

**2023**  
**ANNUAL GROUNDWATER QUALITY REPORT**  
**OF**  
**THE AUDUBON COUNTY SANITARY LANDFILL**  
**05-SDP-01-75C**  
**AUDUBON, IOWA**

by:  
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February, 2024



**6050-23A.320**

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# Certification

Prepared by: 

Date: 2-23-2024

Printed: Todd Whipple, CPG

# Section 1.0 Background Information

## 1.1 Report Format

Table 1 through Table 13 are attached to this report and satisfy the IDNR requirement to provide the tables to meet the IDNR format requirements.

## 1.2 Report Priority

No requests are made herein for priority review of this document.

## 1.3 Period of Report Coverage

Water quality data evaluation is based on a running compilation of data beginning in June 9, 2008. Statistical evaluations herein are based on the most recent water quality data collected through October 13, 2023.

## 1.4 Current Site Maps

Figure 1 is attached illustrating the current site features, monitoring well locations, buildings, and leachate piezometer locations.

Figure 2 represents the groundwater contour map.

## 1.5 Site Status and Applicable Rules

### **Site Location & Status**

The Audubon County Sanitary Landfill is a closed landfill that operated from 1975 until its closure in 2007. The site is located in the NW  $\frac{1}{4}$  of the SE  $\frac{1}{4}$ , the NW  $\frac{1}{4}$  of the SW  $\frac{1}{4}$ , and lot B of the SW  $\frac{1}{4}$  of the NE  $\frac{1}{4}$ , all in Section 33, T80N, R35W of Audubon County, Iowa (Figure 1). Approximately 8.3 acres originally received waste and were closed under previous rules. An additional 10.6 acres also received waste and was closed during 2008. The permitted landfill stopped accepting waste on October 20, 2007 and began transferring to the Harrison County Landfill.

A closure permit (Permit No. 05-SDP-01-75C) was issued July 3, 2008 and expires July 3, 2038.

### **Site Geology/Hydrogeology**

The site geology and site hydrogeology are reported by Howard R. Green in the *Hydrogeologic Evaluation* (October 1990) and the *Supplement to the Hydrologic Monitoring Plan* (February 1992 – Doc #68059).

### **Monitoring Well Data**

The monitoring wells, their screened intervals, and the soil type are listed in the Table below.

## Monitoring wells in the sampling program at the Audubon County Sanitary Landfill

---

Monitoring Well	Screened Interval (feet bgs)	Screened Across
MW-90-4	8.0-18.0	Alluvium/colluvium
MW-90-7	7.5-12.5	Weathered till
MW-90-14	7.0-17.0	Alluvium/colluvium
MW-90-17	25.0-35.0	Weathered till
MW-91-19	7.5-22.5	Alluvium with sand seams Over till with sand lens
MW-91-20	15.0-30.0	Glacial till

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### **Applicable Rules**

Iowa Administrative Code (IAC) 567-113 is applicable to the site.

## **MONITORING WELL MAINTENANCE PERFORMANCE REEVALUATION**

Table 3 outlines the status of well performance and maintenance activities performed as required by IAC 567-113.10(2)“f”. Water elevation information is summarized in Table 4 and Table 4A.

### *High & Low Water Levels*

Current year water elevation data is included on Table 4. Historic water elevation data (2009 to present) is included in Table 4A. The high and low water elevations in 2023 are summarized in Table 4.

A Water Table Contour Map (Figure 2) dated October 13, 2023, is included with this report and illustrates the water surfaces and the effects of the topography.

Review of the 2023 water elevation data does not indicate any remarkable water elevation conditions.

### *Well Depth & Sedimentation*

Well depth measurements were made October 13, 2023. Review of the well depth data included on Table 4 do not indicate that significant well sedimentation is occurring at any site monitoring wells (less than 6 inches of sedimentation).

### *Well Recharge Rates & Chemistry*

The general in-situ permeability was defined in the 1990 Hydrogeologic Investigation Report and the 1992 Supplement to the Hydrologic Monitoring Plan. The summary information is included on Table 4.

Based on the apparent static conditions across the site, it appears that the semi-annual water elevation data is sufficient to adequately monitor the hydrologic condition of the site. Review of the water elevation data for 2023 does not indicate excessive variability compared to historic water elevation data. The wells are interpreted to be appropriately located to detect any impact, should it occur.

## Section 2.0 Reporting Period Monitoring Activities

The Hydrologic Monitoring for the site is approved by Permit Amendment #3 dated October 26, 2010 (Doc# 60926). The current HMSP is summarized in Table 1.

Background monitoring wells are restricted to a single well (MW90-17). The background monitoring well is functioning as a valid sampling point based on the hydrogeology and the water quality results.

Downgradient monitoring points include MW90-4, MW90-7, MW90-14, MW91-19, MW91-20, and SW-3.

The HMSP Implementation Schedule for 2024 is itemized in Table 2.

A comprehensive summary of Analytical Data for the episodes between 2008 and October 13, 2023 is included on Table 9.

### 2.1 Current Detection Monitoring Activities

The background well is currently MW90-17.

Downgradient monitoring points include MW90-4, MW90-7, MW90-14, MW91-19, MW91-20, and SW-3.

### 2.2 Current Assessment Monitoring Activities

Monitoring wells MW90-4, MW90-7, MW90-14, MW91-19 are included in the assessment monitoring program. To date, bis(2-ethylhexyl)phthalate are the only Appendix II compounds detected.

The full Appendix II parameter list is analyzed on an approved five (5) year frequency at all assessment wells. Approval of the five (5) year frequency is included in Permit Amendment #4, dated November 20, 2014 (Doc # 81876).

The most recent full Appendix II sampling was completed on October 13, 2023 at MW90-14.

## Section 3.0 Data Evaluation and Summary

Field sampling information for the April 7, 2023 and October 13, 2023 sampling episodes is included on the field forms (IDNR Form 542-1322) in Appendix A. Chemical analytical results for the April 7, 2023 and October 13, 2023 sample collection episodes are included in Appendix B. The cumulative chemical analytical data is also presented in summary form in Table 9.

Statistical Evaluations are prepared by Otter Creek Environmental Services for the Spring and Fall monitoring episodes. The Groundwater Statistics Report for the Audubon County Sanitary Landfill, First Semi-Annual Monitoring Event in 2023, dated May, 2023 is included in Appendix C.1. The Groundwater Statistics Report for the Audubon County Sanitary Landfill, Second Semi-Annual Monitoring Event in 2023, dated November, 2023 is also included in Appendix C.2.

### QUALITY ASSURANCE/QUALITY CONTROL

A blind duplicate sample was collected at MW91-19 during the April 7, 2023 sampling episode. A blind duplicate was collected at MW90-14 during the October 13, 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 (April 7, 2023 and October 13, 2023) were within the limits established and indicate that the data quality is acceptable without restriction.

### SITE SPECIFIC GWPS

There are no Site-Specific GWPS established for this facility. GWPS are as listed in the Statewide Standards published in Iowa Administrative Code (IAC) 567, Chapter 137. All GWPS are listed on Table 5.

## **STATISTICALLY SIGNIFICANT INCREASES (SSI)**

Test results from background monitoring well MW90-17 (Table 5) are utilized to establish background conditions of site groundwater.

All downgradient well data is evaluated herein. In the downgradient wells, compounds that have exceeded a calculated prediction limit in 2023 (spring and/or fall) are summarized in Table 6.

The water quality data at each downgradient well is also evaluated over time in Table 7 which summarizes compounds in downgradient wells that have exceeded a control limit since September 30, 2009. Note that exceedances are documented over time at assessment monitoring wells (MW90-4, MW90-7, MW90-14, MW91-19).

## **ASSESSMENT MONITORING SUMMARY**

The full Appendix II (assessment) monitoring events have historically been completed at MW90-4, MW90-7, MW90-14, and MW91-19. Bis (2-ethylhexyl)phthalate is the only Appendix II compound detected (beyond the Appendix I list).

Full Appendix II List Assessment Monitoring is required on a five (5) year frequency as approved by the IDNR in Permit Amendment #4, dated November 20, 2014 (Doc # 81876).

The most recent full Appendix II sampling was completed on October 13, 2023 at MW90-14.

A summary of bis(2-ethylhexyl) phthalate testing to date is presented in Appendix D. The full Appendix II sampling episodes are highlighted in green in the tables in Appendix D.

## **STATISTICALLY SIGNIFICANT LEVELS (SSL)**

The detections that exceed site prediction limits (brown highlights on Table 7) are utilized to calculate the Confidence Interval (the 95% lower confidence limits (LCL) and the 95% upper control limits (UCL)) 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.

The Confidence Intervals (95% LCL and 95% UCL) are calculated during each statistical evaluation based on the most recent four (4) data points. *There are no recorded SSL.*

## **CORRECTIVE MEASURES MONITORING RESULTS**

Not applicable at this time.



## Section 4.0 Leachate Collection System Performance Evaluation

The Audubon County Sanitary Landfill was originally permitted in 1975. The pre-1989 fill areas are unlined areas constructed and operated as an area-type fill on the east side of the landfill. A vertical expansion was approved in 1992. When that was filled in 1994, an expansion between two filled cells on the south side of the site allowed vertical expansion over the existing waste cells. A four-foot clay liner was installed between the two cells with a leachate collection system completed in 1995. The leachate control system consists of three perforated collection lines that extend several feet into the existing waste cells. The collection lines are tied to solid wall conveyance lines that gravity flow into two manholes located in series. The second manhole directs the leachate to a lagoon for storage. The lagoon is an earthen structure lined with a 60 mil HDPE liner.

Periodically, when full, the lagoon contents are hauled to the Audubon Public-Owned Treatment Works (POTW) for treatment in accordance with previous treatment agreements with the City of Audubon.

During June 2017, an aerator was installed in the leachate lagoon to reduce the volume of leachate required to be transported to the POTW. An email from IDNR dated June 13, 2016, indicated a permit amendment was not required for the aerator.

### QUANTITIES

Appendix E summarizes the annual quantity of leachate collected and hauled and/or recirculated since the installation of the leachate control system (1996). In 2023, 153,300 gallons of leachate were hauled to the Audubon POTW for treatment.

The available freeboard in the lagoon is inspected semi-annually during the routine landfill inspections.

The tile line (SW-3) constructed on the north side of the lagoon continues to be monitored semi-annually as part of the groundwater monitoring program. No evidence of leakage from the liner has been observed or detected during any monitoring event.

### LEACHATE TESTING

A leachate sample was collected for analysis on October 5, 2022 (Appendix F). The sample was collected in anticipation of the lagoon contents being transported to the POTW during the fall of 2022. However, hauling instead occurred during the spring of 2023.

### MAINTENANCE OF THE SYSTEM

Currently, existing leachate piezometers are measured semi-annually (Table 12 and Table 12A). The current bottom elevations are also checked during each monitoring event.

The collection lines were cleaned by an outside contractor during the summer of 2023 in accordance with rule. The leachate line cleaning is scheduled to occur again in 2026.

## PERFORMANCE EVALUATION

Leachate piezometer level measurements for 2023 are included on Table 12.

Table 12A summarizes the leachate levels from 2009 through 2023. The historical leachate column thickness (prior to 2009) has been previously provided by others.

The standard deviation and average leachate thickness is included in Table 12A. It appears that the levels vary little between monitoring events. This implies that the piezometers are isolated and not impacted by precipitation.

No leachate seeps were observed during either of the sampling events and there is no indication of any leachate leaving the site.

The leachate levels are measured semi-annually as approved in the IDNR review letter dated June 24, 2022 (#103487).

## Section 5.0 Gas Monitoring

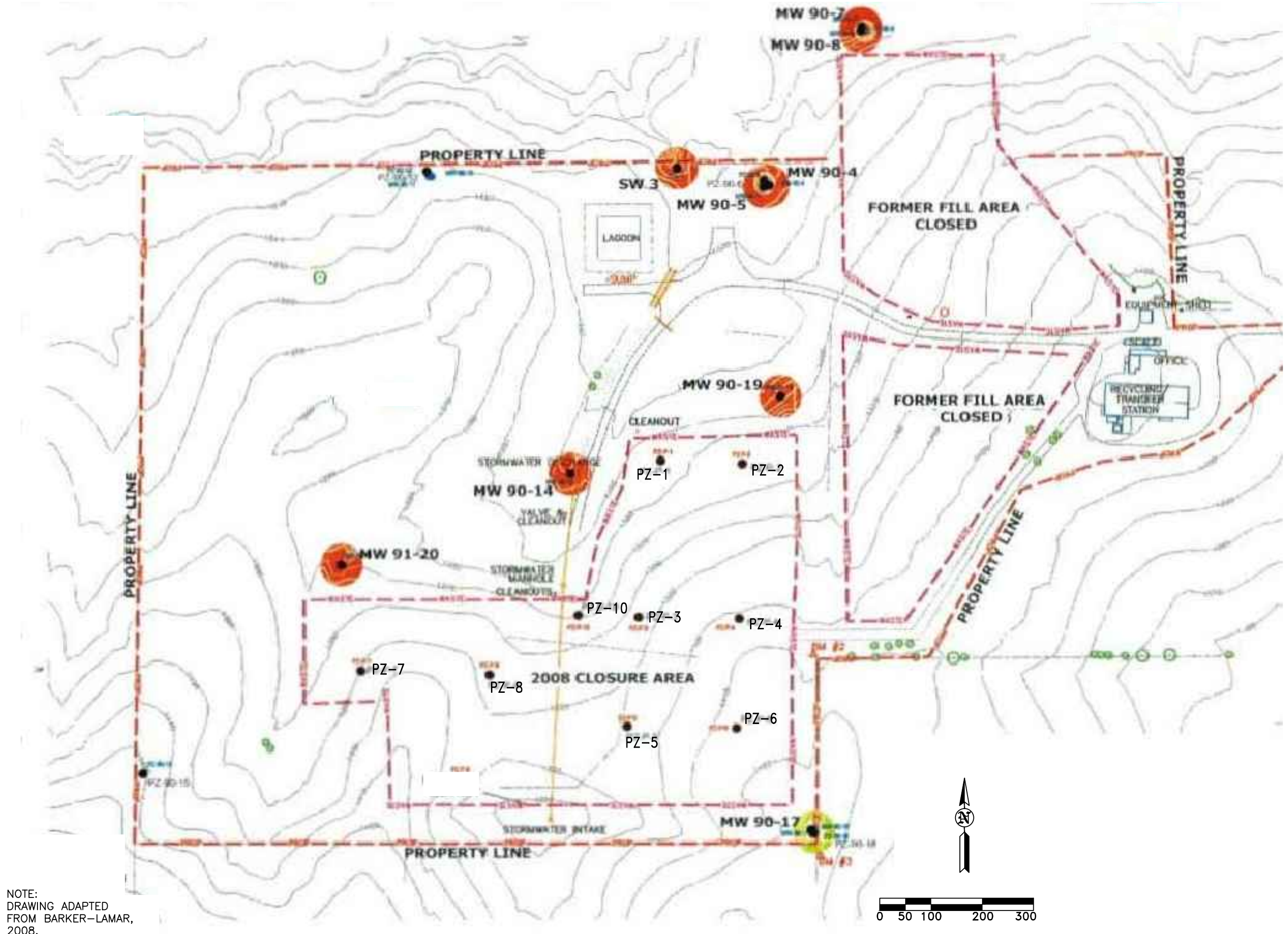
Explosive gas monitoring was performed semi-annually during monitoring well sampling events. The results are summarized in Table 13.

Review of Table 13 indicates that all recorded readings in 2023 were reported at 0% of the Lower Explosive Limit (LEL). Gas monitoring was conducted in all site structures and no readings were detected in 2023.

## Section 6.0 Recommendations

- a. Continue to perform sampling in accordance with the Permit.
- b. Continue to evaluate water quality in the Annual Water Quality Report, due January 31 of each year.
- c. Continue to perform semi-annual water level measurements in the Spring & Fall of each year and reevaluate the data in the Annual Water Quality Report.
- d. The Well Recharge Rate Evaluation should be performed again in 2024.
- e. Continue to perform *semi-annual* leachate level measurements. Continue to re-evaluate leachate levels in the Annual Groundwater Quality Report/Leachate Control System Performance Evaluation.
- f. Continue to perform semi-annual explosive gas monitoring and report the results in the Annual Groundwater Quality Report.
- g. Continue to maintain adequate free board in the lagoon.

## Figures



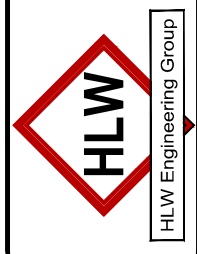
NOTE:  
DRAWING ADAPTED  
FROM BARKER-LAMAR,  
2008.

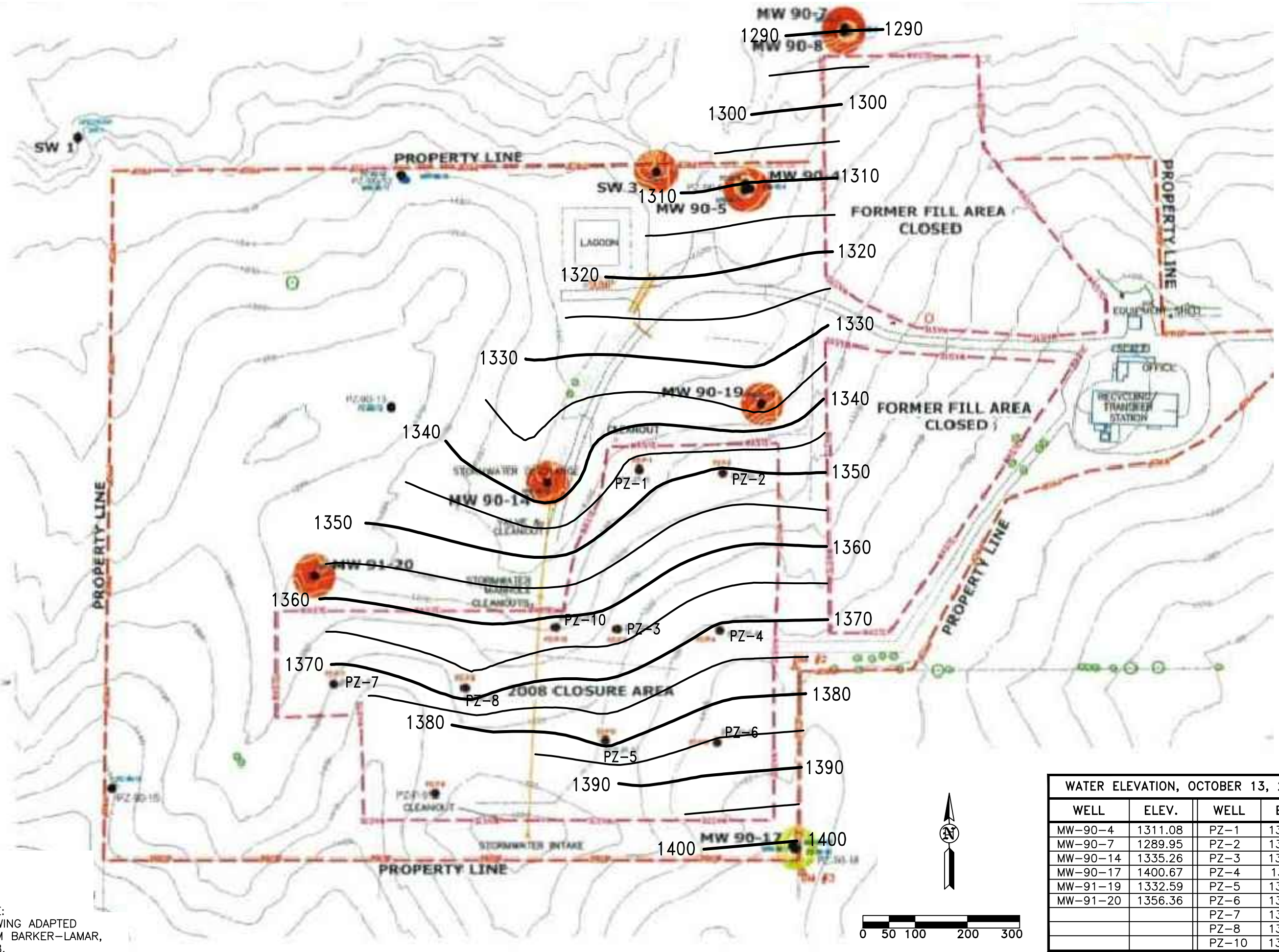
**FIGURE: 1**

REVISION	NO.	DATE
DRAWN	6050	10-19-22
DRA		

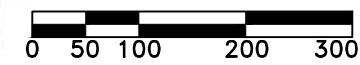
**SITE PLAN**  
AUDUBON COUNTY SANITARY LANDFILL  
AUDUBON, IOWA

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NOTE:  
DRAWING ADAPTED  
FROM BARKER-LAMAR,  
2008.



WATER ELEVATION, OCTOBER 13, 2023			
WELL	ELEV.	WELL	ELEV.
MW-90-4	1311.08	PZ-1	1347.28
MW-90-7	1289.95	PZ-2	1351.17
MW-90-14	1335.26	PZ-3	1362.44
MW-90-17	1400.67	PZ-4	1371.21
MW-91-19	1332.59	PZ-5	1378.37
MW-91-20	1356.36	PZ-6	1385.65
		PZ-7	1372.95
		PZ-8	1366.17
		PZ-10	1361.84

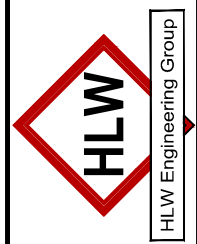
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DATE		1-23-23	

**FIGURE: 2**

**GROUNDWATER CONTOURS**

AUDUBON COUNTY SANITARY LANDFILL  
AUDUBON, IOWA

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## Table 1 – Monitoring Program Summary

**Table 1**  
**Monitoring Program Summary**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

Monitoring Well	Formation	Current Monitoring Program	Change for next sampling event	Historic - Constituents w/ SSI	Current Spring - Constituents w/ SSI	Current Fall - Constituents w/ SSI	Historic - Constituents w/ SSL	Current Spring - Constituents w/ SSL	Current Fall - Constituents w/ SSL	Total # of Samples in each monitoring program since September 30, 2009		
										Detection	Assessment	Corrective Action
MW90-17 (b)	Glacial Till	Background	NC	None	None	None	None	None	None	31	0	0
MW90-4	Glacial Till	Assessment	NC	cadmium, cobalt, bis(2ethylhexyl)phthalate	None	None	None	None	None	0	31	0
MW90-7	Glacial Till	Assessment	NC	cobalt, nickel, bis(2ethylhexyl)phthalate	cobalt, nickel	cobalt, nickel	None	None	None	0	31	0
MW90-14	Glacial Till	Assessment	NC	barium, cobalt, nickel, zinc, bis(2ethylhexyl)phthalate	None	barium, cobalt, nickel	None	None	None	0	31	0
MW91-19	Glacial Till	Assessment	NC	barium, cadmium, cobalt, nickel	barium	barium, cobalt	None	None	None	0	31	0
MW91-20	Glacial Till	Detection	NC	None	None	None	None	None	None	31	0	0
SW-3	Glacial Till	Detection	NC	None	None	None	None	None	None	31	0	0



## Table 2 – Monitoring Program Implementation Schedule

**Table 2**  
**Monitoring Program Implementation Schedule**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

Monitoring Well	Recent Sampling Dates and Constituents	Upcoming Sampling Dates and Constituents		Full Appendix II Sample Dates	
		April, 2024	October, 2024	Previously Collected	Next Event
MW90-17 (b)		Appendix I	Appendix I	June, 2008	N/A
MW90-4		Appendix I	Appendix I	June, 2008; March, 2016; April, 2021	April, 2026
MW90-7	<b>See Table 2A</b>	<b>Appendix II</b>	Appendix I	June, 2008; April, 2014; April, 2019	April, 2024
MW90-14		Appendix I	Appendix I	June, 2008; Sept., 2013; Sept., 2018; Oct. 2023	October, 2028
MW91-19		<b>Appendix II</b>	Appendix I	June, 2008; April, 2014; April, 2023	April, 2024
MW91-20		Appendix I	Appendix I	June, 2008	N/A
SW-3		Appendix I	Appendix I	June, 2008	N/A

(b) background well

Table 3 – Monitoring Well Maintenance Performance Reevaluation Schedule

**Table 3**  
**Monitoring Well Maintenance and Performance Reevaluation Schedule**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

Compliance with:	Monitoring Calendar Years									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
567 IAC 113.10(2)"f"(1) high and low water levels (bi-annual)	X		X		X	X	P	P	P	P
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths (historic = 1 per 5 years; current = bi-annual)	X		X		X	X	P	P	P	P
567 IAC 113.10(2)"f"(3) well depths (annual)	X		X		X	X	P	P	P	P
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry (bi-annual)	X		X		X		P		P	
Waste separation from ground water 113.6(2)"i"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

X = completed  
P = Planned  
N/A = Not Applicable

Table 4 – Monitoring Well Maintenance Performance Reevaluation Summary

**Table 4**  
**Monitoring Well Maintenance and Performance Summary**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

Well	Top of casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth Discrepancy (ft)	Hydraulic Cond. (cm/sec)/date	Most Recent Recharge Rate	
					4/5/2023	10/13/2023			4/7/2022	Change
MW90-17	1427.97	1400.67	37.3	Groundwater Level (ft)	25.95	27.3	0.07	0.0000004 1992	Full recovery in 24 hour	None perceived
				Groundwater Elevation (Ft MSL)	1402.02	1400.67				
				Measured Well Depth (ft)	37.23	37.23				
				Submerged (+) or Exposed screen (-)	1.35	0				
MW90-4	1324.25	1314.15	20.1	Groundwater Level (ft)	10.17	13.17	0	0.00005 1992	Full recovery in 3 hours	None perceived
				Groundwater Elevation (Ft MSL)	1314.08	1311.08				
				Measured Well Depth (ft)	20.1	20.1				
				Submerged (+) or Exposed screen (-)	-0.07	-3.07				
MW90-7	1300.32	1290.32	15	Groundwater Level (ft)	9.24	10.37	-0.03	0.00007 1992	Full recovery in 3 hours	None perceived
				Groundwater Elevation (Ft MSL)	1291.08	1289.95				
				Measured Well Depth (ft)	15.03	15.03				
				Submerged (+) or Exposed screen (-)	0.76	-0.37				
MW90-14	1347.51	1337.81	19.7	Groundwater Level (ft)	8.95	12.25	-0.16	0.00001 1992	Full recovery in 3 hours	None perceived
				Groundwater Elevation (Ft MSL)	1338.56	1335.26				
				Measured Well Depth (ft)	19.86	19.86				
				Submerged (+) or Exposed screen (-)	0.75	-2.55				
MW91-19	1347.5	1337.5	25	Groundwater Level (ft)	13.31	14.91	-0.1	0.00003 1992	Full recovery in 3 hours	None perceived
				Groundwater Elevation (Ft MSL)	1334.19	1332.59				
				Measured Well Depth (ft)	25.1	25.1				
				Submerged (+) or Exposed screen (-)	-3.31	-4.91				
MW91-20	1371.99	1354.59	32.4	Groundwater Level (ft)	10.92	15.63	0.08	0.0000003 1992	Full recovery in 6 hours	None perceived
				Groundwater Elevation (Ft MSL)	1361.07	1356.36				
				Measured Well Depth (ft)	32.32	32.32				
				Submerged (+) or Exposed screen (-)	6.48	1.77				

Table 4A – Historic Water Level Summary

**Table 4A**  
**Water Level Summary**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

Table 4A.--- Water-level data, Audubon County Sanitary Landfill (Continued).

Monitor Well/ TOC Elev. (ft)	Screened Interval		Water Level	Date									
	Depth (ft)	Elev. (ft)		3/5/2009	9/30/2009	3/23/2010	9/7/2010	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013
<b>MW-90-4</b> 1324.25	9.84 19.84	1314.41 1304.41	<b>Depth (ft)</b> <b>Elev. (ft)</b>	9.81 1314.44	9.90 1314.35	6.21 1318.04	9.28 1314.97	8.85 1315.40	9.80 1314.45	8.71 1315.54	11.60 1312.65	5.31 1318.94	10.82 1313.43
<b>MW-90-7</b> 1300.32	9.60 14.60	1290.72 1285.72	<b>Depth (ft)</b> <b>Elev. (ft)</b>	7.25 1293.07	7.49 1292.83	5.90 1294.42	7.14 1293.18	6.55 1293.77	7.27 1293.05	7.45 1292.87	8.59 1291.73	6.14 1294.18	8.86 1291.46
<b>MW-90-14</b> 1347.51	9.80 19.80	1337.71 1327.71	<b>Depth (ft)</b> <b>Elev. (ft)</b>	9.15 1338.36	9.32 1338.19	4.61 1342.90	8.38 1339.13	8.48 1339.03	9.11 1338.40	8.40 1339.11	10.26 1337.25	5.48 1342.03	10.19 1337.32
<b>MW-90-17</b> 1427.97	26.89 36.89	1401.08 1391.08	<b>Depth (ft)</b> <b>Elev. (ft)</b>	20.35 1407.62	22.31 1405.66	14.31 1413.66	19.73 1408.24	20.50 1407.47	21.80 1406.17	24.27 1403.70	25.78 1402.19	23.94 1404.03	23.66 1404.31
<b>MW-91-19</b> 1347.50	9.67 24.67	1337.83 1322.83	<b>Depth (ft)</b> <b>Elev. (ft)</b>	12.40 1335.10	13.24 1334.26	9.33 1338.17	12.64 1334.86	11.82 1335.68	13.02 1334.48	11.49 1336.01	14.10 1333.40	7.56 1339.94	13.80 1333.70
<b>MW-91-20</b> 1371.99	17.26 32.26	1354.73 1339.73	<b>Depth (ft)</b> <b>Elev. (ft)</b>	12.75 1359.24	12.17 1359.82	6.12 1365.87	8.92 1363.07	9.92 1362.07	11.60 1360.39	10.58 1361.41	15.42 1356.57	5.87 1366.12	14.35 1357.64



**Table 4A**  
**Water Level Summary**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

Table 4A.--- Water-level data, Audubon County Sanitary Landfill (Continued).

Monitor Well/ TOC Elev. (ft)	Water Level	Date									
		4/8/2014	9/22/2014	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2018	4/10/2018	9/24/2018
<b>MW-90-4</b> 1324.25	<b>Depth (ft)</b>	11.31	5.86	9.76	9.34	8.81	10.05	7.33	8.92	8.53	7.84
	<b>Elev. (ft)</b>	1312.94	1318.39	1314.49	1314.91	1315.44	1314.20	1316.92	1315.33	1315.72	1316.41
<b>MW-90-7</b> 1300.32	<b>Depth (ft)</b>	8.50	6.39	7.98	7.86	6.97	8.54	6.82	8.18	7.35	7.16
	<b>Elev. (ft)</b>	1291.82	1293.93	1292.34	1292.46	1293.35	1291.78	1293.50	1292.14	1292.97	1293.16
<b>MW-90-14</b> 1347.51	<b>Depth (ft)</b>	10.37	6.21	8.08	8.21	7.65	9.11	7.22	8.52	8.01	7.99
	<b>Elev. (ft)</b>	1337.14	1341.30	1339.43	1339.30	1339.86	1338.40	1340.29	1338.99	1339.50	1339.52
<b>MW-90-17</b> 1427.97	<b>Depth (ft)</b>	27.37	18.84	20.62	18.98	19.03	22.50	21.05	23.47	23.24	22.25
	<b>Elev. (ft)</b>	1400.60	1409.13	1407.35	1408.99	1408.94	1405.47	1406.92	1404.50	1404.73	1405.72
<b>MW-91-19</b> 1347.50	<b>Depth (ft)</b>	13.91	9.45	12.57	12.25	11.37	13.18	10.07	12.26	11.33	11.44
	<b>Elev. (ft)</b>	1333.59	1338.05	1334.93	1335.25	1336.13	1334.32	1337.43	1335.24	1336.17	1336.06
<b>MW-91-20</b> 1371.99	<b>Depth (ft)</b>	13.69	4.93	8.96	6.69	4.65	10.85	5.18	9.70	6.41	6.07
	<b>Elev. (ft)</b>	1358.30	1367.06	1363.03	1365.30	1367.34	1361.14	1366.81	1362.29	1365.58	1365.92

**Table 4A**  
**Water Level Summary**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

Table 4A.--- Water-level data, Audubon County Sanitary Landfill (Continued).

Monitor Well/ TOC Elev. (ft)	Water Level	Date										Mean/ Std. Dev.
		4/16/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022	4/5/2023	10/13/2023	
MW-90-4 1324.25	Depth (ft)	8.49	7.88	8.50	11.16	7.90	9.47	8.30	11.02	10.17	13.17	8.96
	Elev. (ft)	1315.76	1316.37	1315.75	1313.09	1316.35	1314.78	1315.95	1313.23	1314.08	1311.08	1.58
MW-90-7 1300.32	Depth (ft)	7.19	7.58	7.05	9.75	8.78	9.04	7.82	10.05	9.24	10.37	7.70
	Elev. (ft)	1293.13	1292.74	1293.27	1290.57	1291.54	1291.28	1292.50	1290.27	1291.08	1289.95	1.03
MW-90-14 1347.51	Depth (ft)	7.90	7.79	7.98	10.28	7.68	9.45	6.10	10.30	8.95	12.25	8.29
	Elev. (ft)	1339.61	1339.72	1339.53	1337.23	1339.83	1338.06	1341.41	1337.21	1338.56	1335.26	1.46
MW-90-17 1427.97	Depth (ft)	20.70	22.26	20.45	25.37	23.35	26.70	25.05	24.63	25.95	27.30	22.23
	Elev. (ft)	1407.27	1405.71	1407.52	1402.60	1404.62	1401.27	1402.92	1403.34	1402.02	1400.67	2.81
MW-91-19 1347.50	Depth (ft)	11.32	11.06	11.49	13.93	10.75	13.30	10.96	14.05	13.31	14.91	11.93
	Elev. (ft)	1336.18	1336.44	1336.01	1333.57	1336.75	1334.20	1336.54	1333.45	1334.19	1332.59	1.59
MW-91-20 1371.99	Depth (ft)	5.71	6.60	5.35	12.85	6.31	11.64	6.22	13.25	10.92	13.25	9.03
	Elev. (ft)	1366.28	1365.39	1366.64	1359.14	1365.68	1360.35	1365.77	1358.74	1361.07	1358.74	3.35

## Table 5 – Background and GWPS Summary

**Table 5**  
**Background and GWPS Summary**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

Interwell Background Well ( MW90-17)

Inorganics - Appendix I										
Constituent	Units	Model Type	Samples - N	Detections	Mean	SD	Prediction Limit	Confidence	GWPS	Source
Antimony (Sb)	µg/l	nonparametric	29	0			2.0000	0.99	6	SS
Arsenic (As)	µg/l	nonparametric	29	0			4.0000	0.99	10	SS
Barium (Ba)	µg/l	normal	29	29	247.0345	45.1976	360.4350		2000	SS
Beryllium (Be)	µg/l	nonparametric	29	0			4.0000	0.99	4	SS
Cadmium (Cd)	µg/l	nonparametric	30	1			1.1000	0.99	5	SS
Chromium (Cr)	µg/l	nonparametric	29	0			8.0000	0.99	100	SS
Cobalt (Co)	µg/l	nonparametric	29	0			0.8000	0.99	0.8	SS
Copper (Cu)	µg/l	nonparametric	29	0			4.0000	0.99	1300	SS
Lead (Pb)	µg/l	nonparametric	29	0			4.0000	0.99	15	SS
Nickel (Ni)	µg/l	nonparametric	29	4			7.1000	0.99	100	SS
Selenium (Se)	µg/l	nonparametric	29	0			4.0000	0.99	50	SS
Silver (Ag)	µg/l	nonparametric	29	0			4.0000	0.99	100	SS
Thallium (Tl)	µg/l	nonparametric	29	0			2.0000	0.99	2	SS
Vanadium (V)	µg/l	nonparametric	29	1			20.1000	0.99	35	SS
Zinc (Zn)	µg/l	nonparametric	29	2			10.5000	0.99	2000	SS
VOC - Appendix I										
Constituent	Units	Model Type	Samples - N	Detections	Mean	SD	Prediction Limit	Confidence	GWPS	Source
All	µg/l	DQR	29	0	<1	<1	<1	<1	various	SS

= Prediction limit exceeds the GWPS. A Site-Specific GWPS is warranted

## Table 6 – Summary of Detections

**Table 6**  
**Summary of Well/Detected Constituent Pairs that Exceed the Prediction Limit**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

<b>Date</b>	<b>Well</b>	<b>Constituent</b>	<b>Units</b>	<b>Most recent result</b>	<b>Background Standard</b>
4/5/2023	MW90-7	Cobalt	ug/L	1.6	0.8
10/13/2023	MW90-7	Cobalt	ug/L	19.8	0.8
4/5/2023	MW90-7	Nickel	ug/L	25.6	7.1
10/13/2023	MW90-7	Nickel	ug/L	29.4	7.1
10/13/2023	MW90-14	Barium	ug/L	381.0	360.4
10/13/2023	MW90-14	Cobalt	ug/L	0.9	0.8
10/13/2023	MW90-14	Nickel	ug/L	36.5	7.1
4/5/2023	MW91-19	Barium	ug/L	380	360.4
10/13/2023	MW91-19	Barium	ug/L	482	360.4
10/13/2023	MW91-19	Cobalt	ug/L	1.4	0.8

Table 7 – Summary of Ongoing and Newly Identified SSI

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

KEY:	SSI	SSL LCL>GWPS
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Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	Initial Exceedance	Resamples Due	5th Background Sample
MW90-4	Cadmium	9/30/2009	<1.0	1.10	0.004	5	NA	NA	10/5/2016
MW90-4	Cadmium	3/23/2010	<1.0	1.10	0.004	5	NA	NA	10/5/2016
MW90-4	Cadmium	9/7/2010	<1.0	1.10	0.004	5	10/3/2017	1/3/2018	10/5/2016
MW90-4	Cadmium	4/5/2011	<0.8	1.10	0.004	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	9/6/2011	<0.8	1.10	0.004	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	3/16/2012	<0.8	1.10	0.004	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	9/24/2012	<0.8	1.10	0.004	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	4/24/2013	<0.8	1.10	0.004	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	9/20/2013	<0.8	1.10	0.004	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	10/28/2013	<0.8	1.10	0.004	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	4/8/2014	<0.8	1.10	0.004	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	9/22/2014	<0.8	1.10	0.004	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	3/20/2015	<0.8	1.10	0.004	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	9/17/2015	1.20	1.10	0.000	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	3/17/2016	<0.8	1.10	0.000	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	8/26/2016	<0.8	1.10	0.000	5	10/3/2017	NA	10/5/2016
MW90-4	Cadmium	4/11/2017	<0.8	1.10	0.000	5	NA	NA	10/5/2016
MW90-4	Cadmium	9/23/2017	<0.8	1.10	0.004	5	NA	NA	10/5/2016
MW90-4	Cadmium	4/10/2018	<0.8	1.10	0.004	5	NA	NA	10/5/2016
MW90-4	Cadmium	9/24/2018	<0.8	1.10	0.004	5	NA	NA	10/5/2016
MW90-4	Cadmium	4/16/2019	<0.8	1.10	0.004	5	NA	NA	10/5/2016
MW90-4	Cadmium	8/29/2019	<0.8	1.10	0.004	5	NA	NA	10/5/2016
MW90-4	Cadmium	4/10/2020	<0.8	1.10	0.004	5	NA	NA	10/5/2016
MW90-4	Cadmium	10/9/2020	<0.8	1.10	0.004	5	NA	NA	10/5/2016
MW90-4	Cadmium	4/9/2021	0.80	1.10	0.004	5	NA	NA	10/5/2016
MW90-4	Cadmium	10/11/2021	<0.8	1.10	0.004	5	NA	NA	10/5/2016
MW90-4	Cadmium	4/7/2022	<0.8	1.10	0.004	5	NA	NA	10/5/2016
MW90-4	Cadmium	10/6/2022	3.10	1.10	0.000	5	NA	NA	10/5/2016
MW90-4	Cadmium	1/4/2023	<0.8	1.10	0.000	5	NA	NA	10/5/2016
MW90-4	Cadmium	4/5/2023	<0.8	1.10	0.000	5	NA	NA	10/5/2016
MW90-4	Cadmium	10/13/2023	<0.8	1.10	0.000	5	NA	NA	10/5/2016
MW90-4	Cobalt	9/30/2009	<4.0	0.80	0.004	2.1	NA	NA	10/5/2016
MW90-4	Cobalt	3/23/2010	<4.0	0.80	0.004	2.1	NA	NA	10/5/2016
MW90-4	Cobalt	9/7/2010	<4.0	0.80	0.004	2.1	NA	NA	10/5/2016
MW90-4	Cobalt	4/5/2011	<4.0	0.80	0.004	2.1	NA	NA	10/5/2016
MW90-4	Cobalt	9/6/2011	<4.0	0.80	0.004	2.1	10/3/2017	1/3/2018	10/5/2016
MW90-4	Cobalt	3/16/2012	<4.0	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	9/24/2012	<4.0	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	4/24/2013	<4.0	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	9/20/2013	<4.0	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	10/28/2013	<4.0	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	4/8/2014	<4.0	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	9/22/2014	<0.8	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	3/20/2015	<0.8	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	9/17/2015	<0.8	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	3/17/2016	<0.8	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	8/26/2016	<0.8	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	4/11/2017	<0.8	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	9/23/2017	<0.8	0.80	0.004	2.1	10/3/2017	NA	10/5/2016
MW90-4	Cobalt	4/10/2018	<0.8	0.80	0.004	2.1	10/5/2022	NA	10/5/2016
MW90-4	Cobalt	9/24/2018	<0.8	0.80	0.004	2.1	10/5/2022	NA	10/5/2016
MW90-4	Cobalt	4/16/2019	<0.8	0.80	0.004	2.1	10/5/2022	NA	10/5/2016
MW90-4	Cobalt	8/29/2019	<0.8	0.80	0.004	2.1	10/5/2022	NA	10/5/2016
MW90-4	Cobalt	4/10/2020	<0.8	0.80	0.004	2.1	10/5/2022	NA	10/5/2016
MW90-4	Cobalt	10/9/2020	<0.8	0.80	0.004	2.1	10/5/2022	NA	10/5/2016
MW90-4	Cobalt	4/9/2021	<0.8	0.80	0.004	2.1	10/5/2022	NA	10/5/2016
MW90-4	Cobalt	10/11/2021	<0.8	0.80	0.004	2.1	10/5/2022	NA	10/5/2016
MW90-4	Cobalt	4/7/2022	<0.8	0.80	0.004	2.1	10/5/2022	NA	10/5/2016
MW90-4	Cobalt	10/6/2022	2.0	0.80	0.000	2.1	10/5/2022	NA	10/5/2016
MW90-4	Cobalt	1/4/2023	<0.8	0.80	0.000	2.1	10/5/2022	NA	10/5/2016
MW90-4	Cobalt	4/5/2023	<0.8	0.80	0.000	2.1	10/5/2022	NA	10/5/2016
MW90-4	Cobalt	10/13/2023	<0.8	0.80	0.000	2.1	10/5/2022	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	9/30/2009	NT	6.00	---	6	NA	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	3/23/2010	NT	6.00	---	6	NA	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	9/7/2010	NT	6.00	---	6	NA	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	4/5/2011	NT	6.00	---	6	NA	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	9/6/2011	NT	6.00	---	6	10/3/2017	1/3/2018	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	3/16/2012	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	9/24/2012	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	4/24/2013	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	9/20/2013	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	10/28/2013	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	4/8/2014	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	9/22/2014	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	3/20/2015	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	9/17/2015	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	3/17/2016	<8	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	8/26/2016	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	4/11/2017	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	9/23/2017	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	4/10/2018	NT	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	9/24/2018	NT	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	4/16/2019	NT	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	8/29/2019	NT	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	4/10/2020	NT	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	10/9/2020	NT	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	4/9/2021	9.0	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	10/11/2021	NT	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	4/7/2022	<6	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	10/6/2022	14.0	6.00	2.119	6	10/5/2022	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	4/5/2023	<6	6.00	2.119	6	10/5/2022	NA	10/5/2016
MW90-4	bis(2-ethylhexyl)phthalate	10/13/2023	<6	6.00	0.000	6	10/5/2022	NA	10/5/2016



**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

KEY:	SSI	SSL LCL>GWPS
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Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	Initial Exceedance	Resamples Due	5th Background Sample
MW90-7	Cobalt	9/30/2009	4.80	0.80	---	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	3/23/2010	<4.0	0.80	---	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	9/7/2010	<4.0	0.80	---	2.1	10/3/2017	1/3/2018	10/5/2016
MW90-7	Cobalt	4/5/2011	<4.0	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	9/6/2011	<4.0	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	3/16/2012	4.30	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	9/24/2012	4.40	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	4/24/2013	<4.0	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	9/20/2013	5.70	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	10/28/2013	<4.0	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	4/8/2014	6.30	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	9/22/2014	2.70	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	3/20/2015	4.60	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	9/17/2015	6.50	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	3/17/2016	<4.0	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	8/26/2016	6.60	0.80	---	2.1	10/3/2017	NA	10/5/2016
MW90-7	Cobalt	4/11/2017	1.50	0.80	---	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	9/23/2017	2.50	0.80	---	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	4/10/2018	1.90	0.80	---	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	9/24/2018	5.10	0.80	---	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	4/16/2019	<4.0	0.80	---	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	8/29/2019	1.60	0.80	---	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	4/10/2020	2.10	0.80	---	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	10/9/2020	2.10	0.80	1.67	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	4/9/2021	2.10	0.80	1.681	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	10/11/2021	5.30	0.80	1.018	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	4/7/2022	0.80	0.80	0.320	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	10/6/2022	6.00	0.80	0.611	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	4/5/2023	1.60	0.80	0.360	2.1	NA	NA	10/5/2016
MW90-7	Cobalt	10/13/2023	19.80	0.80	0.000	2.1	NA	NA	10/5/2016
MW90-7	Nickel	9/30/2009	49.10	7.10	---	100	NA	NA	10/5/2016
MW90-7	Nickel	3/23/2010	38.30	7.10	---	100	NA	NA	10/5/2016
MW90-7	Nickel	9/7/2010	50.50	7.10	---	100	NA	NA	10/5/2016
MW90-7	Nickel	4/5/2011	52.50	7.10	---	100	NA	NA	10/5/2016
MW90-7	Nickel	9/6/2011	43.40	7.10	---	100	10/3/2017	1/3/2018	10/5/2016
MW90-7	Nickel	3/16/2012	42.60	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	9/24/2012	28.60	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	4/24/2013	33.40	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	9/20/2013	60.40	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	10/28/2013	41.40	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	4/8/2014	39.60	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	9/22/2014	25.3	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	3/20/2015	34.0	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	9/17/2015	29.6	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	3/17/2016	23.5	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	8/26/2016	32.6	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	4/11/2017	23.3	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	9/23/2017	26.4	7.10	---	100	10/3/2017	NA	10/5/2016
MW90-7	Nickel	4/10/2018	33.8	7.10	---	100	10/5/2022	NA	10/5/2016
MW90-7	Nickel	9/24/2018	22.3	7.10	---	100	10/5/2022	NA	10/5/2016
MW90-7	Nickel	4/16/2019	16.3	7.10	---	100	10/5/2022	NA	10/5/2016
MW90-7	Nickel	8/29/2019	25.6	7.10	---	100	10/5/2022	NA	10/5/2016
MW90-7	Nickel	4/10/2020	23.0	7.10	---	100	10/5/2022	NA	10/5/2016
MW90-7	Nickel	10/9/2020	29.2	7.10	17.119	100	10/5/2022	NA	10/5/2016
MW90-7	Nickel	4/9/2021	42.1	7.10	20.008	100	10/5/2022	NA	10/5/2016
MW90-7	Nickel	10/11/2021	29.7	7.10	21.586	100	10/5/2022	NA	10/5/2016
MW90-7	Nickel	4/7/2022	15.2	7.10	16.118	100	10/5/2022	NA	10/5/2016
MW90-7	Nickel	10/6/2022	27.4	7.10	15.635	100	10/5/2022	NA	10/5/2016
MW90-7	Nickel	4/5/2023	25.6	7.10	16.939	100	10/5/2022	NA	10/5/2016
MW90-7	Nickel	10/13/2023	29.4	7.10	16.958	100	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	9/30/2009	NT	6.00	---	6	NA	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	3/23/2010	NT	6.00	---	6	NA	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	9/7/2010	NT	6.00	---	6	NA	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	4/5/2011	NT	6.00	---	6	NA	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	9/6/2011	NT	6.00	---	6	10/3/2017	1/3/2018	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	3/16/2012	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	9/24/2012	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	4/24/2013	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	9/20/2013	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	10/28/2013	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	4/8/2014	<8	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	9/22/2014	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	3/20/2015	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	9/17/2015	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	3/17/2016	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	8/26/2016	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	4/11/2017	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	9/23/2017	NT	6.00	---	6	10/3/2017	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	4/10/2018	NT	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	9/24/2018	NT	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	4/16/2019	9.00	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	6/25/2019	11.00	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	8/29/2019	15.00	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	4/10/2020	7.00	6.00	---	6	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	10/9/2020	<6	6.00	3.619	6	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	4/9/2021	7.00	6.00	2.701	6	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	10/11/2021	<6	6.00	2.283	6	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	4/7/2022	<6	6.00	1.647	6	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	10/6/2022	<6	6.00	1.647	6	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	4/5/2023	NT	6.00	1.647	6	10/5/2022	NA	10/5/2016
MW90-7	bis(2-ethylhexyl)phthalate	10/13/2023	NT	6.00	1.647	6	10/5/2022	NA	10/5/2016

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

KEY:	SSI	SSL LCL>GWPS
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Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	Initial Exceedance	Resamples Due	5th Background Sample
MW90-14	Barium	9/30/2009	840	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	3/23/2010	307	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	9/7/2010	388	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	4/5/2011	360	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	9/6/2011	352	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	3/16/2012	611	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	9/24/2012	601	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	4/24/2013	361	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	9/20/2013	1150	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	10/28/2013	450	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	4/8/2014	482	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	9/22/2014	462	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	3/20/2015	332	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	9/17/2015	274	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	3/17/2016	314	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	8/26/2016	301	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	4/11/2017	300	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	9/23/2017	270	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	4/10/2018	264	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	9/24/2018	307	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	4/16/2019	199	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	8/29/2019	300	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	4/10/2020	321	360.435	---	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	10/9/2020	503	360.435	181.853	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	4/9/2021	272	360.435	225.948	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	10/11/2021	313	360.435	231.367	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	4/7/2022	255	360.435	201.504	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	10/6/2022	245	360.435	235.983	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	4/5/2023	134	360.435	148.796	2000	3/16/2012	NA	9/6/2011
MW90-14	Barium	10/13/2023	381	360.435	134.930	2000	3/16/2012	NA	9/6/2011
MW90-14	Cobalt	9/30/2009	7.00	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	3/23/2010	<4.0	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	9/7/2010	<4.0	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	4/5/2011	<4.0	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	9/6/2011	<4.0	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	3/16/2012	<4.0	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	9/24/2012	<4.0	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	4/24/2013	<4.0	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	9/20/2013	6.00	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	10/28/2013	<4.0	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	4/8/2014	<4.0	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	9/22/2014	2.50	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	3/20/2015	2.40	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	9/17/2015	<0.8	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	3/17/2016	1.00	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	8/26/2016	<0.8	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	4/11/2017	0.80	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	9/23/2017	<0.8	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	4/10/2018	<0.8	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	9/24/2018	1.30	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	4/16/2019	<0.8	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	8/29/2019	<0.8	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	4/10/2020	0.50	0.80	---	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	10/9/2020	1.70	0.80	0.710	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	4/9/2021	0.60	0.80	0.304	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	10/11/2021	0.70	0.80	0.221	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	4/7/2022	<0.8	0.80	0.421	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	10/6/2022	2.40	0.80	0.354	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	4/5/2023	<0.8	0.80	0.903	2.1	9/22/2014	NA	9/6/2011
MW90-14	Cobalt	10/13/2023	0.90	0.80	1.066	2.1	9/22/2014	NA	9/6/2011
MW90-14	Nickel	9/30/2009	59.10	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	3/23/2010	31.50	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	9/7/2010	45.20	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	4/5/2011	45.50	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	9/6/2011	33.90	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	3/16/2012	36.60	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	9/24/2012	26.40	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	4/24/2013	24.10	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	9/20/2013	60.20	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	10/28/2013	13.90	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	4/8/2014	31.10	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	9/22/2014	34.0	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	3/20/2015	18.3	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	9/17/2015	20.8	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	3/17/2016	36.1	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	8/26/2016	21.3	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	4/11/2017	31.9	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	9/23/2017	30.9	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	4/10/2018	20.1	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	9/24/2018	35.0	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	4/16/2019	12.2	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	8/29/2019	33.1	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	4/10/2020	41.7	7.10	---	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	10/9/2020	59.0	7.10	13.617	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	4/9/2021	31.1	7.10	26.273	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	10/11/2021	33.4	7.10	26.423	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	4/7/2022	20.2	7.10	16.604	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	10/6/2022	27.8	7.10	21.348	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	4/5/2023	6.3	7.10	8.118	100	3/23/2010	NA	9/6/2011
MW90-14	Nickel	10/13/2023	36.5	7.10	7.641	100	3/23/2010	NA	9/6/2011
MW90-14	Zinc	9/30/2009	38.5	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	3/23/2010	20.1	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	9/7/2010	<10.0	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	4/5/2011	<8.0	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	9/6/2011	<8.0	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	3/16/2012	13.7	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	9/24/2012	<8.0	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	4/24/2013	13.7	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	9/20/2013	21.3	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	10/28/2013	8.7	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	4/8/2014	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	9/22/2014	8.9	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	3/20/2015	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	9/17/2015	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	3/17/2016	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	8/26/2016	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	4/11/2017	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	9/23/2017	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	4/10/2018	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	9/24/2018	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	4/16/2019	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	8/29/2019	9.6	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	4/10/2020	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	10/9/2020	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	4/9/2021	<20	10.50	---	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc	10/11/2021	<20	10.50	10.000	2000	3/23/2010	NA	9/6/2011
MW90-14	Zinc								

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**

KEY:	SSI	SSL LCL>GWPS
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Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	Initial Exceedance	Resamples Due	5th Background Sample
MW91-19	Barium	9/30/2009	390	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	3/23/2010	350	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	9/7/2010	430	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	4/5/2011	347	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	9/6/2011	534	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	3/16/2012	390	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	9/24/2012	449	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	4/24/2013	277	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	9/20/2013	833	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	10/28/2013	467	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	4/8/2014	396	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	9/22/2014	317	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	3/20/2015	331	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	9/17/2015	275	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	3/17/2016	372	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	6/15/2016	310	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	8/26/2016	362	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	9/29/2016	291	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	4/11/2017	325	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	9/23/2017	516	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	11/15/2017	296	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	4/10/2018	339	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	9/24/2018	281	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	4/16/2019	342	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	8/29/2019	335	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	4/10/2020	373	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	6/9/2020	327	360.435	---	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	10/9/2020	495	360.435	291.175	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	4/9/2021	328	360.435	287.670	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	10/11/2021	321	360.435	267.895	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	4/7/2022	343	360.435	274.497	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	10/6/2022	504	360.435	271.485	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	1/4/2023	434	360.435	332.936	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	4/5/2023	380	360.435	332.936	2000	3/16/2012	NA	9/6/2011
MW91-19	Barium	10/13/2023	482	360.435	385.229	2000	3/16/2012	NA	9/6/2011
MW91-19	Cadmium	9/30/2009	<1.0	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	3/23/2010	<1.0	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	9/7/2010	<1.0	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	4/5/2011	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	9/6/2011	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	3/16/2012	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	9/24/2012	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	4/24/2013	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	9/20/2013	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	10/28/2013	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	4/8/2014	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	9/22/2014	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	3/20/2015	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	9/17/2015	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	3/17/2016	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	8/26/2016	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	4/11/2017	2.3	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	9/23/2017	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	4/10/2018	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	9/24/2018	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	4/16/2019	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	8/29/2019	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	4/10/2020	<0.8	1.1	---	5	NA	NA	9/6/2011
MW91-19	Cadmium	10/9/2020	<0.8	1.1	0.400	5	NA	NA	9/6/2011
MW91-19	Cadmium	4/9/2021	<0.8	1.1	0.400	5	NA	NA	9/6/2011
MW91-19	Cadmium	10/11/2021	<0.8	1.1	0.400	5	NA	NA	9/6/2011
MW91-19	Cadmium	4/7/2022	<0.8	1.1	0.400	5	NA	NA	9/6/2011
MW91-19	Cadmium	10/6/2022	2.9	1.1	0.000	5	NA	NA	9/6/2011
MW91-19	Cadmium	4/5/2023	<0.8	1.1	0.000	5	NA	NA	9/6/2011
MW91-19	Cadmium	10/13/2023	<0.8	1.1	0.000	5	NA	NA	9/6/2011
MW91-19	Cobalt	9/30/2009	<4.0	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	3/23/2010	<4.0	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	9/7/2010	<4.0	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	4/5/2011	<4.0	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	9/6/2011	<4.0	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	3/16/2012	<4.0	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	9/24/2012	<4.0	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	4/24/2013	<4.0	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	9/20/2013	<4.0	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	10/28/2013	<4.0	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	4/8/2014	<4.0	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	9/22/2014	1.00	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	3/20/2015	<0.8	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	9/17/2015	<0.8	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	3/17/2016	<0.8	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	8/26/2016	1.00	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	4/11/2017	<0.8	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	9/23/2017	<0.8	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	4/10/2018	<0.8	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	9/24/2018	<0.8	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	4/16/2019	<0.8	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	8/29/2019	<0.8	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	4/10/2020	<0.8	0.80	---	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	10/9/2020	2.40	0.80	1.865	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	4/9/2021	<0.8	0.80	0.000	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	10/11/2021	<0.8	0.80	0.000	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	4/7/2022	<0.8	0.80	0.000	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	10/6/2022	1.90	0.80	0.000	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	1/4/2023	0.70	0.80	0.058	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	4/5/2023	0.50	0.80	0.058	2.1	NA	NA	9/6/2011
MW91-19	Cobalt	10/13/2023	1.40	0.80	0.366	2.1	NA	NA	9/6/2011
MW91-19	Nickel	9/30/2009	7.10	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	3/23/2010	6.70	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	9/7/2010	6.90	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	4/5/2011	9.70	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	9/6/2011	8.30	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	3/16/2012	6.20	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	9/24/2012	6.80	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	4/24/2013	6.00	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	9/20/2013	5.50	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	10/28/2013	4.40	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	4/8/2014	4.30	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	9/22/2014	6.8	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	3/20/2015	4.0	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	9/17/2015	<4.0	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	3/17/2016	5.2	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	8/26/2016	7.1	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	4/11/2017	5.1	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	9/23/2017	4.5	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	4/10/2018	<4.0	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	9/24/2018	<4.0	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	4/16/2019	<4.0	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	8/29/2019	<4.0	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	4/10/2020	5.7	7.10	---	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	10/9/2020	9.3	7.10	0.634	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	4/9/2021	<4.0	7.10	0.634	100	9/6/2011	NA	9/6/2011
MW91-19	Nickel	10/11/2021	<4.0	7.10	0.634	100	9/6/2011	NA	9/6/2011

**Table 8 - Summary of Ongoing and Newly Identified SSL - (Not Used)**

## Table 9 – Analytical Data Summary

Table 9

## Analytical Data Summary for MW90-14

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
(3 4)-methylphenol	ug/L								
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		<1.0		<1.0	<1.0	1.4	<1.0	<1.0
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		<10						
1,2,4-trichlorobenzene	ug/L		<8 *						
1,2-dibromo-3-chloropropane	ug/L		<10.00		<.86	<.86	<1.00	<1.00	<1.00
1,2-dibromoethane (edb)	ug/L		<10.00		<.25	<.25	<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								
1,3,5-trinitrobenzene	ug/L		<10						
1,3-dichlorobenzene	ug/L		<1						
1,3-dichloropropane	ug/L		<1						
1,3-dinitrobenzene	ug/L		<10						
1,4-dichlorobenzene	ug/L		<1		<1	<1	<1	<1	<1
1,4-naphthoquinone	ug/L		<10						
1,4-phenylenediamine	ug/L		<10						
1-naphthylamine	ug/L		<10						
2,2-dichloropropane	ug/L		<4						
2,3,4,6-tetrachlorophenol	ug/L		<10						
2,4,5-t	ug/L		<5.0						
2,4,5-tp (silvex)	ug/L		<5.0						
2,4,5-trichlorophenol	ug/L		<10						
2,4,6-trichlorophenol	ug/L		<10						
2,4-d	ug/L		<5						
2,4-db	ug/L		<5						
2,4-dichlorophenol	ug/L		<10						
2,4-dimethylphenol	ug/L		<10						
2,4-dinitrophenol	ug/L		<10						
2,4-dinitrotoluene	ug/L		<10						
2,6-dichlorophenol	ug/L		<10						
2,6-dinitrotoluene	ug/L		<10						
2-acetylaminofluorene	ug/L		<10						
2-butanone (mek)	ug/L		<10		<10	<10	<5	<5	<5
2-chloronaphthalene	ug/L		<10						
2-chlorophenol	ug/L		<10						
2-hexanone	ug/L		<10		<10	<10	<5	<5	<5
2-methylnaphthalene	ug/L		<10						
2-methylphenol (o-cresol)	ug/L		<10						
2-naphthylamine	ug/L		<10						
2-nitroaniline	ug/L		<10						
2-nitrophenol	ug/L		<10						
3,3'-dichlorobenzidine	ug/L		<85						
3,3'-dimethylbenzidine	ug/L		<20						
3/4-methylphenol	ug/L		<10						
3-methylcholanthrene	ug/L		<10						
3-nitroaniline	ug/L		<10						
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		<10						
4-aminobiphenyl	ug/L		<20						
4-bromophenyl phenyl ether	ug/L		<10						
4-chloro-3-methylphenol	ug/L		<10						
4-chloroaniline	ug/L		<10						
4-chlorophenyl phenyl ether	ug/L		<10						
4-methyl-2-pentanone (mibk)	ug/L		<10		<10	<10	<5	<5	<5
4-nitroaniline	ug/L		<10						
4-nitrophenol	ug/L		<8 *						
5-nitro-o-toluidine	ug/L		<10						
7,12-dimethylbenz (a) anthracene	ug/L		<10						
Acenaphthene	ug/L		<10 *						
Acetone	ug/L		<10.0		13.6	<10.0	<10.0	<10.0	<10.0
Acetonitrile	ug/L		<10						
Acetophenone	ug/L		<10						
Acrolein	ug/L		<10						
Acrylonitrile	ug/L		<10		<10	<10	<5	<5	<5
Aldrin	ug/L		<.05						
Allyl chloride	ug/L		<2						
Alpha-bhc	ug/L		<.05						

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

Table 9

Analytical Data Summary for MW90-14

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
(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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0	<1.0
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						∞			
1,2,4-trichlorobenzene						<1			
1,2-dibromo-3-chloropropane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00	<1.00
1,2-dibromoethane (edb)	<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			
1,3-dichloropropane						<1			
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						<1			
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-db						∞			
2,4-dichlorophenol						∞			
2,4-dimethylphenol						∞			
2,4-dinitrophenol						∞			
2,4-dinitrotoluene						∞			
2,6-dichlorophenol						∞			
2,6-dinitrotoluene						∞			
2-acetylaminofluorene						∞			
2-butanone (mek)	<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						∞			
3/4-methylphenol						∞			
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 (mibk)	<5	<5	<5	<5	<5	<5		<5	<5
4-nitroaniline						∞			
4-nitrophenol						∞			
5-nitro-o-toluidine						∞			
7,12-dimethylbenz (a) anthracene						∞			
Acenaphthene						∞			
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0		<10.0	<10.0
Acetonitrile						<10			
Acetophenone						∞			
Acrolein						<10			
Acrylonitrile	<5	<5	<5	<5	<5	<5		<5	<5
Aldrin						∞			
Allyl chloride						<1			
Alpha-bhc						<0.5			

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

Table 9

Analytical Data Summary for MW90-14

Constituents	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2017	4/10/2018	9/24/2018	11/1/2018
(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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
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	<1.00	<1.00
1,2-dibromoethane (edb)	<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-db									<8
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 (mek)	<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
3/4-methylphenol									<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 (mibk)	<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 *
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

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



Table 9

Analytical Data Summary for MW90-14

Constituents	4/16/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022	4/5/2023
(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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
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	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-dibromoethane (edb)	<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-db									
2,4-dichlorophenol									
2,4-dimethylphenol									
2,4-dinitrophenol									
2,4-dinitrotoluene									
2,6-dichlorophenol									
2,6-dinitrotoluene									
2-acetylaminofluorene									
2-butanone (mek)	<5	<5	<5	<5	<5	<5	<10	<10	<10
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									
3/4-methylphenol									
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 (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline									
4-nitrophenol									
5-nitro-o-toluidine									
7,12-dimethylbenz (a) anthracene									
Acenaphthene									
Acetone	<10.0	<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									

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

Table 9

## Analytical Data Summary for MW90-14

Constituents	10/13/2023
(3,4)-methylphenol	<8
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	<1.0
1,1-dichloroethene	<1
1,1-dichloropropene	<1
1,2,3-trichloropropane	<1
1,2,4,5-tetrachlorobenzene	<8
1,2,4-trichlorobenzene	<1
1,2-dibromo-3-chloropropane	<1.00
1,2-dibromoethane (edb)	<1.00
1,2-dichlorobenzene	<1
1,2-dichloroethane	<1
1,2-dichloropropane	<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
1,4-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-db	
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 (mek)	<5
2-chloronaphthalene	<8
2-chlorophenol	<8
2-hexanone	<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
3/4-methylphenol	
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 (mibk)	<5
4-nitroaniline	<8
4-nitrophenol	<8
5-nitro-o-toluidine	<8
7,12-dimethylbenz (a) anthracene	<8
Acenaphthene	<8 *
Acetone	<10.0
Acetonitrile	<10
Acetophenone	<8
Acrolein	<10
Acrylonitrile	<5
Aldrin	<.05
Allyl chloride	<1
Alpha-bhc	<.05

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

Table 9

## Analytical Data Summary for MW90-14

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
Alpha-chlordane	ug/L		<.05						
Ammonia as n	mg/L	<.2 *							
Anthracene	ug/L		<10						
Antimony, total	ug/L		<6		<6	<6	<1	<2	<2
Arsenic, total	ug/L		2.86		4.10	11.00	5.30	<4.00	5.40
Azobenzene	ug/L								
Barium, total	ug/L		386		394	368	840	307	388
Benzene	ug/L		<.5		<.5	<.5	<1.0	<1.0	<1.0
Benzo(a)anthracene	ug/L		<10						
Benzo(a)pyrene	ug/L		<10						
Benzo(b)fluoranthene	ug/L		<10						
Benzo(g,h,i)perylene	ug/L		<10						
Benzo(k)fluoranthene	ug/L		<10						
Benzyl alcohol	ug/L		<10						
Beryllium, total	ug/L		<1		<1	<1	<4	<4	<4
Beta-bhc	ug/L								
Bis(2-chloroethoxy)methane	ug/L		<10						
Bis(2-chloroethyl)ether	ug/L		<10						
Bis(2-chloroisopropyl) ether	ug/L		<10						
Bis(2-ethylhexyl)phthalate	ug/L		<10						
Bis[2-chloroisopropyl]ether	ug/L								
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		<10						
Cadmium, total	ug/L		1.83		1.45	2.84	3.80	1.30	1.00
Carbon disulfide	ug/L		<1		<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L		<2		<2	<2	<1	<1	<1
Chemical oxygen demand	mg/L	13.2 *	29.8						
Chlordane	ug/L								
Chloride	mg/L	145 *	156	128 *					
Chlorobenzene	ug/L		<1		<1	<1	<1	<1	<1
Chlorobenzilate	ug/L		<10						
Chlorodibromomethane	ug/L		<5		<5	<5			
Chloroethane	ug/L		<4.0		<4.0	<4.0	2.2	<1.0	<1.0
Chloroform	ug/L		<1		<2	<1	<1	<1	<1
Chloromethane	ug/L		<3		<3	<3	<1	<1	<1
Chloroprene	ug/L		<1						
Chromium, total	ug/L		<20		<20	<20	<10	<10	<10
Chrysene	ug/L		<10						
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		<20.0		<20.0	<20.0	7.0	<4.0	<4.0
Copper, total	ug/L		<20.0		<20.0	<20.0	10.2	5.7	4.1
Cyanide	mg/L		<.010						
Dalapon	ug/L		<10						
Delta-bhc	ug/L								
Diallate	ug/L								
Diallate (cis or trans)	ug/L		<10						
Dibenzo(a,h)anthracene	ug/L		<10						
Dibenzofuran	ug/L		<10						
Dibromochloromethane	ug/L						<1	<1	<1
Dibromomethane	ug/L		<1		<1	<1	<1	<1	<1
Dicamba	ug/L		<5						
Dichlorodifluoromethane	ug/L		<3						
Dichloroprop	ug/L		<5						
Dieldrin	ug/L		<.05						
Diethyl phthalate	ug/L		<10						
Dimethoate	ug/L		<10.0						
Dimethyl phthalate	ug/L		<10						
Di-n-butyl phthalate	ug/L		<10						
Di-n-octyl phthalate	ug/L		<10						
Dinoseb	ug/L		<7.5 *						
Diphenylamine	ug/L		<10						
Disulfoton	ug/L		<70.0						
Endosulfan i	ug/L		<.05						
Endosulfan ii	ug/L		<.05						
Endosulfan sulfate	ug/L		<.05						
Endrin	ug/L		<.05						
Endrin aldehyde	ug/L		<.05						
Endrin ketone	ug/L		<.05						
Ethyl methacrylate	ug/L		<2						
Ethyl methanesulfonate	ug/L		<10						
Ethylbenzene	ug/L		<1		<1	<1	<1	<1	<1
Famphur	ug/L		<20.0						
Fluoranthene	ug/L		<10						

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

Table 9

## Analytical Data Summary for MW90-14

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
Alpha-chlordane									
Ammonia as n									
Anthracene						<8			
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	<4.00	<4.00	4.10	5.10	<4.00	8.90	<4.00	5.10	<4.00
Azobenzene						<8			
Barium, total	360	352	611	601	361	1150	450	482	462
Benzene	<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			
Bis(2-chloroethoxy)methane						<8			
Bis(2-chloroethyl)ether						<8			
Bis(2-chloroisopropyl) ether						<8			
Bis(2-ethylhexyl)phthalate						<10			
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	.90	1.20	11.70	35.40	2.80	10.30	<.80	25.60	.90
Carbon disulfide	<1	<1	<1	<1	<1	<1		<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1		<1	<1
Chemical oxygen demand									
Chlordane						<.1			
Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1		<1	<1
Chlorobenzilate						<8			
Chlorodibromomethane									
Chloroethane	<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
Chloromethane	<1	<1	<1	<1	<1	<1		<1	<1
Chloroprene						<1			
Chromium, total	<8	<20	<8	<8	<8	<8	<8	<8	<8
Chrysene						<8			
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	<4.0	<4.0	<4.0	<4.0	<4.0	6.0	<4.0	<4.0	2.5
Copper, total	4.0	<4.0	7.3	9.2	5.3	15.8	<4.0	15.6	<4.0
Cyanide						<.007			
Dalapon									
Delta-bhc						<.05			
Diallate						<8			
Diallate (cis or trans)									
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
Dicamba									
Dichlorodifluoromethane						<1			
Dichloroprop									
Dieldrin						<.05			
Diethyl phthalate						<8			
Dimethoate						<.4			
Dimethyl phthalate						<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			
Endrin ketone									
Ethyl methacrylate						<10			
Ethyl methanesulfonate						<8			
Ethylbenzene	<1	<1	<1	<1	<1	<1		<1	<1
Famphur						<.4			
Fluoranthene						<8			

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

Table 9

Analytical Data Summary for MW90-14

Constituents	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2017	4/10/2018	9/24/2018	11/1/2018
Alpha-chlordane									
Ammonia as n									<8
Anthracene									<2
Antimony, total	<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
Azobenzene									<8
Barium, total	332	274	314	301	300	270	264	307	<1.0
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
Bis(2-chloroethoxy)methane									<8
Bis(2-chloroethyl)ether									<8
Bis(2-chloroisopropyl) ether									<8
Bis(2-ethylhexyl)phthalate									12
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	<.80	1.80	<.80	<.80	1.30	<.80	<.80	<.80	<.80
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chemical oxygen demand									<.1
Chlordane									<.1
Chloride									<8
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate									<8
Chlorodibromomethane									<8
Chloroethane	<1.0	<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	2.4	<.8	1.0	<.8	.8	<.8	<.8	<.8	1.3
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide									<.005
Dalapon									<.05
Delta-bhc									<.05
Diallate									<8
Diallate (cis or trans)									<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
Dicamba									<1
Dichlorodifluoromethane									<1
Dichloroprop									<.05
Dieldrin									<.05
Diethyl phthalate									<8
Dimethoate									<.4
Dimethyl phthalate									<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
Endrin ketone									<.05
Ethyl methacrylate									<10
Ethyl methanesulfonate									<8
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur									<.4
Fluoranthene									<8

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

Table 9

Analytical Data Summary for MW90-14

Constituents	4/16/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022	4/5/2023
Alpha-chlordane									
Ammonia as n									
Anthracene									
Antimony, total	<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
Azobenzene									
Barium, total	199	300	321	503	272	313	255	245	134
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									
Bis(2-chloroethoxy)methane									
Bis(2-chloroethyl)ether									
Bis(2-chloroisopropyl) ether									
Bis(2-ethylhexyl)phthalate	6	9	<6	<6	<6	<6			
Bis[2-chloroisopropyl]ether									
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoforn	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate									
Cadmium, total	<.80	.90	1.70	1.20	1.00	<.80	.80	<.80	<.80
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chemical oxygen demand									
Chlordane									
Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate									
Chlorodibromomethane									
Chloroethane	<1.0	<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									
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	<.8	.5	1.7	.6	.7	<.4	2.4	<.4
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide									
Dalapon									
Delta-bhc									
Diallate									
Diallate (cis or trans)									
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
Dicamba									
Dichlorodifluoromethane									
Dichloroprop									
Dieldrin									
Diethyl phthalate									
Dimethoate									
Dimethyl phthalate									
Di-n-butyl phthalate									
Di-n-octyl phthalate									
Dinoseb									
Diphenylamine									
Disulfoton									
Endosulfan i									
Endosulfan ii									
Endosulfan sulfate									
Endrin									
Endrin aldehyde									
Endrin ketone									
Ethyl methacrylate									
Ethyl methanesulfonate									
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur									
Fluoranthene									

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

Table 9

## Analytical Data Summary for MW90-14

Constituents	10/13/2023
Alpha-chlordane	
Ammonia as n	
Anthracene	<8
Antimony, total	<2
Arsenic, total	<4.00
Azobenzene	<8
Barium, total	381
Benzene	<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
Beta-bhc	<.05
Bis(2-chloroethoxy)methane	<8
Bis(2-chloroethyl)ether	<8
Bis(2-chloroisopropyl) ether	
Bis(2-ethylhexyl)phthalate	<6
Bis[2-chloroisopropyl]ether	<8
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<1
Butyl benzyl phthalate	<8
Cadmium, total	<.80
Carbon disulfide	<1
Carbon tetrachloride	<1
Chemical oxygen demand	
Chlordane	<.1
Chloride	
Chlorobenzene	<1
Chlorobenzilate	<8
Chlorodibromomethane	
Chloroethane	<1.0
Chloroform	<1
Chloromethane	<1
Chloroprene	<1
Chromium, total	<8
Chrysene	<8
Cis-1,2-dichloroethene	<1
Cis-1,3-dichloropropene	<1
Cobalt, total	.9
Copper, total	<4.0
Cyanide	<.005
Dalapon	
Delta-bhc	<.05
Diallate	<8
Diallate (cis or trans)	
Dibenzo(a,h)anthracene	<8
Dibenzofuran	<8
Dibromochloromethane	<1
Dibromomethane	<1
Dicamba	
Dichlorodifluoromethane	<1
Dichloroprop	
Dieldrin	<.05
Diethyl phthalate	<8
Dimethoate	<.4
Dimethyl phthalate	<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
Endrin ketone	<.05
Ethyl methacrylate	<10
Ethyl methanesulfonate	<8
Ethylbenzene	<1
Famphur	<.4
Fluoranthene	<8

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

Table 9

## Analytical Data Summary for MW90-14

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
Fluorene	ug/L		<10						
Gamma-bhc (lindane)	ug/L		<.05						
Gamma-chlordane	ug/L		<.05						
Heptachlor	ug/L		<.05						
Heptachlor epoxide	ug/L		<.05						
Hexachlorobenzene	ug/L		<10.00						
Hexachlorobutadiene	ug/L		<10						
Hexachlorocyclopentadiene	ug/L		<10						
Hexachloroethane	ug/L		<10						
Hexachloropropene	ug/L		<10						
Indeno(1,2,3-cd)pyrene	ug/L		<10						
Iodomethane	ug/L		<10		<10	<10	<1	<1	<1
Iron, dissolved	mg/L	.219		5.700					
Iron, total	mg/L	.219		5.700					
Isobutanol	ug/L		<10						
Isodrin	ug/L		<10						
Isophorone	ug/L		<10						
Isosafrole	ug/L		<10						
Kepone	ug/L		<10						
Lead, total	ug/L		5.86		8.27	7.78	6.20	<4.00	<4.00
Mcpa	ug/L		<500						
Mcpp	ug/L		<500						
Mercury, total	ug/L		<.2						
Methacrylonitrile	ug/L		<1						
Methapyrilene	ug/L		<10						
Methoxychlor	ug/L		<.05						
Methyl methacrylate	ug/L		<2						
Methyl methanesulfonate	ug/L		<10						
Methyl parathion	ug/L								
Methylene chloride	ug/L		<10		<5	<5	<5	<5	<5
Naphthalene	ug/L		<5						
Nickel, total	ug/L		69.7		65.3	<50.0	59.1	31.5	45.2
Nitrobenzene	ug/L		<10						
N-nitrosodiethylamine	ug/L		<10						
N-nitrosodimethylamine	ug/L		<10						
N-nitrosodi-n-butylamine	ug/L		<10						
N-nitroso-di-n-propylamine	ug/L		<10						
N-nitrosodiphenylamine	ug/L		<10						
N-nitrosomethylethylamine	ug/L		<10						
N-nitrosopiperidine	ug/L		<10						
N-nitrosopyrrolidine	ug/L		<10						
O,o,o-triethyl phosphorothioate	ug/L		<30.0						
O-toluidine	ug/L		<10						
P-(dimethylamino)azobenzene	ug/L		<10						
Parathion	ug/L								
Parathion-ethyl	ug/L		<10						
Parathion-methyl	ug/L		<10						
Pcb-1016	ug/L		<.8						
Pcb-1221	ug/L		<.8						
Pcb-1232	ug/L		<.8						
Pcb-1242	ug/L		<.8						
Pcb-1248	ug/L		<.8						
Pcb-1254	ug/L		<.8						
Pcb-1260	ug/L		<.8						
Pcb-1268	ug/L		<.8						
Pentachlorobenzene	ug/L		<10						
Pentachloroethane	ug/L		<10						
Pentachloronitrobenzene	ug/L		<10						
Pentachlorophenol	ug/L		<8 *						
pH	units	6.97	<2.00	7.03	<2.00	6.57			
Phenacetin	ug/L		<10						
Phenanthrene	ug/L		<10						
Phenol	ug/L		<20						
Phorate	ug/L		<60.0						
Picloram	ug/L		<5						
Pronamide	ug/L		<10						
Propionitrile	ug/L		<10						
Pyrene	ug/L		<10						
Pyridine	ug/L		<10						
Safrole	ug/L		<10						
Selenium, total	ug/L		<5		<5	<5	<4	<4	<4
Silver, total	ug/L		<20		<20	<20	<4	<4	<4
Specific conductance	umhos/cm	1272		895		1625			
Styrene	ug/L		<1		<1	<1	<1	<1	<1
Sulfide, total	mg/L		<2.0						
Tetrachloroethene	ug/L		<1		<1	<1	<1	<1	<1
Thallium, total	ug/L		<2		<2	<2	<4	<4	<4

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



Table 9

Analytical Data Summary for MW90-14

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
Fluorene						<.8			
Gamma-bhc (lindane)						<.05			
Gamma-chlordane									
Heptachlor						<.05			
Heptachlor epoxide						<.05			
Hexachlorobenzene						<4.03 *			
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, dissolved									
Iron, total									
Isobutanol						<1000			
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
Mcpa									
Mcpp									
Mercury, total						<.5			
Methacrylonitrile						<.1			
Methapyrilene						.8			
Methoxychlor						<.05			
Methyl methacrylate						<.1			
Methyl methanesulfonate						.8			
Methyl parathion						<.4			
Methylene chloride	<5	<5	<5	<5	<5	.5		<5	<5
Naphthalene						.8			
Nickel, total	45.5	33.9	36.6	26.4	24.1	60.2	13.9	31.1	34.0
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			
Parathion-ethyl									
Parathion-methyl									
Pcb-1016						<.1			
Pcb-1221						<.2			
Pcb-1232						<.2			
Pcb-1242						<.2			
Pcb-1248						<.2			
Pcb-1254						<.1			
Pcb-1260						<.1			
Pcb-1268									
Pentachlorobenzene						.8			
Pentachloroethane									
Pentachloronitrobenzene						.8			
Pentachlorophenol						.8			
pH									
Phenacetin						.8			
Phenanthrene						.8			
Phenol						.8			
Phorate						<.4			
Picloram									
Pronamide						.8			
Propionitrile						<10			
Pyrene						.8			
Pyridine									
Safrole						.8			
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1	<1	<1	<1	<1	<1		<1	<1
Sulfide, total						<.1			
Tetrachloroethene	<1	<1	<1	<1	<1	<1		<1	<1
Thallium, total	<4	<4	<2	<2	<2	<4	<4	<4	<4

