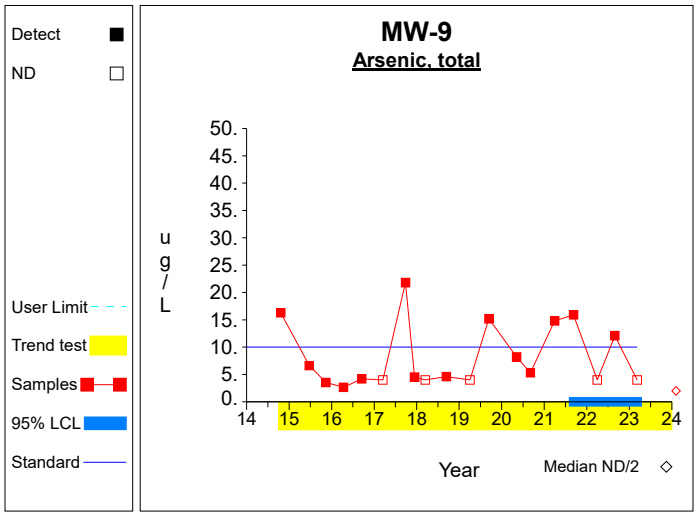
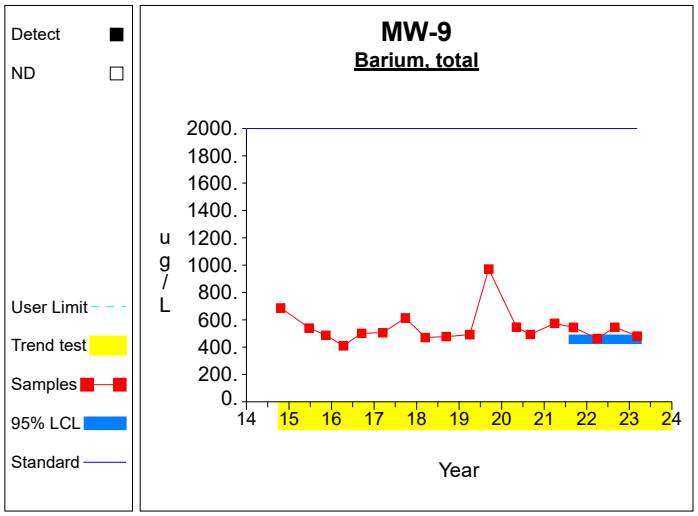
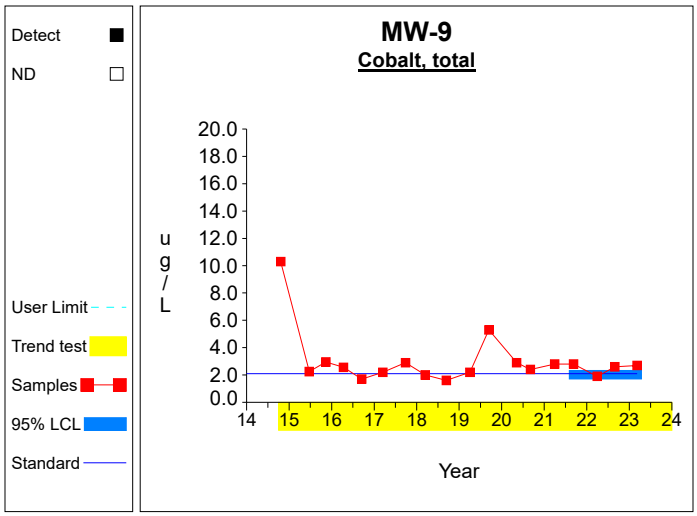
Confidence Limits (Assessment)



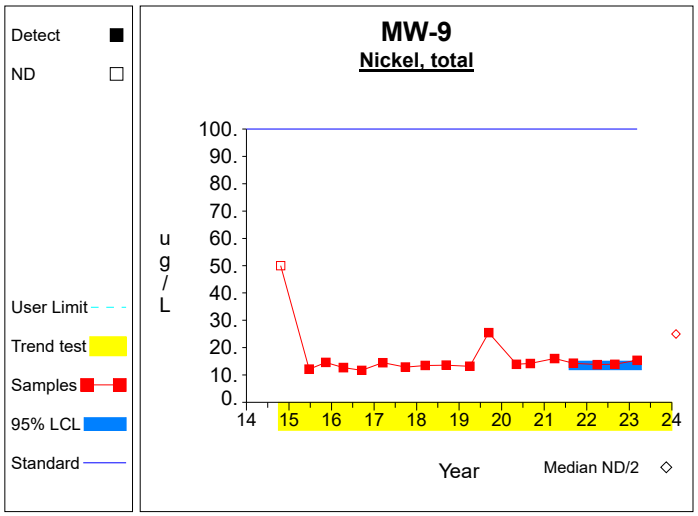
Graph 36



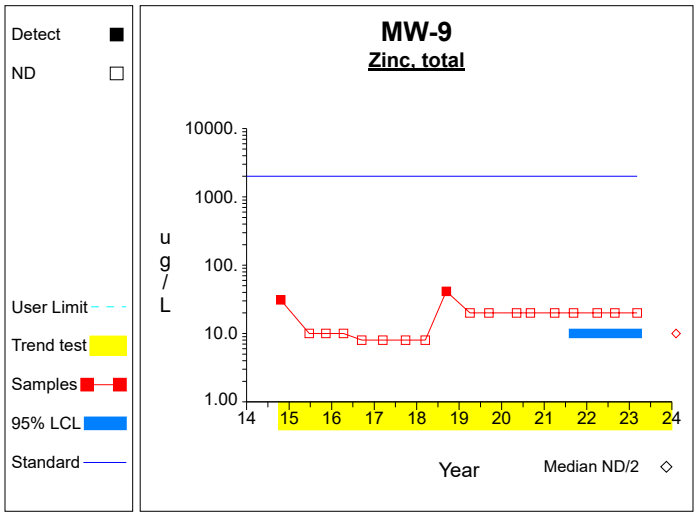
Graph 37



Graph 38



Graph 39



Graph 40

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Attachment D

Summary Tables and Graphs for the Intrawell Comparisons

Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Antimony, total	ug/L	MW-24	17	1	27			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-24	17	1	27	23.2471	22.4453	5.1000	4.0000		23.2471	169.1415	normal		
Barium, total	ug/L	MW-24	17	1	27	340.0529	181.2577	82.7000	65.1000		340.0529	1518.2280	normal		
Beryllium, total	ug/L	MW-24	17	1	27			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW-24	17	1	27			0.8000	0.8000			0.8000	nonpar	.99	**
Chromium, total	ug/L	MW-24	17	1	27			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	MW-24	17	1	27	8.1549	6.8788	12.0000	5.2000		8.1549	52.8671	normal		
Copper, total	ug/L	MW-24	17	1	27			4.0000	8.1000			10.7000	nonpar	.99	**
Lead, total	ug/L	MW-24	16	1	27	4.7394	1.7106	4.0000	4.0000		4.7394	15.8581	normal		
Nickel, total	ug/L	MW-24	17	1	27	22.1647	18.9039	43.0000	48.0000		33.8221	145.0398	normal		
Selenium, total	ug/L	MW-24	17	1	27			4.0000	4.0000			4.0000	nonpar	.99	**
Silver, total	ug/L	MW-24	17	1	27			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW-24	17	1	27			2.0000	2.0000			2.0000	nonpar	.99	**
Vanadium, total	ug/L	MW-24	17	1	27			20.0000	20.0000			23.4000	nonpar	.99	**
Zinc, total	ug/L	MW-24	17	1	27	29.0176	23.4229	20.0000	20.0000		29.0176	181.2667	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one verification resample (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

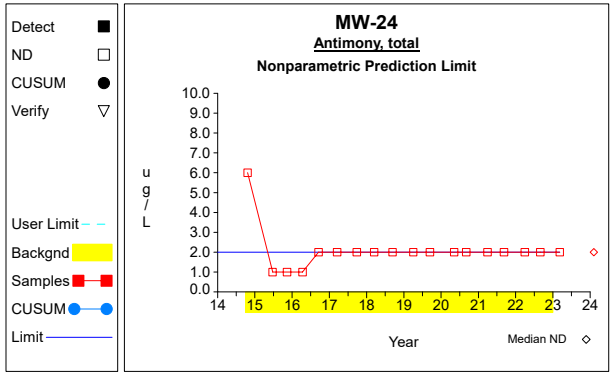
Table 4

Dixon's Test Outliers
5% Significance Level

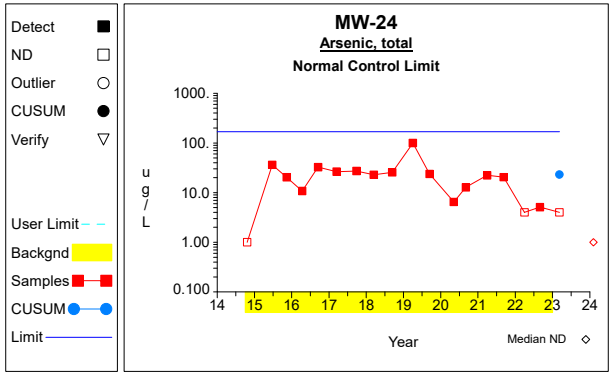
Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Lead, total	ug/L	MW-24	06/23/2015	0.9010		10/21/2014-08/30/2022	17	0.4891

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

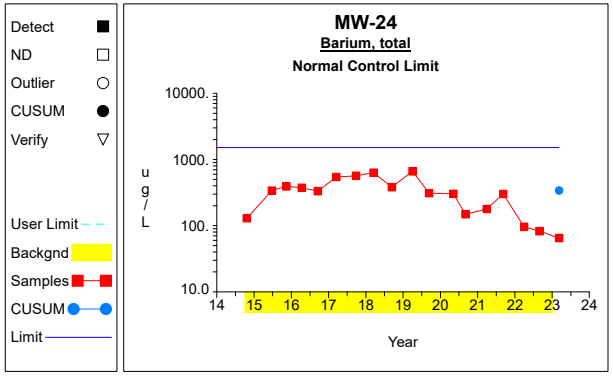
Intra-Well Control Charts / Prediction Limits



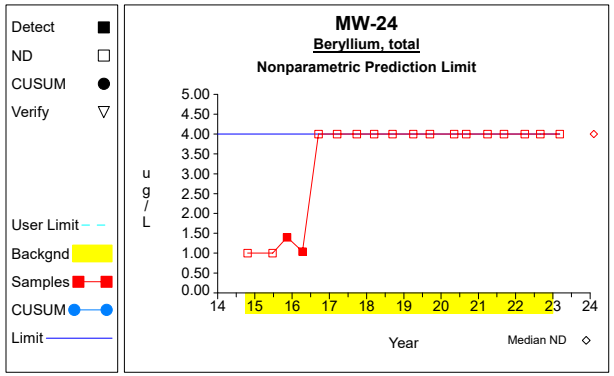
Graph 1



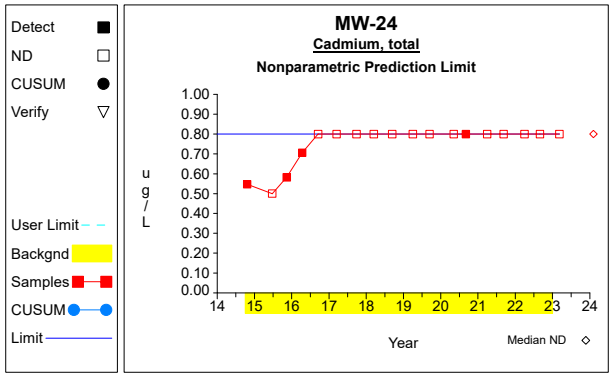
Graph 2



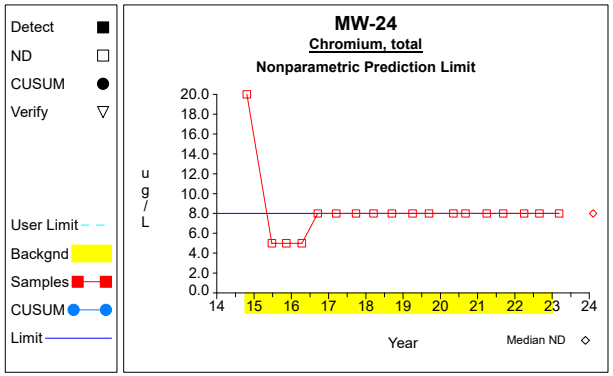
Graph 3



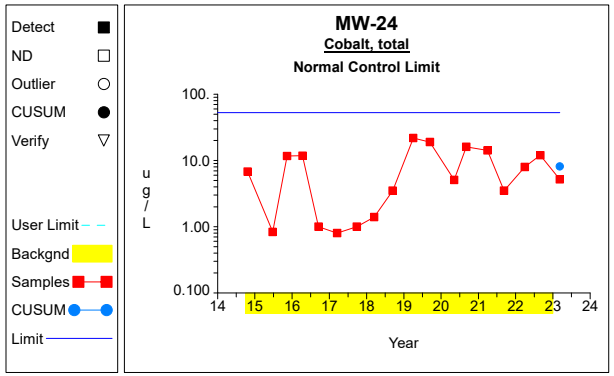
Graph 4



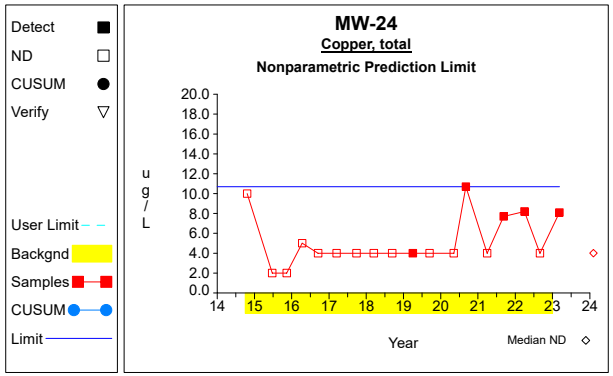
Graph 5



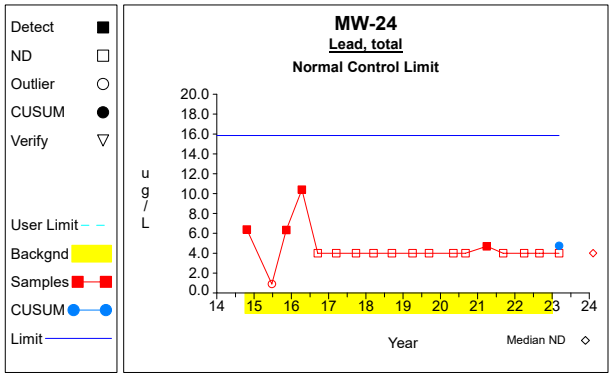
Graph 6



Graph 7



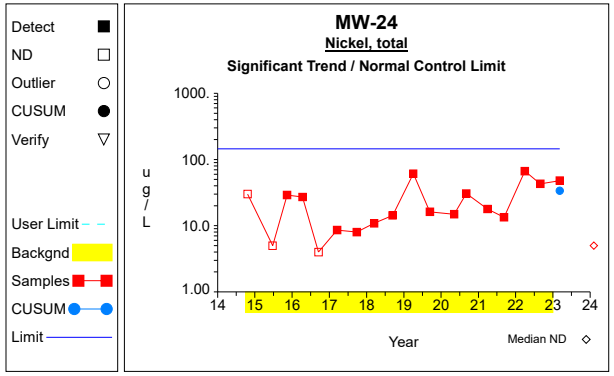
Graph 8



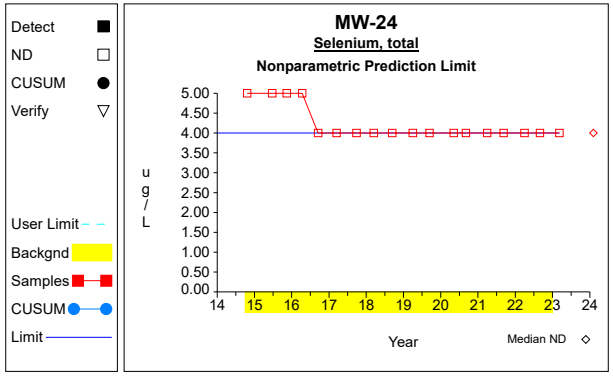
Graph 9

Prepared by: Otter Creek Environmental

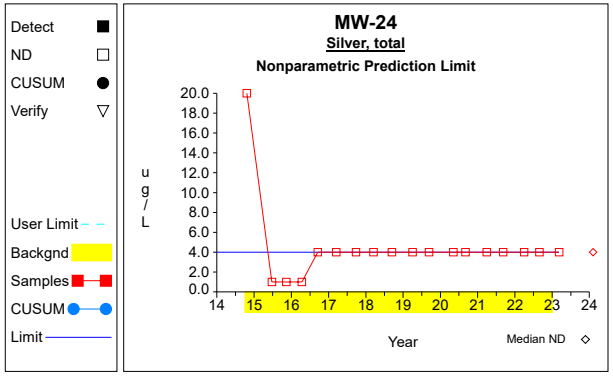
Intra-Well Control Charts / Prediction Limits



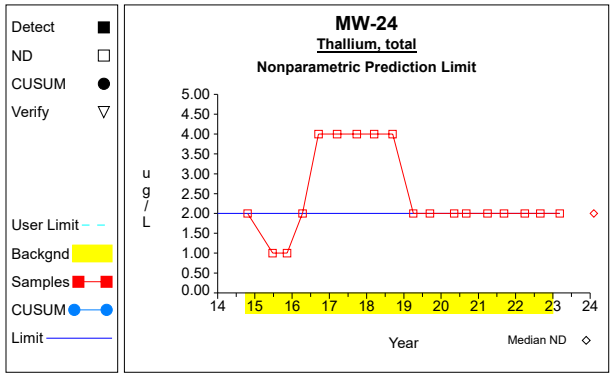
Graph 10



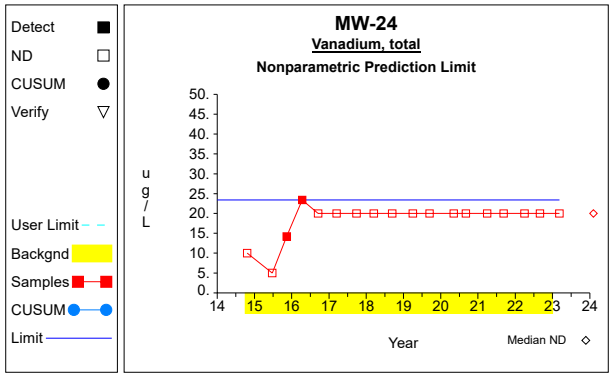
Graph 11



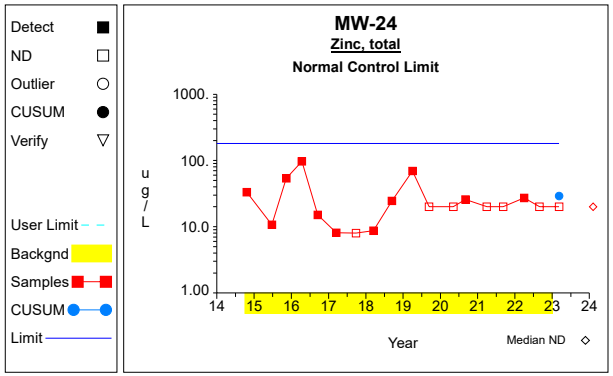
Graph 12



Graph 13

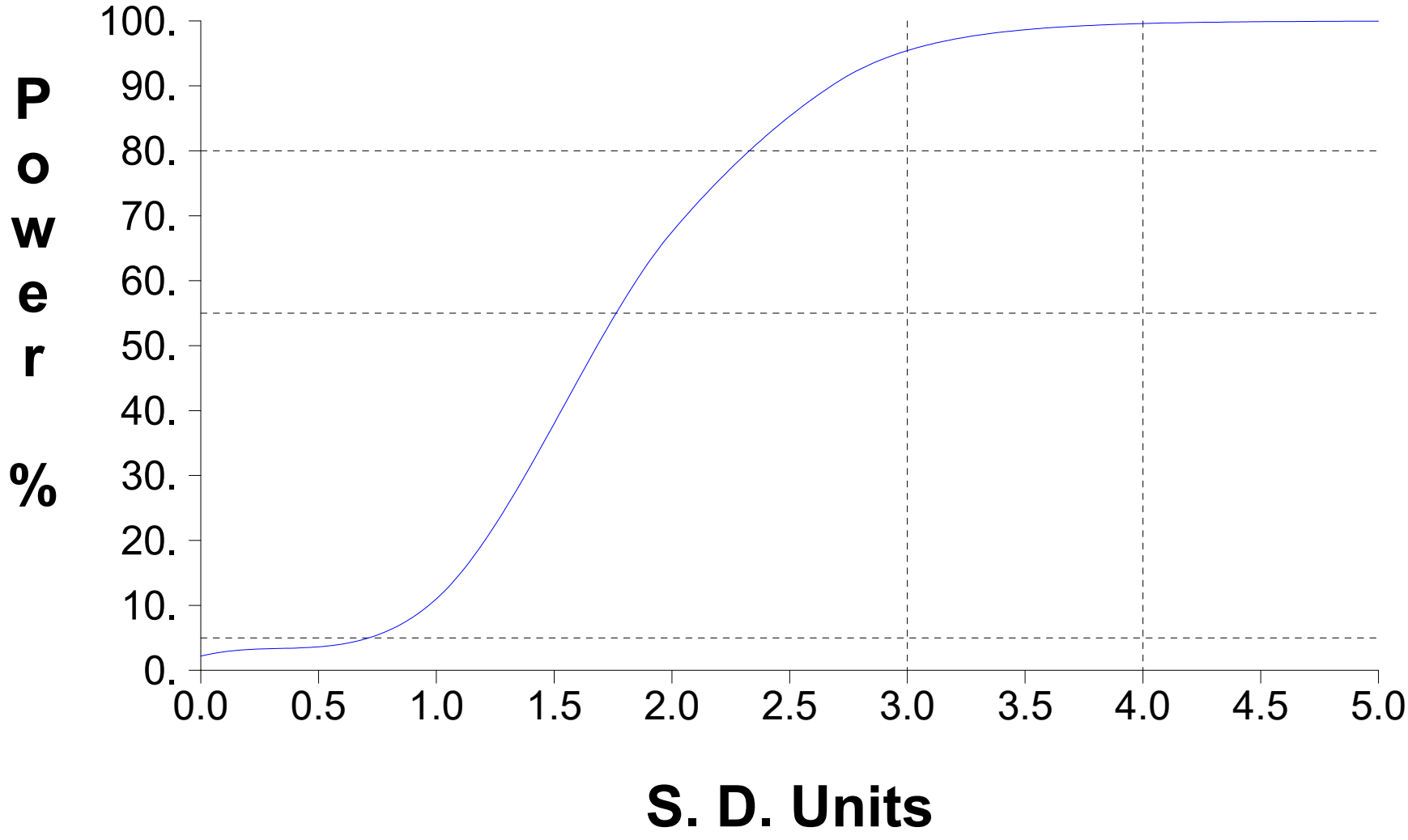


Graph 14



Graph 15

False Positive and False Negative Rates for Current Intra-Well Control Charts Monitoring Program



Attachment E

Historical VOC Detections

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
2-butanone	AW-2	9/08/2021		8.5	5.0	ug/L
Acetone	AW-2	9/27/2017		14.4	10.0	ug/L
Acetone	AW-2	9/08/2021		138.0	10.0	ug/L
Benzene	AW-2	10/20/2014		1.870	.500	ug/L
Benzene	AW-2	6/23/2015		1.950	.500	ug/L
Benzene	AW-2	11/12/2015		.961	.500	ug/L
Benzene	AW-2	4/11/2016		1.020	.500	ug/L
Benzene	AW-2	9/12/2018		1.000	1.000	ug/L
Benzene	AW-2	9/08/2021		1.400	1.000	ug/L
Chloroethane	AW-2	9/08/2021		1	1	ug/L
1,1-dichloroethane	AW-3	4/11/2016		1.02	1.00	ug/L
1,1-dichloroethane	AW-3	9/16/2016		1.20	1.00	ug/L
1,1-dichloroethane	AW-3	3/15/2017		2.50	1.00	ug/L
1,1-dichloroethane	AW-3	9/27/2017		1.60	1.00	ug/L
1,4-dichlorobenzene	AW-3	10/20/2014		2.8	1.0	ug/L
1,4-dichlorobenzene	AW-3	9/16/2016		1.9	1.0	ug/L
1,4-dichlorobenzene	AW-3	9/27/2017		1.1	1.0	ug/L
1,4-dichlorobenzene	AW-3	3/14/2018		3.5	1.0	ug/L
1,4-dichlorobenzene	AW-3	9/12/2018		4.0	1.0	ug/L
1,4-dichlorobenzene	AW-3	4/01/2019		2.6	1.0	ug/L
1,4-dichlorobenzene	AW-3	5/06/2020		2.2	1.0	ug/L
1,4-dichlorobenzene	AW-3	9/03/2020		2.0	1.0	ug/L
1,4-dichlorobenzene	AW-3	3/30/2021		2.8	1.0	ug/L
1,4-dichlorobenzene	AW-3	9/08/2021		3.8	1.0	ug/L
1,4-dichlorobenzene	AW-3	3/31/2022		2.3	1.0	ug/L
1,4-dichlorobenzene	AW-3	8/30/2022		2.2	1.0	ug/L
1,4-dichlorobenzene	AW-3	3/07/2023		2.7	1.0	ug/L
2-butanone	AW-3	9/12/2018		6	5	ug/L
Acetone	AW-3	9/12/2019		11.4	10.0	ug/L
Acetone	AW-3	3/31/2022		24.4	10.0	ug/L
Benzene	AW-3	10/20/2014		4.19	.50	ug/L
Benzene	AW-3	6/23/2015		4.98	.50	ug/L
Benzene	AW-3	11/13/2015		1.53	.50	ug/L
Benzene	AW-3	4/11/2016		1.62	.50	ug/L
Benzene	AW-3	9/16/2016		1.00	1.00	ug/L
Benzene	AW-3	3/14/2018		5.60	1.00	ug/L
Benzene	AW-3	9/12/2018		4.10	1.00	ug/L
Benzene	AW-3	9/12/2019		1.10	1.00	ug/L
Benzene	AW-3	5/06/2020		1.20	1.00	ug/L
Benzene	AW-3	3/30/2021		5.20	1.00	ug/L
Benzene	AW-3	9/08/2021		4.10	1.00	ug/L
Benzene	AW-3	3/31/2022		1.40	1.00	ug/L
Benzene	AW-3	8/30/2022		2.30	1.00	ug/L
Benzene	AW-3	3/07/2023		2.60	1.00	ug/L
Bis(2-ethylhexyl) phthalate	AW-3	3/15/2017		16	8	ug/L
Chlorobenzene	AW-3	3/15/2017		1.1	1.0	ug/L
Chloroethane	AW-3	10/20/2014		7.13	1.00	ug/L
Chloroethane	AW-3	6/23/2015		8.62	1.00	ug/L
Chloroethane	AW-3	4/11/2016		4.73	1.00	ug/L
Chloroethane	AW-3	9/16/2016		4.60	1.00	ug/L
Chloroethane	AW-3	3/15/2017		6.80	1.00	ug/L
Chloroethane	AW-3	9/27/2017		4.60	1.00	ug/L
Chloroethane	AW-3	3/14/2018		5.50	1.00	ug/L
Chloroethane	AW-3	9/12/2018		3.00	1.00	ug/L
Chloroethane	AW-3	4/01/2019		1.20	1.00	ug/L
Chloroethane	AW-3	5/06/2020		2.50	1.00	ug/L
Chloroethane	AW-3	9/03/2020		3.90	1.00	ug/L
Chloroethane	AW-3	3/30/2021		4.50	1.00	ug/L
Chloroethane	AW-3	9/08/2021		4.20	1.00	ug/L
Chloroethane	AW-3	3/31/2022		3.00	1.00	ug/L
Chloroethane	AW-3	8/30/2022		4.20	1.00	ug/L
Chloroethane	AW-3	3/07/2023		3.50	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	10/20/2014		2.89	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	6/23/2015		3.92	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	11/13/2015		2.23	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	4/11/2016		1.92	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	9/16/2016		1.60	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	3/15/2017		3.00	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	9/27/2017		2.10	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	5/06/2020		1.20	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	9/03/2020		2.70	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	3/30/2021		4.00	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	8/30/2022		1.10	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	3/07/2023		2.90	1.00	ug/L
Ethylbenzene	AW-3	6/23/2015		2.1	1.0	ug/L
Toluene	AW-3	9/12/2018		1	1	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Vinyl chloride	AW-3	3/30/2021		2.1	1.0	ug/L
1,1-dichloroethane	MW-14	10/21/2014		2.46	1.00	ug/L
1,1-dichloroethane	MW-14	6/22/2015		1.52	1.00	ug/L
1,1-dichloroethane	MW-14	3/15/2017		1.30	1.00	ug/L
1,1-dichloroethane	MW-14	9/27/2017		1.10	1.00	ug/L
1,1-dichloroethane	MW-14	4/01/2019		1.00	1.00	ug/L
Acetone	MW-14	9/27/2017		12.9	10.0	ug/L
Acetone	MW-19	9/27/2017		20.8	10.0	ug/L
1,4-dichlorobenzene	MW-20	9/16/2016		3.4	1.0	ug/L
1,4-dichlorobenzene	MW-20	3/15/2017		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-20	9/27/2017		1.4	1.0	ug/L
1,4-dichlorobenzene	MW-20	3/14/2018		1.7	1.0	ug/L
1,4-dichlorobenzene	MW-20	9/12/2018		3.0	1.0	ug/L
1,4-dichlorobenzene	MW-20	4/01/2019		2.9	1.0	ug/L
1,4-dichlorobenzene	MW-20	5/06/2020		2.5	1.0	ug/L
1,4-dichlorobenzene	MW-20	9/03/2020		1.6	1.0	ug/L
1,4-dichlorobenzene	MW-20	3/30/2021		2.6	1.0	ug/L
1,4-dichlorobenzene	MW-20	9/08/2021		2.9	1.0	ug/L
1,4-dichlorobenzene	MW-20	3/31/2022		2.4	1.0	ug/L
1,4-dichlorobenzene	MW-20	8/30/2022		2.8	1.0	ug/L
1,4-dichlorobenzene	MW-20	3/07/2023		2.8	1.0	ug/L
Acetone	MW-20	6/23/2015		14.8	10.0	ug/L
Acetone	MW-20	4/11/2016		467.0	10.0	ug/L
Acetone	MW-20	9/16/2016		33.3	10.0	ug/L
Benzene	MW-20	10/21/2014		2.51	.50	ug/L
Benzene	MW-20	6/23/2015		3.59	.50	ug/L
Benzene	MW-20	11/12/2015		3.67	.50	ug/L
Benzene	MW-20	4/11/2016		2.67	.50	ug/L
Benzene	MW-20	9/16/2016		3.70	1.00	ug/L
Benzene	MW-20	3/15/2017		2.50	1.00	ug/L
Benzene	MW-20	9/27/2017		2.60	1.00	ug/L
Benzene	MW-20	3/14/2018		1.70	1.00	ug/L
Benzene	MW-20	9/12/2018		2.70	1.00	ug/L
Benzene	MW-20	4/01/2019		2.40	1.00	ug/L
Benzene	MW-20	9/12/2019		2.80	1.00	ug/L
Benzene	MW-20	5/06/2020		2.50	1.00	ug/L
Benzene	MW-20	9/03/2020		2.70	1.00	ug/L
Benzene	MW-20	3/30/2021		1.90	1.00	ug/L
Benzene	MW-20	9/08/2021		2.80	1.00	ug/L
Benzene	MW-20	3/31/2022		2.30	1.00	ug/L
Benzene	MW-20	8/30/2022		3.60	1.00	ug/L
Benzene	MW-20	3/07/2023		2.20	1.00	ug/L
Chlorobenzene	MW-20	10/21/2014		2.42	1.00	ug/L
Chlorobenzene	MW-20	6/23/2015		3.25	1.00	ug/L
Chlorobenzene	MW-20	9/16/2016		3.10	1.00	ug/L
Chlorobenzene	MW-20	3/15/2017		1.40	1.00	ug/L
Chlorobenzene	MW-20	9/27/2017		1.60	1.00	ug/L
Chlorobenzene	MW-20	9/12/2018		3.10	1.00	ug/L
Chlorobenzene	MW-20	4/01/2019		2.60	1.00	ug/L
Chlorobenzene	MW-20	9/12/2019		3.60	1.00	ug/L
Chlorobenzene	MW-20	5/06/2020		2.20	1.00	ug/L
Chlorobenzene	MW-20	9/03/2020		1.70	1.00	ug/L
Chlorobenzene	MW-20	3/30/2021		2.20	1.00	ug/L
Chlorobenzene	MW-20	9/08/2021		2.70	1.00	ug/L
Chlorobenzene	MW-20	3/31/2022		2.60	1.00	ug/L
Chlorobenzene	MW-20	8/30/2022		3.10	1.00	ug/L
Chlorobenzene	MW-20	3/07/2023		2.50	1.00	ug/L
Chloroethane	MW-20	9/16/2016		1.4	1.0	ug/L
Chloroethane	MW-20	3/15/2017		1.1	1.0	ug/L
Toluene	MW-20	10/21/2014		3.15	1.00	ug/L
Toluene	MW-20	6/23/2015		3.09	1.00	ug/L
Toluene	MW-20	9/16/2016		1.40	1.00	ug/L
Toluene	MW-20	8/30/2022		2.10	1.00	ug/L
Acetone	MW-24	9/27/2017		13.6	10.0	ug/L
Acetone	MW-24	4/01/2019		25.0	10.0	ug/L
Benzene	MW-24	3/15/2017		1.3	1.0	ug/L
Benzene	MW-24	4/01/2019		2.1	1.0	ug/L
Chloroethane	MW-24	4/01/2019		1.6	1.0	ug/L
Ethylbenzene	MW-24	9/16/2016		1.2	1.0	ug/L
Ethylbenzene	MW-24	3/15/2017		1.9	1.0	ug/L
Ethylbenzene	MW-24	4/01/2019		4.8	1.0	ug/L
Toluene	MW-24	9/16/2016		5.5	1.0	ug/L
Xylenes, total	MW-24	9/16/2016		2.2	2.0	ug/L
Xylenes, total	MW-24	3/15/2017		2.3	2.0	ug/L
Xylenes, total	MW-24	4/01/2019		6.2	2.0	ug/L
Acetone	MW-25	9/27/2017		13.1	10.0	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Bis(2-ethylhexyl) phthalate	MW-25	3/15/2017		17	8	ug/L
Bis(2-ethylhexyl) phthalate	MW-25	9/27/2017		8	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-25	3/14/2018		7	6	ug/L
Acetone	MW-9	9/27/2017		17.4	10.0	ug/L
Toluene	MW-9	8/30/2022		1.8	1.0	ug/L
Vinyl chloride	South Underdrain	8/30/2022		2	1	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Attachment F

Assessment Statistics for Historical VOC Detections

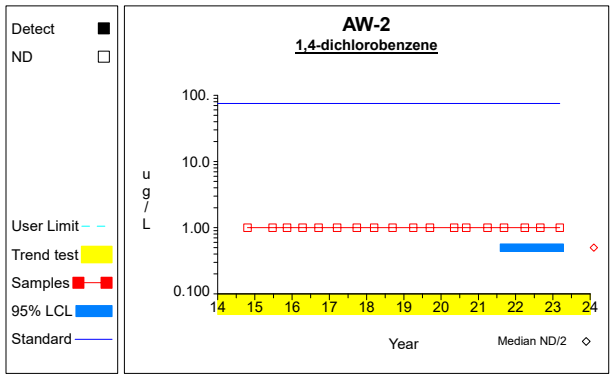
Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
1,4-dichlorobenzene	ug/L	AW-2	4	0.500	0.000	1.176	0.500	0.500	75.000	
2-butanone	ug/L	AW-2	4	4.000	3.000	1.176	0.471	7.529	4000.000	
Acetone	ug/L	AW-2	4	38.250	66.500	1.176	0.000	116.473	6300.000	
Benzene	ug/L	AW-2	4	0.725	0.450	1.176	0.196	1.254	5.000	
Chlorobenzene	ug/L	AW-2	4	0.500	0.000	1.176	0.500	0.500	100.000	
Chloroethane	ug/L	AW-2	4	0.625	0.250	1.176	0.331	0.919	2800.000	
Cis-1,2-dichloroethene	ug/L	AW-2	4	0.500	0.000	1.176	0.500	0.500	70.000	
Toluene	ug/L	AW-2	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Vinyl chloride	ug/L	AW-2	4	0.500	0.000	1.176	0.500	0.500	2.000	
1,4-dichlorobenzene	ug/L	AW-3	4	2.750	0.733	1.176	1.888	3.612	75.000	
2-butanone	ug/L	AW-3	4	2.500	0.000	1.176	2.500	2.500	4000.000	
Acetone	ug/L	AW-3	4	9.850	9.700	1.176	0.000	21.260	6300.000	
Benzene	ug/L	AW-3	4	2.600	1.122	1.176	1.280	3.920	5.000	
Chlorobenzene	ug/L	AW-3	4	0.500	0.000	1.176	0.500	0.500	100.000	
Chloroethane	ug/L	AW-3	4	3.725	0.585	1.176	3.037	4.413	2800.000	
Cis-1,2-dichloroethene	ug/L	AW-3	4	1.250	1.136	1.176	0.000	2.586	70.000	
Toluene	ug/L	AW-3	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Vinyl chloride	ug/L	AW-3	4	0.500	0.000	1.176	0.500	0.500	2.000	
1,4-dichlorobenzene	ug/L	MW-20	4	2.725	0.222	1.176	2.464	2.986	75.000	
2-butanone	ug/L	MW-20	4	2.500	0.000	1.176	2.500	2.500	4000.000	
Acetone	ug/L	MW-20	4	5.000	0.000	1.176	5.000	5.000	6300.000	
Benzene	ug/L	MW-20	4	2.725	0.640	1.176	1.973	3.477	5.000	
Chlorobenzene	ug/L	MW-20	4	2.725	0.263	1.176	2.416	3.034	100.000	
Chloroethane	ug/L	MW-20	4	0.500	0.000	1.176	0.500	0.500	2800.000	
Cis-1,2-dichloroethene	ug/L	MW-20	4	0.500	0.000	1.176	0.500	0.500	70.000	
Toluene	ug/L	MW-20	4	0.900	0.800	1.176	0.000	1.841	1000.000	
Vinyl chloride	ug/L	MW-20	4	0.500	0.000	1.176	0.500	0.500	2.000	
1,4-dichlorobenzene	ug/L	MW-9	4	0.500	0.000	1.176	0.500	0.500	75.000	
2-butanone	ug/L	MW-9	4	2.500	0.000	1.176	2.500	2.500	4000.000	
Acetone	ug/L	MW-9	4	5.000	0.000	1.176	5.000	5.000	6300.000	
Benzene	ug/L	MW-9	4	0.500	0.000	1.176	0.500	0.500	5.000	
Chlorobenzene	ug/L	MW-9	4	0.500	0.000	1.176	0.500	0.500	100.000	
Chloroethane	ug/L	MW-9	4	0.500	0.000	1.176	0.500	0.500	2800.000	
Cis-1,2-dichloroethene	ug/L	MW-9	4	0.500	0.000	1.176	0.500	0.500	70.000	
Toluene	ug/L	MW-9	4	0.825	0.650	1.176	0.060	1.590	1000.000	
Vinyl chloride	ug/L	MW-9	4	0.500	0.000	1.176	0.500	0.500	2.000	

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

Confidence Limits (Assessment)



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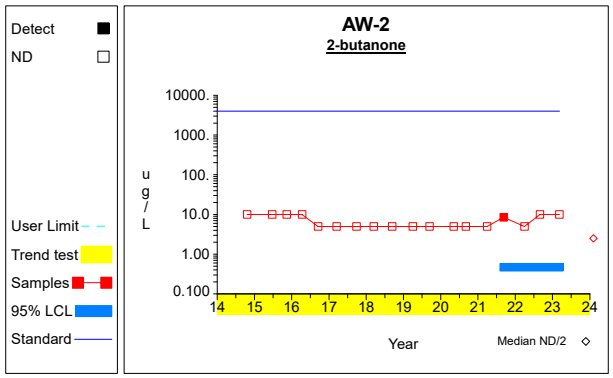

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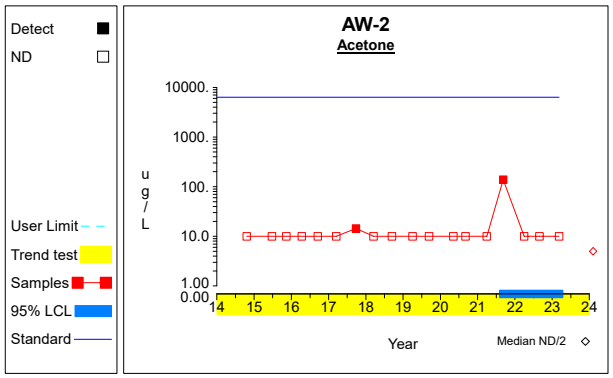

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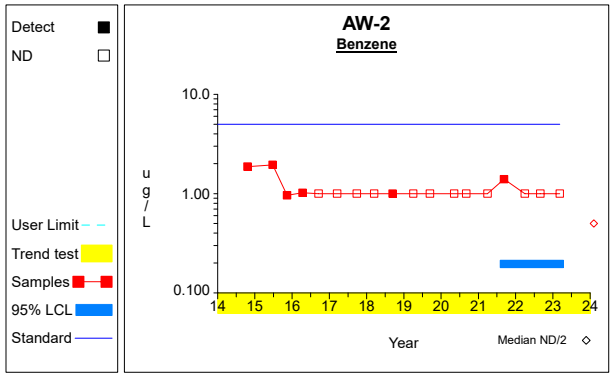

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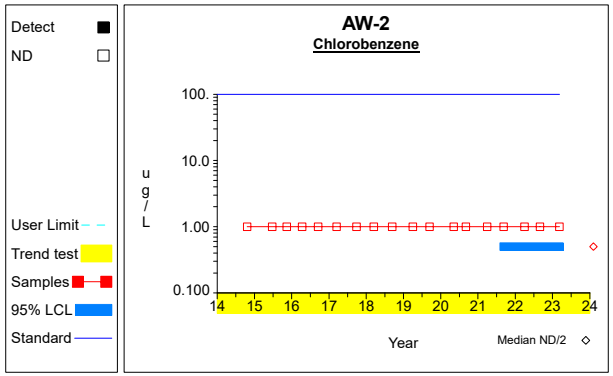

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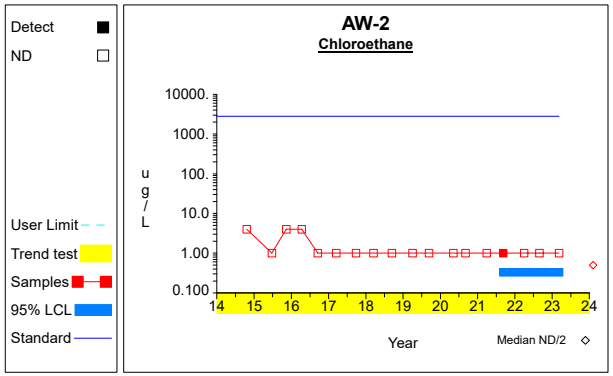

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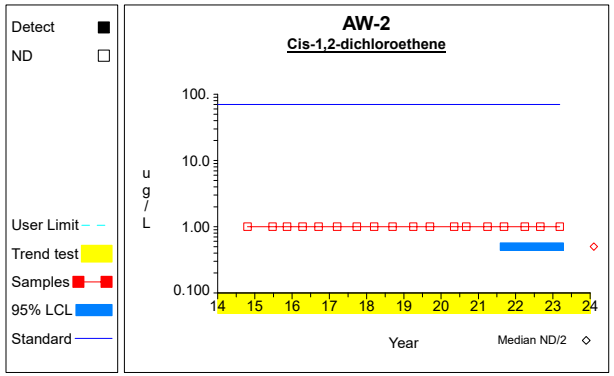

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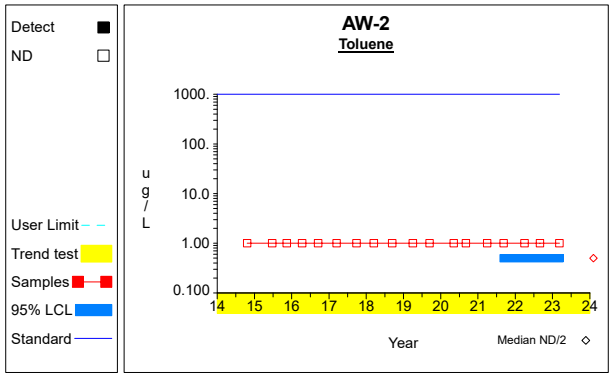

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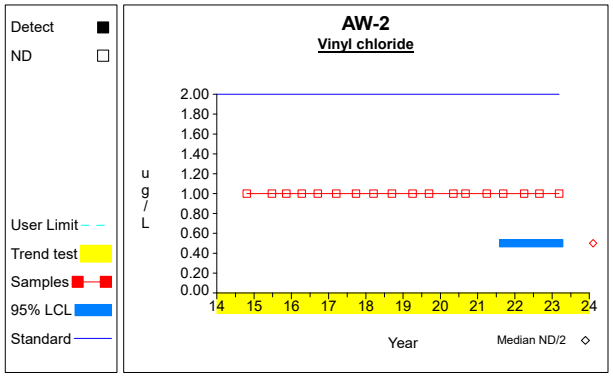
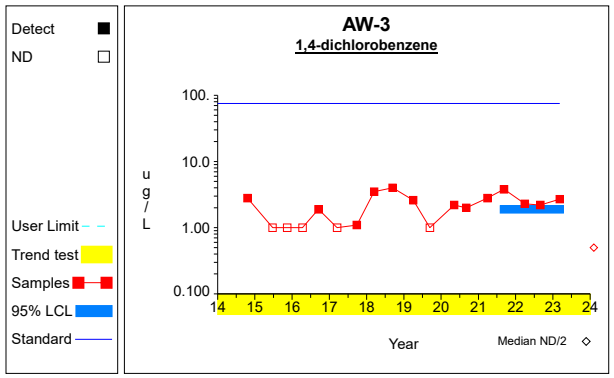


Graph 9

Prepared by: Otter Creek Environmental

Confidence Limits (Assessment)



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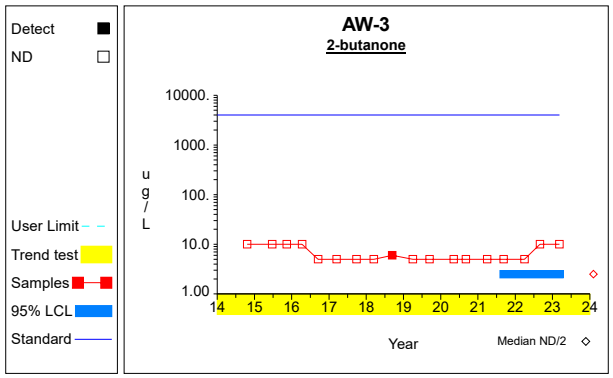

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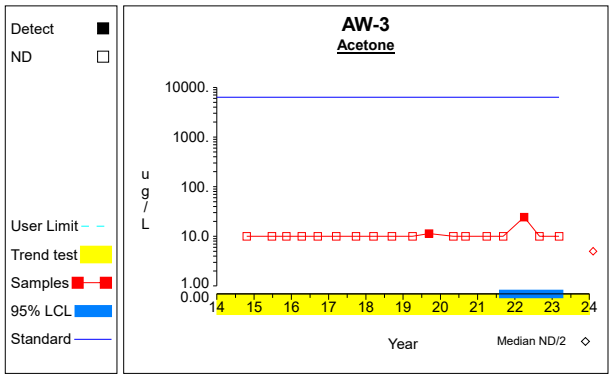

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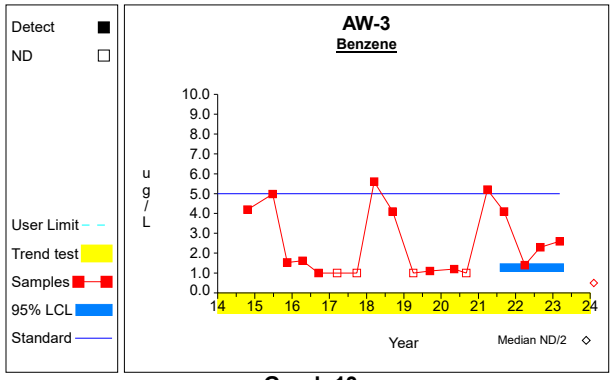

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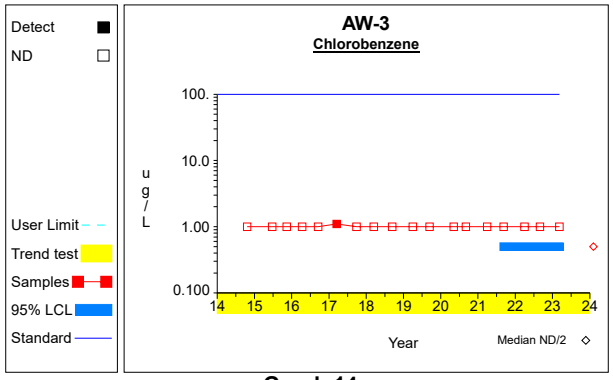

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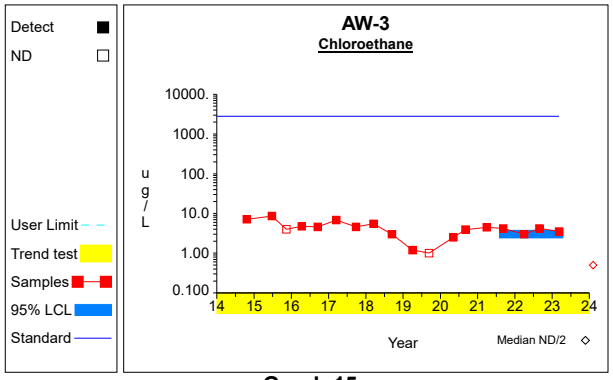

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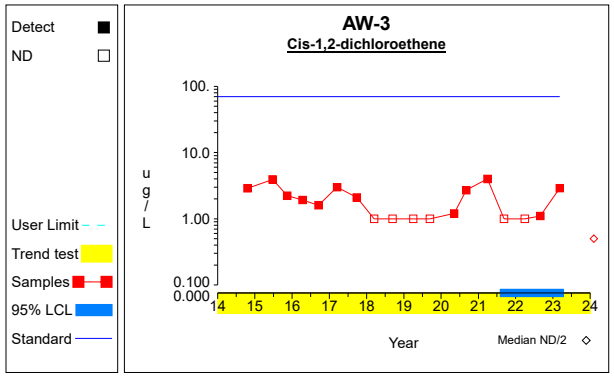

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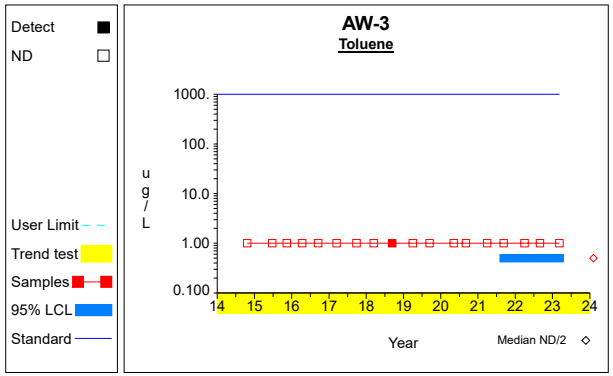

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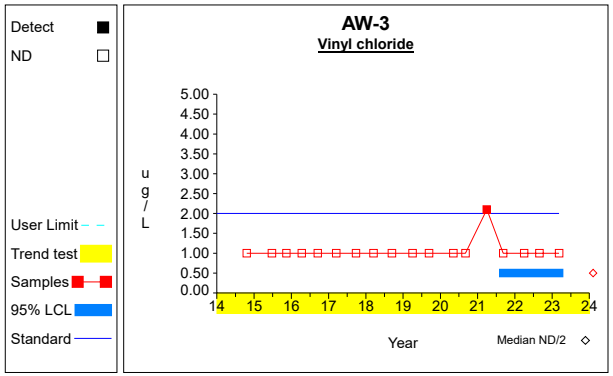
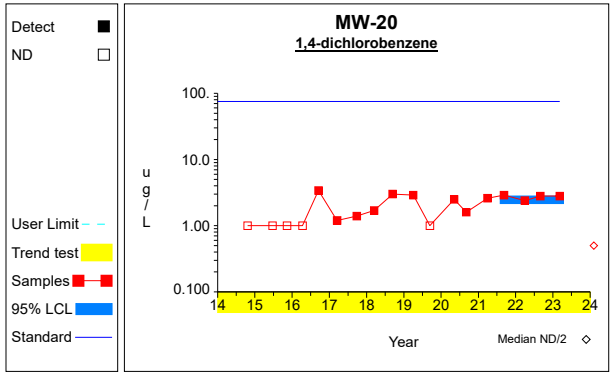


Graph 18

Prepared by: Otter Creek Environmental

Confidence Limits (Assessment)



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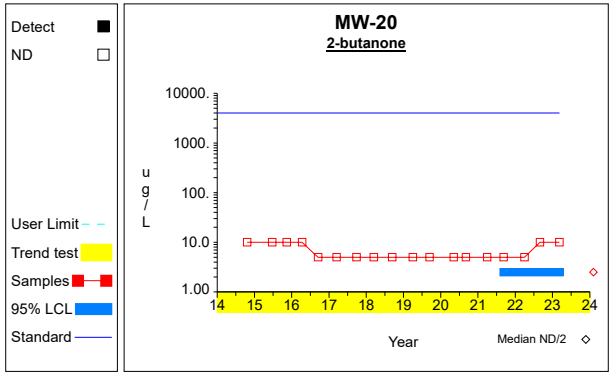

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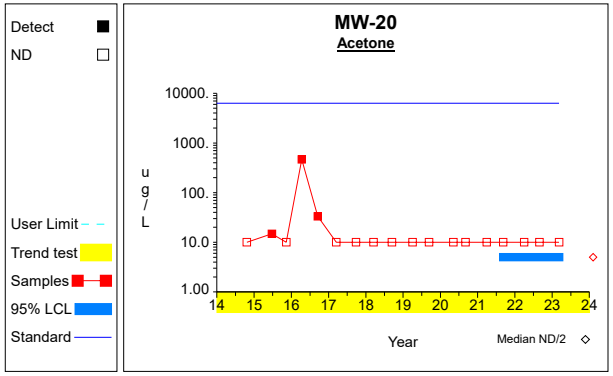

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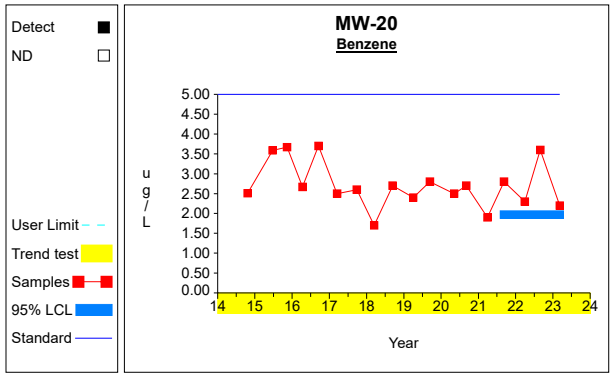

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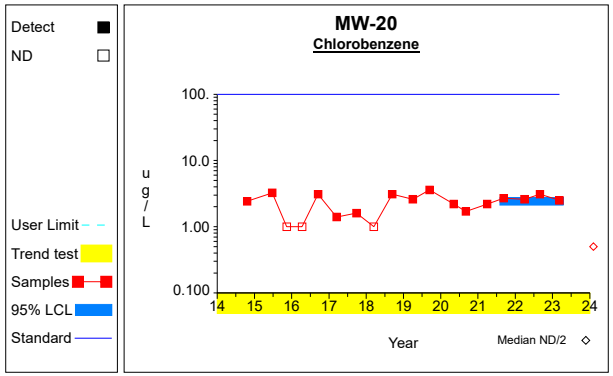

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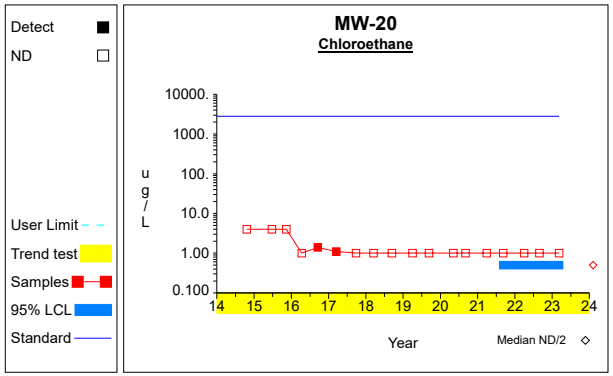

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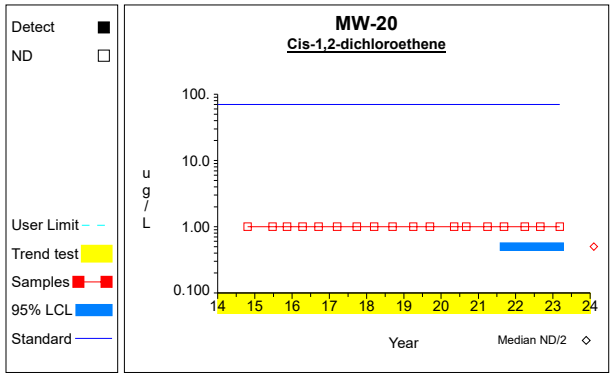

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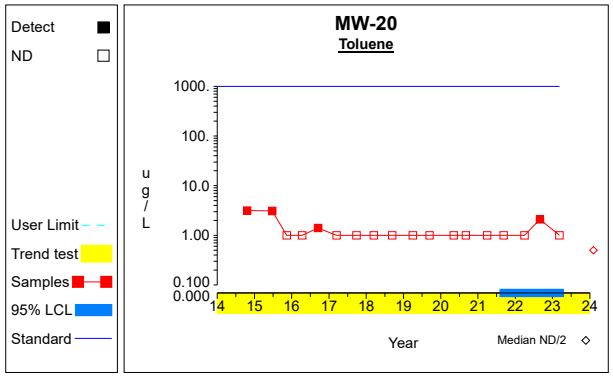

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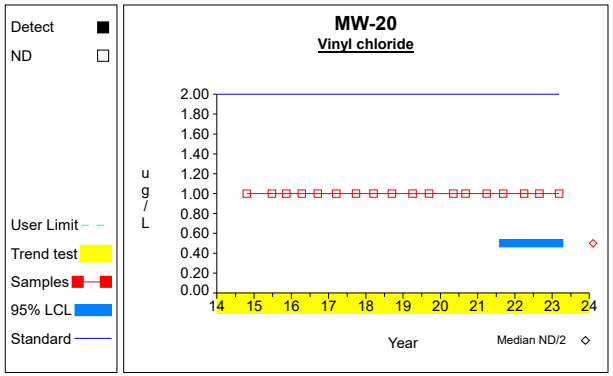

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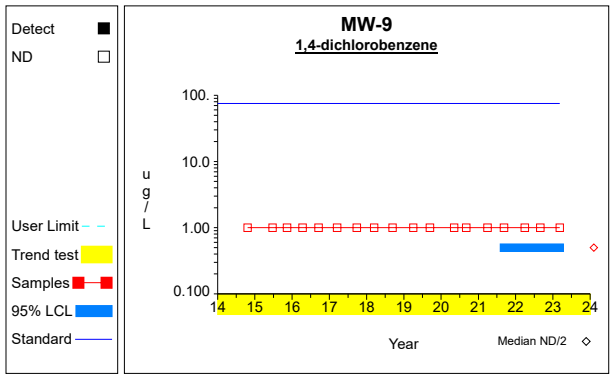

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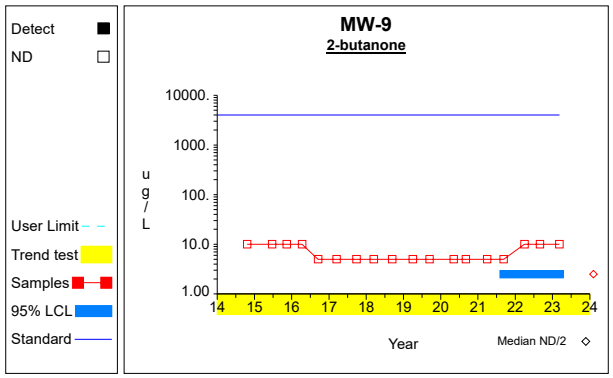

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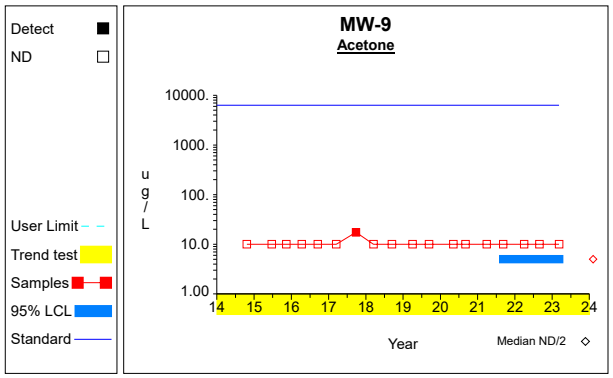

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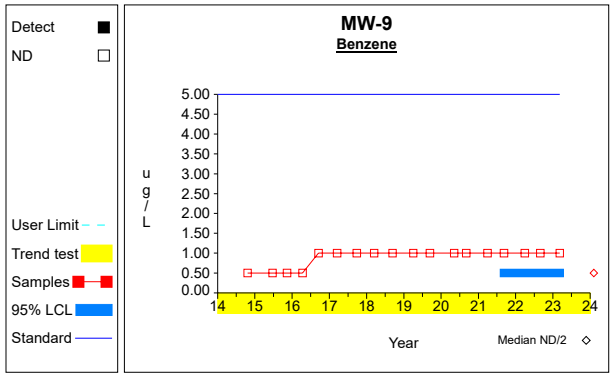

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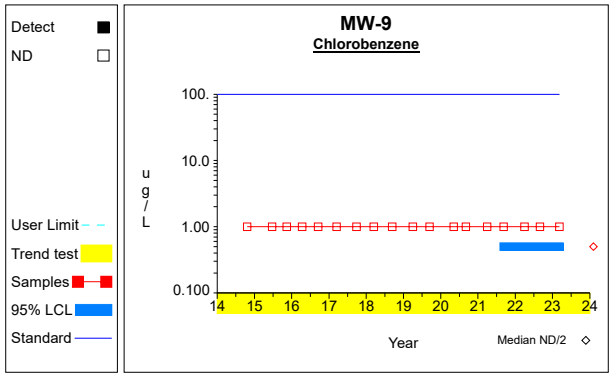

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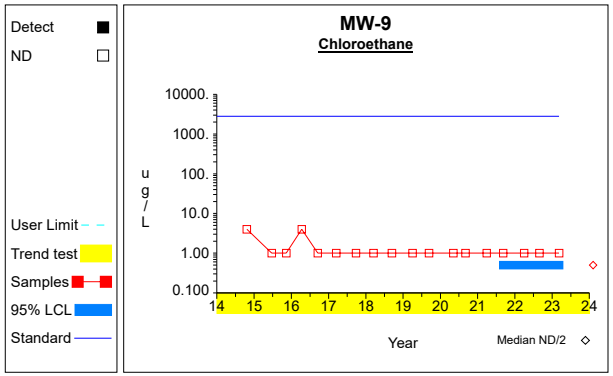

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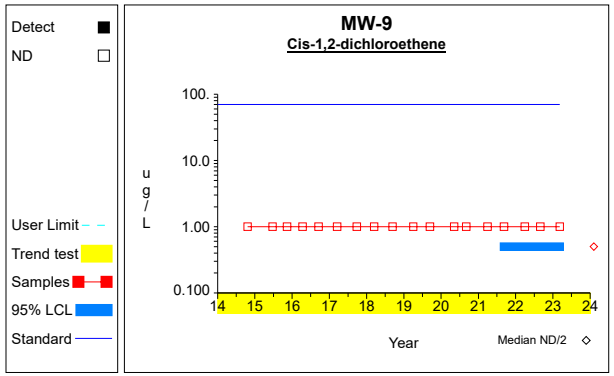

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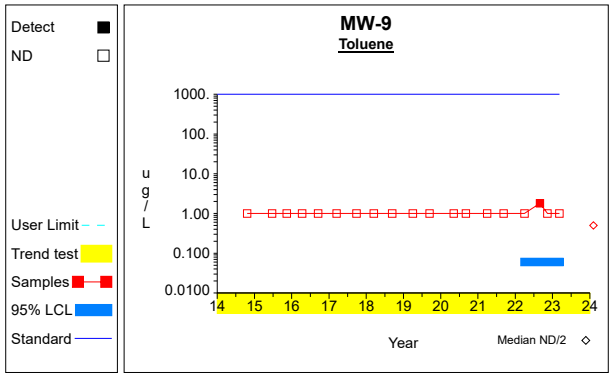

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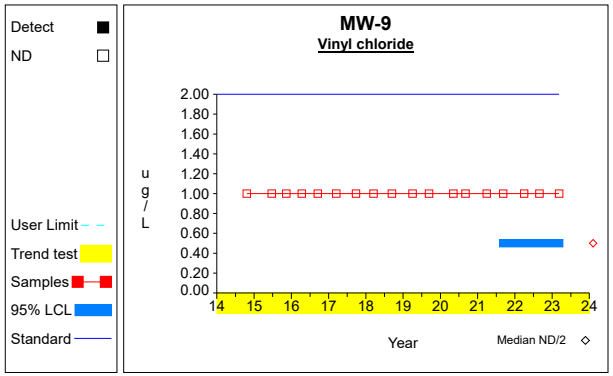

Graph 36

Prepared by: Otter Creek Environmental

APPENDIX D.2 –Fall Statistical Evaluation

Results of the Ground Water Statistics

for Benton County Sanitary Landfill

Second Semi-Annual Monitoring Event in 2023

Prepared for:
Benton County Solid Waste Disposal Commission
7904 20th Avenue
Blairstown, Iowa 52209

Prepared by:
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October 2023

INTRODUCTION

This report contains the results of the statistical analyses used to evaluate the ground water data obtained during the second semi-annual monitoring event in 2023 at Benton County Sanitary Landfill. The ground water at Benton County Sanitary Landfill is monitored by a network of wells including AW-2, AW-3, AW-4, AW-9, MW-12, MW-14, MW-19, MW-20, MW-24, MW-25, MW-26, MW-27, MW-28, MW-6, MW-7, and MW-9. Ground water well MW-23 was replaced with AW-4 in the HMSP. Monitoring wells AW-2, AW-3, AW-4, AW-9, MW-12, MW-14, MW-20, MW-24, MW-25, MW-26, MW-27, MW-6, MW-7, and MW-9 were sampled on September 28, 2023 and analyzed for the parameters required by permit. The statistical plan is designed to detect a release from the facility at the earliest indication so that it is protective of human health and the environment. The interwell methodology is described and then applied to the Benton County Sanitary Landfill data. The statistical plan conforms with IAC 567, Chapter 113.10, USEPA Guidance document ("*Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Unified Guidance"*, March 2009), and the American Society for Testing and Materials (ASTM) standard D6312-98, *Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs*.

Ground Water Monitoring Program

Each of the groundwater monitoring wells is to be sampled at least semiannually and analyzed for the detection monitoring parameters listed in 113.10(5), which includes 15 inorganic constituents and 47 organic compounds, summarized below.

Detection monitoring constituents listed in Appendix I of IAC 567, Chapter 113.

Organic Compounds:

Acetone	*trans*-1,4-Dichloro-2-butene	Iodomethane
Acrylonitrile	1,1-Dichloroethane	4-Methyl-2-pentanone
Benzene	1,2-Dichloroethane	Styrene
Bromochloromethane	1,1-Dichloroethene	1,1,1,2-Tetrachloroethane
Bromodichloromethane	*cis*-1,2-Dichloroethene	1,1,2,2-Tetrachloroethane
Bromoform	*trans*-1,2-Dichloroethene	Tetrachloroethene
Carbon disulfide	1,2-Dichloropropane	Toluene
Carbon tetrachloride	*cis*-1,3-Dichloropropene	1,1,1-Trichloroethane
Chlorobenzene	*trans*-1,3-Dichloropropene	1,1,2-Trichloroethane
Chloroethane	Ethylbenzene	Trichloroethene
Chloroform	2-Hexanone	Trichlorofluoromethane
Dibromochloromethane	Bromomethane	1,2,3-Trichloropropane
1,2-Dibromo-3-chloropropane	Chloromethane	Vinyl acetate
1,2-Dibromoethane	Dibromomethane	Vinyl chloride
1,2-Dichlorobenzene	Methylene chloride	Xylenes (Total)
1,4-Dichlorobenzene	2-Butanone	

Inorganic constituents:

Antimony, Total	Chromium, Total	Selenium, Total
Arsenic, Total	Cobalt, Total	Silver, Total
Barium, Total	Copper, Total	Thallium, Total
Beryllium, Total	Lead, Total	Vanadium, Total
Cadmium, Total	Nickel, Total	Zinc, Total

The ground water data obtained during the second semi-annual monitoring event in 2023 are summarized in Attachment A.

STATISTICAL METHODOLOGIES FOR DETECTION MONITORING

IAC 567, Chapter 113.10(4) provides several options for statistically evaluating the ground water data at those wells that monitor the open cells or contiguous MSWLF units. The preferred methods for comparing ground water data are using either prediction limits or using control charts. The site prediction limit method was applied to the Benton County Sanitary Landfill data using the DUMPStat® statistical program. DUMPStat® is a program for the statistical analysis of groundwater monitoring data using methods described in "Statistical Methods for Groundwater Monitoring" by Dr. Robert D. Gibbons. The DUMPStat program is completely consistent with all USEPA regulations and guidance and the ASTM D6312-98 guidance.

Ground water statistics are to be done on the inorganic constituents listed. The organic constituents are compared to maximum contaminant levels (MCLs) or practical quantitation limits (PQLs), in lieu of statistical comparisons to historical concentrations.

Interwell Statistics: Upgradient versus Downgradient Comparisons

Interwell statistics are appropriate when the upgradient and downgradient wells monitor the same ground water formation and there is similar variability in the upgradient and downgradient zones. Site prediction limits are determined by pooling the historical ground water data from hydraulically upgradient wells. This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances. The type of prediction limit utilized (e.g., parametric or nonparametric) is based on the detection frequency and the data distribution of each parameter in the background data. The distribution of the background data is tested for normality using the Shapiro-Wilk test (Gibbons, 1994 and USEPA 1992). If the constituent is normally distributed, a normal prediction limit is used. If normality is rejected by the Shapiro-Wilk test, the background data is transformed by taking the natural logarithm. The Shapiro-Wilk test is then reapplied on the transformed data. If it is not rejected, lognormal prediction limits are used. If after transforming the data, normality is still rejected, nonparametric prediction limits are used for that analyte. The nonparametric prediction limit is the largest determination in the background measurements. For constituents where the background detection frequency is greater than 0% but less than 50%, nonparametric prediction limits will be used. If the detection frequency is 0% after thirteen samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit.

Results of the Interwell Statistics

The background data used in this statistical analysis includes the ground water data collected from ground water wells MW-6, MW-7, MW-26, MW-27, and MW-28 during the period from October 2014 through the current data. A summary of the background data from monitoring wells MW-6, MW-7, MW-26, MW-27, and MW-28 is listed in Attachment B, Table 1 "Upgradient Data". This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances.

Table 2 "Most Current Downgradient Monitoring Data", summarizes the current data from downgradient wells AW-2, AW-3, AW-4, AW-9, MW-12, MW-14, MW-20, MW-24, MW-25, and MW-9, compared to the site prediction limits once sufficient data are available. Prediction limit exceedances are flagged with asterisks. For the most current data, there were no site prediction limit exceedances detected.

The detection frequencies of the parameters in the up and down gradient monitoring wells are summarized in Table 3. Only barium was detected at a frequency greater than or equal to 50% in the upgradient well so only this metal was tested for normality. The remainder of the metals are rarely detected (less than 50%) in the upgradient wells so nonparametric prediction limits were be used in those cases.

Table 4 summarizes the results of the Shapiro-Wilk test. Table 5 is a summary of the statistics and prediction limits determined for the metals. Time series graphs of each of the parameters at each well with the corresponding prediction limits are attached.

A statistical power curve indicates the expected false assessments for the site as a whole. The false positive rate for interwell analyses is the percentage of failures when the upgradient versus downgradient true mean difference equals zero. False negative rate indicates the chance of missing contamination at a single well for a single constituent. The statistical power is a function of the number of wells included, the number of constituents compared, the detection frequencies, and the data distributions involved. For interwell analysis, the site-wide false positive rate is 1% and the test becomes sensitive to 3 standard deviation unit increases over background.

The past and current trace metal exceedances were evaluated against the ground water protection standards (GWPS) using confidence limits calculated in accordance with the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, USEPA, March 2009. The analysis was conducted to evaluate whether verified concentrations are significantly above the water quality standard. The 95% lower confidence limit (LCL) for the mean of the historical data was used to evaluate whether the regulated unit is in compliance with the ground-water protection standards under 40 CFR 264 (e.g. whether the verified constituent is detected at a significant level above the GWPS). An exceedance is verified if the LCL is above the Regulatory GWPS. The calculated 95% LCLs for the verified trace metal exceedances are included in Attachment C.

The 95% LCL for arsenic at AW-2 (28.319 µg/L) exceeds the USEPA MCL of 10 µg/L, though the current concentration (36.4 µg/L) does not exceed the site prediction limit of 51.3 µg/L.

The 95% LCL for cobalt at AW-2 (5.843 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, though the current concentration (5.4 µg/L) does not exceed the site prediction limit of 12.2 µg/L.

The 95% LCL for cobalt at MW-24 (4.815 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, though the current concentration (7.4 µg/L) does not exceed the site prediction limit of 12.2 µg/L.

The calculated 95% LCLs for the remainder of the verified trace metal exceedances are below the respective GWPS.

Intrawell Comparisons

Intrawell statistics are appropriate for facilities where the upgradient wells do not accurately characterize the natural ground water conditions downgradient from the facility. This may be due to different hydrogeological conditions where the wells are screened, having too few upgradient wells to account for the spatial variability, or the site exhibiting no definable hydraulic gradient. Intrawell statistics compare

new measurements to the historical data at each ground water monitoring well independently. It is recommended that at least eight background samples be obtained prior to performing the statistics to control the number of false assessments.

The most useful technique for intrawell comparisons is the combined Shewhart-CUSUM control chart. This control chart procedure is useful because it will detect releases both in terms of the constituent concentration and cumulative increases. This method is also extremely sensitive to sudden and gradual releases. A requirement for constructing these control charts is that the parameter is detected at a frequency greater than or equal to 25%, otherwise the data variance is not properly defined.

Many ground water monitoring parameters are not detected at a frequency great enough to generate the combined Shewhart-CUSUM control charts. For constituents that are detected less than 25% of the time monitored at a particular well, the data should be plotted as a time series until a sufficient number of data points are available to provide a 99% confidence nonparametric prediction limit. Nonparametric prediction limits are the largest value detected during background at that well for that parameter.

In developing the statistical background, the historical data must be thoroughly screened for anomalous data due to sampling error, analytical error, or simply by chance alone. An erroneous data point, if not removed prior to the mean and variance computations, would yield a larger control limit thus increasing the false negative rate. The DUMPStat® program screens for outliers using the Dixon test. If the Dixon test indicates an outlier, the value is compared to three times the median value for intrawell analyses. If the value fails both criteria of the two-stage screening, the value is considered a statistical outlier and will not be used in the mean and variance determinations. Anomalous data will still be plotted on the graphs (with a unique symbol) but will not be included in the calculations.

The verification resample plan is an integral function of the statistical plan to reduce the probability that anomalous data obtained after the background has been established is indicative of a landfill release. The outliers have generally not been substantiated by either the resample events or the subsequent routine monitoring event.

The background data is tested for existing trends using Sen's slope test. If contamination exists prior to completing the background, the control limits could be potentially high and this control chart method would not be able to detect an increasing trend unless the increase is severe.

Results of the Intrawell Statistics

The trace metals data for monitoring well MW24 were evaluated using the combined Shewhart-CUSUM control chart method. The background data previously included ground water data obtained from October 2014 through 2020. As ground water monitoring at a municipal solid waste facility proceeds, it is recommended to update background data sets periodically with valid detection monitoring results that are representative of background groundwater quality not affected by leakage from a monitored unit. Failure to update background will exclude factors such as natural temporal variation, changes in field or laboratory methodologies, and changes in the water table due to meteorological conditions or other influences. Since there were no exceedances attributed to the landfill, the background was updated to include data collected from October 2014 through 2022.

A summary of the intrawell statistics is included in Attachment D, Table 1 "Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts". The control charts or time series graphs follow the summary table. For the parameters compared using the combined Shewhart-CUSUM control chart, there were no control limit exceedances detected.

The background range was tested for increasing trends using Sen's Test. An increasing trend was detected in the background data for nickel at MW-24. For intrawell analysis, the site-wide false positive rate is 2% and the test becomes sensitive to 3 standard deviation unit increases over background.

Volatile Organic Compounds

Volatile Organic Compounds (VOCs) are generally man-made compounds not present in ambient ground water. If VOCs are detected above their statistical limit (i.e., the laboratory PQL or reporting limit), a verification resample will be conducted at the next scheduled sampling event. A statistical exceedance will be indicated if the VOC detection is confirmed by the subsequent monitoring. VOCs detected in the ground water at Benton County Sanitary Landfill during the second semi-annual monitoring event in 2023 are summarized below.

VOCs detected during the second semi-annual monitoring period in 2023

Well	VOC Detected	Result, µg/L	Reporting Limit, µg/L	Verified/ Awaiting verification	Water Quality Standard
AW-3	1,4-Dichlorobenzene	3.4	1	Verified	75[a]
	Benzene	2.6	1	Verified	5[a]
	Chloroethane	3.8	1	Verified	2800[b]
	cis-1,2-Dichloroethene	1.2	1	Verified	70[a]
MW-20	1,4-Dichlorobenzene	3.4	1	Verified	75[a]
	Benzene	2.6	1	Verified	5[a]
	Chlorobenzene	3.4	1	Verified	100[a]

a - USEPA MCL, b- Iowa Statewide Standard for a protected groundwater source

Historical detections from October 2014 to the present are summarized in Attachment E.

The verified VOC detections were evaluated against the ground water protection standards (GWPS) using confidence limits calculated in accordance with the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, USEPA, March 2009. The analysis was conducted to evaluate whether verified concentrations are significantly above the water quality standard. The 95% lower confidence limit (LCL) for the mean of the historical data was used to evaluate whether the regulated unit is in compliance with the ground-water protection standards under 40 CFR 264 (e.g. whether the verified constituent is detected at a significant level above the GWPS). An exceedance is verified if the LCL is above the Regulatory GWPS. The calculated 95% LCLs for each of the verified VOCs are below the respective GWPS (Attachment F).

Attachment A

Ground Water Data obtained during the Second Semi-Annual Monitoring Event in 2023

Table 1

Analytical Data Summary for 9/28/2023

Constituents	Units	AW-2	AW-3	AW-4	AW-9	MW-12	MW-14	MW-20	MW-24	MW-25	MW-26	MW-27	MW-6	MW-7	MW-9
(3 4)-methylphenol	ug/L														<8
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	ug/L														<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L														<8
1,2,4-trichlorobenzene	ug/L														<1
1,2-dibromo-3-chloropropane	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L														<8
1,3,5-trinitrobenzene	ug/L														<8
1,3-dichlorobenzene	ug/L														<1
1,3-dichloropropane	ug/L														<1
1,3-dinitrobenzene	ug/L														<8
1,4-dichlorobenzene	ug/L	<1.0	3.4	<1.0	<1.0	<1.0	<1.0	3.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-naphthoquinone	ug/L														<8
1,4-phenylenediamine	ug/L														<8
1-naphthylamine	ug/L														<8
2,2-dichloropropane	ug/L														<1
2,3,4,6-tetrachlorophenol	ug/L														<8
2,4,5-t	ug/L														<.5
2,4,5-tp (silvex)	ug/L														<.5
2,4,5-trichlorophenol	ug/L														<8
2,4,6-trichlorophenol	ug/L														<8
2,4-d	ug/L														<2
2,4-dichlorophenol	ug/L														<8
2,4-dimethylphenol	ug/L														<8
2,4-dinitrophenol	ug/L														<8
2,4-dinitrotoluene	ug/L														<8
2,6-dichlorophenol	ug/L														<8
2,6-dinitrotoluene	ug/L														<8
2-acetylaminofluorene	ug/L														<8
2-butanone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<5
2-chloronaphthalene	ug/L														<8
2-chlorophenol	ug/L														<8
2-hexanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene	ug/L														<8
2-methylphenol (o-cresol)	ug/L														<8
2-naphthylamine	ug/L														<8
2-nitroaniline	ug/L														<8
2-nitrophenol	ug/L														<8
3,3´-dichlorobenzidine	ug/L														<8
3,3-dimethylbenzidine	ug/L														<8
3-methylcholanthrene	ug/L														<8
3-nitroaniline	ug/L														<8
4,4`-ddd	ug/L														<.05
4,4`-dde	ug/L														<.05

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for 9/28/2023

Constituents	Units	AW-2	AW-3	AW-4	AW-9	MW-12	MW-14	MW-20	MW-24	MW-25	MW-26	MW-27	MW-6	MW-7	MW-9
4,4`-ddt	ug/L														<.05
4,6-dinitro-2-methylphenol	ug/L														<8
4-aminobiphenyl	ug/L														<8
4-bromophenyl phenyl ether	ug/L														<8
4-chloro-3-methylphenol	ug/L														<8
4-chloroaniline	ug/L														<8
4-chlorophenyl phenyl ether	ug/L														<8
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline	ug/L														<8
4-nitrophenol	ug/L														<8
5-nitro-o-toluidine	ug/L														<8
7,12-dimethylbenz [a] anthracene	ug/L														<8
Acenaphthene	ug/L														<8
Acenaphthylene	ug/L														<8
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile	ug/L														<10
Acetophenone	ug/L														<8
Acrolein	ug/L														<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L														<.05
Allyl chloride	ug/L														<1
Alpha-bhc	ug/L														<.05
Anthracene	ug/L														<8
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016	ug/L														<.2
Arochlor 1221	ug/L														<.2
Arochlor 1232	ug/L														<.2
Arochlor 1242	ug/L														<.2
Arochlor 1248	ug/L														<.2
Arochlor 1254	ug/L														<.2
Arochlor 1260	ug/L														<.2
Arsenic, total	ug/L	36.4	38.3	<4.0	<4.0	<4.0	<4.0	37.5	17.1	<4.0	<4.0	5.3	<4.0	<4.0	4.9
Azobenzene	ug/L														<8
Barium, total	ug/L	150.0	373.0	305.0	447.0	92.8	421.0	313.0	298.0	22.9	170.0	112.0	237.0	161.0	486.0
Benzene	ug/L	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene	ug/L														<8
Benzo(a)pyrene	ug/L														<8
Benzo(b)fluoranthene	ug/L														<8
Benzo(g,h,i)perylene	ug/L														<8
Benzo(k)fluoranthene	ug/L														<8
Benzyl alcohol	ug/L														<8
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc	ug/L														<.05
Bis (2-chloroethoxy) methane	ug/L														<8
Bis(2-chloroethyl) ether	ug/L														<8
Bis(2-ethylhexyl) phthalate	ug/L														<6
Bis[2-chloroisopropyl]ether	ug/L														<8
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate	ug/L														<8
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for 9/28/2023

Constituents	Units	AW-2	AW-3	AW-4	AW-9	MW-12	MW-14	MW-20	MW-24	MW-25	MW-26	MW-27	MW-6	MW-7	MW-9
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlordane	ug/L														<.1
Chlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzilate	ug/L														<8
Chloroethane	ug/L	<1.0	3.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene	ug/L														<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene	ug/L														<8
Cis-1,2-dichloroethene	ug/L	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	5.4	1.3	<.4	.8	.7	<.4	2.8	7.4	.6	<.4	.6	1.8	<.4	1.9
Copper, total	ug/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	4.1	<4.0
Cyanide	mg/L														<.005
Delta-bhc	ug/L														<.05
Diallate	ug/L														<8
Dibenzo(a,h)anthracene	ug/L														<8
Dibenzofuran	ug/L														<8
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L														<1
Dieldrin	ug/L														<.05
Diethyl phthalate	ug/L														<8
Dimethoate	ug/L														<.4
Dimethylphthalate	ug/L														<8
Di-n-butyl phthalate	ug/L														<8
Di-n-octyl phthalate	ug/L														<8
Dinoseb	ug/L														<.5
Diphenylamine	ug/L														<8
Disulfoton	ug/L														<.4
Endosulfan i	ug/L														<.05
Endosulfan ii	ug/L														<.05
Endosulfan sulfate	ug/L														<.05
Endrin	ug/L														<.05
Endrin aldehyde	ug/L														<.05
Ethyl methacrylate	ug/L														<10
Ethyl methanesulfonate	ug/L														<8
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur	ug/L														<.4
Fluoranthene	ug/L														<8
Fluorene	ug/L														<8
Gamma-bhc [lindane]	ug/L														<.05
Heptachlor	ug/L														<.05
Heptachlor epoxide	ug/L														<.05
Hexachlorobenzene	ug/L														<.05
Hexachlorobutadiene	ug/L														<8
Hexachlorocyclopentadiene	ug/L														<8
Hexachloroethane	ug/L														<8
Hexachloropropene	ug/L														<8
Indeno(1,2,3-cd)pyrene	ug/L														<8
Iodomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
Isobutanol	mg/L														<1
Isodrin	ug/L														<8

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for 9/28/2023

Constituents	Units	AW-2	AW-3	AW-4	AW-9	MW-12	MW-14	MW-20	MW-24	MW-25	MW-26	MW-27	MW-6	MW-7	MW-9
Isophorone	ug/L														<8
Isosafrole	ug/L														<8
Kepone	ug/L														<8
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Mercury, total	ug/L														<.5
Methacrylonitrile	ug/L														<1
Methapyrilene	ug/L														<8
Methoxychlor	ug/L														<.05
Methyl methacrylate	ug/L														<1
Methyl methanesulfonate	ug/L														<8
Methyl parathion	ug/L														<.4
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	ug/L														<8
Nickel, total	ug/L	5.0	5.3	<4.0	<4.0	8.1	13.1	7.4	29.4	5.7	<4.0	<4.0	25.3	<4.0	15.2
Nitrobenzene	ug/L														<8
N-nitrosodiethylamine	ug/L														<8
N-nitrosodimethylamine	ug/L														<8
N-nitrosodi-n-butylamine	ug/L														<8
N-nitroso-di-n-propylamine	ug/L														<8
N-nitrosodiphenylamine	ug/L														<8
N-nitrosomethylethylamine	ug/L														<8
N-nitrosopiperidine	ug/L														<8
N-nitrosopyrrolidine	ug/L														<8
O,o,o-triethyl phosphorothioate	ug/L														<.4
O-toluidine	ug/L														<8
P-(dimethylamino)azobenzene	ug/L														<8
Parathion	ug/L														<.4
Pentachlorobenzene	ug/L														<8
Pentachloronitrobenzene (pcnb)	ug/L														<8
Pentachlorophenol	ug/L														<8
Phenacetin	ug/L														<8
Phenanthrene	ug/L														<8
Phenol	ug/L														<8
Phorate	ug/L														<.4
Pronamide	ug/L														<8
Propionitrile	ug/L														<10
Pyrene	ug/L														<8
Safrole	ug/L														<8
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide	mg/L							.44							<.10
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Thionazin	ug/L														<.4
Tin, total	ug/L														<20
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene	ug/L														<.2
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for 9/28/2023

Constituents	Units	AW-2	AW-3	AW-4	AW-9	MW-12	MW-14	MW-20	MW-24	MW-25	MW-26	MW-27	MW-6	MW-7	MW-9
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20

* - The displayed value is the arithmetic mean of multiple database matches.

Attachment B

Summary Tables and Graphs for the Interwell Comparisons

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, total	ug/L	MW-26	10/31/2016	ND	2.0000		
Antimony, total	ug/L	MW-26	03/16/2017	ND	2.0000		
Antimony, total	ug/L	MW-26	09/27/2017	ND	2.0000		
Antimony, total	ug/L	MW-26	03/14/2018	ND	2.0000		
Antimony, total	ug/L	MW-26	09/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-26	04/01/2019	ND	2.0000		
Antimony, total	ug/L	MW-26	09/12/2019	ND	2.0000		
Antimony, total	ug/L	MW-26	05/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-26	09/03/2020	ND	2.0000		
Antimony, total	ug/L	MW-26	03/30/2021	ND	2.0000		
Antimony, total	ug/L	MW-26	09/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-26	03/31/2022	ND	2.0000		
Antimony, total	ug/L	MW-26	08/30/2022	ND	2.0000		
Antimony, total	ug/L	MW-26	03/07/2023	ND	2.0000		
Antimony, total	ug/L	MW-26	09/28/2023	ND	2.0000		
Arsenic, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Arsenic, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Arsenic, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Arsenic, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Arsenic, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Arsenic, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Arsenic, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Arsenic, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Arsenic, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Arsenic, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Arsenic, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Arsenic, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Arsenic, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Arsenic, total	ug/L	MW-26	09/28/2023	ND	4.0000		
Barium, total	ug/L	MW-26	10/31/2016		155.0000		
Barium, total	ug/L	MW-26	03/16/2017		161.0000		
Barium, total	ug/L	MW-26	09/27/2017		155.0000		
Barium, total	ug/L	MW-26	03/14/2018		201.0000		
Barium, total	ug/L	MW-26	09/12/2018		170.0000		
Barium, total	ug/L	MW-26	04/01/2019		176.0000		
Barium, total	ug/L	MW-26	09/12/2019		158.0000		
Barium, total	ug/L	MW-26	05/06/2020		158.0000		
Barium, total	ug/L	MW-26	09/03/2020		148.0000		
Barium, total	ug/L	MW-26	03/30/2021		154.0000		
Barium, total	ug/L	MW-26	09/08/2021		141.0000		
Barium, total	ug/L	MW-26	03/31/2022		178.0000		
Barium, total	ug/L	MW-26	08/30/2022		156.0000		
Barium, total	ug/L	MW-26	03/07/2023		174.0000		
Barium, total	ug/L	MW-26	09/28/2023		170.0000		
Beryllium, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Beryllium, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Beryllium, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Beryllium, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Beryllium, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Beryllium, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Beryllium, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Beryllium, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Beryllium, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Beryllium, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Beryllium, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Beryllium, total	ug/L	MW-26	09/28/2023	ND	4.0000		
Cadmium, total	ug/L	MW-26	10/31/2016	ND	0.8000		
Cadmium, total	ug/L	MW-26	03/16/2017	ND	0.8000		
Cadmium, total	ug/L	MW-26	09/27/2017	ND	0.8000		
Cadmium, total	ug/L	MW-26	03/14/2018	ND	0.8000		
Cadmium, total	ug/L	MW-26	09/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-26	04/01/2019	ND	0.8000		
Cadmium, total	ug/L	MW-26	09/12/2019	ND	0.8000		
Cadmium, total	ug/L	MW-26	05/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-26	09/03/2020	ND	0.8000		
Cadmium, total	ug/L	MW-26	03/30/2021	ND	0.8000		
Cadmium, total	ug/L	MW-26	09/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-26	03/31/2022	ND	0.8000		
Cadmium, total	ug/L	MW-26	08/30/2022	ND	0.8000		
Cadmium, total	ug/L	MW-26	03/07/2023	ND	0.8000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cadmium, total	ug/L	MW-26	09/28/2023	ND	0.8000		
Chromium, total	ug/L	MW-26	10/31/2016	ND	8.0000		
Chromium, total	ug/L	MW-26	03/16/2017	ND	8.0000		
Chromium, total	ug/L	MW-26	09/27/2017	ND	8.0000		
Chromium, total	ug/L	MW-26	03/14/2018	ND	8.0000		
Chromium, total	ug/L	MW-26	09/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-26	04/01/2019	ND	8.0000		
Chromium, total	ug/L	MW-26	09/12/2019	ND	8.0000		
Chromium, total	ug/L	MW-26	05/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-26	09/03/2020	ND	8.0000		
Chromium, total	ug/L	MW-26	03/30/2021	ND	8.0000		
Chromium, total	ug/L	MW-26	09/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-26	03/31/2022	ND	8.0000		
Chromium, total	ug/L	MW-26	08/30/2022	ND	8.0000		
Chromium, total	ug/L	MW-26	03/07/2023	ND	8.0000		
Chromium, total	ug/L	MW-26	09/28/2023	ND	8.0000		
Cobalt, total	ug/L	MW-26	10/31/2016	ND	0.8000		
Cobalt, total	ug/L	MW-26	03/16/2017	ND	0.8000		
Cobalt, total	ug/L	MW-26	09/27/2017	ND	0.8000		
Cobalt, total	ug/L	MW-26	03/14/2018	ND	2.0000		*
Cobalt, total	ug/L	MW-26	09/12/2018	ND	0.8000		
Cobalt, total	ug/L	MW-26	04/01/2019	ND	0.8000		
Cobalt, total	ug/L	MW-26	09/12/2019	ND	0.8000		
Cobalt, total	ug/L	MW-26	05/06/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	09/03/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	03/30/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	09/08/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	03/31/2022	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	08/30/2022	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	03/07/2023	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-26	09/28/2023	ND	0.4000	0.8000	**
Copper, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Copper, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Copper, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Copper, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Copper, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Copper, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Copper, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Copper, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Copper, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Copper, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Copper, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Copper, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Copper, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Copper, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Copper, total	ug/L	MW-26	09/28/2023	ND	4.0000		
Lead, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Lead, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Lead, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Lead, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Lead, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Lead, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Lead, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Lead, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Lead, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Lead, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Lead, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Lead, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Lead, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Lead, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Lead, total	ug/L	MW-26	09/28/2023	ND	4.0000		
Nickel, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Nickel, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Nickel, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Nickel, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Nickel, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Nickel, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Nickel, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Nickel, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Nickel, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Nickel, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Nickel, total	ug/L	MW-26	08/30/2022	ND	4.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Nickel, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Nickel, total	ug/L	MW-26	09/28/2023	ND	4.0000		
Selenium, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Selenium, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Selenium, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Selenium, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Selenium, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Selenium, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Selenium, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Selenium, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Selenium, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Selenium, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Selenium, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Selenium, total	ug/L	MW-26	09/28/2023	ND	4.0000		
Silver, total	ug/L	MW-26	10/31/2016	ND	4.0000		
Silver, total	ug/L	MW-26	03/16/2017	ND	4.0000		
Silver, total	ug/L	MW-26	09/27/2017	ND	4.0000		
Silver, total	ug/L	MW-26	03/14/2018	ND	4.0000		
Silver, total	ug/L	MW-26	09/12/2018	ND	4.0000		
Silver, total	ug/L	MW-26	04/01/2019	ND	4.0000		
Silver, total	ug/L	MW-26	09/12/2019	ND	4.0000		
Silver, total	ug/L	MW-26	05/06/2020	ND	4.0000		
Silver, total	ug/L	MW-26	09/03/2020	ND	4.0000		
Silver, total	ug/L	MW-26	03/30/2021	ND	4.0000		
Silver, total	ug/L	MW-26	09/08/2021	ND	4.0000		
Silver, total	ug/L	MW-26	03/31/2022	ND	4.0000		
Silver, total	ug/L	MW-26	08/30/2022	ND	4.0000		
Silver, total	ug/L	MW-26	03/07/2023	ND	4.0000		
Silver, total	ug/L	MW-26	09/28/2023	ND	4.0000		
Thallium, total	ug/L	MW-26	10/31/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-26	03/16/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-26	09/27/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-26	03/14/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-26	09/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-26	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-26	09/12/2019	ND	2.0000		
Thallium, total	ug/L	MW-26	05/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-26	09/03/2020	ND	2.0000		
Thallium, total	ug/L	MW-26	03/30/2021	ND	2.0000		
Thallium, total	ug/L	MW-26	09/08/2021	ND	2.0000		
Thallium, total	ug/L	MW-26	03/31/2022	ND	2.0000		
Thallium, total	ug/L	MW-26	08/30/2022	ND	2.0000		
Thallium, total	ug/L	MW-26	03/07/2023	ND	2.0000		
Thallium, total	ug/L	MW-26	09/28/2023	ND	2.0000		
Vanadium, total	ug/L	MW-26	10/31/2016	ND	20.0000		
Vanadium, total	ug/L	MW-26	03/16/2017	ND	20.0000		
Vanadium, total	ug/L	MW-26	09/27/2017	ND	20.0000		
Vanadium, total	ug/L	MW-26	03/14/2018	ND	20.0000		
Vanadium, total	ug/L	MW-26	09/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-26	04/01/2019	ND	20.0000		
Vanadium, total	ug/L	MW-26	09/12/2019	ND	20.0000		
Vanadium, total	ug/L	MW-26	05/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-26	09/03/2020	ND	20.0000		
Vanadium, total	ug/L	MW-26	03/30/2021	ND	20.0000		
Vanadium, total	ug/L	MW-26	09/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-26	03/31/2022	ND	20.0000		
Vanadium, total	ug/L	MW-26	08/30/2022	ND	20.0000		
Vanadium, total	ug/L	MW-26	03/07/2023	ND	20.0000		
Vanadium, total	ug/L	MW-26	09/28/2023	ND	20.0000		
Zinc, total	ug/L	MW-26	10/31/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-26	03/16/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-26	09/27/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-26	03/14/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-26	09/12/2018	ND	20.0000		
Zinc, total	ug/L	MW-26	04/01/2019	ND	20.0000		
Zinc, total	ug/L	MW-26	09/12/2019		12.5000		
Zinc, total	ug/L	MW-26	05/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-26	09/03/2020	ND	20.0000		
Zinc, total	ug/L	MW-26	03/30/2021	ND	20.0000		
Zinc, total	ug/L	MW-26	09/08/2021	ND	20.0000		
Zinc, total	ug/L	MW-26	03/31/2022	ND	20.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Zinc, total	ug/L	MW-26	08/30/2022	ND	20.0000		
Zinc, total	ug/L	MW-26	03/07/2023	ND	20.0000		
Zinc, total	ug/L	MW-26	09/28/2023	ND	20.0000		
Antimony, total	ug/L	MW-27	10/31/2016	ND	2.0000		
Antimony, total	ug/L	MW-27	03/16/2017	ND	2.0000		
Antimony, total	ug/L	MW-27	09/27/2017	ND	2.0000		
Antimony, total	ug/L	MW-27	03/14/2018	ND	2.0000		
Antimony, total	ug/L	MW-27	09/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-27	04/01/2019	ND	2.0000		
Antimony, total	ug/L	MW-27	09/12/2019	ND	2.0000		
Antimony, total	ug/L	MW-27	05/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-27	09/03/2020	ND	2.0000		
Antimony, total	ug/L	MW-27	03/30/2021	ND	2.0000		
Antimony, total	ug/L	MW-27	09/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-27	03/31/2022	ND	2.0000		
Antimony, total	ug/L	MW-27	08/30/2022	ND	2.0000		
Antimony, total	ug/L	MW-27	03/07/2023	ND	2.0000		
Antimony, total	ug/L	MW-27	09/28/2023	ND	2.0000		
Arsenic, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Arsenic, total	ug/L	MW-27	03/16/2017		9.3000		
Arsenic, total	ug/L	MW-27	09/27/2017		84.4000		*
Arsenic, total	ug/L	MW-27	12/13/2017		8.8000		
Arsenic, total	ug/L	MW-27	03/14/2018		43.9000		
Arsenic, total	ug/L	MW-27	09/12/2018		26.3000		
Arsenic, total	ug/L	MW-27	04/01/2019		51.3000		
Arsenic, total	ug/L	MW-27	09/12/2019		18.8000		
Arsenic, total	ug/L	MW-27	05/06/2020		9.2000		
Arsenic, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Arsenic, total	ug/L	MW-27	03/30/2021		8.6000		
Arsenic, total	ug/L	MW-27	09/08/2021		5.6000		
Arsenic, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Arsenic, total	ug/L	MW-27	08/30/2022		13.5000		
Arsenic, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Arsenic, total	ug/L	MW-27	09/28/2023		5.3000		
Barium, total	ug/L	MW-27	10/31/2016		143.0000		
Barium, total	ug/L	MW-27	03/16/2017		113.0000		
Barium, total	ug/L	MW-27	09/27/2017		501.0000		
Barium, total	ug/L	MW-27	12/13/2017		134.0000		
Barium, total	ug/L	MW-27	03/14/2018		302.0000		
Barium, total	ug/L	MW-27	09/12/2018		189.0000		
Barium, total	ug/L	MW-27	04/01/2019		289.0000		
Barium, total	ug/L	MW-27	09/12/2019		182.0000		
Barium, total	ug/L	MW-27	05/06/2020		138.0000		
Barium, total	ug/L	MW-27	09/03/2020		124.0000		
Barium, total	ug/L	MW-27	03/30/2021		127.0000		
Barium, total	ug/L	MW-27	09/08/2021		111.0000		
Barium, total	ug/L	MW-27	03/31/2022		106.0000		
Barium, total	ug/L	MW-27	08/30/2022		134.0000		
Barium, total	ug/L	MW-27	03/07/2023		107.0000		
Barium, total	ug/L	MW-27	09/28/2023		112.0000		
Beryllium, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Beryllium, total	ug/L	MW-27	03/16/2017	ND	4.0000		
Beryllium, total	ug/L	MW-27	09/27/2017	ND	4.0000		
Beryllium, total	ug/L	MW-27	03/14/2018	ND	4.0000		
Beryllium, total	ug/L	MW-27	09/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-27	04/01/2019	ND	4.0000		
Beryllium, total	ug/L	MW-27	09/12/2019	ND	4.0000		
Beryllium, total	ug/L	MW-27	05/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Beryllium, total	ug/L	MW-27	03/30/2021	ND	4.0000		
Beryllium, total	ug/L	MW-27	09/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Beryllium, total	ug/L	MW-27	08/30/2022	ND	4.0000		
Beryllium, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Beryllium, total	ug/L	MW-27	09/28/2023	ND	4.0000		
Cadmium, total	ug/L	MW-27	10/31/2016	ND	0.8000		
Cadmium, total	ug/L	MW-27	03/16/2017	ND	0.8000		
Cadmium, total	ug/L	MW-27	09/27/2017	ND	0.8000		
Cadmium, total	ug/L	MW-27	03/14/2018	ND	0.8000		
Cadmium, total	ug/L	MW-27	09/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-27	04/01/2019	ND	0.8000		
Cadmium, total	ug/L	MW-27	09/12/2019	ND	0.8000		
Cadmium, total	ug/L	MW-27	05/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-27	09/03/2020	ND	0.8000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cadmium, total	ug/L	MW-27	03/30/2021	ND	0.8000		
Cadmium, total	ug/L	MW-27	09/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-27	03/31/2022	ND	0.8000		
Cadmium, total	ug/L	MW-27	08/30/2022	ND	0.8000		
Cadmium, total	ug/L	MW-27	03/07/2023	ND	0.8000		
Cadmium, total	ug/L	MW-27	09/28/2023	ND	0.8000		
Chromium, total	ug/L	MW-27	10/31/2016	ND	8.0000		
Chromium, total	ug/L	MW-27	03/16/2017	ND	8.0000		
Chromium, total	ug/L	MW-27	09/27/2017	ND	8.0000		
Chromium, total	ug/L	MW-27	03/14/2018	ND	8.0000		
Chromium, total	ug/L	MW-27	09/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-27	04/01/2019	ND	8.0000		
Chromium, total	ug/L	MW-27	09/12/2019	ND	8.0000		
Chromium, total	ug/L	MW-27	05/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-27	09/03/2020	ND	8.0000		
Chromium, total	ug/L	MW-27	03/30/2021	ND	8.0000		
Chromium, total	ug/L	MW-27	09/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-27	03/31/2022	ND	8.0000		
Chromium, total	ug/L	MW-27	08/30/2022	ND	8.0000		
Chromium, total	ug/L	MW-27	03/07/2023	ND	8.0000		
Chromium, total	ug/L	MW-27	09/28/2023	ND	8.0000		
Cobalt, total	ug/L	MW-27	10/31/2016	ND	0.8000		
Cobalt, total	ug/L	MW-27	03/16/2017	ND	0.8000		
Cobalt, total	ug/L	MW-27	09/27/2017		1.3000		
Cobalt, total	ug/L	MW-27	03/14/2018	ND	2.0000	0.8000	**
Cobalt, total	ug/L	MW-27	09/12/2018	ND	0.8000		
Cobalt, total	ug/L	MW-27	04/01/2019		0.8000		
Cobalt, total	ug/L	MW-27	09/12/2019	ND	0.8000		
Cobalt, total	ug/L	MW-27	05/06/2020		1.0000		
Cobalt, total	ug/L	MW-27	09/03/2020		0.8000		
Cobalt, total	ug/L	MW-27	03/30/2021		0.7000		
Cobalt, total	ug/L	MW-27	09/08/2021		0.6000		
Cobalt, total	ug/L	MW-27	03/31/2022		0.7000		
Cobalt, total	ug/L	MW-27	08/30/2022		0.6000		
Cobalt, total	ug/L	MW-27	03/07/2023		0.7000		
Cobalt, total	ug/L	MW-27	09/28/2023		0.6000		
Copper, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Copper, total	ug/L	MW-27	03/16/2017	ND	4.0000		
Copper, total	ug/L	MW-27	09/27/2017		6.3000		
Copper, total	ug/L	MW-27	03/14/2018	ND	4.0000		
Copper, total	ug/L	MW-27	09/12/2018	ND	4.0000		
Copper, total	ug/L	MW-27	04/01/2019	ND	4.0000		
Copper, total	ug/L	MW-27	09/12/2019	ND	4.0000		
Copper, total	ug/L	MW-27	05/06/2020	ND	4.0000		
Copper, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Copper, total	ug/L	MW-27	03/30/2021	ND	4.0000		
Copper, total	ug/L	MW-27	09/08/2021	ND	4.0000		
Copper, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Copper, total	ug/L	MW-27	08/30/2022	ND	4.0000		
Copper, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Copper, total	ug/L	MW-27	09/28/2023	ND	4.0000		
Lead, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Lead, total	ug/L	MW-27	03/16/2017	ND	4.0000		
Lead, total	ug/L	MW-27	09/27/2017	ND	4.0000		
Lead, total	ug/L	MW-27	03/14/2018	ND	4.0000		
Lead, total	ug/L	MW-27	09/12/2018	ND	4.0000		
Lead, total	ug/L	MW-27	04/01/2019	ND	4.0000		
Lead, total	ug/L	MW-27	09/12/2019	ND	4.0000		
Lead, total	ug/L	MW-27	05/06/2020	ND	4.0000		
Lead, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Lead, total	ug/L	MW-27	03/30/2021	ND	4.0000		
Lead, total	ug/L	MW-27	09/08/2021	ND	4.0000		
Lead, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Lead, total	ug/L	MW-27	08/30/2022	ND	4.0000		
Lead, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Lead, total	ug/L	MW-27	09/28/2023	ND	4.0000		
Nickel, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Nickel, total	ug/L	MW-27	03/16/2017	ND	4.0000		
Nickel, total	ug/L	MW-27	09/27/2017	ND	4.0000		
Nickel, total	ug/L	MW-27	03/14/2018	ND	4.0000		
Nickel, total	ug/L	MW-27	09/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-27	04/01/2019	ND	4.0000		
Nickel, total	ug/L	MW-27	09/12/2019	ND	4.0000		
Nickel, total	ug/L	MW-27	05/06/2020	ND	4.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Nickel, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Nickel, total	ug/L	MW-27	03/30/2021	ND	4.0000		
Nickel, total	ug/L	MW-27	09/08/2021	ND	4.0000		
Nickel, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Nickel, total	ug/L	MW-27	08/30/2022	ND	4.0000		
Nickel, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Nickel, total	ug/L	MW-27	09/28/2023	ND	4.0000		
Selenium, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Selenium, total	ug/L	MW-27	03/16/2017	ND	4.0000		
Selenium, total	ug/L	MW-27	09/27/2017	ND	4.0000		
Selenium, total	ug/L	MW-27	03/14/2018	ND	4.0000		
Selenium, total	ug/L	MW-27	09/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-27	04/01/2019	ND	4.0000		
Selenium, total	ug/L	MW-27	09/12/2019	ND	4.0000		
Selenium, total	ug/L	MW-27	05/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Selenium, total	ug/L	MW-27	03/30/2021	ND	4.0000		
Selenium, total	ug/L	MW-27	09/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Selenium, total	ug/L	MW-27	08/30/2022	ND	4.0000		
Selenium, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Selenium, total	ug/L	MW-27	09/28/2023	ND	4.0000		
Silver, total	ug/L	MW-27	10/31/2016	ND	4.0000		
Silver, total	ug/L	MW-27	03/16/2017	ND	4.0000		
Silver, total	ug/L	MW-27	09/27/2017	ND	4.0000		
Silver, total	ug/L	MW-27	03/14/2018	ND	4.0000		
Silver, total	ug/L	MW-27	09/12/2018	ND	4.0000		
Silver, total	ug/L	MW-27	04/01/2019	ND	4.0000		
Silver, total	ug/L	MW-27	09/12/2019	ND	4.0000		
Silver, total	ug/L	MW-27	05/06/2020	ND	4.0000		
Silver, total	ug/L	MW-27	09/03/2020	ND	4.0000		
Silver, total	ug/L	MW-27	03/30/2021	ND	4.0000		
Silver, total	ug/L	MW-27	09/08/2021	ND	4.0000		
Silver, total	ug/L	MW-27	03/31/2022	ND	4.0000		
Silver, total	ug/L	MW-27	08/30/2022	ND	4.0000		
Silver, total	ug/L	MW-27	03/07/2023	ND	4.0000		
Silver, total	ug/L	MW-27	09/28/2023	ND	4.0000		
Thallium, total	ug/L	MW-27	10/31/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-27	03/16/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-27	09/27/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-27	03/14/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-27	09/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-27	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-27	09/12/2019	ND	2.0000		
Thallium, total	ug/L	MW-27	05/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-27	09/03/2020	ND	2.0000		
Thallium, total	ug/L	MW-27	03/30/2021	ND	2.0000		
Thallium, total	ug/L	MW-27	09/08/2021	ND	2.0000		
Thallium, total	ug/L	MW-27	03/31/2022	ND	2.0000		
Thallium, total	ug/L	MW-27	08/30/2022	ND	2.0000		
Thallium, total	ug/L	MW-27	03/07/2023	ND	2.0000		
Thallium, total	ug/L	MW-27	09/28/2023	ND	2.0000		
Vanadium, total	ug/L	MW-27	10/31/2016	ND	20.0000		
Vanadium, total	ug/L	MW-27	03/16/2017	ND	20.0000		
Vanadium, total	ug/L	MW-27	09/27/2017	ND	20.0000		
Vanadium, total	ug/L	MW-27	03/14/2018	ND	20.0000		
Vanadium, total	ug/L	MW-27	09/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-27	04/01/2019	ND	20.0000		
Vanadium, total	ug/L	MW-27	09/12/2019	ND	20.0000		
Vanadium, total	ug/L	MW-27	05/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-27	09/03/2020	ND	20.0000		
Vanadium, total	ug/L	MW-27	03/30/2021	ND	20.0000		
Vanadium, total	ug/L	MW-27	09/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-27	03/31/2022	ND	20.0000		
Vanadium, total	ug/L	MW-27	08/30/2022	ND	20.0000		
Vanadium, total	ug/L	MW-27	03/07/2023	ND	20.0000		
Vanadium, total	ug/L	MW-27	09/28/2023	ND	20.0000		
Zinc, total	ug/L	MW-27	10/31/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-27	03/16/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-27	09/27/2017		24.2000		
Zinc, total	ug/L	MW-27	12/13/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-27	03/14/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-27	09/12/2018		31.9000		
Zinc, total	ug/L	MW-27	04/01/2019	ND	20.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Zinc, total	ug/L	MW-27	09/12/2019		8.2000		
Zinc, total	ug/L	MW-27	05/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-27	09/03/2020	ND	20.0000		
Zinc, total	ug/L	MW-27	03/30/2021	ND	20.0000		
Zinc, total	ug/L	MW-27	09/08/2021	ND	20.0000		
Zinc, total	ug/L	MW-27	03/31/2022	ND	20.0000		
Zinc, total	ug/L	MW-27	08/30/2022	ND	20.0000		
Zinc, total	ug/L	MW-27	03/07/2023	ND	20.0000		
Zinc, total	ug/L	MW-27	09/28/2023	ND	20.0000		
Antimony, total	ug/L	MW-28	10/31/2016	ND	2.0000		
Antimony, total	ug/L	MW-28	03/16/2017	ND	2.0000		
Antimony, total	ug/L	MW-28	03/14/2018	ND	2.0000		
Antimony, total	ug/L	MW-28	09/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-28	04/01/2019	ND	2.0000		
Antimony, total	ug/L	MW-28	05/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-28	09/03/2020	ND	2.0000		
Antimony, total	ug/L	MW-28	03/30/2021	ND	2.0000		
Antimony, total	ug/L	MW-28	03/31/2022	ND	2.0000		
Antimony, total	ug/L	MW-28	03/07/2023	ND	2.0000		
Arsenic, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Arsenic, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Arsenic, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Arsenic, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Arsenic, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Arsenic, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Arsenic, total	ug/L	MW-28	03/30/2021	ND	4.0000		
Arsenic, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Arsenic, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Barium, total	ug/L	MW-28	10/31/2016		37.1000		
Barium, total	ug/L	MW-28	03/16/2017		71.6000		
Barium, total	ug/L	MW-28	03/14/2018		50.3000		
Barium, total	ug/L	MW-28	09/12/2018		37.0000		
Barium, total	ug/L	MW-28	04/01/2019		35.1000		
Barium, total	ug/L	MW-28	05/06/2020		26.2000		
Barium, total	ug/L	MW-28	09/03/2020		24.6000		
Barium, total	ug/L	MW-28	03/30/2021		27.2000		
Barium, total	ug/L	MW-28	03/31/2022		31.1000		
Barium, total	ug/L	MW-28	03/07/2023		27.3000		
Beryllium, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Beryllium, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Beryllium, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Beryllium, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Beryllium, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Beryllium, total	ug/L	MW-28	03/30/2021	ND	4.0000		
Beryllium, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Beryllium, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Cadmium, total	ug/L	MW-28	10/31/2016	ND	0.8000		
Cadmium, total	ug/L	MW-28	03/16/2017	ND	0.8000		
Cadmium, total	ug/L	MW-28	03/14/2018	ND	0.8000		
Cadmium, total	ug/L	MW-28	09/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-28	04/01/2019	ND	0.8000		
Cadmium, total	ug/L	MW-28	05/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-28	09/03/2020	ND	0.8000		
Cadmium, total	ug/L	MW-28	03/30/2021	ND	0.8000		
Cadmium, total	ug/L	MW-28	03/31/2022	ND	0.8000		
Cadmium, total	ug/L	MW-28	03/07/2023	ND	0.8000		
Chromium, total	ug/L	MW-28	10/31/2016	ND	8.0000		
Chromium, total	ug/L	MW-28	03/16/2017	ND	8.0000		
Chromium, total	ug/L	MW-28	03/14/2018	ND	8.0000		
Chromium, total	ug/L	MW-28	09/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-28	04/01/2019	ND	8.0000		
Chromium, total	ug/L	MW-28	05/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-28	09/03/2020	ND	8.0000		
Chromium, total	ug/L	MW-28	03/30/2021	ND	8.0000		
Chromium, total	ug/L	MW-28	03/31/2022	ND	8.0000		
Chromium, total	ug/L	MW-28	03/07/2023	ND	8.0000		
Cobalt, total	ug/L	MW-28	10/31/2016		0.9000		
Cobalt, total	ug/L	MW-28	03/16/2017		1.7000		
Cobalt, total	ug/L	MW-28	03/14/2018	ND	2.0000	0.8000	**
Cobalt, total	ug/L	MW-28	09/12/2018	ND	0.8000		
Cobalt, total	ug/L	MW-28	04/01/2019	ND	0.8000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cobalt, total	ug/L	MW-28	05/06/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-28	09/03/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-28	03/30/2021		0.6000		
Cobalt, total	ug/L	MW-28	03/31/2022		1.0000		
Cobalt, total	ug/L	MW-28	03/07/2023		0.4000		
Copper, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Copper, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Copper, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Copper, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Copper, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Copper, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Copper, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Copper, total	ug/L	MW-28	03/30/2021	ND	4.0000		
Copper, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Copper, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Lead, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Lead, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Lead, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Lead, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Lead, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Lead, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Lead, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Lead, total	ug/L	MW-28	03/30/2021	ND	4.0000		
Lead, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Lead, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Nickel, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Nickel, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Nickel, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Nickel, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Nickel, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Nickel, total	ug/L	MW-28	03/30/2021		4.1000		
Nickel, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Nickel, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Selenium, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Selenium, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Selenium, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Selenium, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Selenium, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Selenium, total	ug/L	MW-28	03/30/2021	ND	4.0000		
Selenium, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Selenium, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Silver, total	ug/L	MW-28	10/31/2016	ND	4.0000		
Silver, total	ug/L	MW-28	03/16/2017	ND	4.0000		
Silver, total	ug/L	MW-28	03/14/2018	ND	4.0000		
Silver, total	ug/L	MW-28	09/12/2018	ND	4.0000		
Silver, total	ug/L	MW-28	04/01/2019	ND	4.0000		
Silver, total	ug/L	MW-28	05/06/2020	ND	4.0000		
Silver, total	ug/L	MW-28	09/03/2020	ND	4.0000		
Silver, total	ug/L	MW-28	03/30/2021	ND	4.0000		
Silver, total	ug/L	MW-28	03/31/2022	ND	4.0000		
Silver, total	ug/L	MW-28	03/07/2023	ND	4.0000		
Thallium, total	ug/L	MW-28	10/31/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-28	03/16/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-28	03/14/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-28	09/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-28	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-28	05/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-28	09/03/2020	ND	2.0000		
Thallium, total	ug/L	MW-28	03/30/2021	ND	2.0000		
Thallium, total	ug/L	MW-28	03/31/2022	ND	2.0000		
Thallium, total	ug/L	MW-28	03/07/2023	ND	2.0000		
Vanadium, total	ug/L	MW-28	10/31/2016	ND	20.0000		
Vanadium, total	ug/L	MW-28	03/16/2017	ND	20.0000		
Vanadium, total	ug/L	MW-28	03/14/2018	ND	20.0000		
Vanadium, total	ug/L	MW-28	09/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-28	04/01/2019	ND	20.0000		
Vanadium, total	ug/L	MW-28	05/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-28	09/03/2020	ND	20.0000		
Vanadium, total	ug/L	MW-28	03/30/2021	ND	20.0000		
Vanadium, total	ug/L	MW-28	03/31/2022	ND	20.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Vanadium, total	ug/L	MW-28	03/07/2023	ND	20.0000		
Zinc, total	ug/L	MW-28	10/31/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-28	03/16/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-28	03/14/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-28	09/12/2018		33.2000		
Zinc, total	ug/L	MW-28	04/01/2019	ND	20.0000		
Zinc, total	ug/L	MW-28	05/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-28	09/03/2020	ND	20.0000		
Zinc, total	ug/L	MW-28	03/30/2021	ND	20.0000		
Zinc, total	ug/L	MW-28	03/31/2022	ND	20.0000		
Zinc, total	ug/L	MW-28	03/07/2023	ND	20.0000		
Antimony, total	ug/L	MW-6	10/20/2014	ND	6.0000	2.0000	**
Antimony, total	ug/L	MW-6	06/23/2015	ND	6.0000	2.0000	**
Antimony, total	ug/L	MW-6	11/13/2015	ND	6.0000	2.0000	**
Antimony, total	ug/L	MW-6	04/11/2016	ND	6.0000	2.0000	**
Antimony, total	ug/L	MW-6	09/16/2016	ND	2.0000		
Antimony, total	ug/L	MW-6	03/15/2017	ND	2.0000		
Antimony, total	ug/L	MW-6	09/27/2017	ND	2.0000		
Antimony, total	ug/L	MW-6	09/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-6	04/01/2019	ND	2.0000		
Antimony, total	ug/L	MW-6	09/12/2019	ND	2.0000		
Antimony, total	ug/L	MW-6	05/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-6	09/03/2020	ND	2.0000		
Antimony, total	ug/L	MW-6	03/30/2021	ND	2.0000		
Antimony, total	ug/L	MW-6	09/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-6	03/31/2022	ND	2.0000		
Antimony, total	ug/L	MW-6	08/30/2022	ND	2.0000		
Antimony, total	ug/L	MW-6	03/07/2023	ND	2.0000		
Antimony, total	ug/L	MW-6	09/28/2023	ND	2.0000		
Arsenic, total	ug/L	MW-6	10/20/2014		1.6900		
Arsenic, total	ug/L	MW-6	06/23/2015	ND	2.0000	4.0000	**
Arsenic, total	ug/L	MW-6	11/13/2015	ND	2.0000	4.0000	**
Arsenic, total	ug/L	MW-6	04/11/2016	ND	10.0000	4.0000	**
Arsenic, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Arsenic, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Arsenic, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Arsenic, total	ug/L	MW-6	09/12/2018	ND	4.0000		
Arsenic, total	ug/L	MW-6	04/01/2019	ND	4.0000		
Arsenic, total	ug/L	MW-6	09/12/2019	ND	4.0000		
Arsenic, total	ug/L	MW-6	05/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-6	09/03/2020	ND	4.0000		
Arsenic, total	ug/L	MW-6	03/30/2021	ND	4.0000		
Arsenic, total	ug/L	MW-6	09/08/2021	ND	4.0000		
Arsenic, total	ug/L	MW-6	03/31/2022	ND	4.0000		
Arsenic, total	ug/L	MW-6	08/30/2022	ND	4.0000		
Arsenic, total	ug/L	MW-6	03/07/2023	ND	4.0000		
Arsenic, total	ug/L	MW-6	09/28/2023	ND	4.0000		
Barium, total	ug/L	MW-6	10/20/2014		346.0000		
Barium, total	ug/L	MW-6	06/23/2015		237.0000		
Barium, total	ug/L	MW-6	11/13/2015		294.0000		
Barium, total	ug/L	MW-6	04/11/2016		279.0000		
Barium, total	ug/L	MW-6	09/16/2016		316.0000		
Barium, total	ug/L	MW-6	03/15/2017		326.0000		
Barium, total	ug/L	MW-6	09/27/2017		193.0000		
Barium, total	ug/L	MW-6	09/12/2018		333.0000		
Barium, total	ug/L	MW-6	04/01/2019		409.0000		
Barium, total	ug/L	MW-6	09/12/2019		349.0000		
Barium, total	ug/L	MW-6	05/06/2020		477.0000		
Barium, total	ug/L	MW-6	09/03/2020		299.0000		
Barium, total	ug/L	MW-6	03/30/2021		264.0000		
Barium, total	ug/L	MW-6	09/08/2021		197.0000		
Barium, total	ug/L	MW-6	03/31/2022		227.0000		
Barium, total	ug/L	MW-6	08/30/2022		208.0000		
Barium, total	ug/L	MW-6	03/07/2023		253.0000		
Barium, total	ug/L	MW-6	09/28/2023		237.0000		
Beryllium, total	ug/L	MW-6	10/20/2014	ND	1.0000	4.0000	**
Beryllium, total	ug/L	MW-6	06/23/2015	ND	1.0000	4.0000	**
Beryllium, total	ug/L	MW-6	11/13/2015	ND	1.0000	4.0000	**
Beryllium, total	ug/L	MW-6	04/11/2016	ND	1.0000	4.0000	**
Beryllium, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Beryllium, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Beryllium, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Beryllium, total	ug/L	MW-6	09/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-6	04/01/2019	ND	4.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, total	ug/L	MW-6	09/12/2019	ND	4.0000		
Beryllium, total	ug/L	MW-6	05/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-6	09/03/2020	ND	4.0000		
Beryllium, total	ug/L	MW-6	03/30/2021	ND	4.0000		
Beryllium, total	ug/L	MW-6	09/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-6	03/31/2022	ND	4.0000		
Beryllium, total	ug/L	MW-6	08/30/2022	ND	4.0000		
Beryllium, total	ug/L	MW-6	03/07/2023	ND	4.0000		
Beryllium, total	ug/L	MW-6	09/28/2023	ND	4.0000		
Cadmium, total	ug/L	MW-6	10/20/2014	ND	0.5000	0.8000	**
Cadmium, total	ug/L	MW-6	06/23/2015	ND	0.5000	0.8000	**
Cadmium, total	ug/L	MW-6	11/13/2015	ND	0.5000	0.8000	**
Cadmium, total	ug/L	MW-6	04/11/2016	ND	0.5000	0.8000	**
Cadmium, total	ug/L	MW-6	09/16/2016	ND	0.8000		
Cadmium, total	ug/L	MW-6	03/15/2017	ND	0.8000		
Cadmium, total	ug/L	MW-6	09/27/2017	ND	0.8000		
Cadmium, total	ug/L	MW-6	09/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-6	04/01/2019	ND	0.8000		
Cadmium, total	ug/L	MW-6	09/12/2019	ND	0.8000		
Cadmium, total	ug/L	MW-6	05/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-6	09/03/2020	ND	0.8000		
Cadmium, total	ug/L	MW-6	03/30/2021	ND	0.8000		
Cadmium, total	ug/L	MW-6	09/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-6	03/31/2022	ND	0.8000		
Cadmium, total	ug/L	MW-6	08/30/2022	ND	0.8000		
Cadmium, total	ug/L	MW-6	03/07/2023	ND	0.8000		
Cadmium, total	ug/L	MW-6	09/28/2023	ND	0.8000		
Chromium, total	ug/L	MW-6	10/20/2014	ND	5.0000	8.0000	**
Chromium, total	ug/L	MW-6	06/23/2015	ND	5.0000	8.0000	**
Chromium, total	ug/L	MW-6	11/13/2015	ND	5.0000	8.0000	**
Chromium, total	ug/L	MW-6	04/11/2016	ND	5.0000	8.0000	**
Chromium, total	ug/L	MW-6	09/16/2016	ND	8.0000		
Chromium, total	ug/L	MW-6	03/15/2017	ND	8.0000		
Chromium, total	ug/L	MW-6	09/27/2017	ND	8.0000		
Chromium, total	ug/L	MW-6	09/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-6	04/01/2019	ND	8.0000		
Chromium, total	ug/L	MW-6	09/12/2019	ND	8.0000		
Chromium, total	ug/L	MW-6	05/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-6	09/03/2020	ND	8.0000		
Chromium, total	ug/L	MW-6	03/30/2021	ND	8.0000		
Chromium, total	ug/L	MW-6	09/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-6	03/31/2022	ND	8.0000		
Chromium, total	ug/L	MW-6	08/30/2022	ND	8.0000		
Chromium, total	ug/L	MW-6	03/07/2023	ND	8.0000		
Chromium, total	ug/L	MW-6	09/28/2023	ND	8.0000		
Cobalt, total	ug/L	MW-6	10/20/2014		7.4300		*
Cobalt, total	ug/L	MW-6	06/23/2015	ND	0.8000		
Cobalt, total	ug/L	MW-6	11/13/2015	ND	0.8000		
Cobalt, total	ug/L	MW-6	04/11/2016	ND	0.8000		
Cobalt, total	ug/L	MW-6	09/16/2016	ND	0.8000		
Cobalt, total	ug/L	MW-6	03/15/2017	ND	0.8000		
Cobalt, total	ug/L	MW-6	09/27/2017	ND	0.8000		
Cobalt, total	ug/L	MW-6	09/12/2018	ND	0.8000		
Cobalt, total	ug/L	MW-6	04/01/2019	ND	0.8000		
Cobalt, total	ug/L	MW-6	09/12/2019	ND	0.8000		
Cobalt, total	ug/L	MW-6	05/06/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-6	09/03/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-6	03/30/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-6	09/08/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-6	03/31/2022		1.1000		
Cobalt, total	ug/L	MW-6	08/30/2022	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-6	03/07/2023		11.4000		*
Cobalt, total	ug/L	MW-6	09/28/2023		1.8000		
Copper, total	ug/L	MW-6	10/20/2014		25.7000		*
Copper, total	ug/L	MW-6	06/23/2015	ND	2.0000	4.0000	**
Copper, total	ug/L	MW-6	11/13/2015		2.6800		
Copper, total	ug/L	MW-6	04/11/2016	ND	2.0000	4.0000	**
Copper, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Copper, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Copper, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Copper, total	ug/L	MW-6	09/12/2018	ND	4.0000		
Copper, total	ug/L	MW-6	04/01/2019	ND	4.0000		
Copper, total	ug/L	MW-6	09/12/2019	ND	4.0000		
Copper, total	ug/L	MW-6	05/06/2020	ND	4.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Copper, total	ug/L	MW-6	09/03/2020	ND	4.0000		
Copper, total	ug/L	MW-6	03/30/2021	ND	4.0000		
Copper, total	ug/L	MW-6	09/08/2021	ND	4.0000		
Copper, total	ug/L	MW-6	03/31/2022	ND	4.0000		
Copper, total	ug/L	MW-6	08/30/2022	ND	4.0000		
Copper, total	ug/L	MW-6	03/07/2023	ND	4.0000		
Copper, total	ug/L	MW-6	09/28/2023	ND	4.0000		
Lead, total	ug/L	MW-6	10/20/2014		6.0300		
Lead, total	ug/L	MW-6	06/23/2015		0.6080		
Lead, total	ug/L	MW-6	11/13/2015		0.5030		*
Lead, total	ug/L	MW-6	04/11/2016	ND	0.5000		*
Lead, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Lead, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Lead, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Lead, total	ug/L	MW-6	09/12/2018	ND	4.0000		
Lead, total	ug/L	MW-6	04/01/2019	ND	4.0000		
Lead, total	ug/L	MW-6	09/12/2019	ND	4.0000		
Lead, total	ug/L	MW-6	05/06/2020	ND	4.0000		
Lead, total	ug/L	MW-6	09/03/2020	ND	4.0000		
Lead, total	ug/L	MW-6	03/30/2021	ND	4.0000		
Lead, total	ug/L	MW-6	09/08/2021	ND	4.0000		
Lead, total	ug/L	MW-6	03/31/2022	ND	4.0000		
Lead, total	ug/L	MW-6	08/30/2022	ND	4.0000		
Lead, total	ug/L	MW-6	03/07/2023	ND	4.0000		
Lead, total	ug/L	MW-6	09/28/2023	ND	4.0000		
Nickel, total	ug/L	MW-6	10/20/2014	ND	30.0000	4.0000	**
Nickel, total	ug/L	MW-6	06/23/2015	ND	5.0000	4.0000	**
Nickel, total	ug/L	MW-6	11/13/2015	ND	5.0000	4.0000	**
Nickel, total	ug/L	MW-6	04/11/2016	ND	5.0000	4.0000	**
Nickel, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Nickel, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Nickel, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Nickel, total	ug/L	MW-6	09/12/2018		7.8000		
Nickel, total	ug/L	MW-6	04/01/2019		8.4000		
Nickel, total	ug/L	MW-6	09/12/2019		7.3000		
Nickel, total	ug/L	MW-6	05/06/2020		6.9000		
Nickel, total	ug/L	MW-6	09/03/2020		5.5000		
Nickel, total	ug/L	MW-6	03/30/2021		5.0000		
Nickel, total	ug/L	MW-6	09/08/2021		5.7000		
Nickel, total	ug/L	MW-6	03/31/2022		9.9000		
Nickel, total	ug/L	MW-6	08/30/2022		11.3000		
Nickel, total	ug/L	MW-6	03/07/2023		29.5000		
Nickel, total	ug/L	MW-6	09/28/2023		25.3000		
Selenium, total	ug/L	MW-6	10/20/2014	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-6	06/23/2015	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-6	11/13/2015	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-6	04/11/2016	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Selenium, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Selenium, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Selenium, total	ug/L	MW-6	09/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-6	04/01/2019	ND	4.0000		
Selenium, total	ug/L	MW-6	09/12/2019	ND	4.0000		
Selenium, total	ug/L	MW-6	05/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-6	09/03/2020	ND	4.0000		
Selenium, total	ug/L	MW-6	03/30/2021	ND	4.0000		
Selenium, total	ug/L	MW-6	09/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-6	03/31/2022	ND	4.0000		
Selenium, total	ug/L	MW-6	08/30/2022	ND	4.0000		
Selenium, total	ug/L	MW-6	03/07/2023	ND	4.0000		
Selenium, total	ug/L	MW-6	09/28/2023	ND	4.0000		
Silver, total	ug/L	MW-6	10/20/2014	ND	20.0000		*
Silver, total	ug/L	MW-6	06/23/2015	ND	1.0000		*
Silver, total	ug/L	MW-6	11/13/2015	ND	1.0000		*
Silver, total	ug/L	MW-6	04/11/2016	ND	1.0000		*
Silver, total	ug/L	MW-6	09/16/2016	ND	4.0000		
Silver, total	ug/L	MW-6	03/15/2017	ND	4.0000		
Silver, total	ug/L	MW-6	09/27/2017	ND	4.0000		
Silver, total	ug/L	MW-6	09/12/2018	ND	4.0000		
Silver, total	ug/L	MW-6	04/01/2019	ND	4.0000		
Silver, total	ug/L	MW-6	09/12/2019	ND	4.0000		
Silver, total	ug/L	MW-6	05/06/2020	ND	4.0000		
Silver, total	ug/L	MW-6	09/03/2020	ND	4.0000		
Silver, total	ug/L	MW-6	03/30/2021	ND	4.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Silver, total	ug/L	MW-6	09/08/2021	ND	4.0000		
Silver, total	ug/L	MW-6	03/31/2022	ND	4.0000		
Silver, total	ug/L	MW-6	08/30/2022	ND	4.0000		
Silver, total	ug/L	MW-6	03/07/2023	ND	4.0000		
Silver, total	ug/L	MW-6	09/28/2023	ND	4.0000		
Thallium, total	ug/L	MW-6	10/20/2014	ND	2.0000		
Thallium, total	ug/L	MW-6	06/23/2015	ND	1.0000	2.0000	**
Thallium, total	ug/L	MW-6	11/13/2015	ND	1.0000	2.0000	**
Thallium, total	ug/L	MW-6	04/11/2016	ND	2.0000		
Thallium, total	ug/L	MW-6	09/16/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-6	03/15/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-6	09/27/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-6	09/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-6	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-6	09/12/2019	ND	2.0000		
Thallium, total	ug/L	MW-6	05/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-6	09/03/2020	ND	2.0000		
Thallium, total	ug/L	MW-6	03/30/2021	ND	2.0000		
Thallium, total	ug/L	MW-6	09/08/2021	ND	2.0000		
Thallium, total	ug/L	MW-6	03/31/2022	ND	2.0000		
Thallium, total	ug/L	MW-6	08/30/2022	ND	2.0000		
Thallium, total	ug/L	MW-6	03/07/2023	ND	2.0000		
Thallium, total	ug/L	MW-6	09/28/2023	ND	2.0000		
Vanadium, total	ug/L	MW-6	10/20/2014	ND	20.0000		
Vanadium, total	ug/L	MW-6	06/23/2015	ND	5.0000		*
Vanadium, total	ug/L	MW-6	11/13/2015	ND	5.0000		*
Vanadium, total	ug/L	MW-6	04/11/2016	ND	5.0000		*
Vanadium, total	ug/L	MW-6	09/16/2016	ND	20.0000		
Vanadium, total	ug/L	MW-6	03/15/2017	ND	20.0000		
Vanadium, total	ug/L	MW-6	09/27/2017	ND	20.0000		
Vanadium, total	ug/L	MW-6	09/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-6	04/01/2019	ND	20.0000		
Vanadium, total	ug/L	MW-6	09/12/2019	ND	20.0000		
Vanadium, total	ug/L	MW-6	05/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-6	09/03/2020	ND	20.0000		
Vanadium, total	ug/L	MW-6	03/30/2021	ND	20.0000		
Vanadium, total	ug/L	MW-6	09/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-6	03/31/2022	ND	20.0000		
Vanadium, total	ug/L	MW-6	08/30/2022	ND	20.0000		
Vanadium, total	ug/L	MW-6	03/07/2023	ND	20.0000		
Vanadium, total	ug/L	MW-6	09/28/2023	ND	20.0000		
Zinc, total	ug/L	MW-6	10/20/2014		22.6000		
Zinc, total	ug/L	MW-6	06/23/2015	ND	10.0000	20.0000	**
Zinc, total	ug/L	MW-6	11/13/2015	ND	10.0000	20.0000	**
Zinc, total	ug/L	MW-6	04/11/2016	ND	10.0000	20.0000	**
Zinc, total	ug/L	MW-6	09/16/2016		21.7000		
Zinc, total	ug/L	MW-6	03/15/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-6	09/27/2017		10.1000		
Zinc, total	ug/L	MW-6	09/12/2018		21.6000		
Zinc, total	ug/L	MW-6	04/01/2019		44.1000		
Zinc, total	ug/L	MW-6	09/12/2019	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-6	05/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-6	09/03/2020	ND	20.0000		
Zinc, total	ug/L	MW-6	03/30/2021	ND	20.0000		
Zinc, total	ug/L	MW-6	09/08/2021	ND	20.0000		
Zinc, total	ug/L	MW-6	03/31/2022	ND	20.0000		
Zinc, total	ug/L	MW-6	08/30/2022	ND	20.0000		
Zinc, total	ug/L	MW-6	03/07/2023	ND	20.0000		
Zinc, total	ug/L	MW-6	09/28/2023	ND	20.0000		
Antimony, total	ug/L	MW-7	03/15/2017	ND	2.0000		
Antimony, total	ug/L	MW-7	05/09/2017	ND	2.0000		
Antimony, total	ug/L	MW-7	09/27/2017	ND	2.0000		
Antimony, total	ug/L	MW-7	03/14/2018	ND	2.0000		
Antimony, total	ug/L	MW-7	09/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-7	04/01/2019	ND	2.0000		
Antimony, total	ug/L	MW-7	09/12/2019	ND	2.0000		
Antimony, total	ug/L	MW-7	05/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-7	09/03/2020	ND	2.0000		
Antimony, total	ug/L	MW-7	03/30/2021	ND	2.0000		*
Antimony, total	ug/L	MW-7	09/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-7	03/31/2022	ND	2.0000		
Antimony, total	ug/L	MW-7	08/30/2022	ND	2.0000		
Antimony, total	ug/L	MW-7	03/07/2023	ND	2.0000		
Antimony, total	ug/L	MW-7	09/28/2023	ND	2.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Arsenic, total	ug/L	MW-7	03/15/2017		6.5000		
Arsenic, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Arsenic, total	ug/L	MW-7	09/27/2017	ND	4.0000		
Arsenic, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Arsenic, total	ug/L	MW-7	09/12/2018		6.3000		
Arsenic, total	ug/L	MW-7	04/01/2019	ND	4.0000		
Arsenic, total	ug/L	MW-7	09/12/2019		13.9000		*
Arsenic, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Arsenic, total	ug/L	MW-7	03/30/2021		35.8000		*
Arsenic, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Arsenic, total	ug/L	MW-7	03/31/2022		18.6000		*
Arsenic, total	ug/L	MW-7	08/30/2022	ND	4.0000		
Arsenic, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Arsenic, total	ug/L	MW-7	09/28/2023	ND	4.0000		
Barium, total	ug/L	MW-7	03/15/2017		331.0000		
Barium, total	ug/L	MW-7	05/09/2017		224.0000		
Barium, total	ug/L	MW-7	09/27/2017		380.0000		
Barium, total	ug/L	MW-7	03/14/2018		214.0000		
Barium, total	ug/L	MW-7	09/12/2018		325.0000		
Barium, total	ug/L	MW-7	04/01/2019		235.0000		
Barium, total	ug/L	MW-7	09/12/2019		386.0000		
Barium, total	ug/L	MW-7	05/06/2020		191.0000		
Barium, total	ug/L	MW-7	09/03/2020		172.0000		
Barium, total	ug/L	MW-7	03/30/2021		880.0000		*
Barium, total	ug/L	MW-7	09/08/2021		163.0000		
Barium, total	ug/L	MW-7	03/31/2022		569.0000		
Barium, total	ug/L	MW-7	08/30/2022		211.0000		
Barium, total	ug/L	MW-7	03/07/2023		166.0000		
Barium, total	ug/L	MW-7	09/28/2023		161.0000		
Beryllium, total	ug/L	MW-7	03/15/2017	ND	4.0000		
Beryllium, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Beryllium, total	ug/L	MW-7	09/27/2017	ND	4.0000		
Beryllium, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Beryllium, total	ug/L	MW-7	09/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-7	04/01/2019	ND	4.0000		
Beryllium, total	ug/L	MW-7	09/12/2019	ND	4.0000		
Beryllium, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Beryllium, total	ug/L	MW-7	03/30/2021	ND	4.0000		*
Beryllium, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-7	03/31/2022	ND	4.0000		
Beryllium, total	ug/L	MW-7	08/30/2022	ND	4.0000		
Beryllium, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Beryllium, total	ug/L	MW-7	09/28/2023	ND	4.0000		
Cadmium, total	ug/L	MW-7	03/15/2017	ND	0.8000		
Cadmium, total	ug/L	MW-7	05/09/2017	ND	0.8000		
Cadmium, total	ug/L	MW-7	09/27/2017	ND	0.8000		
Cadmium, total	ug/L	MW-7	03/14/2018	ND	0.8000		
Cadmium, total	ug/L	MW-7	09/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-7	04/01/2019	ND	0.8000		
Cadmium, total	ug/L	MW-7	09/12/2019	ND	0.8000		
Cadmium, total	ug/L	MW-7	05/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-7	09/03/2020	ND	0.8000		
Cadmium, total	ug/L	MW-7	03/30/2021		1.7000		*
Cadmium, total	ug/L	MW-7	09/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-7	03/31/2022		1.0000		
Cadmium, total	ug/L	MW-7	08/30/2022	ND	0.8000		
Cadmium, total	ug/L	MW-7	03/07/2023	ND	0.8000		
Cadmium, total	ug/L	MW-7	09/28/2023	ND	0.8000		
Chromium, total	ug/L	MW-7	03/15/2017		16.5000		
Chromium, total	ug/L	MW-7	05/09/2017	ND	8.0000		
Chromium, total	ug/L	MW-7	09/27/2017	ND	8.0000		
Chromium, total	ug/L	MW-7	03/14/2018	ND	8.0000		
Chromium, total	ug/L	MW-7	09/12/2018		14.6000		
Chromium, total	ug/L	MW-7	04/01/2019	ND	8.0000		
Chromium, total	ug/L	MW-7	09/12/2019		31.6000		*
Chromium, total	ug/L	MW-7	05/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-7	09/03/2020	ND	8.0000		
Chromium, total	ug/L	MW-7	03/30/2021		77.5000		*
Chromium, total	ug/L	MW-7	09/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-7	03/31/2022		49.5000		*
Chromium, total	ug/L	MW-7	08/30/2022	ND	8.0000		
Chromium, total	ug/L	MW-7	03/07/2023	ND	8.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chromium, total	ug/L	MW-7	09/28/2023	ND	8.0000		
Cobalt, total	ug/L	MW-7	03/15/2017		5.9000		
Cobalt, total	ug/L	MW-7	05/09/2017	ND	0.8000		
Cobalt, total	ug/L	MW-7	09/27/2017		3.4000		
Cobalt, total	ug/L	MW-7	03/14/2018	ND	2.0000	0.8000	**
Cobalt, total	ug/L	MW-7	09/12/2018		5.8000		
Cobalt, total	ug/L	MW-7	04/01/2019		1.9000		
Cobalt, total	ug/L	MW-7	09/12/2019		12.2000		
Cobalt, total	ug/L	MW-7	05/06/2020		0.4000		
Cobalt, total	ug/L	MW-7	09/03/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-7	03/30/2021		39.3000		*
Cobalt, total	ug/L	MW-7	09/08/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-7	03/31/2022		22.9000		*
Cobalt, total	ug/L	MW-7	08/30/2022		2.1000		
Cobalt, total	ug/L	MW-7	03/07/2023	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-7	09/28/2023	ND	0.4000	0.8000	**
Copper, total	ug/L	MW-7	03/15/2017		13.7000		*
Copper, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Copper, total	ug/L	MW-7	09/27/2017		10.6000		
Copper, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Copper, total	ug/L	MW-7	09/12/2018		12.7000		*
Copper, total	ug/L	MW-7	04/01/2019	ND	4.0000		
Copper, total	ug/L	MW-7	09/12/2019		25.8000		*
Copper, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Copper, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Copper, total	ug/L	MW-7	03/30/2021		83.4000		*
Copper, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Copper, total	ug/L	MW-7	03/31/2022		47.2000		*
Copper, total	ug/L	MW-7	08/30/2022		4.8000		
Copper, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Copper, total	ug/L	MW-7	09/28/2023		4.1000		
Lead, total	ug/L	MW-7	03/15/2017		6.8000		
Lead, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Lead, total	ug/L	MW-7	09/27/2017	ND	4.0000		
Lead, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Lead, total	ug/L	MW-7	09/12/2018		6.6000		
Lead, total	ug/L	MW-7	04/01/2019	ND	4.0000		
Lead, total	ug/L	MW-7	09/12/2019		13.1000		*
Lead, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Lead, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Lead, total	ug/L	MW-7	03/30/2021		43.4000		*
Lead, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Lead, total	ug/L	MW-7	03/31/2022		25.8000		*
Lead, total	ug/L	MW-7	08/30/2022		5.5000		
Lead, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Lead, total	ug/L	MW-7	09/28/2023	ND	4.0000		
Nickel, total	ug/L	MW-7	03/15/2017		19.0000		*
Nickel, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Nickel, total	ug/L	MW-7	09/27/2017		11.4000		
Nickel, total	ug/L	MW-7	12/13/2017	ND	4.0000		
Nickel, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Nickel, total	ug/L	MW-7	09/12/2018		17.4000		*
Nickel, total	ug/L	MW-7	04/01/2019		7.4000		
Nickel, total	ug/L	MW-7	09/12/2019		34.2000		*
Nickel, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Nickel, total	ug/L	MW-7	03/30/2021		105.0000		*
Nickel, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Nickel, total	ug/L	MW-7	03/31/2022		61.9000		*
Nickel, total	ug/L	MW-7	08/30/2022		6.5000		
Nickel, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Nickel, total	ug/L	MW-7	09/28/2023	ND	4.0000		
Selenium, total	ug/L	MW-7	03/15/2017	ND	4.0000		
Selenium, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Selenium, total	ug/L	MW-7	09/27/2017	ND	4.0000		
Selenium, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Selenium, total	ug/L	MW-7	09/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-7	04/01/2019	ND	4.0000		
Selenium, total	ug/L	MW-7	09/12/2019	ND	4.0000		
Selenium, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Selenium, total	ug/L	MW-7	03/30/2021		5.8000		*
Selenium, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-7	03/31/2022		6.2000		*

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Selenium, total	ug/L	MW-7	08/30/2022	ND	4.0000		
Selenium, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Selenium, total	ug/L	MW-7	09/28/2023	ND	4.0000		
Silver, total	ug/L	MW-7	03/15/2017	ND	4.0000		
Silver, total	ug/L	MW-7	05/09/2017	ND	4.0000		
Silver, total	ug/L	MW-7	09/27/2017	ND	4.0000		
Silver, total	ug/L	MW-7	03/14/2018	ND	4.0000		
Silver, total	ug/L	MW-7	09/12/2018	ND	4.0000		
Silver, total	ug/L	MW-7	04/01/2019	ND	4.0000		
Silver, total	ug/L	MW-7	09/12/2019	ND	4.0000		
Silver, total	ug/L	MW-7	05/06/2020	ND	4.0000		
Silver, total	ug/L	MW-7	09/03/2020	ND	4.0000		
Silver, total	ug/L	MW-7	03/30/2021	ND	4.0000		*
Silver, total	ug/L	MW-7	09/08/2021	ND	4.0000		
Silver, total	ug/L	MW-7	03/31/2022	ND	4.0000		
Silver, total	ug/L	MW-7	08/30/2022	ND	4.0000		
Silver, total	ug/L	MW-7	03/07/2023	ND	4.0000		
Silver, total	ug/L	MW-7	09/28/2023	ND	4.0000		
Thallium, total	ug/L	MW-7	03/15/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-7	05/09/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-7	09/27/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-7	03/14/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-7	09/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-7	04/01/2019	ND	2.0000		
Thallium, total	ug/L	MW-7	09/12/2019	ND	2.0000		
Thallium, total	ug/L	MW-7	05/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-7	09/03/2020	ND	2.0000		
Thallium, total	ug/L	MW-7	03/30/2021	ND	2.0000		*
Thallium, total	ug/L	MW-7	09/08/2021	ND	2.0000		
Thallium, total	ug/L	MW-7	03/31/2022	ND	2.0000		
Thallium, total	ug/L	MW-7	08/30/2022	ND	2.0000		
Thallium, total	ug/L	MW-7	03/07/2023	ND	2.0000		
Thallium, total	ug/L	MW-7	09/28/2023	ND	2.0000		
Vanadium, total	ug/L	MW-7	03/15/2017		26.5000		
Vanadium, total	ug/L	MW-7	05/09/2017	ND	20.0000		
Vanadium, total	ug/L	MW-7	09/27/2017	ND	20.0000		
Vanadium, total	ug/L	MW-7	03/14/2018	ND	20.0000		
Vanadium, total	ug/L	MW-7	09/12/2018		23.0000		
Vanadium, total	ug/L	MW-7	04/01/2019	ND	20.0000		
Vanadium, total	ug/L	MW-7	09/12/2019		55.0000		*
Vanadium, total	ug/L	MW-7	05/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-7	09/03/2020	ND	20.0000		
Vanadium, total	ug/L	MW-7	03/30/2021		120.0000		*
Vanadium, total	ug/L	MW-7	09/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-7	03/31/2022		75.9000		*
Vanadium, total	ug/L	MW-7	08/30/2022	ND	20.0000		
Vanadium, total	ug/L	MW-7	03/07/2023	ND	20.0000		
Vanadium, total	ug/L	MW-7	09/28/2023	ND	20.0000		
Zinc, total	ug/L	MW-7	03/15/2017		34.2000		
Zinc, total	ug/L	MW-7	05/09/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-7	09/27/2017		26.9000		
Zinc, total	ug/L	MW-7	12/13/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-7	03/14/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-7	09/12/2018		63.4000		
Zinc, total	ug/L	MW-7	04/01/2019		28.5000		
Zinc, total	ug/L	MW-7	09/12/2019		69.0000		
Zinc, total	ug/L	MW-7	05/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-7	09/03/2020	ND	20.0000		
Zinc, total	ug/L	MW-7	03/30/2021		615.0000		*
Zinc, total	ug/L	MW-7	09/08/2021	ND	20.0000		
Zinc, total	ug/L	MW-7	03/31/2022		116.0000		*
Zinc, total	ug/L	MW-7	08/30/2022	ND	20.0000		
Zinc, total	ug/L	MW-7	03/07/2023	ND	20.0000		
Zinc, total	ug/L	MW-7	09/28/2023	ND	20.0000		

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, total	ug/L	AW-2	09/28/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	AW-2	09/28/2023		36.4000		51.3000
Barium, total	ug/L	AW-2	09/28/2023		150.0000		944.4466
Beryllium, total	ug/L	AW-2	09/28/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	AW-2	09/28/2023	ND	0.8000		1.0000
Chromium, total	ug/L	AW-2	09/28/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	AW-2	09/28/2023		5.4000	**	12.2000
Copper, total	ug/L	AW-2	09/28/2023	ND	4.0000		10.6000
Lead, total	ug/L	AW-2	09/28/2023	ND	4.0000		6.8000
Nickel, total	ug/L	AW-2	09/28/2023		5.0000		29.5000
Selenium, total	ug/L	AW-2	09/28/2023	ND	4.0000		4.0000
Silver, total	ug/L	AW-2	09/28/2023	ND	4.0000		4.0000
Thallium, total	ug/L	AW-2	09/28/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	AW-2	09/28/2023	ND	20.0000		26.5000
Zinc, total	ug/L	AW-2	09/28/2023	ND	20.0000		69.0000
Antimony, total	ug/L	AW-3	09/28/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	AW-3	09/28/2023		38.3000		51.3000
Barium, total	ug/L	AW-3	09/28/2023		373.0000		944.4466
Beryllium, total	ug/L	AW-3	09/28/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	AW-3	09/28/2023	ND	0.8000		1.0000
Chromium, total	ug/L	AW-3	09/28/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	AW-3	09/28/2023		1.3000		12.2000
Copper, total	ug/L	AW-3	09/28/2023	ND	4.0000		10.6000
Lead, total	ug/L	AW-3	09/28/2023	ND	4.0000		6.8000
Nickel, total	ug/L	AW-3	09/28/2023		5.3000		29.5000
Selenium, total	ug/L	AW-3	09/28/2023	ND	4.0000		4.0000
Silver, total	ug/L	AW-3	09/28/2023	ND	4.0000		4.0000
Thallium, total	ug/L	AW-3	09/28/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	AW-3	09/28/2023	ND	20.0000		26.5000
Zinc, total	ug/L	AW-3	09/28/2023	ND	20.0000		69.0000
Antimony, total	ug/L	AW-4	09/28/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	AW-4	09/28/2023	ND	4.0000		51.3000
Barium, total	ug/L	AW-4	09/28/2023		305.0000		944.4466
Beryllium, total	ug/L	AW-4	09/28/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	AW-4	09/28/2023	ND	0.8000		1.0000
Chromium, total	ug/L	AW-4	09/28/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	AW-4	09/28/2023	ND	0.4000		12.2000
Copper, total	ug/L	AW-4	09/28/2023	ND	4.0000		10.6000
Lead, total	ug/L	AW-4	09/28/2023	ND	4.0000		6.8000
Nickel, total	ug/L	AW-4	09/28/2023	ND	4.0000		29.5000
Selenium, total	ug/L	AW-4	09/28/2023	ND	4.0000		4.0000
Silver, total	ug/L	AW-4	09/28/2023	ND	4.0000		4.0000
Thallium, total	ug/L	AW-4	09/28/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	AW-4	09/28/2023	ND	20.0000		26.5000
Zinc, total	ug/L	AW-4	09/28/2023	ND	20.0000		69.0000
Antimony, total	ug/L	AW-9	09/28/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	AW-9	09/28/2023	ND	4.0000		51.3000
Barium, total	ug/L	AW-9	09/28/2023		447.0000		944.4466
Beryllium, total	ug/L	AW-9	09/28/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	AW-9	09/28/2023	ND	0.8000		1.0000
Chromium, total	ug/L	AW-9	09/28/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	AW-9	09/28/2023		0.8000		12.2000
Copper, total	ug/L	AW-9	09/28/2023	ND	4.0000		10.6000
Lead, total	ug/L	AW-9	09/28/2023	ND	4.0000		6.8000
Nickel, total	ug/L	AW-9	09/28/2023	ND	4.0000		29.5000
Selenium, total	ug/L	AW-9	09/28/2023	ND	4.0000		4.0000
Silver, total	ug/L	AW-9	09/28/2023	ND	4.0000		4.0000
Thallium, total	ug/L	AW-9	09/28/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	AW-9	09/28/2023	ND	20.0000		26.5000
Zinc, total	ug/L	AW-9	09/28/2023	ND	20.0000		69.0000
Antimony, total	ug/L	MW-12	09/28/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW-12	09/28/2023	ND	4.0000		51.3000
Barium, total	ug/L	MW-12	09/28/2023		92.8000		944.4466
Beryllium, total	ug/L	MW-12	09/28/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-12	09/28/2023	ND	0.8000		1.0000
Chromium, total	ug/L	MW-12	09/28/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	MW-12	09/28/2023		0.7000		12.2000
Copper, total	ug/L	MW-12	09/28/2023	ND	4.0000		10.6000
Lead, total	ug/L	MW-12	09/28/2023	ND	4.0000		6.8000
Nickel, total	ug/L	MW-12	09/28/2023		8.1000		29.5000
Selenium, total	ug/L	MW-12	09/28/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-12	09/28/2023	ND	4.0000		4.0000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Thallium, total	ug/L	MW-12	09/28/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-12	09/28/2023	ND	20.0000		26.5000
Zinc, total	ug/L	MW-12	09/28/2023	ND	20.0000		69.0000
Antimony, total	ug/L	MW-14	09/28/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW-14	09/28/2023	ND	4.0000		51.3000
Barium, total	ug/L	MW-14	09/28/2023		421.0000		944.4466
Beryllium, total	ug/L	MW-14	09/28/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-14	09/28/2023	ND	0.8000		1.0000
Chromium, total	ug/L	MW-14	09/28/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	MW-14	09/28/2023	ND	0.4000		12.2000
Copper, total	ug/L	MW-14	09/28/2023	ND	4.0000		10.6000
Lead, total	ug/L	MW-14	09/28/2023	ND	4.0000		6.8000
Nickel, total	ug/L	MW-14	09/28/2023		13.1000		29.5000
Selenium, total	ug/L	MW-14	09/28/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-14	09/28/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-14	09/28/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-14	09/28/2023	ND	20.0000		26.5000
Zinc, total	ug/L	MW-14	09/28/2023	ND	20.0000		69.0000
Antimony, total	ug/L	MW-20	09/28/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW-20	09/28/2023		37.5000	**	51.3000
Barium, total	ug/L	MW-20	09/28/2023		313.0000		944.4466
Beryllium, total	ug/L	MW-20	09/28/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-20	09/28/2023	ND	0.8000		1.0000
Chromium, total	ug/L	MW-20	09/28/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	MW-20	09/28/2023		2.8000		12.2000
Copper, total	ug/L	MW-20	09/28/2023	ND	4.0000		10.6000
Lead, total	ug/L	MW-20	09/28/2023	ND	4.0000		6.8000
Nickel, total	ug/L	MW-20	09/28/2023		7.4000		29.5000
Selenium, total	ug/L	MW-20	09/28/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-20	09/28/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-20	09/28/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-20	09/28/2023	ND	20.0000		26.5000
Zinc, total	ug/L	MW-20	09/28/2023	ND	20.0000		69.0000
Antimony, total	ug/L	MW-24	09/28/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW-24	09/28/2023		17.1000		51.3000
Barium, total	ug/L	MW-24	09/28/2023		298.0000		944.4466
Beryllium, total	ug/L	MW-24	09/28/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-24	09/28/2023	ND	0.8000		1.0000
Chromium, total	ug/L	MW-24	09/28/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	MW-24	09/28/2023		7.4000		12.2000
Copper, total	ug/L	MW-24	09/28/2023	ND	4.0000		10.6000
Lead, total	ug/L	MW-24	09/28/2023	ND	4.0000		6.8000
Nickel, total	ug/L	MW-24	09/28/2023		29.4000	**	29.5000
Selenium, total	ug/L	MW-24	09/28/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-24	09/28/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-24	09/28/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-24	09/28/2023	ND	20.0000		26.5000
Zinc, total	ug/L	MW-24	09/28/2023	ND	20.0000		69.0000
Antimony, total	ug/L	MW-25	09/28/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW-25	09/28/2023	ND	4.0000		51.3000
Barium, total	ug/L	MW-25	09/28/2023		22.9000		944.4466
Beryllium, total	ug/L	MW-25	09/28/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-25	09/28/2023	ND	0.8000		1.0000
Chromium, total	ug/L	MW-25	09/28/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	MW-25	09/28/2023		0.6000		12.2000
Copper, total	ug/L	MW-25	09/28/2023	ND	4.0000		10.6000
Lead, total	ug/L	MW-25	09/28/2023	ND	4.0000		6.8000
Nickel, total	ug/L	MW-25	09/28/2023		5.7000		29.5000
Selenium, total	ug/L	MW-25	09/28/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-25	09/28/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-25	09/28/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-25	09/28/2023	ND	20.0000		26.5000
Zinc, total	ug/L	MW-25	09/28/2023	ND	20.0000		69.0000
Antimony, total	ug/L	MW-9	09/28/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW-9	09/28/2023		4.9000		51.3000
Barium, total	ug/L	MW-9	09/28/2023		486.0000		944.4466
Beryllium, total	ug/L	MW-9	09/28/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-9	09/28/2023	ND	0.8000		1.0000
Chromium, total	ug/L	MW-9	09/28/2023	ND	8.0000		16.5000
Cobalt, total	ug/L	MW-9	09/28/2023		1.9000		12.2000
Copper, total	ug/L	MW-9	09/28/2023	ND	4.0000		10.6000
Lead, total	ug/L	MW-9	09/28/2023	ND	4.0000		6.8000

* - Current value failed - awaiting verification.
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*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	MW-9	09/28/2023		15.2000		29.5000
Selenium, total	ug/L	MW-9	09/28/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-9	09/28/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-9	09/28/2023	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-9	09/28/2023	ND	20.0000		26.5000
Zinc, total	ug/L	MW-9	09/28/2023	ND	20.0000		69.0000

* - Current value failed - awaiting verification.
** - Current value passed - previous exceedance not verified.
*** - Current value failed - exceedance verified.
**** - Current value passed - awaiting one more verification.
***** - Insufficient background data to compute prediction limit.
ND = Not Detected, Result = detection limit.

Table 3

Detection Frequencies in Upgradient and Downgradient Wells

Constituent	Detect	Upgradient N	Proportion	Detect	Downgradient N	Proportion
Antimony, total	0	72	0.000	6	264	0.023
Arsenic, total	14	70	0.200	193	284	0.680
Barium, total	73	73	1.000	277	277	1.000
Beryllium, total	0	72	0.000	9	268	0.034
Cadmium, total	1	72	0.014	19	268	0.071
Chromium, total	2	70	0.029	4	265	0.015
Cobalt, total	24	68	0.353	172	277	0.621
Copper, total	5	67	0.075	29	268	0.108
Lead, total	5	68	0.074	36	268	0.134
Nickel, total	15	69	0.217	146	270	0.541
Selenium, total	0	71	0.000	0	263	0.000
Silver, total	0	68	0.000	0	263	0.000
Thallium, total	0	72	0.000	0	263	0.000
Vanadium, total	2	67	0.030	16	265	0.060
Zinc, total	15	73	0.205	107	277	0.386

N = Total number of measurements in all wells.
Detect = Total number of detections in all wells.
Proportion = Detect/N.

Table 4

Shapiro-Wilk Multiple Group Test of Normality

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, total	0	72	0.000									nonpar
Arsenic, total	14	70	0.200	2.474	0.764					2.326	lognor	nonpar
Barium, total	73	73	1.000	4.473	1.919					2.326	lognor	lognor
Beryllium, total	0	72	0.000									nonpar
Cadmium, total	1	72	0.014									nonpar
Chromium, total	2	70	0.029									nonpar
Cobalt, total	24	68	0.353	1.502	0.313					2.326	normal	nonpar
Copper, total	5	67	0.075	0.883	0.533					2.326	normal	nonpar
Lead, total	5	68	0.074	0.603	0.677					2.326	normal	nonpar
Nickel, total	15	69	0.217	2.555	1.298					2.326	lognor	nonpar
Selenium, total	0	71	0.000									nonpar
Silver, total	0	68	0.000									nonpar
Thallium, total	0	72	0.000									nonpar
Vanadium, total	2	67	0.030									nonpar
Zinc, total	15	73	0.205	1.027	0.921					2.326	normal	nonpar

* - Distribution override for that constituent.
Fit to distribution is confirmed if G <= critical value.
Model type may not match distributional form when detection frequency < 50%.

Table 5

Summary Statistics and Prediction Limits

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type		Conf
Antimony, total	ug/L	0	72					2.0000	nonpar	***	0.99
Arsenic, total	ug/L	14	70					51.3000	nonpar		0.99
Barium, total	ug/L	73	73	5.0888	0.7354	0.0100	2.3955	944.4466	lognor		
Beryllium, total	ug/L	0	72					4.0000	nonpar	***	0.99
Cadmium, total	ug/L	1	72					1.0000	nonpar		0.99
Chromium, total	ug/L	2	70					16.5000	nonpar		0.99
Cobalt, total	ug/L	24	68					12.2000	nonpar		0.99
Copper, total	ug/L	5	67					10.6000	nonpar		0.99
Lead, total	ug/L	5	68					6.8000	nonpar		0.99
Nickel, total	ug/L	15	69					29.5000	nonpar		0.99
Selenium, total	ug/L	0	71					4.0000	nonpar	***	0.99
Silver, total	ug/L	0	68					4.0000	nonpar	***	0.99
Thallium, total	ug/L	0	72					2.0000	nonpar	***	0.99
Vanadium, total	ug/L	2	67					26.5000	nonpar		0.99
Zinc, total	ug/L	15	73					69.0000	nonpar		0.99

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).
* - Insufficient Data.
** - Calculated limit raised to Manual Reporting Limit.
*** - Nonparametric limit based on ND value.
For transformed data, mean and SD in transformed units and prediction limit in original units.
All sample sizes and statistics are based on outlier free data.
For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

Table 6

Dixon's Test Outliers
5% Significance Level

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Cobalt, total	ug/L	MW-26	03/14/2018	2.0000	< 2.0000	10/31/2016-09/28/2023	15	0.5240
Cobalt, total	ug/L	MW-6	10/20/2014	7.4300		10/20/2014-09/28/2023	18	0.4891
Cobalt, total	ug/L	MW-6	03/07/2023	11.4000		10/20/2014-09/28/2023	18	0.4891
Lead, total	ug/L	MW-6	11/13/2015	0.5030		10/20/2014-09/28/2023	18	0.4891
Lead, total	ug/L	MW-6	04/11/2016	0.5000	< 0.5000	10/20/2014-09/28/2023	18	0.4891
Silver, total	ug/L	MW-6	10/20/2014	20.0000	< 20.0000	10/20/2014-09/28/2023	18	0.4746
Silver, total	ug/L	MW-6	06/23/2015	1.0000	< 1.0000	10/20/2014-09/28/2023	18	0.4891
Silver, total	ug/L	MW-6	11/13/2015	1.0000	< 1.0000	10/20/2014-09/28/2023	18	0.4891
Silver, total	ug/L	MW-6	04/11/2016	1.0000	< 1.0000	10/20/2014-09/28/2023	18	0.4891
Vanadium, total	ug/L	MW-6	06/23/2015	5.0000	< 5.0000	10/20/2014-09/28/2023	18	0.4891
Vanadium, total	ug/L	MW-6	11/13/2015	5.0000	< 5.0000	10/20/2014-09/28/2023	18	0.4891
Vanadium, total	ug/L	MW-6	04/11/2016	5.0000	< 5.0000	10/20/2014-09/28/2023	18	0.4891
Arsenic, total	ug/L	MW-7	09/12/2019	13.9000		03/15/2017-09/28/2023	14	0.5213
Arsenic, total	ug/L	MW-7	03/31/2022	18.6000		03/15/2017-09/28/2023	14	0.5213
Copper, total	ug/L	MW-7	03/15/2017	13.7000		03/15/2017-09/28/2023	12	0.5745
Copper, total	ug/L	MW-7	09/12/2018	12.7000		03/15/2017-09/28/2023	12	0.5745
Nickel, total	ug/L	MW-7	03/15/2017	19.0000		03/15/2017-09/28/2023	13	0.5454
Nickel, total	ug/L	MW-7	09/12/2018	17.4000		03/15/2017-09/28/2023	13	0.5454

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

Table 8

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result		Pred. Limit
Cobalt, total	ug/L	AW-2	08/05/2010		59.8000	*	12.2000
Cobalt, total	ug/L	AW-2	09/29/2010		41.3000	*	12.2000
Cobalt, total	ug/L	AW-2	03/24/2011		24.3000	*	12.2000
Cobalt, total	ug/L	AW-2	07/19/2011		23.1000	*	12.2000
Cobalt, total	ug/L	AW-2	09/14/2011		27.3000	*	12.2000
Cobalt, total	ug/L	AW-2	12/26/2011		23.7000	*	12.2000
Cobalt, total	ug/L	AW-2	03/20/2012		27.6000	*	12.2000
Cobalt, total	ug/L	AW-2	10/15/2012		25.5000	*	12.2000
Cobalt, total	ug/L	AW-2	03/15/2013		32.3000	*	12.2000
Cobalt, total	ug/L	AW-2	09/07/2013		44.0000	*	12.2000
Cobalt, total	ug/L	AW-2	03/17/2014		33.3000	*	12.2000
Cobalt, total	ug/L	AW-2	10/20/2014		99.8000	*	12.2000
Cobalt, total	ug/L	AW-2	06/23/2015		27.2000	*	12.2000
Cobalt, total	ug/L	AW-2	11/12/2015		27.2000	*	12.2000
Cobalt, total	ug/L	AW-2	04/11/2016		22.8000	*	12.2000
Cobalt, total	ug/L	AW-2	09/16/2016		18.4000	*	12.2000
Cobalt, total	ug/L	AW-2	03/15/2017		16.9000	*	12.2000
Cobalt, total	ug/L	AW-2	09/27/2017		15.2000	*	12.2000
Cobalt, total	ug/L	AW-2	03/14/2018		28.2000	*	12.2000
Cobalt, total	ug/L	AW-2	09/12/2018		10.1000		12.2000
Cobalt, total	ug/L	AW-2	04/01/2019		9.6000		12.2000
Cobalt, total	ug/L	AW-2	09/12/2019		10.1000		12.2000
Cobalt, total	ug/L	AW-2	05/06/2020		7.7000		12.2000
Cobalt, total	ug/L	AW-2	09/03/2020		10.6000		12.2000
Cobalt, total	ug/L	AW-2	03/30/2021		8.8000		12.2000
Cobalt, total	ug/L	AW-2	09/08/2021		10.0000		12.2000
Cobalt, total	ug/L	AW-2	03/31/2022		8.9000		12.2000
Cobalt, total	ug/L	AW-2	08/30/2022		12.0000		12.2000
Cobalt, total	ug/L	AW-2	03/07/2023		12.5000	*	12.2000
Cobalt, total	ug/L	AW-2	09/28/2023		5.4000		12.2000
Arsenic, total	ug/L	MW-20	08/05/2010		24.9000		51.3000
Arsenic, total	ug/L	MW-20	09/29/2010		24.8000		51.3000
Arsenic, total	ug/L	MW-20	03/24/2011		11.3000		51.3000
Arsenic, total	ug/L	MW-20	07/19/2011		19.9000		51.3000
Arsenic, total	ug/L	MW-20	09/14/2011		26.6000		51.3000
Arsenic, total	ug/L	MW-20	12/26/2011		15.8000		51.3000
Arsenic, total	ug/L	MW-20	03/20/2012		18.1000		51.3000
Arsenic, total	ug/L	MW-20	08/28/2012		17.1000		51.3000
Arsenic, total	ug/L	MW-20	10/15/2012		11.1000		51.3000
Arsenic, total	ug/L	MW-20	03/15/2013		26.7000		51.3000
Arsenic, total	ug/L	MW-20	09/07/2013		13.6000		51.3000
Arsenic, total	ug/L	MW-20	03/17/2014		7.0400		51.3000
Arsenic, total	ug/L	MW-20	10/21/2014		55.1000	*	51.3000
Arsenic, total	ug/L	MW-20	06/23/2015		78.2000	*	51.3000
Arsenic, total	ug/L	MW-20	11/12/2015		80.9000	*	51.3000
Arsenic, total	ug/L	MW-20	04/11/2016		151.0000	*	51.3000
Arsenic, total	ug/L	MW-20	09/16/2016		63.8000	*	51.3000
Arsenic, total	ug/L	MW-20	03/15/2017		89.5000	*	51.3000
Arsenic, total	ug/L	MW-20	09/27/2017		26.8000		51.3000
Arsenic, total	ug/L	MW-20	03/14/2018		23.7000		51.3000
Arsenic, total	ug/L	MW-20	09/12/2018		44.9000		51.3000
Arsenic, total	ug/L	MW-20	04/01/2019		19.5000		51.3000
Arsenic, total	ug/L	MW-20	09/12/2019		72.0000	*	51.3000
Arsenic, total	ug/L	MW-20	05/06/2020		42.3000		51.3000
Arsenic, total	ug/L	MW-20	09/03/2020		50.6000		51.3000
Arsenic, total	ug/L	MW-20	03/30/2021		38.9000		51.3000
Arsenic, total	ug/L	MW-20	09/08/2021		40.2000		51.3000
Arsenic, total	ug/L	MW-20	03/31/2022		44.1000		51.3000
Arsenic, total	ug/L	MW-20	08/30/2022		23.3000		51.3000
Arsenic, total	ug/L	MW-20	03/07/2023		106.0000	*	51.3000
Arsenic, total	ug/L	MW-20	09/28/2023		37.5000		51.3000
Nickel, total	ug/L	MW-24	03/24/2011	ND	50.0000		29.5000
Nickel, total	ug/L	MW-24	07/19/2011		112.0000	*	29.5000
Nickel, total	ug/L	MW-24	09/14/2011		91.9000	*	29.5000
Nickel, total	ug/L	MW-24	12/26/2011	ND	50.0000		29.5000
Nickel, total	ug/L	MW-24	03/20/2012		62.4000	*	29.5000
Nickel, total	ug/L	MW-24	10/15/2012		56.4000	*	29.5000
Nickel, total	ug/L	MW-24	03/15/2013	ND	50.0000		29.5000
Nickel, total	ug/L	MW-24	09/07/2013	ND	50.0000		29.5000
Nickel, total	ug/L	MW-24	03/17/2014	ND	50.0000		29.5000
Nickel, total	ug/L	MW-24	10/21/2014	ND	30.0000		29.5000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

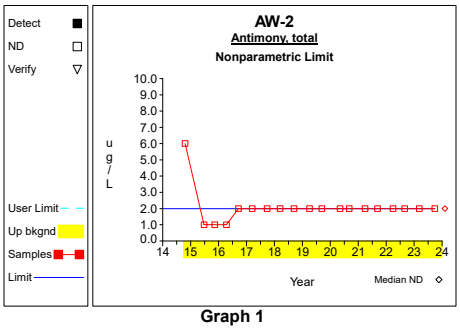
Table 8

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

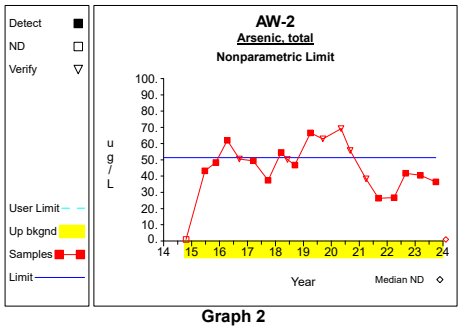
Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	MW-24	06/23/2015	ND	5.0000		29.5000
Nickel, total	ug/L	MW-24	11/12/2015		29.1000		29.5000
Nickel, total	ug/L	MW-24	04/12/2016		27.1000		29.5000
Nickel, total	ug/L	MW-24	09/16/2016	ND	4.0000		29.5000
Nickel, total	ug/L	MW-24	03/15/2017		8.6000		29.5000
Nickel, total	ug/L	MW-24	09/27/2017		8.0000		29.5000
Nickel, total	ug/L	MW-24	03/14/2018		10.9000		29.5000
Nickel, total	ug/L	MW-24	09/12/2018		14.3000		29.5000
Nickel, total	ug/L	MW-24	04/01/2019		61.1000	*	29.5000
Nickel, total	ug/L	MW-24	09/12/2019		16.2000		29.5000
Nickel, total	ug/L	MW-24	05/06/2020		14.9000		29.5000
Nickel, total	ug/L	MW-24	09/03/2020		30.6000	*	29.5000
Nickel, total	ug/L	MW-24	03/30/2021		17.9000		29.5000
Nickel, total	ug/L	MW-24	09/08/2021		13.4000		29.5000
Nickel, total	ug/L	MW-24	03/31/2022		66.7000	*	29.5000
Nickel, total	ug/L	MW-24	08/30/2022		43.0000	*	29.5000
Nickel, total	ug/L	MW-24	03/07/2023		48.0000	*	29.5000
Nickel, total	ug/L	MW-24	09/28/2023		29.4000		29.5000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

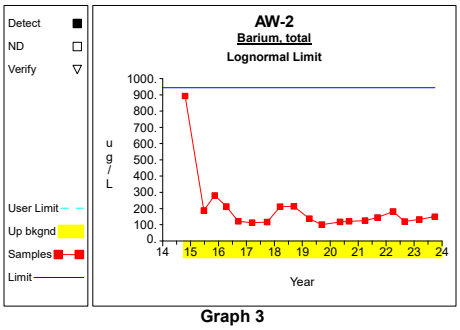
Up vs. Down Prediction Limits



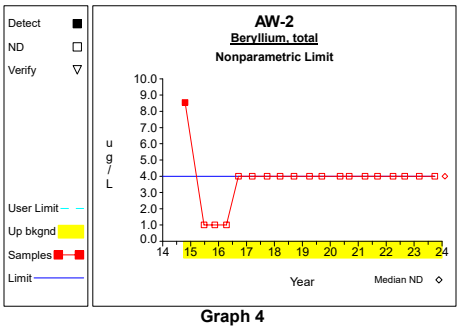
Graph 1



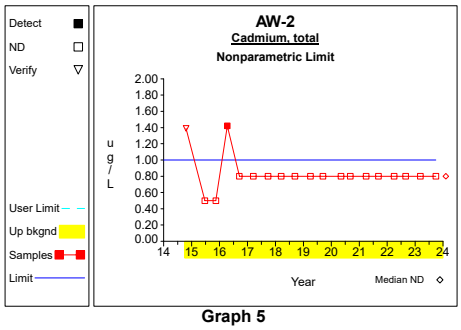
Graph 2



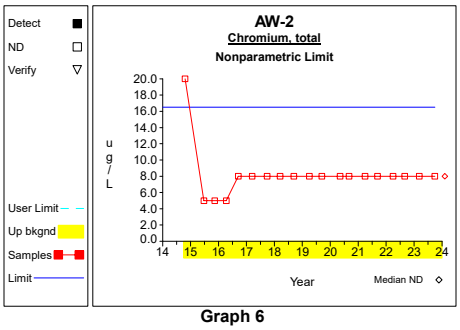
Graph 3



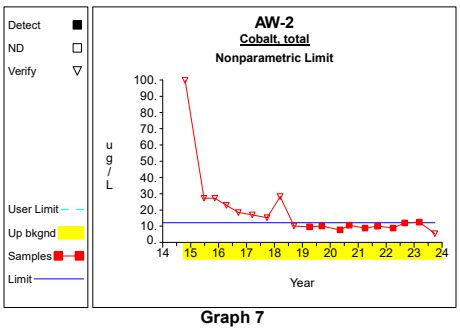
Graph 4



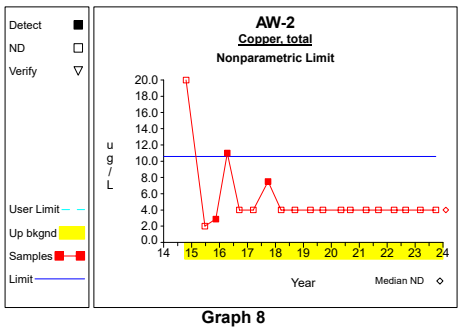
Graph 5



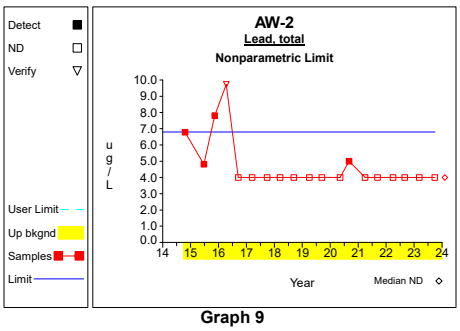
Graph 6



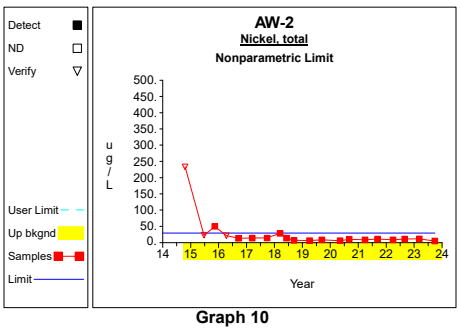
Graph 7



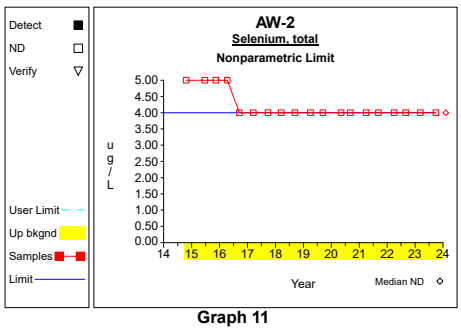
Graph 8



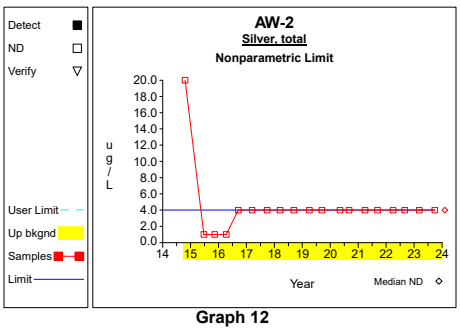
Graph 9



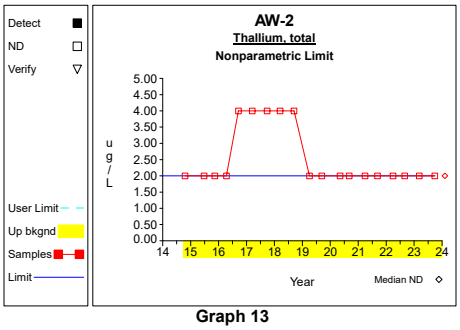
Graph 10



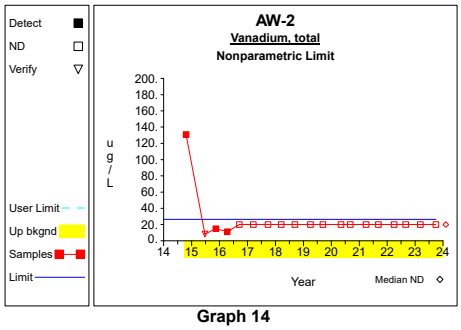
Graph 11



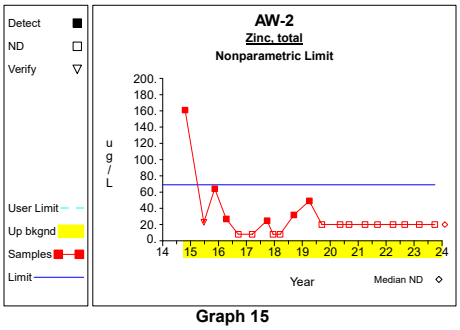
Graph 12



Graph 13



Graph 14



Graph 15

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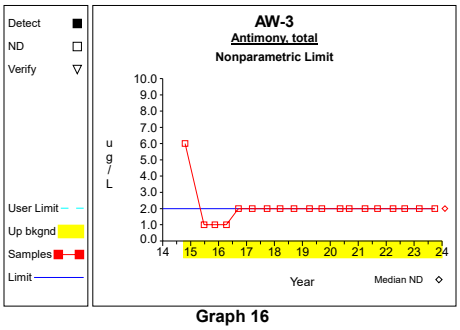
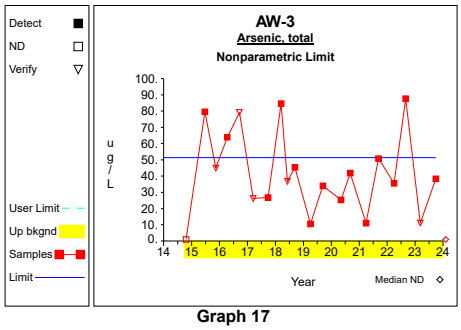
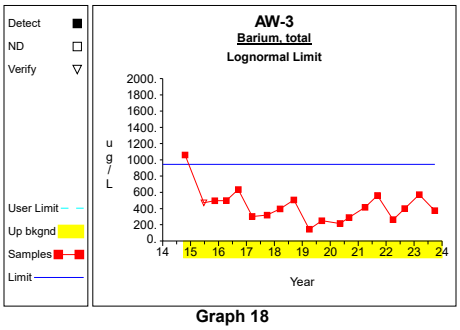
Up vs. Down Prediction Limits



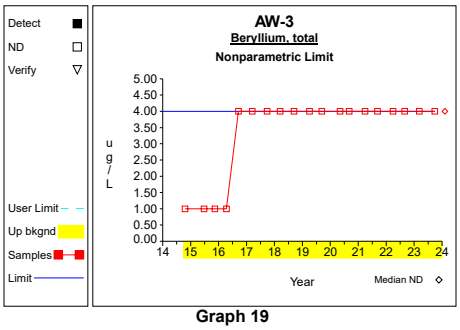
Graph 16



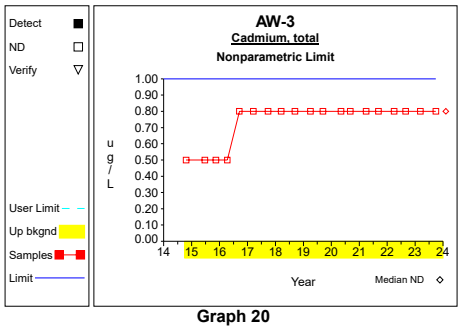
Graph 17



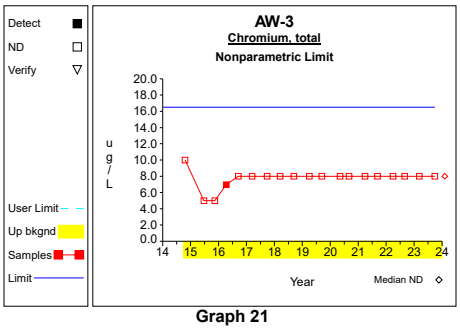
Graph 18



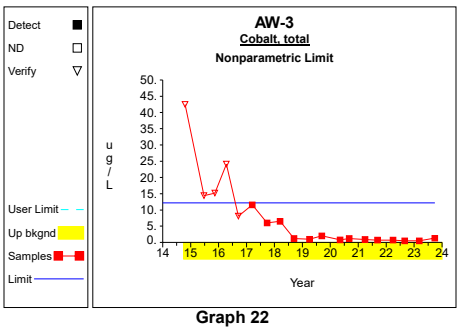
Graph 19



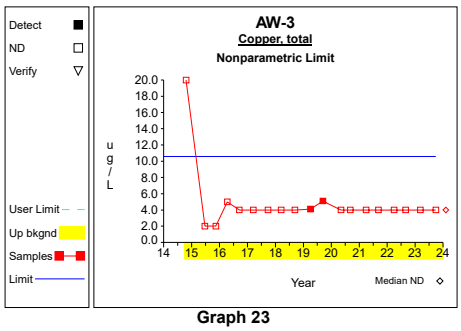
Graph 20



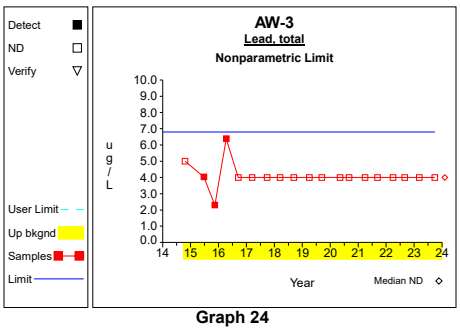
Graph 21



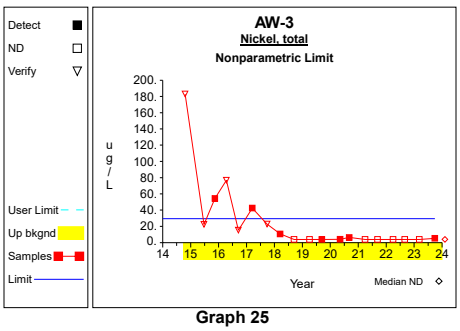
Graph 22



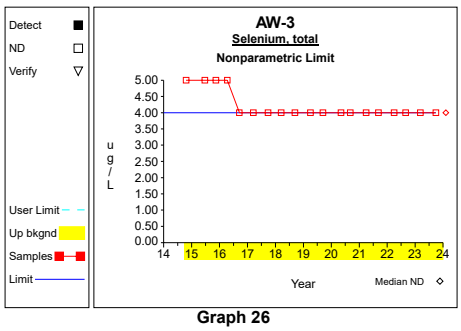
Graph 23



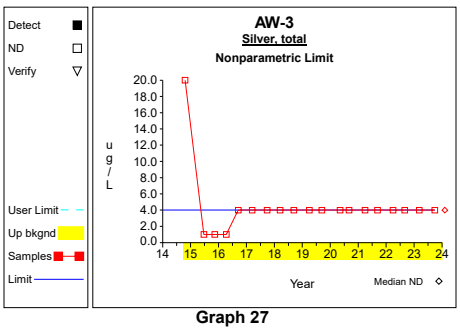
Graph 24



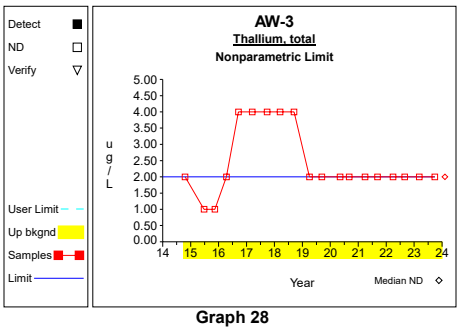
Graph 25



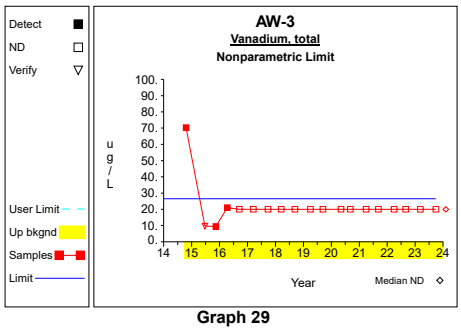
Graph 26



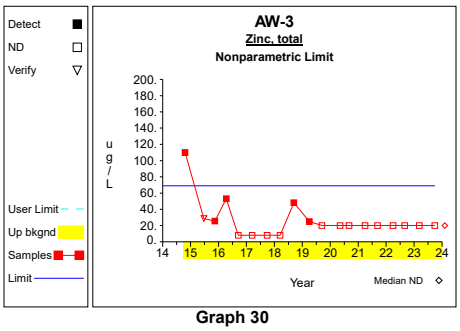
Graph 27



Graph 28



Graph 29



Graph 30

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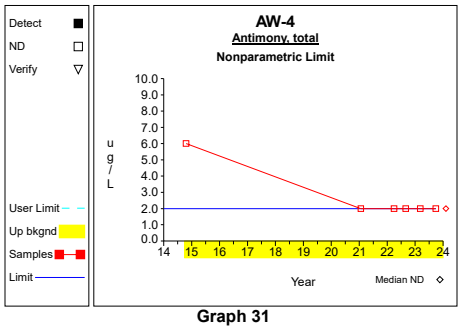
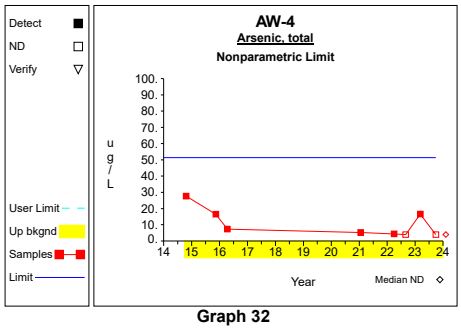
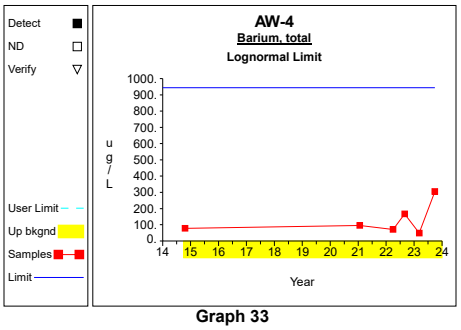
Up vs. Down Prediction Limits