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

Table 9

## Analytical Data Summary for MW90-14

Constituents	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2017	4/10/2018	9/24/2018	11/1/2018
Fluorene									<8
Gamma-bhc (lindane)									<.05
Gamma-chlordane									<.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, dissolved									
Iron, total									
Isobutanol									<1000
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
Mcpa									
Mcpp									
Mercury, total									<.5
Methacrylonitrile									<1
Methapyrilene									<8
Methoxychlor									<.05
Methyl methacrylate									<1
Methyl methanesulfonate									<8
Methyl parathion									<.4
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene									<8
Nickel, total	18.3	20.8	36.1	21.3	31.9	30.9	20.1	35.0	<8
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
Parathion-ethyl									
Parathion-methyl									
Pcb-1016									<.1
Pcb-1221									<.2
Pcb-1232									<.2
Pcb-1242									<.2
Pcb-1248									<.2
Pcb-1254									<.1
Pcb-1260									<.1
Pcb-1268									<.1
Pentachlorobenzene									<8
Pentachloroethane									<8
Pentachloronitrobenzene									<8
Pentachlorophenol									<8
pH									
Phenacetin									<8
Phenanthrene									<8
Phenol									<8
Phorate									<.4
Picloram									
Pronamide									<8
Propionitrile									<10
Pyrene									<8
Pyridine									
Safrole									<8
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total									<.1
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4

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

Table 9

Analytical Data Summary for MW90-14

Constituents	4/16/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022	4/5/2023
Fluorene									
Gamma-bhc (lindane)									
Gamma-chlordane									
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene									
Hexachlorobutadiene									
Hexachlorocyclopentadiene									
Hexachloroethane									
Hexachloropropene									
Indeno(1,2,3-cd)pyrene									
Iodomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Iron, dissolved									
Iron, total									
Isobutanol									
Isodrin									
Isophorone									
Isosafrole									
Kepone									
Lead, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Mcpa									
Mcpp									
Mercury, total									
Methacrylonitrile									
Methapyrilene									
Methoxychlor									
Methyl methacrylate									
Methyl methanesulfonate									
Methyl parathion									
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene									
Nickel, total	12.2	33.1	41.7	59.0	31.1	33.4	20.2	27.8	6.3
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									
Parathion-ethyl									
Parathion-methyl									
Pcb-1016									
Pcb-1221									
Pcb-1232									
Pcb-1242									
Pcb-1248									
Pcb-1254									
Pcb-1260									
Pcb-1268									
Pentachlorobenzene									
Pentachloroethane									
Pentachloronitrobenzene									
Pentachlorophenol									
pH									
Phenacetin									
Phenanthrene									
Phenol									
Phorate									
Picloram									
Pronamide									
Propionitrile									
Pyrene									
Pyridine									
Safrole									
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total									
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2	<2	<2	<2	<2

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

Table 9

## Analytical Data Summary for MW90-14

Constituents	10/13/2023
Fluorene	<8
Gamma-bhc (lindane)	<.05
Gamma-chlordane	
Heptachlor	<.05
Heptachlor epoxide	<.05
Hexachlorobenzene	<.05
Hexachlorobutadiene	<8
Hexachlorocyclopentadiene	<8
Hexachloroethane	<8
Hexachloropropene	<8
Indeno(1,2,3-cd)pyrene	<8
Iodomethane	<2
Iron, dissolved	
Iron, total	
Isobutanol	<1000
Isodrin	<8
Isophorone	<8
Isosafrole	<8
Kepone	<8
Lead, total	<4.00
Mcpa	
Mcpp	
Mercury, total	<.5
Methacrylonitrile	<1
Methapyriline	<8
Methoxychlor	<.05
Methyl methacrylate	<1
Methyl methanesulfonate	<8
Methyl parathion	<.4
Methylene chloride	<5
Naphthalene	<8
Nickel, total	36.5
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
Parathion-ethyl	
Parathion-methyl	
Pcb-1016	<.2
Pcb-1221	<.2
Pcb-1232	<.2
Pcb-1242	<.2
Pcb-1248	<.2
Pcb-1254	<.2
Pcb-1260	<.2
Pcb-1268	
Pentachlorobenzene	<8
Pentachloroethane	
Pentachloronitrobenzene	<8
Pentachlorophenol	<8
pH	
Phenacetin	<8
Phenanthrene	<8
Phenol	<8
Phorate	<.4
Picloram	
Pronamide	<8
Propionitrile	<10
Pyrene	<8
Pyridine	
Safrole	<8
Selenium, total	<4
Silver, total	<4
Specific conductance	
Styrene	<1
Sulfide, total	<.1
Tetrachloroethene	<1
Thallium, total	<2

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

Table 9

## Analytical Data Summary for MW90-14

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
Thionazin	ug/L		<10.0						
Tin, total	ug/L		<100						
Toluene	ug/L		<1		<1	<1	<1	<1	<1
Total organic halides	mg/L			.0324 *					
Total suspended solids	mg/L								
Toxaphene	ug/L		<2.0						
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		<50.0		<50.0	<50.0	14.4	<10.0	<10.0
Vinyl acetate	ug/L		<2		<2	<2	<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		106.0		51.2	57.9	38.5	20.1	<10.0

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

Table 9

## Analytical Data Summary for MW90-14

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
Thionazin						<.4			
Tin, total						<20			
Toluene	<1	<1	<1	<1	<1	<1		<1	<1
Total organic halides									
Total suspended solids									43
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	26.4	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
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	13.7	<8.0	13.7	21.3	8.7	<20.0	8.9

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

Table 9

## Analytical Data Summary for MW90-14

Constituents	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2017	4/10/2018	9/24/2018	11/1/2018
Thionazin									<.4
Tin, total									<20
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total organic halides									
Total suspended solids	36	5	4	<2	297	16	3		6
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
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	<8.0	<8.0	<8.0	<8.0	<20.0	<8.0

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

Table 9

## Analytical Data Summary for MW90-14

Constituents	4/16/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022	4/5/2023
Thionazin									
Tin, total									
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total organic halides									
Total suspended solids	4	2	10	23					
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	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
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	9.6	<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 9

## Analytical Data Summary for MW90-14

Constituents	10/13/2023
Thionazin	<.4
Tin, total	<20
Toluene	<1
Total organic halides	
Total suspended solids	
Toxaphene	<.2
Trans-1,2-dichloroethene	<1
Trans-1,3-dichloropropene	<1
Trans-1,4-dichloro-2-butene	<5
Trichloroethene	<1
Trichlorofluoromethane	<1
Vanadium, total	<20.0
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 9

## Analytical Data Summary for MW90-17

Constituents	Units	3/21/2008	9/2/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010	4/5/2011	9/6/2011	3/16/2012
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	<1
1,2-dibromoethane (edb)	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 (mek)	ug/L				<5	<5	<5	<5	<5	<5
2-hexanone	ug/L				<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L				<5	<5	<5	<5	<5	<5
Acetone	ug/L				<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	ug/L				<5	<5	<5	<5	<5	<5
Ammonia as n	mg/L	<.2 *	<.2 *	<.2 *						
Antimony, total	ug/L				<1	<2	<5	<2	<2	<2
Arsenic, dissolved	ug/L			<1 *						
Arsenic, total	ug/L				<4	<4	<10	<4	<4	<4
Barium, dissolved	ug/L			170 *						
Barium, total	ug/L				199	171	169	215	207	196
Benzene	ug/L				<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L				<4	<4	<10	<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, dissolved	mg/L			<.0005 *						
Cadmium, total	ug/L				<1.0	<1.0	<2.5	<.8	<.8	<.8
Carbon disulfide	ug/L				<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L				<1	<1	<1	<1	<1	<1
Chemical oxygen demand	mg/L	<5 *	<5 *	<5 *						
Chloride	mg/L	<5 *	<5 *	<5 *						
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				<10	<10	<25	<8	<20	<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				<4.0	<4.0	<10.0	<4.0	<4.0	<4.0
Copper, total	ug/L				<4	<4	<10	<4	<4	<4
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
Iron, dissolved	mg/L	<.1	<.1	<.1 *						
Iron, total	mg/L	<.1	<.1							
Lead, total	ug/L				<4	<4	<10	<4	<4	<4
Methylene chloride	ug/L				<5	<5	<5	<5	<5	<5
Nickel, total	ug/L				<4.0	<4.0	<10.0	7.1	4.8	4.8
pH	units	7.60	7.68	7.97						
Phenol	ug/L		<20 *							
Selenium, total	ug/L				<4	<4	<10	<4	<4	<4
Silver, total	ug/L				<4	<4	<10	<4	<4	<4
Specific conductance	umhos/cm	652	566	738						
Styrene	ug/L				<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L				<1	<1	<1	<1	<1	<1
Thallium, total	ug/L				<4	<4	<10	<4	<4	<2
Toluene	ug/L				<1	<1	<1	<1	<1	<1
Total organic halides	mg/L		<.01 *							
Total suspended solids	mg/L									
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				<10.0	<10.0	<25.0	20.1	<20.0	<20.0
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, dissolved	mg/L			.023 *						
Zinc, total	ug/L				<10.0	10.5	<25.0	<8.0	<8.0	<8.0

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

Table 9

Analytical Data Summary for MW90-17

Constituents	9/24/2012	4/24/2013	9/20/2013	4/8/2014	9/22/2014	3/20/2015	9/17/2015	3/17/2016	8/26/2016
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
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane (edb)	<1	<1	<1	<1	<1	<1	<1	<1	<1
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
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ammonia as n									
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, dissolved									
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, dissolved									
Barium, total	185	183	351	261	212	257	234	246	266
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
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
Cadmium, dissolved									
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chemical oxygen demand									
Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
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
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<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	<4.0	<4.0	<4.0	<4.0	<.8	<.8	<.8	<.8	<.8
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Iodomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Iron, dissolved									
Iron, total									
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	5.3	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
pH									
Phenol									
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<4	<4	<4	<4	<4	<4	<4
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total organic halides									
Total suspended solids					6	8	4	3	<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
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, dissolved									
Zinc, total	<8.0	<8.0	<20.0	<20.0	<8.0	<8.0	<8.0	<8.0	8.3

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

Table 9

Analytical Data Summary for MW90-17

Constituents	4/11/2017	9/23/2017	11/15/2017	4/10/2018	9/24/2018	11/1/2018	4/16/2019	8/29/2019	9/23/2019
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	<1	<1		<1	<1		<1	<1	
1,2-dibromoethane (edb)	<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 (mek)	<5	<5		<5	<5		<5	<5	
2-hexanone	<5	<5		<5	<5		<5	<5	
4-methyl-2-pentanone (mibk)	<5	<5		<5	<5		<5	<5	
Acetone	<10.0	12.9	<10.0	<10.0	<10.0		<10.0	<10.0	
Acrylonitrile	<5	<5		<5	<5		<5	<5	
Ammonia as n									
Antimony, total	<2	<2		<2	<2		<2	<2	
Arsenic, dissolved									
Arsenic, total	<4	<4		<4	<4		<4	<4	
Barium, dissolved									
Barium, total	234	275		242	259		242	281	
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, dissolved									
Cadmium, total	<.8	<.8		<.8	1.1	<.8	<.8	<.8	
Carbon disulfide	<1	<1		<1	<1		<1	<1	
Carbon tetrachloride	<1	<1		<1	<1		<1	<1	
Chemical oxygen demand									
Chloride									
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	<.8	<.8		<.8	<.8		<.8	<.8	
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	
Iron, dissolved									
Iron, total									
Lead, total	<4	<4		<4	<4		<4	<4	
Methylene chloride	<5	<5		<5	<5		<5	<5	
Nickel, total	<4.0	<4.0		<4.0	<4.0		<4.0	<4.0	
pH									
Phenol									
Selenium, total	<4	<4		<4	<4		<4	<4	
Silver, total	<4	<4		<4	<4		<4	<4	
Specific conductance									
Styrene	<1	<1		<1	<1		<1	<1	
Tetrachloroethene	<1	<1		<1	<1		<1	<1	
Thallium, total	<4	<4		<4	<4		<2	<2	
Toluene	<1	<1		<1	<1		<1	<1	
Total organic halides									
Total suspended solids	76	4		<2	2		<2	<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	
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, dissolved									
Zinc, total	<8.0	<8.0		<20.0	<8.0		<8.0	37.8	<8.0 *

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

Table 9

Analytical Data Summary for MW90-17

Constituents	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022	4/5/2023	10/13/2023
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
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5	<5	<5
1,2-dibromoethane (edb)	<1	<1	<1	<1	<1	<1	<1	<1
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
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	<5	<5	<5	<5	<10	<10	<10	<10
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5
Ammonia as n								
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, dissolved								
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4
Barium, dissolved								
Barium, total	274	281	265	251	299	288	307	314
Benzene	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4
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
Cadmium, dissolved								
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1
Chemical oxygen demand								
Chloride								
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1
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
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8
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	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1
Iodomethane	<1	<1	<1	<1	<1	<1	<1	<1
Iron, dissolved								
Iron, total								
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
pH								
Phenol								
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance								
Styrene	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1	<1	<1	<1
Total organic halides								
Total suspended solids	4	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	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
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, dissolved								
Zinc, total	<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 9

## Analytical Data Summary for MW90-4

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
(3 4)-methylphenol	ug/L								
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		<10						
1,2,4-trichlorobenzene	ug/L		<8 *						
1,2-dibromo-3-chloropropane	ug/L		<10.00		<.86	<.86	<1.00	<1.00	<1.00
1,2-dibromoethane (edb)	ug/L		<10.00		<.25	<.25	<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								
1,3,5-trinitrobenzene	ug/L		<10						
1,3-dichlorobenzene	ug/L		<1						
1,3-dichloropropane	ug/L		<1						
1,3-dinitrobenzene	ug/L		<10						
1,4-dichlorobenzene	ug/L		<1		<1	<1	<1	<1	<1
1,4-naphthoquinone	ug/L		<10						
1,4-phenylenediamine	ug/L		<10						
1-naphthylamine	ug/L		<10						
2,2-dichloropropane	ug/L		<4						
2,3,4,6-tetrachlorophenol	ug/L		<10						
2,4,5-t	ug/L		<.556						
2,4,5-tp (silvex)	ug/L		<.556						
2,4,5-trichlorophenol	ug/L		<10						
2,4,6-trichlorophenol	ug/L		<10						
2,4-d	ug/L		<.556						
2,4-db	ug/L		<.556						
2,4-dichlorophenol	ug/L		<10						
2,4-dimethylphenol	ug/L		<10						
2,4-dinitrophenol	ug/L		<10						
2,4-dinitrotoluene	ug/L		<10						
2,6-dichlorophenol	ug/L		<10						
2,6-dinitrotoluene	ug/L		<10						
2-acetylaminofluorene	ug/L		<10						
2-butanone (mek)	ug/L		<10		<10	<10	<5	<5	<5
2-chloronaphthalene	ug/L		<10						
2-chlorophenol	ug/L		<10						
2-hexanone	ug/L		<10		<10	<10	<5	<5	<5
2-methylnaphthalene	ug/L		<10						
2-methylphenol (o-cresol)	ug/L		<10						
2-naphthylamine	ug/L		<10						
2-nitroaniline	ug/L		<10						
2-nitrophenol	ug/L		<10						
3,3'-dichlorobenzidine	ug/L		<85						
3,3'-dimethylbenzidine	ug/L		<20						
3/4-methylphenol	ug/L		<10						
3-methylcholanthrene	ug/L		<10						
3-nitroaniline	ug/L		<10						
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		<10						
4-aminobiphenyl	ug/L		<20						
4-bromophenyl phenyl ether	ug/L		<10						
4-chloro-3-methylphenol	ug/L		<10						
4-chloroaniline	ug/L		<10						
4-chlorophenyl phenyl ether	ug/L		<10						
4-methyl-2-pentanone (mibk)	ug/L		<10		<10	<10	<5	<5	<5
4-nitroaniline	ug/L		<10						
4-nitrophenol	ug/L		<5.278 *						
5-nitro-o-toluidine	ug/L		<10						
7,12-dimethylbenz (a) anthracene	ug/L		<10						
Acenaphthene	ug/L		<10 *						
Acetone	ug/L		<10		<10	<10	<10	<10	<10
Acetonitrile	ug/L		<10						
Acetophenone	ug/L		<10						
Acrolein	ug/L		<10						
Acrylonitrile	ug/L		<10		<10	<10	<5	<5	<5
Aldrin	ug/L		<.05						
Allyl chloride	ug/L		<2						
Alpha-bhc	ug/L		<.05						

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

Table 9

Analytical Data Summary for MW90-4

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
(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	<1.00		<1.00	<1.00
1,2-dibromoethane (edb)	<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-db									
2,4-dichlorophenol									
2,4-dimethylphenol									
2,4-dinitrophenol									
2,4-dinitrotoluene									
2,6-dichlorophenol									
2,6-dinitrotoluene									
2-acetylaminofluorene									
2-butanone (mek)	<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									
3/4-methylphenol									
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 (mibk)	<5	<5	<5	<5	<5	<5		<5	<5
4-nitroaniline									
4-nitrophenol									
5-nitro-o-toluidine									
7,12-dimethylbenz (a) anthracene									
Acenaphthene									
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									

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

Table 9

Analytical Data Summary for MW90-4

Constituents	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2017	11/15/2017	4/10/2018	9/24/2018
(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	<1	<1	<1	<1	<1	<1		<1	<1
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		<1.00	<1.00
1,2-dibromoethane (edb)	<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	<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			<.500						
2,4,5-tp (silvex)			<.500						
2,4,5-trichlorophenol			<8						
2,4,6-trichlorophenol			<8						
2,4-d			<2.000						
2,4-db									
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 (mek)	<5	<5	<5	<5	<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						
3/4-methylphenol									
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 (mibk)	<5	<5	<5	<5	<5	<5		<5	<5
4-nitroaniline			<8						
4-nitrophenol			<8.000						
5-nitro-o-toluidine			<8						
7,12-dimethylbenz (a) anthracene			<8						
Acenaphthene			<8 *						
Acetone	<10	<10	<10	<10	<10	<10		<10	<10
Acetonitrile			<10						
Acetophenone			<8						
Acrolein			<10						
Acrylonitrile	<5	<5	<5	<5	<5	<5		<5	<5
Aldrin			<.05						
Allyl chloride			<1						
Alpha-bhc			<.05						

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



Table 9

Analytical Data Summary for MW90-4

Constituents	4/16/2019	6/25/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022
(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	<1		<1	<1	<1	<1	<1	<1	<1
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	<5.00	<5.00	<1.00	<5.00	<5.00	<5.00
1,2-dibromoethane (edb)	<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		<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						<500			
2,4,5-tp (silvex)						<500			
2,4,5-trichlorophenol						<8			
2,4,6-trichlorophenol						<8			
2,4-d						<2,000			
2,4-db									
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 (mek)	<5		<5	<5	<5	<5	<5	<10	<10
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			
3/4-methylphenol									
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 (mibk)	<5		<5	<5	<5	<5	<5	<5	<5
4-nitroaniline						<8			
4-nitrophenol						<8,000			
5-nitro-o-toluidine						<8			
7,12-dimethylbenz (a) anthracene						<8			
Acenaphthene						<8 *			
Acetone	<10		<10	<10	<10	<10	<10	<10	<10
Acetonitrile						<10			
Acetophenone						<8			
Acrolein						<10			
Acrylonitrile	<5		<5	<5	<5	<5	<5	<5	<5
Aldrin						<.05			
Allyl chloride						<1			
Alpha-bhc						<.05			

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

Table 9

## Analytical Data Summary for MW90-4

Constituents	1/4/2023	4/5/2023	10/13/2023
(3 4)-methylphenol			
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
1,1-dichloropropene			
1,2,3-trichloropropane		<1	<1
1,2,4,5-tetrachlorobenzene			
1,2,4-trichlorobenzene			
1,2-dibromo-3-chloropropane		<5.00	<5.00
1,2-dibromoethane (edb)		<1.00	<1.00
1,2-dichlorobenzene		<1	<1
1,2-dichloroethane		<1	<1
1,2-dichloropropane		<1	<1
1,2-dinitrobenzene			
1,3,5-trinitrobenzene			
1,3-dichlorobenzene			
1,3-dichloropropane			
1,3-dinitrobenzene			
1,4-dichlorobenzene		<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-db			
2,4-dichlorophenol			
2,4-dimethylphenol			
2,4-dinitrophenol			
2,4-dinitrotoluene			
2,6-dichlorophenol			
2,6-dinitrotoluene			
2-acetylaminofluorene			
2-butanone (mek)		<10	<10
2-chloronaphthalene			
2-chlorophenol			
2-hexanone		<5	<5
2-methylnaphthalene			
2-methylphenol (o-cresol)			
2-naphthylamine			
2-nitroaniline			
2-nitrophenol			
3,3'-dichlorobenzidine			
3,3'-dimethylbenzidine			
3/4-methylphenol			
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 (mibk)		<5	<5
4-nitroaniline			
4-nitrophenol			
5-nitro-o-toluidine			
7,12-dimethylbenz (a) anthracene			
Acenaphthene			
Acetone		<10	<10
Acetonitrile			
Acetophenone			
Acrolein			
Acrylonitrile		<5	<5
Aldrin			
Allyl chloride			
Alpha-bhc			

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

Table 9

## Analytical Data Summary for MW90-4

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
Alpha-chlordane	ug/L		<.05						
Ammonia as n	mg/L	<.2 *							
Anthracene	ug/L		<10						
Antimony, total	ug/L		<6		<6	<6	<1	<2	<2
Arsenic, total	ug/L		<1.00		<1.00	6.87	<4.00	<4.00	<4.00
Azobenzene	ug/L								
Barium, total	ug/L		336		469	444	512	315	420
Benzene	ug/L		<.5		<.5	<.5	<1.0	<1.0	<1.0
Benzo(a)anthracene	ug/L		<10						
Benzo(a)pyrene	ug/L		<10						
Benzo(b)fluoranthene	ug/L		<10						
Benzo(g,h,i)perylene	ug/L		<10						
Benzo(k)fluoranthene	ug/L		<10						
Benzyl alcohol	ug/L		<10						
Beryllium, total	ug/L		<1.00		<1.00	1.31	<4.00	<4.00	<4.00
Beta-bhc	ug/L								
Bis(2-chloroethoxy)methane	ug/L		<10						
Bis(2-chloroethyl)ether	ug/L		<10						
Bis(2-chloroisopropyl) ether	ug/L		<10						
Bis(2-ethylhexyl)phthalate	ug/L		<10						
Bis[2-chloroisopropyl]ether	ug/L								
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		<10						
Cadmium, total	ug/L		<.5		<.5	<.5	<1.0	<1.0	<1.0
Carbon disulfide	ug/L		<1		<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L		<2		<2	<2	<1	<1	<1
Chemical oxygen demand	mg/L	<5.0 *	14.2	13.5 *					
Chlordane	ug/L								
Chloride	mg/L	64.4 *	49.8	63.8 *					
Chlorobenzene	ug/L		<1		<1	<1	<1	<1	<1
Chlorobenzilate	ug/L		<10						
Chlorodibromomethane	ug/L		<5		<5	<5			
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		<20.0		<20.0	<20.0	<10.0	<10.0	<10.0
Chrysene	ug/L		<10						
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		<20.0		<20.0	<20.0	<4.0	<4.0	<4.0
Copper, total	ug/L		<20.0		<20.0	<20.0	7.2	<4.0	5.2
Cyanide	mg/L		<.010						
Dalapon	ug/L		<1.11						
Delta-bhc	ug/L								
Diallate	ug/L								
Diallate (cis or trans)	ug/L		<10						
Dibenzo(a,h)anthracene	ug/L		<10						
Dibenzofuran	ug/L		<10						
Dibromochloromethane	ug/L						<1	<1	<1
Dibromomethane	ug/L		<1		<1	<1	<1	<1	<1
Dicamba	ug/L		<.556						
Dichlorodifluoromethane	ug/L		<3						
Dichloroprop	ug/L		<.556						
Dieldrin	ug/L		<.05						
Diethyl phthalate	ug/L		<10						
Dimethoate	ug/L		<10.0						
Dimethyl phthalate	ug/L		<10						
Di-n-butyl phthalate	ug/L		<10						
Di-n-octyl phthalate	ug/L		<10						
Dinoseb	ug/L		<5.278 *						
Diphenylamine	ug/L		<10						
Disulfoton	ug/L		<70.0						
Endosulfan i	ug/L		<.05						
Endosulfan ii	ug/L		<.05						
Endosulfan sulfate	ug/L		<.05						
Endrin	ug/L		<.05						
Endrin aldehyde	ug/L		<.05						
Endrin ketone	ug/L		<.05						
Ethyl methacrylate	ug/L		<2						
Ethyl methanesulfonate	ug/L		<10						
Ethylbenzene	ug/L		<1		<1	<1	<1	<1	<1
Famphur	ug/L		<20.0						
Fluoranthene	ug/L		<10						

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

Table 9

## Analytical Data Summary for MW90-4

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
Alpha-chlordane									
Ammonia as n									
Anthracene									
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	<4.00	<4.00	<4.00	<4.00	<4.00	4.50	<4.00	<4.00	<4.00
Azobenzene									
Barium, total	427	499	399	322	233	679	329	379	383
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	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Beta-bhc									
Bis(2-chloroethoxy)methane									
Bis(2-chloroethyl)ether									
Bis(2-chloroisopropyl) 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	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1		<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1		<1	<1
Chemical oxygen demand									
Chlordane									
Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1		<1	<1
Chlorobenzilate									
Chlorodibromomethane									
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	<8.0	<20.0	<8.0	<8.0	<8.0	9.9	<8.0	<8.0	<8.0
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	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<.8
Copper, total	5.4	7.5	4.8	4.5	<4.0	10.6	<4.0	6.0	<4.0
Cyanide									
Dalapon									
Delta-bhc									
Diallate									
Diallate (cis or trans)									
Dibenzo(a,h)anthracene									
Dibenzofuran									
Dibromochloromethane	<1	<1	<1	<1	<1	<1		<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1		<1	<1
Dicamba									
Dichlorodifluoromethane									
Dichloroprop									
Dieldrin									
Diethyl phthalate									
Dimethoate									
Dimethyl phthalate									
Di-n-butyl phthalate									
Di-n-octyl phthalate									
Dinoseb									
Diphenylamine									
Disulfoton									
Endosulfan i									
Endosulfan ii									
Endosulfan sulfate									
Endrin									
Endrin aldehyde									
Endrin ketone									
Ethyl methacrylate									
Ethyl methanesulfonate									
Ethylbenzene	<1	<1	<1	<1	<1	<1		<1	<1
Famphur									
Fluoranthene									

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

Table 9

## Analytical Data Summary for MW90-4

Constituents	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2017	11/15/2017	4/10/2018	9/24/2018
Alpha-chlordane									
Ammonia as n									
Anthracene			<8						
Antimony, total	<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
Azobenzene			<8						
Barium, total	434	437	381	381	332	362	339	340	306
Benzene	<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	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00		<4.00	<4.00
Beta-bhc			<.05						
Bis(2-chloroethoxy)methane			<8						
Bis(2-chloroethyl)ether			<8						
Bis(2-chloroisopropyl) ether			<8						
Bis(2-ethylhexyl)phthalate			<8						
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	1.2	<.8	<.8	<.8	<.8		<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1		<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1		<1	<1
Chemical oxygen demand									
Chlordane			<.1						
Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1		<1	<1
Chlorobenzilate			<8						
Chlorodibromomethane									
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			<1						
Chromium, total	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0		<8.0	<8.0
Chrysene			<8						
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	<.8	<.8	<.8	<.8	<.8	<.8		<.8	<.8
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0		<4.0	<4.0
Cyanide			<.005						
Dalapon									
Delta-bhc			<.05						
Diallate			<8						
Diallate (cis or trans)									
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
Dicamba									
Dichlorodifluoromethane			<1						
Dichloroprop									
Dieldrin			<.05						
Diethyl phthalate			<8						
Dimethoate			<.4						
Dimethyl phthalate			<8						
Di-n-butyl phthalate			<8						
Di-n-octyl phthalate			<8						
Dinoseb			<.500						
Diphenylamine			<8						
Disulfoton			<.4						
Endosulfan i			<.05						
Endosulfan ii			<.05						
Endosulfan sulfate			<.05						
Endrin			<.05						
Endrin aldehyde			<.05						
Endrin ketone									
Ethyl methacrylate			<10						
Ethyl methanesulfonate			<8						
Ethylbenzene	<1	<1	<1	<1	<1	<1		<1	<1
Famphur			<.4						
Fluoranthene			<8						

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

Table 9

Analytical Data Summary for MW90-4

Constituents	4/16/2019	6/25/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022
Alpha-chlordane									
Ammonia as n									
Anthracene						<8			
Antimony, total	<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
Azobenzene						<8			
Barium, total	361	433	359	377	385	298	377	348	351
Benzene	<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	<4.00		<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Beta-bhc						<.05			
Bis(2-chloroethoxy)methane						<8			
Bis(2-chloroethyl)ether						<8			
Bis(2-chloroisopropyl) ether									
Bis(2-ethylhexyl)phthalate						9		<6	14
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	3.1
Carbon disulfide	<1		<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1		<1	<1	<1	<1	<1	<1	<1
Chemical oxygen demand									
Chlordane						<.1			
Chloride									
Chlorobenzene	<1		<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate						<8			
Chlorodibromomethane									
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						<1			
Chromium, total	<8.0		<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
Chrysene						<8			
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	<.8		<.8	<.4	<.4	<.4	<.4	<.4	2.0
Copper, total	<4.0		<4.0	<4.0	12.1	<4.0	<4.0	<4.0	<4.0
Cyanide						<.005			
Dalapon									
Delta-bhc						<.05			
Diallate						<8			
Diallate (cis or trans)									
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
Dicamba									
Dichlorodifluoromethane						<1			
Dichloroprop									
Dieldrin						<.05			
Diethyl phthalate						<8			
Dimethoate						<.4			
Dimethyl phthalate						<8			
Di-n-butyl phthalate						<8			
Di-n-octyl phthalate						<8			
Dinoseb						<.500			
Diphenylamine						<8			
Disulfoton						<.4			
Endosulfan i						<.05			
Endosulfan ii						<.05			
Endosulfan sulfate						<.05			
Endrin						<.05			
Endrin aldehyde						<.05			
Endrin ketone									
Ethyl methacrylate						<10			
Ethyl methanesulfonate						<8			
Ethylbenzene	<1		<1	<1	<1	<1	<1	<1	<1
Famphur						<.4			
Fluoranthene						<8			

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

Table 9

## Analytical Data Summary for MW90-4

Constituents	1/4/2023	4/5/2023	10/13/2023
Alpha-chlordane			
Ammonia as n			
Anthracene			
Antimony, total		<2	<2
Arsenic, total		<4.00	<4.00
Azobenzene			
Barium, total		320	342
Benzene		<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		<4.00	<4.00
Beta-bhc			
Bis(2-chloroethoxy)methane			
Bis(2-chloroethyl)ether			
Bis(2-chloroisopropyl) ether			
Bis(2-ethylhexyl)phthalate		<6	<6
Bis[2-chloroisopropyl]ether			
Bromochloromethane		<1	<1
Bromodichloromethane		<1	<1
Bromoform		<1	<1
Bromomethane		<1	<1
Butyl benzyl phthalate			
Cadmium, total	<.8	<.8	<.8
Carbon disulfide		<1	<1
Carbon tetrachloride		<1	<1
Chemical oxygen demand			
Chlordane			
Chloride			
Chlorobenzene		<1	<1
Chlorobenzilate			
Chlorodibromomethane			
Chloroethane		<1	<1
Chloroform		<1	<1
Chloromethane		<1	<1
Chloroprene			
Chromium, total		<8.0	<8.0
Chrysene			
Cis-1,2-dichloroethene		<1	<1
Cis-1,3-dichloropropene		<1	<1
Cobalt, total	<.4	<.4	<.4
Copper, total		<4.0	<4.0
Cyanide			
Dalapon			
Delta-bhc			
Diallate			
Diallate (cis or trans)			
Dibenzo(a,h)anthracene			
Dibenzofuran			
Dibromochloromethane		<1	<1
Dibromomethane		<1	<1
Dicamba			
Dichlorodifluoromethane			
Dichloroprop			
Dieldrin			
Diethyl phthalate			
Dimethoate			
Dimethyl phthalate			
Di-n-butyl phthalate			
Di-n-octyl phthalate			
Dinoseb			
Diphenylamine			
Disulfoton			
Endosulfan i			
Endosulfan ii			
Endosulfan sulfate			
Endrin			
Endrin aldehyde			
Endrin ketone			
Ethyl methacrylate			
Ethyl methanesulfonate			
Ethylbenzene		<1	<1
Famphur			
Fluoranthene			

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

Table 9

Analytical Data Summary for MW90-4

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
Fluorene	ug/L		<10						
Gamma-bhc (lindane)	ug/L		<.05						
Gamma-chlordane	ug/L		<.05						
Heptachlor	ug/L		<.05						
Heptachlor epoxide	ug/L		<.05						
Hexachlorobenzene	ug/L		<10.00						
Hexachlorobutadiene	ug/L		<10						
Hexachlorocyclopentadiene	ug/L		<10						
Hexachloroethane	ug/L		<10						
Hexachloropropene	ug/L		<10						
Indeno(1,2,3-cd)pyrene	ug/L		<10						
Iodomethane	ug/L		<10		<10	<10	<1	<1	<1
Iron, dissolved	mg/L	<.1		<.1					
Iron, total	mg/L	<.1		<.1					
Isobutanol	ug/L		<10						
Isodrin	ug/L		<10						
Isophorone	ug/L		<10						
Isosafrole	ug/L		<10						
Kepone	ug/L		<10						
Lead, total	ug/L		<4.00		<4.00	8.04	<4.00	<4.00	<4.00
Mcpa	ug/L		<55.6						
Mcpp	ug/L		<55.6						
Mercury, total	ug/L		<.2						
Methacrylonitrile	ug/L		<1						
Methapyrilene	ug/L		<10						
Methoxychlor	ug/L		<.05						
Methyl methacrylate	ug/L		<2						
Methyl methanesulfonate	ug/L		<10						
Methyl parathion	ug/L								
Methylene chloride	ug/L		<10		<5	<5	<5	<5	<5
Naphthalene	ug/L		<5						
Nickel, total	ug/L		<50.0		<50.0	<50.0	11.4	6.6	10.2
Nitrobenzene	ug/L		<10						
N-nitrosodiethylamine	ug/L		<10						
N-nitrosodimethylamine	ug/L		<10						
N-nitroso-di-n-butylamine	ug/L		<10						
N-nitroso-di-n-propylamine	ug/L		<10						
N-nitrosodiphenylamine	ug/L		<10						
N-nitrosomethylethylamine	ug/L		<10						
N-nitrosopiperidine	ug/L		<10						
N-nitrosopyrrolidine	ug/L		<10						
O,o,o-triethyl phosphorothioate	ug/L		<30.0						
O-toluidine	ug/L		<10						
P-(dimethylamino)azobenzene	ug/L		<10						
Parathion	ug/L								
Parathion-ethyl	ug/L		<10						
Parathion-methyl	ug/L		<10						
Pcb-1016	ug/L		<.8						
Pcb-1221	ug/L		<.8						
Pcb-1232	ug/L		<.8						
Pcb-1242	ug/L		<.8						
Pcb-1248	ug/L		<.8						
Pcb-1254	ug/L		<.8						
Pcb-1260	ug/L		<.8						
Pcb-1268	ug/L		<.8						
Pentachlorobenzene	ug/L		<10						
Pentachloroethane	ug/L		<10						
Pentachloronitrobenzene	ug/L		<10						
Pentachlorophenol	ug/L		<5.278 *						
pH	units	7.17	<2.00	7.16	<2.00	6.84			
Phenacetin	ug/L		<10						
Phenanthrene	ug/L		<10						
Phenol	ug/L		<20						
Phorate	ug/L		<60.0						
Picloram	ug/L		<.556						
Pronamide	ug/L		<10						
Propionitrile	ug/L		<10						
Pyrene	ug/L		<10						
Pyridine	ug/L		<10						
Safrole	ug/L		<10						
Selenium, total	ug/L		<5		<5	<5	<4	<4	<4
Silver, total	ug/L		<20		<20	<20	<4	<4	<4
Specific conductance	umhos/cm	900		734		1063			
Styrene	ug/L		<1		<1	<1	<1	<1	<1
Sulfide, total	mg/L		<2.0						
Tetrachloroethene	ug/L		<1		<1	<1	<1	<1	<1
Thallium, total	ug/L		<2		<2	<2	<4	<4	<4

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



Table 9

## Analytical Data Summary for MW90-4

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
Fluorene									
Gamma-bhc (lindane)									
Gamma-chlordane									
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene									
Hexachlorobutadiene									
Hexachlorocyclopentadiene									
Hexachloroethane									
Hexachloropropene									
Indeno(1,2,3-cd)pyrene									
Iodomethane	<1	<1	<1	<1	<1	<1		<1	<1
Iron, dissolved									
Iron, total									
Isobutanol									
Isodrin									
Isophorone									
Isosafrole									
Kepone									
Lead, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Mcpa									
Mcpp									
Mercury, total									
Methacrylonitrile									
Methapyrilene									
Methoxychlor									
Methyl methacrylate									
Methyl methanesulfonate									
Methyl parathion									
Methylene chloride	<5	<5	<5	<5	<5	<5		<5	<5
Naphthalene									
Nickel, total	14.8	13.4	9.4	9.1	6.0	13.9	5.4	10.4	<4.0
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									
Parathion-ethyl									
Parathion-methyl									
Pcb-1016									
Pcb-1221									
Pcb-1232									
Pcb-1242									
Pcb-1248									
Pcb-1254									
Pcb-1260									
Pcb-1268									
Pentachlorobenzene									
Pentachloroethane									
Pentachloronitrobenzene									
Pentachlorophenol									
pH									
Phenacetin									
Phenanthrene									
Phenol									
Phorate									
Picloram									
Pronamide									
Propionitrile									
Pyrene									
Pyridine									
Safrole									
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1	<1	<1	<1	<1	<1		<1	<1
Sulfide, total									
Tetrachloroethene	<1	<1	<1	<1	<1	<1		<1	<1
Thallium, total	<4	<4	<2	<2	<2	<4	<4	<4	<4

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

Table 9

Analytical Data Summary for MW90-4

Constituents	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2017	11/15/2017	4/10/2018	9/24/2018
Fluorene			<8						
Gamma-bhc (lindane)			<.05						
Gamma-chlordane									
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, dissolved									
Iron, total									
Isobutanol			<1000						
Isodrin			<8						
Isophorone			<8						
Isosafrole			<8						
Kepona			<8						
Lead, total	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00		<4.00	<4.00
Mcpa									
Mcpp									
Mercury, total			<.5						
Methacrylonitrile			<1						
Methapyrilene			<8						
Methoxychlor			<.05						
Methyl methacrylate			<1						
Methyl methanesulfonate			<8						
Methyl parathion			<.4						
Methylene chloride	<5	<5	<5	<5	<5	<5		<5	<5
Naphthalene			<8						
Nickel, total	4.3	<4.0	4.3	<4.0	<4.0	<4.0		<4.0	<4.0
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						
Parathion-ethyl									
Parathion-methyl									
Pcb-1016			<.1						
Pcb-1221			<.2						
Pcb-1232			<.2						
Pcb-1242			<.2						
Pcb-1248			<.2						
Pcb-1254			<.1						
Pcb-1260			<.1						
Pcb-1268									
Pentachlorobenzene			<8						
Pentachloroethane									
Pentachloronitrobenzene			<8						
Pentachlorophenol			<8.000						
pH									
Phenacetin			<8						
Phenanthrene			<8						
Phenol			<8						
Phorate			<.4						
Picloram									
Pronamide			<8						
Propionitrile			<10						
Pyrene			<8						
Pyridine									
Safrole			<8						
Selenium, total	<4	<4	<4	<4	<4	<4		<4	<4
Silver, total	<4	<4	<4	<4	<4	<4		<4	<4
Specific conductance									
Styrene	<1	<1	<1	<1	<1	<1		<1	<1
Sulfide, total			<.1						
Tetrachloroethene	<1	<1	<1	<1	<1	<1		<1	<1
Thallium, total	<4	<4	<4	<4	<4	<4		<4	<4

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

Table 9

Analytical Data Summary for MW90-4

Constituents	4/16/2019	6/25/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022
Fluorene						<8			
Gamma-bhc (lindane)						<.05			
Gamma-chlordane									
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	<1	<1	<1
Iron, dissolved									
Iron, total									
Isobutanol						<1000			
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
Mcpa									
Mcpp									
Mercury, total						<.5			
Methacrylonitrile						<1			
Methapyrilene						<8			
Methoxychlor						<.05			
Methyl methacrylate						<1			
Methyl methanesulfonate						<8			
Methyl parathion						<.4			
Methylene chloride	<5		<5	<5	<5	<5	<5	<5	<5
Naphthalene						<8			
Nickel, total	4.2		<4.0	<4.0	11.0	<4.0	<4.0	<4.0	4.1
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			
Parathion-ethyl									
Parathion-methyl									
Pcb-1016						<.1			
Pcb-1221						<.2			
Pcb-1232						<.2			
Pcb-1242						<.2			
Pcb-1248						<.2			
Pcb-1254						<.1			
Pcb-1260						<.1			
Pcb-1268									
Pentachlorobenzene						<8			
Pentachloroethane									
Pentachloronitrobenzene						<8			
Pentachlorophenol						<8.000			
pH									
Phenacetin						<8			
Phenanthrene						<8			
Phenol						<8			
Phorate						<.4			
Picloram									
Pronamide						<8			
Propionitrile						<10			
Pyrene						<8			
Pyridine									
Safrole						<8			
Selenium, total	<4		<4	<4	<4	<4	<4	<4	<4
Silver, total	<4		<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1		<1	<1	<1	<1	<1	<1	<1
Sulfide, total						<.1			
Tetrachloroethene	<1		<1	<1	<1	<1	<1	<1	<1
Thallium, total	<2		<2	<2	<2	<2	<2	<2	<2

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

Table 9

## Analytical Data Summary for MW90-4

Constituents	1/4/2023	4/5/2023	10/13/2023
Fluorene			
Gamma-bhc (lindane)			
Gamma-chlordane			
Heptachlor			
Heptachlor epoxide			
Hexachlorobenzene			
Hexachlorobutadiene			
Hexachlorocyclopentadiene			
Hexachloroethane			
Hexachloropropene			
Indeno(1,2,3-cd)pyrene			
Iodomethane		<1	<1
Iron, dissolved			
Iron, total			
Isobutanol			
Isodrin			
Isophorone			
Isosafrole			
Kepon			
Lead, total		<4.00	<4.00
Mcpa			
Mcpp			
Mercury, total			
Methacrylonitrile			
Methapyriline			
Methoxychlor			
Methyl methacrylate			
Methyl methanesulfonate			
Methyl parathion			
Methylene chloride		<5	<5
Naphthalene			
Nickel, total		<4.0	4.3
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			
Parathion-ethyl			
Parathion-methyl			
Pcb-1016			
Pcb-1221			
Pcb-1232			
Pcb-1242			
Pcb-1248			
Pcb-1254			
Pcb-1260			
Pcb-1268			
Pentachlorobenzene			
Pentachloroethane			
Pentachloronitrobenzene			
Pentachlorophenol			
pH			
Phenacetin			
Phenanthrene			
Phenol			
Phorate			
Picloram			
Pronamide			
Propionitrile			
Pyrene			
Pyridine			
Safrole			
Selenium, total		<4	<4
Silver, total		<4	<4
Specific conductance			
Styrene		<1	<1
Sulfide, total			
Tetrachloroethene		<1	<1
Thallium, total		<2	<2

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

Table 9

## Analytical Data Summary for MW90-4

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
Thionazin	ug/L		<10.0						
Tin, total	ug/L		<100						
Toluene	ug/L		<1		<1	<1	<1	<1	<1
Total organic halides	mg/L			.0322 *					
Total suspended solids	mg/L								
Toxaphene	ug/L		<2.0						
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		<50.0		<50.0	<50.0	15.3	<10.0	<10.0
Vinyl acetate	ug/L		<2		<2	<2	<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		63.9		29.1	51.6	27.9	11.3	<10.0

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

Table 9

## Analytical Data Summary for MW90-4

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
Thionazin									
Tin, total									
Toluene	<1	<1	<1	<1	<1	<1		<1	<1
Total organic halides									
Total suspended solids									25
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	30.0	<20.0	<20.0	<20.0	<20.0	22.9	<20.0	<20.0	<20.0
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	9.3	13.6	9.6	<8.0	<8.0	27.6	10.9	20.2	<8.0

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

Table 9

## Analytical Data Summary for MW90-4

Constituents	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2017	11/15/2017	4/10/2018	9/24/2018
Thionazin			<.4						
Tin, total			<20						
Toluene	<1	<1	<1	<1	<1	<1		<1	<1
Total organic halides									
Total suspended solids	52	26	13	13	67	38		16	26
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	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0		<20.0	<20.0
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	<8.0	<8.0	<8.0	<8.0		<20.0	<8.0

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

Table 9

## Analytical Data Summary for MW90-4

Constituents	4/16/2019	6/25/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022
Thionazin						<.4			
Tin, total						<20			
Toluene	<1		<1	<1	<1	<1	<1	<1	<1
Total organic halides									
Total suspended solids	17		15	65	121				
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	<20.0		<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
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		26.8	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0

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



Table 9

## Analytical Data Summary for MW90-4

Constituents	1/4/2023	4/5/2023	10/13/2023
Thionazin			
Tin, total			
Toluene		<1	<1
Total organic halides			
Total suspended solids			
Toxaphene			
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		<20.0	<20.0
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 9

## Analytical Data Summary for MW90-7

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
(3 4)-methylphenol	ug/L								
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		<10						
1,2,4-trichlorobenzene	ug/L		<8 *						
1,2-dibromo-3-chloropropane	ug/L		<10.00		<.86	<.86	<1.00	<1.00	<1.00
1,2-dibromoethane (edb)	ug/L		<10.00		<.25	<.25	<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								
1,3,5-trinitrobenzene	ug/L		<10						
1,3-dichlorobenzene	ug/L		<1						
1,3-dichloropropane	ug/L		<1						
1,3-dinitrobenzene	ug/L		<10						
1,4-dichlorobenzene	ug/L		<1		<1	<1	<1	<1	<1
1,4-naphthoquinone	ug/L		<10						
1,4-phenylenediamine	ug/L		<10						
1-naphthylamine	ug/L		<10						
2,2-dichloropropane	ug/L		<4						
2,3,4,6-tetrachlorophenol	ug/L		<10						
2,4,5-t	ug/L		<.526						
2,4,5-tp (silvex)	ug/L		<.526						
2,4,5-trichlorophenol	ug/L		<10						
2,4,6-trichlorophenol	ug/L		<10						
2,4-d	ug/L		<.526						
2,4-db	ug/L		<.526						
2,4-dichlorophenol	ug/L		<10						
2,4-dimethylphenol	ug/L		<10						
2,4-dinitrophenol	ug/L		<10						
2,4-dinitrotoluene	ug/L		<10						
2,6-dichlorophenol	ug/L		<10						
2,6-dinitrotoluene	ug/L		<10						
2-acetylaminofluorene	ug/L		<10						
2-butanone (mek)	ug/L		<10		<10	<10	<5	<5	<5
2-chloronaphthalene	ug/L		<10						
2-chlorophenol	ug/L		<10						
2-hexanone	ug/L		<10		<10	<10	<5	<5	<5
2-methylnaphthalene	ug/L		<10						
2-methylphenol (o-cresol)	ug/L		<10						
2-naphthylamine	ug/L		<10						
2-nitroaniline	ug/L		<10						
2-nitrophenol	ug/L		<10						
3,3'-dichlorobenzidine	ug/L		<85						
3,3'-dimethylbenzidine	ug/L		<20						
3/4-methylphenol	ug/L		<10						
3-methylcholanthrene	ug/L		<10						
3-nitroaniline	ug/L		<10						
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		<10						
4-aminobiphenyl	ug/L		<20						
4-bromophenyl phenyl ether	ug/L		<10						
4-chloro-3-methylphenol	ug/L		<10						
4-chloroaniline	ug/L		<10						
4-chlorophenyl phenyl ether	ug/L		<10						
4-methyl-2-pentanone (mibk)	ug/L		<10		<10	<10	<5	<5	<5
4-nitroaniline	ug/L		<10						
4-nitrophenol	ug/L		<5.263 *						
5-nitro-o-toluidine	ug/L		<10						
7,12-dimethylbenz (a) anthracene	ug/L		<10						
Acenaphthene	ug/L		<10 *						
Acetone	ug/L		<10		<10	<10	<10	<10	<10
Acetonitrile	ug/L		<10						
Acetophenone	ug/L		<10						
Acrolein	ug/L		<10						
Acrylonitrile	ug/L		<10		<10	<10	<5	<5	<5
Aldrin	ug/L		<.05						
Allyl chloride	ug/L		<2						
Alpha-bhc	ug/L		<.05						

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

Table 9

Analytical Data Summary for MW90-7

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
(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	<1	<1	<1	<1	<1	<1		<1	<1
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		<1.00	<1.00
1,2-dibromoethane (edb)	<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	<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								<.500	
2,4,5-tp (silvex)								<.500	
2,4,5-trichlorophenol								<8	
2,4,6-trichlorophenol								<8	
2,4-d								<2.000	
2,4-db									
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 (mek)	<5	<5	<5	<5	<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	
3/4-methylphenol									
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 (mibk)	<5	<5	<5	<5	<5	<5		<5	<5
4-nitroaniline								<8	
4-nitrophenol								<8.000	
5-nitro-o-toluidine								<8	
7,12-dimethylbenz (a) anthracene								<8	
Acenaphthene								<8 *	
Acetone	<10	<10	<10	<10	<10	<10		<10	<10
Acetonitrile								<10	
Acetophenone								<8	
Acrolein								<10	
Acrylonitrile	<5	<5	<5	<5	<5	<5		<5	<5
Aldrin								<.05	
Allyl chloride								<1	
Alpha-bhc								<.05	

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

Table 9

Analytical Data Summary for MW90-7

Constituents	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2017	4/10/2018	9/24/2018	4/16/2019
(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	<1.00	<1.00
1,2-dibromoethane (edb)	<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									<.500
2,4,5-tp (silvex)									<.500
2,4,5-trichlorophenol									<8
2,4,6-trichlorophenol									<8
2,4-d									<2.000
2,4-db									<8
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 (mek)	<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
3/4-methylphenol									<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 (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline									<8
4-nitrophenol									<8.000
5-nitro-o-toluidine									<8
7,12-dimethylbenz (a) anthracene									<8
Acenaphthene									<8 *
Acetone	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile									<10
Acetophenone									<8
Acrolein									<10
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin									<.05
Allyl chloride									<1
Alpha-bhc									<.05

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

Table 9

Analytical Data Summary for MW90-7

Constituents	6/25/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022	4/5/2023
(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	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-dibromoethane (edb)		<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-db									
2,4-dichlorophenol									
2,4-dimethylphenol									
2,4-dinitrophenol									
2,4-dinitrotoluene									
2,6-dichlorophenol									
2,6-dinitrotoluene									
2-acetylaminofluorene									
2-butanone (mek)		<5	<5	<5	<5	<5	<10	<10	<10
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									
3/4-methylphenol									
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 (mibk)		<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline									
4-nitrophenol									
5-nitro-o-toluidine									
7,12-dimethylbenz (a) anthracene									
Acenaphthene									
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									

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

Table 9

## Analytical Data Summary for MW90-7

Constituents	10/13/2023
(3,4)-methylphenol	
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
1,1-dichloropropene	
1,2,3-trichloropropane	<1
1,2,4,5-tetrachlorobenzene	
1,2,4-trichlorobenzene	
1,2-dibromo-3-chloropropane	<5.00
1,2-dibromoethane (edb)	<1.00
1,2-dichlorobenzene	<1
1,2-dichloroethane	<1
1,2-dichloropropane	<1
1,2-dinitrobenzene	
1,3,5-trinitrobenzene	
1,3-dichlorobenzene	
1,3-dichloropropane	
1,3-dinitrobenzene	
1,4-dichlorobenzene	<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-db	
2,4-dichlorophenol	
2,4-dimethylphenol	
2,4-dinitrophenol	
2,4-dinitrotoluene	
2,6-dichlorophenol	
2,6-dinitrotoluene	
2-acetylaminofluorene	
2-butanone (mek)	<10
2-chloronaphthalene	
2-chlorophenol	
2-hexanone	<5
2-methylnaphthalene	
2-methylphenol (o-cresol)	
2-naphthylamine	
2-nitroaniline	
2-nitrophenol	
3,3'-dichlorobenzidine	
3,3'-dimethylbenzidine	
3/4-methylphenol	
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 (mibk)	<5
4-nitroaniline	
4-nitrophenol	
5-nitro-o-toluidine	
7,12-dimethylbenz (a) anthracene	
Acenaphthene	
Acetone	<10
Acetonitrile	
Acetophenone	
Acrolein	
Acrylonitrile	<5
Aldrin	
Allyl chloride	
Alpha-bhc	

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

Table 9

## Analytical Data Summary for MW90-7

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
Alpha-chlordane	ug/L		<.05						
Ammonia as n	mg/L	<.2 *							
Anthracene	ug/L		<10						
Antimony, total	ug/L		<6		<6	<6	<1	<2	<2
Arsenic, total	ug/L		2.96		15.60	7.89	<4.00	<4.00	<4.00
Azobenzene	ug/L								
Barium, total	ug/L		249.0		368.0	289.0	303.0	204.0	275.0
Benzene	ug/L		<.5		<.5	<.5	<1.0	<1.0	<1.0
Benzo(a)anthracene	ug/L		<10						
Benzo(a)pyrene	ug/L		<10						
Benzo(b)fluoranthene	ug/L		<10						
Benzo(g,h,i)perylene	ug/L		<10						
Benzo(k)fluoranthene	ug/L		<10						
Benzyl alcohol	ug/L		<10						
Beryllium, total	ug/L		<1		<1	<1	<4	<4	<4
Beta-bhc	ug/L								
Bis(2-chloroethoxy)methane	ug/L		<10						
Bis(2-chloroethyl)ether	ug/L		<10						
Bis(2-chloroisopropyl) ether	ug/L		<10						
Bis(2-ethylhexyl)phthalate	ug/L		<10						
Bis[2-chloroisopropyl]ether	ug/L								
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		<10						
Cadmium, total	ug/L		.591		1.460	.515	<1.000	<1.000	<1.000
Carbon disulfide	ug/L		<1		<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L		<2		<2	<2	<1	<1	<1
Chemical oxygen demand	mg/L	<5.0 *	19.9						
Chlordane	ug/L								
Chloride	mg/L	257 *	198	168 *					
Chlorobenzene	ug/L		<1		<1	<1	<1	<1	<1
Chlorobenzilate	ug/L		<10						
Chlorodibromomethane	ug/L		<5		<5	<5			
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		<20		<20	<20	<10	<10	<10
Chrysene	ug/L		<10						
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		<20.0		<20.0	<20.0	4.8	<4.0	<4.0
Copper, total	ug/L		<20		<20	<20	<4	<4	<4
Cyanide	mg/L		<.010						
Dalapon	ug/L		<1.05						
Delta-bhc	ug/L								
Diallate	ug/L								
Diallate (cis or trans)	ug/L		<10						
Dibenzo(a,h)anthracene	ug/L		<10						
Dibenzofuran	ug/L		<10						
Dibromochloromethane	ug/L						<1	<1	<1
Dibromomethane	ug/L		<1		<1	<1	<1	<1	<1
Dicamba	ug/L		<.526						
Dichlorodifluoromethane	ug/L		<3						
Dichloroprop	ug/L		<.526						
Dieldrin	ug/L		<.05						
Diethyl phthalate	ug/L		<10						
Dimethoate	ug/L		<10.0						
Dimethyl phthalate	ug/L		<10						
Di-n-butyl phthalate	ug/L		<10						
Di-n-octyl phthalate	ug/L		<10						
Dinoseb	ug/L		<5.263 *						
Diphenylamine	ug/L		<10						
Disulfoton	ug/L		<70.0						
Endosulfan i	ug/L		<.05						
Endosulfan ii	ug/L		<.05						
Endosulfan sulfate	ug/L		<.05						
Endrin	ug/L		<.05						
Endrin aldehyde	ug/L		<.05						
Endrin ketone	ug/L		<.05						
Ethyl methacrylate	ug/L		<2						
Ethyl methanesulfonate	ug/L		<10						
Ethylbenzene	ug/L		<1		<1	<1	<1	<1	<1
Famphur	ug/L		<20.0						
Fluoranthene	ug/L		<10						

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

Table 9

## Analytical Data Summary for MW90-7

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
Alpha-chlordane									
Ammonia as n									
Anthracene								<8	
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	7.10	<4.00	5.30	<4.00	6.20	11.80	6.40	7.50	4.60
Azobenzene								<8	
Barium, total	260.0	262.0	259.0	12.5	164.0	402.0	250.0	289.0	189.0
Benzene	<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	
Bis(2-chloroethoxy)methane								<8	
Bis(2-chloroethyl)ether								<8	
Bis(2-chloroisopropyl) ether								<8	
Bis(2-ethylhexyl)phthalate								<8	
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	<.800	<.800	<.800	<.800	<.800	<.800	<.800	<.800	<.800
Carbon disulfide	<1	<1	<1	<1	<1	<1		<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1		<1	<1
Chemical oxygen demand									
Chlordane								<.1	
Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1		<1	<1
Chlorobenzilate								<8	
Chlorodibromomethane									
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								<1	
Chromium, total	<8	<20	<8	<8	<8	<8	<8	<8	<8
Chrysene								<8	
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	<4.0	<4.0	4.3	4.4	<4.0	5.7	<4.0	6.3	2.7
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Cyanide								<.005	
Dalapon									
Delta-bhc								<.05	
Diallate								<8	
Diallate (cis or trans)									
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
Dicamba									
Dichlorodifluoromethane								<1	
Dichloroprop									
Dieldrin								<.05	
Diethyl phthalate								<8	
Dimethoate								<.4	
Dimethyl phthalate								<8	
Di-n-butyl phthalate								<8	
Di-n-octyl phthalate								<8	
Dinoseb								<.500	
Diphenylamine								<8	
Disulfoton								<.4	
Endosulfan i								<.05	
Endosulfan ii								<.05	
Endosulfan sulfate								<.05	
Endrin								<.05	
Endrin aldehyde								<.05	
Endrin ketone									
Ethyl methacrylate								<10	
Ethyl methanesulfonate								<8	
Ethylbenzene	<1	<1	<1	<1	<1	<1		<1	<1
Famphur								<.4	
Fluoranthene								<8	

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



Table 9

Analytical Data Summary for MW90-7

Constituents	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2017	4/10/2018	9/24/2018	4/16/2019
Alpha-chlordane									
Ammonia as n									<8
Anthracene									<2
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<4.00
Arsenic, total	4.30	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<8
Azobenzene									253.0
Barium, total	255.0	271.0	259.0	302.0	267.0	284.0	251.0	250.0	<1.0
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<8
Benzo(a)anthracene									<8
Benzo(a)pyrene									<8
Benzo(b)fluoranthene									<8
Benzo(g,h,i)perylene									<8
Benzo(k)fluoranthene									<8
Benzyl alcohol									<4
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<.05
Beta-bhc									<8
Bis(2-chloroethoxy)methane									<8
Bis(2-chloroethyl)ether									9
Bis(2-chloroisopropyl) ether									<8
Bis(2-ethylhexyl)phthalate									<1
Bis[2-chloroisopropyl]ether									<1
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	<8
Butyl benzyl phthalate									<.800
Cadmium, total	<.800	<.800	<.800	<.800	<.800	<.800	<.800	<.800	<1
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chemical oxygen demand									<.1
Chlordane									<1
Chloride									<8
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate									<8
Chlorodibromomethane									<1
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	4.6	6.5	<.8	6.6	1.5	2.5	1.9	5.1	<.8
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Cyanide									<.005
Dalapon									<.05
Delta-bhc									<8
Diallate									<8
Diallate (cis or trans)									<8
Dibenzo(a,h)anthracene									<8
Dibenzofuran									<1
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dicamba									<1
Dichlorodifluoromethane									<1
Dichloroprop									<.05
Dieldrin									<.05
Diethyl phthalate									<8
Dimethoate									<.4
Dimethyl phthalate									<8
Di-n-butyl phthalate									<8
Di-n-octyl phthalate									<8
Dinoseb									<.500
Diphenylamine									<8
Disulfoton									<.4
Endosulfan i									<.05
Endosulfan ii									<.05
Endosulfan sulfate									<.05
Endrin									<.05
Endrin aldehyde									<.05
Endrin ketone									<.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 9

Analytical Data Summary for MW90-7

Constituents	6/25/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022	4/5/2023
Alpha-chlordane									
Ammonia as n									
Anthracene									
Antimony, total		<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
Azobenzene									
Barium, total		334.0	311.0	308.0	403.0	269.0	182.0	242.0	242.0
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									
Bis(2-chloroethoxy)methane									
Bis(2-chloroethyl)ether									
Bis(2-chloroisopropyl) ether									
Bis(2-ethylhexyl)phthalate	11	15	7	<6	7	<6	<6	<6	
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		<.800	1.400	<.800	<.800	<.800	<.800	<.800	<.800
Carbon disulfide		<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride		<1	<1	<1	<1	<1	<1	<1	<1
Chemical oxygen demand									
Chlordane									
Chloride									
Chlorobenzene		<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate									
Chlorodibromomethane									
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		1.6	2.1	2.1	2.1	5.3	.8	6.0	1.6
Copper, total		<4	<4	<4	<4	<4	<4	<4	<4
Cyanide									
Dalapon									
Delta-bhc									
Diallate									
Diallate (cis or trans)									
Dibenzo(a,h)anthracene									
Dibenzofuran									
Dibromochloromethane		<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane		<1	<1	<1	<1	<1	<1	<1	<1
Dicamba									
Dichlorodifluoromethane									
Dichloroprop									
Dieldrin									
Diethyl phthalate									
Dimethoate									
Dimethyl phthalate									
Di-n-butyl phthalate									
Di-n-octyl phthalate									
Dinoseb									
Diphenylamine									
Disulfoton									
Endosulfan i									
Endosulfan ii									
Endosulfan sulfate									
Endrin									
Endrin aldehyde									
Endrin ketone									
Ethyl methacrylate									
Ethyl methanesulfonate									
Ethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
Famphur									
Fluoranthene									

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

Table 9

## Analytical Data Summary for MW90-7

Constituents	10/13/2023
Alpha-chlordane	
Ammonia as n	
Anthracene	
Antimony, total	<2
Arsenic, total	<4.00
Azobenzene	
Barium, total	302.0
Benzene	<1.0
Benzo(a)anthracene	
Benzo(a)pyrene	
Benzo(b)fluoranthene	
Benzo(g,h,i)perylene	
Benzo(k)fluoranthene	
Benzyl alcohol	
Beryllium, total	<4
Beta-bhc	
Bis(2-chloroethoxy)methane	
Bis(2-chloroethyl)ether	
Bis(2-chloroisopropyl) ether	
Bis(2-ethylhexyl)phthalate	
Bis[2-chloroisopropyl]ether	
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<1
Butyl benzyl phthalate	
Cadmium, total	<.800
Carbon disulfide	<1
Carbon tetrachloride	<1
Chemical oxygen demand	
Chlordane	
Chloride	
Chlorobenzene	<1
Chlorobenzilate	
Chlorodibromomethane	
Chloroethane	<1
Chloroform	<1
Chloromethane	<1
Chloroprene	
Chromium, total	<8
Chrysene	
Cis-1,2-dichloroethene	<1
Cis-1,3-dichloropropene	<1
Cobalt, total	19.8
Copper, total	<4
Cyanide	
Dalapon	
Delta-bhc	
Diallate	
Diallate (cis or trans)	
Dibenzo(a,h)anthracene	
Dibenzofuran	
Dibromochloromethane	<1
Dibromomethane	<1
Dicamba	
Dichlorodifluoromethane	
Dichloroprop	
Dieldrin	
Diethyl phthalate	
Dimethoate	
Dimethyl phthalate	
Di-n-butyl phthalate	
Di-n-octyl phthalate	
Dinoseb	
Diphenylamine	
Disulfoton	
Endosulfan i	
Endosulfan ii	
Endosulfan sulfate	
Endrin	
Endrin aldehyde	
Endrin ketone	
Ethyl methacrylate	
Ethyl methanesulfonate	
Ethylbenzene	<1
Famphur	
Fluoranthene	

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

Table 9

Analytical Data Summary for MW90-7

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
Fluorene	ug/L		<10						
Gamma-bhc (lindane)	ug/L		<.05						
Gamma-chlordane	ug/L		<.05						
Heptachlor	ug/L		<.05						
Heptachlor epoxide	ug/L		<.05						
Hexachlorobenzene	ug/L		<10.00						
Hexachlorobutadiene	ug/L		<10						
Hexachlorocyclopentadiene	ug/L		<10						
Hexachloroethane	ug/L		<10						
Hexachloropropene	ug/L		<10						
Indeno(1,2,3-cd)pyrene	ug/L		<10						
Iodomethane	ug/L		<10		<10	<10	<1	<1	<1
Iron, dissolved	mg/L	<.1		.3					
Iron, total	mg/L	<.1		.3					
Isobutanol	ug/L		<10						
Isodrin	ug/L		<10						
Isophorone	ug/L		<10						
Isosafrole	ug/L		<10						
Kepone	ug/L		<10						
Lead, total	ug/L		<4		<4	<4	<4	<4	<4
Mcpa	ug/L		<52.6						
Mcpp	ug/L		<52.6						
Mercury, total	ug/L		<.2						
Methacrylonitrile	ug/L		<1						
Methapyrilene	ug/L		<10						
Methoxychlor	ug/L		<.05						
Methyl methacrylate	ug/L		<2						
Methyl methanesulfonate	ug/L		<10						
Methyl parathion	ug/L								
Methylene chloride	ug/L		<10		<5	<5	<5	<5	<5
Naphthalene	ug/L		<5						
Nickel, total	ug/L		<50.0		54.9	<50.0	49.1	38.3	50.5
Nitrobenzene	ug/L		<10						
N-nitrosodiethylamine	ug/L		<10						
N-nitrosodimethylamine	ug/L		<10						
N-nitroso-di-n-butylamine	ug/L		<10						
N-nitroso-di-n-propylamine	ug/L		<10						
N-nitrosodiphenylamine	ug/L		<10						
N-nitrosomethylethylamine	ug/L		<10						
N-nitrosopiperidine	ug/L		<10						
N-nitrosopyrrolidine	ug/L		<10						
O,o,o-triethyl phosphorothioate	ug/L		<30.0						
O-toluidine	ug/L		<10						
P-(dimethylamino)azobenzene	ug/L		<10						
Parathion	ug/L								
Parathion-ethyl	ug/L		<10						
Parathion-methyl	ug/L		<10						
Pcb-1016	ug/L		<.8						
Pcb-1221	ug/L		<.8						
Pcb-1232	ug/L		<.8						
Pcb-1242	ug/L		<.8						
Pcb-1248	ug/L		<.8						
Pcb-1254	ug/L		<.8						
Pcb-1260	ug/L		<.8						
Pcb-1268	ug/L		<.8						
Pentachlorobenzene	ug/L		<10						
Pentachloroethane	ug/L		<10						
Pentachloronitrobenzene	ug/L		<10						
Pentachlorophenol	ug/L		<5.263 *						
pH	units	7.37	<2.00	6.94	<2.00	6.86			
Phenacetin	ug/L		<10						
Phenanthrene	ug/L		<10						
Phenol	ug/L		<20						
Phorate	ug/L		<60.0						
Picloram	ug/L		<.526						
Pronamide	ug/L		<10						
Propionitrile	ug/L		<10						
Pyrene	ug/L		<10						
Pyridine	ug/L		<10						
Safrole	ug/L		<10						
Selenium, total	ug/L		<5.0		<5.0	<5.0	5.6	<4.0	<4.0
Silver, total	ug/L		<20		<20	<20	<4	<4	<4
Specific conductance	umhos/cm	1511		1021		1887			
Styrene	ug/L		<1		<1	<1	<1	<1	<1
Sulfide, total	mg/L		<2.0						
Tetrachloroethene	ug/L		<1		<1	<1	<1	<1	<1
Thallium, total	ug/L		<2		<2	<2	<4	<4	<4

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

Table 9

## Analytical Data Summary for MW90-7

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
Fluorene								<8	
Gamma-bhc (lindane)								<.05	
Gamma-chlordane									
Heptachlor								<.05	
Heptachlor epoxide								<.05	
Hexachlorobenzene								<4.03 *	
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, dissolved									
Iron, total									
Isobutanol								<1000	
Isodrin								<8	
Isophorone								<8	
Isosafrole								<8	
Kepona								<8	
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Mcpa									
Mcpp									
Mercury, total								<.5	
Methacrylonitrile								<1	
Methapyrilene								<8	
Methoxychlor								<.05	
Methyl methacrylate								<1	
Methyl methanesulfonate								<8	
Methyl parathion								<.4	
Methylene chloride	<5	<5	<5	<5	<5	<5		<5	<5
Naphthalene								<8	
Nickel, total	52.5	43.4	42.6	28.6	33.4	60.4	41.4	39.6	25.3
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	
Parathion-ethyl									
Parathion-methyl									
Pcb-1016								<.1	
Pcb-1221								<.2	
Pcb-1232								<.2	
Pcb-1242								<.2	
Pcb-1248								<.2	
Pcb-1254								<.1	
Pcb-1260								<.1	
Pcb-1268									
Pentachlorobenzene								<8	
Pentachloroethane									
Pentachloronitrobenzene								<8	
Pentachlorophenol								<8.000	
pH									
Phenacetin								<8	
Phenanthrene								<8	
Phenol								<8	
Phorate								<.4	
Picloram									
Pronamide								<8	
Propionitrile								<10	
Pyrene								<8	
Pyridine									
Safrole								<8	
Selenium, total	6.2	<4.0	<4.0	<4.0	21.2	<4.0	<4.0	20.2	<4.0
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1	<1	<1	<1	<1	<1		<1	<1
Sulfide, total								<.1	
Tetrachloroethene	<1	<1	<1	<1	<1	<1		<1	<1
Thallium, total	<4	<4	<2	<2	<2	<4	<4	<4	<4

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

Table 9

Analytical Data Summary for MW90-7

Constituents	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2017	4/10/2018	9/24/2018	4/16/2019
Fluorene									<8
Gamma-bhc (lindane)									<.05
Gamma-chlordane									<.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, dissolved									
Iron, total									
Isobutanol									<1000
Isodrin									<8
Isophorone									<8
Isosafrole									<8
Kepone									<8
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Mcpa									
Mcpp									
Mercury, total									<.5
Methacrylonitrile									<1
Methapyrilene									<8
Methoxychlor									<.05
Methyl methacrylate									<1
Methyl methanesulfonate									<8
Methyl parathion									<.4
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene									<8
Nickel, total	34.0	29.6	23.5	32.6	23.3	26.4	33.8	22.3	16.3
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
Parathion-ethyl									
Parathion-methyl									
Pcb-1016									<.1
Pcb-1221									<.2
Pcb-1232									<.2
Pcb-1242									<.2
Pcb-1248									<.2
Pcb-1254									<.1
Pcb-1260									<.1
Pcb-1268									<.1
Pentachlorobenzene									<8
Pentachloroethane									
Pentachloronitrobenzene									<8
Pentachlorophenol									<8.000
pH									
Phenacetin									<8
Phenanthrene									<8
Phenol									<8
Phorate									<.4
Picloram									
Pronamide									<8
Propionitrile									<10
Pyrene									<8
Pyridine									
Safrole									<8
Selenium, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total									<.1
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4	<4	<4	<4	<4	<4	<2

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

Table 9

Analytical Data Summary for MW90-7

Constituents	6/25/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022	4/5/2023
Fluorene									
Gamma-bhc (lindane)									
Gamma-chlordane									
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene									
Hexachlorobutadiene									
Hexachlorocyclopentadiene									
Hexachloroethane									
Hexachloropropene									
Indeno(1,2,3-cd)pyrene									
Iodomethane		<1	<1	<1	<1	<1	<1	<1	<1
Iron, dissolved									
Iron, total									
Isobutanol									
Isodrin									
Isophorone									
Isosafrole									
Kepone									
Lead, total		<4	<4	<4	<4	<4	<4	<4	<4
Mcpa									
Mcpp									
Mercury, total									
Methacrylonitrile									
Methapyrilene									
Methoxychlor									
Methyl methacrylate									
Methyl methanesulfonate									
Methyl parathion									
Methylene chloride		<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene									
Nickel, total		25.6	23.0	29.2	42.1	29.7	15.2	27.4	25.6
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									
Parathion-ethyl									
Parathion-methyl									
Pcb-1016									
Pcb-1221									
Pcb-1232									
Pcb-1242									
Pcb-1248									
Pcb-1254									
Pcb-1260									
Pcb-1268									
Pentachlorobenzene									
Pentachloroethane									
Pentachloronitrobenzene									
Pentachlorophenol									
pH									
Phenacetin									
Phenanthrene									
Phenol									
Phorate									
Picloram									
Pronamide									
Propionitrile									
Pyrene									
Pyridine									
Safrole									
Selenium, total		<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Silver, total		<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene		<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total									
Tetrachloroethene		<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total		<2	<2	<2	<2	<2	<2	<2	<2

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

Table 9

## Analytical Data Summary for MW90-7

Constituents	10/13/2023
Fluorene	
Gamma-bhc (lindane)	
Gamma-chlordane	
Heptachlor	
Heptachlor epoxide	
Hexachlorobenzene	
Hexachlorobutadiene	
Hexachlorocyclopentadiene	
Hexachloroethane	
Hexachloropropene	
Indeno(1,2,3-cd)pyrene	
Iodomethane	<1
Iron, dissolved	
Iron, total	
Isobutanol	
Isodrin	
Isophorone	
Isosafrole	
Kepone	
Lead, total	<4
Mcpa	
Mcpp	
Mercury, total	
Methacrylonitrile	
Methapyriline	
Methoxychlor	
Methyl methacrylate	
Methyl methanesulfonate	
Methyl parathion	
Methylene chloride	<5
Naphthalene	
Nickel, total	29.4
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	
Parathion-ethyl	
Parathion-methyl	
Pcb-1016	
Pcb-1221	
Pcb-1232	
Pcb-1242	
Pcb-1248	
Pcb-1254	
Pcb-1260	
Pcb-1268	
Pentachlorobenzene	
Pentachloroethane	
Pentachloronitrobenzene	
Pentachlorophenol	
pH	
Phenacetin	
Phenanthrene	
Phenol	
Phorate	
Picloram	
Pronamide	
Propionitrile	
Pyrene	
Pyridine	
Safrole	
Selenium, total	<4.0
Silver, total	<4
Specific conductance	
Styrene	<1
Sulfide, total	
Tetrachloroethene	<1
Thallium, total	<2

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



Table 9

## Analytical Data Summary for MW90-7

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
Thionazin	ug/L		<10.0						
Tin, total	ug/L		<100						
Toluene	ug/L		<1		<1	<1	<1	<1	<1
Total organic halides	mg/L			.0502 *					
Total suspended solids	mg/L								
Toxaphene	ug/L		<2.0						
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		<50.0		<50.0	<50.0	<10.0	<10.0	<10.0
Vinyl acetate	ug/L		<2		<2	<2	<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		109.0		36.7	63.4	12.1	<10.0	<10.0

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

Table 9

## Analytical Data Summary for MW90-7

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
Thionazin								<.4	
Tin, total								<20	
Toluene	<1	<1	<1	<1	<1	<1		<1	<1
Total organic halides									
Total suspended solids									10
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	23.1	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
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	<8.0	15.0	<8.0	<20.0	<8.0	<20.0	<8.0

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

Table 9

## Analytical Data Summary for MW90-7

Constituents	3/20/2015	9/17/2015	3/17/2016	8/26/2016	4/11/2017	9/23/2017	4/10/2018	9/24/2018	4/16/2019
Thionazin									<.4
Tin, total									<20
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total organic halides									
Total suspended solids	10	8	4	3	71	12	4	7	3
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
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	<8.0	<8.0	<8.0	<20.0	<8.0	<8.0

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

Table 9

## Analytical Data Summary for MW90-7

Constituents	6/25/2019	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022	4/5/2023
Thionazin									
Tin, total									
Toluene		<1	<1	<1	<1	<1	<1	<1	<1
Total organic halides									
Total suspended solids		2	8	16					
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		<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
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	<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 9

## Analytical Data Summary for MW90-7

Constituents	10/13/2023
Thionazin	
Tin, total	
Toluene	<1
Total organic halides	
Total suspended solids	
Toxaphene	
Trans-1,2-dichloroethene	<1
Trans-1,3-dichloropropene	<1
Trans-1,4-dichloro-2-butene	<5
Trichloroethene	<1
Trichlorofluoromethane	<1
Vanadium, total	<20.0
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 9

## Analytical Data Summary for MW91-19

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
(3 4)-methylphenol	ug/L								
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		<10						
1,2,4-trichlorobenzene	ug/L		<8 *						
1,2-dibromo-3-chloropropane	ug/L		<10.00		<.86	<.86	<1.00	<1.00	<1.00
1,2-dibromoethane (edb)	ug/L		<10.00		<.25	<.25	<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								
1,3,5-trinitrobenzene	ug/L		<10						
1,3-dichlorobenzene	ug/L		<1						
1,3-dichloropropane	ug/L		<1						
1,3-dinitrobenzene	ug/L		<10						
1,4-dichlorobenzene	ug/L		<1		<1	<1	<1	<1	<1
1,4-naphthoquinone	ug/L		<10						
1,4-phenylenediamine	ug/L		<10						
1-naphthylamine	ug/L		<10						
2,2-dichloropropane	ug/L		<4						
2,3,4,6-tetrachlorophenol	ug/L		<10						
2,4,5-t	ug/L		<5.0						
2,4,5-tp (silvex)	ug/L		<5.0						
2,4,5-trichlorophenol	ug/L		<10						
2,4,6-trichlorophenol	ug/L		<10						
2,4-d	ug/L		<5						
2,4-db	ug/L		<5						
2,4-dichlorophenol	ug/L		<10						
2,4-dimethylphenol	ug/L		<10						
2,4-dinitrophenol	ug/L		<10						
2,4-dinitrotoluene	ug/L		<10						
2,6-dichlorophenol	ug/L		<10						
2,6-dinitrotoluene	ug/L		<10						
2-acetylaminofluorene	ug/L		<10						
2-butanone (mek)	ug/L		<10		<10	<10	<5	<5	<5
2-chloronaphthalene	ug/L		<10						
2-chlorophenol	ug/L		<10						
2-hexanone	ug/L		<10		<10	<10	<5	<5	<5
2-methylnaphthalene	ug/L		<10						
2-methylphenol (o-cresol)	ug/L		<10						
2-naphthylamine	ug/L		<10						
2-nitroaniline	ug/L		<10						
2-nitrophenol	ug/L		<10						
3,3'-dichlorobenzidine	ug/L		<85						
3,3'-dimethylbenzidine	ug/L		<20						
3/4-methylphenol	ug/L		<10						
3-methylcholanthrene	ug/L		<10						
3-nitroaniline	ug/L		<10						
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		<10						
4-aminobiphenyl	ug/L		<20						
4-bromophenyl phenyl ether	ug/L		<10						
4-chloro-3-methylphenol	ug/L		<10						
4-chloroaniline	ug/L		<10						
4-chlorophenyl phenyl ether	ug/L		<10						
4-methyl-2-pentanone (mibk)	ug/L		<10		<10	<10	<5	<5	<5
4-nitroaniline	ug/L		<10						
4-nitrophenol	ug/L		<8 *						
5-nitro-o-toluidine	ug/L		<10						
7,12-dimethylbenz (a) anthracene	ug/L		<10						
Acenaphthene	ug/L		<10 *						
Acetone	ug/L		<10		<10	<10	<10	<10	<10
Acetonitrile	ug/L		<10						
Acetophenone	ug/L		<10						
Acrolein	ug/L		<10						
Acrylonitrile	ug/L		<10		<10	<10	<5	<5	<5
Aldrin	ug/L		<.05						
Allyl chloride	ug/L		<2						
Alpha-bhc	ug/L		<.05						

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

Table 9

Analytical Data Summary for MW91-19

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
(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	<1	<1	<1	<1	<1	<1		<1	<1
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		<1.00	<1.00
1,2-dibromoethane (edb)	<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	<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-db									
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 (mek)	<5	<5	<5	<5	<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	
3/4-methylphenol									
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 (mibk)	<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 *	
Acetone	<10	<10	<10	<10	<10	<10		<10	<10
Acetonitrile								<10	
Acetophenone								<8	
Acrolein								<10	
Acrylonitrile	<5	<5	<5	<5	<5	<5		<5	<5
Aldrin								<.05	
Allyl chloride								<1	
Alpha-bhc								<.05	

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

Table 9

Analytical Data Summary for MW91-19

Constituents	3/20/2015	9/17/2015	3/17/2016	6/15/2016	8/26/2016	9/29/2016	4/11/2017	7/14/2017	9/23/2017
(3 4)-methylphenol									
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									
1,2,3-trichloropropane	<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		<1.00
1,2-dibromoethane (edb)	<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									
1,3,5-trinitrobenzene									
1,3-dichlorobenzene									
1,3-dichloropropane									
1,3-dinitrobenzene									
1,4-dichlorobenzene	<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-db									
2,4-dichlorophenol									
2,4-dimethylphenol									
2,4-dinitrophenol									
2,4-dinitrotoluene									
2,6-dichlorophenol									
2,6-dinitrotoluene									
2-acetylaminofluorene									
2-butanone (mek)	<5	<5	<5		<5		<5		<5
2-chloronaphthalene									
2-chlorophenol									
2-hexanone	<5	<5	<5		<5		<5		<5
2-methylnaphthalene									
2-methylphenol (o-cresol)									
2-naphthylamine									
2-nitroaniline									
2-nitrophenol									
3,3'-dichlorobenzidine									
3,3'-dimethylbenzidine									
3/4-methylphenol									
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 (mibk)	<5	<5	<5		<5		<5		<5
4-nitroaniline									
4-nitrophenol									
5-nitro-o-toluidine									
7,12-dimethylbenz (a) anthracene									
Acenaphthene									
Acetone	<10	<10	<10		<10		<10		<10
Acetonitrile									
Acetophenone									
Acrolein									
Acrylonitrile	<5	<5	<5		<5		<5		<5
Aldrin									
Allyl chloride									
Alpha-bhc									