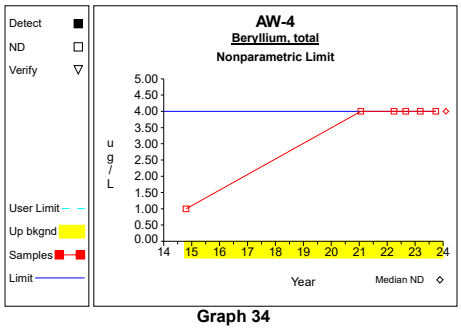
Graph 31



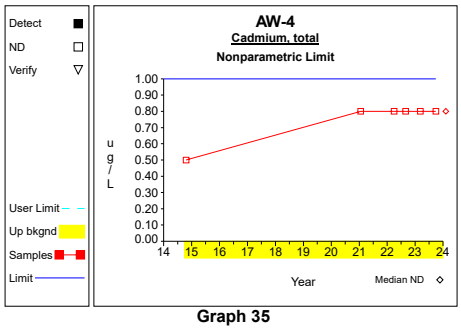
Graph 32



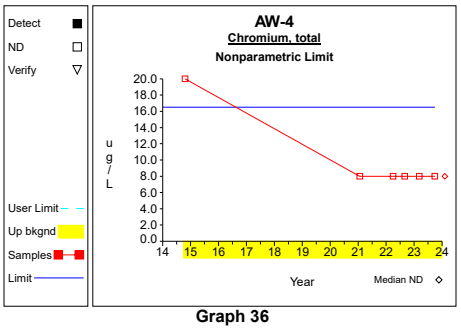
Graph 33



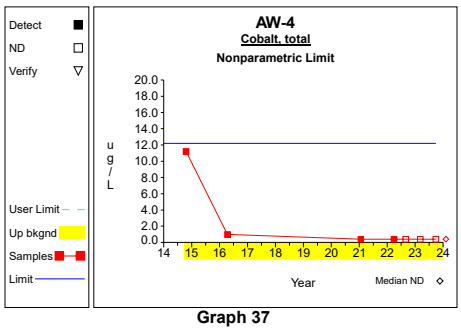
Graph 34



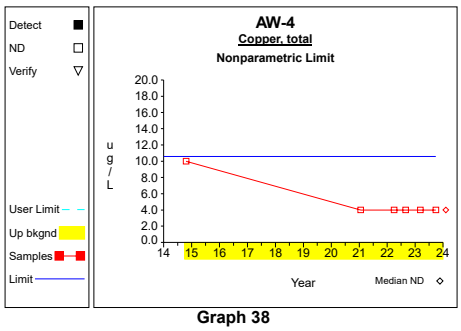
Graph 35



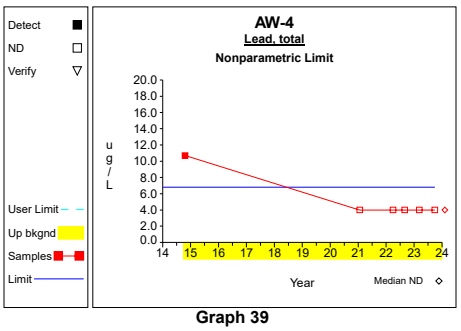
Graph 36



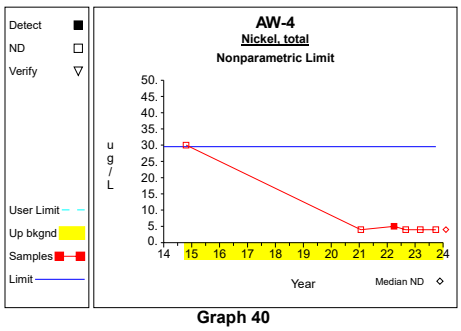
Graph 37



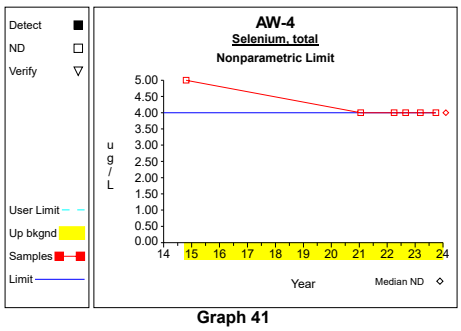
Graph 38



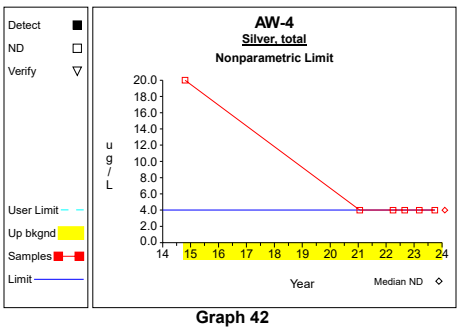
Graph 39



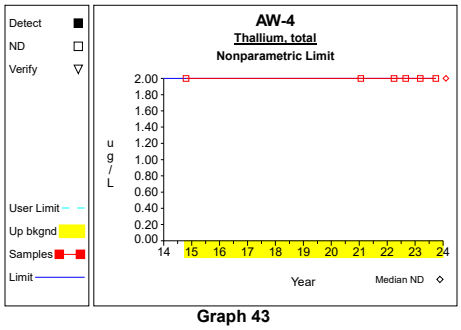
Graph 40



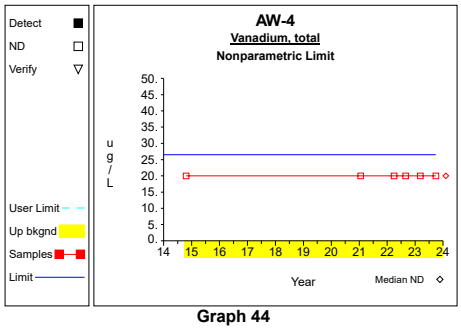
Graph 41



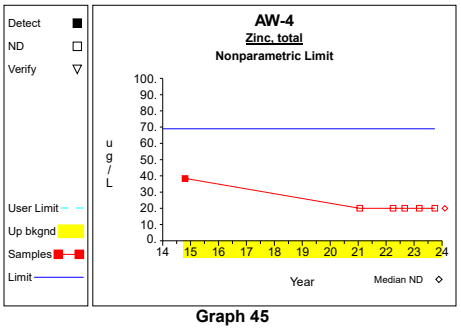
Graph 42



Graph 43



Graph 44



Graph 45

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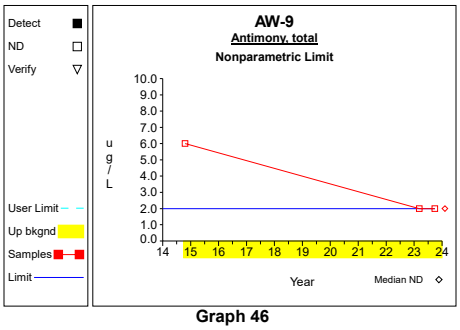
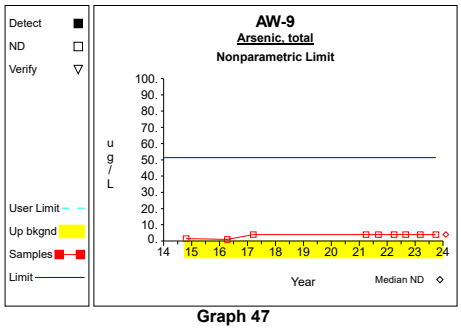
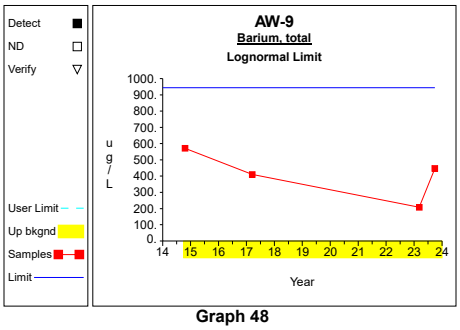
Up vs. Down Prediction Limits



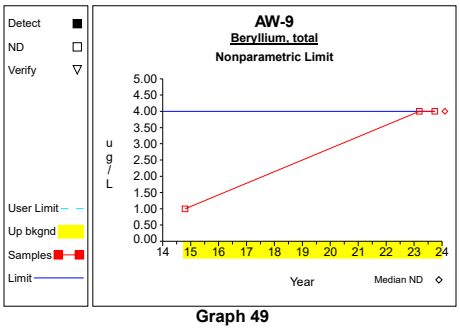
Graph 46



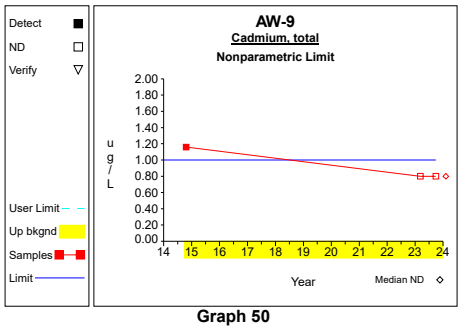
Graph 47



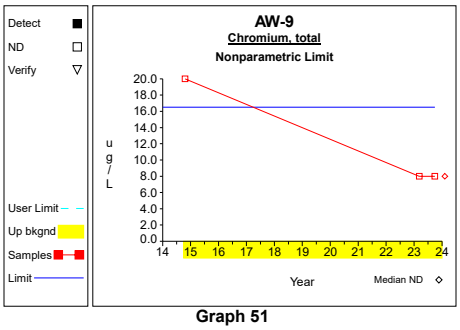
Graph 48



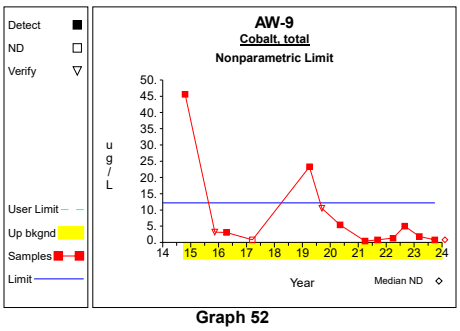
Graph 49



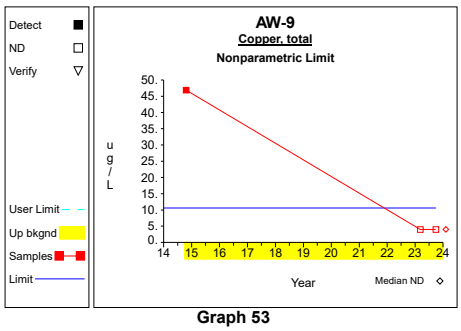
Graph 50



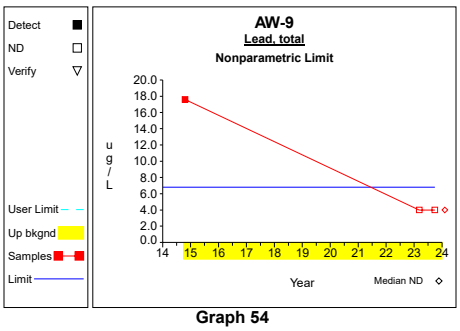
Graph 51



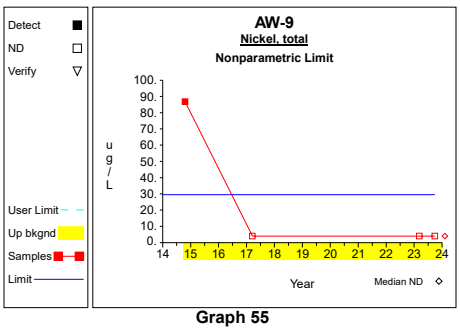
Graph 52



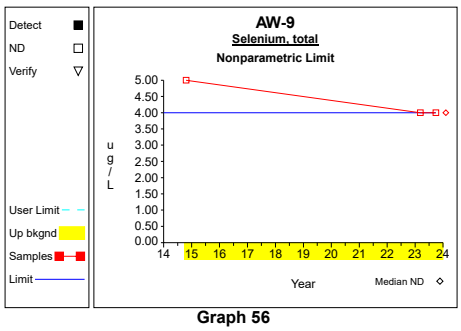
Graph 53



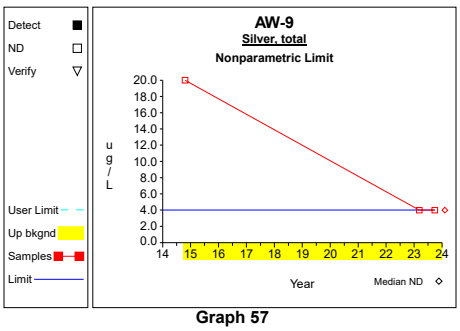
Graph 54



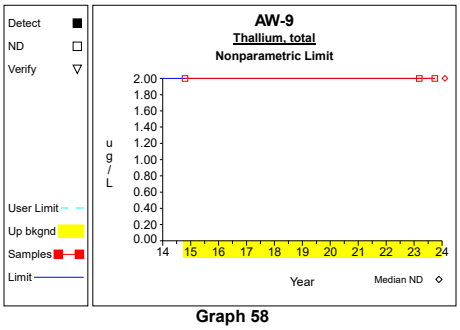
Graph 55



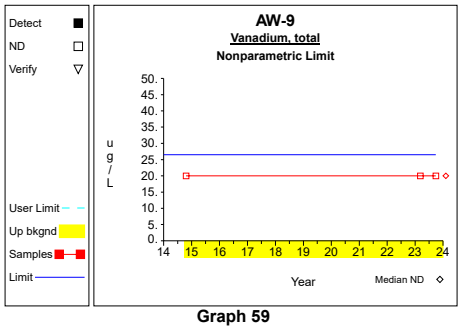
Graph 56



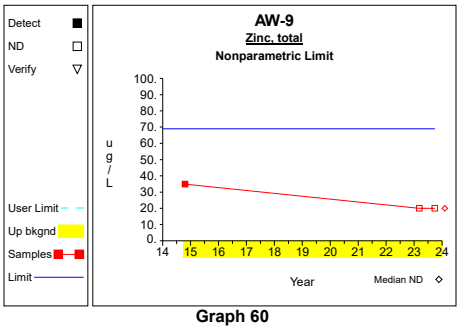
Graph 57



Graph 58



Graph 59



Graph 60

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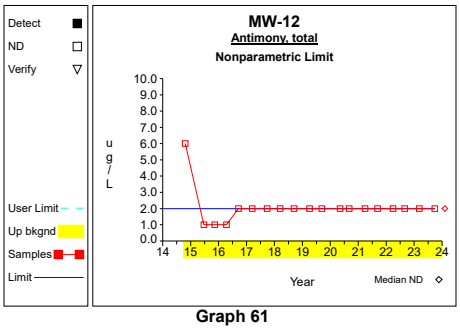
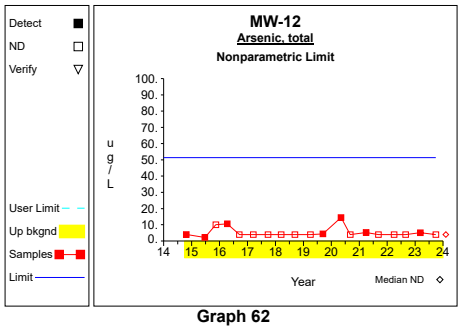
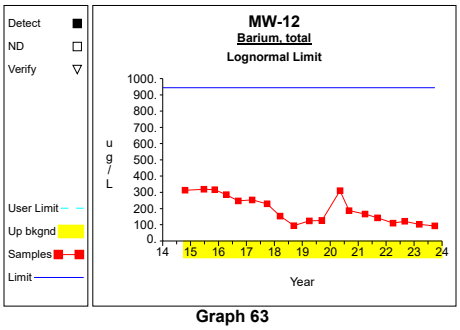
Up vs. Down Prediction Limits



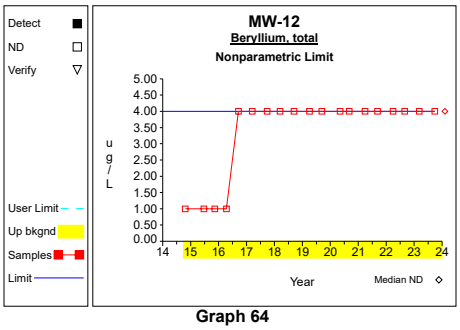
Graph 61



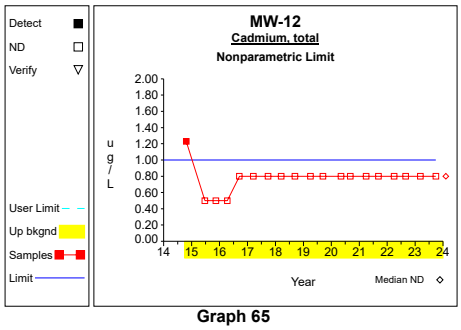
Graph 62



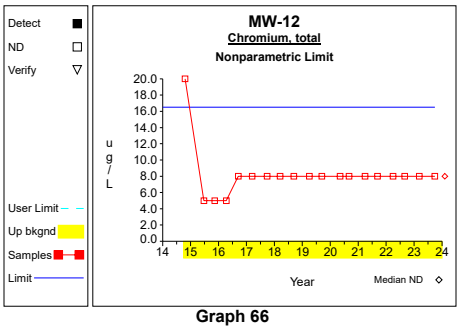
Graph 63



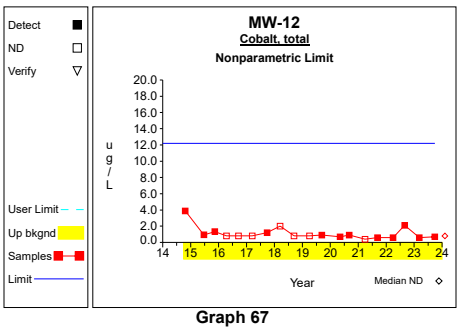
Graph 64



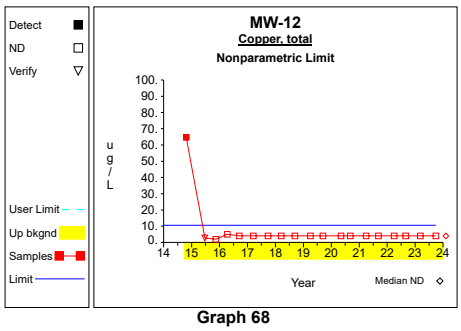
Graph 65



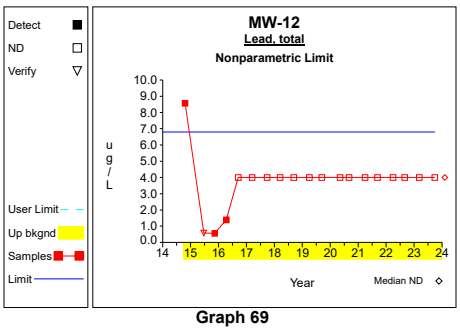
Graph 66



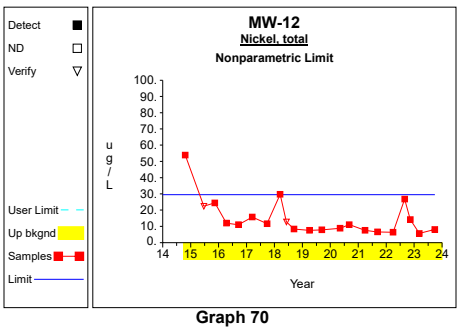
Graph 67



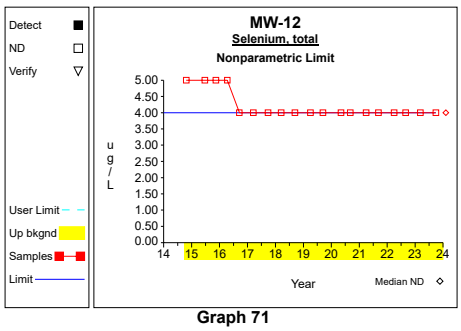
Graph 68



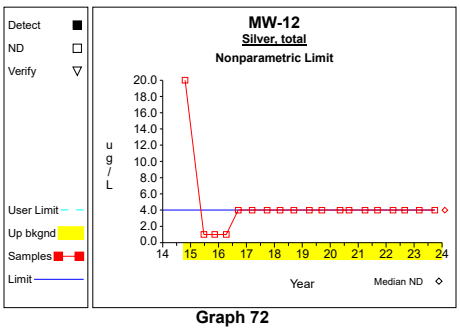
Graph 69



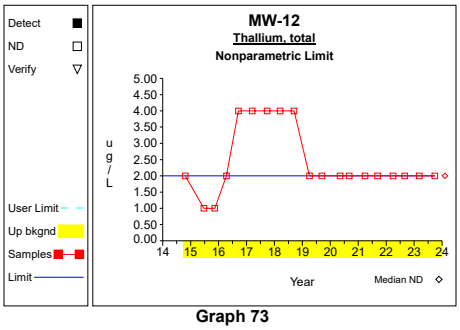
Graph 70



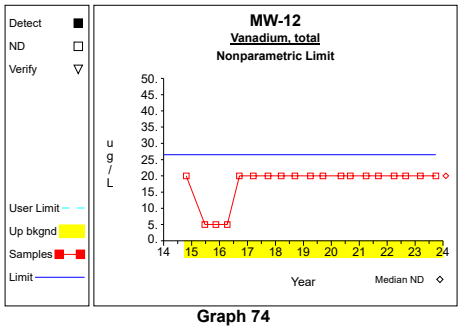
Graph 71



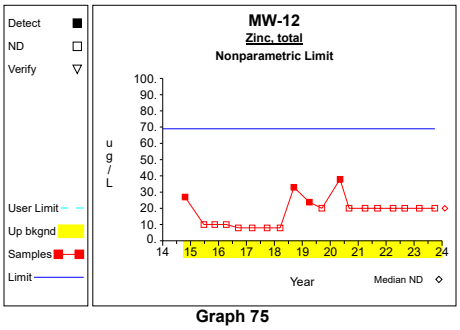
Graph 72



Graph 73



Graph 74



Graph 75

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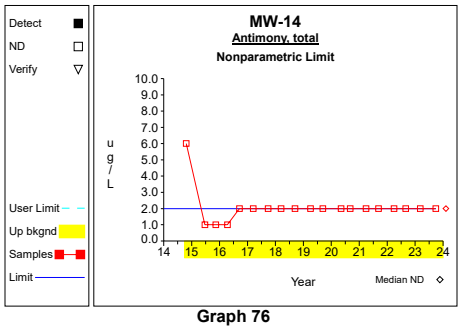
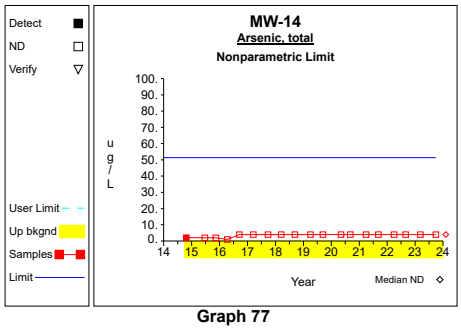
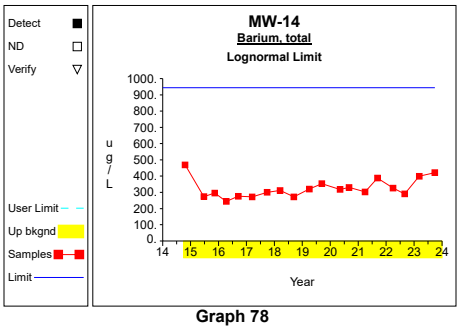
Up vs. Down Prediction Limits



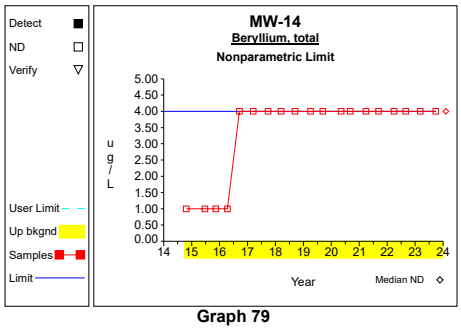
Graph 76



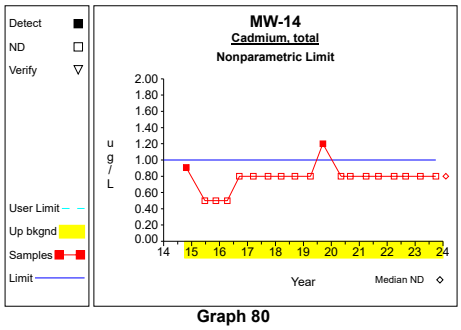
Graph 77



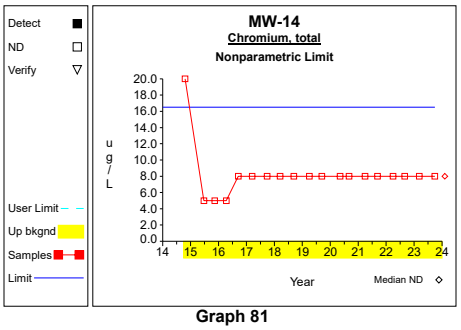
Graph 78



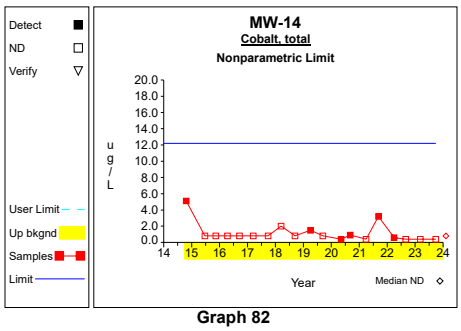
Graph 79



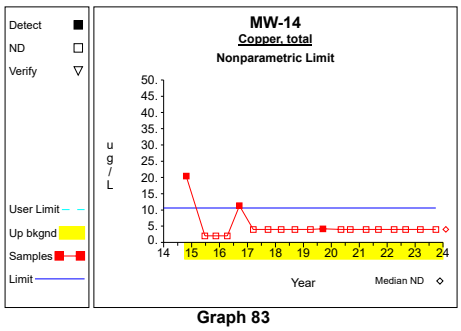
Graph 80



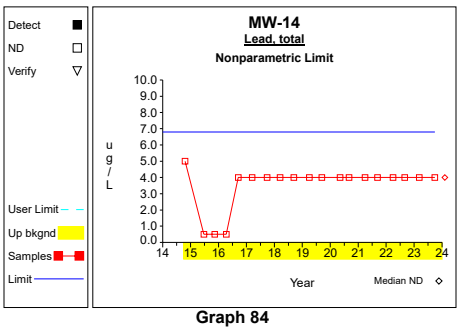
Graph 81



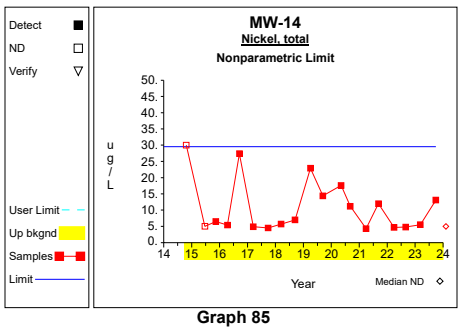
Graph 82



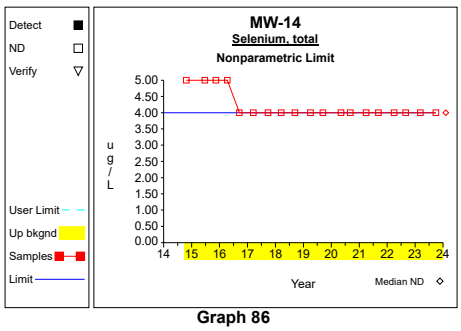
Graph 83



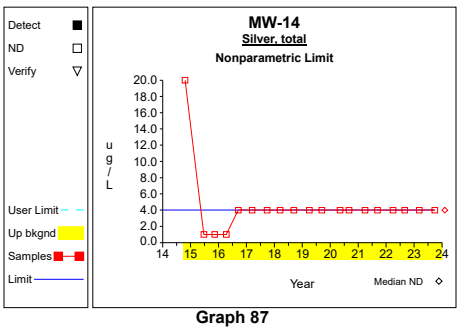
Graph 84



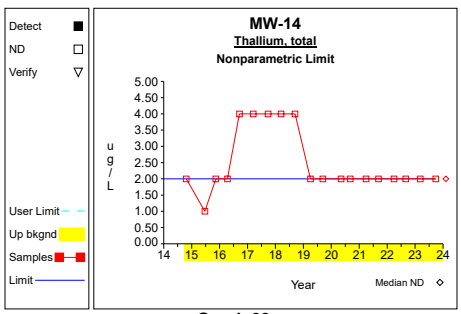
Graph 85



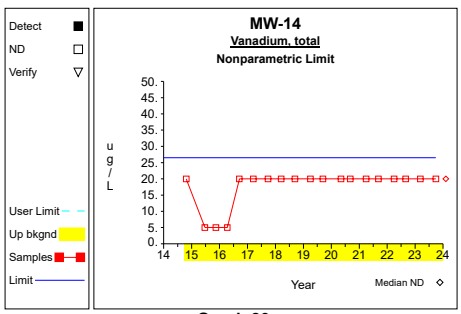
Graph 86



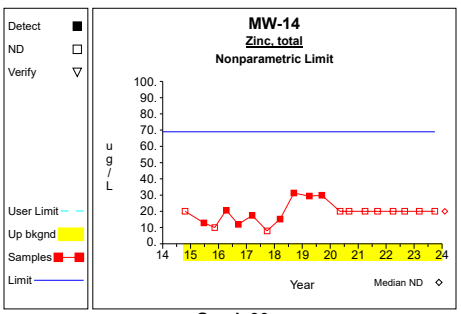
Graph 87



Graph 88



Graph 89



Graph 90

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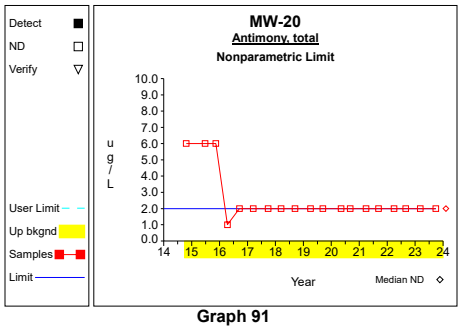
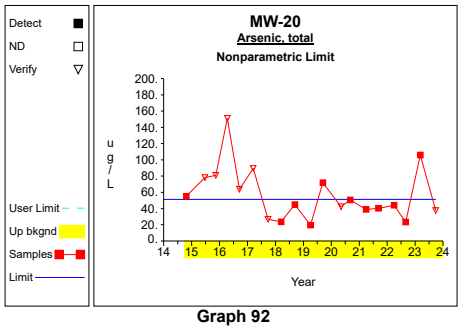
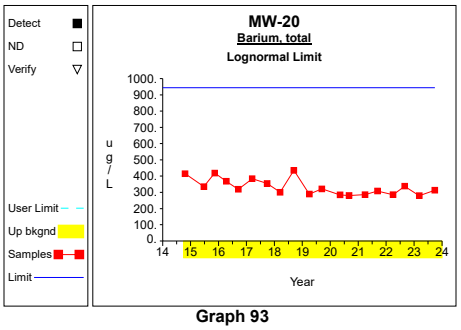
Up vs. Down Prediction Limits



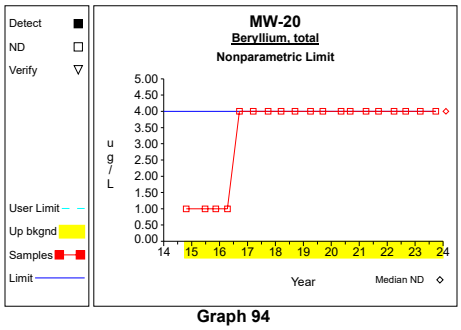
Graph 91



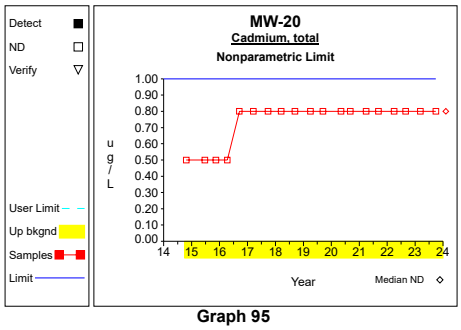
Graph 92



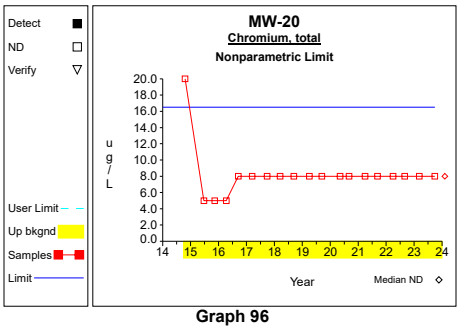
Graph 93



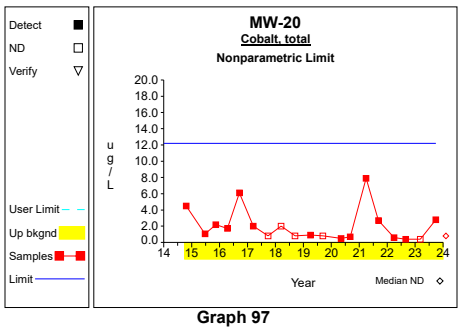
Graph 94



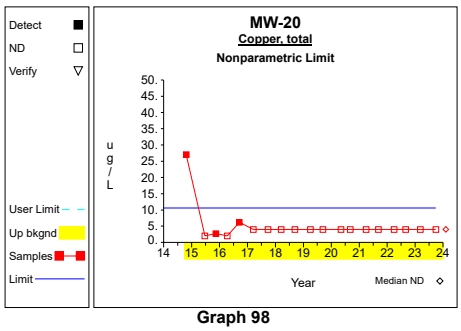
Graph 95



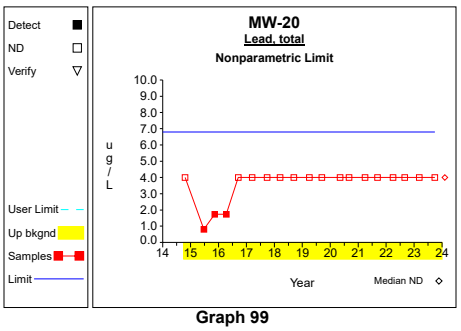
Graph 96



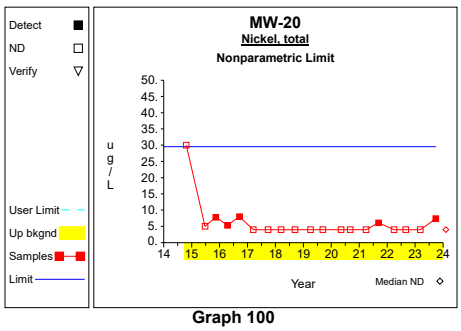
Graph 97



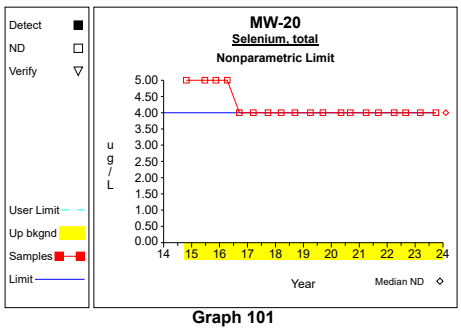
Graph 98



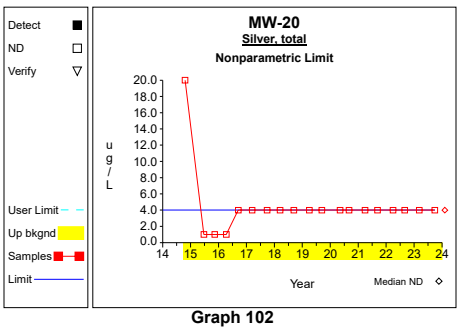
Graph 99



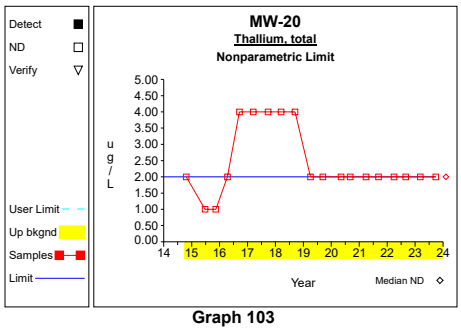
Graph 100



Graph 101



Graph 102



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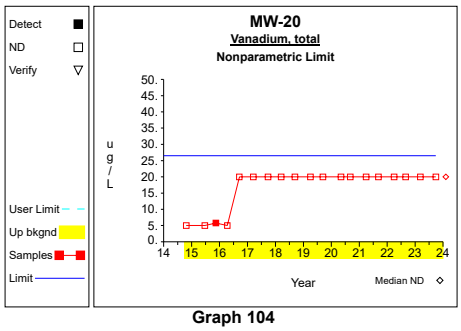
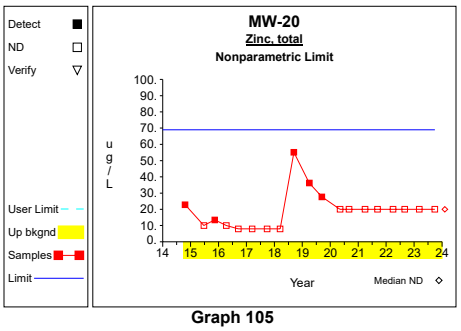


Graph 104



Graph 105

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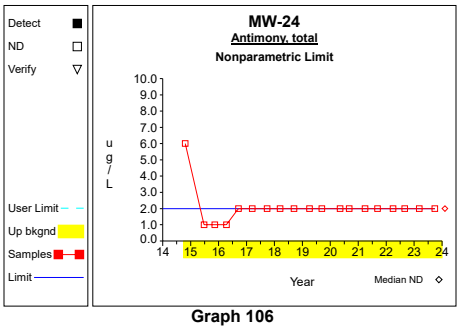
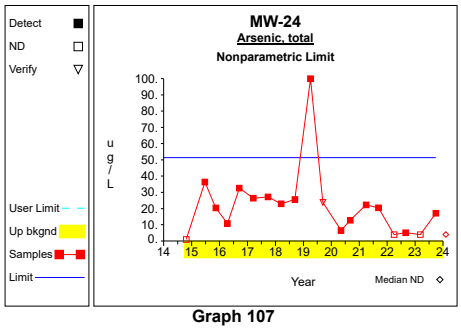
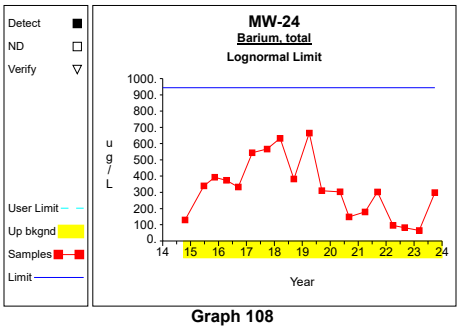
Up vs. Down Prediction Limits



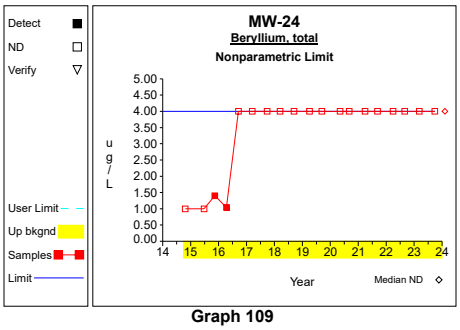
Graph 106



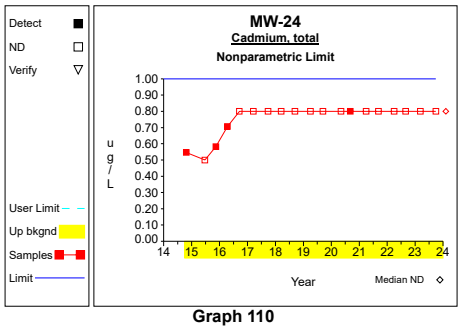
Graph 107



Graph 108



Graph 109



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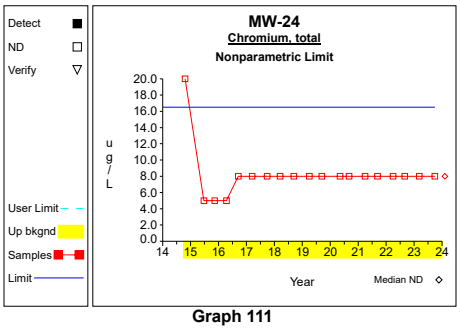

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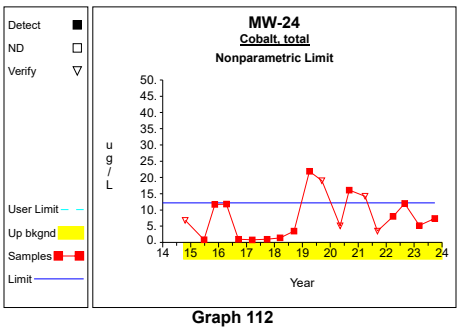

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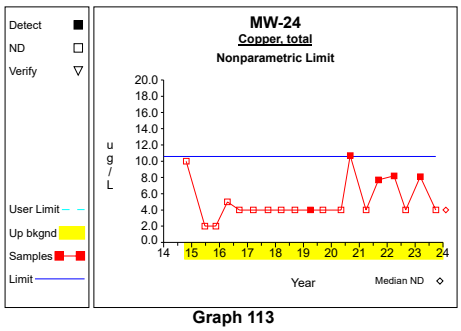

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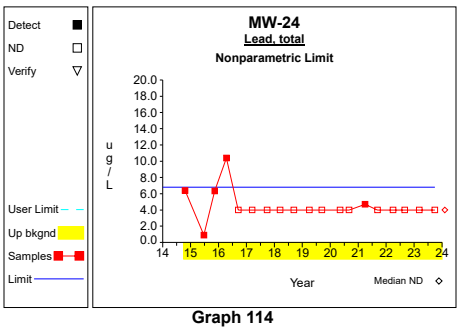

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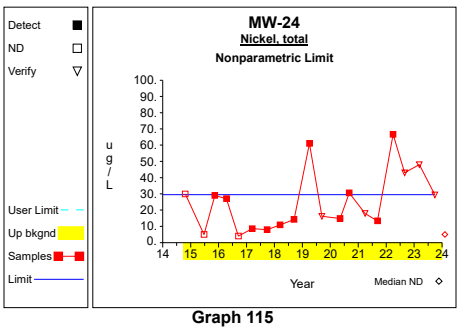

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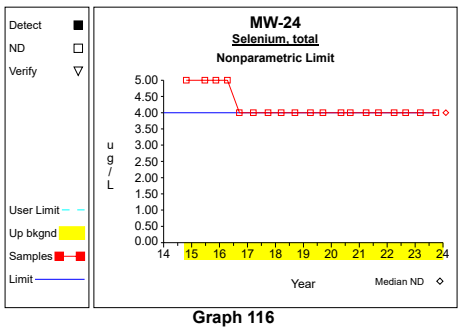

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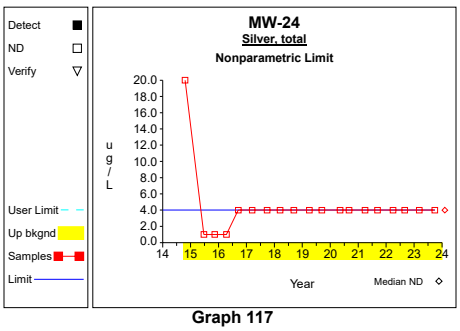
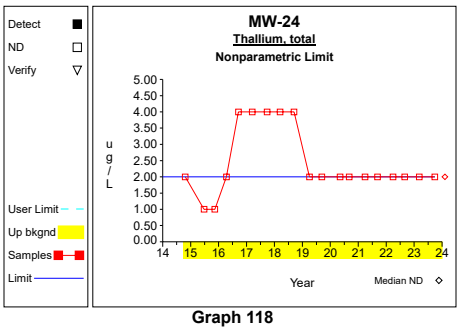
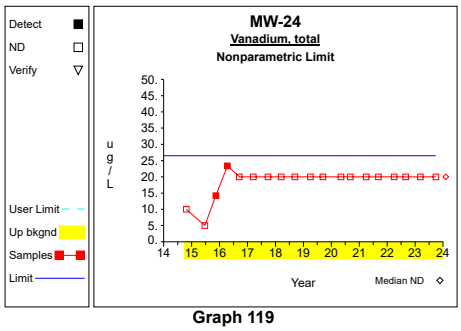


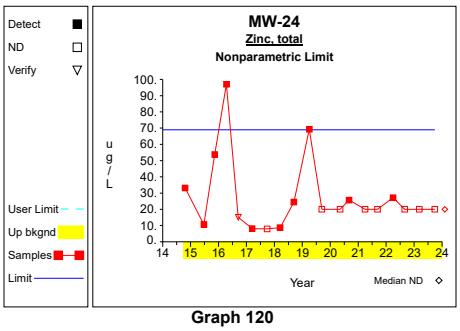
Graph 117



Graph 118



Graph 119



Graph 120

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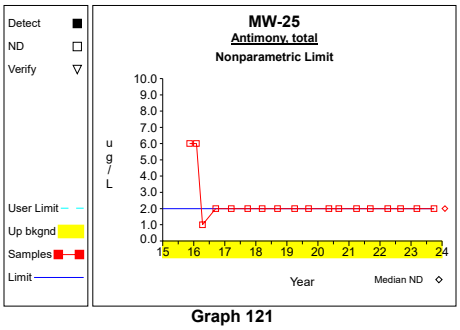
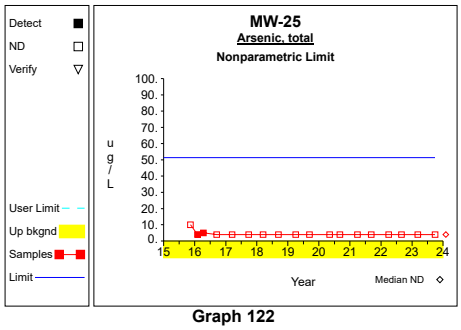
Up vs. Down Prediction Limits



Graph 121



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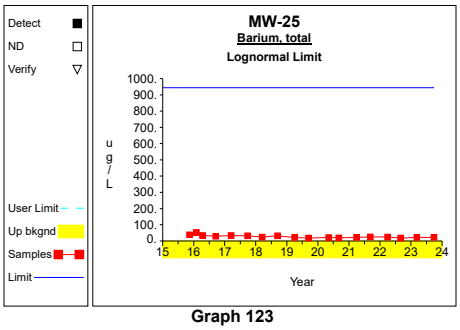

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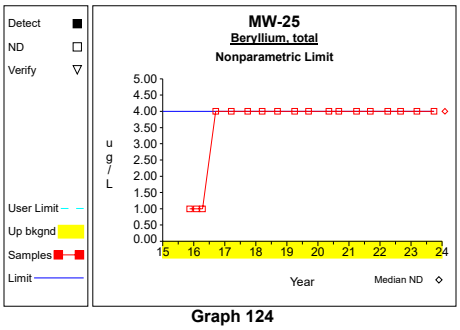
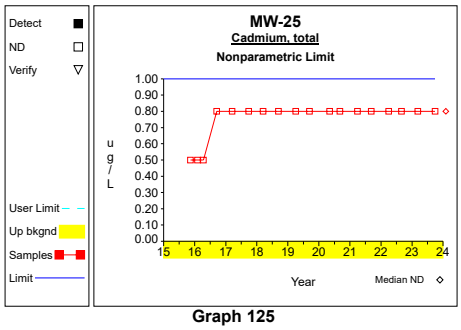
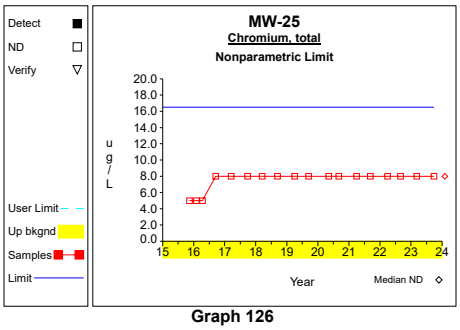


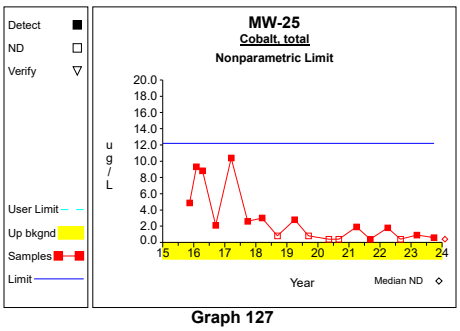
Graph 124



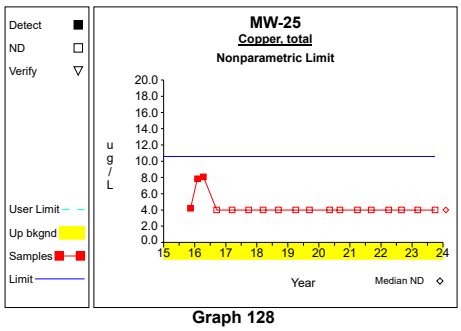
Graph 125



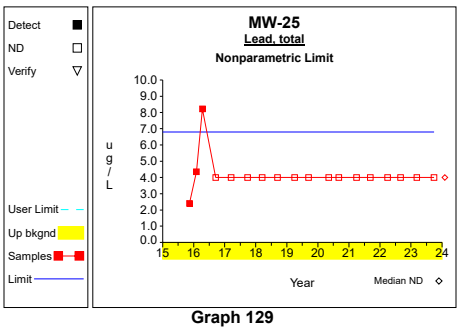
Graph 126



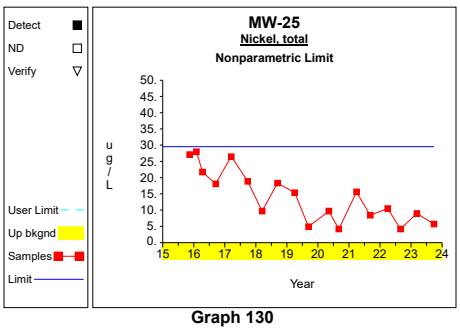
Graph 127



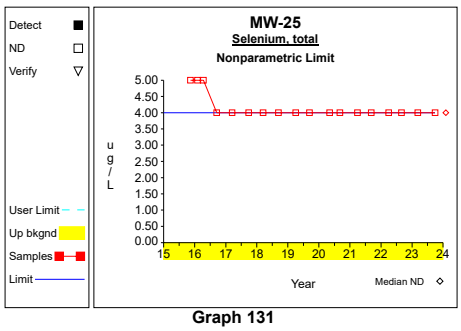
Graph 128



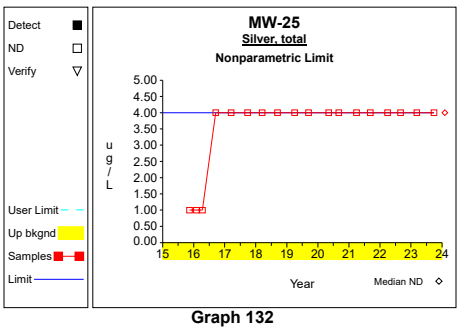
Graph 129



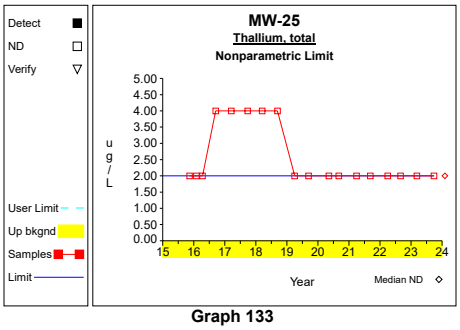
Graph 130



Graph 131



Graph 132



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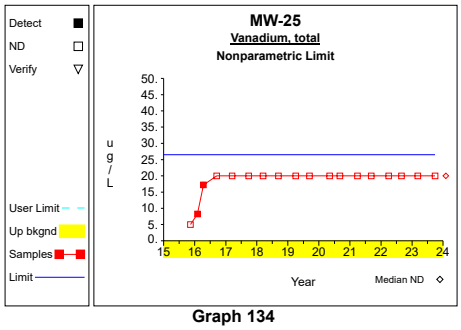

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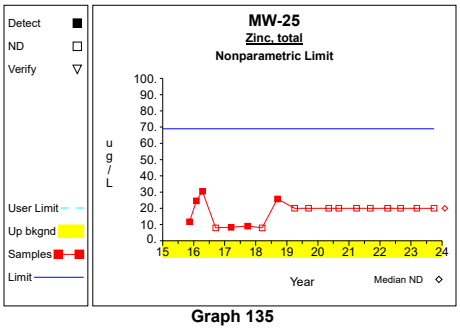

Graph 135

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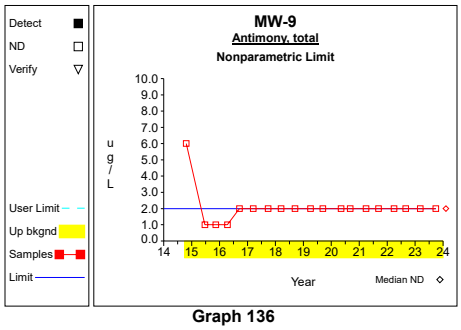
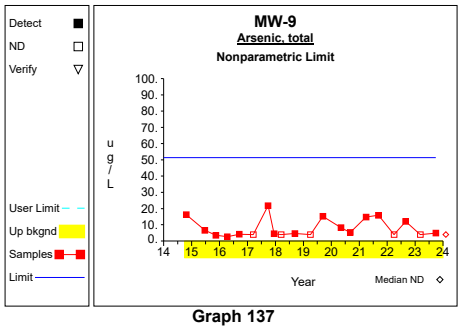
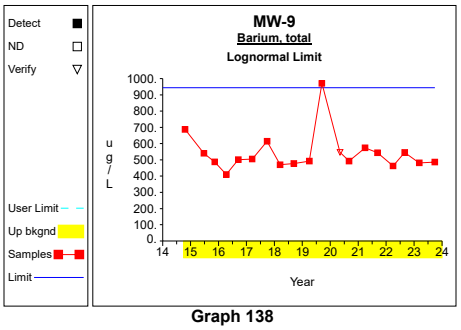
Up vs. Down Prediction Limits



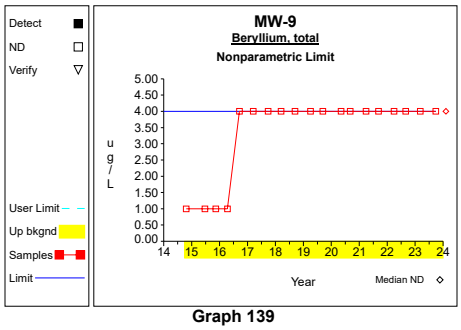
Graph 136



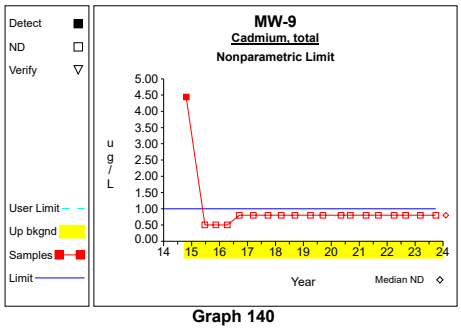
Graph 137



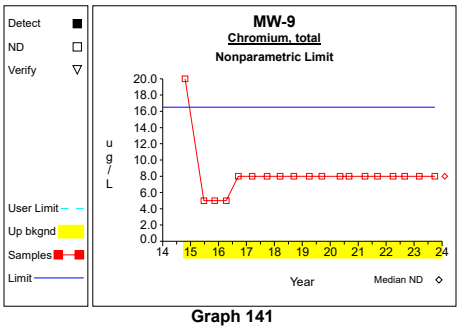
Graph 138



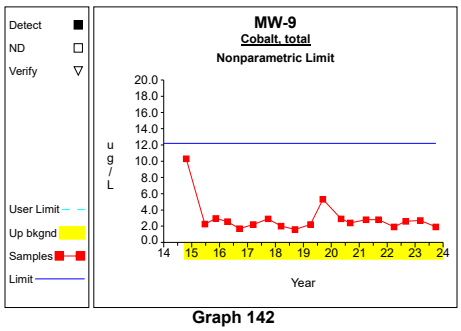
Graph 139



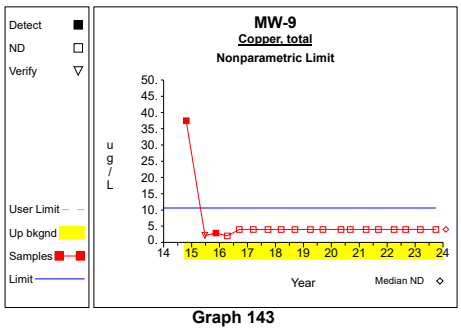
Graph 140



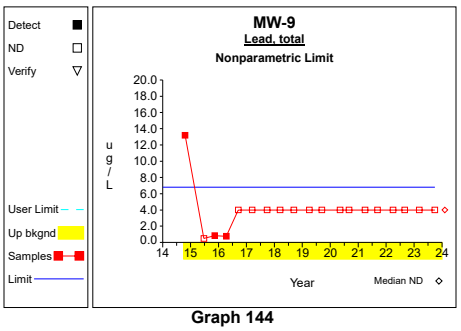
Graph 141



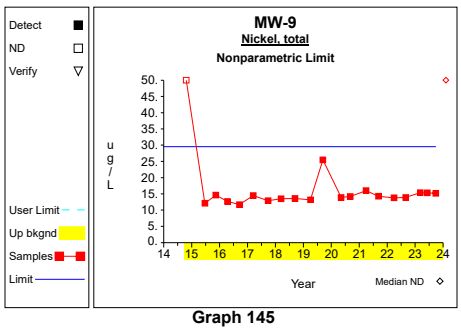
Graph 142



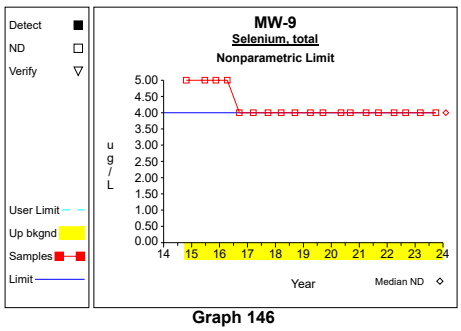
Graph 143



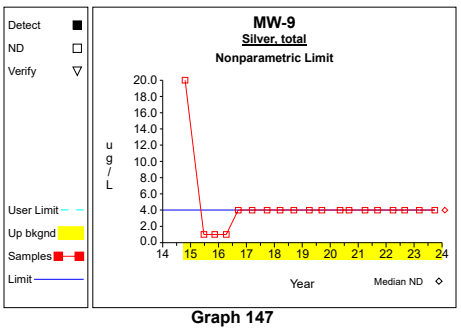
Graph 144



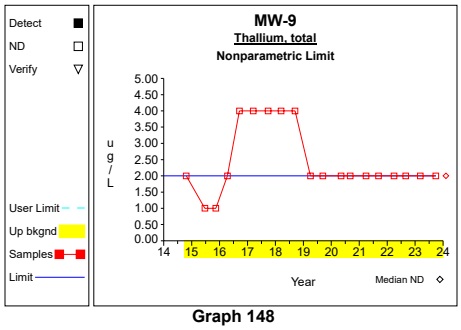
Graph 145



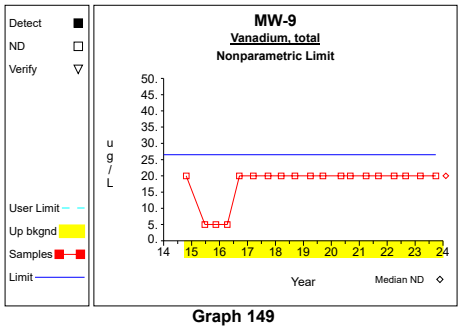
Graph 146



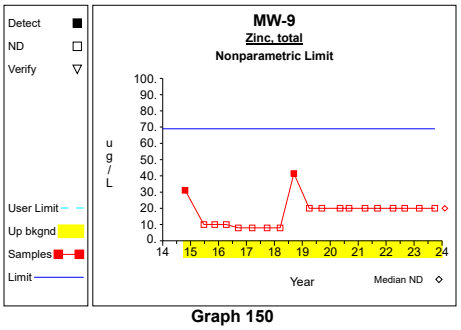
Graph 147



Graph 148



Graph 149

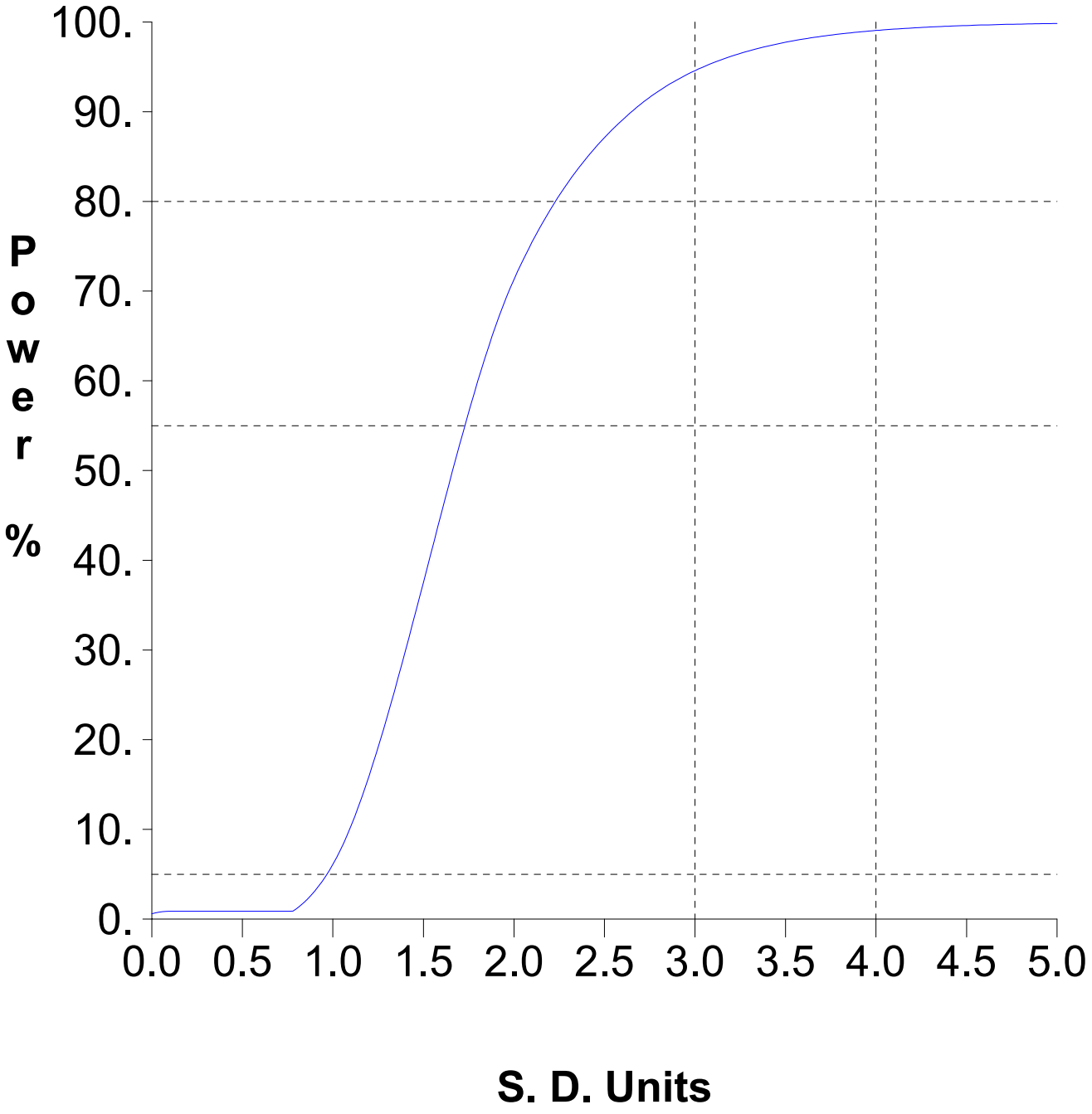


Graph 150

Prepared by: Otter Creek Environmental

False Positive and False Negative Rates for Current

Upgradient vs. Downgradient Monitoring Program



Attachment C

Assessment Statistics for Trace Metals

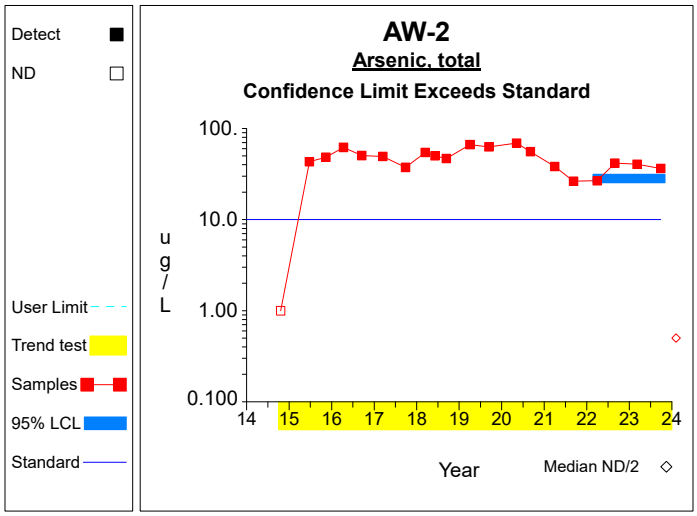
Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

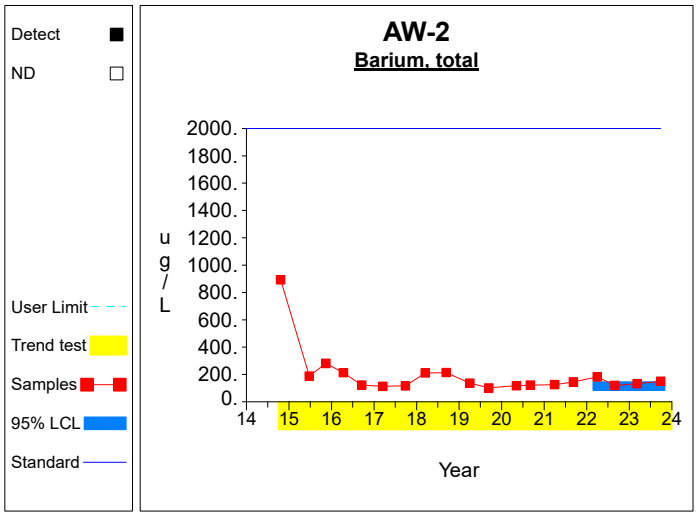
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Arsenic, total	ug/L	AW-2	4	36.325	6.806	1.176	28.319	44.331	10.000		**
Barium, total	ug/L	AW-2	4	146.250	26.813	1.176	114.711	177.789	2000.000		
Cobalt, total	ug/L	AW-2	4	9.700	3.279	1.176	5.843	13.557	2.100	dec	**
Nickel, total	ug/L	AW-2	4	9.075	2.990	1.176	5.557	12.593	100.000	dec	
Arsenic, total	ug/L	AW-3	4	43.150	32.060	1.176	5.438	80.862	10.000		
Barium, total	ug/L	AW-3	4	401.750	127.894	1.176	251.310	552.190	2000.000		
Cobalt, total	ug/L	AW-3	4	0.750	0.379	1.176	0.305	1.195	2.100	dec	
Nickel, total	ug/L	AW-3	4	2.825	1.650	1.176	0.884	4.766	100.000	dec	
Arsenic, total	ug/L	MW-12	4	2.775	1.550	1.176	0.952	4.598	10.000		
Barium, total	ug/L	MW-12	4	106.950	12.270	1.176	92.517	121.383	2000.000	dec	
Cobalt, total	ug/L	MW-12	4	1.000	0.735	1.176	0.136	1.864	2.100		
Nickel, total	ug/L	MW-12	4	13.700	9.438	1.176	2.598	24.802	100.000	dec	
Arsenic, total	ug/L	MW-14	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-14	4	359.000	61.357	1.176	286.827	431.173	2000.000		
Cobalt, total	ug/L	MW-14	4	0.450	0.100	1.176	0.332	0.568	2.100		
Nickel, total	ug/L	MW-14	4	7.025	4.066	1.176	2.243	11.807	100.000		
Arsenic, total	ug/L	MW-20	4	52.725	36.562	1.176	9.718	95.732	10.000		
Barium, total	ug/L	MW-20	4	303.750	27.220	1.176	271.732	335.768	2000.000	dec	
Cobalt, total	ug/L	MW-20	4	1.050	1.170	1.176	0.000	2.427	2.100		
Nickel, total	ug/L	MW-20	4	3.350	2.700	1.176	0.174	6.526	100.000		
Arsenic, total	ug/L	MW-24	4	6.550	7.184	1.176	0.000	15.000	10.000		
Barium, total	ug/L	MW-24	4	135.500	109.079	1.176	7.192	263.808	2000.000		
Cobalt, total	ug/L	MW-24	4	8.150	2.835	1.176	4.815	11.485	2.100		**
Nickel, total	ug/L	MW-24	4	46.775	15.434	1.176	28.620	64.930	100.000	inc	
Arsenic, total	ug/L	MW-25	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-25	4	22.150	2.720	1.176	18.951	25.349	2000.000	dec	
Cobalt, total	ug/L	MW-25	4	0.875	0.680	1.176	0.075	1.675	2.100		
Nickel, total	ug/L	MW-25	4	7.350	2.903	1.176	3.935	10.765	100.000	dec	
Arsenic, total	ug/L	MW-9	4	5.250	4.767	1.176	0.000	10.857	10.000		
Barium, total	ug/L	MW-9	4	493.500	35.856	1.176	451.323	535.677	2000.000		
Cobalt, total	ug/L	MW-9	4	2.275	0.435	1.176	1.763	2.787	2.100		
Nickel, total	ug/L	MW-9	4	14.950	0.705	1.176	14.121	15.779	100.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

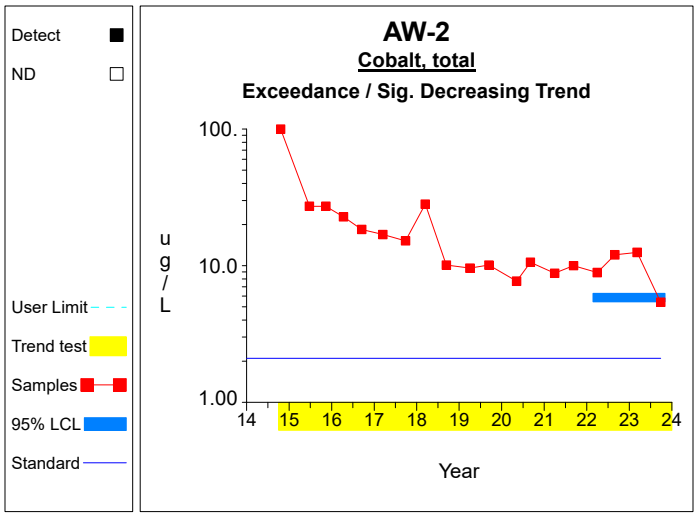
Confidence Limits (Assessment)



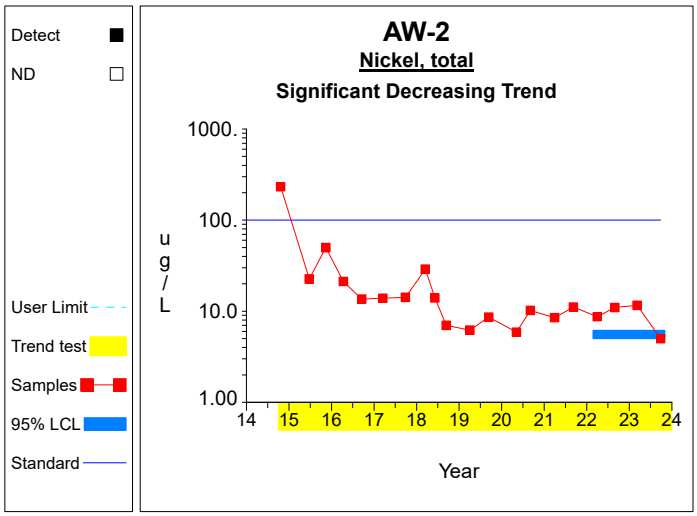
Graph 1



Graph 2

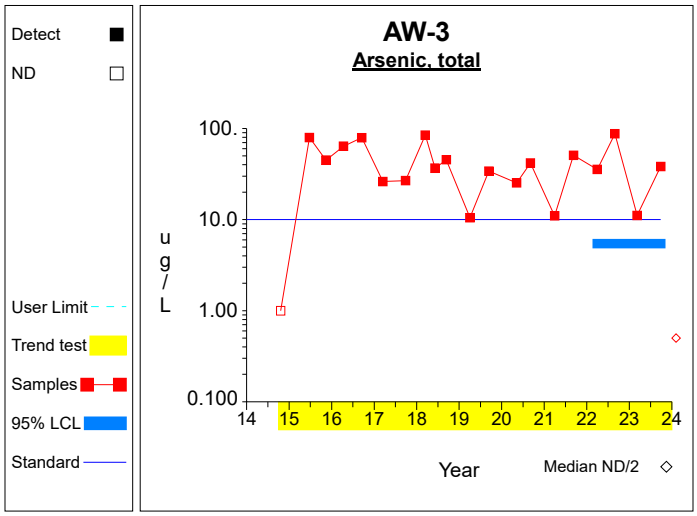


Graph 3

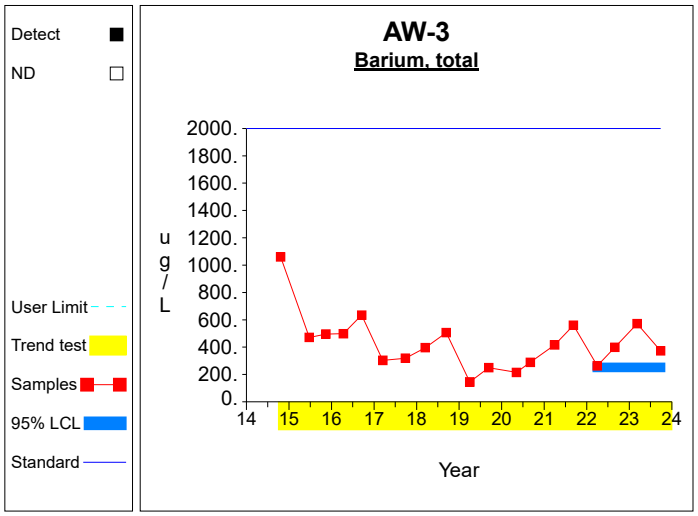


Graph 4

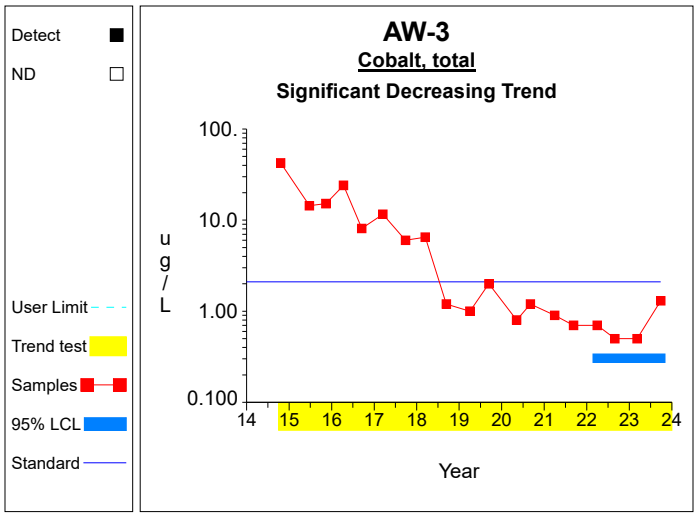
Confidence Limits (Assessment)



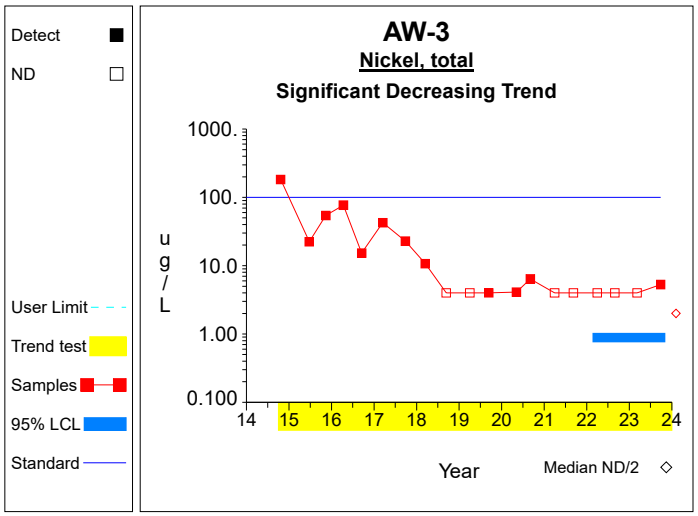
Graph 5



Graph 6

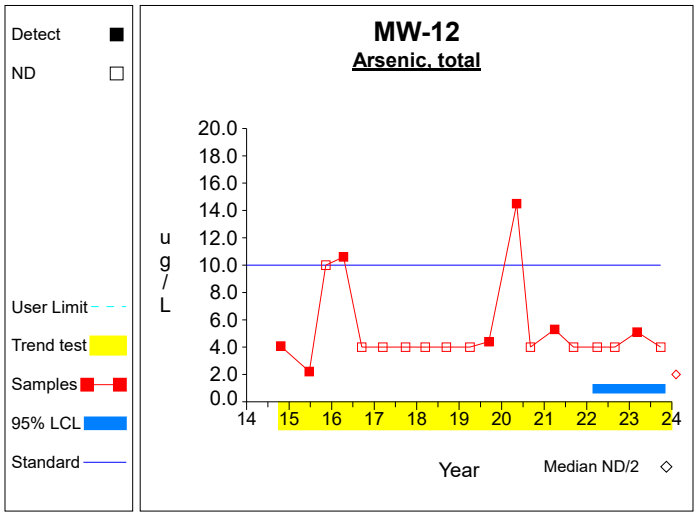


Graph 7

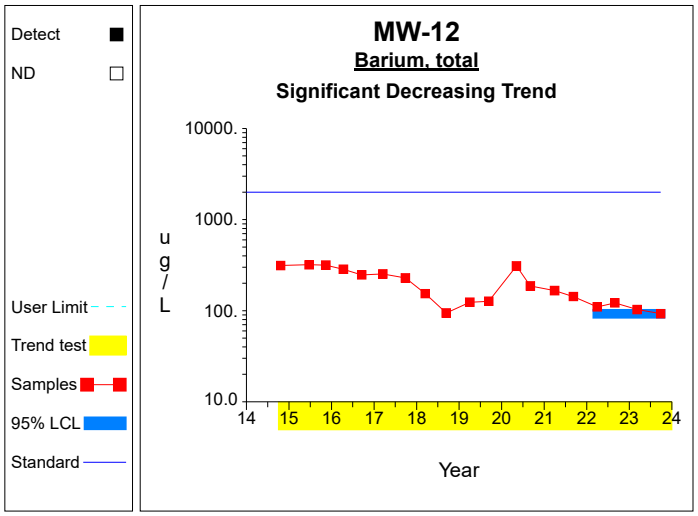


Graph 8

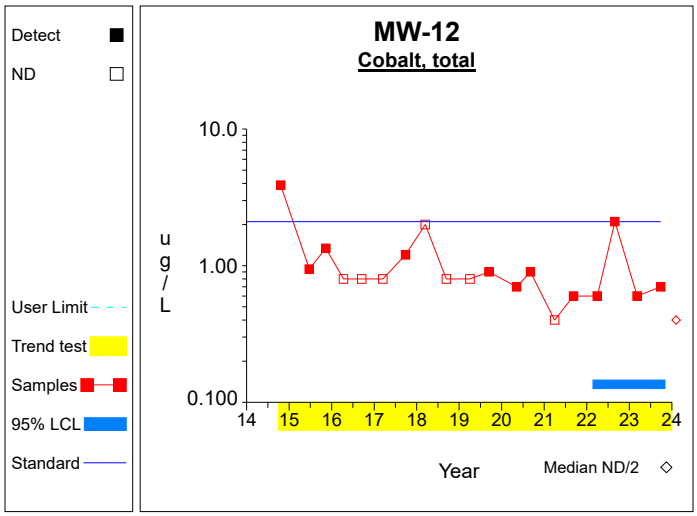
Confidence Limits (Assessment)



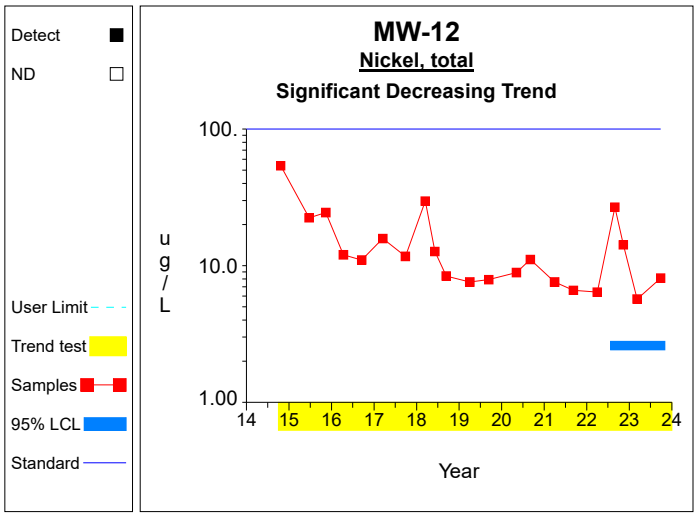
Graph 9



Graph 10

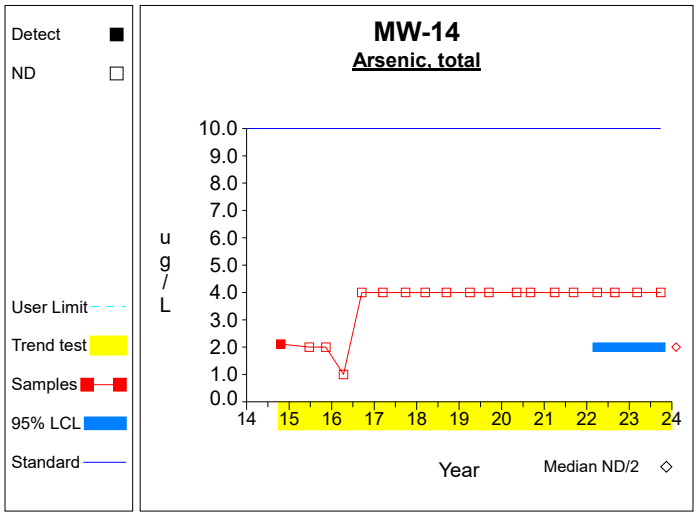


Graph 11

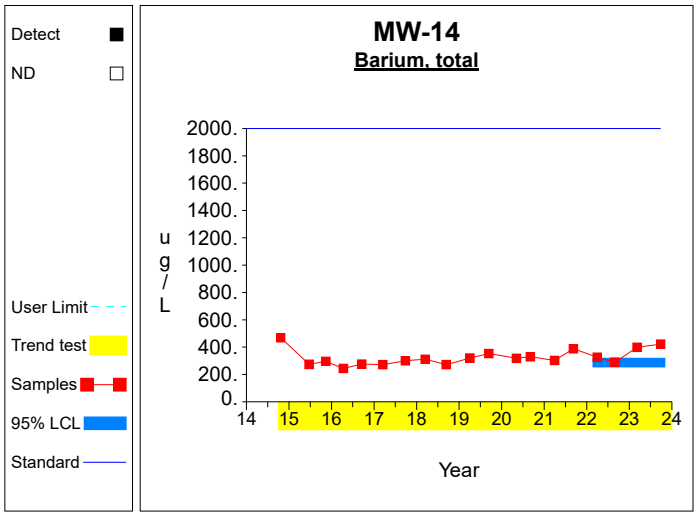


Graph 12

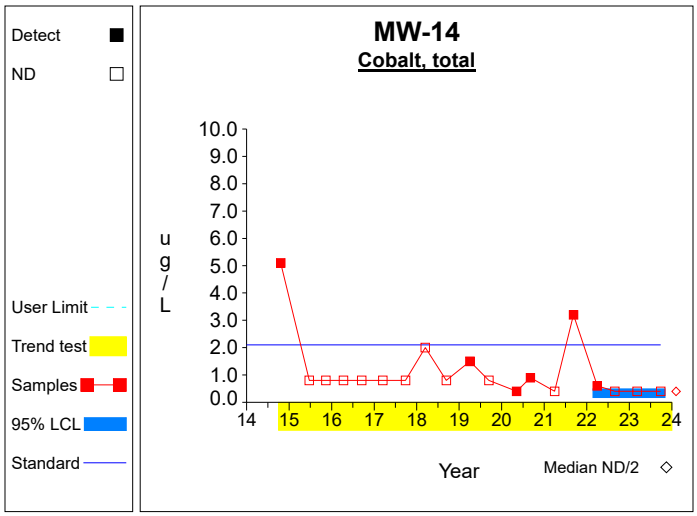
Confidence Limits (Assessment)



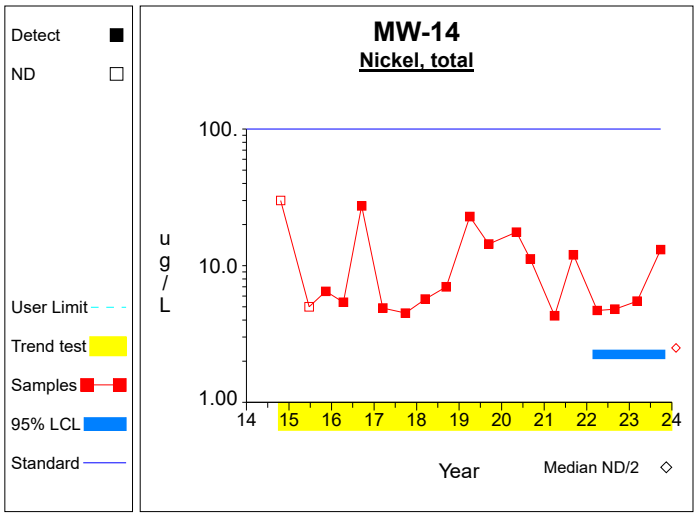
Graph 13



Graph 14

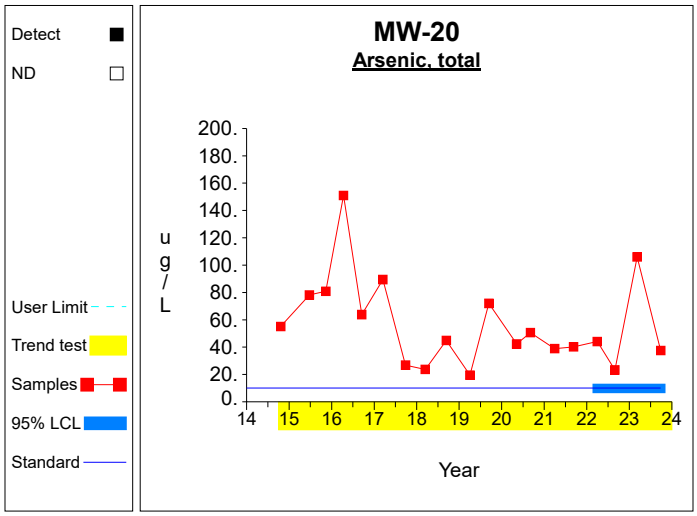


Graph 15

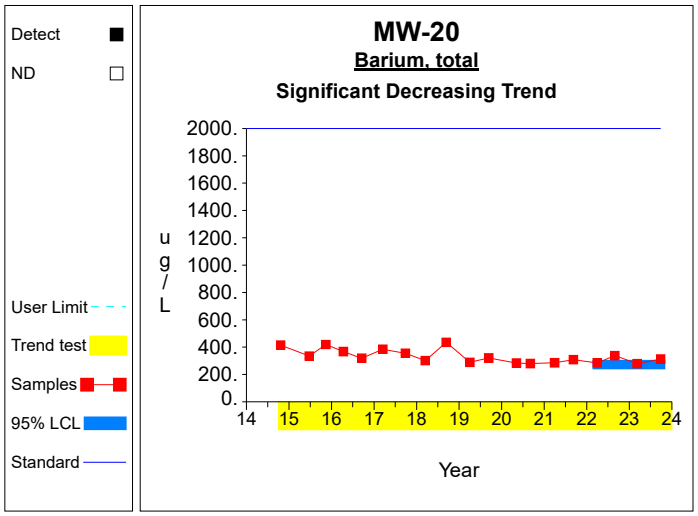


Graph 16

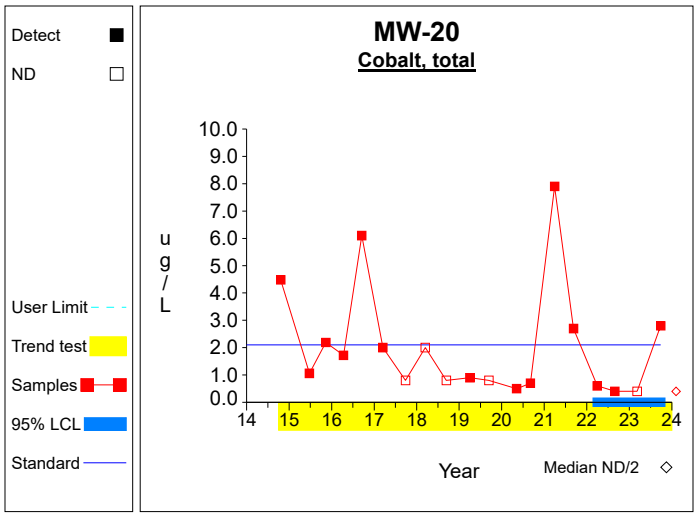
Confidence Limits (Assessment)



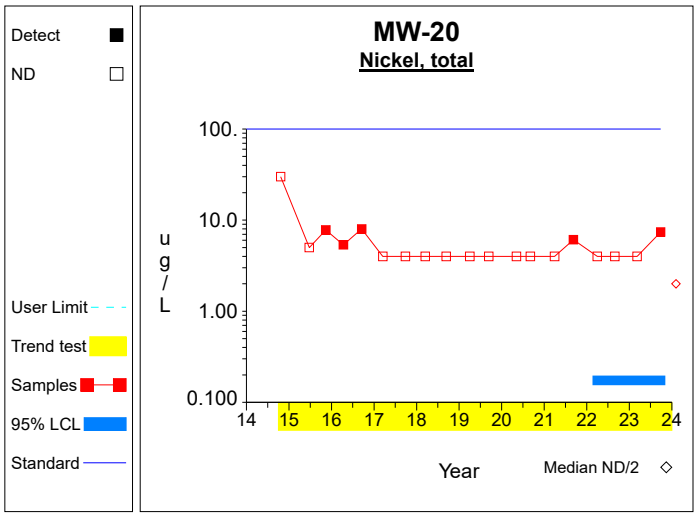
Graph 17



Graph 18

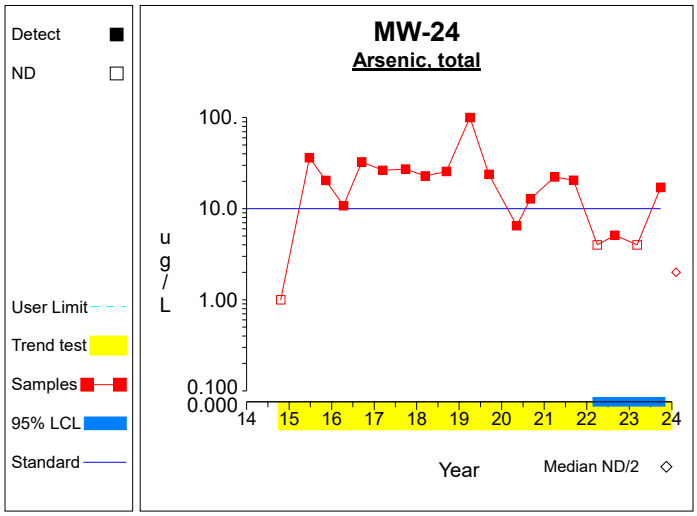


Graph 19

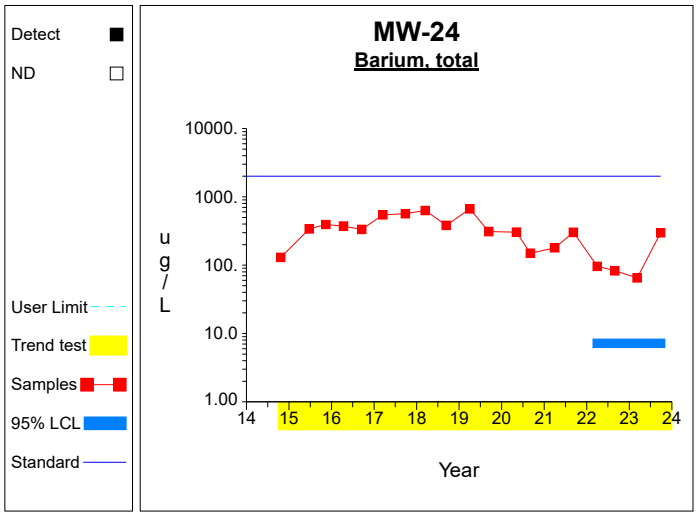


Graph 20

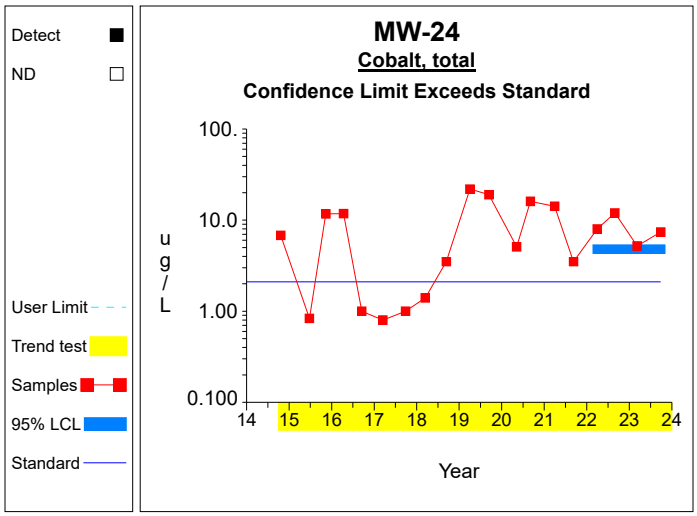
Confidence Limits (Assessment)



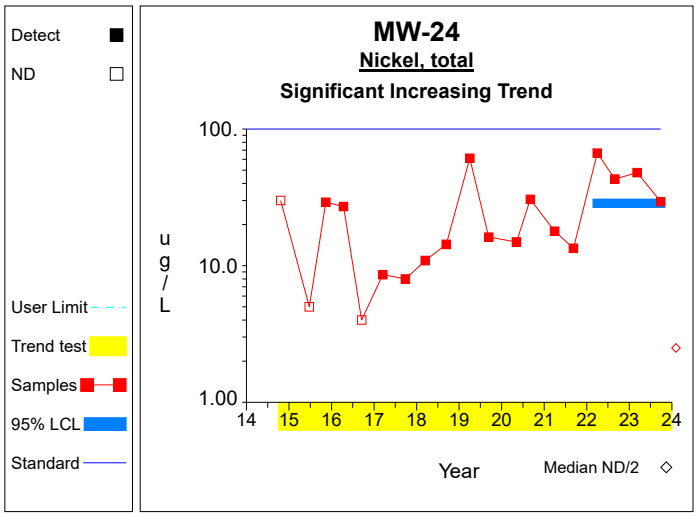
Graph 21



Graph 22

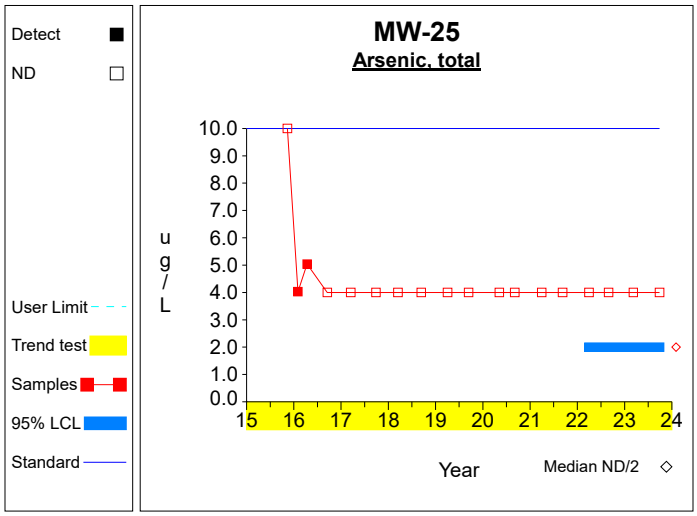


Graph 23

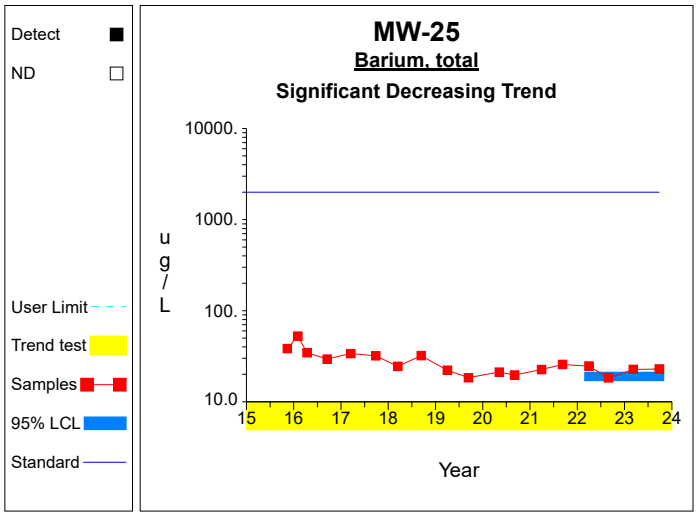


Graph 24

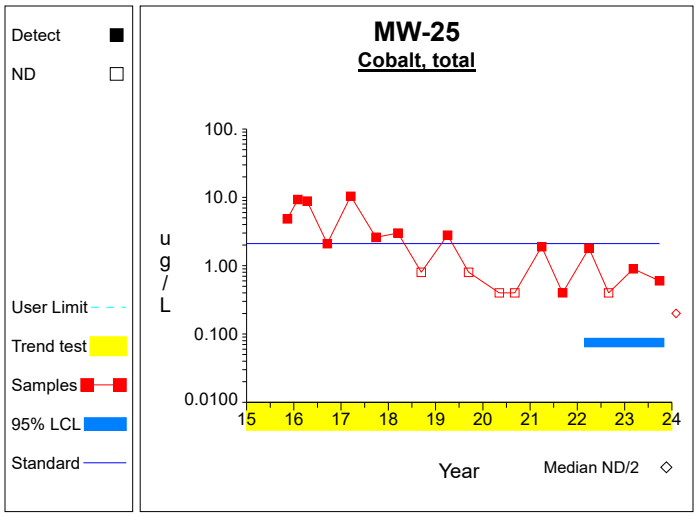
Confidence Limits (Assessment)