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



Table 9

Analytical Data Summary for MW91-19

Constituents	11/15/2017	4/10/2018	9/24/2018	4/16/2019	8/29/2019	4/10/2020	6/9/2020	10/9/2020	4/9/2021
(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	<5.00		<5.00	<5.00
1,2-dibromoethane (edb)		<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-db									
2,4-dichlorophenol									
2,4-dimethylphenol									
2,4-dinitrophenol									
2,4-dinitrotoluene									
2,6-dichlorophenol									
2,6-dinitrotoluene									
2-acetylaminofluorene									
2-butanone (mek)		<5	<5	<5	<5	<5		<5	<5
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									
3/4-methylphenol									
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 (mibk)		<5	<5	<5	<5	<5		<5	<5
4-nitroaniline									
4-nitrophenol									
5-nitro-o-toluidine									
7,12-dimethylbenz (a) anthracene									
Acenaphthene									
Acetone		<10	<10	<10	<10	<10		<10	<10
Acetonitrile									
Acetophenone									
Acrolein									
Acrylonitrile		<5	<5	<5	<5	<5		<5	<5
Aldrin									
Allyl chloride									
Alpha-bhc									

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

Table 9

## Analytical Data Summary for MW91-19

Constituents	10/11/2021	4/7/2022	10/6/2022	1/4/2023	4/5/2023	10/13/2023
(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		<1.00	<5.00
1,2-dibromoethane (edb)	<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-db						
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 (mek)	<5	<10	<10		<5	<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	
3/4-methylphenol						
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 (mibk)	<5	<5	<5		<5	<5
4-nitroaniline					<8	
4-nitrophenol					<8	
5-nitro-o-toluidine					<8	
7,12-dimethylbenz (a) anthracene					<8	
Acenaphthene					<8 *	
Acetone	<10	<10	<10		<10	<10
Acetonitrile					<10	
Acetophenone					<8	
Acrolein					<10	
Acrylonitrile	<5	<5	<5		<5	<5
Aldrin					<.05	
Allyl chloride					<1	
Alpha-bhc					<.05	

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

Table 9

## Analytical Data Summary for MW91-19

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
Alpha-chlordane	ug/L		<.05						
Ammonia as n	mg/L	<.2 *							
Anthracene	ug/L		<10						
Antimony, total	ug/L		<6		<6	<6	<1	<2	<2
Arsenic, total	ug/L		<1.00		<1.00	1.92	<4.00	<4.00	<4.00
Azobenzene	ug/L								
Barium, total	ug/L		331		331	374	390	350	430
Benzene	ug/L		<.5		<.5	<.5	<1.0	<1.0	<1.0
Benzo(a)anthracene	ug/L		<10						
Benzo(a)pyrene	ug/L		<10						
Benzo(b)fluoranthene	ug/L		<10						
Benzo(g,h,i)perylene	ug/L		<10						
Benzo(k)fluoranthene	ug/L		<10						
Benzyl alcohol	ug/L		<10						
Beryllium, total	ug/L		<1		<1	<1	<4	<4	<4
Beta-bhc	ug/L								
Bis(2-chloroethoxy)methane	ug/L		<10						
Bis(2-chloroethyl)ether	ug/L		<10						
Bis(2-chloroisopropyl) ether	ug/L		<10						
Bis(2-ethylhexyl)phthalate	ug/L		<10						
Bis[2-chloroisopropyl]ether	ug/L								
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		<10						
Cadmium, total	ug/L		<.5		<.5	<.5	<1.0	<1.0	<1.0
Carbon disulfide	ug/L		<1		<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L		<2		<2	<2	<1	<1	<1
Chemical oxygen demand	mg/L	<5.0 *	8.1						
Chlordane	ug/L								
Chloride	mg/L	104.0 *	76.0	79.3 *					
Chlorobenzene	ug/L		<1		<1	<1	<1	<1	<1
Chlorobenzilate	ug/L		<10						
Chlorodibromomethane	ug/L		<5		<5	<5			
Chloroethane	ug/L		<4		<4	<4	<1	<1	<1
Chloroform	ug/L		<1		<2	<1	<1	<1	<1
Chloromethane	ug/L		<3		<3	<3	<1	<1	<1
Chloroprene	ug/L		<1						
Chromium, total	ug/L		<20		<20	<20	<10	<10	<10
Chrysene	ug/L		<10						
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		<20.0		<20.0	<20.0	<4.0	<4.0	<4.0
Copper, total	ug/L		<20		<20	<20	<4	<4	<4
Cyanide	mg/L		<.010						
Dalapon	ug/L		<10						
Delta-bhc	ug/L								
Diallate	ug/L								
Diallate (cis or trans)	ug/L		<10						
Dibenzo(a,h)anthracene	ug/L		<10						
Dibenzofuran	ug/L		<10						
Dibromochloromethane	ug/L						<1	<1	<1
Dibromomethane	ug/L		<1		<1	<1	<1	<1	<1
Dicamba	ug/L		<5						
Dichlorodifluoromethane	ug/L		<3						
Dichloroprop	ug/L		<5						
Dieldrin	ug/L		<.05						
Diethyl phthalate	ug/L		<10						
Dimethoate	ug/L		<10.0						
Dimethyl phthalate	ug/L		<10						
Di-n-butyl phthalate	ug/L		<10		<10	<10	<10	<10	<10
Di-n-octyl phthalate	ug/L		<10						
Dinoseb	ug/L		<7.5 *						
Diphenylamine	ug/L		<10						
Disulfoton	ug/L		<70.0						
Endosulfan i	ug/L		<.05						
Endosulfan ii	ug/L		<.05						
Endosulfan sulfate	ug/L		<.05						
Endrin	ug/L		<.05						
Endrin aldehyde	ug/L		<.05						
Endrin ketone	ug/L		<.05						
Ethyl methacrylate	ug/L		<2						
Ethyl methanesulfonate	ug/L		<10						
Ethylbenzene	ug/L		<1		<1	<1	<1	<1	<1
Famphur	ug/L		<20.0						
Fluoranthene	ug/L		<10						

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

Table 9

## Analytical Data Summary for MW91-19

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
Alpha-chlordane									
Ammonia as n									
Anthracene								<8	
Antimony, total	<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
Azobenzene								<8	
Barium, total	347	534	390	449	277	833	467	396	317
Benzene	<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	
Bis(2-chloroethoxy)methane								<8	
Bis(2-chloroethyl)ether								<8	
Bis(2-chloroisopropyl) ether								<8	
Bis(2-ethylhexyl)phthalate								<8	
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	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1		<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1		<1	<1
Chemical oxygen demand									
Chlordane								<.1	
Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1		<1	<1
Chlorobenzilate								<8	
Chlorodibromomethane									
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								<1	
Chromium, total	<8	<20	<8	<8	<8	<8	<8	<8	<8
Chrysene								<8	
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	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	1.0
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Cyanide								<.005	
Dalapon									
Delta-bhc								<.05	
Diallate								<8	
Diallate (cis or trans)									
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
Dicamba									
Dichlorodifluoromethane								<1	
Dichloroprop									
Dieldrin								<.05	
Diethyl phthalate								<8	
Dimethoate								<4	
Dimethyl phthalate								<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	
Endrin ketone									
Ethyl methacrylate								<10	
Ethyl methanesulfonate								<8	
Ethylbenzene	<1	<1	<1	<1	<1	<1		<1	<1
Famphur								<4	
Fluoranthene								<8	

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

Table 9

Analytical Data Summary for MW91-19

Constituents	3/20/2015	9/17/2015	3/17/2016	6/15/2016	8/26/2016	9/29/2016	4/11/2017	7/14/2017	9/23/2017
Alpha-chlordane									
Ammonia as n									
Anthracene									
Antimony, total	<2	<2	<2		<2		<2		<2
Arsenic, total	<4.00	<4.00	<4.00		<4.00		<4.00		<4.00
Azobenzene									
Barium, total	331	275	372	310	362	291	325		516
Benzene	<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
Beta-bhc									
Bis(2-chloroethoxy)methane									
Bis(2-chloroethyl)ether									
Bis(2-chloroisopropyl) ether									
Bis(2-ethylhexyl)phthalate									
Bis[2-chloroisopropyl]ether									
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									
Cadmium, total	<.8	<.8	<.8		<.8		2.3	<.8	<.8
Carbon disulfide	<1	<1	<1		<1		<1		<1
Carbon tetrachloride	<1	<1	<1		<1		<1		<1
Chemical oxygen demand									
Chlordane									
Chloride									
Chlorobenzene	<1	<1	<1		<1		<1		<1
Chlorobenzilate									
Chlorodibromomethane									
Chloroethane	<1	<1	<1		<1		<1		<1
Chloroform	<1	<1	<1		<1		<1		<1
Chloromethane	<1	<1	<1		<1		<1		<1
Chloroprene									
Chromium, total	<8	<8	<8		<8		<8		<8
Chrysene									
Cis-1,2-dichloroethene	<1	<1	<1		<1		<1		<1
Cis-1,3-dichloropropene	<1	<1	<1		<1		<1		<1
Cobalt, total	<.8	<.8	<.8		1.0		<.8		<.8
Copper, total	<4	<4	<4		<4		<4		<4
Cyanide									
Dalapon									
Delta-bhc									
Diallate									
Diallate (cis or trans)									
Dibenzo(a,h)anthracene									
Dibenzofuran									
Dibromochloromethane	<1	<1	<1		<1		<1		<1
Dibromomethane	<1	<1	<1		<1		<1		<1
Dicamba									
Dichlorodifluoromethane									
Dichloroprop									
Dieldrin									
Diethyl phthalate									
Dimethoate									
Dimethyl phthalate									
Di-n-butyl phthalate									
Di-n-octyl phthalate									
Dinoseb									
Diphenylamine									
Disulfoton									
Endosulfan i									
Endosulfan ii									
Endosulfan sulfate									
Endrin									
Endrin aldehyde									
Endrin ketone									
Ethyl methacrylate									
Ethyl methanesulfonate									
Ethylbenzene	<1	<1	<1		<1		<1		<1
Famphur									
Fluoranthene									

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

Table 9

Analytical Data Summary for MW91-19

Constituents	11/15/2017	4/10/2018	9/24/2018	4/16/2019	8/29/2019	4/10/2020	6/9/2020	10/9/2020	4/9/2021
Alpha-chlordane									
Ammonia as n									
Anthracene									
Antimony, total		<2	<2	<2	<2	<2		<2	<2
Arsenic, total		<4.00	<4.00	<4.00	<4.00	<4.00		<4.00	<4.00
Azobenzene									
Barium, total	296	339	281	342	335	373	327	495	328
Benzene		<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
Beta-bhc									
Bis(2-chloroethoxy)methane									
Bis(2-chloroethyl)ether									
Bis(2-chloroisopropyl) 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		<.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
Chemical oxygen demand									
Chlordane									
Chloride									
Chlorobenzene		<1	<1	<1	<1	<1		<1	<1
Chlorobenzilate									
Chlorodibromomethane									
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		<.8	<.8	<.8	<.8	<.4		2.4	<.4
Copper, total		<4	<4	<4	<4	<4		<4	<4
Cyanide									
Dalapon									
Delta-bhc									
Diallate									
Diallate (cis or trans)									
Dibenzo(a,h)anthracene									
Dibenzofuran									
Dibromochloromethane		<1	<1	<1	<1	<1		<1	<1
Dibromomethane		<1	<1	<1	<1	<1		<1	<1
Dicamba									
Dichlorodifluoromethane									
Dichloroprop									
Dieldrin									
Diethyl phthalate									
Dimethoate									
Dimethyl phthalate									
Di-n-butyl phthalate									
Di-n-octyl phthalate									
Dinoseb									
Diphenylamine									
Disulfoton									
Endosulfan i									
Endosulfan ii									
Endosulfan sulfate									
Endrin									
Endrin aldehyde									
Endrin ketone									
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 9

Analytical Data Summary for MW91-19

Constituents	10/11/2021	4/7/2022	10/6/2022	1/4/2023	4/5/2023	10/13/2023
Alpha-chlordane						
Ammonia as n						
Anthracene					<8	
Antimony, total	<2	<2	<2		<2	<2
Arsenic, total	<4.00	<4.00	<4.00		<4.00	<4.00
Azobenzene					<8	
Barium, total	321	343	504	434	380	482
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	
Bis(2-chloroethoxy)methane					<8	
Bis(2-chloroethyl)ether					<8	
Bis(2-chloroisopropyl) ether						
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	2.9	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1		<1	<1
Carbon tetrachloride	<1	<1	<1		<1	<1
Chemical oxygen demand						
Chlordane					<.1	
Chloride						
Chlorobenzene	<1	<1	<1		<1	<1
Chlorobenzilate					<8	
Chlorodibromomethane						
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	<.4	<.4	1.9	.7	.5	1.4
Copper, total	<4	<4	<4		<4	<4
Cyanide					<.005	
Dalapon						
Delta-bhc					<.05	
Diallate					<8	
Diallate (cis or trans)						
Dibenzo(a,h)anthracene					<8	
Dibenzofuran					<8	
Dibromochloromethane	<1	<1	<1		<1	<1
Dibromomethane	<1	<1	<1		<1	<1
Dicamba						
Dichlorodifluoromethane					<1	
Dichloroprop						
Dieldrin					<.05	
Diethyl phthalate					<8	
Dimethoate					<.4	
Dimethyl phthalate					<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	
Endrin ketone						
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 9

Analytical Data Summary for MW91-19

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
Fluorene	ug/L		<10						
Gamma-bhc (lindane)	ug/L		<.05						
Gamma-chlordane	ug/L		<.05						
Heptachlor	ug/L		<.05						
Heptachlor epoxide	ug/L		<.05						
Hexachlorobenzene	ug/L		<10.00						
Hexachlorobutadiene	ug/L		<10						
Hexachlorocyclopentadiene	ug/L		<10						
Hexachloroethane	ug/L		<10						
Hexachloropropene	ug/L		<10						
Indeno(1,2,3-cd)pyrene	ug/L		<10						
Iodomethane	ug/L		<10		<10	<10	<1	<1	<1
Iron, dissolved	mg/L	<.1		<.1					
Iron, total	mg/L	<.1		<.1					
Isobutanol	ug/L		<10						
Isodrin	ug/L		<10						
Isophorone	ug/L		<10						
Isosafrole	ug/L		<10						
Kepone	ug/L		<10						
Lead, total	ug/L		<4		<4	<4	<4	<4	<4
Mcpa	ug/L		<500						
Mcpp	ug/L		<500						
Mercury, total	ug/L		<.2						
Methacrylonitrile	ug/L		<1						
Methapyrilene	ug/L		<10						
Methoxychlor	ug/L		<.05						
Methyl methacrylate	ug/L		<2						
Methyl methanesulfonate	ug/L		<10						
Methyl parathion	ug/L								
Methylene chloride	ug/L		<10		<5	<5	<5	<5	<5
Naphthalene	ug/L		<5						
Nickel, total	ug/L		<50.0		<50.0	<50.0	7.1	6.7	6.9
Nitrobenzene	ug/L		<10						
N-nitrosodiethylamine	ug/L		<10						
N-nitrosodimethylamine	ug/L		<10						
N-nitrosodi-n-butylamine	ug/L		<10						
N-nitroso-di-n-propylamine	ug/L		<10						
N-nitrosodiphenylamine	ug/L		<10						
N-nitrosomethylethylamine	ug/L		<10						
N-nitrosopiperidine	ug/L		<10						
N-nitrosopyrrolidine	ug/L		<10						
O,o,o-triethyl phosphorothioate	ug/L		<30.0						
O-toluidine	ug/L		<10						
P-(dimethylamino)azobenzene	ug/L		<10						
Parathion	ug/L								
Parathion-ethyl	ug/L		<10						
Parathion-methyl	ug/L		<10						
Pcb-1016	ug/L		<.8						
Pcb-1221	ug/L		<.8						
Pcb-1232	ug/L		<.8						
Pcb-1242	ug/L		<.8						
Pcb-1248	ug/L		<.8						
Pcb-1254	ug/L		<.8						
Pcb-1260	ug/L		<.8						
Pcb-1268	ug/L		<.8						
Pentachlorobenzene	ug/L		<10						
Pentachloroethane	ug/L		<10						
Pentachloronitrobenzene	ug/L		<10						
Pentachlorophenol	ug/L		<8 *						
pH	units	7.16	<2.00	7.29	<2.00	6.60			
Phenacetin	ug/L		<10						
Phenanthrene	ug/L		<10						
Phenol	ug/L		<20						
Phorate	ug/L		<60.0						
Picloram	ug/L		<5						
Pronamide	ug/L		<10						
Propionitrile	ug/L		<10						
Pyrene	ug/L		<10						
Pyridine	ug/L		<10						
Safrole	ug/L		<10						
Selenium, total	ug/L		<5		<5	<5	<4	<4	<4
Silver, total	ug/L		<20		<20	<20	<4	<4	<4
Specific conductance	umhos/cm	694		536		778			
Styrene	ug/L		<1		<1	<1	<1	<1	<1
Sulfide, total	mg/L		<2.0						
Terphenyl-dl4	ug/L								55
Tetrachloroethene	ug/L		<1		<1	<1	<1	<1	<1

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



Table 9

## Analytical Data Summary for MW91-19

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
Fluorene								<8	
Gamma-bhc (lindane)								<.05	
Gamma-chlordane									
Heptachlor								<.05	
Heptachlor epoxide								<.05	
Hexachlorobenzene								<4.03 *	
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, dissolved									
Iron, total									
Isobutanol								<1000	
Isodrin								<8	
Isophorone								<8	
Isosafrole								<8	
Kepona								<8	
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Mcpa									
Mcpp									
Mercury, total								<.5	
Methacrylonitrile								<1	
Methapyrilene								<8	
Methoxychlor								<.05	
Methyl methacrylate								<1	
Methyl methanesulfonate								<8	
Methyl parathion								<.4	
Methylene chloride	<5	<5	<5	<5	<5	<5		<5	<5
Naphthalene								<8	
Nickel, total	9.7	8.3	6.2	6.8	6.0	5.5	4.4	4.3	6.8
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	
Parathion-ethyl									
Parathion-methyl									
Pcb-1016								<.1	
Pcb-1221								<.2	
Pcb-1232								<.2	
Pcb-1242								<.2	
Pcb-1248								<.2	
Pcb-1254								<.1	
Pcb-1260								<.1	
Pcb-1268									
Pentachlorobenzene								<8	
Pentachloroethane									
Pentachloronitrobenzene								<8	
Pentachlorophenol								<8	
pH									
Phenacetin								<8	
Phenanthrene								<8	
Phenol								<8	
Phorate								<.4	
Picloram									
Pronamide								<8	
Propionitrile								<10	
Pyrene								<8	
Pyridine									
Safrole								<8	
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1	<1	<1	<1	<1	<1		<1	<1
Sulfide, total								<.1	
Terphenyl-dl4									
Tetrachloroethene	<1	<1	<1	<1	<1	<1		<1	<1

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

Table 9

Analytical Data Summary for MW91-19

Constituents	3/20/2015	9/17/2015	3/17/2016	6/15/2016	8/26/2016	9/29/2016	4/11/2017	7/14/2017	9/23/2017
Fluorene									
Gamma-bhc (lindane)									
Gamma-chlordane									
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene									
Hexachlorobutadiene									
Hexachlorocyclopentadiene									
Hexachloroethane									
Hexachloropropene									
Indeno(1,2,3-cd)pyrene									
Iodomethane	<1	<1	<1		<1		<1		<1
Iron, dissolved									
Iron, total									
Isobutanol									
Isodrin									
Isophorone									
Isosafrole									
Kepon									
Lead, total	<4	<4	<4		<4		<4		<4
Mcpa									
Mcpp									
Mercury, total									
Methacrylonitrile									
Methapyrilene									
Methoxychlor									
Methyl methacrylate									
Methyl methanesulfonate									
Methyl parathion									
Methylene chloride	<5	<5	<5		<5		<5		<5
Naphthalene									
Nickel, total	4.0	<4.0	5.2		7.1		5.1		4.5
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									
Parathion-ethyl									
Parathion-methyl									
Pcb-1016									
Pcb-1221									
Pcb-1232									
Pcb-1242									
Pcb-1248									
Pcb-1254									
Pcb-1260									
Pcb-1268									
Pentachlorobenzene									
Pentachloroethane									
Pentachloronitrobenzene									
Pentachlorophenol									
pH									
Phenacetin									
Phenanthrene									
Phenol									
Phorate									
Picloram									
Pronamide									
Propionitrile									
Pyrene									
Pyridine									
Safrole									
Selenium, total	<4	<4	<4		<4		<4		<4
Silver, total	<4	<4	<4		<4		<4		<4
Specific conductance									
Styrene	<1	<1	<1		<1		<1		<1
Sulfide, total									
Terphenyl-dl4									
Tetrachloroethene	<1	<1	<1		<1		<1		<1

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

Table 9

Analytical Data Summary for MW91-19

Constituents	11/15/2017	4/10/2018	9/24/2018	4/16/2019	8/29/2019	4/10/2020	6/9/2020	10/9/2020	4/9/2021
Fluorene									
Gamma-bhc (lindane)									
Gamma-chlordane									
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene									
Hexachlorobutadiene									
Hexachlorocyclopentadiene									
Hexachloroethane									
Hexachloropropene									
Indeno(1,2,3-cd)pyrene									
Iodomethane		<1	<1	<1	<1	<1		<1	<1
Iron, dissolved									
Iron, total									
Isobutanol									
Isodrin									
Isophorone									
Isosafrole									
Kepone									
Lead, total		<4	<4	<4	<4	<4		<4	<4
Mcpa									
Mcpp									
Mercury, total									
Methacrylonitrile									
Methapyrilene									
Methoxychlor									
Methyl methacrylate									
Methyl methanesulfonate									
Methyl parathion									
Methylene chloride		<5	<5	<5	<5	<5		<5	<5
Naphthalene									
Nickel, total		<4.0	<4.0	<4.0	<4.0	5.7		9.3	<4.0
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									
Parathion-ethyl									
Parathion-methyl									
Pcb-1016									
Pcb-1221									
Pcb-1232									
Pcb-1242									
Pcb-1248									
Pcb-1254									
Pcb-1260									
Pcb-1268									
Pentachlorobenzene									
Pentachloroethane									
Pentachloronitrobenzene									
Pentachlorophenol									
pH									
Phenacetin									
Phenanthrene									
Phenol									
Phorate									
Picloram									
Pronamide									
Propionitrile									
Pyrene									
Pyridine									
Safrole									
Selenium, total		<4	<4	<4	<4	<4		<4	<4
Silver, total		<4	<4	<4	<4	<4		<4	<4
Specific conductance									
Styrene		<1	<1	<1	<1	<1		<1	<1
Sulfide, total									
Terphenyl-dl4									
Tetrachloroethene		<1	<1	<1	<1	<1		<1	<1

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

Table 9

Analytical Data Summary for MW91-19

Constituents	10/11/2021	4/7/2022	10/6/2022	1/4/2023	4/5/2023	10/13/2023
Fluorene					<8	
Gamma-bhc (lindane)					<.05	
Gamma-chlordane						
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		<2	<1
Iron, dissolved						
Iron, total						
Isobutanol					<1000	
Isodrin					<8	
Isophorone					<8	
Isosafrole					<8	
Kepone					<8	
Lead, total	<4	<4	<4		<4	<4
Mcpa						
Mcpp						
Mercury, total					<.5	
Methacrylonitrile					<1	
Methapyrilene					<8	
Methoxychlor					<.05	
Methyl methacrylate					<1	
Methyl methanesulfonate					<8	
Methyl parathion					<.4	
Methylene chloride	<5	<5	<5		<5	<5
Naphthalene					<8	
Nickel, total	<4.0	<4.0	7.8	10.1	<4.0	5.3
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	
Parathion-ethyl						
Parathion-methyl						
Pcb-1016					<.1	
Pcb-1221					<.2	
Pcb-1232					<.2	
Pcb-1242					<.2	
Pcb-1248					<.2	
Pcb-1254					<.1	
Pcb-1260					<.1	
Pcb-1268						
Pentachlorobenzene					<8	
Pentachloroethane						
Pentachloronitrobenzene					<8	
Pentachlorophenol					<8	
pH						
Phenacetin					<8	
Phenanthrene					<8	
Phenol					<8	
Phorate					<.4	
Picloram						
Pronamide					<8	
Propionitrile					<10	
Pyrene					<8	
Pyridine						
Safrole					<8	
Selenium, total	<4	<4	<4		<4	<4
Silver, total	<4	<4	<4		<4	<4
Specific conductance						
Styrene	<1	<1	<1		<1	<1
Sulfide, total					<.1	
Terphenyl-dl4						
Tetrachloroethene	<1	<1	<1		<1	<1

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

Table 9

## Analytical Data Summary for MW91-19

Constituents	Units	3/21/2008	6/9/2008	9/2/2008	10/16/2008	3/5/2009	9/30/2009	3/23/2010	9/7/2010
Thallium, total	ug/L		<2		<2	<2	<4	<4	<4
Thionazin	ug/L		<10.0						
Tin, total	ug/L		<100						
Toluene	ug/L		<1		<1	<1	<1	<1	<1
Total organic halides	mg/L			.0164 *					
Total suspended solids	mg/L								
Toxaphene	ug/L		<2.0						
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		<50.0		<50.0	<50.0	<10.0	<10.0	<10.0
Vinyl acetate	ug/L		<2		<2	<2	<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		56.4		<20.0	34.4	18.1	17.0	<10.0

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

Table 9

## Analytical Data Summary for MW91-19

Constituents	4/5/2011	9/6/2011	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014
Thallium, total	<4	<4	<2	<2	<2	<4	<4	<4	<4
Thionazin								<4	
Tin, total								<20	
Toluene	<1	<1	<1	<1	<1	<1		<1	<1
Total organic halides									
Total suspended solids									43
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	20.8	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
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	<8.0	<8.0	<8.0	<20.0	8.6	<20.0	<8.0

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

Table 9

## Analytical Data Summary for MW91-19

Constituents	3/20/2015	9/17/2015	3/17/2016	6/15/2016	8/26/2016	9/29/2016	4/11/2017	7/14/2017	9/23/2017
Thallium, total	<4	<4	<4		<4		<4		<4
Thionazin									
Tin, total									
Toluene	<1	<1	<1		<1		<1		<1
Total organic halides									
Total suspended solids	31	3	<2		<2		44		4
Toxaphene									
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
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	8.4	<8.0	<8.0		<8.0		<8.0		<8.0

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

Table 9

## Analytical Data Summary for MW91-19

Constituents	11/15/2017	4/10/2018	9/24/2018	4/16/2019	8/29/2019	4/10/2020	6/9/2020	10/9/2020	4/9/2021
Thallium, total		<4	<4	<2	<2	<2		<2	<2
Thionazin									
Tin, total									
Toluene		<1	<1	<1	<1	<1		<1	<1
Total organic halides									
Total suspended solids		<2	4	<2	<2	2		7	
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		<20.0	<20.0	<20.0	<20.0	<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	<8.0	<8.0	<8.0	<20.0		<20.0	<20.0

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



Table 9

## Analytical Data Summary for MW91-19

Constituents	10/11/2021	4/7/2022	10/6/2022	1/4/2023	4/5/2023	10/13/2023
Thallium, total	<2	<2	<2		<2	<2
Thionazin					<.4	
Tin, total					<20	
Toluene	<1	<1	<1		<1	<1
Total organic halides						
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
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 9

## Analytical Data Summary for MW91-20

Constituents	Units	3/21/2008	9/2/2008	3/5/2009	3/6/2009	9/30/2009	3/23/2010	9/7/2010	4/5/2011	9/6/2011
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	<1
1,2-dibromoethane (edb)	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 (mek)	ug/L					<5	<5	<5	<5	<5
2-hexanone	ug/L					<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L					<5	<5	<5	<5	<5
Acetone	ug/L					<10	<10	<10	<10	<10
Acrylonitrile	ug/L					<5	<5	<5	<5	<5
Ammonia as n	mg/L	<.2 *	<.2 *	<.2	<.2					
Antimony, total	ug/L					<1	<2	<2	<2	<2
Arsenic, total	ug/L					<4	<4	<4	<4	<4
Barium, total	ug/L					174	138	156	168	156
Benzene	ug/L					<1	<1	<1	<1	<1
Beryllium, total	ug/L					<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					<1.0	<1.0	<1.0	<.8	<.8
Carbon disulfide	ug/L					<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L					<1	<1	<1	<1	<1
Chemical oxygen demand	mg/L	<5 *	<5 *	<5	<5					
Chloride	mg/L	6.11 *	<5.00 *	<5.00	<5.00					
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					<10	<10	<10	<8	<20
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					<4.0	<4.0	<4.0	<4.0	<4.0
Copper, total	ug/L					<4	<4	<4	<4	<4
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
Iron, dissolved	mg/L	<.1	<.1	<.1	<.1					
Iron, total	mg/L	<.1	<.1							
Lead, total	ug/L					<4	<4	<4	<4	<4
Methylene chloride	ug/L					<5	<5	<5	<5	<5
Nickel, total	ug/L					5.6	4.4	5.6	5.1	5.3
pH	units	7.95	8.32	7.72						
Phenol	ug/L		<20 *							
Selenium, total	ug/L					4.5	5.0	7.4	4.1	11.3
Silver, total	ug/L					<4	<4	<4	<4	<4
Specific conductance	umhos/cm	453	420	517						
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
Toluene	ug/L					<1	<1	<1	<1	<1
Total organic halides	mg/L		<.01 *							
Total suspended solids	mg/L									
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					<10.0	<10.0	<10.0	22.4	<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					13.0	<10.0	<10.0	<8.0	<8.0

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

Table 9

## Analytical Data Summary for MW91-20

Constituents	3/16/2012	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014	3/20/2015	9/17/2015
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
1,2,3-trichloropropane	<1	<1	<1	<1		<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1	<1		<1	<1	<1	<1
1,2-dibromoethane (edb)	<1	<1	<1	<1		<1	<1	<1	<1
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
1,4-dichlorobenzene	<1	<1	<1	<1		<1	<1	<1	<1
2-butanone (mek)	<5	<5	<5	<5		<5	<5	<5	<5
2-hexanone	<5	<5	<5	<5		<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5		<5	<5	<5	<5
Acetone	<10	<10	<10	<10		<10	<10	<10	<10
Acrylonitrile	<5	<5	<5	<5		<5	<5	<5	<5
Ammonia as n									
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	152	140	149	263	151	176	169	172	167
Benzene	<1	<1	<1	<1		<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
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
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1		<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1		<1	<1	<1	<1
Chemical oxygen demand Chloride									
Chlorobenzene	<1	<1	<1	<1		<1	<1	<1	<1
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
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
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	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<.8	.8	<.8
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1	<1	<1		<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1		<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1		<1	<1	<1	<1
Iodomethane	<1	<1	<1	<1		<1	<1	<1	<1
Iron, dissolved									
Iron, total									
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methylene chloride	<5	<5	<5	<5		<5	<5	<5	<5
Nickel, total	<4.0	<4.0	6.1	4.4	<4.0	<4.0	<4.0	<4.0	<4.0
pH									
Phenol									
Selenium, total	13.3	9.5	<4.0	22.3	8.1	5.3	<4.0	4.1	<4.0
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1	<1	<1	<1		<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1		<1	<1	<1	<1
Thallium, total	<2	<2	<2	<4	<4	<4	<4	<4	<4
Toluene	<1	<1	<1	<1		<1	<1	<1	<1
Total organic halides									
Total suspended solids							10	23	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	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
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	11.1	<20.0	14.6	<20.0	<8.0	<8.0	<8.0

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

Table 9

Analytical Data Summary for MW91-20

Constituents	3/17/2016	8/26/2016	4/11/2017	9/23/2017	4/10/2018	9/24/2018	4/16/2019	8/29/2019	4/10/2020
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
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<5
1,2-dibromoethane (edb)	<1	<1	<1	<1	<1	<1	<1	<1	<1
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
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ammonia as n									
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	195	168	180	186	182	180	191	164	212
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
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
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chemical oxygen demand									
Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
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
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<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	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Iodomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Iron, dissolved									
Iron, total									
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
pH									
Phenol									
Selenium, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4	<4	<4	<4	<2	<2	<2
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total organic halides									
Total suspended solids	<2	<2	41	4	<2	<2	<2	<2	<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
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	<8.0	<20.0	<8.0	<8.0	<8.0	<20.0

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

Table 9

Analytical Data Summary for MW91-20

Constituents	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022	1/4/2023	4/5/2023	10/13/2023
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 (edb)	<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 (mek)	<5	<5	<5	<10	<10		<10	<10
2-hexanone	<5	<5	<5	<5	<5		<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5		<5	<5
Acetone	<10	<10	<10	<10	<10		<10	<10
Acrylonitrile	<5	<5	<5	<5	<5		<5	<5
Ammonia as n								
Antimony, total	<2	<2	<2	<2	<2		<2	<2
Arsenic, total	<4	<4	<4	<4	<4		<4	<4
Barium, total	197	191	180	204	181		192	210
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	2.6	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1		<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1		<1	<1
Chemical oxygen demand								
Chloride								
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	<.4	<.4	<.4	<.4	.4		<.4	<.4
Copper, total	<4	<4	<4	<4	<4		<4	<4
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
Iron, dissolved								
Iron, total								
Lead, total	<4	<4	<4	<4	<4		<4	<4
Methylene chloride	<5	<5	<5	<5	<5		<5	<5
Nickel, total	<4.0	<4.0	<4.0	<4.0	<4.0		<4.0	<4.0
pH								
Phenol								
Selenium, total	<4.0	<4.0	<4.0	<4.0	<4.0		<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4		<4	<4
Specific conductance								
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 organic halides								
Total suspended solids	10							
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	<20.0	<20.0	<20.0	<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	<20.0	<20.0	<20.0	<20.0		<20.0	<20.0

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

Table 9

## Analytical Data Summary for SW-3

Constituents	Units	3/21/2008	3/5/2009	3/6/2009	9/30/2009	3/23/2010	9/7/2010	4/5/2011	9/6/2011	3/16/2012
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	<1
1,2-dibromoethane (edb)	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 (mek)	ug/L				<5	<5	<5	<5	<5	<5
2-hexanone	ug/L				<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	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
Ammonia as n	mg/L	<.200 *	.277	.277						
Antimony, total	ug/L				<1	<2	<2	<2	<2	<2
Arsenic, dissolved	ug/L		1.30	1.25						
Arsenic, total	ug/L				<4	<4	<4	<4	<4	<4
Barium, dissolved	ug/L		138	138						
Barium, total	ug/L				282	268	261	245	324	211
Benzene	ug/L				<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L				<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				<1.0	<1.0	<1.0	<.8	<.8	<.8
Carbon disulfide	ug/L				<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L				<1	<1	<1	<1	<1	<1
Chemical oxygen demand	mg/L	6.2 *	16.2	16.2						
Chloride	mg/L	9.47 *	21.30	21.30						
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				<10	<10	<10	<8	<20	<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				<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Copper, total	ug/L				<4	<4	<4	<4	<4	<4
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
Iron, dissolved	mg/L	<.1	<.1	<.1						
Iron, total	mg/L	<.1								
Lead, total	ug/L				<4	<4	<4	<4	<4	<4
Methylene chloride	ug/L				<5	<5	<5	<5	<5	<5
Nickel, total	ug/L				<4.0	7.6	<4.0	7.3	4.1	4.2
pH	units	8.39	7.71							
Selenium, total	ug/L				<4	<4	<4	<4	<4	<4
Silver, total	ug/L				<4	<4	<4	<4	<4	<4
Specific conductance	umhos/cm	517	437							
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
Toluene	ug/L				<1	<1	<1	<1	<1	<1
Total suspended solids	mg/L									
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				<10.0	<10.0	<10.0	24.5	<20.0	<20.0
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, dissolved	mg/L		<.02	<.02						
Zinc, total	ug/L				13.1	22.4	<10.0	<8.0	<8.0	<8.0

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

Table 9

Analytical Data Summary for SW-3

Constituents	9/24/2012	4/24/2013	9/20/2013	10/28/2013	4/8/2014	9/22/2014	3/20/2015	9/17/2015	3/17/2016
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
1,2,3-trichloropropane	<1	<1	<1		<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1		<1	<1	<1	<1	<1
1,2-dibromoethane (edb)	<1	<1	<1		<1	<1	<1	<1	<1
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
1,4-dichlorobenzene	<1	<1	<1		<1	<1	<1	<1	<1
2-butanone (mek)	<5	<5	<5		<5	<5	<5	<5	<5
2-hexanone	<5	<5	<5		<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5		<5	<5	<5	<5	<5
Acetone	<10	<10	<10		<10	<10	<10	<10	<10
Acrylonitrile	<5	<5	<5		<5	<5	<5	<5	<5
Ammonia as n									
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, dissolved									
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, dissolved									
Barium, total	259	184	514	290	207	312	235	317	313
Benzene	<1	<1	<1		<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
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
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1		<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1		<1	<1	<1	<1	<1
Chemical oxygen demand Chloride									
Chlorobenzene	<1	<1	<1		<1	<1	<1	<1	<1
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
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
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	<4.0	<4.0	<4.0	<4.0	<4.0	<.8	<.8	<.8	<.8
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1	<1		<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1		<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1		<1	<1	<1	<1	<1
Iodomethane	<1	<1	<1		<1	<1	<1	<1	<1
Iron, dissolved									
Iron, total									
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methylene chloride	<5	<5	<5		<5	<5	<5	<5	<5
Nickel, total	4.5	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
pH									
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1	<1	<1		<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1		<1	<1	<1	<1	<1
Thallium, total	<2	<2	<4	<4	<4	<4	<4	<4	<4
Toluene	<1	<1	<1		<1	<1	<1	<1	<1
Total suspended solids						<2	<2	<2	<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	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
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, dissolved									
Zinc, total	<8.0	<8.0	<20.0	<8.0	<20.0	<8.0	<8.0	<8.0	<8.0

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

Table 9

Analytical Data Summary for SW-3

Constituents	8/26/2016	4/11/2017	9/23/2017	4/10/2018	9/24/2018	8/29/2019	4/10/2020	10/9/2020	4/9/2021
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
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1	<1	<1	<1	<5	<5	<5
1,2-dibromoethane (edb)	<1	<1	<1	<1	<1	<1	<1	<1	<1
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
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ammonia as n									
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, dissolved									
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, dissolved									
Barium, total	311	282	342	258	343	355	305	319	248
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
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
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chemical oxygen demand Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
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
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<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	<.8	<.8	<.8	<.8	<.8	<.8	<.4	<.4	<.4
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Iodomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Iron, dissolved									
Iron, total									
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
pH									
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Specific conductance									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4	<4	<4	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total suspended solids	<2	<2	37	<2	44	39	<2	1	<1
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
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, dissolved									
Zinc, total	<8.0	<8.0	<8.0	<20.0	8.3	9.4	<20.0	<20.0	<20.0

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



Table 9

## Analytical Data Summary for SW-3

Constituents	10/11/2021	4/7/2022	10/6/2022	4/5/2023	10/13/2023
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
1,2,3-trichloropropane	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<5	<5	<5	<5	<5
1,2-dibromoethane (edb)	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1
2-butanone (mek)	<5	<10	<10	<10	<10
2-hexanone	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5
Acetone	<10	<10	<10	<10	<10
Acrylonitrile	<5	<5	<5	<5	<5
Ammonia as n					
Antimony, total	<2	<2	<2	<2	<2
Arsenic, dissolved					
Arsenic, total	<4	<4	<4	<4	<4
Barium, dissolved					
Barium, total	307	259	288	209	255
Benzene	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1
Chemical oxygen demand Chloride					
Chlorobenzene	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1
Cobalt, total	<.4	<.4	<.4	<.4	<.4
Copper, total	<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1
Iodomethane	<1	<1	<1	<1	<1
Iron, dissolved					
Iron, total					
Lead, total	<4	<4	<4	<4	<4
Methylene chloride	<5	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	<4.0	<4.0	<4.0
pH					
Selenium, total	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4
Specific conductance					
Styrene	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1
Total suspended solids					
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
Vinyl acetate	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2
Zinc, dissolved					
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 – Historic SSI and SSL - (Not Used)**

Table 11 – Corrective Action Trend Analysis - **(Not Used)**

Table 12 – Leachate Elevation Data (Current Year)

**Table 12**  
**Leachate Measurement Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**  
**2023**

Well #	TOC Elevation	Bottom Elevation	Field Reading 4/5/2023	Leachate Elev.	Depth of Leachate		Field Reading 10/13/2023	Leachate Elev.	Bottom Field Reading	Bottom Elevation	Depth of Leachate (ft)
PZ-P-1	1362.10	1346.40	14.88	1347.22	0.82		14.82	1347.28	15.65	1346.45	0.83
PZ-P-2	1368.94	1349.24	17.55	1351.39	2.15		17.77	1351.17	19.60	1349.34	1.83
PZ-P-3	1388.64	1358.94	25.60	1363.04	4.10		26.20	1362.44	29.70	1358.94	3.50
PZ-P-4	1394.21	1369.01	22.70	1371.51	2.50		23.00	1371.21	25.20	1369.01	2.20
PZ-P-5	1400.02	1372.42	21.90	1378.12	5.70		21.65	1378.37	27.60	1372.42	5.95
PZ-P-6	1407.15	1382.40	21.30	1385.85	3.45		21.50	1385.65	24.65	1382.50	3.15
PZ-P-7	1396.65	1368.35	24.05	1372.60	4.25		23.70	1372.95	27.95	1368.70	4.25
PZ-P-8	1391.32	1363.67	24.76	1366.56	2.89		25.15	1366.17	26.60	1364.72	1.45
PZ-P-10	1370.94	1355.69	5.55	1365.39	9.70		9.10	1361.84	15.20	1355.74	6.10

**Volume of Leachate Transported to POTW - 153, 300 gallons in 2023**

**NOTES:**

Some piezometers slanted due to settlement and cover construction activities.  
The minor difference between dry and bottom elevations is attributed to the silt accumulating in the PZ or trying to determine true depth  
Piezometer bottoms measured 4-11-17 by HLW  
PZ-P-9 mowed off during summer 2018  
PZ-P-9 abandoned Sept. 24, 2018 per IDNR approval

Table 12A – Leachate Elevation Data (Over Time)

**TABLE 12A----LEACHATE LEVELS - AUDUBON COUNTY SANITARY LANDFILL**

PZ No. Depth	Measured Leachate Level					Leachate Head Level									
	Leachate Head					Date Measured									
	1/30/2009	2/26/2009	3/20/2009	4/16/2009	5/18/2009	6/28/2009	7/24/2009	8/14/2009	9/30/2009	2/10/2010	4/13/2010	7/12/2010	10/7/2010	11/19/2010	
<b>LPZ 1</b>	14.70	14.50	14.50	14.50	14.50	14.50	14.40	14.40	14.40	13.87	13.54	13.95	14.25	14.50	
	15.70	1.00	1.20	1.20	1.20	1.20	1.30	1.30	1.30	1.83	2.16	1.75	1.45	1.20	
<b>LPZ 2</b>	17.70	17.80	17.70	17.70	17.50	17.50	17.60	17.70	17.70	17.55	17.40	17.30	17.20	17.57	
	19.80	2.10	2.00	2.10	2.30	2.30	2.20	2.10	2.10	2.25	2.40	2.50	2.60	2.23	
<b>LPZ 3</b>	25.00	frozen	25.20	25.40	25.60	25.80	25.80	25.80	25.75	25.75	25.80	NA	25.70	25.60	
	29.75	4.75	NA	4.55	4.35	4.15	3.95	3.95	3.95	4.00	4.00	3.95	NA	4.05	4.15
<b>LPZ 4</b>	23.10	23.90	23.80	23.75	26.70	23.60	23.50	23.40	23.15	22.76	22.33	20.70	19.30	19.85	
	25.00	1.90	1.10	1.20	1.25	-1.70	1.40	1.50	1.60	1.85	2.24	2.67	4.30	5.70	5.15
<b>LPZ 5</b>	18.00	18.40	18.60	18.75	19.00	19.15	19.30	19.50	19.50	19.78	20.30	20.30	22.50	20.11	
	27.30	9.30	8.90	8.70	8.55	8.30	8.15	8.00	7.80	7.80	7.52	7.00	7.00	4.80	7.19
<b>LPZ 6</b>	broken	broken	17.60	17.65	17.80	17.90	17.80	17.60	17.75	18.01	18.25	17.80	17.65	17.65	
	23.80	NA	NA	6.20	6.15	6.00	5.90	6.00	6.20	6.05	5.79	5.55	6.00	6.15	6.15
<b>LPZ 7</b>	23.40	23.80	23.70	23.60	23.50	23.40	23.00	22.40	23.20	22.83	21.58	21.38	22.00	22.45	
	27.70	4.30	3.90	4.00	4.10	4.20	4.30	4.70	5.30	4.50	4.87	6.12	6.32	5.70	5.25
<b>LPZ 8</b>	26.30	26.40	26.30	26.00	25.75	25.45	25.70	26.40	26.35	26.01	25.80	23.90	27.00	27.00	
	26.70	0.40	0.30	0.40	0.70	0.95	1.25	1.00	0.30	0.35	0.69	0.90	2.80	-0.30	-0.30
<b>LPZ 10</b>	8.70	8.70	8.50	8.35	7.80	7.05	7.30	7.75	8.05	7.67	7.00	7.60	7.00	7.00	
	15.25	6.55	6.55	6.75	6.90	7.45	8.20	7.95	7.50	7.20	7.58	8.25	7.65	8.25	8.25

**TABLE 12A Continued ----LEACHATE LEVELS - AUDUBON COUNTY SANITARY LANDFILL**

<b>PZ No. Depth</b>	4/11/2011	6/2/2011	8/29/2011	10/24/2011	3/13/2012	6/13/2012	7/30/2012	9/24/2012	1/16/2013	4/24/2013	7/20/2013	9/20/2013	
<b>LPZ 1</b>	14.10	13.95	14.25	14.55	14.65	14.61	15.70	14.70					
	15.70	1.60	1.75	1.45	1.15	1.05	1.09	0.00	1.00	0.50	1.00	1.08	0.50
<b>LPZ 2</b>	17.36	17.15	17.39	17.63	17.17	17.59	19.80	17.80					
	19.80	2.44	2.65	2.41	2.17	2.63	2.21	0.00	2.00	1.50	1.50	2.33	1.33
<b>LPZ 3</b>	25.50	25.44	25.59	25.75	25.69	25.67	25.66	25.72					
	29.75	4.25	4.31	4.16	4.00	4.06	4.08	4.09	4.03	2.50	2.83	3.25	2.50
<b>LPZ 4</b>	21.12	21.42	21.43	21.45	22.10	22.90	23.09	23.00					
	25.00	3.88	3.58	3.57	3.55	2.90	2.10	1.91	2.00	1.50	2.50	2.67	2.00
<b>LPZ 5</b>	21.00	21.20	21.30	21.40	21.22	21.56	21.70	21.35					
	27.30	6.30	6.10	6.00	5.90	6.08	5.74	5.60	5.95	6.50	5.92	5.00	5.50
<b>LPZ 6</b>	17.86	18.30	18.30	18.30	18.81	19.36	19.58	20.20	19.78	20.04	19.72	19.82	
	23.80	5.94	5.50	5.50	5.50	4.99	4.44	4.22	3.60	4.02	3.76	4.08	3.98
<b>LPZ 7</b>	22.63	22.90	23.73	24.55	24.35	23.00	27.70	24.00		23.00			
	27.70	5.07	4.80	3.97	3.15	3.35	4.70	0.00	3.70	4.17	4.70	6.83	4.67
<b>LPZ 8</b>	NA	24.35	25.43	26.50	26.55	26.54	26.60	26.70					
	26.70	NA	2.35	1.27	0.20	0.15	0.16	0.10	0.00	0.00	0.00	0.00	0.00
<b>LPZ 10</b>	6.25	5.50	6.97	8.43	6.23	8.20	8.32	8.25		5.01			
	15.25	9.00	9.75	8.28	6.82	9.02	7.05	6.93	7.00	8.17	10.24	7.00	6.17



**TABLE 12A Continued ----LEACHATE LEVELS - AUDUBON COUNTY SANITARY LANDFILL**

<b>PZ No. Depth</b>	1/13/2014	4/8/2014	7/7/2014	9/22/2014	1/19/2015	3/20/2015	7/9/2015	9/17/2015	1/4/2016	3/17/2016	6/14/2016	8/26/2016
<b>LPZ 1</b>												
15.70	0.58	0.42	1.25	0.50	0.50	0.50	0.83	0.67	1.00	1.25	1.25	0.83
<b>LPZ 2</b>												
19.70	1.50	1.08	1.75	1.00	1.25	1.33	1.50	1.67	1.92	2.33	2.08	1.67
<b>LPZ 3</b>												
29.70	3.33	2.00	2.08	1.75	2.67	2.17	2.08	2.17	2.58	2.16	2.25	2.17
<b>LPZ 4</b>												
25.20	2.17	1.67	1.00	2.17	3.25	3.00	4.83	4.92	7.58	5.33	9.17	9.33
<b>LPZ 5</b>												
27.60	5.25	5.17	5.00	6.08	4.38	5.50	5.92	7.00	7.83	6.58	6.83	7.00
<b>LPZ 6</b>												
19.67	19.67	20.34	20.52	20.60	19.42	19.24	18.75	18.23	17.26	17.46	17.38	18.04
24.75	5.08	3.46	3.28	3.20	4.38	4.56	5.05	5.57	6.54	6.34	6.42	5.76
<b>LPZ 7</b>												
28.30	3.83	3.50	5.50	7.00	6.50	6.67	8.25	7.58	8.92	7.25	7.33	5.17
<b>LPZ 8</b>												
27.65	0.00	0.00	24.28	24.20	25.53	26.40	24.90	25.02	23.36	22.43	23.58	24.65
			2.42	2.50	1.17	0.30	1.80	1.68	3.34	4.27	3.12	2.05
<b>LPZ 10</b>												
15.25	5.17	6.00	8.16	8.58	6.67	6.17	8.17	6.33	8.33	8.50	6.83	6.83

**TABLE 12A Continued ----LEACHATE LEVELS - AUDUBON COUNTY SANITARY LANDFILL**

<b>PZ No.</b>	<b>Depth</b>	12/30/2016	4/11/2017	7/14/2017	9/23/2017	1/9/2018	4/23/2018	7/17/2018	9/24/2018	1/8/2019	4/16/2019	6/25/2019
<b>PZ-P-1</b>			13.60									
15.70	1.08	2.10	0.58	1.42	0.83	1.08	1.42	1.50	1.17	1.58	1.75	
<b>PZ-P-2</b>			16.60									
19.70	2.42	3.10	1.67	2.42	1.17	2.50	2.50	3.17	2.42	3.17	3.17	
<b>PZ-P-3</b>			25.60									
29.70	2.42	4.10	2.00	3.17	3.17	2.25	3.17	2.67	2.17	2.58	3.33	
<b>PZ-P-4</b>			12.90									
25.20	8.17	12.30	7.83	9.92	6.42	8.03	7.83	10.33	8.75	10.67	6.50	
<b>PZ-P-5</b>			21.60									
27.60	6.67	6.00	6.25	6.50	6.67	5.83	6.25	7.08	6.42	6.25	5.92	
<b>PZ-P-6</b>												
18.34	19.00	18.68	18.45	18.40	19.06	19.06	18.83	18.65	18.78	18.70		
24.75	5.46	5.75	6.07	6.30	6.35	5.69	5.69	5.92	6.10	5.97	6.05	
<b>PZ-P-7</b>			20.92									
28.30	4.75	7.38	6.50	5.33	Frozen	4.83	8.42	8.83	Frozen	7.92	8.25	
<b>PZ-P-8</b>												
26.65	21.65	27.65	24.70	25.15	23.42	22.04	21.03	19.70	26.80	23.00		
27.65	0.05	6.00	0.00	2.95	2.50	4.23	5.61	6.62	7.95	0.85	4.65	
<b>PZ-P-10</b>			6.20									
15.25	7.33	9.05	6.67	8.58	7.17	8.25	7.67	9.17	6.83	9.67	7.42	

**TABLE 12A Continued ----LEACHATE LEVELS - AUDUBON COUNTY SANITARY LANDFILL**

PZ No. Depth										Std. Dev./	
	8/29/2019	4/10/2020	10/9/2020	4/9/2021	10/11/2021	4/7/2022	10/6/2022	4/5/2023	10/13/2023	Mean	
<b>PZ-P-1</b>					14.45	13.20	14.40	14.88	14.82	0.47	LPZ 1
15.65	1.58	2.00	1.42	1.33	1.20	2.45	1.25	0.77	0.83	1.43	
<b>PZ-P-2</b>					17.10	16.90	17.08	17.55	17.77	0.61	LPZ 2
19.60	2.83	3.42	1.67	2.00	2.50	2.70	2.52	2.05	1.83	2.41	
<b>PZ-P-3</b>					25.55	25.55	25.55	25.60	26.20	0.90	LPZ 3
29.70	2.83	4.00	2.08	1.75	4.15	4.15	4.15	4.10	3.50	3.73	
<b>PZ-P-4</b>					21.50	20.80	22.25	22.70	23.00	3.09	LPZ 4
25.20	9.92	5.00	6.25	6.75	3.70	4.40	2.95	2.50	2.20	4.79	
<b>PZ-P-5</b>					21.29	21.75	21.65	21.90	21.65	1.05	LPZ 5
27.60	6.58	6.00	6.92	6.00	6.36	5.85	5.95	5.70	5.95	6.86	
<b>PZ-P-6</b>	18.90			19.91	20.75	19.70	21.30	21.30	21.50	1.03	LPZ 6
24.65	5.85	5.75	6.50	4.84	3.90	4.95	3.35	3.35	3.15	5.60	
<b>PZ-P-7</b>					23.66	23.80	23.51	24.05	23.70	1.73	LPZ 7
27.95	6.08	8.25	6.75	5.25	4.29	4.15	4.44	3.90	4.25	5.83	
<b>PZ-P-8</b>	21.20			22.70	24.85	23.10	24.53	24.76	25.15	2.18	LPZ 8
26.60	6.45	7.33	5.25	4.95	1.75	3.50	2.07	1.84	1.45	2.41	
<b>PZ-P-10</b>					7.05	6.20	8.90	5.55	9.10	1.14	LPZ 10
15.20	8.92	9.00	6.25	5.67	8.15	9.00	6.30	9.65	6.10	7.77	

## Table 13 – Gas Monitoring Summary

**Table 13**  
**Annual Methane Gas Evaluation Report**  
**Audubon County Sanitary Landfill**  
**Permit No. 05-SDP-01-75C**  
**2023**

Location/Date	4/5/23	10/13/23
	% LEL	% LEL
<b>Ambient Air - Breathing Zone</b>		
BLDG 1 (Office)	0	0
BLDG 2 (Old Equipment Bldg)	0	0
BLDG 3 (Transfer Station)	0	0
MW-4	0	0
MW-7	0	0
MW-14	0	0
MW-17	0	0
MW-19	0	0
MW-20	0	0
SW-3	0	0

Frequency of gas monitoring changed to semi-annually in  
the 4/21/20 email from IDNR (Doc #97559)

## **APPENDIX A**

### **Field Sampling Forms**

**AUDUBON COUNTY SANITARY LANDFILL  
PERMIT # 05-SDP-01-75C**

4/5/2023

Sampled by: Glenn Hunter

Weather Conditions: Mostly cloudy, very windy, 28-35 degrees

IDNR Form 542-1322

Monitoring Well: MW-90-4 (dg)

Primary Sampling Method:  
Secondary Sampling Method:

No-Purge for Appendix I  
Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1324.25
Well Depth	26.97
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	1324.25
Well Depth	26.97
Top Screen	1307.28
Bottom Screen	1297.28
Bottom Well	1297.28
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	21.00
Top sample	1303.25
Bottom sample	1299.25
Turbidity(NTU)	1.05

Date	Time	Water Level	Water Elevation	Notes
4/5/2023	11:45	10.17	1314.08	

**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		1.05
Appendix I	Metals	250		1.05
Appendix I	VOC	120		1.05
Full Appendix II	10 more containers	5620		
Sulfide	Sulfide	250		
Supplemental	Minerals	750		
Total			380	0

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

TOC	Well Depth	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
1324.25	26.97	Before purging	4/5/2023	11:45	10.17	1314.08		0.0	
		After purging				1324.25			
		Top of Screen January 1990				1307.28			
						6.80			feet above (+) or below (-) top screen
		Bottom of Well January 1990				1297.28			
		Bottom of Well	4/5/2023		26.97	1297.28			
						0.00			feet sedimentation
		Before Sampling				1324.25			
		Recovery				1324.25			
		Recovery				1324.25			
		Recovery				1324.25			
		Recovery				1324.25			

Monitoring Well: MW-90-7 (dg)

Primary Sampling Method:  
Secondary Sampling Method:

No-Purge for Appendix I  
Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1300.32
Well Depth	15.00
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	1300.32
Well Depth	15.00
Top Screen	1290.32
Bottom Screen	1285.32
Bottom Well	1285.32
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	9.00
Top sample	1291.32
Bottom sample	1287.32
Turbidity(NTU)	0.93

Date	Time	Water Level	Water Elevation	Notes
4/5/2023	12:17	9.24	1291.08	

**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	0.93
Appendix I	Metals	250	250	0.93
Appendix I	VOC	120	120	0.93
Full Appendix II	10 more containers	5620		
Sulfide	Sulfide	250		
Supplemental	Minerals	750		
Total			380	0

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

TOC	1300.32	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	15.00	Before purging	4/5/2023	12:17	9.24	1291.08		0.0	
		After purging				1300.32			
		Top of Screen January 1990				1290.32			
						0.76			feet above (+) or below (-) top screen
		Bottom of Well January 1990				1285.32			
		Bottom of Well	4/5/2023		15.03	1285.29			
						-0.03			feet sedimentation
		Before Sampling				1300.32			
		Recovery				1300.32			
		Recovery				1300.32			
		Recovery				1300.32			
		Recovery				1300.32			



Monitoring Well: MW-90-14 (dg)

Primary Sampling Method:  
Secondary Sampling Method:

No-Purge for Appendix I  
Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1347.51
Well Depth	19.70
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	1347.51
Well Depth	19.70
Top Screen	1337.81
Bottom Screen	1327.81
Bottom Well	1327.81
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.00
Top sample	1333.51
Bottom sample	1329.51
Turbidity(NTU)	2.14

Date	Time	Water Level	Water Elevation	Notes
4/5/2023	10:49	8.95	1338.56	

**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	2.14
Appendix I	Metals	250	250	2.14
Appendix I	VOC	120	120	2.14
Full Appendix II	10 more containers	5620		
Sulfide	Sulfide	250		
Supplemental	Minerals	750		
Total			380	0

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

TOC	1347.51	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.70	Before purging	4/5/2023	10:49	8.95	1338.56		0.0	
		After purging				1347.51			
		Top of Screen January 1990				1337.81			
						0.75			feet above (+) or below (-) top screen
		Bottom of Well January 1990				1327.81			
		Bottom of Well	4/5/2023		19.86	1327.65			
						-0.16			feet sedimentation
		Before Sampling				1347.51			
		Recovery				1347.51			
		Recovery				1347.51			
		Recovery				1347.51			
		Recovery				1347.51			

Monitoring Well: MW-90-17 (ug)  
Background Well

Primary Sampling Method:  
Secondary Sampling Method:

No-Purge for Appendix I  
Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1427.97
Well Depth	37.30
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	1427.97
Well Depth	37.30
Top Screen	1400.67
Bottom Screen	1390.67
Bottom Well	1390.67
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	31.00
Top sample	1396.97
Bottom sample	1392.97
Turbidity(NTU)	1.48

Date	Time	Water Level	Water Elevation	Notes
4/5/2023	10:13	25.95	1402.02	

**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	1.48
Appendix I	Metals	250	250	1.48
Appendix I	VOC	120	120	1.48
Full Appendix II	10 more containers	5620		
Sulfide	Sulfide	250		
Supplemental	Minerals	750		
Total			380	0

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

TOC	1427.97	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	37.30	Before purging	4/5/2023	10:13	25.95	1402.02		0.0	
		After purging				1427.97			
		Top of Screen January 1990				1400.67			
						1.35			feet above (+) or below (-) top screen
		Bottom of Well January 1990				1390.67			
		Bottom of Well	4/5/2023		37.23	1390.74			
						0.07			feet sedimentation
		Before Sampling				1427.97			
		Recovery				1427.97			
		Recovery				1427.97			
		Recovery				1427.97			
		Recovery				1427.97			

Monitoring Well: MW-91-19 (dg)

Primary Sampling Method:  
Secondary Sampling Method:

No-Purge for Appendix I  
Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1347.5
Well Depth	25.00
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	1347.5
Well Depth	25.00
Top Screen	1337.50
Bottom Screen	1322.50
Bottom Well	1322.50
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	19.00
Top sample	1328.50
Bottom sample	1324.50
Turbidity(NTU)	1.53

Date	Time	Water Level	Water Elevation	Notes
4/5/2023	11:08	13.31	1334.19	

**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	1.53
Appendix I	Metals	250	250	1.53
Appendix I	VOC	120	120	1.53
Full Appendix II	10 more containers	5620		
Sulfide	Sulfide	250		
Supplemental	Minerals	750		
Total			380	0

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

TOC	1347.5	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	25.00	Before purging	4/5/2023	11:08	13.31	1334.19		0.0	
		After purging				1347.50			
		Top of Screen January 1990				1337.50			
						-3.31			feet above (+) or below (-) top screen
		Bottom of Well January 1990				1322.50			
		Bottom of Well	4/5/2023		25.10	1322.40			
						-0.10			feet sedimentation
		Before Sampling				1347.50			
		Recovery				1347.50			
		Recovery				1347.50			
		Recovery				1347.50			
		Recovery				1347.50			

Monitoring Well: MW-91-20 (dg)

Primary Sampling Method:  
Secondary Sampling Method:

No-Purge for Appendix I  
Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1371.99
Well Depth	32.40
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	1371.99
Well Depth	32.40
Top Screen	1354.59
Bottom Screen	1339.59
Bottom Well	1339.59
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	26.00
Top sample	1345.99
Bottom sample	1341.99
Turbidity(NTU)	5.41

Date	Time	Water Level	Water Elevation	Notes
4/5/2023	10:28	10.92	1361.07	

**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	5.41
Appendix I	Metals	250	250	5.41
Appendix I	VOC	120	120	5.41
Full Appendix II	10 more containers	5620		
Sulfide	Sulfide	250		
Supplemental	Minerals	750		
Total			380	0

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

TOC	1371.99	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	32.40	Before purging	4/5/2023	10:28	10.92	1361.07		0.0	
		After purging				1371.99			
		Top of Screen January 1990				1354.59			
						6.48	feet above (+) or below (-) top screen		
		Bottom of Well January 1990				1339.59			
		Bottom of Well	4/5/2023		32.32	1339.67			
						0.08	feet sedimentation		
		Before Sampling				1371.99			
		Recovery				1371.99			
		Recovery				1371.99			
		Recovery				1371.99			
		Recovery				1371.99			





**AUDUBON COUNTY SANITARY LANDFILL  
PERMIT # 05-SDP-01-75C**

10/13/2023

Sampled by: Glenn Hunter

Weather Conditions: Mostly cloudy 56 degrees

IDNR Form 542-1322

Monitoring Well: MW-90-4 (dg)

Primary Sampling Method:  
Secondary Sampling Method:

No-Purge for Appendix I  
Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1324.25
Well Depth	26.97
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

CONFIRM

**NO PURGE METHOD**

TOC	1324.25
Well Depth	26.97
Top Screen	1307.28
Bottom Screen	1297.28
Bottom Well	1297.28
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	21.00
Top sample	1303.25
Bottom sample	1299.25
Turbidity(NTU)	0.72

Date	Time	Water Level	Water Elevation	Notes
10/13/2023	13:09	13.17	1311.08	

**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		0.72
Appendix I	Metals	250		0.72
Appendix I	VOC	120		0.72
Full Appendix II	10 more containers	5620		
Sulfide	Sulfide	250		
Supplemental	Minerals	750		
Total			380	0

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

TOC	Well Depth	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
1324.25	26.97	Before purging	10/13/2023	13:09	13.17	1311.08		0.0	
		After purging				1324.25			
		Top of Screen January 1990				1307.28			
						3.80			feet above (+) or below (-) top screen
		Bottom of Well January 1990				1297.28			
		Bottom of Well	10/13/2023		26.97	1297.28			
						0.00			feet sedimentation
		Before Sampling				1324.25			
		Recovery				1324.25			
		Recovery				1324.25			
		Recovery				1324.25			
		Recovery				1324.25			

Monitoring Well: MW-90-7 (dg)

Primary Sampling Method:  
Secondary Sampling Method:

No-Purge for Appendix I  
Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1300.32
Well Depth	15.00
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	1300.32
Well Depth	15.00
Top Screen	1290.32
Bottom Screen	1285.32
Bottom Well	1285.32
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	10.00
Top sample	1290.32
Bottom sample	1286.32
Turbidity(NTU)	1.12

Date	Time	Water Level	Water Elevation	Notes
10/13/2023	13:25	10.37	1289.95	

**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	1.12
Appendix I	Metals	250	250	1.12
Appendix I	VOC	120	120	1.12
Full Appendix II	10 more containers	5620		
Sulfide	Sulfide	250		
Supplemental	Minerals	750		
Total			380	0

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

TOC	1300.32	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	15.00	Before purging	10/13/2023	13:25	10.37	1289.95		0.0	
		After purging				1300.32			
		Top of Screen January 1990				1290.32			
						-0.37			feet above (+) or below (-) top screen
		Bottom of Well January 1990				1285.32			
		Bottom of Well	10/13/2023		15.03	1285.29			
						-0.03			feet sedimentation
		Before Sampling				1300.32			
		Recovery				1300.32			
		Recovery				1300.32			
		Recovery				1300.32			
		Recovery				1300.32			



Monitoring Well: MW-90-14 (dg)

Primary Sampling Method:  
Secondary Sampling Method:

No-Purge for Appendix I  
Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1347.51
Well Depth	19.70
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	1347.51
Well Depth	19.70
Top Screen	1337.81
Bottom Screen	1327.81
Bottom Well	1327.81
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.00
Top sample	1333.51
Bottom sample	1329.51
Turbidity(NTU)	0.60

Date	Time	Water Level	Water Elevation	Notes
10/13/2023	12:04	12.25	1335.26	

**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	0.60
Appendix I	Metals	250	250	0.60
Appendix I	VOC	120	120	0.60
Full Appendix II	10 more containers	5620		
Sulfide	Sulfide	250		
Supplemental	Minerals	750		
Total			380	0

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

TOC	1347.51	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.70	Before purging	10/13/2023	12:04	12.25	1335.26	6	4.9	no
		After purging	10/13/2023	12:26	17.85	1329.66			
		Top of Screen January 1990				1337.81			
						-2.55	feet above (+) or below (-) top screen		
		Bottom of Well January 1990				1327.81			
		Bottom of Well	10/13/2023		19.86	1327.65			
						-0.16	feet sedimentation		
		Before Sampling				1347.51			
		Recovery				1347.51			
		Recovery				1347.51			
		Recovery				1347.51			
		Recovery				1347.51			

Monitoring Well: MW-90-17 (ug)  
Background Well

Primary Sampling Method:  
Secondary Sampling Method:

No-Purge for Appendix I  
Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1427.97
Well Depth	37.30
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	1427.97
Well Depth	37.30
Top Screen	1400.67
Bottom Screen	1390.67
Bottom Well	1390.67
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	31.00
Top sample	1396.97
Bottom sample	1392.97
Turbidity(NTU)	1.26

Date	Time	Water Level	Water Elevation	Notes
10/13/2023	11:35	27.30	1400.67	

**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	1.26
Appendix I	Metals	250	250	1.26
Appendix I	VOC	120	120	1.26
Full Appendix II	10 more containers	5620		
Sulfide	Sulfide	250		
Supplemental	Minerals	750		
Total			380	0

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

TOC	1427.97	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	37.30	Before purging	10/13/2023	11:35	27.30	1400.67		0.0	
		After purging				1427.97			
		Top of Screen January 1990				1400.67			
						0.00			feet above (+) or below (-) top screen
		Bottom of Well January 1990				1390.67			
		Bottom of Well	10/13/2023		37.23	1390.74			
						0.07			feet sedimentation
		Before Sampling				1427.97			
		Recovery				1427.97			
		Recovery				1427.97			
		Recovery				1427.97			
		Recovery				1427.97			

Monitoring Well: MW-91-19 (dg)

Primary Sampling Method:  
Secondary Sampling Method:

No-Purge for Appendix I  
Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1347.5
Well Depth	25.00
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	1347.5
Well Depth	25.00
Top Screen	1337.50
Bottom Screen	1322.50
Bottom Well	1322.50
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	19.00
Top sample	1328.50
Bottom sample	1324.50
Turbidity(NTU)	0.55

Date	Time	Water Level	Water Elevation	Notes
10/13/2023	12:41	14.91	1332.59	

**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	0.55
Appendix I	Metals	250	250	0.55
Appendix I	VOC	120	120	0.55
Full Appendix II	10 more containers	5620		
Sulfide	Sulfide	250		
Supplemental	Minerals	750		
Total			380	0

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

TOC	1347.5	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	25.00	Before purging	10/13/2023	12:41	14.91	1332.59		0.0	
		After purging				1347.50			
		Top of Screen January 1990				1337.50			
						-4.91			feet above (+) or below (-) top screen
		Bottom of Well January 1990				1322.50			
		Bottom of Well	10/13/2023		25.10	1322.40			
						-0.10			feet sedimentation
		Before Sampling				1347.50			
		Recovery				1347.50			
		Recovery				1347.50			
		Recovery				1347.50			
		Recovery				1347.50			

Monitoring Well: MW-91-20 (dg)

Primary Sampling Method:  
Secondary Sampling Method:

No-Purge for Appendix I  
Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1371.99
Well Depth	32.40
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	1371.99
Well Depth	32.40
Top Screen	1354.59
Bottom Screen	1339.59
Bottom Well	1339.59
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	26.00
Top sample	1345.99
Bottom sample	1341.99
Turbidity(NTU)	0.61

Date	Time	Water Level	Water Elevation	Notes
10/13/2023	11:49	15.63	1356.36	

**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	0.61
Appendix I	Metals	250	250	0.61
Appendix I	VOC	120	120	0.61
Full Appendix II	10 more containers	5620		
Sulfide	Sulfide	250		
Supplemental	Minerals	750		
Total			380	0

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

TOC	1371.99	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	32.40	Before purging	10/13/2023	11:49	15.63	1356.36		0.0	
		After purging				1371.99			
		Top of Screen January 1990				1354.59			
						1.77			feet above (+) or below (-) top screen
		Bottom of Well January 1990				1339.59			
		Bottom of Well	10/13/2023		32.32	1339.67			
						0.08			feet sedimentation
		Before Sampling				1371.99			
		Recovery				1371.99			
		Recovery				1371.99			
		Recovery				1371.99			
		Recovery				1371.99			



## **APPENDIX B**

### **Laboratory Analytical Data**

## ANALYTICAL REPORT

May 01, 2023

**Work Order: 1GD0730**

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Report To
Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

Work Order Information
Date Received: 4/7/2023 9:27:00AM
Collector: JGH
Phone: (515) 733-4144
PO Number: Audubon Co. - New Regs

Project: Audubon Co. - New Regs

Project Number: 6050

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-01</b>	MW-90-4			Matrix: Water		Collected: 04/05/23 11:45	
Acrylonitrile	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
<i>Surrogate: Dibromofluoromethane</i>	<i>114 %</i>			<i>80-126</i>	MSV	04/10/23 14:35	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>92.2 %</i>			<i>63-138</i>	MSV	04/10/23 14:35	
<i>Surrogate: Toluene-d8</i>	<i>98.9 %</i>			<i>87-116</i>	MSV	04/10/23 14:35	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>101 %</i>			<i>85-111</i>	MSV	04/10/23 14:35	
Chloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Vinyl Chloride	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Bromomethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Chloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Acetone	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Methyl Iodide	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Carbon Disulfide	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Methylene Chloride	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Vinyl Acetate	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Bromochloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Chloroform	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Benzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Trichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	

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HLW Engineering  
PO Box 314  
Story City, IA 50248

May 01, 2023  
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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-01</b>	MW-90-4			Matrix: Water		Collected: 04/05/23 11:45	
Dibromomethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Bromodichloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Toluene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Tetrachloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Dibromochloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Chlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Ethylbenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Xylenes, total	<2.0 ug/L	2.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Styrene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
Bromoform	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 14:35	
<i>Surrogate: Dibromofluoromethane</i>	114 %			75-136	MSV	04/10/23 14:35	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	92.2 %			61-142	MSV	04/10/23 14:35	
<i>Surrogate: Toluene-d8</i>	98.9 %			82-121	MSV	04/10/23 14:35	
<i>Surrogate: 4-Bromofluorobenzene</i>	101 %			80-116	MSV	04/10/23 14:35	
Bis(2-Ethylhexyl) Phthalate	<6 ug/L	6	1GD0431	EPA 8270C	EPP	04/25/23 14:12	
<i>Surrogate: Nitrobenzene-d5</i>	87.4 %			29-130	EPP	04/25/23 14:12	
<i>Surrogate: 2-Fluorobiphenyl</i>	91.0 %			23-113	EPP	04/25/23 14:12	
<i>Surrogate: Terphenyl-dl4</i>	115 %			27-141	EPP	04/25/23 14:12	
Silver, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
Arsenic, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
<b>Barium, total</b>	<b>0.320 mg/L</b>	<b>0.0040</b>	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
Beryllium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
Cadmium, total	<0.0008 mg/L	0.0008	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
Cobalt, total	<0.0004 mg/L	0.0004	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
Chromium, total	<0.0080 mg/L	0.0080	1GD0382	EPA 6020A	RVV	04/11/23 18:52	

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Story City, IA 50248

May 01, 2023  
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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-01</b>	MW-90-4			Matrix: Water		Collected: 04/05/23 11:45	
Copper, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
Nickel, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
Lead, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
Antimony, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
Selenium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
Thallium, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
Vanadium, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
Zinc, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 18:52	
<b>1GD0730-02</b>	MW-90-7			Matrix: Water		Collected: 04/05/23 12:17	
Acrylonitrile	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
<i>Surrogate: Dibromofluoromethane</i>	116 %			80-126	MSV	04/10/23 15:02	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	92.3 %			63-138	MSV	04/10/23 15:02	
<i>Surrogate: Toluene-d8</i>	101 %			87-116	MSV	04/10/23 15:02	
<i>Surrogate: 4-Bromofluorobenzene</i>	101 %			85-111	MSV	04/10/23 15:02	
Chloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Vinyl Chloride	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Bromomethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Chloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Acetone	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Methyl Iodide	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Carbon Disulfide	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Methylene Chloride	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Vinyl Acetate	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Bromochloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Chloroform	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Benzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Trichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	

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PO Box 314  
Story City, IA 50248

May 01, 2023  
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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-02</b>	MW-90-7			Matrix: Water		Collected: 04/05/23 12:17	
Dibromomethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Bromodichloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Toluene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Tetrachloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Dibromochloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Chlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Ethylbenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Xylenes, total	<2.0 ug/L	2.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Styrene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
Bromoform	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:02	
<i>Surrogate: Dibromofluoromethane</i>	116 %			75-136	MSV	04/10/23 15:02	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	92.3 %			61-142	MSV	04/10/23 15:02	
<i>Surrogate: Toluene-d8</i>	101 %			82-121	MSV	04/10/23 15:02	
<i>Surrogate: 4-Bromofluorobenzene</i>	101 %			80-116	MSV	04/10/23 15:02	
Silver, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
Arsenic, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
<b>Barium, total</b>	<b>0.242 mg/L</b>	<b>0.0040</b>	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
Beryllium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
Cadmium, total	<0.0008 mg/L	0.0008	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
<b>Cobalt, total</b>	<b>0.0016 mg/L</b>	<b>0.0004</b>	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
Chromium, total	<0.0080 mg/L	0.0080	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
Copper, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
<b>Nickel, total</b>	<b>0.0256 mg/L</b>	<b>0.0040</b>	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
Lead, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
Antimony, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 19:16	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-02</b>	MW-90-7			Matrix: Water		Collected: 04/05/23 12:17	
Selenium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
Thallium, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
Vanadium, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
Zinc, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 19:16	
<b>1GD0730-03</b>	MW-90-14			Matrix: Water		Collected: 04/05/23 10:44	
Acrylonitrile	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Surrogate: Dibromofluoromethane	113 %			80-126	MSV	04/10/23 15:28	
Surrogate: 1,2-Dichloroethane-d4	92.4 %			63-138	MSV	04/10/23 15:28	
Surrogate: Toluene-d8	99.0 %			87-116	MSV	04/10/23 15:28	
Surrogate: 4-Bromofluorobenzene	99.4 %			85-111	MSV	04/10/23 15:28	
Chloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Vinyl Chloride	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Bromomethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Chloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Acetone	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Methyl Iodide	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Carbon Disulfide	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Methylene Chloride	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Vinyl Acetate	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Bromochloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Chloroform	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Benzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Trichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Dibromomethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Bromodichloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-03</b>	MW-90-14			Matrix: Water		Collected: 04/05/23 10:44	
Toluene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Tetrachloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Dibromochloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Chlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Ethylbenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Xylenes, total	<2.0 ug/L	2.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Styrene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Bromoform	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:28	
Surrogate: Dibromofluoromethane	113 %			75-136	MSV	04/10/23 15:28	
Surrogate: 1,2-Dichloroethane-d4	92.4 %			61-142	MSV	04/10/23 15:28	
Surrogate: Toluene-d8	99.0 %			82-121	MSV	04/10/23 15:28	
Surrogate: 4-Bromofluorobenzene	99.4 %			80-116	MSV	04/10/23 15:28	
Silver, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
Arsenic, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
<b>Barium, total</b>	<b>0.134 mg/L</b>	<b>0.0040</b>	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
Beryllium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
Cadmium, total	<0.0008 mg/L	0.0008	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
Cobalt, total	<0.0004 mg/L	0.0004	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
Chromium, total	<0.0080 mg/L	0.0080	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
Copper, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
<b>Nickel, total</b>	<b>0.0063 mg/L</b>	<b>0.0040</b>	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
Lead, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
Antimony, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
Selenium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
Thallium, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
Vanadium, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 19:34	
Zinc, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 19:34	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-04</b>	MW-90-17			Matrix: Water		Collected: 04/05/23 10:13	
Acrylonitrile	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Surrogate: Dibromofluoromethane	113 %			80-126	MSV	04/10/23 15:55	
Surrogate: 1,2-Dichloroethane-d4	92.2 %			63-138	MSV	04/10/23 15:55	
Surrogate: Toluene-d8	98.4 %			87-116	MSV	04/10/23 15:55	
Surrogate: 4-Bromofluorobenzene	101 %			85-111	MSV	04/10/23 15:55	
Chloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Vinyl Chloride	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Bromomethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Chloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Acetone	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Methyl Iodide	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Carbon Disulfide	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Methylene Chloride	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Vinyl Acetate	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Bromochloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Chloroform	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Benzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Trichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Dibromomethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Bromodichloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Toluene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Tetrachloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Dibromochloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-04</b>	MW-90-17			Matrix: Water		Collected: 04/05/23 10:13	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Chlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Ethylbenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Xylenes, total	<2.0 ug/L	2.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Styrene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
Bromoform	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 15:55	
<i>Surrogate: Dibromofluoromethane</i>	113 %			75-136	MSV	04/10/23 15:55	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	92.2 %			61-142	MSV	04/10/23 15:55	
<i>Surrogate: Toluene-d8</i>	98.4 %			82-121	MSV	04/10/23 15:55	
<i>Surrogate: 4-Bromofluorobenzene</i>	101 %			80-116	MSV	04/10/23 15:55	
Silver, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Arsenic, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
<b>Barium, total</b>	<b>0.307 mg/L</b>	<b>0.0040</b>	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Beryllium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Cadmium, total	<0.0008 mg/L	0.0008	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Cobalt, total	<0.0004 mg/L	0.0004	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Chromium, total	<0.0080 mg/L	0.0080	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Copper, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Nickel, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Lead, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Antimony, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Selenium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Thallium, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Vanadium, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
Zinc, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 19:40	
<b>1GD0730-05</b>	MW-91-19			Matrix: Water		Collected: 04/05/23 11:28	
Dichlorodifluoromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Chloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Vinyl Chloride	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Bromomethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	