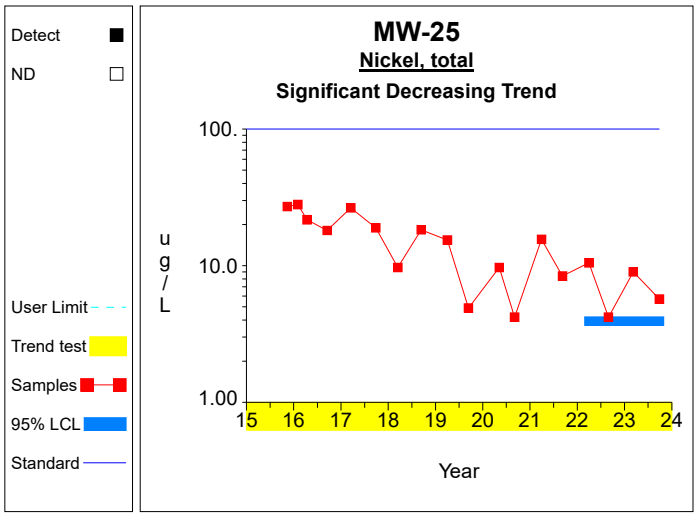
Graph 25



Graph 26

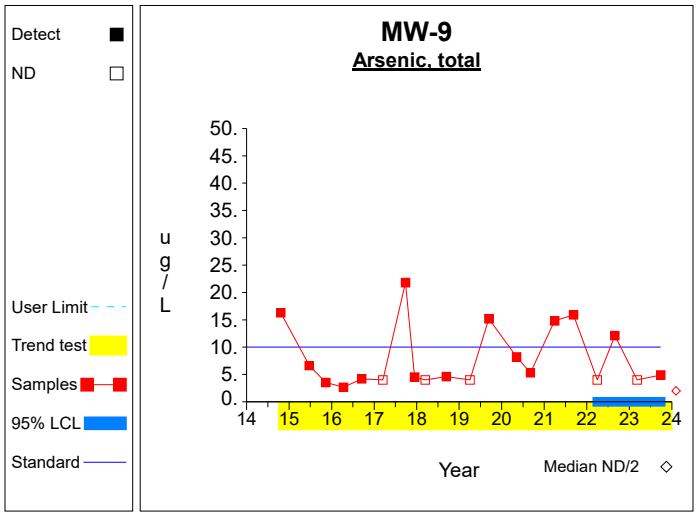


Graph 27

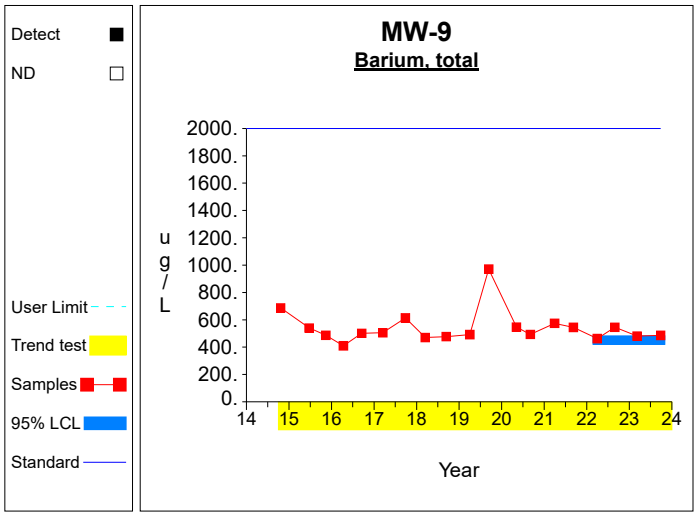


Graph 28

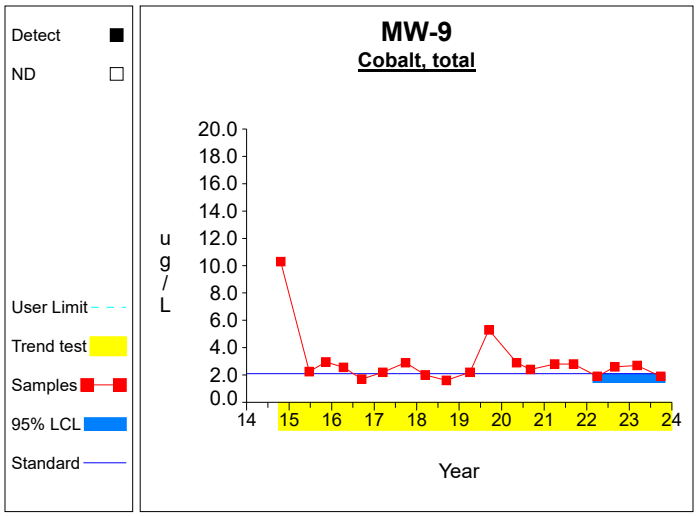
Confidence Limits (Assessment)



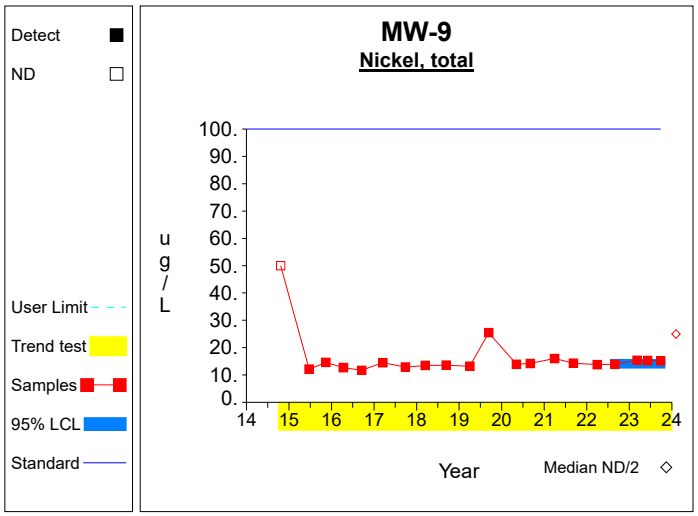
Graph 29



Graph 30



Graph 31



Graph 32

Attachment D

Summary Tables and Graphs for the Intrawell Comparisons

Table 1

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Antimony, total	ug/L	MW-24	17	2	28			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	MW-24	17	2	28	23.2471	22.4453	4.0000	17.1000	23.2471	23.2471	169.1415	normal		
Barium, total	ug/L	MW-24	17	2	28	340.0529	181.2577	65.1000	298.0000	340.0529	340.0529	1518.2280	normal		
Beryllium, total	ug/L	MW-24	17	2	28			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW-24	17	2	28			0.8000	0.8000			0.8000	nonpar	.99	**
Chromium, total	ug/L	MW-24	17	2	28			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	MW-24	17	2	28	8.1549	6.8788	5.2000	7.4000	8.1549	8.1549	52.8671	normal		
Copper, total	ug/L	MW-24	17	2	28			8.1000	4.0000			10.7000	nonpar	.99	**
Lead, total	ug/L	MW-24	16	2	28	4.7394	1.7106	4.0000	4.0000	4.7394	4.7394	15.8581	normal		
Nickel, total	ug/L	MW-24	17	2	28	22.1647	18.9039	48.0000	29.4000	33.8221	26.8795	145.0398	normal		
Selenium, total	ug/L	MW-24	17	2	28			4.0000	4.0000			4.0000	nonpar	.99	**
Silver, total	ug/L	MW-24	13	2	28			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW-24	17	2	28			2.0000	2.0000			2.0000	nonpar	.99	**
Vanadium, total	ug/L	MW-24	16	2	28			20.0000	20.0000			23.4000	nonpar	.99	**
Zinc, total	ug/L	MW-24	17	2	28	29.0176	23.4229	20.0000	20.0000	29.0176	29.0176	181.2667	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one verification resample (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

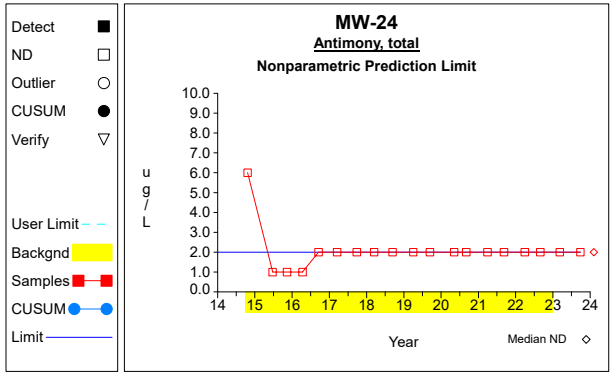
Table 4

Dixon's Test Outliers
5% Significance Level

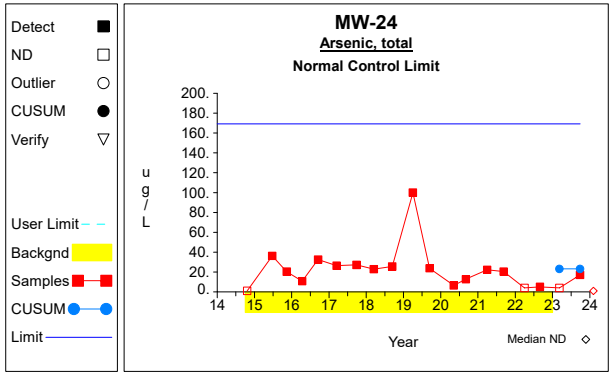
Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Lead, total	ug/L	MW-24	06/23/2015	0.9010		10/21/2014-08/30/2022	17	0.4891
Silver, total	ug/L	MW-24	10/21/2014	20.0000	< 20.0000	10/21/2014-08/30/2022	17	0.4891
Silver, total	ug/L	MW-24	06/23/2015	1.0000	< 1.0000	10/21/2014-08/30/2022	17	0.5054
Silver, total	ug/L	MW-24	11/12/2015	1.0000	< 1.0000	10/21/2014-08/30/2022	17	0.5054
Silver, total	ug/L	MW-24	04/12/2016	1.0000	< 1.0000	10/21/2014-08/30/2022	17	0.5054
Vanadium, total	ug/L	MW-24	06/23/2015	5.0000	< 5.0000	10/21/2014-08/30/2022	17	0.4891

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

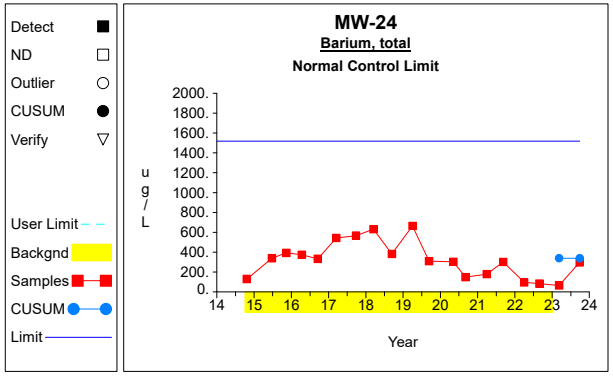
Intra-Well Control Charts / Prediction Limits



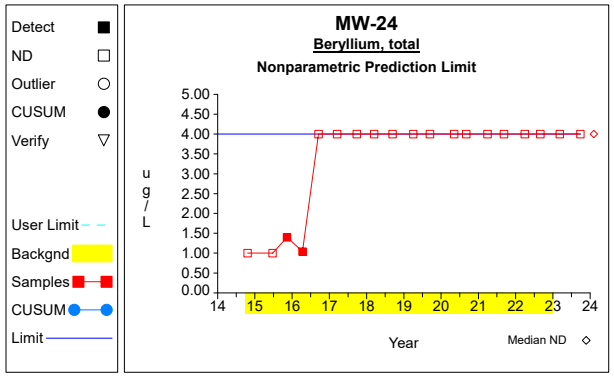
Graph 1



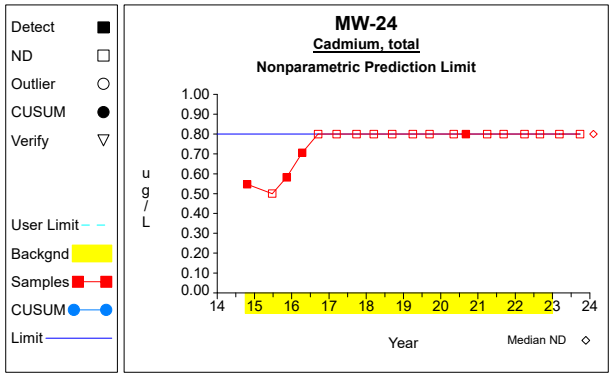
Graph 2



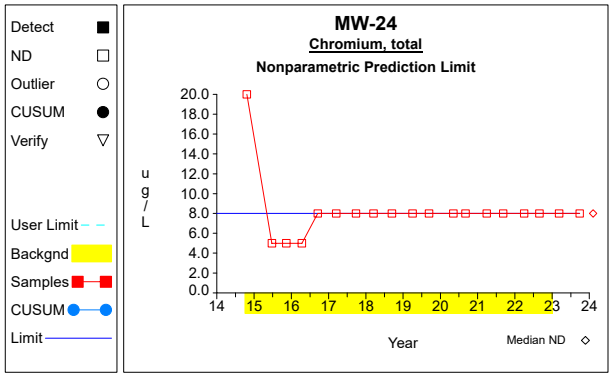
Graph 3



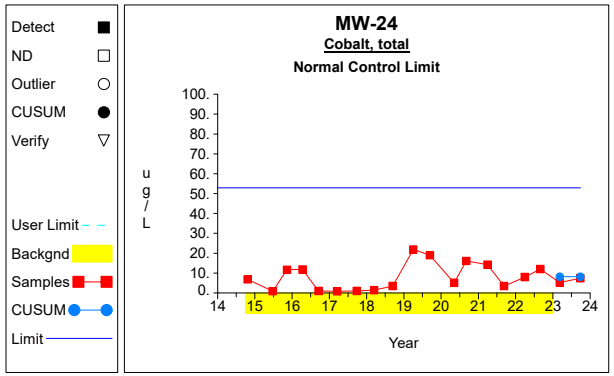
Graph 4



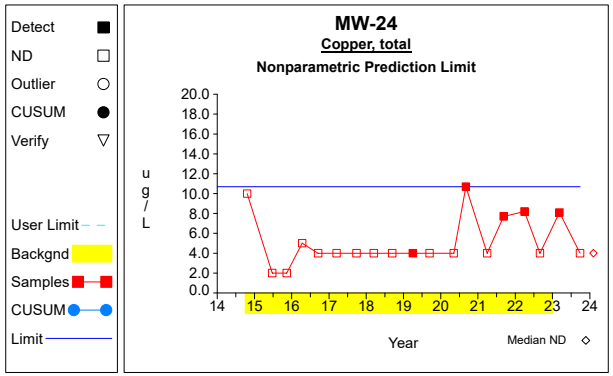
Graph 5



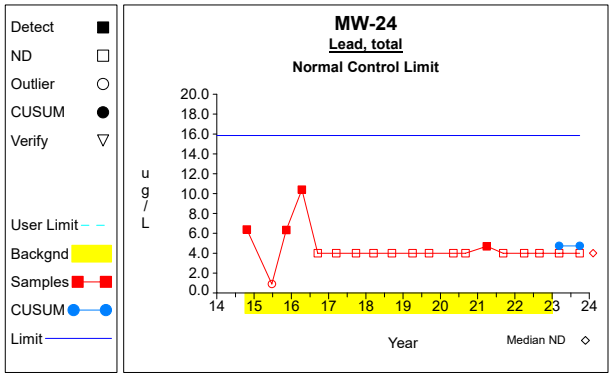
Graph 6



Graph 7



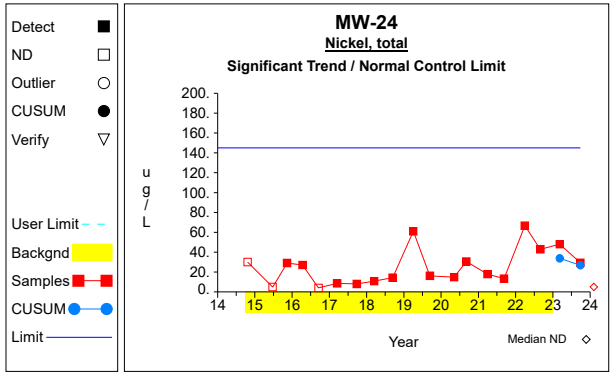
Graph 8



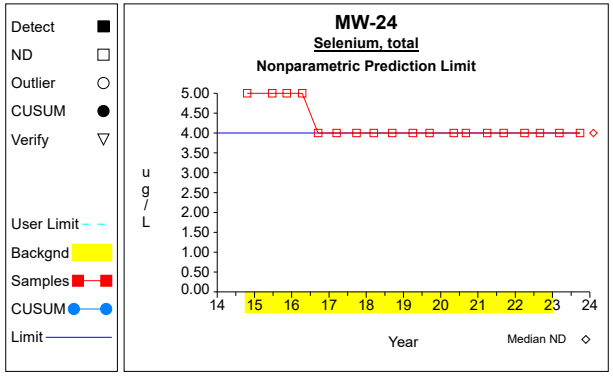
Graph 9

Prepared by: Otter Creek Environmental

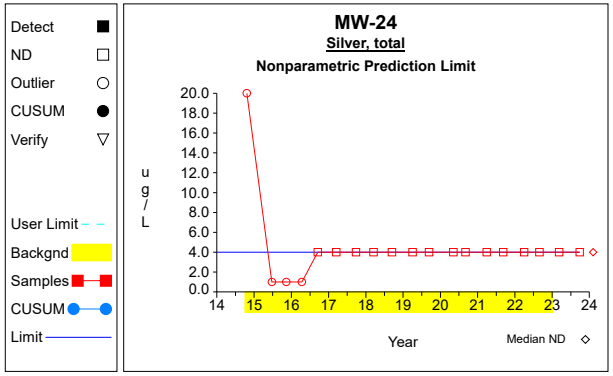
Intra-Well Control Charts / Prediction Limits



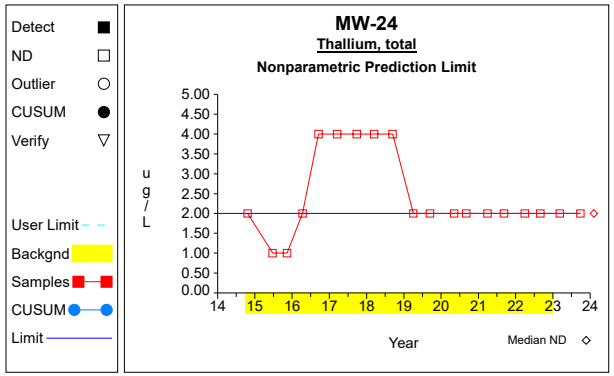
Graph 10



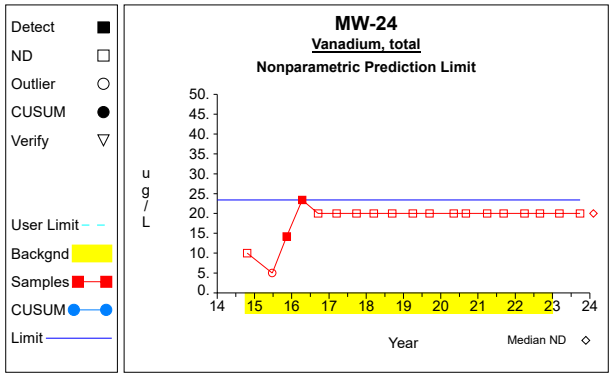
Graph 11



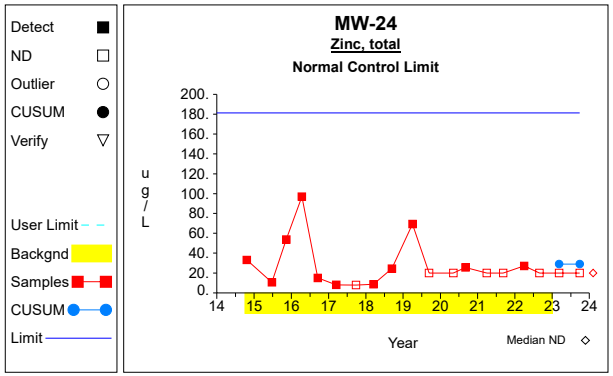
Graph 12



Graph 13

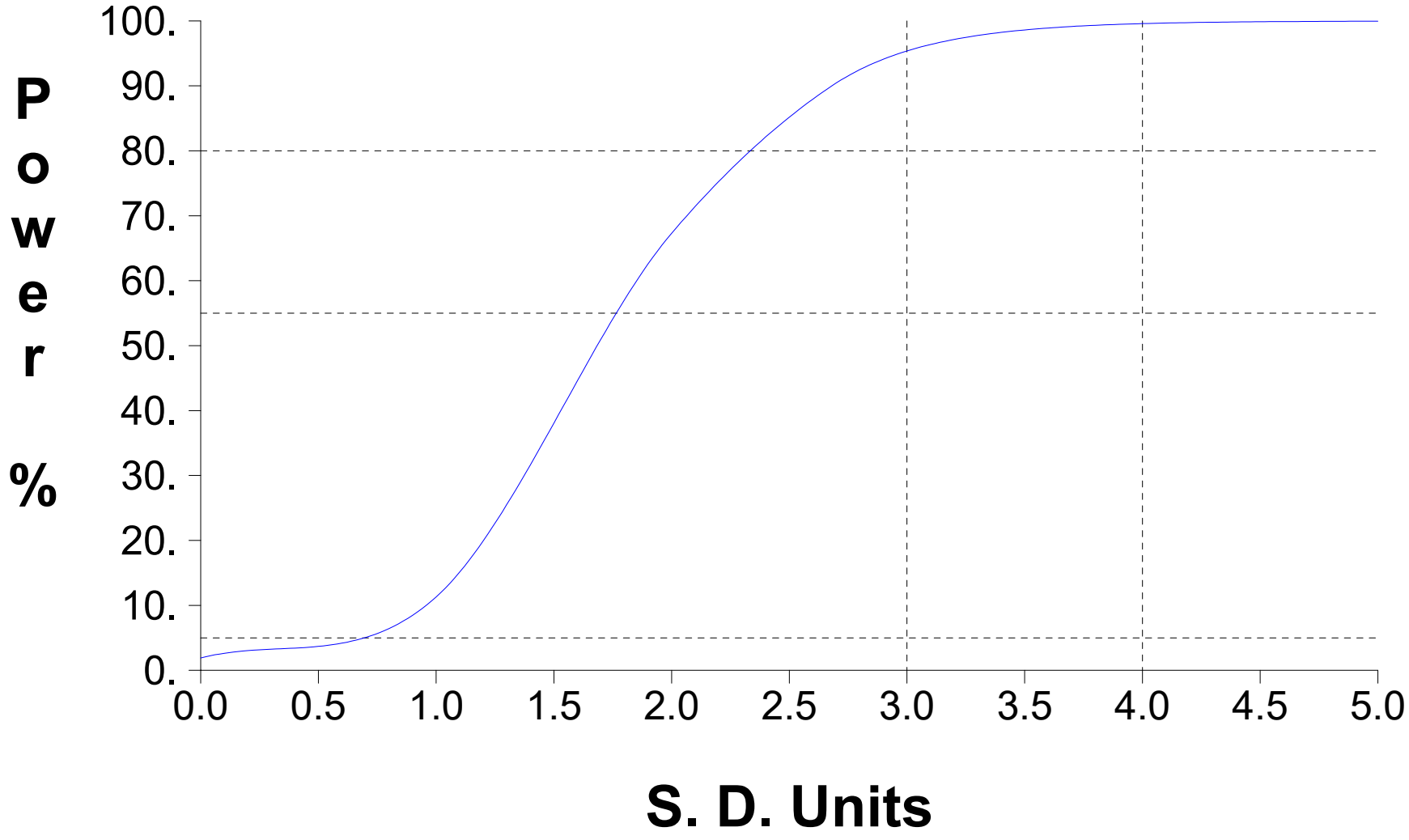


Graph 14



Graph 15

False Positive and False Negative Rates for Current Intra-Well Control Charts Monitoring Program



Attachment E

Historical VOC Detections

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
2-butanone	AW-2	9/08/2021		8.5	5.0	ug/L
Acetone	AW-2	9/27/2017		14.4	10.0	ug/L
Acetone	AW-2	9/08/2021		138.0	10.0	ug/L
Benzene	AW-2	10/20/2014		1.870	.500	ug/L
Benzene	AW-2	6/23/2015		1.950	.500	ug/L
Benzene	AW-2	11/12/2015		.961	.500	ug/L
Benzene	AW-2	4/11/2016		1.020	.500	ug/L
Benzene	AW-2	9/12/2018		1.000	1.000	ug/L
Benzene	AW-2	9/08/2021		1.400	1.000	ug/L
Chloroethane	AW-2	9/08/2021		1	1	ug/L
1,1-dichloroethane	AW-3	4/11/2016		1.02	1.00	ug/L
1,1-dichloroethane	AW-3	9/16/2016		1.20	1.00	ug/L
1,1-dichloroethane	AW-3	3/15/2017		2.50	1.00	ug/L
1,1-dichloroethane	AW-3	9/27/2017		1.60	1.00	ug/L
1,4-dichlorobenzene	AW-3	10/20/2014		2.8	1.0	ug/L
1,4-dichlorobenzene	AW-3	9/16/2016		1.9	1.0	ug/L
1,4-dichlorobenzene	AW-3	9/27/2017		1.1	1.0	ug/L
1,4-dichlorobenzene	AW-3	3/14/2018		3.5	1.0	ug/L
1,4-dichlorobenzene	AW-3	9/12/2018		4.0	1.0	ug/L
1,4-dichlorobenzene	AW-3	4/01/2019		2.6	1.0	ug/L
1,4-dichlorobenzene	AW-3	5/06/2020		2.2	1.0	ug/L
1,4-dichlorobenzene	AW-3	9/03/2020		2.0	1.0	ug/L
1,4-dichlorobenzene	AW-3	3/30/2021		2.8	1.0	ug/L
1,4-dichlorobenzene	AW-3	9/08/2021		3.8	1.0	ug/L
1,4-dichlorobenzene	AW-3	3/31/2022		2.3	1.0	ug/L
1,4-dichlorobenzene	AW-3	8/30/2022		2.2	1.0	ug/L
1,4-dichlorobenzene	AW-3	3/07/2023		2.7	1.0	ug/L
1,4-dichlorobenzene	AW-3	9/28/2023		3.4	1.0	ug/L
2-butanone	AW-3	9/12/2018		6	5	ug/L
Acetone	AW-3	9/12/2019		11.4	10.0	ug/L
Acetone	AW-3	3/31/2022		24.4	10.0	ug/L
Benzene	AW-3	10/20/2014		4.19	.50	ug/L
Benzene	AW-3	6/23/2015		4.98	.50	ug/L
Benzene	AW-3	11/13/2015		1.53	.50	ug/L
Benzene	AW-3	4/11/2016		1.62	.50	ug/L
Benzene	AW-3	9/16/2016		1.00	1.00	ug/L
Benzene	AW-3	3/14/2018		5.60	1.00	ug/L
Benzene	AW-3	9/12/2018		4.10	1.00	ug/L
Benzene	AW-3	9/12/2019		1.10	1.00	ug/L
Benzene	AW-3	5/06/2020		1.20	1.00	ug/L
Benzene	AW-3	3/30/2021		5.20	1.00	ug/L
Benzene	AW-3	9/08/2021		4.10	1.00	ug/L
Benzene	AW-3	3/31/2022		1.40	1.00	ug/L
Benzene	AW-3	8/30/2022		2.30	1.00	ug/L
Benzene	AW-3	3/07/2023		2.60	1.00	ug/L
Benzene	AW-3	9/28/2023		2.60	1.00	ug/L
Bis(2-ethylhexyl) phthalate	AW-3	3/15/2017		16	8	ug/L
Chlorobenzene	AW-3	3/15/2017		1.1	1.0	ug/L
Chloroethane	AW-3	10/20/2014		7.13	1.00	ug/L
Chloroethane	AW-3	6/23/2015		8.62	1.00	ug/L
Chloroethane	AW-3	4/11/2016		4.73	1.00	ug/L
Chloroethane	AW-3	9/16/2016		4.60	1.00	ug/L
Chloroethane	AW-3	3/15/2017		6.80	1.00	ug/L
Chloroethane	AW-3	9/27/2017		4.60	1.00	ug/L
Chloroethane	AW-3	3/14/2018		5.50	1.00	ug/L
Chloroethane	AW-3	9/12/2018		3.00	1.00	ug/L
Chloroethane	AW-3	4/01/2019		1.20	1.00	ug/L
Chloroethane	AW-3	5/06/2020		2.50	1.00	ug/L
Chloroethane	AW-3	9/03/2020		3.90	1.00	ug/L
Chloroethane	AW-3	3/30/2021		4.50	1.00	ug/L
Chloroethane	AW-3	9/08/2021		4.20	1.00	ug/L
Chloroethane	AW-3	3/31/2022		3.00	1.00	ug/L
Chloroethane	AW-3	8/30/2022		4.20	1.00	ug/L
Chloroethane	AW-3	3/07/2023		3.50	1.00	ug/L
Chloroethane	AW-3	9/28/2023		3.80	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	10/20/2014		2.89	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	6/23/2015		3.92	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	11/13/2015		2.23	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	4/11/2016		1.92	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	9/16/2016		1.60	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	3/15/2017		3.00	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	9/27/2017		2.10	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	5/06/2020		1.20	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	9/03/2020		2.70	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	3/30/2021		4.00	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	8/30/2022		1.10	1.00	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Cis-1,2-dichloroethene	AW-3	3/07/2023		2.90	1.00	ug/L
Cis-1,2-dichloroethene	AW-3	9/28/2023		1.20	1.00	ug/L
Ethylbenzene	AW-3	6/23/2015		2.1	1.0	ug/L
Toluene	AW-3	9/12/2018		1	1	ug/L
Vinyl chloride	AW-3	3/30/2021		2.1	1.0	ug/L
1,1-dichloroethane	MW-14	10/21/2014		2.46	1.00	ug/L
1,1-dichloroethane	MW-14	6/22/2015		1.52	1.00	ug/L
1,1-dichloroethane	MW-14	3/15/2017		1.30	1.00	ug/L
1,1-dichloroethane	MW-14	9/27/2017		1.10	1.00	ug/L
1,1-dichloroethane	MW-14	4/01/2019		1.00	1.00	ug/L
Acetone	MW-14	9/27/2017		12.9	10.0	ug/L
Acetone	MW-19	9/27/2017		20.8	10.0	ug/L
1,4-dichlorobenzene	MW-20	9/16/2016		3.4	1.0	ug/L
1,4-dichlorobenzene	MW-20	3/15/2017		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-20	9/27/2017		1.4	1.0	ug/L
1,4-dichlorobenzene	MW-20	3/14/2018		1.7	1.0	ug/L
1,4-dichlorobenzene	MW-20	9/12/2018		3.0	1.0	ug/L
1,4-dichlorobenzene	MW-20	4/01/2019		2.9	1.0	ug/L
1,4-dichlorobenzene	MW-20	5/06/2020		2.5	1.0	ug/L
1,4-dichlorobenzene	MW-20	9/03/2020		1.6	1.0	ug/L
1,4-dichlorobenzene	MW-20	3/30/2021		2.6	1.0	ug/L
1,4-dichlorobenzene	MW-20	9/08/2021		2.9	1.0	ug/L
1,4-dichlorobenzene	MW-20	3/31/2022		2.4	1.0	ug/L
1,4-dichlorobenzene	MW-20	8/30/2022		2.8	1.0	ug/L
1,4-dichlorobenzene	MW-20	3/07/2023		2.8	1.0	ug/L
1,4-dichlorobenzene	MW-20	9/28/2023		3.4	1.0	ug/L
Acetone	MW-20	6/23/2015		14.8	10.0	ug/L
Acetone	MW-20	4/11/2016		467.0	10.0	ug/L
Acetone	MW-20	9/16/2016		33.3	10.0	ug/L
Benzene	MW-20	10/21/2014		2.51	.50	ug/L
Benzene	MW-20	6/23/2015		3.59	.50	ug/L
Benzene	MW-20	11/12/2015		3.67	.50	ug/L
Benzene	MW-20	4/11/2016		2.67	.50	ug/L
Benzene	MW-20	9/16/2016		3.70	1.00	ug/L
Benzene	MW-20	3/15/2017		2.50	1.00	ug/L
Benzene	MW-20	9/27/2017		2.60	1.00	ug/L
Benzene	MW-20	3/14/2018		1.70	1.00	ug/L
Benzene	MW-20	9/12/2018		2.70	1.00	ug/L
Benzene	MW-20	4/01/2019		2.40	1.00	ug/L
Benzene	MW-20	9/12/2019		2.80	1.00	ug/L
Benzene	MW-20	5/06/2020		2.50	1.00	ug/L
Benzene	MW-20	9/03/2020		2.70	1.00	ug/L
Benzene	MW-20	3/30/2021		1.90	1.00	ug/L
Benzene	MW-20	9/08/2021		2.80	1.00	ug/L
Benzene	MW-20	3/31/2022		2.30	1.00	ug/L
Benzene	MW-20	8/30/2022		3.60	1.00	ug/L
Benzene	MW-20	3/07/2023		2.20	1.00	ug/L
Benzene	MW-20	9/28/2023		2.60	1.00	ug/L
Chlorobenzene	MW-20	10/21/2014		2.42	1.00	ug/L
Chlorobenzene	MW-20	6/23/2015		3.25	1.00	ug/L
Chlorobenzene	MW-20	9/16/2016		3.10	1.00	ug/L
Chlorobenzene	MW-20	3/15/2017		1.40	1.00	ug/L
Chlorobenzene	MW-20	9/27/2017		1.60	1.00	ug/L
Chlorobenzene	MW-20	9/12/2018		3.10	1.00	ug/L
Chlorobenzene	MW-20	4/01/2019		2.60	1.00	ug/L
Chlorobenzene	MW-20	9/12/2019		3.60	1.00	ug/L
Chlorobenzene	MW-20	5/06/2020		2.20	1.00	ug/L
Chlorobenzene	MW-20	9/03/2020		1.70	1.00	ug/L
Chlorobenzene	MW-20	3/30/2021		2.20	1.00	ug/L
Chlorobenzene	MW-20	9/08/2021		2.70	1.00	ug/L
Chlorobenzene	MW-20	3/31/2022		2.60	1.00	ug/L
Chlorobenzene	MW-20	8/30/2022		3.10	1.00	ug/L
Chlorobenzene	MW-20	3/07/2023		2.50	1.00	ug/L
Chlorobenzene	MW-20	9/28/2023		3.40	1.00	ug/L
Chloroethane	MW-20	9/16/2016		1.4	1.0	ug/L
Chloroethane	MW-20	3/15/2017		1.1	1.0	ug/L
Toluene	MW-20	10/21/2014		3.15	1.00	ug/L
Toluene	MW-20	6/23/2015		3.09	1.00	ug/L
Toluene	MW-20	9/16/2016		1.40	1.00	ug/L
Toluene	MW-20	8/30/2022		2.10	1.00	ug/L
Acetone	MW-24	9/27/2017		13.6	10.0	ug/L
Acetone	MW-24	4/01/2019		25.0	10.0	ug/L
Benzene	MW-24	3/15/2017		1.3	1.0	ug/L
Benzene	MW-24	4/01/2019		2.1	1.0	ug/L
Chloroethane	MW-24	4/01/2019		1.6	1.0	ug/L
Ethylbenzene	MW-24	9/16/2016		1.2	1.0	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Ethylbenzene	MW-24	3/15/2017		1.9	1.0	ug/L
Ethylbenzene	MW-24	4/01/2019		4.8	1.0	ug/L
Toluene	MW-24	9/16/2016		5.5	1.0	ug/L
Xylenes, total	MW-24	9/16/2016		2.2	2.0	ug/L
Xylenes, total	MW-24	3/15/2017		2.3	2.0	ug/L
Xylenes, total	MW-24	4/01/2019		6.2	2.0	ug/L
Acetone	MW-25	9/27/2017		13.1	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-25	3/15/2017		17	8	ug/L
Bis(2-ethylhexyl) phthalate	MW-25	9/27/2017		8	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-25	3/14/2018		7	6	ug/L
Acetone	MW-9	9/27/2017		17.4	10.0	ug/L
Toluene	MW-9	8/30/2022		1.8	1.0	ug/L
Vinyl chloride	South Underdrain	8/30/2022		2	1	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Attachment F

Assessment Statistics for Historical VOC Detections

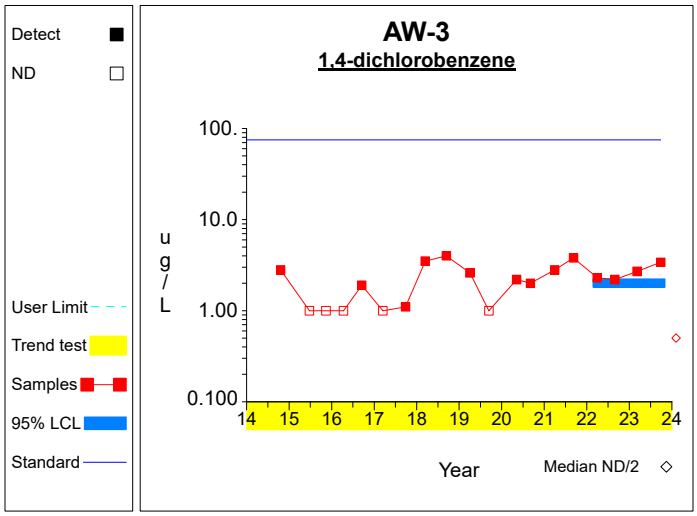
Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

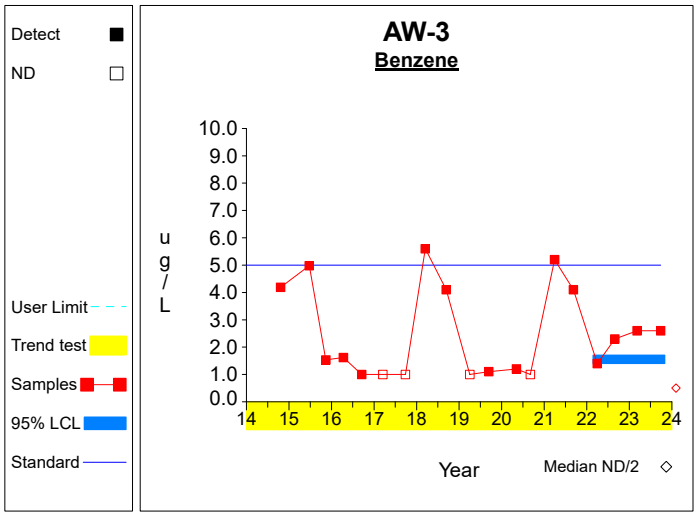
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
1,4-dichlorobenzene	ug/L	AW-3	4	2.650	0.545	1.176	2.009	3.291	75.000	
Benzene	ug/L	AW-3	4	2.225	0.568	1.176	1.557	2.893	5.000	
Chlorobenzene	ug/L	AW-3	4	0.500	0.000	1.176	0.500	0.500	100.000	
Chloroethane	ug/L	AW-3	4	3.625	0.506	1.176	3.030	4.220	2800.000	
Cis-1,2-dichloroethene	ug/L	AW-3	4	1.425	1.031	1.176	0.213	2.637	70.000	
1,4-dichlorobenzene	ug/L	MW-20	4	2.850	0.412	1.176	2.365	3.335	75.000	
Benzene	ug/L	MW-20	4	2.675	0.640	1.176	1.923	3.427	5.000	
Chlorobenzene	ug/L	MW-20	4	2.900	0.424	1.176	2.401	3.399	100.000	
Chloroethane	ug/L	MW-20	4	0.500	0.000	1.176	0.500	0.500	2800.000	
Cis-1,2-dichloroethene	ug/L	MW-20	4	0.500	0.000	1.176	0.500	0.500	70.000	

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

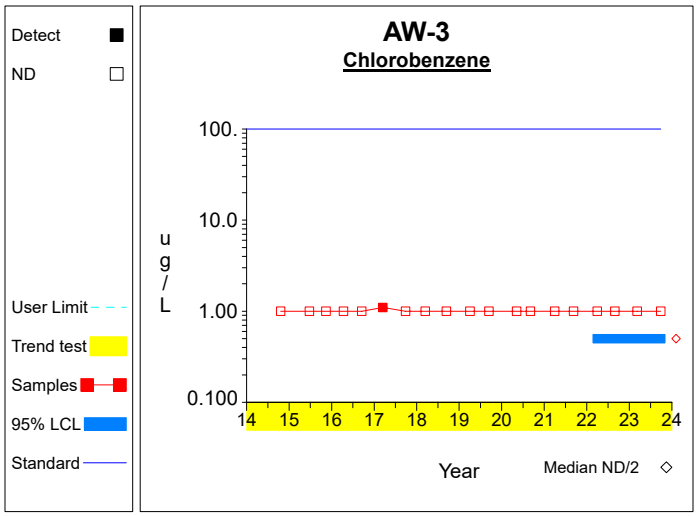
Confidence Limits (Assessment)



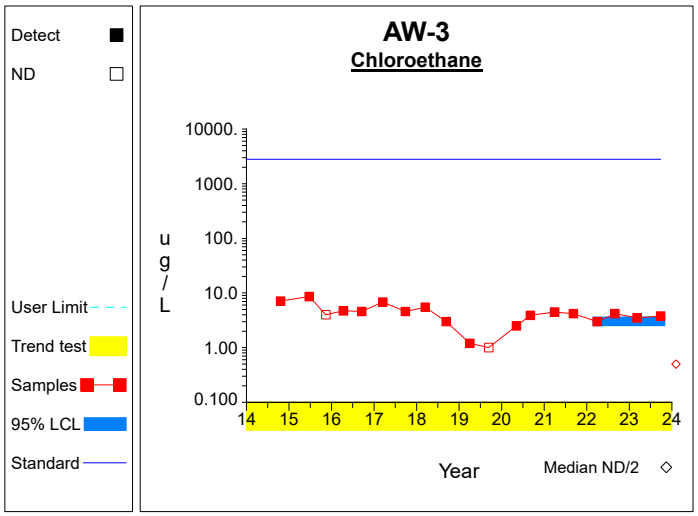
Graph 1



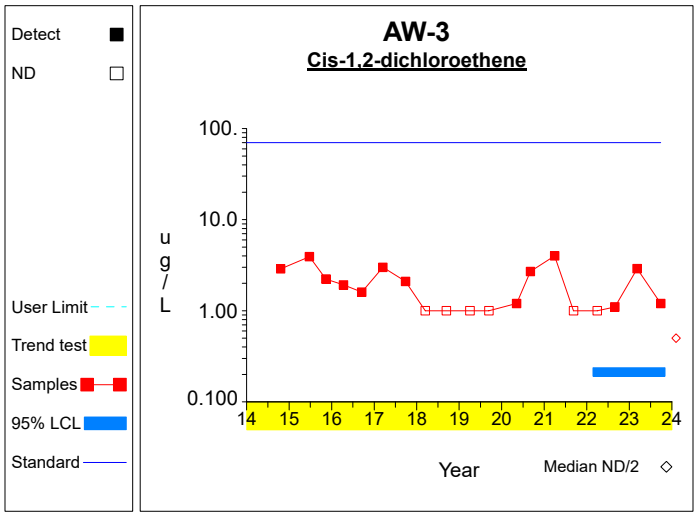
Graph 2



Graph 3



Graph 4



Graph 5

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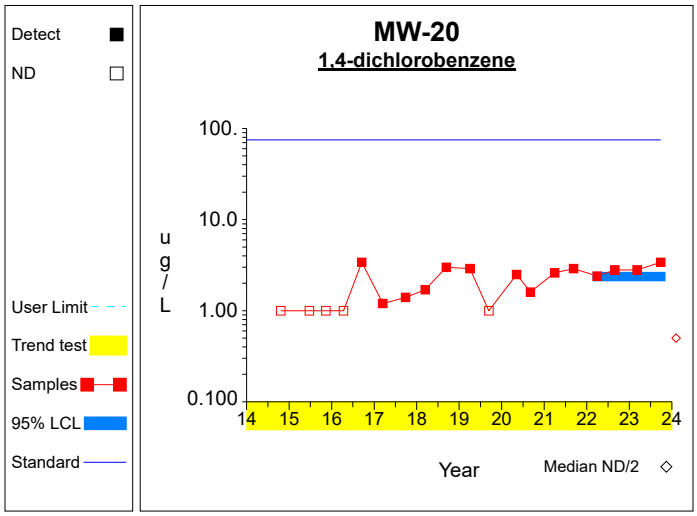
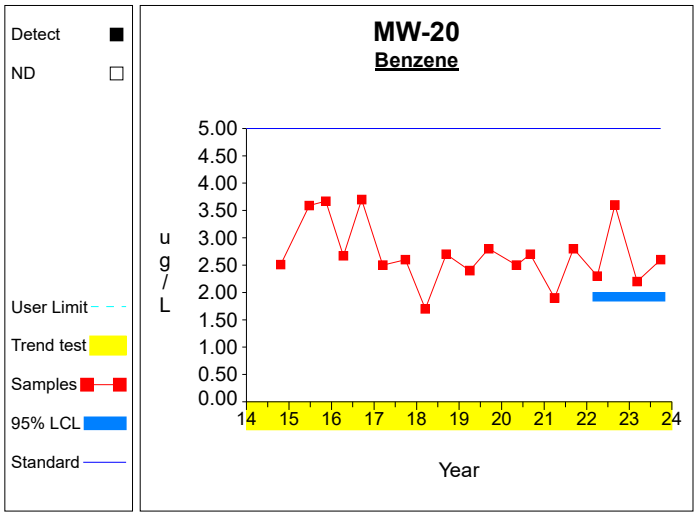
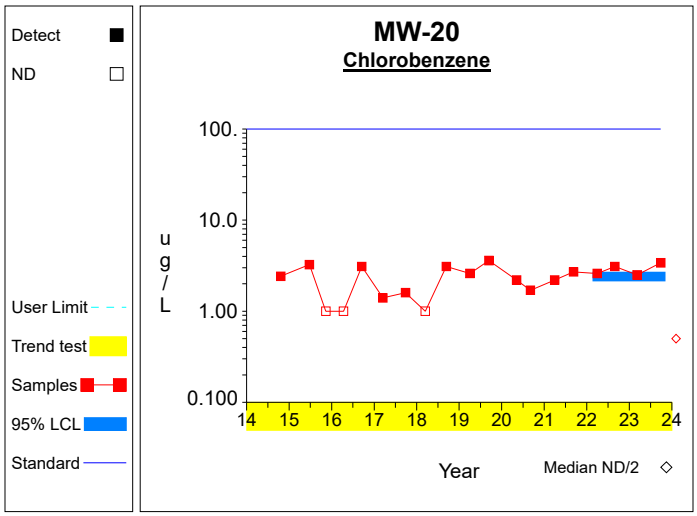
Confidence Limits (Assessment)



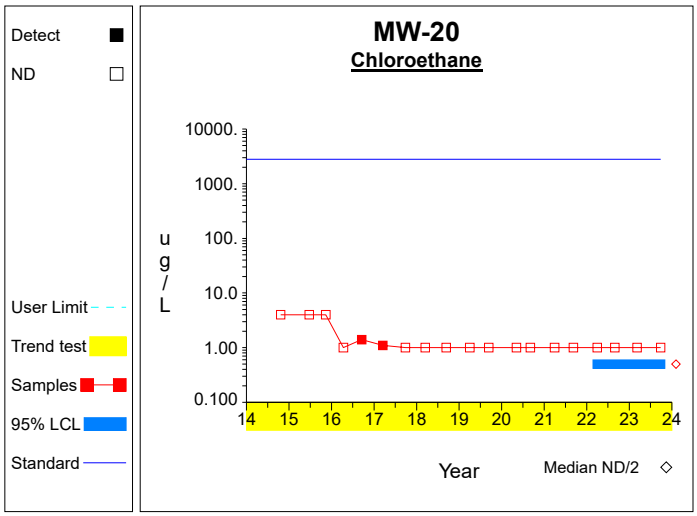
Graph 6



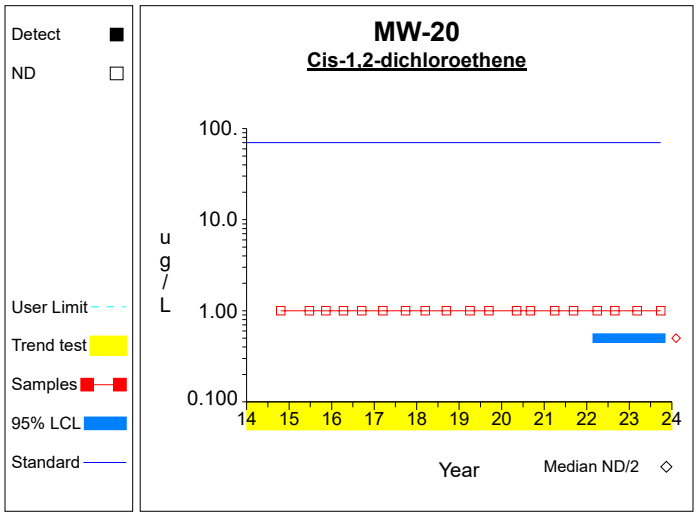
Graph 7



Graph 8



Graph 9



Graph 10

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APPENDIX D.3 –Summary of Field Turbidity Measurements

Benton County Sanitary Landfill

Field Turbidity Over Time

No-Purge Sampling

Date	Well																	
	6	**9**	**12**	**14**	**20**	**24**	**25**	**AW2**	**AW3**	**26**	**27**	**28**	**7**	**AW-9**	**Max**	**Min**	**Median**	**Average**
9/15/16	0.51	49.66	19.16	0.46	26.01	4.68	2.44	33.51	1.97						**49.66**	**0.46**	**6.85**	**13.89**
10/31/16										1.01	2.59	7.38			**7.38**	**1.01**	**2.59**	**3.66**
3/15/17	5.72	17.6	73.1	1.76	5.42	10.71	8.7	3.6	4.26	1.08	18.3	5.65		2.35	**138.00**	**1.08**	**5.72**	**20.30**
5/9/17													7.25		**7.25**	**7.25**	**7.25**	**7.25**
9/27/17	0.86	47.8	7.64	1.14	1.5	6.62	0.96	3.9	3.17	2.73	304		529		**529.00**	**0.86**	**4.20**	**68.99**
12/13/17		15.33						1.17			15.50		41.24		**41.24**	**1.17**	**15.42**	**18.31**
3/14/18		6.15	9.55	2.05	7.9	8.38	1.05	1.19	0.94	0.22	20.68	6.64	3.85		**46.77**	**0.22**	**5.00**	**8.27**
6/5/18			18.8					1.28	5.09						**18.80**	**1.28**	**5.09**	**8.39**
9/12/18	0.59	38.30	3.59	3.05	6.17	4.75	2.40	7.53	10.80	8.66	70.60	43.50	386.00		**386.00**	**0.51**	**7.53**	**39.95**
4/1/19	0.58	5.41	4.01	1.42	6.94	12.00	0.55	8.41	3.88	0.91	114.00	7.67	60.90	15.50	**114.00**	**0.55**	**6.18**	**17.80**
9/12/19	1.53	35.66	1.07	30.94	4.30	4.55	0.90	1.48	7.52	1.36	44.63		631.80	20.28	**631.80**	**0.90**	**4.30**	**52.64**
5/6/20	0.34	77.90	275.00	2.05	6.14	77.40	1.53	3.22	6.02	1.28	32.10	1.29	14.10	38.70	**275.00**	**0.34**	**6.98**	**36.19**
9/3/20	0.32	17.00	8.19	1.51	3.07	19.60	1.73	6.49	3.55	0.67	5.29	5.48	8.74		**19.60**	**0.32**	**3.55**	**5.60**
3/30/21	0.53	9.46	189	2.56	3.87	20.1	0.97	3.34	2.91	1.15	113	2.02	1000	11.2	**1000.00**	**0.53**	**3.61**	**92.00**
9/8/21	0.98	51.48	4.09	13.36	7.48	4.72	1.28	2.26	2.68	1.55	7.84		6.70	51.48	**51.48**	**0.98**	**4.09**	**10.61**
3/31/22	3.32	26.20	2.26	1.72	4.38	7.62	1.54	6.25	5.35	0.78	2.81	3.20	1000	5.46	**1000.00**	**0.78**	**3.85**	**68.15**
8/30/22	1.09	66.91	4.23	1.41	7.73	3.05	2.81	1.4	1.4	2.91	37.94		76.83	3.76	**109.00**	**1.09**	**3.05**	**21.45**
11/11/22			20.30												**20.30**	**20.30**	**20.30**	**20.30**
3/7/23	1.15	4.57	197.10	1.20	2.22	2.52	1.14	1.32	4.01	1.73	195.80	6.16	8	7.24	**197.10**	**1.14**	**3.27**	**31.00**
6/6/23		15.51													**15.51**	**15.51**	**15.51**	**15.51**
9/28/23	1.69	6.28	24.03	2.44	3.29	6.31	2.22	4.13	2.97	3.48	15.35		1.62	20.17	**24.03**	**1.62**	**3.48**	**7.23**
Max	**5.72**	**77.90**	**275.00**	**30.94**	**26.01**	**77.40**	**8.70**	**33.51**	**10.80**	**8.66**	**304.00**	**43.50**	**1000.00**	**51.48**				
Min	**0.32**	**4.57**	**1.07**	**0.46**	**1.50**	**2.52**	**0.55**	**1.17**	**0.94**	**0.22**	**2.59**	**1.29**	**1.62**	**2.35**				
Ave	**1.37**	**28.90**	**50.65**	**4.47**	**6.43**	**12.87**	**2.01**	**5.32**	**4.16**	**1.97**	**62.53**	**8.90**	**251.72**	**17.61**				
Std Dev	**1.47**	**23.01**	**84.38**	**7.93**	**5.78**	**18.65**	**1.97**	**7.63**	**2.46**	**2.06**	**83.57**	**12.35**	**367.36**	**16.09**				

APPENDIX D.4 –Running Summary of Prediction Limit Exceedances

Fall, 2016*	
AW-3	1,1-dichloroethane
	1,4-dichlorobenzene
	Benzene
	Chloroethane
	cis-1,2-dichloroethene
MW-20	1,4-dichlorobenzene
	Acetone
	Benzene
	Chlorobenzene
	Chloroethane
	Toluene
MW-24	Ethylbenzene
	Toluene
	Xylenes

Spring, 2017*		**Fall, 2017***	
AW-3	1,1-dichloroethane	AW-3	1,1-dichloroethane
	Bis(2-ethylhexyl)phthalate		1,4-dichlorobenzene
	Chlorobenzene		Chloroethane
	Chloroethane		cis-1,2-dichloroethene
	cis-1,2-dichloroethene		
MW-14	1,1-dichloroethane	MW-14	1,1-dichloroethane
MW-20	1,4-dichlorobenzene	MW-20	1,4-dichlorobenzene
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
	Chloroethane		
MW-24	Benzene	MW-24	None
	Ethylbenzene		
	Xylenes		
MW-25	Bis(2-ethylhexyl)phthalate	MW-25	Bis(2-ethylhexyl)phthalate

**** -*** ***insufficient number of background episodes available to calculate the prediction limits.***
Prediction Limit exceedances for metals are not reported.

Spring, 2018*		**Fall, 2018**	
AW-2	None	AW-2	Arsenic
			Cobalt
			Benzene
AW-3	1,4-dichlorobenzene	AW-3	Arsenic
	Benzene		1,4-dichlorobenzene
	Chloroethane		2-butanone
			Benzene
			Chloroethane
			Toluene
MW-20	1,4-dichlorobenzene	MW-20	Arsenic
	Benzene		1,4-dichlorobenzene
			Benzene
			Chlorobenzene
MW-23		MW-23	Cobalt
			Zinc
MW-25	Bis(2-ethylhexyl)phthalate	MW-25	None

**** -*** ***insufficient number of background episodes available to calculate the prediction limits.***
Prediction Limit exceedances for metals are not reported.

Spring, 2019		**Fall, 2019**	
AW-2	Arsenic	AW-2	Arsenic
	Cobalt		Cobalt
AW-3	1,4-dichlorobenzene	AW-3	Acetone
	Chloroethane		Benzene
MW-9	None	MW-9	Barium
			Nickel
MW-14	Nickel	MW-14	Cadmium
	1,1-dichloroethane		
MW-20	1,4-dichlorobenzene	MW-20	Arsenic
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
MW-23	Arsenic	MW-23	Arsenic
	Cobalt		Cobalt
MW-24	Arsenic	MW-24	Cobalt
	Barium		
	Cobalt		
	Nickel		
	Zinc		
	Acetone		
	Benzene		
	Chloroethane		
	Ethylbenzene		
	Xylenes		

Spring, 2020		**Fall, 2020**	
AW-2	Arsenic	AW-2	Arsenic
	Cobalt		Cobalt
AW-3	1,4-dichlorobenzene	AW-3	1,4-dichlorobenzene
	Benzene		Chloroethane
	Chloroethane		cis-1,2-dichloroethene
	cis-1,2-dichloroethene		
MW-9	Barium	MW-9	None
MW-14	None	MW-14	None
MW-20	1,4-dichlorobenzene	MW-20	1,4-dichlorobenzene
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
MW-23	Arsenic	MW-23	Arsenic
	Barium		Barium
	Cobalt		Cobalt
MW-24	None	MW-24	Cadmium
			Cobalt
			Nickel

Spring, 2021		**Fall, 2021**	
AW-2	None	AW-2	2-butanone
			Acetone
			Benzene
			Chloroethane
AW-3	1,4-dichlorobenzene	AW-3	1,4-dichlorobenzene
	Benzene		Benzene
	Chloroethane		Chloroethane
	cis-1,2-dichloroethene		
	Vinyl chloride		
MW-19	None	MW-19	Zinc
MW-20	1,4-dichlorobenzene	MW-20	1,4-dichlorobenzene
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
MW-24	Cobalt	MW-24	None

Spring, 2022		**Fall, 2022**	
AW-2	None	AW-2	None
AW-3	1,4-dichlorobenzene	AW-3	Arsenic
	Acetone		1,4-dichlorobenzene
	Benzene		Benzene
	Chloroethane		Chloroethane
			cis-1,2-dichloroethylene
MW-19	None	MW-19	None
MW-20	1,4-dichlorobenzene	MW-20	1,4-dichlorobenzene
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
			Toluene
MW-24	Nickel	MW-24	Nickel

Spring, 2023		**Fall, 2023**	
AW-2	Cobalt	AW-2	None
	Nickel		
AW-3	1,4-dichlorobenzene	AW-3	1,4-dichlorobenzene
	Benzene		Benzene
	Chloroethane		Chloroethane
	cis-1,2-dichloroethylene		cis-1,2-dichloroethylene
MW-9	Nickel	MW-9	None
MW-20	Arsenic	MW-20	1,4-dichlorobenzene
	1,4-dichlorobenzene		Benzene
	Benzene		Chlorobenzene
	Chlorobenzene		
MW-24	Nickel	MW-24	None

Appendix E

Laboratory Reports for Reporting Period

With Chain of Custody

ANALYTICAL REPORT

March 27, 2023

Work Order: **1GC0747**

Report To	Work Order Information
Todd Whipple	Date Received: 3/8/2023 10:00:00AM
HLW Engineering	Collector: Whipple, Todd
PO Box 314	Phone: (515) 733-4144
Story City, IA 50248	PO Number: 2023 Spring Sampling

Project: Benton County - New Regs

Project Number: Benton County - New Regs

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-01 MW-6 (b)				Matrix: Water		Collected: 03/07/23 09:27	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Surrogate: Dibromofluoromethane	*101 %*			*80-126*	BDF	03/11/23 15:28	
Surrogate: 1,2-Dichloroethane-d4	*97.5 %*			*63-138*	BDF	03/11/23 15:28	
Surrogate: Toluene-d8	*105 %*			*87-116*	BDF	03/11/23 15:28	
Surrogate: 4-Bromofluorobenzene	*99.2 %*			*85-111*	BDF	03/11/23 15:28	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	

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HLW Engineering
PO Box 314
Story City, IA 50248

March 27, 2023

Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-01 MW-6 (b)				Matrix: Water		Collected: 03/07/23 09:27	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 15:28	
Surrogate: Dibromofluoromethane	*101 %*			*75-136*	BDF	03/11/23 15:28	
Surrogate: 1,2-Dichloroethane-d4	*97.5 %*			*61-142*	BDF	03/11/23 15:28	
Surrogate: Toluene-d8	*105 %*			*82-121*	BDF	03/11/23 15:28	
Surrogate: 4-Bromofluorobenzene	*99.2 %*			*80-116*	BDF	03/11/23 15:28	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
Arsenic, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
Barium, total	**0.253 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
Nickel, total	**0.0295 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:35	

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HLW Engineering
PO Box 314
Story City, IA 50248

March 27, 2023
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Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-01 MW-6 (b)				Matrix: Water		Collected: 03/07/23 09:27	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 20:35	
1GC0747-01RE1 MW-6 (b)				Matrix: Water		Collected: 03/07/23 09:27	
Cobalt, total	**0.0114 mg/L**	**0.0004**	1GC0958	EPA 6020A	RVV	03/23/23 16:46	
1GC0747-02 MW-26 (b)				Matrix: Water		Collected: 03/07/23 08:55	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Surrogate: Dibromofluoromethane	*105 %*			*80-126*	BDF	03/11/23 16:08	
Surrogate: 1,2-Dichloroethane-d4	*97.8 %*			*63-138*	BDF	03/11/23 16:08	
Surrogate: Toluene-d8	*106 %*			*87-116*	BDF	03/11/23 16:08	
Surrogate: 4-Bromofluorobenzene	*101 %*			*85-111*	BDF	03/11/23 16:08	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	

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HLW Engineering
PO Box 314
Story City, IA 50248

March 27, 2023

Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-02 MW-26 (b)				Matrix: Water		Collected: 03/07/23 08:55	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:08	
Surrogate: Dibromofluoromethane	*105 %*			*75-136*	BDF	03/11/23 16:08	
Surrogate: 1,2-Dichloroethane-d4	*97.8 %*			*61-142*	BDF	03/11/23 16:08	
Surrogate: Toluene-d8	*106 %*			*82-121*	BDF	03/11/23 16:08	
Surrogate: 4-Bromofluorobenzene	*101 %*			*80-116*	BDF	03/11/23 16:08	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Arsenic, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Barium, total	**0.174 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Cobalt, total	<0.0004 mg/L	0.0004	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Nickel, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 20:58	

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HLW Engineering
PO Box 314
Story City, IA 50248

March 27, 2023

Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-02 MW-26 (b)				Matrix: Water		Collected: 03/07/23 08:55	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 20:58	
1GC0747-03 MW-27 (b)				Matrix: Water		Collected: 03/07/23 08:30	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Surrogate: Dibromofluoromethane	*103 %*			*80-126*	BDF	03/11/23 16:48	
Surrogate: 1,2-Dichloroethane-d4	*94.0 %*			*63-138*	BDF	03/11/23 16:48	
Surrogate: Toluene-d8	*106 %*			*87-116*	BDF	03/11/23 16:48	
Surrogate: 4-Bromofluorobenzene	*98.5 %*			*85-111*	BDF	03/11/23 16:48	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	

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HLW Engineering
PO Box 314
Story City, IA 50248

March 27, 2023

Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-03 MW-27 (b)				Matrix: Water		Collected: 03/07/23 08:30	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 16:48	
Surrogate: Dibromofluoromethane	*103 %*			*75-136*	BDF	03/11/23 16:48	
Surrogate: 1,2-Dichloroethane-d4	*94.0 %*			*61-142*	BDF	03/11/23 16:48	
Surrogate: Toluene-d8	*106 %*			*82-121*	BDF	03/11/23 16:48	
Surrogate: 4-Bromofluorobenzene	*98.5 %*			*80-116*	BDF	03/11/23 16:48	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Arsenic, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Barium, total	**0.107 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Cobalt, total	**0.0007 mg/L**	**0.0004**	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Nickel, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:04	
1GC0747-04 MW-28 (b)				Matrix: Water		Collected: 03/07/23 11:00	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	

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HLW Engineering
PO Box 314
Story City, IA 50248

March 27, 2023

Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-04 MW-28 (b)				Matrix: Water		Collected: 03/07/23 11:00	
Surrogate: Dibromofluoromethane	*93.4 %*			*80-126*	BDF	03/11/23 17:28	
Surrogate: 1,2-Dichloroethane-d4	*68.2 %*			*63-138*	BDF	03/11/23 17:28	
Surrogate: Toluene-d8	*114 %*			*87-116*	BDF	03/11/23 17:28	
Surrogate: 4-Bromofluorobenzene	*98.4 %*			*85-111*	BDF	03/11/23 17:28	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	

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HLW Engineering
PO Box 314
Story City, IA 50248

March 27, 2023

Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-04 MW-28 (b)				Matrix: Water		Collected: 03/07/23 11:00	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 17:28	
Surrogate: Dibromofluoromethane	*93.4 %*			*75-136*	BDF	03/11/23 17:28	
Surrogate: 1,2-Dichloroethane-d4	*68.2 %*			*61-142*	BDF	03/11/23 17:28	
Surrogate: Toluene-d8	*114 %*			*82-121*	BDF	03/11/23 17:28	
Surrogate: 4-Bromofluorobenzene	*98.4 %*			*80-116*	BDF	03/11/23 17:28	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Arsenic, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Barium, total	**0.0273 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Cobalt, total	**0.0004 mg/L**	**0.0004**	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Nickel, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:10	
1GC0747-05 MW-7 (b)				Matrix: Water		Collected: 03/07/23 09:16	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Surrogate: Dibromofluoromethane	*102 %*			*80-126*	BDF	03/11/23 18:08	
Surrogate: 1,2-Dichloroethane-d4	*94.7 %*			*63-138*	BDF	03/11/23 18:08	
Surrogate: Toluene-d8	*107 %*			*87-116*	BDF	03/11/23 18:08	
Surrogate: 4-Bromofluorobenzene	*99.1 %*			*85-111*	BDF	03/11/23 18:08	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	

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Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-05 MW-7 (b)				Matrix: Water		Collected: 03/07/23 09:16	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	

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Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-05 MW-7 (b)				Matrix: Water		Collected: 03/07/23 09:16	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 18:08	
Surrogate: Dibromofluoromethane	*102 %*			*75-136*	BDF	03/11/23 18:08	
Surrogate: 1,2-Dichloroethane-d4	*94.7 %*			*61-142*	BDF	03/11/23 18:08	
Surrogate: Toluene-d8	*107 %*			*82-121*	BDF	03/11/23 18:08	
Surrogate: 4-Bromofluorobenzene	*99.1 %*			*80-116*	BDF	03/11/23 18:08	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Arsenic, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Barium, total	**0.166 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Cobalt, total	<0.0004 mg/L	0.0004	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Nickel, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:16	
1GC0747-06 MW-9				Matrix: Water		Collected: 03/07/23 12:22	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Surrogate: Dibromofluoromethane	*103 %*			*80-126*	BDF	03/11/23 22:46	
Surrogate: 1,2-Dichloroethane-d4	*98.1 %*			*63-138*	BDF	03/11/23 22:46	
Surrogate: Toluene-d8	*106 %*			*87-116*	BDF	03/11/23 22:46	
Surrogate: 4-Bromofluorobenzene	*98.8 %*			*85-111*	BDF	03/11/23 22:46	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	

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Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-06 MW-9				Matrix: Water		Collected: 03/07/23 12:22	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	

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Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-06 MW-9				Matrix: Water		Collected: 03/07/23 12:22	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 22:46	
Surrogate: Dibromofluoromethane	*103 %*			*75-136*	BDF	03/11/23 22:46	
Surrogate: 1,2-Dichloroethane-d4	*98.1 %*			*61-142*	BDF	03/11/23 22:46	
Surrogate: Toluene-d8	*106 %*			*82-121*	BDF	03/11/23 22:46	
Surrogate: 4-Bromofluorobenzene	*98.8 %*			*80-116*	BDF	03/11/23 22:46	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Arsenic, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Barium, total	**0.481 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Cobalt, total	**0.0027 mg/L**	**0.0004**	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Nickel, total	**0.0154 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:21	
1GC0747-07 MW-12				Matrix: Water		Collected: 03/07/23 11:48	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Surrogate: Dibromofluoromethane	*101 %*			*80-126*	BDF	03/11/23 23:26	
Surrogate: 1,2-Dichloroethane-d4	*98.6 %*			*63-138*	BDF	03/11/23 23:26	
Surrogate: Toluene-d8	*105 %*			*87-116*	BDF	03/11/23 23:26	
Surrogate: 4-Bromofluorobenzene	*101 %*			*85-111*	BDF	03/11/23 23:26	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	

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Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-07 MW-12				Matrix: Water		Collected: 03/07/23 11:48	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/11/23 23:26	

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Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-07 MW-12				Matrix: Water	Collected: 03/07/23 11:48		
Surrogate: Dibromofluoromethane	*101 %*			*75-136*	BDF	03/11/23 23:26	
Surrogate: 1,2-Dichloroethane-d4	*98.6 %*			*61-142*	BDF	03/11/23 23:26	
Surrogate: Toluene-d8	*105 %*			*82-121*	BDF	03/11/23 23:26	
Surrogate: 4-Bromofluorobenzene	*101 %*			*80-116*	BDF	03/11/23 23:26	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Arsenic, total	**0.0051 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Barium, total	**0.103 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Cobalt, total	**0.0006 mg/L**	**0.0004**	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Nickel, total	**0.0057 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:27	
1GC0747-08 MW-14				Matrix: Water	Collected: 03/07/23 11:30		
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Surrogate: Dibromofluoromethane	*104 %*			*80-126*	BDF	03/12/23 0:06	
Surrogate: 1,2-Dichloroethane-d4	*99.1 %*			*63-138*	BDF	03/12/23 0:06	
Surrogate: Toluene-d8	*106 %*			*87-116*	BDF	03/12/23 0:06	
Surrogate: 4-Bromofluorobenzene	*99.3 %*			*85-111*	BDF	03/12/23 0:06	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	

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Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-08 MW-14				Matrix: Water		Collected: 03/07/23 11:30	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:06	
Surrogate: Dibromofluoromethane	*104 %*			*75-136*	BDF	03/12/23 0:06	
Surrogate: 1,2-Dichloroethane-d4	*99.1 %*			*61-142*	BDF	03/12/23 0:06	
Surrogate: Toluene-d8	*106 %*			*82-121*	BDF	03/12/23 0:06	
Surrogate: 4-Bromofluorobenzene	*99.3 %*			*80-116*	BDF	03/12/23 0:06	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:45	

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Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-08 MW-14				Matrix: Water		Collected: 03/07/23 11:30	
Arsenic, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Barium, total	**0.399 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Cobalt, total	<0.0004 mg/L	0.0004	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Nickel, total	**0.0055 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:45	
1GC0747-09 MW-20				Matrix: Water		Collected: 03/07/23 10:36	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Surrogate: Dibromofluoromethane	*104 %*			*80-126*	BDF	03/12/23 0:46	
Surrogate: 1,2-Dichloroethane-d4	*98.4 %*			*63-138*	BDF	03/12/23 0:46	
Surrogate: Toluene-d8	*107 %*			*87-116*	BDF	03/12/23 0:46	
Surrogate: 4-Bromofluorobenzene	*99.6 %*			*85-111*	BDF	03/12/23 0:46	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	

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Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-09 MW-20				Matrix: Water		Collected: 03/07/23 10:36	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Benzene	**2.2 ug/L**	**1.0**	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Chlorobenzene	**2.5 ug/L**	**1.0**	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
1,4-Dichlorobenzene	**2.8 ug/L**	**1.0**	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 0:46	
Surrogate: Dibromofluoromethane	*104 %*			*75-136*	BDF	03/12/23 0:46	
Surrogate: 1,2-Dichloroethane-d4	*98.4 %*			*61-142*	BDF	03/12/23 0:46	
Surrogate: Toluene-d8	*107 %*			*82-121*	BDF	03/12/23 0:46	
Surrogate: 4-Bromofluorobenzene	*99.6 %*			*80-116*	BDF	03/12/23 0:46	
Sulfide, total	**0.16 mg/L**	**0.10**	1GC0587	EPA 376.2	JAR	03/14/23 8:49	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Arsenic, total	**0.106 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Barium, total	**0.279 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:50	

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-09 MW-20				Matrix: Water		Collected: 03/07/23 10:36	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Cobalt, total	<0.0004 mg/L	0.0004	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Nickel, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:50	
1GC0747-10 AW-4				Matrix: Water		Collected: 03/07/23 12:03	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Surrogate: Dibromofluoromethane	*105 %*			*80-126*	BDF	03/12/23 1:26	
Surrogate: 1,2-Dichloroethane-d4	*99.6 %*			*63-138*	BDF	03/12/23 1:26	
Surrogate: Toluene-d8	*106 %*			*87-116*	BDF	03/12/23 1:26	
Surrogate: 4-Bromofluorobenzene	*101 %*			*85-111*	BDF	03/12/23 1:26	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	

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HLW Engineering
PO Box 314
Story City, IA 50248

March 27, 2023

Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-10 AW-4				Matrix: Water		Collected: 03/07/23 12:03	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 1:26	
Surrogate: Dibromofluoromethane	*105 %*			*75-136*	BDF	03/12/23 1:26	
Surrogate: 1,2-Dichloroethane-d4	*99.6 %*			*61-142*	BDF	03/12/23 1:26	
Surrogate: Toluene-d8	*106 %*			*82-121*	BDF	03/12/23 1:26	
Surrogate: 4-Bromofluorobenzene	*101 %*			*80-116*	BDF	03/12/23 1:26	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Arsenic, total	**0.0166 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Barium, total	**0.0497 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Cobalt, total	<0.0004 mg/L	0.0004	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:56	

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Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-10 AW-4				Matrix: Water		Collected: 03/07/23 12:03	
Nickel, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 21:56	
1GC0747-11 MW-24				Matrix: Water		Collected: 03/07/23 12:40	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Surrogate: Dibromofluoromethane	*102 %*			*80-126*	BDF	03/12/23 3:06	
Surrogate: 1,2-Dichloroethane-d4	*98.3 %*			*63-138*	BDF	03/12/23 3:06	
Surrogate: Toluene-d8	*105 %*			*87-116*	BDF	03/12/23 3:06	
Surrogate: 4-Bromofluorobenzene	*99.7 %*			*85-111*	BDF	03/12/23 3:06	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	

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HLW Engineering
PO Box 314
Story City, IA 50248

March 27, 2023

Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-11 MW-24				Matrix: Water		Collected: 03/07/23 12:40	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:06	
Surrogate: Dibromofluoromethane	*102 %*			*75-136*	BDF	03/12/23 3:06	
Surrogate: 1,2-Dichloroethane-d4	*98.3 %*			*61-142*	BDF	03/12/23 3:06	
Surrogate: Toluene-d8	*105 %*			*82-121*	BDF	03/12/23 3:06	
Surrogate: 4-Bromofluorobenzene	*99.7 %*			*80-116*	BDF	03/12/23 3:06	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Arsenic, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Barium, total	**0.0651 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Cobalt, total	**0.0052 mg/L**	**0.0004**	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Copper, total	**0.0081 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Nickel, total	**0.0480 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:02	

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-11 MW-24				Matrix: Water		Collected: 03/07/23 12:40	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 22:02	
1GC0747-12 MW-25				Matrix: Water		Collected: 03/07/23 12:59	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Surrogate: Dibromofluoromethane	*102 %*			*80-126*	BDF	03/12/23 3:46	
Surrogate: 1,2-Dichloroethane-d4	*98.0 %*			*63-138*	BDF	03/12/23 3:46	
Surrogate: Toluene-d8	*106 %*			*87-116*	BDF	03/12/23 3:46	
Surrogate: 4-Bromofluorobenzene	*99.0 %*			*85-111*	BDF	03/12/23 3:46	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	

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HLW Engineering
PO Box 314
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March 27, 2023

Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-12 MW-25				Matrix: Water		Collected: 03/07/23 12:59	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 3:46	
Surrogate: Dibromofluoromethane	*102 %*			*75-136*	BDF	03/12/23 3:46	
Surrogate: 1,2-Dichloroethane-d4	*98.0 %*			*61-142*	BDF	03/12/23 3:46	
Surrogate: Toluene-d8	*106 %*			*82-121*	BDF	03/12/23 3:46	
Surrogate: 4-Bromofluorobenzene	*99.0 %*			*80-116*	BDF	03/12/23 3:46	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Arsenic, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Barium, total	**0.0227 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Cobalt, total	**0.0009 mg/L**	**0.0004**	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Nickel, total	**0.0090 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 22:08	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 22:08	

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Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-13 AW-2				Matrix: Water		Collected: 03/07/23 10:20	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Surrogate: Dibromofluoromethane	*102 %*			*80-126*	BDF	03/12/23 4:25	
Surrogate: 1,2-Dichloroethane-d4	*97.3 %*			*63-138*	BDF	03/12/23 4:25	
Surrogate: Toluene-d8	*105 %*			*87-116*	BDF	03/12/23 4:25	
Surrogate: 4-Bromofluorobenzene	*97.5 %*			*85-111*	BDF	03/12/23 4:25	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	

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Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-13 AW-2				Matrix: Water		Collected: 03/07/23 10:20	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 4:25	
Surrogate: Dibromofluoromethane	*102 %*			*75-136*	BDF	03/12/23 4:25	
Surrogate: 1,2-Dichloroethane-d4	*97.3 %*			*61-142*	BDF	03/12/23 4:25	
Surrogate: Toluene-d8	*105 %*			*82-121*	BDF	03/12/23 4:25	
Surrogate: 4-Bromofluorobenzene	*97.5 %*			*80-116*	BDF	03/12/23 4:25	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Arsenic, total	**0.0405 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Barium, total	**0.133 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Cobalt, total	**0.0125 mg/L**	**0.0004**	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Nickel, total	**0.0116 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 22:14	
1GC0747-14 AW-9				Matrix: Water		Collected: 03/07/23 10:04	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Surrogate: Dibromofluoromethane	*104 %*			*80-126*	BDF	03/12/23 5:05	
Surrogate: 1,2-Dichloroethane-d4	*100 %*			*63-138*	BDF	03/12/23 5:05	
Surrogate: Toluene-d8	*105 %*			*87-116*	BDF	03/12/23 5:05	
Surrogate: 4-Bromofluorobenzene	*99.1 %*			*85-111*	BDF	03/12/23 5:05	

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HLW Engineering
PO Box 314
Story City, IA 50248

March 27, 2023

Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-14 AW-9				Matrix: Water		Collected: 03/07/23 10:04	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	

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Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-14 AW-9				Matrix: Water		Collected: 03/07/23 10:04	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:05	
Surrogate: Dibromofluoromethane	*104 %*			*75-136*	BDF	03/12/23 5:05	
Surrogate: 1,2-Dichloroethane-d4	*100 %*			*61-142*	BDF	03/12/23 5:05	
Surrogate: Toluene-d8	*105 %*			*82-121*	BDF	03/12/23 5:05	
Surrogate: 4-Bromofluorobenzene	*99.1 %*			*80-116*	BDF	03/12/23 5:05	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Arsenic, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Barium, total	**0.208 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Cobalt, total	**0.0018 mg/L**	**0.0004**	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Nickel, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 22:19	
1GC0747-15 AW-3				Matrix: Water		Collected: 03/07/23 09:44	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Surrogate: Dibromofluoromethane	*103 %*			*80-126*	BDF	03/12/23 5:45	
Surrogate: 1,2-Dichloroethane-d4	*98.9 %*			*63-138*	BDF	03/12/23 5:45	
Surrogate: Toluene-d8	*106 %*			*87-116*	BDF	03/12/23 5:45	
Surrogate: 4-Bromofluorobenzene	*98.5 %*			*85-111*	BDF	03/12/23 5:45	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Chloroethane	**3.5 ug/L**	**1.0**	1GC0575	EPA 8260B	BDF	03/12/23 5:45	

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Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-15 AW-3				Matrix: Water		Collected: 03/07/23 09:44	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
cis-1,2-Dichloroethylene	**2.9 ug/L**	**1.0**	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Benzene	**2.6 ug/L**	**1.0**	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	

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Story City, IA 50248

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Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-15 AW-3				Matrix: Water		Collected: 03/07/23 09:44	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,4-Dichlorobenzene	**2.7 ug/L**	**1.0**	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 5:45	
Surrogate: Dibromofluoromethane	*103 %*			*75-136*	BDF	03/12/23 5:45	
Surrogate: 1,2-Dichloroethane-d4	*98.9 %*			*61-142*	BDF	03/12/23 5:45	
Surrogate: Toluene-d8	*106 %*			*82-121*	BDF	03/12/23 5:45	
Surrogate: 4-Bromofluorobenzene	*98.5 %*			*80-116*	BDF	03/12/23 5:45	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Arsenic, total	**0.0111 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Barium, total	**0.572 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Cobalt, total	**0.0005 mg/L**	**0.0004**	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Nickel, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 22:25	
1GC0747-16 Duplicate				Matrix: Water		Collected: 03/07/23 00:00	
Acrylonitrile	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Surrogate: Dibromofluoromethane	*104 %*			*80-126*	BDF	03/12/23 6:25	
Surrogate: 1,2-Dichloroethane-d4	*99.1 %*			*63-138*	BDF	03/12/23 6:25	
Surrogate: Toluene-d8	*106 %*			*87-116*	BDF	03/12/23 6:25	
Surrogate: 4-Bromofluorobenzene	*97.2 %*			*85-111*	BDF	03/12/23 6:25	
Chloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Vinyl Chloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Bromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Chloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Acetone	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Methyl Iodide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	

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Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-16 Duplicate				Matrix: Water		Collected: 03/07/23 00:00	
Carbon Disulfide	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Methylene Chloride	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Vinyl Acetate	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Bromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Chloroform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Benzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Trichloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Dibromomethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Bromodichloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Toluene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Tetrachloroethylene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Dibromochloromethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Chlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Ethylbenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Xylenes, total	<2.0 ug/L	2.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Styrene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Bromoform	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	

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Work Order: 1GC0747

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC0747-16 Duplicate				Matrix: Water	Collected: 03/07/23 00:00		
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GC0575	EPA 8260B	BDF	03/12/23 6:25	
Surrogate: Dibromofluoromethane	*104 %*			*75-136*	BDF	03/12/23 6:25	
Surrogate: 1,2-Dichloroethane-d4	*99.1 %*			*61-142*	BDF	03/12/23 6:25	
Surrogate: Toluene-d8	*106 %*			*82-121*	BDF	03/12/23 6:25	
Surrogate: 4-Bromofluorobenzene	*97.2 %*			*80-116*	BDF	03/12/23 6:25	
Silver, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Arsenic, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Barium, total	**0.0272 mg/L**	**0.0040**	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Beryllium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Cadmium, total	<0.0008 mg/L	0.0008	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Cobalt, total	**0.0004 mg/L**	**0.0004**	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Chromium, total	<0.0080 mg/L	0.0080	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Copper, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Nickel, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Lead, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Antimony, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Selenium, total	<0.0040 mg/L	0.0040	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Thallium, total	<0.0020 mg/L	0.0020	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Vanadium, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 22:31	
Zinc, total	<0.0200 mg/L	0.0200	1GC0958	EPA 6020A	RVV	03/21/23 22:31	

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0575 - EPA 5030B										
Blank (1GC0575-BLK1)				Prepared & Analyzed: 03/11/23						
Surrogate: Dibromofluoromethane	*52.6*		*ug/L*	*50.3520*		*104*	*75-136*			
Surrogate: Dibromofluoromethane	*52.6*		*"*	*50.3520*		*104*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*50.4*		*"*	*50.4080*		*100*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*50.4*		*"*	*50.4080*		*100*	*61-142*			
Surrogate: Toluene-d8	*52.9*		*"*	*50.2360*		*105*	*87-116*			
Surrogate: Toluene-d8	*52.9*		*"*	*50.2360*		*105*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*50.3*		*"*	*50.4200*		*99.7*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*50.3*		*"*	*50.4200*		*99.7*	*80-116*			
Chloromethane	ND	1.0	"							
Vinyl Chloride	ND	1.0	"							
Bromomethane	ND	1.0	"							
Chloroethane	ND	1.0	"							
Trichlorofluoromethane	ND	1.0	"							
1,1-Dichloroethylene	ND	1.0	"							
Acetone	ND	10.0	"							
Methyl Iodide	ND	1.0	"							
Carbon Disulfide	ND	1.0	"							
Methylene Chloride	ND	5.0	"							
Acrylonitrile	ND	5.0	"							
trans-1,2-Dichloroethylene	ND	1.0	"							
1,1-Dichloroethane	ND	1.0	"							
Vinyl Acetate	ND	5.0	"							
cis-1,2-Dichloroethylene	ND	1.0	"							
2-Butanone (MEK)	ND	10.0	"							
Bromochloromethane	ND	1.0	"							
Chloroform	2.44	1.0	"							QB-02
1,1,1-Trichloroethane	ND	1.0	"							
Carbon Tetrachloride	ND	1.0	"							
Benzene	ND	1.0	"							
1,2-Dichloroethane	ND	1.0	"							
Trichloroethylene	ND	1.0	"							
1,2-Dichloropropane	ND	1.0	"							
Dibromomethane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
cis-1,3-Dichloropropene	ND	1.0	"							
4-Methyl-2-pentanone (MIBK)	ND	5.0	"							
Toluene	ND	1.0	"							
trans-1,3-Dichloropropene	ND	1.0	"							

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0575 - EPA 5030B										
Blank (1GC0575-BLK1)				Prepared & Analyzed: 03/11/23						
1,1,2-Trichloroethane	ND	1.0	ug/L							
Tetrachloroethylene	ND	1.0	"							
2-Hexanone (MBK)	ND	5.0	"							
Dibromochloromethane	ND	1.0	"							
1,2-Dibromoethane	ND	1.0	"							
Chlorobenzene	ND	1.0	"							
1,1,1,2-Tetrachloroethane	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	2.0	"							
Styrene	ND	1.0	"							
Bromoform	ND	1.0	"							
1,2,3-Trichloropropane	ND	1.0	"							
trans-1,4-Dichloro-2-butene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							
1,4-Dichlorobenzene	ND	1.0	"							
1,2-Dichlorobenzene	ND	1.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
LCS (1GC0575-BS1)				Prepared & Analyzed: 03/11/23						
Surrogate: Dibromofluoromethane	*52.4*		*ug/L*	*50.3520*		*104*	*80-126*			
Surrogate: Dibromofluoromethane	*52.4*		*"*	*50.3520*		*104*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*50.5*		*"*	*50.4080*		*100*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*50.5*		*"*	*50.4080*		*100*	*61-142*			
Surrogate: Toluene-d8	*52.3*		*"*	*50.2360*		*104*	*87-116*			
Surrogate: Toluene-d8	*52.3*		*"*	*50.2360*		*104*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*51.8*		*"*	*50.4200*		*103*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*51.8*		*"*	*50.4200*		*103*	*80-116*			
Chloromethane	36.21	1.0	"	30.0000		121	63-155			
Vinyl Chloride	35.89	1.0	"	30.0000		120	70-154			
Bromomethane	30.69	1.0	"	30.0000		102	52-176			
Chloroethane	36.14	1.0	"	30.0000		120	72-148			
Trichlorofluoromethane	30.19	1.0	"	30.0000		101	70-152			
1,1-Dichloroethylene	57.63	1.0	"	50.0000		115	70-148			
Acetone	103.5	10.0	"	108.800		95.1	43-172			
Methyl Iodide	127.5	1.0	"	99.6930		128	69-170			
Carbon Disulfide	109.3	1.0	"	104.600		104	72-162			
Methylene Chloride	58.07	5.0	"	50.0000		116	68-142			
Acrylonitrile	132.3	5.0	"	100.500		132	67-144			
trans-1,2-Dichloroethylene	54.70	1.0	"	50.0000		109	66-148			

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Story City, IA 50248

Work Order: 1GC0747

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0575 - EPA 5030B										
LCS (1GC0575-BS1)				Prepared & Analyzed: 03/11/23						
1,1-Dichloroethane	54.40	1.0	ug/L	50.0000		109	66-143			
Vinyl Acetate	113.6	5.0	"	115.300		98.6	43-153			
cis-1,2-Dichloroethylene	54.07	1.0	"	50.0000		108	71-149			
2-Butanone (MEK)	107.7	10.0	"	105.600		102	52-159			
Bromochloromethane	56.07	1.0	"	50.0000		112	69-143			
Chloroform	55.48	1.0	"	50.0000		111	69-144			
1,1,1-Trichloroethane	48.06	1.0	"	49.9750		96.2	62-129			
Carbon Tetrachloride	52.00	1.0	"	50.0000		104	63-141			
Benzene	52.67	1.0	"	50.0000		105	71-134			
1,2-Dichloroethane	49.31	1.0	"	50.0000		98.6	72-132			
Trichloroethylene	51.04	1.0	"	50.0000		102	71-135			
1,2-Dichloropropane	55.32	1.0	"	50.0000		111	69-136			
Dibromomethane	53.66	1.0	"	50.0000		107	73-147			
Bromodichloromethane	49.83	1.0	"	50.0000		99.7	68-129			
cis-1,3-Dichloropropene	51.31	1.0	"	50.3250		102	65-134			
4-Methyl-2-pentanone (MIBK)	111.1	5.0	"	106.400		104	58-147			
Toluene	52.07	1.0	"	50.0000		104	72-133			
trans-1,3-Dichloropropene	50.12	1.0	"	50.4250		99.4	67-130			
1,1,2-Trichloroethane	51.43	1.0	"	50.0000		103	69-135			
Tetrachloroethylene	40.53	1.0	"	50.0000		81.1	69-130			
2-Hexanone (MBK)	103.2	5.0	"	105.000		98.3	55-144			
Dibromochloromethane	48.13	1.0	"	49.5000		97.2	73-127			
1,2-Dibromoethane	48.53	1.0	"	50.0000		97.1	67-132			
Chlorobenzene	48.62	1.0	"	50.0000		97.2	72-123			
1,1,1,2-Tetrachloroethane	47.05	1.0	"	50.0000		94.1	73-127			
Ethylbenzene	48.38	1.0	"	50.0000		96.8	71-127			
Xylenes, total	146.4	2.0	"	150.000		97.6	74-127			
Styrene	46.39	1.0	"	50.0000		92.8	66-126			
Bromoform	48.19	1.0	"	50.0000		96.4	68-130			
1,2,3-Trichloropropane	48.74	1.0	"	50.0000		97.5	63-136			
trans-1,4-Dichloro-2-butene	102.2	5.0	"	116.300		87.9	54-134			
1,1,2,2-Tetrachloroethane	48.11	1.0	"	49.8500		96.5	61-131			
1,4-Dichlorobenzene	48.79	1.0	"	50.0000		97.6	70-129			
1,2-Dichlorobenzene	49.28	1.0	"	50.0000		98.6	69-126			
1,2-Dibromo-3-chloropropane	43.86	5.0	"	50.0000		87.7	50-143			

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Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0575 - EPA 5030B										
LCS (1GC0575-BS2)				Prepared: 03/11/23 Analyzed: 03/12/23						
Surrogate: Dibromofluoromethane	*51.7*		*ug/L*	*50.3520*		*103*	*75-136*			
Surrogate: Dibromofluoromethane	*51.7*		*"*	*50.3520*		*103*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*50.0*		*"*	*50.4080*		*99.2*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*50.0*		*"*	*50.4080*		*99.2*	*61-142*			
Surrogate: Toluene-d8	*51.8*		*"*	*50.2360*		*103*	*87-116*			
Surrogate: Toluene-d8	*51.8*		*"*	*50.2360*		*103*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*51.3*		*"*	*50.4200*		*102*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*51.3*		*"*	*50.4200*		*102*	*80-116*			
Chloromethane	35.38	1.0	"	30.0000		118	63-155			
Vinyl Chloride	36.15	1.0	"	30.0000		120	70-154			
Bromomethane	30.31	1.0	"	30.0000		101	52-176			
Chloroethane	36.03	1.0	"	30.0000		120	72-148			
Trichlorofluoromethane	29.43	1.0	"	30.0000		98.1	70-152			
1,1-Dichloroethylene	57.16	1.0	"	50.0000		114	70-148			
Acetone	126.8	10.0	"	108.800		117	43-172			
Methyl Iodide	120.9	1.0	"	99.6930		121	69-170			
Carbon Disulfide	106.0	1.0	"	104.600		101	72-162			
Methylene Chloride	58.23	5.0	"	50.0000		116	68-142			
Acrylonitrile	137.0	5.0	"	100.500		136	67-144			
trans-1,2-Dichloroethylene	55.40	1.0	"	50.0000		111	66-148			
1,1-Dichloroethane	54.63	1.0	"	50.0000		109	66-143			
Vinyl Acetate	42.35	5.0	"	115.300		36.7	43-153			QS-01
cis-1,2-Dichloroethylene	54.28	1.0	"	50.0000		109	71-149			
2-Butanone (MEK)	80.66	10.0	"	105.600		76.4	52-159			
Bromochloromethane	56.60	1.0	"	50.0000		113	69-143			
Chloroform	56.19	1.0	"	50.0000		112	69-144			
1,1,1-Trichloroethane	47.95	1.0	"	49.9750		95.9	62-129			
Carbon Tetrachloride	52.28	1.0	"	50.0000		105	63-141			
Benzene	53.84	1.0	"	50.0000		108	71-134			
1,2-Dichloroethane	48.93	1.0	"	50.0000		97.9	72-132			
Trichloroethylene	52.24	1.0	"	50.0000		104	71-135			
1,2-Dichloropropane	56.40	1.0	"	50.0000		113	69-136			
Dibromomethane	54.43	1.0	"	50.0000		109	73-147			
Bromodichloromethane	50.21	1.0	"	50.0000		100	68-129			
cis-1,3-Dichloropropene	47.96	1.0	"	50.3250		95.3	65-134			
4-Methyl-2-pentanone (MIBK)	118.3	5.0	"	106.400		111	58-147			
Toluene	52.67	1.0	"	50.0000		105	72-133			
trans-1,3-Dichloropropene	47.27	1.0	"	50.4250		93.7	67-130			

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0575 - EPA 5030B										
LCS (1GC0575-BS2)				Prepared: 03/11/23 Analyzed: 03/12/23						
1,1,2-Trichloroethane	53.47	1.0	ug/L	50.0000		107	69-135			
Tetrachloroethylene	40.60	1.0	"	50.0000		81.2	69-130			
2-Hexanone (MBK)	108.8	5.0	"	105.000		104	55-144			
Dibromochloromethane	48.70	1.0	"	49.5000		98.4	73-127			
1,2-Dibromoethane	50.23	1.0	"	50.0000		100	67-132			
Chlorobenzene	49.90	1.0	"	50.0000		99.8	72-123			
1,1,1,2-Tetrachloroethane	48.98	1.0	"	50.0000		98.0	73-127			
Ethylbenzene	49.36	1.0	"	50.0000		98.7	71-127			
Xylenes, total	149.0	2.0	"	150.000		99.3	74-127			
Styrene	47.51	1.0	"	50.0000		95.0	66-126			
Bromoform	49.84	1.0	"	50.0000		99.7	68-130			
1,2,3-Trichloropropane	51.57	1.0	"	50.0000		103	63-136			
trans-1,4-Dichloro-2-butene	90.67	5.0	"	116.300		78.0	54-134			
1,1,2,2-Tetrachloroethane	49.85	1.0	"	49.8500		100	61-131			
1,4-Dichlorobenzene	49.00	1.0	"	50.0000		98.0	70-129			
1,2-Dichlorobenzene	49.83	1.0	"	50.0000		99.7	69-126			
1,2-Dibromo-3-chloropropane	44.56	5.0	"	50.0000		89.1	50-143			
LCS Dup (1GC0575-BSD1)				Prepared & Analyzed: 03/11/23						
Surrogate: Dibromofluoromethane	*52.8*		*ug/L*	*50.3520*		*105*	*75-136*			
Surrogate: Dibromofluoromethane	*52.8*		*"*	*50.3520*		*105*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*51.2*		*"*	*50.4080*		*102*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*51.2*		*"*	*50.4080*		*102*	*61-142*			
Surrogate: Toluene-d8	*52.1*		*"*	*50.2360*		*104*	*82-121*			
Surrogate: Toluene-d8	*52.1*		*"*	*50.2360*		*104*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*51.4*		*"*	*50.4200*		*102*	*80-116*			
Surrogate: 4-Bromofluorobenzene	*51.4*		*"*	*50.4200*		*102*	*85-111*			
Chloromethane	37.11	1.0	"	30.0000		124	63-155	2.45	24	
Vinyl Chloride	37.45	1.0	"	30.0000		125	70-154	4.25	25	
Bromomethane	32.23	1.0	"	30.0000		107	52-176	4.90	27	
Chloroethane	37.02	1.0	"	30.0000		123	72-148	2.41	25	
Trichlorofluoromethane	31.53	1.0	"	30.0000		105	70-152	4.34	26	
1,1-Dichloroethylene	60.32	1.0	"	50.0000		121	70-148	4.56	24	
Acetone	120.0	10.0	"	108.800		110	43-172	14.8	30	
Methyl Iodide	129.9	1.0	"	99.6930		130	69-170	1.86	30	
Carbon Disulfide	113.4	1.0	"	104.600		108	72-162	3.68	24	
Methylene Chloride	59.20	5.0	"	50.0000		118	68-142	1.93	21	
Acrylonitrile	143.4	5.0	"	100.500		143	67-144	8.06	24	
trans-1,2-Dichloroethylene	57.47	1.0	"	50.0000		115	66-148	4.94	27	

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HLW Engineering
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Story City, IA 50248