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Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-05</b>	MW-91-19			Matrix: Water		Collected: 04/05/23 11:28	
Chloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Acetone	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Methyl Iodide	<2.0 ug/L	2.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Carbon Disulfide	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Acetonitrile	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Methylene Chloride	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Vinyl Acetate	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
2,2-Dichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
2-Butanone (MEK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Bromochloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Chloroform	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,1-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Benzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Trichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Dibromomethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Bromodichloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Toluene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Ethyl Methacrylate	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Tetrachloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,3-Dichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Dibromochloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Chlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-05</b>	MW-91-19			Matrix: Water		Collected: 04/05/23 11:28	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Ethylbenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Xylenes, total	<2.0 ug/L	2.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Styrene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Bromoform	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,3-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,2-Dibromo-3-chloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
1,2,4-Trichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Surrogate: Dibromofluoromethane	114 %			80-126	MSV	04/10/23 16:22	
Surrogate: 1,2-Dichloroethane-d4	92.6 %			63-138	MSV	04/10/23 16:22	
Surrogate: Toluene-d8	99.2 %			87-116	MSV	04/10/23 16:22	
Surrogate: 4-Bromofluorobenzene	101 %			85-111	MSV	04/10/23 16:22	
Allyl chloride	<1.0 ug/L	1.0	1GD0871	EPA 8260B	LNH	04/17/23 13:21	
Chloroprene	<1.0 ug/L	1.0	1GD0871	EPA 8260B	LNH	04/17/23 13:21	
Methacrylonitrile	<1.0 ug/L	1.0	1GD0871	EPA 8260B	LNH	04/17/23 13:21	
Methyl Methacrylate	<1.0 ug/L	1.0	1GD0871	EPA 8260B	LNH	04/17/23 13:21	
Propionitrile	<10.0 ug/L	10.0	1GD0871	EPA 8260B	LNH	04/17/23 13:21	
Surrogate: Dibromofluoromethane	102 %			80-126	LNH	04/17/23 13:21	
Surrogate: 1,2-Dichloroethane-d4	99.9 %			63-138	LNH	04/17/23 13:21	
Surrogate: Toluene-d8	99.3 %			87-116	LNH	04/17/23 13:21	
Surrogate: 4-Bromofluorobenzene	93.6 %			85-111	LNH	04/17/23 13:21	
Acrolein	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Acrylonitrile	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:22	
Surrogate: 1,2-Dichloroethane-d4	92.6 %			63-138	MSV	04/10/23 16:22	
Surrogate: Toluene-d8	99.2 %			87-116	MSV	04/10/23 16:22	
Surrogate: 4-Bromofluorobenzene	101 %			85-111	MSV	04/10/23 16:22	
Isobutanol	<1.0 mg/L	1.0	1GD0694	EPA 8015C	TJB	04/14/23 16:48	
N-Nitrosodimethylamine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Methyl Methanesulfonate	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
N-Nitrosodiethylamine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
N-Nitrosomethylethylamine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Ethyl Methanesulfonate	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Phenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-05</b>	MW-91-19			Matrix: Water		Collected: 04/05/23 11:28	
Bis(2-Chloroethyl) Ether	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2-Chlorophenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Benzyl Alcohol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2-Methylphenol (o-Cresol)	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Bis[2-Chloroisopropyl]ether	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
n-Nitroso-di-n-propylamine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
N-Nitrosopyrrolidine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Acetophenone	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
o-Toluidine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
(3 & 4)-Methylphenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Hexachloroethane	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Nitrobenzene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
N-Nitrosopiperidine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Isophorone	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2-Nitrophenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2,4-Dimethylphenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Bis (2-Chloroethoxy) Methane	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2,4-Dichlorophenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Naphthalene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
4-Chloroaniline	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2,6-Dichlorophenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Hexachloropropene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Hexachlorobutadiene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
N-Nitrosodi-n-butylamine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
1,4-Phenylenediamine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
4-Chloro-3-methylphenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2-Methylnaphthalene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Isosafrole	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
1,2,4,5-Tetrachlorobenzene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Hexachlorocyclopentadiene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2,4,6-Trichlorophenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2,4,5-Trichlorophenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Safrole	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2-Chloronaphthalene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2-Nitroaniline	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
1,4-Naphthoquinone	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Dimethylphthalate	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-05</b>	MW-91-19			Matrix: Water		Collected: 04/05/23 11:28	
1,3-Dinitrobenzene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
1,2-Dinitrobenzene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2,6-Dinitrotoluene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Acenaphthylene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
3-Nitroaniline	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Acenaphthene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2,4-Dinitrophenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
4-Nitrophenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Dibenzofuran	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2,4-Dinitrotoluene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2,3,4,6-Tetrachlorophenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Pentachlorobenzene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
1-Naphthylamine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2-Naphthylamine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Diethyl Phthalate	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Fluorene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
4-Chlorophenyl Phenyl Ether	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
4-Nitroaniline	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
5-Nitro-o-toluidine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
4,6-Dinitro-2-methylphenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
N-Nitrosodiphenylamine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Diphenylamine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Azobenzene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Diallate	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
1,3,5-Trinitrobenzene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Phenacetin	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
4-Bromophenyl Phenyl Ether	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
4-Aminobiphenyl	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Pentachlorophenol	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Pronamide	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Pentachloronitrobenzene (PCNB)	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Phenanthrene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Anthracene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Di-n-butyl Phthalate	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Methapyrilene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Fluoranthene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Isodrin	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	

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Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-05</b>	MW-91-19			Matrix: Water		Collected: 04/05/23 11:28	
Chlorobenzilate	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Pyrene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
p-(Dimethylamino)azobenzene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
3,3-Dimethylbenzidine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Butyl Benzyl Phthalate	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Benzo(a)anthracene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Chrysene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Bis(2-Ethylhexyl) Phthalate	<6 ug/L	6	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Kepone	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
3,3'-Dichlorobenzidine	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
2-Acetylaminofluorene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Di-n-octyl Phthalate	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Benzo(b)Fluoranthene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
7,12-Dimethylbenz [a] anthracene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Benzo(k)Fluoranthene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Benzo(a)Pyrene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
3-Methylcholanthrene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Dibenzo(a,h)anthracene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Indeno(1,2,3-cd)Pyrene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Benzo(g,h,i)perylene	<8 ug/L	8	1GD0434	EPA 8270C	EPP	04/26/23 21:25	
Surrogate: 2-Fluorophenol	66.2 %			24-136	EPP	04/26/23 21:25	
Surrogate: Phenol-d6	69.7 %			15-140	EPP	04/26/23 21:25	
Surrogate: Nitrobenzene-d5	60.2 %			29-130	EPP	04/26/23 21:25	
Surrogate: 2-Fluorobiphenyl	61.1 %			23-113	EPP	04/26/23 21:25	
Surrogate: 2,4,6-Tribromophenol	82.9 %			15-139	EPP	04/26/23 21:25	
Surrogate: Terphenyl-d14	94.9 %			27-141	EPP	04/26/23 21:25	
O,O,O-Triethyl phosphorothioate	<0.4 ug/L	0.4	1GD0484	EPA 8141	EPP	04/25/23 21:57	
Thionazin	<0.4 ug/L	0.4	1GD0484	EPA 8141	EPP	04/25/23 21:57	
Phorate	<0.4 ug/L	0.4	1GD0484	EPA 8141	EPP	04/25/23 21:57	
Dimethoate	<0.4 ug/L	0.4	1GD0484	EPA 8141	EPP	04/25/23 21:57	
Disulfoton	<0.4 ug/L	0.4	1GD0484	EPA 8141	EPP	04/25/23 21:57	
Methyl Parathion	<0.4 ug/L	0.4	1GD0484	EPA 8141	EPP	04/25/23 21:57	
Parathion	<0.4 ug/L	0.4	1GD0484	EPA 8141	EPP	04/25/23 21:57	
Famphur	<0.4 ug/L	0.4	1GD0484	EPA 8141	EPP	04/25/23 21:57	
Surrogate: 2-Nitro-m-xylene	80.2 %			38-122	EPP	04/25/23 21:57	
2,4-D	<2.0 ug/L	2.0	1GD0480	EPA 8151A	EPP	04/27/23 15:40	
2,4,5-TP (Silvex)	<0.5 ug/L	0.5	1GD0480	EPA 8151A	EPP	04/27/23 15:40	
2,4,5-T	<0.5 ug/L	0.5	1GD0480	EPA 8151A	EPP	04/27/23 15:40	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-05</b>	MW-91-19			Matrix: Water		Collected: 04/05/23 11:28	
Dinoseb	<0.5 ug/L	0.5	1GD0480	EPA 8151A	EPP	04/27/23 15:40	
<i>Surrogate: 2,5-Dichlorobenzoic Acid</i>	78.2 %			31-116	EPP	04/27/23 15:40	
Alpha-BHC	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Gamma-BHC [Lindane]	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Beta-BHC	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Heptachlor	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Delta-BHC	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Aldrin	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Heptachlor Epoxide	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Endosulfan I	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
4,4'-DDE	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Dieldrin	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Endrin	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
4,4'-DDD	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Endosulfan II	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
4,4'-DDT	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Endrin Aldehyde	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Endosulfan Sulfate	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Methoxychlor	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Chlordane	<0.10 ug/L	0.10	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Toxaphene	<0.20 ug/L	0.20	1GD0482	EPA 8081	EPP	04/25/23 15:37	
Hexachlorobenzene	<0.05 ug/L	0.05	1GD0482	EPA 8081	EPP	04/25/23 15:37	
<i>Surrogate: Tetrachloro-m-xylene</i>	70.4 %			10-121	EPP	04/25/23 15:37	
Arochlor 1016	<0.10 ug/L	0.10	1GD0483	EPA 8082	EPP	04/25/23 15:37	
Arochlor 1221	<0.20 ug/L	0.20	1GD0483	EPA 8082	EPP	04/25/23 15:37	
Arochlor 1232	<0.20 ug/L	0.20	1GD0483	EPA 8082	EPP	04/25/23 15:37	
Arochlor 1242	<0.20 ug/L	0.20	1GD0483	EPA 8082	EPP	04/25/23 15:37	
Arochlor 1248	<0.20 ug/L	0.20	1GD0483	EPA 8082	EPP	04/25/23 15:37	
Arochlor 1254	<0.10 ug/L	0.10	1GD0483	EPA 8082	EPP	04/25/23 15:37	
Arochlor 1260	<0.10 ug/L	0.10	1GD0483	EPA 8082	EPP	04/25/23 15:37	
<i>Surrogate: Tetrachloro-m-xylene</i>	73.3 %			38-121	EPP	04/25/23 15:37	
<i>Surrogate: Decachlorobiphenyl</i>	101 %			25-119	EPP	04/25/23 15:37	
Cyanide, total	<0.005 mg/L	0.005	1GD0777	ASTM D7511-12(2017)	AKK	04/18/23 14:38	
Sulfide, total	<0.10 mg/L	0.10	1GD0441	EPA 376.2	JLW	04/10/23 16:01	
Silver, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
Arsenic, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
<b>Barium, total</b>	<b>0.380 mg/L</b>	<b>0.0040</b>	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
Beryllium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:46	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-05</b>	MW-91-19			Matrix: Water		Collected: 04/05/23 11:28	
Cadmium, total	<0.0008 mg/L	0.0008	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
<b>Cobalt, total</b>	<b>0.0005 mg/L</b>	<b>0.0004</b>	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
Chromium, total	<0.0080 mg/L	0.0080	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
Mercury, total	<0.00050 mg/L	0.00050	1GD0305	EPA 7470A	JAR	04/10/23 15:52	
Nickel, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
Lead, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
Antimony, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
Selenium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
Tin, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
Thallium, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
Vanadium, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 19:46	
<b>1GD0730-05RE1</b>	MW-91-19			Matrix: Water		Collected: 04/05/23 11:28	
Copper, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/17/23 17:21	
Zinc, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/17/23 17:21	
<b>1GD0730-06</b>	MW-91-20			Matrix: Water		Collected: 04/05/23 10:28	
Acrylonitrile	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Surrogate: Dibromofluoromethane	114 %			80-126	MSV	04/10/23 16:49	
Surrogate: 1,2-Dichloroethane-d4	93.2 %			63-138	MSV	04/10/23 16:49	
Surrogate: Toluene-d8	99.0 %			87-116	MSV	04/10/23 16:49	
Surrogate: 4-Bromofluorobenzene	101 %			85-111	MSV	04/10/23 16:49	
Chloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Vinyl Chloride	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Bromomethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Chloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Acetone	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Methyl Iodide	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Carbon Disulfide	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Methylene Chloride	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Vinyl Acetate	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Bromochloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Chloroform	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	

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Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-06</b>	MW-91-20			Matrix: Water		Collected: 04/05/23 10:28	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Benzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Trichloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Dibromomethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Bromodichloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Toluene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Tetrachloroethylene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Dibromochloromethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Chlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Ethylbenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Xylenes, total	<2.0 ug/L	2.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Styrene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Bromoform	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GD0406	EPA 8260B	MSV	04/10/23 16:49	
Surrogate: Dibromofluoromethane	114 %			75-136	MSV	04/10/23 16:49	
Surrogate: 1,2-Dichloroethane-d4	93.2 %			61-142	MSV	04/10/23 16:49	
Surrogate: Toluene-d8	99.0 %			82-121	MSV	04/10/23 16:49	
Surrogate: 4-Bromofluorobenzene	101 %			80-116	MSV	04/10/23 16:49	
Silver, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
Arsenic, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
<b>Barium, total</b>	<b>0.192 mg/L</b>	<b>0.0040</b>	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
Beryllium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
Cadmium, total	<0.0008 mg/L	0.0008	1GD0382	EPA 6020A	RVV	04/11/23 19:52	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-06</b>	MW-91-20			Matrix: Water		Collected: 04/05/23 10:28	
Cobalt, total	<0.0004 mg/L	0.0004	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
Chromium, total	<0.0080 mg/L	0.0080	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
Copper, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
Nickel, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
Lead, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
Antimony, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
Selenium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
Thallium, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
Vanadium, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
Zinc, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 19:52	
<b>1GD0730-07</b>	SW-3			Matrix: Water		Collected: 04/05/23 12:00	
Acrylonitrile	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
<i>Surrogate: Dibromofluoromethane</i>	110 %			80-126	MSV	04/07/23 14:35	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	88.4 %			63-138	MSV	04/07/23 14:35	
<i>Surrogate: Toluene-d8</i>	98.3 %			87-116	MSV	04/07/23 14:35	
<i>Surrogate: 4-Bromofluorobenzene</i>	100 %			85-111	MSV	04/07/23 14:35	
Chloromethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Vinyl Chloride	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Bromomethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Chloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Acetone	<10.0 ug/L	10.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Methyl Iodide	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Carbon Disulfide	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Methylene Chloride	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Vinyl Acetate	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Bromochloromethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Chloroform	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Benzene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-07</b>	SW-3			Matrix: Water		Collected: 04/05/23 12:00	
Trichloroethylene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Dibromomethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Bromodichloromethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Toluene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Tetrachloroethylene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Dibromochloromethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Chlorobenzene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Ethylbenzene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Xylenes, total	<2.0 ug/L	2.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Styrene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Bromoform	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 14:35	
Surrogate: Dibromofluoromethane	110 %			75-136	MSV	04/07/23 14:35	
Surrogate: 1,2-Dichloroethane-d4	88.4 %			61-142	MSV	04/07/23 14:35	
Surrogate: Toluene-d8	98.3 %			82-121	MSV	04/07/23 14:35	
Surrogate: 4-Bromofluorobenzene	100 %			80-116	MSV	04/07/23 14:35	
Silver, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
Arsenic, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
<b>Barium, total</b>	<b>0.209 mg/L</b>	<b>0.0040</b>	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
Beryllium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
Cadmium, total	<0.0008 mg/L	0.0008	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
Cobalt, total	<0.0004 mg/L	0.0004	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
Chromium, total	<0.0080 mg/L	0.0080	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
Copper, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
Nickel, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:58	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-07</b>	SW-3			Matrix: Water		Collected: 04/05/23 12:00	
Lead, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
Antimony, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
Selenium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
Thallium, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
Vanadium, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
Zinc, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 19:58	
<b>1GD0730-08</b>	Duplicate			Matrix: Water		Collected: 04/05/23 11:08	
Acrylonitrile	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
<i>Surrogate: Dibromofluoromethane</i>	113 %			80-126	MSV	04/07/23 15:02	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	89.2 %			63-138	MSV	04/07/23 15:02	
<i>Surrogate: Toluene-d8</i>	98.0 %			87-116	MSV	04/07/23 15:02	
<i>Surrogate: 4-Bromofluorobenzene</i>	99.4 %			85-111	MSV	04/07/23 15:02	
Chloromethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Vinyl Chloride	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Bromomethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Chloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Trichlorofluoromethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Acetone	<10.0 ug/L	10.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Methyl Iodide	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Carbon Disulfide	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Methylene Chloride	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Vinyl Acetate	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
2-Butanone (MEK)	<10.0 ug/L	10.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Bromochloromethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Chloroform	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Benzene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Trichloroethylene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Dibromomethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Bromodichloromethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-08</b>	Duplicate			Matrix: Water		Collected: 04/05/23 11:08	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
4-Methyl-2-pentanone (MIBK)	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Toluene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Tetrachloroethylene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
2-Hexanone (MBK)	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Dibromochloromethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,2-Dibromoethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Chlorobenzene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,1,1,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Ethylbenzene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Xylenes, total	<2.0 ug/L	2.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Styrene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Bromoform	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,2,3-Trichloropropane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
trans-1,4-Dichloro-2-butene	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
1,2-Dibromo-3-chloropropane	<5.0 ug/L	5.0	1GD0379	EPA 8260B	MSV	04/07/23 15:02	
Surrogate: Dibromofluoromethane	113 %			75-136	MSV	04/07/23 15:02	
Surrogate: 1,2-Dichloroethane-d4	89.2 %			61-142	MSV	04/07/23 15:02	
Surrogate: Toluene-d8	98.0 %			82-121	MSV	04/07/23 15:02	
Surrogate: 4-Bromofluorobenzene	99.4 %			80-116	MSV	04/07/23 15:02	
Silver, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
Arsenic, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
<b>Barium, total</b>	<b>0.422 mg/L</b>	<b>0.0040</b>	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
Beryllium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
Cadmium, total	<0.0008 mg/L	0.0008	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
<b>Cobalt, total</b>	<b>0.0023 mg/L</b>	<b>0.0004</b>	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
Chromium, total	<0.0080 mg/L	0.0080	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
Copper, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
<b>Nickel, total</b>	<b>0.0069 mg/L</b>	<b>0.0040</b>	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
Lead, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
Antimony, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
Selenium, total	<0.0040 mg/L	0.0040	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
Thallium, total	<0.0020 mg/L	0.0020	1GD0382	EPA 6020A	RVV	04/11/23 20:04	

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**Work Order: 1GD0730**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1GD0730-08</b>	Duplicate			Matrix: Water		Collected: 04/05/23 11:08	
Vanadium, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 20:04	
Zinc, total	<0.0200 mg/L	0.0200	1GD0382	EPA 6020A	RVV	04/11/23 20:04	

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**Work Order: 1GD0730**

**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
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**Batch 1GD0379 - EPA 5030B**

**Blank (1GD0379-BLK1)**

Prepared & Analyzed: 04/07/23

Surrogate: Dibromofluoromethane	56.0		ug/L	50.3520		111	75-136			
Surrogate: Dibromofluoromethane	56.0		"	50.3520		111	80-126			
Surrogate: 1,2-Dichloroethane-d4	45.1		"	50.4080		89.4	63-138			
Surrogate: 1,2-Dichloroethane-d4	45.1		"	50.4080		89.4	61-142			
Surrogate: Toluene-d8	48.7		"	50.2360		96.9	82-121			
Surrogate: Toluene-d8	48.7		"	50.2360		96.9	87-116			
Surrogate: 4-Bromofluorobenzene	50.7		"	50.4200		101	85-111			
Surrogate: 4-Bromofluorobenzene	50.7		"	50.4200		101	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	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	"							
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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**Work Order: 1GD0730**

**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
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**Batch 1GD0379 - EPA 5030B**

<b>Blank (1GD0379-BLK1)</b>				Prepared & Analyzed: 04/07/23						
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	"							

<b>LCS (1GD0379-BS1)</b>				Prepared & Analyzed: 04/07/23						
Surrogate: Dibromofluoromethane	51.0		ug/L	50.3520		101	80-126			
Surrogate: Dibromofluoromethane	51.0		"	50.3520		101	75-136			
Surrogate: 1,2-Dichloroethane-d4	44.8		"	50.4080		88.9	61-142			
Surrogate: 1,2-Dichloroethane-d4	44.8		"	50.4080		88.9	63-138			
Surrogate: Toluene-d8	49.7		"	50.2360		99.0	87-116			
Surrogate: Toluene-d8	49.7		"	50.2360		99.0	82-121			
Surrogate: 4-Bromofluorobenzene	49.9		"	50.4200		98.9	85-111			
Surrogate: 4-Bromofluorobenzene	49.9		"	50.4200		98.9	80-116			
Chloromethane	24.74	1.0	"	30.0000		82.5	63-155			
Vinyl Chloride	23.36	1.0	"	30.0000		77.9	70-154			
Bromomethane	21.61	1.0	"	30.0000		72.0	52-176			
Chloroethane	23.92	1.0	"	30.0000		79.7	72-148			
Trichlorofluoromethane	20.97	1.0	"	30.0000		69.9	70-152			QM-21
1,1-Dichloroethylene	41.76	1.0	"	50.0000		83.5	70-148			
Acetone	79.62	10.0	"	104.100		76.5	43-172			
Methyl Iodide	88.90	1.0	"	112.563		79.0	69-170			
Carbon Disulfide	86.53	1.0	"	106.400		81.3	72-162			
Methylene Chloride	39.34	5.0	"	50.0000		78.7	68-142			
Acrylonitrile	74.96	5.0	"	100.500		74.6	67-144			
trans-1,2-Dichloroethylene	39.54	1.0	"	50.0000		79.1	66-148			

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**Work Order: 1GD0730**

**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
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**Batch 1GD0379 - EPA 5030B**

**LCS (1GD0379-BS1)**

Prepared & Analyzed: 04/07/23

1,1-Dichloroethane	39.70	1.0	ug/L	50.0000		79.4	66-143			
Vinyl Acetate	50.70	5.0	"	103.300		49.1	43-153			
cis-1,2-Dichloroethylene	44.13	1.0	"	50.0000		88.3	71-149			
2-Butanone (MEK)	79.11	10.0	"	106.200		74.5	52-159			
Bromochloromethane	43.38	1.0	"	50.0000		86.8	69-143			
Chloroform	38.93	1.0	"	50.0000		77.9	69-144			
1,1,1-Trichloroethane	34.12	1.0	"	49.9750		68.3	62-129			
Carbon Tetrachloride	40.45	1.0	"	50.0000		80.9	63-141			
Benzene	46.97	1.0	"	50.0000		93.9	71-134			
1,2-Dichloroethane	47.50	1.0	"	50.0000		95.0	72-132			
Trichloroethylene	37.94	1.0	"	50.0000		75.9	71-135			
1,2-Dichloropropane	49.10	1.0	"	50.0000		98.2	69-136			
Dibromomethane	49.76	1.0	"	50.0000		99.5	73-147			
Bromodichloromethane	44.99	1.0	"	50.0000		90.0	68-129			
cis-1,3-Dichloropropene	46.07	1.0	"	50.3250		91.5	65-134			
4-Methyl-2-pentanone (MIBK)	103.8	5.0	"	103.100		101	58-147			
Toluene	44.65	1.0	"	50.0000		89.3	72-133			
trans-1,3-Dichloropropene	46.02	1.0	"	50.4250		91.3	67-130			
1,1,2-Trichloroethane	45.51	1.0	"	50.0000		91.0	69-135			
Tetrachloroethylene	61.79	1.0	"	50.0000		124	69-130			
2-Hexanone (MBK)	106.4	5.0	"	110.300		96.5	55-144			
Dibromochloromethane	48.39	1.0	"	49.5000		97.8	73-127			
1,2-Dibromoethane	48.61	1.0	"	50.0000		97.2	67-132			
Chlorobenzene	45.25	1.0	"	50.0000		90.5	72-123			
1,1,1,2-Tetrachloroethane	45.33	1.0	"	50.0000		90.7	73-127			
Ethylbenzene	46.21	1.0	"	50.0000		92.4	71-127			
Xylenes, total	137.8	2.0	"	150.000		91.9	74-127			
Styrene	42.38	1.0	"	50.0000		84.8	66-126			
Bromoform	46.77	1.0	"	50.0000		93.5	68-130			
1,2,3-Trichloropropane	47.79	1.0	"	50.0000		95.6	63-136			
trans-1,4-Dichloro-2-butene	89.15	5.0	"	102.400		87.1	54-134			
1,1,2,2-Tetrachloroethane	52.88	1.0	"	49.8500		106	61-131			
1,4-Dichlorobenzene	46.18	1.0	"	50.0000		92.4	70-129			
1,2-Dichlorobenzene	46.02	1.0	"	50.0000		92.0	69-126			
1,2-Dibromo-3-chloropropane	48.45	5.0	"	50.0000		96.9	50-143			

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**Work Order: 1GD0730**

**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
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**Batch 1GD0379 - EPA 5030B**

**LCS Dup (1GD0379-BSD1)**

Prepared & Analyzed: 04/07/23

Surrogate: Dibromofluoromethane	52.6		ug/L	50.3520		104	80-126			
Surrogate: Dibromofluoromethane	52.6		"	50.3520		104	75-136			
Surrogate: 1,2-Dichloroethane-d4	44.9		"	50.4080		89.2	63-138			
Surrogate: 1,2-Dichloroethane-d4	44.9		"	50.4080		89.2	61-142			
Surrogate: Toluene-d8	49.6		"	50.2360		98.8	87-116			
Surrogate: Toluene-d8	49.6		"	50.2360		98.8	82-121			
Surrogate: 4-Bromofluorobenzene	49.2		"	50.4200		97.7	80-116			
Surrogate: 4-Bromofluorobenzene	49.2		"	50.4200		97.7	85-111			
Chloromethane	25.46	1.0	"	30.0000		84.9	63-155	2.87	24	
Vinyl Chloride	24.40	1.0	"	30.0000		81.3	70-154	4.36	25	
Bromomethane	20.21	1.0	"	30.0000		67.4	52-176	6.70	27	
Chloroethane	24.73	1.0	"	30.0000		82.4	72-148	3.33	25	
Trichlorofluoromethane	21.74	1.0	"	30.0000		72.5	70-152	3.61	26	
1,1-Dichloroethylene	42.79	1.0	"	50.0000		85.6	70-148	2.44	24	
Acetone	91.58	10.0	"	104.100		88.0	43-172	14.0	30	
Methyl Iodide	79.74	1.0	"	112.563		70.8	69-170	10.9	30	
Carbon Disulfide	86.73	1.0	"	106.400		81.5	72-162	0.231	24	
Methylene Chloride	40.31	5.0	"	50.0000		80.6	68-142	2.44	21	
Acrylonitrile	84.72	5.0	"	100.500		84.3	67-144	12.2	24	
trans-1,2-Dichloroethylene	40.28	1.0	"	50.0000		80.6	66-148	1.85	27	
1,1-Dichloroethane	40.29	1.0	"	50.0000		80.6	66-143	1.48	24	
Vinyl Acetate	144.4	5.0	"	103.300		140	43-153	96.1	30	QR-02
cis-1,2-Dichloroethylene	46.95	1.0	"	50.0000		93.9	71-149	6.19	26	
2-Butanone (MEK)	91.78	10.0	"	106.200		86.4	52-159	14.8	27	
Bromochloromethane	43.29	1.0	"	50.0000		86.6	69-143	0.208	23	
Chloroform	38.77	1.0	"	50.0000		77.5	69-144	0.412	23	
1,1,1-Trichloroethane	34.06	1.0	"	49.9750		68.2	62-129	0.176	24	
Carbon Tetrachloride	40.02	1.0	"	50.0000		80.0	63-141	1.07	25	
Benzene	46.49	1.0	"	50.0000		93.0	71-134	1.03	24	
1,2-Dichloroethane	45.91	1.0	"	50.0000		91.8	72-132	3.40	24	
Trichloroethylene	37.37	1.0	"	50.0000		74.7	71-135	1.51	24	
1,2-Dichloropropane	48.37	1.0	"	50.0000		96.7	69-136	1.50	24	
Dibromomethane	48.83	1.0	"	50.0000		97.7	73-147	1.89	25	
Bromodichloromethane	44.18	1.0	"	50.0000		88.4	68-129	1.82	22	
cis-1,3-Dichloropropene	44.36	1.0	"	50.3250		88.1	65-134	3.78	23	
4-Methyl-2-pentanone (MIBK)	100.8	5.0	"	103.100		97.8	58-147	2.97	27	
Toluene	44.49	1.0	"	50.0000		89.0	72-133	0.359	24	
trans-1,3-Dichloropropene	43.93	1.0	"	50.4250		87.1	67-130	4.65	24	

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**Work Order: 1GD0730**

**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
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**Batch 1GD0379 - EPA 5030B**

<b>LCS Dup (1GD0379-BSD1)</b>				Prepared & Analyzed: 04/07/23						
1,1,2-Trichloroethane	43.99	1.0	ug/L	50.0000	88.0	69-135	3.40	23		
Tetrachloroethylene	60.49	1.0	"	50.0000	121	69-130	2.13	25		
2-Hexanone (MBK)	112.4	5.0	"	110.300	102	55-144	5.46	25		
Dibromochloromethane	45.98	1.0	"	49.5000	92.9	73-127	5.11	22		
1,2-Dibromoethane	46.51	1.0	"	50.0000	93.0	67-132	4.42	24		
Chlorobenzene	44.98	1.0	"	50.0000	90.0	72-123	0.598	23		
1,1,1,2-Tetrachloroethane	44.74	1.0	"	50.0000	89.5	73-127	1.31	24		
Ethylbenzene	45.40	1.0	"	50.0000	90.8	71-127	1.77	26		
Xylenes, total	135.4	2.0	"	150.000	90.3	74-127	1.72	25		
Styrene	43.13	1.0	"	50.0000	86.3	66-126	1.75	23		
Bromoform	44.30	1.0	"	50.0000	88.6	68-130	5.42	23		
1,2,3-Trichloropropane	46.86	1.0	"	50.0000	93.7	63-136	1.97	24		
trans-1,4-Dichloro-2-butene	83.35	5.0	"	102.400	81.4	54-134	6.72	27		
1,1,2,2-Tetrachloroethane	50.10	1.0	"	49.8500	101	61-131	5.40	29		
1,4-Dichlorobenzene	46.78	1.0	"	50.0000	93.6	70-129	1.29	24		
1,2-Dichlorobenzene	45.88	1.0	"	50.0000	91.8	69-126	0.305	26		
1,2-Dibromo-3-chloropropane	45.83	5.0	"	50.0000	91.7	50-143	5.56	30		

<b>Matrix Spike (1GD0379-MS1)</b>			Source: 1GD0730-07		Prepared & Analyzed: 04/07/23					
Surrogate: Dibromofluoromethane	510		ug/L	503.520	101	80-126				
Surrogate: Dibromofluoromethane	510		"	503.520	101	75-136				
Surrogate: 1,2-Dichloroethane-d4	453		"	504.080	89.8	61-142				
Surrogate: 1,2-Dichloroethane-d4	453		"	504.080	89.8	63-138				
Surrogate: Toluene-d8	501		"	502.360	99.7	87-116				
Surrogate: Toluene-d8	501		"	502.360	99.7	82-121				
Surrogate: 4-Bromofluorobenzene	503		"	504.200	99.7	85-111				
Surrogate: 4-Bromofluorobenzene	503		"	504.200	99.7	80-116				
Chloromethane	261.1	10.0	"	300.000	ND	87.0	61-152			
Vinyl Chloride	252.2	10.0	"	300.000	ND	84.1	66-149			
Bromomethane	196.8	10.0	"	300.000	ND	65.6	43-171			
Chloroethane	255.4	10.0	"	300.000	ND	85.1	69-148			
Trichlorofluoromethane	227.5	10.0	"	300.000	ND	75.8	62-163			
1,1-Dichloroethylene	447.7	10.0	"	500.000	ND	89.5	70-148			
Acetone	1100	100	"	1041.00	ND	106	45-173			
Methyl Iodide	796.5	10.0	"	1125.63	ND	70.8	62-167			
Carbon Disulfide	904.4	10.0	"	1064.00	ND	85.0	71-163			
Methylene Chloride	422.4	50.0	"	500.000	ND	84.5	69-140			
Acrylonitrile	930.1	50.0	"	1005.00	ND	92.5	58-151			
trans-1,2-Dichloroethylene	418.0	10.0	"	500.000	ND	83.6	69-144			

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**Work Order: 1GD0730**

**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
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**Batch 1GD0379 - EPA 5030B**

Matrix Spike (1GD0379-MS1)	Source: 1GD0730-07			Prepared & Analyzed: 04/07/23						
1,1-Dichloroethane	416.9	10.0	ug/L	500.000	ND	83.4	70-138			
Vinyl Acetate	1053	50.0	"	1033.00	ND	102	58-142			
cis-1,2-Dichloroethylene	487.9	10.0	"	500.000	ND	97.6	68-151			
2-Butanone (MEK)	1020	100	"	1062.00	ND	96.1	50-160			
Bromochloromethane	455.3	10.0	"	500.000	ND	91.1	65-143			
Chloroform	401.6	10.0	"	500.000	ND	80.3	71-143			
1,1,1-Trichloroethane	354.5	10.0	"	499.750	ND	70.9	63-133			
Carbon Tetrachloride	417.4	10.0	"	500.000	ND	83.5	63-142			
Benzene	482.8	10.0	"	500.000	ND	96.6	69-133			
1,2-Dichloroethane	485.1	10.0	"	500.000	ND	97.0	63-138			
Trichloroethylene	391.6	10.0	"	500.000	ND	78.3	71-133			
1,2-Dichloropropane	510.0	10.0	"	500.000	ND	102	69-132			
Dibromomethane	502.8	10.0	"	500.000	ND	101	70-147			
Bromodichloromethane	457.4	10.0	"	500.000	ND	91.5	67-130			
cis-1,3-Dichloropropene	459.4	10.0	"	503.250	ND	91.3	61-126			
4-Methyl-2-pentanone (MIBK)	1132	50.0	"	1031.00	ND	110	55-147			
Toluene	462.1	10.0	"	500.000	ND	92.4	71-133			
trans-1,3-Dichloropropene	458.2	10.0	"	504.250	ND	90.9	63-124			
1,1,2-Trichloroethane	459.3	10.0	"	500.000	ND	91.9	69-133			
Tetrachloroethylene	629.1	10.0	"	500.000	ND	126	70-124			QM-05
2-Hexanone (MBK)	1294	50.0	"	1103.00	ND	117	53-141			
Dibromochloromethane	487.6	10.0	"	495.000	ND	98.5	74-122			
1,2-Dibromoethane	496.7	10.0	"	500.000	ND	99.3	66-127			
Chlorobenzene	466.4	10.0	"	500.000	ND	93.3	76-116			
1,1,1,2-Tetrachloroethane	465.3	10.0	"	500.000	ND	93.1	77-121			
Ethylbenzene	478.9	10.0	"	500.000	ND	95.8	73-124			
Xylenes, total	1434	20.0	"	1500.00	ND	95.6	75-123			
Styrene	457.4	10.0	"	500.000	ND	91.5	70-120			
Bromoform	464.2	10.0	"	500.000	ND	92.8	70-124			
1,2,3-Trichloropropane	496.7	10.0	"	500.000	ND	99.3	62-135			
trans-1,4-Dichloro-2-butene	891.8	50.0	"	1024.00	ND	87.1	50-120			
1,1,2,2-Tetrachloroethane	551.1	10.0	"	498.500	ND	111	63-126			
1,4-Dichlorobenzene	487.5	10.0	"	500.000	ND	97.5	72-119			
1,2-Dichlorobenzene	486.6	10.0	"	500.000	ND	97.3	71-117			
1,2-Dibromo-3-chloropropane	499.6	50.0	"	500.000	ND	99.9	49-134			

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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
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**Batch 1GD0379 - EPA 5030B**

**Matrix Spike Dup (1GD0379-MSD1)**

Source: 1GD0730-07

Prepared & Analyzed: 04/07/23

Surrogate: Dibromofluoromethane	516		ug/L	503.520		102	80-126			
Surrogate: Dibromofluoromethane	516		"	503.520		102	75-136			
Surrogate: 1,2-Dichloroethane-d4	447		"	504.080		88.7	63-138			
Surrogate: 1,2-Dichloroethane-d4	447		"	504.080		88.7	61-142			
Surrogate: Toluene-d8	502		"	502.360		99.8	87-116			
Surrogate: Toluene-d8	502		"	502.360		99.8	82-121			
Surrogate: 4-Bromofluorobenzene	500		"	504.200		99.2	80-116			
Surrogate: 4-Bromofluorobenzene	500		"	504.200		99.2	85-111			
Chloromethane	247.1	10.0	"	300.000	ND	82.4	61-152	5.51	26	
Vinyl Chloride	232.6	10.0	"	300.000	ND	77.5	66-149	8.09	23	
Bromomethane	208.4	10.0	"	300.000	ND	69.5	43-171	5.73	29	
Chloroethane	244.4	10.0	"	300.000	ND	81.5	69-148	4.40	25	
Trichlorofluoromethane	215.3	10.0	"	300.000	ND	71.8	62-163	5.51	25	
1,1-Dichloroethylene	427.3	10.0	"	500.000	ND	85.5	70-148	4.66	22	
Acetone	1074	100	"	1041.00	ND	103	45-173	2.46	30	
Methyl Iodide	884.0	10.0	"	1125.63	ND	78.5	62-167	10.4	24	
Carbon Disulfide	864.4	10.0	"	1064.00	ND	81.2	71-163	4.52	22	
Methylene Chloride	409.4	50.0	"	500.000	ND	81.9	69-140	3.13	19	
Acrylonitrile	919.2	50.0	"	1005.00	ND	91.5	58-151	1.18	15	
trans-1,2-Dichloroethylene	402.8	10.0	"	500.000	ND	80.6	69-144	3.70	22	
1,1-Dichloroethane	404.9	10.0	"	500.000	ND	81.0	70-138	2.92	20	
Vinyl Acetate	1010	50.0	"	1033.00	ND	97.8	58-142	4.14	24	
cis-1,2-Dichloroethylene	476.3	10.0	"	500.000	ND	95.3	68-151	2.41	22	
2-Butanone (MEK)	1079	100	"	1062.00	ND	102	50-160	5.60	23	
Bromochloromethane	448.5	10.0	"	500.000	ND	89.7	65-143	1.50	22	
Chloroform	393.9	10.0	"	500.000	ND	78.8	71-143	1.94	21	
1,1,1-Trichloroethane	346.5	10.0	"	499.750	ND	69.3	63-133	2.28	23	
Carbon Tetrachloride	408.1	10.0	"	500.000	ND	81.6	63-142	2.25	22	
Benzene	471.4	10.0	"	500.000	ND	94.3	69-133	2.39	18	
1,2-Dichloroethane	478.2	10.0	"	500.000	ND	95.6	63-138	1.43	20	
Trichloroethylene	380.1	10.0	"	500.000	ND	76.0	71-133	2.98	23	
1,2-Dichloropropane	503.9	10.0	"	500.000	ND	101	69-132	1.20	20	
Dibromomethane	498.5	10.0	"	500.000	ND	99.7	70-147	0.859	22	
Bromodichloromethane	454.8	10.0	"	500.000	ND	91.0	67-130	0.570	21	
cis-1,3-Dichloropropene	458.1	10.0	"	503.250	ND	91.0	61-126	0.283	21	
4-Methyl-2-pentanone (MIBK)	1126	50.0	"	1031.00	ND	109	55-147	0.496	23	
Toluene	453.0	10.0	"	500.000	ND	90.6	71-133	1.99	19	
trans-1,3-Dichloropropene	456.4	10.0	"	504.250	ND	90.5	63-124	0.394	21	

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Work Order: 1GD0730

**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
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**Batch 1GD0379 - EPA 5030B**

Matrix Spike Dup (1GD0379-MSD1)	Source: 1GD0730-07			Prepared & Analyzed: 04/07/23						
1,1,2-Trichloroethane	457.1	10.0	ug/L	500.000	ND	91.4	69-133	0.480	19	
Tetrachloroethylene	609.8	10.0	"	500.000	ND	122	70-124	3.12	24	
2-Hexanone (MBK)	1283	50.0	"	1103.00	ND	116	53-141	0.799	24	
Dibromochloromethane	485.7	10.0	"	495.000	ND	98.1	74-122	0.390	21	
1,2-Dibromoethane	493.4	10.0	"	500.000	ND	98.7	66-127	0.667	23	
Chlorobenzene	457.3	10.0	"	500.000	ND	91.5	76-116	1.97	21	
1,1,1,2-Tetrachloroethane	460.8	10.0	"	500.000	ND	92.2	77-121	0.972	25	
Ethylbenzene	466.0	10.0	"	500.000	ND	93.2	73-124	2.73	20	
Xylenes, total	1404	20.0	"	1500.00	ND	93.6	75-123	2.09	20	
Styrene	452.7	10.0	"	500.000	ND	90.5	70-120	1.03	23	
Bromoform	477.5	10.0	"	500.000	ND	95.5	70-124	2.82	22	
1,2,3-Trichloropropane	489.6	10.0	"	500.000	ND	97.9	62-135	1.44	28	
trans-1,4-Dichloro-2-butene	897.2	50.0	"	1024.00	ND	87.6	50-120	0.604	26	
1,1,2,2-Tetrachloroethane	552.3	10.0	"	498.500	ND	111	63-126	0.218	24	
1,4-Dichlorobenzene	470.0	10.0	"	500.000	ND	94.0	72-119	3.66	24	
1,2-Dichlorobenzene	472.3	10.0	"	500.000	ND	94.5	71-117	2.98	24	
1,2-Dibromo-3-chloropropane	496.4	50.0	"	500.000	ND	99.3	49-134	0.643	28	

**Batch 1GD0406 - EPA 5030B**

Blank (1GD0406-BLK1)	Prepared & Analyzed: 04/10/23									
Surrogate: Dibromofluoromethane	55.7		ug/L	50.3520		111	80-126			
Surrogate: Dibromofluoromethane	55.7		"	50.3520		111	80-126			
Surrogate: Dibromofluoromethane	55.7		"	50.3520		111	75-136			
Surrogate: 1,2-Dichloroethane-d4	45.2		"	50.4080		89.7	63-138			
Surrogate: 1,2-Dichloroethane-d4	45.2		"	50.4080		89.7	63-138			
Surrogate: 1,2-Dichloroethane-d4	45.2		"	50.4080		89.7	63-138			
Surrogate: 1,2-Dichloroethane-d4	45.2		"	50.4080		89.7	61-142			
Surrogate: Toluene-d8	49.7		"	50.2360		99.0	87-116			
Surrogate: Toluene-d8	49.7		"	50.2360		99.0	87-116			
Surrogate: Toluene-d8	49.7		"	50.2360		99.0	87-116			
Surrogate: Toluene-d8	49.7		"	50.2360		99.0	82-121			
Surrogate: 4-Bromofluorobenzene	51.5		"	50.4200		102	80-116			
Surrogate: 4-Bromofluorobenzene	51.5		"	50.4200		102	85-111			
Surrogate: 4-Bromofluorobenzene	51.5		"	50.4200		102	85-111			
Surrogate: 4-Bromofluorobenzene	51.5		"	50.4200		102	85-111			
Dichlorodifluoromethane	ND	1.0	"							
Chloromethane	ND	1.0	"							
Chloromethane	ND	1.0	"							

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**Work Order: 1GD0730**

**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
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**Batch 1GD0406 - EPA 5030B**

**Blank (1GD0406-BLK1)**

Prepared & Analyzed: 04/10/23

Vinyl Chloride	ND	1.0	ug/L							
Vinyl Chloride	ND	1.0	"							
Bromomethane	ND	1.0	"							
Bromomethane	ND	1.0	"							
Chloroethane	ND	1.0	"							
Chloroethane	ND	1.0	"							
Trichlorofluoromethane	ND	1.0	"							
Trichlorofluoromethane	ND	1.0	"							
Acrolein	ND	10.0	"							
1,1-Dichloroethylene	ND	1.0	"							
1,1-Dichloroethylene	ND	1.0	"							
Acetone	ND	10.0	"							
Acetone	ND	10.0	"							
Methyl Iodide	ND	2.0	"							
Methyl Iodide	ND	1.0	"							
Carbon Disulfide	ND	1.0	"							
Carbon Disulfide	ND	1.0	"							
Acetonitrile	ND	10.0	"							
Methylene Chloride	ND	5.0	"							
Methylene Chloride	ND	5.0	"							
Acrylonitrile	ND	5.0	"							
Acrylonitrile	ND	5.0	"							
trans-1,2-Dichloroethylene	ND	1.0	"							
trans-1,2-Dichloroethylene	ND	1.0	"							
1,1-Dichloroethane	ND	1.0	"							
1,1-Dichloroethane	ND	1.0	"							
Vinyl Acetate	ND	5.0	"							
Vinyl Acetate	ND	5.0	"							
2,2-Dichloropropane	ND	1.0	"							
cis-1,2-Dichloroethylene	ND	1.0	"							
cis-1,2-Dichloroethylene	ND	1.0	"							
2-Butanone (MEK)	ND	5.0	"							
2-Butanone (MEK)	ND	10.0	"							
Bromochloromethane	ND	1.0	"							
Bromochloromethane	ND	1.0	"							
Chloroform	ND	1.0	"							
Chloroform	ND	1.0	"							
1,1,1-Trichloroethane	ND	1.0	"							
1,1,1-Trichloroethane	ND	1.0	"							

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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
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**Batch 1GD0406 - EPA 5030B**

**Blank (1GD0406-BLK1)**

Prepared & Analyzed: 04/10/23

1,1-Dichloropropene	ND	1.0	ug/L							
Carbon Tetrachloride	ND	1.0	"							
Carbon Tetrachloride	ND	1.0	"							
Benzene	ND	1.0	"							
Benzene	ND	1.0	"							
1,2-Dichloroethane	ND	1.0	"							
1,2-Dichloroethane	ND	1.0	"							
Trichloroethylene	ND	1.0	"							
Trichloroethylene	ND	1.0	"							
1,2-Dichloropropane	ND	1.0	"							
1,2-Dichloropropane	ND	1.0	"							
Dibromomethane	ND	1.0	"							
Dibromomethane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
cis-1,3-Dichloropropene	ND	1.0	"							
cis-1,3-Dichloropropene	ND	1.0	"							
4-Methyl-2-pentanone (MIBK)	ND	5.0	"							
4-Methyl-2-pentanone (MIBK)	ND	5.0	"							
Toluene	ND	1.0	"							
Toluene	ND	1.0	"							
trans-1,3-Dichloropropene	ND	1.0	"							
trans-1,3-Dichloropropene	ND	1.0	"							
Ethyl Methacrylate	ND	10.0	"							
1,1,2-Trichloroethane	ND	1.0	"							
1,1,2-Trichloroethane	ND	1.0	"							
Tetrachloroethylene	ND	1.0	"							
Tetrachloroethylene	ND	1.0	"							
1,3-Dichloropropane	ND	1.0	"							
2-Hexanone (MBK)	ND	5.0	"							
2-Hexanone (MBK)	ND	5.0	"							
Dibromochloromethane	ND	1.0	"							
Dibromochloromethane	ND	1.0	"							
1,2-Dibromoethane	ND	1.0	"							
1,2-Dibromoethane	ND	1.0	"							
Chlorobenzene	ND	1.0	"							
Chlorobenzene	ND	1.0	"							
1,1,1,2-Tetrachloroethane	ND	1.0	"							
1,1,1,2-Tetrachloroethane	ND	1.0	"							

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**Work Order: 1GD0730**

**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
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**Batch 1GD0406 - EPA 5030B**

**Blank (1GD0406-BLK1)**

Prepared & Analyzed: 04/10/23

Ethylbenzene	ND	1.0	ug/L							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	2.0	"							
Xylenes, total	ND	2.0	"							
Styrene	ND	1.0	"							
Styrene	ND	1.0	"							
Bromoform	ND	1.0	"							
Bromoform	ND	1.0	"							
1,2,3-Trichloropropane	ND	1.0	"							
1,2,3-Trichloropropane	ND	1.0	"							
trans-1,4-Dichloro-2-butene	ND	5.0	"							
trans-1,4-Dichloro-2-butene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							
1,3-Dichlorobenzene	ND	1.0	"							
1,4-Dichlorobenzene	ND	1.0	"							
1,4-Dichlorobenzene	ND	1.0	"							
1,2-Dichlorobenzene	ND	1.0	"							
1,2-Dichlorobenzene	ND	1.0	"							
1,2-Dibromo-3-chloropropane	ND	1.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	1.0	"							

**LCS (1GD0406-BS1)**

Prepared & Analyzed: 04/10/23

Surrogate: Dibromofluoromethane	51.7		ug/L	50.3520	103	80-126
Surrogate: Dibromofluoromethane	51.7		"	50.3520	103	80-126
Surrogate: Dibromofluoromethane	51.7		"	50.3520	103	75-136
Surrogate: 1,2-Dichloroethane-d4	44.2		"	50.4080	87.8	63-138
Surrogate: 1,2-Dichloroethane-d4	44.2		"	50.4080	87.8	61-142
Surrogate: 1,2-Dichloroethane-d4	44.2		"	50.4080	87.8	63-138
Surrogate: 1,2-Dichloroethane-d4	44.2		"	50.4080	87.8	63-138
Surrogate: Toluene-d8	50.5		"	50.2360	101	87-116
Surrogate: Toluene-d8	50.5		"	50.2360	101	87-116
Surrogate: Toluene-d8	50.5		"	50.2360	101	87-116
Surrogate: Toluene-d8	50.5		"	50.2360	101	82-121
Surrogate: 4-Bromofluorobenzene	49.7		"	50.4200	98.7	80-116
Surrogate: 4-Bromofluorobenzene	49.7		"	50.4200	98.7	85-111
Surrogate: 4-Bromofluorobenzene	49.7		"	50.4200	98.7	85-111
Surrogate: 4-Bromofluorobenzene	49.7		"	50.4200	98.7	85-111

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**Determination of Volatile Organic Compounds - Quality Control**  
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1GD0406 - EPA 5030B**

**LCS (1GD0406-BS1)**

Prepared & Analyzed: 04/10/23

Dichlorodifluoromethane	19.64	1.0	ug/L	30.0000		65.5	44-139			
Chloromethane	25.18	1.0	"	30.0000		83.9	63-155			
Chloromethane	25.18	1.0	"	30.0000		83.9	56-152			
Vinyl Chloride	23.50	1.0	"	30.0000		78.3	70-154			
Vinyl Chloride	23.50	1.0	"	30.0000		78.3	62-151			
Bromomethane	22.73	1.0	"	30.0000		75.8	52-176			
Bromomethane	22.73	1.0	"	30.0000		75.8	61-162			
Chloroethane	23.75	1.0	"	30.0000		79.2	72-148			
Chloroethane	23.75	1.0	"	30.0000		79.2	69-138			
Trichlorofluoromethane	21.37	1.0	"	30.0000		71.2	70-143			
Trichlorofluoromethane	21.37	1.0	"	30.0000		71.2	70-152			
Acrolein	89.04	10.0	"	100.200		88.9	27-144			
1,1-Dichloroethylene	41.73	1.0	"	50.0000		83.5	70-148			
1,1-Dichloroethylene	41.73	1.0	"	50.0000		83.5	76-140			
Acetone	95.74	10.0	"	104.100		92.0	51-156			
Acetone	95.74	10.0	"	104.100		92.0	43-172			
Methyl Iodide	95.84	1.0	"	112.563		85.1	69-170			
Methyl Iodide	95.84	2.0	"	112.563		85.1	81-166			
Carbon Disulfide	86.12	1.0	"	106.400		80.9	76-147			
Carbon Disulfide	86.12	1.0	"	106.400		80.9	72-162			
Acetonitrile	100.3	10.0	"	101.996		98.3	46-156			
Methylene Chloride	39.20	5.0	"	50.0000		78.4	67-139			
Methylene Chloride	39.20	5.0	"	50.0000		78.4	68-142			
Acrylonitrile	84.85	5.0	"	100.500		84.4	67-144			
Acrylonitrile	84.85	5.0	"	100.500		84.4	67-144			
trans-1,2-Dichloroethylene	39.70	1.0	"	50.0000		79.4	72-135			
trans-1,2-Dichloroethylene	39.70	1.0	"	50.0000		79.4	66-148			
1,1-Dichloroethane	39.47	1.0	"	50.0000		78.9	72-129			
1,1-Dichloroethane	39.47	1.0	"	50.0000		78.9	66-143			
Vinyl Acetate	146.3	5.0	"	103.300		142	43-153			
Vinyl Acetate	146.3	5.0	"	103.300		142	24-144			
2,2-Dichloropropane	37.28	1.0	"	50.0000		74.6	64-131			
cis-1,2-Dichloroethylene	47.15	1.0	"	50.0000		94.3	81-137			
cis-1,2-Dichloroethylene	47.15	1.0	"	50.0000		94.3	71-149			
2-Butanone (MEK)	95.01	10.0	"	106.200		89.5	52-159			
2-Butanone (MEK)	95.01	5.0	"	106.200		89.5	47-149			
Bromochloromethane	42.78	1.0	"	50.0000		85.6	69-143			
Bromochloromethane	42.78	1.0	"	50.0000		85.6	75-138			
Chloroform	38.51	1.0	"	50.0000		77.0	78-131			QS-01

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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
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**Batch 1GD0406 - EPA 5030B**

**LCS (1GD0406-BS1)**

Prepared & Analyzed: 04/10/23

Chloroform	38.51	1.0	ug/L	50.0000		77.0	69-144			
1,1,1-Trichloroethane	34.06	1.0	"	49.9750		68.2	62-129			
1,1,1-Trichloroethane	34.06	1.0	"	49.9750		68.2	67-121			
1,1-Dichloropropene	39.97	1.0	"	50.0000		79.9	80-131			QS-01
Carbon Tetrachloride	40.98	1.0	"	50.0000		82.0	71-131			
Carbon Tetrachloride	40.98	1.0	"	50.0000		82.0	63-141			
Benzene	46.31	1.0	"	50.0000		92.6	71-134			
Benzene	46.31	1.0	"	50.0000		92.6	77-130			
1,2-Dichloroethane	45.99	1.0	"	50.0000		92.0	72-132			
1,2-Dichloroethane	45.99	1.0	"	50.0000		92.0	76-126			
Trichloroethylene	37.51	1.0	"	50.0000		75.0	80-124			QS-01
Trichloroethylene	37.51	1.0	"	50.0000		75.0	71-135			
1,2-Dichloropropane	49.20	1.0	"	50.0000		98.4	69-136			
1,2-Dichloropropane	49.20	1.0	"	50.0000		98.4	81-125			
Dibromomethane	48.67	1.0	"	50.0000		97.3	73-147			
Dibromomethane	48.67	1.0	"	50.0000		97.3	84-134			
Bromodichloromethane	45.66	1.0	"	50.0000		91.3	68-129			
Bromodichloromethane	45.66	1.0	"	50.0000		91.3	78-121			
cis-1,3-Dichloropropene	46.86	1.0	"	50.3250		93.1	78-120			
cis-1,3-Dichloropropene	46.86	1.0	"	50.3250		93.1	65-134			
4-Methyl-2-pentanone (MIBK)	105.0	5.0	"	103.100		102	67-143			
4-Methyl-2-pentanone (MIBK)	105.0	5.0	"	103.100		102	58-147			
Toluene	44.69	1.0	"	50.0000		89.4	77-130			
Toluene	44.69	1.0	"	50.0000		89.4	72-133			
trans-1,3-Dichloropropene	46.40	1.0	"	50.4250		92.0	67-130			
trans-1,3-Dichloropropene	46.40	1.0	"	50.4250		92.0	77-123			
Ethyl Methacrylate	117.0	10.0	"	122.700		95.3	52-148			
1,1,2-Trichloroethane	44.38	1.0	"	50.0000		88.8	69-135			
1,1,2-Trichloroethane	44.38	1.0	"	50.0000		88.8	78-124			
Tetrachloroethylene	61.21	1.0	"	50.0000		122	69-130			
Tetrachloroethylene	61.21	1.0	"	50.0000		122	73-124			
1,3-Dichloropropane	53.31	1.0	"	50.0000		107	78-131			
2-Hexanone (MBK)	118.6	5.0	"	110.300		107	57-145			
2-Hexanone (MBK)	118.6	5.0	"	110.300		107	55-144			
Dibromochloromethane	48.62	1.0	"	49.5000		98.2	78-126			
Dibromochloromethane	48.62	1.0	"	49.5000		98.2	73-127			
1,2-Dibromoethane	47.71	1.0	"	50.0000		95.4	69-126			
1,2-Dibromoethane	47.71	1.0	"	50.0000		95.4	67-132			
Chlorobenzene	44.84	1.0	"	50.0000		89.7	76-120			

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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
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**Batch 1GD0406 - EPA 5030B**

**LCS (1GD0406-BS1)**

Prepared & Analyzed: 04/10/23

Chlorobenzene	44.84	1.0	ug/L	50.0000		89.7	72-123			
1,1,1,2-Tetrachloroethane	45.70	1.0	"	50.0000		91.4	81-122			
1,1,1,2-Tetrachloroethane	45.70	1.0	"	50.0000		91.4	73-127			
Ethylbenzene	45.91	1.0	"	50.0000		91.8	74-121			
Ethylbenzene	45.91	1.0	"	50.0000		91.8	71-127			
Xylenes, total	137.7	2.0	"	150.000		91.8	75-122			
Xylenes, total	137.7	2.0	"	150.000		91.8	74-127			
Styrene	44.35	1.0	"	50.0000		88.7	76-119			
Styrene	44.35	1.0	"	50.0000		88.7	66-126			
Bromoform	47.86	1.0	"	50.0000		95.7	68-130			
Bromoform	47.86	1.0	"	50.0000		95.7	74-127			
1,2,3-Trichloropropane	47.10	1.0	"	50.0000		94.2	73-125			
1,2,3-Trichloropropane	47.10	1.0	"	50.0000		94.2	63-136			
trans-1,4-Dichloro-2-butene	89.47	5.0	"	102.400		87.4	54-134			
trans-1,4-Dichloro-2-butene	89.47	5.0	"	102.400		87.4	55-135			
1,1,2,2-Tetrachloroethane	52.22	1.0	"	49.8500		105	58-133			
1,1,2,2-Tetrachloroethane	52.22	1.0	"	49.8500		105	61-131			
1,3-Dichlorobenzene	45.23	1.0	"	50.0000		90.5	70-125			
1,4-Dichlorobenzene	46.38	1.0	"	50.0000		92.8	70-129			
1,4-Dichlorobenzene	46.38	1.0	"	50.0000		92.8	69-128			
1,2-Dichlorobenzene	45.58	1.0	"	50.0000		91.2	69-126			
1,2-Dichlorobenzene	45.58	1.0	"	50.0000		91.2	70-125			
1,2-Dibromo-3-chloropropane	47.07	1.0	"	50.0000		94.1	54-147			
1,2-Dibromo-3-chloropropane	47.07	5.0	"	50.0000		94.1	50-143			
1,2,4-Trichlorobenzene	44.85	1.0	"	50.0000		89.7	55-149			

**LCS Dup (1GD0406-BSD1)**

Prepared & Analyzed: 04/10/23

Surrogate: Dibromofluoromethane	51.6		ug/L	50.3520		102	80-126			
Surrogate: Dibromofluoromethane	51.6		"	50.3520		102	75-136			
Surrogate: Dibromofluoromethane	51.6		"	50.3520		102	80-126			
Surrogate: 1,2-Dichloroethane-d4	44.7		"	50.4080		88.6	61-142			
Surrogate: 1,2-Dichloroethane-d4	44.7		"	50.4080		88.6	63-138			
Surrogate: 1,2-Dichloroethane-d4	44.7		"	50.4080		88.6	63-138			
Surrogate: 1,2-Dichloroethane-d4	44.7		"	50.4080		88.6	63-138			
Surrogate: Toluene-d8	50.5		"	50.2360		100	87-116			
Surrogate: Toluene-d8	50.5		"	50.2360		100	82-121			
Surrogate: Toluene-d8	50.5		"	50.2360		100	87-116			
Surrogate: Toluene-d8	50.5		"	50.2360		100	87-116			
Surrogate: 4-Bromofluorobenzene	50.0		"	50.4200		99.3	85-111			

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Work Order: 1GD0730

**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
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**Batch 1GD0406 - EPA 5030B**

**LCS Dup (1GD0406-BSD1)**

Prepared & Analyzed: 04/10/23

Surrogate: 4-Bromofluorobenzene	50.0		ug/L	50.4200		99.3	85-111			
Surrogate: 4-Bromofluorobenzene	50.0		"	50.4200		99.3	85-111			
Surrogate: 4-Bromofluorobenzene	50.0		"	50.4200		99.3	80-116			
Dichlorodifluoromethane	19.31	1.0	"	30.0000		64.4	44-139	1.69	30	
Chloromethane	24.95	1.0	"	30.0000		83.2	56-152	0.918	30	
Chloromethane	24.95	1.0	"	30.0000		83.2	63-155	0.918	24	
Vinyl Chloride	23.06	1.0	"	30.0000		76.9	62-151	1.89	28	
Vinyl Chloride	23.06	1.0	"	30.0000		76.9	70-154	1.89	25	
Bromomethane	22.65	1.0	"	30.0000		75.5	52-176	0.353	27	
Bromomethane	22.65	1.0	"	30.0000		75.5	61-162	0.353	28	
Chloroethane	23.61	1.0	"	30.0000		78.7	69-138	0.591	29	
Chloroethane	23.61	1.0	"	30.0000		78.7	72-148	0.591	25	
Trichlorofluoromethane	20.85	1.0	"	30.0000		69.5	70-152	2.46	26	QS-01
Trichlorofluoromethane	20.85	1.0	"	30.0000		69.5	70-143	2.46	27	QS-01
Acrolein	89.42	10.0	"	100.200		89.2	27-144	0.426	30	
1,1-Dichloroethylene	41.12	1.0	"	50.0000		82.2	76-140	1.47	30	
1,1-Dichloroethylene	41.12	1.0	"	50.0000		82.2	70-148	1.47	24	
Acetone	97.84	10.0	"	104.100		94.0	51-156	2.17	30	
Acetone	97.84	10.0	"	104.100		94.0	43-172	2.17	30	
Methyl Iodide	94.64	1.0	"	112.563		84.1	69-170	1.26	30	
Methyl Iodide	94.64	2.0	"	112.563		84.1	81-166	1.26	29	
Carbon Disulfide	84.72	1.0	"	106.400		79.6	72-162	1.64	24	
Carbon Disulfide	84.72	1.0	"	106.400		79.6	76-147	1.64	27	
Acetonitrile	102.5	10.0	"	101.996		100	46-156	2.15	30	
Methylene Chloride	39.68	5.0	"	50.0000		79.4	67-139	1.22	26	
Methylene Chloride	39.68	5.0	"	50.0000		79.4	68-142	1.22	21	
Acrylonitrile	85.73	5.0	"	100.500		85.3	67-144	1.03	24	
Acrylonitrile	85.73	5.0	"	100.500		85.3	67-144	1.03	24	
trans-1,2-Dichloroethylene	39.42	1.0	"	50.0000		78.8	66-148	0.708	27	
trans-1,2-Dichloroethylene	39.42	1.0	"	50.0000		78.8	72-135	0.708	28	
1,1-Dichloroethane	39.28	1.0	"	50.0000		78.6	66-143	0.483	24	
1,1-Dichloroethane	39.28	1.0	"	50.0000		78.6	72-129	0.483	26	
Vinyl Acetate	108.5	5.0	"	103.300		105	24-144	29.6	30	
Vinyl Acetate	108.5	5.0	"	103.300		105	43-153	29.6	30	
2,2-Dichloropropane	36.57	1.0	"	50.0000		73.1	64-131	1.92	26	
cis-1,2-Dichloroethylene	46.92	1.0	"	50.0000		93.8	71-149	0.489	26	
cis-1,2-Dichloroethylene	46.92	1.0	"	50.0000		93.8	81-137	0.489	27	
2-Butanone (MEK)	94.31	5.0	"	106.200		88.8	47-149	0.739	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.*

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Work Order: 1GD0730

**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
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**Batch 1GD0406 - EPA 5030B**

<b>LCS Dup (1GD0406-BSD1)</b>				Prepared & Analyzed: 04/10/23						
2-Butanone (MEK)	94.31	10.0	ug/L	106.200	88.8	52-159	0.739	27		
Bromochloromethane	42.81	1.0	"	50.0000	85.6	75-138	0.0701	24		
Bromochloromethane	42.81	1.0	"	50.0000	85.6	69-143	0.0701	23		
Chloroform	38.49	1.0	"	50.0000	77.0	78-131	0.0519	27	QS-01	
Chloroform	38.49	1.0	"	50.0000	77.0	69-144	0.0519	23		
1,1,1-Trichloroethane	33.52	1.0	"	49.9750	67.1	67-121	1.60	28		
1,1,1-Trichloroethane	33.52	1.0	"	49.9750	67.1	62-129	1.60	24		
1,1-Dichloropropene	39.00	1.0	"	50.0000	78.0	80-131	2.46	30	QS-01	
Carbon Tetrachloride	40.38	1.0	"	50.0000	80.8	71-131	1.47	28		
Carbon Tetrachloride	40.38	1.0	"	50.0000	80.8	63-141	1.47	25		
Benzene	46.24	1.0	"	50.0000	92.5	77-130	0.151	25		
Benzene	46.24	1.0	"	50.0000	92.5	71-134	0.151	24		
1,2-Dichloroethane	46.80	1.0	"	50.0000	93.6	76-126	1.75	24		
1,2-Dichloroethane	46.80	1.0	"	50.0000	93.6	72-132	1.75	24		
Trichloroethylene	37.54	1.0	"	50.0000	75.1	80-124	0.0800	27	QS-01	
Trichloroethylene	37.54	1.0	"	50.0000	75.1	71-135	0.0800	24		
1,2-Dichloropropane	49.57	1.0	"	50.0000	99.1	69-136	0.749	24		
1,2-Dichloropropane	49.57	1.0	"	50.0000	99.1	81-125	0.749	25		
Dibromomethane	50.06	1.0	"	50.0000	100	84-134	2.82	23		
Dibromomethane	50.06	1.0	"	50.0000	100	73-147	2.82	25		
Bromodichloromethane	45.67	1.0	"	50.0000	91.3	78-121	0.0219	25		
Bromodichloromethane	45.67	1.0	"	50.0000	91.3	68-129	0.0219	22		
cis-1,3-Dichloropropene	47.07	1.0	"	50.3250	93.5	65-134	0.447	23		
cis-1,3-Dichloropropene	47.07	1.0	"	50.3250	93.5	78-120	0.447	26		
4-Methyl-2-pentanone (MIBK)	107.2	5.0	"	103.100	104	67-143	2.16	26		
4-Methyl-2-pentanone (MIBK)	107.2	5.0	"	103.100	104	58-147	2.16	27		
Toluene	44.39	1.0	"	50.0000	88.8	77-130	0.674	27		
Toluene	44.39	1.0	"	50.0000	88.8	72-133	0.674	24		
trans-1,3-Dichloropropene	47.01	1.0	"	50.4250	93.2	67-130	1.31	24		
trans-1,3-Dichloropropene	47.01	1.0	"	50.4250	93.2	77-123	1.31	28		
Ethyl Methacrylate	119.5	10.0	"	122.700	97.4	52-148	2.11	30		
1,1,2-Trichloroethane	44.49	1.0	"	50.0000	89.0	69-135	0.248	23		
1,1,2-Trichloroethane	44.49	1.0	"	50.0000	89.0	78-124	0.248	24		
Tetrachloroethylene	60.24	1.0	"	50.0000	120	73-124	1.60	26		
Tetrachloroethylene	60.24	1.0	"	50.0000	120	69-130	1.60	25		
1,3-Dichloropropane	53.74	1.0	"	50.0000	107	78-131	0.803	24		
2-Hexanone (MBK)	121.1	5.0	"	110.300	110	57-145	2.09	30		
2-Hexanone (MBK)	121.1	5.0	"	110.300	110	55-144	2.09	25		
Dibromochloromethane	49.07	1.0	"	49.5000	99.1	73-127	0.921	22		

*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.*

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**Work Order: 1GD0730**

**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
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**Batch 1GD0406 - EPA 5030B**

**LCS Dup (1GD0406-BSD1)**

Prepared & Analyzed: 04/10/23

Dibromochloromethane	49.07	1.0	ug/L	49.5000		99.1	78-126	0.921	23	
1,2-Dibromoethane	47.90	1.0	"	50.0000		95.8	67-132	0.397	24	
1,2-Dibromoethane	47.90	1.0	"	50.0000		95.8	69-126	0.397	22	
Chlorobenzene	44.78	1.0	"	50.0000		89.6	76-120	0.134	25	
Chlorobenzene	44.78	1.0	"	50.0000		89.6	72-123	0.134	23	
1,1,1,2-Tetrachloroethane	45.53	1.0	"	50.0000		91.1	81-122	0.373	23	
1,1,1,2-Tetrachloroethane	45.53	1.0	"	50.0000		91.1	73-127	0.373	24	
Ethylbenzene	45.40	1.0	"	50.0000		90.8	71-127	1.12	26	
Ethylbenzene	45.40	1.0	"	50.0000		90.8	74-121	1.12	27	
Xylenes, total	136.3	2.0	"	150.000		90.9	74-127	1.02	25	
Xylenes, total	136.3	2.0	"	150.000		90.9	75-122	1.02	26	
Styrene	44.28	1.0	"	50.0000		88.6	76-119	0.158	26	
Styrene	44.28	1.0	"	50.0000		88.6	66-126	0.158	23	
Bromoform	49.38	1.0	"	50.0000		98.8	68-130	3.13	23	
Bromoform	49.38	1.0	"	50.0000		98.8	74-127	3.13	22	
1,2,3-Trichloropropane	48.00	1.0	"	50.0000		96.0	63-136	1.89	24	
1,2,3-Trichloropropane	48.00	1.0	"	50.0000		96.0	73-125	1.89	20	
trans-1,4-Dichloro-2-butene	90.29	5.0	"	102.400		88.2	54-134	0.912	27	
trans-1,4-Dichloro-2-butene	90.29	5.0	"	102.400		88.2	55-135	0.912	26	
1,1,2,2-Tetrachloroethane	51.22	1.0	"	49.8500		103	58-133	1.93	28	
1,1,2,2-Tetrachloroethane	51.22	1.0	"	49.8500		103	61-131	1.93	29	
1,3-Dichlorobenzene	45.46	1.0	"	50.0000		90.9	70-125	0.507	27	
1,4-Dichlorobenzene	47.52	1.0	"	50.0000		95.0	70-129	2.43	24	
1,4-Dichlorobenzene	47.52	1.0	"	50.0000		95.0	69-128	2.43	29	
1,2-Dichlorobenzene	46.98	1.0	"	50.0000		94.0	70-125	3.03	25	
1,2-Dichlorobenzene	46.98	1.0	"	50.0000		94.0	69-126	3.03	26	
1,2-Dibromo-3-chloropropane	48.77	1.0	"	50.0000		97.5	54-147	3.55	29	
1,2-Dibromo-3-chloropropane	48.77	5.0	"	50.0000		97.5	50-143	3.55	30	
1,2,4-Trichlorobenzene	45.85	1.0	"	50.0000		91.7	55-149	2.21	30	

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**Work Order: 1GD0730**

**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
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**Batch 1GD0406 - EPA 5030B**

Matrix Spike (1GD0406-MS1)	Source: 1GD0185-09			Prepared & Analyzed: 04/10/23						
Surrogate: Dibromofluoromethane	491		ug/L	503.520		97.5	80-126			
Surrogate: Dibromofluoromethane	491		"	503.520		97.5	80-126			
Surrogate: Dibromofluoromethane	491		"	503.520		97.5	75-136			
Surrogate: 1,2-Dichloroethane-d4	467		"	504.080		92.7	61-142			
Surrogate: 1,2-Dichloroethane-d4	467		"	504.080		92.7	63-138			
Surrogate: 1,2-Dichloroethane-d4	467		"	504.080		92.7	63-138			
Surrogate: 1,2-Dichloroethane-d4	467		"	504.080		92.7	63-138			
Surrogate: Toluene-d8	511		"	502.360		102	87-116			
Surrogate: Toluene-d8	511		"	502.360		102	87-116			
Surrogate: Toluene-d8	511		"	502.360		102	87-116			
Surrogate: Toluene-d8	511		"	502.360		102	82-121			
Surrogate: 4-Bromofluorobenzene	503		"	504.200		99.7	80-116			
Surrogate: 4-Bromofluorobenzene	503		"	504.200		99.7	85-111			
Surrogate: 4-Bromofluorobenzene	503		"	504.200		99.7	85-111			
Surrogate: 4-Bromofluorobenzene	503		"	504.200		99.7	85-111			
Dichlorodifluoromethane	214.5	10.0	"	300.000	ND	71.5	47-137			
Chloromethane	281.4	10.0	"	300.000	ND	93.8	49-154			
Chloromethane	281.4	10.0	"	300.000	ND	93.8	61-152			
Vinyl Chloride	266.2	10.0	"	300.000	ND	88.7	61-152			
Vinyl Chloride	266.2	10.0	"	300.000	ND	88.7	66-149			
Bromomethane	208.7	10.0	"	300.000	ND	69.6	43-171			
Bromomethane	208.7	10.0	"	300.000	ND	69.6	47-168			
Chloroethane	265.3	10.0	"	300.000	ND	88.4	61-148			
Chloroethane	265.3	10.0	"	300.000	ND	88.4	69-148			
Trichlorofluoromethane	232.9	10.0	"	300.000	ND	77.6	62-163			
Trichlorofluoromethane	232.9	10.0	"	300.000	ND	77.6	73-147			
Acrolein	1027	100	"	1002.00	ND	102	20-164			
1,1-Dichloroethylene	459.4	10.0	"	500.000	ND	91.9	68-153			
1,1-Dichloroethylene	459.4	10.0	"	500.000	ND	91.9	70-148			
Acetone	1205	100	"	1041.00	ND	116	45-173			
Acetone	1205	100	"	1041.00	ND	116	45-175			
Methyl Iodide	820.8	10.0	"	1125.63	ND	72.9	62-167			
Methyl Iodide	820.8	20.0	"	1125.63	ND	72.9	79-167			QM-19
Carbon Disulfide	915.4	10.0	"	1064.00	ND	86.0	71-163			
Carbon Disulfide	915.4	10.0	"	1064.00	ND	86.0	72-156			
Acetonitrile	1203	100	"	1019.96	ND	118	38-166			
Methylene Chloride	426.7	50.0	"	500.000	ND	85.3	64-143			
Methylene Chloride	426.7	50.0	"	500.000	ND	85.3	69-140			

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**Work Order: 1GD0730**

**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
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**Batch 1GD0406 - EPA 5030B**

<b>Matrix Spike (1GD0406-MS1)</b>	<b>Source: 1GD0185-09</b>			<b>Prepared &amp; Analyzed: 04/10/23</b>						
Acrylonitrile	1007	50.0	ug/L	1005.00	ND	100	58-151			
Acrylonitrile	1007	50.0	"	1005.00	ND	100	58-151			
trans-1,2-Dichloroethylene	432.3	10.0	"	500.000	ND	86.5	69-144			
trans-1,2-Dichloroethylene	432.3	10.0	"	500.000	ND	86.5	65-145			
1,1-Dichloroethane	425.0	10.0	"	500.000	ND	85.0	68-136			
1,1-Dichloroethane	425.0	10.0	"	500.000	ND	85.0	70-138			
Vinyl Acetate	1064	50.0	"	1033.00	ND	103	58-143			
Vinyl Acetate	1064	50.0	"	1033.00	ND	103	58-142			
2,2-Dichloropropane	352.5	10.0	"	500.000	ND	70.5	50-118			
cis-1,2-Dichloroethylene	509.0	10.0	"	500.000	ND	102	67-153			
cis-1,2-Dichloroethylene	509.0	10.0	"	500.000	ND	102	68-151			
2-Butanone (MEK)	1213	100	"	1062.00	ND	114	50-160			
2-Butanone (MEK)	1213	50.0	"	1062.00	ND	114	52-159			
Bromochloromethane	470.7	10.0	"	500.000	ND	94.1	61-151			
Bromochloromethane	470.7	10.0	"	500.000	ND	94.1	65-143			
Chloroform	410.7	10.0	"	500.000	ND	82.1	77-132			
Chloroform	410.7	10.0	"	500.000	ND	82.1	71-143			
1,1,1-Trichloroethane	359.4	10.0	"	499.750	ND	71.9	71-118			
1,1,1-Trichloroethane	359.4	10.0	"	499.750	ND	71.9	63-133			
1,1-Dichloropropene	425.9	10.0	"	500.000	ND	85.2	82-128			
Carbon Tetrachloride	430.7	10.0	"	500.000	ND	86.1	71-133			
Carbon Tetrachloride	430.7	10.0	"	500.000	ND	86.1	63-142			
Benzene	481.6	10.0	"	500.000	ND	96.3	81-125			
Benzene	481.6	10.0	"	500.000	ND	96.3	69-133			
1,2-Dichloroethane	485.8	10.0	"	500.000	ND	97.2	75-125			
1,2-Dichloroethane	485.8	10.0	"	500.000	ND	97.2	63-138			
Trichloroethylene	423.9	10.0	"	500.000	ND	84.8	71-133			
Trichloroethylene	423.9	10.0	"	500.000	ND	84.8	83-120			
1,2-Dichloropropane	513.3	10.0	"	500.000	ND	103	80-124			
1,2-Dichloropropane	513.3	10.0	"	500.000	ND	103	69-132			
Dibromomethane	511.3	10.0	"	500.000	ND	102	70-147			
Dibromomethane	511.3	10.0	"	500.000	ND	102	84-131			
Bromodichloromethane	460.6	10.0	"	500.000	ND	92.1	67-130			
Bromodichloromethane	460.6	10.0	"	500.000	ND	92.1	79-118			
cis-1,3-Dichloropropene	469.6	10.0	"	503.250	ND	93.3	75-116			
cis-1,3-Dichloropropene	469.6	10.0	"	503.250	ND	93.3	61-126			
4-Methyl-2-pentanone (MIBK)	1276	50.0	"	1031.00	ND	124	55-147			
4-Methyl-2-pentanone (MIBK)	1276	50.0	"	1031.00	ND	124	65-149			
Toluene	460.7	10.0	"	500.000	ND	92.1	82-123			

*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.*

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**Work Order: 1GD0730**

**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
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**Batch 1GD0406 - EPA 5030B**

Matrix Spike (1GD0406-MS1)	Source: 1GD0185-09			Prepared & Analyzed: 04/10/23						
Toluene	460.7	10.0	ug/L	500.000	ND	92.1	71-133			
trans-1,3-Dichloropropene	461.4	10.0	"	504.250	ND	91.5	75-117			
trans-1,3-Dichloropropene	461.4	10.0	"	504.250	ND	91.5	63-124			
Ethyl Methacrylate	1341	100	"	1227.00	ND	109	73-135			
1,1,2-Trichloroethane	466.7	10.0	"	500.000	ND	93.3	77-122			
1,1,2-Trichloroethane	466.7	10.0	"	500.000	ND	93.3	69-133			
Tetrachloroethylene	611.6	10.0	"	500.000	ND	122	70-124			
Tetrachloroethylene	611.6	10.0	"	500.000	ND	122	74-120			QS-02
1,3-Dichloropropane	553.3	10.0	"	500.000	ND	111	80-127			
2-Hexanone (MBK)	1460	50.0	"	1103.00	ND	132	53-141			
2-Hexanone (MBK)	1460	50.0	"	1103.00	ND	132	57-150			
Dibromochloromethane	475.8	10.0	"	495.000	ND	96.1	80-120			
Dibromochloromethane	475.8	10.0	"	495.000	ND	96.1	74-122			
1,2-Dibromoethane	487.3	10.0	"	500.000	ND	97.5	66-127			
1,2-Dibromoethane	487.3	10.0	"	500.000	ND	97.5	67-125			
Chlorobenzene	453.7	10.0	"	500.000	ND	90.7	76-116			
Chlorobenzene	453.7	10.0	"	500.000	ND	90.7	81-113			
1,1,1,2-Tetrachloroethane	458.9	10.0	"	500.000	ND	91.8	77-121			
1,1,1,2-Tetrachloroethane	458.9	10.0	"	500.000	ND	91.8	80-119			
Ethylbenzene	469.8	10.0	"	500.000	ND	94.0	73-124			
Ethylbenzene	469.8	10.0	"	500.000	ND	94.0	78-114			
Xylenes, total	1431	20.0	"	1500.00	ND	95.4	77-116			
Xylenes, total	1431	20.0	"	1500.00	ND	95.4	75-123			
Styrene	454.4	10.0	"	500.000	ND	90.9	70-120			
Styrene	454.4	10.0	"	500.000	ND	90.9	78-114			
Bromoform	467.3	10.0	"	500.000	ND	93.5	69-125			
Bromoform	467.3	10.0	"	500.000	ND	93.5	70-124			
1,2,3-Trichloropropane	509.9	10.0	"	500.000	ND	102	72-125			
1,2,3-Trichloropropane	509.9	10.0	"	500.000	ND	102	62-135			
trans-1,4-Dichloro-2-butene	921.7	50.0	"	1024.00	ND	90.0	48-131			
trans-1,4-Dichloro-2-butene	921.7	50.0	"	1024.00	ND	90.0	50-120			
1,1,2,2-Tetrachloroethane	542.7	10.0	"	498.500	ND	109	63-126			
1,1,2,2-Tetrachloroethane	542.7	10.0	"	498.500	ND	109	51-138			
1,3-Dichlorobenzene	458.4	10.0	"	500.000	ND	91.7	70-122			
1,4-Dichlorobenzene	470.5	10.0	"	500.000	ND	94.1	72-119			
1,4-Dichlorobenzene	470.5	10.0	"	500.000	ND	94.1	70-124			
1,2-Dichlorobenzene	467.1	10.0	"	500.000	ND	93.4	68-123			
1,2-Dichlorobenzene	467.1	10.0	"	500.000	ND	93.4	71-117			
1,2-Dibromo-3-chloropropane	522.7	50.0	"	500.000	ND	105	49-134			

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**Work Order: 1GD0730**

**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
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**Batch 1GD0406 - EPA 5030B**

Matrix Spike (1GD0406-MS1)	Source: 1GD0185-09			Prepared & Analyzed: 04/10/23						
1,2-Dibromo-3-chloropropane	522.7	10.0	ug/L	500.000	ND	105	46-149			
1,2,4-Trichlorobenzene	462.6	10.0	"	500.000	ND	92.5	60-137			