Work Order: 1GC0747

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0575 - EPA 5030B										
LCS Dup (1GC0575-BSD1)				Prepared & Analyzed: 03/11/23						
1,1-Dichloroethane	56.73	1.0	ug/L	50.0000		113	66-143	4.19	24	
Vinyl Acetate	108.4	5.0	"	115.300		94.0	43-153	4.75	30	
cis-1,2-Dichloroethylene	55.27	1.0	"	50.0000		111	71-149	2.19	26	
2-Butanone (MEK)	113.9	10.0	"	105.600		108	52-159	5.63	27	
Bromochloromethane	56.92	1.0	"	50.0000		114	69-143	1.50	23	
Chloroform	57.44	1.0	"	50.0000		115	69-144	3.47	23	
1,1,1-Trichloroethane	49.95	1.0	"	49.9750		99.9	62-129	3.86	24	
Carbon Tetrachloride	54.25	1.0	"	50.0000		108	63-141	4.24	25	
Benzene	54.33	1.0	"	50.0000		109	71-134	3.10	24	
1,2-Dichloroethane	49.94	1.0	"	50.0000		99.9	72-132	1.27	24	
Trichloroethylene	53.32	1.0	"	50.0000		107	71-135	4.37	24	
1,2-Dichloropropane	56.07	1.0	"	50.0000		112	69-136	1.35	24	
Dibromomethane	54.78	1.0	"	50.0000		110	73-147	2.07	25	
Bromodichloromethane	49.94	1.0	"	50.0000		99.9	68-129	0.221	22	
cis-1,3-Dichloropropene	52.55	1.0	"	50.3250		104	65-134	2.39	23	
4-Methyl-2-pentanone (MIBK)	115.9	5.0	"	106.400		109	58-147	4.23	27	
Toluene	53.18	1.0	"	50.0000		106	72-133	2.11	24	
trans-1,3-Dichloropropene	50.91	1.0	"	50.4250		101	67-130	1.56	24	
1,1,2-Trichloroethane	52.97	1.0	"	50.0000		106	69-135	2.95	23	
Tetrachloroethylene	41.92	1.0	"	50.0000		83.8	69-130	3.37	25	
2-Hexanone (MBK)	108.6	5.0	"	105.000		103	55-144	5.05	25	
Dibromochloromethane	49.36	1.0	"	49.5000		99.7	73-127	2.52	22	
1,2-Dibromoethane	49.60	1.0	"	50.0000		99.2	67-132	2.18	24	
Chlorobenzene	50.31	1.0	"	50.0000		101	72-123	3.42	23	
1,1,1,2-Tetrachloroethane	49.40	1.0	"	50.0000		98.8	73-127	4.87	24	
Ethylbenzene	50.13	1.0	"	50.0000		100	71-127	3.55	26	
Xylenes, total	150.8	2.0	"	150.000		101	74-127	2.91	25	
Styrene	48.00	1.0	"	50.0000		96.0	66-126	3.41	23	
Bromoform	50.12	1.0	"	50.0000		100	68-130	3.93	23	
1,2,3-Trichloropropane	51.46	1.0	"	50.0000		103	63-136	5.43	24	
trans-1,4-Dichloro-2-butene	108.4	5.0	"	116.300		93.2	54-134	5.79	27	
1,1,2,2-Tetrachloroethane	49.29	1.0	"	49.8500		98.9	61-131	2.42	29	
1,4-Dichlorobenzene	49.75	1.0	"	50.0000		99.5	70-129	1.95	24	
1,2-Dichlorobenzene	49.78	1.0	"	50.0000		99.6	69-126	1.01	26	
1,2-Dibromo-3-chloropropane	47.86	5.0	"	50.0000		95.7	50-143	8.72	30	

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0575 - EPA 5030B										
LCS Dup (1GC0575-BSD2)				Prepared: 03/11/23 Analyzed: 03/12/23						
Surrogate: Dibromofluoromethane	*51.4*		*ug/L*	*50.3520*		*102*	*80-126*			
Surrogate: Dibromofluoromethane	*51.4*		*"*	*50.3520*		*102*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*50.5*		*"*	*50.4080*		*100*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*50.5*		*"*	*50.4080*		*100*	*61-142*			
Surrogate: Toluene-d8	*51.9*		*"*	*50.2360*		*103*	*87-116*			
Surrogate: Toluene-d8	*51.9*		*"*	*50.2360*		*103*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*52.1*		*"*	*50.4200*		*103*	*80-116*			
Surrogate: 4-Bromofluorobenzene	*52.1*		*"*	*50.4200*		*103*	*85-111*			
Chloromethane	35.14	1.0	"	30.0000		117	63-155	0.681	24	
Vinyl Chloride	35.95	1.0	"	30.0000		120	70-154	0.555	25	
Bromomethane	30.53	1.0	"	30.0000		102	52-176	0.723	27	
Chloroethane	36.47	1.0	"	30.0000		122	72-148	1.21	25	
Trichlorofluoromethane	29.67	1.0	"	30.0000		98.9	70-152	0.812	26	
1,1-Dichloroethylene	57.91	1.0	"	50.0000		116	70-148	1.30	24	
Acetone	127.0	10.0	"	108.800		117	43-172	0.221	30	
Methyl Iodide	123.8	1.0	"	99.6930		124	69-170	2.40	30	
Carbon Disulfide	107.1	1.0	"	104.600		102	72-162	0.967	24	
Methylene Chloride	57.77	5.0	"	50.0000		116	68-142	0.793	21	
Acrylonitrile	141.3	5.0	"	100.500		141	67-144	3.07	24	
trans-1,2-Dichloroethylene	55.78	1.0	"	50.0000		112	66-148	0.684	27	
1,1-Dichloroethane	54.49	1.0	"	50.0000		109	66-143	0.257	24	
Vinyl Acetate	67.95	5.0	"	115.300		58.9	43-153	46.4	30	QR-02
cis-1,2-Dichloroethylene	52.90	1.0	"	50.0000		106	71-149	2.58	26	
2-Butanone (MEK)	97.18	10.0	"	105.600		92.0	52-159	18.6	27	
Bromochloromethane	56.36	1.0	"	50.0000		113	69-143	0.425	23	
Chloroform	56.08	1.0	"	50.0000		112	69-144	0.196	23	
1,1,1-Trichloroethane	48.81	1.0	"	49.9750		97.7	62-129	1.78	24	
Carbon Tetrachloride	52.71	1.0	"	50.0000		105	63-141	0.819	25	
Benzene	53.78	1.0	"	50.0000		108	71-134	0.112	24	
1,2-Dichloroethane	49.81	1.0	"	50.0000		99.6	72-132	1.78	24	
Trichloroethylene	52.72	1.0	"	50.0000		105	71-135	0.915	24	
1,2-Dichloropropane	57.30	1.0	"	50.0000		115	69-136	1.58	24	
Dibromomethane	54.53	1.0	"	50.0000		109	73-147	0.184	25	
Bromodichloromethane	49.97	1.0	"	50.0000		99.9	68-129	0.479	22	
cis-1,3-Dichloropropene	47.55	1.0	"	50.3250		94.5	65-134	0.859	23	
4-Methyl-2-pentanone (MIBK)	119.1	5.0	"	106.400		112	58-147	0.725	27	
Toluene	52.86	1.0	"	50.0000		106	72-133	0.360	24	
trans-1,3-Dichloropropene	47.11	1.0	"	50.4250		93.4	67-130	0.339	24	

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0575 - EPA 5030B										
LCS Dup (1GC0575-BSD2)				Prepared: 03/11/23 Analyzed: 03/12/23						
1,1,2-Trichloroethane	52.48	1.0	ug/L	50.0000		105	69-135	1.87	23	
Tetrachloroethylene	40.31	1.0	"	50.0000		80.6	69-130	0.717	25	
2-Hexanone (MBK)	111.2	5.0	"	105.000		106	55-144	2.15	25	
Dibromochloromethane	48.73	1.0	"	49.5000		98.4	73-127	0.0616	22	
1,2-Dibromoethane	49.82	1.0	"	50.0000		99.6	67-132	0.820	24	
Chlorobenzene	49.15	1.0	"	50.0000		98.3	72-123	1.51	23	
1,1,1,2-Tetrachloroethane	48.09	1.0	"	50.0000		96.2	73-127	1.83	24	
Ethylbenzene	48.75	1.0	"	50.0000		97.5	71-127	1.24	26	
Xylenes, total	148.0	2.0	"	150.000		98.6	74-127	0.700	25	
Styrene	47.09	1.0	"	50.0000		94.2	66-126	0.888	23	
Bromoform	49.72	1.0	"	50.0000		99.4	68-130	0.241	23	
1,2,3-Trichloropropane	51.04	1.0	"	50.0000		102	63-136	1.03	24	
trans-1,4-Dichloro-2-butene	89.58	5.0	"	116.300		77.0	54-134	1.21	27	
1,1,2,2-Tetrachloroethane	48.89	1.0	"	49.8500		98.1	61-131	1.94	29	
1,4-Dichlorobenzene	48.29	1.0	"	50.0000		96.6	70-129	1.46	24	
1,2-Dichlorobenzene	48.71	1.0	"	50.0000		97.4	69-126	2.27	26	
1,2-Dibromo-3-chloropropane	45.55	5.0	"	50.0000		91.1	50-143	2.20	30	
Matrix Spike (1GC0575-MS1)		**Source: 1GC0747-05**		Prepared & Analyzed: 03/11/23						
Surrogate: Dibromofluoromethane	*206*		*ug/L*	*201.408*		*102*	*75-136*			
Surrogate: Dibromofluoromethane	*206*		*"*	*201.408*		*102*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*203*		*"*	*201.632*		*101*	*61-142*			
Surrogate: 1,2-Dichloroethane-d4	*203*		*"*	*201.632*		*101*	*63-138*			
Surrogate: Toluene-d8	*208*		*"*	*200.944*		*104*	*87-116*			
Surrogate: Toluene-d8	*208*		*"*	*200.944*		*104*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*208*		*"*	*201.680*		*103*	*80-116*			
Surrogate: 4-Bromofluorobenzene	*208*		*"*	*201.680*		*103*	*85-111*			
Chloromethane	142.3	4.0	"	120.000	ND	119	61-152			
Vinyl Chloride	145.4	4.0	"	120.000	ND	121	66-149			
Bromomethane	125.6	4.0	"	120.000	ND	105	43-171			
Chloroethane	144.4	4.0	"	120.000	ND	120	69-148			
Trichlorofluoromethane	120.9	4.0	"	120.000	ND	101	62-163			
1,1-Dichloroethylene	224.8	4.0	"	200.000	ND	112	70-148			
Acetone	389.1	40.0	"	435.200	ND	89.4	45-173			
Methyl Iodide	492.9	4.0	"	398.772	ND	124	62-167			
Carbon Disulfide	434.8	4.0	"	418.400	ND	104	71-163			
Methylene Chloride	233.4	20.0	"	200.000	ND	117	69-140			
Acrylonitrile	582.2	20.0	"	402.000	ND	145	58-151			
trans-1,2-Dichloroethylene	221.3	4.0	"	200.000	ND	111	69-144			

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0575 - EPA 5030B										
Matrix Spike (1GC0575-MS1)	**Source: 1GC0747-05**			Prepared & Analyzed: 03/11/23						
1,1-Dichloroethane	218.2	4.0	ug/L	200.000	ND	109	70-138			
Vinyl Acetate	465.1	20.0	"	461.200	ND	101	58-142			
cis-1,2-Dichloroethylene	214.5	4.0	"	200.000	ND	107	68-151			
2-Butanone (MEK)	464.2	40.0	"	422.400	ND	110	50-160			
Bromochloromethane	224.7	4.0	"	200.000	ND	112	65-143			
Chloroform	221.5	4.0	"	200.000	ND	111	71-143			
1,1,1-Trichloroethane	195.7	4.0	"	199.900	ND	97.9	63-133			
Carbon Tetrachloride	212.0	4.0	"	200.000	ND	106	63-142			
Benzene	216.0	4.0	"	200.000	ND	108	69-133			
1,2-Dichloroethane	200.2	4.0	"	200.000	ND	100	63-138			
Trichloroethylene	211.2	4.0	"	200.000	ND	106	71-133			
1,2-Dichloropropane	226.2	4.0	"	200.000	ND	113	69-132			
Dibromomethane	220.2	4.0	"	200.000	ND	110	70-147			
Bromodichloromethane	200.4	4.0	"	200.000	ND	100	67-130			
cis-1,3-Dichloropropene	203.5	4.0	"	201.300	ND	101	61-126			
4-Methyl-2-pentanone (MIBK)	495.6	20.0	"	425.600	ND	116	55-147			
Toluene	212.4	4.0	"	200.000	ND	106	71-133			
trans-1,3-Dichloropropene	200.5	4.0	"	201.700	ND	99.4	63-124			
1,1,2-Trichloroethane	218.3	4.0	"	200.000	ND	109	69-133			
Tetrachloroethylene	168.4	4.0	"	200.000	ND	84.2	70-124			
2-Hexanone (MBK)	468.6	20.0	"	420.000	ND	112	53-141			
Dibromochloromethane	204.0	4.0	"	198.000	ND	103	74-122			
1,2-Dibromoethane	206.6	4.0	"	200.000	ND	103	66-127			
Chlorobenzene	200.6	4.0	"	200.000	ND	100	76-116			
1,1,1,2-Tetrachloroethane	202.2	4.0	"	200.000	ND	101	77-121			
Ethylbenzene	199.0	4.0	"	200.000	ND	99.5	73-124			
Xylenes, total	602.9	8.0	"	600.000	ND	100	75-123			
Styrene	192.2	4.0	"	200.000	ND	96.1	70-120			
Bromoform	211.8	4.0	"	200.000	ND	106	70-124			
1,2,3-Trichloropropane	210.4	4.0	"	200.000	ND	105	62-135			
trans-1,4-Dichloro-2-butene	420.0	20.0	"	465.200	ND	90.3	50-120			
1,1,2,2-Tetrachloroethane	207.2	4.0	"	199.400	ND	104	63-126			
1,4-Dichlorobenzene	198.7	4.0	"	200.000	ND	99.3	72-119			
1,2-Dichlorobenzene	201.5	4.0	"	200.000	ND	101	71-117			
1,2-Dibromo-3-chloropropane	196.2	20.0	"	200.000	ND	98.1	49-134			

HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0575 - EPA 5030B										
Matrix Spike Dup (1GC0575-MSD1)	**Source: 1GC0747-05**			Prepared & Analyzed: 03/11/23						
Surrogate: Dibromofluoromethane	*207*		*ug/L*	*201.408*		*103*	*75-136*			
Surrogate: Dibromofluoromethane	*207*		*"*	*201.408*		*103*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*202*		*"*	*201.632*		*100*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*202*		*"*	*201.632*		*100*	*61-142*			
Surrogate: Toluene-d8	*207*		*"*	*200.944*		*103*	*82-121*			
Surrogate: Toluene-d8	*207*		*"*	*200.944*		*103*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*209*		*"*	*201.680*		*104*	*80-116*			
Surrogate: 4-Bromofluorobenzene	*209*		*"*	*201.680*		*104*	*85-111*			
Chloromethane	137.1	4.0	"	120.000	ND	114	61-152	3.72	26	
Vinyl Chloride	140.4	4.0	"	120.000	ND	117	66-149	3.50	23	
Bromomethane	118.3	4.0	"	120.000	ND	98.6	43-171	6.00	29	
Chloroethane	140.5	4.0	"	120.000	ND	117	69-148	2.70	25	
Trichlorofluoromethane	115.4	4.0	"	120.000	ND	96.1	62-163	4.67	25	
1,1-Dichloroethylene	221.2	4.0	"	200.000	ND	111	70-148	1.61	22	
Acetone	331.7	40.0	"	435.200	ND	76.2	45-173	15.9	30	
Methyl Iodide	483.7	4.0	"	398.772	ND	121	62-167	1.89	24	
Carbon Disulfide	418.7	4.0	"	418.400	ND	100	71-163	3.77	22	
Methylene Chloride	224.5	20.0	"	200.000	ND	112	69-140	3.91	19	
Acrylonitrile	557.9	20.0	"	402.000	ND	139	58-151	4.26	15	
trans-1,2-Dichloroethylene	212.0	4.0	"	200.000	ND	106	69-144	4.30	22	
1,1-Dichloroethane	211.0	4.0	"	200.000	ND	105	70-138	3.36	20	
Vinyl Acetate	426.2	20.0	"	461.200	ND	92.4	58-142	8.72	24	
cis-1,2-Dichloroethylene	209.5	4.0	"	200.000	ND	105	68-151	2.36	22	
2-Butanone (MEK)	430.3	40.0	"	422.400	ND	102	50-160	7.58	23	
Bromochloromethane	218.3	4.0	"	200.000	ND	109	65-143	2.87	22	
Chloroform	214.4	4.0	"	200.000	ND	107	71-143	3.27	21	
1,1,1-Trichloroethane	186.8	4.0	"	199.900	ND	93.4	63-133	4.64	23	
Carbon Tetrachloride	203.7	4.0	"	200.000	ND	102	63-142	3.96	22	
Benzene	207.8	4.0	"	200.000	ND	104	69-133	3.87	18	
1,2-Dichloroethane	191.2	4.0	"	200.000	ND	95.6	63-138	4.62	20	
Trichloroethylene	203.5	4.0	"	200.000	ND	102	71-133	3.72	23	
1,2-Dichloropropane	214.9	4.0	"	200.000	ND	107	69-132	5.13	20	
Dibromomethane	213.0	4.0	"	200.000	ND	106	70-147	3.34	22	
Bromodichloromethane	193.3	4.0	"	200.000	ND	96.7	67-130	3.58	21	
cis-1,3-Dichloropropene	195.6	4.0	"	201.300	ND	97.2	61-126	3.95	21	
4-Methyl-2-pentanone (MIBK)	468.2	20.0	"	425.600	ND	110	55-147	5.68	23	
Toluene	204.2	4.0	"	200.000	ND	102	71-133	3.92	19	
trans-1,3-Dichloropropene	191.7	4.0	"	201.700	ND	95.0	63-124	4.49	21	

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0575 - EPA 5030B										
Matrix Spike Dup (1GC0575-MSD1)	**Source: 1GC0747-05**			Prepared & Analyzed: 03/11/23						
1,1,2-Trichloroethane	207.5	4.0	ug/L	200.000	ND	104	69-133	5.05	19	
Tetrachloroethylene	164.4	4.0	"	200.000	ND	82.2	70-124	2.40	24	
2-Hexanone (MBK)	443.8	20.0	"	420.000	ND	106	53-141	5.43	24	
Dibromochloromethane	193.4	4.0	"	198.000	ND	97.7	74-122	5.33	21	
1,2-Dibromoethane	197.6	4.0	"	200.000	ND	98.8	66-127	4.43	23	
Chlorobenzene	193.5	4.0	"	200.000	ND	96.7	76-116	3.59	21	
1,1,1,2-Tetrachloroethane	194.2	4.0	"	200.000	ND	97.1	77-121	4.04	25	
Ethylbenzene	194.3	4.0	"	200.000	ND	97.2	73-124	2.40	20	
Xylenes, total	584.6	8.0	"	600.000	ND	97.4	75-123	3.08	20	
Styrene	184.8	4.0	"	200.000	ND	92.4	70-120	3.97	23	
Bromoform	202.7	4.0	"	200.000	ND	101	70-124	4.40	22	
1,2,3-Trichloropropane	205.9	4.0	"	200.000	ND	103	62-135	2.17	28	
trans-1,4-Dichloro-2-butene	406.4	20.0	"	465.200	ND	87.4	50-120	3.29	26	
1,1,2,2-Tetrachloroethane	196.2	4.0	"	199.400	ND	98.4	63-126	5.49	24	
1,4-Dichlorobenzene	189.8	4.0	"	200.000	ND	94.9	72-119	4.57	24	
1,2-Dichlorobenzene	191.8	4.0	"	200.000	ND	95.9	71-117	4.94	24	
1,2-Dibromo-3-chloropropane	185.8	20.0	"	200.000	ND	92.9	49-134	5.44	28	

HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Determination of Conventional Chemistry Parameters - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0587 - Wet Chem Preparation										
Blank (1GC0587-BLK1)				Prepared: 03/13/23 Analyzed: 03/14/23						
Sulfide, total	ND	0.10	mg/L							
LCS (1GC0587-BS1)				Prepared: 03/13/23 Analyzed: 03/14/23						
Sulfide, total	0.176	0.10	mg/L	0.195160		90.2	59-110			
Matrix Spike (1GC0587-MS1)		**Source: 1GC0654-02**		Prepared: 03/13/23 Analyzed: 03/14/23						
Sulfide, total	0.147	0.10	mg/L	0.198468	0.0665	40.6	50-150			QM-01
Matrix Spike Dup (1GC0587-MSD1)		**Source: 1GC0654-02**		Prepared: 03/13/23 Analyzed: 03/14/23						
Sulfide, total	0.144	0.10	mg/L	0.198468	0.0665	38.9	50-150	2.30	30	QM-01

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL= Method Reporting Limit.

HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Determination of Total Metals - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0958 - EPA 3005A Total Recoverable Metals										
Blank (1GC0958-BLK1)				Prepared: 03/20/23 Analyzed: 03/21/23						
Antimony, total	ND	0.0020	mg/L							
Arsenic, total	ND	0.0040	"							
Barium, total	ND	0.0040	"							
Beryllium, total	ND	0.0040	"							
Cadmium, total	ND	0.0008	"							
Chromium, total	ND	0.0080	"							
Cobalt, total	ND	0.0004	"							
Copper, total	ND	0.0040	"							
Lead, total	ND	0.0040	"							
Nickel, total	ND	0.0040	"							
Selenium, total	ND	0.0040	"							
Silver, total	ND	0.0040	"							
Thallium, total	ND	0.0020	"							
Vanadium, total	ND	0.0200	"							
Zinc, total	ND	0.0200	"							
LCS (1GC0958-BS1)				Prepared: 03/20/23 Analyzed: 03/21/23						
Antimony, total	0.0946	0.0020	mg/L	0.100000		94.6	80-120			
Arsenic, total	0.0965	0.0040	"	0.100000		96.5	80-120			
Barium, total	0.100	0.0040	"	0.100000		100	80-120			
Beryllium, total	0.0977	0.0040	"	0.100000		97.7	80-120			
Cadmium, total	0.0954	0.0008	"	0.100000		95.4	80-120			
Chromium, total	0.0961	0.0080	"	0.100000		96.1	80-120			
Cobalt, total	0.103	0.0004	"	0.100000		103	80-120			
Copper, total	0.100	0.0040	"	0.100000		100	80-120			
Lead, total	0.0984	0.0040	"	0.100000		98.4	80-120			
Nickel, total	0.101	0.0040	"	0.100000		101	80-120			
Selenium, total	0.0934	0.0040	"	0.100000		93.4	80-120			
Silver, total	0.0980	0.0040	"	0.100000		98.0	80-120			
Thallium, total	0.0984	0.0020	"	0.100000		98.4	80-120			
Vanadium, total	0.107	0.0200	"	0.100000		107	80-120			
Zinc, total	0.0957	0.0200	"	0.100000		95.7	80-120			

HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Determination of Total Metals - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0958 - EPA 3005A Total Recoverable Metals										
Matrix Spike (1GC0958-MS1)		**Source: 1GC0747-01**		Prepared: 03/20/23 Analyzed: 03/21/23						
Antimony, total	0.0958	0.0020	mg/L	0.100000	ND	95.8	75-125			
Arsenic, total	0.0993	0.0040	"	0.100000	0.0024	96.9	75-125			
Barium, total	0.344	0.0040	"	0.100000	0.253	91.3	75-125			
Beryllium, total	0.0968	0.0040	"	0.100000	ND	96.8	75-125			
Cadmium, total	0.0939	0.0008	"	0.100000	ND	93.9	75-125			
Chromium, total	0.0952	0.0080	"	0.100000	0.0006	95.2	75-125			
Cobalt, total	0.114	0.0004	"	0.100000	0.0121	102	75-125			
Copper, total	0.100	0.0040	"	0.100000	0.0020	98.2	75-125			
Lead, total	0.0939	0.0040	"	0.100000	ND	93.9	75-125			
Nickel, total	0.129	0.0040	"	0.100000	0.0295	99.2	75-125			
Selenium, total	0.0947	0.0040	"	0.100000	ND	94.7	75-125			
Silver, total	0.0957	0.0040	"	0.100000	ND	95.7	75-125			
Thallium, total	0.0956	0.0020	"	0.100000	ND	95.6	75-125			
Vanadium, total	0.100	0.0200	"	0.100000	ND	100	75-125			
Zinc, total	0.0943	0.0200	"	0.100000	ND	94.3	75-125			
Matrix Spike Dup (1GC0958-MSD1)		**Source: 1GC0747-01**		Prepared: 03/20/23 Analyzed: 03/21/23						
Antimony, total	0.0992	0.0020	mg/L	0.100000	ND	99.2	75-125	3.47	20	
Arsenic, total	0.102	0.0040	"	0.100000	0.0024	99.2	75-125	2.31	20	
Barium, total	0.359	0.0040	"	0.100000	0.253	107	75-125	4.34	20	
Beryllium, total	0.0976	0.0040	"	0.100000	ND	97.6	75-125	0.827	20	
Cadmium, total	0.0969	0.0008	"	0.100000	ND	96.9	75-125	3.17	20	
Chromium, total	0.0968	0.0080	"	0.100000	0.0006	96.8	75-125	1.62	20	
Cobalt, total	0.116	0.0004	"	0.100000	0.0121	104	75-125	1.71	20	
Copper, total	0.0959	0.0040	"	0.100000	0.0020	93.9	75-125	4.37	20	
Lead, total	0.0965	0.0040	"	0.100000	ND	96.5	75-125	2.77	20	
Nickel, total	0.128	0.0040	"	0.100000	0.0295	98.6	75-125	0.477	20	
Selenium, total	0.0953	0.0040	"	0.100000	ND	95.3	75-125	0.665	20	
Silver, total	0.0978	0.0040	"	0.100000	ND	97.8	75-125	2.11	20	
Thallium, total	0.0982	0.0020	"	0.100000	ND	98.2	75-125	2.66	20	
Vanadium, total	0.102	0.0200	"	0.100000	ND	102	75-125	1.72	20	
Zinc, total	0.0939	0.0200	"	0.100000	ND	93.9	75-125	0.450	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL= Method Reporting Limit.

HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Determination of Total Metals - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC0958 - EPA 3005A Total Recoverable Metals										
Post Spike (1GC0958-PS1)	**Source: 1GC0747-01**			Prepared: 03/20/23 Analyzed: 03/21/23						
Antimony, total	0.0758		mg/L	0.0800000	0.0002	94.5	80-120			
Arsenic, total	0.0776		"	0.0800000	0.0023	94.0	80-120			
Barium, total	0.323		"	0.0800000	0.248	94.1	80-120			
Beryllium, total	0.0758		"	0.0800000	0.00001	94.8	80-120			
Cadmium, total	0.0737		"	0.0800000	0.00002	92.1	80-120			
Chromium, total	0.0740		"	0.0800000	0.0006	91.8	80-120			
Cobalt, total	0.0910		"	0.0800000	0.0119	99.0	80-120			
Copper, total	0.0745		"	0.0800000	0.0020	90.7	80-120			
Lead, total	0.0732		"	0.0800000	0.00002	91.5	80-120			
Nickel, total	0.105		"	0.0800000	0.0289	95.3	80-120			
Selenium, total	0.0712		"	0.0800000	-0.0002	89.0	80-120			
Silver, total	0.0745		"	0.0800000	0.0001	93.0	80-120			
Thallium, total	0.0752		"	0.0800000	0.00002	94.0	80-120			
Vanadium, total	0.0796		"	0.0800000	0.0067	91.2	80-120			
Zinc, total	0.0714		"	0.0800000	0.0022	86.5	80-120			

ND = Non Detect; REC= Recovery; RPD= Relative Percent Difference

HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC0747

Certified Analyses Included In This Report

Method/Matrix	Analyte	Certifications
EPA 6020A in Water		
	Antimony, total	SIA1X,KS-NT
	Arsenic, total	SIA1X,KS-NT
	Barium, total	SIA1X,KS-NT
	Beryllium, total	SIA1X,KS-NT
	Cadmium, total	SIA1X,KS-NT
	Chromium, total	SIA1X,KS-NT
	Cobalt, total	SIA1X,KS-NT
	Copper, total	SIA1X,KS-NT
	Lead, total	SIA1X,KS-NT
	Nickel, total	SIA1X,KS-NT
	Selenium, total	SIA1X,KS-NT
	Silver, total	SIA1X,KS-NT
	Thallium, total	SIA1X,KS-NT
	Vanadium, total	SIA1X,KS-NT
	Zinc, total	SIA1X,KS-NT
EPA 8260B in Water		
	Chloromethane	KS-NT,SIA1X
	Vinyl Chloride	KS-NT,SIA1X
	Bromomethane	KS-NT,SIA1X
	Chloroethane	KS-NT,SIA1X
	Trichlorofluoromethane	KS-NT,SIA1X
	1,1-Dichloroethylene	KS-NT,SIA1X
	Acetone	KS-NT,SIA1X
	Methyl Iodide	SIA1X
	Carbon Disulfide	KS-NT,SIA1X
	Methylene Chloride	KS-NT,SIA1X
	Acrylonitrile	KS-NT,SIA1X
	trans-1,2-Dichloroethylene	KS-NT,SIA1X
	1,1-Dichloroethane	KS-NT,SIA1X
	Vinyl Acetate	KS-NT,SIA1X
	cis-1,2-Dichloroethylene	KS-NT,SIA1X
	2-Butanone (MEK)	KS-NT,SIA1X
	Bromochloromethane	KS-NT,SIA1X
	Chloroform	KS-NT,SIA1X
	1,1,1-Trichloroethane	KS-NT,SIA1X
	Carbon Tetrachloride	KS-NT,SIA1X
	Benzene	KS-NT,SIA1X
	1,2-Dichloroethane	KS-NT,SIA1X
	Trichloroethylene	KS-NT,SIA1X
	1,2-Dichloropropane	KS-NT,SIA1X
	Dibromomethane	SIA1X
	Bromodichloromethane	KS-NT,SIA1X
	cis-1,3-Dichloropropene	KS-NT,SIA1X
	4-Methyl-2-pentanone (MIBK)	KS-NT,SIA1X
	Toluene	KS-NT,SIA1X
	trans-1,3-Dichloropropene	KS-NT,SIA1X

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PO Box 314
Story City, IA 50248

Work Order: 1GC0747

1,1,2-Trichloroethane	KS-NT,SIA1X
Tetrachloroethylene	KS-NT,SIA1X
2-Hexanone (MBK)	KS-NT,SIA1X
Dibromochloromethane	KS-NT,SIA1X
1,2-Dibromoethane	KS-NT,SIA1X
Chlorobenzene	KS-NT,SIA1X
1,1,1,2-Tetrachloroethane	KS-NT,SIA1X
Ethylbenzene	KS-NT,SIA1X
Xylenes, total	KS-NT,SIA1X
Styrene	KS-NT,SIA1X
Bromoform	KS-NT,SIA1X
1,2,3-Trichloropropane	KS-NT,SIA1X
trans-1,4-Dichloro-2-butene	SIA1X
1,1,2,2-Tetrachloroethane	KS-NT,SIA1X
1,4-Dichlorobenzene	KS-NT,SIA1X
1,2-Dichlorobenzene	KS-NT,SIA1X
1,2-Dibromo-3-chloropropane	KS-NT,SIA1X

Code	Description	Number	Expires
KS-KC	Kansas Department of Health and Environment-KC	E-10110	04/30/2023
KS-NT	Kansas Department of Health and Environment (NELAP)	E-10287	10/31/2023
MO-KC	Missouri Department of Natural Resources	140	04/30/2023
SIA1X	Iowa Dept. of Natural Resources	95	02/01/2024

Notes and Definitions

QB-02	The method blank contains analyte at a concentration above the MRL; however, sample concentration was less than the MRL or less than the applicable action level.
QM-01	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QS-01	The blank spike recovery and/or blank spike duplicate recovery were outside the established acceptance limits. Batch was accepted based on acceptable MS/MSD/RPD results.

End of Report

Sue Thompson

Keystone Laboratories

Sue Thompson
Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL= Method Reporting Limit.

CHAIN OF CU

Keystone LABORATORIES, INC.
600 East 17th Street Sou
Newton, IA 50208
641-792-2451

1GC0747

HLW Engineering
PM: Sue Thompson

rinted: 2/19/2023 2:06:57PM
www.keystonelabs.co

SITE INFORMATION
Sampler: TODD WHIPPLE
Project: Benton County - New Regs

SPECIAL INSTRUCTIONS
None

Turn Around Time
☐ Standard ☐ RUSH, need by ___/___/___

REPORT TO
Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

INVOICE TO
Eric Werner
Benton County Sanitary Landfill
7904 20th Ave
Blairstown, IA 52209

LAB USE ONLY
Work Order 1GC0747
Temperature 2.4
Turn-Cooler: No

☐ Custody Seal
☐ Containers Intact
☐ COC/Labels Agree
☐ Preservation Confirmed
☐ Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
01-001	MW-6 (b)	Water	GRAB	3/7/23	9:27	7	lndfll-appl-metals-6020 lndfll-appl-voc	01
02-001	MW-26 (b)	Water	GRAB	3/7/23	8:55	7	lndfll-appl-metals-6020 lndfll-appl-voc	02
03-001	MW-27 (b)	Water	GRAB	3/7/23	8:30	7	lndfll-appl-metals-6020 lndfll-appl-voc	03
04-001	MW-28 (b)	Water	GRAB	3/7/23	11:00	7	lndfll-appl-metals-6020 lndfll-appl-voc	04
05-001	MW-7 (b)	Water	GRAB	3/7/23	9:16	7	lndfll-appl-metals-6020 lndfll-appl-voc	05
06-001	MW-9	Water	GRAB	3/7/23	12:22	7	lndfll-appl-metals-6020 lndfll-appl-voc	06
07-001	MW-12	Water	GRAB	3/7/23	11:48	7	lndfll-appl-metals-6020 lndfll-appl-voc	07

Relinquished By Todd Whipple Date/Time 3/8/23
Received By 3/9/23 10AM Date/Time

Relinquished By Date/Time
Received for Lab By Date/Time

Original - Lab Copy Yellow - Sampler Copy

Remarks:

Keystone LABORATORIES, INC.
600 East 17th Street South
Newton, IA 50208
641-792-3451

1GC0747

HLW Engineering
PM: Sue Thompson

ited: 2/19/2023 2:06:57PM

www.keystonelabs.co

SITE INFORMATION

Sampler: TODD WHIPPLE

Project: Benton County - New Regs

REPORT TO

Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

INVOICE TO

Eric Werner
Benton County Sanitary Landfill
7904 20th Ave
Blairstown, IA 52209

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY

Work Order 1GC0747

Temperature 2.4

Turn-Cooler: No

☐ Custody Seal
☐ Containers Intact
☐ COC/Labels Agree
☐ Preservation Confirmed
☐ Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
08-001	~~MW-14~~	Water	GRAB	3/7/23	11:30	7	indfil-appl-metals-6020 indfil-appl-voc	08
09-001	~~MW-15~~ No Sample	Water	GRAB	—	—	—	indfil-appl-metals-6020 indfil-appl-voc	—
10-001	MW-20	Water	GRAB	3/7/23	10:36	8	indfil-appl-metals-6020 indfil-appl-voc sulf-i-376.2-regen	09
11-001	AW-4	Water	GRAB	3/7/23	12:03	7	indfil-appl-metals-6020 indfil-appl-voc	10
12-001	MW-24	Water	GRAB	3/7/23	12:40	7	indfil-appl-metals-6020 indfil-appl-voc	11
13-001	MW-25	Water	GRAB	3/7/23	12:59	7	indfil-appl-metals-6020 indfil-appl-voc	12
14-001	AW-2	Water	GRAB	3/7/23	10:20	7	indfil-appl-metals-6020 indfil-appl-voc	13

Relinquished By — Date/Time: 3/8/23

Received By — Date/Time: 3/8/23 10AM

Relinquished By — Date/Time

Received for Lab By — Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

CHAIN OF CU

Keystone LABORATORIES, INC.

600 East 17th Street Sou
Newton, IA 50208
641-792-8451

1GC0747

HLW Engineering
PM: Sue Thompson

Printed: 2/19/2023 2:06:57PM

www.keystonelabs.co

SITE INFORMATION

Sampler: Todd Whipple

Project: Benton County - New Regs

REPORT TO

Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

INVOICE TO

Eric Werner
Benton County Sanitary Landfill
7904 20th Ave
Blairstown, IA 52209

SPECIAL INSTRUCTIONS

None

Turn Around Time
☐ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY

Work Order 1GC0747
Temperature 2.4
Turn-Cooler: No

☐ Custody Seal
☐ Containers Intact
☐ COC/Labels Agree
☐ Preservation Confirmed
☐ Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
15-001	AW-9	Water	GRAB	3/7/23	10:04	7	lndfll-appl-metals-6020 lndfll-appl-voc	14
16-001	AW-3	Water	GRAB	3/7/23	9:44	7	lndfll-appl-metals-6020 lndfll-appl-voc	15
17-001	Duplicate	Water	GRAB	3/7/23	✓	7	lndfll-appl-metals-6020 lndfll-appl-voc	16

Relinquished By 3/8/23 Date/Time

Received By 3/8/23 10A Date/Time

Relinquished By Date/Time

Received for Lab By Date/Time

Original - Lab Copy Yellow - Sampler Copy

Remarks:

ANALYTICAL REPORT

June 16, 2023

Work Order: **1GF0708**

Report To	Work Order Information
Todd Whipple	Date Received: 6/7/2023 9:59:00AM
HLW Engineering	Collector: Whipple, Todd
PO Box 314	Phone: (515) 733-4144
Story City, IA 50248	PO Number:

Project: Benton County - New Regs

Project Number: [none]

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GF0708-01 MW-9				Matrix: Water		Collected: 06/06/23 07:31	
Nickel, total	**0.0153 mg/L**	**0.0040**	1GF0461	EPA 6020A	RVV	06/14/23 3:51	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL= Method Reporting Limit.

Determination of Total Metals - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GF0461 - EPA 3005A Total Recoverable Metals										
Blank (1GF0461-BLK1)				Prepared: 06/09/23 Analyzed: 06/14/23						
Nickel, total	ND	0.0040	mg/L							
LCS (1GF0461-BS1)				Prepared: 06/09/23 Analyzed: 06/14/23						
Nickel, total	0.106	0.0040	mg/L	0.100000		106	80-120			
Matrix Spike (1GF0461-MS1)		**Source: 1GF0695-01**		Prepared: 06/09/23 Analyzed: 06/14/23						
Nickel, total	0.123	0.0040	mg/L	0.100000	0.0150	108	75-125			
Matrix Spike Dup (1GF0461-MSD1)		**Source: 1GF0695-01**		Prepared: 06/09/23 Analyzed: 06/14/23						
Nickel, total	0.121	0.0040	mg/L	0.100000	0.0150	106	75-125	1.50	20	
Post Spike (1GF0461-PS1)		**Source: 1GF0695-01**		Prepared: 06/09/23 Analyzed: 06/14/23						
Nickel, total	0.0920		mg/L	0.0800000	0.0150	96.3	80-120			

ND = Non Detect; REC= Recovery; RPD= Relative Percent Difference

Certified Analyses Included In This Report

Method/Matrix	Analyte	Certifications
EPA 6020A in Water		
	Nickel, total	SIA1X,KS-NT

Code	Description	Number	Expires
KS-KC	Kansas Department of Health and Environment-KC	E-10110	04/30/2024
KS-NT	Kansas Department of Health and Environment (NELAP)	E-10287	10/31/2023
MO-KC	Missouri Department of Natural Resources (KC)	140	04/30/2024
MO-NT	Missouri Department of Natural Resources (Newton)	10170	04/30/2026
SIA1X	Iowa Dept. of Natural Resources	95	02/01/2024

HLW Engineering
PO Box 314
Story City, IA 50248

June 16, 2023
Page 3 of 4

Work Order: 1GF0708

End of Report

Sue Thompson

Keystone Laboratories

Sue Thompson
Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL= Method Reporting Limit.

CHAIN OF CUSTODY

Keystone LABORATORIES, INC.

☐ 600 E. 17th St. S.
Newton, IA 50208
Phone: 641-792-8451
Fax: 641-792-7989

☐ 3012 Ansborough Ave.
Waterloo, IA 50701
Phone: 319-235-4440
Fax: 319-235-2480

1GF0708

HLW Engineering
PM: Sue Thompson

…en St
52544
37-7023
37-7040

1 OF 1

PRINT OR TYPE INFORMATION BELOW

SAMPLER: Todd Whipple
SITE NAME: Benton Co SLF
ADDRESS:
CITY/ST/ZIP: Blairstown IA 52209
PHONE:

REPORT TO:

NAME: Todd Whipple
COMPANY NAME: HLW Group LLC
ADDRESS: P.O. Box 314
CITY/ST/ZIP: Story City, IA 50248
PHONE: 515-733-4144
FAX: 4146

BILL TO:

NAME: Eric Werner, Director
COMPANY NAME: Benton Co SLF
ADDRESS: 7904 20th Ave
CITY/ST/ZIP: Blairstown, IA 52209
PHONE:

Keystone Quote No: (If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED: Nickel, total	LAB USE ONLY: SAMPLE CONDITION/COMMENTS	LABORATORY SAMPLE NUMBER
MW-9	6-6-23	7:31	MW-9	1	W	G	X		01

LAB USE ONLY

LABORATORY WORK ORDER NO.: 16F0708

SAMPLE TEMPERATURE UPON RECEIPT: 2.6 ice √ °C

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
Todd Whipple	6/7/23	Maher	6/7/23 9:59
Relinquished by: (Signature)	Date / Time	Received for Lab by: (Signature)	Date / Time

Turn-Around: ☐ Standard ☐ Rush _____ Contact Lab Prior to Submission

Remarks:

Original - Lab Copy • Yellow - Sampler Copy

FORM: CCR 7-97

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GI2469

Project Description

Benton County - New Regs

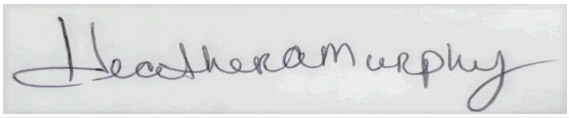
For:

Todd Whipple

HLW Engineering

PO Box 314

Story City, IA 50248



Heather Murphy

Customer Relationship Specialist

Tuesday, October 17, 2023

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Keystone Laboratories - Newton. If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed above.

I certify that all test results meet all of the requirements of the accrediting authority listed within this report. Analytical results are reported on a 'as received' basis unless specified otherwise. Analytical results for solids with units ending in (dry) are reported on a dry weight basis. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GI2469

HLW Engineering

Todd Whipple
PO Box 314
Story City, IA 50248

Project Name: Benton County - New Regs

Project / PO Number: / [none]
Received: 09/29/2023
Reported: 10/17/2023

Sample Summary Report

Sample Name	Laboratory ID	Client Matrix	Sample Type	Sample Begin	Sample Taken	Lab Received
MW-6 (b)	1GI2469-01	Water	GRAB		09/28/23 13:23	09/29/23 09:25
MW-26 (b)	1GI2469-02	Water	GRAB		09/28/23 10:01	09/29/23 09:25
MW-27 (b)	1GI2469-03	Water	GRAB		09/28/23 09:32	09/29/23 09:25
MW-7 (b)	1GI2469-04	Water	GRAB		09/28/23 13:34	09/29/23 09:25
MW-9	1GI2469-05	Water	GRAB		09/28/23 14:02	09/29/23 09:25
MW-12	1GI2469-06	Water	GRAB		09/28/23 12:55	09/29/23 09:25
MW-14	1GI2469-07	Water	GRAB		09/28/23 13:08	09/29/23 09:25
MW-20	1GI2469-08	Water	GRAB		09/28/23 11:15	09/29/23 09:25
AW-4	1GI2469-09	Water	GRAB		09/28/23 08:52	09/29/23 09:25
MW-24	1GI2469-10	Water	GRAB		09/28/23 12:32	09/29/23 09:25
MW-25	1GI2469-11	Water	GRAB		09/28/23 12:13	09/29/23 09:25
AW-2	1GI2469-12	Water	GRAB		09/28/23 10:58	09/29/23 09:25
AW-9	1GI2469-13	Water	GRAB		09/28/23 10:36	09/29/23 09:25
AW-3	1GI2469-14	Water	GRAB		09/28/23 10:15	09/29/23 09:25
Duplicate	1GI2469-15	Water	GRAB		09/28/23 00:00	09/29/23 09:25

Analytical Testing Parameters

Client Sample ID:	MW-6 (b)		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-01	**Collection Date:**	09/28/2023 13:23

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Benzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH

Client Sample ID:	MW-6 (b)		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-01	**Collection Date:**	09/28/2023 13:23

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1521	LNH
Surrogate: Dibromofluoromethane	105	Limit: 80-126	% Rec	1		10/02/23 0000	10/02/23 1521	LNH
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec	1		10/02/23 0000	10/02/23 1521	LNH
Surrogate: 1,2-Dichloroethane-d4	98.6	Limit: 61-142	% Rec	1		10/02/23 0000	10/02/23 1521	LNH
Surrogate: 1,2-Dichloroethane-d4	98.6	Limit: 63-138	% Rec	1		10/02/23 0000	10/02/23 1521	LNH
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		10/02/23 0000	10/02/23 1521	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/02/23 0000	10/02/23 1521	LNH
Surrogate: 4-Bromofluorobenzene	93.2	Limit: 85-111	% Rec	1		10/02/23 0000	10/02/23 1521	LNH
Surrogate: 4-Bromofluorobenzene	93.2	Limit: 80-116	% Rec	1		10/02/23 0000	10/02/23 1521	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Barium, total	**0.237**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Cobalt, total	**0.0018**	0.0004	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Nickel, total	**0.0253**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2127	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2127	RVV

Client Sample ID:	MW-26 (b)		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-02	**Collection Date:**	09/28/2023 10:01

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Benzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH

Client Sample ID:	MW-26 (b)		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-02	**Collection Date:**	09/28/2023 10:01

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1600	LNH
Surrogate: Dibromofluoromethane	106	Limit: 80-126	% Rec	1		10/02/23 0000	10/02/23 1600	LNH
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec	1		10/02/23 0000	10/02/23 1600	LNH
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 61-142	% Rec	1		10/02/23 0000	10/02/23 1600	LNH
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 63-138	% Rec	1		10/02/23 0000	10/02/23 1600	LNH
Surrogate: Toluene-d8	101	Limit: 82-121	% Rec	1		10/02/23 0000	10/02/23 1600	LNH
Surrogate: Toluene-d8	101	Limit: 87-116	% Rec	1		10/02/23 0000	10/02/23 1600	LNH
Surrogate: 4-Bromofluorobenzene	93.6	Limit: 80-116	% Rec	1		10/02/23 0000	10/02/23 1600	LNH
Surrogate: 4-Bromofluorobenzene	93.6	Limit: 85-111	% Rec	1		10/02/23 0000	10/02/23 1600	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Barium, total	**0.170**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2151	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2151	RVV

Client Sample ID:	MW-27 (b)		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-03	**Collection Date:**	09/28/2023 9:32

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Benzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH

Client Sample ID:	MW-27 (b)		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-03	**Collection Date:**	09/28/2023 9:32

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1640	LNH
Surrogate: Dibromofluoromethane	106	Limit: 80-126	% Rec	1		10/02/23 0000	10/02/23 1640	LNH
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec	1		10/02/23 0000	10/02/23 1640	LNH
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 61-142	% Rec	1		10/02/23 0000	10/02/23 1640	LNH
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 63-138	% Rec	1		10/02/23 0000	10/02/23 1640	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/02/23 0000	10/02/23 1640	LNH
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		10/02/23 0000	10/02/23 1640	LNH
Surrogate: 4-Bromofluorobenzene	93.6	Limit: 85-111	% Rec	1		10/02/23 0000	10/02/23 1640	LNH
Surrogate: 4-Bromofluorobenzene	93.6	Limit: 80-116	% Rec	1		10/02/23 0000	10/02/23 1640	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Arsenic, total	**0.0053**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Barium, total	**0.112**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Cobalt, total	**0.0006**	0.0004	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2157	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2157	RVV

Client Sample ID:	MW-7 (b)		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-04	**Collection Date:**	09/28/2023 13:34

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Benzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH

Client Sample ID:	MW-7 (b)		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-04	**Collection Date:**	09/28/2023 13:34

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 1720	LNH
Surrogate: Dibromofluoromethane	107	Limit: 80-126	% Rec	1		10/02/23 0000	10/02/23 1720	LNH
Surrogate: Dibromofluoromethane	107	Limit: 75-136	% Rec	1		10/02/23 0000	10/02/23 1720	LNH
Surrogate: 1,2-Dichloroethane-d4	99.6	Limit: 61-142	% Rec	1		10/02/23 0000	10/02/23 1720	LNH
Surrogate: 1,2-Dichloroethane-d4	99.6	Limit: 63-138	% Rec	1		10/02/23 0000	10/02/23 1720	LNH
Surrogate: Toluene-d8	101	Limit: 82-121	% Rec	1		10/02/23 0000	10/02/23 1720	LNH
Surrogate: Toluene-d8	101	Limit: 87-116	% Rec	1		10/02/23 0000	10/02/23 1720	LNH
Surrogate: 4-Bromofluorobenzene	93.7	Limit: 85-111	% Rec	1		10/02/23 0000	10/02/23 1720	LNH
Surrogate: 4-Bromofluorobenzene	93.7	Limit: 80-116	% Rec	1		10/02/23 0000	10/02/23 1720	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Barium, total	**0.161**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Copper, total	**0.0041**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2203	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2203	RVV

Client Sample ID:	MW-9		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-05	**Collection Date:**	09/28/2023 14:02

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Dichlorodifluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Acrolein	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Methyl Iodide	<2.0	2.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Acetonitrile	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
2,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
2-Butanone (MEK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,1-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Benzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Ethyl Methacrylate	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,3-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH

Client Sample ID:	MW-9		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-05	**Collection Date:**	09/28/2023 14:02

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,3-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2156	LNH
Allyl chloride	<1.0	1.0	ug/L	1		10/04/23 0000	10/04/23 1259	LJS
Chloroprene	<1.0	1.0	ug/L	1		10/04/23 0000	10/04/23 1259	LJS
Methacrylonitrile	<1.0	1.0	ug/L	1		10/04/23 0000	10/04/23 1259	LJS
Methyl Methacrylate	<1.0	1.0	ug/L	1		10/04/23 0000	10/04/23 1259	LJS
Propionitrile	<10.0	10.0	ug/L	1		10/04/23 0000	10/04/23 1259	LJS
Surrogate: Dibromofluoromethane	113	Limit: 80-126	% Rec	1		10/04/23 0000	10/04/23 1259	LJS
Surrogate: Dibromofluoromethane	106	Limit: 80-126	% Rec	1		10/02/23 0000	10/02/23 2156	LNH
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 63-138	% Rec	1		10/04/23 0000	10/04/23 1259	LJS
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 63-138	% Rec	1		10/02/23 0000	10/02/23 2156	LNH
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 63-138	% Rec	1		10/02/23 0000	10/02/23 2156	LNH
Surrogate: Toluene-d8	104	Limit: 87-116	% Rec	1		10/04/23 0000	10/04/23 1259	LJS
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/02/23 0000	10/02/23 2156	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/02/23 0000	10/02/23 2156	LNH
Surrogate: 4-Bromofluorobenzene	115	Limit: 85-111	% Rec	1	S-GC	10/04/23 0000	10/04/23 1259	LJS
Surrogate: 4-Bromofluorobenzene	92.9	Limit: 85-111	% Rec	1		10/02/23 0000	10/02/23 2156	LNH
Surrogate: 4-Bromofluorobenzene	92.9	Limit: 85-111	% Rec	1		10/02/23 0000	10/02/23 2156	LNH

Determination of General Solvents	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8015C								
Isobutanol	<1.0	1.0	mg/L	1		10/12/23 0917	10/12/23 1237	PDS

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 8270C								
N-Nitrosodimethylamine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Methyl Methanesulfonate	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
N-Nitrosodiethylamine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
N-Nitrosomethylethylamine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Ethyl Methanesulfonate	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Phenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP

Client Sample ID:	MW-9		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-05	**Collection Date:**	09/28/2023 14:02

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bis(2-Chloroethyl) Ether	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2-Chlorophenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Benzyl Alcohol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2-Methylphenol (o-Cresol)	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Bis[2-Chloroisopropyl]ether	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
n-Nitroso-di-n-propylamine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
N-Nitrosopyrrolidine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Acetophenone	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
o-Toluidine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
(3 & 4)-Methylphenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Hexachloroethane	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Nitrobenzene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
N-Nitrosopiperidine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Isophorone	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2-Nitrophenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2,4-Dimethylphenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Bis (2-Chloroethoxy) Methane	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2,4-Dichlorophenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Naphthalene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
4-Chloroaniline	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2,6-Dichlorophenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Hexachloropropene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Hexachlorobutadiene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
N-Nitrosodi-n-butylamine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
1,4-Phenylenediamine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
4-Chloro-3-methylphenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2-Methylnaphthalene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Isosafrole	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Hexachlorocyclopentadiene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2,4,6-Trichlorophenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2,4,5-Trichlorophenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Safrole	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2-Chloronaphthalene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2-Nitroaniline	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
1,4-Naphthoquinone	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Dimethylphthalate	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
1,3-Dinitrobenzene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
1,2-Dinitrobenzene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2,6-Dinitrotoluene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Acenaphthylene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
3-Nitroaniline	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Acenaphthene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP

Client Sample ID:	MW-9		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-05	**Collection Date:**	09/28/2023 14:02

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
4-Nitrophenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Dibenzofuran	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2,4-Dinitrotoluene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2,3,4,6-Tetrachlorophenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Pentachlorobenzene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
1-Naphthylamine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2-Naphthylamine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Diethyl Phthalate	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Fluorene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
4-Chlorophenyl Phenyl Ether	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
4-Nitroaniline	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
5-Nitro-o-toluidine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
4,6-Dinitro-2-methylphenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
N-Nitrosodiphenylamine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Diphenylamine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Azobenzene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Diallate	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
1,3,5-Trinitrobenzene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Phenacetin	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
4-Bromophenyl Phenyl Ether	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
4-Aminobiphenyl	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Pentachlorophenol	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Pronamide	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Pentachloronitrobenzene (PCNB)	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Phenanthrene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Anthracene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Di-n-butyl Phthalate	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Methapyrilene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Fluoranthene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Isodrin	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Chlorobenzilate	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Pyrene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
p-(Dimethylamino)azobenzene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
3,3-Dimethylbenzidine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Butyl Benzyl Phthalate	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Benzo(a)anthracene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Chrysene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Kepone	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
3,3´-Dichlorobenzidine	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
2-Acetylaminofluorene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Di-n-octyl Phthalate	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP

Client Sample ID:	MW-9		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-05	**Collection Date:**	09/28/2023 14:02

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Benzo(b)Fluoranthene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Benzo(k)Fluoranthene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Benzo(a)Pyrene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
3-Methylcholanthrene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Dibenzo(a,h)anthracene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Benzo(g,h,i)perylene	<8	8	ug/L	1		10/03/23 1034	10/09/23 1717	EPP
Surrogate: 2-Fluorophenol	71.4	Limit: 24-136	% Rec	1		10/03/23 1034	10/09/23 1717	EPP
Surrogate: Phenol-d6	72.9	Limit: 15-140	% Rec	1		10/03/23 1034	10/09/23 1717	EPP
Surrogate: Nitrobenzene-d5	67.8	Limit: 29-130	% Rec	1		10/03/23 1034	10/09/23 1717	EPP
Surrogate: 2-Fluorobiphenyl	66.9	Limit: 23-113	% Rec	1		10/03/23 1034	10/09/23 1717	EPP
Surrogate: 2,4,6-Tribromophenol	78.0	Limit: 15-139	% Rec	1		10/03/23 1034	10/09/23 1717	EPP
Surrogate: Terphenyl-dl4	83.4	Limit: 27-141	% Rec	1		10/03/23 1034	10/09/23 1717	EPP

Determination of Organophosphorus Insecticides	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8141								
O,O,O-Triethyl phosphorothioate	<0.4	0.4	ug/L	1		10/02/23 1112	10/09/23 1233	EPP
Thionazin	<0.4	0.4	ug/L	1		10/02/23 1112	10/09/23 1233	EPP
Phorate	<0.4	0.4	ug/L	1		10/02/23 1112	10/09/23 1233	EPP
Dimethoate	<0.4	0.4	ug/L	1		10/02/23 1112	10/09/23 1233	EPP
Disulfoton	<0.4	0.4	ug/L	1		10/02/23 1112	10/09/23 1233	EPP
Methyl Parathion	<0.4	0.4	ug/L	1		10/02/23 1112	10/09/23 1233	EPP
Parathion	<0.4	0.4	ug/L	1		10/02/23 1112	10/09/23 1233	EPP
Famphur	<0.4	0.4	ug/L	1		10/02/23 1112	10/09/23 1233	EPP
Surrogate: 2-Nitro-m-xylene	107	Limit: 38-122	% Rec	1		10/02/23 1112	10/09/23 1233	EPP

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8151A								
2,4-D	<2.0	2.0	ug/L	1		10/04/23 1240	10/10/23 1256	EPP
2,4,5-TP (Silvex)	<0.5	0.5	ug/L	1		10/04/23 1240	10/10/23 1256	EPP
2,4,5-T	<0.5	0.5	ug/L	1		10/04/23 1240	10/10/23 1256	EPP
Dinoseb	<0.5	0.5	ug/L	1		10/04/23 1240	10/10/23 1256	EPP
Surrogate: 2,5-Dichlorobenzoic Acid	71.3	Limit: 31-116	% Rec	1		10/04/23 1240	10/10/23 1256	EPP

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8081								
Alpha-BHC	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Gamma-BHC [Lindane]	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Beta-BHC	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Heptachlor	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP

Client Sample ID:	MW-9		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-05	**Collection Date:**	09/28/2023 14:02

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Delta-BHC	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Aldrin	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Heptachlor Epoxide	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Endosulfan I	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
4,4`-DDE	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Dieldrin	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Endrin	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
4,4`-DDD	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Endosulfan II	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
4,4`-DDT	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Endrin Aldehyde	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Endosulfan Sulfate	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Methoxychlor	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Chlordane	<0.10	0.10	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Toxaphene	<0.20	0.20	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Hexachlorobenzene	<0.05	0.05	ug/L	1		10/02/23 1109	10/08/23 1659	EPP
Surrogate: Tetrachloro-m-xylene	103	Limit: 10-121	% Rec	1		10/02/23 1109	10/08/23 1659	EPP

Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8082								
Arochlor 1016	<0.20	0.20	ug/L	1		10/02/23 1111	10/08/23 1659	EPP
Arochlor 1221	<0.20	0.20	ug/L	1		10/02/23 1111	10/08/23 1659	EPP
Arochlor 1232	<0.20	0.20	ug/L	1		10/02/23 1111	10/08/23 1659	EPP
Arochlor 1242	<0.20	0.20	ug/L	1		10/02/23 1111	10/08/23 1659	EPP
Arochlor 1248	<0.20	0.20	ug/L	1		10/02/23 1111	10/08/23 1659	EPP
Arochlor 1254	<0.20	0.20	ug/L	1		10/02/23 1111	10/08/23 1659	EPP
Arochlor 1260	<0.20	0.20	ug/L	1		10/02/23 1111	10/08/23 1659	EPP
Surrogate: Tetrachloro-m-xylene	66.7	Limit: 38-121	% Rec	1		10/02/23 1111	10/08/23 1659	EPP
Surrogate: Decachlorobiphenyl	38.3	Limit: 25-119	% Rec	1		10/02/23 1111	10/08/23 1659	EPP

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
4500CN-E								
Cyanide, total	<0.005	0.005	mg/L	1		10/10/23 1401	10/11/23 1358	CHP
EPA 376.2								
Sulfide, total	<0.10	0.10	mg/L	1		10/02/23 1100	10/02/23 1546	AKK

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Arsenic, total	**0.0049**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Barium, total	**0.486**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2210	RVV

Client Sample ID:	MW-9		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-05	**Collection Date:**	09/28/2023 14:02

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Cobalt, total	**0.0019**	0.0004	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Nickel, total	**0.0152**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Tin, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2210	RVV
EPA 7470A								
Mercury, total	<0.00050	0.00050	mg/L	1		10/02/23 1524	10/03/23 1451	JAR

Client Sample ID:	MW-12		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-06	**Collection Date:**	09/28/2023 12:55

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Benzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH

Client Sample ID:	MW-12		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-06	**Collection Date:**	09/28/2023 12:55

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2235	LNH
Surrogate: Dibromofluoromethane	106	Limit: 80-126	% Rec	1		10/02/23 0000	10/02/23 2235	LNH
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec	1		10/02/23 0000	10/02/23 2235	LNH
Surrogate: 1,2-Dichloroethane-d4	97.3	Limit: 61-142	% Rec	1		10/02/23 0000	10/02/23 2235	LNH
Surrogate: 1,2-Dichloroethane-d4	97.3	Limit: 63-138	% Rec	1		10/02/23 0000	10/02/23 2235	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/02/23 0000	10/02/23 2235	LNH
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		10/02/23 0000	10/02/23 2235	LNH
Surrogate: 4-Bromofluorobenzene	93.4	Limit: 85-111	% Rec	1		10/02/23 0000	10/02/23 2235	LNH
Surrogate: 4-Bromofluorobenzene	93.4	Limit: 80-116	% Rec	1		10/02/23 0000	10/02/23 2235	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Barium, total	**0.0928**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Cobalt, total	**0.0007**	0.0004	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Nickel, total	**0.0081**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2216	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2216	RVV

Client Sample ID:	MW-14		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-07	**Collection Date:**	09/28/2023 13:08

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Benzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH

Client Sample ID:	MW-14		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-07	**Collection Date:**	09/28/2023 13:08

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2315	LNH
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec	1		10/02/23 0000	10/02/23 2315	LNH
Surrogate: Dibromofluoromethane	106	Limit: 80-126	% Rec	1		10/02/23 0000	10/02/23 2315	LNH
Surrogate: 1,2-Dichloroethane-d4	97.4	Limit: 61-142	% Rec	1		10/02/23 0000	10/02/23 2315	LNH
Surrogate: 1,2-Dichloroethane-d4	97.4	Limit: 63-138	% Rec	1		10/02/23 0000	10/02/23 2315	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/02/23 0000	10/02/23 2315	LNH
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		10/02/23 0000	10/02/23 2315	LNH
Surrogate: 4-Bromofluorobenzene	93.3	Limit: 80-116	% Rec	1		10/02/23 0000	10/02/23 2315	LNH
Surrogate: 4-Bromofluorobenzene	93.3	Limit: 85-111	% Rec	1		10/02/23 0000	10/02/23 2315	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Barium, total	**0.421**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Nickel, total	**0.0131**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2234	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2234	RVV

Client Sample ID:	MW-20		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-08	**Collection Date:**	09/28/2023 11:15

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Benzene	**2.6**	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Chlorobenzene	**3.4**	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH

Client Sample ID:	MW-20		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-08	**Collection Date:**	09/28/2023 11:15

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,4-Dichlorobenzene	**3.4**	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/02/23 2354	LNH
Surrogate: Dibromofluoromethane	105	Limit: 80-126	% Rec	1		10/02/23 0000	10/02/23 2354	LNH
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec	1		10/02/23 0000	10/02/23 2354	LNH
Surrogate: 1,2-Dichloroethane-d4	95.9	Limit: 63-138	% Rec	1		10/02/23 0000	10/02/23 2354	LNH
Surrogate: 1,2-Dichloroethane-d4	95.9	Limit: 61-142	% Rec	1		10/02/23 0000	10/02/23 2354	LNH
Surrogate: Toluene-d8	103	Limit: 87-116	% Rec	1		10/02/23 0000	10/02/23 2354	LNH
Surrogate: Toluene-d8	103	Limit: 82-121	% Rec	1		10/02/23 0000	10/02/23 2354	LNH
Surrogate: 4-Bromofluorobenzene	93.5	Limit: 85-111	% Rec	1		10/02/23 0000	10/02/23 2354	LNH
Surrogate: 4-Bromofluorobenzene	93.5	Limit: 80-116	% Rec	1		10/02/23 0000	10/02/23 2354	LNH

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 376.2								
Sulfide, total	**0.44**	0.10	mg/L	1	**PH-5**	10/02/23 1100	10/02/23 1546	AKK

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Arsenic, total	**0.0375**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Barium, total	**0.313**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Cobalt, total	**0.0028**	0.0004	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Nickel, total	**0.0074**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2240	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2240	RVV

Client Sample ID:	AW-4		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-09	**Collection Date:**	09/28/2023 8:52

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Benzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GI2469

Client Sample ID:	AW-4		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-09	**Collection Date:**	09/28/2023 8:52

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0033	LNH
Surrogate: Dibromofluoromethane	105	Limit: 80-126	% Rec	1		10/02/23 0000	10/03/23 0033	LNH
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec	1		10/02/23 0000	10/03/23 0033	LNH
Surrogate: 1,2-Dichloroethane-d4	97.8	Limit: 61-142	% Rec	1		10/02/23 0000	10/03/23 0033	LNH
Surrogate: 1,2-Dichloroethane-d4	97.8	Limit: 63-138	% Rec	1		10/02/23 0000	10/03/23 0033	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/02/23 0000	10/03/23 0033	LNH
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		10/02/23 0000	10/03/23 0033	LNH
Surrogate: 4-Bromofluorobenzene	93.8	Limit: 80-116	% Rec	1		10/02/23 0000	10/03/23 0033	LNH
Surrogate: 4-Bromofluorobenzene	93.8	Limit: 85-111	% Rec	1		10/02/23 0000	10/03/23 0033	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Barium, total	**0.305**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2246	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2246	RVV

Client Sample ID:	MW-24		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-10	**Collection Date:**	09/28/2023 12:32

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Benzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH

Client Sample ID:	MW-24		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-10	**Collection Date:**	09/28/2023 12:32

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0112	LNH
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec	1		10/02/23 0000	10/03/23 0112	LNH
Surrogate: Dibromofluoromethane	105	Limit: 80-126	% Rec	1		10/02/23 0000	10/03/23 0112	LNH
Surrogate: 1,2-Dichloroethane-d4	99.1	Limit: 63-138	% Rec	1		10/02/23 0000	10/03/23 0112	LNH
Surrogate: 1,2-Dichloroethane-d4	99.1	Limit: 61-142	% Rec	1		10/02/23 0000	10/03/23 0112	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/02/23 0000	10/03/23 0112	LNH
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		10/02/23 0000	10/03/23 0112	LNH
Surrogate: 4-Bromofluorobenzene	93.0	Limit: 80-116	% Rec	1		10/02/23 0000	10/03/23 0112	LNH
Surrogate: 4-Bromofluorobenzene	93.0	Limit: 85-111	% Rec	1		10/02/23 0000	10/03/23 0112	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Arsenic, total	**0.0171**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Barium, total	**0.298**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Cobalt, total	**0.0074**	0.0004	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Nickel, total	**0.0294**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2252	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2252	RVV

Client Sample ID:	MW-25		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-11	**Collection Date:**	09/28/2023 12:13

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Benzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH

Client Sample ID:	MW-25		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-11	**Collection Date:**	09/28/2023 12:13

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0152	LNH
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec	1		10/02/23 0000	10/03/23 0152	LNH
Surrogate: Dibromofluoromethane	105	Limit: 80-126	% Rec	1		10/02/23 0000	10/03/23 0152	LNH
Surrogate: 1,2-Dichloroethane-d4	97.7	Limit: 63-138	% Rec	1		10/02/23 0000	10/03/23 0152	LNH
Surrogate: 1,2-Dichloroethane-d4	97.7	Limit: 61-142	% Rec	1		10/02/23 0000	10/03/23 0152	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/02/23 0000	10/03/23 0152	LNH
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		10/02/23 0000	10/03/23 0152	LNH
Surrogate: 4-Bromofluorobenzene	93.5	Limit: 85-111	% Rec	1		10/02/23 0000	10/03/23 0152	LNH
Surrogate: 4-Bromofluorobenzene	93.5	Limit: 80-116	% Rec	1		10/02/23 0000	10/03/23 0152	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Barium, total	**0.0229**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Cobalt, total	**0.0006**	0.0004	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Nickel, total	**0.0057**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2258	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2258	RVV

Client Sample ID:	AW-2		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-12	**Collection Date:**	09/28/2023 10:58

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Benzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH

Client Sample ID:	AW-2		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-12	**Collection Date:**	09/28/2023 10:58

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0231	LNH
Surrogate: Dibromofluoromethane	105	Limit: 80-126	% Rec	1		10/02/23 0000	10/03/23 0231	LNH
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec	1		10/02/23 0000	10/03/23 0231	LNH
Surrogate: 1,2-Dichloroethane-d4	96.0	Limit: 63-138	% Rec	1		10/02/23 0000	10/03/23 0231	LNH
Surrogate: 1,2-Dichloroethane-d4	96.0	Limit: 61-142	% Rec	1		10/02/23 0000	10/03/23 0231	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/02/23 0000	10/03/23 0231	LNH
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		10/02/23 0000	10/03/23 0231	LNH
Surrogate: 4-Bromofluorobenzene	93.7	Limit: 85-111	% Rec	1		10/02/23 0000	10/03/23 0231	LNH
Surrogate: 4-Bromofluorobenzene	93.7	Limit: 80-116	% Rec	1		10/02/23 0000	10/03/23 0231	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Arsenic, total	**0.0364**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Barium, total	**0.150**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Cobalt, total	**0.0054**	0.0004	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Nickel, total	**0.0050**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2304	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2304	RVV

Client Sample ID:	AW-9		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-13	**Collection Date:**	09/28/2023 10:36

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Benzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH

Client Sample ID:	AW-9		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-13	**Collection Date:**	09/28/2023 10:36

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0310	LNH
Surrogate: Dibromofluoromethane	104	Limit: 75-136	% Rec	1		10/02/23 0000	10/03/23 0310	LNH
Surrogate: Dibromofluoromethane	104	Limit: 80-126	% Rec	1		10/02/23 0000	10/03/23 0310	LNH
Surrogate: 1,2-Dichloroethane-d4	96.5	Limit: 61-142	% Rec	1		10/02/23 0000	10/03/23 0310	LNH
Surrogate: 1,2-Dichloroethane-d4	96.5	Limit: 63-138	% Rec	1		10/02/23 0000	10/03/23 0310	LNH
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		10/02/23 0000	10/03/23 0310	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/02/23 0000	10/03/23 0310	LNH
Surrogate: 4-Bromofluorobenzene	92.6	Limit: 85-111	% Rec	1		10/02/23 0000	10/03/23 0310	LNH
Surrogate: 4-Bromofluorobenzene	92.6	Limit: 80-116	% Rec	1		10/02/23 0000	10/03/23 0310	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Barium, total	**0.447**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Cobalt, total	**0.0008**	0.0004	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2310	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2310	RVV

Client Sample ID:	AW-3		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-14	**Collection Date:**	09/28/2023 10:15

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Chloroethane	**3.8**	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Acetone	<10.0	10.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
cis-1,2-Dichloroethylene	**1.2**	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Chloroform	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Benzene	**2.6**	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Toluene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Styrene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Bromoform	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH

Client Sample ID:	AW-3		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-14	**Collection Date:**	09/28/2023 10:15

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,4-Dichlorobenzene	**3.4**	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/02/23 0000	10/03/23 0349	LNH
Surrogate: Dibromofluoromethane	103	Limit: 80-126	% Rec	1		10/02/23 0000	10/03/23 0349	LNH
Surrogate: Dibromofluoromethane	103	Limit: 75-136	% Rec	1		10/02/23 0000	10/03/23 0349	LNH
Surrogate: 1,2-Dichloroethane-d4	97.8	Limit: 61-142	% Rec	1		10/02/23 0000	10/03/23 0349	LNH
Surrogate: 1,2-Dichloroethane-d4	97.8	Limit: 63-138	% Rec	1		10/02/23 0000	10/03/23 0349	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/02/23 0000	10/03/23 0349	LNH
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		10/02/23 0000	10/03/23 0349	LNH
Surrogate: 4-Bromofluorobenzene	92.9	Limit: 80-116	% Rec	1		10/02/23 0000	10/03/23 0349	LNH
Surrogate: 4-Bromofluorobenzene	92.9	Limit: 85-111	% Rec	1		10/02/23 0000	10/03/23 0349	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Arsenic, total	**0.0383**	0.0040	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Barium, total	**0.373**	0.0040	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Cobalt, total	**0.0013**	0.0004	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Nickel, total	**0.0053**	0.0040	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/05/23 1137	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/05/23 1137	RVV

Client Sample ID:	Duplicate		
Sample Matrix:	Water	**Collected By:**	Whipple, Todd
Lab Sample ID:	1GI2469-15	**Collection Date:**	09/28/2023

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Arsenic, total	**0.0054**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Barium, total	**0.109**	0.0040	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Cobalt, total	**0.0005**	0.0004	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2322	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/03/23 0829	10/04/23 2322	RVV

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 376.2	1GJ0026	1GJ0026-BLK1	
		1GI2469-05	MW-9
		1GJ0026-MS1	1GI1997-01
		1GJ0026-MSD1	1GI1997-01
		1GJ0026-BS1	
		1GI2469-08	MW-20

Method	Batch	Laboratory ID	Client / Source ID
EPA 8081	1GJ0029	1GJ0029-BLK1	
		1GI2469-05	MW-9
		1GJ0029-BS1	
		1GJ0029-BSD1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8082	1GJ0030	1GJ0030-BLK1	
		1GI2469-05	MW-9
		1GJ0030-BS1	
		1GJ0030-BSD1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8141	1GJ0031	1GJ0031-BLK1	
		1GI2469-05	MW-9
		1GJ0031-BS1	
		1GJ0031-BSD1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 7470A	1GJ0070	1GJ0070-BLK1	
		1GJ0070-BS1	
		1GJ0070-MS1	1GI2056-04
		1GJ0070-MSD1	1GI2056-04
		1GI2469-05	MW-9

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1GJ0098	1GJ0098-BS1	
		1GJ0098-BSD1	
		1GJ0098-BLK1	
		1GI2469-01	MW-6 (b)
		1GI2469-02	MW-26 (b)
		1GI2469-03	MW-27 (b)
		1GI2469-04	MW-7 (b)
		1GJ0098-MS1	1GI2469-01

EPA 8260B	1GJ0098	1GJ0098-MSD1	1GI2469-01
		1GI2469-05	MW-9
		1GI2469-06	MW-12
		1GI2469-07	MW-14
		1GI2469-08	MW-20
		1GI2469-09	AW-4
		1GI2469-10	MW-24
		1GI2469-11	MW-25
		1GI2469-12	AW-2
		1GI2469-13	AW-9
		1GI2469-14	AW-3

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1GJ0105	1GJ0105-BLK1	
		1GJ0105-BLK1	
		1GJ0105-BS1	
		1GJ0105-BS1	
		1GI2469-01	MW-6 (b)
		1GJ0105-MS1	1GI2469-01
		1GJ0105-MS1	1GI2469-01
		1GJ0105-MSD1	1GI2469-01
		1GJ0105-MSD1	1GI2469-01
		1GJ0105-PS1	1GI2469-01
		1GJ0105-PS1	1GI2469-01
		1GI2469-02	MW-26 (b)
		1GI2469-03	MW-27 (b)
		1GI2469-04	MW-7 (b)
		1GI2469-05	MW-9
		1GI2469-05	MW-9
		1GI2469-06	MW-12
		1GI2469-07	MW-14
		1GI2469-08	MW-20
		1GI2469-09	AW-4
		1GI2469-10	MW-24
		1GI2469-11	MW-25
		1GI2469-12	AW-2
		1GI2469-13	AW-9
		1GI2469-15	Duplicate
		1GI2469-14	AW-3

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	1GJ0119	1GJ0119-BLK1	
		1GJ0119-BS1	

EPA 8270C	1GJ0119	1GJ0119-BSD1	
		1GI2469-05	MW-9

Method	Batch	Laboratory ID	Client / Source ID
EPA 8151A	1GJ0235	1GJ0235-BLK1	
		1GI2469-05	MW-9
		1GJ0235-BS1	
		1GJ0235-BSD1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1GJ0295	1GJ0295-BS1	
		1GJ0295-BSD1	
		1GJ0295-BLK1	
		1GI2469-05	MW-9
		1GJ0295-MS1	3GI0082-01
		1GJ0295-MSD1	3GI0082-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 8015C	1GJ0497	1GJ0497-BS1	
		1GJ0497-BLK1	
		1GI2469-05	MW-9
		1GJ0497-MS1	1GI2469-05
		1GJ0497-MSD1	1GI2469-05

Method	Batch	Laboratory ID	Client / Source ID
4500CN-E	1GJ0576	1GJ0576-BLK1	
		1GJ0576-BS1	
		1GJ0576-MS1	1GJ0294-03
		1GI2469-05	MW-9
		1GJ0576-MSD1	1GJ0294-03

Batch Quality Control Summary: Keystone Laboratories - Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
Blank (1GJ0098-BLK1)			Prepared: 10/02/23 00:00 Analyzed: 10/02/23 10:44							
Dichlorodifluoromethane	<1.0	1.0	ug/L							
Chloromethane	<1.0	1.0	ug/L							
Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
Blank (1GJ0098-BLK1)				Prepared: 10/02/23 00:00 Analyzed: 10/02/23 10:44						
Chloroethane	<1.0	1.0	ug/L							
Trichlorofluoromethane	<1.0	1.0	ug/L							
Trichlorofluoromethane	<1.0	1.0	ug/L							
Acrolein	<10.0	10.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<2.0	2.0	ug/L							
Methyl Iodide	<1.0	1.0	ug/L							
Carbon Disulfide	<1.0	1.0	ug/L							
Carbon Disulfide	<1.0	1.0	ug/L							
Acetonitrile	<10.0	10.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
Acrylonitrile	<5.0	5.0	ug/L							
Acrylonitrile	<5.0	5.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
Vinyl Acetate	<5.0	5.0	ug/L							
Vinyl Acetate	<5.0	5.0	ug/L							
2,2-Dichloropropane	<1.0	1.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<5.0	5.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
1,1-Dichloropropene	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
Blank (1GJ0098-BLK1)				Prepared: 10/02/23 00:00 Analyzed: 10/02/23 10:44						
1,2-Dichloropropane	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
Toluene	<1.0	1.0	ug/L							
Toluene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
Ethyl Methacrylate	<10.0	10.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
1,3-Dichloropropane	<1.0	1.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
Blank (1GJ0098-BLK1)				Prepared: 10/02/23 00:00 Analyzed: 10/02/23 10:44						
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,3-Dichlorobenzene	<1.0	1.0	ug/L							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L							
Surrogate: Dibromofluoromethane	*49.3*		ug/L	*50.4*		*97.8*	*80-126*			
Surrogate: Dibromofluoromethane	*49.3*		ug/L	*50.4*		*97.8*	*80-126*			
Surrogate: Dibromofluoromethane	*49.3*		ug/L	*50.4*		*97.8*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*45.6*		ug/L	*50.4*		*90.5*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*45.6*		ug/L	*50.4*		*90.5*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*45.6*		ug/L	*50.4*		*90.5*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*45.6*		ug/L	*50.4*		*90.5*	*61-142*			
Surrogate: Toluene-d8	*50.7*		ug/L	*50.2*		*101*	*87-116*			
Surrogate: Toluene-d8	*50.7*		ug/L	*50.2*		*101*	*87-116*			
Surrogate: Toluene-d8	*50.7*		ug/L	*50.2*		*101*	*87-116*			
Surrogate: Toluene-d8	*50.7*		ug/L	*50.2*		*101*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*47.8*		ug/L	*50.4*		*94.7*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*47.8*		ug/L	*50.4*		*94.7*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*47.8*		ug/L	*50.4*		*94.7*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*47.8*		ug/L	*50.4*		*94.7*	*80-116*			
LCS (1GJ0098-BS1)				Prepared: 10/02/23 00:00 Analyzed: 10/02/23 08:47						
Dichlorodifluoromethane	24.45	1.0	ug/L	30.0		81.4	44-139			
Chloromethane	28.39	1.0	ug/L	30.0		94.6	63-155			
Chloromethane	28.39	1.0	ug/L	30.0		94.6	56-152			
Vinyl Chloride	28.20	1.0	ug/L	30.0		94.0	70-154			
Vinyl Chloride	28.20	1.0	ug/L	30.0		94.0	62-151			
Bromomethane	29.02	1.0	ug/L	30.0		96.7	52-176			
Bromomethane	29.02	1.0	ug/L	30.0		96.7	61-162			
Chloroethane	27.39	1.0	ug/L	30.0		91.2	72-148			
Chloroethane	27.39	1.0	ug/L	30.0		91.2	69-138			
Trichlorofluoromethane	28.53	1.0	ug/L	30.0		95.0	70-152			
Trichlorofluoromethane	28.53	1.0	ug/L	30.0		95.0	70-143			
Acrolein	50.04	10.0	ug/L	50.5		99.1	27-144			
1,1-Dichloroethylene	46.82	1.0	ug/L	50.3		93.1	70-148			
1,1-Dichloroethylene	46.82	1.0	ug/L	50.3		93.1	76-140			
Acetone	114.3	10.0	ug/L	100		114	43-172			
Acetone	114.3	10.0	ug/L	100		114	51-156			
Methyl Iodide	100.2	1.0	ug/L	100		100	69-170			
Methyl Iodide	100.2	2.0	ug/L	100		100	81-166			
Carbon Disulfide	92.96	1.0	ug/L	100		92.9	72-162			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
LCS (1GJ0098-BS1)				Prepared: 10/02/23 00:00 Analyzed: 10/02/23 08:47						
Carbon Disulfide	92.96	1.0	ug/L	100		92.9	76-147			
Acetonitrile	99.00	10.0	ug/L	100		98.9	46-156			
Methylene Chloride	47.38	5.0	ug/L	50.3		94.2	68-142			
Methylene Chloride	47.38	5.0	ug/L	50.3		94.2	67-139			
Acrylonitrile	50.66	5.0	ug/L	50.0		101	67-144			
Acrylonitrile	50.66	5.0	ug/L	50.0		101	67-144			
trans-1,2-Dichloroethylene	48.91	1.0	ug/L	50.3		97.2	66-148			
trans-1,2-Dichloroethylene	48.91	1.0	ug/L	50.3		97.2	72-135			
1,1-Dichloroethane	47.82	1.0	ug/L	50.3		95.0	66-143			
1,1-Dichloroethane	47.82	1.0	ug/L	50.3		95.0	72-129			
Vinyl Acetate	168.7	5.0	ug/L	81.8		206	43-153			QS-02
Vinyl Acetate	168.7	5.0	ug/L	81.8		206	24-144			QS-02
2,2-Dichloropropane	49.32	1.0	ug/L	50.1		98.4	64-131			
cis-1,2-Dichloroethylene	47.09	1.0	ug/L	50.1		94.0	71-149			
cis-1,2-Dichloroethylene	47.09	1.0	ug/L	50.1		94.0	81-137			
2-Butanone (MEK)	101.2	10.0	ug/L	100		101	52-159			
2-Butanone (MEK)	101.2	5.0	ug/L	100		101	47-149			
Bromochloromethane	48.87	1.0	ug/L	50.1		97.5	69-143			
Bromochloromethane	48.87	1.0	ug/L	50.1		97.5	75-138			
Chloroform	50.32	1.0	ug/L	50.3		100	69-144			
Chloroform	50.32	1.0	ug/L	50.3		100	78-131			
1,1,1-Trichloroethane	50.92	1.0	ug/L	50.3		101	62-129			
1,1,1-Trichloroethane	50.92	1.0	ug/L	50.3		101	67-121			
1,1-Dichloropropene	50.97	1.0	ug/L	50.1		102	80-131			
Carbon Tetrachloride	54.57	1.0	ug/L	50.3		108	63-141			
Carbon Tetrachloride	54.57	1.0	ug/L	50.3		108	71-131			
Benzene	49.99	1.0	ug/L	50.1		99.7	71-134			
Benzene	49.99	1.0	ug/L	50.1		99.7	77-130			
1,2-Dichloroethane	51.24	1.0	ug/L	50.4		102	72-132			
1,2-Dichloroethane	51.24	1.0	ug/L	50.4		102	76-126			
Trichloroethylene	50.85	1.0	ug/L	50.2		101	71-135			
Trichloroethylene	50.85	1.0	ug/L	50.2		101	80-124			
1,2-Dichloropropane	51.37	1.0	ug/L	50.4		102	69-136			
1,2-Dichloropropane	51.37	1.0	ug/L	50.4		102	81-125			
Dibromomethane	51.30	1.0	ug/L	50.1		102	73-147			
Dibromomethane	51.30	1.0	ug/L	50.1		102	84-134			
Bromodichloromethane	52.42	1.0	ug/L	50.3		104	68-129			
Bromodichloromethane	52.42	1.0	ug/L	50.3		104	78-121			
cis-1,3-Dichloropropene	53.41	1.0	ug/L	50.3		106	65-134			
cis-1,3-Dichloropropene	53.41	1.0	ug/L	50.3		106	78-120			
4-Methyl-2-pentanone (MIBK)	105.3	5.0	ug/L	100		105	58-147			
4-Methyl-2-pentanone (MIBK)	105.3	5.0	ug/L	100		105	67-143			
Toluene	49.07	1.0	ug/L	50.1		97.9	72-133			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
LCS (1GJ0098-BS1)				Prepared: 10/02/23 00:00 Analyzed: 10/02/23 08:47						
Toluene	49.07	1.0	ug/L	50.1		97.9	77-130			
trans-1,3-Dichloropropene	52.98	1.0	ug/L	50.4		105	67-130			
trans-1,3-Dichloropropene	52.98	1.0	ug/L	50.4		105	77-123			
Ethyl Methacrylate	102.6	10.0	ug/L	100		102	52-148			
1,1,2-Trichloroethane	51.82	1.0	ug/L	50.3		103	69-135			
1,1,2-Trichloroethane	51.82	1.0	ug/L	50.3		103	78-124			
Tetrachloroethylene	51.93	1.0	ug/L	50.3		103	69-130			
Tetrachloroethylene	51.93	1.0	ug/L	50.3		103	73-124			
1,3-Dichloropropane	53.78	1.0	ug/L	50.1		107	78-131			
2-Hexanone (MBK)	101.9	5.0	ug/L	100		102	55-144			
2-Hexanone (MBK)	101.9	5.0	ug/L	100		102	57-145			
Dibromochloromethane	53.30	1.0	ug/L	50.4		106	73-127			
Dibromochloromethane	53.30	1.0	ug/L	50.4		106	78-126			
1,2-Dibromoethane	52.46	1.0	ug/L	50.1		105	67-132			
1,2-Dibromoethane	52.46	1.0	ug/L	50.1		105	69-126			
Chlorobenzene	50.30	1.0	ug/L	50.4		99.8	72-123			
Chlorobenzene	50.30	1.0	ug/L	50.4		99.8	76-120			
1,1,1,2-Tetrachloroethane	52.39	1.0	ug/L	50.1		104	73-127			
1,1,1,2-Tetrachloroethane	52.39	1.0	ug/L	50.1		104	81-122			
Ethylbenzene	48.82	1.0	ug/L	50.1		97.4	71-127			
Ethylbenzene	48.82	1.0	ug/L	50.1		97.4	74-121			
Xylenes, total	147.9	2.0	ug/L	150		98.3	74-127			
Xylenes, total	147.9	2.0	ug/L	150		98.3	75-122			
Styrene	50.59	1.0	ug/L	50.1		101	66-126			
Styrene	50.59	1.0	ug/L	50.1		101	76-119			
Bromoform	52.77	1.0	ug/L	50.4		105	68-130			
Bromoform	52.77	1.0	ug/L	50.4		105	74-127			
1,2,3-Trichloropropane	53.46	1.0	ug/L	50.1		107	63-136			
1,2,3-Trichloropropane	53.46	1.0	ug/L	50.1		107	73-125			
trans-1,4-Dichloro-2-butene	105.8	5.0	ug/L	100		106	54-134			
trans-1,4-Dichloro-2-butene	105.8	5.0	ug/L	100		106	55-135			
1,1,2,2-Tetrachloroethane	52.48	1.0	ug/L	50.3		104	61-131			
1,1,2,2-Tetrachloroethane	52.48	1.0	ug/L	50.3		104	58-133			
1,3-Dichlorobenzene	50.65	1.0	ug/L	50.4		100	70-125			
1,4-Dichlorobenzene	50.38	1.0	ug/L	50.5		99.8	70-129			
1,4-Dichlorobenzene	50.38	1.0	ug/L	50.5		99.8	69-128			
1,2-Dichlorobenzene	50.68	1.0	ug/L	50.3		101	69-126			
1,2-Dichlorobenzene	50.68	1.0	ug/L	50.3		101	70-125			
1,2-Dibromo-3-chloropropane	50.70	5.0	ug/L	50.1		101	50-143			
1,2-Dibromo-3-chloropropane	50.70	1.0	ug/L	50.1		101	54-147			
1,2,4-Trichlorobenzene	53.80	1.0	ug/L	50.1		107	55-149			
Surrogate: Dibromofluoromethane	*50.7*		ug/L	*50.4*		*101*	*75-136*			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
LCS (1GJ0098-BS1)			Prepared: 10/02/23 00:00 Analyzed: 10/02/23 08:47							
Surrogate: Dibromofluoromethane	*50.7*		ug/L	*50.4*		*101*	*80-126*			
Surrogate: Dibromofluoromethane	*50.7*		ug/L	*50.4*		*101*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*51.6*		ug/L	*50.4*		*102*	*61-142*			
Surrogate: 1,2-Dichloroethane-d4	*51.6*		ug/L	*50.4*		*102*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*51.6*		ug/L	*50.4*		*102*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*51.6*		ug/L	*50.4*		*102*	*63-138*			
Surrogate: Toluene-d8	*49.0*		ug/L	*50.2*		*97.5*	*82-121*			
Surrogate: Toluene-d8	*49.0*		ug/L	*50.2*		*97.5*	*87-116*			
Surrogate: Toluene-d8	*49.0*		ug/L	*50.2*		*97.5*	*87-116*			
Surrogate: Toluene-d8	*49.0*		ug/L	*50.2*		*97.5*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*48.3*		ug/L	*50.4*		*95.8*	*80-116*			
Surrogate: 4-Bromofluorobenzene	*48.3*		ug/L	*50.4*		*95.8*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*48.3*		ug/L	*50.4*		*95.8*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*48.3*		ug/L	*50.4*		*95.8*	*85-111*			
LCS Dup (1GJ0098-BSD1)			Prepared: 10/02/23 00:00 Analyzed: 10/02/23 09:26							
Dichlorodifluoromethane	23.71	1.0	ug/L	30.0		79.0	44-139	3.07	30	
Chloromethane	27.95	1.0	ug/L	30.0		93.2	63-155	1.56	24	
Chloromethane	27.95	1.0	ug/L	30.0		93.2	56-152	1.56	30	
Vinyl Chloride	27.55	1.0	ug/L	30.0		91.8	70-154	2.33	25	
Vinyl Chloride	27.55	1.0	ug/L	30.0		91.8	62-151	2.33	28	
Bromomethane	28.60	1.0	ug/L	30.0		95.3	52-176	1.46	27	
Bromomethane	28.60	1.0	ug/L	30.0		95.3	61-162	1.46	28	
Chloroethane	26.87	1.0	ug/L	30.0		89.5	72-148	1.92	25	
Chloroethane	26.87	1.0	ug/L	30.0		89.5	69-138	1.92	29	
Trichlorofluoromethane	28.13	1.0	ug/L	30.0		93.7	70-152	1.41	26	
Trichlorofluoromethane	28.13	1.0	ug/L	30.0		93.7	70-143	1.41	27	
Acrolein	49.59	10.0	ug/L	50.5		98.2	27-144	0.903	30	
1,1-Dichloroethylene	45.83	1.0	ug/L	50.3		91.2	70-148	2.14	24	
1,1-Dichloroethylene	45.83	1.0	ug/L	50.3		91.2	76-140	2.14	30	
Acetone	114.3	10.0	ug/L	100		114	43-172	0.0175	30	
Acetone	114.3	10.0	ug/L	100		114	51-156	0.0175	30	
Methyl Iodide	98.02	1.0	ug/L	100		97.8	69-170	2.16	30	
Methyl Iodide	98.02	2.0	ug/L	100		97.8	81-166	2.16	29	
Carbon Disulfide	91.32	1.0	ug/L	100		91.2	72-162	1.78	24	
Carbon Disulfide	91.32	1.0	ug/L	100		91.2	76-147	1.78	27	
Acetonitrile	99.13	10.0	ug/L	100		99.0	46-156	0.131	30	
Methylene Chloride	47.09	5.0	ug/L	50.3		93.6	68-142	0.614	21	
Methylene Chloride	47.09	5.0	ug/L	50.3		93.6	67-139	0.614	26	
Acrylonitrile	49.19	5.0	ug/L	50.0		98.4	67-144	2.94	24	
Acrylonitrile	49.19	5.0	ug/L	50.0		98.4	67-144	2.94	24	
trans-1,2-Dichloroethylene	48.07	1.0	ug/L	50.3		95.5	66-148	1.73	27	
trans-1,2-Dichloroethylene	48.07	1.0	ug/L	50.3		95.5	72-135	1.73	28	
1,1-Dichloroethane	47.47	1.0	ug/L	50.3		94.3	66-143	0.735	24	
1,1-Dichloroethane	47.47	1.0	ug/L	50.3		94.3	72-129	0.735	26	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
LCS Dup (1GJ0098-BSD1)			Prepared: 10/02/23 00:00 Analyzed: 10/02/23 09:26							
Vinyl Acetate	165.2	5.0	ug/L	81.8		202	43-153	2.10	30	QS-02
Vinyl Acetate	165.2	5.0	ug/L	81.8		202	24-144	2.10	30	QS-02
2,2-Dichloropropane	47.48	1.0	ug/L	50.1		94.7	64-131	3.80	26	
cis-1,2-Dichloroethylene	46.77	1.0	ug/L	50.1		93.3	71-149	0.682	26	
cis-1,2-Dichloroethylene	46.77	1.0	ug/L	50.1		93.3	81-137	0.682	27	
2-Butanone (MEK)	98.84	10.0	ug/L	100		98.7	52-159	2.36	27	
2-Butanone (MEK)	98.84	5.0	ug/L	100		98.7	47-149	2.36	30	
Bromochloromethane	49.40	1.0	ug/L	50.1		98.6	69-143	1.08	23	
Bromochloromethane	49.40	1.0	ug/L	50.1		98.6	75-138	1.08	24	
Chloroform	49.94	1.0	ug/L	50.3		99.3	69-144	0.758	23	
Chloroform	49.94	1.0	ug/L	50.3		99.3	78-131	0.758	27	
1,1,1-Trichloroethane	50.12	1.0	ug/L	50.3		99.6	62-129	1.58	24	
1,1,1-Trichloroethane	50.12	1.0	ug/L	50.3		99.6	67-121	1.58	28	
1,1-Dichloropropene	50.21	1.0	ug/L	50.1		100	80-131	1.50	30	
Carbon Tetrachloride	53.10	1.0	ug/L	50.3		106	63-141	2.73	25	
Carbon Tetrachloride	53.10	1.0	ug/L	50.3		106	71-131	2.73	28	
Benzene	49.22	1.0	ug/L	50.1		98.2	71-134	1.55	24	
Benzene	49.22	1.0	ug/L	50.1		98.2	77-130	1.55	25	
1,2-Dichloroethane	51.09	1.0	ug/L	50.4		101	72-132	0.293	24	
1,2-Dichloroethane	51.09	1.0	ug/L	50.4		101	76-126	0.293	24	
Trichloroethylene	50.41	1.0	ug/L	50.2		100	71-135	0.869	24	
Trichloroethylene	50.41	1.0	ug/L	50.2		100	80-124	0.869	27	
1,2-Dichloropropane	51.11	1.0	ug/L	50.4		101	69-136	0.507	24	
1,2-Dichloropropane	51.11	1.0	ug/L	50.4		101	81-125	0.507	25	
Dibromomethane	51.10	1.0	ug/L	50.1		102	73-147	0.391	25	
Dibromomethane	51.10	1.0	ug/L	50.1		102	84-134	0.391	23	
Bromodichloromethane	52.64	1.0	ug/L	50.3		105	68-129	0.419	22	
Bromodichloromethane	52.64	1.0	ug/L	50.3		105	78-121	0.419	25	
cis-1,3-Dichloropropene	53.12	1.0	ug/L	50.3		106	65-134	0.544	23	
cis-1,3-Dichloropropene	53.12	1.0	ug/L	50.3		106	78-120	0.544	26	
4-Methyl-2-pentanone (MIBK)	103.7	5.0	ug/L	100		104	58-147	1.46	27	
4-Methyl-2-pentanone (MIBK)	103.7	5.0	ug/L	100		104	67-143	1.46	26	
Toluene	48.59	1.0	ug/L	50.1		97.0	72-133	0.983	24	
Toluene	48.59	1.0	ug/L	50.1		97.0	77-130	0.983	27	
trans-1,3-Dichloropropene	52.99	1.0	ug/L	50.4		105	67-130	0.0189	24	
trans-1,3-Dichloropropene	52.99	1.0	ug/L	50.4		105	77-123	0.0189	28	
Ethyl Methacrylate	102.3	10.0	ug/L	100		102	52-148	0.205	30	
1,1,2-Trichloroethane	52.04	1.0	ug/L	50.3		103	69-135	0.424	23	
1,1,2-Trichloroethane	52.04	1.0	ug/L	50.3		103	78-124	0.424	24	
Tetrachloroethylene	50.77	1.0	ug/L	50.3		101	69-130	2.26	25	
Tetrachloroethylene	50.77	1.0	ug/L	50.3		101	73-124	2.26	26	
1,3-Dichloropropane	53.10	1.0	ug/L	50.1		106	78-131	1.27	24	
2-Hexanone (MBK)	99.83	5.0	ug/L	100		99.7	55-144	2.09	25	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
LCS Dup (1GJ0098-BSD1)			Prepared: 10/02/23 00:00 Analyzed: 10/02/23 09:26							
2-Hexanone (MBK)	99.83	5.0	ug/L	100		99.7	57-145	2.09	30	
Dibromochloromethane	52.75	1.0	ug/L	50.4		105	73-127	1.04	22	
Dibromochloromethane	52.75	1.0	ug/L	50.4		105	78-126	1.04	23	
1,2-Dibromoethane	51.56	1.0	ug/L	50.1		103	67-132	1.73	24	
1,2-Dibromoethane	51.56	1.0	ug/L	50.1		103	69-126	1.73	22	
Chlorobenzene	49.69	1.0	ug/L	50.4		98.6	72-123	1.22	23	
Chlorobenzene	49.69	1.0	ug/L	50.4		98.6	76-120	1.22	25	
1,1,1,2-Tetrachloroethane	51.37	1.0	ug/L	50.1		102	73-127	1.97	24	
1,1,1,2-Tetrachloroethane	51.37	1.0	ug/L	50.1		102	81-122	1.97	23	
Ethylbenzene	47.99	1.0	ug/L	50.1		95.7	71-127	1.71	26	
Ethylbenzene	47.99	1.0	ug/L	50.1		95.7	74-121	1.71	27	
Xylenes, total	145.7	2.0	ug/L	150		96.8	74-127	1.51	25	
Xylenes, total	145.7	2.0	ug/L	150		96.8	75-122	1.51	26	
Styrene	50.25	1.0	ug/L	50.1		100	66-126	0.674	23	
Styrene	50.25	1.0	ug/L	50.1		100	76-119	0.674	26	
Bromoform	51.20	1.0	ug/L	50.4		102	68-130	3.02	23	
Bromoform	51.20	1.0	ug/L	50.4		102	74-127	3.02	22	
1,2,3-Trichloropropane	52.44	1.0	ug/L	50.1		105	63-136	1.93	24	
1,2,3-Trichloropropane	52.44	1.0	ug/L	50.1		105	73-125	1.93	20	
trans-1,4-Dichloro-2-butene	102.9	5.0	ug/L	100		103	54-134	2.76	27	
trans-1,4-Dichloro-2-butene	102.9	5.0	ug/L	100		103	55-135	2.76	26	
1,1,2,2-Tetrachloroethane	52.53	1.0	ug/L	50.3		104	61-131	0.0952	29	
1,1,2,2-Tetrachloroethane	52.53	1.0	ug/L	50.3		104	58-133	0.0952	28	
1,3-Dichlorobenzene	50.84	1.0	ug/L	50.4		101	70-125	0.374	27	
1,4-Dichlorobenzene	50.41	1.0	ug/L	50.5		99.9	70-129	0.0595	24	
1,4-Dichlorobenzene	50.41	1.0	ug/L	50.5		99.9	69-128	0.0595	29	
1,2-Dichlorobenzene	51.14	1.0	ug/L	50.3		102	69-126	0.904	26	
1,2-Dichlorobenzene	51.14	1.0	ug/L	50.3		102	70-125	0.904	25	
1,2-Dibromo-3-chloropropane	49.90	5.0	ug/L	50.1		99.6	50-143	1.59	30	
1,2-Dibromo-3-chloropropane	49.90	1.0	ug/L	50.1		99.6	54-147	1.59	29	
1,2,4-Trichlorobenzene	53.07	1.0	ug/L	50.1		106	55-149	1.37	30	
Surrogate: Dibromofluoromethane	*50.4*		ug/L	*50.4*		*100*	*75-136*			
Surrogate: Dibromofluoromethane	*50.4*		ug/L	*50.4*		*100*	*80-126*			
Surrogate: Dibromofluoromethane	*50.4*		ug/L	*50.4*		*100*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*51.1*		ug/L	*50.4*		*101*	*61-142*			
Surrogate: 1,2-Dichloroethane-d4	*51.1*		ug/L	*50.4*		*101*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*51.1*		ug/L	*50.4*		*101*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*51.1*		ug/L	*50.4*		*101*	*63-138*			
Surrogate: Toluene-d8	*49.5*		ug/L	*50.2*		*98.6*	*82-121*			
Surrogate: Toluene-d8	*49.5*		ug/L	*50.2*		*98.6*	*87-116*			
Surrogate: Toluene-d8	*49.5*		ug/L	*50.2*		*98.6*	*87-116*			
Surrogate: Toluene-d8	*49.5*		ug/L	*50.2*		*98.6*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*48.3*		ug/L	*50.4*		*95.8*	*80-116*			
Surrogate: 4-Bromofluorobenzene	*48.3*		ug/L	*50.4*		*95.8*	*85-111*			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
LCS Dup (1GJ0098-BSD1)			Prepared: 10/02/23 00:00 Analyzed: 10/02/23 09:26							
Surrogate: 4-Bromofluorobenzene	*48.3*		ug/L	*50.4*		*95.8*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*48.3*		ug/L	*50.4*		*95.8*	*85-111*			
Matrix Spike (1GJ0098-MS1)	**Source: 1GI2469-01**		Prepared: 10/02/23 00:00 Analyzed: 10/02/23 19:18							
Dichlorodifluoromethane	249.2	10.0	ug/L	300	ND	83.0	47-137			
Chloromethane	276.8	10.0	ug/L	300	ND	92.3	61-152			
Chloromethane	276.8	10.0	ug/L	300	ND	92.3	49-154			
Vinyl Chloride	299.9	10.0	ug/L	300	ND	99.9	66-149			
Vinyl Chloride	299.9	10.0	ug/L	300	ND	99.9	61-152			
Bromomethane	265.7	10.0	ug/L	300	ND	88.5	43-171			
Bromomethane	265.7	10.0	ug/L	300	ND	88.5	47-168			
Chloroethane	284.8	10.0	ug/L	300	ND	94.9	69-148			
Chloroethane	284.8	10.0	ug/L	300	ND	94.9	61-148			
Trichlorofluoromethane	298.1	10.0	ug/L	300	ND	99.3	62-163			
Trichlorofluoromethane	298.1	10.0	ug/L	300	ND	99.3	73-147			
Acrolein	483.6	100	ug/L	505	ND	95.8	20-164			
1,1-Dichloroethylene	483.5	10.0	ug/L	503	ND	96.2	70-148			
1,1-Dichloroethylene	483.5	10.0	ug/L	503	ND	96.2	68-153			
Acetone	1245	100	ug/L	1000	ND	124	45-173			
Acetone	1245	100	ug/L	1000	ND	124	45-175			
Methyl Iodide	931.9	10.0	ug/L	1000	ND	93.0	62-167			
Methyl Iodide	931.9	20.0	ug/L	1000	ND	93.0	79-167			
Carbon Disulfide	946.0	10.0	ug/L	1000	ND	94.5	71-163			
Carbon Disulfide	946.0	10.0	ug/L	1000	ND	94.5	72-156			
Acetonitrile	1017	100	ug/L	1000	ND	102	38-166			
Methylene Chloride	496.5	50.0	ug/L	503	ND	98.7	69-140			
Methylene Chloride	496.5	50.0	ug/L	503	ND	98.7	64-143			
Acrylonitrile	513.6	50.0	ug/L	500	ND	103	58-151			
Acrylonitrile	513.6	50.0	ug/L	500	ND	103	58-151			
trans-1,2-Dichloroethylene	509.4	10.0	ug/L	503	ND	101	69-144			
trans-1,2-Dichloroethylene	509.4	10.0	ug/L	503	ND	101	65-145			
1,1-Dichloroethane	504.6	10.0	ug/L	503	ND	100	70-138			
1,1-Dichloroethane	504.6	10.0	ug/L	503	ND	100	68-136			
Vinyl Acetate	1718	50.0	ug/L	818	ND	210	58-142			QS-02
Vinyl Acetate	1718	50.0	ug/L	818	ND	210	58-143			QS-02
2,2-Dichloropropane	406.7	10.0	ug/L	501	ND	81.2	50-118			
cis-1,2-Dichloroethylene	496.9	10.0	ug/L	501	ND	99.2	68-151			
cis-1,2-Dichloroethylene	496.9	10.0	ug/L	501	ND	99.2	67-153			
2-Butanone (MEK)	1070	100	ug/L	1000	ND	107	50-160			
2-Butanone (MEK)	1070	50.0	ug/L	1000	ND	107	52-159			
Bromochloromethane	511.6	10.0	ug/L	501	ND	102	65-143			
Bromochloromethane	511.6	10.0	ug/L	501	ND	102	61-151			
Chloroform	533.0	10.0	ug/L	503	ND	106	71-143			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
Matrix Spike (1GJ0098-MS1)	**Source: 1GI2469-01**	Prepared: 10/02/23 00:00 Analyzed: 10/02/23 19:18								
Chloroform	533.0	10.0	ug/L	503	ND	106	77-132			
1,1,1-Trichloroethane	541.5	10.0	ug/L	503	ND	108	63-133			
1,1,1-Trichloroethane	541.5	10.0	ug/L	503	ND	108	71-118			
1,1-Dichloropropene	535.2	10.0	ug/L	501	ND	107	82-128			
Carbon Tetrachloride	571.0	10.0	ug/L	503	ND	114	63-142			
Carbon Tetrachloride	571.0	10.0	ug/L	503	ND	114	71-133			
Benzene	506.8	10.0	ug/L	501	ND	101	69-133			
Benzene	506.8	10.0	ug/L	501	ND	101	81-125			
1,2-Dichloroethane	519.6	10.0	ug/L	504	ND	103	63-138			
1,2-Dichloroethane	519.6	10.0	ug/L	504	ND	103	75-125			
Trichloroethylene	513.4	10.0	ug/L	502	ND	102	71-133			
Trichloroethylene	513.4	10.0	ug/L	502	ND	102	83-120			
1,2-Dichloropropane	519.0	10.0	ug/L	504	ND	103	69-132			
1,2-Dichloropropane	519.0	10.0	ug/L	504	ND	103	80-124			
Dibromomethane	513.2	10.0	ug/L	501	ND	102	70-147			
Dibromomethane	513.2	10.0	ug/L	501	ND	102	84-131			
Bromodichloromethane	529.1	10.0	ug/L	503	ND	105	67-130			
Bromodichloromethane	529.1	10.0	ug/L	503	ND	105	79-118			
cis-1,3-Dichloropropene	510.8	10.0	ug/L	503	ND	102	61-126			
cis-1,3-Dichloropropene	510.8	10.0	ug/L	503	ND	102	75-116			
4-Methyl-2-pentanone (MIBK)	1027	50.0	ug/L	1000	ND	103	55-147			
4-Methyl-2-pentanone (MIBK)	1027	50.0	ug/L	1000	ND	103	65-149			
Toluene	493.5	10.0	ug/L	501	ND	98.5	71-133			
Toluene	493.5	10.0	ug/L	501	ND	98.5	82-123			
trans-1,3-Dichloropropene	510.0	10.0	ug/L	504	ND	101	63-124			
trans-1,3-Dichloropropene	510.0	10.0	ug/L	504	ND	101	75-117			
Ethyl Methacrylate	1004	100	ug/L	1000	ND	100	73-135			
1,1,2-Trichloroethane	532.4	10.0	ug/L	503	ND	106	69-133			
1,1,2-Trichloroethane	532.4	10.0	ug/L	503	ND	106	77-122			
Tetrachloroethylene	506.8	10.0	ug/L	503	ND	101	70-124			
Tetrachloroethylene	506.8	10.0	ug/L	503	ND	101	74-120			
1,3-Dichloropropane	537.4	10.0	ug/L	501	ND	107	80-127			
2-Hexanone (MBK)	973.4	50.0	ug/L	1000	ND	97.2	53-141			
2-Hexanone (MBK)	973.4	50.0	ug/L	1000	ND	97.2	57-150			
Dibromochloromethane	520.8	10.0	ug/L	504	ND	103	74-122			
Dibromochloromethane	520.8	10.0	ug/L	504	ND	103	80-120			
1,2-Dibromoethane	513.8	10.0	ug/L	501	ND	102	66-127			
1,2-Dibromoethane	513.8	10.0	ug/L	501	ND	102	67-125			
Chlorobenzene	493.7	10.0	ug/L	504	ND	97.9	76-116			
Chlorobenzene	493.7	10.0	ug/L	504	ND	97.9	81-113			
1,1,1,2-Tetrachloroethane	514.3	10.0	ug/L	501	ND	103	77-121			
1,1,1,2-Tetrachloroethane	514.3	10.0	ug/L	501	ND	103	80-119			
Ethylbenzene	478.8	10.0	ug/L	501	ND	95.5	73-124			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
Matrix Spike (1GJ0098-MS1)	**Source: 1GI2469-01**		Prepared: 10/02/23 00:00 Analyzed: 10/02/23 19:18							
Ethylbenzene	478.8	10.0	ug/L	501	ND	95.5	78-114			
Xylenes, total	1453	20.0	ug/L	1500	ND	96.6	75-123			
Xylenes, total	1453	20.0	ug/L	1500	ND	96.6	77-116			
Styrene	498.7	10.0	ug/L	501	ND	99.5	70-120			
Styrene	498.7	10.0	ug/L	501	ND	99.5	78-114			
Bromoform	496.6	10.0	ug/L	504	ND	98.6	70-124			
Bromoform	496.6	10.0	ug/L	504	ND	98.6	69-125			
1,2,3-Trichloropropane	528.5	10.0	ug/L	501	ND	105	62-135			
1,2,3-Trichloropropane	528.5	10.0	ug/L	501	ND	105	72-125			
trans-1,4-Dichloro-2-butene	930.3	50.0	ug/L	1000	ND	92.8	50-120			
trans-1,4-Dichloro-2-butene	930.3	50.0	ug/L	1000	ND	92.8	48-131			
1,1,2,2-Tetrachloroethane	516.9	10.0	ug/L	503	ND	103	63-126			
1,1,2,2-Tetrachloroethane	516.9	10.0	ug/L	503	ND	103	51-138			
1,3-Dichlorobenzene	495.9	10.0	ug/L	504	ND	98.4	70-122			
1,4-Dichlorobenzene	491.0	10.0	ug/L	505	ND	97.3	72-119			
1,4-Dichlorobenzene	491.0	10.0	ug/L	505	ND	97.3	70-124			
1,2-Dichlorobenzene	496.3	10.0	ug/L	503	ND	98.7	71-117			
1,2-Dichlorobenzene	496.3	10.0	ug/L	503	ND	98.7	68-123			
1,2-Dibromo-3-chloropropane	469.6	50.0	ug/L	501	ND	93.7	49-134			
1,2-Dibromo-3-chloropropane	469.6	10.0	ug/L	501	ND	93.7	46-149			
1,2,4-Trichlorobenzene	501.4	10.0	ug/L	501	ND	100	60-137			
Surrogate: Dibromofluoromethane	*547*		ug/L	*504*		*109*	*75-136*			
Surrogate: Dibromofluoromethane	*547*		ug/L	*504*		*109*	*80-126*			
Surrogate: Dibromofluoromethane	*547*		ug/L	*504*		*109*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*554*		ug/L	*504*		*110*	*61-142*			
Surrogate: 1,2-Dichloroethane-d4	*554*		ug/L	*504*		*110*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*554*		ug/L	*504*		*110*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*554*		ug/L	*504*		*110*	*63-138*			
Surrogate: Toluene-d8	*502*		ug/L	*502*		*99.9*	*82-121*			
Surrogate: Toluene-d8	*502*		ug/L	*502*		*99.9*	*87-116*			
Surrogate: Toluene-d8	*502*		ug/L	*502*		*99.9*	*87-116*			
Surrogate: Toluene-d8	*502*		ug/L	*502*		*99.9*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*481*		ug/L	*504*		*95.4*	*80-116*			
Surrogate: 4-Bromofluorobenzene	*481*		ug/L	*504*		*95.4*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*481*		ug/L	*504*		*95.4*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*481*		ug/L	*504*		*95.4*	*85-111*			
Matrix Spike Dup (1GJ0098-MSD1)	**Source: 1GI2469-01**		Prepared: 10/02/23 00:00 Analyzed: 10/02/23 19:58							
Dichlorodifluoromethane	208.7	10.0	ug/L	300	ND	69.5	47-137	17.7	20	
Chloromethane	263.9	10.0	ug/L	300	ND	88.0	61-152	4.77	26	
Chloromethane	263.9	10.0	ug/L	300	ND	88.0	49-154	4.77	25	
Vinyl Chloride	280.6	10.0	ug/L	300	ND	93.5	66-149	6.65	23	
Vinyl Chloride	280.6	10.0	ug/L	300	ND	93.5	61-152	6.65	24	
Bromomethane	285.0	10.0	ug/L	300	ND	94.9	43-171	7.01	29	
Bromomethane	285.0	10.0	ug/L	300	ND	94.9	47-168	7.01	30	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1GJ0098-MSD1)	**Source: 1GI2469-01**	Prepared: 10/02/23 00:00 Analyzed: 10/02/23 19:58								
Chloroethane	271.6	10.0	ug/L	300	ND	90.5	69-148	4.74	25	
Chloroethane	271.6	10.0	ug/L	300	ND	90.5	61-148	4.74	29	
Trichlorofluoromethane	268.3	10.0	ug/L	300	ND	89.4	62-163	10.5	25	
Trichlorofluoromethane	268.3	10.0	ug/L	300	ND	89.4	73-147	10.5	24	
Acrolein	494.3	100	ug/L	505	ND	97.9	20-164	2.19	24	
1,1-Dichloroethylene	456.5	10.0	ug/L	503	ND	90.8	70-148	5.74	22	
1,1-Dichloroethylene	456.5	10.0	ug/L	503	ND	90.8	68-153	5.74	21	
Acetone	1261	100	ug/L	1000	ND	126	45-173	1.28	30	
Acetone	1261	100	ug/L	1000	ND	126	45-175	1.28	23	
Methyl Iodide	963.3	10.0	ug/L	1000	ND	96.1	62-167	3.31	24	
Methyl Iodide	963.3	20.0	ug/L	1000	ND	96.1	79-167	3.31	14	
Carbon Disulfide	880.0	10.0	ug/L	1000	ND	87.9	71-163	7.23	22	
Carbon Disulfide	880.0	10.0	ug/L	1000	ND	87.9	72-156	7.23	19	
Acetonitrile	1014	100	ug/L	1000	ND	101	38-166	0.355	20	
Methylene Chloride	477.0	50.0	ug/L	503	ND	94.8	69-140	4.01	19	
Methylene Chloride	477.0	50.0	ug/L	503	ND	94.8	64-143	4.01	19	
Acrylonitrile	515.5	50.0	ug/L	500	ND	103	58-151	0.369	15	
Acrylonitrile	515.5	50.0	ug/L	500	ND	103	58-151	0.369	15	
trans-1,2-Dichloroethylene	485.1	10.0	ug/L	503	ND	96.4	69-144	4.89	22	
trans-1,2-Dichloroethylene	485.1	10.0	ug/L	503	ND	96.4	65-145	4.89	18	
1,1-Dichloroethane	479.5	10.0	ug/L	503	ND	95.3	70-138	5.10	20	
1,1-Dichloroethane	479.5	10.0	ug/L	503	ND	95.3	68-136	5.10	17	
Vinyl Acetate	1716	50.0	ug/L	818	ND	210	58-142	0.134	24	QS-02
Vinyl Acetate	1716	50.0	ug/L	818	ND	210	58-143	0.134	14	QS-02
2,2-Dichloropropane	372.4	10.0	ug/L	501	ND	74.3	50-118	8.81	17	
cis-1,2-Dichloroethylene	475.4	10.0	ug/L	501	ND	94.9	68-151	4.42	22	
cis-1,2-Dichloroethylene	475.4	10.0	ug/L	501	ND	94.9	67-153	4.42	22	
2-Butanone (MEK)	1074	100	ug/L	1000	ND	107	50-160	0.327	23	
2-Butanone (MEK)	1074	50.0	ug/L	1000	ND	107	52-159	0.327	28	
Bromochloromethane	493.9	10.0	ug/L	501	ND	98.5	65-143	3.52	22	
Bromochloromethane	493.9	10.0	ug/L	501	ND	98.5	61-151	3.52	27	
Chloroform	511.7	10.0	ug/L	503	ND	102	71-143	4.08	21	
Chloroform	511.7	10.0	ug/L	503	ND	102	77-132	4.08	17	
1,1,1-Trichloroethane	511.7	10.0	ug/L	503	ND	102	63-133	5.66	23	
1,1,1-Trichloroethane	511.7	10.0	ug/L	503	ND	102	71-118	5.66	15	
1,1-Dichloropropene	505.1	10.0	ug/L	501	ND	101	82-128	5.79	16	
Carbon Tetrachloride	531.7	10.0	ug/L	503	ND	106	63-142	7.13	22	
Carbon Tetrachloride	531.7	10.0	ug/L	503	ND	106	71-133	7.13	14	
Benzene	483.0	10.0	ug/L	501	ND	96.3	69-133	4.81	18	
Benzene	483.0	10.0	ug/L	501	ND	96.3	81-125	4.81	12	
1,2-Dichloroethane	502.4	10.0	ug/L	504	ND	99.7	63-138	3.37	20	
1,2-Dichloroethane	502.4	10.0	ug/L	504	ND	99.7	75-125	3.37	13	
Trichloroethylene	484.5	10.0	ug/L	502	ND	96.5	71-133	5.79	23	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1GJ0098-MSD1)	**Source: 1GI2469-01**	Prepared: 10/02/23 00:00 Analyzed: 10/02/23 19:58								
Trichloroethylene	484.5	10.0	ug/L	502	ND	96.5	83-120	5.79	11	
1,2-Dichloropropane	500.7	10.0	ug/L	504	ND	99.3	69-132	3.59	20	
1,2-Dichloropropane	500.7	10.0	ug/L	504	ND	99.3	80-124	3.59	11	
Dibromomethane	498.3	10.0	ug/L	501	ND	99.4	70-147	2.95	22	
Dibromomethane	498.3	10.0	ug/L	501	ND	99.4	84-131	2.95	13	
Bromodichloromethane	510.4	10.0	ug/L	503	ND	102	67-130	3.60	21	
Bromodichloromethane	510.4	10.0	ug/L	503	ND	102	79-118	3.60	11	
cis-1,3-Dichloropropene	494.6	10.0	ug/L	503	ND	98.4	61-126	3.22	21	
cis-1,3-Dichloropropene	494.6	10.0	ug/L	503	ND	98.4	75-116	3.22	11	
4-Methyl-2-pentanone (MIBK)	1034	50.0	ug/L	1000	ND	103	55-147	0.708	23	
4-Methyl-2-pentanone (MIBK)	1034	50.0	ug/L	1000	ND	103	65-149	0.708	14	
Toluene	470.8	10.0	ug/L	501	ND	93.9	71-133	4.71	19	
Toluene	470.8	10.0	ug/L	501	ND	93.9	82-123	4.71	12	
trans-1,3-Dichloropropene	496.6	10.0	ug/L	504	ND	98.6	63-124	2.66	21	
trans-1,3-Dichloropropene	496.6	10.0	ug/L	504	ND	98.6	75-117	2.66	11	
Ethyl Methacrylate	991.5	100	ug/L	1000	ND	99.0	73-135	1.30	10	
1,1,2-Trichloroethane	518.8	10.0	ug/L	503	ND	103	69-133	2.59	19	
1,1,2-Trichloroethane	518.8	10.0	ug/L	503	ND	103	77-122	2.59	11	
Tetrachloroethylene	477.6	10.0	ug/L	503	ND	95.0	70-124	5.93	24	
Tetrachloroethylene	477.6	10.0	ug/L	503	ND	95.0	74-120	5.93	17	
1,3-Dichloropropane	520.5	10.0	ug/L	501	ND	104	80-127	3.20	13	
2-Hexanone (MBK)	968.6	50.0	ug/L	1000	ND	96.8	53-141	0.494	24	
2-Hexanone (MBK)	968.6	50.0	ug/L	1000	ND	96.8	57-150	0.494	17	
Dibromochloromethane	503.3	10.0	ug/L	504	ND	99.9	74-122	3.42	21	
Dibromochloromethane	503.3	10.0	ug/L	504	ND	99.9	80-120	3.42	12	
1,2-Dibromoethane	500.3	10.0	ug/L	501	ND	99.8	66-127	2.66	23	
1,2-Dibromoethane	500.3	10.0	ug/L	501	ND	99.8	67-125	2.66	12	
Chlorobenzene	473.4	10.0	ug/L	504	ND	93.9	76-116	4.20	21	
Chlorobenzene	473.4	10.0	ug/L	504	ND	93.9	81-113	4.20	14	
1,1,1,2-Tetrachloroethane	495.1	10.0	ug/L	501	ND	98.7	77-121	3.80	25	
1,1,1,2-Tetrachloroethane	495.1	10.0	ug/L	501	ND	98.7	80-119	3.80	15	
Ethylbenzene	454.4	10.0	ug/L	501	ND	90.6	73-124	5.23	20	
Ethylbenzene	454.4	10.0	ug/L	501	ND	90.6	78-114	5.23	14	
Xylenes, total	1382	20.0	ug/L	1500	ND	91.9	75-123	4.97	20	
Xylenes, total	1382	20.0	ug/L	1500	ND	91.9	77-116	4.97	13	
Styrene	475.8	10.0	ug/L	501	ND	94.9	70-120	4.70	23	
Styrene	475.8	10.0	ug/L	501	ND	94.9	78-114	4.70	12	
Bromoform	486.9	10.0	ug/L	504	ND	96.6	70-124	1.97	22	
Bromoform	486.9	10.0	ug/L	504	ND	96.6	69-125	1.97	14	
1,2,3-Trichloropropane	521.4	10.0	ug/L	501	ND	104	62-135	1.35	28	
1,2,3-Trichloropropane	521.4	10.0	ug/L	501	ND	104	72-125	1.35	18	
trans-1,4-Dichloro-2-butene	920.3	50.0	ug/L	1000	ND	91.8	50-120	1.08	26	
trans-1,4-Dichloro-2-butene	920.3	50.0	ug/L	1000	ND	91.8	48-131	1.08	17	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0098 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1GJ0098-MSD1)	**Source: 1GI2469-01**		Prepared: 10/02/23 00:00 Analyzed: 10/02/23 19:58							
1,1,2,2-Tetrachloroethane	511.5	10.0	ug/L	503	ND	102	63-126	1.05	24	
1,1,2,2-Tetrachloroethane	511.5	10.0	ug/L	503	ND	102	51-138	1.05	30	
1,3-Dichlorobenzene	477.5	10.0	ug/L	504	ND	94.7	70-122	3.78	30	
1,4-Dichlorobenzene	469.3	10.0	ug/L	505	ND	93.0	72-119	4.52	24	
1,4-Dichlorobenzene	469.3	10.0	ug/L	505	ND	93.0	70-124	4.52	28	
1,2-Dichlorobenzene	480.3	10.0	ug/L	503	ND	95.5	71-117	3.28	24	
1,2-Dichlorobenzene	480.3	10.0	ug/L	503	ND	95.5	68-123	3.28	29	
1,2-Dibromo-3-chloropropane	475.3	50.0	ug/L	501	ND	94.8	49-134	1.21	28	
1,2-Dibromo-3-chloropropane	475.3	10.0	ug/L	501	ND	94.8	46-149	1.21	30	
1,2,4-Trichlorobenzene	483.4	10.0	ug/L	501	ND	96.4	60-137	3.66	30	
Surrogate: Dibromofluoromethane	*543*		ug/L	*504*		*108*	*75-136*			
Surrogate: Dibromofluoromethane	*543*		ug/L	*504*		*108*	*80-126*			
Surrogate: Dibromofluoromethane	*543*		ug/L	*504*		*108*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*557*		ug/L	*504*		*110*	*61-142*			
Surrogate: 1,2-Dichloroethane-d4	*557*		ug/L	*504*		*110*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*557*		ug/L	*504*		*110*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*557*		ug/L	*504*		*110*	*63-138*			
Surrogate: Toluene-d8	*498*		ug/L	*502*		*99.2*	*82-121*			
Surrogate: Toluene-d8	*498*		ug/L	*502*		*99.2*	*87-116*			
Surrogate: Toluene-d8	*498*		ug/L	*502*		*99.2*	*87-116*			
Surrogate: Toluene-d8	*498*		ug/L	*502*		*99.2*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*478*		ug/L	*504*		*94.7*	*80-116*			
Surrogate: 4-Bromofluorobenzene	*478*		ug/L	*504*		*94.7*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*478*		ug/L	*504*		*94.7*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*478*		ug/L	*504*		*94.7*	*85-111*			
Batch 1GJ0295 - EPA 5030B - EPA 8260B										
Blank (1GJ0295-BLK1)			Prepared: 10/04/23 00:00 Analyzed: 10/04/23 10:24							
Allyl chloride	<1.0	1.0	ug/L							
Chloroprene	<1.0	1.0	ug/L							
Methacrylonitrile	<1.0	1.0	ug/L							
Methyl Methacrylate	<1.0	1.0	ug/L							
Propionitrile	<10.0	10.0	ug/L							
Surrogate: Dibromofluoromethane	*56.5*		ug/L	*50.4*		*112*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*51.7*		ug/L	*50.4*		*103*	*63-138*			
Surrogate: Toluene-d8	*52.4*		ug/L	*50.2*		*104*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*57.6*		ug/L	*50.4*		*114*	*85-111*			*S-GC*
LCS (1GJ0295-BS1)			Prepared: 10/04/23 00:00 Analyzed: 10/04/23 09:05							
Allyl chloride	39.25	1.0	ug/L	50.1		78.3	76-134			
Chloroprene	21.95	1.0	ug/L	25.0		87.6	74-141			
Methacrylonitrile	45.33	1.0	ug/L	50.0		90.7	73-143			
Methyl Methacrylate	36.22	1.0	ug/L	50.1		72.3	72-123			
Propionitrile	55.70	10.0	ug/L	50.1		111	50-151			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0295 - EPA 5030B - EPA 8260B										
LCS (1GJ0295-BS1)			Prepared: 10/04/23 00:00 Analyzed: 10/04/23 09:05							
Surrogate: Dibromofluoromethane	*51.2*		ug/L	*50.4*		*102*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*53.7*		ug/L	*50.4*		*106*	*63-138*			
Surrogate: Toluene-d8	*49.6*		ug/L	*50.2*		*98.7*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*51.6*		ug/L	*50.4*		*102*	*85-111*			
LCS Dup (1GJ0295-BSD1)			Prepared: 10/04/23 00:00 Analyzed: 10/04/23 09:31							
Allyl chloride	37.71	1.0	ug/L	50.1		75.3	76-134	4.00	30	QM-21
Chloroprene	21.22	1.0	ug/L	25.0		84.7	74-141	3.38	30	
Methacrylonitrile	45.34	1.0	ug/L	50.0		90.7	73-143	0.0221	30	
Methyl Methacrylate	38.59	1.0	ug/L	50.1		77.0	72-123	6.34	30	
Propionitrile	54.91	10.0	ug/L	50.1		110	50-151	1.43	30	
Surrogate: Dibromofluoromethane	*50.4*		ug/L	*50.4*		*100*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*52.7*		ug/L	*50.4*		*105*	*63-138*			
Surrogate: Toluene-d8	*49.8*		ug/L	*50.2*		*99.2*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*51.6*		ug/L	*50.4*		*102*	*85-111*			
Matrix Spike (1GJ0295-MS1)	**Source: 3GI0082-01**		Prepared: 10/04/23 00:00 Analyzed: 10/04/23 17:26							**QM-16**
Allyl chloride	<10.0	10.0	ug/L	501	ND		60-140			
Chloroprene	<10.0	10.0	ug/L	250	ND		60-140			
Methacrylonitrile	<10.0	10.0	ug/L	500	ND	1.54	60-140			
Methyl Methacrylate	13.70	10.0	ug/L	501	ND	2.73	60-140			
Propionitrile	<100	100	ug/L	501	ND		60-140			
Surrogate: Dibromofluoromethane	*497*		ug/L	*504*		*98.6*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*513*		ug/L	*504*		*102*	*63-138*			
Surrogate: Toluene-d8	*499*		ug/L	*502*		*99.4*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*512*		ug/L	*504*		*101*	*85-111*			
Matrix Spike Dup (1GJ0295-MSD1)	**Source: 3GI0082-01**		Prepared: 10/04/23 00:00 Analyzed: 10/04/23 17:53							**QM-16**
Allyl chloride	<10.0	10.0	ug/L	501	ND		60-140		30	
Chloroprene	<10.0	10.0	ug/L	250	ND		60-140		30	
Methacrylonitrile	<10.0	10.0	ug/L	500	ND		60-140		30	
Methyl Methacrylate	<10.0	10.0	ug/L	501	ND		60-140		30	
Propionitrile	<100	100	ug/L	501	ND		60-140		30	
Surrogate: Dibromofluoromethane	*491*		ug/L	*504*		*97.6*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*505*		ug/L	*504*		*100*	*63-138*			
Surrogate: Toluene-d8	*502*		ug/L	*502*		*99.8*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*510*		ug/L	*504*		*101*	*85-111*			

Determination of General Solvents	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0497 - Semi-Vol GC - EPA 8015C										
Blank (1GJ0497-BLK1)			Prepared: 10/12/23 09:17 Analyzed: 10/12/23 12:12							
Isobutanol	<1.0	1.0	mg/L							

Determination of General Solvents	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0497 - Semi-Vol GC - EPA 8015C										
LCS (1GJ0497-BS1)				Prepared: 10/12/23 09:17 Analyzed: 10/12/23 11:22						
Isobutanol	29.68	1.0	mg/L	26.0		114	40-135			
Matrix Spike (1GJ0497-MS1)		**Source: 1GI2469-05**		Prepared: 10/12/23 09:17 Analyzed: 10/12/23 13:53						
Isobutanol	28.53	1.0	mg/L	26.0	ND	110	63-135			
Matrix Spike Dup (1GJ0497-MSD1)		**Source: 1GI2469-05**		Prepared: 10/12/23 09:17 Analyzed: 10/12/23 14:17						
Isobutanol	30.01	1.0	mg/L	26.0	ND	115	63-135	5.08	30	

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0119 - 3520C BNA Cont Liq - EPA 8270C										
Blank (1GJ0119-BLK1)				Prepared: 10/03/23 10:34 Analyzed: 10/09/23 16:03						
N-Nitrosodimethylamine	<8	8	ug/L							
Methyl Methanesulfonate	<8	8	ug/L							
N-Nitrosodiethylamine	<8	8	ug/L							
N-Nitrosomethylethylamine	<8	8	ug/L							
Ethyl Methanesulfonate	<8	8	ug/L							
Phenol	<8	8	ug/L							
Bis(2-Chloroethyl) Ether	<8	8	ug/L							
2-Chlorophenol	<8	8	ug/L							
Benzyl Alcohol	<8	8	ug/L							
2-Methylphenol (o-Cresol)	<8	8	ug/L							
Bis[2-Chloroisopropyl]ether	<8	8	ug/L							
n-Nitroso-di-n-propylamine	<8	8	ug/L							
N-Nitrosopyrrolidine	<8	8	ug/L							
Acetophenone	<8	8	ug/L							
o-Toluidine	<8	8	ug/L							
(3 & 4)-Methylphenol	<8	8	ug/L							
Hexachloroethane	<8	8	ug/L							
Nitrobenzene	<8	8	ug/L							
N-Nitrosopiperidine	<8	8	ug/L							
Isophorone	<8	8	ug/L							
2-Nitrophenol	<8	8	ug/L							
2,4-Dimethylphenol	<8	8	ug/L							
Bis (2-Chloroethoxy) Methane	<8	8	ug/L							
2,4-Dichlorophenol	<8	8	ug/L							
Naphthalene	<8	8	ug/L							
4-Chloroaniline	<8	8	ug/L							
2,6-Dichlorophenol	<8	8	ug/L							
Hexachloropropene	<8	8	ug/L							
Hexachlorobutadiene	<8	8	ug/L							
N-Nitrosodi-n-butylamine	<8	8	ug/L							

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0119 - 3520C BNA Cont Liq - EPA 8270C										
Blank (1GJ0119-BLK1)				Prepared: 10/03/23 10:34 Analyzed: 10/09/23 16:03						
1,4-Phenylenediamine	<8	8	ug/L							
4-Chloro-3-methylphenol	<8	8	ug/L							
2-Methylnaphthalene	<8	8	ug/L							
Isosafrole	<8	8	ug/L							
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L							
Hexachlorocyclopentadiene	<8	8	ug/L							
2,4,6-Trichlorophenol	<8	8	ug/L							
2,4,5-Trichlorophenol	<8	8	ug/L							
Safrole	<8	8	ug/L							
2-Chloronaphthalene	<8	8	ug/L							
2-Nitroaniline	<8	8	ug/L							
1,4-Naphthoquinone	<8	8	ug/L							
Dimethylphthalate	<8	8	ug/L							
1,3-Dinitrobenzene	<8	8	ug/L							
1,2-Dinitrobenzene	<8	8	ug/L							
2,6-Dinitrotoluene	<8	8	ug/L							
Acenaphthylene	<8	8	ug/L							
3-Nitroaniline	<8	8	ug/L							
Acenaphthene	<8	8	ug/L							
2,4-Dinitrophenol	<8	8	ug/L							
4-Nitrophenol	<8	8	ug/L							
Dibenzofuran	<8	8	ug/L							
2,4-Dinitrotoluene	<8	8	ug/L							
2,3,4,6-Tetrachlorophenol	<8	8	ug/L							
Pentachlorobenzene	<8	8	ug/L							
1-Naphthylamine	<8	8	ug/L							
2-Naphthylamine	<8	8	ug/L							
Diethyl Phthalate	<8	8	ug/L							
Fluorene	<8	8	ug/L							
4-Chlorophenyl Phenyl Ether	<8	8	ug/L							
4-Nitroaniline	<8	8	ug/L							
5-Nitro-o-toluidine	<8	8	ug/L							
4,6-Dinitro-2-methylphenol	<8	8	ug/L							
N-Nitrosodiphenylamine	<8	8	ug/L							
Diphenylamine	<8	8	ug/L							
Azobenzene	<8	8	ug/L							
Diallate	<8	8	ug/L							
1,3,5-Trinitrobenzene	<8	8	ug/L							
Phenacetin	<8	8	ug/L							
4-Bromophenyl Phenyl Ether	<8	8	ug/L							
4-Aminobiphenyl	<8	8	ug/L							
Pentachlorophenol	<8	8	ug/L							

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0119 - 3520C BNA Cont Liq - EPA 8270C										
Blank (1GJ0119-BLK1)				Prepared: 10/03/23 10:34 Analyzed: 10/09/23 16:03						
Pronamide	<8	8	ug/L							
Pentachloronitrobenzene (PCNB)	<8	8	ug/L							
Phenanthrene	<8	8	ug/L							
Anthracene	<8	8	ug/L							
Di-n-butyl Phthalate	<8	8	ug/L							
Methapyrilene	<8	8	ug/L							
Fluoranthene	<8	8	ug/L							
Isodrin	<8	8	ug/L							
Chlorobenzilate	<8	8	ug/L							
Pyrene	<8	8	ug/L							
p-(Dimethylamino)azobenzene	<8	8	ug/L							
3,3-Dimethylbenzidine	<8	8	ug/L							
Butyl Benzyl Phthalate	<8	8	ug/L							
Benzo(a)anthracene	<8	8	ug/L							
Chrysene	<8	8	ug/L							
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L							
Kepone	<8	8	ug/L							
3,3´-Dichlorobenzidine	<8	8	ug/L							
2-Acetylaminofluorene	<8	8	ug/L							
Di-n-octyl Phthalate	<8	8	ug/L							
Benzo(b)Fluoranthene	<8	8	ug/L							
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L							
Benzo(k)Fluoranthene	<8	8	ug/L							
Benzo(a)Pyrene	<8	8	ug/L							
3-Methylcholanthrene	<8	8	ug/L							
Dibenzo(a,h)anthracene	<8	8	ug/L							
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L							
Benzo(g,h,i)perylene	<8	8	ug/L							
Surrogate: 2-Fluorophenol	*35.4*		ug/L	*60.6*		*58.4*	*24-136*			
Surrogate: Phenol-d6	*34.3*		ug/L	*61.9*		*55.5*	*15-140*			
Surrogate: Nitrobenzene-d5	*46.2*		ug/L	*62.8*		*73.5*	*29-130*			
Surrogate: 2-Fluorobiphenyl	*39.9*		ug/L	*61.0*		*65.4*	*23-113*			
Surrogate: 2,4,6-Tribromophenol	*44.0*		ug/L	*62.2*		*70.7*	*15-139*			
Surrogate: Terphenyl-dl4	*68.0*		ug/L	*65.1*		*104*	*27-141*			
LCS (1GJ0119-BS1)				Prepared: 10/03/23 10:34 Analyzed: 10/09/23 16:28						
N-Nitrosodimethylamine	35.5	8	ug/L	41.7		85.3	36-138			
Methyl Methanesulfonate	33.4	8	ug/L	50.0		66.7	22-114			
N-Nitrosodiethylamine	37.8	8	ug/L	50.0		75.6	52-114			
N-Nitrosomethylethylamine	43.1	8	ug/L	50.0		86.2	36-120			
Ethyl Methanesulfonate	36.4	8	ug/L	50.0		72.9	46-110			
Phenol	35.9	8	ug/L	41.7		86.1	50-112			
Bis(2-Chloroethyl) Ether	44.0	8	ug/L	41.7		106	39-151			

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0119 - 3520C BNA Cont Liq - EPA 8270C										
LCS (1GJ0119-BS1)				Prepared: 10/03/23 10:34 Analyzed: 10/09/23 16:28						
2-Chlorophenol	34.6	8	ug/L	41.7		82.9	56-116			
Benzyl Alcohol	40.6	8	ug/L	41.7		97.4	13-158			
2-Methylphenol (o-Cresol)	35.8	8	ug/L	41.7		85.8	53-131			
Bis[2-Chloroisopropyl]ether	32.9	8	ug/L	41.7		79.0	50-121			
n-Nitroso-di-n-propylamine	39.1	8	ug/L	41.7		93.8	50-138			
N-Nitrosopyrrolidine	41.8	8	ug/L	50.0		83.5	31-118			
Acetophenone	40.6	8	ug/L	50.0		81.3	45-104			
o-Toluidine	<8	8	ug/L	50.0		14.9	10-163			
(3 & 4)-Methylphenol	39.2	8	ug/L	41.7		94.1	30-164			
Hexachloroethane	23.4	8	ug/L	41.7		56.3	10-110			
Nitrobenzene	36.0	8	ug/L	41.7		86.4	47-134			
N-Nitrosopiperidine	38.8	8	ug/L	50.0		77.6	51-122			
Isophorone	39.5	8	ug/L	41.7		94.8	54-128			
2-Nitrophenol	35.7	8	ug/L	41.7		85.6	54-117			
2,4-Dimethylphenol	38.4	8	ug/L	41.7		92.2	52-118			
Bis (2-Chloroethoxy) Methane	35.5	8	ug/L	41.7		85.3	13-132			
2,4-Dichlorophenol	38.7	8	ug/L	41.7		93.0	58-114			
Naphthalene	30.5	8	ug/L	41.7		73.2	37-116			
4-Chloroaniline	<8	8	ug/L	41.7		12.0	10-198			
2,6-Dichlorophenol	49.7	8	ug/L	50.0		99.4	52-129			
Hexachloropropene	24.5	8	ug/L	50.0		49.0	14-110			
Hexachlorobutadiene	26.1	8	ug/L	41.7		62.7	14-110			
N-Nitrosodi-n-butylamine	39.4	8	ug/L	50.0		78.8	40-135			
4-Chloro-3-methylphenol	44.8	8	ug/L	41.7		107	57-136			
2-Methylnaphthalene	35.1	8	ug/L	41.7		84.2	44-111			
Isosafrole	40.5	8	ug/L	50.0		80.9	49-107			
1,2,4,5-Tetrachlorobenzene	40.9	8	ug/L	50.0		81.8	42-110			
Hexachlorocyclopentadiene	29.1	8	ug/L	41.7		69.9	11-110			
2,4,6-Trichlorophenol	40.1	8	ug/L	41.7		96.3	55-120			
2,4,5-Trichlorophenol	40.9	8	ug/L	41.7		98.1	55-121			
Safrole	43.9	8	ug/L	50.0		87.8	40-118			
2-Chloronaphthalene	49.0	8	ug/L	41.7		118	47-127			
2-Nitroaniline	41.2	8	ug/L	41.7		98.9	36-143			
1,4-Naphthoquinone	51.3	8	ug/L	50.0		103	43-152			
Dimethylphthalate	41.5	8	ug/L	41.7		99.6	59-128			
1,3-Dinitrobenzene	42.6	8	ug/L	41.7		102	63-125			
1,2-Dinitrobenzene	41.7	8	ug/L	41.7		100	63-123			
2,6-Dinitrotoluene	40.5	8	ug/L	41.7		97.2	60-127			
Acenaphthylene	37.4	8	ug/L	41.7		89.9	49-113			
3-Nitroaniline	<8	8	ug/L	41.7		15.6	10-162			
Acenaphthene	38.8	8	ug/L	41.7		93.1	50-119			
2,4-Dinitrophenol	46.8	8	ug/L	41.7		112	27-157			

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0119 - 3520C BNA Cont Liq - EPA 8270C										
LCS (1GJ0119-BS1)				Prepared: 10/03/23 10:34 Analyzed: 10/09/23 16:28						
4-Nitrophenol	42.9	8	ug/L	41.7		103	49-154			
Dibenzofuran	40.0	8	ug/L	41.7		96.0	56-121			
2,4-Dinitrotoluene	45.3	8	ug/L	41.7		109	53-138			
2,3,4,6-Tetrachlorophenol	44.8	8	ug/L	41.7		108	47-132			
Pentachlorobenzene	49.6	8	ug/L	50.0		99.1	41-125			
Diethyl Phthalate	41.4	8	ug/L	41.7		99.3	53-138			
Fluorene	41.2	8	ug/L	41.7		98.8	54-125			
4-Chlorophenyl Phenyl Ether	40.0	8	ug/L	41.7		96.0	51-122			
4-Nitroaniline	27.1	8	ug/L	41.7		65.1	10-136			
5-Nitro-o-toluidine	17.2	8	ug/L	50.0		34.3	10-145			
4,6-Dinitro-2-methylphenol	45.8	8	ug/L	41.7		110	49-137			
Diphenylamine	39.0	8	ug/L	41.7		93.5	35-151			
Azobenzene	40.4	8	ug/L	41.7		96.9	16-156			
Diallate	56.7	8	ug/L	50.0		113	54-132			
1,3,5-Trinitrobenzene	65.9	8	ug/L	50.0		132	57-173			
Phenacetin	49.3	8	ug/L	50.0		98.6	55-121			
4-Bromophenyl Phenyl Ether	41.7	8	ug/L	41.7		100	53-122			
Pentachlorophenol	49.0	8	ug/L	41.7		118	18-152			
Pronamide	51.9	8	ug/L	50.0		104	42-122			
Pentachloronitrobenzene (PCNB)	57.6	8	ug/L	50.0		115	50-128			
Phenanthrene	42.0	8	ug/L	41.7		101	59-131			
Anthracene	41.4	8	ug/L	41.7		99.3	59-127			
Di-n-butyl Phthalate	42.3	8	ug/L	41.7		101	64-148			
Fluoranthene	41.8	8	ug/L	41.7		100	62-132			
Isodrin	48.8	8	ug/L	50.0		97.7	46-130			
Chlorobenzilate	51.2	8	ug/L	50.0		102	48-150			
Pyrene	42.6	8	ug/L	41.7		102	58-135			
p-(Dimethylamino)azobenzene	35.6	8	ug/L	50.0		71.3	28-146			
Butyl Benzyl Phthalate	42.5	8	ug/L	41.7		102	52-150			
Benzo(a)anthracene	41.5	8	ug/L	41.7		99.6	58-131			
Chrysene	41.7	8	ug/L	41.7		100	59-131			
Bis(2-Ethylhexyl) Phthalate	40.2	6	ug/L	41.7		96.4	33-184			
Kepone	38.1	8	ug/L	50.0		76.2	10-134			
2-Acetylaminofluorene	54.2	8	ug/L	50.0		108	47-166			
Di-n-octyl Phthalate	45.6	8	ug/L	41.7		109	48-162			
Benzo(b)Fluoranthene	47.1	8	ug/L	41.7		113	50-146			
7,12-Dimethylbenz [a] anthracene	50.5	8	ug/L	50.0		101	22-155			
Benzo(k)Fluoranthene	43.8	8	ug/L	41.7		105	54-144			
Benzo(a)Pyrene	42.4	8	ug/L	41.7		102	39-148			
3-Methylcholanthrene	43.7	8	ug/L	50.0		87.4	34-118			
Dibenzo(a,h)anthracene	43.2	8	ug/L	41.7		104	46-153			
Indeno(1,2,3-cd)Pyrene	42.9	8	ug/L	41.7		103	48-152			

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0119 - 3520C BNA Cont Liq - EPA 8270C										
LCS (1GJ0119-BS1)				Prepared: 10/03/23 10:34 Analyzed: 10/09/23 16:28						
Benzo(g,h,i)perylene	42.7	8	ug/L	41.7		102	47-161			
Surrogate: 2-Fluorophenol	*48.7*		ug/L	*60.6*		*80.4*	*24-136*			
Surrogate: Phenol-d6	*52.8*		ug/L	*61.9*		*85.3*	*15-140*			
Surrogate: Nitrobenzene-d5	*53.4*		ug/L	*62.8*		*84.9*	*38-115*			
Surrogate: 2-Fluorobiphenyl	*58.1*		ug/L	*61.0*		*95.2*	*33-110*			
Surrogate: 2,4,6-Tribromophenol	*68.9*		ug/L	*62.2*		*111*	*15-139*			
Surrogate: Terphenyl-dl4	*77.9*		ug/L	*65.1*		*120*	*30-142*			
LCS Dup (1GJ0119-BSD1)				Prepared: 10/03/23 10:34 Analyzed: 10/09/23 16:52						
N-Nitrosodimethylamine	30.8	8	ug/L	41.7		73.9	36-138	14.3	30	
Methyl Methanesulfonate	30.0	8	ug/L	50.0		60.0	22-114	10.6	23	
N-Nitrosodiethylamine	33.9	8	ug/L	50.0		67.9	52-114	10.8	18	
N-Nitrosomethylethylamine	37.2	8	ug/L	50.0		74.4	36-120	14.8	22	
Ethyl Methanesulfonate	31.8	8	ug/L	50.0		63.7	46-110	13.5	24	
Phenol	15.1	8	ug/L	41.7		36.2	50-112	81.6	28	QS-03
Bis(2-Chloroethyl) Ether	40.5	8	ug/L	41.7		97.2	39-151	8.22	30	
2-Chlorophenol	11.2	8	ug/L	41.7		26.8	56-116	102	22	QS-03
Benzyl Alcohol	35.2	8	ug/L	41.7		84.4	13-158	14.3	30	
2-Methylphenol (o-Cresol)	30.8	8	ug/L	41.7		73.8	53-131	15.1	25	
Bis[2-Chloroisopropyl]ether	30.0	8	ug/L	41.7		72.0	50-121	9.28	25	
n-Nitroso-di-n-propylamine	34.7	8	ug/L	41.7		83.2	50-138	11.9	30	
N-Nitrosopyrrolidine	36.4	8	ug/L	50.0		72.7	31-118	13.8	30	
Acetophenone	35.2	8	ug/L	50.0		70.5	45-104	14.3	30	
o-Toluidine	<8	8	ug/L	50.0		11.9	10-163	22.0	30	
(3 & 4)-Methylphenol	31.4	8	ug/L	41.7		75.4	30-164	22.0	30	
Hexachloroethane	20.3	8	ug/L	41.7		48.6	10-110	14.6	37	
Nitrobenzene	31.4	8	ug/L	41.7		75.5	47-134	13.5	28	
N-Nitrosopiperidine	35.1	8	ug/L	50.0		70.3	51-122	9.87	30	
Isophorone	34.2	8	ug/L	41.7		82.2	54-128	14.3	22	
2-Nitrophenol	<8	8	ug/L	41.7		9.60	54-117	160	21	QS-03
2,4-Dimethylphenol	33.2	8	ug/L	41.7		79.7	52-118	14.5	23	
Bis (2-Chloroethoxy) Methane	31.8	8	ug/L	41.7		76.3	13-132	11.2	30	
2,4-Dichlorophenol	14.9	8	ug/L	41.7		35.9	58-114	88.7	20	QS-03
Naphthalene	27.1	8	ug/L	41.7		64.9	37-116	12.0	17	
4-Chloroaniline	<8	8	ug/L	41.7		17.1	10-198	35.0	30	QR-02
2,6-Dichlorophenol	37.0	8	ug/L	50.0		74.1	52-129	29.2	16	QR-02
Hexachloropropene	18.7	8	ug/L	50.0		37.4	14-110	26.7	29	
Hexachlorobutadiene	23.0	8	ug/L	41.7		55.3	14-110	12.5	29	
N-Nitrosodi-n-butylamine	34.3	8	ug/L	50.0		68.6	40-135	13.8	23	
4-Chloro-3-methylphenol	32.6	8	ug/L	41.7		78.3	57-136	31.3	18	QR-02
2-Methylnaphthalene	30.4	8	ug/L	41.7		72.8	44-111	14.4	20	
Isosafrole	35.1	8	ug/L	50.0		70.2	49-107	14.2	12	QR-02
1,2,4,5-Tetrachlorobenzene	34.9	8	ug/L	50.0		69.7	42-110	16.0	30	

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0119 - 3520C BNA Cont Liq - EPA 8270C										
LCS Dup (1GJ0119-BSD1)				Prepared: 10/03/23 10:34 Analyzed: 10/09/23 16:52						
Hexachlorocyclopentadiene	24.0	8	ug/L	41.7		57.7	11-110	19.2	29	
2,4,6-Trichlorophenol	29.1	8	ug/L	41.7		69.8	55-120	31.9	15	QR-02
2,4,5-Trichlorophenol	21.4	8	ug/L	41.7		51.2	55-121	62.8	16	QS-03
Safrole	37.8	8	ug/L	50.0		75.6	40-118	15.0	30	
2-Chloronaphthalene	43.7	8	ug/L	41.7		105	47-127	11.4	17	
2-Nitroaniline	36.2	8	ug/L	41.7		86.8	36-143	13.1	30	
1,4-Naphthoquinone	41.8	8	ug/L	50.0		83.7	43-152	20.3	30	
Dimethylphthalate	37.6	8	ug/L	41.7		90.3	59-128	9.83	15	
1,3-Dinitrobenzene	37.0	8	ug/L	41.7		88.7	63-125	14.2	14	QR-02
1,2-Dinitrobenzene	37.2	8	ug/L	41.7		89.3	63-123	11.5	18	
2,6-Dinitrotoluene	36.8	8	ug/L	41.7		88.3	60-127	9.60	13	
Acenaphthylene	32.8	8	ug/L	41.7		78.8	49-113	13.2	23	
3-Nitroaniline	16.9	8	ug/L	41.7		40.5	10-162	88.8	30	QR-02
Acenaphthene	33.4	8	ug/L	41.7		80.3	50-119	14.8	16	
2,4-Dinitrophenol	<8	8	ug/L	41.7		9.29	27-157	169	23	QS-03
4-Nitrophenol	<8	8	ug/L	41.7		9.60	49-154	166	28	QS-03
Dibenzofuran	35.3	8	ug/L	41.7		84.8	56-121	12.4	18	
2,4-Dinitrotoluene	40.5	8	ug/L	41.7		97.2	53-138	11.1	18	
2,3,4,6-Tetrachlorophenol	29.5	8	ug/L	41.7		70.8	47-132	41.2	29	QR-02
Pentachlorobenzene	42.7	8	ug/L	50.0		85.4	41-125	14.9	22	
Diethyl Phthalate	38.2	8	ug/L	41.7		91.6	53-138	8.07	18	
Fluorene	36.3	8	ug/L	41.7		87.1	54-125	12.6	14	
4-Chlorophenyl Phenyl Ether	36.5	8	ug/L	41.7		87.6	51-122	9.23	15	
4-Nitroaniline	31.2	8	ug/L	41.7		75.0	10-136	14.1	30	
5-Nitro-o-toluidine	32.0	8	ug/L	50.0		63.9	10-145	60.3	30	QR-02
4,6-Dinitro-2-methylphenol	<8	8	ug/L	41.7		14.5	49-137	153	16	QS-03
Diphenylamine	34.6	8	ug/L	41.7		83.2	35-151	11.7	30	
Azobenzene	36.4	8	ug/L	41.7		87.3	16-156	10.5	30	
Diallate	49.6	8	ug/L	50.0		99.2	54-132	13.4	25	
1,3,5-Trinitrobenzene	54.1	8	ug/L	50.0		108	57-173	19.6	30	
Phenacetin	43.4	8	ug/L	50.0		86.9	55-121	12.7	30	
4-Bromophenyl Phenyl Ether	36.8	8	ug/L	41.7		88.3	53-122	12.5	16	
Pentachlorophenol	28.5	8	ug/L	41.7		68.4	18-152	52.8	30	QR-02
Pronamide	45.0	8	ug/L	50.0		90.1	42-122	14.2	30	
Pentachloronitrobenzene (PCNB)	48.8	8	ug/L	50.0		97.5	50-128	16.6	18	
Phenanthrene	36.6	8	ug/L	41.7		87.7	59-131	13.9	16	
Anthracene	36.7	8	ug/L	41.7		88.0	59-127	12.1	16	
Di-n-butyl Phthalate	37.9	8	ug/L	41.7		90.9	64-148	11.0	30	
Fluoranthene	37.1	8	ug/L	41.7		89.0	62-132	11.8	16	
Isodrin	42.5	8	ug/L	50.0		85.0	46-130	13.9	29	
Chlorobenzilate	44.1	8	ug/L	50.0		88.2	48-150	14.9	30	
Pyrene	38.0	8	ug/L	41.7		91.1	58-135	11.6	18	

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0119 - 3520C BNA Cont Liq - EPA 8270C										
LCS Dup (1GJ0119-BSD1)				Prepared: 10/03/23 10:34 Analyzed: 10/09/23 16:52						
p-(Dimethylamino)azobenzene	35.7	8	ug/L	50.0		71.3	28-146	0.0561	30	
Butyl Benzyl Phthalate	38.4	8	ug/L	41.7		92.1	52-150	10.2	30	
Benzo(a)anthracene	37.0	8	ug/L	41.7		88.7	58-131	11.5	30	
Chrysene	37.3	8	ug/L	41.7		89.5	59-131	11.2	30	
Bis(2-Ethylhexyl) Phthalate	38.0	6	ug/L	41.7		91.2	33-184	5.55	30	
Kepone	21.0	8	ug/L	50.0		42.0	10-134	57.8	30	QR-02
2-Acetylaminofluorene	47.2	8	ug/L	50.0		94.4	47-166	13.8	30	
Di-n-octyl Phthalate	41.1	8	ug/L	41.7		98.7	48-162	10.3	30	
Benzo(b)Fluoranthene	42.2	8	ug/L	41.7		101	50-146	11.1	30	
7,12-Dimethylbenz [a] anthracene	45.2	8	ug/L	50.0		90.5	22-155	10.9	30	
Benzo(k)Fluoranthene	39.3	8	ug/L	41.7		94.3	54-144	10.7	30	
Benzo(a)Pyrene	37.9	8	ug/L	41.7		90.9	39-148	11.3	30	
3-Methylcholanthrene	37.2	8	ug/L	50.0		74.5	34-118	15.9	30	
Dibenzo(a,h)anthracene	38.0	8	ug/L	41.7		91.1	46-153	12.9	30	
Indeno(1,2,3-cd)Pyrene	38.3	8	ug/L	41.7		91.9	48-152	11.5	30	
Benzo(g,h,i)perylene	37.4	8	ug/L	41.7		89.7	47-161	13.2	30	
Surrogate: 2-Fluorophenol	*7.20*		ug/L	*60.6*		*11.9*	*24-136*			*S-AC*
Surrogate: Phenol-d6	*21.7*		ug/L	*61.9*		*35.0*	*15-140*			
Surrogate: Nitrobenzene-d5	*46.5*		ug/L	*62.8*		*74.0*	*38-115*			
Surrogate: 2-Fluorobiphenyl	*49.5*		ug/L	*61.0*		*81.2*	*33-110*			
Surrogate: 2,4,6-Tribromophenol	*56.0*		ug/L	*62.2*		*90.0*	*15-139*			
Surrogate: Terphenyl-dl4	*68.2*		ug/L	*65.1*		*105*	*30-142*			

Determination of Organophosphorus Insecticides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0031 - 3510C NP/OC Sep Fnl - EPA 8141										
Blank (1GJ0031-BLK1)				Prepared: 10/02/23 11:12 Analyzed: 10/09/23 11:40						
O,O,O-Triethyl phosphorothioate	<0.4	0.4	ug/L							
Thionazin	<0.4	0.4	ug/L							
Phorate	<0.4	0.4	ug/L							
Dimethoate	<0.4	0.4	ug/L							
Disulfoton	<0.4	0.4	ug/L							
Methyl Parathion	<0.4	0.4	ug/L							
Parathion	<0.4	0.4	ug/L							
Famphur	<0.4	0.4	ug/L							
Surrogate: 2-Nitro-m-xylene	*5.33*		ug/L	*8.34*		*63.9*	*38-122*			
LCS (1GJ0031-BS1)				Prepared: 10/02/23 11:12 Analyzed: 10/09/23 13:27						
O,O,O-Triethyl phosphorothioate	3.14	0.4	ug/L	4.02		77.9	42-115			
Thionazin	4.17	0.4	ug/L	4.03		103	28-118			

Determination of Organophosphorus Insecticides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0031 - 3510C NP/OC Sep Fnl - EPA 8141										
LCS (1GJ0031-BS1)				Prepared: 10/02/23 11:12 Analyzed: 10/09/23 13:27						
Phorate	3.70	0.4	ug/L	4.03		91.6	18-159			
Dimethoate	4.18	0.4	ug/L	4.03		104	43-155			
Disulfoton	4.66	0.4	ug/L	4.03		116	37-126			
Methyl Parathion	3.80	0.4	ug/L	4.04		94.2	28-145			
Parathion	4.10	0.4	ug/L	4.00		102	52-121			
Famphur	4.28	0.4	ug/L	4.02		107	44-144			
Surrogate: 2-Nitro-m-xylene	*8.05*		ug/L	*8.34*		*96.5*	*38-122*			
LCS Dup (1GJ0031-BSD1)				Prepared: 10/02/23 11:12 Analyzed: 10/09/23 14:21						
O,O,O-Triethyl phosphorothioate	3.37	0.4	ug/L	4.02		83.7	42-115	7.23	30	
Thionazin	4.66	0.4	ug/L	4.03		115	28-118	11.0	30	
Phorate	4.45	0.4	ug/L	4.03		110	18-159	18.5	30	
Dimethoate	4.38	0.4	ug/L	4.03		109	43-155	4.79	22	
Disulfoton	5.12	0.4	ug/L	4.03		127	37-126	9.41	30	QS-02
Methyl Parathion	4.22	0.4	ug/L	4.04		104	28-145	10.2	28	
Parathion	4.59	0.4	ug/L	4.00		115	52-121	11.4	26	
Famphur	4.71	0.4	ug/L	4.02		117	44-144	9.45	28	
Surrogate: 2-Nitro-m-xylene	*8.82*		ug/L	*8.34*		*106*	*38-122*			

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0235 - EPA 8151A - EPA 8151A										
Blank (1GJ0235-BLK1)				Prepared: 10/04/23 12:40 Analyzed: 10/10/23 12:23						
2,4-D	<2.0	2.0	ug/L							
2,4,5-TP (Silvex)	<0.5	0.5	ug/L							
2,4,5-T	<0.5	0.5	ug/L							
Dinoseb	<0.5	0.5	ug/L							
Surrogate: 2,5-Dichlorobenzoic Acid	*1.60*		ug/L	*2.02*		*79.0*	*31-116*			
LCS (1GJ0235-BS1)				Prepared: 10/04/23 12:40 Analyzed: 10/10/23 14:34						
2,4-D	<2.0	2.0	ug/L	1.15		83.5	16-161			
2,4,5-TP (Silvex)	0.50	0.5	ug/L	0.575		87.0	35-141			
2,4,5-T	<0.5	0.5	ug/L	0.575		74.8	54-149			
Dinoseb	0.96	0.5	ug/L	1.15		83.9	10-133			
Surrogate: 2,5-Dichlorobenzoic Acid	*1.48*		ug/L	*2.02*		*73.0*	*31-116*			
LCS Dup (1GJ0235-BSD1)				Prepared: 10/04/23 12:40 Analyzed: 10/10/23 15:06						
2,4-D	<2.0	2.0	ug/L	1.15		99.1	16-161	17.1	30	
2,4,5-TP (Silvex)	0.58	0.5	ug/L	0.575		102	35-141	15.7	30	
2,4,5-T	<0.5	0.5	ug/L	0.575		73.0	54-149	2.35	30	

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0235 - EPA 8151A - EPA 8151A										
LCS Dup (1GJ0235-BSD1)			Prepared: 10/04/23 12:40 Analyzed: 10/10/23 15:06							
Dinoseb	1.08	0.5	ug/L	1.15		93.5	10-133	10.8	30	
Surrogate: 2,5-Dichlorobenzoic Acid	*1.42*		ug/L	*2.02*		*70.0*	*31-116*			

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0029 - 3510C NP/OC Sep Fnl - EPA 8081										
Blank (1GJ0029-BLK1)			Prepared: 10/02/23 11:09 Analyzed: 10/08/23 16:43							
Alpha-BHC	<0.05	0.05	ug/L							
Gamma-BHC [Lindane]	<0.05	0.05	ug/L							
Beta-BHC	<0.05	0.05	ug/L							
Heptachlor	<0.05	0.05	ug/L							
Delta-BHC	<0.05	0.05	ug/L							
Aldrin	<0.05	0.05	ug/L							
Heptachlor Epoxide	<0.05	0.05	ug/L							
Endosulfan I	<0.05	0.05	ug/L							
4,4`-DDE	<0.05	0.05	ug/L							
Dieldrin	<0.05	0.05	ug/L							
Endrin	<0.05	0.05	ug/L							
4,4`-DDD	<0.05	0.05	ug/L							
Endosulfan II	<0.05	0.05	ug/L							
4,4`-DDT	<0.05	0.05	ug/L							
Endrin Aldehyde	<0.05	0.05	ug/L							
Endosulfan Sulfate	<0.05	0.05	ug/L							
Methoxychlor	<0.05	0.05	ug/L							
Chlordane	<0.10	0.10	ug/L							
Toxaphene	<0.20	0.20	ug/L							
Hexachlorobenzene	<0.05	0.05	ug/L							
Surrogate: Tetrachloro-m-xylene	*0.603*		ug/L	*0.600*		*101*	*10-121*			
LCS (1GJ0029-BS1)			Prepared: 10/02/23 11:09 Analyzed: 10/08/23 17:15							
Alpha-BHC	0.217	0.05	ug/L	0.250		86.7	33-123			
Gamma-BHC [Lindane]	0.227	0.05	ug/L	0.250		90.8	34-120			
Beta-BHC	0.221	0.05	ug/L	0.250		88.4	33-125			
Heptachlor	0.236	0.05	ug/L	0.250		94.5	32-117			
Delta-BHC	0.245	0.05	ug/L	0.250		98.1	24-140			
Aldrin	0.216	0.05	ug/L	0.250		86.6	29-122			
Heptachlor Epoxide	0.235	0.05	ug/L	0.250		93.9	37-137			
Endosulfan I	0.239	0.05	ug/L	0.250		95.7	27-141			
4,4`-DDE	0.262	0.05	ug/L	0.250		105	38-147			
Dieldrin	0.232	0.05	ug/L	0.250		92.8	32-137			

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0029 - 3510C NP/OC Sep Fnl - EPA 8081										
LCS (1GJ0029-BS1)				Prepared: 10/02/23 11:09 Analyzed: 10/08/23 17:15						
Endrin	0.254	0.05	ug/L	0.250		101	25-142			
4,4`-DDD	0.252	0.05	ug/L	0.250		101	43-146			
Endosulfan II	0.248	0.05	ug/L	0.250		99.1	36-140			
4,4`-DDT	0.258	0.05	ug/L	0.250		103	39-140			
Endrin Aldehyde	0.235	0.05	ug/L	0.250		94.2	17-150			
Endosulfan Sulfate	0.255	0.05	ug/L	0.250		102	41-135			
Methoxychlor	0.265	0.05	ug/L	0.250		106	40-148			
Surrogate: Tetrachloro-m-xylene	*0.403*		ug/L	*0.600*		*67.1*	*10-121*			
LCS Dup (1GJ0029-BSD1)				Prepared: 10/02/23 11:09 Analyzed: 10/08/23 17:32						
Alpha-BHC	0.305	0.05	ug/L	0.250		122	33-123	33.9	30	QR-02
Gamma-BHC [Lindane]	0.323	0.05	ug/L	0.250		129	34-120	35.0	30	QS-02
Beta-BHC	0.310	0.05	ug/L	0.250		124	33-125	33.4	30	QR-02
Heptachlor	0.329	0.05	ug/L	0.250		132	32-117	32.7	30	QS-02
Delta-BHC	0.348	0.05	ug/L	0.250		139	24-140	34.5	30	QR-02
Aldrin	0.284	0.05	ug/L	0.250		114	29-122	27.1	30	
Heptachlor Epoxide	0.334	0.05	ug/L	0.250		134	37-137	34.9	30	QR-02
Endosulfan I	0.311	0.05	ug/L	0.250		124	27-141	26.0	30	
4,4`-DDE	0.369	0.05	ug/L	0.250		147	38-147	33.9	30	QR-02
Dieldrin	0.330	0.05	ug/L	0.250		132	32-137	34.8	30	QR-02
Endrin	0.369	0.05	ug/L	0.250		148	25-142	37.1	30	QS-02
4,4`-DDD	0.369	0.05	ug/L	0.250		148	43-146	37.9	30	QS-02
Endosulfan II	0.346	0.05	ug/L	0.250		139	36-140	33.2	30	QR-02
4,4`-DDT	0.368	0.05	ug/L	0.250		147	39-140	35.0	30	QS-02
Endrin Aldehyde	0.341	0.05	ug/L	0.250		137	17-150	36.7	30	QR-02
Endosulfan Sulfate	0.369	0.05	ug/L	0.250		148	41-135	36.4	30	QS-02
Methoxychlor	0.401	0.05	ug/L	0.250		160	40-148	40.9	30	QS-02
Surrogate: Tetrachloro-m-xylene	*0.569*		ug/L	*0.600*		*94.8*	*10-121*			

Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0030 - 3510C NP/OC Sep Fnl - EPA 8082										
Blank (1GJ0030-BLK1)				Prepared: 10/02/23 11:11 Analyzed: 10/08/23 16:43						
Arochlor 1016	<0.20	0.20	ug/L							
Arochlor 1221	<0.20	0.20	ug/L							
Arochlor 1232	<0.20	0.20	ug/L							
Arochlor 1242	<0.20	0.20	ug/L							
Arochlor 1248	<0.20	0.20	ug/L							
Arochlor 1254	<0.20	0.20	ug/L							

Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0030 - 3510C NP/OC Sep Fnl - EPA 8082										
Blank (1GJ0030-BLK1)			Prepared: 10/02/23 11:11 Analyzed: 10/08/23 16:43							
Arochlor 1260	<0.20	0.20	ug/L							
Surrogate: Tetrachloro-m-xylene	*0.400*		ug/L	*0.600*		*66.7*	*38-121*			
Surrogate: Decachlorobiphenyl	*0.480*		ug/L	*0.600*		*80.0*	*25-119*			*S-GC*
LCS (1GJ0030-BS1)			Prepared: 10/02/23 11:11 Analyzed: 10/08/23 19:27							
Arochlor 1016	2.025	0.20	ug/L	2.80		72.3	25-126			
Arochlor 1260	2.280	0.20	ug/L	2.80		81.4	29-142			
Surrogate: Tetrachloro-m-xylene	*0.400*		ug/L	*0.600*		*66.7*	*38-121*			
Surrogate: Decachlorobiphenyl	*0.395*		ug/L	*0.600*		*65.8*	*25-119*			
LCS Dup (1GJ0030-BSD1)			Prepared: 10/02/23 11:11 Analyzed: 10/08/23 19:43							
Arochlor 1016	2.025	0.20	ug/L	2.80		72.3	25-126	0.00	30	
Arochlor 1260	2.125	0.20	ug/L	2.80		75.9	29-142	7.04	30	
Surrogate: Tetrachloro-m-xylene	*0.405*		ug/L	*0.600*		*67.5*	*38-121*			
Surrogate: Decachlorobiphenyl	*0.355*		ug/L	*0.600*		*59.2*	*25-119*			

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0026 - Wet Chem Preparation - EPA 376.2										
Blank (1GJ0026-BLK1)			Prepared: 10/02/23 11:00 Analyzed: 10/02/23 15:46							
Sulfide, total	<0.10	0.10	mg/L							
LCS (1GJ0026-BS1)			Prepared: 10/02/23 11:00 Analyzed: 10/02/23 15:46							
Sulfide, total	0.113	0.10	mg/L	0.19		58.6	59-110			QS-01
Matrix Spike (1GJ0026-MS1)	**Source: 1GI1997-01**		Prepared: 10/02/23 11:00 Analyzed: 10/02/23 15:46							
Sulfide, total	0.131	0.10	mg/L	0.19	ND	68.1	50-150			
Matrix Spike Dup (1GJ0026-MSD1)	**Source: 1GI1997-01**		Prepared: 10/02/23 11:00 Analyzed: 10/02/23 15:46							
Sulfide, total	0.133	0.10	mg/L	0.19	ND	68.9	50-150	1.21	30	
Batch 1GJ0576 - Wet Chem Preparation - 4500CN-E										
Blank (1GJ0576-BLK1)			Prepared: 10/10/23 14:01 Analyzed: 10/11/23 13:58							
Cyanide, total	<0.005	0.005	mg/L							
LCS (1GJ0576-BS1)			Prepared: 10/10/23 14:01 Analyzed: 10/11/23 13:58							
Cyanide, total	0.028	0.005	mg/L	0.0300		94.4	62-110			
Matrix Spike (1GJ0576-MS1)	**Source: 1GJ0294-03**		Prepared: 10/10/23 14:01 Analyzed: 10/11/23 13:58							
Cyanide, total	0.021	0.005	mg/L	0.0300	ND	71.1	50-116			
Matrix Spike Dup (1GJ0576-MSD1)	**Source: 1GJ0294-03**		Prepared: 10/10/23 14:01 Analyzed: 10/11/23 13:58							
Cyanide, total	0.022	0.005	mg/L	0.0300	ND	72.8	50-116	2.42	30	

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Determination of Total Metals	**Result**	**RL**	**Units**	**Spike Level**	**Source Result**	**%REC**	**%REC Limits**	**RPD**	**RPD Limit**	**Notes**
Batch 1GJ0070 - EPA 7470A Hg Water - EPA 7470A										
Blank (1GJ0070-BLK1)				Prepared: 10/02/23 15:24 Analyzed: 10/03/23 14:28						
Mercury, total	<0.00050	0.00050	mg/L							
LCS (1GJ0070-BS1)				Prepared: 10/02/23 15:24 Analyzed: 10/03/23 14:30						
Mercury, total	0.00276	0.00050	mg/L	0.00250		111	80-120			
Matrix Spike (1GJ0070-MS1)		**Source: 1GI2056-04**		Prepared: 10/02/23 15:24 Analyzed: 10/03/23 14:35						
Mercury, total	0.00247	0.00050	mg/L	0.00250	ND	98.8	75-125			
Matrix Spike Dup (1GJ0070-MSD1)		**Source: 1GI2056-04**		Prepared: 10/02/23 15:24 Analyzed: 10/03/23 14:38						
Mercury, total	0.00270	0.00050	mg/L	0.00250	ND	108	75-125	8.83	20	
Batch 1GJ0105 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Blank (1GJ0105-BLK1)				Prepared: 10/03/23 08:29 Analyzed: 10/04/23 21:03						
Antimony, total	<0.0020	0.0020	mg/L							
Arsenic, total	<0.0040	0.0040	mg/L							
Barium, total	<0.0040	0.0040	mg/L							
Beryllium, total	<0.0020	0.0020	mg/L							
Cadmium, total	<0.0008	0.0008	mg/L							
Chromium, total	<0.0080	0.0080	mg/L							
Cobalt, total	<0.0004	0.0004	mg/L							
Copper, total	<0.0040	0.0040	mg/L							
Lead, total	<0.0040	0.0040	mg/L							
Nickel, total	<0.0040	0.0040	mg/L							
Selenium, total	<0.0040	0.0040	mg/L							
Silver, total	<0.0040	0.0040	mg/L							
Thallium, total	<0.0020	0.0020	mg/L							
Tin, total	<0.0200	0.0200	mg/L							
Vanadium, total	<0.0200	0.0200	mg/L							
Zinc, total	<0.0200	0.0200	mg/L							
LCS (1GJ0105-BS1)				Prepared: 10/03/23 08:29 Analyzed: 10/04/23 21:21						
Antimony, total	0.0946	0.0020	mg/L	0.100		94.6	80-120			
Arsenic, total	0.0955	0.0040	mg/L	0.100		95.5	80-120			
Barium, total	0.102	0.0040	mg/L	0.100		102	80-120			
Beryllium, total	0.0939	0.0020	mg/L	0.100		93.9	80-120			
Cadmium, total	0.0943	0.0008	mg/L	0.100		94.3	80-120			
Chromium, total	0.0929	0.0080	mg/L	0.100		92.9	80-120			
Cobalt, total	0.0984	0.0004	mg/L	0.100		98.4	80-120			
Copper, total	0.0994	0.0040	mg/L	0.100		99.4	80-120			
Lead, total	0.0948	0.0040	mg/L	0.100		94.8	80-120			
Nickel, total	0.0995	0.0040	mg/L	0.100		99.5	80-120			
Selenium, total	0.0925	0.0040	mg/L	0.100		92.5	80-120			

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0105 - EPA 3005A Total Recoverable Metals - EPA 6020A										
LCS (1GJ0105-BS1)				Prepared: 10/03/23 08:29 Analyzed: 10/04/23 21:21						
Silver, total	0.103	0.0040	mg/L	0.100		103	80-120			
Thallium, total	0.0934	0.0020	mg/L	0.100		93.4	80-120			
Tin, total	0.0990	0.0200	mg/L	0.100		99.0	80-120			
Vanadium, total	0.0997	0.0200	mg/L	0.100		99.7	80-120			
Zinc, total	0.0978	0.0200	mg/L	0.100		97.8	80-120			
Matrix Spike (1GJ0105-MS1)	**Source: 1GI2469-01**			Prepared: 10/03/23 08:29 Analyzed: 10/04/23 21:33						
Antimony, total	0.0967	0.0020	mg/L	0.100	ND	96.7	75-125			
Arsenic, total	0.100	0.0040	mg/L	0.100	0.0021	98.1	75-125			
Barium, total	0.351	0.0040	mg/L	0.100	0.237	113	75-125			
Beryllium, total	0.0955	0.0020	mg/L	0.100	ND	95.5	75-125			
Cadmium, total	0.0956	0.0008	mg/L	0.100	ND	95.6	75-125			
Chromium, total	0.0943	0.0080	mg/L	0.100	0.0006	94.3	75-125			
Cobalt, total	0.0990	0.0004	mg/L	0.100	0.0018	97.2	75-125			
Copper, total	0.0922	0.0040	mg/L	0.100	0.0019	90.3	75-125			
Lead, total	0.0903	0.0040	mg/L	0.100	ND	90.3	75-125			
Nickel, total	0.125	0.0040	mg/L	0.100	0.0253	99.7	75-125			
Selenium, total	0.0915	0.0040	mg/L	0.100	ND	91.5	75-125			
Silver, total	0.0998	0.0040	mg/L	0.100	ND	99.8	75-125			
Thallium, total	0.0916	0.0020	mg/L	0.100	0.0002	91.4	75-125			
Tin, total	0.100	0.0200	mg/L	0.100	ND	100	75-125			
Vanadium, total	0.102	0.0200	mg/L	0.100	ND	102	75-125			
Zinc, total	0.204	0.0200	mg/L	0.100	ND	204	75-125			QM-07
Matrix Spike Dup (1GJ0105-MSD1)	**Source: 1GI2469-01**			Prepared: 10/03/23 08:29 Analyzed: 10/04/23 21:39						
Antimony, total	0.0962	0.0020	mg/L	0.100	ND	96.2	75-125	0.573	20	
Arsenic, total	0.0992	0.0040	mg/L	0.100	0.0021	97.0	75-125	1.07	20	
Barium, total	0.348	0.0040	mg/L	0.100	0.237	110	75-125	0.853	20	
Beryllium, total	0.0931	0.0020	mg/L	0.100	ND	93.1	75-125	2.50	20	
Cadmium, total	0.0943	0.0008	mg/L	0.100	ND	94.3	75-125	1.36	20	
Chromium, total	0.0917	0.0080	mg/L	0.100	0.0006	91.7	75-125	2.82	20	
Cobalt, total	0.0988	0.0004	mg/L	0.100	0.0018	97.1	75-125	0.182	20	
Copper, total	0.0912	0.0040	mg/L	0.100	0.0019	89.3	75-125	1.06	20	
Lead, total	0.0903	0.0040	mg/L	0.100	ND	90.3	75-125	0.0802	20	
Nickel, total	0.122	0.0040	mg/L	0.100	0.0253	96.4	75-125	2.60	20	
Selenium, total	0.0921	0.0040	mg/L	0.100	ND	92.1	75-125	0.565	20	
Silver, total	0.0999	0.0040	mg/L	0.100	ND	99.9	75-125	0.177	20	
Thallium, total	0.0917	0.0020	mg/L	0.100	0.0002	91.5	75-125	0.130	20	
Tin, total	0.0998	0.0200	mg/L	0.100	ND	99.8	75-125	0.454	20	
Vanadium, total	0.101	0.0200	mg/L	0.100	ND	101	75-125	1.11	20	
Zinc, total	0.110	0.0200	mg/L	0.100	ND	110	75-125	60.2	20	QM-07
Post Spike (1GJ0105-PS1)	**Source: 1GI2469-01**			Prepared: 10/03/23 08:29 Analyzed: 10/04/23 21:45						
Antimony, total	0.0800		mg/L	0.0800	0.00009	99.9	80-120			
Arsenic, total	0.0834		mg/L	0.0800	0.0021	102	80-120			
Barium, total	0.326		mg/L	0.0800	0.232	117	80-120			

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0105 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Post Spike (1GJ0105-PS1)	**Source: 1GI2469-01**		Prepared: 10/03/23 08:29 Analyzed: 10/04/23 21:45							
Beryllium, total	0.0789		mg/L	0.0800	0.000003	98.6	80-120			
Cadmium, total	0.0753		mg/L	0.0800	0.00009	94.0	80-120			
Chromium, total	0.0757		mg/L	0.0800	0.0006	93.9	80-120			
Cobalt, total	0.0826		mg/L	0.0800	0.0017	101	80-120			
Copper, total	0.0774		mg/L	0.0800	0.0018	94.5	80-120			
Lead, total	0.0736		mg/L	0.0800	-0.00001	92.0	80-120			
Nickel, total	0.108		mg/L	0.0800	0.0248	104	80-120			
Selenium, total	0.0766		mg/L	0.0800	0.0003	95.4	80-120			
Silver, total	0.0810		mg/L	0.0800	0.0020	98.8	80-120			
Thallium, total	0.0751		mg/L	0.0800	0.0002	93.6	80-120			
Tin, total	0.0819		mg/L	0.0800	0.00002	102	75-125			
Vanadium, total	0.0852		mg/L	0.0800	0.0066	98.3	80-120			
Zinc, total	0.116		mg/L	0.0800	0.0106	131	80-120			PS-02

Definitions

PH-5:	Insufficient preservative to adjust the sample pH to greater than 12, value measured at 10 pH units.
PS-02:	The post spike recovery exceeded acceptance limits.
QM-07:	The spike recovery and/or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-16:	Spike recoveries outside acceptance limits due to analyst error. 8260-240 spike not added to MS/MSD
QM-21:	The recovery for the blank spike was outside the established laboratory control limits. The batch was accepted based upon the acceptable recovery of the CCV.
QR-02:	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QS-01:	The blank spike recovery and/or blank spike duplicate recovery were outside the established acceptance limits. Batch was accepted based on acceptable MS/MSD/RPD results.
QS-02:	The spike recovery for this QC sample exceeded established acceptance limits. However, all samples were below the reporting and/or regulatory limit so the data is acceptable.
QS-03:	The blank spike recovery was below established acceptance limits.
RL:	Reporting Limit
RPD:	Relative Percent Difference
S-AC:	Acid surrogate recovery outside of control limits. The data was accepted based on valid recovery of remaining two acid surrogates.
S-GC:	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

Cooler Receipt Log

Cooler ID:	N1-13012	Temp:	1.8°C	**Cooler ID:**	N5-13049	Temp:	4.7°C

Cooler Inspection Checklist

Custody Seals	No	Containers Intact	Yes
COC/Labels Agree	Yes	Preservation Confirmed	No
Received On Ice	Yes		

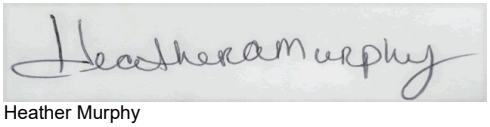
Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GI2469

Report Comments

Reviewed and Approved By:



Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
10/17/23 16:51

CHAIN OF CUSTODY RECORD

Keystone LABORATORIES, INC.
600 East 17th Street Sou
Newton, IA 50208
641-792-8451

1GI24469

HLW Engineering
PM: Sue Thompson

Printed: 8/4/2023 11:03:46AM

www.keystonelabs.cor

SITE INFORMATION

Sampler: TODD WHIPPLE
Project: Benton County - New Regs
PWSID# [none]

REPORT TO

Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

Eric Werner
Benton County Sanitary Landfill
7904 20th Ave
Blairstown, IA 52209

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY

Work Order 1GI24469
Temperature 4.7/1.8
Turn-Cooler: No

☐ Custody Seal
☒ Containers Intact
☒ COC/Labels Agree
☐ Preservation Confirmed
☒ Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
01-001	/ MW-6 (b)	Water	GRAB	9/28/23	13:23	7	indfil-appl-metals-6020 indfill-appl-voc-group indfil-appl-voc	01
02-001	/ MW-26 (b)	Water	GRAB	9/28/23	10:01	7	indfil-appl-metals-6020 indfill-appl-voc-group indfil-appl-voc	02
03-001	/ MW-27 (b)	Water	GRAB	9/28/23	9:32	7	indfil-appl-metals-6020 indfill-appl-voc-group indfil-appl-voc	03
04-001	/ MW-28 (b) No Sample	Water	GRAB	/ /	—	0	indfil-appl-metals-6020 indfill-appl-voc-group indfil-appl-voc	—
05-001	/ MW-7 (b)	Water	GRAB	/ /	13:34	7	indfil-appl-metals-6020 indfill-appl-voc-group indfil-appl-voc	04

Relinquished By: Todd Whipple Date/Time: 9/29/23

Relinquished By: ____ Date/Time: ____

Received By: ____ Date/Time: ____

Received for Lab By: Randy Wood Date/Time: 9-29-23 0925

Original - Lab Copy Yellow - Sampler Copy

Remarks:

Valid Bacteria Sample Types

RT Routine	RP-UP Repeat Up
SP Special	RP-DN Repeat Down
NC New Line Ext (ONLY)	RP-OR Repeat Original
RL Replacement	RP-OT Repeat Other

Keystone LABORATORIES, INC.

CHAIN OF CUS

600 East 17th Street Soutl
Newton, IA 50208
641-792-8451

1 G I 2 4 6 9

HLW Engineering
PM: Sue Thompson

inted: 8/4/2023 11:03:46AM

www.keystonelabs.co

SITE INFORMATION

Sampler: Todd Whipple
Project: Benton County - New Regs
PWSID# [none]

REPORT TO

Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

INVOICE TO

Eric Werner
Benton County Sanitary Landfill
7904 20th Ave
Blairstown, IA 52209

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY

Work Order 1GI24169
Temperature 4.7 / 1.8
Turn-Cooler: No

- ☐ Custody Seal
- ☒ Containers Intact
- ☒ COC/Labels Agree
- ☐ Preservation Confirmed
- ☒ Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
06-001	/ MW-9	Water	GRAB	9/28/23	14:02	17	lndfil-app2-org lndfil-app2-inorg-6020	05
07-001	/ MW-12	Water	GRAB	9/28/23	12:55	7	lndfil-app1-metals-6020 lndfill-app1-voc-group lndfil-app1-voc	06
08-001	/ MW-14	Water	GRAB	9/28/23	13:08	7	lndfil-app1-metals-6020 lndfill-app1-voc-group lndfil-app1-voc	07
09-001	/ MW-19 DOES NOT EXIST	Water	GRAB	—	—	0	lndfil-app1-metals-6020 lndfill-app1-voc-group lndfil-app1-voc	—
10-001	/ MW-20	Water	GRAB	9/28/23	11:15	8	lndfil-app1-metals-6020 lndfill-app1-voc-group sulf-t-376.2-regen lndfil-app1-voc	08

Relinquished By Todd Whipple Date/Time 9/29/23

Relinquished By Date/Time

Received By Date/Time

Received for Lab By Lacy Wood Date/Time 9-29-23 0925

Original - Lab Copy Yellow - Sampler Copy

Remarks:

~~Valid Bacteria Sample Types~~

RT Routine
SP Special
NC New Line Ext (ONLY)
RL Replacement
RP-UP Repeat Up
RP-DN Repeat Down
RP-OR Repeat Original
RP-OT Repeat Other

CHAIN OF CUSTODY RECORD

Keystone LABORATORIES, INC.
600 East 17th Street South
Newton, IA 50208
641-792-8451

1GI24469

HLW Engineering
PM: Sue Thompson

Printed: 8/4/2023 11:03:46AM

www.keystonelabs.com

SITE INFORMATION

Sampler: TODD WHIPPLE

Project: Benton County - New Regs
PWSID# [none]

REPORT TO

Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

Eric Werner
Benton County Sanitary Landfill
7904 20th Ave
Blairstown, IA 52209

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY

Work Order 1GI24469
Temperature 4.7
Turn-Cooler: No

☐ Custody Seal
☒ Containers Intact
☒ COC/Labels Agree
☐ Preservation Confirmed
☒ Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
11-001	/ AW-4	Water	GRAB	9/28/23	8:52	7	ldfll-appl-metals-6020 ldfill-appl-voc-group ldfll-appl-voc	09
12-001	/ MW-24	Water	GRAB	9/28/23	12:32	7	ldfll-appl-metals-6020 ldfill-appl-voc-group ldfll-appl-voc	10
13-001	/ MW-25	Water	GRAB	9/28/23	12:13	7	ldfll-appl-metals-6020 ldfill-appl-voc-group ldfll-appl-voc	11
14-001	/ AW-2	Water	GRAB	9/28/23	10:58	7	ldfll-appl-metals-6020 ldfill-appl-voc-group ldfll-appl-voc	12
15-001	/ AW-9	Water	GRAB	9/28/23	10:34	7	ldfll-appl-metals-6020 ldfill-appl-voc-group ldfll-appl-voc	13

Relinquished By [signature] Date/Time 9/29/23

Received By Date/Time

Relinquished By Date/Time

Received for Lab By [signature] 9-29-23 0925 Date/Time

Original - Lab Copy Yellow - Sampler Copy

Remarks:

Valid Bacteria Sample Types

RT Routine	RP-UP Repeat Up
SP Special	RP-DN Repeat Down
NC New Line Ext (ONLY)	RP-OR Repeat Original
RL Replacement	RP-OT Repeat Other

Keystone LABORATORIES, INC.