Matrix Spike Dup (1GD0406-MSD1)	Source: 1GD0185-09			Prepared & Analyzed: 04/10/23						
Surrogate: Dibromofluoromethane	492		ug/L	503.520		97.8	80-126			
Surrogate: Dibromofluoromethane	492		"	503.520		97.8	80-126			
Surrogate: Dibromofluoromethane	492		"	503.520		97.8	75-136			
Surrogate: 1,2-Dichloroethane-d4	465		"	504.080		92.3	63-138			
Surrogate: 1,2-Dichloroethane-d4	465		"	504.080		92.3	63-138			
Surrogate: 1,2-Dichloroethane-d4	465		"	504.080		92.3	61-142			
Surrogate: 1,2-Dichloroethane-d4	465		"	504.080		92.3	63-138			
Surrogate: Toluene-d8	509		"	502.360		101	87-116			
Surrogate: Toluene-d8	509		"	502.360		101	87-116			
Surrogate: Toluene-d8	509		"	502.360		101	82-121			
Surrogate: Toluene-d8	509		"	502.360		101	87-116			
Surrogate: 4-Bromofluorobenzene	508		"	504.200		101	85-111			
Surrogate: 4-Bromofluorobenzene	508		"	504.200		101	85-111			
Surrogate: 4-Bromofluorobenzene	508		"	504.200		101	85-111			
Surrogate: 4-Bromofluorobenzene	508		"	504.200		101	80-116			
Dichlorodifluoromethane	217.5	10.0	"	300.000	ND	72.5	47-137	1.39	20	
Chloromethane	286.4	10.0	"	300.000	ND	95.5	49-154	1.76	25	
Chloromethane	286.4	10.0	"	300.000	ND	95.5	61-152	1.76	26	
Vinyl Chloride	264.8	10.0	"	300.000	ND	88.3	61-152	0.527	24	
Vinyl Chloride	264.8	10.0	"	300.000	ND	88.3	66-149	0.527	23	
Bromomethane	235.4	10.0	"	300.000	ND	78.5	47-168	12.0	30	
Bromomethane	235.4	10.0	"	300.000	ND	78.5	43-171	12.0	29	
Chloroethane	263.9	10.0	"	300.000	ND	88.0	69-148	0.529	25	
Chloroethane	263.9	10.0	"	300.000	ND	88.0	61-148	0.529	29	
Trichlorofluoromethane	237.4	10.0	"	300.000	ND	79.1	73-147	1.91	24	
Trichlorofluoromethane	237.4	10.0	"	300.000	ND	79.1	62-163	1.91	25	
Acrolein	1045	100	"	1002.00	ND	104	20-164	1.73	24	
1,1-Dichloroethylene	470.7	10.0	"	500.000	ND	94.1	68-153	2.43	21	
1,1-Dichloroethylene	470.7	10.0	"	500.000	ND	94.1	70-148	2.43	22	
Acetone	1192	100	"	1041.00	ND	114	45-173	1.14	30	
Acetone	1192	100	"	1041.00	ND	114	45-175	1.14	23	
Methyl Iodide	972.3	10.0	"	1125.63	ND	86.4	62-167	16.9	24	
Methyl Iodide	972.3	20.0	"	1125.63	ND	86.4	79-167	16.9	14	QM-19
Carbon Disulfide	951.8	10.0	"	1064.00	ND	89.5	72-156	3.90	19	
Carbon Disulfide	951.8	10.0	"	1064.00	ND	89.5	71-163	3.90	22	

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Work Order: 1GD0730

**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
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**Batch 1GD0406 - EPA 5030B**

Matrix Spike Dup (1GD0406-MSD1)	Source: 1GD0185-09			Prepared & Analyzed: 04/10/23						
Acetonitrile	1176	100	ug/L	1019.96	ND	115	38-166	2.29	20	
Methylene Chloride	437.6	50.0	"	500.000	ND	87.5	64-143	2.52	19	
Methylene Chloride	437.6	50.0	"	500.000	ND	87.5	69-140	2.52	19	
Acrylonitrile	1003	50.0	"	1005.00	ND	99.8	58-151	0.368	15	
Acrylonitrile	1003	50.0	"	1005.00	ND	99.8	58-151	0.368	15	
trans-1,2-Dichloroethylene	441.7	10.0	"	500.000	ND	88.3	69-144	2.15	22	
trans-1,2-Dichloroethylene	441.7	10.0	"	500.000	ND	88.3	65-145	2.15	18	
1,1-Dichloroethane	437.5	10.0	"	500.000	ND	87.5	68-136	2.90	17	
1,1-Dichloroethane	437.5	10.0	"	500.000	ND	87.5	70-138	2.90	20	
Vinyl Acetate	1005	50.0	"	1033.00	ND	97.3	58-142	5.64	24	
Vinyl Acetate	1005	50.0	"	1033.00	ND	97.3	58-143	5.64	14	
2,2-Dichloropropane	360.0	10.0	"	500.000	ND	72.0	50-118	2.11	17	
cis-1,2-Dichloroethylene	523.4	10.0	"	500.000	ND	105	67-153	2.79	22	
cis-1,2-Dichloroethylene	523.4	10.0	"	500.000	ND	105	68-151	2.79	22	
2-Butanone (MEK)	1246	50.0	"	1062.00	ND	117	52-159	2.70	28	
2-Butanone (MEK)	1246	100	"	1062.00	ND	117	50-160	2.70	23	
Bromochloromethane	474.8	10.0	"	500.000	ND	95.0	61-151	0.867	27	
Bromochloromethane	474.8	10.0	"	500.000	ND	95.0	65-143	0.867	22	
Chloroform	418.3	10.0	"	500.000	ND	83.7	77-132	1.83	17	
Chloroform	418.3	10.0	"	500.000	ND	83.7	71-143	1.83	21	
1,1,1-Trichloroethane	372.9	10.0	"	499.750	ND	74.6	71-118	3.69	15	
1,1,1-Trichloroethane	372.9	10.0	"	499.750	ND	74.6	63-133	3.69	23	
1,1-Dichloropropene	444.6	10.0	"	500.000	ND	88.9	82-128	4.30	16	
Carbon Tetrachloride	451.6	10.0	"	500.000	ND	90.3	63-142	4.74	22	
Carbon Tetrachloride	451.6	10.0	"	500.000	ND	90.3	71-133	4.74	14	
Benzene	492.2	10.0	"	500.000	ND	98.4	69-133	2.18	18	
Benzene	492.2	10.0	"	500.000	ND	98.4	81-125	2.18	12	
1,2-Dichloroethane	489.1	10.0	"	500.000	ND	97.8	63-138	0.677	20	
1,2-Dichloroethane	489.1	10.0	"	500.000	ND	97.8	75-125	0.677	13	
Trichloroethylene	434.3	10.0	"	500.000	ND	86.9	71-133	2.42	23	
Trichloroethylene	434.3	10.0	"	500.000	ND	86.9	83-120	2.42	11	
1,2-Dichloropropane	522.8	10.0	"	500.000	ND	105	69-132	1.83	20	
1,2-Dichloropropane	522.8	10.0	"	500.000	ND	105	80-124	1.83	11	
Dibromomethane	521.5	10.0	"	500.000	ND	104	70-147	1.98	22	
Dibromomethane	521.5	10.0	"	500.000	ND	104	84-131	1.98	13	
Bromodichloromethane	471.2	10.0	"	500.000	ND	94.2	79-118	2.28	11	
Bromodichloromethane	471.2	10.0	"	500.000	ND	94.2	67-130	2.28	21	
cis-1,3-Dichloropropene	478.9	10.0	"	503.250	ND	95.2	61-126	1.96	21	
cis-1,3-Dichloropropene	478.9	10.0	"	503.250	ND	95.2	75-116	1.96	11	

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**Work Order: 1GD0730**

**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
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**Batch 1GD0406 - EPA 5030B**

Matrix Spike Dup (1GD0406-MSD1)	Source: 1GD0185-09			Prepared & Analyzed: 04/10/23						
4-Methyl-2-pentanone (MIBK)	1272	50.0	ug/L	1031.00	ND	123	65-149	0.251	14	
4-Methyl-2-pentanone (MIBK)	1272	50.0	"	1031.00	ND	123	55-147	0.251	23	
Toluene	476.5	10.0	"	500.000	ND	95.3	82-123	3.37	12	
Toluene	476.5	10.0	"	500.000	ND	95.3	71-133	3.37	19	
trans-1,3-Dichloropropene	476.0	10.0	"	504.250	ND	94.4	63-124	3.12	21	
trans-1,3-Dichloropropene	476.0	10.0	"	504.250	ND	94.4	75-117	3.12	11	
Ethyl Methacrylate	1366	100	"	1227.00	ND	111	73-135	1.81	10	
1,1,2-Trichloroethane	477.0	10.0	"	500.000	ND	95.4	77-122	2.18	11	
1,1,2-Trichloroethane	477.0	10.0	"	500.000	ND	95.4	69-133	2.18	19	
Tetrachloroethylene	638.4	10.0	"	500.000	ND	128	70-124	4.29	24	QS-02
Tetrachloroethylene	638.4	10.0	"	500.000	ND	128	74-120	4.29	17	QS-02
1,3-Dichloropropane	564.5	10.0	"	500.000	ND	113	80-127	2.00	13	
2-Hexanone (MBK)	1454	50.0	"	1103.00	ND	132	57-150	0.391	17	
2-Hexanone (MBK)	1454	50.0	"	1103.00	ND	132	53-141	0.391	24	
Dibromochloromethane	490.1	10.0	"	495.000	ND	99.0	80-120	2.96	12	
Dibromochloromethane	490.1	10.0	"	495.000	ND	99.0	74-122	2.96	21	
1,2-Dibromoethane	501.2	10.0	"	500.000	ND	100	67-125	2.81	12	
1,2-Dibromoethane	501.2	10.0	"	500.000	ND	100	66-127	2.81	23	
Chlorobenzene	468.5	10.0	"	500.000	ND	93.7	81-113	3.21	14	
Chlorobenzene	468.5	10.0	"	500.000	ND	93.7	76-116	3.21	21	
1,1,1,2-Tetrachloroethane	470.2	10.0	"	500.000	ND	94.0	77-121	2.43	25	
1,1,1,2-Tetrachloroethane	470.2	10.0	"	500.000	ND	94.0	80-119	2.43	15	
Ethylbenzene	486.3	10.0	"	500.000	ND	97.3	73-124	3.45	20	
Ethylbenzene	486.3	10.0	"	500.000	ND	97.3	78-114	3.45	14	
Xylenes, total	1479	20.0	"	1500.00	ND	98.6	77-116	3.33	13	
Xylenes, total	1479	20.0	"	1500.00	ND	98.6	75-123	3.33	20	
Styrene	468.1	10.0	"	500.000	ND	93.6	70-120	2.97	23	
Styrene	468.1	10.0	"	500.000	ND	93.6	78-114	2.97	12	
Bromoform	483.5	10.0	"	500.000	ND	96.7	70-124	3.41	22	
Bromoform	483.5	10.0	"	500.000	ND	96.7	69-125	3.41	14	
1,2,3-Trichloropropane	518.6	10.0	"	500.000	ND	104	72-125	1.69	18	
1,2,3-Trichloropropane	518.6	10.0	"	500.000	ND	104	62-135	1.69	28	
trans-1,4-Dichloro-2-butene	945.5	50.0	"	1024.00	ND	92.3	48-131	2.55	17	
trans-1,4-Dichloro-2-butene	945.5	50.0	"	1024.00	ND	92.3	50-120	2.55	26	
1,1,2,2-Tetrachloroethane	562.6	10.0	"	498.500	ND	113	51-138	3.60	30	
1,1,2,2-Tetrachloroethane	562.6	10.0	"	498.500	ND	113	63-126	3.60	24	
1,3-Dichlorobenzene	472.3	10.0	"	500.000	ND	94.5	70-122	2.99	30	
1,4-Dichlorobenzene	481.2	10.0	"	500.000	ND	96.2	70-124	2.25	28	
1,4-Dichlorobenzene	481.2	10.0	"	500.000	ND	96.2	72-119	2.25	24	

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**Work Order: 1GD0730**

**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
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**Batch 1GD0406 - EPA 5030B**

Matrix Spike Dup (1GD0406-MSD1)	Source: 1GD0185-09			Prepared & Analyzed: 04/10/23						
1,2-Dichlorobenzene	480.6	10.0	ug/L	500.000	ND	96.1	71-117	2.85	24	
1,2-Dichlorobenzene	480.6	10.0	"	500.000	ND	96.1	68-123	2.85	29	
1,2-Dibromo-3-chloropropane	525.7	50.0	"	500.000	ND	105	49-134	0.572	28	
1,2-Dibromo-3-chloropropane	525.7	10.0	"	500.000	ND	105	46-149	0.572	30	
1,2,4-Trichlorobenzene	468.0	10.0	"	500.000	ND	93.6	60-137	1.16	30	

**Batch 1GD0871 - EPA 5030B**

Blank (1GD0871-BLK1)	Prepared & Analyzed: 04/17/23									
Surrogate: Dibromofluoromethane	51.8		ug/L	50.3520		103	80-126			
Surrogate: 1,2-Dichloroethane-d4	52.8		"	50.4080		105	63-138			
Surrogate: Toluene-d8	51.6		"	50.2360		103	87-116			
Surrogate: 4-Bromofluorobenzene	50.2		"	50.4200		99.6	85-111			
Allyl chloride	ND	1.0	"							
Chloroprene	ND	1.0	"							
Methacrylonitrile	ND	1.0	"							
Methyl Methacrylate	ND	1.0	"							
Propionitrile	ND	10.0	"							

LCS (1GD0871-BS1)	Prepared & Analyzed: 04/17/23									
Surrogate: Dibromofluoromethane	49.0		ug/L	50.3520		97.4	80-126			
Surrogate: 1,2-Dichloroethane-d4	49.0		"	50.4080		97.3	63-138			
Surrogate: Toluene-d8	52.6		"	50.2360		105	87-116			
Surrogate: 4-Bromofluorobenzene	50.8		"	50.4200		101	85-111			
Allyl chloride	41.56	1.0	"	50.1000		83.0	76-134			
Chloroprene	23.53	1.0	"	25.0450		94.0	74-141			
Methacrylonitrile	46.70	1.0	"	49.9800		93.4	73-143			
Methyl Methacrylate	50.78	1.0	"	50.1000		101	72-123			
Propionitrile	43.09	10.0	"	50.1000		86.0	50-151			

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**Work Order: 1GD0730**

**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
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**Batch 1GD0871 - EPA 5030B**

**LCS Dup (1GD0871-BSD1)**

Prepared & Analyzed: 04/17/23

Surrogate: Dibromofluoromethane	50.7		ug/L	50.3520		101	80-126			
Surrogate: 1,2-Dichloroethane-d4	51.1		"	50.4080		101	63-138			
Surrogate: Toluene-d8	49.4		"	50.2360		98.4	87-116			
Surrogate: 4-Bromofluorobenzene	50.4		"	50.4200		99.9	85-111			
Allyl chloride	38.71	1.0	"	50.1000		77.3	76-134	7.10	30	
Chloroprene	20.46	1.0	"	25.0450		81.7	74-141	14.0	30	
Methacrylonitrile	43.64	1.0	"	49.9800		87.3	73-143	6.77	30	
Methyl Methacrylate	47.35	1.0	"	50.1000		94.5	72-123	6.99	30	
Propionitrile	43.09	10.0	"	50.1000		86.0	50-151	0.00	30	

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**Work Order: 1GD0730**

**Determination of General Solvents - Quality Control**  
**Keystone Laboratories - Newton**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GD0694 - Semi-Vol GC</b>										
<b>Blank (1GD0694-BLK1)</b>										
				Prepared: 04/13/23 Analyzed: 04/14/23						
Isobutanol	ND	1.0	mg/L							
<b>LCS (1GD0694-BS1)</b>										
				Prepared: 04/13/23 Analyzed: 04/14/23						
Isobutanol	46.16	1.0	mg/L	49.6560		93.0	40-135			
<b>Matrix Spike (1GD0694-MS1)</b>										
		<b>Source: 1GD0185-09</b>			Prepared: 04/13/23 Analyzed: 04/14/23					
Isobutanol	51.16	1.0	mg/L	49.6560	ND	103	63-135			
<b>Matrix Spike Dup (1GD0694-MSD1)</b>										
		<b>Source: 1GD0185-09</b>			Prepared: 04/13/23 Analyzed: 04/14/23					
Isobutanol	51.90	1.0	mg/L	49.6560	ND	105	63-135	1.44	30	

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**Work Order: 1GD0730**

**Determination of Base/Neutral Extractable Compounds - Quality Control**  
**Keystone Laboratories - Newton**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1GD0431 - EPA 625 BNA**

<b>Blank (1GD0431-BLK1)</b>		Prepared: 04/10/23 Analyzed: 04/25/23								
Surrogate: Nitrobenzene-d5	53.8		ug/L	62.8500		85.6	29-130			
Surrogate: 2-Fluorobiphenyl	51.4		"	61.0000		84.3	23-113			
Surrogate: Terphenyl-d14	58.6		"	65.1000		89.9	27-141			
Bis(2-Ethylhexyl) Phthalate	ND	6	"							

<b>LCS (1GD0431-BS1)</b>		Prepared: 04/10/23 Analyzed: 04/25/23								
Surrogate: Nitrobenzene-d5	25.4		ug/L	62.8500		40.4	38-115			
Surrogate: 2-Fluorobiphenyl	26.9		"	61.0000		44.1	33-110			
Surrogate: Terphenyl-d14	30.9		"	65.1000		47.4	30-142			
Bis(2-Ethylhexyl) Phthalate	36.2	6	"	41.6667		86.9	33-184			

<b>LCS Dup (1GD0431-BSD1)</b>		Prepared: 04/10/23 Analyzed: 04/25/23								
Surrogate: Nitrobenzene-d5	37.8		ug/L	62.8500		60.1	38-115			
Surrogate: 2-Fluorobiphenyl	45.1		"	61.0000		73.9	33-110			
Surrogate: Terphenyl-d14	51.3		"	65.1000		78.7	30-142			
Bis(2-Ethylhexyl) Phthalate	32.5	6	"	41.6667		78.0	33-184	10.8	30	

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**Work Order: 1GD0730**

**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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

**Blank (1GD0434-BLK1)**

Prepared: 04/10/23 Analyzed: 04/26/23

Surrogate: 2-Fluorophenol	42.2		ug/L	60.6000		69.7	24-136			
Surrogate: Phenol-d6	45.6		"	61.9000		73.7	15-140			
Surrogate: Nitrobenzene-d5	40.1		"	62.8500		63.7	29-130			
Surrogate: 2-Fluorobiphenyl	39.5		"	61.0000		64.8	23-113			
Surrogate: 2,4,6-Tribromophenol	52.6		"	62.2500		84.4	15-139			
Surrogate: Terphenyl-d14	67.0		"	65.1000		103	27-141			
N-Nitrosodimethylamine	ND		8	"						
Methyl Methanesulfonate	ND		8	"						
N-Nitrosodiethylamine	ND		8	"						
N-Nitrosomethylethylamine	ND		8	"						
Ethyl Methanesulfonate	ND		8	"						
Phenol	ND		8	"						
Bis(2-Chloroethyl) Ether	ND		8	"						
2-Chlorophenol	ND		8	"						
Benzyl Alcohol	ND		8	"						
2-Methylphenol (o-Cresol)	ND		8	"						
Bis[2-Chloroisopropyl]ether	ND		8	"						
n-Nitroso-di-n-propylamine	ND		8	"						
N-Nitrosopyrrolidine	ND		8	"						
Acetophenone	ND		8	"						
o-Toluidine	ND		8	"						
(3 & 4)-Methylphenol	ND		8	"						
Hexachloroethane	ND		8	"						
Nitrobenzene	ND		8	"						
N-Nitrosopiperidine	ND		8	"						
Isophorone	ND		8	"						
2-Nitrophenol	ND		8	"						
2,4-Dimethylphenol	ND		8	"						
Bis (2-Chloroethoxy) Methane	ND		8	"						
2,4-Dichlorophenol	ND		8	"						
Naphthalene	ND		8	"						
4-Chloroaniline	ND		8	"						
2,6-Dichlorophenol	ND		8	"						
Hexachloropropene	ND		8	"						
Hexachlorobutadiene	ND		8	"						
N-Nitrosodi-n-butylamine	ND		8	"						
1,4-Phenylenediamine	ND		8	"						
4-Chloro-3-methylphenol	ND		8	"						

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**Work Order: 1GD0730**

**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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

**Blank (1GD0434-BLK1)**

Prepared: 04/10/23 Analyzed: 04/26/23

2-Methylnaphthalene	ND	8	ug/L							
Isosafrole	ND	8	"							
1,2,4,5-Tetrachlorobenzene	ND	8	"							
Hexachlorocyclopentadiene	ND	8	"							
2,4,6-Trichlorophenol	ND	8	"							
2,4,5-Trichlorophenol	ND	8	"							
Safrole	ND	8	"							
2-Chloronaphthalene	ND	8	"							
2-Nitroaniline	ND	8	"							
1,4-Naphthoquinone	ND	8	"							
Dimethylphthalate	ND	8	"							
1,3-Dinitrobenzene	ND	8	"							
1,2-Dinitrobenzene	ND	8	"							
2,6-Dinitrotoluene	ND	8	"							
Acenaphthylene	ND	8	"							
3-Nitroaniline	ND	8	"							
Acenaphthene	ND	8	"							
2,4-Dinitrophenol	ND	8	"							
4-Nitrophenol	ND	8	"							
Dibenzofuran	ND	8	"							
2,4-Dinitrotoluene	ND	8	"							
2,3,4,6-Tetrachlorophenol	ND	8	"							
Pentachlorobenzene	ND	8	"							
1-Naphthylamine	ND	8	"							
2-Naphthylamine	ND	8	"							
Diethyl Phthalate	ND	8	"							
Fluorene	ND	8	"							
4-Chlorophenyl Phenyl Ether	ND	8	"							
4-Nitroaniline	ND	8	"							
5-Nitro-o-toluidine	ND	8	"							
4,6-Dinitro-2-methylphenol	ND	8	"							
N-Nitrosodiphenylamine	ND	8	"							
Diphenylamine	ND	8	"							
Azobenzene	ND	8	"							
Diallylate	ND	8	"							
1,3,5-Trinitrobenzene	ND	8	"							
Phenacetin	ND	8	"							
4-Bromophenyl Phenyl Ether	ND	8	"							
4-Aminobiphenyl	ND	8	"							

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**Work Order: 1GD0730**

**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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

**Blank (1GD0434-BLK1)**

Prepared: 04/10/23 Analyzed: 04/26/23

Pentachlorophenol	ND	8	ug/L							
Pronamide	ND	8	"							
Pentachloronitrobenzene (PCNB)	ND	8	"							
Phenanthrene	ND	8	"							
Anthracene	ND	8	"							
Di-n-butyl Phthalate	ND	8	"							
Methapyrilene	ND	8	"							
Fluoranthene	ND	8	"							
Isodrin	ND	8	"							
Chlorobenzilate	ND	8	"							
Pyrene	ND	8	"							
p-(Dimethylamino)azobenzene	ND	8	"							
3,3-Dimethylbenzidine	ND	8	"							
Butyl Benzyl Phthalate	ND	8	"							
Benzo(a)anthracene	ND	8	"							
Chrysene	ND	8	"							
Bis(2-Ethylhexyl) Phthalate	ND	6	"							
Kepone	ND	8	"							
3,3'-Dichlorobenzidine	ND	8	"							
2-Acetylaminofluorene	ND	8	"							
Di-n-octyl Phthalate	ND	8	"							
Benzo(b)Fluoranthene	ND	8	"							
7,12-Dimethylbenz [a] anthracene	ND	8	"							
Benzo(k)Fluoranthene	ND	8	"							
Benzo(a)Pyrene	ND	8	"							
3-Methylcholanthrene	ND	8	"							
Dibenzo(a,h)anthracene	ND	8	"							
Indeno(1,2,3-cd)Pyrene	ND	8	"							
Benzo(g,h,i)perylene	ND	8	"							

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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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

**LCS (1GD0434-BS1)**

Prepared: 04/10/23 Analyzed: 04/27/23

Surrogate: 2-Fluorophenol	28.1		ug/L	60.6000		46.3	24-136			
Surrogate: Phenol-d6	29.3		"	61.9000		47.4	15-140			
Surrogate: Nitrobenzene-d5	32.4		"	62.8500		51.5	38-115			
Surrogate: 2-Fluorobiphenyl	32.3		"	61.0000		53.0	33-110			
Surrogate: 2,4,6-Tribromophenol	34.3		"	62.2500		55.1	15-139			
Surrogate: Terphenyl-d14	35.9		"	65.1000		55.2	30-142			
N-Nitrosodimethylamine	15.0	8	"	41.6667		36.0	36-138			QS-01
Phenol	20.6	8	"	41.6667		49.3	50-112			QS-01
Bis(2-Chloroethyl) Ether	23.5	8	"	41.6667		56.4	39-151			
2-Chlorophenol	20.6	8	"	41.6667		49.5	56-116			QS-01
Benzyl Alcohol	17.1	8	"	41.6667		41.1	13-158			
2-Methylphenol (o-Cresol)	24.6	8	"	41.6667		59.1	53-131			
Bis[2-Chloroisopropyl]ether	22.8	8	"	41.6667		54.7	50-121			
n-Nitroso-di-n-propylamine	21.1	8	"	41.6667		50.6	50-138			
(3 & 4)-Methylphenol	18.0	8	"	41.6667		43.3	30-164			
Hexachloroethane	17.0	8	"	41.6667		40.7	10-110			
Nitrobenzene	21.3	8	"	41.6667		51.2	47-134			
Isophorone	20.7	8	"	41.6667		49.6	54-128			QS-01
2-Nitrophenol	25.5	8	"	41.6667		61.3	54-117			
2,4-Dimethylphenol	20.9	8	"	41.6667		50.1	52-118			QS-01
Bis (2-Chloroethoxy) Methane	20.8	8	"	41.6667		50.0	13-132			
2,4-Dichlorophenol	20.2	8	"	41.6667		48.6	58-114			QS-01
Naphthalene	20.8	8	"	41.6667		49.8	37-116			
4-Chloroaniline	14.2	8	"	41.6667		34.1	10-198			
Hexachlorobutadiene	18.7	8	"	41.6667		45.0	14-110			
4-Chloro-3-methylphenol	17.6	8	"	41.6667		42.4	57-136			QS-01
2-Methylnaphthalene	19.0	8	"	41.6667		45.6	44-111			
Hexachlorocyclopentadiene	10.7	8	"	41.6667		25.8	11-110			
2,4,6-Trichlorophenol	21.0	8	"	41.6667		50.4	55-120			QS-01
2,4,5-Trichlorophenol	20.8	8	"	41.6667		49.9	55-121			QS-01
2-Chloronaphthalene	35.2	8	"	41.6667		84.5	47-127			
2-Nitroaniline	22.9	8	"	41.6667		55.0	36-143			
Dimethylphthalate	22.4	8	"	41.6667		53.7	59-128			QS-01
1,3-Dinitrobenzene	26.1	8	"	41.6667		62.7	63-125			QS-01
1,2-Dinitrobenzene	26.7	8	"	41.6667		64.1	63-123			
2,6-Dinitrotoluene	25.3	8	"	41.6667		60.7	60-127			
Acenaphthylene	20.3	8	"	41.6667		48.8	49-113			QS-01
3-Nitroaniline	21.6	8	"	41.6667		51.7	10-162			

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**Work Order: 1GD0730**

**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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

LCS (1GD0434-BS1)	Prepared: 04/10/23 Analyzed: 04/27/23									
Acenaphthene	20.7	8	ug/L	41.6667	49.7	50-119				QS-01
2,4-Dinitrophenol	21.0	8	"	41.6667	50.5	27-157				
4-Nitrophenol	21.0	8	"	41.6667	50.5	49-154				
Dibenzofuran	21.4	8	"	41.6667	51.3	56-121				QS-01
2,4-Dinitrotoluene	24.9	8	"	41.6667	59.8	53-138				
2,3,4,6-Tetrachlorophenol	20.2	8	"	41.6667	48.6	47-132				
Diethyl Phthalate	22.2	8	"	41.6667	53.2	53-138				
Fluorene	20.5	8	"	41.6667	49.2	54-125				QS-01
4-Chlorophenyl Phenyl Ether	20.9	8	"	41.6667	50.2	51-122				QS-01
4-Nitroaniline	20.6	8	"	41.6667	49.4	10-136				
4,6-Dinitro-2-methylphenol	24.9	8	"	41.6667	59.8	49-137				
Diphenylamine	22.4	8	"	41.6667	53.8	35-151				
Azobenzene	23.1	8	"	41.6667	55.5	16-156				
4-Bromophenyl Phenyl Ether	22.3	8	"	41.6667	53.5	53-122				
Pentachlorophenol	14.6	8	"	41.6667	35.1	18-152				
Phenanthrene	21.8	8	"	41.6667	52.2	59-131				QS-01
Anthracene	21.1	8	"	41.6667	50.7	59-127				QS-01
Di-n-butyl Phthalate	22.0	8	"	41.6667	52.8	64-148				QS-01
Fluoranthene	21.5	8	"	41.6667	51.5	62-132				QS-01
Pyrene	22.3	8	"	41.6667	53.6	58-135				QS-01
Butyl Benzyl Phthalate	24.0	8	"	41.6667	57.6	52-150				
Benzo(a)anthracene	23.4	8	"	41.6667	56.2	58-131				QS-01
Chrysene	23.7	8	"	41.6667	56.8	59-131				QS-01
Bis(2-Ethylhexyl) Phthalate	27.9	6	"	41.6667	67.0	33-184				
Di-n-octyl Phthalate	21.5	8	"	41.6667	51.7	48-162				
Benzo(b)Fluoranthene	21.7	8	"	41.6667	52.0	50-146				
Benzo(k)Fluoranthene	21.8	8	"	41.6667	52.4	54-144				QS-01
Benzo(a)Pyrene	20.9	8	"	41.6667	50.2	39-148				
Dibenzo(a,h)anthracene	20.2	8	"	41.6667	48.5	46-153				
Indeno(1,2,3-cd)Pyrene	20.7	8	"	41.6667	49.8	48-152				
Benzo(g,h,i)perylene	20.5	8	"	41.6667	49.3	47-161				

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**Work Order: 1GD0730**

**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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

Matrix Spike (1GD0434-MS1)	Source: 1GD0765-15			Prepared: 04/10/23 Analyzed: 04/26/23		
Surrogate: 2-Fluorophenol	41.0		ug/L	60.0595	68.2 24-136	
Surrogate: Phenol-d6	44.6		"	61.3479	72.6 15-140	
Surrogate: Nitrobenzene-d5	42.8		"	62.2894	68.8 28-133	
Surrogate: 2-Fluorobiphenyl	43.8		"	60.4559	72.5 39-110	
Surrogate: 2,4,6-Tribromophenol	66.3		"	61.6948	107 15-139	
Surrogate: Terphenyl-d14	66.5		"	64.5193	103 41-135	
N-Nitrosodimethylamine	27.9	8	"	41.2950	ND 67.6 60-140	
Methyl Methanesulfonate	10.8	8	"	24.7770	ND 43.4 60-140	QS-06
N-Nitrosodiethylamine	31.5	8	"	49.5540	ND 63.5 60-140	
N-Nitrosomethylethylamine	28.9	8	"	49.5540	ND 58.3 60-140	QS-06
Ethyl Methanesulfonate	12.4	8	"	24.7770	ND 50.0 60-140	QS-06
Phenol	28.9	8	"	41.2950	ND 70.1 60-139	
Bis(2-Chloroethyl) Ether	31.2	8	"	41.2950	ND 75.6 60-140	
2-Chlorophenol	29.9	8	"	41.2950	ND 72.3 42-104	
Benzyl Alcohol	15.6	8	"	41.2950	1.2 34.8 60-140	QS-06
2-Methylphenol (o-Cresol)	31.0	8	"	41.2950	ND 75.1 44-110	
Bis[2-Chloroisopropyl]ether	30.4	8	"	41.2950	ND 73.7 60-140	
n-Nitroso-di-n-propylamine	32.1	8	"	41.2950	ND 77.8 50-138	
N-Nitrosopyrrolidine	35.4	8	"	49.5540	ND 71.4 60-140	
Acetophenone	17.2	8	"	24.7770	ND 69.4 60-140	
(3 & 4)-Methylphenol	31.9	8	"	41.2950	ND 77.4 42-117	
Hexachloroethane	25.4	8	"	41.2950	ND 61.6 18-200	
Nitrobenzene	28.4	8	"	41.2950	ND 68.7 11-156	
N-Nitrosopiperidine	30.9	8	"	49.5540	ND 62.4 60-140	
Isophorone	28.0	8	"	41.2950	ND 67.7 60-140	
2-Nitrophenol	32.3	8	"	41.2950	ND 78.2 38-112	
2,4-Dimethylphenol	30.7	8	"	41.2950	ND 74.3 32-110	
Bis (2-Chloroethoxy) Methane	26.0	8	"	41.2950	ND 63.0 60-140	
2,4-Dichlorophenol	29.8	8	"	41.2950	ND 72.1 43-104	
Naphthalene	27.2	8	"	41.2950	ND 65.8 60-140	
2,6-Dichlorophenol	18.4	8	"	24.7770	ND 74.2 60-140	
Hexachlorobutadiene	17.4	8	"	41.2950	ND 42.2 20-200	
N-Nitrosodi-n-butylamine	27.8	8	"	49.5540	ND 56.1 60-140	QS-06
4-Chloro-3-methylphenol	32.2	8	"	41.2950	ND 78.1 49-125	
2-Methylnaphthalene	25.5	8	"	41.2950	ND 61.7 65-127	QS-06
Isosafrole	18.4	8	"	24.7770	ND 74.3 60-140	
1,2,4,5-Tetrachlorobenzene	16.0	8	"	24.7770	ND 64.6 60-140	
Hexachlorocyclopentadiene	12.6	8	"	41.2950	ND 30.5 60-140	QS-06

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**Work Order: 1GD0730**

**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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

Matrix Spike (1GD0434-MS1)	Source: 1GD0765-15			Prepared: 04/10/23	Analyzed: 04/26/23					
2,4,6-Trichlorophenol	34.6	8	ug/L	41.2950	ND	83.9	13-147			
2,4,5-Trichlorophenol	37.0	8	"	41.2950	ND	89.5	35-145			
Safrole	18.8	8	"	24.7770	ND	75.7	60-140			
2-Chloronaphthalene	47.9	8	"	41.2950	ND	116	60-140			
2-Nitroaniline	41.2	8	"	41.2950	ND	99.8	60-140			
1,4-Naphthoquinone	43.6	8	"	24.7770	ND	176	60-140			QS-02
Dimethylphthalate	37.7	8	"	41.2950	ND	91.3	63-110			
1,3-Dinitrobenzene	38.7	8	"	41.2950	ND	93.6	60-140			
1,2-Dinitrobenzene	41.3	8	"	41.2950	ND	100	60-140			
2,6-Dinitrotoluene	40.7	8	"	41.2950	ND	98.5	59-127			
Acenaphthylene	29.6	8	"	41.2950	ND	71.6	63-133			
3-Nitroaniline	4.7	8	"	41.2950	ND	11.4	60-140			QS-06
Acenaphthene	30.9	8	"	41.2950	ND	74.8	60-140			
2,4-Dinitrophenol	37.2	8	"	41.2950	ND	90.0	60-138			
4-Nitrophenol	39.8	8	"	41.2950	ND	96.5	37-169			
Dibenzofuran	33.3	8	"	41.2950	ND	80.6	60-140			
2,4-Dinitrotoluene	45.1	8	"	41.2950	ND	109	29-142			
2,3,4,6-Tetrachlorophenol	34.4	8	"	41.2950	ND	83.3	60-140			
Pentachlorobenzene	19.4	8	"	24.7770	ND	78.4	60-140			
Diethyl Phthalate	39.7	8	"	41.2950	ND	96.1	60-140			
Fluorene	34.9	8	"	41.2950	ND	84.6	50-140			
4-Chlorophenyl Phenyl Ether	32.4	8	"	41.2950	ND	78.5	60-140			
4-Nitroaniline	25.7	8	"	41.2950	ND	62.3	60-140			
5-Nitro-o-toluidine	19.8	8	"	49.5540	ND	39.9	60-140			QS-06
4,6-Dinitro-2-methylphenol	40.8	8	"	41.2950	ND	98.7	60-135			
Diphenylamine	34.3	8	"	41.2950	ND	83.1	60-140			
Azobenzene	33.6	8	"	41.2950	ND	81.3	60-140			
Diallate	25.1	8	"	24.7770	ND	101	60-140			
1,3,5-Trinitrobenzene	34.1	8	"	24.7770	ND	138	60-140			
Phenacetin	25.2	8	"	24.7770	ND	102	60-140			
4-Bromophenyl Phenyl Ether	33.4	8	"	41.2950	ND	80.8	60-140			
Pentachlorophenol	26.2	8	"	41.2950	ND	63.4	14-164			
Pronamide	23.1	8	"	24.7770	ND	93.2	60-140			
Pentachloronitrobenzene (PCNB)	26.2	8	"	24.7770	ND	106	60-140			
Phenanthrene	36.3	8	"	41.2950	ND	87.8	72-111			
Anthracene	34.5	8	"	41.2950	ND	83.5	53-110			
Di-n-butyl Phthalate	40.6	8	"	41.2950	ND	98.4	56-138			
Fluoranthene	38.7	8	"	41.2950	ND	93.8	62-110			
Isodrin	19.3	8	"	24.7770	ND	78.0	60-140			

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Work Order: 1GD0730

**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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

Matrix Spike (1GD0434-MS1)	Source: 1GD0765-15			Prepared: 04/10/23	Analyzed: 04/26/23					
Chlorobenzilate	22.1	8	ug/L	24.7770	ND	89.2	60-140			
Pyrene	37.6	8	"	41.2950	ND	91.0	50-122			
p-(Dimethylamino)azobenzene	35.3	8	"	49.5540	ND	71.2	60-140			
Butyl Benzyl Phthalate	40.1	8	"	41.2950	ND	97.1	60-140			
Benzo(a)anthracene	38.9	8	"	41.2950	ND	94.2	60-140			
Chrysene	37.1	8	"	41.2950	ND	89.7	53-140			
Bis(2-Ethylhexyl) Phthalate	47.7	6	"	41.2950	7.4	97.5	60-140			
Kepone	12.8	8	"	24.7770	ND	51.5	17-151			
2-Acetylaminofluorene	57.8	8	"	49.5540	ND	117	60-140			
Di-n-octyl Phthalate	44.5	8	"	41.2950	ND	108	60-140			
Benzo(b)Fluoranthene	43.4	8	"	41.2950	ND	105	60-140			
7,12-Dimethylbenz [a] anthracene	20.6	8	"	24.7770	ND	83.3	60-140			
Benzo(k)Fluoranthene	39.9	8	"	41.2950	ND	96.7	60-140			
Benzo(a)Pyrene	38.5	8	"	41.2950	ND	93.2	60-140			
3-Methylcholanthrene	19.2	8	"	24.7770	ND	77.6	60-140			
Dibenzo(a,h)anthracene	37.4	8	"	41.2950	ND	90.5	60-140			
Indeno(1,2,3-cd)Pyrene	37.7	8	"	41.2950	ND	91.3	60-140			
Benzo(g,h,i)perylene	36.1	8	"	41.2950	ND	87.3	60-140			

Matrix Spike Dup (1GD0434-MSD1)	Source: 1GD0765-15			Prepared: 04/10/23	Analyzed: 04/26/23					
Surrogate: 2-Fluorophenol	48.3		ug/L	60.4790		79.8	24-136			
Surrogate: Phenol-d6	52.9		"	61.7764		85.6	15-140			
Surrogate: Nitrobenzene-d5	45.4		"	62.7246		72.3	28-133			
Surrogate: 2-Fluorobiphenyl	49.0		"	60.8782		80.5	39-110			
Surrogate: 2,4,6-Tribromophenol	67.8		"	62.1258		109	15-139			
Surrogate: Terphenyl-d14	65.5		"	64.9701		101	41-135			
N-Nitrosodimethylamine	31.4	8	"	41.5835	ND	75.5	60-140	11.8	40	
Methyl Methanesulfonate	12.2	8	"	24.9501	ND	48.9	60-140	12.7	40	QS-06
N-Nitrosodiethylamine	36.7	8	"	49.9002	ND	73.6	60-140	15.5	30	
N-Nitrosomethylethylamine	34.5	8	"	49.9002	ND	69.1	60-140	17.6	40	
Ethyl Methanesulfonate	14.1	8	"	24.9501	ND	56.4	60-140	12.8	40	QS-06
Phenol	34.6	8	"	41.5835	ND	83.2	60-139	17.8	40	
Bis(2-Chloroethyl) Ether	35.0	8	"	41.5835	ND	84.1	60-140	11.3	40	
2-Chlorophenol	34.2	8	"	41.5835	ND	82.1	42-104	13.4	40	
Benzyl Alcohol	18.2	8	"	41.5835	1.2	40.9	60-140	15.6	40	QS-06
2-Methylphenol (o-Cresol)	35.7	8	"	41.5835	ND	85.8	44-110	14.0	22	
Bis[2-Chloroisopropyl]ether	34.2	8	"	41.5835	ND	82.3	60-140	11.8	40	
n-Nitroso-di-n-propylamine	38.1	8	"	41.5835	ND	91.6	50-138	17.0	18	
N-Nitrosopyrrolidine	43.6	8	"	49.9002	ND	87.4	60-140	20.9	40	

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.

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Work Order: 1GD0730

**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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

Matrix Spike Dup (1GD0434-MSD1)	Source: 1GD0765-15			Prepared: 04/10/23		Analyzed: 04/26/23				
Acetophenone	19.5	8	ug/L	24.9501	ND	78.2	60-140	12.5	40	
(3 & 4)-Methylphenol	37.7	8	"	41.5835	ND	90.6	42-117	16.4	40	
Hexachloroethane	29.8	8	"	41.5835	ND	71.6	18-200	15.7	30	
Nitrobenzene	30.8	8	"	41.5835	ND	74.1	11-156	8.29	15	
N-Nitrosopiperidine	35.9	8	"	49.9002	ND	71.9	60-140	14.9	40	
Isophorone	31.7	8	"	41.5835	ND	76.1	60-140	12.4	40	
2-Nitrophenol	35.0	8	"	41.5835	ND	84.2	38-112	8.02	40	
2,4-Dimethylphenol	33.5	8	"	41.5835	ND	80.6	32-110	8.84	40	
Bis (2-Chloroethoxy) Methane	29.8	8	"	41.5835	ND	71.6	60-140	13.5	40	
2,4-Dichlorophenol	33.4	8	"	41.5835	ND	80.4	43-104	11.5	40	
Naphthalene	29.6	8	"	41.5835	ND	71.1	60-140	8.41	40	
2,6-Dichlorophenol	20.3	8	"	24.9501	ND	81.4	60-140	10.0	40	
Hexachlorobutadiene	24.1	8	"	41.5835	ND	57.9	20-200	32.0	24	QR-02
N-Nitrosodi-n-butylamine	33.1	8	"	49.9002	ND	66.4	60-140	17.5	40	
4-Chloro-3-methylphenol	36.5	8	"	41.5835	ND	87.7	49-125	12.2	40	
2-Methylnaphthalene	29.7	8	"	41.5835	ND	71.4	65-127	15.2	23	
Isosafrole	19.2	8	"	24.9501	ND	77.0	60-140	4.19	40	
1,2,4,5-Tetrachlorobenzene	18.0	8	"	24.9501	ND	72.1	60-140	11.7	40	
Hexachlorocyclopentadiene	17.4	8	"	41.5835	ND	41.9	60-140	32.2	40	QS-06
2,4,6-Trichlorophenol	37.5	8	"	41.5835	ND	90.1	13-147	7.92	16	
2,4,5-Trichlorophenol	39.1	8	"	41.5835	ND	93.9	35-145	5.46	27	
Safrole	20.2	8	"	24.9501	ND	80.9	60-140	7.29	40	
2-Chloronaphthalene	40.1	8	"	41.5835	ND	96.5	60-140	17.8	40	
2-Nitroaniline	43.1	8	"	41.5835	ND	104	60-140	4.52	40	
1,4-Naphthoquinone	44.2	8	"	24.9501	ND	177	60-140	1.33	40	QS-02
Dimethylphthalate	39.4	8	"	41.5835	ND	94.7	63-110	4.31	40	
1,3-Dinitrobenzene	42.0	8	"	41.5835	ND	101	60-140	8.20	40	
1,2-Dinitrobenzene	43.8	8	"	41.5835	ND	105	60-140	5.93	40	
2,6-Dinitrotoluene	43.1	8	"	41.5835	ND	104	59-127	5.71	26	
Acenaphthylene	31.9	8	"	41.5835	ND	76.7	63-133	7.49	26	
3-Nitroaniline	8.6	8	"	41.5835	ND	20.7	60-140	58.4	40	QS-06
Acenaphthene	33.8	8	"	41.5835	ND	81.3	60-140	9.09	10.1	
2,4-Dinitrophenol	42.0	8	"	41.5835	ND	101	60-138	12.2	40	
4-Nitrophenol	44.4	8	"	41.5835	ND	107	37-169	10.8	20	
Dibenzofuran	35.6	8	"	41.5835	ND	85.7	60-140	6.87	40	
2,4-Dinitrotoluene	47.5	8	"	41.5835	ND	114	29-142	5.17	22	
2,3,4,6-Tetrachlorophenol	37.9	8	"	41.5835	ND	91.1	60-140	9.59	40	
Pentachlorobenzene	20.9	8	"	24.9501	ND	83.6	60-140	7.17	40	
Diethyl Phthalate	41.5	8	"	41.5835	ND	99.8	60-140	4.52	25	

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Work Order: 1GD0730

**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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

Matrix Spike Dup (1GD0434-MSD1)	Source: 1GD0765-15			Prepared: 04/10/23		Analyzed: 04/26/23				
Fluorene	36.6	8	ug/L	41.5835	ND	88.1	50-140	4.73	200	
4-Chlorophenyl Phenyl Ether	34.4	8	"	41.5835	ND	82.7	60-140	5.94	40	
4-Nitroaniline	25.5	8	"	41.5835	ND	61.3	60-140	0.819	40	
5-Nitro-o-toluidine	27.8	8	"	49.9002	ND	55.7	60-140	33.6	40	QS-06
4,6-Dinitro-2-methylphenol	44.2	8	"	41.5835	ND	106	60-135	8.14	40	
Diphenylamine	34.6	8	"	41.5835	ND	83.1	60-140	0.667	40	
Azobenzene	36.3	8	"	41.5835	ND	87.3	60-140	7.75	40	
Diallate	26.7	8	"	24.9501	ND	107	60-140	6.15	40	
1,3,5-Trinitrobenzene	35.6	8	"	24.9501	ND	143	60-140	4.34	40	QS-02
Phenacetin	25.7	8	"	24.9501	ND	103	60-140	2.18	40	
4-Bromophenyl Phenyl Ether	35.4	8	"	41.5835	ND	85.2	60-140	5.99	40	
Pentachlorophenol	28.3	8	"	41.5835	ND	68.0	14-164	7.64	30	
Pronamide	25.0	8	"	24.9501	ND	100	60-140	7.97	40	
Pentachloronitrobenzene (PCNB)	27.3	8	"	24.9501	ND	109	60-140	3.93	40	
Phenanthrene	37.5	8	"	41.5835	ND	90.1	72-111	3.31	40	
Anthracene	35.3	8	"	41.5835	ND	84.9	53-110	2.35	40	
Di-n-butyl Phthalate	40.8	8	"	41.5835	ND	98.1	56-138	0.403	40	
Fluoranthene	39.6	8	"	41.5835	ND	95.3	62-110	2.27	24	
Isodrin	21.0	8	"	24.9501	ND	84.2	60-140	8.24	40	
Chlorobenzilate	22.8	8	"	24.9501	ND	91.3	60-140	2.96	40	
Pyrene	38.8	8	"	41.5835	ND	93.3	50-122	3.12	40	
p-(Dimethylamino)azobenzene	39.1	8	"	49.9002	ND	78.4	60-140	10.4	40	
Butyl Benzyl Phthalate	41.4	8	"	41.5835	ND	99.5	60-140	3.11	40	
Benzo(a)anthracene	38.5	8	"	41.5835	ND	92.6	60-140	1.05	40	
Chrysene	37.5	8	"	41.5835	ND	90.2	53-140	1.18	18	
Bis(2-Ethylhexyl) Phthalate	85.3	6	"	41.5835	7.4	187	60-140	56.6	40	QS-02
Kepone	13.3	8	"	24.9501	ND	53.2	17-151	3.90	22	
2-Acetylaminofluorene	60.2	8	"	49.9002	ND	121	60-140	4.03	40	
Di-n-octyl Phthalate	45.6	8	"	41.5835	ND	110	60-140	2.59	40	
Benzo(b)Fluoranthene	43.6	8	"	41.5835	ND	105	60-140	0.490	40	
7,12-Dimethylbenz [a] anthracene	21.6	8	"	24.9501	ND	86.4	60-140	4.33	40	
Benzo(k)Fluoranthene	41.3	8	"	41.5835	ND	99.4	60-140	3.44	40	
Benzo(a)Pyrene	39.0	8	"	41.5835	ND	93.7	60-140	1.29	19	
3-Methylcholanthrene	19.0	8	"	24.9501	ND	76.3	60-140	0.916	40	
Dibenzo(a,h)anthracene	38.4	8	"	41.5835	ND	92.3	60-140	2.69	40	
Indeno(1,2,3-cd)Pyrene	38.3	8	"	41.5835	ND	92.1	60-140	1.51	40	
Benzo(g,h,i)perylene	36.7	8	"	41.5835	ND	88.3	60-140	1.84	40	

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**Work Order: 1GD0730**

**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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

**Reference (1GD0434-SRM1)**

Prepared: 04/10/23 Analyzed: 04/26/23

Surrogate: 2-Fluorophenol	65.1		ug/L	60.6000		107	24-136			
Surrogate: Phenol-d6	67.1		"	61.9000		108	15-140			
Surrogate: Nitrobenzene-d5	52.1		"	62.8500		82.9	29-130			
Surrogate: 2-Fluorobiphenyl	67.7		"	61.0000		111	23-113			
Surrogate: 2,4,6-Tribromophenol	69.5		"	62.2500		112	15-139			
Surrogate: Terphenyl-d14	76.6		"	65.1000		118	27-141			
N-Nitrosodimethylamine	40.1	8	"	41.6667		96.3	80-120			
Methyl Methanesulfonate	19.3	8	"	25.0000		77.2	80-120			QR-06
N-Nitrosodiethylamine	46.3	8	"	50.0000		92.6	80-120			
N-Nitrosomethylethylamine	43.1	8	"	50.0000		86.2	80-120			
Ethyl Methanesulfonate	21.5	8	"	25.0000		86.0	80-120			
Phenol	50.1	8	"	41.6667		120	80-120			QR-05
Bis(2-Chloroethyl) Ether	47.7	8	"	41.6667		115	80-120			
2-Chlorophenol	44.4	8	"	41.6667		107	80-120			
Benzyl Alcohol	22.6	8	"	41.6667		54.2	80-120			QR-06
2-Methylphenol (o-Cresol)	43.9	8	"	41.6667		105	80-120			
Bis[2-Chloroisopropyl]ether	44.6	8	"	41.6667		107	80-120			
n-Nitroso-di-n-propylamine	48.4	8	"	41.6667		116	80-120			
N-Nitrosopyrrolidine	53.7	8	"	50.0000		107	80-120			
Acetophenone	24.6	8	"	25.0000		98.4	80-120			
(3 & 4)-Methylphenol	46.6	8	"	41.6667		112	80-120			
Hexachloroethane	43.8	8	"	41.6667		105	80-120			
Nitrobenzene	36.3	8	"	41.6667		87.0	80-120			
Isophorone	36.4	8	"	41.6667		87.5	80-120			
2-Nitrophenol	40.0	8	"	41.6667		95.9	80-120			
2,4-Dimethylphenol	36.8	8	"	41.6667		88.3	80-120			
Bis (2-Chloroethoxy) Methane	35.4	8	"	41.6667		85.0	80-120			
2,4-Dichlorophenol	36.9	8	"	41.6667		88.6	80-120			
Naphthalene	36.3	8	"	41.6667		87.2	80-120			
2,6-Dichlorophenol	22.6	8	"	25.0000		90.2	80-120			
Hexachlorobutadiene	40.7	8	"	41.6667		97.7	80-120			
N-Nitrosodi-n-butylamine	36.4	8	"	50.0000		72.8	80-120			QR-06
4-Chloro-3-methylphenol	39.0	8	"	41.6667		93.7	80-120			
2-Methylnaphthalene	37.2	8	"	41.6667		89.3	80-120			
Isosafrole	24.4	8	"	25.0000		97.6	80-120			
1,2,4,5-Tetrachlorobenzene	25.1	8	"	25.0000		100	80-120			
Hexachlorocyclopentadiene	24.0	8	"	41.6667		57.6	80-120			QR-06
2,4,6-Trichlorophenol	34.2	8	"	41.6667		82.2	80-120			

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**Work Order: 1GD0730**

**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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

Reference (1GD0434-SRM1)	Prepared: 04/10/23 Analyzed: 04/26/23									
2,4,5-Trichlorophenol	36.8	8	ug/L	41.6667		88.4	80-120			
Safrole	25.7	8	"	25.0000		103	80-120			
2-Chloronaphthalene	52.5	8	"	41.6667		126	80-120			QR-06
2-Nitroaniline	47.5	8	"	41.6667		114	80-120			
1,4-Naphthoquinone	24.6	8	"	25.0000		98.5	80-120			
Dimethylphthalate	43.3	8	"	41.6667		104	80-120			
1,3-Dinitrobenzene	45.0	8	"	41.6667		108	80-120			
1,2-Dinitrobenzene	48.6	8	"	41.6667		117	80-120			
2,6-Dinitrotoluene	47.0	8	"	41.6667		113	80-120			
Acenaphthylene	42.0	8	"	41.6667		101	80-120			
3-Nitroaniline	46.6	8	"	41.6667		112	80-120			
Acenaphthene	41.7	8	"	41.6667		100	80-120			
2,4-Dinitrophenol	39.0	8	"	41.6667		93.6	80-120			
4-Nitrophenol	42.5	8	"	41.6667		102	80-120			
Dibenzofuran	43.4	8	"	41.6667		104	80-120			
2,4-Dinitrotoluene	49.9	8	"	41.6667		120	80-120			
2,3,4,6-Tetrachlorophenol	31.5	8	"	41.6667		75.6	80-120			QR-06
Pentachlorobenzene	26.4	8	"	25.0000		106	80-120			
Diethyl Phthalate	45.5	8	"	41.6667		109	80-120			
Fluorene	45.0	8	"	41.6667		108	80-120			
4-Chlorophenyl Phenyl Ether	43.0	8	"	41.6667		103	80-120			
4-Nitroaniline	44.4	8	"	41.6667		107	80-120			
5-Nitro-o-toluidine	65.7	8	"	50.0000		131	80-120			QR-06
4,6-Dinitro-2-methylphenol	46.0	8	"	41.6667		110	80-120			
Diphenylamine	42.6	8	"	41.6667		102	80-120			
Azobenzene	42.6	8	"	41.6667		102	80-120			
Diallate	29.6	8	"	25.0000		119	80-120			
1,3,5-Trinitrobenzene	39.3	8	"	25.0000		157	80-120			QR-06
Phenacetin	27.4	8	"	25.0000		110	80-120			
4-Bromophenyl Phenyl Ether	42.4	8	"	41.6667		102	80-120			
Pentachlorophenol	18.9	8	"	41.6667		45.4	80-120			QR-06
Pronamide	27.0	8	"	25.0000		108	80-120			
Pentachloronitrobenzene (PCNB)	29.0	8	"	25.0000		116	80-120			
Phenanthrene	42.2	8	"	41.6667		101	80-120			
Anthracene	42.1	8	"	41.6667		101	80-120			
Di-n-butyl Phthalate	44.6	8	"	41.6667		107	80-120			
Fluoranthene	43.7	8	"	41.6667		105	80-120			
Isodrin	21.8	8	"	25.0000		87.4	80-120			
Chlorobenzilate	24.3	8	"	25.0000		97.1	80-120			

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**Work Order: 1GD0730**

**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
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**Batch 1GD0434 - 3520C BNA Cont Liq**

Reference (1GD0434-SRM1)	Prepared: 04/10/23 Analyzed: 04/26/23									
Pyrene	43.6	8	ug/L	41.6667		105	80-120			
p-(Dimethylamino)azobenzene	56.6	8	"	50.0000		113	80-120			
Butyl Benzyl Phthalate	50.6	8	"	41.6667		121	80-120			QR-06
Benzo(a)anthracene	43.7	8	"	41.6667		105	80-120			
Chrysene	41.8	8	"	41.6667		100	80-120			
Bis(2-Ethylhexyl) Phthalate	44.8	6	"	41.6667		107	80-120			
2-Acetylaminofluorene	63.4	8	"	50.0000		127	80-120			QR-06
Di-n-octyl Phthalate	49.7	8	"	41.6667		119	80-120			
Benzo(b)Fluoranthene	47.7	8	"	41.6667		114	80-120			
7,12-Dimethylbenz [a] anthracene	26.7	8	"	25.0000		107	80-120			
Benzo(k)Fluoranthene	44.8	8	"	41.6667		108	80-120			
Benzo(a)Pyrene	45.1	8	"	41.6667		108	80-120			
3-Methylcholanthrene	25.3	8	"	25.0000		101	80-120			
Dibenzo(a,h)anthracene	41.4	8	"	41.6667		99.3	80-120			
Indeno(1,2,3-cd)Pyrene	41.5	8	"	41.6667		99.6	80-120			
Benzo(g,h,i)perylene	39.8	8	"	41.6667		95.4	80-120			

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**Work Order: 1GD0730**

**Determination of Organophosphorus Insecticides - Quality Control**  
**Keystone Laboratories - Newton**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1GD0484 - 3510C NP/OC Sep Fnl**

**Blank (1GD0484-BLK1)**

Prepared: 04/10/23 Analyzed: 04/25/23

Surrogate: 2-Nitro-m-xylene	7.58		ug/L	8.18000		92.7	38-122			
O,O,O-Triethyl phosphorothioate	ND	0.4	"							
Thionazin	ND	0.4	"							
Phorate	ND	0.4	"							
Dimethoate	ND	0.4	"							
Disulfoton	ND	0.4	"							
Methyl Parathion	ND	0.4	"							
Parathion	ND	0.4	"							
Famphur	ND	0.4	"							

**LCS (1GD0484-BS1)**

Prepared: 04/10/23 Analyzed: 04/26/23

Surrogate: 2-Nitro-m-xylene	14.2		ug/L	16.3600		86.6	38-122			
O,O,O-Triethyl phosphorothioate	6.75	0.4	"	16.0000		42.2	42-115			
Thionazin	8.28	0.4	"	16.0000		51.7	28-118			
Phorate	3.04	0.4	"	16.0000		19.0	18-159			
Dimethoate	0.54	0.4	"	16.0000		3.34	43-155			QS-01
Disulfoton	7.68	0.4	"	16.0000		48.0	37-126			
Methyl Parathion	9.16	0.4	"	16.0000		57.3	28-145			
Parathion	8.09	0.4	"	16.0000		50.6	52-121			QS-01
Famphur	7.50	0.4	"	16.1600		46.4	44-144			

**Matrix Spike (1GD0484-MS1)**

Source: 1GD0765-15

Prepared: 04/10/23 Analyzed: 04/26/23

Surrogate: 2-Nitro-m-xylene	6.22		ug/L	7.98049		78.0	38-122			
O,O,O-Triethyl phosphorothioate	3.34	0.4	"	3.90244	ND	85.6	70-130			
Thionazin	4.19	0.4	"	3.90244	ND	107	70-130			
Phorate	2.88	0.4	"	3.90244	ND	73.8	62-127			
Dimethoate	3.65	0.4	"	3.90244	ND	93.6	70-130			
Disulfoton	3.83	0.4	"	3.90244	ND	98.2	70-130			
Methyl Parathion	4.63	0.4	"	3.90244	ND	119	70-130			
Parathion	3.53	0.4	"	3.90244	ND	90.5	70-130			
Famphur	3.93	0.4	"	3.94146	ND	99.8	70-130			

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**Work Order: 1GD0730**

**Determination of Organophosphorus Insecticides - Quality Control**  
**Keystone Laboratories - Newton**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1GD0484 - 3510C NP/OC Sep Fnl**

Matrix Spike Dup (1GD0484-MSD1)	Source: 1GD0765-15		Prepared: 04/10/23 Analyzed: 04/26/23							
<i>Surrogate: 2-Nitro-m-xylene</i>	9.43		ug/L	8.14741		116	38-122			
O,O,O-Triethyl phosphorothioate	3.91	0.4	"	3.98406	ND	98.1	70-130	15.7	20	
Thionazin	4.95	0.4	"	3.98406	ND	124	70-130	16.6	20	
Phorate	3.68	0.4	"	3.98406	ND	92.4	62-127	24.5	20	QR-02
Dimethoate	4.38	0.4	"	3.98406	ND	110	70-130	18.1	20	
Disulfoton	4.40	0.4	"	3.98406	ND	110	70-130	13.8	20	
Methyl Parathion	5.52	0.4	"	3.98406	ND	139	70-130	17.5	20	QM-07
Parathion	4.48	0.4	"	3.98406	ND	112	70-130	23.7	20	QR-02
Famphur	4.39	0.4	"	4.02390	ND	109	70-130	11.1	20	

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**Work Order: 1GD0730**

**Determination of Chlorinated Phenoxy Herbicides - Quality Control**  
**Keystone Laboratories - Newton**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1GD0480 - EPA 8151A**

**Blank (1GD0480-BLK1)**

Prepared: 04/10/23 Analyzed: 04/27/23

<i>Surrogate: 2,5-Dichlorobenzoic Acid</i>	0.925		ug/L	2.04000		45.3	31-116			
2,4-D	ND	2.0	"							
2,4,5-TP (Silvex)	ND	0.5	"							
2,4,5-T	ND	0.5	"							
Dinoseb	ND	0.5	"							

**LCS (1GD0480-BS1)**

Prepared: 04/10/23 Analyzed: 04/27/23

<i>Surrogate: 2,5-Dichlorobenzoic Acid</i>	1.06		ug/L	2.04000		52.2	31-116			
2,4-D	0.56	2.0	"	1.15000		48.3	16-161			
2,4,5-TP (Silvex)	0.37	0.5	"	0.575000		64.3	35-141			
2,4,5-T	0.30	0.5	"	0.575000		52.2	54-149			QS-01
Dinoseb	0.82	0.5	"	1.15000		70.9	10-133			

**Matrix Spike (1GD0480-MS1)**

Source: 1GD0765-15

Prepared: 04/10/23 Analyzed: 04/27/23

<i>Surrogate: 2,5-Dichlorobenzoic Acid</i>	1.36		ug/L	2.04000		66.4	31-116			
2,4-D	0.75	2.0	"	1.15000	ND	65.2	50-131			
2,4,5-TP (Silvex)	0.46	0.5	"	0.575000	ND	79.1	50-129			
2,4,5-T	0.36	0.5	"	0.575000	ND	62.6	50-123			
Dinoseb	0.75	0.5	"	1.15000	ND	65.2	50-138			

**Matrix Spike Dup (1GD0480-MSD1)**

Source: 1GD0765-15

Prepared: 04/10/23 Analyzed: 04/27/23

<i>Surrogate: 2,5-Dichlorobenzoic Acid</i>	1.52		ug/L	2.04000		74.3	31-116			
2,4-D	0.75	2.0	"	1.15000	ND	65.2	50-131	0.00	30	
2,4,5-TP (Silvex)	0.47	0.5	"	0.575000	ND	81.7	50-129	3.24	30	
2,4,5-T	0.40	0.5	"	0.575000	ND	69.6	50-123	10.5	30	
Dinoseb	0.71	0.5	"	1.15000	ND	61.7	50-138	5.48	30	

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**Work Order: 1GD0730**

**Determination of Organochlorine Insecticides & Metabolites - Quality Control**

**Keystone Laboratories - Newton**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1GD0482 - 3510C NP/OC Sep Fnl**

**Blank (1GD0482-BLK1)**

Prepared: 04/10/23 Analyzed: 04/25/23

<i>Surrogate: Tetrachloro-m-xylene</i>	0.373		ug/L	0.600000		62.2	10-121			
Alpha-BHC	ND	0.05	"							
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	"							
Methoxychlor	ND	0.05	"							
Chlordane	ND	0.10	"							
Toxaphene	ND	0.20	"							
Hexachlorobenzene	ND	0.05	"							

**LCS (1GD0482-BS1)**

Prepared: 04/10/23 Analyzed: 04/25/23

<i>Surrogate: Tetrachloro-m-xylene</i>	0.758		ug/L	0.600000		126	10-121			S-07
Alpha-BHC	0.258	0.05	"	0.250000		103	33-123			
Gamma-BHC [Lindane]	0.270	0.05	"	0.250000		108	34-120			
Beta-BHC	0.261	0.05	"	0.250000		104	33-125			
Heptachlor	0.140	0.05	"	0.250000		55.8	32-117			
Delta-BHC	0.285	0.05	"	0.250000		114	24-140			
Aldrin	0.250	0.05	"	0.250000		99.9	29-122			
Heptachlor Epoxide	0.295	0.05	"	0.250000		118	37-137			
Endosulfan I	0.305	0.05	"	0.250000		122	27-141			
4,4'-DDE	0.256	0.05	"	0.250000		102	38-147			
Dieldrin	0.306	0.05	"	0.250000		123	32-137			
Endrin	0.318	0.05	"	0.250000		127	25-142			
4,4'-DDD	0.305	0.05	"	0.250000		122	43-146			
Endosulfan II	0.291	0.05	"	0.250000		116	36-140			
4,4'-DDT	0.323	0.05	"	0.250000		129	39-140			
Endrin Aldehyde	0.323	0.05	"	0.250000		129	17-150			

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**Work Order: 1GD0730**

**Determination of Organochlorine Insecticides & Metabolites - Quality Control**  
**Keystone Laboratories - Newton**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1GD0482 - 3510C NP/OC Sep Fnl**

<b>LCS (1GD0482-BS1)</b>		Prepared: 04/10/23 Analyzed: 04/25/23								
Endosulfan Sulfate	0.285	0.05	ug/L	0.250000		114	41-135			
Methoxychlor	0.320	0.05	"	0.250000		128	40-148			

<b>Matrix Spike (1GD0482-MS1)</b>		<b>Source: 1GD0765-15</b>		Prepared: 04/10/23 Analyzed: 04/25/23						
<i>Surrogate: Tetrachloro-m-xylene</i>		0.408		ug/L	0.591716		69.0	10-121		
Alpha-BHC	0.024	0.05	"	0.246548	ND	9.58	64-116			QM-07
Gamma-BHC [Lindane]	0.023	0.05	"	0.246548	ND	9.51	62-125			QM-07
Beta-BHC	0.022	0.05	"	0.246548	ND	8.99	60-119			QM-07
Heptachlor	0.024	0.05	"	0.246548	ND	9.86	51-136			QM-07
Delta-BHC	0.024	0.05	"	0.246548	ND	9.63	58-134			QM-07
Aldrin	0.017	0.05	"	0.246548	ND	6.89	60-121			QM-07
Heptachlor Epoxide	0.025	0.05	"	0.246548	ND	10.3	55-140			QM-07
Endosulfan I	0.025	0.05	"	0.246548	ND	10.1	74-131			QM-07
4,4'-DDE	0.019	0.05	"	0.246548	ND	7.54	72-125			QM-07
Dieldrin	0.026	0.05	"	0.246548	ND	10.4	60-143			QM-07
Endrin	ND	0.05	"	0.246548	ND		63-139			QM-07
4,4'-DDD	0.024	0.05	"	0.246548	ND	9.92	63-143			QM-07
Endosulfan II	0.024	0.05	"	0.246548	0.008	9.84	68-143			QM-07
4,4'-DDT	0.024	0.05	"	0.246548	ND	9.71	46-172			QM-07
Endrin Aldehyde	0.033	0.05	"	0.246548	ND	13.5	50-110			QM-07
Endosulfan Sulfate	0.027	0.05	"	0.246548	ND	11.1	65-145			QM-07
Methoxychlor	0.030	0.05	"	0.246548	ND	12.2	60-125			QM-07

<b>Matrix Spike Dup (1GD0482-MSD1)</b>		<b>Source: 1GD0765-15</b>		Prepared: 04/10/23 Analyzed: 04/25/23						
<i>Surrogate: Tetrachloro-m-xylene</i>		0.394		ug/L	0.593472		66.4	10-121		
Alpha-BHC	0.053	0.05	"	0.247280	ND	21.4	64-116	76.6	19	QM-07
Gamma-BHC [Lindane]	0.058	0.05	"	0.247280	ND	23.6	62-125	85.3	18	QM-07
Beta-BHC	0.061	0.05	"	0.247280	ND	24.8	60-119	93.7	18	QM-07
Heptachlor	0.054	0.05	"	0.247280	ND	21.7	51-136	75.4	23	QM-07
Delta-BHC	0.065	0.05	"	0.247280	ND	26.2	58-134	92.8	21	QM-07
Aldrin	0.044	0.05	"	0.247280	ND	18.0	60-121	89.4	21	QM-07
Heptachlor Epoxide	0.070	0.05	"	0.247280	ND	28.4	55-140	93.8	19	QM-07
Endosulfan I	0.067	0.05	"	0.247280	ND	27.2	74-131	92.1	19	QM-07
4,4'-DDE	0.052	0.05	"	0.247280	ND	20.9	72-125	94.0	22	QM-07
Dieldrin	0.065	0.05	"	0.247280	ND	26.4	60-143	87.4	18	QM-07
Endrin	0.079	0.05	"	0.247280	ND	32.1	63-139		23	QM-07
4,4'-DDD	0.067	0.05	"	0.247280	ND	27.1	63-143	93.1	23	QM-07
Endosulfan II	0.067	0.05	"	0.247280	0.008	27.1	68-143	93.8	19	QM-07
4,4'-DDT	0.076	0.05	"	0.247280	ND	30.7	46-172	104	26	QM-07

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**Work Order: 1GD0730**

**Determination of Organochlorine Insecticides & Metabolites - Quality Control**  
**Keystone Laboratories - Newton**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1GD0482 - 3510C NP/OC Sep Fnl**

<b>Matrix Spike Dup (1GD0482-MSD1)</b>	<b>Source: 1GD0765-15</b>			<b>Prepared: 04/10/23 Analyzed: 04/25/23</b>						
Endrin Aldehyde	0.075	0.05	ug/L	0.247280	ND	30.4	50-110	77.3	24	QM-07
Endosulfan Sulfate	0.069	0.05	"	0.247280	ND	27.9	65-145	86.4	26	QM-07
Methoxychlor	0.084	0.05	"	0.247280	ND	34.0	60-125	94.8	26	QM-07

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Work Order: 1GD0730

**Determination of Polychlorinated Biphenyls (PCB) - Quality Control**  
**Keystone Laboratories - Newton**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1GD0483 - 3510C NP/OC Sep Fnl**

**Blank (1GD0483-BLK1)**

Prepared: 04/10/23 Analyzed: 04/25/23

Surrogate: Tetrachloro-m-xylene	0.390		ug/L	0.600000		65.0	38-121			
Surrogate: Decachlorobiphenyl	0.360		"	0.600000		60.0	25-119			
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 (1GD0483-BS1)**

Prepared: 04/10/23 Analyzed: 04/25/23

Surrogate: Tetrachloro-m-xylene	0.715		ug/L	0.600000		119	38-121			
Surrogate: Decachlorobiphenyl	0.905		"	0.600000		151	25-119			S-GC
Arochlor 1016	3.780	0.10	"	2.80000		135	25-126			QS-01
Arochlor 1260	4.065	0.10	"	2.80000		145	29-142			QS-01

**Matrix Spike (1GD0483-MS1)**

Source: 1GD0765-15

Prepared: 04/10/23 Analyzed: 04/25/23

Surrogate: Tetrachloro-m-xylene	0.365		ug/L	0.584795		62.5	38-121			
Surrogate: Decachlorobiphenyl	0.585		"	0.584795		100	25-119			
Arochlor 1016	2.320	0.10	"	2.72904	ND	85.0	61-127			
Arochlor 1260	2.256	0.10	"	2.72904	ND	82.7	58-140			

**Matrix Spike Dup (1GD0483-MSD1)**

Source: 1GD0765-15

Prepared: 04/10/23 Analyzed: 04/25/23

Surrogate: Tetrachloro-m-xylene	0.413		ug/L	0.590551		70.0	38-121			
Surrogate: Decachlorobiphenyl	0.531		"	0.590551		90.0	25-119			
Arochlor 1016	1.924	0.10	"	2.75591	ND	69.8	61-127	18.6	10	QR-02
Arochlor 1260	2.023	0.10	"	2.75591	ND	73.4	58-140	10.9	25	

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**Work Order: 1GD0730**

**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
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**Batch 1GD0441 - Wet Chem Preparation**

<b>Blank (1GD0441-BLK1)</b>				Prepared & Analyzed: 04/10/23						
Sulfide, total	ND	0.10	mg/L							
<b>LCS (1GD0441-BS1)</b>				Prepared & Analyzed: 04/10/23						
Sulfide, total	0.144	0.10	mg/L	0.195160		73.7	59-110			
<b>Matrix Spike (1GD0441-MS1)</b>				<b>Source: 1GD0185-09</b>		Prepared & Analyzed: 04/10/23				
Sulfide, total	0.0714	0.10	mg/L	0.195160	ND	36.6	50-150			QM-07
<b>Matrix Spike Dup (1GD0441-MSD1)</b>				<b>Source: 1GD0185-09</b>		Prepared & Analyzed: 04/10/23				
Sulfide, total	0.0805	0.10	mg/L	0.195160	ND	41.2	50-150	11.9	30	QM-07

**Batch 1GD0777 - Wet Chem Preparation**

<b>Blank (1GD0777-BLK1)</b>				Prepared: 04/17/23 Analyzed: 04/18/23						
Cyanide, total	ND	0.005	mg/L							
<b>LCS (1GD0777-BS1)</b>				Prepared: 04/17/23 Analyzed: 04/18/23						
Cyanide, total	0.113	0.005	mg/L	0.111111		102	67-110			
<b>MRL Check (1GD0777-MRL1)</b>				Prepared: 04/17/23 Analyzed: 04/18/23						
Cyanide, total	ND	0.005	mg/L	0.00500000			0-200			
<b>Matrix Spike (1GD0777-MS1)</b>				<b>Source: 1GD0665-01</b>		Prepared: 04/17/23 Analyzed: 04/18/23				
Cyanide, total	0.116	0.005	mg/L	0.111111	ND	105	53-120			
<b>Matrix Spike Dup (1GD0777-MSD1)</b>				<b>Source: 1GD0665-01</b>		Prepared: 04/17/23 Analyzed: 04/18/23				
Cyanide, total	0.108	0.005	mg/L	0.111111	ND	97.3	53-120	7.42	30	

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**Work Order: 1GD0730**

**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
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**Batch 1GD0305 - EPA 7470A Hg Water**

<b>Blank (1GD0305-BLK1)</b>		Prepared: 04/06/23 Analyzed: 04/10/23								
Mercury, total	ND	0.00050	mg/L							
<b>LCS (1GD0305-BS1)</b>		Prepared: 04/06/23 Analyzed: 04/10/23								
Mercury, total	0.00257	0.00050	mg/L	0.00250000		103	80-120			
<b>Matrix Spike (1GD0305-MS1)</b>		<b>Source: 1GD0563-03</b>		Prepared: 04/06/23 Analyzed: 04/10/23						
Mercury, total	0.00278	0.00050	mg/L	0.00250000	ND	111	75-125			
<b>Matrix Spike Dup (1GD0305-MSD1)</b>		<b>Source: 1GD0563-03</b>		Prepared: 04/06/23 Analyzed: 04/10/23						
Mercury, total	0.00266	0.00050	mg/L	0.00250000	ND	106	75-125	4.54	20	

**Batch 1GD0382 - EPA 3005A Total Recoverable Metals**

<b>Blank (1GD0382-BLK1)</b>		Prepared: 04/07/23 Analyzed: 04/11/23								
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	"							
Tin, total	ND	0.0200	"							
Vanadium, total	ND	0.0200	"							
Zinc, total	ND	0.0200	"							

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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
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**Batch 1GD0382 - EPA 3005A Total Recoverable Metals**

<b>LCS (1GD0382-BS1)</b>		Prepared: 04/07/23 Analyzed: 04/11/23								
Antimony, total	0.0925	0.0020	mg/L	0.100000		92.5	80-120			
Arsenic, total	0.0942	0.0040	"	0.100000		94.2	80-120			
Barium, total	0.101	0.0040	"	0.100000		101	80-120			
Beryllium, total	0.0938	0.0040	"	0.100000		93.8	80-120			
Cadmium, total	0.0931	0.0008	"	0.100000		93.1	80-120			
Chromium, total	0.0926	0.0080	"	0.100000		92.6	80-120			
Cobalt, total	0.101	0.0004	"	0.100000		101	80-120			
Copper, total	0.0988	0.0040	"	0.100000		98.8	80-120			
Lead, total	0.0969	0.0040	"	0.100000		96.9	80-120			
Nickel, total	0.0996	0.0040	"	0.100000		99.6	80-120			
Selenium, total	0.0933	0.0040	"	0.100000		93.3	80-120			
Silver, total	0.0980	0.0040	"	0.100000		98.0	80-120			
Thallium, total	0.0916	0.0020	"	0.100000		91.6	80-120			
Tin, total	0.0976	0.0200	"	0.100000		97.6	80-120			
Vanadium, total	0.0978	0.0200	"	0.100000		97.8	80-120			
Zinc, total	0.0981	0.0200	"	0.100000		98.1	80-120			

<b>Matrix Spike (1GD0382-MS1)</b>		Source: 1GD0730-01			Prepared: 04/07/23 Analyzed: 04/11/23					
Antimony, total	0.0907	0.0020	mg/L	0.100000	ND	90.7	75-125			
Arsenic, total	0.0954	0.0040	"	0.100000	0.0014	94.0	75-125			
Barium, total	0.415	0.0040	"	0.100000	0.320	94.6	75-125			
Beryllium, total	0.0889	0.0040	"	0.100000	ND	88.9	75-125			
Cadmium, total	0.0898	0.0008	"	0.100000	0.0004	89.4	75-125			
Chromium, total	0.0877	0.0080	"	0.100000	ND	87.7	75-125			
Cobalt, total	0.0978	0.0004	"	0.100000	ND	97.8	75-125			
Copper, total	0.0896	0.0040	"	0.100000	0.0010	88.7	75-125			
Lead, total	0.0905	0.0040	"	0.100000	ND	90.5	75-125			
Nickel, total	0.0978	0.0040	"	0.100000	0.0031	94.7	75-125			
Selenium, total	0.0900	0.0040	"	0.100000	ND	90.0	75-125			
Silver, total	0.0940	0.0040	"	0.100000	ND	94.0	75-125			
Thallium, total	0.0876	0.0020	"	0.100000	ND	87.6	75-125			
Tin, total	0.0960	0.0200	"	0.100000	ND	96.0	75-125			
Vanadium, total	0.0939	0.0200	"	0.100000	ND	93.9	75-125			
Zinc, total	0.0907	0.0200	"	0.100000	ND	90.7	75-125			

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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
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**Batch 1GD0382 - EPA 3005A Total Recoverable Metals**

Matrix Spike Dup (1GD0382-MSD1)	Source: 1GD0730-01			Prepared: 04/07/23		Analyzed: 04/11/23				
Antimony, total	0.0902	0.0020	mg/L	0.100000	ND	90.2	75-125	0.587	20	
Arsenic, total	0.0964	0.0040	"	0.100000	0.0014	95.0	75-125	1.03	20	
Barium, total	0.416	0.0040	"	0.100000	0.320	95.7	75-125	0.243	20	
Beryllium, total	0.0914	0.0040	"	0.100000	ND	91.4	75-125	2.80	20	
Cadmium, total	0.0890	0.0008	"	0.100000	0.0004	88.6	75-125	0.897	20	
Chromium, total	0.0881	0.0080	"	0.100000	ND	88.1	75-125	0.455	20	
Cobalt, total	0.0979	0.0004	"	0.100000	ND	97.9	75-125	0.129	20	
Copper, total	0.0911	0.0040	"	0.100000	0.0010	90.2	75-125	1.66	20	
Lead, total	0.0906	0.0040	"	0.100000	ND	90.6	75-125	0.127	20	
Nickel, total	0.0973	0.0040	"	0.100000	0.0031	94.2	75-125	0.539	20	
Selenium, total	0.0921	0.0040	"	0.100000	ND	92.1	75-125	2.28	20	
Silver, total	0.0956	0.0040	"	0.100000	ND	95.6	75-125	1.72	20	
Thallium, total	0.0883	0.0020	"	0.100000	ND	88.3	75-125	0.847	20	
Tin, total	0.0954	0.0200	"	0.100000	ND	95.4	75-125	0.629	20	
Vanadium, total	0.0956	0.0200	"	0.100000	ND	95.6	75-125	1.76	20	
Zinc, total	0.0914	0.0200	"	0.100000	ND	91.4	75-125	0.789	20	

Post Spike (1GD0382-PS1)	Source: 1GD0730-01			Prepared: 04/07/23		Analyzed: 04/11/23				
Antimony, total	0.0763		mg/L	0.0800000	0.0001	95.2	80-120			
Arsenic, total	0.0794		"	0.0800000	0.0014	97.6	80-120			
Barium, total	0.398		"	0.0800000	0.314	106	80-120			
Beryllium, total	0.0747		"	0.0800000	0.0000008	93.3	80-120			
Cadmium, total	0.0746		"	0.0800000	0.0004	92.8	80-120			
Chromium, total	0.0737		"	0.0800000	0.0005	91.5	80-120			
Cobalt, total	0.0818		"	0.0800000	0.0002	102	80-120			
Copper, total	0.0747		"	0.0800000	0.0009	92.2	80-120			
Lead, total	0.0749		"	0.0800000	0.00003	93.6	80-120			
Nickel, total	0.0828		"	0.0800000	0.0030	99.7	80-120			
Selenium, total	0.0744		"	0.0800000	0.0002	92.7	80-120			
Silver, total	0.0784		"	0.0800000	0.0014	96.3	80-120			
Thallium, total	0.0733		"	0.0800000	0.00006	91.6	80-120			
Tin, total	0.0821		"	0.0800000	-0.000009	103	75-125			
Vanadium, total	0.0808		"	0.0800000	0.0041	95.9	80-120			
Zinc, total	0.0768		"	0.0800000	0.0008	95.0	80-120			