CHAIN OF CU

600 East 17th Street Sou
Newton, IA 50208
641-792-8451

1 G I 2 4 6 9

HLW Engineering
PM: Sue Thompson

Printed: 8/4/2023 11:03:46AM

www.keystonelabs.com

SITE INFORMATION

Sampler: Todd Whipple
Project: Benton County - New Regs
PWSID# [none]

REPORT TO

Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

INVOICE TO

Eric Werner
Benton County Sanitary Landfill
7904 20th Ave
Blairstown, IA 52209

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY

Work Order 1GI2469
Temperature 4.7
Turn-Cooler: No

- ☐ Custody Seal
- ☒ Containers Intact
- ☑ COC/Labels Agree
- ☐ Preservation Confirmed
- ☑ Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
16-001	/ AW-3	Water	GRAB	9/28/23	10:15	7	lndfll-appl-metals-6020 lndfll-appl-voc-group lndfll-appl-voc	14
17-001	/ Duplicate	Water	GRAB	9 28 23	~	1	lndfll-appl-metals-6020 ~~lndfll-appl-voc-group~~ ~~lndfll-appl-voc~~	15

Relinquished By Todd Whipple Date/Time 9/29/23

Relinquished By Date/Time

Received By Date/Time

Received for Lab By Date/Time 9-29-23 0925

Original - Lab Copy Yellow - Sampler Copy

Remarks:

Valid Bacteria Sample Types

RT Routine	RP-UP Repeat Up
SP Special	RP-DN Repeat Down
NC New Line Ext (ONLY)	RP-OR Repeat Original
RL Replacement	RP-OT Repeat Other

Appendix F

SSI & SSL Tables

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L) Bold = Site
AW-2	9/12/2018	Arsenic	46.8	43.9	38.675	55.775	**51.3**
AW-2	4/1/2019	Arsenic	66.6	51.3	44.356	64.694	**51.3**
AW-2	9/12/2019	Arsenic	62.9	51.3	45.328	67.922	**51.3**
AW-2	5/6/2020	Arsenic	69.2	51.3	49.548	73.202	**51.3**
AW-2	9/3/2020	Arsenic	55.7	51.3	56.699	70.501	**51.3**
AW-2	3/30/21	Arsenic	38.3	51.3	40.829	72.221	**51.3**
AW-2	9/8/2021	Arsenic	26.4	51.3	25.206	69.594	**51.3**
AW-2	3/31/2022	Arsenic	26.7	51.3	20.566	52.984	**51.3**
AW-2	8/30/2022	Arsenic	41.7	51.3	23.995	42.555	**51.3**
AW-2	3/7/2023	Arsenic	40.5	51.3	23.926	43.724	**51.3**
AW-2	9/28/2023	Arsenic	36.4	51.3	28.319	44.331	**51.3**
AW-2	9/12/2018	Cobalt	10.1	7.43	8.620	26.580	**12.2**
AW-2	4/1/2019	Cobalt	9.6	7.43	5.587	25.963	**12.2**
AW-2	9/12/2019	Cobalt	10.1	7.43	3.753	25.247	**12.2**
AW-2	5/6/2020	Cobalt	7.7	5.90	8.003	10.717	**12.2**
AW-2	9/3/2020	Cobalt	10.6	5.90	8.009	10.991	**12.2**
AW-2	3/30/21	Cobalt	8.8	12.2	7.760	10.840	**12.2**
AW-2	9/8/2021	Cobalt	<4.0	12.2	7.758	10.792	**12.2**
AW-2	3/31/2022	Cobalt	8.9	12.2	8.548	10.602	**12.2**
AW-2	8/30/2022	Cobalt	12.0	12.2	8.177	11.673	**12.2**
AW-2	3/7/2023	Cobalt	12.5	12.2	8.862	12.838	**12.2**
AW-2	9/28/2023	Cobalt	5.4	12.2	5.834	13.557	**12.2**
AW-2	9/12/2018	2-Butanone	<5	5.0	2.5	2.5	6,300
AW-2	4/1/2019	2-Butanone	<5	5.0	2.5	2.5	6,300
AW-2	9/12/2019	2-Butanone	<5	5.0	2.5	2.5	6,300
AW-2	5/6/2020	2-Butanone	<5	5.0	2.5	2.5	6,300
AW-2	9/3/2020	2-Butanone	<5	5.0	2.5	2.5	6,300
AW-2	3/30/21	2-Butanone	<5	5.0	2.5	2.5	6,300
AW-2	9/8/2021	2-Butanone	8.5	5.0	0.471	7.529	6,300
AW-2	3/31/2022	2-Butanone	<5	5.0	0.471	7.529	6,300
AW-2	8/30/2022	2-Butanone	<5	5.0	0.471	7.529	6,300
AW-2	3/7/2023	2-Butanone	<5	5.0	0.471	7.529	6,300
AW-2	9/28/2023	2-Butanone	<5	5.0	2.500	2.500	6,300
AW-2	9/12/2018	Acetone	<1.0	10.0	5.0	5.0	6,300
AW-2	4/1/2019	Acetone	<1.0	10.0	5.0	5.0	6,300
AW-2	9/12/2019	Acetone	<1.0	10.0	5.0	5.0	6,300
AW-2	5/6/2020	Acetone	<1.0	10.0	5.0	5.0	6,300
AW-2	9/3/2020	Acetone	<1.0	10.0	5.0	5.0	6,300
AW-2	3/30/21	Acetone	<1.0	10.0	5.0	5.0	6,300
AW-2	9/8/2021	Acetone	138	10.0	0.000	116.473	6,300
AW-2	3/31/2022	Acetone	<1.0	10.0	0.000	116.473	6,300

AW-2	8/30/2022	Acetone	<1.0	10.0	0.000	116.473	6,300
AW-2	3/7/2023	Acetone	<1.0	10.0	0.000	116.473	6,300
AW-2	9/28/2023	Acetone	<1.0	10.0	5.000	5.000	6,300
AW-2	9/16/2016	Benzene	<1.0	1.0	0.500	0.500	5.0
AW-2	3/15/2017	Benzene	<1.0	1.0	0.500	0.500	5.0
AW-2	9/27/2017	Benzene	<1.0	1.0	0.500	0.500	5.0
AW-2	3/14/2018	Benzene	<1.0	1.0	0.500	0.500	5.0
AW-2	9/12/2018	Benzene	1.0	1.0	0.331	0.919	5.0
AW-2	4/1/2019	Benzene	<1.0	1.0	0.331	0.919	5.0
AW-2	9/12/2019	Benzene	<1.0	1.0	0.331	0.919	5.0
AW-2	5/6/2020	Benzene	<1.0	1.0	0.331	0.919	5.0
AW-2	9/3/2020	Benzene	<1.0	1.0	0.500	0.500	5.0
AW-2	3/30/21	Benzene	<1.0	1.0	0.500	0.500	5.0
AW-2	9/8/2021	Benzene	1.4	1.0	0.196	1.254	5.0
AW-2	3/31/2022	Benzene	<1.0	1.0	0.196	1.254	5.0
AW-2	8/30/2022	Benzene	<1.0	1.0	0.196	1.254	5.0
AW-2	3/7/2023	Benzene	<1.0	1.0	0.196	1.254	5.0
AW-2	9/28/2023	Benzene	<1.0	1.0	0.500	0.500	5.0
AW-2	9/12/2018	Chloroethane	<1.0	1.0	0.500	0.500	2,800
AW-2	4/1/2019	Chloroethane	<1.0	1.0	0.500	0.500	2,800
AW-2	9/12/2019	Chloroethane	<1.0	1.0	0.500	0.500	2,800
AW-2	5/6/2020	Chloroethane	<1.0	1.0	0.500	0.500	2,800
AW-2	9/3/2020	Chloroethane	<1.0	1.0	0.500	0.500	2,800
AW-2	3/30/21	Chloroethane	<1.0	1.0	0.500	0.500	2,800
AW-2	9/8/2021	Chloroethane	1.0	1.0	0.331	0.919	2,800
AW-2	3/31/2022	Chloroethane	<1.0	1.0	0.331	0.919	2,800
AW-2	8/30/2022	Chloroethane	<1.0	1.0	0.331	0.919	2,800
AW-2	3/7/2023	Chloroethane	<1.0	1.0	0.331	0.919	2,800
AW-2	9/28/2023	Chloroethane	<1.0	1.0	0.500	0.500	2,800

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L) Bold = Site
AW-3	9/12/2018	Arsenic	45.4	43.9	18.595	78.155	**51.3**
AW-3	4/1/2019	Arsenic	10.5	51.3	8.201	80.399	**51.3**
AW-3	9/12/2019	Arsenic	34.0	51.3	14.105	49.195	**51.3**
AW-3	5/6/2020	Arsenic	25.3	51.3	11.489	46.111	**51.3**
AW-3	9/3/2020	Arsenic	41.8	51.3	12.119	43.681	**51.3**
AW-3	3/30/21	Arsenic	11.0	51.3	12.498	43.552	**51.3**
AW-3	9/8/2021	Arsenic	50.8	51.3	11.457	52.993	**51.3**
AW-3	3/31/2022	Arsenic	35.6	51.3	14.745	54.855	**51.3**
AW-3	8/30/2022	Arsenic	87.6	51.3	8.520	83.980	**51.3**
AW-3	3/7/2023	Arsenic	11.1	51.3	8.588	83.962	**51.3**
AW-3	9/28/2023	Arsenic	38.3	51.3	5.438	80.862	**51.3**
AW-3	9/16/2016	1,1-dichloroethane	1.2	1.0	0.382	1.228	140.0
AW-3	3/15/2017	1,1-dichloroethane	2.5	1.0	0.305	2.305	140.0
AW-3	9/27/2017	1,1-dichloroethane	1.6	1.0	0.804	2.356	140.0
AW-3	3/14/2018	1,1-dichloroethane	<1.0	1.0	0.468	2.432	140.0
AW-3	9/12/2018	1,1-dichloroethane	<1.0	1.0	0.137	2.413	140.0
AW-3	4/1/2019	1,1-dichloroethane	<1.0	1.0	0.128	1.422	140.0
AW-3	9/12/2019	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
AW-3	5/6/2020	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
AW-3	9/3/2020	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
AW-3	3/30/21	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
AW-3	9/8/2021	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
AW-3	3/31/2022	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
AW-3	8/30/2022	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
AW-3	3/7/2023	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
AW-3	9/28/2023	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
AW-3	9/16/2016	1,4-dichlorobenzene	1.9	1.0	0.027	1.673	75.0
AW-3	3/15/2017	1,4-dichlorobenzene	<1.0	1.0	0.027	1.673	75.0
AW-3	9/27/2017	1,4-dichlorobenzene	1.1	1.0	0.220	1.780	75.0
AW-3	3/14/2018	1,4-dichlorobenzene	3.5	1.0	0.221	3.279	75.0
AW-3	9/12/2018	1,4-dichlorobenzene	4.0	1.0	0.237	4.313	75.0
AW-3	4/1/2019	1,4-dichlorobenzene	2.6	1.0	1.303	4.297	75.0
AW-3	9/12/2019	1,4-dichlorobenzene	<1.0	1.0	0.832	4.468	75.0
AW-3	5/6/2020	1,4-dichlorobenzene	2.2	1.0	0.630	4.020	75.0
AW-3	9/3/2020	1,4-dichlorobenzene	2.0	1.0	0.745	2.905	75.0
AW-3	3/30/21	1,4-dichlorobenzene	2.8	1.0	0.725	3.205	75.0
AW-3	9/8/2021	1,4-dichlorobenzene	3.8	1.0	1.749	3.651	75.0
AW-3	3/31/2022	1,4-dichlorobenzene	2.3	1.0	1.797	3.653	75.0
AW-3	8/30/2022	1,4-dichlorobenzene	2.2	1.0	1.914	3.636	75.0
AW-3	3/7/2023	1,4-dichlorobenzene	2.7	1.0	1.888	3.612	75.0
AW-3	9/28/2023	1,4-dichlorobenzene	3.4	1.0	2.009	3.291	75.0

AW-3	9/16/2016	2-butanone (MEK)	<5.0	5.0	0.500	0.500	4,000.0
AW-3	3/15/2017	2-butanone (MEK)	<5.0	5.0	0.500	0.500	4,000.0
AW-3	9/27/2017	2-butanone (MEK)	<5.0	5.0	0.500	0.500	4,000.0
AW-3	3/14/2018	2-butanone (MEK)	<5.0	5.0	0.500	0.500	4,000.0
AW-3	9/12/2018	2-butanone (MEK)	6.0	5.0	1.316	5.434	4,000.0
AW-3	4/1/2019	2-butanone (MEK)	<5.0	5.0	1.316	5.434	4,000.0
AW-3	9/12/2019	2-butanone (MEK)	<5.0	5.0	1.316	5.434	4,000.0
AW-3	5/6/2020	2-butanone (MEK)	<5.0	5.0	1.316	5.434	4,000.0
AW-3	9/3/2020	2-butanone (MEK)	<5.0	5.0	2.500	2.500	4,000.0
AW-3	3/30/21	2-butanone (MEK)	<5.0	5.0	2.500	2.500	4,000.0
AW-3	9/8/2021	2-butanone (MEK)	<5.0	5.0	2.500	2.500	4,000.0
AW-3	3/31/2022	2-butanone (MEK)	<5.0	5.0	2.500	2.500	4,000.0
AW-3	8/30/2022	2-butanone (MEK)	<5.0	5.0	2.500	2.500	4,000.0
AW-3	3/7/2023	2-butanone (MEK)	<5.0	5.0	2.500	2.500	4,000.0
AW-3	9/28/2023	2-butanone (MEK)	<5.0	5.0	2.500	2.500	4,000.0
AW-3	9/16/2016	Acetone	<10.0	10.0	5.0	5.0	6,300.0
AW-3	3/15/2017	Acetone	<10.0	10.0	5.0	5.0	6,300.0
AW-3	9/27/2017	Acetone	<10.0	10.0	5.0	5.0	6,300.0
AW-3	3/14/2018	Acetone	<10.0	10.0	5.0	5.0	6,300.0
AW-3	9/12/2018	Acetone	<10.0	10.0	5.0	5.0	6,300.0
AW-3	4/1/2019	Acetone	<10.0	10.0	5.0	5.0	6,300.0
AW-3	9/12/2019	Acetone	11.4	10.0	2.836	10.364	6,300.0
AW-3	5/6/2020	Acetone	<10.0	10.0	2.836	10.364	6,300.0
AW-3	9/3/2020	Acetone	<10.0	10.0	2.836	10.364	6,300.0
AW-3	3/30/21	Acetone	<10.0	10.0	2.836	10.364	6,300.0
AW-3	9/8/2021	Acetone	<10.0	10.0	5.000	5.000	6,300.0
AW-3	3/31/2022	Acetone	<10.0	10.0	5.000	5.000	6,300.0
AW-3	8/30/2022	Acetone	<10.0	10.0	5.000	5.000	6,300.0
AW-3	3/7/2023	Acetone	<10.0	10.0	5.000	5.000	6,300.0
AW-3	9/28/2023	Acetone	<10.0	10.0	5.000	5.000	6,300.0
AW-3	9/16/2016	Benzene	1.0	1.0	0.143	4.422	5.0
AW-3	3/15/2017	Benzene	<1.0	1.0	0.551	1.774	5.0
AW-3	9/27/2017	Benzene	<1.0	1.0	0.279	1.531	5.0
AW-3	3/14/2018	Benzene	5.6	1.0	0.000	4.815	5.0
AW-3	9/12/2018	Benzene	4.1	1.0	0.000	5.716	5.0
AW-3	4/1/2019	Benzene	<1.0	1.0	0.000	5.716	5.0
AW-3	9/12/2019	Benzene	1.1	1.0	0.000	5.683	5.0
AW-3	5/6/2020	Benzene	1.2	1.0	0.000	3.623	5.0
AW-3	9/3/2020	Benzene	<1.0	1.0	0.381	1.269	5.0
AW-3	3/30/21	Benzene	5.2	1.0	0.000	4.536	5.0
AW-3	9/8/2021	Benzene	4.1	1.0	0.094	5.406	5.0
AW-3	3/31/2022	Benzene	1.4	1.0	0.196	5.404	5.0
AW-3	8/30/2022	Benzene	2.3	1.0	1.230	5.270	5.0
AW-3	3/7/2023	Benzene	2.6	1.0	1.280	3.920	5.0

AW-3	9/28/2023	Benzene	2.6	1.0	1.557	2.893	5.0
AW-3	9/16/2016	Bis(2-ethylhexyl)phthalate	<8.0	6.0	---	---	6.0
AW-3	3/15/2017	Bis(2-ethylhexyl)phthalate	16.0	6.0	---	---	6.0
AW-3	9/27/2017	Bis(2-ethylhexyl)phthalate	<6.0	6.0	---	---	6.0
AW-3	3/14/2018	Bis(2-ethylhexyl)phthalate	<6.0	6.0	---	---	6.0
AW-3	9/12/2018	Bis(2-ethylhexyl)phthalate	<6.0	6.0	0.000	13.896	6.0
AW-3	4/1/2019	Bis(2-ethylhexyl)phthalate	<6.0	6.0	3.000	3.000	6.0
AW-3	9/12/2019	Bis(2-ethylhexyl)phthalate	<6.0	6.0	3.000	3.000	6.0
AW-3	5/6/2020	Bis(2-ethylhexyl)phthalate	<6.0	6.0	3.000	3.000	6.0
AW-3	9/3/2020	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
AW-3	3/30/21	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
AW-3	9/8/2021	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
AW-3	3/31/2022	Bis(2-ethylhexyl)phthalate	<6.0	6.0	3.000	3.000	6.0
AW-3	8/30/2022	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
AW-3	3/7/2023	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
AW-3	9/28/2023	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
AW-3	9/16/2016	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
AW-3	3/15/2017	Chlorobenzene	1.1	1.0	0.297	1.003	100.0
AW-3	9/27/2017	Chlorobenzene	<1.0	1.0	0.297	1.003	100.0
AW-3	3/14/2018	Chlorobenzene	<1.0	1.0	0.297	1.003	100.0
AW-3	9/12/2018	Chlorobenzene	<1.0	1.0	0.297	1.003	100.0
AW-3	4/1/2019	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
AW-3	9/12/2019	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
AW-3	5/6/2020	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
AW-3	9/3/2020	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
AW-3	3/30/21	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
AW-3	9/8/21	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
AW-3	3/31/2022	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
AW-3	8/30/2022	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
AW-3	3/7/2023	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
AW-3	9/28/2023	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
AW-3	9/16/2016	Chloroethane	4.6	1.0	1.778	8.197	2,800.0
AW-3	3/15/2017	Chloroethane	6.8	1.0	2.22	6.845	2,800.0
AW-3	9/27/2017	Chloroethane	4.6	1.0	3.912	6.453	2,800.0
AW-3	3/14/2018	Chloroethane	5.5	1.0	4.151	6.599	2,800.0
AW-3	9/12/2018	Chloroethane	3.0	1.0	3.097	6.853	2,800.0
AW-3	4/1/2019	Chloroethane	1.2	1.0	1.351	5.799	2,800.0
AW-3	9/12/2019	Chloroethane	<1.0	1.0	0.000	5.174	2,800.0
AW-3	5/6/2020	Chloroethane	2.5	1.0	0.445	3.155	2,800.0
AW-3	9/3/2020	Chloroethane	3.9	1.0	0.261	3.789	2,800.0
AW-3	3/30/21	Chloroethane	4.5	1.0	0.760	4.940	2,800.0
AW-3	9/8/2021	Chloroethane	4.2	1.0	3.193	4.757	2,800.0
AW-3	3/31/2022	Chloroethane	3.0	1.0	3.138	4.662	2,800.0
AW-3	8/30/2022	Chloroethane	4.2	1.0	3.138	4.662	2,800.0

AW-3	3/7/2023	Chloroethane	3.5	1.0	3.037	4.413	2,800.0
AW-3	9/28/2023	Chloroethane	3.8	1.0	3.030	4.220	2,800.0
AW-3	9/16/2016	cis-1,2-dichloroethene	1.6	1.0	1.201	3.634	70.0
AW-3	3/15/2017	cis-1,2-dichloroethene	3.0	1.0	1.482	2.893	70.0
AW-3	9/27/2017	cis-1,2-dichloroethene	2.1	1.0	1.449	2.861	70.0
AW-3	3/14/2018	cis-1,2-dichloroethene	<1.0	1.0	0.574	3.026	70.0
AW-3	9/12/2018	cis-1,2-dichloroethene	<1.0	1.0	0.067	2.983	70.0
AW-3	4/1/2019	cis-1,2-dichloroethene	<1.0	1.0	0.000	1.841	70.0
AW-3	9/12/2019	cis-1,2-dichloroethene	<1.0	1.0	0.500	0.500	70.0
AW-3	5/6/2020	cis-1,2-dichloroethene	1.2	1.0	0.263	1.087	70.0
AW-3	9/3/2020	cis-1,2-dichloroethene	2.7	1.0	0.005	2.445	70.0
AW-3	3/30/21	cis-1,2-dichloroethene	4.0	1.0	0.260	3.940	70.0
AW-3	9/8/2021	cis-1,2-dichloroethene	<1.0	1.0	0.260	3.940	70.0
AW-3	3/31/2022	cis-1,2-dichloroethene	<1.0	1.0	0.000	3.959	70.0
AW-3	8/30/2022	cis-1,2-dichloroethene	1.1	1.0	0.000	3.494	70.0
AW-3	3/7/2023	cis-1,2-dichloroethene	2.9	1.0	0.000	2.586	70.0
AW-3	9/28/2023	cis-1,2-dichloroethene	1.2	1.0	0.213	2.637	70.0
AW-3	9/16/2016	Toluene	<1.0	1.0	0.500	0.500	1,000.0
AW-3	3/15/2017	Toluene	<1.0	1.0	0.500	0.500	1,000.0
AW-3	9/27/2017	Toluene	<1.0	1.0	0.500	0.500	1,000.0
AW-3	3/14/2018	Toluene	<1.0	1.0	0.500	0.500	1,000.0
AW-3	9/12/2018	Toluene	1.0	1.0	0.331	0.919	1,000.0
AW-3	4/1/2019	Toluene	<1.0	1.0	0.331	0.919	1,000.0
AW-3	9/12/2019	Toluene	<1.0	1.0	0.331	0.919	1,000.0
AW-3	5/6/2020	Toluene	<1.0	1.0	0.331	0.919	1,000.0
AW-3	9/3/2020	Toluene	<1.0	1.0	0.500	0.500	1,000.0
AW-3	3/30/21	Toluene	<1.0	1.0	0.500	0.500	1,000.0
AW-3	9/8/2021	Toluene	<1.0	1.0	0.500	0.500	1,000.0
AW-3	3/31/2022	Toluene	<1.0	1.0	0.500	0.500	1,000.0
AW-3	8/30/2022	Toluene	<1.0	1.0	0.500	0.500	1,000.0
AW-3	3/7/2023	Toluene	<1.0	1.0	0.500	0.500	1,000.0
AW-3	9/28/2023	Toluene	<1.0	1.0	0.500	0.500	1,000.0
AW-3	9/16/2016	Vinyl Chloride	<1.0	1.0	0.500	0.500	2.0
AW-3	3/15/2017	Vinyl Chloride	<1.0	1.0	0.500	0.500	2.0
AW-3	9/27/2017	Vinyl Chloride	<1.0	1.0	0.500	0.500	2.0
AW-3	3/14/2018	Vinyl Chloride	<1.0	1.0	0.500	0.500	2.0
AW-3	9/12/2018	Vinyl Chloride	<1.0	1.0	0.500	0.500	2.0
AW-3	4/1/2019	Vinyl Chloride	<1.0	1.0	0.500	0.500	2.0
AW-3	9/12/2019	Vinyl Chloride	<1.0	1.0	0.500	0.500	2.0
AW-3	5/6/2020	Vinyl Chloride	<1.0	1.0	0.500	0.500	2.0
AW-3	9/3/2020	Vinyl Chloride	<1.0	1.0	0.500	0.500	2.0
AW-3	3/30/21	Vinyl Chloride	2.1	1.0	0.000	1.841	2.0
AW-3	9/8/2021	Vinyl Chloride	<1.0	1.0	0.000	1.841	2.0
AW-3	3/31/2022	Vinyl Chloride	<1.0	1.0	0.000	1.841	2.0

AW-3	8/30/2022	Vinyl Chloride	<1.0	1.0	0.000	1.841	2.0
AW-3	3/7/2023	Vinyl Chloride	<1.0	1.0	0.000	1.841	2.0
AW-3	9/28/2023	Vinyl Chloride	<1.0	1.0	0.500	0.500	2.0

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L) Bold = Site
MW-9	9/12/2018	Barium	477.0	511.7	437.999	595.001	2000.
MW-9	4/1/2019	Barium	492.0	511.7	433.509	592.991	2000.
MW-9	9/12/2019	Barium	971.0	511.7	313.324	891.676	2000.
MW-9	5/6/2020	Barium	546.0	518.9	345.217	897.783	2000.
MW-9	9/3/2020	Barium	493.0	507.3	352.942	898.058	2000.
MW-9	3/30/21	Barium	574.0	1107.9	388.093	903.907	2000.
MW-9	9/8/2021	Barium	544.0	1024.2	499.564	578.936	2000.
MW-9	3/31/2022	Barium	462.0	1059.5865	459.151	577.349	2000.
MW-9	8/30/2022	Barium	545.0	1001.0172	474.532	587.968	2000.
MW-9	3/7/2023	Barium	481.0	989.7889	457.589	558.411	2000.
MW-9	9/28/2023	Barium	486.0	944.4466	451.323	535.677	2000.
MW-9	9/12/2018	Nickel	13.6	19.0	12.848	14.402	100.0
MW-9	4/1/2019	Nickel	13.2	19.0	12.928	13.672	100.0
MW-9	9/12/2019	Nickel	25.5	19.0	9.350	23.550	100.0
MW-9	5/6/2020	Nickel	13.9	19.0	9.782	23.618	100.0
MW-9	9/3/2020	Nickel	14.2	19.0	9.782	23.618	100.0
MW-9	3/30/21	Nickel	16.0	19.0	10.955	23.845	100.0
MW-9	9/8/2021	Nickel	14.3	19.0	13.484	15.716	100.0
MW-9	3/31/2022	Nickel	13.8	19.0	13.429	15.721	100.0
MW-9	8/30/2022	Nickel	13.9	19.0	13.297	15.703	100.0
MW-9	3/7/2023	Nickel	15.4	11.4	13.488	15.212	100.0
MW-9	3/7/2023	Nickel	15.3	11.4	13.488	15.212	100.0
MW-9	9/28/2023	Nickel	15.2	29.5	14.121	15.779	100.0

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L) Bold = Site
MW-14	9/12/2018	Cadmium	<0.8	0.8	0.400	0.400	5.0
MW-14	4/1/2019	Cadmium	<0.8	0.8	0.400	0.400	5.0
MW-14	9/12/2019	Cadmium	1.2	0.8	0.129	1.071	5.0
MW-14	5/6/2020	Cadmium	<0.8	0.8	0.129	1.071	5.0
MW-14	9/3/2020	Cadmium	<0.8	0.8	0.129	1.071	5.0
MW-14	3/30/21	Cadmium	<0.8	0.8	0.129	1.071	5.0
MW-14	9/8/2021	Cadmium	<0.8	0.8	0.400	0.400	5.0
MW-14	3/31/2022	Cadmium	<0.8	1.0	0.400	0.400	5.0
MW-14	8/30/2022	Cadmium	<0.8	1.0	0.400	0.400	5.0
MW-14	3/7/2023	Cadmium	<0.8	1.0	0.400	0.400	5.0
MW-14	9/28/2023	Cadmium	<0.8	1.0	0.400	0.400	5.0
MW-14	9/12/2018	Nickel	7.0	19.0	0.000	20.193	100.0
MW-14	4/1/2019	Nickel	22.9	19.0	0.000	20.193	100.0
MW-14	9/12/2019	Nickel	14.4	19.0	3.182	21.818	100.0
MW-14	5/6/2020	Nickel	17.6	19.0	9.717	21.233	100.0
MW-14	9/3/2020	Nickel	11.2	19.0	12.205	20.846	100.0
MW-14	3/30/21	Nickel	4.3	19.0	5.817	18.563	100.0
MW-14	9/8/2021	Nickel	12.0	19.0	4.861	17.689	100.0
MW-14	3/31/2022	Nickel	4.7	19.0	3.209	12.891	100.0
MW-14	8/30/2022	Nickel	4.8	19.0	2.090	10.810	100.0
MW-14	3/7/2023	Nickel	5.5	11.4	2.612	10.888	100.0
MW-14	9/28/2023	Nickel	13.1	29.5	2.243	11.807	100.0
MW-14	9/16/2016	1,1-dichloroethane	<1.0	1.0	0.155	1.355	140.0
MW-14	3/15/2017	1,1-dichloroethane	1.3	1.0	0.229	1.171	140.0
MW-14	9/27/2017	1,1-dichloroethane	1.1	1.0	0.365	1.335	140.0
MW-14	3/14/2018	1,1-dichloroethane	<1.0	1.0	0.365	1.335	140.0
MW-14	9/12/2018	1,1-dichloroethane	<1.0	1.0	0.365	1.335	140.0
MW-14	4/1/2019	1,1-dichloroethane	1.0	1.0	0.398	1.152	140.0
MW-14	9/12/2019	1,1-dichloroethane	<1.0	1.0	0.331	0.919	140.0
MW-14	5/6/2020	1,1-dichloroethane	<1.0	1.0	0.331	0.919	140.0
MW-14	9/3/2020	1,1-dichloroethane	<1.0	1.0	0.331	0.919	140.0
MW-14	3/30/21	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
MW-14	9/8/2021	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
MW-14	3/31/2022	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
MW-14	8/30/2022	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
MW-14	3/7/2023	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0
MW-14	9/28/2023	1,1-dichloroethane	<1.0	1.0	0.500	0.500	140.0

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L) Bold = Site
MW-20	9/12/2018	Arsenic	44.9	43.9	10.552	81.898	**43.9**
MW-20	4/1/2019	Arsenic	19.5	51.3	15.562	41.888	**51.3**
MW-20	9/12/2019	Arsenic	72.0	51.3	11.746	68.304	**51.3**
MW-20	5/6/2020	Arsenic	42.3	51.3	19.390	69.960	**51.3**
MW-20	9/3/2020	Arsenic	50.6	51.3	20.571	71.629	**51.3**
MW-20	3/30/21	Arsenic	38.9	51.3	33.460	68.440	**51.3**
MW-20	9/8/2021	Arsenic	40.2	51.3	36.817	49.183	**51.3**
MW-20	3/31/2022	Arsenic	44.1	51.3	37.270	49.630	**51.3**
MW-20	8/30/2022	Arsenic	23.3	51.3	25.857	47.393	**51.3**
MW-20	3/7/2023	Arsenic	106.0	51.3	10.807	95.993	**51.3**
MW-20	9/28/2023	Arsenic	37.5	51.3	9.718	95.732	**51.3**
MW-20	9/16/2016	1,4-dichlorobenzene	3.4	1.0	0.000	2.931	75.0
MW-20	3/15/2017	1,4-dichlorobenzene	1.2	1.0	0.000	3.016	75.0
MW-20	9/27/2017	1,4-dichlorobenzene	1.4	1.0	0.161	3.089	75.0
MW-20	3/14/2018	1,4-dichlorobenzene	1.7	1.0	0.743	3.107	75.0
MW-20	9/12/2018	1,4-dichlorobenzene	3.0	1.0	0.872	2.778	75.0
MW-20	4/1/2019	1,4-dichlorobenzene	2.9	1.0	1.287	3.213	75.0
MW-20	9/12/2019	1,4-dichlorobenzene	<1.0	1.0	0.642	3.408	75.0
MW-20	5/6/2020	1,4-dichlorobenzene	2.5	1.0	0.849	3.601	75.0
MW-20	9/3/2020	1,4-dichlorobenzene	1.6	1.0	0.621	3.129	75.0
MW-20	3/30/21	1,4-dichlorobenzene	2.6	1.0	0.651	2.949	75.0
MW-20	9/8/2021	1,4-dichlorobenzene	2.9	1.0	1.742	3.058	75.0
MW-20	3/31/2022	1,4-dichlorobenzene	2.4	1.0	1.721	3.029	75.0
MW-20	8/30/2022	1,4-dichlorobenzene	2.8	1.0	2.414	2.936	75.0
MW-20	3/7/2023	1,4-dichlorobenzene	2.8	1.0	2.464	2.986	75.0
MW-20	9/28/2023	1,4-dichlorobenzene	3.4	1.0	2.365	3.335	75.0
MW-20	9/16/2016	Acetone	33.3	10.0	0.000	394.638	6,300.0
MW-20	3/15/2017	Acetone	<10.0	10.0	0.000	394.212	6,300.0
MW-20	9/27/2017	Acetone	<10.0	10.0	0.000	394.212	6,300.0
MW-20	3/14/2018	Acetone	<10.0	10.0	0.000	28.719	6,300.0
MW-20	9/12/2018	Acetone	<10.0	10.0	5.000	5.000	6,300.0
MW-20	4/1/2019	Acetone	<10.0	10.0	5.000	5.000	6,300.0
MW-20	9/12/2019	Acetone	<10.0	10.0	5.000	5.000	6,300.0
MW-20	5/6/2020	Acetone	<10.0	10.0	5.000	5.000	6,300.0
MW-20	9/3/2020	Acetone	<10.0	10.0	5.000	5.000	6,300.0
MW-20	3/30/21	Acetone	<10.0	10.0	5.000	5.000	6,300.0
MW-20	9/8/2021	Acetone	<10.0	10.0	5.000	5.000	6,300.0
MW-20	3/31/2022	Acetone	<10.0	10.0	5.000	5.000	6,300.0
MW-20	8/30/2022	Acetone	<10.0	10.0	5.000	5.000	6,300.0
MW-20	3/7/2023	Acetone	<10.0	10.0	5.000	5.000	6,300.0
MW-20	9/28/2023	Acetone	<10.0	10.0	5.000	5.000	6,300.0

MW-20	9/16/2016	Benzene	3.7	1.0	2.827	3.988	5.0
MW-20	3/15/2017	Benzene	2.5	1.0	2.383	3.887	5.0
MW-20	9/27/2017	Benzene	2.6	1.0	2.210	3.525	5.0
MW-20	3/14/2018	Benzene	1.7	1.0	1.658	3.592	5.0
MW-20	9/12/2018	Benzene	2.7	1.0	1.837	2.913	5.0
MW-20	4/1/2019	Benzene	2.4	1.0	1.820	2.880	5.0
MW-20	9/12/2019	Benzene	2.8	1.0	1.816	2.984	5.0
MW-20	5/6/2020	Benzene	2.5	1.0	2.385	2.815	5.0
MW-20	9/3/2020	Benzene	2.7	1.0	2.385	2.815	5.0
MW-20	3/30/21	Benzene	1.9	1.0	2.001	2.949	5.0
MW-20	9/8/2021	Benzene	2.8	1.0	2.001	2.949	5.0
MW-20	3/31/2022	Benzene	2.3	1.0	1.941	2.909	5.0
MW-20	8/30/2022	Benzene	3.6	1.0	1.788	3.512	5.0
MW-20	3/7/2023	Benzene	2.2	1.0	1.973	3.477	5.0
MW-20	9/28/2023	Benzene	2.6	1.0	1.973	3.427	5.0
MW-20	9/16/2016	Chlorobenzene	3.1	1.0	0.019	3.656	100.0
MW-20	3/15/2017	Chlorobenzene	1.4	1.0	0.000	2.817	100.0
MW-20	9/27/2017	Chlorobenzene	1.6	1.0	0.381	2.919	100.0
MW-20	3/14/2018	Chlorobenzene	<1.0	1.0	0.381	2.919	100.0
MW-20	9/12/2018	Chlorobenzene	3.1	1.0	0.381	2.919	100.0
MW-20	4/1/2019	Chlorobenzene	2.6	1.0	0.597	3.303	100.0
MW-20	9/12/2019	Chlorobenzene	3.6	1.0	0.847	4.053	100.0
MW-20	5/6/2020	Chlorobenzene	2.2	1.0	2.160	3.590	100.0
MW-20	9/3/2020	Chlorobenzene	1.7	1.0	1.577	3.473	100.0
MW-20	3/30/21	Chlorobenzene	2.2	1.0	1.463	3.387	100.0
MW-20	9/8/2021	Chlorobenzene	2.7	1.0	1.720	2.680	100.0
MW-20	3/31/2022	Chlorobenzene	2.6	1.0	1.765	2.835	100.0
MW-20	8/30/2022	Chlorobenzene	3.1	1.0	2.215	3.085	100.0
MW-20	3/7/2023	Chlorobenzene	2.5	1.0	2.416	3.034	100.0
MW-20	9/28/2023	Chlorobenzene	3.4	1.0	2.401	3.399	100.0
MW-20	9/16/2016	Chloroethane	1.4	1.0	1.497	2.203	2,800.0
MW-20	3/15/2017	Chloroethane	1.1	1.0	1.096	2.154	2,800.0
MW-20	9/27/2017	Chloroethane	<1.0	1.0	1.096	2.154	2,800.0
MW-20	3/14/2018	Chloroethane	<1.0	1.0	0.346	1.404	2,800.0
MW-20	9/12/2018	Chloroethane	<1.0	1.0	0.297	1.003	2,800.0
MW-20	4/1/2019	Chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-20	9/12/2019	Chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-20	5/6/2020	Chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-20	9/3/2020	Chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-20	3/30/21	Chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-20	9/8/2021	Chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-20	3/31/2022	Chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-20	8/30/2022	Chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-20	3/7/2023	Chloroethane	<1.0	1.0	0.500	0.500	2,800.0

MW-20	9/28/2023	Chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-20	9/16/2016	Toluene	1.4	1.0	0.000	2.809	1,000.0
MW-20	3/15/2017	Toluene	<1.0	1.0	0.196	1.254	1,000.0
MW-20	9/27/2017	Toluene	<1.0	1.0	0.196	1.254	1,000.0
MW-20	3/14/2018	Toluene	<1.0	1.0	0.196	1.254	1,000.0
MW-20	9/12/2018	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-20	4/1/2019	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-20	9/12/2019	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-20	5/6/2020	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-20	9/3/2020	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-20	3/30/21	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-20	9/8/2021	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-20	3/31/2022	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-20	8/30/2022	Toluene	2.1	1.0	0.000	1.841	1,000.0
MW-20	3/7/2023	Toluene	<1.0	1.0	0.000	1.841	1,000.0
MW-20	9/28/2023	Toluene	<1.0	1.0	0.000	1.841	1,000.0

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L) Bold = Site
MW-24	9/12/2018	Arsenic	25.6	43.9	23.328	27.722	43.9
MW-24	4/1/2019	Arsenic	100.0	51.3	0.000	87.948	51.3
MW-24	9/12/2019	Arsenic	23.8	51.3	0.000	87.735	51.3
MW-24	5/6/2020	Arsenic	6.5	51.3	0.000	87.891	51.3
MW-24	9/3/2020	Arsenic	12.8	51.3	0.000	86.837	51.3
MW-24	3/30/21	Arsenic	22.3	51.3	6.733	25.967	51.3
MW-24	9/8/2021	Arsenic	20.5	51.3	6.947	24.103	51.3
MW-24	3/31/2022	Arsenic	<4.0	51.3	2.364	25.686	51.3
MW-24	8/30/2022	Arsenic	5.1	51.3	0.000	24.953	51.3
MW-24	3/7/2023	Arsenic	<4.0	51.3	0.000	17.816	51.3
MW-24	9/28/2023	Arsenic	17.1	51.3	0.000	15.000	51.3
MW-24	9/12/2018	Barium	382.0	510.70	406.270	656.230	2,000.0
MW-24	4/1/2019	Barium	665.0	510.70	412.814	710.186	2,000.0
MW-24	9/12/2019	Barium	310.0	510.70	288.322	706.178	2,000.0
MW-24	5/6/2020	Barium	303.0	518.9	214.503	615.497	2,000.0
MW-24	9/3/2020	Barium	149.0	507.3	99.708	613.792	2,000.0
MW-24	3/30/21	Barium	179.0	1107.9	137.350	333.150	2,000.0
MW-24	9/8/2021	Barium	302.0	1024.2	138.092	328.408	2,000.0
MW-24	3/31/2022	Barium	96.2	1059.6	78.871	284.229	2,000.0
MW-24	8/30/2022	Barium	82.7	1001.0172	46.425	283.525	2,000.0
MW-24	3/7/2023	Barium	65.1	989.7889	5.855	267.145	2,000.0
MW-24	9/28/2023	Barium	298.0	944.4466	7.192	263.808	2,000.0
MW-24	9/12/2018	Cobalt	3.5	7.43	0.214	3.136	**7.43**
MW-24	4/1/2019	Cobalt	21.9	7.43	0.000	18.744	**7.43**
MW-24	9/12/2019	Cobalt	19.0	7.43	0.000	23.795	**7.43**
MW-24	5/6/2020	Cobalt	5.1	5.90	1.292	23.458	**7.43**
MW-24	9/3/2020	Cobalt	16.1	5.90	6.888	24.162	**7.43**
MW-24	3/30/21	Cobalt	14.2	12.2	6.542	20.658	**12.2**
MW-24	9/8/2021	Cobalt	3.5	12.2	2.261	17.189	**12.2**
MW-24	3/31/2022	Cobalt	8.0	12.2	3.649	17.251	**12.2**
MW-24	8/30/2022	Cobalt	12.0	12.2	3.884	14.966	**12.2**
MW-24	3/7/2023	Cobalt	5.2	12.2	2.807	11.543	**12.2**
MW-24	9/28/2023	Cobalt	7.4	12.2	4.815	11.485	**12.2**
MW-24	9/12/2018	Nickel	14.3	19.0	7.092	13.808	100.0
MW-24	4/1/2019	Nickel	61.1	19.0	0.000	53.157	100.0
MW-24	9/12/2019	Nickel	16.2	19.0	0.000	53.564	100.0
MW-24	5/6/2020	Nickel	14.9	19.0	12.099	49.301	100.0
MW-24	9/3/2020	Nickel	30.6	19.0	5.434	55.966	100.0
MW-24	3/30/21	Nickel	17.9	19.0	11.386	28.414	100.0
MW-24	9/8/2021	Nickel	13.4	19.0	9.993	28.407	100.0
MW-24	3/31/2022	Nickel	66.7	19.0	3.734	60.556	100.0

MW-24	8/30/2022	Nickel	43.0	19.0	6.217	64.283	100.0
MW-24	3/7/2023	Nickel	48.0	11.4	16.802	68.748	100.0
MW-24	9/28/2023	Nickel	29.4	29.5	28.620	64.930	100.0
MW-24	9/12/2018	Zinc	24.5	69.0	0.705	21.945	2,000.0
MW-24	4/1/2019	Zinc	69.3	69.0	0.000	61.644	2,000.0
MW-24	9/12/2019	Zinc	<20.0	69.0	0.000	61.495	2,000.0
MW-24	5/6/2020	Zinc	<20.0	69.0	4.134	52.766	2,000.0
MW-24	9/3/2020	Zinc	25.7	69.0	4.477	53.023	2,000.0
MW-24	3/30/21	Zinc	<20.0	69.0	4.691	23.159	2,000.0
MW-24	9/8/2021	Zinc	<20.0	69.0	4.691	23.159	2,000.0
MW-24	3/31/2022	Zinc	27.2	69.0	7.030	29.420	2,000.0
MW-24	8/30/2022	Zinc	<20.0	69.0	4.184	24.416	2,000.0
MW-24	3/7/2023	Zinc	<20.0	69.0	4.184	24.416	2,000.0
MW-24	9/28/2023	Zinc	<20.0	69.0	4.184	24.416	2,000.0
MW-24	9/16/2016	Acetone	<10.	10.0	5.0	5.0	6,300.
MW-24	3/15/2017	Acetone	<10.	10.0	5.0	5.0	6,300.
MW-24	9/27/2017	Acetone	13.6	10.0	2.092	12.208	6,300.
MW-24	3/14/2018	Acetone	<10.	10.0	2.092	12.208	6,300.
MW-24	9/12/2018	Acetone	<10.	10.0	2.092	12.208	6,300.
MW-24	4/1/2019	Acetone	25.0	10.0	1.002	23.298	6,300.
MW-24	9/12/2019	Acetone	<10.	10.0	0.000	21.763	6,300.
MW-24	5/6/2020	Acetone	<10.	10.0	0.000	21.763	6,300.
MW-24	9/3/2020	Acetone	<10.	10.0	0.000	21.763	6,300.
MW-24	3/30/21	Acetone	<10.	10.0	5.000	5.000	6,300.
MW-24	9/8/2021	Acetone	<10.	10.0	5.000	5.000	6,300.
MW-24	3/31/2022	Acetone	<10.	10.0	5.000	5.000	6,300.
MW-24	8/30/2022	Acetone	<10.	10.0	5.000	5.000	6,300.
MW-24	3/7/2023	Acetone	<10.	10.0	5.000	5.000	6,300.
MW-24	9/28/2023	Acetone	<10.	10.0	5.000	5.000	6,300.
MW-24	9/16/2016	Benzene	<1.0	1.0	0.250	0.250	5.0
MW-24	3/15/2017	Benzene	1.3	1.0	0.000	1.130	5.0
MW-24	9/27/2017	Benzene	<1.0	1.0	0.000	1.130	5.0
MW-24	3/14/2018	Benzene	<1.0	1.0	0.000	1.130	5.0
MW-24	9/12/2018	Benzene	<1.0	1.0	0.000	1.130	5.0
MW-24	4/1/2019	Benzene	2.1	1.0	0.000	1.801	5.0
MW-24	9/12/2019	Benzene	<1.0	1.0	0.000	1.841	5.0
MW-24	5/6/2020	Benzene	<1.0	1.0	0.000	1.841	5.0
MW-24	9/3/2020	Benzene	<1.0	1.0	0.000	1.841	5.0
MW-24	3/30/21	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-24	9/8/2021	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-24	3/31/2022	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-24	8/30/2022	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-24	3/7/2023	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-24	9/28/2023	Benzene	<1.0	1.0	0.500	0.500	5.0

MW-24	9/16/2016	Chloroethane	<1.0	1.0	0.500	0.500	2,800.
MW-24	3/15/2017	Chloroethane	<1.0	1.0	0.500	0.500	2,800.
MW-24	9/27/2017	Chloroethane	<1.0	1.0	0.500	0.500	2,800.
MW-24	3/14/2018	Chloroethane	<1.0	1.0	0.500	0.500	2,800.
MW-24	9/12/2018	Chloroethane	<1.0	1.0	0.500	0.500	2,800.
MW-24	4/1/2019	Chloroethane	1.6	1.0	0.128	1.422	2,800.
MW-24	9/12/2019	Chloroethane	<1.0	1.0	0.128	1.422	2,800.
MW-24	5/6/2020	Chloroethane	<1.0	1.0	0.128	1.422	2,800.
MW-24	9/3/2020	Chloroethane	<1.0	1.0	0.128	1.422	2,800.
MW-24	3/30/21	Chloroethane	<1.0	1.0	0.500	0.500	2,800.
MW-24	9/8/2021	Chloroethane	<1.0	1.0	0.500	0.500	2,800.
MW-24	3/31/2022	Chloroethane	<1.0	1.0	0.500	0.500	2,800.
MW-24	8/30/2022	Chloroethane	<1.0	1.0	0.500	0.500	2,800.
MW-24	3/7/2023	Chloroethane	<1.0	1.0	0.500	0.500	2,800.
MW-24	9/28/2023	Chloroethane	<1.0	1.0	0.500	0.500	2,800.
MW-24	9/16/2016	Ethylbenzene	1.2	1.0	0.263	1.087	700.0
MW-24	3/15/2017	Ethylbenzene	1.9	1.0	0.237	1.813	700.0
MW-24	9/27/2017	Ethylbenzene	<1.0	1.0	0.237	1.813	700.0
MW-24	3/14/2018	Ethylbenzene	<1.0	1.0	0.237	1.813	700.0
MW-24	9/12/2018	Ethylbenzene	<1.0	1.0	0.027	1.673	700.0
MW-24	4/1/2019	Ethylbenzene	4.8	1.0	0.000	4.104	700.0
MW-24	9/12/2019	Ethylbenzene	<1.0	1.0	0.000	4.104	700.0
MW-24	5/6/2020	Ethylbenzene	<1.0	1.0	0.000	4.104	700.0
MW-24	9/3/2020	Ethylbenzene	<1.0	1.0	0.000	4.104	700.0
MW-24	3/30/21	Ethylbenzene	<1.0	1.0	0.500	0.500	700.0
MW-24	9/8/2021	Ethylbenzene	<1.0	1.0	0.500	0.500	700.0
MW-24	3/31/2022	Ethylbenzene	<1.0	1.0	0.500	0.500	700.0
MW-24	8/30/2022	Ethylbenzene	<1.0	1.0	0.500	0.500	700.0
MW-24	3/7/2023	Ethylbenzene	<1.0	1.0	0.500	0.500	700.0
MW-24	9/28/2023	Ethylbenzene	<1.0	1.0	0.500	0.500	700.0
MW-24	9/16/2016	Toluene	5.5	1.0	0.000	4.691	1,000.0
MW-24	3/15/2017	Toluene	<1.0	1.0	0.000	4.691	1,000.0
MW-24	9/27/2017	Toluene	<1.0	1.0	0.000	4.691	1,000.0
MW-24	3/14/2018	Toluene	<1.0	1.0	0.000	4.691	1,000.0
MW-24	9/12/2018	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-24	4/1/2019	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-24	9/12/2019	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-24	5/6/2020	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-24	9/3/2020	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-24	3/30/21	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-24	9/8/2021	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-24	3/31/2022	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-24	8/30/2022	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-24	3/7/2023	Toluene	<1.0	1.0	0.500	0.500	1,000.0

MW-24	9/28/2023	Toluene	<1.0	1.0	0.500	0.500	1,000.0
MW-24	9/16/2016	Xylenes	2.2	2.0	1.263	2.087	10,000.0
MW-24	3/15/2017	Xylenes	2.3	2.0	1.363	2.387	10,000.0
MW-24	9/27/2017	Xylenes	<2.0	2.0	1.363	2.387	10,000.0
MW-24	3/14/2018	Xylenes	<2.0	2.0	1.363	2.387	10,000.0
MW-24	9/12/2018	Xylenes	<2.0	2.0	1.229	2.171	10,000.0
MW-24	4/1/2019	Xylenes	6.2	2.0	0.000	5.439	10,000.0
MW-24	9/12/2019	Xylenes	<2.0	2.0	0.000	5.358	10,000.0
MW-24	5/6/2020	Xylenes	<2.0	2.0	0.000	5.358	10,000.0
MW-24	9/3/2020	Xylenes	<2.0	2.0	0.000	5.358	10,000.0
MW-24	3/30/21	Xylenes	<2.0	2.0	1.000	1.000	10,000.0
MW-24	9/8/2021	Xylenes	<2.0	2.0	1.000	1.000	10,000.0
MW-24	3/31/2022	Xylenes	<2.0	2.0	1.000	1.000	10,000.0
MW-24	8/30/2022	Xylenes	<2.0	2.0	1.000	1.000	10,000.0
MW-24	3/7/2023	Xylenes	<2.0	2.0	1.000	1.000	10,000.0
MW-24	9/28/2023	Xylenes	<2.0	2.0	1.000	1.000	10,000.0

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L) Bold = Site
MW-25	3/15/2017	Bis(2-ethylhexyl)phthalate	17.0	6.0	---	---	6.0
MW-25	9/27/2017	Bis(2-ethylhexyl)phthalate	8.0	6.0	---	---	6.0
MW-25	3/14/2018	Bis(2-ethylhexyl)phthalate	7.0	6.0	---	---	6.0
MW-25	9/12/2018	Bis(2-ethylhexyl)phthalate	<6.0	6.0	1.799	15.701	6.0
MW-25	4/1/2019	Bis(2-ethylhexyl)phthalate	<6.0	6.0	2.156	8.344	6.0
MW-25	9/12/2019	Bis(2-ethylhexyl)phthalate	<6.0	6.0	1.647	6.353	6.0
MW-25	5/6/2020	Bis(2-ethylhexyl)phthalate	<6.0	6.0	3.000	3.000	6.0
MW-25	9/3/2020	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
MW-25	3/30/21	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
MW-25	9/8/2021	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
MW-25	3/31/2022	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
MW-25	8/30/2022	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
MW-25	3/7/2023	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
MW-25	9/28/2023	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0

Appendix G

Leachate Collection System Performance Evaluation Report

Leachate Collection System Performance Evaluation Report

Leachate accumulating in the existing leachate storage facilities on-site is recirculated in the Subtitle D composite lined disposal areas in accordance with Permit Amendment #10 dated January 29, 2016 or is hauled to the City of Van Horne Publicly Owned Treatment Works (POTW) for treatment and disposal in accordance with the treatment agreement with Van Horne (Appendix G.1). Approximately 495,443 gallons of leachate were hauled to the Van Horne POTW in 2023 in accordance with the leachate treatment agreement. The facility also has a leachate treatment agreement with the Vinton Wastewater Treatment Facility (Appendix G.2). No leachate was hauled to Vinton in 2023.

The laboratory testing results on the leachate for 2023 in accordance with the leachate treatment agreement with Van Horne are included in Appendix G.3.

The facility has permission to recirculate leachate; however, no leachate was recirculated in 2023.

Leachate System Performance

Leachate collection piping has been installed in the Closed Original Landfill as well as the Operating Landfill. Leachate is stored in an FML lined storage lagoon with a capacity of approximately 455,000 gallons.

Closed Original Landfill – The original landfill (Closed) is exempt from installing a leachate collection system based on the completed and certified site Risk Assessment as per the September 26, 1995 letter from IDNR.

Leachate piezometer LPZ-2 was removed during the Phase III Cell H expansion project in 2023. Leachate piezometers LPZ-3 through LPZ-7 are located in the unlined landfilling areas. Figure 2 and 3 in the body of the report illustrate the locations of the leachate piezometers. Leachate head levels were measured monthly in 2023. The historic leachate piezometer measurements are included in Appendix G.4. The data shows that the leachate piezometer measurements in the unlined areas have remained fairly consistent over time.

Operating Landfill – Phase II Cell C, Phase II Cell D, Phase II Cell E/F Stage 1, Phase II Cell E/F Stage 2, Phase III Cell G, and Phase III Cell H are the operating areas of the landfill. Phase II Cell C and Phase II Cell D were constructed with Subtitle D compliant alternative liner systems. Phase II Cell E/F Stage 1, Phase II Cell E/F Stage 2, Phase III Cell G, and Phase III Cell H were constructed with Subtitle D composite liners.

Two leachate head monitoring points were installed in Phase II Cell E/F Stage 1 (LPZ-8 and LPZ-9). One leachate head monitoring point was installed in Phase III Cell G (LPZ-10) near the lowest point in Phase III Cell G. LPZ-10 is also located downgradient of the Phase III Cell H disposal

area constructed in 2023. Figure 2 in the body of the report illustrates the locations of LPZ-8, LPZ-9, and LPZ-10.

Leachate head measurements in the Subtitle D lined areas are required monthly in accordance with the SDP Permit. Leachate head measurements are summarized as:

Date/Location	LPZ-8	LPZ-9	LPZ-10
1/18/23	0	0	0
2/8/23	0	0	0
3/14/23	0	0	0
4/18/23	0	0	0
5/17/23	0	0	0
6/14/23	0	0	0
7/10/23	0	0	0
8/4/23	0	0	0
9/19/23	0	0	0
10/23/23	0	0	0
11/14/23	0	0	0
12/4/23	0	0	0

Based on the leachate head data, the leachate collection system is performing as designed. No changes are recommended.

Leachate Line Cleaning

The leachate collection lines were cleaned April 9, 2021. As per IDNR regulations, the lines should be cleaned every 3 years (next cleaning will be scheduled in 2024).

Performance Evaluation

No modifications to the leachate collection system are recommended for next year.

Appendix G.1-
Leachate Treatment Agreement with Van Horne

April 5, 2023

LINDA KLOPPING – CITY CLERK
CITY OF VAN HORNE
PO BOX 359
VAN HORNE, IA 52346

RE: NPDES Final Permit #0685001

Dear Ms. Klopping:

Enclosed is the final NPDES permit that authorizes the discharge of wastewater from the City of Van Horne's wastewater treatment facility. This final permit is the same as the draft permit sent on February 14, 2023. The issuance date of this permit is May 1, 2023; please become familiar with all limits and requirements in the enclosed final permit.

The facility will be required to use new discharge monitoring report (DMR) forms once a final permit is issued. Paper and electronic DMR forms are available from your regional Field Office. The facility is strongly encouraged to use the electronic reporting form. Please contact Michele Smith at 563-927-2640 (Field Office 1) or michele.smith@dnr.iowa.gov for more information or to request forms.

If you have any questions, please contact me at 515-452-6235 or at ryan.olive@dnr.iowa.gov.

Sincerely,

Ryan Olive
NPDES Section

Enclosures

IOWA DEPARTMENT OF NATURAL RESOURCES

National Pollutant Discharge Elimination System (NPDES) Permit

OWNER NAME & ADDRESS

CITY OF VAN HORNE
PO BOX 359
VAN HORNE, IA 52346-0359

FACILITY NAME & ADDRESS

VAN HORNE CITY OF STP
NORTH OF 1ST AVENUE ON 11TH STREET
VAN HORNE, IA 52346

Section 11, T83N, R11W
Benton County

IOWA NPDES PERMIT NUMBER: 0685001
DATE OF ISSUANCE: 05/01/2023
DATE OF EXPIRATION: 04/30/2028

YOU ARE REQUIRED TO FILE FOR RENEWAL OF THIS PERMIT BY: 11/02/2027
EPA NUMBER: IA0033341

This permit is issued pursuant to the authority of section 402(b) of the Clean Water Act (33 U.S.C. 1342(b)), Iowa Code section 455B.174, and rule 567-64.3, Iowa Administrative Code. You are authorized to operate the disposal system and to discharge the pollutants specified in this permit in accordance with the effluent limitations, monitoring requirements and other terms set forth in this permit.

Pursuant to rule 561-7.4, Iowa Administrative Code, you may appeal any condition of this permit by filing a written notice of appeal and request for administrative hearing with the director of the department within 60 days of permit issuance.

Any existing, unexpired Iowa operation permit or Iowa NPDES permit previously issued by the department for the facility identified above is revoked by the issuance of this permit. This provision does not apply to any authorization to discharge under the terms and conditions of a general permit issued by the department or to any permit issued exclusively for the discharge of stormwater.

FOR THE DEPARTMENT OF NATURAL RESOURCES

By _____

Ryan Olive
NPDES Section, Environmental Services Division

Facility Name: VAN HORNE CITY OF STP

Permit Number: 0685001

Outfall No.: 001 DISCHARGE FROM AN ACTIVATED SLUDGE-EXTENDED AERATION TREATMENT FACILITY

Receiving Stream: UNNAMED CREEK

Route of Flow: UNNAMED CREEK TO PRAIRIE CREEK

Class A2 waters are secondary contact recreational use waters in which recreational or other uses may result in contact with the water that is either incidental or accidental. During the recreational use, the probability of ingesting appreciable quantities of water is minimal. Class A2 uses include fishing, commercial and recreational boating, any limited contact incidental to shoreline activities and activities in which users do not swim or float in the water body while on a boating activity.

Waters designated Class B(WW2) are those in which flow or other physical characteristics are capable of supporting a resident aquatic community that includes a variety of native nongame fish and invertebrate species. The flow and other physical characteristics limit the maintenance of warm water game fish populations. These waters generally consist of small perennially flowing streams.

Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited.

Facility Name: VAN HORNE CITY OF STP

Permit Number: 0685001

Effluent Limitations:

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

001 DISCHARGE FROM AN ACTIVATED SLUDGE-EXTENDED AERATION TREATMENT FACILITY

Outfall: 001 Effective Dates: 05/01/2023 to 04/30/2028				
Parameter	**Season**	**Limit Type**	**Limits**	
CBOD5			**85% Removal Required**	
	Yearly	7 Day Average	40 MG/L	129 LBS/DAY
	Yearly	30 Day Average	25 MG/L	80 LBS/DAY
TOTAL SUSPENDED SOLIDS			**85% Removal Required**	
	Yearly	7 Day Average	45 MG/L	145 LBS/DAY
	Yearly	30 Day Average	30 MG/L	97 LBS/DAY
DISSOLVED OXYGEN				
	Yearly	Daily Minimum	5.0 MG/L	
PH				
	Yearly	Daily Maximum	9.0 STD UNITS	
	Yearly	Daily Minimum	6.5 STD UNITS	

Facility Name: VAN HORNE CITY OF STP

Permit Number: 0685001

Outfall: 001 Effective Dates: 05/01/2023 to 04/30/2028				
Parameter	**Season**	**Limit Type**	**Limits**	
AMMONIA NITROGEN (N)				
	JAN	30 Day Average	3.4 MG/L	11.0 LBS/DAY
	JAN	Daily Maximum	15.2 MG/L	47.0 LBS/DAY
	FEB	30 Day Average	4.0 MG/L	12.8 LBS/DAY
	FEB	Daily Maximum	14.2 MG/L	45.8 LBS/DAY
	MAR	30 Day Average	3.4 MG/L	11.0 LBS/DAY
	MAR	Daily Maximum	14.0 MG/L	31.0 LBS/DAY
	APR	30 Day Average	1.5 MG/L	4.9 LBS/DAY
	APR	Daily Maximum	14.0 MG/L	31.0 LBS/DAY
	MAY	30 Day Average	1.7 MG/L	5.6 LBS/DAY
	MAY	Daily Maximum	14.0 MG/L	31.0 LBS/DAY
	JUN	30 Day Average	1.3 MG/L	4.2 LBS/DAY
	JUN	Daily Maximum	10.8 MG/L	31.0 LBS/DAY
	JUL	30 Day Average	1.0 MG/L	3.2 LBS/DAY
	JUL	Daily Maximum	8.6 MG/L	25.2 LBS/DAY
	AUG	30 Day Average	1.0 MG/L	3.1 LBS/DAY
	AUG	Daily Maximum	8.4 MG/L	24.2 LBS/DAY
	SEP	30 Day Average	1.1 MG/L	3.4 LBS/DAY
	SEP	Daily Maximum	10.0 MG/L	29.0 LBS/DAY
	OCT	30 Day Average	1.6 MG/L	5.0 LBS/DAY
	OCT	Daily Maximum	14.0 MG/L	31.0 LBS/DAY
	NOV	30 Day Average	2.3 MG/L	7.5 LBS/DAY
	NOV	Daily Maximum	14.0 MG/L	31.0 LBS/DAY
	DEC	30 Day Average	2.5 MG/L	8.0 LBS/DAY
	DEC	Daily Maximum	14.0 MG/L	31.0 LBS/DAY

Facility Name: VAN HORNE CITY OF STP

Permit Number: 0685001

Outfall: 001 Effective Dates: 05/01/2023 to 04/30/2028			
Parameter	**Season**	**Limit Type**	**Limits**
E. COLI			
	MAR	Geometric Mean	126 #/100 ML
	APR	Geometric Mean	126 #/100 ML
	MAY	Geometric Mean	126 #/100 ML
	JUN	Geometric Mean	126 #/100 ML
	JUL	Geometric Mean	126 #/100 ML
	AUG	Geometric Mean	126 #/100 ML
	SEP	Geometric Mean	126 #/100 ML
	OCT	Geometric Mean	126 #/100 ML
	NOV	Geometric Mean	126 #/100 ML

Facility Name: VAN HORNE CITY OF STP

Permit Number: 0685001

Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:
(1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
(2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

Facility Name: VAN HORNE CITY OF STP
Permit Number: 0685001

Outfall	Wastewater Parameter	Sample Frequency	Sample Type	Monitoring Location
The following monitoring requirements shall be in effect from 05/01/2023 to 04/30/2028				
001	FLOW	7/WEEK OR DAILY	CALCULATED	RAW WASTE - TOTAL
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	RAW WASTE - STORM WATER BASIN RETURN
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	RAW WASTE - STORM WATER BASIN INFLUENT
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	RAW WASTE - MECHANICAL PLANT INFLUENT
001	BIOCHEMICAL OXYGEN DEMAND (BOD5)	1 TIME PER WEEK	24 HOUR COMPOSITE	RAW WASTE
001	PH	1 TIME PER WEEK	GRAB	RAW WASTE
001	TEMPERATURE	1 TIME PER WEEK	GRAB	RAW WASTE
001	TOTAL SUSPENDED SOLIDS	1 EVERY 2 WEEKS	24 HOUR COMPOSITE	RAW WASTE
001	AMMONIA NITROGEN (N)	1 TIME PER WEEK	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
001	CBOD5	1 TIME PER WEEK	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
001	DISSOLVED OXYGEN	1 TIME PER WEEK	GRAB	EFFLUENT AFTER DISINFECTION
001	E. COLI	GEO. MEAN 1/3 MONTHS	GRAB	EFFLUENT AFTER DISINFECTION
001	PH	1 TIME PER WEEK	GRAB	EFFLUENT AFTER DISINFECTION
001	TEMPERATURE	1 TIME PER WEEK	GRAB	EFFLUENT AFTER DISINFECTION
001	TOTAL SUSPENDED SOLIDS	1 EVERY 2 WEEKS	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION

Facility Name: VAN HORNE CITY OF STP

Permit Number: 0685001

Special Monitoring Requirements

Outfall # **Description**

001 **FLOW**

To calculate the total raw waste flow: (TOTAL RAW WASTE FLOW = MECHANICAL PLANT INFLUENT + INFLUENT TO STORM WATER RETENTION BASIN - STORM WATER BASIN RETURN).

Mass calculations for BOD5, TSS, and TKN raw waste samples shall use the calculated total raw waste flow.

E. COLI

The limit for E. coli specified in the limit pages of this permit is a geometric mean. The disinfection season is established in the Iowa Administrative Code, Subparagraph 567 IAC 61.3(3)“a”(1), and is in effect from March 15 to November 15. Any disinfection system (chlorine, UV light, etc.) shall be operated to comply with the limit during the entire disinfection season.

The facility must collect and analyze a minimum of five samples in one calendar month during each 3-month period from March 15 to November 15. The 3-month periods are March – May, June – August, and September – November. The collection of five samples in each 3-month period will result in a minimum of 15 samples being collected during a calendar year. For example, for the first 3-month period, the operator may choose April as the calendar month to collect the 5 individual E. coli samples to determine compliance with the limits. The operator may also choose the months of March or May as well, as long as each of the 5 samples is collected during a single calendar month. The same principle applies to the other two 3-month periods during the disinfection season. The following requirements apply to the individual samples collected in one calendar month:

Samples must be spaced over one calendar month.
No more than one sample can be collected on any one day.
There must be a minimum of two days between each sample.
No more than two samples may be collected in a period of seven consecutive days.

If the effluent has been disinfected using chlorine, ultraviolet light (UV), or any other process intended to disrupt the biological integrity of the E. coli, the samples shall be analyzed using the Most Probable Number method found in Standard Method 9223B (Colilert® or Colilert-18® made by IDEXX Laboratories, Inc.). If the effluent has not been disinfected the samples may be analyzed using either the MPN method above or EPA Method 1603: Escherichia coli (E. coli) in water by membrane filtration using modified membrane-thermotolerant E. coli agar (modified mTEC) or mColiBlue-24® made by the Hach Company.

The geometric mean must be calculated using all valid sample results collected during a month. The geometric mean formula is as follows: Geometric Mean = (Sample one * Sample two * Sample three * Sample four *Sample five…Sample N)^(1/N), which is the Nth root of the result of the multiplication of all of the sample results where N = the number of samples. If a sample result is a less than value, the value reported by the lab without the less than sign should be used in the geometric mean calculation.

Facility Name: VAN HORNE CITY OF STP
Permit Number: 0685001

Significant Industrial User Discharges:

Significant Industrial User: BENTON COUNTY SWDC

Outfall # **Outfall Description**

001 **PRIOR TO DISCHARGE TO CITY SEWER**

Significant Industrial User Effluent Limitations

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

BENTON COUNTY SWDC ***Outfall: 001 Effective Dates: 05/01/2023 to 04/30/2028***			
Parameter	**Season**	**Limit Type**	**Limit Values**
FLOW			
	Yearly	30 Day Average	0.006 MGD
	Yearly	DAILY MAXIMUM	0.012 MGD
BIOCHEMICAL OXYGEN DEMAND (BOD5)			
	Yearly	30 Day Average	10.0 LBS/DAY
	Yearly	DAILY MAXIMUM	20.0 LBS/DAY
TOTAL SUSPENDED SOLIDS			
	Yearly	30 Day Average	10.0 LBS/DAY
	Yearly	DAILY MAXIMUM	20.0 LBS/DAY
AMMONIA NITROGEN (N)			
	Yearly	30 Day Average	10.0 LBS/DAY
	Yearly	DAILY MAXIMUM	20.0 LBS/DAY
NITROGEN, TOTAL KJELDAHL (AS N)			
	Yearly	30 Day Average	10.0 LBS/DAY
	Yearly	DAILY MAXIMUM	20.0 LBS/DAY
OIL AND GREASE			
	Yearly	30 Day Average	10.0 MG/L
	Yearly	DAILY MAXIMUM	15.0 MG/L

Facility Name: VAN HORNE CITY OF STP

Permit Number: 0685001

BENTON COUNTY SWDC ***Outfall: 001 Effective Dates: 05/01/2023 to 04/30/2028***			
Parameter	**Season**	**Limit Type**	**Limit Values**
PH			
	Yearly	DAILY MAXIMUM	10.0 STD UNITS
	Yearly	DAILY MINIMUM	6.0 STD UNITS

Facility Name: VAN HORNE CITY OF STP

Permit Number: 0685001

Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:
(1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
(2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

Facility Name: VAN HORNE CITY OF STP
Permit Number: 0685001

BENTON COUNTY SWDC				
Outfall	**Wastewater Parameter**	**Sample Frequency**	**Sample Type**	**Monitoring Location**
001	AMMONIA NITROGEN (N)	1 TIME PER WEEK	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	BIOCHEMICAL OXYGEN DEMAND (BOD5)	1 TIME PER WEEK	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	PRIOR TO DISCHARGE TO CITY SEWER
001	NITROGEN, TOTAL KJELDAHL (AS N)	1 EVERY MONTH	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	OIL AND GREASE	1 EVERY MONTH	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	PH	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	SANITARY LANDFILL LEACHATE	1 EVERY 12 MONTHS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	TOTAL SUSPENDED SOLIDS	1 EVERY 2 WEEKS	24 HOUR TOTAL	PRIOR TO DISCHARGE TO CITY SEWER

Facility Name: VAN HORNE CITY OF STP
Permit Number: 0685001

ADDITIONAL MONITORING REQUIREMENTS

BENTON COUNTY SOLID WASTE DISPOSAL COMMISSION

The permittee shall analyze a representative sample of the landfill leachate discharge from Benton County SWDC at least annually for each of the pollutants listed below. In addition, the permittee shall monitor the volume of waste discharged and BOD5, TSS, TKN, Ammonia Nitrogen, Oil and Grease at the frequencies specified on page 12 of this permit.

Pollutant
Biochemical Oxygen Demand (BOD5)
Total Suspended Solids
Ammonia Nitrogen (NH3-N)
Oil and Grease (O&G)
pH
Chloride (as Cl)
Sulfate (as SO4)
Arsenic, Total (as As)
Chromium, Total (as Cr)
Copper, Total (as Cu)
Iron, Total (as Fe)
Lead, Total (as Pb)
Nickel, Total (as Ni)
Selenium, Total (as Se)
Zinc, Total (as Zn)
Benzoic Acid
Chlorobenzene
Ethylbenzene
p-Cresol
Phenol
Toluene

The permittee will indicate completion of the annual leachate monitoring by entering a “1” in the “LEACHAT” column on the Discharge Monitoring Report (DMR) spreadsheet on the day that the samples are collected. Select the No Discharge Indicator “NOT REQUIRED/MP” on the DMR spreadsheet during the months that the monitoring is not required.

Results of annual monitoring shall be submitted to the addresses below:

NPDES.mail@dnr.iowa.gov
Subject: Landfill Leachate Scan (0685001)

Iowa DNR Field Office 1
1101 Commercial Ct, Suite 10
Manchester, IA 52057

Facility Name: VAN HORNE CITY OF STP

Permit Number: 0685001

Design Capacity

Design: 1

The design capacity for the treatment works is specified in Construction Permit Number 2002-109-S, issued January 14, 2002. The treatment plant is designed to treat:

* An average dry weather (ADW) flow of 0.12 Million Gallons Per Day (MGD).
* An average wet weather (AWW) flow of 0.387 Million Gallons Per Day (MGD).
* A maximum wet weather (MWW) flow of 1.36 Million Gallons Per Day (MGD).
* A design 5-day biochemical oxygen demand (BOD5) load of 204 lbs/day.
* A design Total Kjeldahl Nitrogen (TKN) load of 63 lbs/day.

Operator Certification Type/Grade: WW/II

Wastes in such volumes or quantities as to exceed the design capacity of the treatment works or reduce the effluent quality below that specified in the operation permit of the treatment works are considered to be a waste which interferes with the operation or performance of the treatment works and are prohibited by subrule IAC 567-62.1(7).

Facility Name: VAN HORNE CITY OF STP

Permit Number: 0685001

SEWAGE SLUDGE HANDLING AND DISPOSAL REQUIREMENTS

"Sewage sludge" is solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge does not include the grit and screenings generated during preliminary treatment.

1. The permittee shall comply with all existing Federal and State laws and regulations that apply to the use and disposal of sewage sludge and with technical standards developed pursuant to Section 405(d) of the Clean Water Act when such standards are promulgated. If an applicable numerical limit or management practice for pollutants in sewage sludge is promulgated after issuance of this permit that is more stringent than a sludge pollutant limit or management practice specified in existing Federal or State laws or regulations, this permit shall be modified, or revoked and reissued, to conform to the regulations promulgated under Section 405(d) of the Clean Water Act. The permittee shall comply with the limitation no later than the compliance deadline specified in the applicable regulations.

2. The permittee shall provide written notice to the Department of Natural Resources prior to any planned changes in sludge disposal practices.

3. Land application of sewage sludge shall be conducted in accordance with criteria established in rule IAC 567 67.1 through 67.11 (455B).

SIGNIFICANT INDUSTRIAL USER LIMITATIONS, MONITORING AND REPORTING REQUIREMENTS

1. You must enforce the pollutant limits for each significant industrial user that are listed elsewhere in this permit. Violation of a treatment agreement limit is prohibited by subrule 567 IAC 62.1(6). Monitoring of each significant industrial user is required elsewhere in this permit.

2. Monitoring of each significant industrial user is required elsewhere in this permit. Results of the required monitoring shall be included on your discharge monitoring report, which must be submitted by the fifteenth of the following month.

3. You are required to notify the department, in writing, of any of the following:

   (a) 180 days prior to the introduction of pollutants to your facility from a significant industrial user. A significant industrial user means an industrial user of a treatment works that:
      (1) Discharges an average of 25,000 gallons per day or more of process wastewater excluding sanitary, noncontact cooling and boiler blowdown wastewater;
      (2) Contributes a process waste stream which makes up five percent or more of the average dry weather hydraulic or organic capacity of the publicly-owned treatment works;
      (3) Is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or
      (4) Is designated by the department as a significant industrial user on the basis that the contributing industry, either singly or in combination with other contributing industries, has a reasonable potential for adversely affecting the operation of or effluent quality from the publicly-owned treatment works or for violating any pretreatment standards or requirements.

   (b) 60 days prior to a proposed expansion, production increase or process modification that may result in the discharge of a new pollutant or a discharge in excess of limitations stated in the existing treatment agreement.

   (c) 10 days prior to any commitment by you to accept waste from any new significant industrial user. Your written notification must include a new or revised treatment agreement in accordance with rule 64.3(5)(455B).

4. You shall require all users of your facility to comply with Sections 204(b), 307, and 308 of the Clean Water Act.

   (a) Section 204(b) requires that all users of the treatment works constructed with funds provided under Sections 201(g) or 601 of the Act to pay their proportionate share of the costs of operation, maintenance and replacement of the treatment works.

   (b) Section 307 of the Act requires users to comply with pretreatment standards promulgated by EPA for pollutants that would cause interference with the treatment process or would pass through the treatment works.

   (c) Section 308 of the Act requires users to allow access at reasonable times to state and EPA inspectors for the purpose of sampling the discharge and reviewing and copying records.

STANDARD CONDITIONS

1. **ADMINISTRATIVE RULES -** Rules of the Iowa Department of Natural Resources (department) that govern the operation of a facility in connection with this permit are published in Part 567 of the Iowa Administrative Code (IAC) in Chapters 60-65, 67, and 121. Reference to the term "rule" in this permit means the designated provision of Part 567 of the IAC. Reference to the term "CFR" means the Code of Federal Regulations.

2. **LIMIT DEFINITIONS -**
   (a) 7 day average means the arithmetic mean (average) of pollutant parameter values for samples collected in a period of seven consecutive days. The first 7-day period shall begin with the first day of the month. ***{567 IAC 60.2}***
   (b) 30 day average means the arithmetic mean of pollutant parameter values for samples collected in a period of 30 consecutive days. ***{567 IAC 60.2}***
   (c) Daily maximum means the total discharge by mass, volume, or concentration during a twenty-four hour period. ***{567 IAC 60.2}***

3. **MONITORING AND RECORDS OF OPERATION -**
   (a) Electronic reporting. Records of operation required by this permit shall be electronically submitted to the department within 15 days following the close of the monthly reporting period, in accordance with the monitoring requirements incorporated in this permit, unless an approval for paper submittal of records of operation has been obtained in accordance with 567 IAC 63.7(2).
   (b) Maintenance of records. You shall retain for a minimum of three years all paper and electronic records of monitoring activities and results including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records. ***{567 IAC 63.2(3)}***
   (c) Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than two years, or both. ***{40 CFR 122.41(j)(5)}***

4. **USE OF CERTIFIED LABORATORIES -** Analyses of wastewater, groundwater or sewage sludge that are required to be submitted as a result of this permit must be performed by a laboratory certified by the State of Iowa. Routine, on-site monitoring for pH, temperature, dissolved oxygen, total residual chlorine and other pollutants that must be analyzed immediately upon sample collection, physical measurements, and operational performance monitoring specified in 567 IAC 63.3(4) are excluded from this requirement. ***{567 IAC 63.1}***

5. **DUTY TO PROVIDE INFORMATION -** You must furnish to the director, within a reasonable time, any information the director may request to determine compliance with this permit or determine whether cause exists for amending, revoking and reissuing, or terminating this permit, in accordance with 567 IAC 64.3(11)"*c*". You must also furnish to the director, upon request, copies of any records required to be kept by this permit. If you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, you must promptly submit such facts or information. If you become aware that you failed to submit any relevant facts in any report to the director, including records of operation, you shall promptly submit such facts or information. ***{567 IAC 60.4(2)"a", 567 IAC 63.7(6), 40 CFR 122.41(h)}***

6. **DUTY TO REAPPLY AND PERMIT CONTINUATION -** If you wish to continue to discharge after the expiration date of this permit, you must file a complete application for reissuance at least 180 days prior to the expiration date of this permit. If a timely and sufficient application is submitted, this permit will remain in effect until the department makes a final determination on the permit application. ***{567 IAC 64.8(1), Iowa Code 17A.18}***

7. **DUTY TO COMPLY -** You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Iowa Code and the Clean Water Act and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Issuance of this permit does not relieve you of the responsibility to comply with all local, state and federal laws, ordinances, regulations or other legal requirements applying to the operation of your facility. ***{567 IAC 64.7(4)"E", 40 CFR 122.41(a)}***

8. **DUTY TO MITIGATE -** You shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. ***{567 IAC 64.7(7)"i", 40 CFR 122.41(d)}***

9. **PROPER OPERATION AND MAINTENANCE -** All facilities and control systems shall be operated as efficiently as possible and maintained in good working order. A sufficient number of staff, adequately trained and knowledgeable in the operation of your facility, shall be retained at all times. Adequate laboratory controls and appropriate quality assurance procedures shall be provided to maintain compliance with the conditions of this permit. ***{567 IAC 64.7(7)"f", 40 CFR 122.41(e)}***

10. **SIGNATORY REQUIREMENTS -** Applications, discharge monitoring reports, or other information submitted to the department in connection with this permit must be signed and certified in accordance with 567 IAC 64.3(8).

11. **TRANSFER OF TITLE OR OWNER ADDRESS CHANGE -** If title to your facility, or any part of it, is transferred, the new owner shall be subject to this permit. You are required to notify the new owner of the requirements of this permit in writing prior to any transfer of title. The department shall be notified in writing within 30 days of the occurrence. No transfer of the authorization to discharge from the facility represented by the permit shall take place prior to notifying the department of the transfer of title. Whenever the address of the owner is changed, the department shall be notified in writing within 30 days of the address change. ***{567 IAC 64.14}***

STANDARD CONDITIONS

12. **PERMIT MODIFICATION, SUSPENSION OR REVOCATION -** This permit may be amended, revoked and reissued, or terminated in whole or in part for cause including, but not limited to, those specified in 567 IAC 64.3(11)*"b"*. This permit may be modified due to conditions or information on which this permit is based, including any new standard the department may adopt that would change the required effluent limits. If a toxic pollutant is present in your discharge and more stringent standards for toxic pollutants are established under Section 307(a) of the Clean Water Act, this permit will be modified in accordance with the new standards. The filing of a request for a permit amendment, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. ***{567 IAC 64.3(11)"d", 64.7(7)"b" and "g", 40 CFR 122.62(a)(6)}***

13. **TWENTY-FOUR HOUR REPORTING -** You shall report any noncompliance that may endanger human health or the environment, including, but not limited to, violations of maximum daily limits for any toxic pollutant (listed as toxic in Section 307(a)(1) of the Clean Water Act) or hazardous substance (as designated in 40 CFR Part 116 pursuant to 311 of the Act). Information shall be provided orally to the appropriate regional field office of the department within 24 hours from the time you become aware of the circumstances. A written submission that includes a description of noncompliance and its cause; the period of noncompliance including exact dates and times; whether the noncompliance has been corrected or the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent a reoccurrence of the noncompliance must be provided to the appropriate field office within 5 days of the occurrence. ***{567 IAC 63.12, 40 CFR 122.41(l)(6)}***

14. **OTHER NONCOMPLIANCE -** You shall report all instances of noncompliance not reported under Condition #13 at the time discharge monitoring reports are submitted. The report shall contain the information listed in Condition #13. You shall give advance notice to the appropriate regional field office of the department of any planned activity which may result in noncompliance with permit requirements. Notice is required only when previous notice has not been given to any other section of the department. ***{567 IAC 63.7(5), 63.14 and 63.15, 40 CFR 122.41(l)(7)}***

15. **INSPECTION OF PREMISES, RECORDS, EQUIPMENT, METHODS AND DISCHARGES -** You are required to permit authorized personnel to:
    (a) Enter upon the premises where a regulated facility or activity is located or conducted or where records are kept under conditions of this permit;
    (b) Provide access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
    (c) Inspect, at reasonable times, any facilities, equipment, practices or operations regulated or required under this permit; and
    (d) Sample or monitor, at reasonable times, to assure compliance or as otherwise authorized by the Clean Water Act.
    {567 IAC 64.7(7)"c", 40 CFR 122.41(i)}

16. **NOTICE OF CHANGED CONDITIONS -** You are required to notify the director of any changes in existing conditions or information on which this permit is based, including, but not limited to, the following:
    (a) If your facility is a publicly owned treatment works (POTW) or otherwise accepts waste for treatment from an indirect discharger or industrial contributor, you must notify the director if there is any substantial change in the volume or character of pollutants being introduced to the POTW by an indirect discharger or industrial contributor. See 567 IAC 64.3(5) and 64.7(7)"*d*" for further requirements. ***{40 CFR 122.42(b)}***
    (b) If your facility has a manufacturing, commercial, mining, or silviculture discharge, you must notify the director as soon as you know or have reason to believe that any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in this permit. ***{40 CFR 122.42(a)}***
    (c) You must notify the director if you have begun or will begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant which was not reported in the permit application. *{**40 CFR 122.21(g)(9)}***

17. **PLANNED CHANGES -** You shall give notice to the appropriate regional field office of the department 30 days prior to any planned physical alterations or additions to the permitted facility. Facility expansions, production increases, or process modifications which result in new or increased discharges of pollutants must be reported by submission of a new permit application. If any modification of, addition to, or construction of a disposal system is to be made, you must first obtain a written construction permit from this department. In addition, no construction activity that will result in disturbance of one acre or more shall be initiated without first obtaining coverage under NPDES General Permit No. 2.
    Notice is required only when:
    (a) Notice has not been given to any other section of the department:
    (b) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as defined in 567 IAC 60.2;
    (c) The alteration or addition results in a significant change in sludge use or disposal practices; or
    (d) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in the permit.
    {567 IAC 63.13, 567 IAC 64.2 and 64.7(7)"a"}

18. **FAILURE TO SUBMIT FEES -** This permit may be revoked, in whole or in part, if the appropriate permit fees are not submitted within thirty (30) days of the date of notification that such fees are due. ***{567 IAC 64.16(1)}***

STANDARD CONDITIONS

19. BYPASSES - "Bypass" means the diversion of waste streams from any portion of a treatment facility or collection system. A bypass does not include internal operational waste stream diversions that are part of the design of the treatment facility, maintenance diversions where redundancy is provided, diversions of wastewater from one point in a collection system to another point in a collection system, or wastewater backups into buildings that are caused in the building lateral or private sewer line. ***{567 IAC 60.2)}***

(a) Prohibition. Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited, in accordance with 567 IAC 63.6(1). The department may not assess a civil penalty against a permittee for a bypass if the permittee has complied with all of the following:

i. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

iii. The permittee submitted notices as required by 567 IAC 63.6.

(b) Anticipated bypass. Except for bypasses that occur as a result of mechanical failure or acts beyond the control of the owner or operator of a waste disposal system (unanticipated bypasses), the owner or operator shall obtain written permission from the department prior to any discharge of sewage or wastes from a waste disposal system not authorized by this permit. The Director may approve an anticipated bypass after considering its adverse effects if the Director determines that it will meet the three conditions listed above and a request for bypass has been submitted to the appropriate regional field office of the department at least ten days prior to the expected event, in accordance with the requirements listed in 567 IAC 63.6(2).

(c) Unanticipated bypass. In the event that a bypass or upset occurs without prior notice having been provided pursuant to 567 IAC 63.6(2) or as a result of mechanical failure or acts beyond the control of the owner or operator, the owner or operator of the treatment facility or collection system shall notify the department by telephone as soon as possible but not later than 24 hours after the onset or discovery in accordance with the requirements in 567 IAC 63.6(3). A written submission describing the bypass shall also be provided within five days of the time the permittee becomes aware of the bypass, in accordance with the requirements in 567 IAC 63.6(3)"*d*".

(d) Reporting. Bypasses shall be reported in accordance with 567 IAC 63.6.

{567 IAC 63.6}

20. UPSETS - "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(a) Effect of an upset. An upset constitutes an affirmative defense to the assessment of a civil penalty for noncompliance with technology-based permit effluent limitations if the requirements of paragraph (b) of this condition are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(b) Conditions necessary for demonstration of an upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed operating logs or other relevant evidence, that;

i. An upset occurred and that the permittee can identify the cause(s) of the upset;

ii. The permitted facility was at the time being properly operated;

iii. The permittee submitted notice of the upset to the department in accordance with 567 IAC 63.6(3); and

iv. The permittee complied with any remedial measures required by the department in accordance with 567 IAC 63.6(6)"*b*"(4).

(c) Burden of Proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

{567 IAC 63.6}

21. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. ***{567 IAC 64.7(7)"j", 40 CFR 122.41(c)}***

22. PROPERTY RIGHTS - This permit does not convey any property rights of any sort or any exclusive privilege. ***{567 IAC 64.4(3)"b", 40 CFR 122.41(g)}***

23. EFFECT OF A PERMIT - Compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301, 302, 306, 307, 318, 403 and 405(a)-(b) of the Clean Water Act, and equivalent limitations and standards set out in 567 IAC Chapters 61 and 62. ***{567 IAC 64.4(3)"a"}***

24. SEVERABILITY - The provisions of this permit are severable. If any provision or application of any provision to any circumstance is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding.

Appendix G.2-
Leachate Treatment Agreement with Vinton

Print Form

IOWA DEPARTMENT OF NATURAL RESOURCES
TREATMENT AGREEMENT FORM

DNR USE ONLY
NPDES NO.
IND. CONT. AGREEMENT NO.
REPLACES AGREEMENT NO.

NOTICE

A properly executed Treatment Agreement must be submitted by the industrial user not less than one hundred eighty (180) days before the new significant industrial user proposes to discharge into a wastewater disposal system. Any proposed expansion, production increase, or process modification that may result in any change to a previous Treatment Agreement requires execution of a new Treatment Agreement.

SIGNIFICANT INDUSTRIAL USER		SYSTEM RECEIVING WASTE	
NAME Benton County Sanitary Landfill		NAME Vinton Water Pollution Control Facility	
MAILING ADDRESS 7904 20th Ave., Blairstown, Iowa 52209		MAILING ADDRESS City of Vinton P.O. Box 529 Vinton, Iowa 52349	
AUTHORIZED REPRESENTATIVE Eric Werner	PHONE NO. 319-454-6392	AUTHORIZED REPRESENTATIVE Chris Ward	PHONE NO. 319-472-4707

CERTIFICATION OF INDUSTRIAL USER

I am the duly authorized representative for the significant industrial user identified above and state that the proposed discharge to the system receiving waste identified above shall not exceed the quantities listed on page two of this form after:

EFFECTIVE DATE: Nov 1, 2019

I further assure that notice of any anticipated increase in pollutants contributed shall be given to the owner of the system identified above sufficiently in advance of such increase to allow this contributor to submit a new treatment agreement to the Department of Natural Resources no later than sixty days in advance of the increase or change.

TYPED OR PRINTED NAME	TITLE	SIGNATURE	DATE
ERIC WERNER	Landfill Manager	[signature]	11-1-2019

CERTIFICATION OF SYSTEM RECEIVING WASTE

I am the duly authorized representative for the facility owner named above and state that the owner agrees to accept the discharge described on page two from the contractor identified above, and accepts responsibility for providing treatment of the volume and quantities described on the reverse in accordance with the provisions of Chapter 455B, Code of Iowa, and the rules of the Department of Natural Resources. This agreement is conditioned on the industrial contributor complying with all applicable standards and requirements of the Department of Natural Resources and the United State Environmental Protection Agency. This agreement is entered for the purpose of identifying pollutants contributed and limiting the quantity contributed, and shall not otherwise be construed to affect local ordinances, sewer service agreements or fee systems entered into between the parties.

This agreement may be modified or terminated by the owner of the disposal system if additional pollutants or additional quantities or volumes of pollutants are contributed other than identified on the reverse, or because of any condition that requires either a temporary or permanent reduction or elimination of the accepted contribution.

TYPED OR PRINTED NAME	TITLE	SIGNATURE	DATE
Chris Ward	City Administrator	[signature]	11-4-19

TREATMENT AGREEMENT FORM

1. PROCESS DESCRIPTION

SPECIFIC MANUFACTURING PROCESS	SIC CODES
Leachate from Benton County Sanitary Landfill	4953

CONSUMPTION		PRODUCTION	
PRINCIPAL RAW MATERIAL	AMOUNT CONSUMED PER DAY	PRINCIPAL PRODUCTS	AMOUNT PRODUCED PER DAY

2. HOURLY MAXIMUM FLOW CONTRIBUTION	3. DAYS OF OPERATION PER WEEK	4. HOURS OF OPERATION DURING PEAK DAY OF OPERATION	5. RANGE OF pH LEVEL IN CONTRIBUTION	
			MINIMUM	MAXIMUM
6,500	7 days	12 hrs	6.7	8.9

6. DESCRIPTION OF PRETREATMENT PROVIDED

7. DESCRIPTION OF ANY BATCH OR PERIODIC DISCHARGES

The Benton County Sanitary Landfill hauls leachate to the Vinton Water Pollution Control Facility as necessary, depending on when the Landfill Lagoon needs to be emptied. Each load contains about 6,500 gallons. The maximum number of loads is not expected to exceed 5 loads per day.

8. COMPATIBLE WASTE IN CONTRIBUTION

WASTEWATER PARAMETER	AVERAGE	MAXIMUM	WASTEWATER PARAMETER	AVERAGE	MAXIMUM
Flow (MGD)	.03	.05	Ammonia Nitrogen (lbs/day)	50.0	105.0
BOD5 (lbs/day)	75.0	210.0	Oil and Grease (mg/l)	12.0	42.0
Total Suspended Solids (lbs/day)	75.0	210.0			
Total Kjeldahl Nitrogen (lbs/day)	50.0	105.0			

9. INCOMPATIBLE WASTE IN CONTRIBUTION

WASTEWATER PARAMETER	AVERAGE		MAXIMUM	
	mg/l	lbs/day	mg/l	lbs/day

Appendix G.3 –
Laboratory Testing

Landfill Leachate Lab Bench Sheet 2023

Influent BOD-5 Date In: 3-23 Date Out: 3-27
Time In: 11:00 Time Out: 8:00

Bottle No:	ML. Sample	IDO:	FDO:	CBOD-5
5	20	9.55	8.83	—
6	40	9.73	8.51	—
7	80	9.94	7.68	8.5

Avg. CBOD-5 8.5 Mg/l

Inf. TSS ML of Sample: 100 Date: 3-23 Time In: 9:15 Time Out:

Sample #	I.W.	F.W.	Mg/l
I 1	.5012	.5029	17
I 2	.4999	.5023	24

Avg. 21 Mg/l

Nitrogen Ammonia Date: 3-22
ML of Sample: 280
N-Titration: 0 TO 2
Eff N. 2.0 Mg/l

TNT 3.27

Temp, P.H., D.O. and S.S. are Grab samples. Date: 3-23 Time:
Temp. Raw 6° C P.H. Raw 8.12 Raw S.S.

D.O. Raw 11.51

P.H. Meter Calibration 4.0, 7.0, 10.0 Buffer ✓ Check if Completed

Analyst responsible for above information:

Landfill Leachate Lab Bench Sheet 2023

Influent BOD-5 Date In: 6-14 Date Out: 6-19
Time In: 2:30 Time Out: 7:30

Bottle No:	ML. Sample	IDO:	FDO:	CBOD-5
5	8	9.11	6.74	89
6	10	9.03	5.87	95
7	20	8.76	2.40	95

Avg. CBOD-5 93 Mg/l

Inf. TSS ML of Sample: 100 Date: 6-14 Time In: 1:00 Time Out: 8:30

Sample #	I.W.	F.W.	Mg/l
A-1	.5016	.5129	113
A-2	.5101	.5217	116

Avg. 115 Mg/l

Nitrogen Ammonia Date: 6-14
ML of Sample: 280
N-Titration: 0 TO 150
Eff N. 150 Mg/l

Temp,P.H., D.O.and S.S. are Grab samples. Date: Time:
Temp. Raw _____C P.H. Raw_____ Raw S.S._____

D.O. Raw

P.H. Meter Calibration 4.0,7.0,10.0 Buffer ☑ Check if Completed

Analyst responsible for above information:

Keystone LABORATORIES, INC.

MEMBER ACIL

ANALYTICAL REPORT

June 20, 2023

Work Order: 2GF0150

Report To	Work Order Information
Jared Vogeler Jared Vogeler - Van Horne PO Box 21 Van Horne, IA 52346	Date Received: 06/07/2023 9:38AM Collector: Jared Phone: 319-560-8320 PO Number: Van Horne

Project : Wastewater Analysis
Project Number: NPDES

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
2GF0150-01 Leachate				Matrix:Water		Collected: 06/07/23 08:00	
						Sample Qualifier: PH-3	
Oil and Grease	<4mg/L	4	1GF0746	EPA 1664A	RMC	06/15/23 14:58	
Nitrogen, Kjeldahl, total	**392mg/L**	**12.5**	1GF0583	EPA 351.2	AKK	06/12/23 15:30	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL= Method Reporting Limit.

Landfill Leachate Lab Bench Sheet 2023

Influent BOD-5 Date In: 11-1 Date Out: 11-6
Time In: 11:30 Time Out: 7:30

Bottle No:	ML. Sample	IDO:	FDO:	CBOD-5
5	8	9.35	6.09	122
6	20	9.23	2.03	108
7	50	8.83	—	

Avg. CBOD-5 115 Mg/l

Inf. TSS ML of Sample: 100 Date: 11-1 Time In: 10:30 Time Out:

Sample #	I.W.	F.W.	Mg/l
A-1	.4967	.5182	215
A-2	.4952	.5118	166

Avg. 191 Mg/l

Nitrogen Ammonia Date: 11-1
ML of Sample: 280
N-Titration: 0 TO 146
Eff N. 146 Mg/l

Temp,P.H., D.O.and S.S. are Grab samples. Date: Time:
Temp. Raw 10° C P.H. Raw 7.44 Raw S.S. —

D.O. Raw 5.46

P.H. Meter Calibration 4.0,7.0,10.0 Buffer ✓ Check if Completed

Analyst responsible for above information: J. Vann

Landfill Leachate Lab Bench Sheet 2023

Influent BOD-5 Date In: 11-8 Date Out: 11-13
Time In: 11:30 Time Out: 7:30

Bottle No:	ML. Sample	IDO:	FDO:	CBOD-5
5	15	8.56	5.52	67
6	20	8.81	4.40	66
7	25	8.80	3.04	69

Avg. CBOD-5 67 Mg/l

Inf. TSS ML of Sample: 100 Date: 11-8 Time In: 10:00 Time Out: 8:00

Sample #	I.W.	F.W.	Mg/l
A-1	.4935	.5393	458
[illegible]	[illegible]	[illegible]	

Avg. 458 Mg/l

Nitrogen Ammonia Date: 11-8
ML of Sample: 280
N-Titration: 0 TO 185.5
Eff N. 185.5 Mg/l

Temp,P.H., D.O.and S.S. are Grab samples. Date: Time:
Temp. Raw 10° C P.H. Raw 7.38 Raw S.S. —

D.O. Raw 6.03

P.H. Meter Calibration 4.0,7.0,10.0 Buffer ☑ Check if Completed

Analyst responsible for above information: Nam

Landfill Leachate Lab Bench Sheet 2023

Influent BOD-5 Date In: 11-15 Date Out: 11-20
Time In: 10:30 Time Out: 7:30

Bottle No:	ML. Sample	IDO:	FDO:	CBOD-5
5	15	9.93	7.81	42
6	20	9.87	6.76	47
7	25	9.75	5.87	47

Avg. CBOD-5 45 Mg/l

Inf. TSS ML of Sample: 100 Date: Time In: 11:30 Time Out: 7:30

Sample #	I.W.	F.W.	Mg/l
A-1	.4968	.5147	179
A-2	.4967	.5220	253

Avg. 216 Mg/l

Nitrogen Ammonia Date: 11-15
ML of Sample: 280
N-Titration: 0 TO 174
Eff N. 174 Mg/l

Temp,P.H., D.O.and S.S. are Grab samples. Date: Time: —
Temp. Raw 80 C P.H. Raw 7.4 Raw S.S. _____

D.O. Raw 5.08

P.H. Meter Calibration 4.0,7.0,10.0 Buffer ✓ Check if Completed

Analyst responsible for above information: [signature]

Landfill Leachate Lab Bench Sheet 2023

Influent BOD-5 Date In: 11-23 Date Out: 11-27
Time In: 11:00 Time Out: 10:00

Bottle No:	ML. Sample	IDO:	FDO:	CBOD-5
5	15	9.20	5.49	74
6	20	9.10	3.88	78
7	25	9.00	2.21	81

Avg. CBOD-5 78 Mg/l

Inf. TSS ML of Sample: 100 Date: 11-23 Time In: 8:00 Time Out:

Sample #	I.W.	F.W.	Mg/l
A-1	.5007	.5116	109
A-2	.5008	.5117	109

Avg. 109 Mg/l

Nitrogen Ammonia Date: 11-22
ML of Sample: 25
N-Titration: 0 TO 167.5
Eff N. 167.5 Mg/l

Temp,P.H., D.O.and S.S. are Grab samples. Date: Time:
Temp. Raw 90 C P.H. Raw 7.68 Raw S.S. —

D.O. Raw 5.22

P.H. Meter Calibration 4.0,7.0,10.0 Buffer [✓] Check if Completed

Analyst responsible for above information:

Landfill Leachate Lab Bench Sheet 2023

Influent BOD-5 Date In: 11-29 Date Out: 12-4
Time In: 1:00 Time Out: 7:36

Bottle No:	ML. Sample	IDO:	FDO:	CBOD-5
14	15	9.55	5.41	83
15	20	9.44	4.36	76
16	25	9.39	4.06	64

Avg. CBOD-5 74 Mg/l

Inf. TSS ML of Sample: 100 Date: 11-29 Time In: 12:30 Time Out: 7:15

Sample #	I.W.	F.W.	Mg/l
A-1	.4933	.5150	217
A-2	.4979	.5431	452

Avg. 335 Mg/l

Nitrogen Ammonia Date: 11-2e
ML of Sample: 28
N-Titration: 0 TO 278.5
Eff N. 278.5 Mg/l

Temp,P.H., D.O.and S.S. are Grab samples. Date: Time:
Temp. Raw 110 C P.H. Raw 7.36 Raw S.S.

D.O. Raw 5.11

P.H. Meter Calibration 4.0,7.0,10.0 Buffer ☐ Check if Completed

Analyst responsible for above information:

0-50
0-50
0-50
0-50
0-50
0-18.5

Keystone LABORATORIES
A Microbac Company

Keystone Laboratories - Waterloo

CERTIFICATE OF ANALYSIS

2GK0400

City of Van Horne

Jared Vogeler
114 Main St
Van Horne, IA 52346

Project Name: Wastewater

Project / PO Number: / [none]
Received: 11/15/2023
Reported: 12/05/2023

Work Order Special Information

Jared

Analytical Testing Parameters

Client Sample ID:	Leachate		
Sample Matrix:	Water	**Collected By:**	Jared
Lab Sample ID:	2GK0400-01	**Collection Date:**	11/15/2023 8:00

Analyses Performed by: Keystone Laboratories - Newton

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 1664A								
Oil and Grease	<4	4	mg/L	1	**PH-3**	11/29/23 1052	11/30/23 1732	SAA
EPA 351.2								
Nitrogen, Kjeldahl, total	**220**	12.5	mg/L	10			11/28/23 0952	AKK

Definitions

PH-3: Insufficient preservative to adjust the sample pH to less than 2, value measured at 7 pH units.
RL: Reporting Limit

Report Comments

Reviewed and Approved By:

Olivia Weber

Olivia Weber
Customer Service Assoc.
12/05/23 08:46

Landfill Leachate Lab Bench Sheet 2024

Influent BOD-5 Date In: 12-6 Date Out: 12-11
Time In: 4:00 Time Out: 12:30

Bottle No:	ML. Sample	IDO:	FDO:	CBOD-5
24	15	9.35	6.61	55
59	20	9.30	5.58	56
77	25	9.28	4.42	58

Avg. CBOD-5 56 Mg/l

Inf. TSS ML of Sample: 100 Date: 12-6 Time In: 1:00 Time Out: 8:30

Sample #	I.W.	F.W.	Mg/l
A-1	.5012	.5107	95
A-2	.5028	.5110	82

Avg. 89 Mg/l

Nitrogen Ammonia Date: 12-6
ML of Sample: 28C
N-Titration: 0 TO 137.5
Eff N. 137.5 Mg/l

Temp,P.H., D.O.and S.S. are Grab samples. Date: Time:
Temp. Raw 50 C P.H. Raw 7.54 Raw S.S.