ND = Non Detect; REC= Recovery; RPD= Relative Percent Difference

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**Certified Analyses Included In This Report**

Method/Matrix	Analyte	Certifications
<i>ASTM D7511-12(2017) in Water</i>	Cyanide, total	KS-NT,SIA1X
<i>EPA 6020A in Water</i>	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
<i>EPA 7470A in Water</i>	Mercury, total	KS-NT,SIA1X
<i>EPA 8081 in Water</i>	Alpha-BHC	KS-NT,SIA1X
	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
	Methoxychlor	KS-NT,SIA1X
	Chlordane	KS-NT,SIA1X
	Toxaphene	KS-NT,SIA1X
	Hexachlorobenzene	KS-NT
<i>EPA 8082 in Water</i>	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

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	Arochlor 1254	KS-NT,SIA1X
	Arochlor 1260	KS-NT,SIA1X
<b>EPA 8141 in Water</b>		
	Phorate	KS-NT,SIA1X
	Disulfoton	KS-NT,SIA1X
	Methyl Parathion	KS-NT
<b>EPA 8151A in Water</b>		
	2,4-D	KS-NT,SIA1X
	2,4,5-TP (Silvex)	KS-NT,SIA1X
	2,4,5-T	KS-NT
	Dinoseb	KS-NT
<b>EPA 8260B in Water</b>		
	Dichlorodifluoromethane	KS-NT,SIA1X
	Chloromethane	KS-NT,SIA1X
	Chloromethane	KS-NT,SIA1X
	Vinyl Chloride	KS-NT,SIA1X
	Vinyl Chloride	KS-NT,SIA1X
	Bromomethane	KS-NT,SIA1X
	Bromomethane	KS-NT,SIA1X
	Chloroethane	KS-NT,SIA1X
	Chloroethane	KS-NT,SIA1X
	Trichlorofluoromethane	KS-NT,SIA1X
	Trichlorofluoromethane	KS-NT,SIA1X
	Acrolein	KS-NT,SIA1X
	1,1-Dichloroethylene	KS-NT,SIA1X
	1,1-Dichloroethylene	KS-NT,SIA1X
	Acetone	KS-NT,SIA1X
	Acetone	KS-NT,SIA1X
	Methyl Iodide	SIA1X
	Methyl Iodide	SIA1X
	Carbon Disulfide	KS-NT,SIA1X
	Carbon Disulfide	KS-NT,SIA1X
	Methylene Chloride	KS-NT,SIA1X
	Methylene Chloride	KS-NT,SIA1X
	Acrylonitrile	KS-NT,SIA1X
	trans-1,2-Dichloroethylene	KS-NT,SIA1X
	trans-1,2-Dichloroethylene	KS-NT,SIA1X
	1,1-Dichloroethane	KS-NT,SIA1X
	1,1-Dichloroethane	KS-NT,SIA1X
	Vinyl Acetate	KS-NT,SIA1X
	Vinyl Acetate	KS-NT,SIA1X
	2,2-Dichloropropane	SIA1X
	cis-1,2-Dichloroethylene	KS-NT,SIA1X
	cis-1,2-Dichloroethylene	KS-NT,SIA1X
	2-Butanone (MEK)	KS-NT,SIA1X
	2-Butanone (MEK)	KS-NT,SIA1X
	Bromochloromethane	KS-NT,SIA1X
	Bromochloromethane	KS-NT,SIA1X
	Chloroform	KS-NT,SIA1X
	Chloroform	KS-NT,SIA1X
	1,1,1-Trichloroethane	KS-NT,SIA1X

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**Work Order: 1GD0730**

1,1,1-Trichloroethane	KS-NT,SIA1X
Carbon Tetrachloride	KS-NT,SIA1X
Carbon Tetrachloride	KS-NT,SIA1X
Benzene	KS-NT,SIA1X
Benzene	KS-NT,SIA1X
1,2-Dichloroethane	KS-NT,SIA1X
1,2-Dichloroethane	KS-NT,SIA1X
Trichloroethylene	KS-NT,SIA1X
Trichloroethylene	KS-NT,SIA1X
1,2-Dichloropropane	KS-NT,SIA1X
1,2-Dichloropropane	KS-NT,SIA1X
Dibromomethane	SIA1X
Dibromomethane	SIA1X
Bromodichloromethane	KS-NT,SIA1X
Bromodichloromethane	KS-NT,SIA1X
cis-1,3-Dichloropropene	KS-NT,SIA1X
cis-1,3-Dichloropropene	KS-NT,SIA1X
4-Methyl-2-pentanone (MIBK)	KS-NT,SIA1X
4-Methyl-2-pentanone (MIBK)	KS-NT,SIA1X
Toluene	KS-NT,SIA1X
Toluene	KS-NT,SIA1X
trans-1,3-Dichloropropene	KS-NT,SIA1X
trans-1,3-Dichloropropene	KS-NT,SIA1X
1,1,2-Trichloroethane	KS-NT,SIA1X
1,1,2-Trichloroethane	KS-NT,SIA1X
Tetrachloroethylene	KS-NT,SIA1X
Tetrachloroethylene	KS-NT,SIA1X
2-Hexanone (MBK)	KS-NT,SIA1X
2-Hexanone (MBK)	KS-NT,SIA1X
Dibromochloromethane	KS-NT,SIA1X
Dibromochloromethane	KS-NT,SIA1X
1,2-Dibromoethane	KS-NT,SIA1X
1,2-Dibromoethane	KS-NT,SIA1X
Chlorobenzene	KS-NT,SIA1X
Chlorobenzene	KS-NT,SIA1X
1,1,1,2-Tetrachloroethane	KS-NT,SIA1X
1,1,1,2-Tetrachloroethane	KS-NT,SIA1X
Ethylbenzene	KS-NT,SIA1X
Ethylbenzene	KS-NT,SIA1X
Xylenes, total	KS-NT,SIA1X
Xylenes, total	KS-NT,SIA1X
Styrene	KS-NT,SIA1X
Styrene	KS-NT,SIA1X
Bromoform	KS-NT,SIA1X
Bromoform	KS-NT,SIA1X
1,2,3-Trichloropropane	KS-NT,SIA1X
1,2,3-Trichloropropane	KS-NT,SIA1X
trans-1,4-Dichloro-2-butene	SIA1X
trans-1,4-Dichloro-2-butene	SIA1X
1,1,2,2-Tetrachloroethane	KS-NT,SIA1X
1,1,2,2-Tetrachloroethane	KS-NT,SIA1X

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**Work Order: 1GD0730**

**EPA 8270C in Water**

1,3-Dichlorobenzene	KS-NT,SIA1X
1,4-Dichlorobenzene	KS-NT,SIA1X
1,4-Dichlorobenzene	KS-NT,SIA1X
1,2-Dichlorobenzene	KS-NT,SIA1X
1,2-Dichlorobenzene	KS-NT,SIA1X
1,2-Dibromo-3-chloropropane	KS-NT,SIA1X
1,2-Dibromo-3-chloropropane	KS-NT,SIA1X
Allyl chloride	SIA1X
Methacrylonitrile	SIA1X
Methyl Methacrylate	SIA1X
Propionitrile	SIA1X
N-Nitrosodimethylamine	KS-NT,SIA1X
Methyl Methanesulfonate	SIA1X
N-Nitrosomethylethylamine	SIA1X
Ethyl Methanesulfonate	SIA1X
Phenol	KS-NT,SIA1X
Bis(2-Chloroethyl) Ether	SIA1X
2-Chlorophenol	KS-NT,SIA1X
Benzyl Alcohol	KS-NT,SIA1X
2-Methylphenol (o-Cresol)	KS-NT,SIA1X
Bis[2-Chloroisopropyl]ether	KS-NT,SIA1X
n-Nitroso-di-n-propylamine	KS-NT,SIA1X
N-Nitrosopyrrolidine	SIA1X
Acetophenone	SIA1X
o-Toluidine	SIA1X
(3 & 4)-Methylphenol	KS-NT,SIA1X
Hexachloroethane	KS-NT,SIA1X
Nitrobenzene	KS-NT,SIA1X
N-Nitrosopiperidine	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
Naphthalene	KS-NT,SIA1X
4-Chloroaniline	KS-NT,SIA1X
2,6-Dichlorophenol	SIA1X
Hexachloropropene	SIA1X
Hexachlorobutadiene	KS-NT,SIA1X
N-Nitrosodi-n-butylamine	SIA1X
1,4-Phenylenediamine	SIA1X
4-Chloro-3-methylphenol	KS-NT,SIA1X
2-Methylnaphthalene	KS-NT,SIA1X
Isosafrole	SIA1X
1,2,4,5-Tetrachlorobenzene	SIA1X
Hexachlorocyclopentadiene	KS-NT,SIA1X
2,4,6-Trichlorophenol	KS-NT,SIA1X
2,4,5-Trichlorophenol	KS-NT,SIA1X
Safrole	SIA1X
2-Chloronaphthalene	KS-NT,SIA1X

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**Work Order: 1GD0730**

2-Nitroaniline	KS-NT,SIA1X
1,4-Naphthoquinone	SIA1X
Dimethylphthalate	KS-NT,SIA1X
1,3-Dinitrobenzene	SIA1X
2,6-Dinitrotoluene	KS-NT,SIA1X
Acenaphthylene	KS-NT,SIA1X
3-Nitroaniline	SIA1X
Acenaphthene	KS-NT,SIA1X
2,4-Dinitrophenol	KS-NT,SIA1X
4-Nitrophenol	KS-NT,SIA1X
Dibenzofuran	KS-NT,SIA1X
2,4-Dinitrotoluene	KS-NT,SIA1X
2,3,4,6-Tetrachlorophenol	SIA1X
Pentachlorobenzene	SIA1X
1-Naphthylamine	SIA1X
2-Naphthylamine	SIA1X
Diethyl Phthalate	KS-NT,SIA1X
Fluorene	KS-NT,SIA1X
4-Chlorophenyl Phenyl Ether	KS-NT,SIA1X
4-Nitroaniline	KS-NT,SIA1X
Bis(2-Ethylhexyl) Phthalate	KS-NT,SIA1X
5-Nitro-o-toluidine	SIA1X
4,6-Dinitro-2-methylphenol	KS-NT,SIA1X
N-Nitrosodiphenylamine	KS-NT
Diphenylamine	SIA1X
Diallate	SIA1X
1,3,5-Trinitrobenzene	SIA1X
Phenacetin	SIA1X
4-Bromophenyl Phenyl Ether	KS-NT,SIA1X
Hexachlorobenzene	KS-NT,SIA1X
4-Aminobiphenyl	SIA1X
Pentachlorophenol	KS-NT,SIA1X
Pronamide	SIA1X
Pentachloronitrobenzene (PCNB)	SIA1X
Phenanthrene	KS-NT,SIA1X
Anthracene	KS-NT,SIA1X
Di-n-butyl Phthalate	KS-NT,SIA1X
Methapyrilene	SIA1X
Fluoranthene	KS-NT,SIA1X
Isodrin	SIA1X
Chlorobenzilate	SIA1X
Pyrene	KS-NT,SIA1X
p-(Dimethylamino)azobenzene	SIA1X
3,3-Dimethylbenzidine	SIA1X
Butyl Benzyl Phthalate	KS-NT,SIA1X
Benzo(a)anthracene	KS-NT,SIA1X
Chrysene	KS-NT,SIA1X
Bis(2-Ethylhexyl) Phthalate	KS-NT,SIA1X
Kepone	SIA1X
3,3'-Dichlorobenzidine	KS-NT,SIA1X
2-Acetylaminofluorene	SIA1X

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**Work Order: 1GD0730**

Di-n-octyl Phthalate	KS-NT,SIA1X
Benzo(b)Fluoranthene	KS-NT,SIA1X
7,12-Dimethylbenz [a] anthracene	SIA1X
Benzo(k)Fluoranthene	KS-NT,SIA1X
Benzo(a)Pyrene	KS-NT,SIA1X
Dibenzo(a,h)anthracene	KS-NT,SIA1X
Indeno(1,2,3-cd)Pyrene	KS-NT,SIA1X
Benzo(g,h,i)perylene	KS-NT,SIA1X

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	04/30/2023
MO-NT	Missouri Department of Natural Resources (Newton)	10170	04/30/2026
SIA1X	Iowa Dept. of Natural Resources	95	02/01/2024

**Notes and Definitions**

- QM-05 The spike recovery and/or RPD was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- 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-19 The MS or MSD recovery was outside acceptance limits. This resulted in an unacceptable RPD. All other QC was acceptable.
- 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.
- QR-05 The reference standard was outside of established control limits. The batch was accepted based on acceptable LCS, MS/MSD and RPD results.
- QR-06 The reference standard was outside of established control limits.
- 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-06 The spike recovery for this QC sample was outside of established control limits.
- S-07 The surrogate recovery for this sample is outside of established control limits.
- S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

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**Work Order: 1GD0730**

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End of Report

*Sue Thompson*

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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.*



**SITE INFORMATION**

Sampler: LGH  
 Project: Audubon Co. - New Regs  
 6050

**REPORT TO**

Todd Whipple  
 HLW Engineering  
 PO Box 314  
 Story City, IA 50248

**INVOICE TO**

Tami Anderson  
 Audubon County Landfill  
 1881 215th St  
 Audubon, IA 50025

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

**LAB USE ONLY**

Work Order 1GDO730

Temperature 1.4

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-90-4	Water	GRAB	<u>4/5/23</u>	<u>11:45</u>	<u>8</u>	8270-110 indfil-app1-voc-group indfil-app1-metals-6020	<u>01</u>
02-001	MW-90-7	Water	GRAB	<u>4/5/23</u>	<u>12:17</u>	<u>7</u>	indfil-app1-voc-group indfil-app1-metals-6020	<u>02</u>
03-001	MW-90-14	Water	GRAB	<u>4/5/23</u>	<u>10:44</u>	<u>7</u>	indfil-app1-voc-group indfil-app1-metals-6020	<u>03</u>
04-001	MW-90-17	Water	GRAB	<u>4/5/23</u>	<u>10:13</u>	<u>7</u>	indfil-app1-voc-group indfil-app1-metals-6020	<u>04</u>
05-001	MW-91-19	Water	GRAB	<u>4/5/23</u>	<u>11:28</u>	<u>17</u>	indfil-app2-inorg-6020 indfil-app2-org	<u>05</u>
06-001	MW-91-20	Water	GRAB	<u>4/5/23</u>	<u>10:28</u>	<u>7</u>	indfil-app1-voc-group indfil-app1-metals-6020	<u>06</u>
07-001	SW-3	Water	GRAB	<u>4/5/23</u>	<u>12:00</u>	<u>7</u>	indfil-app1-voc-group indfil-app1-metals-6020	<u>07</u>

S. Whipple 4/6/23  
 Relinquished By Date/Time

D. Whipple 4-7-23 9:27  
 Relinquished By Date/Time

Received By Date/Time

Received for Lab By Date/Time

Original - Lab Copy Yellow - Sampler Copy

Remarks:



**SITE INFORMATION**

Sampler: Leit

Project: Audubon Co. - New Regs  
6050

**REPORT TO**

Todd Whipple  
HLW Engineering  
PO Box 314  
Story City, IA 50246

**INVOICE TO**

Tami Anderson  
Audubon County Landfill  
1881 215th St  
Audubon, IA 50025

**SPECIAL INSTRUCTIONS**

None

Turn Around Time  
 Standard  RUSH, need by    /   /   

**LAB USE ONLY**

Work Order 1G D 0 7 3 0

Temperature 1.4

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	Duplicate	Water	GRAB	4/5/23	11:08	7	indfil-app1-voc-group indfil-app1-metals-6020	08

[Signature] Date/Time 4/5/23

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

Relinquished By \_\_\_\_\_ Date/Time \_\_\_\_\_

Received for Lab By \_\_\_\_\_ Date/Time \_\_\_\_\_  
Original - Lab Copy Yellow - Sampler Copy

Remarks:







Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Project Description

Audubon Co. - New Regs

For:

Todd Whipple

**HLW Engineering**

PO Box 314

Story City, IA 50248

A handwritten signature in black ink that reads "Heather Murphy". The signature is written in a cursive style and is contained within a light gray rectangular box.

---

Heather Murphy

Customer Relationship Specialist

Monday, November 13, 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.

Microbac Laboratories, Inc.

600 East 17th Street South | Newton, IA 50208 | 641-792-8451 p | [www.microbac.com](http://www.microbac.com)



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

**HLW Engineering**

Todd Whipple  
PO Box 314  
Story City, IA 50248

**Project Name: Audubon Co. - New Regs**

Project / PO Number: / 6050  
Received: 10/17/2023  
Reported: 11/13/2023

**Sample Summary Report**

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
MW-90-4	1GJ1464-01	Water	GRAB		10/13/23 13:09	10/17/23 11:00
MW-90-7	1GJ1464-02	Water	GRAB		10/13/23 13:25	10/17/23 11:00
MW-90-14	1GJ1464-03	Water	GRAB		10/13/23 12:04	10/17/23 11:00
MW-90-17	1GJ1464-04	Water	GRAB		10/13/23 11:35	10/17/23 11:00
MW-91-19	1GJ1464-05	Water	GRAB		10/13/23 12:41	10/17/23 11:00
MW-91-20	1GJ1464-06	Water	GRAB		10/13/23 11:49	10/17/23 11:00
SW-3	1GJ1464-07	Water	GRAB		10/13/23 12:56	10/17/23 11:00
Duplicate	1GJ1464-08	Water	GRAB		10/13/23 12:04	10/17/23 11:00

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Analytical Testing Parameters

<b>Client Sample ID:</b>	MW-90-4	<b>Collected By:</b>	JGH
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	10/13/2023 13:09
<b>Lab Sample ID:</b>	1GJ1464-01		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Acetone	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Chloroform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Benzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Toluene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Styrene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH

Keystone Laboratories - Newton  
CERTIFICATE OF ANALYSIS  
1GJ1464

Client Sample ID: MW-90-4  
Sample Matrix: Water  
Lab Sample ID: 1GJ1464-01

Collected By: JGH  
Collection Date: 10/13/2023 13:09

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bromoform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0119	LNH
Surrogate: Dibromofluoromethane	88.6	Limit: 75-136	% Rec	1		10/18/23 0000	10/19/23 0119	LNH
Surrogate: Dibromofluoromethane	88.6	Limit: 80-126	% Rec	1		10/18/23 0000	10/19/23 0119	LNH
Surrogate: 1,2-Dichloroethane-d4	87.3	Limit: 63-138	% Rec	1		10/18/23 0000	10/19/23 0119	LNH
Surrogate: 1,2-Dichloroethane-d4	87.3	Limit: 61-142	% Rec	1		10/18/23 0000	10/19/23 0119	LNH
Surrogate: Toluene-d8	105	Limit: 87-116	% Rec	1		10/18/23 0000	10/19/23 0119	LNH
Surrogate: Toluene-d8	105	Limit: 82-121	% Rec	1		10/18/23 0000	10/19/23 0119	LNH
Surrogate: 4-Bromofluorobenzene	107	Limit: 85-111	% Rec	1		10/18/23 0000	10/19/23 0119	LNH
Surrogate: 4-Bromofluorobenzene	107	Limit: 80-116	% Rec	1		10/18/23 0000	10/19/23 0119	LNH

Determination of Base/Neutral Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
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**EPA 3520C/EPA 8270C**

Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L	1		10/19/23 0931	10/31/23 1854	EPP
Surrogate: Nitrobenzene-d5	64.5	Limit: 29-130	% Rec	1		10/19/23 0931	10/31/23 1854	EPP
Surrogate: 2-Fluorobiphenyl	63.9	Limit: 23-113	% Rec	1		10/19/23 0931	10/31/23 1854	EPP
Surrogate: Terphenyl-dl4	85.3	Limit: 27-141	% Rec	1		10/19/23 0931	10/31/23 1854	EPP

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
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**EPA 3005A/EPA 6020A**

Antimony, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Barium, total	<b>0.342</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Nickel, total	<b>0.0043</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0138	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0138	RVV

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Client Sample ID: MW-90-7  
Sample Matrix: Water  
Lab Sample ID: 1GJ1464-02

Collected By: JGH  
Collection Date: 10/13/2023 13:25

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Acetone	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Chloroform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Benzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Toluene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Styrene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Bromoform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

<b>Client Sample ID:</b> MW-90-7	<b>Collected By:</b> JGH
<b>Sample Matrix:</b> Water	<b>Collection Date:</b> 10/13/2023 13:25
<b>Lab Sample ID:</b> 1GJ1464-02	

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		10/18/23 0000	10/19/23 0159	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0159	LNH
Surrogate: Dibromofluoromethane	84.7	Limit: 75-136	% Rec	1		10/18/23 0000	10/19/23 0159	LNH
Surrogate: Dibromofluoromethane	84.7	Limit: 80-126	% Rec	1		10/18/23 0000	10/19/23 0159	LNH
Surrogate: 1,2-Dichloroethane-d4	77.8	Limit: 63-138	% Rec	1		10/18/23 0000	10/19/23 0159	LNH
Surrogate: 1,2-Dichloroethane-d4	77.8	Limit: 61-142	% Rec	1		10/18/23 0000	10/19/23 0159	LNH
Surrogate: Toluene-d8	101	Limit: 82-121	% Rec	1		10/18/23 0000	10/19/23 0159	LNH
Surrogate: Toluene-d8	101	Limit: 87-116	% Rec	1		10/18/23 0000	10/19/23 0159	LNH
Surrogate: 4-Bromofluorobenzene	95.7	Limit: 80-116	% Rec	1		10/18/23 0000	10/19/23 0159	LNH
Surrogate: 4-Bromofluorobenzene	95.7	Limit: 85-111	% Rec	1		10/18/23 0000	10/19/23 0159	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Barium, total	<b>0.302</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Cobalt, total	<b>0.0198</b>	0.0004	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Nickel, total	<b>0.0294</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0214	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0214	RVV

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

<b>Client Sample ID:</b>	MW-90-14	<b>Collected By:</b>	JGH
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	10/13/2023 12:04
<b>Lab Sample ID:</b>	1GJ1464-03		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Dichlorodifluoromethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Chloromethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Bromomethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Chloroethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Acrolein	<10.0	10.0	ug/L	1		10/24/23 0000	10/24/23 1802	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Acetone	<10.0	10.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Methyl Iodide	<2.0	2.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Acetonitrile	<10.0	10.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		10/20/23 0000	10/20/23 1344	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
2,2-Dichloropropane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
2-Butanone (MEK)	<5.0	5.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Chloroform	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,1-Dichloropropene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Benzene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Dibromomethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Toluene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Ethyl Methacrylate	<10.0	10.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,3-Dichloropropane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Client Sample ID: MW-90-14  
Sample Matrix: Water  
Lab Sample ID: 1GJ1464-03

Collected By: JGH  
Collection Date: 10/13/2023 12:04

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Chlorobenzene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Xylenes, total	<2.0	2.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Styrene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Bromoform	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,3-Dichlorobenzene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L	1		10/19/23 0000	10/19/23 1345	LJS
Allyl chloride	<1.0	1.0	ug/L	1		11/01/23 0000	11/01/23 1231	LJS
Chloroprene	<1.0	1.0	ug/L	1		11/01/23 0000	11/01/23 1231	LJS
Methacrylonitrile	<1.0	1.0	ug/L	1		11/01/23 0000	11/01/23 1231	LJS
Methyl Methacrylate	<1.0	1.0	ug/L	1		11/01/23 0000	11/01/23 1231	LJS
Propionitrile	<10.0	10.0	ug/L	1		11/01/23 0000	11/01/23 1231	LJS
Surrogate: Dibromofluoromethane	92.6	Limit: 80-126	% Rec	1		11/01/23 0000	11/01/23 1231	LJS
Surrogate: Dibromofluoromethane	112	Limit: 80-126	% Rec	1		10/19/23 0000	10/19/23 1345	LJS
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 63-138	% Rec	1		10/19/23 0000	10/19/23 1345	LJS
Surrogate: 1,2-Dichloroethane-d4	96.7	Limit: 63-138	% Rec	1		10/24/23 0000	10/24/23 1802	LNH
Surrogate: 1,2-Dichloroethane-d4	83.6	Limit: 63-138	% Rec	1		11/01/23 0000	11/01/23 1231	LJS
Surrogate: 1,2-Dichloroethane-d4	104	Limit: 63-138	% Rec	1		10/20/23 0000	10/20/23 1344	LNH
Surrogate: Toluene-d8	98.6	Limit: 87-116	% Rec	1		11/01/23 0000	11/01/23 1231	LJS
Surrogate: Toluene-d8	97.4	Limit: 87-116	% Rec	1		10/24/23 0000	10/24/23 1802	LNH
Surrogate: Toluene-d8	103	Limit: 87-116	% Rec	1		10/19/23 0000	10/19/23 1345	LJS
Surrogate: Toluene-d8	101	Limit: 87-116	% Rec	1		10/20/23 0000	10/20/23 1344	LNH
Surrogate: 4-Bromofluorobenzene	95.4	Limit: 85-111	% Rec	1		11/01/23 0000	11/01/23 1231	LJS
Surrogate: 4-Bromofluorobenzene	99.0	Limit: 85-111	% Rec	1		10/24/23 0000	10/24/23 1802	LNH
Surrogate: 4-Bromofluorobenzene	111	Limit: 85-111	% Rec	1		10/19/23 0000	10/19/23 1345	LJS
Surrogate: 4-Bromofluorobenzene	101	Limit: 85-111	% Rec	1		10/20/23 0000	10/20/23 1344	LNH

Determination of General Solvents	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 8015C</b>								
Isobutanol	<1.0	1.0	mg/L	1		10/18/23 1219	10/19/23 0153	PDS

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3520C/EPA 8270C</b>								
N-Nitrosodimethylamine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Methyl Methanesulfonate	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
N-Nitrosodiethylamine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP



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<b>Client Sample ID:</b>	MW-90-14	<b>Collected By:</b>	JGH
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	10/13/2023 12:04
<b>Lab Sample ID:</b>	1GJ1464-03		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
N-Nitrosomethylethylamine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Ethyl Methanesulfonate	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Phenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Bis(2-Chloroethyl) Ether	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2-Chlorophenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Benzyl Alcohol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2-Methylphenol (o-Cresol)	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Bis[2-Chloroisopropyl]ether	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
n-Nitroso-di-n-propylamine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
N-Nitrosopyrrolidine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Acetophenone	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
o-Toluidine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
(3 & 4)-Methylphenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Hexachloroethane	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Nitrobenzene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
N-Nitrosopiperidine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Isophorone	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2-Nitrophenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2,4-Dimethylphenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Bis (2-Chloroethoxy) Methane	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2,4-Dichlorophenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Naphthalene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
4-Chloroaniline	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2,6-Dichlorophenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Hexachloropropene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Hexachlorobutadiene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
N-Nitrosodi-n-butylamine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
1,4-Phenylenediamine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
4-Chloro-3-methylphenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2-Methylnaphthalene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Isosafrole	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Hexachlorocyclopentadiene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2,4,6-Trichlorophenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2,4,5-Trichlorophenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Safrole	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2-Chloronaphthalene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2-Nitroaniline	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
1,4-Naphthoquinone	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Dimethylphthalate	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
1,3-Dinitrobenzene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
1,2-Dinitrobenzene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2,6-Dinitrotoluene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP

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<b>Client Sample ID:</b>	MW-90-14	<b>Collected By:</b>	JGH
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	10/13/2023 12:04
<b>Lab Sample ID:</b>	1GJ1464-03		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Acenaphthylene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
3-Nitroaniline	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Acenaphthene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2,4-Dinitrophenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
4-Nitrophenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Dibenzofuran	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2,4-Dinitrotoluene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2,3,4,6-Tetrachlorophenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Pentachlorobenzene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
1-Naphthylamine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2-Naphthylamine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Diethyl Phthalate	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Fluorene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
4-Chlorophenyl Phenyl Ether	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
4-Nitroaniline	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
5-Nitro-o-toluidine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
4,6-Dinitro-2-methylphenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
N-Nitrosodiphenylamine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Diphenylamine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Azobenzene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Diallate	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
1,3,5-Trinitrobenzene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Phenacetin	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
4-Bromophenyl Phenyl Ether	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
4-Aminobiphenyl	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Pentachlorophenol	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Pronamide	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Pentachloronitrobenzene (PCNB)	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Phenanthrene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Anthracene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Di-n-butyl Phthalate	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Methapyrilene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Fluoranthene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Isodrin	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Chlorobenzilate	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Pyrene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
p-(Dimethylamino)azobenzene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
3,3-Dimethylbenzidine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Butyl Benzyl Phthalate	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Benzo(a)anthracene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Chrysene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Kepone	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

<b>Client Sample ID:</b>	MW-90-14	<b>Collected By:</b>	JGH
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	10/13/2023 12:04
<b>Lab Sample ID:</b>	1GJ1464-03		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
3,3'-Dichlorobenzidine	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
2-Acetylaminofluorene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Di-n-octyl Phthalate	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Benzo(b)Fluoranthene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Benzo(k)Fluoranthene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Benzo(a)Pyrene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
3-Methylcholanthrene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Dibenzo(a,h)anthracene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Benzo(g,h,i)perylene	<8	8	ug/L	1		10/18/23 1607	11/08/23 1752	EPP
Surrogate: 2-Fluorophenol	74.8	Limit: 24-136	% Rec	1		10/18/23 1607	11/08/23 1752	EPP
Surrogate: Phenol-d6	74.2	Limit: 15-140	% Rec	1		10/18/23 1607	11/08/23 1752	EPP
Surrogate: Nitrobenzene-d5	71.2	Limit: 29-130	% Rec	1		10/18/23 1607	11/08/23 1752	EPP
Surrogate: 2-Fluorobiphenyl	74.1	Limit: 23-113	% Rec	1		10/18/23 1607	11/08/23 1752	EPP
Surrogate: 2,4,6-Tribromophenol	96.2	Limit: 15-139	% Rec	1		10/18/23 1607	11/08/23 1752	EPP
Surrogate: Terphenyl-dl4	99.1	Limit: 27-141	% Rec	1		10/18/23 1607	11/08/23 1752	EPP

Determination of Organophosphorus Insecticides	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3510C/EPA 8141</b>								
O,O,O-Triethyl phosphorothioate	<0.4	0.4	ug/L	1		10/19/23 1701	11/03/23 1556	EPP
Thionazin	<0.4	0.4	ug/L	1		10/19/23 1701	11/03/23 1556	EPP
Phorate	<0.4	0.4	ug/L	1		10/19/23 1701	11/03/23 1556	EPP
Dimethoate	<0.4	0.4	ug/L	1		10/19/23 1701	11/03/23 1556	EPP
Disulfoton	<0.4	0.4	ug/L	1		10/19/23 1701	11/03/23 1556	EPP
Methyl Parathion	<0.4	0.4	ug/L	1		10/19/23 1701	11/03/23 1556	EPP
Parathion	<0.4	0.4	ug/L	1		10/19/23 1701	11/03/23 1556	EPP
Famphur	<0.4	0.4	ug/L	1		10/19/23 1701	11/03/23 1556	EPP
Surrogate: 2-Nitro-m-xylene	0	Limit: 38-122	% Rec	1	<b>A-01</b>	10/19/23 1701	11/03/23 1556	EPP

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3520C/EPA 8151A</b>								
2,4-D	<2.0	2.0	ug/L	1		10/18/23 0942	10/30/23 1435	EPP
2,4,5-TP (Silvex)	<0.5	0.5	ug/L	1		10/18/23 0942	10/30/23 1435	EPP
2,4,5-T	<0.5	0.5	ug/L	1		10/18/23 0942	10/30/23 1435	EPP
Dinoseb	<0.5	0.5	ug/L	1		10/18/23 0942	10/30/23 1435	EPP
Surrogate: 2,5-Dichlorobenzoic Acid	144	Limit: 31-116	% Rec	1	<b>S-07</b>	10/18/23 0942	10/30/23 1435	EPP

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3510C/EPA 8081</b>								
Alpha-BHC	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

<b>Client Sample ID:</b>	MW-90-14	<b>Collected By:</b>	JGH
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	10/13/2023 12:04
<b>Lab Sample ID:</b>	1GJ1464-03		

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Gamma-BHC [Lindane]	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Beta-BHC	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Heptachlor	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Delta-BHC	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Aldrin	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Heptachlor Epoxide	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Endosulfan I	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
4,4`-DDE	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Dieldrin	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Endrin	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
4,4`-DDD	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Endosulfan II	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
4,4`-DDT	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Endrin Aldehyde	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Endosulfan Sulfate	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Methoxychlor	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Chlordane	<0.10	0.10	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Toxaphene	<0.20	0.20	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Hexachlorobenzene	<0.05	0.05	ug/L	1		10/19/23 1653	11/04/23 0551	EPP
Surrogate: Tetrachloro-m-xylene	68.1	Limit: 10-121	% Rec	1		10/19/23 1653	11/04/23 0551	EPP

Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3510C/EPA 8082</b>								
Arochlor 1016	<0.20	0.20	ug/L	1		10/19/23 1658	11/05/23 2018	EPP
Arochlor 1221	<0.20	0.20	ug/L	1		10/19/23 1658	11/05/23 2018	EPP
Arochlor 1232	<0.20	0.20	ug/L	1		10/19/23 1658	11/05/23 2018	EPP
Arochlor 1242	<0.20	0.20	ug/L	1		10/19/23 1658	11/05/23 2018	EPP
Arochlor 1248	<0.20	0.20	ug/L	1		10/19/23 1658	11/05/23 2018	EPP
Arochlor 1254	<0.20	0.20	ug/L	1		10/19/23 1658	11/05/23 2018	EPP
Arochlor 1260	<0.20	0.20	ug/L	1		10/19/23 1658	11/05/23 2018	EPP
Surrogate: Tetrachloro-m-xylene	70.0	Limit: 38-121	% Rec	1		10/19/23 1658	11/05/23 2018	EPP
Surrogate: Decachlorobiphenyl	87.5	Limit: 25-119	% Rec	1		10/19/23 1658	11/05/23 2018	EPP

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 376.2</b>								
Sulfide, total	<0.10	0.10	mg/L	1		10/20/23 0947	10/20/23 1340	CHP
<b>EPA 9010B</b>								
Cyanide, total	<0.005	0.005	mg/L	1		10/27/23 0843	10/27/23 1657	CHP

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								

Keystone Laboratories - Newton  
CERTIFICATE OF ANALYSIS  
1GJ1464

<b>Client Sample ID:</b>	MW-90-14	<b>Collected By:</b>	JGH
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	10/13/2023 12:04
<b>Lab Sample ID:</b>	1GJ1464-03		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Antimony, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Barium, total	<b>0.381</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Cobalt, total	<b>0.0009</b>	0.0004	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Nickel, total	<b>0.0365</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Tin, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0220	RVV
<b>EPA 7470A</b>								
Mercury, total	<0.00050	0.00050	mg/L	1		10/19/23 1549	10/20/23 1625	JAR

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Client Sample ID: MW-90-17  
Sample Matrix: Water  
Lab Sample ID: 1GJ1464-04

Collected By: JGH  
Collection Date: 10/13/2023 11:35

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Acetone	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Chloroform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Benzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Toluene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Styrene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Bromoform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Client Sample ID: MW-90-17  
Sample Matrix: Water  
Lab Sample ID: 1GJ1464-04

Collected By: JGH  
Collection Date: 10/13/2023 11:35

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		10/18/23 0000	10/19/23 0238	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0238	LNH
Surrogate: Dibromofluoromethane	84.6	Limit: 75-136	% Rec	1		10/18/23 0000	10/19/23 0238	LNH
Surrogate: Dibromofluoromethane	84.6	Limit: 80-126	% Rec	1		10/18/23 0000	10/19/23 0238	LNH
Surrogate: 1,2-Dichloroethane-d4	78.2	Limit: 63-138	% Rec	1		10/18/23 0000	10/19/23 0238	LNH
Surrogate: 1,2-Dichloroethane-d4	78.2	Limit: 61-142	% Rec	1		10/18/23 0000	10/19/23 0238	LNH
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		10/18/23 0000	10/19/23 0238	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/18/23 0000	10/19/23 0238	LNH
Surrogate: 4-Bromofluorobenzene	96.7	Limit: 85-111	% Rec	1		10/18/23 0000	10/19/23 0238	LNH
Surrogate: 4-Bromofluorobenzene	96.7	Limit: 80-116	% Rec	1		10/18/23 0000	10/19/23 0238	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Barium, total	<b>0.314</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0226	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0226	RVV

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

**Client Sample ID:** MW-91-19  
**Sample Matrix:** Water  
**Lab Sample ID:** 1GJ1464-05

**Collected By:** JGH  
**Collection Date:** 10/13/2023 12:41

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Acetone	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Chloroform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Benzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Toluene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Styrene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Bromoform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Client Sample ID: MW-91-19  
Sample Matrix: Water  
Lab Sample ID: 1GJ1464-05

Collected By: JGH  
Collection Date: 10/13/2023 12:41

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		10/18/23 0000	10/19/23 0317	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0317	LNH
Surrogate: Dibromofluoromethane	85.3	Limit: 80-126	% Rec	1		10/18/23 0000	10/19/23 0317	LNH
Surrogate: Dibromofluoromethane	85.3	Limit: 75-136	% Rec	1		10/18/23 0000	10/19/23 0317	LNH
Surrogate: 1,2-Dichloroethane-d4	76.2	Limit: 61-142	% Rec	1		10/18/23 0000	10/19/23 0317	LNH
Surrogate: 1,2-Dichloroethane-d4	76.2	Limit: 63-138	% Rec	1		10/18/23 0000	10/19/23 0317	LNH
Surrogate: Toluene-d8	104	Limit: 87-116	% Rec	1		10/18/23 0000	10/19/23 0317	LNH
Surrogate: Toluene-d8	104	Limit: 82-121	% Rec	1		10/18/23 0000	10/19/23 0317	LNH
Surrogate: 4-Bromofluorobenzene	95.4	Limit: 80-116	% Rec	1		10/18/23 0000	10/19/23 0317	LNH
Surrogate: 4-Bromofluorobenzene	95.4	Limit: 85-111	% Rec	1		10/18/23 0000	10/19/23 0317	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Barium, total	<b>0.482</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Cobalt, total	<b>0.0014</b>	0.0004	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Nickel, total	<b>0.0053</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0232	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0232	RVV

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Client Sample ID: MW-91-20  
Sample Matrix: Water  
Lab Sample ID: 1GJ1464-06

Collected By: JGH  
Collection Date: 10/13/2023 11:49

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Acetone	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Chloroform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Benzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Toluene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Styrene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Bromoform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

<b>Client Sample ID:</b> MW-91-20	<b>Collected By:</b> JGH
<b>Sample Matrix:</b> Water	<b>Collection Date:</b> 10/13/2023 11:49
<b>Lab Sample ID:</b> 1GJ1464-06	

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		10/18/23 0000	10/19/23 0356	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0356	LNH
Surrogate: Dibromofluoromethane	85.2	Limit: 80-126	% Rec	1		10/18/23 0000	10/19/23 0356	LNH
Surrogate: Dibromofluoromethane	85.2	Limit: 75-136	% Rec	1		10/18/23 0000	10/19/23 0356	LNH
Surrogate: 1,2-Dichloroethane-d4	77.9	Limit: 63-138	% Rec	1		10/18/23 0000	10/19/23 0356	LNH
Surrogate: 1,2-Dichloroethane-d4	77.9	Limit: 61-142	% Rec	1		10/18/23 0000	10/19/23 0356	LNH
Surrogate: Toluene-d8	103	Limit: 87-116	% Rec	1		10/18/23 0000	10/19/23 0356	LNH
Surrogate: Toluene-d8	103	Limit: 82-121	% Rec	1		10/18/23 0000	10/19/23 0356	LNH
Surrogate: 4-Bromofluorobenzene	96.6	Limit: 80-116	% Rec	1		10/18/23 0000	10/19/23 0356	LNH
Surrogate: 4-Bromofluorobenzene	96.6	Limit: 85-111	% Rec	1		10/18/23 0000	10/19/23 0356	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Barium, total	<b>0.210</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0238	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0238	RVV

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Client Sample ID: SW-3  
Sample Matrix: Water  
Lab Sample ID: 1GJ1464-07

Collected By: JGH  
Collection Date: 10/13/2023 12:56

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Acetone	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Chloroform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Benzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Toluene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Styrene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Bromoform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Client Sample ID: SW-3  
Sample Matrix: Water  
Lab Sample ID: 1GJ1464-07

Collected By: JGH  
Collection Date: 10/13/2023 12:56

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		10/18/23 0000	10/19/23 0435	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0435	LNH
Surrogate: Dibromofluoromethane	85.6	Limit: 75-136	% Rec	1		10/18/23 0000	10/19/23 0435	LNH
Surrogate: Dibromofluoromethane	85.6	Limit: 80-126	% Rec	1		10/18/23 0000	10/19/23 0435	LNH
Surrogate: 1,2-Dichloroethane-d4	77.6	Limit: 63-138	% Rec	1		10/18/23 0000	10/19/23 0435	LNH
Surrogate: 1,2-Dichloroethane-d4	77.6	Limit: 61-142	% Rec	1		10/18/23 0000	10/19/23 0435	LNH
Surrogate: Toluene-d8	101	Limit: 82-121	% Rec	1		10/18/23 0000	10/19/23 0435	LNH
Surrogate: Toluene-d8	101	Limit: 87-116	% Rec	1		10/18/23 0000	10/19/23 0435	LNH
Surrogate: 4-Bromofluorobenzene	96.5	Limit: 85-111	% Rec	1		10/18/23 0000	10/19/23 0435	LNH
Surrogate: 4-Bromofluorobenzene	96.5	Limit: 80-116	% Rec	1		10/18/23 0000	10/19/23 0435	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Barium, total	<b>0.255</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0244	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0244	RVV

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Client Sample ID: Duplicate  
Sample Matrix: Water  
Lab Sample ID: 1GJ1464-08

Collected By: JGH  
Collection Date: 10/13/2023 12:04

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Vinyl Chloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Chloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Acetone	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Methyl Iodide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Carbon Disulfide	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Methylene Chloride	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Acrylonitrile	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Vinyl Acetate	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Bromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Chloroform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Benzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Trichloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Dibromomethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Bromodichloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Toluene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Dibromochloromethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Chlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Ethylbenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Xylenes, total	<2.0	2.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Styrene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Bromoform	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH

Keystone Laboratories - Newton  
CERTIFICATE OF ANALYSIS  
1GJ1464

<b>Client Sample ID:</b> Duplicate	<b>Collected By:</b> JGH
<b>Sample Matrix:</b> Water	<b>Collection Date:</b> 10/13/2023 12:04
<b>Lab Sample ID:</b> 1GJ1464-08	

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		10/18/23 0000	10/19/23 0514	LNH
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/18/23 0000	10/19/23 0514	LNH
Surrogate: Dibromofluoromethane	86.2	Limit: 75-136	% Rec	1		10/18/23 0000	10/19/23 0514	LNH
Surrogate: Dibromofluoromethane	86.2	Limit: 80-126	% Rec	1		10/18/23 0000	10/19/23 0514	LNH
Surrogate: 1,2-Dichloroethane-d4	79.3	Limit: 63-138	% Rec	1		10/18/23 0000	10/19/23 0514	LNH
Surrogate: 1,2-Dichloroethane-d4	79.3	Limit: 61-142	% Rec	1		10/18/23 0000	10/19/23 0514	LNH
Surrogate: Toluene-d8	103	Limit: 82-121	% Rec	1		10/18/23 0000	10/19/23 0514	LNH
Surrogate: Toluene-d8	103	Limit: 87-116	% Rec	1		10/18/23 0000	10/19/23 0514	LNH
Surrogate: 4-Bromofluorobenzene	96.2	Limit: 85-111	% Rec	1		10/18/23 0000	10/19/23 0514	LNH
Surrogate: 4-Bromofluorobenzene	96.2	Limit: 80-116	% Rec	1		10/18/23 0000	10/19/23 0514	LNH

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Barium, total	<b>0.384</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Cobalt, total	<b>0.0009</b>	0.0004	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Nickel, total	<b>0.0368</b>	0.0040	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0250	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/23/23 1004	10/24/23 0250	RVV



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 8015C	1GJ1105	1GJ1105-BS1	
		1GJ1105-BLK1	
		1GJ1105-MS1	1GJ0597-04
		1GJ1105-MSD1	1GJ0597-04
		1GJ1105-BS2	
		1GJ1105-BLK2	
		1GJ1464-03	MW-90-14
		1GJ1105-MS2	1GJ1452-08
		1GJ1105-MSD2	1GJ1452-08

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	1GJ1146	1GJ1146-BLK1	
		1GJ1146-BS1	
		1GJ1146-BSD1	
		1GJ1464-03	MW-90-14

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1GJ1161	1GJ1161-BS1	
		1GJ1161-BSD1	
		1GJ1161-BLK1	
		1GJ1161-MS1	1GJ1452-01
		1GJ1161-MSD1	1GJ1452-01
		1GJ1161-BLK2	
		1GJ1464-01	MW-90-4
		1GJ1464-02	MW-90-7
		1GJ1464-04	MW-90-17
		1GJ1464-05	MW-91-19
		1GJ1464-06	MW-91-20
		1GJ1464-07	SW-3
1GJ1464-08	Duplicate		

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	1GJ1170	1GJ1170-BLK1	
		1GJ1170-BS1	
		1GJ1170-BSD1	
		1GJ1464-01	MW-90-4

Method	Batch	Laboratory ID	Client / Source ID
EPA 8151A	1GJ1173	1GJ1173-BLK1	
		1GJ1464-03	MW-90-14
		1GJ1173-BS1	



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CERTIFICATE OF ANALYSIS

1GJ1464

Method	Batch	Laboratory ID	Client / Source ID
EPA 8151A	1GJ1173	1GJ1173-BSD1	
EPA 7470A	1GJ1226	1GJ1226-BLK1 1GJ1226-BS1 1GJ1226-MS1 1GJ1226-MSD1 1GJ1464-03	1GJ1415-01 1GJ1415-01 MW-90-14
EPA 8081	1GJ1229	1GJ1229-BLK1 1GJ1229-BS1 1GJ1229-BSD1 1GJ1229-SRM1 1GJ1464-03	MW-90-14
EPA 8082	1GJ1230	1GJ1230-BLK1 1GJ1464-03 1GJ1230-BS1 1GJ1230-BSD1 1GJ1230-SRM1	MW-90-14
EPA 8141	1GJ1231	1GJ1231-BSD1 1GJ1231-SRM1 1GJ1231-BS1 1GJ1464-03	MW-90-14
EPA 8260B	1GJ1243	1GJ1243-BS1 1GJ1243-BSD1 1GJ1243-BLK1 1GJ1464-03 1GJ1243-MS1 1GJ1243-MSD1	MW-90-14 1GJ1446-01 1GJ1446-01
EPA 376.2	1GJ1258	1GJ1258-BS2 1GJ1464-03 1GJ1258-BS4 1GJ1258-MS1 1GJ1258-BS1 1GJ1258-MSD1 1GJ1258-BLK1	MW-90-14 1GJ1464-03 1GJ1464-03

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CERTIFICATE OF ANALYSIS

1GJ1464

EPA 376.2	1GJ1258	1GJ1258-BS3	
<b>Method</b>	<b>Batch</b>	<b>Laboratory ID</b>	<b>Client / Source ID</b>
EPA 6020A	1GJ1312	1GJ1312-BLK1	
		1GJ1312-BLK1	
		1GJ1312-BS1	
		1GJ1312-BS1	
		1GJ1464-01	MW-90-4
		1GJ1312-MS1	1GJ1464-01
		1GJ1312-MS1	1GJ1464-01
		1GJ1312-MSD1	1GJ1464-01
		1GJ1312-MSD1	1GJ1464-01
		1GJ1312-PS1	1GJ1464-01
		1GJ1312-PS1	1GJ1464-01
		1GJ1464-02	MW-90-7
		1GJ1464-03	MW-90-14
		1GJ1464-03	MW-90-14
		1GJ1464-04	MW-90-17
		1GJ1464-05	MW-91-19
		1GJ1464-06	MW-91-20
		1GJ1464-07	SW-3
		1GJ1464-08	Duplicate
<b>Method</b>	<b>Batch</b>	<b>Laboratory ID</b>	<b>Client / Source ID</b>
EPA 8260B	1GJ1371	1GJ1371-BS1	
		1GJ1371-BSD1	
		1GJ1371-BLK1	
		1GJ1464-03	MW-90-14
		1GJ1371-MSD1	1GJ1590-01
		1GJ1371-MS1	1GJ1590-01
<b>Method</b>	<b>Batch</b>	<b>Laboratory ID</b>	<b>Client / Source ID</b>
EPA 8260B	1GJ1487	1GJ1487-BS1	
		1GJ1487-BSD1	
		1GJ1487-BLK1	
		1GJ1464-03RE1	MW-90-14
<b>Method</b>	<b>Batch</b>	<b>Laboratory ID</b>	<b>Client / Source ID</b>
EPA 9010B	1GJ1646	1GJ1646-BLK1	
		1GJ1646-BS1	
		1GJ1646-MS1	1GJ1446-10
		1GJ1646-MSD1	1GJ1446-10
		1GJ1464-03	MW-90-14



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CERTIFICATE OF ANALYSIS

1GJ1464

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1GJ1658	1GJ1658-BS1 1GJ1658-BSD1 1GJ1658-BLK1 1GJ1464-03	MW-90-14

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 1GJ1161 - EPA 5030B - EPA 8260B										

Blank (1GJ1161-BLK1)

Prepared: 10/18/23 00:00 Analyzed: 10/18/23 12:57

Chloromethane	<1.0	1.0	ug/L
Vinyl Chloride	<1.0	1.0	ug/L
Bromomethane	<1.0	1.0	ug/L
Chloroethane	<1.0	1.0	ug/L
Trichlorofluoromethane	<1.0	1.0	ug/L
1,1-Dichloroethylene	<1.0	1.0	ug/L
Acetone	<10.0	10.0	ug/L
Methyl Iodide	<1.0	1.0	ug/L
Carbon Disulfide	<1.0	1.0	ug/L
Methylene Chloride	<5.0	5.0	ug/L
Acrylonitrile	<5.0	5.0	ug/L
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L
1,1-Dichloroethane	<1.0	1.0	ug/L
Vinyl Acetate	<5.0	5.0	ug/L
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L
2-Butanone (MEK)	<10.0	10.0	ug/L
Bromochloromethane	<1.0	1.0	ug/L
Chloroform	<1.0	1.0	ug/L
1,1,1-Trichloroethane	<1.0	1.0	ug/L
Carbon Tetrachloride	<1.0	1.0	ug/L
Benzene	<1.0	1.0	ug/L
1,2-Dichloroethane	<1.0	1.0	ug/L
Trichloroethylene	<1.0	1.0	ug/L
1,2-Dichloropropane	<1.0	1.0	ug/L
Dibromomethane	<1.0	1.0	ug/L
Bromodichloromethane	<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
Toluene	<1.0	1.0	ug/L
trans-1,3-Dichloropropene	<1.0	1.0	ug/L
1,1,2-Trichloroethane	<1.0	1.0	ug/L
Tetrachloroethylene	<1.0	1.0	ug/L
2-Hexanone (MBK)	<5.0	5.0	ug/L
Dibromochloromethane	<1.0	1.0	ug/L

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1161 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1GJ1161-BLK1)</b>										
Prepared: 10/18/23 00:00 Analyzed: 10/18/23 12:57										
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<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							
1,1,1,2-Tetrachloroethane	<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-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
<i>Surrogate: Dibromofluoromethane</i>	44.2		ug/L	50.4		87.7	80-126			
<i>Surrogate: Dibromofluoromethane</i>	44.2		ug/L	50.4		87.7	75-136			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	50.8		ug/L	50.4		101	63-138			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	50.8		ug/L	50.4		101	61-142			
<i>Surrogate: Toluene-d8</i>	52.6		ug/L	50.2		105	87-116			
<i>Surrogate: Toluene-d8</i>	52.6		ug/L	50.2		105	82-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	59.5		ug/L	50.4		118	85-111			S-GC
<i>Surrogate: 4-Bromofluorobenzene</i>	59.5		ug/L	50.4		118	80-116			S-GC
<b>Blank (1GJ1161-BLK2)</b>										
Prepared: 10/18/23 00:00 Analyzed: 10/18/23 22:43										
Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							
Trichlorofluoromethane	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<1.0	1.0	ug/L							
Carbon Disulfide	<1.0	1.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
Acrylonitrile	<5.0	5.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
Vinyl Acetate	<5.0	5.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1161 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1GJ1161-BLK2)</b>										
Prepared: 10/18/23 00:00 Analyzed: 10/18/23 22:43										
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<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							
Toluene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<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							
1,1,2,2-Tetrachloroethane	<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-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
<i>Surrogate: Dibromofluoromethane</i>	45.6		ug/L	50.4		90.5	80-126			
<i>Surrogate: Dibromofluoromethane</i>	45.6		ug/L	50.4		90.5	75-136			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	51.3		ug/L	50.4		102	63-138			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	51.3		ug/L	50.4		102	61-142			
<i>Surrogate: Toluene-d8</i>	52.2		ug/L	50.2		104	87-116			
<i>Surrogate: Toluene-d8</i>	52.2		ug/L	50.2		104	82-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	58.3		ug/L	50.4		116	85-111			S-GC
<i>Surrogate: 4-Bromofluorobenzene</i>	58.3		ug/L	50.4		116	80-116			
<b>LCS (1GJ1161-BS1)</b>										
Prepared: 10/18/23 00:00 Analyzed: 10/18/23 11:00										
Chloromethane	27.89	1.0	ug/L	30.0		92.9	63-155			
Vinyl Chloride	27.45	1.0	ug/L	30.0		91.4	70-154			
Bromomethane	24.45	1.0	ug/L	30.1		81.2	52-176			
Chloroethane	29.55	1.0	ug/L	30.0		98.4	72-148			
Trichlorofluoromethane	28.95	1.0	ug/L	30.0		96.5	70-152			
1,1-Dichloroethylene	53.26	1.0	ug/L	50.1		106	70-148			
Acetone	117.1	10.0	ug/L	100		117	43-172			
Methyl Iodide	95.23	1.0	ug/L	100		95.0	69-170			

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1161 - EPA 5030B - EPA 8260B</b>										
<b>LCS (1GJ1161-BS1)</b>										
Prepared: 10/18/23 00:00 Analyzed: 10/18/23 11:00										
Carbon Disulfide	102.3	1.0	ug/L	100		102	72-162			
Methylene Chloride	44.20	5.0	ug/L	50.2		88.1	68-142			
trans-1,2-Dichloroethylene	52.19	1.0	ug/L	50.3		104	66-148			
1,1-Dichloroethane	52.52	1.0	ug/L	50.2		105	66-143			
Vinyl Acetate	66.92	5.0	ug/L	81.8		81.9	43-153			
cis-1,2-Dichloroethylene	47.73	1.0	ug/L	50.2		95.0	71-149			
2-Butanone (MEK)	107.7	10.0	ug/L	100		108	52-159			
Bromochloromethane	56.04	1.0	ug/L	50.3		111	69-143			
Chloroform	52.15	1.0	ug/L	50.2		104	69-144			
1,1,1-Trichloroethane	50.11	1.0	ug/L	50.3		99.6	62-129			
Carbon Tetrachloride	49.15	1.0	ug/L	50.2		97.9	63-141			
Benzene	54.05	1.0	ug/L	50.2		108	71-134			
1,2-Dichloroethane	65.22	1.0	ug/L	50.2		130	72-132			
Trichloroethylene	55.36	1.0	ug/L	50.3		110	71-135			
1,2-Dichloropropane	57.89	1.0	ug/L	50.2		115	69-136			
Dibromomethane	61.51	1.0	ug/L	50.3		122	73-147			
Bromodichloromethane	51.65	1.0	ug/L	50.3		103	68-129			
cis-1,3-Dichloropropene	57.62	1.0	ug/L	50.2		115	65-134			
4-Methyl-2-pentanone (MIBK)	125.1	5.0	ug/L	100		125	58-147			
Toluene	51.29	1.0	ug/L	50.4		102	72-133			
trans-1,3-Dichloropropene	60.16	1.0	ug/L	50.3		120	67-130			
1,1,2-Trichloroethane	54.54	1.0	ug/L	50.2		109	69-135			
Tetrachloroethylene	47.42	1.0	ug/L	50.2		94.4	69-130			
2-Hexanone (MBK)	126.2	5.0	ug/L	100		126	55-144			
Dibromochloromethane	54.08	1.0	ug/L	50.3		107	73-127			
1,2-Dibromoethane	53.74	1.0	ug/L	50.4		107	67-132			
Chlorobenzene	49.21	1.0	ug/L	50.2		98.0	72-123			
1,1,1,2-Tetrachloroethane	54.85	1.0	ug/L	50.2		109	73-127			
Ethylbenzene	52.52	1.0	ug/L	50.3		104	71-127			
Xylenes, total	164.0	2.0	ug/L	151		109	74-127			
Styrene	50.85	1.0	ug/L	50.3		101	66-126			
Bromoform	52.75	1.0	ug/L	50.2		105	68-130			
1,2,3-Trichloropropane	51.76	1.0	ug/L	50.2		103	63-136			
trans-1,4-Dichloro-2-butene	124.3	5.0	ug/L	100		124	54-134			
1,1,2,2-Tetrachloroethane	55.40	1.0	ug/L	50.2		110	61-131			
1,4-Dichlorobenzene	50.34	1.0	ug/L	50.2		100	70-129			
1,2-Dichlorobenzene	48.94	1.0	ug/L	50.2		97.5	69-126			
1,2-Dibromo-3-chloropropane	49.39	5.0	ug/L	50.4		98.0	50-143			

Surrogate: Dibromofluoromethane	46.4		ug/L	50.4		92.2	80-126			
Surrogate: Dibromofluoromethane	46.4		ug/L	50.4		92.2	75-136			
Surrogate: 1,2-Dichloroethane-d4	58.8		ug/L	50.4		117	63-138			
Surrogate: 1,2-Dichloroethane-d4	58.8		ug/L	50.4		117	61-142			
Surrogate: Toluene-d8	51.1		ug/L	50.2		102	87-116			

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1161 - EPA 5030B - EPA 8260B</b>										
<b>LCS (1GJ1161-BS1)</b>										
				Prepared: 10/18/23 00:00 Analyzed: 10/18/23 11:00						
Surrogate: Toluene-d8	51.1		ug/L	50.2		102	82-121			
Surrogate: 4-Bromofluorobenzene	58.2		ug/L	50.4		115	85-111			S-GC
Surrogate: 4-Bromofluorobenzene	58.2		ug/L	50.4		115	80-116			
<b>LCS Dup (1GJ1161-BSD1)</b>										
				Prepared: 10/18/23 00:00 Analyzed: 10/18/23 11:39						
Chloromethane	27.88	1.0	ug/L	30.0		92.9	63-155	0.0359	24	
Vinyl Chloride	28.20	1.0	ug/L	30.0		93.9	70-154	2.70	25	
Bromomethane	26.06	1.0	ug/L	30.1		86.6	52-176	6.37	27	
Chloroethane	29.28	1.0	ug/L	30.0		97.5	72-148	0.918	25	
Trichlorofluoromethane	29.03	1.0	ug/L	30.0		96.7	70-152	0.276	26	
1,1-Dichloroethylene	53.08	1.0	ug/L	50.1		106	70-148	0.339	24	
Acetone	118.1	10.0	ug/L	100		118	43-172	0.859	30	
Methyl Iodide	95.72	1.0	ug/L	100		95.5	69-170	0.513	30	
Carbon Disulfide	102.3	1.0	ug/L	100		102	72-162	0.0489	24	
Methylene Chloride	44.70	5.0	ug/L	50.2		89.1	68-142	1.12	21	
trans-1,2-Dichloroethylene	51.81	1.0	ug/L	50.3		103	66-148	0.731	27	
1,1-Dichloroethane	53.57	1.0	ug/L	50.2		107	66-143	1.98	24	
Vinyl Acetate	66.91	5.0	ug/L	81.8		81.8	43-153	0.0149	30	
cis-1,2-Dichloroethylene	46.63	1.0	ug/L	50.2		92.8	71-149	2.33	26	
2-Butanone (MEK)	109.6	10.0	ug/L	100		109	52-159	1.81	27	
Bromochloromethane	56.79	1.0	ug/L	50.3		113	69-143	1.33	23	
Chloroform	52.19	1.0	ug/L	50.2		104	69-144	0.0767	23	
1,1,1-Trichloroethane	50.40	1.0	ug/L	50.3		100	62-129	0.577	24	
Carbon Tetrachloride	48.75	1.0	ug/L	50.2		97.1	63-141	0.817	25	
Benzene	52.83	1.0	ug/L	50.2		105	71-134	2.28	24	
1,2-Dichloroethane	65.04	1.0	ug/L	50.2		130	72-132	0.276	24	
Trichloroethylene	54.78	1.0	ug/L	50.3		109	71-135	1.05	24	
1,2-Dichloropropane	57.35	1.0	ug/L	50.2		114	69-136	0.937	24	
Dibromomethane	60.68	1.0	ug/L	50.3		121	73-147	1.36	25	
Bromodichloromethane	50.66	1.0	ug/L	50.3		101	68-129	1.94	22	
cis-1,3-Dichloropropene	56.84	1.0	ug/L	50.2		113	65-134	1.36	23	
4-Methyl-2-pentanone (MIBK)	125.3	5.0	ug/L	100		125	58-147	0.128	27	
Toluene	50.72	1.0	ug/L	50.4		101	72-133	1.12	24	
trans-1,3-Dichloropropene	59.42	1.0	ug/L	50.3		118	67-130	1.24	24	
1,1,2-Trichloroethane	54.73	1.0	ug/L	50.2		109	69-135	0.348	23	
Tetrachloroethylene	46.86	1.0	ug/L	50.2		93.3	69-130	1.19	25	
2-Hexanone (MBK)	128.3	5.0	ug/L	100		128	55-144	1.63	25	
Dibromochloromethane	53.59	1.0	ug/L	50.3		106	73-127	0.910	22	
1,2-Dibromoethane	54.31	1.0	ug/L	50.4		108	67-132	1.06	24	
Chlorobenzene	48.42	1.0	ug/L	50.2		96.4	72-123	1.62	23	
1,1,1,2-Tetrachloroethane	54.33	1.0	ug/L	50.2		108	73-127	0.953	24	
Ethylbenzene	51.74	1.0	ug/L	50.3		103	71-127	1.50	26	
Xylenes, total	162.0	2.0	ug/L	151		107	74-127	1.22	25	



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1161 - EPA 5030B - EPA 8260B</b>										
<b>LCS Dup (1GJ1161-BSD1)</b>										
				Prepared: 10/18/23 00:00 Analyzed: 10/18/23 11:39						
Styrene	51.19	1.0	ug/L	50.3		102	66-126	0.666	23	
Bromoform	53.29	1.0	ug/L	50.2		106	68-130	1.02	23	
1,2,3-Trichloropropane	52.22	1.0	ug/L	50.2		104	63-136	0.885	24	
trans-1,4-Dichloro-2-butene	124.8	5.0	ug/L	100		124	54-134	0.393	27	
1,1,2,2-Tetrachloroethane	55.51	1.0	ug/L	50.2		111	61-131	0.198	29	
1,4-Dichlorobenzene	49.25	1.0	ug/L	50.2		98.2	70-129	2.19	24	
1,2-Dichlorobenzene	49.26	1.0	ug/L	50.2		98.2	69-126	0.652	26	
1,2-Dibromo-3-chloropropane	48.91	5.0	ug/L	50.4		97.0	50-143	0.977	30	
Surrogate: Dibromofluoromethane	47.0		ug/L	50.4		93.3	80-126			
Surrogate: Dibromofluoromethane	47.0		ug/L	50.4		93.3	75-136			
Surrogate: 1,2-Dichloroethane-d4	59.8		ug/L	50.4		119	63-138			
Surrogate: 1,2-Dichloroethane-d4	59.8		ug/L	50.4		119	61-142			
Surrogate: Toluene-d8	50.5		ug/L	50.2		101	87-116			
Surrogate: Toluene-d8	50.5		ug/L	50.2		101	82-121			
Surrogate: 4-Bromofluorobenzene	58.6		ug/L	50.4		116	85-111			S-GC
Surrogate: 4-Bromofluorobenzene	58.6		ug/L	50.4		116	80-116			
<b>Matrix Spike (1GJ1161-MS1)</b>										
				Source: 1GJ1452-01 Prepared: 10/18/23 00:00 Analyzed: 10/18/23 20:46						
Chloromethane	274.2	10.0	ug/L	300	ND	91.4	61-152			
Vinyl Chloride	278.8	10.0	ug/L	300	ND	92.9	66-149			
Bromomethane	245.2	10.0	ug/L	300	ND	81.7	43-171			
Chloroethane	296.1	10.0	ug/L	300	ND	98.7	69-148			
Trichlorofluoromethane	300.2	10.0	ug/L	300	ND	100	62-163			
1,1-Dichloroethylene	540.1	10.0	ug/L	500	ND	108	70-148			
Acetone	1266	100	ug/L	1020	ND	124	45-173			
Methyl Iodide	939.7	10.0	ug/L	997	ND	94.3	62-167			
Carbon Disulfide	1032	10.0	ug/L	1010	ND	102	71-163			
Methylene Chloride	452.7	50.0	ug/L	500	ND	90.5	69-140			
trans-1,2-Dichloroethylene	535.5	10.0	ug/L	500	ND	107	69-144			
1,1-Dichloroethane	542.9	10.0	ug/L	500	ND	109	70-138			
Vinyl Acetate	680.6	50.0	ug/L	1020	ND	66.8	58-142			
cis-1,2-Dichloroethylene	481.7	10.0	ug/L	495	ND	97.4	68-151			
2-Butanone (MEK)	1116	100	ug/L	1030	ND	108	50-160			
Bromochloromethane	563.3	10.0	ug/L	500	ND	113	65-143			
Chloroform	532.7	10.0	ug/L	500	ND	107	71-143			
1,1,1-Trichloroethane	519.6	10.0	ug/L	500	ND	104	63-133			
Carbon Tetrachloride	507.4	10.0	ug/L	500	ND	101	63-142			
Benzene	541.4	10.0	ug/L	500	ND	108	69-133			
1,2-Dichloroethane	651.9	10.0	ug/L	500	ND	130	63-138			
Trichloroethylene	555.9	10.0	ug/L	500	ND	111	71-133			
1,2-Dichloropropane	581.7	10.0	ug/L	500	ND	116	69-132			
Dibromomethane	621.4	10.0	ug/L	500	ND	124	70-147			
Bromodichloromethane	520.4	10.0	ug/L	500	ND	104	67-130			
cis-1,3-Dichloropropene	563.4	10.0	ug/L	503	ND	112	61-126			





Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1161 - EPA 5030B - EPA 8260B</b>										
<b>Matrix Spike (1GJ1161-MS1)</b>	<b>Source: 1GJ1452-01</b>			Prepared: 10/18/23 00:00 Analyzed: 10/18/23 20:46						
4-Methyl-2-pentanone (MIBK)	1249	50.0	ug/L	1010	ND	123	55-147			
Toluene	514.5	10.0	ug/L	500	ND	103	71-133			
trans-1,3-Dichloropropene	585.6	10.0	ug/L	504	ND	116	63-124			
1,1,2-Trichloroethane	562.1	10.0	ug/L	500	ND	112	69-133			
Tetrachloroethylene	492.9	10.0	ug/L	500	ND	98.6	70-124			
2-Hexanone (MBK)	1286	50.0	ug/L	1030	ND	124	53-141			
Dibromochloromethane	556.2	10.0	ug/L	495	ND	112	74-122			
1,2-Dibromoethane	561.4	10.0	ug/L	500	ND	112	66-127			
Chlorobenzene	500.0	10.0	ug/L	500	ND	100	76-116			
1,1,1,2-Tetrachloroethane	565.3	10.0	ug/L	500	ND	113	77-121			
Ethylbenzene	528.9	10.0	ug/L	500	ND	106	73-124			
Xylenes, total	1659	20.0	ug/L	1500	ND	111	75-123			
Styrene	518.9	10.0	ug/L	500	ND	104	70-120			
Bromoform	543.4	10.0	ug/L	500	ND	109	70-124			
1,2,3-Trichloropropane	555.5	10.0	ug/L	500	ND	111	62-135			
trans-1,4-Dichloro-2-butene	1234	50.0	ug/L	1040	ND	119	50-120			
1,1,2,2-Tetrachloroethane	556.4	10.0	ug/L	498	ND	112	63-126			
1,4-Dichlorobenzene	497.9	10.0	ug/L	500	ND	99.6	72-119			
1,2-Dichlorobenzene	488.2	10.0	ug/L	500	ND	97.6	71-117			
1,2-Dibromo-3-chloropropane	492.4	50.0	ug/L	500	ND	98.5	49-134			
<i>Surrogate: Dibromofluoromethane</i>	485		ug/L	504		96.3	80-126			
<i>Surrogate: Dibromofluoromethane</i>	485		ug/L	504		96.3	75-136			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	600		ug/L	504		119	63-138			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	600		ug/L	504		119	61-142			
<i>Surrogate: Toluene-d8</i>	502		ug/L	502		99.8	87-116			
<i>Surrogate: Toluene-d8</i>	502		ug/L	502		99.8	82-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	595		ug/L	504		118	85-111			S-GC
<i>Surrogate: 4-Bromofluorobenzene</i>	595		ug/L	504		118	80-116			S-GC
<b>Matrix Spike Dup (1GJ1161-MSD1)</b>	<b>Source: 1GJ1452-01</b>			Prepared: 10/18/23 00:00 Analyzed: 10/18/23 21:25						
Chloromethane	262.9	10.0	ug/L	300	ND	87.6	61-152	4.21	26	
Vinyl Chloride	267.4	10.0	ug/L	300	ND	89.1	66-149	4.17	23	
Bromomethane	250.2	10.0	ug/L	300	ND	83.4	43-171	2.02	29	
Chloroethane	275.4	10.0	ug/L	300	ND	91.8	69-148	7.24	25	
Trichlorofluoromethane	284.7	10.0	ug/L	300	ND	94.9	62-163	5.30	25	
1,1-Dichloroethylene	512.3	10.0	ug/L	500	ND	102	70-148	5.28	22	
Acetone	1192	100	ug/L	1020	ND	117	45-173	5.99	30	
Methyl Iodide	908.8	10.0	ug/L	997	ND	91.2	62-167	3.34	24	
Carbon Disulfide	977.5	10.0	ug/L	1010	ND	96.8	71-163	5.42	22	
Methylene Chloride	442.5	50.0	ug/L	500	ND	88.5	69-140	2.28	19	
trans-1,2-Dichloroethylene	503.6	10.0	ug/L	500	ND	101	69-144	6.14	22	
1,1-Dichloroethane	514.9	10.0	ug/L	500	ND	103	70-138	5.29	20	
Vinyl Acetate	644.8	50.0	ug/L	1020	ND	63.3	58-142	5.40	24	
cis-1,2-Dichloroethylene	460.9	10.0	ug/L	495	ND	93.2	68-151	4.41	22	



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1161 - EPA 5030B - EPA 8260B</b>										
<b>Matrix Spike Dup (1GJ1161-MSD1)</b>	<b>Source: 1GJ1452-01</b>			Prepared: 10/18/23 00:00 Analyzed: 10/18/23 21:25						
2-Butanone (MEK)	1070	100	ug/L	1030	ND	104	50-160	4.20	23	
Bromochloromethane	559.2	10.0	ug/L	500	ND	112	65-143	0.731	22	
Chloroform	510.4	10.0	ug/L	500	ND	102	71-143	4.28	21	
1,1,1-Trichloroethane	496.4	10.0	ug/L	500	ND	99.3	63-133	4.57	23	
Carbon Tetrachloride	478.4	10.0	ug/L	500	ND	95.7	63-142	5.88	22	
Benzene	520.0	10.0	ug/L	500	ND	104	69-133	4.03	18	
1,2-Dichloroethane	641.3	10.0	ug/L	500	ND	128	63-138	1.64	20	
Trichloroethylene	538.6	10.0	ug/L	500	ND	108	71-133	3.16	23	
1,2-Dichloropropane	567.3	10.0	ug/L	500	ND	113	69-132	2.51	20	
Dibromomethane	600.4	10.0	ug/L	500	ND	120	70-147	3.44	22	
Bromodichloromethane	505.4	10.0	ug/L	500	ND	101	67-130	2.92	21	
cis-1,3-Dichloropropene	549.5	10.0	ug/L	503	ND	109	61-126	2.50	21	
4-Methyl-2-pentanone (MIBK)	1197	50.0	ug/L	1010	ND	118	55-147	4.23	23	
Toluene	499.0	10.0	ug/L	500	ND	99.8	71-133	3.06	19	
trans-1,3-Dichloropropene	574.4	10.0	ug/L	504	ND	114	63-124	1.93	21	
1,1,2-Trichloroethane	548.7	10.0	ug/L	500	ND	110	69-133	2.41	19	
Tetrachloroethylene	469.4	10.0	ug/L	500	ND	93.9	70-124	4.88	24	
2-Hexanone (MBK)	1218	50.0	ug/L	1030	ND	118	53-141	5.39	24	
Dibromochloromethane	533.6	10.0	ug/L	495	ND	108	74-122	4.15	21	
1,2-Dibromoethane	533.5	10.0	ug/L	500	ND	107	66-127	5.10	23	
Chlorobenzene	476.9	10.0	ug/L	500	ND	95.4	76-116	4.73	21	
1,1,1,2-Tetrachloroethane	539.1	10.0	ug/L	500	ND	108	77-121	4.74	25	
Ethylbenzene	507.6	10.0	ug/L	500	ND	102	73-124	4.11	20	
Xylenes, total	1593	20.0	ug/L	1500	ND	106	75-123	4.10	20	
Styrene	506.3	10.0	ug/L	500	ND	101	70-120	2.46	23	
Bromoform	533.0	10.0	ug/L	500	ND	107	70-124	1.93	22	
1,2,3-Trichloropropane	537.4	10.0	ug/L	500	ND	107	62-135	3.31	28	
trans-1,4-Dichloro-2-butene	1179	50.0	ug/L	1040	ND	114	50-120	4.48	26	
1,1,2,2-Tetrachloroethane	541.7	10.0	ug/L	498	ND	109	63-126	2.68	24	
1,4-Dichlorobenzene	479.4	10.0	ug/L	500	ND	95.9	72-119	3.79	24	
1,2-Dichlorobenzene	478.8	10.0	ug/L	500	ND	95.8	71-117	1.94	24	
1,2-Dibromo-3-chloropropane	487.1	50.0	ug/L	500	ND	97.4	49-134	1.08	28	
Surrogate: Dibromofluoromethane	467		ug/L	504		92.7	80-126			
Surrogate: Dibromofluoromethane	467		ug/L	504		92.7	75-136			
Surrogate: 1,2-Dichloroethane-d4	587		ug/L	504		117	63-138			
Surrogate: 1,2-Dichloroethane-d4	587		ug/L	504		117	61-142			
Surrogate: Toluene-d8	509		ug/L	502		101	87-116			
Surrogate: Toluene-d8	509		ug/L	502		101	82-121			
Surrogate: 4-Bromofluorobenzene	594		ug/L	504		118	85-111			S-GC
Surrogate: 4-Bromofluorobenzene	594		ug/L	504		118	80-116			S-GC

**Batch 1GJ1243 - EPA 5030B - EPA 8260B**

Blank (1GJ1243-BLK1)

Prepared: 10/19/23 00:00 Analyzed: 10/19/23 12:25

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CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1243 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1GJ1243-BLK1)</b>										
Prepared: 10/19/23 00:00 Analyzed: 10/19/23 12:25										
Dichlorodifluoromethane	<1.0	1.0	ug/L							
Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							
Trichlorofluoromethane	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<2.0	2.0	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							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	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							
2-Butanone (MEK)	<5.0	5.0	ug/L							
Bromochloromethane	<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-Dichloropropene	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<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							
Toluene	<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							
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							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1243 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1GJ1243-BLK1)</b>										
Prepared: 10/19/23 00:00 Analyzed: 10/19/23 12:25										
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<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							
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							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L							
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L							
<i>Surrogate: Dibromofluoromethane</i>	56.1		ug/L	50.4		111	80-126			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	51.4		ug/L	50.4		102	63-138			
<i>Surrogate: Toluene-d8</i>	51.6		ug/L	50.2		103	87-116			
<i>Surrogate: 4-Bromofluorobenzene</i>	55.7		ug/L	50.4		110	85-111			
<b>LCS (1GJ1243-BS1)</b>										
Prepared: 10/19/23 00:00 Analyzed: 10/19/23 11:05										
Dichlorodifluoromethane	32.72	1.0	ug/L	30.0		109	44-139			
Chloromethane	33.65	1.0	ug/L	30.0		112	56-152			
Vinyl Chloride	35.22	1.0	ug/L	30.0		117	62-151			
Bromomethane	38.85	1.0	ug/L	30.0		130	61-162			
Chloroethane	36.31	1.0	ug/L	30.0		121	69-138			
Trichlorofluoromethane	33.56	1.0	ug/L	30.0		112	70-143			
1,1-Dichloroethylene	56.32	1.0	ug/L	50.0		113	76-140			
Acetone	105.6	10.0	ug/L	102		103	51-156			
Methyl Iodide	119.1	2.0	ug/L	99.7		119	81-166			
Carbon Disulfide	104.9	1.0	ug/L	101		104	76-147			
Acetonitrile	108.5	10.0	ug/L	101		108	46-156			
Methylene Chloride	46.32	5.0	ug/L	50.0		92.6	67-139			
trans-1,2-Dichloroethylene	52.30	1.0	ug/L	50.0		105	72-135			
1,1-Dichloroethane	50.38	1.0	ug/L	50.0		101	72-129			
Vinyl Acetate	69.85	5.0	ug/L	102		68.5	24-144			
2,2-Dichloropropane	48.97	1.0	ug/L	50.0		97.9	64-131			
cis-1,2-Dichloroethylene	56.69	1.0	ug/L	49.5		115	81-137			
2-Butanone (MEK)	104.4	5.0	ug/L	103		101	47-149			
Bromochloromethane	50.28	1.0	ug/L	50.0		101	75-138			
Chloroform	50.72	1.0	ug/L	50.0		101	78-131			
1,1,1-Trichloroethane	47.69	1.0	ug/L	50.0		95.4	67-121			
1,1-Dichloropropene	54.92	1.0	ug/L	50.0		110	80-131			
Carbon Tetrachloride	53.99	1.0	ug/L	50.0		108	71-131			
Benzene	53.73	1.0	ug/L	50.0		107	77-130			
1,2-Dichloroethane	46.93	1.0	ug/L	50.0		93.9	76-126			
Trichloroethylene	52.76	1.0	ug/L	50.0		106	80-124			



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1243 - EPA 5030B - EPA 8260B</b>										
<b>LCS (1GJ1243-BS1)</b>										
				Prepared: 10/19/23 00:00 Analyzed: 10/19/23 11:05						
1,2-Dichloropropane	53.23	1.0	ug/L	50.0		106	81-125			
Dibromomethane	55.86	1.0	ug/L	50.0		112	84-134			
Bromodichloromethane	50.40	1.0	ug/L	50.0		101	78-121			
cis-1,3-Dichloropropene	50.56	1.0	ug/L	50.3		100	78-120			
4-Methyl-2-pentanone (MIBK)	99.85	5.0	ug/L	101		98.5	67-143			
Toluene	50.70	1.0	ug/L	50.0		101	77-130			
trans-1,3-Dichloropropene	46.26	1.0	ug/L	50.4		91.7	77-123			
Ethyl Methacrylate	97.05	10.0	ug/L	101		96.5	52-148			
1,1,2-Trichloroethane	48.94	1.0	ug/L	50.0		97.9	78-124			
Tetrachloroethylene	54.22	1.0	ug/L	50.0		108	73-124			
1,3-Dichloropropane	53.16	1.0	ug/L	50.0		106	78-131			
2-Hexanone (MBK)	105.2	5.0	ug/L	103		102	57-145			
Dibromochloromethane	50.71	1.0	ug/L	49.5		102	78-126			
1,2-Dibromoethane	50.57	1.0	ug/L	50.0		101	69-126			
Chlorobenzene	52.16	1.0	ug/L	50.0		104	76-120			
1,1,1,2-Tetrachloroethane	51.73	1.0	ug/L	50.0		103	81-122			
Ethylbenzene	53.57	1.0	ug/L	50.0		107	74-121			
Xylenes, total	154.6	2.0	ug/L	150		103	75-122			
Styrene	52.49	1.0	ug/L	50.0		105	76-119			
Bromoform	55.17	1.0	ug/L	50.0		110	74-127			
1,2,3-Trichloropropane	54.17	1.0	ug/L	50.0		108	73-125			
trans-1,4-Dichloro-2-butene	104.1	5.0	ug/L	104		100	55-135			
1,1,2,2-Tetrachloroethane	54.60	1.0	ug/L	49.8		110	58-133			
1,3-Dichlorobenzene	52.86	1.0	ug/L	50.0		106	70-125			
1,4-Dichlorobenzene	54.29	1.0	ug/L	50.0		109	69-128			
1,2-Dichlorobenzene	53.61	1.0	ug/L	50.0		107	70-125			
1,2-Dibromo-3-chloropropane	60.87	1.0	ug/L	50.0		122	54-147			
1,2,4-Trichlorobenzene	57.62	1.0	ug/L	50.0		115	55-149			
<i>Surrogate: Dibromofluoromethane</i>	46.7		ug/L	50.4		92.8	80-126			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	49.1		ug/L	50.4		97.3	63-138			
<i>Surrogate: Toluene-d8</i>	48.6		ug/L	50.2		96.8	87-116			
<i>Surrogate: 4-Bromofluorobenzene</i>	47.7		ug/L	50.4		94.5	85-111			
<b>LCS Dup (1GJ1243-BSD1)</b>										
				Prepared: 10/19/23 00:00 Analyzed: 10/19/23 11:32						
Dichlorodifluoromethane	32.20	1.0	ug/L	30.0		107	44-139	1.60	30	
Chloromethane	33.26	1.0	ug/L	30.0		111	56-152	1.17	30	
Vinyl Chloride	34.64	1.0	ug/L	30.0		115	62-151	1.66	28	
Bromomethane	38.82	1.0	ug/L	30.0		129	61-162	0.0772	28	
Chloroethane	35.23	1.0	ug/L	30.0		117	69-138	3.02	29	
Trichlorofluoromethane	32.33	1.0	ug/L	30.0		108	70-143	3.73	27	
1,1-Dichloroethylene	55.87	1.0	ug/L	50.0		112	76-140	0.802	30	
Acetone	106.0	10.0	ug/L	102		104	51-156	0.463	30	
Methyl Iodide	119.0	2.0	ug/L	99.7		119	81-166	0.0840	29	

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CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1243 - EPA 5030B - EPA 8260B</b>										
<b>LCS Dup (1GJ1243-BSD1)</b>										
				Prepared: 10/19/23 00:00 Analyzed: 10/19/23 11:32						
Carbon Disulfide	103.1	1.0	ug/L	101		102	76-147	1.76	27	
Acetonitrile	109.7	10.0	ug/L	101		109	46-156	1.05	30	
Methylene Chloride	46.73	5.0	ug/L	50.0		93.5	67-139	0.881	26	
trans-1,2-Dichloroethylene	51.80	1.0	ug/L	50.0		104	72-135	0.961	28	
1,1-Dichloroethane	50.25	1.0	ug/L	50.0		100	72-129	0.258	26	
Vinyl Acetate	73.74	5.0	ug/L	102		72.4	24-144	5.42	30	
2,2-Dichloropropane	48.48	1.0	ug/L	50.0		97.0	64-131	1.01	26	
cis-1,2-Dichloroethylene	56.89	1.0	ug/L	49.5		115	81-137	0.352	27	
2-Butanone (MEK)	100.4	5.0	ug/L	103		97.2	47-149	3.92	30	
Bromochloromethane	50.97	1.0	ug/L	50.0		102	75-138	1.36	24	
Chloroform	51.16	1.0	ug/L	50.0		102	78-131	0.864	27	
1,1,1-Trichloroethane	47.80	1.0	ug/L	50.0		95.6	67-121	0.230	28	
1,1-Dichloropropene	54.74	1.0	ug/L	50.0		109	80-131	0.328	30	
Carbon Tetrachloride	53.72	1.0	ug/L	50.0		107	71-131	0.501	28	
Benzene	53.14	1.0	ug/L	50.0		106	77-130	1.10	25	
1,2-Dichloroethane	47.97	1.0	ug/L	50.0		95.9	76-126	2.19	24	
Trichloroethylene	52.05	1.0	ug/L	50.0		104	80-124	1.35	27	
1,2-Dichloropropane	52.72	1.0	ug/L	50.0		105	81-125	0.963	25	
Dibromomethane	55.75	1.0	ug/L	50.0		112	84-134	0.197	23	
Bromodichloromethane	50.62	1.0	ug/L	50.0		101	78-121	0.436	25	
cis-1,3-Dichloropropene	50.18	1.0	ug/L	50.3		99.7	78-120	0.754	26	
4-Methyl-2-pentanone (MIBK)	96.52	5.0	ug/L	101		95.2	67-143	3.39	26	
Toluene	49.57	1.0	ug/L	50.0		99.1	77-130	2.25	27	
trans-1,3-Dichloropropene	44.64	1.0	ug/L	50.4		88.5	77-123	3.56	28	
Ethyl Methacrylate	94.08	10.0	ug/L	101		93.5	52-148	3.11	30	
1,1,2-Trichloroethane	47.98	1.0	ug/L	50.0		96.0	78-124	1.98	24	
Tetrachloroethylene	52.13	1.0	ug/L	50.0		104	73-124	3.93	26	
1,3-Dichloropropane	51.51	1.0	ug/L	50.0		103	78-131	3.15	24	
2-Hexanone (MBK)	100.8	5.0	ug/L	103		97.6	57-145	4.32	30	
Dibromochloromethane	49.76	1.0	ug/L	49.5		101	78-126	1.89	23	
1,2-Dibromoethane	49.06	1.0	ug/L	50.0		98.1	69-126	3.03	22	
Chlorobenzene	50.51	1.0	ug/L	50.0		101	76-120	3.21	25	
1,1,1,2-Tetrachloroethane	50.23	1.0	ug/L	50.0		100	81-122	2.94	23	
Ethylbenzene	52.17	1.0	ug/L	50.0		104	74-121	2.65	27	
Xylenes, total	151.4	2.0	ug/L	150		101	75-122	2.10	26	
Styrene	51.96	1.0	ug/L	50.0		104	76-119	1.01	26	
Bromoform	54.95	1.0	ug/L	50.0		110	74-127	0.400	22	
1,2,3-Trichloropropane	53.91	1.0	ug/L	50.0		108	73-125	0.481	20	
trans-1,4-Dichloro-2-butene	104.2	5.0	ug/L	104		100	55-135	0.0960	26	
1,1,2,2-Tetrachloroethane	53.74	1.0	ug/L	49.8		108	58-133	1.59	28	
1,3-Dichlorobenzene	51.57	1.0	ug/L	50.0		103	70-125	2.47	27	
1,4-Dichlorobenzene	52.46	1.0	ug/L	50.0		105	69-128	3.43	29	
1,2-Dichlorobenzene	52.36	1.0	ug/L	50.0		105	70-125	2.36	25	

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1243 - EPA 5030B - EPA 8260B</b>										
<b>LCS Dup (1GJ1243-BSD1)</b>				Prepared: 10/19/23 00:00 Analyzed: 10/19/23 11:32						
1,2-Dibromo-3-chloropropane	58.73	1.0	ug/L	50.0		117	54-147	3.58	29	
1,2,4-Trichlorobenzene	55.70	1.0	ug/L	50.0		111	55-149	3.39	30	
Surrogate: Dibromofluoromethane	48.3		ug/L	50.4		96.0	80-126			
Surrogate: 1,2-Dichloroethane-d4	49.7		ug/L	50.4		98.6	63-138			
Surrogate: Toluene-d8	48.2		ug/L	50.2		96.0	87-116			
Surrogate: 4-Bromofluorobenzene	47.4		ug/L	50.4		94.0	85-111			
<b>Matrix Spike (1GJ1243-MS1)</b>				Source: 1GJ1446-01 Prepared: 10/19/23 00:00 Analyzed: 10/19/23 21:45						
Dichlorodifluoromethane	317.6	10.0	ug/L	300	ND	106	47-137			
Chloromethane	300.6	10.0	ug/L	300	ND	100	49-154			
Vinyl Chloride	303.0	10.0	ug/L	300	ND	101	61-152			
Bromomethane	284.2	10.0	ug/L	300	ND	94.7	47-168			
Chloroethane	277.0	10.0	ug/L	300	ND	92.3	61-148			
Trichlorofluoromethane	293.5	10.0	ug/L	300	ND	97.8	73-147			
1,1-Dichloroethylene	518.6	10.0	ug/L	500	ND	104	68-153			
Acetone	1109	100	ug/L	1020	ND	109	45-175			
Methyl Iodide	924.6	20.0	ug/L	997	ND	92.7	79-167			
Carbon Disulfide	1008	10.0	ug/L	1010	ND	99.8	72-156			
Acetonitrile	1125	100	ug/L	1010	ND	112	38-166			
Methylene Chloride	468.4	50.0	ug/L	500	ND	93.7	64-143			
trans-1,2-Dichloroethylene	508.6	10.0	ug/L	500	ND	102	65-145			
1,1-Dichloroethane	501.7	10.0	ug/L	500	ND	100	68-136			
Vinyl Acetate	876.0	50.0	ug/L	1020	ND	86.0	58-143			
2,2-Dichloropropane	416.1	10.0	ug/L	500	ND	83.2	50-118			
cis-1,2-Dichloroethylene	533.1	10.0	ug/L	495	ND	108	67-153			
2-Butanone (MEK)	1008	50.0	ug/L	1030	ND	97.6	52-159			
Bromochloromethane	489.5	10.0	ug/L	500	ND	97.9	61-151			
Chloroform	493.0	10.0	ug/L	500	ND	98.6	77-132			
1,1,1-Trichloroethane	504.7	10.0	ug/L	500	ND	101	71-118			
1,1-Dichloropropene	530.2	10.0	ug/L	500	ND	106	82-128			
Carbon Tetrachloride	520.8	10.0	ug/L	500	ND	104	71-133			
Benzene	549.6	10.0	ug/L	500	ND	110	81-125			
1,2-Dichloroethane	502.1	10.0	ug/L	500	ND	100	75-125			
Trichloroethylene	538.9	10.0	ug/L	500	ND	108	83-120			
1,2-Dichloropropane	546.7	10.0	ug/L	500	ND	109	80-124			
Dibromomethane	540.4	10.0	ug/L	500	ND	108	84-131			
Bromodichloromethane	533.7	10.0	ug/L	500	ND	107	79-118			
cis-1,3-Dichloropropene	502.1	10.0	ug/L	503	ND	99.8	75-116			
4-Methyl-2-pentanone (MIBK)	1052	50.0	ug/L	1010	ND	104	65-149			
Toluene	516.0	10.0	ug/L	500	ND	103	82-123			
trans-1,3-Dichloropropene	465.5	10.0	ug/L	504	ND	92.3	75-117			
Ethyl Methacrylate	1013	100	ug/L	1010	ND	101	73-135			
1,1,2-Trichloroethane	497.0	10.0	ug/L	500	ND	99.4	77-122			

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1243 - EPA 5030B - EPA 8260B</b>										
<b>Matrix Spike (1GJ1243-MS1)</b>	<b>Source: 1GJ1446-01</b>			Prepared: 10/19/23 00:00 Analyzed: 10/19/23 21:45						
Tetrachloroethylene	507.3	10.0	ug/L	500	ND	101	74-120			
1,3-Dichloropropane	467.8	10.0	ug/L	500	ND	93.6	80-127			
2-Hexanone (MBK)	996.9	50.0	ug/L	1030	ND	96.5	57-150			
Dibromochloromethane	458.2	10.0	ug/L	495	ND	92.6	80-120			
1,2-Dibromoethane	469.2	10.0	ug/L	500	ND	93.8	67-125			
Chlorobenzene	494.6	10.0	ug/L	500	ND	98.9	81-113			
1,1,1,2-Tetrachloroethane	473.3	10.0	ug/L	500	ND	94.7	80-119			
Ethylbenzene	516.4	10.0	ug/L	500	ND	103	78-114			
Xylenes, total	1486	20.0	ug/L	1500	ND	99.1	77-116			
Styrene	510.2	10.0	ug/L	500	ND	102	78-114			
Bromoform	493.0	10.0	ug/L	500	ND	98.6	69-125			
1,2,3-Trichloropropane	508.1	10.0	ug/L	500	ND	102	72-125			
trans-1,4-Dichloro-2-butene	989.8	50.0	ug/L	1040	ND	95.3	48-131			
1,1,2,2-Tetrachloroethane	521.9	10.0	ug/L	498	ND	105	51-138			
1,3-Dichlorobenzene	490.1	10.0	ug/L	500	ND	98.0	70-122			
1,4-Dichlorobenzene	480.8	10.0	ug/L	500	ND	96.2	70-124			
1,2-Dichlorobenzene	489.1	10.0	ug/L	500	ND	97.8	68-123			
1,2-Dibromo-3-chloropropane	537.8	10.0	ug/L	500	ND	108	46-149			
1,2,4-Trichlorobenzene	510.4	10.0	ug/L	500	ND	102	60-137			
Surrogate: Dibromofluoromethane	447		ug/L	504		88.8	80-126			
Surrogate: 1,2-Dichloroethane-d4	466		ug/L	504		92.5	63-138			
Surrogate: Toluene-d8	494		ug/L	502		98.2	87-116			
Surrogate: 4-Bromofluorobenzene	482		ug/L	504		95.7	85-111			
<b>Matrix Spike Dup (1GJ1243-MSD1)</b>	<b>Source: 1GJ1446-01</b>			Prepared: 10/19/23 00:00 Analyzed: 10/19/23 22:12						
Dichlorodifluoromethane	297.7	10.0	ug/L	300	ND	99.2	47-137	6.47	20	
Chloromethane	287.9	10.0	ug/L	300	ND	96.0	49-154	4.32	25	
Vinyl Chloride	289.4	10.0	ug/L	300	ND	96.5	61-152	4.59	24	
Bromomethane	298.1	10.0	ug/L	300	ND	99.4	47-168	4.77	30	
Chloroethane	269.8	10.0	ug/L	300	ND	89.9	61-148	2.63	29	
Trichlorofluoromethane	289.6	10.0	ug/L	300	ND	96.5	73-147	1.34	24	
1,1-Dichloroethylene	497.0	10.0	ug/L	500	ND	99.4	68-153	4.25	21	
Acetone	1117	100	ug/L	1020	ND	110	45-175	0.719	23	
Methyl Iodide	991.8	20.0	ug/L	997	ND	99.5	79-167	7.01	14	
Carbon Disulfide	963.6	10.0	ug/L	1010	ND	95.4	72-156	4.47	19	
Acetonitrile	1125	100	ug/L	1010	ND	112	38-166	0.0178	20	
Methylene Chloride	452.2	50.0	ug/L	500	ND	90.4	64-143	3.52	19	
trans-1,2-Dichloroethylene	492.9	10.0	ug/L	500	ND	98.6	65-145	3.14	18	
1,1-Dichloroethane	492.1	10.0	ug/L	500	ND	98.4	68-136	1.93	17	
Vinyl Acetate	864.7	50.0	ug/L	1020	ND	84.9	58-143	1.30	14	
2,2-Dichloropropane	405.2	10.0	ug/L	500	ND	81.0	50-118	2.65	17	
cis-1,2-Dichloroethylene	529.8	10.0	ug/L	495	ND	107	67-153	0.621	22	
2-Butanone (MEK)	1086	50.0	ug/L	1030	ND	105	52-159	7.43	28	



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1243 - EPA 5030B - EPA 8260B</b>										
<b>Matrix Spike Dup (1GJ1243-MSD1)</b>	<b>Source: 1GJ1446-01</b>			Prepared: 10/19/23 00:00 Analyzed: 10/19/23 22:12						
Bromochloromethane	486.0	10.0	ug/L	500	ND	97.2	61-151	0.718	27	
Chloroform	488.2	10.0	ug/L	500	ND	97.6	77-132	0.978	17	
1,1,1-Trichloroethane	505.1	10.0	ug/L	500	ND	101	71-118	0.0792	15	
1,1-Dichloropropene	533.7	10.0	ug/L	500	ND	107	82-128	0.658	16	
Carbon Tetrachloride	519.5	10.0	ug/L	500	ND	104	71-133	0.250	14	
Benzene	535.1	10.0	ug/L	500	ND	107	81-125	2.67	12	
1,2-Dichloroethane	495.8	10.0	ug/L	500	ND	99.2	75-125	1.26	13	
Trichloroethylene	531.0	10.0	ug/L	500	ND	106	83-120	1.48	11	
1,2-Dichloropropane	540.5	10.0	ug/L	500	ND	108	80-124	1.14	11	
Dibromomethane	535.3	10.0	ug/L	500	ND	107	84-131	0.948	13	
Bromodichloromethane	533.7	10.0	ug/L	500	ND	107	79-118	0.00	11	
cis-1,3-Dichloropropene	507.4	10.0	ug/L	503	ND	101	75-116	1.05	11	
4-Methyl-2-pentanone (MIBK)	1070	50.0	ug/L	1010	ND	106	65-149	1.72	14	
Toluene	509.2	10.0	ug/L	500	ND	102	82-123	1.33	12	
trans-1,3-Dichloropropene	471.4	10.0	ug/L	504	ND	93.5	75-117	1.26	11	
Ethyl Methacrylate	1032	100	ug/L	1010	ND	103	73-135	1.93	10	
1,1,2-Trichloroethane	501.8	10.0	ug/L	500	ND	100	77-122	0.961	11	
Tetrachloroethylene	494.4	10.0	ug/L	500	ND	98.9	74-120	2.58	17	
1,3-Dichloropropane	468.8	10.0	ug/L	500	ND	93.8	80-127	0.214	13	
2-Hexanone (MBK)	1023	50.0	ug/L	1030	ND	99.0	57-150	2.56	17	
Dibromochloromethane	461.9	10.0	ug/L	495	ND	93.3	80-120	0.804	12	
1,2-Dibromoethane	467.5	10.0	ug/L	500	ND	93.5	67-125	0.363	12	
Chlorobenzene	488.6	10.0	ug/L	500	ND	97.7	81-113	1.22	14	
1,1,1,2-Tetrachloroethane	465.8	10.0	ug/L	500	ND	93.2	80-119	1.60	15	
Ethylbenzene	506.5	10.0	ug/L	500	ND	101	78-114	1.94	14	
Xylenes, total	1469	20.0	ug/L	1500	ND	97.9	77-116	1.16	13	
Styrene	509.1	10.0	ug/L	500	ND	102	78-114	0.216	12	
Bromoform	508.5	10.0	ug/L	500	ND	102	69-125	3.10	14	
1,2,3-Trichloropropane	515.0	10.0	ug/L	500	ND	103	72-125	1.35	18	
trans-1,4-Dichloro-2-butene	1038	50.0	ug/L	1040	ND	99.9	48-131	4.73	17	
1,1,2,2-Tetrachloroethane	524.8	10.0	ug/L	498	ND	105	51-138	0.554	30	
1,3-Dichlorobenzene	486.1	10.0	ug/L	500	ND	97.2	70-122	0.820	30	
1,4-Dichlorobenzene	480.9	10.0	ug/L	500	ND	96.2	70-124	0.0208	28	
1,2-Dichlorobenzene	491.9	10.0	ug/L	500	ND	98.4	68-123	0.571	29	
1,2-Dibromo-3-chloropropane	556.5	10.0	ug/L	500	ND	111	46-149	3.42	30	
1,2,4-Trichlorobenzene	520.5	10.0	ug/L	500	ND	104	60-137	1.96	30	
Surrogate: Dibromofluoromethane	451		ug/L	504		89.5	80-126			
Surrogate: 1,2-Dichloroethane-d4	476		ug/L	504		94.5	63-138			
Surrogate: Toluene-d8	493		ug/L	502		98.1	87-116			
Surrogate: 4-Bromofluorobenzene	486		ug/L	504		96.3	85-111			

Batch 1GJ1371 - EPA 5030B - EPA 8260B

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1371 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1GJ1371-BLK1)</b> Prepared: 10/20/23 00:00 Analyzed: 10/20/23 09:38										
Acrylonitrile	<5.0	5.0	ug/L							
Surrogate: 1,2-Dichloroethane-d4	51.2		ug/L	50.4		101	63-138			
Surrogate: Toluene-d8	50.9		ug/L	50.2		101	87-116			
Surrogate: 4-Bromofluorobenzene	52.0		ug/L	50.4		103	85-111			
<b>LCS (1GJ1371-BS1)</b> Prepared: 10/20/23 00:00 Analyzed: 10/20/23 08:30										
Surrogate: 1,2-Dichloroethane-d4	50.0		ug/L	50.4		99.1	63-138			
Surrogate: Toluene-d8	51.5		ug/L	50.2		102	87-116			
Surrogate: 4-Bromofluorobenzene	51.5		ug/L	50.4		102	85-111			
<b>LCS Dup (1GJ1371-BSD1)</b> Prepared: 10/20/23 00:00 Analyzed: 10/20/23 08:52										
Surrogate: 1,2-Dichloroethane-d4	50.2		ug/L	50.4		99.6	63-138			
Surrogate: Toluene-d8	51.8		ug/L	50.2		103	87-116			
Surrogate: 4-Bromofluorobenzene	51.5		ug/L	50.4		102	85-111			
<b>Matrix Spike (1GJ1371-MS1)</b> Source: 1GJ1590-01 Prepared: 10/20/23 00:00 Analyzed: 10/20/23 19:49										
Acrolein	152.9	40.0	ug/L	202	ND	75.7	20-164			
Acrylonitrile	226.1	20.0	ug/L	200	ND	113	58-151			
Surrogate: 1,2-Dichloroethane-d4	215		ug/L	202		107	63-138			
Surrogate: Toluene-d8	210		ug/L	201		105	87-116			
Surrogate: 4-Bromofluorobenzene	208		ug/L	202		103	85-111			
<b>Matrix Spike Dup (1GJ1371-MSD1)</b> Source: 1GJ1590-01 Prepared: 10/20/23 00:00 Analyzed: 10/20/23 19:26										
Acrolein	80.68	40.0	ug/L	202	ND	39.9	20-164	61.8	24	QM-21
Acrylonitrile	107.3	20.0	ug/L	200	ND	53.6	58-151	71.2	15	QM-21
Surrogate: 1,2-Dichloroethane-d4	218		ug/L	202		108	63-138			
Surrogate: Toluene-d8	208		ug/L	201		103	87-116			
Surrogate: 4-Bromofluorobenzene	209		ug/L	202		104	85-111			
<b>Batch 1GJ1487 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1GJ1487-BLK1)</b> Prepared: 10/24/23 00:00 Analyzed: 10/24/23 15:22										
Acrolein	<10.0	10.0	ug/L							
Surrogate: 1,2-Dichloroethane-d4	49.1		ug/L	50.4		97.4	63-138			
Surrogate: Toluene-d8	49.3		ug/L	50.2		98.1	87-116			
Surrogate: 4-Bromofluorobenzene	50.2		ug/L	50.4		99.6	85-111			
<b>LCS (1GJ1487-BS1)</b> Prepared: 10/24/23 00:00 Analyzed: 10/24/23 14:14										
Acrolein	100.3	10.0	ug/L	100		99.9	27-144			
Surrogate: 1,2-Dichloroethane-d4	48.6		ug/L	50.4		96.5	63-138			
Surrogate: Toluene-d8	50.7		ug/L	50.2		101	87-116			
Surrogate: 4-Bromofluorobenzene	49.9		ug/L	50.4		98.9	85-111			
<b>LCS Dup (1GJ1487-BSD1)</b> Prepared: 10/24/23 00:00 Analyzed: 10/24/23 14:36										

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GJ1487 - EPA 5030B - EPA 8260B

LCS Dup (1GJ1487-BSD1)

Prepared: 10/24/23 00:00 Analyzed: 10/24/23 14:36

Acrolein	97.67	10.0	ug/L	100		97.3	27-144	2.64	30	
Surrogate: 1,2-Dichloroethane-d4	48.2		ug/L	50.4		95.7	63-138			
Surrogate: Toluene-d8	50.1		ug/L	50.2		99.7	87-116			
Surrogate: 4-Bromofluorobenzene	50.1		ug/L	50.4		99.4	85-111			

Batch 1GJ1658 - EPA 5030B - EPA 8260B

Blank (1GJ1658-BLK1)

Prepared: 11/01/23 00:00 Analyzed: 11/01/23 09:37

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	47.0		ug/L	50.4		93.4	80-126			
Surrogate: 1,2-Dichloroethane-d4	42.0		ug/L	50.4		83.3	63-138			
Surrogate: Toluene-d8	55.6		ug/L	50.2		111	87-116			
Surrogate: 4-Bromofluorobenzene	48.8		ug/L	50.4		96.9	85-111			

LCS (1GJ1658-BS1)

Prepared: 11/01/23 00:00 Analyzed: 11/01/23 08:29

Allyl chloride	54.54	1.0	ug/L	50.1		109	76-134			
Chloroprene	24.46	1.0	ug/L	25.0		97.7	74-141			
Methacrylonitrile	56.04	1.0	ug/L	50.0		112	73-143			
Methyl Methacrylate	55.87	1.0	ug/L	50.1		112	72-123			
Propionitrile	55.24	10.0	ug/L	50.1		110	50-151			
Surrogate: Dibromofluoromethane	48.1		ug/L	50.4		95.5	80-126			
Surrogate: 1,2-Dichloroethane-d4	44.7		ug/L	50.4		88.8	63-138			
Surrogate: Toluene-d8	50.3		ug/L	50.2		100	87-116			
Surrogate: 4-Bromofluorobenzene	51.2		ug/L	50.4		102	85-111			

LCS Dup (1GJ1658-BSD1)

Prepared: 11/01/23 00:00 Analyzed: 11/01/23 08:52

Allyl chloride	54.02	1.0	ug/L	50.1		108	76-134	0.958	30	
Chloroprene	23.67	1.0	ug/L	25.0		94.5	74-141	3.28	30	
Methacrylonitrile	58.14	1.0	ug/L	50.0		116	73-143	3.68	30	
Methyl Methacrylate	57.90	1.0	ug/L	50.1		116	72-123	3.57	30	
Propionitrile	54.91	10.0	ug/L	50.1		110	50-151	0.599	30	
Surrogate: Dibromofluoromethane	47.8		ug/L	50.4		94.9	80-126			
Surrogate: 1,2-Dichloroethane-d4	42.7		ug/L	50.4		84.7	63-138			
Surrogate: Toluene-d8	50.3		ug/L	50.2		100	87-116			
Surrogate: 4-Bromofluorobenzene	48.6		ug/L	50.4		96.4	85-111			

Determination of General Solvents	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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CERTIFICATE OF ANALYSIS

1GJ1464

Determination of General Solvents	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1105 - Semi-Vol GC - EPA 8015C</b>										
<b>Blank (1GJ1105-BLK1)</b> Prepared: 10/18/23 12:19 Analyzed: 10/18/23 17:38										
Isobutanol	<1.0	1.0	mg/L							
<b>Blank (1GJ1105-BLK2)</b> Prepared: 10/18/23 12:19 Analyzed: 10/19/23 01:04										
Isobutanol	<1.0	1.0	mg/L							
<b>LCS (1GJ1105-BS1)</b> Prepared: 10/18/23 12:19 Analyzed: 10/18/23 16:48										
Isobutanol	27.01	1.0	mg/L	26.0		104	40-135			
<b>LCS (1GJ1105-BS2)</b> Prepared: 10/18/23 12:19 Analyzed: 10/19/23 00:14										
Isobutanol	24.61	1.0	mg/L	26.0		94.6	40-135			
<b>Matrix Spike (1GJ1105-MS1)</b> Source: 1GJ0597-04 Prepared: 10/18/23 12:19 Analyzed: 10/18/23 22:10										
Isobutanol	25.53	1.0	mg/L	26.0	ND	98.2	63-135			
<b>Matrix Spike (1GJ1105-MS2)</b> Source: 1GJ1452-08 Prepared: 10/18/23 12:19 Analyzed: 10/19/23 03:08										
Isobutanol	24.56	1.0	mg/L	26.0	ND	94.5	63-135			
<b>Matrix Spike Dup (1GJ1105-MSD1)</b> Source: 1GJ0597-04 Prepared: 10/18/23 12:19 Analyzed: 10/18/23 22:35										
Isobutanol	24.20	1.0	mg/L	26.0	ND	93.1	63-135	5.32	30	
<b>Matrix Spike Dup (1GJ1105-MSD2)</b> Source: 1GJ1452-08 Prepared: 10/18/23 12:19 Analyzed: 10/19/23 03:32										
Isobutanol	22.64	1.0	mg/L	26.0	ND	87.1	63-135	8.16	30	
<b>Determination of Base/Neutral Extractable Compounds</b>										
<b>Batch 1GJ1170 - 3520C BNA Cont Liq - EPA 8270C</b>										
<b>Blank (1GJ1170-BLK1)</b> Prepared: 10/19/23 09:31 Analyzed: 10/31/23 15:13										
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L							
Surrogate: Nitrobenzene-d5	31.0		ug/L	62.8		49.2	29-130			
Surrogate: 2-Fluorobiphenyl	29.6		ug/L	61.0		48.6	23-113			
Surrogate: Terphenyl-d14	42.8		ug/L	65.1		65.7	27-141			
<b>LCS (1GJ1170-BS1)</b> Prepared: 10/19/23 09:31 Analyzed: 10/31/23 15:38										
Bis(2-Ethylhexyl) Phthalate	31.1	6	ug/L	40.0		77.8	33-184			
Surrogate: Nitrobenzene-d5	37.2		ug/L	62.8		59.2	38-115			
Surrogate: 2-Fluorobiphenyl	35.4		ug/L	61.0		58.0	33-110			
Surrogate: Terphenyl-d14	50.4		ug/L	65.1		77.4	30-142			
<b>LCS Dup (1GJ1170-BSD1)</b> Prepared: 10/19/23 09:31 Analyzed: 10/31/23 16:02										
Bis(2-Ethylhexyl) Phthalate	8.3	6	ug/L	40.0		20.8	33-184	116	30	QR-04, QS-03
Surrogate: Nitrobenzene-d5	6.79		ug/L	62.8		10.8	38-115			S-07
Surrogate: 2-Fluorobiphenyl	6.70		ug/L	61.0		11.0	33-110			S-07
Surrogate: Terphenyl-d14	9.71		ug/L	65.1		14.9	30-142			S-07



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CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1146 - 3520C BNA Cont Liq - EPA 8270C</b>									
<b>Blank (1GJ1146-BLK1)</b>				Prepared: 10/18/23 16:07 Analyzed: 11/08/23 16:14					
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						
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						



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1146 - 3520C BNA Cont Liq - EPA 8270C</b>									
<b>Blank (1GJ1146-BLK1)</b>				Prepared: 10/18/23 16:07 Analyzed: 11/08/23 16:14					
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						
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						

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Base/Neutral/Acid Extractable Compounds</b>										
<b>Batch 1GJ1146 - 3520C BNA Cont Liq - EPA 8270C</b>										
<b>Blank (1GJ1146-BLK1)</b>										
Prepared: 10/18/23 16:07 Analyzed: 11/08/23 16:14										
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							
<b>Surrogate: 2-Fluorophenol</b>										
	39.6		ug/L	60.6		65.3	24-136			
<b>Surrogate: Phenol-d6</b>										
	39.0		ug/L	61.9		62.9	15-140			
<b>Surrogate: Nitrobenzene-d5</b>										
	41.5		ug/L	62.8		66.1	29-130			
<b>Surrogate: 2-Fluorobiphenyl</b>										
	38.5		ug/L	61.0		63.2	23-113			
<b>Surrogate: 2,4,6-Tribromophenol</b>										
	55.6		ug/L	62.2		89.3	15-139			
<b>Surrogate: Terphenyl-d14</b>										
	68.6		ug/L	65.1		105	27-141			
<b>LCS (1GJ1146-BS1)</b>										
Prepared: 10/18/23 16:07 Analyzed: 11/08/23 16:38										
N-Nitrosodimethylamine	23.3	8	ug/L	41.7		55.9	36-138			
Methyl Methanesulfonate	29.3	8	ug/L	50.0		58.6	22-114			
N-Nitrosodiethylamine	32.6	8	ug/L	50.0		65.3	52-114			
N-Nitrosomethylethylamine	32.8	8	ug/L	50.0		65.7	36-120			
Ethyl Methanesulfonate	33.4	8	ug/L	50.0		66.7	46-110			
Phenol	26.6	8	ug/L	41.7		64.0	50-112			
Bis(2-Chloroethyl) Ether	26.3	8	ug/L	41.7		63.1	39-151			
2-Chlorophenol	27.1	8	ug/L	41.7		64.9	56-116			
Benzyl Alcohol	28.0	8	ug/L	41.7		67.2	13-158			
2-Methylphenol (o-Cresol)	28.3	8	ug/L	41.7		68.0	53-131			
Bis[2-Chloroisopropyl]ether	25.2	8	ug/L	41.7		60.5	50-121			
n-Nitroso-di-n-propylamine	28.9	8	ug/L	41.7		69.4	50-138			
N-Nitrosopyrrolidine	37.4	8	ug/L	50.0		74.8	31-118			
Acetophenone	37.1	8	ug/L	50.0		74.2	45-104			
(3 & 4)-Methylphenol	29.2	8	ug/L	41.7		70.1	30-164			
Hexachloroethane	15.3	8	ug/L	41.7		36.8	10-110			
Nitrobenzene	28.0	8	ug/L	41.7		67.3	47-134			
N-Nitrosopiperidine	35.2	8	ug/L	50.0		70.3	51-122			
Isophorone	29.9	8	ug/L	41.7		71.7	54-128			



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1146 - 3520C BNA Cont Liq - EPA 8270C</b>									
<b>LCS (1GJ1146-BS1)</b>				Prepared: 10/18/23 16:07 Analyzed: 11/08/23 16:38					
2-Nitrophenol	29.4	8	ug/L	41.7		70.6	54-117		
2,4-Dimethylphenol	30.3	8	ug/L	41.7		72.7	52-118		
Bis (2-Chloroethoxy) Methane	30.2	8	ug/L	41.7		72.4	13-132		
2,4-Dichlorophenol	31.5	8	ug/L	41.7		75.6	58-114		
Naphthalene	24.7	8	ug/L	41.7		59.3	37-116		
2,6-Dichlorophenol	39.2	8	ug/L	50.0		78.5	52-129		
Hexachloropropene	21.8	8	ug/L	50.0		43.6	14-110		
Hexachlorobutadiene	18.4	8	ug/L	41.7		44.1	14-110		
N-Nitrosodi-n-butylamine	33.3	8	ug/L	50.0		66.6	40-135		
4-Chloro-3-methylphenol	37.0	8	ug/L	41.7		88.8	57-136		
2-Methylnaphthalene	26.6	8	ug/L	41.7		63.7	44-111		
Isosafrole	38.0	8	ug/L	50.0		75.9	49-107		
1,2,4,5-Tetrachlorobenzene	37.2	8	ug/L	50.0		74.3	42-110		
Hexachlorocyclopentadiene	18.9	8	ug/L	41.7		45.4	11-110		
2,4,6-Trichlorophenol	33.2	8	ug/L	41.7		79.6	55-120		
2,4,5-Trichlorophenol	34.7	8	ug/L	41.7		83.3	55-121		
Safrole	42.3	8	ug/L	50.0		84.7	40-118		
2-Chloronaphthalene	34.2	8	ug/L	41.7		82.0	47-127		
2-Nitroaniline	33.8	8	ug/L	41.7		81.2	36-143		
1,4-Naphthoquinone	55.6	8	ug/L	50.0		111	43-152		
Dimethylphthalate	35.1	8	ug/L	41.7		84.3	59-128		
1,3-Dinitrobenzene	36.5	8	ug/L	41.7		87.7	63-125		
1,2-Dinitrobenzene	36.4	8	ug/L	41.7		87.3	63-123		
2,6-Dinitrotoluene	35.3	8	ug/L	41.7		84.6	60-127		
Acenaphthylene	29.9	8	ug/L	41.7		71.8	49-113		
Acenaphthene	30.1	8	ug/L	41.7		72.3	50-119		
2,4-Dinitrophenol	35.6	8	ug/L	41.7		85.4	27-157		
4-Nitrophenol	36.3	8	ug/L	41.7		87.1	49-154		
Dibenzofuran	31.8	8	ug/L	41.7		76.4	56-121		
2,4-Dinitrotoluene	36.7	8	ug/L	41.7		88.0	53-138		
2,3,4,6-Tetrachlorophenol	36.0	8	ug/L	41.7		86.5	47-132		
Pentachlorobenzene	46.5	8	ug/L	50.0		93.0	41-125		
Diethyl Phthalate	36.0	8	ug/L	41.7		86.4	53-138		
Fluorene	32.8	8	ug/L	41.7		78.8	54-125		
4-Chlorophenyl Phenyl Ether	33.2	8	ug/L	41.7		79.7	51-122		
4-Nitroaniline	31.0	8	ug/L	41.7		74.4	10-136		
4,6-Dinitro-2-methylphenol	38.0	8	ug/L	41.7		91.3	49-137		
Diphenylamine	31.8	8	ug/L	41.7		76.2	35-151		
Azobenzene	34.2	8	ug/L	41.7		82.1	16-156		
Diallate	55.4	8	ug/L	50.0		111	54-132		
1,3,5-Trinitrobenzene	66.0	8	ug/L	50.0		132	57-173		
Phenacetin	50.8	8	ug/L	50.0		102	55-121		





Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Base/Neutral/Acid Extractable Compounds</b>										
<b>Batch 1GJ1146 - 3520C BNA Cont Liq - EPA 8270C</b>										
<b>LCS (1GJ1146-BS1)</b>										
				Prepared: 10/18/23 16:07 Analyzed: 11/08/23 16:38						
4-Bromophenyl Phenyl Ether	34.7	8	ug/L	41.7		83.3	53-122			
Pentachlorophenol	35.8	8	ug/L	41.7		85.8	18-152			
Pronamide	50.4	8	ug/L	50.0		101	42-122			
Pentachloronitrobenzene (PCNB)	53.0	8	ug/L	50.0		106	50-128			
Phenanthrene	35.1	8	ug/L	41.7		84.1	59-131			
Anthracene	34.6	8	ug/L	41.7		83.2	59-127			
Di-n-butyl Phthalate	36.4	8	ug/L	41.7		87.3	64-148			
Fluoranthene	36.8	8	ug/L	41.7		88.2	62-132			
Isodrin	48.9	8	ug/L	50.0		97.9	46-130			
Chlorobenzilate	47.6	8	ug/L	50.0		95.1	48-150			
Pyrene	35.4	8	ug/L	41.7		84.9	58-135			
p-(Dimethylamino)azobenzene	44.4	8	ug/L	50.0		88.8	28-146			
Butyl Benzyl Phthalate	36.0	8	ug/L	41.7		86.4	52-150			
Benzo(a)anthracene	35.5	8	ug/L	41.7		85.3	58-131			
Chrysene	35.6	8	ug/L	41.7		85.4	59-131			
Bis(2-Ethylhexyl) Phthalate	38.7	6	ug/L	41.7		93.0	33-184			
Kepone	27.8	8	ug/L	50.0		55.6	10-134			
2-Acetylaminofluorene	51.8	8	ug/L	50.0		104	47-166			
Di-n-octyl Phthalate	39.4	8	ug/L	41.7		94.7	48-162			
Benzo(b)Fluoranthene	41.8	8	ug/L	41.7		100	50-146			
7,12-Dimethylbenz [a] anthracene	47.0	8	ug/L	50.0		93.9	22-155			
Benzo(k)Fluoranthene	38.9	8	ug/L	41.7		93.4	54-144			
Benzo(a)Pyrene	38.0	8	ug/L	41.7		91.1	39-148			
3-Methylcholanthrene	42.3	8	ug/L	50.0		84.6	34-118			
Dibenzo(a,h)anthracene	38.9	8	ug/L	41.7		93.4	46-153			
Indeno(1,2,3-cd)Pyrene	38.4	8	ug/L	41.7		92.2	48-152			
Benzo(g,h,i)perylene	38.4	8	ug/L	41.7		92.1	47-161			
<i>Surrogate: 2-Fluorophenol</i>	40.8		ug/L	60.6		67.3	24-136			
<i>Surrogate: Phenol-d6</i>	43.4		ug/L	61.9		70.0	15-140			
<i>Surrogate: Nitrobenzene-d5</i>	44.7		ug/L	62.8		71.1	38-115			
<i>Surrogate: 2-Fluorobiphenyl</i>	45.0		ug/L	61.0		73.7	33-110			
<i>Surrogate: 2,4,6-Tribromophenol</i>	63.6		ug/L	62.2		102	15-139			
<i>Surrogate: Terphenyl-d14</i>	73.0		ug/L	65.1		112	30-142			
<b>LCS Dup (1GJ1146-BSD1)</b>										
				Prepared: 10/18/23 16:07 Analyzed: 11/08/23 17:03						
N-Nitrosodimethylamine	25.6	8	ug/L	41.7		61.6	36-138	9.56	30	
Methyl Methanesulfonate	30.3	8	ug/L	50.0		60.5	22-114	3.26	23	
N-Nitrosodiethylamine	34.1	8	ug/L	50.0		68.1	52-114	4.26	18	
N-Nitrosomethylethylamine	34.4	8	ug/L	50.0		68.8	36-120	4.70	22	
Ethyl Methanesulfonate	33.6	8	ug/L	50.0		67.3	46-110	0.896	24	
Phenol	27.5	8	ug/L	41.7		65.9	50-112	3.03	28	
Bis(2-Chloroethyl) Ether	27.1	8	ug/L	41.7		64.9	39-151	2.89	30	
2-Chlorophenol	28.1	8	ug/L	41.7		67.4	56-116	3.70	22	



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Base/Neutral/Acid Extractable Compounds</b>										
<b>Batch 1GJ1146 - 3520C BNA Cont Liq - EPA 8270C</b>										
<b>LCS Dup (1GJ1146-BSD1)</b>				Prepared: 10/18/23 16:07 Analyzed: 11/08/23 17:03						
Benzyl Alcohol	30.9	8	ug/L	41.7		74.2	13-158	9.91	30	
2-Methylphenol (o-Cresol)	31.2	8	ug/L	41.7		74.9	53-131	9.71	25	
Bis[2-Chloroisopropyl]ether	27.9	8	ug/L	41.7		66.9	50-121	10.0	25	
n-Nitroso-di-n-propylamine	30.2	8	ug/L	41.7		72.5	50-138	4.36	30	
N-Nitrosopyrrolidine	39.1	8	ug/L	50.0		78.3	31-118	4.49	30	
Acetophenone	37.5	8	ug/L	50.0		75.0	45-104	1.10	30	
(3 & 4)-Methylphenol	30.4	8	ug/L	41.7		72.9	30-164	3.89	30	
Hexachloroethane	19.7	8	ug/L	41.7		47.2	10-110	24.8	37	
Nitrobenzene	31.7	8	ug/L	41.7		76.2	47-134	12.4	28	
N-Nitrosopiperidine	39.6	8	ug/L	50.0		79.2	51-122	11.9	30	
Isophorone	34.5	8	ug/L	41.7		82.7	54-128	14.2	22	
2-Nitrophenol	32.6	8	ug/L	41.7		78.3	54-117	10.3	21	
2,4-Dimethylphenol	33.9	8	ug/L	41.7		81.3	52-118	11.2	23	
Bis (2-Chloroethoxy) Methane	24.2	8	ug/L	41.7		58.1	13-132	22.0	30	
2,4-Dichlorophenol	35.3	8	ug/L	41.7		84.8	58-114	11.5	20	
Naphthalene	28.9	8	ug/L	41.7		69.4	37-116	15.7	17	
2,6-Dichlorophenol	41.7	8	ug/L	50.0		83.5	52-129	6.12	16	
Hexachloropropene	22.4	8	ug/L	50.0		44.7	14-110	2.67	29	
Hexachlorobutadiene	21.3	8	ug/L	41.7		51.2	14-110	14.9	29	
N-Nitrosodi-n-butylamine	37.9	8	ug/L	50.0		75.9	40-135	13.0	23	
4-Chloro-3-methylphenol	42.3	8	ug/L	41.7		102	57-136	13.5	18	
2-Methylnaphthalene	31.1	8	ug/L	41.7		74.7	44-111	15.8	20	
Isosafrole	38.9	8	ug/L	50.0		77.7	49-107	2.37	12	
1,2,4,5-Tetrachlorobenzene	37.7	8	ug/L	50.0		75.4	42-110	1.52	30	
Hexachlorocyclopentadiene	20.6	8	ug/L	41.7		49.4	11-110	8.30	29	
2,4,6-Trichlorophenol	34.9	8	ug/L	41.7		83.8	55-120	5.23	15	
2,4,5-Trichlorophenol	36.0	8	ug/L	41.7		86.4	55-121	3.73	16	
Safrole	35.1	8	ug/L	50.0		70.2	40-118	18.6	30	
2-Chloronaphthalene	41.5	8	ug/L	41.7		99.6	47-127	19.4	17	QR-02
2-Nitroaniline	32.9	8	ug/L	41.7		79.0	36-143	2.76	30	
1,4-Naphthoquinone	49.6	8	ug/L	50.0		99.1	43-152	11.6	30	
Dimethylphthalate	37.8	8	ug/L	41.7		90.6	59-128	7.25	15	
1,3-Dinitrobenzene	40.6	8	ug/L	41.7		97.3	63-125	10.5	14	
1,2-Dinitrobenzene	39.0	8	ug/L	41.7		93.6	63-123	6.98	18	
2,6-Dinitrotoluene	38.1	8	ug/L	41.7		91.4	60-127	7.66	13	
Acenaphthylene	29.9	8	ug/L	41.7		71.8	49-113	0.0334	23	
Acenaphthene	33.0	8	ug/L	41.7		79.1	50-119	9.00	16	
2,4-Dinitrophenol	39.0	8	ug/L	41.7		93.7	27-157	9.30	23	
4-Nitrophenol	38.8	8	ug/L	41.7		93.0	49-154	6.58	28	
Dibenzofuran	34.5	8	ug/L	41.7		82.8	56-121	8.02	18	
2,4-Dinitrotoluene	40.1	8	ug/L	41.7		96.3	53-138	9.04	18	
2,3,4,6-Tetrachlorophenol	39.0	8	ug/L	41.7		93.5	47-132	7.81	29	



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1146 - 3520C BNA Cont Liq - EPA 8270C</b>									
<b>LCS Dup (1GJ1146-BSD1)</b>				Prepared: 10/18/23 16:07 Analyzed: 11/08/23 17:03					
Pentachlorobenzene	47.3	8	ug/L	50.0		94.5 41-125	1.62	22	
Diethyl Phthalate	39.0	8	ug/L	41.7		93.6 53-138	7.92	18	
Fluorene	35.5	8	ug/L	41.7		85.2 54-125	7.81	14	
4-Chlorophenyl Phenyl Ether	36.0	8	ug/L	41.7		86.3 51-122	7.95	15	
4-Nitroaniline	<8	8	ug/L	41.7		10.5 10-136	150	30	QR-02
4,6-Dinitro-2-methylphenol	42.4	8	ug/L	41.7		102 49-137	10.7	16	
Diphenylamine	21.3	8	ug/L	41.7		51.2 35-151	39.2	30	QR-02
Azobenzene	32.8	8	ug/L	41.7		78.8 16-156	4.18	30	
Diallate	56.4	8	ug/L	50.0		113 54-132	1.86	25	
1,3,5-Trinitrobenzene	67.9	8	ug/L	50.0		136 57-173	2.76	30	
Phenacetin	48.2	8	ug/L	50.0		96.4 55-121	5.33	30	
4-Bromophenyl Phenyl Ether	38.3	8	ug/L	41.7		91.9 53-122	9.92	16	
Pentachlorophenol	40.0	8	ug/L	41.7		95.9 18-152	11.1	30	
Pronamide	40.9	8	ug/L	50.0		81.8 42-122	20.8	30	
Pentachloronitrobenzene (PCNB)	56.2	8	ug/L	50.0		112 50-128	5.90	18	
Phenanthrene	38.4	8	ug/L	41.7		92.1 59-131	9.02	16	
Anthracene	35.9	8	ug/L	41.7		86.1 59-127	3.49	16	
Di-n-butyl Phthalate	40.7	8	ug/L	41.7		97.7 64-148	11.3	30	
Fluoranthene	40.4	8	ug/L	41.7		96.9 62-132	9.38	16	
Isodrin	51.7	8	ug/L	50.0		103 46-130	5.54	29	
Chlorobenzilate	48.3	8	ug/L	50.0		96.6 48-150	1.56	30	
Pyrene	38.9	8	ug/L	41.7		93.3 58-135	9.48	18	
p-(Dimethylamino)azobenzene	8.8	8	ug/L	50.0		17.7 28-146	133	30	QS-03
Butyl Benzyl Phthalate	39.8	8	ug/L	41.7		95.5 52-150	9.92	30	
Benzo(a)anthracene	39.0	8	ug/L	41.7		93.6 58-131	9.36	30	
Chrysene	39.9	8	ug/L	41.7		95.8 59-131	11.5	30	
Bis(2-Ethylhexyl) Phthalate	44.0	6	ug/L	41.7		106 33-184	12.9	30	
Kepone	33.3	8	ug/L	50.0		66.6 10-134	18.0	30	
2-Acetylaminofluorene	54.9	8	ug/L	50.0		110 47-166	5.75	30	
Di-n-octyl Phthalate	46.2	8	ug/L	41.7		111 48-162	15.9	30	
Benzo(b)Fluoranthene	47.9	8	ug/L	41.7		115 50-146	13.5	30	
7,12-Dimethylbenz [a] anthracene	40.6	8	ug/L	50.0		81.2 22-155	14.5	30	
Benzo(k)Fluoranthene	44.0	8	ug/L	41.7		106 54-144	12.2	30	
Benzo(a)Pyrene	41.2	8	ug/L	41.7		98.8 39-148	8.06	30	
3-Methylcholanthrene	39.9	8	ug/L	50.0		79.9 34-118	5.74	30	
Dibenzo(a,h)anthracene	44.6	8	ug/L	41.7		107 46-153	13.6	30	
Indeno(1,2,3-cd)Pyrene	43.9	8	ug/L	41.7		105 48-152	13.3	30	
Benzo(g,h,i)perylene	43.0	8	ug/L	41.7		103 47-161	11.4	30	
Surrogate: 2-Fluorophenol	40.0		ug/L	60.6		66.0 24-136			
Surrogate: Phenol-d6	41.1		ug/L	61.9		66.4 15-140			
Surrogate: Nitrobenzene-d5	46.8		ug/L	62.8		74.5 38-115			
Surrogate: 2-Fluorobiphenyl	43.9		ug/L	61.0		72.0 33-110			



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CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1146 - 3520C BNA Cont Liq - EPA 8270C</b>										

LCS Dup (1GJ1146-BSD1)

Prepared: 10/18/23 16:07 Analyzed: 11/08/23 17:03

Surrogate: 2,4,6-Tribromophenol	64.1		ug/L	62.2		103	15-139			
Surrogate: Terphenyl-d14	72.9		ug/L	65.1		112	30-142			

Determination of Organophosphorus Insecticides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1231 - 3510C NP/OC Sep Fnl - EPA 8141</b>										

LCS (1GJ1231-BS1)

Prepared: 10/19/23 17:01 Analyzed: 11/03/23 11:41

O,O,O-Triethyl phosphorothioate	4.37	0.4	ug/L	4.02		109	42-115			
Thionazin	4.38	0.4	ug/L	4.03		109	28-118			
Phorate	4.86	0.4	ug/L	4.03		121	18-159			
Dimethoate	3.94	0.4	ug/L	4.03		97.7	43-155			
Disulfoton	4.83	0.4	ug/L	4.03		120	37-126			
Methyl Parathion	4.82	0.4	ug/L	4.04		119	28-145			
Parathion	4.32	0.4	ug/L	4.00		108	52-121			
Famphur	4.18	0.4	ug/L	4.02		104	44-144			

Surrogate: 2-Nitro-m-xylene	2.33		ug/ml	1.67		140	38-122			S-07
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LCS Dup (1GJ1231-BSD1)

Prepared: 10/19/23 17:01 Analyzed: 11/03/23 07:57

O,O,O-Triethyl phosphorothioate	3.90	0.4	ug/L	4.02		96.8	42-115	11.5	30	QS-02
Thionazin	2.84	0.4	ug/L	4.03		70.5	28-118	42.5	30	QR-02
Phorate	2.96	0.4	ug/L	4.03		73.5	18-159	48.5	30	QR-02
Dimethoate	2.92	0.4	ug/L	4.03		72.5	43-155	29.6	22	QR-02
Disulfoton	3.86	0.4	ug/L	4.03		95.7	37-126	22.5	30	
Methyl Parathion	3.08	0.4	ug/L	4.04		76.4	28-145	43.8	28	QR-02
Parathion	3.24	0.4	ug/L	4.00		81.1	52-121	28.4	26	QR-02
Famphur	2.79	0.4	ug/L	4.02		69.4	44-144	39.8	28	QR-02

Surrogate: 2-Nitro-m-xylene	2.49		ug/ml	1.67		149	38-122			S-07
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Reference (1GJ1231-SRM1)

Prepared: 10/19/23 17:01 Analyzed: 11/03/23 08:55

O,O,O-Triethyl phosphorothioate	1.89	0.4	ug/L	4.02		47.0	80-120			QR-06
Thionazin	2.82	0.4	ug/L	4.03		70.0	80-120			QR-06
Phorate	3.42	0.4	ug/L	4.03		84.8	80-120			
Dimethoate	2.92	0.4	ug/L	4.03		72.6	80-120			QR-06
Disulfoton	3.62	0.4	ug/L	4.03		89.9	80-120			
Methyl Parathion	3.31	0.4	ug/L	4.04		81.9	80-120			
Parathion	3.46	0.4	ug/L	4.00		86.4	80-120			
Famphur	3.94	0.4	ug/L	4.02		98.0	80-120			

Surrogate: 2-Nitro-m-xylene	1.41		ug/ml	1.67		84.5	38-122			
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CERTIFICATE OF ANALYSIS

1GJ1464

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1173 - 3520C Phenoxy Cont L - EPA 8151A</b>										
<b>Blank (1GJ1173-BLK1)</b>										
Prepared: 10/18/23 09:42 Analyzed: 10/30/23 13:29										
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 1.74 ug/L 2.02 86.4 31-116

LCS (1GJ1173-BS1)	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Prepared: 10/18/23 09:42 Analyzed: 10/30/23 15:07										
2,4-D	<2.0	2.0	ug/L	1.15		100	16-161			
2,4,5-TP (Silvex)	0.52	0.5	ug/L	0.575		91.3	35-141			
2,4,5-T	0.82	0.5	ug/L	0.575		143	54-149			
Dinoseb	0.88	0.5	ug/L	1.15		76.1	10-133			

Surrogate: 2,5-Dichlorobenzoic Acid 1.82 ug/L 2.02 90.1 31-116

LCS Dup (1GJ1173-BSD1)	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Prepared: 10/18/23 09:42 Analyzed: 10/30/23 15:40										
2,4-D	<2.0	2.0	ug/L	1.15		86.5	16-161	14.9	30	
2,4,5-TP (Silvex)	0.50	0.5	ug/L	0.575		87.8	35-141	3.88	30	
2,4,5-T	0.64	0.5	ug/L	0.575		111	54-149	24.7	30	
Dinoseb	0.92	0.5	ug/L	1.15		79.6	10-133	4.47	30	

Surrogate: 2,5-Dichlorobenzoic Acid 1.75 ug/L 2.02 86.6 31-116

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1GJ1229 - 3510C NP/OC Sep Fnl - EPA 8081**

<b>Blank (1GJ1229-BLK1)</b>										
Prepared: 10/19/23 16:53 Analyzed: 11/04/23 04:28										
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							

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CERTIFICATE OF ANALYSIS

1GJ1464

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Determination of Organochlorine Insecticides &amp; Metabolites</b>										
<b>Batch 1GJ1229 - 3510C NP/OC Sep Fnl - EPA 8081</b>										
<b>Blank (1GJ1229-BLK1)</b>										
				Prepared: 10/19/23 16:53 Analyzed: 11/04/23 04:28						
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							
<i>Surrogate: Tetrachloro-m-xylene</i>										
	0.0853		ug/ml	0.120		71.1	10-121			
<b>LCS (1GJ1229-BS1)</b>										
				Prepared: 10/19/23 16:53 Analyzed: 11/04/23 04:44						
Alpha-BHC	0.203	0.05	ug/L	0.250		81.0	33-123			
Gamma-BHC [Lindane]	0.220	0.05	ug/L	0.250		88.1	34-120			
Beta-BHC	0.206	0.05	ug/L	0.250		82.6	33-125			
Heptachlor	0.233	0.05	ug/L	0.250		93.1	32-117			
Delta-BHC	0.220	0.05	ug/L	0.250		88.1	24-140			
Aldrin	0.199	0.05	ug/L	0.250		79.8	29-122			
Heptachlor Epoxide	0.219	0.05	ug/L	0.250		87.7	37-137			
Endosulfan I	0.227	0.05	ug/L	0.250		90.7	27-141			
4,4'-DDE	0.230	0.05	ug/L	0.250		91.8	38-147			
Dieldrin	0.215	0.05	ug/L	0.250		86.2	32-137			
Endrin	0.243	0.05	ug/L	0.250		97.3	25-142			
4,4'-DDD	0.224	0.05	ug/L	0.250		89.5	43-146			
Endosulfan II	0.226	0.05	ug/L	0.250		90.5	36-140			
4,4'-DDT	0.290	0.05	ug/L	0.250		116	39-140			
Endrin Aldehyde	0.227	0.05	ug/L	0.250		90.9	17-150			
Endosulfan Sulfate	0.231	0.05	ug/L	0.250		92.2	41-135			
Methoxychlor	0.288	0.05	ug/L	0.250		115	40-148			
<i>Surrogate: Tetrachloro-m-xylene</i>										
	0.0836		ug/ml	0.120		69.6	10-121			
<b>LCS Dup (1GJ1229-BSD1)</b>										
				Prepared: 10/19/23 16:53 Analyzed: 11/04/23 05:01						
Alpha-BHC	0.207	0.05	ug/L	0.250		82.7	33-123	2.11	30	
Gamma-BHC [Lindane]	0.221	0.05	ug/L	0.250		88.2	34-120	0.129	30	
Beta-BHC	0.212	0.05	ug/L	0.250		84.7	33-125	2.55	30	
Heptachlor	0.231	0.05	ug/L	0.250		92.3	32-117	0.837	30	
Delta-BHC	0.217	0.05	ug/L	0.250		87.0	24-140	1.22	30	
Aldrin	0.201	0.05	ug/L	0.250		80.2	29-122	0.542	30	
Heptachlor Epoxide	0.215	0.05	ug/L	0.250		86.2	37-137	1.76	30	
Endosulfan I	0.220	0.05	ug/L	0.250		88.1	27-141	2.93	30	
4,4'-DDE	0.230	0.05	ug/L	0.250		91.8	38-147	0.0218	30	
Dieldrin	0.215	0.05	ug/L	0.250		86.2	32-137	0.0255	30	
Endrin	0.241	0.05	ug/L	0.250		96.5	25-142	0.869	30	
4,4'-DDD	0.222	0.05	ug/L	0.250		88.7	43-146	0.945	30	
Endosulfan II	0.226	0.05	ug/L	0.250		90.2	36-140	0.277	30	
4,4'-DDT	0.286	0.05	ug/L	0.250		114	39-140	1.38	30	
Endrin Aldehyde	0.235	0.05	ug/L	0.250		93.9	17-150	3.21	30	



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1GJ1464

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Organochlorine Insecticides &amp; Metabolites</b>										
<b>Batch 1GJ1229 - 3510C NP/OC Sep Fnl - EPA 8081</b>										

LCS Dup (1GJ1229-BSD1)				Prepared: 10/19/23 16:53 Analyzed: 11/04/23 05:01						
Endosulfan Sulfate	0.231	0.05	ug/L	0.250		92.5	41-135	0.260	30	
Methoxychlor	0.300	0.05	ug/L	0.250		120	40-148	3.87	30	
Surrogate: Tetrachloro-m-xylene	0.0874		ug/ml	0.120		72.8	10-121			

Reference (1GJ1229-SRM1)				Prepared: 10/19/23 16:53 Analyzed: 11/04/23 05:17						
Alpha-BHC	0.219	0.05	ug/L	0.250		87.7	80-120			
Gamma-BHC [Lindane]	0.233	0.05	ug/L	0.250		93.2	80-120			
Beta-BHC	0.227	0.05	ug/L	0.250		90.7	80-120			
Heptachlor	0.267	0.05	ug/L	0.250		107	80-120			
Delta-BHC	0.227	0.05	ug/L	0.250		90.9	80-120			
Aldrin	0.225	0.05	ug/L	0.250		90.1	80-120			
Heptachlor Epoxide	0.234	0.05	ug/L	0.250		93.7	80-120			
Endosulfan I	0.241	0.05	ug/L	0.250		96.4	80-120			
4,4'-DDE	0.240	0.05	ug/L	0.250		96.0	80-120			
Dieldrin	0.223	0.05	ug/L	0.250		89.2	80-120			
Endrin	0.253	0.05	ug/L	0.250		101	80-120			
4,4'-DDD	0.232	0.05	ug/L	0.250		92.9	80-120			
Endosulfan II	0.235	0.05	ug/L	0.250		93.8	80-120			
4,4'-DDT	0.304	0.05	ug/L	0.250		122	80-120			QR-06
Endrin Aldehyde	0.256	0.05	ug/L	0.250		102	80-120			
Endosulfan Sulfate	0.243	0.05	ug/L	0.250		97.1	80-120			
Methoxychlor	0.285	0.05	ug/L	0.250		114	80-120			
Hexachlorobenzene	0.218	0.05	ug/L	0.250		87.1	80-120			
Surrogate: Tetrachloro-m-xylene	0.112		ug/ml	0.120		93.3	10-121			

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Polychlorinated Biphenyls (PCB)</b>										
<b>Batch 1GJ1230 - 3510C NP/OC Sep Fnl - EPA 8082</b>										

Blank (1GJ1230-BLK1)				Prepared: 10/19/23 16:58 Analyzed: 11/05/23 19:45						
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							
Arochlor 1260	<0.20	0.20	ug/L							
Surrogate: Tetrachloro-m-xylene	0.0900		ug/ml	0.120		75.0	38-121			
Surrogate: Decachlorobiphenyl	0.107		ug/ml	0.120		89.2	25-119			

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1GJ1464

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Determination of Polychlorinated Biphenyls (PCB)</b>										
<b>Batch 1GJ1230 - 3510C NP/OC Sep Fnl - EPA 8082</b>										
<b>LCS (1GJ1230-BS1)</b> Prepared: 10/19/23 16:58 Analyzed: 11/05/23 20:34										
Arochlor 1016	2.215	0.20	ug/L	2.80		79.1	25-126			
Arochlor 1260	2.450	0.20	ug/L	2.80		87.5	29-142			
Surrogate: Tetrachloro-m-xylene	0.0820		ug/ml	0.120		68.3	38-121			
Surrogate: Decachlorobiphenyl	0.101		ug/ml	0.120		84.2	25-119			
<b>LCS Dup (1GJ1230-BSD1)</b> Prepared: 10/19/23 16:58 Analyzed: 11/05/23 20:50										
Arochlor 1016	2.415	0.20	ug/L	2.80		86.2	25-126	8.64	30	
Arochlor 1260	2.785	0.20	ug/L	2.80		99.5	29-142	12.8	30	
Surrogate: Tetrachloro-m-xylene	0.0850		ug/ml	0.120		70.8	38-121			
Surrogate: Decachlorobiphenyl	0.112		ug/ml	0.120		93.3	25-119			
<b>Reference (1GJ1230-SRM1)</b> Prepared: 10/19/23 16:58 Analyzed: 11/05/23 21:07										
Arochlor 1016	2.750	0.20	ug/L	2.80		98.2	80-120			
Arochlor 1260	2.955	0.20	ug/L	2.80		106	80-120			
Surrogate: Tetrachloro-m-xylene	0.109		ug/ml	0.120		90.8	38-121			
Surrogate: Decachlorobiphenyl	0.116		ug/ml	0.120		96.7	25-119			
<b>Determination of Conventional Chemistry Parameters</b>										
<b>Batch 1GJ1258 - Wet Chem Preparation - EPA 376.2</b>										
<b>Blank (1GJ1258-BLK1)</b> Prepared: 10/20/23 09:47 Analyzed: 10/20/23 13:40										
Sulfide, total	<0.10	0.10	mg/L							
<b>LCS (1GJ1258-BS1)</b> Prepared: 10/20/23 09:47 Analyzed: 10/20/23 13:40										
Sulfide, total	0.158	0.10	mg/L	0.19		81.7	59-110			
<b>LCS (1GJ1258-BS2)</b> Prepared: 10/20/23 09:47 Analyzed: 10/20/23 13:40										
Sulfide, total	0.150	0.10	mg/L	0.19		78.0	59-110			
<b>LCS (1GJ1258-BS3)</b> Prepared: 10/20/23 09:47 Analyzed: 10/20/23 13:40										
Sulfide, total	0.186	0.10	mg/L	0.19		96.6	59-110			
<b>LCS (1GJ1258-BS4)</b> Prepared: 10/20/23 09:47 Analyzed: 10/20/23 13:40										
Sulfide, total	0.159	0.10	mg/L	0.19		82.6	59-110			
<b>Matrix Spike (1GJ1258-MS1)</b> Source: 1GJ1464-03 Prepared: 10/20/23 09:47 Analyzed: 10/20/23 13:40										
Sulfide, total	0.196	0.10	mg/L	0.19	ND	102	50-150			
<b>Matrix Spike Dup (1GJ1258-MSD1)</b> Source: 1GJ1464-03 Prepared: 10/20/23 09:47 Analyzed: 10/20/23 13:40										
Sulfide, total	0.190	0.10	mg/L	0.19	ND	98.7	50-150	2.89	30	
<b>Batch 1GJ1646 - Wet Chem Preparation - EPA 9010B</b>										
<b>Blank (1GJ1646-BLK1)</b> Prepared: 10/27/23 08:43 Analyzed: 10/27/23 16:57										





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1GJ1464

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GJ1646 - Wet Chem Preparation - EPA 9010B

<b>Blank (1GJ1646-BLK1)</b>			Prepared: 10/27/23 08:43 Analyzed: 10/27/23 16:57							
Cyanide, total	<0.005	0.005	mg/L							
<b>LCS (1GJ1646-BS1)</b>			Prepared: 10/27/23 08:43 Analyzed: 10/27/23 16:57							
Cyanide, total	0.0247	0.005	mg/L	0.0300		82.3	66-136			
<b>Matrix Spike (1GJ1646-MS1)</b>			Source: 1GJ1446-10 Prepared: 10/27/23 08:43 Analyzed: 10/27/23 16:57							
Cyanide, total	0.0266	0.005	mg/L	0.0300	ND	88.6	59-153			
<b>Matrix Spike Dup (1GJ1646-MSD1)</b>			Source: 1GJ1446-10 Prepared: 10/27/23 08:43 Analyzed: 10/27/23 16:57							
Cyanide, total	0.0232	0.005	mg/L	0.0300	ND	77.2	59-153	13.7	30	

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GJ1226 - EPA 7470A Hg Water - EPA 7470A

<b>Blank (1GJ1226-BLK1)</b>			Prepared: 10/19/23 15:49 Analyzed: 10/20/23 16:07							
Mercury, total	<0.00050	0.00050	mg/L							
<b>LCS (1GJ1226-BS1)</b>			Prepared: 10/19/23 15:49 Analyzed: 10/20/23 16:09							
Mercury, total	0.00253	0.00050	mg/L	0.00250		101	80-120			
<b>Matrix Spike (1GJ1226-MS1)</b>			Source: 1GJ1415-01 Prepared: 10/19/23 15:49 Analyzed: 10/20/23 16:13							
Mercury, total	0.00252	0.00050	mg/L	0.00250	ND	101	75-125			
<b>Matrix Spike Dup (1GJ1226-MSD1)</b>			Source: 1GJ1415-01 Prepared: 10/19/23 15:49 Analyzed: 10/20/23 16:15							
Mercury, total	0.00238	0.00050	mg/L	0.00250	ND	95.4	75-125	5.37	20	

Batch 1GJ1312 - EPA 3005A Total Recoverable Metals - EPA 6020A

<b>Blank (1GJ1312-BLK1)</b>			Prepared: 10/23/23 10:04 Analyzed: 10/24/23 01:25							
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	<0.0040	0.0040	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							
<b>LCS (1GJ1312-BS1)</b>			Prepared: 10/23/23 10:04 Analyzed: 10/24/23 01:31							



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1GJ1464

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1312 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>LCS (1GJ1312-BS1)</b>										
				Prepared: 10/23/23 10:04 Analyzed: 10/24/23 01:31						
Antimony, total	0.0973	0.0020	mg/L	0.100		97.3	80-120			
Arsenic, total	0.0973	0.0040	mg/L	0.100		97.3	80-120			
Barium, total	0.104	0.0040	mg/L	0.100		104	80-120			
Beryllium, total	0.0966	0.0040	mg/L	0.100		96.6	80-120			
Cadmium, total	0.0985	0.0008	mg/L	0.100		98.5	80-120			
Chromium, total	0.0960	0.0080	mg/L	0.100		96.0	80-120			
Cobalt, total	0.100	0.0004	mg/L	0.100		100	80-120			
Copper, total	0.0996	0.0040	mg/L	0.100		99.6	80-120			
Lead, total	0.0986	0.0040	mg/L	0.100		98.6	80-120			
Nickel, total	0.0989	0.0040	mg/L	0.100		98.9	80-120			
Selenium, total	0.0979	0.0040	mg/L	0.100		97.9	80-120			
Silver, total	0.109	0.0040	mg/L	0.100		109	80-120			
Thallium, total	0.0974	0.0020	mg/L	0.100		97.4	80-120			
Tin, total	0.101	0.0200	mg/L	0.100		101	80-120			
Vanadium, total	0.0998	0.0200	mg/L	0.100		99.8	80-120			
Zinc, total	0.100	0.0200	mg/L	0.100		100	80-120			
<b>Matrix Spike (1GJ1312-MS1)</b>										
				Source: 1GJ1464-01 Prepared: 10/23/23 10:04 Analyzed: 10/24/23 01:44						
Antimony, total	0.0989	0.0020	mg/L	0.100	ND	98.9	75-125			
Arsenic, total	0.100	0.0040	mg/L	0.100	0.0016	98.5	75-125			
Barium, total	0.454	0.0040	mg/L	0.100	0.342	112	75-125			
Beryllium, total	0.0973	0.0040	mg/L	0.100	ND	97.3	75-125			
Cadmium, total	0.0999	0.0008	mg/L	0.100	ND	99.9	75-125			
Chromium, total	0.0939	0.0080	mg/L	0.100	0.0006	93.9	75-125			
Cobalt, total	0.0969	0.0004	mg/L	0.100	ND	96.9	75-125			
Copper, total	0.0910	0.0040	mg/L	0.100	0.0015	89.5	75-125			
Lead, total	0.0939	0.0040	mg/L	0.100	0.0006	93.9	75-125			
Nickel, total	0.0984	0.0040	mg/L	0.100	0.0043	94.0	75-125			
Selenium, total	0.0986	0.0040	mg/L	0.100	ND	98.6	75-125			
Silver, total	0.106	0.0040	mg/L	0.100	ND	106	75-125			
Thallium, total	0.0945	0.0020	mg/L	0.100	0.0002	94.3	75-125			
Tin, total	0.103	0.0200	mg/L	0.100	ND	103	75-125			
Vanadium, total	0.103	0.0200	mg/L	0.100	ND	103	75-125			
Zinc, total	0.0941	0.0200	mg/L	0.100	ND	94.1	75-125			
<b>Matrix Spike Dup (1GJ1312-MSD1)</b>										
				Source: 1GJ1464-01 Prepared: 10/23/23 10:04 Analyzed: 10/24/23 01:50						
Antimony, total	0.0993	0.0020	mg/L	0.100	ND	99.3	75-125	0.423	20	
Arsenic, total	0.0998	0.0040	mg/L	0.100	0.0016	98.2	75-125	0.320	20	
Barium, total	0.438	0.0040	mg/L	0.100	0.342	95.4	75-125	3.64	20	
Beryllium, total	0.0978	0.0040	mg/L	0.100	ND	97.8	75-125	0.540	20	
Cadmium, total	0.0980	0.0008	mg/L	0.100	ND	98.0	75-125	1.94	20	
Chromium, total	0.0938	0.0080	mg/L	0.100	0.0006	93.8	75-125	0.0239	20	
Cobalt, total	0.0975	0.0004	mg/L	0.100	ND	97.5	75-125	0.552	20	
Copper, total	0.0943	0.0040	mg/L	0.100	0.0015	92.8	75-125	3.50	20	
Lead, total	0.0953	0.0040	mg/L	0.100	0.0006	95.3	75-125	1.57	20	

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1GJ1464

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1GJ1312 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>Matrix Spike Dup (1GJ1312-MSD1)</b>										
<b>Source: 1GJ1464-01</b>			Prepared: 10/23/23 10:04 Analyzed: 10/24/23 01:50							
Nickel, total	0.0998	0.0040	mg/L	0.100	0.0043	95.4	75-125	1.43	20	
Selenium, total	0.0982	0.0040	mg/L	0.100	ND	98.2	75-125	0.426	20	
Silver, total	0.108	0.0040	mg/L	0.100	ND	108	75-125	1.25	20	
Thallium, total	0.0961	0.0020	mg/L	0.100	0.0002	95.9	75-125	1.64	20	
Tin, total	0.103	0.0200	mg/L	0.100	ND	103	75-125	0.709	20	
Vanadium, total	0.104	0.0200	mg/L	0.100	ND	104	75-125	1.62	20	
Zinc, total	0.0950	0.0200	mg/L	0.100	ND	95.0	75-125	0.960	20	
<b>Post Spike (1GJ1312-PS1)</b>										
<b>Source: 1GJ1464-01</b>			Prepared: 10/23/23 10:04 Analyzed: 10/24/23 02:08							
Antimony, total	0.0835		mg/L	0.0800	0.0002	104	80-120			
Arsenic, total	0.0852		mg/L	0.0800	0.0015	105	80-120			
Barium, total	0.426		mg/L	0.0800	0.335	113	80-120			
Beryllium, total	0.0805		mg/L	0.0800	0.000008	101	80-120			
Cadmium, total	0.0820		mg/L	0.0800	0.000005	102	80-120			
Chromium, total	0.0793		mg/L	0.0800	0.0006	98.5	80-120			
Cobalt, total	0.0837		mg/L	0.0800	0.00008	105	80-120			
Copper, total	0.0795		mg/L	0.0800	0.0015	97.5	80-120			
Lead, total	0.0800		mg/L	0.0800	0.0006	99.3	80-120			
Nickel, total	0.0848		mg/L	0.0800	0.0042	101	80-120			
Selenium, total	0.0796		mg/L	0.0800	0.0011	98.1	80-120			
Silver, total	0.0870		mg/L	0.0800	0.0015	107	80-120			
Thallium, total	0.0800		mg/L	0.0800	0.0002	99.7	80-120			
Tin, total	0.0838		mg/L	0.0800	0.0003	104	75-125			
Vanadium, total	0.0872		mg/L	0.0800	0.0065	101	80-120			
Zinc, total	0.0788		mg/L	0.0800	-0.0005	98.4	80-120			

**Definitions**

- A-01:** Surrogate not added to sample.
- O-07:** The original analysis of this sample yielded QC recoveries outside acceptance criteria. It was re-analyzed after the recommended maximum hold time.
- O-10:** This sample was analyzed outside the EPA recommended holding time due to instrument malfunction.
- 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.
- QR-04:** The Duplicate RPD for this analyte exceeded acceptance limits.
- 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.
- QS-03:** The blank spike recovery was below established acceptance limits.
- RL:** Reporting Limit
- RPD:** Relative Percent Difference
- S-07:** The surrogate recovery for this sample is outside of established control limits.
- S-GC:** Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

CERTIFICATE OF ANALYSIS

1GJ1464

**Cooler Receipt Log**

Cooler ID: Default Cooler

Temp: 2.7°C

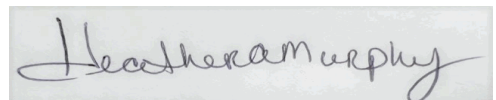
**Cooler Inspection Checklist**

Custody Seals	No	Containers Intact	Yes
COC/Labels Agree	No	Preservation Confirmed	No
Received On Ice	Yes		

**Report Comments**

*The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. **The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.***

**Reviewed and Approved By:**



Heather Murphy  
Customer Relationship Specialist  
heather.murphy@microbac.com  
11/13/23 12:06



**SITE INFORMATION**

Sampler: JGH  
Project: Audubon Co. - New Regs  
6050

**REPORT TO**

Todd Whipple  
HLW Engineering  
PO Box 314  
Story City, IA 50248

**INVOICE TO**

Tami Anderson  
Audubon County Landfill  
1881 215th St  
Audubon, IA 50025

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

**LAB USE ONLY**

Work Order 1GJ1464  
Temperature 2.7  
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
01-001	MW-90-4	Water	GRAB	<u>10/13/23</u>	<u>13:09</u>	<u>8</u>	8270-110 Indfil-app1-metals-6020	<u>01</u>
02-001	MW-90-7	Water	GRAB	<u>10/13/23</u>	<u>13:25</u>	<u>7</u>	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>02</u>
03-001	MW-90-14	Water	GRAB	<u>10/13/23</u>	<u>12:04</u>	<u>17</u>	Indfil-app2-inorg-6020 Indfil-app2-org	<u>03</u>
04-001	MW-90-17	Water	GRAB	<u>10/13/23</u>	<u>11:35</u>	<u>7</u>	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>04</u>
05-001	MW-91-19	Water	GRAB	<u>10/13/23</u>	<u>12:41</u>	<u>7</u>	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>05</u>
06-001	MW-91-20	Water	GRAB	<u>10/13/23</u>	<u>11:49</u>	<u>7</u>	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>06</u>
07-001	SW-3	Water	GRAB	<u>10/13/23</u>	<u>12:56</u>	<u>7</u>	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>07</u>

Relinquished By [Signature] Date/Time 10/17/23

Relinquished By [Signature] Date/Time 10-17-23 1100

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

Received for Lab By \_\_\_\_\_ Date/Time \_\_\_\_\_

Remarks:



1 G J 1 4 6 4

HLW Engineering  
PM: Heather Murphy

**SITE INFORMATION**

Sampler: JEH  
Project: Audubon Co. - New Regs  
6050

**REPORT TO**

Todd Whipple  
HLW Engineering  
PO Box 314  
Story City, IA 50248

Tami Anderson  
Audubon County Landfill  
1881 215th St  
Audubon, IA 50025

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

Standard  RUSH, need by    /   /   

**LAB USE ONLY**

Work Order 1GJ1464

Temperature 2.7

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
08-001	Duplicate	Water	GRAB	<u>10/13/23</u>	<u>12:04</u>	<u>7</u>	Indfil-app1-voc-group Indfil-app1-metals-5020	<u>01</u>

[Signature] 10/17/23  
Relinquished By Date/Time

[Signature] 10-17-23 11:00  
Relinquished By Date/Time

Received By Date/Time

Received for Lab By Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

**APPENDIX C**

**Statistical Reports – Spring & Fall**

## Appendix C.1 – 1<sup>st</sup> Semester Statistical Report



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**Results of the Ground Water Statistics  
for Audubon County Sanitary Landfill**

**First Semi-Annual Monitoring Event in 2023**

*Prepared for:*  
Audubon County Solid Waste Management Commission  
1881 215<sup>th</sup> Street  
Audubon, Iowa 50025

*Prepared by:*  
Jeffrey A. Holmgren  
**Otter Creek Environmental Services, L.L.C.**  
40W565 Foxwick Court  
Elgin, IL 60124  
(847) 464-1355

**May 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 Audubon County Sanitary Landfill in Audubon, Iowa. The ground water at Audubon County Sanitary Landfill is monitored by background well MW90-17 and compliance wells MW90-4, MW90-7, MW90-14, MW91-19, MW91-20, and SW-3. These monitoring wells were sampled on April 5, 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. Both interwell and intrawell methodologies are described and then applied to the Audubon 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

The groundwater monitoring network for Audubon County Sanitary Landfill includes upgradient well MW90-17 and compliance wells MW90-4, MW90-7, MW90-14, MW91-19, MW91-20, and SW-3. 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	<i>trans</i> -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	<i>cis</i> -1,2-Dichloroethene	1,1,2,2-Tetrachloroethane
Bromoform	<i>trans</i> -1,2-Dichloroethene	Tetrachloroethene
Carbon disulfide	1,2-Dichloropropane	Toluene
Carbon tetrachloride	<i>cis</i> -1,3-Dichloropropene	1,1,1-Trichloroethane
Chlorobenzene	<i>trans</i> -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. Both of these methods were applied to the Audubon County Sanitary Landfill data using the DUMPStat<sup>®</sup> statistical program. DUMPStat<sup>®</sup> 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 well MW90-17 during the period from September 2009 through the current data. A summary of the background data from monitoring well MW90-17 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 MW90-4, MW90-7, MW90-14, MW91-19, MW91-20 and SW-3, compared to the site prediction limits. 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 at Audubon County Landfill  
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
MW90-7	Cobalt	1.6	0.8000	Nonparametric	Verified
	Nickel	25.6	7.1000	Nonparametric	Verified
MW91-19	Barium	380	355.6486	Normal	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 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 4% and the test becomes sensitive to 3 standard deviation unit increases over background.

The past and current verified 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 (Attachment C). 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 are below the respective USEPA MCLs or Iowa statewide standards.

## **Intrawell statistics**

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.

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.

The combined Shewhart-CUSUM control chart assumes that the data are independent and normally distributed with a fixed mean and a constant variance. Independent data is much more critical than the normality assumption. To achieve independence, it is recommended that data are collected no more frequently than quarterly to account for seasonal variation. The combined Shewhart-CUSUM control chart is extremely robust to deviations from normality. Because the control charts do not use a specific multiplier based on a normal distribution, it is more conservative to assume normality.

It is recommended that at least eight rounds of data be available to provide a reliable estimate of the mean and standard deviation of the parameter concentration, although the control charts will be generated with as few as four data points. Having only four data points may produce greater uncertainty in the mean and standard deviation of the background data, leading to higher control limits, thus having a potentially high false negative rate.

Many groundwater 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 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. Thirteen independent measurements (with 1 resample) are necessary to achieve a 99% confidence (1% false positive rate) nonparametric prediction limit. Eight independent measurements (for pass 1 of 2 resamples) are necessary to achieve a 99% confidence nonparametric prediction limit. The nonparametric prediction limit is the largest determination out of the data set collected for that well and parameter. If the detection frequency is 0% after thirteen samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit.

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<sup>®</sup> 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 background data for each well and constituent is tested for existing trends using Sen's nonparametric estimate of trend. 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 Appendix I trace metals data from wells MW90-17, MW90-4, MW90-7, MW90-14, MW91-19, MW91-20, and SW-3 were evaluated using the combined Shewhart-CUSUM control chart method. The previous background included historical data obtained from September 2009 through 2019.

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 included data obtained from September 2009 through 2021.

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 most current data, there were no control limit exceedances detected.