D.O. Raw 6.58

P.H. Meter Calibration 4.0,7.0,10.0 Buffer ☐ Check if Completed

Analyst responsible for above information: J Voyn

Keystone LABORATORIES
A Microbac Company

Keystone Laboratories - Waterloo

CERTIFICATE OF ANALYSIS

2GK0400

City of Van Horne

Jared Vogeler
114 Main St
Van Horne, IA 52346

Project Name: Wastewater

Project / PO Number: / [none]
Received: 11/15/2023
Reported: 12/05/2023

Work Order Special Information

Jared

Analytical Testing Parameters

Client Sample ID:	Leachate		
Sample Matrix:	Water	**Collected By:**	Jared
Lab Sample ID:	2GK0400-01	**Collection Date:**	11/15/2023 8:00

Analyses Performed by: Keystone Laboratories - Newton

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 1664A								
Oil and Grease	<4	4	mg/L	1	**PH-3**	11/29/23 1052	11/30/23 1732	SAA
EPA 351.2								
Nitrogen, Kjeldahl, total	**220**	12.5	mg/L	10			11/28/23 0952	AKK

Definitions

PH-3: Insufficient preservative to adjust the sample pH to less than 2, value measured at 7 pH units.
RL: Reporting Limit

Report Comments

Reviewed and Approved By:

Olivia Weber

Olivia Weber
Customer Service Assoc.
12/05/23 08:46

ANALYTICAL REPORT

April 07, 2023

Work Order: 1GC2150

Report To	Work Order Information
Todd Whipple	Date Received: 3/22/2023 11:46:00AM
HLW Engineering	Collector: Unknown
PO Box 314	Phone: (515) 733-4144
Story City, IA 50248	PO Number:

Project: Benton Co. Landfill - Leachate

Project Number: Leachate

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC2150-01				Matrix: Water		Collected: 03/22/23 10:20	
Dibromochloromethane	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Chloromethane	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Vinyl Chloride	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Bromomethane	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Chloroethane	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Methylene Chloride	<5.0 ug/L	5.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Chloroform	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Benzene	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Trichloroethylene	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Bromodichloromethane	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
2-Chloroethylvinyl ether	<10.0 ug/L	10.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Toluene	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Tetrachloroethylene	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Chlorobenzene	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Ethylbenzene	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Bromoform	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC2150

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC2150-01				Matrix: Water	Collected:	03/22/23 10:20	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0147	EPA 624	MSV	04/04/23 20:02	
Surrogate: 1,2-Dichloroethane-d4	*97.9 %*			*66-134*	MSV	04/04/23 20:02	
Surrogate: Toluene-d8	*104 %*			*91-113*	MSV	04/04/23 20:02	
Surrogate: 4-Bromofluorobenzene	*105 %*			*83-112*	MSV	04/04/23 20:02	
Bis(2-Chloroethyl) Ether	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
2-Chlorophenol	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
1,3-Dichlorobenzene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
1,4-Dichlorobenzene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Benzyl Alcohol	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
1,2-Dichlorobenzene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Bis[2-Chloroisopropyl]ether	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
n-Nitroso-di-n-propylamine	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Hexachloroethane	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Nitrobenzene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Isophorone	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
2-Nitrophenol	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
2,4-Dimethylphenol	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Bis (2-Chloroethoxy) Methane	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Benzoic acid	<50 ug/L	50	1GC1489	EPA 625	EPP	03/29/23 21:27	
2,4-Dichlorophenol	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
1,2,4-Trichlorobenzene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Naphthalene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Hexachlorobutadiene	<20 ug/L	20	1GC1489	EPA 625	EPP	03/29/23 21:27	
4-Chloro-3-methylphenol	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Hexachlorocyclopentadiene	<20 ug/L	20	1GC1489	EPA 625	EPP	03/29/23 21:27	
2,4,6-Trichlorophenol	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
2,4,5-Trichlorophenol	<50 ug/L	50	1GC1489	EPA 625	EPP	03/29/23 21:27	
2-Chloronaphthalene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Dimethylphthalate	<15 ug/L	15	1GC1489	EPA 625	EPP	03/29/23 21:27	
Acenaphthylene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
2,6-Dinitrotoluene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Acenaphthene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
2,4-Dinitrophenol	<20 ug/L	20	1GC1489	EPA 625	EPP	03/29/23 21:27	
Dibenzofuran	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
2,4-Dinitrotoluene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
4-Nitrophenol	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Diethyl Phthalate	<30 ug/L	30	1GC1489	EPA 625	EPP	03/29/23 21:27	
Fluorene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC2150

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC2150-01				Matrix: Water		Collected: 03/22/23 10:20	
4-Chlorophenyl Phenyl Ether	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
4,6-Dinitro-2-methylphenol	<20 ug/L	20	1GC1489	EPA 625	EPP	03/29/23 21:27	
N-Nitrosodiphenylamine	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
4-Bromophenyl Phenyl Ether	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Hexachlorobenzene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Pentachlorophenol	<20 ug/L	20	1GC1489	EPA 625	EPP	03/29/23 21:27	
Phenanthrene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Anthracene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Di-n-butyl Phthalate	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Fluoranthene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Pyrene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Butyl Benzyl Phthalate	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Benzo(a)anthracene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Chrysene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Bis(2-Ethylhexyl) Phthalate	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Di-n-octyl Phthalate	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Indeno(1,2,3-cd)Pyrene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
3,3´-Dichlorobenzidine	<20 ug/L	20	1GC1489	EPA 625	EPP	03/29/23 21:27	
Benzo(b)Fluoranthene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Benzo(k)Fluoranthene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Benzo(a)Pyrene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Dibenzo(a,h)anthracene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Benzo(g,h,i)perylene	<10 ug/L	10	1GC1489	EPA 625	EPP	03/29/23 21:27	
Surrogate: 2-Fluorophenol	*75.1 %*			*19-139*	EPP	03/29/23 21:27	
Surrogate: Phenol-d6	*69.1 %*			*14-154*	EPP	03/29/23 21:27	
Surrogate: Nitrobenzene-d5	*72.6 %*			*17-146*	EPP	03/29/23 21:27	
Surrogate: 2-Fluorobiphenyl	*63.7 %*			*18-122*	EPP	03/29/23 21:27	
Surrogate: 2,4,6-Tribromophenol	*83.3 %*			*21-151*	EPP	03/29/23 21:27	
Surrogate: Terphenyl-dl4	*93.3 %*			*27-131*	EPP	03/29/23 21:27	
Gamma-BHC [Lindane]	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
Beta-BHC	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
Heptachlor	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
Delta-BHC	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
Aldrin	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
Heptachlor Epoxide	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
Endosulfan I	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
4,4`-DDE	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
Dieldrin	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	

HLW Engineering
PO Box 314
Story City, IA 50248

April 07, 2023
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Work Order: 1GC2150

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GC2150-01				Matrix: Water		Collected: 03/22/23 10:20	
Endrin	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
4,4`-DDD	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
Endosulfan II	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
4,4`-DDT	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
Endrin Aldehyde	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
Endosulfan Sulfate	<0.05 ug/L	0.05	1GC1365	EPA 608	EPP	03/29/23 16:14	
Chlordane	<0.10 ug/L	0.10	1GC1365	EPA 608	EPP	03/29/23 16:14	
Toxaphene	<0.20 ug/L	0.20	1GC1365	EPA 608	EPP	03/29/23 16:14	
Arochlor 1016	<0.10 ug/L	0.10	1GC1365	EPA 608	EPP	03/29/23 16:14	
Arochlor 1221	<0.20 ug/L	0.20	1GC1365	EPA 608	EPP	03/29/23 16:14	
Arochlor 1232	<0.20 ug/L	0.20	1GC1365	EPA 608	EPP	03/29/23 16:14	
Arochlor 1242	<0.20 ug/L	0.20	1GC1365	EPA 608	EPP	03/29/23 16:14	
Arochlor 1248	<0.20 ug/L	0.20	1GC1365	EPA 608	EPP	03/29/23 16:14	
Arochlor 1254	<0.10 ug/L	0.10	1GC1365	EPA 608	EPP	03/29/23 16:14	
Arochlor 1260	<0.10 ug/L	0.10	1GC1365	EPA 608	EPP	03/29/23 16:14	
Surrogate: Tetrachloro-m-xylene	*65.2 %*			*30-119*	EPP	03/29/23 16:14	
Surrogate: Decachlorobiphenyl	*63.3 %*			*19-120*	EPP	03/29/23 16:14	
BOD (5 day)	**7 mg/L**	**4**	1GC1140	SM 5210 B	LAE	03/23/23 9:00	
Nitrogen, Ammonia	**2.48 mg/L**	**0.10**	1GD0113	TIMBERLINE	TJB	04/04/23 14:15	
pH	**8.0 pH**	**0.5**	1GC1256	SM 4500 H+ B	BSS	03/24/23 10:42	I-03
Solids, total dissolved	**855 mg/L**	**5**	1GC1404	USGS I-1750-85	MEAH	03/29/23 10:15	
Total Organic Carbon	**28.9 mg/L**	**5.00**	1GC1467	5310B	LNH	03/27/23 16:27	
Solids, total suspended	**7 mg/L**	**2**	1GC1483	USGS I-3765-85	MEAH	03/29/23 13:22	
Silver, total	<0.0020 mg/L	0.0020	1GC1184	EPA 200.8	RVV	03/24/23 3:25	
Arsenic, total	**0.0039 mg/L**	**0.0020**	1GC1184	EPA 200.8	RVV	03/24/23 3:25	
Barium, total	**0.109 mg/L**	**0.0020**	1GC1184	EPA 200.8	RVV	03/24/23 3:25	
Cadmium, total	<0.0002 mg/L	0.0002	1GC1184	EPA 200.8	RVV	03/24/23 3:25	
Chromium, total	<0.0020 mg/L	0.0020	1GC1184	EPA 200.8	RVV	03/24/23 3:25	
Copper, total	<0.0020 mg/L	0.0020	1GC1184	EPA 200.8	RVV	03/24/23 3:25	
Iron, total	**0.586 mg/L**	**0.100**	1GC1171	200.7	JAR	03/23/23 23:52	
Mercury, total	<0.00050 mg/L	0.00050	1GC1159	245.1	JAR	03/24/23 14:31	
Nickel, total	**0.0244 mg/L**	**0.0040**	1GC1184	EPA 200.8	RVV	03/24/23 3:25	
Lead, total	<0.0008 mg/L	0.0008	1GC1184	EPA 200.8	RVV	03/24/23 3:25	
Selenium, total	<0.0040 mg/L	0.0040	1GC1184	EPA 200.8	RVV	03/24/23 3:25	
Zinc, total	<0.0200 mg/L	0.0200	1GC1184	EPA 200.8	RVV	03/24/23 3:25	

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Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GD0147 - EPA 5030B										
Blank (1GD0147-BLK1)				Prepared & Analyzed: 04/04/23						
Surrogate: 1,2-Dichloroethane-d4	*56.5*		*ug/L*	*50.4080*		*112*	*66-134*			
Surrogate: Toluene-d8	*50.6*		*"*	*50.2360*		*101*	*91-113*			
Surrogate: 4-Bromofluorobenzene	*54.6*		*"*	*50.4200*		*108*	*83-112*			
Chloromethane	ND	1.0	"							
Vinyl Chloride	ND	1.0	"							
Bromomethane	ND	1.0	"							
Chloroethane	ND	1.0	"							
1,1-Dichloroethylene	ND	1.0	"							
Methylene Chloride	ND	5.0	"							
trans-1,2-Dichloroethylene	ND	1.0	"							
1,1-Dichloroethane	ND	1.0	"							
cis-1,2-Dichloroethylene	ND	1.0	"							
Chloroform	ND	1.0	"							
1,1,1-Trichloroethane	ND	1.0	"							
Carbon Tetrachloride	ND	1.0	"							
Benzene	ND	1.0	"							
1,2-Dichloroethane	ND	1.0	"							
Trichloroethylene	ND	1.0	"							
1,2-Dichloropropane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
2-Chloroethylvinyl ether	ND	10.0	"							
cis-1,3-Dichloropropene	ND	1.0	"							
Toluene	ND	1.0	"							
trans-1,3-Dichloropropene	ND	1.0	"							
1,1,2-Trichloroethane	ND	1.0	"							
Tetrachloroethylene	ND	1.0	"							
Dibromochloromethane	ND	1.0	"							
Chlorobenzene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Bromoform	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							

HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC2150

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GD0147 - EPA 5030B										
LCS (1GD0147-BS1)				Prepared & Analyzed: 04/04/23						
Surrogate: Dibromofluoromethane	*55.2*		*ug/L*	*50.3520*		*110*	*79-129*			
Surrogate: 1,2-Dichloroethane-d4	*57.1*		*"*	*50.4080*		*113*	*66-134*			
Surrogate: Toluene-d8	*51.0*		*"*	*50.2360*		*102*	*91-113*			
Surrogate: 4-Bromofluorobenzene	*54.2*		*"*	*50.4200*		*107*	*83-112*			
Chloromethane	43.38	1.0	"	30.0000		145	63-145			
Vinyl Chloride	35.70	1.0	"	30.0000		119	68-145			
Bromomethane	31.11	1.0	"	30.0000		104	69-150			
Chloroethane	31.56	1.0	"	30.0000		105	74-134			
1,1-Dichloroethylene	63.53	1.0	"	50.0000		127	76-139			
Methylene Chloride	48.57	5.0	"	50.0000		97.1	67-141			
trans-1,2-Dichloroethylene	62.38	1.0	"	50.0000		125	71-137			
1,1-Dichloroethane	55.01	1.0	"	50.0000		110	72-130			
cis-1,2-Dichloroethylene	56.18	1.0	"	50.0000		112	81-134			
2-Butanone (MEK)	106.8	10.0	"	106.200		101	44-158			
Chloroform	60.91	1.0	"	50.0000		122	76-132			
1,1,1-Trichloroethane	54.40	1.0	"	49.9750		109	65-122			
Carbon Tetrachloride	63.39	1.0	"	50.0000		127	66-132			
Benzene	54.27	1.0	"	50.0000		109	77-130			
1,2-Dichloroethane	54.59	1.0	"	50.0000		109	75-124			
Trichloroethylene	49.51	1.0	"	50.0000		99.0	79-126			
1,2-Dichloropropane	51.34	1.0	"	50.0000		103	79-128			
Dibromomethane	57.48	1.0	"	50.0000		115	71-139			
Bromodichloromethane	50.66	1.0	"	50.0000		101	76-122			
2-Chloroethylvinyl ether	189.2	10.0	"	103.500		183	50-169			QS-02
cis-1,3-Dichloropropene	50.65	1.0	"	50.3250		101	74-122			
Toluene	51.51	1.0	"	50.0000		103	76-128			
trans-1,3-Dichloropropene	54.45	1.0	"	50.4250		108	73-125			
1,1,2-Trichloroethane	54.22	1.0	"	50.0000		108	74-126			
Tetrachloroethylene	39.19	1.0	"	50.0000		78.4	68-124			
Dibromochloromethane	52.54	1.0	"	49.5000		106	76-125			
Chlorobenzene	48.45	1.0	"	50.0000		96.9	77-120			
Ethylbenzene	48.75	1.0	"	50.0000		97.5	76-118			
Xylenes, total	148.4	2.0	"	150.000		98.9	74-121			
Bromoform	58.14	1.0	"	50.0000		116	68-128			
1,1,2,2-Tetrachloroethane	49.97	1.0	"	49.8500		100	62-128			
1,3-Dichlorobenzene	48.49	1.0	"	50.0000		97.0	72-123			
1,4-Dichlorobenzene	44.19	1.0	"	50.0000		88.4	75-120			
1,2-Dichlorobenzene	48.14	1.0	"	50.0000		96.3	72-121			

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC2150

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GD0147 - EPA 5030B										
LCS Dup (1GD0147-BSD1)				Prepared & Analyzed: 04/04/23						
Surrogate: Dibromofluoromethane	*52.7*		*ug/L*	*50.3520*		*105*	*79-129*			
Surrogate: 1,2-Dichloroethane-d4	*56.6*		*"*	*50.4080*		*112*	*66-134*			
Surrogate: Toluene-d8	*54.0*		*"*	*50.2360*		*107*	*91-113*			
Surrogate: 4-Bromofluorobenzene	*52.7*		*"*	*50.4200*		*105*	*83-112*			
Chloromethane	39.84	1.0	"	30.0000		133	63-145	8.51	27	
Vinyl Chloride	30.53	1.0	"	30.0000		102	68-145	15.6	30	
Bromomethane	28.97	1.0	"	30.0000		96.6	69-150	7.12	30	
Chloroethane	27.93	1.0	"	30.0000		93.1	74-134	12.2	29	
1,1-Dichloroethylene	55.49	1.0	"	50.0000		111	76-139	13.5	30	
Methylene Chloride	46.75	5.0	"	50.0000		93.5	67-141	3.82	25	
trans-1,2-Dichloroethylene	54.05	1.0	"	50.0000		108	71-137	14.3	29	
1,1-Dichloroethane	50.84	1.0	"	50.0000		102	72-130	7.88	27	
cis-1,2-Dichloroethylene	52.13	1.0	"	50.0000		104	81-134	7.48	23	
2-Butanone (MEK)	82.74	10.0	"	106.200		77.9	44-158	25.4	25	QR-02
Chloroform	57.34	1.0	"	50.0000		115	76-132	6.04	26	
1,1,1-Trichloroethane	50.31	1.0	"	49.9750		101	65-122	7.81	29	
Carbon Tetrachloride	59.43	1.0	"	50.0000		119	66-132	6.45	30	
Benzene	48.10	1.0	"	50.0000		96.2	77-130	12.1	27	
1,2-Dichloroethane	56.75	1.0	"	50.0000		114	75-124	3.88	25	
Trichloroethylene	50.40	1.0	"	50.0000		101	79-126	1.78	28	
1,2-Dichloropropane	52.32	1.0	"	50.0000		105	79-128	1.89	26	
Dibromomethane	59.31	1.0	"	50.0000		119	71-139	3.13	27	
Bromodichloromethane	51.81	1.0	"	50.0000		104	76-122	2.24	24	
2-Chloroethylvinyl ether	196.3	10.0	"	103.500		190	50-169	3.65	28	QS-02
cis-1,3-Dichloropropene	53.35	1.0	"	50.3250		106	74-122	5.19	27	
Toluene	52.18	1.0	"	50.0000		104	76-128	1.29	28	
trans-1,3-Dichloropropene	57.38	1.0	"	50.4250		114	73-125	5.24	27	
1,1,2-Trichloroethane	54.54	1.0	"	50.0000		109	74-126	0.588	26	
Tetrachloroethylene	37.71	1.0	"	50.0000		75.4	68-124	3.85	28	
Dibromochloromethane	51.78	1.0	"	49.5000		105	76-125	1.46	23	
Chlorobenzene	46.25	1.0	"	50.0000		92.5	77-120	4.65	27	
Ethylbenzene	44.98	1.0	"	50.0000		90.0	76-118	8.04	27	
Xylenes, total	138.5	2.0	"	150.000		92.4	74-121	6.85	27	
Bromoform	54.57	1.0	"	50.0000		109	68-128	6.33	25	
1,1,2,2-Tetrachloroethane	51.08	1.0	"	49.8500		102	62-128	2.20	28	
1,3-Dichlorobenzene	44.20	1.0	"	50.0000		88.4	72-123	9.26	29	
1,4-Dichlorobenzene	42.70	1.0	"	50.0000		85.4	75-120	3.43	26	
1,2-Dichlorobenzene	47.28	1.0	"	50.0000		94.6	72-121	1.80	30	

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC2150

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GD0147 - EPA 5030B										
Matrix Spike (1GD0147-MS1)	**Source: 1GC2991-01**		Prepared & Analyzed: 04/04/23							
Surrogate: Dibromofluoromethane	*211*		*ug/L*	*201.408*		*105*	*79-129*			
Surrogate: 1,2-Dichloroethane-d4	*190*		*"*	*201.632*		*94.2*	*66-134*			
Surrogate: Toluene-d8	*206*		*"*	*200.944*		*102*	*91-113*			
Surrogate: 4-Bromofluorobenzene	*207*		*"*	*201.680*		*102*	*83-112*			
Chloromethane	147.3	4.0	"	120.000	ND	123	50-155			
Vinyl Chloride	126.0	4.0	"	120.000	ND	105	64-148			
Bromomethane	124.6	4.0	"	120.000	ND	104	50-159			
Chloroethane	117.4	4.0	"	120.000	ND	97.8	65-144			
1,1-Dichloroethylene	225.2	4.0	"	200.000	ND	113	78-139			
Methylene Chloride	184.4	20.0	"	200.000	ND	92.2	65-144			
trans-1,2-Dichloroethylene	203.2	4.0	"	200.000	ND	102	67-142			
1,1-Dichloroethane	186.7	4.0	"	200.000	ND	93.3	71-133			
cis-1,2-Dichloroethylene	203.0	4.0	"	200.000	ND	102	76-142			
2-Butanone (MEK)	339.6	40.0	"	424.800	11.01	77.3	48-169			
Chloroform	208.8	4.0	"	200.000	ND	104	75-133			
1,1,1-Trichloroethane	181.7	4.0	"	199.900	ND	90.9	66-120			
Carbon Tetrachloride	205.3	4.0	"	200.000	ND	103	67-132			
Benzene	226.6	4.0	"	200.000	ND	113	79-128			
1,2-Dichloroethane	212.6	4.0	"	200.000	ND	106	74-124			
Trichloroethylene	205.0	4.0	"	200.000	ND	103	82-122			
1,2-Dichloropropane	207.4	4.0	"	200.000	ND	104	80-126			
Dibromomethane	235.7	4.0	"	200.000	ND	118	62-141			
Bromodichloromethane	208.0	4.0	"	200.000	ND	104	77-119			
2-Chloroethylvinyl ether	6.36	40.0	"	414.000	ND	1.54	10-157			QM-15
cis-1,3-Dichloropropene	194.2	4.0	"	201.300	ND	96.5	69-120			
Toluene	209.3	4.0	"	200.000	ND	105	80-125			
trans-1,3-Dichloropropene	206.5	4.0	"	201.700	ND	102	70-122			
1,1,2-Trichloroethane	213.4	4.0	"	200.000	ND	107	73-127			
Tetrachloroethylene	156.2	4.0	"	200.000	ND	78.1	70-122			
Dibromochloromethane	190.7	4.0	"	198.000	ND	96.3	75-122			
Chlorobenzene	185.7	4.0	"	200.000	ND	92.9	81-114			
Ethylbenzene	182.0	4.0	"	200.000	ND	91.0	79-113			
Xylenes, total	548.0	8.0	"	600.000	ND	91.3	79-114			
Bromoform	201.7	4.0	"	200.000	ND	101	66-126			
1,1,2,2-Tetrachloroethane	185.9	4.0	"	199.400	ND	93.2	56-132			
1,3-Dichlorobenzene	178.6	4.0	"	200.000	ND	89.3	69-125			
1,4-Dichlorobenzene	173.5	4.0	"	200.000	ND	86.7	73-119			
1,2-Dichlorobenzene	184.5	4.0	"	200.000	ND	92.3	71-117			

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC2150

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GD0147 - EPA 5030B										
Matrix Spike Dup (1GD0147-MSD1)	**Source: 1GC2991-01**		Prepared & Analyzed: 04/04/23							
Surrogate: Dibromofluoromethane	*213*		*ug/L*	*201.408*		*106*	*79-129*			
Surrogate: 1,2-Dichloroethane-d4	*188*		*"*	*201.632*		*93.4*	*66-134*			
Surrogate: Toluene-d8	*216*		*"*	*200.944*		*108*	*91-113*			
Surrogate: 4-Bromofluorobenzene	*217*		*"*	*201.680*		*108*	*83-112*			
Chloromethane	140.7	4.0	"	120.000	ND	117	50-155	4.56	19	
Vinyl Chloride	115.2	4.0	"	120.000	ND	96.0	64-148	8.92	24	
Bromomethane	122.3	4.0	"	120.000	ND	102	50-159	1.81	17	
Chloroethane	106.4	4.0	"	120.000	ND	88.6	65-144	9.87	28	
1,1-Dichloroethylene	211.5	4.0	"	200.000	ND	106	78-139	6.28	20	
Methylene Chloride	171.1	20.0	"	200.000	ND	85.6	65-144	7.47	16	
trans-1,2-Dichloroethylene	199.3	4.0	"	200.000	ND	99.7	67-142	1.95	18	
1,1-Dichloroethane	180.1	4.0	"	200.000	ND	90.0	71-133	3.60	16	
cis-1,2-Dichloroethylene	194.8	4.0	"	200.000	ND	97.4	76-142	4.12	17	
2-Butanone (MEK)	389.8	40.0	"	424.800	11.01	89.2	48-169	13.8	17	
Chloroform	207.0	4.0	"	200.000	ND	104	75-133	0.846	16	
1,1,1-Trichloroethane	175.6	4.0	"	199.900	ND	87.8	66-120	3.43	15	
Carbon Tetrachloride	194.6	4.0	"	200.000	ND	97.3	67-132	5.32	15	
Benzene	221.3	4.0	"	200.000	ND	111	79-128	2.39	12	
1,2-Dichloroethane	209.5	4.0	"	200.000	ND	105	74-124	1.46	12	
Trichloroethylene	195.6	4.0	"	200.000	ND	97.8	82-122	4.73	13	
1,2-Dichloropropane	206.5	4.0	"	200.000	ND	103	80-126	0.406	10	
Dibromomethane	230.5	4.0	"	200.000	ND	115	62-141	2.25	11	
Bromodichloromethane	200.3	4.0	"	200.000	ND	100	77-119	3.78	10	
2-Chloroethylvinyl ether	27.96	40.0	"	414.000	ND	6.75	10-157	126	30	QM-15
cis-1,3-Dichloropropene	193.1	4.0	"	201.300	ND	95.9	69-120	0.599	10	
Toluene	198.3	4.0	"	200.000	ND	99.2	80-125	5.38	12	
trans-1,3-Dichloropropene	207.0	4.0	"	201.700	ND	103	70-122	0.232	10	
1,1,2-Trichloroethane	216.7	4.0	"	200.000	ND	108	73-127	1.54	10	
Tetrachloroethylene	143.4	4.0	"	200.000	ND	71.7	70-122	8.57	15	
Dibromochloromethane	183.8	4.0	"	198.000	ND	92.8	75-122	3.70	12	
Chlorobenzene	182.6	4.0	"	200.000	ND	91.3	81-114	1.72	12	
Ethylbenzene	186.8	4.0	"	200.000	ND	93.4	79-113	2.58	13	
Xylenes, total	555.2	8.0	"	600.000	ND	92.5	79-114	1.31	12	
Bromoform	199.0	4.0	"	200.000	ND	99.5	66-126	1.32	16	
1,1,2,2-Tetrachloroethane	185.8	4.0	"	199.400	ND	93.2	56-132	0.0430	29	
1,3-Dichlorobenzene	184.2	4.0	"	200.000	ND	92.1	69-125	3.04	18	
1,4-Dichlorobenzene	155.5	4.0	"	200.000	ND	77.8	73-119	10.9	21	
1,2-Dichlorobenzene	182.4	4.0	"	200.000	ND	91.2	71-117	1.13	23	

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC2150

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1489 - 3520C Acid Cont Liq										
Blank (1GC1489-BLK1)				Prepared & Analyzed: 03/29/23						
Surrogate: 2-Fluorophenol	*46.3*		*ug/L*	*60.6000*		*76.4*	*19-139*			
Surrogate: Phenol-d6	*46.6*		*"*	*61.9000*		*75.3*	*14-154*			
Surrogate: Nitrobenzene-d5	*47.6*		*"*	*62.8500*		*75.7*	*17-146*			
Surrogate: 2-Fluorobiphenyl	*42.5*		*"*	*61.0000*		*69.7*	*18-122*			
Surrogate: 2,4,6-Tribromophenol	*47.8*		*"*	*62.2500*		*76.9*	*21-151*			
Surrogate: Terphenyl-dl4	*66.7*		*"*	*65.1000*		*102*	*27-131*			
Bis(2-Chloroethyl) Ether	ND	10	"							
2-Chlorophenol	ND	10	"							
1,3-Dichlorobenzene	ND	10	"							
1,4-Dichlorobenzene	ND	10	"							
Benzyl Alcohol	ND	10	"							
1,2-Dichlorobenzene	ND	10	"							
Bis[2-Chloroisopropyl]ether	ND	10	"							
n-Nitroso-di-n-propylamine	ND	10	"							
Hexachloroethane	ND	10	"							
Nitrobenzene	ND	10	"							
Isophorone	ND	10	"							
2-Nitrophenol	ND	10	"							
2,4-Dimethylphenol	ND	10	"							
Bis (2-Chloroethoxy) Methane	ND	10	"							
Benzoic acid	ND	50	"							
2,4-Dichlorophenol	ND	10	"							
1,2,4-Trichlorobenzene	ND	10	"							
Naphthalene	ND	10	"							
Hexachlorobutadiene	ND	20	"							
4-Chloro-3-methylphenol	ND	10	"							
Hexachlorocyclopentadiene	ND	20	"							
2,4,6-Trichlorophenol	ND	10	"							
2,4,5-Trichlorophenol	ND	50	"							
2-Chloronaphthalene	ND	10	"							
Dimethylphthalate	ND	15	"							
Acenaphthylene	ND	10	"							
2,6-Dinitrotoluene	ND	10	"							
Acenaphthene	ND	10	"							
2,4-Dinitrophenol	ND	20	"							
Dibenzofuran	ND	10	"							
2,4-Dinitrotoluene	ND	10	"							
4-Nitrophenol	ND	10	"							

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Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1489 - 3520C Acid Cont Liq										
Blank (1GC1489-BLK1)				Prepared & Analyzed: 03/29/23						
Diethyl Phthalate	ND	30	ug/L							
Fluorene	ND	10	"							
4-Chlorophenyl Phenyl Ether	ND	10	"							
4,6-Dinitro-2-methylphenol	ND	20	"							
N-Nitrosodiphenylamine	ND	10	"							
4-Bromophenyl Phenyl Ether	ND	10	"							
Hexachlorobenzene	ND	10	"							
Pentachlorophenol	ND	20	"							
Phenanthrene	ND	10	"							
Anthracene	ND	10	"							
Di-n-butyl Phthalate	ND	10	"							
Fluoranthene	ND	10	"							
Pyrene	ND	10	"							
Butyl Benzyl Phthalate	ND	10	"							
Benzo(a)anthracene	ND	10	"							
Chrysene	ND	10	"							
Bis(2-Ethylhexyl) Phthalate	ND	10	"							
Di-n-octyl Phthalate	ND	10	"							
Indeno(1,2,3-cd)Pyrene	ND	10	"							
3,3´-Dichlorobenzidine	ND	20	"							
Benzo(b)Fluoranthene	ND	10	"							
Benzo(k)Fluoranthene	ND	10	"							
Benzo(a)Pyrene	ND	10	"							
Dibenzo(a,h)anthracene	ND	10	"							
Benzo(g,h,i)perylene	ND	10	"							
LCS (1GC1489-BS1)				Prepared & Analyzed: 03/29/23						
Surrogate: 2-Fluorophenol	*41.1*		*ug/L*	*60.6000*		*67.9*	*19-139*			
Surrogate: Phenol-d6	*42.1*		*"*	*61.9000*		*68.0*	*14-154*			
Surrogate: Nitrobenzene-d5	*37.2*		*"*	*62.8500*		*59.2*	*17-146*			
Surrogate: 2-Fluorobiphenyl	*39.5*		*"*	*61.0000*		*64.8*	*18-122*			
Surrogate: 2,4,6-Tribromophenol	*55.9*		*"*	*62.2500*		*89.8*	*21-151*			
Surrogate: Terphenyl-dl4	*65.1*		*"*	*65.1000*		*100*	*27-131*			
Bis(2-Chloroethyl) Ether	29.8	10	"	41.6667		71.5	35-150			
2-Chlorophenol	31.3	10	"	41.6667		75.0	51-117			
1,3-Dichlorobenzene	24.3	10	"	41.6667		58.4	27-91.3			
1,4-Dichlorobenzene	24.8	10	"	41.6667		59.5	28-92.6			
Benzyl Alcohol	21.4	10	"	41.6667		51.5	22-147			
1,2-Dichlorobenzene	25.6	10	"	41.6667		61.3	32-94.8			

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC2150

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1489 - 3520C Acid Cont Liq										
LCS (1GC1489-BS1)				Prepared & Analyzed: 03/29/23						
Bis[2-Chloroisopropyl]ether	30.4	10	ug/L	41.6667		73.0	40-125			
n-Nitroso-di-n-propylamine	33.8	10	"	41.6667		81.1	47-136			
Hexachloroethane	22.2	10	"	41.6667		53.2	13-110			
Nitrobenzene	26.3	10	"	41.6667		63.0	46-133			
Isophorone	27.2	10	"	41.6667		65.2	48-130			
2-Nitrophenol	30.6	10	"	41.6667		73.5	54-116			
2,4-Dimethylphenol	29.4	10	"	41.6667		70.6	47-121			
Bis (2-Chloroethoxy) Methane	26.8	10	"	41.6667		64.4	25-110			
2,4-Dichlorophenol	28.9	10	"	41.6667		69.4	50-118			
1,2,4-Trichlorobenzene	21.6	10	"	41.6667		51.7	27-95.5			
Naphthalene	23.8	10	"	41.6667		57.2	42-107			
Hexachlorobutadiene	19.1	20	"	41.6667		45.9	10-110			
4-Chloro-3-methylphenol	32.0	10	"	41.6667		76.7	54-138			
Hexachlorocyclopentadiene	19.9	20	"	41.6667		47.8	10-110			
2,4,6-Trichlorophenol	34.2	10	"	41.6667		82.0	46-127			
2,4,5-Trichlorophenol	36.2	50	"	41.6667		86.9	62-119			
2-Chloronaphthalene	27.5	10	"	41.6667		66.1	38-118			
Dimethylphthalate	39.2	15	"	41.6667		94.2	58-125			
Acenaphthylene	31.8	10	"	41.6667		76.4	41-116			
2,6-Dinitrotoluene	42.0	10	"	41.6667		101	58-126			
Acenaphthene	31.1	10	"	41.6667		74.7	45-117			
2,4-Dinitrophenol	41.4	20	"	41.6667		99.3	21-138			
Dibenzofuran	33.0	10	"	41.6667		79.3	51-126			
2,4-Dinitrotoluene	44.5	10	"	41.6667		107	52-134			
4-Nitrophenol	39.2	10	"	41.6667		94.2	41-149			
Diethyl Phthalate	41.8	30	"	41.6667		100	53-132			
Fluorene	33.7	10	"	41.6667		80.9	47-126			
4-Chlorophenyl Phenyl Ether	32.6	10	"	41.6667		78.3	47-124			
4,6-Dinitro-2-methylphenol	43.7	20	"	41.6667		105	50-139			
N-Nitrosodiphenylamine	35.0	10	"	41.6667		84.0	29-129			
4-Bromophenyl Phenyl Ether	33.1	10	"	41.6667		79.4	48-125			
Hexachlorobenzene	30.6	10	"	41.6667		73.4	29-137			
Pentachlorophenol	19.9	20	"	41.6667		47.8	15-154			
Phenanthrene	37.0	10	"	41.6667		88.7	45-136			
Anthracene	32.9	10	"	41.6667		78.9	43-135			
Di-n-butyl Phthalate	40.8	10	"	41.6667		97.8	42-153			
Fluoranthene	35.5	10	"	41.6667		85.2	42-143			
Pyrene	39.4	10	"	41.6667		94.5	40-146			
Butyl Benzyl Phthalate	48.8	10	"	41.6667		117	40-151			

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC2150

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1489 - 3520C Acid Cont Liq										
LCS (1GC1489-BS1)				Prepared & Analyzed: 03/29/23						
Benzo(a)anthracene	40.6	10	ug/L	41.6667		97.6	48-136			
Chrysene	40.2	10	"	41.6667		96.4	50-136			
Bis(2-Ethylhexyl) Phthalate	46.7	10	"	41.6667		112	34-180			
Di-n-octyl Phthalate	42.4	10	"	41.6667		102	40-165			
Indeno(1,2,3-cd)Pyrene	40.7	10	"	41.6667		97.6	39-152			
Benzo(b)Fluoranthene	43.2	10	"	41.6667		104	52-140			
Benzo(k)Fluoranthene	42.0	10	"	41.6667		101	47-147			
Benzo(a)Pyrene	39.5	10	"	41.6667		94.8	38-142			
Dibenzo(a,h)anthracene	39.5	10	"	41.6667		94.7	37-153			
Benzo(g,h,i)perylene	36.7	10	"	41.6667		88.2	39-157			
LCS Dup (1GC1489-BSD1)				Prepared & Analyzed: 03/29/23						
Surrogate: 2-Fluorophenol	*36.3*		*ug/L*	*60.6000*		*59.8*	*19-139*			
Surrogate: Phenol-d6	*38.2*		*"*	*61.9000*		*61.6*	*14-154*			
Surrogate: Nitrobenzene-d5	*34.4*		*"*	*62.8500*		*54.7*	*17-146*			
Surrogate: 2-Fluorobiphenyl	*33.2*		*"*	*61.0000*		*54.5*	*18-122*			
Surrogate: 2,4,6-Tribromophenol	*51.5*		*"*	*62.2500*		*82.7*	*21-151*			
Surrogate: Terphenyl-dl4	*55.2*		*"*	*65.1000*		*84.8*	*27-131*			
Bis(2-Chloroethyl) Ether	28.5	10	"	41.6667		68.5	35-150	4.29	30	
2-Chlorophenol	30.1	10	"	41.6667		72.2	51-117	3.85	27	
1,3-Dichlorobenzene	22.7	10	"	41.6667		54.4	27-91.3	7.07	30	
1,4-Dichlorobenzene	22.9	10	"	41.6667		54.9	28-92.6	8.09	30	
Benzyl Alcohol	20.4	10	"	41.6667		49.1	22-147	4.78	30	
1,2-Dichlorobenzene	24.1	10	"	41.6667		57.9	32-94.8	5.76	30	
Bis[2-Chloroisopropyl]ether	28.4	10	"	41.6667		68.2	40-125	6.73	26	
n-Nitroso-di-n-propylamine	32.2	10	"	41.6667		77.4	47-136	4.73	29	
Hexachloroethane	20.2	10	"	41.6667		48.5	13-110	9.16	30	
Nitrobenzene	27.8	10	"	41.6667		66.6	46-133	5.52	19	
Isophorone	28.2	10	"	41.6667		67.6	48-130	3.54	23	
2-Nitrophenol	31.0	10	"	41.6667		74.3	54-116	1.07	25	
2,4-Dimethylphenol	29.2	10	"	41.6667		70.2	47-121	0.648	29	
Bis (2-Chloroethoxy) Methane	25.0	10	"	41.6667		59.9	25-110	7.30	30	
2,4-Dichlorophenol	26.8	10	"	41.6667		64.2	50-118	7.80	21	
1,2,4-Trichlorobenzene	19.7	10	"	41.6667		47.4	27-95.5	8.82	30	
Naphthalene	22.4	10	"	41.6667		53.7	42-107	6.27	26	
Hexachlorobutadiene	17.5	20	"	41.6667		41.9	10-110	8.97	30	
4-Chloro-3-methylphenol	31.7	10	"	41.6667		76.2	54-138	0.722	12	
Hexachlorocyclopentadiene	21.4	20	"	41.6667		51.4	10-110	7.40	30	
2,4,6-Trichlorophenol	33.2	10	"	41.6667		79.6	46-127	3.03	21	

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PO Box 314
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Work Order: 1GC2150

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1489 - 3520C Acid Cont Liq										
LCS Dup (1GC1489-BSD1)				Prepared & Analyzed: 03/29/23						
2,4,5-Trichlorophenol	36.8	50	ug/L	41.6667		88.4	62-119	1.70	15	
2-Chloronaphthalene	27.7	10	"	41.6667		66.4	38-118	0.543	24	
Dimethylphthalate	40.0	15	"	41.6667		95.9	58-125	1.82	20	
Acenaphthylene	29.7	10	"	41.6667		71.2	41-116	6.99	30	
2,6-Dinitrotoluene	42.8	10	"	41.6667		103	58-126	1.77	20	
Acenaphthene	31.1	10	"	41.6667		74.7	45-117	0.00	27	
2,4-Dinitrophenol	41.8	20	"	41.6667		100	21-138	1.03	22	
Dibenzofuran	33.2	10	"	41.6667		79.6	51-126	0.453	15	
2,4-Dinitrotoluene	46.3	10	"	41.6667		111	52-134	3.99	22	
4-Nitrophenol	39.4	10	"	41.6667		94.6	41-149	0.432	28	
Diethyl Phthalate	40.0	30	"	41.6667		96.0	53-132	4.30	22	
Fluorene	35.1	10	"	41.6667		84.3	47-126	4.10	27	
4-Chlorophenyl Phenyl Ether	34.0	10	"	41.6667		81.6	47-124	4.17	20	
4,6-Dinitro-2-methylphenol	46.9	20	"	41.6667		113	50-139	7.11	25	
N-Nitrosodiphenylamine	39.5	10	"	41.6667		94.9	29-129	12.2	30	
4-Bromophenyl Phenyl Ether	36.5	10	"	41.6667		87.6	48-125	9.77	18	
Hexachlorobenzene	35.7	10	"	41.6667		85.7	29-137	15.5	30	
Pentachlorophenol	19.4	20	"	41.6667		46.5	15-154	2.70	29	
Phenanthrene	37.2	10	"	41.6667		89.4	45-136	0.782	27	
Anthracene	37.0	10	"	41.6667		88.8	43-135	11.8	28	
Di-n-butyl Phthalate	42.4	10	"	41.6667		102	42-153	4.04	29	
Fluoranthene	43.1	10	"	41.6667		103	42-143	19.3	30	
Pyrene	37.7	10	"	41.6667		90.4	40-146	4.44	25	
Butyl Benzyl Phthalate	42.3	10	"	41.6667		101	40-151	14.4	29	
Benzo(a)anthracene	39.6	10	"	41.6667		95.1	48-136	2.57	30	
Chrysene	37.5	10	"	41.6667		90.1	50-136	6.75	30	
Bis(2-Ethylhexyl) Phthalate	43.8	10	"	41.6667		105	34-180	6.41	30	
Di-n-octyl Phthalate	48.4	10	"	41.6667		116	40-165	13.2	30	
Indeno(1,2,3-cd)Pyrene	44.8	10	"	41.6667		108	39-152	9.75	30	
Benzo(b)Fluoranthene	41.0	10	"	41.6667		98.4	52-140	5.18	30	
Benzo(k)Fluoranthene	41.0	10	"	41.6667		98.4	47-147	2.55	30	
Benzo(a)Pyrene	39.9	10	"	41.6667		95.8	38-142	1.01	30	
Dibenzo(a,h)anthracene	45.2	10	"	41.6667		108	37-153	13.4	30	
Benzo(g,h,i)perylene	41.1	10	"	41.6667		98.6	39-157	11.2	30	

Determination of Organochlorine Insecticides & PCBs - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1365 - 3520C NP/OC Cont Liq										
Blank (1GC1365-BLK1)				Prepared: 03/27/23 Analyzed: 03/29/23						
Surrogate: Decachlorobiphenyl	*0.503*		*ug/L*	*0.600000*		*83.8*	*19-120*			
Surrogate: Tetrachloro-m-xylene	*0.410*		*"*	*0.600000*		*68.4*	*30-119*			
Gamma-BHC [Lindane]	ND	0.05	"							
Beta-BHC	ND	0.05	"							
Heptachlor	ND	0.05	"							
Delta-BHC	ND	0.05	"							
Aldrin	ND	0.05	"							
Heptachlor Epoxide	ND	0.05	"							
Endosulfan I	ND	0.05	"							
4,4`-DDE	ND	0.05	"							
Dieldrin	ND	0.05	"							
Endrin	ND	0.05	"							
4,4`-DDD	ND	0.05	"							
Endosulfan II	ND	0.05	"							
4,4`-DDT	ND	0.05	"							
Endrin Aldehyde	ND	0.05	"							
Endosulfan Sulfate	ND	0.05	"							
Chlordane	ND	0.10	"							
Toxaphene	ND	0.20	"							
Arochlor 1016	ND	0.10	"							
Arochlor 1221	ND	0.20	"							
Arochlor 1232	ND	0.20	"							
Arochlor 1242	ND	0.20	"							
Arochlor 1248	ND	0.20	"							
Arochlor 1254	ND	0.10	"							
Arochlor 1260	ND	0.10	"							
LCS (1GC1365-BS1)				Prepared: 03/27/23 Analyzed: 03/29/23						
Surrogate: Tetrachloro-m-xylene	*0.371*		*ug/L*	*0.600000*		*61.8*	*30-119*			
Surrogate: Decachlorobiphenyl	*0.0860*		*"*	*0.600000*		*14.3*	*19-120*			*S-GC*
Gamma-BHC [Lindane]	0.199	0.05	"	0.250000		79.7	37-127			
Beta-BHC	0.178	0.05	"	0.250000		71.0	36-131			
Heptachlor	0.196	0.05	"	0.250000		78.2	36-128			
Delta-BHC	0.228	0.05	"	0.250000		91.0	29-147			
Aldrin	0.197	0.05	"	0.250000		78.9	41-120			
Heptachlor Epoxide	0.221	0.05	"	0.250000		88.6	50-132			
Endosulfan I	0.221	0.05	"	0.250000		88.4	50-133			
4,4`-DDE	0.209	0.05	"	0.250000		83.8	46-140			
Dieldrin	0.212	0.05	"	0.250000		84.6	41-138			

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Work Order: 1GC2150

Determination of Organochlorine Insecticides & PCBs - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1365 - 3520C NP/OC Cont Liq										
LCS (1GC1365-BS1)				Prepared: 03/27/23 Analyzed: 03/29/23						
Endrin	0.238	0.05	ug/L	0.250000		95.1	32-152			
4,4`-DDD	0.231	0.05	"	0.250000		92.3	44-150			
Endosulfan II	0.219	0.05	"	0.250000		87.7	45-141			
4,4`-DDT	0.227	0.05	"	0.250000		90.6	46-145			
Endrin Aldehyde	0.254	0.05	"	0.250000		102	33-145			
Endosulfan Sulfate	0.219	0.05	"	0.250000		87.8	52-133			
LCS Dup (1GC1365-BSD1)				Prepared: 03/27/23 Analyzed: 03/29/23						
Surrogate: Decachlorobiphenyl	*0.461*		*ug/L*	*0.600000*		*76.9*	*19-120*			
Surrogate: Tetrachloro-m-xylene	*0.390*		*"*	*0.600000*		*65.0*	*30-119*			
Gamma-BHC [Lindane]	0.222	0.05	"	0.250000		88.9	37-127	10.9	30	
Beta-BHC	0.191	0.05	"	0.250000		76.4	36-131	7.26	30	
Heptachlor	0.214	0.05	"	0.250000		85.7	36-128	9.14	30	
Delta-BHC	0.239	0.05	"	0.250000		95.8	29-147	5.09	30	
Aldrin	0.190	0.05	"	0.250000		75.9	41-120	3.88	30	
Heptachlor Epoxide	0.234	0.05	"	0.250000		93.6	50-132	5.51	30	
Endosulfan I	0.232	0.05	"	0.250000		92.9	50-133	5.01	30	
4,4`-DDE	0.208	0.05	"	0.250000		83.3	46-140	0.563	30	
Dieldrin	0.240	0.05	"	0.250000		95.9	41-138	12.5	30	
Endrin	0.280	0.05	"	0.250000		112	32-152	16.2	30	
4,4`-DDD	0.259	0.05	"	0.250000		103	44-150	11.4	30	
Endosulfan II	0.254	0.05	"	0.250000		102	45-141	14.7	30	
4,4`-DDT	0.299	0.05	"	0.250000		119	46-145	27.4	30	
Endrin Aldehyde	0.374	0.05	"	0.250000		150	33-145	38.1	30	QS-02
Endosulfan Sulfate	0.263	0.05	"	0.250000		105	52-133	17.9	30	
Reference (1GC1365-SRM1)				Prepared: 03/27/23 Analyzed: 03/29/23						
Surrogate: Decachlorobiphenyl	*0.542*		*ug/L*	*0.600000*		*90.3*	*19-120*			
Surrogate: Tetrachloro-m-xylene	*0.498*		*"*	*0.600000*		*82.9*	*30-119*			
Gamma-BHC [Lindane]	0.236	0.05	"	0.250000		94.4	80-120			
Beta-BHC	0.218	0.05	"	0.250000		87.2	80-120			
Heptachlor	0.236	0.05	"	0.250000		94.4	80-120			
Delta-BHC	0.248	0.05	"	0.250000		99.1	80-120			
Aldrin	0.231	0.05	"	0.250000		92.2	80-120			
Heptachlor Epoxide	0.251	0.05	"	0.250000		100	80-120			
Endosulfan I	0.252	0.05	"	0.250000		101	80-120			
4,4`-DDE	0.235	0.05	"	0.250000		94.2	80-120			
Dieldrin	0.235	0.05	"	0.250000		93.9	80-120			
Endrin	0.264	0.05	"	0.250000		106	80-120			

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Work Order: 1GC2150

Determination of Organochlorine Insecticides & PCBs - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1365 - 3520C NP/OC Cont Liq										
Reference (1GC1365-SRM1)				Prepared: 03/27/23 Analyzed: 03/29/23						
4,4`-DDD	0.256	0.05	ug/L	0.250000		102	80-120			
Endosulfan II	0.237	0.05	"	0.250000		95.0	80-120			
4,4`-DDT	0.250	0.05	"	0.250000		99.8	80-120			
Endrin Aldehyde	0.262	0.05	"	0.250000		105	80-120			
Endosulfan Sulfate	0.240	0.05	"	0.250000		95.8	80-120			

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Work Order: 1GC2150

Determination of Conventional Chemistry Parameters - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1140 - General Prep Micro										
Blank (1GC1140-BLK1)				Prepared: 03/22/23 Analyzed: 03/23/23						
BOD (5 day)	ND	4	mg/L							B-06
Duplicate (1GC1140-DUP1)		**Source: 1GC2171-01**		Prepared: 03/22/23 Analyzed: 03/23/23						
BOD (5 day)	372	4	mg/L		392			5.24	29	
Reference (1GC1140-SRM1)				Prepared: 03/22/23 Analyzed: 03/23/23						
BOD (5 day)	229	4	mg/L	198.000		116	84.6-115.4			QR-06
Batch 1GC1256 - Wet Chem Preparation										
Duplicate (1GC1256-DUP2)		**Source: 1GC2278-02**		Prepared: 03/23/23 Analyzed: 03/24/23						
pH	7.9	0.5	pH		7.9			0.0634	10	
Reference (1GC1256-SRM1)				Prepared: 03/23/23 Analyzed: 03/24/23						
pH	7.0	0.5	pH	7.00000		99.9	90-110			
Reference (1GC1256-SRM2)				Prepared: 03/23/23 Analyzed: 03/24/23						
pH	7.0	0.5	pH	7.00000		100	90-110			
Reference (1GC1256-SRM3)				Prepared: 03/23/23 Analyzed: 03/24/23						
pH	7.1	0.5	pH	7.00000		101	90-110			
Batch 1GC1404 - Wet Chem Preparation										
Blank (1GC1404-BLK1)				Prepared: 03/28/23 Analyzed: 03/29/23						
Solids, total dissolved	ND	5	mg/L							

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Determination of Conventional Chemistry Parameters - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1404 - Wet Chem Preparation										
LCS (1GC1404-BS1)				Prepared: 03/28/23 Analyzed: 03/29/23						
Solids, total dissolved	100	5	mg/L	100.000		100	71-114			
Duplicate (1GC1404-DUP1)		**Source: 1GC2553-01**		Prepared: 03/28/23 Analyzed: 03/29/23						
Solids, total dissolved	1390	5	mg/L		1140			19.1	30	
Batch 1GC1467 - TOC/DOC										
Blank (1GC1467-BLK1)				Prepared & Analyzed: 03/27/23						
Total Organic Carbon	ND	0.50	mg/L							
LCS (1GC1467-BS1)				Prepared & Analyzed: 03/27/23						
Total Organic Carbon	5.14	0.50	mg/L	5.00000		103	86-120			
LCS Dup (1GC1467-BSD1)				Prepared & Analyzed: 03/27/23						
Total Organic Carbon	5.23	0.50	mg/L	5.00000		105	86-120	1.75	10	
Matrix Spike (1GC1467-MS1)		**Source: 1GC2544-01**		Prepared & Analyzed: 03/27/23						
Total Organic Carbon	130.0	12.5	mg/L	125.000	15.26	91.8	81-128			
Matrix Spike Dup (1GC1467-MSD1)		**Source: 1GC2544-01**		Prepared & Analyzed: 03/27/23						
Total Organic Carbon	124.4	12.5	mg/L	125.000	15.26	87.3	81-128	4.40	10	
Batch 1GC1483 - Wet Chem Preparation										
Blank (1GC1483-BLK1)				Prepared & Analyzed: 03/29/23						
Solids, total suspended	ND	1	mg/L							

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Work Order: 1GC2150

Determination of Conventional Chemistry Parameters - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1483 - Wet Chem Preparation										
LCS (1GC1483-BS1)				Prepared & Analyzed: 03/29/23						
Solids, total suspended	13.6	1	mg/L	15.0000		90.7	74-114			
Duplicate (1GC1483-DUP1)		**Source: 1GC2363-01**		Prepared & Analyzed: 03/29/23						
Solids, total suspended	54.0	4	mg/L		45.6			16.9	30	
Batch 1GD0113 - General Prep HPLC/IC										
Blank (1GD0113-BLK1)				Prepared & Analyzed: 04/04/23						
Nitrogen, Ammonia	ND	0.10	mg/L							
LCS (1GD0113-BS1)				Prepared & Analyzed: 04/04/23						
Nitrogen, Ammonia	5.00	0.10	mg/L	5.00000		100	90-114			
Matrix Spike (1GD0113-MS1)		**Source: 1GC2133-02**		Prepared & Analyzed: 04/04/23						
Nitrogen, Ammonia	5.24	0.10	mg/L	5.00000	ND	105	84-115			
Matrix Spike Dup (1GD0113-MSD1)		**Source: 1GC2133-02**		Prepared & Analyzed: 04/04/23						
Nitrogen, Ammonia	5.08	0.10	mg/L	5.00000	ND	102	84-115	3.15	20	

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Determination of Total Metals - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1159 - EPA 7470A Hg Water										
Blank (1GC1159-BLK1)				Prepared: 03/22/23 Analyzed: 03/24/23						
Mercury, total	ND	0.00050	mg/L							
LCS (1GC1159-BS1)				Prepared: 03/22/23 Analyzed: 03/24/23						
Mercury, total	0.00276	0.00050	mg/L	0.00250000		111	85-115			
Matrix Spike (1GC1159-MS1)		**Source: 1GC1696-01**		Prepared: 03/22/23 Analyzed: 03/24/23						
Mercury, total	0.00249	0.00050	mg/L	0.00250000	ND	99.7	70-130			
Matrix Spike Dup (1GC1159-MSD1)		**Source: 1GC1696-01**		Prepared: 03/22/23 Analyzed: 03/24/23						
Mercury, total	0.00239	0.00050	mg/L	0.00250000	ND	95.5	70-130	4.29	10	
Batch 1GC1171 - EPA 200.2 Total ICP-OES (200.7)										
Blank (1GC1171-BLK1)				Prepared: 03/22/23 Analyzed: 03/23/23						
Iron, total	ND	0.100	mg/L							
LCS (1GC1171-BS1)				Prepared: 03/22/23 Analyzed: 03/23/23						
Iron, total	2.47	0.100	mg/L	2.20000		112	85-115			
Matrix Spike (1GC1171-MS1)		**Source: 1GC2009-01**		Prepared: 03/22/23 Analyzed: 03/23/23						
Iron, total	2.34	0.100	mg/L	2.20000	ND	106	70-130			
Matrix Spike Dup (1GC1171-MSD1)		**Source: 1GC2009-01**		Prepared: 03/22/23 Analyzed: 03/23/23						
Iron, total	2.38	0.100	mg/L	2.20000	ND	108	70-130	1.78	20	
Post Spike (1GC1171-PS1)		**Source: 1GC2009-01**		Prepared: 03/22/23 Analyzed: 03/23/23						
Iron, total	9.36		mg/L	8.80000	0.011	106	85-115			

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Determination of Total Metals - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1184 - EPA 200.2 Total ICP-MS										
Blank (1GC1184-BLK1)				Prepared: 03/23/23 Analyzed: 03/24/23						
Arsenic, total	ND	0.0020	mg/L							
Barium, total	ND	0.0020	"							
Cadmium, total	ND	0.0002	"							
Chromium, total	ND	0.0020	"							
Copper, total	ND	0.0020	"							
Lead, total	ND	0.0008	"							
Nickel, total	ND	0.0040	"							
Selenium, total	ND	0.0040	"							
Silver, total	ND	0.0020	"							
Zinc, total	ND	0.0200	"							
LCS (1GC1184-BS1)				Prepared: 03/23/23 Analyzed: 03/24/23						
Arsenic, total	0.0961	0.0020	mg/L	0.100000		96.1	85-115			
Barium, total	0.108	0.0020	"	0.100000		108	85-115			
Cadmium, total	0.0939	0.0002	"	0.100000		93.9	85-115			
Chromium, total	0.0976	0.0020	"	0.100000		97.6	85-115			
Copper, total	0.0995	0.0020	"	0.100000		99.5	85-115			
Lead, total	0.0986	0.0008	"	0.100000		98.6	85-115			
Nickel, total	0.0985	0.0040	"	0.100000		98.5	85-115			
Selenium, total	0.0935	0.0040	"	0.100000		93.5	85-115			
Silver, total	0.100	0.0020	"	0.100000		100	85-115			
Zinc, total	0.0962	0.0200	"	0.100000		96.2	85-115			
Matrix Spike (1GC1184-MS1)	**Source: 1GC1791-01**			Prepared: 03/23/23 Analyzed: 03/24/23						
Arsenic, total	0.123	0.0020	mg/L	0.100000	0.0224	101	70-130			
Barium, total	0.203	0.0020	"	0.100000	0.0919	111	70-130			
Cadmium, total	0.0898	0.0002	"	0.100000	0.0004	89.3	70-130			
Chromium, total	0.0938	0.0020	"	0.100000	0.0022	91.5	70-130			
Copper, total	0.102	0.0020	"	0.100000	0.0107	91.3	70-130			
Lead, total	0.109	0.0008	"	0.100000	0.0178	91.5	70-130			
Nickel, total	0.0987	0.0040	"	0.100000	0.0043	94.5	70-130			
Selenium, total	0.0950	0.0040	"	0.100000	0.0022	92.8	70-130			
Silver, total	0.0939	0.0020	"	0.100000	ND	93.9	70-130			
Zinc, total	0.186	0.0200	"	0.100000	0.0912	94.3	70-130			

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC2150

Determination of Total Metals - Quality Control

Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GC1184 - EPA 200.2 Total ICP-MS										
Matrix Spike Dup (1GC1184-MSD1)	**Source: 1GC1791-01**			Prepared: 03/23/23 Analyzed: 03/24/23						
Arsenic, total	0.127	0.0020	mg/L	0.100000	0.0224	105	70-130	2.94	20	
Barium, total	0.204	0.0020	"	0.100000	0.0919	112	70-130	0.677	20	
Cadmium, total	0.0929	0.0002	"	0.100000	0.0004	92.4	70-130	3.39	20	
Chromium, total	0.0946	0.0020	"	0.100000	0.0022	92.3	70-130	0.849	20	
Copper, total	0.103	0.0020	"	0.100000	0.0107	92.7	70-130	1.34	20	
Lead, total	0.111	0.0008	"	0.100000	0.0178	93.2	70-130	1.54	20	
Nickel, total	0.102	0.0040	"	0.100000	0.0043	98.0	70-130	3.52	20	
Selenium, total	0.0968	0.0040	"	0.100000	0.0022	94.6	70-130	1.92	20	
Silver, total	0.0965	0.0020	"	0.100000	ND	96.5	70-130	2.71	20	
Zinc, total	0.190	0.0200	"	0.100000	0.0912	99.1	70-130	2.58	20	
Post Spike (1GC1184-PS1)	**Source: 1GC1791-01**			Prepared: 03/23/23 Analyzed: 03/24/23						
Arsenic, total	0.0995		mg/L	0.0800000	0.0219	97.0	70-130			
Barium, total	0.168		"	0.0800000	0.0901	97.0	70-130			
Cadmium, total	0.0703		"	0.0800000	0.0004	87.3	70-130			
Chromium, total	0.0739		"	0.0800000	0.0022	89.6	70-130			
Copper, total	0.0808		"	0.0800000	0.0104	88.0	70-130			
Lead, total	0.0877		"	0.0800000	0.0174	87.9	70-130			
Nickel, total	0.0792		"	0.0800000	0.0042	93.7	70-130			
Selenium, total	0.0738		"	0.0800000	0.0021	89.6	70-130			
Silver, total	0.0747		"	0.0800000	0.00006	93.3	70-130			
Zinc, total	0.163		"	0.0800000	0.0894	92.0	70-130			

ND = Non Detect; REC= Recovery; RPD= Relative Percent Difference

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Work Order: 1GC2150

Certified Analyses Included In This Report

Method/Matrix	Analyte	Certifications
200.7 in Water		
	Iron, total	SIA1X,KS-NT
245.1 in Water		
	Mercury, total	SIA1X,KS-NT
5310B in Water		
	Total Organic Carbon	KS-NT,SIA1X
EPA 200.8 in Water		
	Arsenic, total	SIA1X,KS-NT
	Barium, total	SIA1X,KS-NT
	Cadmium, total	SIA1X,KS-NT
	Chromium, total	SIA1X,KS-NT
	Copper, total	SIA1X,KS-NT
	Lead, total	SIA1X,KS-NT
	Nickel, total	SIA1X,KS-NT
	Selenium, total	SIA1X,KS-NT
	Silver, total	SIA1X,KS-NT
	Zinc, total	SIA1X,KS-NT
EPA 608 in Water		
	Gamma-BHC [Lindane]	KS-NT,SIA1X
	Beta-BHC	KS-NT,SIA1X
	Heptachlor	KS-NT,SIA1X
	Delta-BHC	KS-NT,SIA1X
	Aldrin	KS-NT,SIA1X
	Heptachlor Epoxide	KS-NT,SIA1X
	Endosulfan I	KS-NT,SIA1X
	4,4`-DDE	KS-NT,SIA1X
	Dieldrin	KS-NT,SIA1X
	Endrin	KS-NT,SIA1X
	4,4`-DDD	KS-NT,SIA1X
	Endosulfan II	KS-NT,SIA1X
	4,4`-DDT	KS-NT,SIA1X
	Endrin Aldehyde	KS-NT,SIA1X
	Endosulfan Sulfate	KS-NT,SIA1X
	Chlordane	KS-NT,SIA1X
	Toxaphene	KS-NT,SIA1X
	Arochlor 1016	KS-NT,SIA1X
	Arochlor 1221	KS-NT,SIA1X
	Arochlor 1232	KS-NT,SIA1X
	Arochlor 1242	KS-NT,SIA1X
	Arochlor 1248	KS-NT,SIA1X
	Arochlor 1254	KS-NT,SIA1X
	Arochlor 1260	KS-NT,SIA1X
EPA 624 in Water		
	Chloromethane	KS-NT,SIA1X
	Vinyl Chloride	KS-NT,SIA1X
	Bromomethane	KS-NT,SIA1X
	Chloroethane	KS-NT,SIA1X

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	1,1-Dichloroethylene	KS-NT,SIA1X
	Methylene Chloride	KS-NT,SIA1X
	trans-1,2-Dichloroethylene	KS-NT
	1,1-Dichloroethane	KS-NT,SIA1X
	cis-1,2-Dichloroethylene	SIA1X
	2-Butanone (MEK)	SIA1X
	Chloroform	KS-NT,SIA1X
	1,1,1-Trichloroethane	KS-NT,SIA1X
	Carbon Tetrachloride	KS-NT,SIA1X
	Benzene	KS-NT,SIA1X
	1,2-Dichloroethane	KS-NT,SIA1X
	Trichloroethylene	KS-NT
	1,2-Dichloropropane	KS-NT,SIA1X
	Dibromomethane	SIA1X
	Bromodichloromethane	KS-NT,SIA1X
	2-Chloroethylvinyl ether	KS-NT,SIA1X
	cis-1,3-Dichloropropene	KS-NT,SIA1X
	Toluene	KS-NT
	trans-1,3-Dichloropropene	KS-NT
	1,1,2-Trichloroethane	KS-NT,SIA1X
	Tetrachloroethylene	KS-NT,SIA1X
	Dibromochloromethane	KS-NT,SIA1X
	Chlorobenzene	KS-NT,SIA1X
	Ethylbenzene	KS-NT,SIA1X
	Xylenes, total	SIA1X
	Bromoform	KS-NT,SIA1X
	1,1,2,2-Tetrachloroethane	KS-NT,SIA1X
	1,3-Dichlorobenzene	KS-NT,SIA1X
	1,4-Dichlorobenzene	KS-NT,SIA1X
	1,2-Dichlorobenzene	KS-NT,SIA1X
EPA 625 in Water		
	Bis(2-Chloroethyl) Ether	KS-NT,SIA1X
	2-Chlorophenol	KS-NT,SIA1X
	Bis[2-Chloroisopropyl]ether	SIA1X
	n-Nitroso-di-n-propylamine	KS-NT,SIA1X
	Hexachloroethane	KS-NT,SIA1X
	Nitrobenzene	KS-NT,SIA1X
	Isophorone	KS-NT,SIA1X
	2-Nitrophenol	KS-NT,SIA1X
	2,4-Dimethylphenol	KS-NT,SIA1X
	Bis (2-Chloroethoxy) Methane	KS-NT,SIA1X
	2,4-Dichlorophenol	KS-NT,SIA1X
	1,2,4-Trichlorobenzene	KS-NT,SIA1X
	Naphthalene	KS-NT,SIA1X
	Hexachlorobutadiene	KS-NT,SIA1X
	4-Chloro-3-methylphenol	KS-NT,SIA1X
	Hexachlorocyclopentadiene	KS-NT,SIA1X
	2,4,6-Trichlorophenol	KS-NT,SIA1X
	2,4,5-Trichlorophenol	SIA1X
	2-Chloronaphthalene	KS-NT,SIA1X
	Dimethylphthalate	KS-NT,SIA1X

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	Acenaphthylene	KS-NT,SIA1X
	2,6-Dinitrotoluene	KS-NT,SIA1X
	Acenaphthene	KS-NT,SIA1X
	2,4-Dinitrophenol	KS-NT,SIA1X
	2,4-Dinitrotoluene	KS-NT,SIA1X
	4-Nitrophenol	KS-NT,SIA1X
	Diethyl Phthalate	KS-NT,SIA1X
	Fluorene	KS-NT,SIA1X
	4-Chlorophenyl Phenyl Ether	KS-NT,SIA1X
	4,6-Dinitro-2-methylphenol	KS-NT,SIA1X
	N-Nitrosodiphenylamine	KS-NT,SIA1X
	4-Bromophenyl Phenyl Ether	KS-NT,SIA1X
	Hexachlorobenzene	KS-NT,SIA1X
	Pentachlorophenol	KS-NT,SIA1X
	Phenanthrene	KS-NT,SIA1X
	Anthracene	KS-NT,SIA1X
	Di-n-butyl Phthalate	KS-NT,SIA1X
	Fluoranthene	KS-NT,SIA1X
	Pyrene	KS-NT,SIA1X
	Butyl Benzyl Phthalate	KS-NT,SIA1X
	Benzo(a)anthracene	KS-NT,SIA1X
	Chrysene	KS-NT,SIA1X
	Bis(2-Ethylhexyl) Phthalate	KS-NT,SIA1X
	Di-n-octyl Phthalate	KS-NT,SIA1X
	Indeno(1,2,3-cd)Pyrene	KS-NT,SIA1X
	3,3´-Dichlorobenzidine	SIA1X
	Benzo(b)Fluoranthene	KS-NT,SIA1X
	Benzo(k)Fluoranthene	KS-NT,SIA1X
	Benzo(a)Pyrene	KS-NT,SIA1X
	Dibenzo(a,h)anthracene	KS-NT,SIA1X
	Benzo(g,h,i)perylene	KS-NT,SIA1X
SM 4500 H+ B in Water		
	pH	KS-NT,SIA1X
SM 5210 B in Water		
	BOD (5 day)	SIA1X,KS-NT
TIMBERLINE in Water		
	Nitrogen, Ammonia	SIA1X,KS-NT
USGS I-1750-85 in Water		
	Solids, total dissolved	KS-NT,SIA1X
USGS I-3765-85 in Water		
	Solids, total suspended	SIA1X,KS-NT

Code	Description	Number	Expires
KS-KC	Kansas Department of Health and Environment-KC	E-10110	04/30/2023
KS-NT	Kansas Department of Health and Environment (NELAP)	E-10287	10/31/2023
MO-KC	Missouri Department of Natural Resources	140	04/30/2023
SIA1X	Iowa Dept. of Natural Resources	95	02/01/2024

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HLW Engineering
PO Box 314
Story City, IA 50248

Work Order: 1GC2150

Notes and Definitions

B-06	Unseeded Blank equals .4mg/L
I-03	Analyte required to be analyzed within 15 minutes of sampling. Analysis performed upon receipt of sample at laboratory.
QM-15	The spike recovery was outside acceptance limits due to dilution required for high analyte concentration and/or matrix interference.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR-06	The reference standard was outside of established control limits.
QS-02	The spike recovery for this QC sample exceeded established acceptance limits. However, all samples were below the reporting and/or regulatory limit so the data is acceptable.
S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

End of Report

Sue Thompson

Keystone Laboratories

Sue Thompson
Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL= Method Reporting Limit.

CHAIN O

Keystone LABORATORIES, INC.

600 East 17th Street
Newton, IA 50208
641-792-8451

1 G C 2 1 5 0

HLW Engineering
PM: Sue Thompson

Printed: 2/19/2023 6:27:38PM
www.keystonelabs.c

SITE INFORMATION

Sampler: _____

Project: Benton Co. Landfill - Leachate
Leachate

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___

REPORT TO

Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

INVOICE TO

Eric Werner
Benton County Sanitary Landfill
7904 20th Ave
Blairstown, IA 52209

LAB USE ONLY

Work Order 1GC2150
Temperature 03
Turn-Cooler: No

☐ Custody Seal
☒ Containers Intact
☒ COC/Labels Agree
☐ Preservation Confirmed
☒ Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
01-001	_____	Water	GRAB	/ /	_____	_____	608-107 624-105 ag-i-200.8 ba-i-200.8 cd-i-200.8 cu-i-200.8 hg-i-245.1 ni-i-200.8 ph-4500 tds-i-1750-85 tss-i-3765-85 624@dibromochloromethane 625-110 as-i-200.8 bod-5210 cr-i-200.8 fe-i-200.7 nh3-iimberline pb-i-200.8 se-i-200.8 toc-5310b zn-i-200.8	01

Relinquished By: [signature] Date/Time: 3/22/23 11:45

Received By _____ Date/Time _____

Relinquished By _____ Date/Time _____

Received for Lab By: [signature] Date/Time: 3/22/23 14:

Remarks:

Original - Lab Copy Yellow - Sampler Copy

Appendix G.4 –
Leachate Head & Elevation Data – Original Landfill

BENTON COUNTY SANITARY LANDFILL

Monthly Piezemeter Level Measurements

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/1999	865.44	851.72	897.40	899.20	878.35	903.15	903.21
2/5/1999	865.40	851.73	897.38	899.25	878.39	903.12	903.18
3/5/1999	869.78	851.77	897.72	898.09	879.76	900.80	901.78
4/5/1999	865.41	851.31	897.64	897.95	879.72	901.53	902.63
5/5/1999	869.56	852.44	898.23	899.68	879.80	foam	902.08
6/7/1999	869.16	852.31	897.23	899.88	879.84	903.51	903.70
7/6/1999	865.35	851.72	897.69	898.42	875.32	?	904.10
8/5/1999	866.33	851.39	897.20	898.29	879.60	903.76	904.24
9/7/1999	864.50	851.05	896.95	897.50	879.31	901.17	904.60
10/5/1999	863.65	850.53	896.59	897.11	879.21	901.24	904.27
11/5/1999	862.48	849.78	898.21	896.15	879.03	900.82	904.20
12/6/1999	862.92	849.81	895.32	896.25	879.13	900.93	904.44

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/2000	862.81	849.66	896.11	895.82	878.72	900.82	904.12
2/5/2000	862.90	849.68	895.51	896.32	878.64	900.90	904.25
3/6/2000	864.43	849.66	895.70	895.67	878.70	900.95	904.41
4/5/2000	865.12	849.77	895.71	895.29	878.94	900.93	903.98
5/5/2000	865.55	850.18	895.55	894.80	878.72	900.91	904.27
6/5/2000	864.81	850.14	895.72	895.01	878.62	active	904.30
7/5/2000	865.23	851.01	895.82	894.91	878.92	901.07	904.49
8/5/2000	866.38	851.69	896.18	895.48	878.97	active	904.59
9/5/2000	864.08	851.24	895.70	894.83	878.64	899.64	903.85
10/5/2000	862.73	850.57	895.92	894.67	878.75	901.27	904.17
11/15/2000	862.48	850.77	895.47	894.22	878.61	900.95	904.28

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/2001	862.43	frozen	frozen	frozen	frozen	frozen	frozen
2/5/2001	frozen	frozen	frozen	frozen	frozen	frozen	frozen
3/5/2001	frozen	frozen	917.26	frozen	frozen	active	frozen
4/5/2001	866.86	851.70	896.78	frozen	878.81	901.33	903.71
5/4/2001	868.36	851.63	897.96	896.93	879.09	902.34	904.97
6/5/2001	868.39	852.20	897.99	897.13	879.23	902.20	904.65
7/5/2001	866.87	851.90	897.32	896.75	879.35	901.70	904.45
8/4/2001	864.91	850.84	896.98	896.46	878.67	901.18	904.63
9/5/2001	863.39	850.70	897.94	896.38	879.23	901.83	903.92
10/5/2001	862.81	850.66	897.12	896.15	879.11	902.03	904.71
11/5/2001	862.61	850.60	897.15	896.12	879.15	902.00	904.60
12/5/2001	862.75	850.64	897.12	896.10	879.12	902.04	904.62

BENTON COUNTY SANITARY LANDFILL

Monthly Piezemeter Level Measurements

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/2002	864.20	850.32	frozen	frozen	frozen	907.94	frozen
2/5/2002	863.84	849.45	894.96	frozen	878.07	907.75	897.42
3/5/2002	863.45	850.10	894.75	frozen	879.22	907.62	897.73
4/5/2002	864.83	850.34	894.72	894.00	878.59	900.80	897.17
5/6/2002	866.63	851.45	897.23	895.33	878.97	917.82	904.98
6/5/2002	866.54	852.05	894.91	895.11	879.99	896.60	905.86
7/5/2002	865.44	851.60	896.76	894.92	878.57	915.85	905.02
8/5/2002	864.15	851.32	896.94	895.35	878.90	902.00	905.03
9/5/2002	874.54	851.05	896.96	895.29	878.72	901.75	905.50
10/5/2002	862.94	850.91	897.30	895.51	878.90	905.65	905.56
11/5/2002	863.39	851.33	917.53	895.42	879.06	901.73	905.78
12/5/2002	863.72	850.77	897.21	895.15	878.55	901.81	904.91

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/6/2003	864.31	850.85	896.18	894.55	879.02	901.50	904.88
2/6/2003	863.33	850.05	frozen	frozen	frozen	frozen	904.17
3/5/2003	863.73	850.46	frozen	frozen	frozen	frozen	904.25
4/2/2003	864.33	850.91	894.92	893.21	878.44	901.25	904.30
5/5//03	856.42	850.44	895.44	893.78	878.52	902.38	904.78
6/5/2003	866.60	851.83	896.33	894.50	878.78	908.19	898.19
7/7/2003	862.91	851.32	897.14	892.38	878.82	901.50	905.75
8/5/2003	863.64	850.90	896.40	894.28	878.87	901.45	904.97
9/5/2003	862.23	850.23	896.41	893.88	878.27	900.97	904.41
10/6/2003	861.44	849.84	895.36	893.90	878.17	901.14	904.47
11/5/2003	862.03	849.94	896.35	894.68	878.64	902.33	905.02
12/5/2003	861.53	849.54	896.33	894.22	878.17	901.41	905.71

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/2004	862.32	850.04	frozen	894.25	878.16	frozen	904.97
2/5/2004	862.93	849.74	frozen	893.92	frozen	frozen	904.77
3/5/2004	865.13	850.69	896.69	894.61	877.97	902.14	904.41
4/5/2004	866.55	851.39	897.08	894.72	878.39	901.89	905.15
5/5/2004	866.72	852.10	897.14	895.32	878.72	897.59	908.45
6/5/2004	864.73	851.85	897.34	895.68	878.72	901.80	905.31
7/5/2004	867.40	852.13	897.50	896.49	879.13	916.20	905.94
8/5/2004	866.79	852.10	897.80	896.57	879.26	916.84	906.38
9/4/2004	866.72	852.09	897.85	898.04	879.06	915.83	906.01
10/5/2004	866.29	851.88	897.54	897.31	879.33	902.24	906.36
11/5/2004	865.19	851.40	897.01	896.21	878.52	901.45	905.57
12/5/2004	865.13	851.05	896.31	896.13	878.55	901.70	904.98

BENTON COUNTY SANITARY LANDFILL

Monthly Piezemeter Level Measurements

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/2005	865.33	851.37	896.20	895.98	878.42	901.80	904.92
2/5/2005	867.09	851.62	895.06	895.28	878.28	901.83	904.87
3/5/2005	868.14	852.25	897.06	897.13	878.92	902.50	905.04
4/5/2005	868.19	852.30	895.72	896.29	878.87	901.45	905.29
5/5/2005	867.32	853.06	896.25	896.21	875.32	901.82	905.43
6/5/2005	867.81	851.80	896.81	896.33	878.82	902.45	905.87
7/5/2005	865.82	850.44	896.51	896.25	878.72	902.35	906.27
8/5/2005	863.79	851.07	895.51	895.98	878.76	902.00	906.37
9/5/2005	863.04	850.35	896.05	895.67	878.32	901.71	906.28
10/5/2005	863.36	850.30	895.63	895.51	878.90	899.41	906.56
11/5/2005	862.84	849.95	894.21	894.93	878.37	901.75	905.87
12/5/2005	861.96	849.15	frozen	894.13	frozen	frozen	905.17

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/2006	861.70	849.15	892.94	895.23	877.99	901.77	905.20
2/6/2006	861.99	849.34	892.45	894.58	frozen	901.65	904.85
3/6/2006	861.99	849.30	894.43	893.94	877.77	901.60	904.72
4/5/2006	863.97	850.31	893.18	895.00	879.34	902.31	905.29
5/5/2006	866.19	851.65	897.01	896.18	878.87	911.14	905.19
6/5/2006	866.32	851.72	896.21	896.57	878.84	902.33	905.19
7/5/2006	866.13	851.40	896.43	895.46	878.71	902.30	905.97
8/5/2006	864.36	850.51	884.69	894.81	878.34	902.00	906.12
9/5/2006	863.89	850.05	885.21	895.08	878.32	902.50	906.58
10/5/2006	862.29	849.52	884.61	894.33	878.07	901.60	906.30
11/8/2006	862.14	849.15	894.84	894.65	878.29	902.49	906.50
12/8/2006	859.54	848.50	894.02	894.01	877.92	902.00	905.82

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/2007	862.39	848.90	896.95	894.73	878.76	902.80	905.72
2/8/2007	862.54	848.30	frozen	frozen	frozen	frozen	904.87
3/5/2007	862.26	848.15	894.61	frozen	frozen	frozen	904.57
4/2/2007	863.65	849.46	897.02	894.67	879.61	902.90	905.40
5/9/2007	867.94	849.61	897.06	896.78	879.39	903.20	905.52
6/6/2007	868.04	849.95	897.04	896.88	879.17	905.85	906.32
7/3/2007	868.64	850.85	897.16	898.23	880.27	903.11	906.57
8/3/2007	866.29	849.85	896.96	898.13	878.97	902.45	906.72
9/5/2007	866.29	850.65	897.01	898.83	879.07	902.45	906.48
10/6/2007	866.04	849.40	896.51	898.13	879.23	902.35	907.02
11/5/2007	864.69	850.60	897.31	899.13	879.07	902.60	906.82
12/5/2007	864.91	850.83	897.15	899.51	879.32	902.78	906.61

BENTON COUNTY SANITARY LANDFILL

Monthly Piezemeter Level Measurements

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/14/2008	863.92	850.51	frozen	frozen	frozen	frozen	906.24
2/5/2008	frozen	frozen	frozen	frozen	frozen	frozen	frozen
3/7/2008	frozen	frozen	897.42	899.62	frozen	frozen	906.62
4/15/2008	869.99	852.35	897.66	901.23	880.37	904.87	905.10
5/5/2008	870.03	852.25	897.16	901.83	879.89	912.30	905.70
6/7/2008	870.49	852.15	897.21	901.31	879.91	912.32	905.72
7/7/2008	869.28	851.19	897.51	901.41	879.41	911.81	905.81
8/8/2008	870.32	851.44	897.15	901.72	879.21	912.61	905.21
9/6/2008	868.84	850.60	896.76	900.55	879.22	903.38	907.27
10/6/2008	869.52	850.32	897.48	901.41	879.20	904.90	906.15
11/1/2008	868.48	850.11	895.95	899.74	879.72	903.09	907.21
12/5/2008	868.40	850.06	895.92	899.65	879.90	903.00	907.13

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/2009	868.44	850.08	895.90	899.70	879.76	903.08	907.16
2/5/2009	868.78	850.40	895.75	899.10	879.90	903.20	907.89
3/4/2009	869.40	851.35	895.80	898.54	879.80	902.78	906.40
4/6/2009	870.15	851.76	896.54	898.99	878.30	902.62	906.70
5/5/2009	868.46	851.78	896.50	899.30	878.25	903.40	907.20
6/5/2009	869.83	857.88	898.70	899.33	878.47	907.70	905.23
7/6/2009	868.72	850.37	895.87	899.08	878.80	903.25	907.97
8/5/2009	869.29	851.20	898.35	900.00	878.51	903.80	906.04
9/4/2009	869.99	851.42	898.68	901.18	878.84	903.82	906.66
10/5/2009	869.92	851.40	898.80	901.10	878.72	903.76	906.70
11/x/2009	870.12	851.45	898.95	900.04	879.03	907.72	906.74
12/x/2009	868.42	850.09	895.70	899.58	879.85	903.04	907.26

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/2010	frozen	frozen	frozen	frozen	frozen	frozen	frozen
2/5/2010	868.26	850.12	894.44	898.32	879.10	903.18	906.82
3/5/2010	862.25	851.72	895.84	898.54	879.86	903.20	907.20
4/5/2010	870.69	851.90	896.62	900.00	878.81	903.26	906.58
5/5/2010	870.62	851.70	898.64	900.15	878.34	902.80	906.24
6/5/2010	869.70	852.20	896.46	900.10	878.25	902.82	905.78
7/6/2010	870.06	851.65	899.24	900.90	879.09	903.22	907.86
8/5/2010	871.76	851.13	898.81	900.42	878.64	903.35	906.12
9/4/2010	870.20	851.18	898.70	900.58	878.62	903.24	906.60
10/5/2010	869.54	852.65	898.54	899.60	877.50	903.84	904.70
11/5/2010	868.49	852.65	898.54	898.81	877.64	boiling	904.70
12/6/2010	frozen	849.05	898.76	899.71	877.15	frozen	905.54

BENTON COUNTY SANITARY LANDFILL

Monthly Piezemeter Level Measurements

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/2011	frozen	850.16	898.72	899.73	877.15	frozen	905.48
2/5/2011	frozen	849.10	898.70	899.68	877.12	frozen	905.36
3/5/2011	frozen	849.93	897.38	899.18	876.64	916.73	906.28
4/5/2011	869.79	850.81	898.80	897.85	877.74	920.45	906.32
5/5/2011	869.82	851.06	898.78	897.96	878.13	boiling	904.22
6/4/2011	870.02	851.12	898.72	899.40	878.20	boiling	906.18
7/5/2011	869.92	851.20	898.79	899.23	878.42	909.81	906.38
8/5/2011	870.06	851.16	898.82	900.00	878.60	904.96	906.12
9/6/2011	870.10	851.18	898.68	897.95	878.65	908.00	906.90
10/5/2011	865.32	852.70	898.82	897.73	877.94	907.42	906.67
11/5/2011	866.10	852.48	898.76	897.70	877.92	907.38	906.20
12/5/2011	867.20	852.50	897.60	898.22	877.98	907.41	906.58

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/2012	867.82	849.05	897.88	898.78	878.07	907.40	906.86
2/6/2012	867.50	849.08	898.16	898.72	878.05	907.40	906.84
3/5/2012	867.58	849.12	898.22	898.80	878.07	907.38	906.76
4/5/2012	867.60	850.02	898.72	898.21	878.12	907.40	906.83
5/6/2012	861.13	848.32	895.21	895.85	875.99	904.70	904.26
6/5/2012	868.08	850.10	897.72	897.16	877.08	906.82	906.24
7/5/2012	869.12	851.16	898.02	898.20	878.06	906.78	906.31
8/5/2012	870.06	851.22	897.85	898.17	878.10	906.73	906.25
9/5/2012	870.13	851.20	898.01	898.22	877.40	907.00	906.18
10/5/2012	869.50	851.18	898.22	898.30	878.08	907.05	906.13
11/5/2012	broke	848.80	890.63	896.85	878.65	907.83	906.54
12/5/2012	broke	850.01	897.90	897.20	878.45	906.70	906.10

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/5/2013	broke	849.06	897.84	897.24	878.60	906.68	906.08
2/5/2013	broke	848.66	897.81	896.90	878.39	906.70	906.02
3/5/2013	broke	850.00	898.02	896.87	878.41	906.76	906.06
4/5/2013	broke	847.68	897.80	896.23	877.10	905.90	904.75
5/6/2013	broke	846.82	897.61	896.18	877.06	905.93	905.02
6/5/2013	broke	851.64	899.25	898.08	878.56	907.25	905.24
7/5/2013	broke	850.71	899.28	899.30	877.17	919.81	906.44
8/5/2013	876.12	850.08	898.38	899.38	877.35	916.13	907.08
9/5/2013	869.21	851.27	899.31	897.15	876.99	907.19	907.44
10/5/2013	868.84	848.50	898.60	896.33	876.90	907.11	907.89
11/5/2013	867.25	851.30	898.52	891.03	877.00	907.08	906.80
12/5/2013	867.32	852.01	897.60	891.00	877.10	907.12	906.78

BENTON COUNTY SANITARY LANDFILL

Monthly Piezemeter Level Measurements

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/6/2014	frozen	frozen	frozen	frozen	frozen	frozen	frozen
2/5/2014	frozen	frozen	frozen	frozen	frozen	frozen	frozen
3/5/2014	frozen	frozen	frozen	frozen	frozen	frozen	frozen
4/5/2014	867.82	850.30	898.45	891.06	877.05	907.45	906.26
5/5/2014	868.11	852.03	899.00	891.12	877.20	907.42	906.71
6/5/2014	868.14	852.05	898.65	891.08	877.21	907.40	906.68
7/7/2014	868.18	852.10	898.32	891.11	877.20	907.46	906.72
8/5/2014	867.86	852.07	898.29	891.08	877.16	907.43	906.70
9/5/2014	861.74	852.10	898.56	890.12	878.92	907.45	906.82
10/4/2014	862.21	852.16	898.30	891.06	877.18	907.42	906.65
11/6/2014	863.28	852.21	898.30	892.10	877.09	907.51	906.70
12/1/2014	864.64	848.85	897.68	897.35	877.04	907.45	906.56

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/6/2015	869.09	848.73	896.49	897.95	877.49	911.28	905.98
2/9/2015	869.52	848.41	897.71	897.13	877.51	909.46	907.30
3/5/2015	869.19	848.87	896.83	897.67	877.50	909.22	904.37
4/1/2015	869.59	849.33	898.24	898.38	878.75	909.47	909.93
5/15/2015	871.13	850.81	898.22	898.99	879.95	910.06	914.14
6/3/2015	871.82	851.03	898.04	898.88	880.31	916.47	906.87
7/1/2015	872.59	852.34	899.52	900.39	880.03	916.54	916.61
8/3/2015		852.38	899.30	899.84	879.69	915.18	908.88
9/4/2015		852.66	898.34	898.44	878.95	909.50	908.27
10/6/2015	Removed	851.35	898.72	898.26	879.15	909.17	907.81
11/5/2015		850.92	898.46	899.11	879.86	909.86	908.87
12/2/2015		852.04	899.51	899.76	879.44	911.37	910.55

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/4/2016		852.94	899.00	901.35	879.83	909.90	905.34
2/1/2016		853.04	899.08	901.51	879.56	910.18	905.48
3/2/2016		853.62	898.71	902.04	880.14	910.77	904.96
4/1/2016		854.09	897.84	901.98	877.23	910.27	905.26
5/10/2016	Removed	853.14	899.49	898.87	879.92	909.89	906.87
6/6/2016		852.62	896.57	900.12	879.51	913.17	906.84
7/7/2016		853.25	896.70	900.11	879.93	914.50	907.58
8/12/2016		852.86	896.02	899.21	879.76	913.90	906.65
9/14/2016		852.03	899.35	899.99	879.43	909.89	908.10
10/6/2016		851.96	898.67	899.11	879.20	910.14	908.46
11/9/2016		851.14	898.10	897.98	878.42	909.86	906.25
12/5/2016		851.64	898.71	898.46	879.01	910.10	907.10

BENTON COUNTY SANITARY LANDFILL

Monthly Piezemeter Level Measurements

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/10/2017		851.11	898.10	898.00	878.64	909.64	906.37
2/8/2017		850.82	897.65	898.46	878.47	910.08	905.86
3/9/2017		850.35	898.08	898.10	877.98	909.74	904.74
4/7/2017		851.42	899.01	898.76	879.42	910.77	906.07
5/2/2017	Removed	851.96	899.78	899.47	881.12	912.58	907.81
6/6/2017		850.78	897.91	897.86	878.21	909.54	904.68
7/6/2017		850.36	897.71	897.31	878.46	908.94	905.61
8/17/2017		851.01	898.14	898.10	879.51	909.71	905.91
9/7/2017		850.86	898.04	898.00	878.71	908.56	905.35
10/6/2017		849.76	897.98	897.34	877.86	908.10	904.63
11/14/2017		848.56	896.71	896.71	877.34	907.85	904.14
12/1/2017		851.31	897.24	896.59	877.25	909.31	906.59

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/9/2018		850.29	frozen	frozen	frozen	907.44	905.96
2/2/2018		849.93	897.08	895.44	874.91	908.43	904.13
3/7/2018		851.09	894.35	896.37	876.04	910.31	903.97
4/1/2018		850.69	893.76	895.76	875.15	903.93	901.86
5/2/2018	Removed	849.60	894.16	894.87	874.78	904.80	902.16
6/16/2018		849.48	893.67	893.86	874.14	903.33	902.02
7/5/2018		848.78	893.38	894.01	874.68	903.14	901.87
8/16/2018		848.69	893.65	893.09	873.69	902.86	901.14
9/6/2018		849.15	894.18	893.87	874.16	903.38	902.78
10/8/2018		850.17	895.99	895.43	875.77	904.91	903.84
11/14/2018		851.69	896.96	894.92	875.42	906.80	904.01
12/19/2018		851.46	897.22	895.16	875.81	907.14	904.85

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/8/2019		852.02	896.87	895.74	875.86	906.95	905.10
2/21/2019		852.14	896.96	895.69	875.69	907.04	905.31
3/20/2019		853.41	898.76	898.14	877.96	909.46	904.71
4/10/2019		853.70	899.14	898.69	877.90	909.72	905.12
5/9/2019	Removed	854.14	899.62	899.01	878.14	909.81	906.14
6/10/2019		853.16	898.12	898.01	878.01	909.02	905.22
7/23/2019		853.10	899.14	897.96	877.81	909.87	906.18
8/21/2019		853.86	899.24	899.00	878.14	909.65	905.76
9/13/2019		853.40	899.10	898.76	878.01	909.10	906.01
10/4/2019		853.96	900.06	899.44	879.60	910.14	906.64
11/21/2019		854.06	901.14	901.24	880.02	911.23	906.99
12/16/2019		854.14	901.69	901.78	880.92	910.87	907.89

TOC: Top of Casing Elevation

TD: Total Depth of the Leachate Piezometer.

BTM: Base of the Leachate Piezometer

BENTON COUNTY SANITARY LANDFILL

Monthly Piezemeter Level Measurements

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/16/2020		854.68	900.69	899.29	879.48	910.14	906.94
2/19/2020		854.80	899.26	899.48	879.01	910.87	906.36
3/2/2020		855.07	898.32	900.07	879.71	911.06	905.70
4/10/2020		853.84	898.90	901.17	879.38	911.12	903.92
5/20/2020	Removed	854.19	899.14	900.20	878.69	910.60	904.35
6/11/2020		853.10	897.44	898.81	877.12	909.81	902.18
7/16/2020		852.96	895.80	896.80	876.42	908.76	901.18
8/6/2020		853.86	896.91	898.11	878.07	909.92	902.86
9/24/2020		854.17	898.05	899.77	879.21	910.18	904.77
10/15/2020		854.99	899.42	900.48	879.05	909.91	904.86
11/19/2020		855.18	899.14	900.68	879.36	909.77	904.42
12/28/2020		854.80	898.69	899.77	878.92	910.46	905.01

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/14/2021		852.59	898.41	898.44	878.31	912.19	904.37
2/18/2021		850.11	898.07	898.34	877.01	912.34	904.70
3/15/2021		850.90	898.00	898.68	877.69	912.89	904.41
4/13/2021		851.14	897.69	899.01	877.30	912.12	904.11
5/4/2021	Removed	850.10	898.69	898.41	877.76	911.87	903.96
6/4/2021		849.86	897.91	898.01	876.85	910.85	903.41
7/8/2021		849.70	897.22	898.32	876.89	910.33	903.56
8/18/2021		849.49	898.11	897.29	876.69	910.01	903.91
9/14/2021		849.07	898.45	869.87	876.55	909.48	904.58
10/19/2021		849.14	899.01	897.46	877.14	909.98	905.15
11/17/2021		850.11	898.76	897.70	876.46	909.72	904.69
12/21/2021		850.76	899.14	898.69	877.50	910.11	904.98

BENTON COUNTY SANITARY LANDFILL

Monthly Piezemeter Level Measurements

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/17/2022		849.14	898.69	897.16	876.49	909.17	904.11
2/8/2022		frozen	897.10	frozen	876.10	frozen	903.85
3/14/2022		850.68	899.14	897.89	877.01	909.98	905.16
4/15/2022		850.29	899.60	897.53	877.67	904.19	903.90
5/19/2022	Removed	853.85	898.76	899.33	878.10	913.24	903.13
6/22/2022		852.68	898.12	898.69	877.56	909.76	902.86
7/18/2022		850.14	897.84	897.76	876.93	907.96	902.71
8/15/2022		849.86	897.14	897.01	877.12	908.12	901.89
9/14/2022		849.47	896.89	897.92	877.01	907.02	901.64
10/25/2022		850.10	897.99	898.14	877.36	909.01	902.78
11/21/2022		850.86	898.27	898.76	877.91	908.86	902.57
12/6/2022		850.26	898.69	899.04	877.68	909.17	902.89

TOC: Top of Casing Elevation

TD: Total Depth of the Leachate Piezometer.

BTM: Base of the Leachate Piezometer

Date	LPZ - 1	LPZ - 2	LPZ - 3	LPZ -4	LPZ -5	LPZ -6	LPZ -7
TOC	874.54	868.05	909.16	914.13	890.07	922.45	918.82
TD	19.00	22.90	31.00	23.70	18.70	44.70	24.10
BTM	855.54	845.15	878.16	890.43	871.37	877.75	894.72
1/18/2023		849.79	899.26	898.91	877.89	909.38	903.46
2/8/2023		850.08	899.02	898.14	877.69	frozen	904.37
3/14/2023		850.95	898.72	897.69	877.25	909.70	904.20
4/18/2023		849.59	899.47	897.77	877.79	911.14	903.02
5/17/2023	Removed	850.68	898.74	897.72	877.99	910.70	903.60
6/14/2023		850.26	899.31	898.01	878.25	910.64	904.07
7/10/2023			899.18	898.00	878.01	910.36	903.86
8/4/2023			898.72	897.70	877.64	910.35	904.89
9/19/2023		Removed	898.02	897.35	877.91	910.10	903.16
10/23/2023			898.64	897.62	877.14	909.14	902.91
11/14/2023			897.98	897.14	877.08	910.16	903.21
12/4/2023			899.37	898.41	877.69	910.70	903.72

Appendix H

Gas Monitoring Report

Gas Monitoring Report

Explosive gas monitoring per 113.9(2) and the approved GMSP was conducted during the last reporting period (2023). Monitoring points include the four subsurface monitoring points, (GMW's), four monitoring points located within facility structures (BLDG's), one underdrain monitoring point (GU), and four ambient air monitoring points (GMP's). Figure 2 in the body of the report illustrates the locations of the subsurface monitoring points.

Note that groundwater underdrains GU-2 and GU-3 were connected to the leachate collection system in March, 2016 and are no longer a part of the GMSP.

Explosive gas concentrations were below action levels during the monitoring episodes. Summary tables of gas monitoring are included in Appendix H.1. All gas concentrations are reported as percent (%) of Lower Explosive Limit (LEL).

Appendix H.1 –
Explosive Gas Monitoring Results (% LEL)

Annual Methane Gas Evaluation Report
Benton County Sanitary Landfill
2023

Readings are % LEL

Point Number	Location/Date	3/14/23	6/14/23	9/19/23	12/4/23
1	GMP-N (50' west of MW-6)	0	0	0	0
2	GMP-S (Due south of MW-14 at driveway)	0	0	0	0
3	GMP-W (Due west of LPZ-3; north of MW-22)	0	0	0	0
4	GMP-E (Due east of MW-19)	0	0	0	0
5	BLDG-1 (Scalehouse)	0	0	0	0
6	BLDG-2 (Shop and cold storage building)	0	0	0	0
7	GU-1 (Former SW3 42" RCP manhole)	0	0	0	0
8	GMW-1 (North facility property boundary 50' west of MW-6)	0	0	0	0
9	GMW-2 (East faility property boundary due east of MW-19)	0	0	0	0
10	GMW-3 (Due south of MW-14 at south fill site fence line)	0	0	0	0
11	GMW-4 (Due west of LPZ-3 at west fill site boundary; north of MW-22)	0	0	0	0
12	BLDG-3 (Scale pit)	0	0	0	0
13	BLDG-4 (Basement of scalehouse)	0	0	0	0