Increasing trends were detected in the background data for barium at upgradient well MW90-17 and barium at MW91-20.

A control chart factor was selected to provide a balance of the site-wide false positive and false negative rates. A statistical power curve indicates the expected false assessments for the site as a whole. The site-wide false positive rate is 6% and the test becomes sensitive to 3 standard deviation units 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. There were no organic compounds detected in the ground water at Audubon County Sanitary Landfill during the first semi-annual

monitoring event in 2023. Historical VOC detections are summarized in Attachment E. Historically, there have been no verified VOC detections.

The previously verified bis(2-ethylhexyl)phthalate detections were evaluated against the ground water protection standards (GWPS) using confidence limits. 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 95% LCLs for bis(2-ethylhexyl)phthalate do not exceed the USEPA MCL of 6 µg/L.

## CONCLUSIONS

This document describes a comprehensive statistical plan designated for the Audubon County Sanitary Landfill. The groundwater monitoring network for Audubon County Sanitary Landfill includes upgradient well MW90-17 and compliance wells MW90-4, MW90-7, MW90-14, MW91-19, MW91-20, and SW-3. 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) and using control charts (intrawell). For the most current data, there were verified site prediction limit exceedances for barium at MW91-19, cobalt at MW90-7, and nickel at MW90-7. Using intrawell comparisons, there were no control limit exceedances detected. There were no organic compounds detected in the ground water during the first semi-annual monitoring event in 2023.

**Attachment A**

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



Table 1

## Analytical Data Summary for 4/5/2023

Constituents	Units	MW90-14	MW90-17	MW90-4	MW90-7	MW91-19	MW91-20	SW-3
(3,4)-methylphenol	ug/L					<8		
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
1,1-dichloropropene	ug/L					<1		
1,2,3-trichloropropane	ug/L	<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	<1	<5	<5
1,2-dibromoethane (edb)	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
1,2-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
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 (mek)	ug/L	<10	<10	<10	<10	<5	<10	<10
2-chloronaphthalene	ug/L					<8		
2-chlorophenol	ug/L					<8		
2-hexanone	ug/L	<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		
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 (mibk)	ug/L	<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 *		
Acetone	ug/L	<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
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

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

Table 1

## Analytical Data Summary for 4/5/2023

Constituents	Units	MW90-14	MW90-17	MW90-4	MW90-7	MW91-19	MW91-20	SW-3
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4
Azobenzene	ug/L					<8		
Barium, total	ug/L	134	307	320	242	380	192	209
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1
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
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		<6		
Bis[2-chloroisopropyl]ether	ug/L					<8		
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
Butyl benzyl phthalate	ug/L					<8		
Cadmium, total	ug/L	<.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
Chlordane	ug/L					<.1		
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate	ug/L					<8		
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
Chloroprene	ug/L					<1		
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8
Chrysene	ug/L					<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	<.4	<.4	<.4	1.6	.5	<.4	<.4
Copper, total	ug/L	<4	<4	<4	<4	<4	<4	<4
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
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L					<1		
Dieldrin	ug/L					<.05		
Diethyl phthalate	ug/L					<8		
Dimethoate	ug/L					<.4		
Dimethyl phthalate	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
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	<2	<1	<1
Isobutanol	ug/L					<1000		
Isodrin	ug/L					<8		

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

Table 1

Analytical Data Summary for 4/5/2023

Constituents	Units	MW90-14	MW90-17	MW90-4	MW90-7	MW91-19	MW91-20	SW-3
Isophorone	ug/L					<8		
Isosafrole	ug/L					<8		
Kepone	ug/L					<8		
Lead, total	ug/L	<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
Naphthalene	ug/L					<8		
Nickel, total	ug/L	6.3	<4.0	<4.0	25.6	<4.0	<4.0	<4.0
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		
Pcb-1016	ug/L					<.1		
Pcb-1221	ug/L					<.2		
Pcb-1232	ug/L					<.2		
Pcb-1242	ug/L					<.2		
Pcb-1248	ug/L					<.2		
Pcb-1254	ug/L					<.1		
Pcb-1260	ug/L					<.1		
Pentachlorobenzene	ug/L					<8		
Pentachloronitrobenzene	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
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	mg/L					<1		
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<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
Toxaphene	ug/L					<.2		
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
Vinyl acetate	ug/L	<5	<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	<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	MW90-17	09/30/2009	ND	1.0000	2.0000	**
Antimony, total	ug/L	MW90-17	03/23/2010	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/07/2010	ND	5.0000	2.0000	**
Antimony, total	ug/L	MW90-17	04/05/2011	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/06/2011	ND	2.0000		
Antimony, total	ug/L	MW90-17	03/16/2012	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/24/2012	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/24/2013	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/20/2013	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/08/2014	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/22/2014	ND	2.0000		
Antimony, total	ug/L	MW90-17	03/20/2015	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/17/2015	ND	2.0000		
Antimony, total	ug/L	MW90-17	03/17/2016	ND	2.0000		
Antimony, total	ug/L	MW90-17	08/26/2016	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/11/2017	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/23/2017	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/10/2018	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/24/2018	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/16/2019	ND	2.0000		
Antimony, total	ug/L	MW90-17	08/29/2019	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/10/2020	ND	2.0000		
Antimony, total	ug/L	MW90-17	10/09/2020	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/09/2021	ND	2.0000		
Antimony, total	ug/L	MW90-17	10/11/2021	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/07/2022	ND	2.0000		
Antimony, total	ug/L	MW90-17	10/06/2022	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/05/2023	ND	2.0000		
Arsenic, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Arsenic, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Arsenic, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Arsenic, total	ug/L	MW90-17	03/16/2012	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/24/2012	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Arsenic, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Arsenic, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Arsenic, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Arsenic, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Arsenic, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Arsenic, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Arsenic, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Barium, total	ug/L	MW90-17	09/30/2009		199.0000		
Barium, total	ug/L	MW90-17	03/23/2010		171.0000		
Barium, total	ug/L	MW90-17	09/07/2010		169.0000		
Barium, total	ug/L	MW90-17	04/05/2011		215.0000		
Barium, total	ug/L	MW90-17	09/06/2011		207.0000		
Barium, total	ug/L	MW90-17	03/16/2012		196.0000		
Barium, total	ug/L	MW90-17	09/24/2012		185.0000		
Barium, total	ug/L	MW90-17	04/24/2013		183.0000		
Barium, total	ug/L	MW90-17	09/20/2013		351.0000		
Barium, total	ug/L	MW90-17	04/08/2014		261.0000		
Barium, total	ug/L	MW90-17	09/22/2014		212.0000		
Barium, total	ug/L	MW90-17	03/20/2015		257.0000		
Barium, total	ug/L	MW90-17	09/17/2015		234.0000		
Barium, total	ug/L	MW90-17	03/17/2016		246.0000		
Barium, total	ug/L	MW90-17	08/26/2016		266.0000		
Barium, total	ug/L	MW90-17	04/11/2017		234.0000		
Barium, total	ug/L	MW90-17	09/23/2017		275.0000		
Barium, total	ug/L	MW90-17	04/10/2018		242.0000		

\* - 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	
Barium, total	ug/L	MW90-17	09/24/2018		259.0000		
Barium, total	ug/L	MW90-17	04/16/2019		242.0000		
Barium, total	ug/L	MW90-17	08/29/2019		281.0000		
Barium, total	ug/L	MW90-17	04/10/2020		274.0000		
Barium, total	ug/L	MW90-17	10/09/2020		281.0000		
Barium, total	ug/L	MW90-17	04/09/2021		265.0000		
Barium, total	ug/L	MW90-17	10/11/2021		251.0000		
Barium, total	ug/L	MW90-17	04/07/2022		299.0000		
Barium, total	ug/L	MW90-17	10/06/2022		288.0000		
Barium, total	ug/L	MW90-17	04/05/2023		307.0000		
Beryllium, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Beryllium, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Beryllium, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Beryllium, total	ug/L	MW90-17	03/16/2012	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/24/2012	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Beryllium, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Beryllium, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Beryllium, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Beryllium, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Beryllium, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Beryllium, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Beryllium, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Cadmium, total	ug/L	MW90-17	09/30/2009	ND	1.0000	0.8000	**
Cadmium, total	ug/L	MW90-17	03/23/2010	ND	1.0000	0.8000	**
Cadmium, total	ug/L	MW90-17	09/07/2010	ND	2.5000	0.8000	**
Cadmium, total	ug/L	MW90-17	04/05/2011	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/06/2011	ND	0.8000		
Cadmium, total	ug/L	MW90-17	03/16/2012	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/24/2012	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/24/2013	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/20/2013	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/08/2014	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/22/2014	ND	0.8000		
Cadmium, total	ug/L	MW90-17	03/20/2015	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/17/2015	ND	0.8000		
Cadmium, total	ug/L	MW90-17	03/17/2016	ND	0.8000		
Cadmium, total	ug/L	MW90-17	08/26/2016	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/11/2017	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/23/2017	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/10/2018	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/24/2018	ND	1.1000		
Cadmium, total	ug/L	MW90-17	11/01/2018	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/16/2019	ND	0.8000		
Cadmium, total	ug/L	MW90-17	08/29/2019	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/10/2020	ND	0.8000		
Cadmium, total	ug/L	MW90-17	10/09/2020	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/09/2021	ND	0.8000		
Cadmium, total	ug/L	MW90-17	10/11/2021	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/07/2022	ND	0.8000		
Cadmium, total	ug/L	MW90-17	10/06/2022	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/05/2023	ND	0.8000		
Chromium, total	ug/L	MW90-17	09/30/2009	ND	10.0000	8.0000	**
Chromium, total	ug/L	MW90-17	03/23/2010	ND	10.0000	8.0000	**
Chromium, total	ug/L	MW90-17	09/07/2010	ND	25.0000	8.0000	**
Chromium, total	ug/L	MW90-17	04/05/2011	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/06/2011	ND	20.0000	8.0000	**
Chromium, total	ug/L	MW90-17	03/16/2012	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/24/2012	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	MW90-17	04/24/2013	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/20/2013	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/08/2014	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/22/2014	ND	8.0000		
Chromium, total	ug/L	MW90-17	03/20/2015	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/17/2015	ND	8.0000		
Chromium, total	ug/L	MW90-17	03/17/2016	ND	8.0000		
Chromium, total	ug/L	MW90-17	08/26/2016	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/11/2017	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/23/2017	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/10/2018	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/24/2018	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/16/2019	ND	8.0000		
Chromium, total	ug/L	MW90-17	08/29/2019	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/10/2020	ND	8.0000		
Chromium, total	ug/L	MW90-17	10/09/2020	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/09/2021	ND	8.0000		
Chromium, total	ug/L	MW90-17	10/11/2021	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/07/2022	ND	8.0000		
Chromium, total	ug/L	MW90-17	10/06/2022	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/05/2023	ND	8.0000		
Cobalt, total	ug/L	MW90-17	09/30/2009	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	03/23/2010	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	09/07/2010	ND	10.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	04/05/2011	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	09/06/2011	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	03/16/2012	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	09/24/2012	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	04/24/2013	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	09/20/2013	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	04/08/2014	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	09/22/2014	ND	0.8000		
Cobalt, total	ug/L	MW90-17	03/20/2015	ND	0.8000		
Cobalt, total	ug/L	MW90-17	09/17/2015	ND	0.8000		
Cobalt, total	ug/L	MW90-17	03/17/2016	ND	0.8000		
Cobalt, total	ug/L	MW90-17	08/26/2016	ND	0.8000		
Cobalt, total	ug/L	MW90-17	04/11/2017	ND	0.8000		
Cobalt, total	ug/L	MW90-17	09/23/2017	ND	0.8000		
Cobalt, total	ug/L	MW90-17	04/10/2018	ND	0.8000		
Cobalt, total	ug/L	MW90-17	09/24/2018	ND	0.8000		
Cobalt, total	ug/L	MW90-17	04/16/2019	ND	0.8000		
Cobalt, total	ug/L	MW90-17	08/29/2019	ND	0.8000		
Cobalt, total	ug/L	MW90-17	04/10/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	10/09/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	04/09/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	10/11/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	04/07/2022	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	10/06/2022	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	04/05/2023	ND	0.4000	0.8000	**
Copper, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Copper, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Copper, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Copper, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Copper, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Copper, total	ug/L	MW90-17	03/16/2012	ND	4.0000		
Copper, total	ug/L	MW90-17	09/24/2012	ND	4.0000		
Copper, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Copper, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Copper, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Copper, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Copper, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Copper, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Copper, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Copper, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Copper, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Copper, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Copper, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Copper, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Copper, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Copper, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Copper, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Copper, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Copper, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Copper, total	ug/L	MW90-17	10/11/2021	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	
Copper, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Copper, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Copper, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Lead, total	ug/L	MW90-17	09/30/2009	ND	4.0000	4.0000	**
Lead, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Lead, total	ug/L	MW90-17	09/07/2010	ND	10.0000		
Lead, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Lead, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Lead, total	ug/L	MW90-17	03/16/2012	ND	4.0000		
Lead, total	ug/L	MW90-17	09/24/2012	ND	4.0000		
Lead, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Lead, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Lead, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Lead, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Lead, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Lead, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Lead, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Lead, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Lead, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Lead, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Lead, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Lead, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Lead, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Lead, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Lead, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Lead, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Lead, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Lead, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Lead, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Lead, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Lead, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/30/2009	ND	4.0000	4.0000	**
Nickel, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/07/2010	ND	10.0000		
Nickel, total	ug/L	MW90-17	04/05/2011		7.1000		
Nickel, total	ug/L	MW90-17	09/06/2011		4.8000		
Nickel, total	ug/L	MW90-17	03/16/2012		4.8000		
Nickel, total	ug/L	MW90-17	09/24/2012		5.3000		
Nickel, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Nickel, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Nickel, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Nickel, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Nickel, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Nickel, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Nickel, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Nickel, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/30/2009	ND	4.0000	4.0000	**
Selenium, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/07/2010	ND	10.0000		
Selenium, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Selenium, total	ug/L	MW90-17	03/16/2012	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/24/2012	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Selenium, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Selenium, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Selenium, total	ug/L	MW90-17	08/26/2016	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	MW90-17	04/11/2017	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Selenium, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Selenium, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Selenium, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Selenium, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Silver, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Silver, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Silver, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Silver, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Silver, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Silver, total	ug/L	MW90-17	03/16/2012	ND	4.0000		
Silver, total	ug/L	MW90-17	09/24/2012	ND	4.0000		
Silver, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Silver, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Silver, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Silver, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Silver, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Silver, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Silver, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Silver, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Silver, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Silver, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Silver, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Silver, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Silver, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Silver, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Silver, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Silver, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Silver, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Silver, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Silver, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Silver, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Silver, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Thallium, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Thallium, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Thallium, total	ug/L	MW90-17	03/16/2012	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	09/24/2012	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	04/24/2013	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Thallium, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Thallium, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Thallium, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Thallium, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Thallium, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Thallium, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Thallium, total	ug/L	MW90-17	04/16/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	08/29/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	04/10/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	10/09/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	04/09/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	10/11/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	04/07/2022	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	10/06/2022	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	04/05/2023	ND	2.0000	4.0000	**
Vanadium, total	ug/L	MW90-17	09/30/2009	ND	10.0000	20.0000	**
Vanadium, total	ug/L	MW90-17	03/23/2010	ND	10.0000	20.0000	**
Vanadium, total	ug/L	MW90-17	09/07/2010	ND	25.0000	20.0000	**
Vanadium, total	ug/L	MW90-17	04/05/2011	ND	20.1000		
Vanadium, total	ug/L	MW90-17	09/06/2011	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	MW90-17	03/16/2012	ND	20.0000		
Vanadium, total	ug/L	MW90-17	09/24/2012	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/24/2013	ND	20.0000		
Vanadium, total	ug/L	MW90-17	09/20/2013	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/08/2014	ND	20.0000		
Vanadium, total	ug/L	MW90-17	09/22/2014	ND	20.0000		
Vanadium, total	ug/L	MW90-17	03/20/2015	ND	20.0000		
Vanadium, total	ug/L	MW90-17	09/17/2015	ND	20.0000		
Vanadium, total	ug/L	MW90-17	03/17/2016	ND	20.0000		
Vanadium, total	ug/L	MW90-17	08/26/2016	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/11/2017	ND	20.0000		
Vanadium, total	ug/L	MW90-17	09/23/2017	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/10/2018	ND	20.0000		
Vanadium, total	ug/L	MW90-17	09/24/2018	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/16/2019	ND	20.0000		
Vanadium, total	ug/L	MW90-17	08/29/2019	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/10/2020	ND	20.0000		
Vanadium, total	ug/L	MW90-17	10/09/2020	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/09/2021	ND	20.0000		
Vanadium, total	ug/L	MW90-17	10/11/2021	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/07/2022	ND	20.0000		
Vanadium, total	ug/L	MW90-17	10/06/2022	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/05/2023	ND	20.0000		
Zinc, total	ug/L	MW90-17	09/30/2009	ND	10.0000	8.0000	**
Zinc, total	ug/L	MW90-17	03/23/2010		10.5000		
Zinc, total	ug/L	MW90-17	09/07/2010	ND	25.0000	8.0000	**
Zinc, total	ug/L	MW90-17	04/05/2011	ND	8.0000		
Zinc, total	ug/L	MW90-17	09/06/2011	ND	8.0000		
Zinc, total	ug/L	MW90-17	03/16/2012	ND	8.0000		
Zinc, total	ug/L	MW90-17	09/24/2012	ND	8.0000		
Zinc, total	ug/L	MW90-17	04/24/2013	ND	8.0000		
Zinc, total	ug/L	MW90-17	09/20/2013	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	04/08/2014	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	09/22/2014	ND	8.0000		
Zinc, total	ug/L	MW90-17	03/20/2015	ND	8.0000		
Zinc, total	ug/L	MW90-17	09/17/2015	ND	8.0000		
Zinc, total	ug/L	MW90-17	03/17/2016	ND	8.0000		
Zinc, total	ug/L	MW90-17	08/26/2016		8.3000		
Zinc, total	ug/L	MW90-17	04/11/2017	ND	8.0000		
Zinc, total	ug/L	MW90-17	09/23/2017	ND	8.0000		
Zinc, total	ug/L	MW90-17	04/10/2018	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	09/24/2018	ND	8.0000		
Zinc, total	ug/L	MW90-17	04/16/2019	ND	8.0000		
Zinc, total	ug/L	MW90-17	08/29/2019		37.8000		*
Zinc, total	ug/L	MW90-17	09/23/2019	ND	8.0000		
Zinc, total	ug/L	MW90-17	04/10/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	10/09/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	04/09/2021	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	10/11/2021	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	04/07/2022	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	10/06/2022	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	04/05/2023	ND	20.0000	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 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, total	ug/L	MW90-14	04/05/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW90-14	04/05/2023	ND	4.0000		4.0000
Barium, total	ug/L	MW90-14	04/05/2023		134.0000		355.6486
Beryllium, total	ug/L	MW90-14	04/05/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW90-14	04/05/2023	ND	0.8000		1.1000
Chromium, total	ug/L	MW90-14	04/05/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW90-14	04/05/2023	ND	0.4000	**	0.8000
Copper, total	ug/L	MW90-14	04/05/2023	ND	4.0000		4.0000
Lead, total	ug/L	MW90-14	04/05/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW90-14	04/05/2023		6.3000	**	7.1000
Selenium, total	ug/L	MW90-14	04/05/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW90-14	04/05/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW90-14	04/05/2023	ND	2.0000		4.0000
Vanadium, total	ug/L	MW90-14	04/05/2023	ND	20.0000		20.1000
Zinc, total	ug/L	MW90-14	04/05/2023	ND	20.0000	**	10.5000
Antimony, total	ug/L	MW90-4	04/05/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW90-4	04/05/2023	ND	4.0000		4.0000
Barium, total	ug/L	MW90-4	04/05/2023		320.0000		355.6486
Beryllium, total	ug/L	MW90-4	04/05/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW90-4	04/05/2023	ND	0.8000		1.1000
Chromium, total	ug/L	MW90-4	04/05/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW90-4	04/05/2023	ND	0.4000		0.8000
Copper, total	ug/L	MW90-4	04/05/2023	ND	4.0000		4.0000
Lead, total	ug/L	MW90-4	04/05/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW90-4	04/05/2023	ND	4.0000		7.1000
Selenium, total	ug/L	MW90-4	04/05/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW90-4	04/05/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW90-4	04/05/2023	ND	2.0000		4.0000
Vanadium, total	ug/L	MW90-4	04/05/2023	ND	20.0000		20.1000
Zinc, total	ug/L	MW90-4	04/05/2023	ND	20.0000		10.5000
Antimony, total	ug/L	MW90-7	04/05/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW90-7	04/05/2023	ND	4.0000		4.0000
Barium, total	ug/L	MW90-7	04/05/2023		242.0000		355.6486
Beryllium, total	ug/L	MW90-7	04/05/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW90-7	04/05/2023	ND	0.8000		1.1000
Chromium, total	ug/L	MW90-7	04/05/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW90-7	04/05/2023		1.6000	***	0.8000
Copper, total	ug/L	MW90-7	04/05/2023	ND	4.0000		4.0000
Lead, total	ug/L	MW90-7	04/05/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW90-7	04/05/2023		25.6000	***	7.1000
Selenium, total	ug/L	MW90-7	04/05/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW90-7	04/05/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW90-7	04/05/2023	ND	2.0000		4.0000
Vanadium, total	ug/L	MW90-7	04/05/2023	ND	20.0000		20.1000
Zinc, total	ug/L	MW90-7	04/05/2023	ND	20.0000		10.5000
Antimony, total	ug/L	MW91-19	04/05/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW91-19	04/05/2023	ND	4.0000		4.0000
Barium, total	ug/L	MW91-19	04/05/2023		380.0000	***	355.6486
Beryllium, total	ug/L	MW91-19	04/05/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW91-19	04/05/2023	ND	0.8000		1.1000
Chromium, total	ug/L	MW91-19	04/05/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW91-19	04/05/2023		0.5000		0.8000
Copper, total	ug/L	MW91-19	04/05/2023	ND	4.0000		4.0000
Lead, total	ug/L	MW91-19	04/05/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW91-19	04/05/2023	ND	4.0000	**	7.1000
Selenium, total	ug/L	MW91-19	04/05/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW91-19	04/05/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW91-19	04/05/2023	ND	2.0000		4.0000
Vanadium, total	ug/L	MW91-19	04/05/2023	ND	20.0000		20.1000
Zinc, total	ug/L	MW91-19	04/05/2023	ND	20.0000		10.5000
Antimony, total	ug/L	MW91-20	04/05/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW91-20	04/05/2023	ND	4.0000		4.0000
Barium, total	ug/L	MW91-20	04/05/2023		192.0000		355.6486
Beryllium, total	ug/L	MW91-20	04/05/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW91-20	04/05/2023	ND	0.8000		1.1000
Chromium, total	ug/L	MW91-20	04/05/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW91-20	04/05/2023	ND	0.4000		0.8000
Copper, total	ug/L	MW91-20	04/05/2023	ND	4.0000		4.0000
Lead, total	ug/L	MW91-20	04/05/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW91-20	04/05/2023	ND	4.0000		7.1000
Selenium, total	ug/L	MW91-20	04/05/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW91-20	04/05/2023	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	MW91-20	04/05/2023	ND	2.0000	4.0000
Vanadium, total	ug/L	MW91-20	04/05/2023	ND	20.0000	20.1000
Zinc, total	ug/L	MW91-20	04/05/2023	ND	20.0000	10.5000
Antimony, total	ug/L	SW-3	04/05/2023	ND	2.0000	2.0000
Arsenic, total	ug/L	SW-3	04/05/2023	ND	4.0000	4.0000
Barium, total	ug/L	SW-3	04/05/2023		209.0000	355.6486
Beryllium, total	ug/L	SW-3	04/05/2023	ND	4.0000	4.0000
Cadmium, total	ug/L	SW-3	04/05/2023	ND	0.8000	1.1000
Chromium, total	ug/L	SW-3	04/05/2023	ND	8.0000	8.0000
Cobalt, total	ug/L	SW-3	04/05/2023	ND	0.4000	0.8000
Copper, total	ug/L	SW-3	04/05/2023	ND	4.0000	4.0000
Lead, total	ug/L	SW-3	04/05/2023	ND	4.0000	4.0000
Nickel, total	ug/L	SW-3	04/05/2023	ND	4.0000	7.1000
Selenium, total	ug/L	SW-3	04/05/2023	ND	4.0000	4.0000
Silver, total	ug/L	SW-3	04/05/2023	ND	4.0000	4.0000
Thallium, total	ug/L	SW-3	04/05/2023	ND	2.0000	4.0000
Vanadium, total	ug/L	SW-3	04/05/2023	ND	20.0000	20.1000
Zinc, total	ug/L	SW-3	04/05/2023	ND	20.0000	10.5000

- \* - 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	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, total	0	28	0.000	0	187	0.000
Arsenic, total	0	28	0.000	25	187	0.134
Barium, total	28	28	1.000	194	194	1.000
Beryllium, total	0	28	0.000	1	187	0.005
Cadmium, total	1	29	0.034	32	191	0.168
Chromium, total	0	28	0.000	1	187	0.005
Cobalt, total	0	28	0.000	42	189	0.222
Copper, total	0	28	0.000	18	187	0.096
Lead, total	0	28	0.000	6	187	0.032
Nickel, total	4	28	0.143	110	188	0.585
Selenium, total	0	28	0.000	15	187	0.080
Silver, total	0	28	0.000	0	187	0.000
Thallium, total	0	28	0.000	0	187	0.000
Vanadium, total	1	28	0.036	9	187	0.048
Zinc, total	2	28	0.071	44	187	0.235

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	28	0.000									nonpar
Arsenic, total	0	28	0.000									nonpar
Barium, total	28	28	1.000	0.552	0.004					2.326	normal	normal
Beryllium, total	0	28	0.000									nonpar
Cadmium, total	1	29	0.034									nonpar
Chromium, total	0	28	0.000									nonpar
Cobalt, total	0	28	0.000									nonpar
Copper, total	0	28	0.000									nonpar
Lead, total	0	28	0.000									nonpar
Nickel, total	4	28	0.143	1.529	1.344					2.326	normal	nonpar
Selenium, total	0	28	0.000									nonpar
Silver, total	0	28	0.000									nonpar
Thallium, total	0	28	0.000									nonpar
Vanadium, total	1	28	0.036									nonpar
Zinc, total	2	28	0.071									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	28					2.0000	nonpar	***	0.99
Arsenic, total	ug/L	0	28					4.0000	nonpar	***	0.99
Barium, total	ug/L	28	28	244.6429	44.1187	0.0100	2.5161	355.6486	normal		
Beryllium, total	ug/L	0	28					4.0000	nonpar	***	0.99
Cadmium, total	ug/L	1	29					1.1000	nonpar		0.99
Chromium, total	ug/L	0	28					8.0000	nonpar	***	0.99
Cobalt, total	ug/L	0	28					0.8000	nonpar	***	0.99
Copper, total	ug/L	0	28					4.0000	nonpar	***	0.99
Lead, total	ug/L	0	28					4.0000	nonpar	***	0.99
Nickel, total	ug/L	4	28					7.1000	nonpar		0.99
Selenium, total	ug/L	0	28					4.0000	nonpar	***	0.99
Silver, total	ug/L	0	28					4.0000	nonpar	***	0.99
Thallium, total	ug/L	0	28					4.0000	nonpar	***	0.99
Vanadium, total	ug/L	1	28					20.1000	nonpar		0.99
Zinc, total	ug/L	2	28					10.5000	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 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	MW90-14	06/09/2008	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-14	10/16/2008	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-14	03/05/2009	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-14	09/30/2009		7.0000	*	0.8000
Cobalt, total	ug/L	MW90-14	03/23/2010	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	09/07/2010	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	04/05/2011	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	09/06/2011	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	03/16/2012	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	09/24/2012	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	04/24/2013	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	09/20/2013		6.0000	*	0.8000
Cobalt, total	ug/L	MW90-14	10/28/2013	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	04/08/2014	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	09/22/2014		2.5000	*	0.8000
Cobalt, total	ug/L	MW90-14	03/20/2015		2.4000	*	0.8000
Cobalt, total	ug/L	MW90-14	09/17/2015	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-14	03/17/2016		1.0000	*	0.8000
Cobalt, total	ug/L	MW90-14	08/26/2016	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-14	04/11/2017		0.8000	**	0.8000
Cobalt, total	ug/L	MW90-14	09/23/2017	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-14	04/10/2018	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-14	09/24/2018		1.3000	*	0.8000
Cobalt, total	ug/L	MW90-14	04/16/2019	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-14	08/29/2019	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-14	04/10/2020		0.5000		0.8000
Cobalt, total	ug/L	MW90-14	10/09/2020		1.7000	*	0.8000
Cobalt, total	ug/L	MW90-14	04/09/2021		0.6000		0.8000
Cobalt, total	ug/L	MW90-14	10/11/2021		0.7000		0.8000
Cobalt, total	ug/L	MW90-14	04/07/2022	ND	0.4000		0.8000
Cobalt, total	ug/L	MW90-14	10/06/2022		2.4000	*	0.8000
Cobalt, total	ug/L	MW90-14	04/05/2023	ND	0.4000		0.8000
Nickel, total	ug/L	MW90-14	06/09/2008		69.7000	*	7.1000
Nickel, total	ug/L	MW90-14	10/16/2008		65.3000	*	7.1000
Nickel, total	ug/L	MW90-14	03/05/2009	ND	50.0000		7.1000
Nickel, total	ug/L	MW90-14	09/30/2009		59.1000	*	7.1000
Nickel, total	ug/L	MW90-14	03/23/2010		31.5000	*	7.1000
Nickel, total	ug/L	MW90-14	09/07/2010		45.2000	*	7.1000
Nickel, total	ug/L	MW90-14	04/05/2011		45.5000	*	7.1000
Nickel, total	ug/L	MW90-14	09/06/2011		33.9000	*	7.1000
Nickel, total	ug/L	MW90-14	03/16/2012		36.6000	*	7.1000
Nickel, total	ug/L	MW90-14	09/24/2012		26.4000	*	7.1000
Nickel, total	ug/L	MW90-14	04/24/2013		24.1000	*	7.1000
Nickel, total	ug/L	MW90-14	09/20/2013		60.2000	*	7.1000
Nickel, total	ug/L	MW90-14	10/28/2013		13.9000	*	7.1000
Nickel, total	ug/L	MW90-14	04/08/2014		31.1000	*	7.1000
Nickel, total	ug/L	MW90-14	09/22/2014		34.0000	*	7.1000
Nickel, total	ug/L	MW90-14	03/20/2015		18.3000	*	7.1000
Nickel, total	ug/L	MW90-14	09/17/2015		20.8000	*	7.1000
Nickel, total	ug/L	MW90-14	03/17/2016		36.1000	*	7.1000
Nickel, total	ug/L	MW90-14	08/26/2016		21.3000	*	7.1000
Nickel, total	ug/L	MW90-14	04/11/2017		31.9000	*	7.1000
Nickel, total	ug/L	MW90-14	09/23/2017		30.9000	*	7.1000
Nickel, total	ug/L	MW90-14	04/10/2018		20.1000	*	7.1000
Nickel, total	ug/L	MW90-14	09/24/2018		35.0000	*	7.1000
Nickel, total	ug/L	MW90-14	04/16/2019		12.2000	*	7.1000
Nickel, total	ug/L	MW90-14	08/29/2019		33.1000	*	7.1000
Nickel, total	ug/L	MW90-14	04/10/2020		41.7000	*	7.1000
Nickel, total	ug/L	MW90-14	10/09/2020		59.0000	*	7.1000
Nickel, total	ug/L	MW90-14	04/09/2021		31.1000	*	7.1000
Nickel, total	ug/L	MW90-14	10/11/2021		33.4000	*	7.1000
Nickel, total	ug/L	MW90-14	04/07/2022		20.2000	*	7.1000
Nickel, total	ug/L	MW90-14	10/06/2022		27.8000	*	7.1000
Nickel, total	ug/L	MW90-14	04/05/2023		6.3000		7.1000
Zinc, total	ug/L	MW90-14	06/09/2008		106.0000	*	10.5000
Zinc, total	ug/L	MW90-14	10/16/2008		51.2000	*	10.5000
Zinc, total	ug/L	MW90-14	03/05/2009		57.9000	*	10.5000
Zinc, total	ug/L	MW90-14	09/30/2009		38.5000	*	10.5000
Zinc, total	ug/L	MW90-14	03/23/2010		20.1000	*	10.5000
Zinc, total	ug/L	MW90-14	09/07/2010	ND	10.0000		10.5000
Zinc, total	ug/L	MW90-14	04/05/2011	ND	8.0000		10.5000

\* - 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
Zinc, total	ug/L	MW90-14	09/06/2011	ND	8.0000		10.5000
Zinc, total	ug/L	MW90-14	03/16/2012		13.7000	*	10.5000
Zinc, total	ug/L	MW90-14	09/24/2012	ND	8.0000		10.5000
Zinc, total	ug/L	MW90-14	04/24/2013		13.7000	*	10.5000
Zinc, total	ug/L	MW90-14	09/20/2013		21.3000	*	10.5000
Zinc, total	ug/L	MW90-14	10/28/2013		8.7000		10.5000
Zinc, total	ug/L	MW90-14	04/08/2014	ND	20.0000		10.5000
Zinc, total	ug/L	MW90-14	09/22/2014		8.9000		10.5000
Zinc, total	ug/L	MW90-14	03/20/2015	ND	8.0000		10.5000
Zinc, total	ug/L	MW90-14	09/17/2015	ND	8.0000		10.5000
Zinc, total	ug/L	MW90-14	03/17/2016	ND	8.0000		10.5000
Zinc, total	ug/L	MW90-14	08/26/2016	ND	8.0000		10.5000
Zinc, total	ug/L	MW90-14	04/11/2017	ND	8.0000		10.5000
Zinc, total	ug/L	MW90-14	09/23/2017	ND	8.0000		10.5000
Zinc, total	ug/L	MW90-14	04/10/2018	ND	20.0000		10.5000
Zinc, total	ug/L	MW90-14	09/24/2018	ND	8.0000		10.5000
Zinc, total	ug/L	MW90-14	04/16/2019	ND	8.0000		10.5000
Zinc, total	ug/L	MW90-14	08/29/2019		9.6000		10.5000
Zinc, total	ug/L	MW90-14	04/10/2020	ND	20.0000		10.5000
Zinc, total	ug/L	MW90-14	10/09/2020	ND	20.0000		10.5000
Zinc, total	ug/L	MW90-14	04/09/2021	ND	20.0000		10.5000
Zinc, total	ug/L	MW90-14	10/11/2021	ND	20.0000		10.5000
Zinc, total	ug/L	MW90-14	04/07/2022	ND	20.0000		10.5000
Zinc, total	ug/L	MW90-14	10/06/2022		20.0000	*	10.5000
Zinc, total	ug/L	MW90-14	04/05/2023	ND	20.0000		10.5000
Cobalt, total	ug/L	MW90-7	09/07/2007	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-7	06/09/2008	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-7	10/16/2008	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-7	03/05/2009	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-7	09/30/2009		4.8000	*	0.8000
Cobalt, total	ug/L	MW90-7	03/23/2010	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-7	09/07/2010	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-7	04/05/2011	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-7	09/06/2011	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-7	03/16/2012		4.3000	*	0.8000
Cobalt, total	ug/L	MW90-7	09/24/2012		4.4000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/24/2013	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-7	09/20/2013		5.7000	*	0.8000
Cobalt, total	ug/L	MW90-7	10/28/2013	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-7	04/08/2014		6.3000	*	0.8000
Cobalt, total	ug/L	MW90-7	09/22/2014		2.7000	*	0.8000
Cobalt, total	ug/L	MW90-7	03/20/2015		4.6000	*	0.8000
Cobalt, total	ug/L	MW90-7	09/17/2015		6.5000	*	0.8000
Cobalt, total	ug/L	MW90-7	03/17/2016	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-7	08/26/2016		6.6000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/11/2017		1.5000	*	0.8000
Cobalt, total	ug/L	MW90-7	09/23/2017		2.5000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/10/2018		1.9000	*	0.8000
Cobalt, total	ug/L	MW90-7	09/24/2018		5.1000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/16/2019	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-7	08/29/2019		1.6000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/10/2020		2.1000	*	0.8000
Cobalt, total	ug/L	MW90-7	10/09/2020		2.1000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/09/2021		2.1000	*	0.8000
Cobalt, total	ug/L	MW90-7	10/11/2021		5.3000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/07/2022		0.8000	**	0.8000
Cobalt, total	ug/L	MW90-7	10/06/2022		6.0000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/05/2023		1.6000	*	0.8000
Nickel, total	ug/L	MW90-7	09/07/2007	ND	50.0000		7.1000
Nickel, total	ug/L	MW90-7	06/09/2008	ND	50.0000		7.1000
Nickel, total	ug/L	MW90-7	10/16/2008		54.9000	*	7.1000
Nickel, total	ug/L	MW90-7	03/05/2009	ND	50.0000		7.1000
Nickel, total	ug/L	MW90-7	09/30/2009		49.1000	*	7.1000
Nickel, total	ug/L	MW90-7	03/23/2010		38.3000	*	7.1000
Nickel, total	ug/L	MW90-7	09/07/2010		50.5000	*	7.1000
Nickel, total	ug/L	MW90-7	04/05/2011		52.5000	*	7.1000
Nickel, total	ug/L	MW90-7	09/06/2011		43.4000	*	7.1000
Nickel, total	ug/L	MW90-7	03/16/2012		42.6000	*	7.1000
Nickel, total	ug/L	MW90-7	09/24/2012		28.6000	*	7.1000
Nickel, total	ug/L	MW90-7	04/24/2013		33.4000	*	7.1000
Nickel, total	ug/L	MW90-7	09/20/2013		60.4000	*	7.1000

\* - 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	MW90-7	10/28/2013		41.4000	*	7.1000
Nickel, total	ug/L	MW90-7	04/08/2014		39.6000	*	7.1000
Nickel, total	ug/L	MW90-7	09/22/2014		25.3000	*	7.1000
Nickel, total	ug/L	MW90-7	03/20/2015		34.0000	*	7.1000
Nickel, total	ug/L	MW90-7	09/17/2015		29.6000	*	7.1000
Nickel, total	ug/L	MW90-7	03/17/2016		23.5000	*	7.1000
Nickel, total	ug/L	MW90-7	08/26/2016		32.6000	*	7.1000
Nickel, total	ug/L	MW90-7	04/11/2017		23.3000	*	7.1000
Nickel, total	ug/L	MW90-7	09/23/2017		26.4000	*	7.1000
Nickel, total	ug/L	MW90-7	04/10/2018		33.8000	*	7.1000
Nickel, total	ug/L	MW90-7	09/24/2018		22.3000	*	7.1000
Nickel, total	ug/L	MW90-7	04/16/2019		16.3000	*	7.1000
Nickel, total	ug/L	MW90-7	08/29/2019		25.6000	*	7.1000
Nickel, total	ug/L	MW90-7	04/10/2020		23.0000	*	7.1000
Nickel, total	ug/L	MW90-7	10/09/2020		29.2000	*	7.1000
Nickel, total	ug/L	MW90-7	04/09/2021		42.1000	*	7.1000
Nickel, total	ug/L	MW90-7	10/11/2021		29.7000	*	7.1000
Nickel, total	ug/L	MW90-7	04/07/2022		15.2000	*	7.1000
Nickel, total	ug/L	MW90-7	10/06/2022		27.4000	*	7.1000
Nickel, total	ug/L	MW90-7	04/05/2023		25.6000	*	7.1000
Barium, total	ug/L	MW91-19	06/09/2008		331.0000		355.6486
Barium, total	ug/L	MW91-19	10/16/2008		331.0000		355.6486
Barium, total	ug/L	MW91-19	03/05/2009		374.0000	*	355.6486
Barium, total	ug/L	MW91-19	09/30/2009		390.0000	*	355.6486
Barium, total	ug/L	MW91-19	03/23/2010		350.0000		355.6486
Barium, total	ug/L	MW91-19	09/07/2010		430.0000	*	355.6486
Barium, total	ug/L	MW91-19	04/05/2011		347.0000		355.6486
Barium, total	ug/L	MW91-19	09/06/2011		534.0000	*	355.6486
Barium, total	ug/L	MW91-19	03/16/2012		390.0000	*	355.6486
Barium, total	ug/L	MW91-19	09/24/2012		449.0000	*	355.6486
Barium, total	ug/L	MW91-19	04/24/2013		277.0000		355.6486
Barium, total	ug/L	MW91-19	09/20/2013		833.0000	*	355.6486
Barium, total	ug/L	MW91-19	10/28/2013		467.0000	*	355.6486
Barium, total	ug/L	MW91-19	04/08/2014		396.0000	*	355.6486
Barium, total	ug/L	MW91-19	09/22/2014		317.0000		355.6486
Barium, total	ug/L	MW91-19	03/20/2015		331.0000		355.6486
Barium, total	ug/L	MW91-19	09/17/2015		275.0000		355.6486
Barium, total	ug/L	MW91-19	03/17/2016		372.0000	*	355.6486
Barium, total	ug/L	MW91-19	06/15/2016		310.0000		355.6486
Barium, total	ug/L	MW91-19	08/26/2016		362.0000	*	355.6486
Barium, total	ug/L	MW91-19	09/29/2016		291.0000		355.6486
Barium, total	ug/L	MW91-19	04/11/2017		325.0000		355.6486
Barium, total	ug/L	MW91-19	09/23/2017		516.0000	*	355.6486
Barium, total	ug/L	MW91-19	11/15/2017		296.0000		355.6486
Barium, total	ug/L	MW91-19	04/10/2018		339.0000		355.6486
Barium, total	ug/L	MW91-19	09/24/2018		281.0000		355.6486
Barium, total	ug/L	MW91-19	04/16/2019		342.0000		355.6486
Barium, total	ug/L	MW91-19	08/29/2019		335.0000		355.6486
Barium, total	ug/L	MW91-19	04/10/2020		373.0000	*	355.6486
Barium, total	ug/L	MW91-19	06/09/2020		327.0000		355.6486
Barium, total	ug/L	MW91-19	10/09/2020		495.0000	*	355.6486
Barium, total	ug/L	MW91-19	04/09/2021		328.0000		355.6486
Barium, total	ug/L	MW91-19	10/11/2021		321.0000		355.6486
Barium, total	ug/L	MW91-19	04/07/2022		343.0000		355.6486
Barium, total	ug/L	MW91-19	10/06/2022		504.0000	*	355.6486
Barium, total	ug/L	MW91-19	01/04/2023		434.0000	*	355.6486
Barium, total	ug/L	MW91-19	04/05/2023		380.0000	*	355.6486
Nickel, total	ug/L	MW91-19	06/09/2008	ND	50.0000		7.1000
Nickel, total	ug/L	MW91-19	10/16/2008	ND	50.0000		7.1000
Nickel, total	ug/L	MW91-19	03/05/2009	ND	50.0000		7.1000
Nickel, total	ug/L	MW91-19	09/30/2009		7.1000		7.1000
Nickel, total	ug/L	MW91-19	03/23/2010		6.7000		7.1000
Nickel, total	ug/L	MW91-19	09/07/2010		6.9000		7.1000
Nickel, total	ug/L	MW91-19	04/05/2011		9.7000	*	7.1000
Nickel, total	ug/L	MW91-19	09/06/2011		8.3000	*	7.1000
Nickel, total	ug/L	MW91-19	03/16/2012		6.2000		7.1000
Nickel, total	ug/L	MW91-19	09/24/2012		6.8000		7.1000
Nickel, total	ug/L	MW91-19	04/24/2013		6.0000		7.1000
Nickel, total	ug/L	MW91-19	09/20/2013		5.5000		7.1000
Nickel, total	ug/L	MW91-19	10/28/2013		4.4000		7.1000
Nickel, total	ug/L	MW91-19	04/08/2014		4.3000		7.1000

\* - 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	MW91-19	09/22/2014		6.8000	7.1000
Nickel, total	ug/L	MW91-19	03/20/2015		4.0000	7.1000
Nickel, total	ug/L	MW91-19	09/17/2015	ND	4.0000	7.1000
Nickel, total	ug/L	MW91-19	03/17/2016		5.2000	7.1000
Nickel, total	ug/L	MW91-19	08/26/2016		7.1000	7.1000
Nickel, total	ug/L	MW91-19	04/11/2017		5.1000	7.1000
Nickel, total	ug/L	MW91-19	09/23/2017		4.5000	7.1000
Nickel, total	ug/L	MW91-19	04/10/2018	ND	4.0000	7.1000
Nickel, total	ug/L	MW91-19	09/24/2018	ND	4.0000	7.1000
Nickel, total	ug/L	MW91-19	04/16/2019	ND	4.0000	7.1000
Nickel, total	ug/L	MW91-19	08/29/2019	ND	4.0000	7.1000
Nickel, total	ug/L	MW91-19	04/10/2020		5.7000	7.1000
Nickel, total	ug/L	MW91-19	10/09/2020		9.3000 *	7.1000
Nickel, total	ug/L	MW91-19	04/09/2021	ND	4.0000	7.1000
Nickel, total	ug/L	MW91-19	10/11/2021	ND	4.0000	7.1000
Nickel, total	ug/L	MW91-19	04/07/2022	ND	4.0000	7.1000
Nickel, total	ug/L	MW91-19	10/06/2022		7.8000 *	7.1000
Nickel, total	ug/L	MW91-19	01/04/2023		10.1000 *	7.1000
Nickel, total	ug/L	MW91-19	04/05/2023	ND	4.0000	7.1000

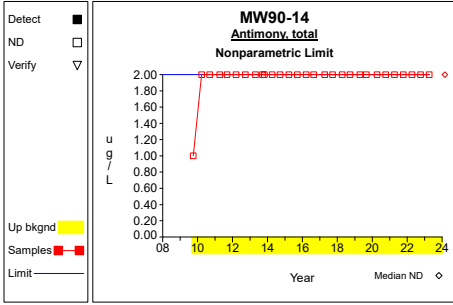
\* - Significantly increased over background.

\*\* - Detect at limit for 100% NDs in background (NPPL only).

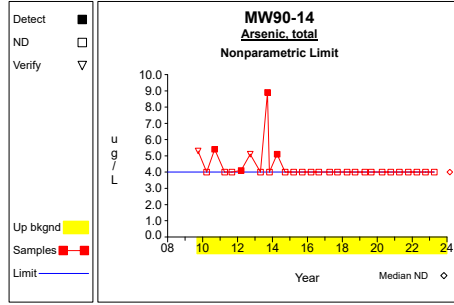
\*\*\* - Manual exclusion.

ND = Not Detected, Result = detection limit.

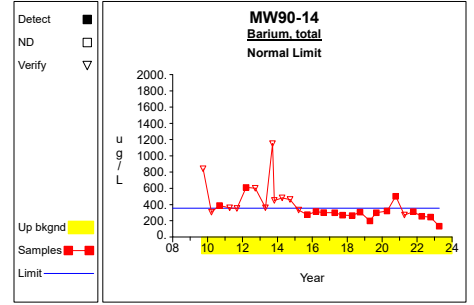
# Up vs. Down Prediction Limits



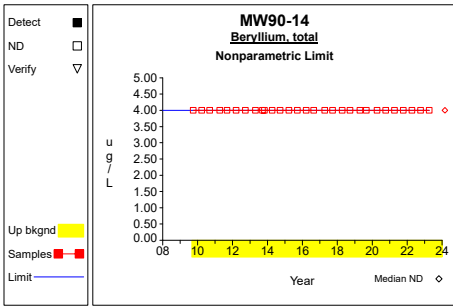
Graph 1



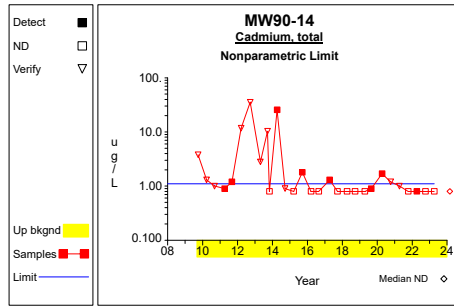
Graph 2



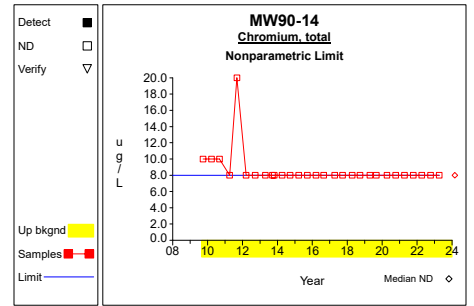
Graph 3



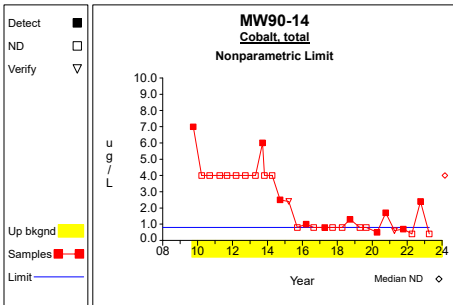
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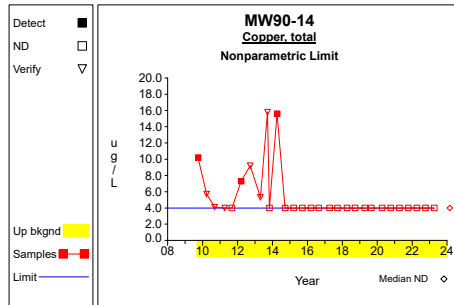
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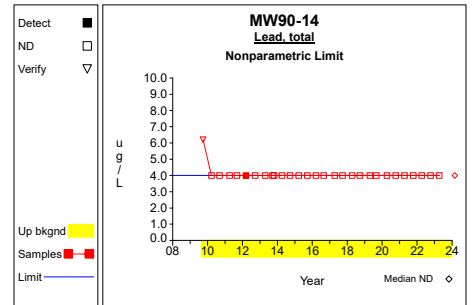
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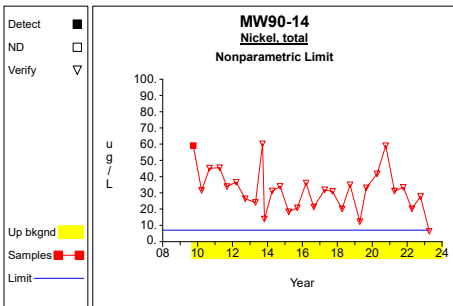
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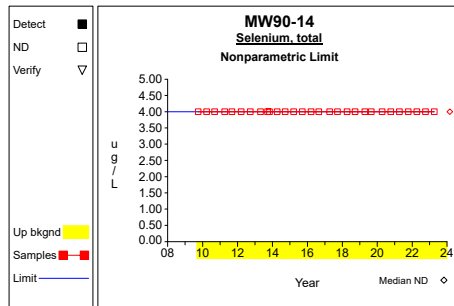
Graph 8



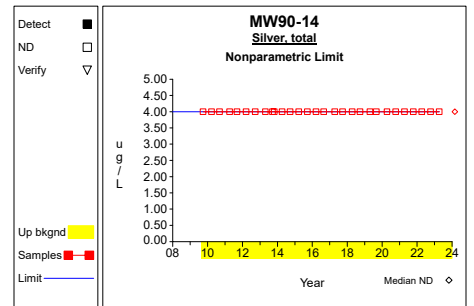
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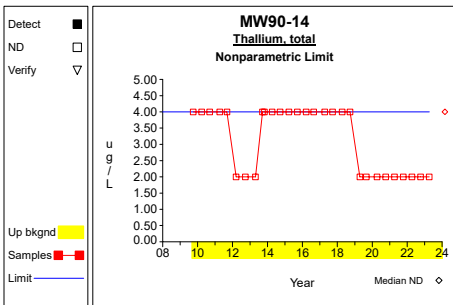
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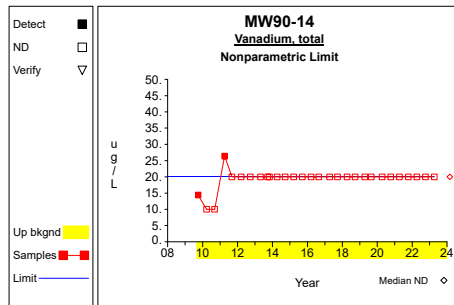
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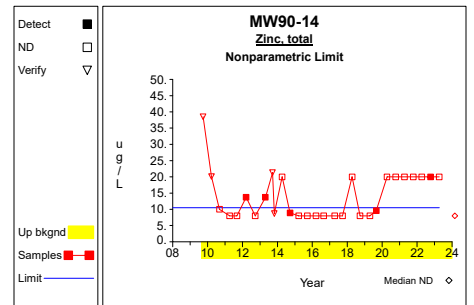
Graph 12



Graph 13

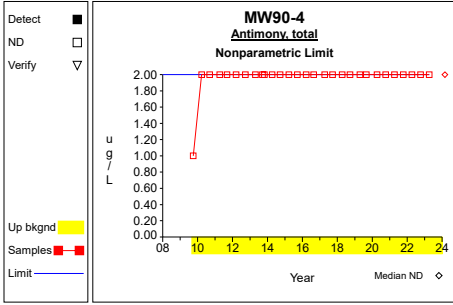


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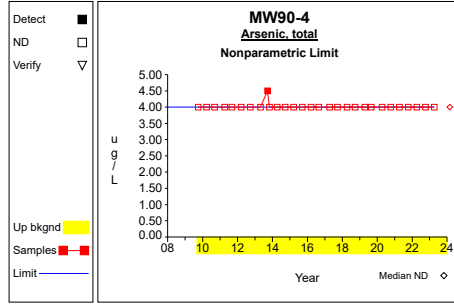


Graph 15

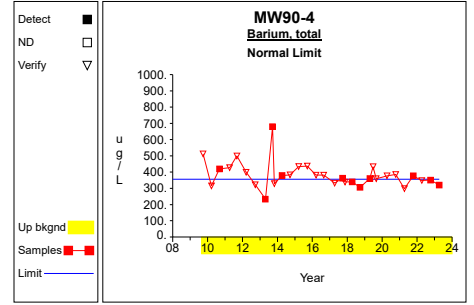
# Up vs. Down Prediction Limits



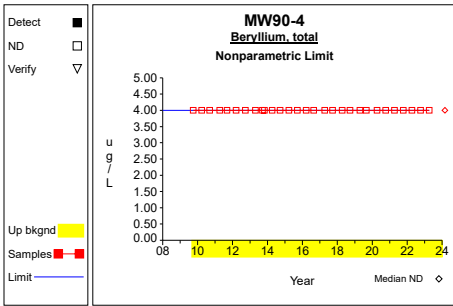
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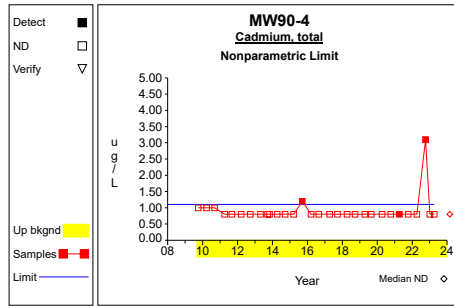
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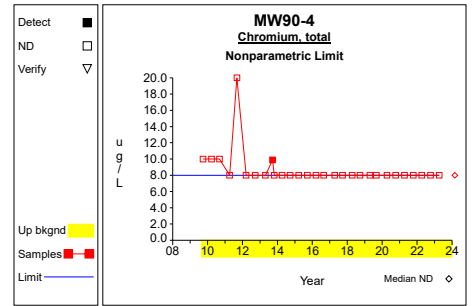
Graph 18



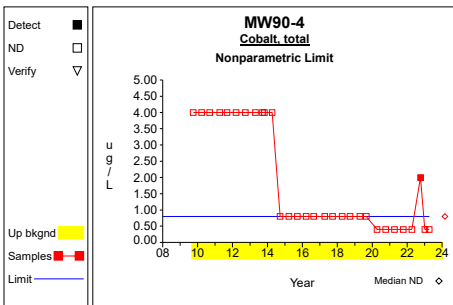
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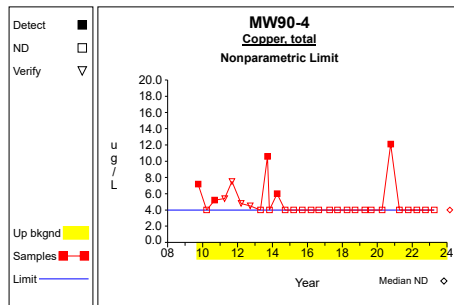
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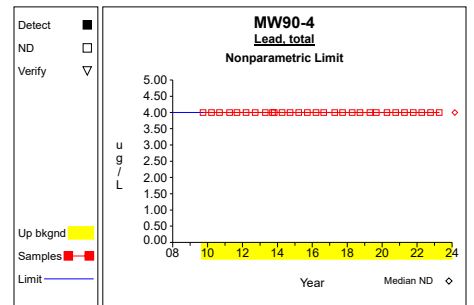
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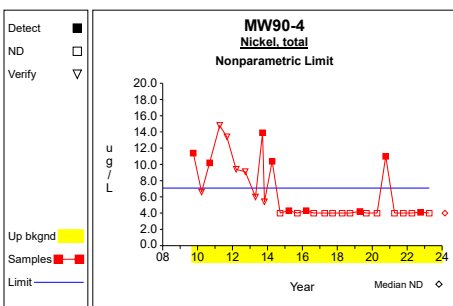
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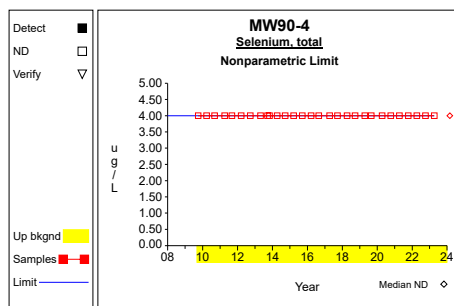
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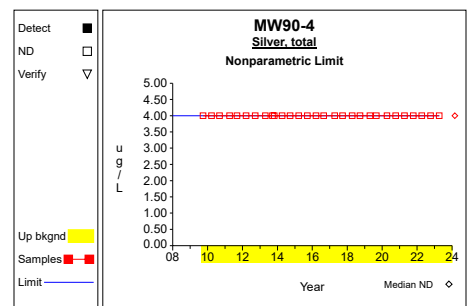
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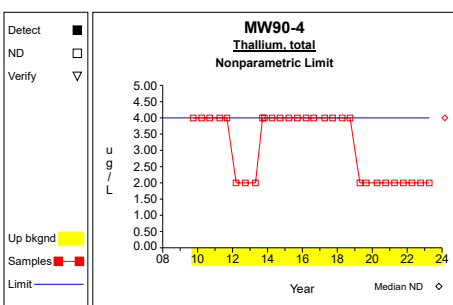
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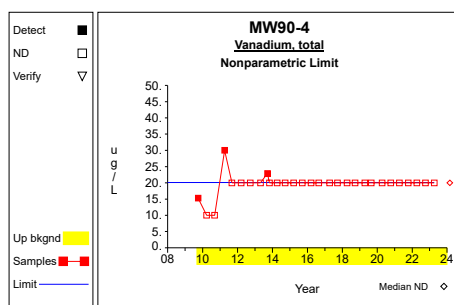
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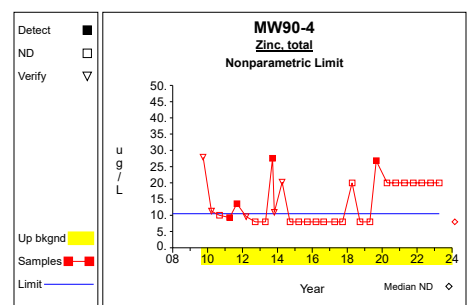
Graph 27



Graph 28

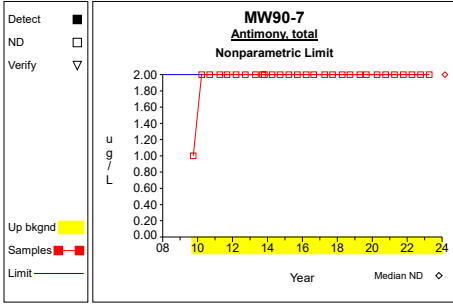


Graph 29

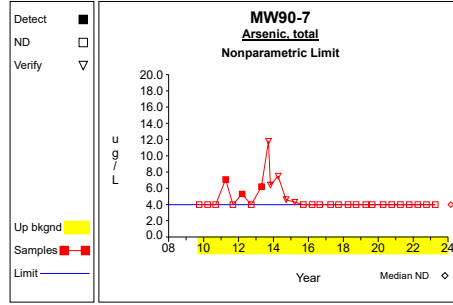


Graph 30

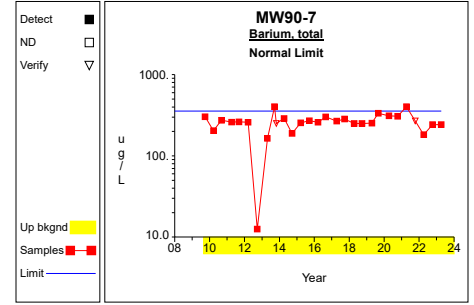
# Up vs. Down Prediction Limits



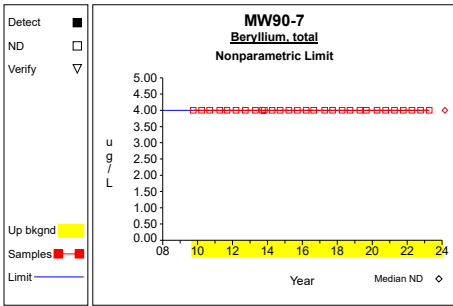
Graph 31



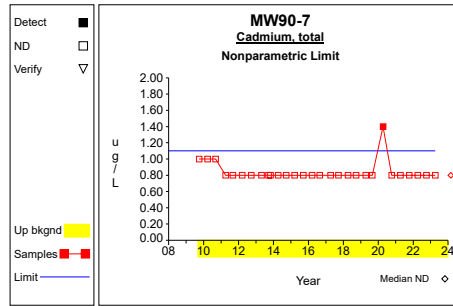
Graph 32



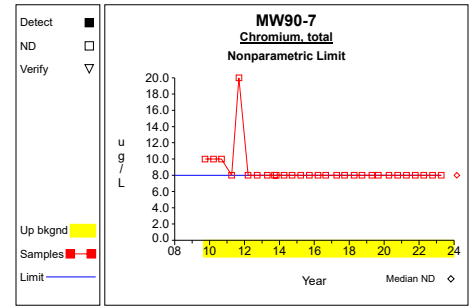
Graph 33



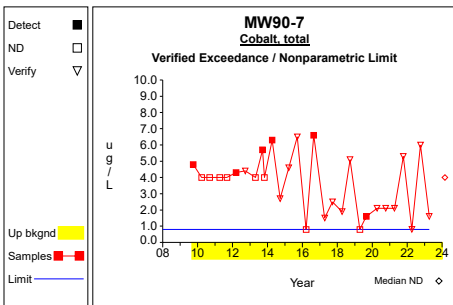
Graph 34



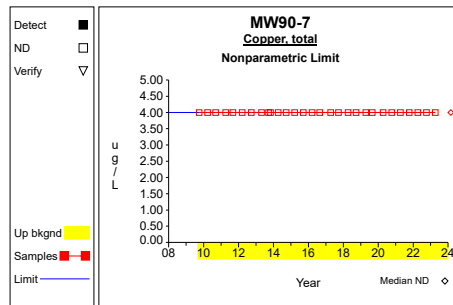
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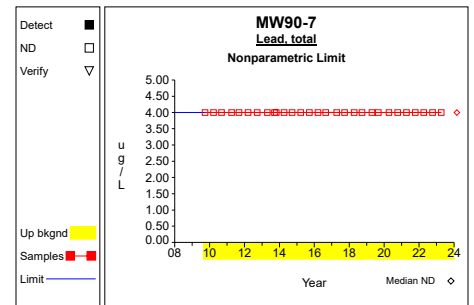
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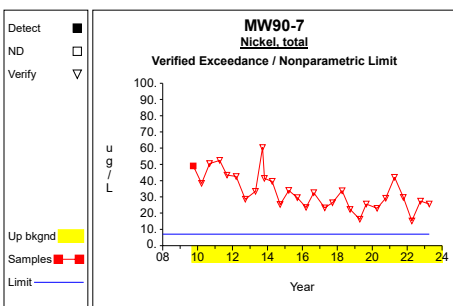
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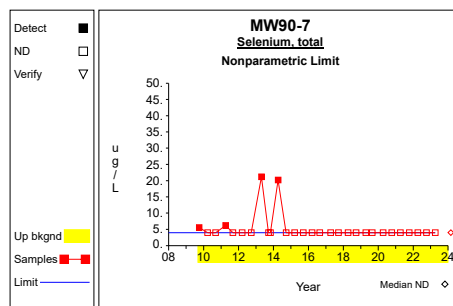
Graph 38



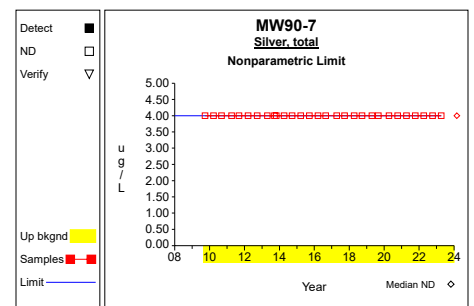
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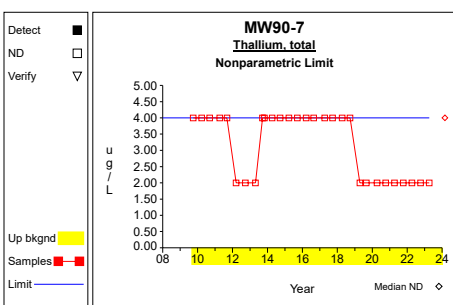
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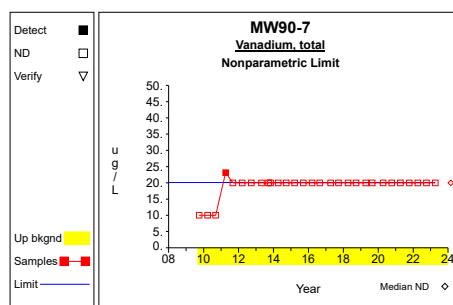
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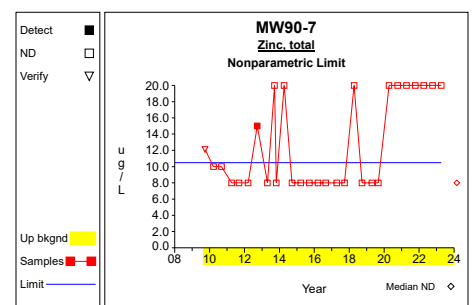
Graph 42



Graph 43

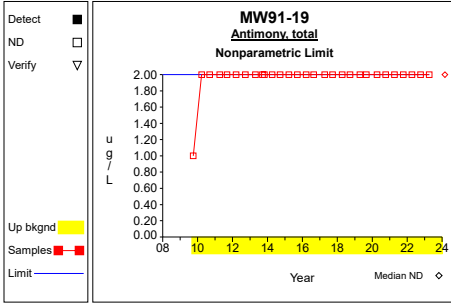


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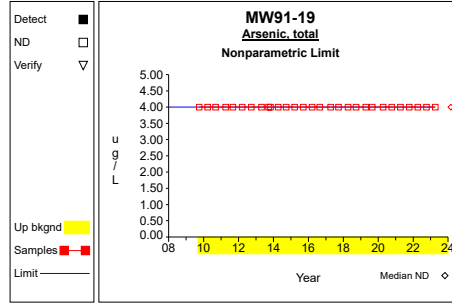


Graph 45

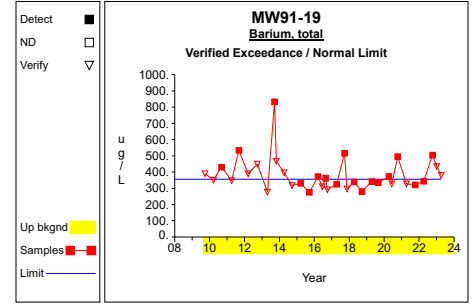
# Up vs. Down Prediction Limits



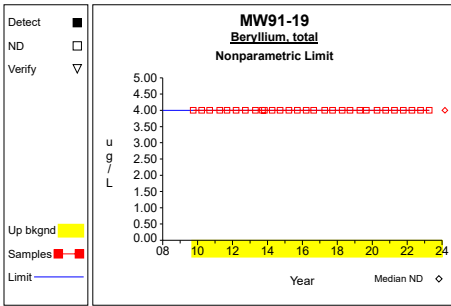
Graph 46



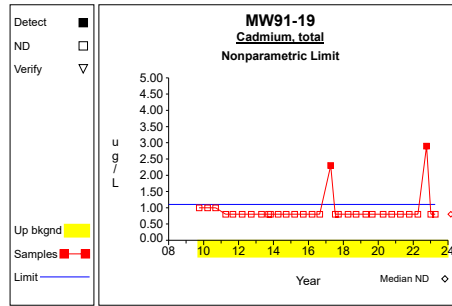
Graph 47



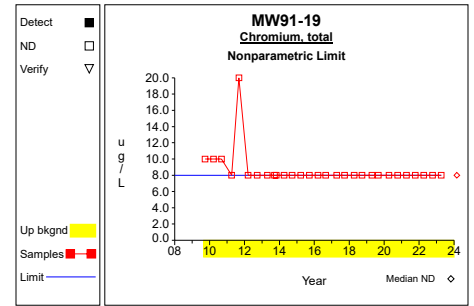
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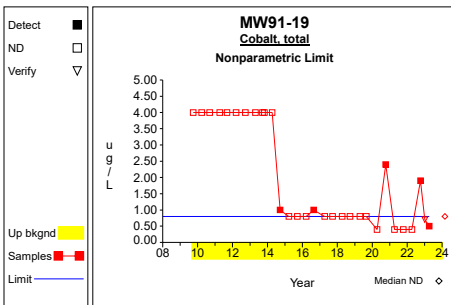
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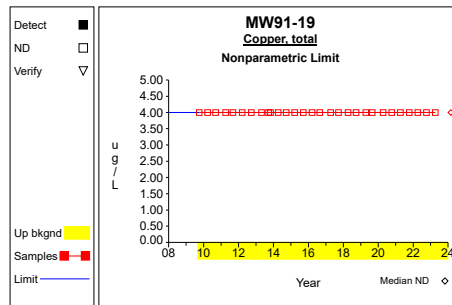
Graph 50



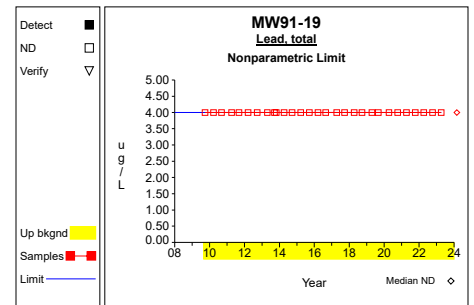
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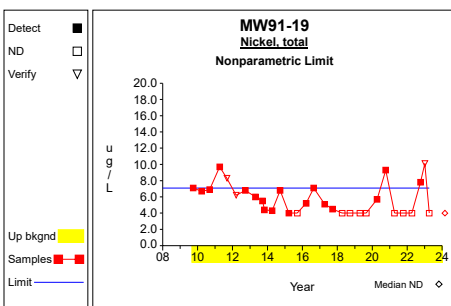
Graph 52



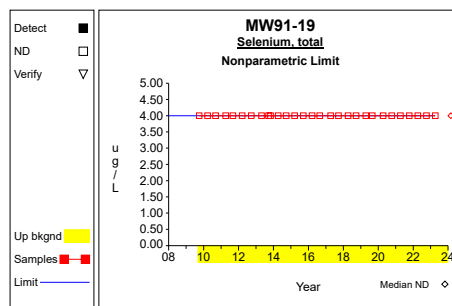
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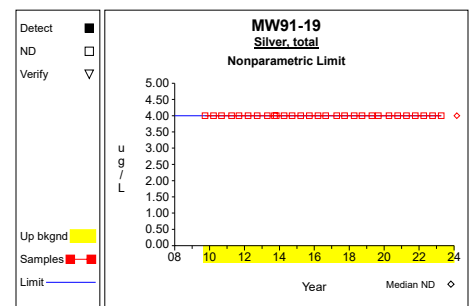
Graph 54



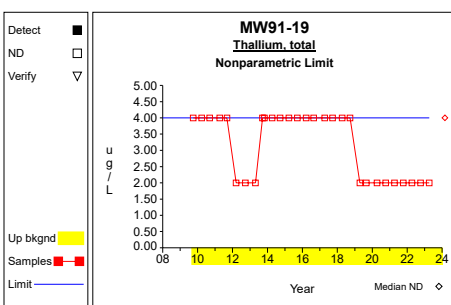
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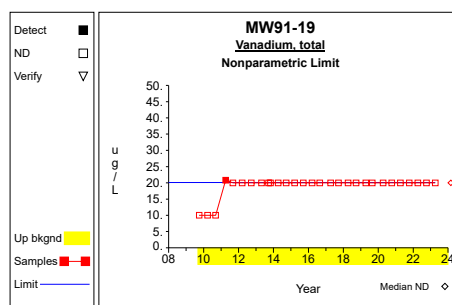
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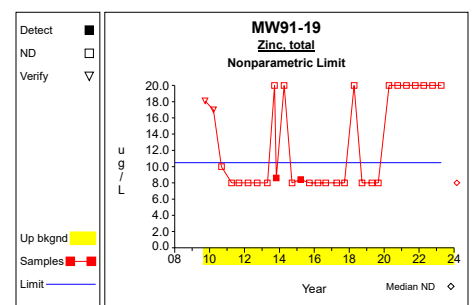
Graph 57



Graph 58

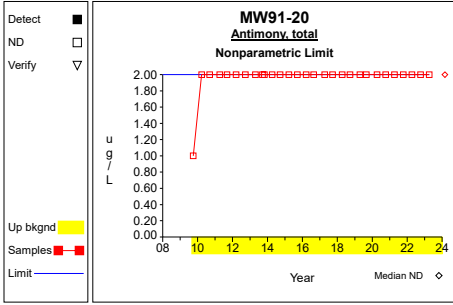


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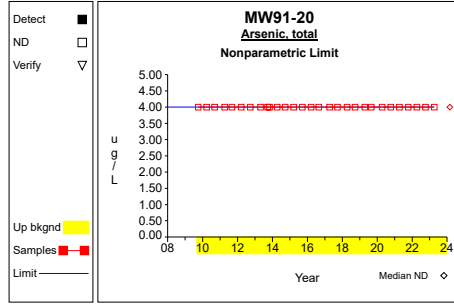


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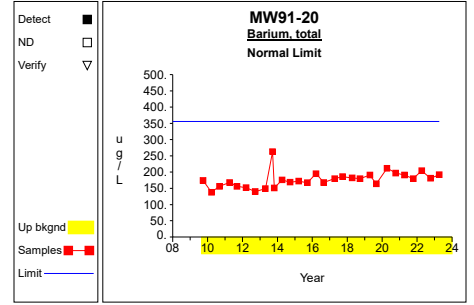
# Up vs. Down Prediction Limits



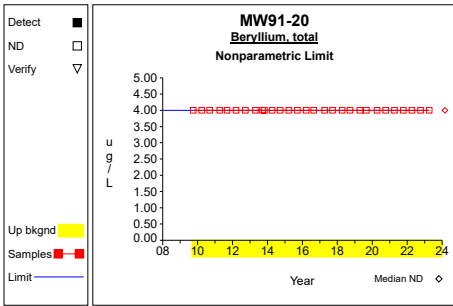
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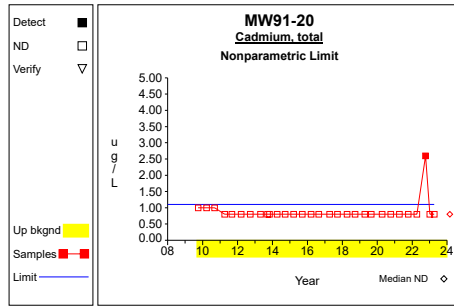
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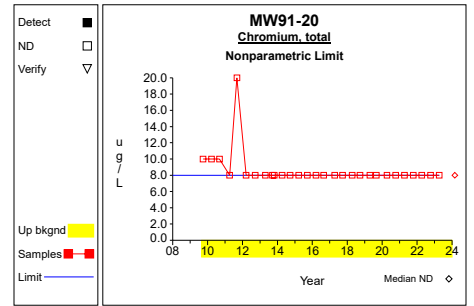
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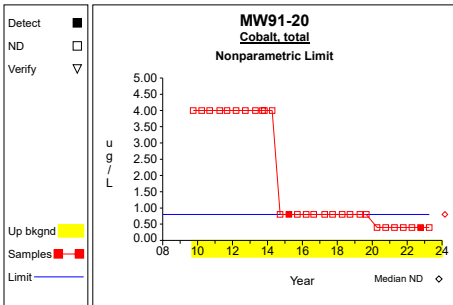
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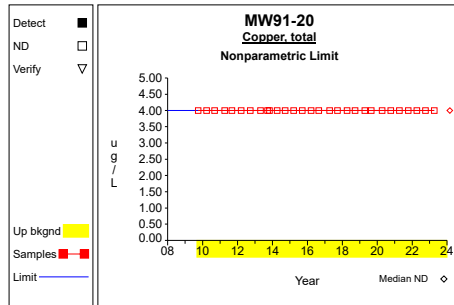
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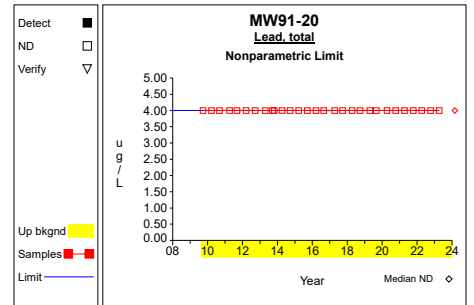
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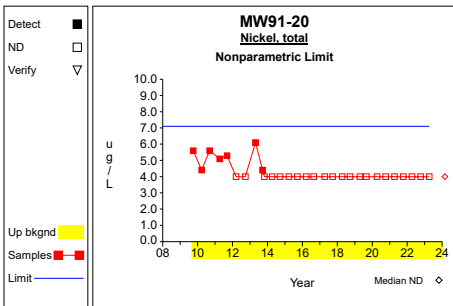
Graph 67



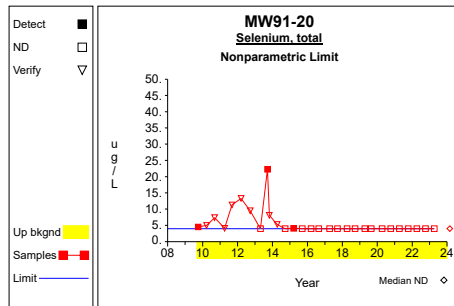
Graph 68



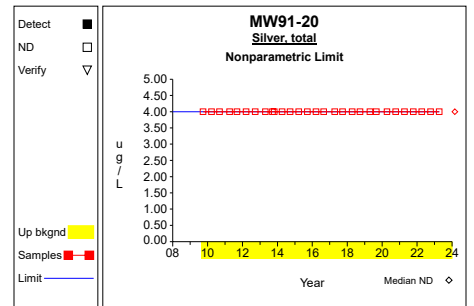
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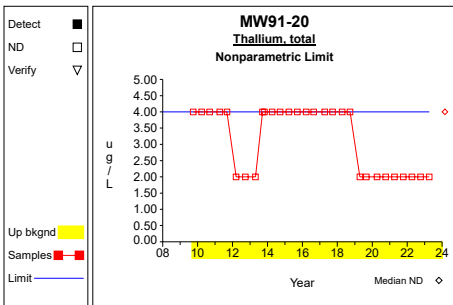
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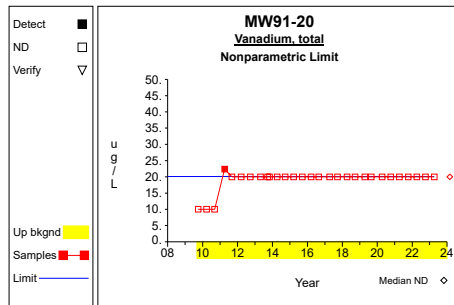
Graph 71



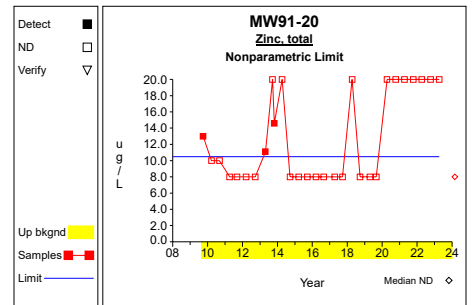
Graph 72



Graph 73



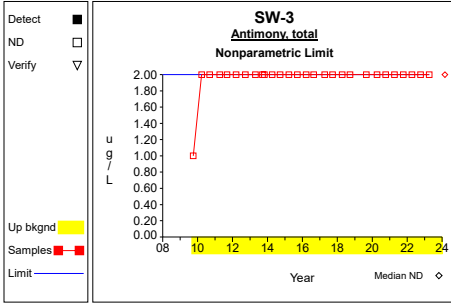
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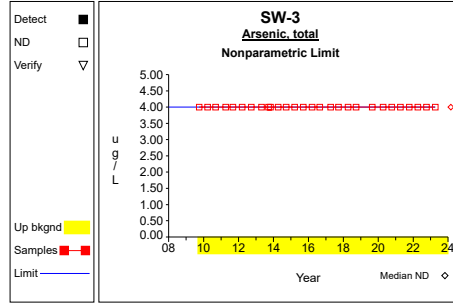
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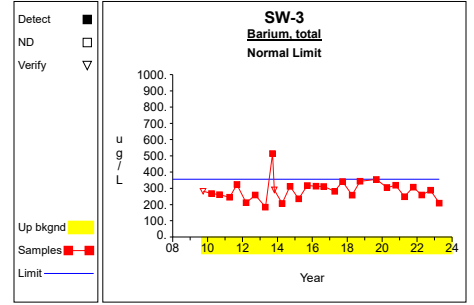
# Up vs. Down Prediction Limits



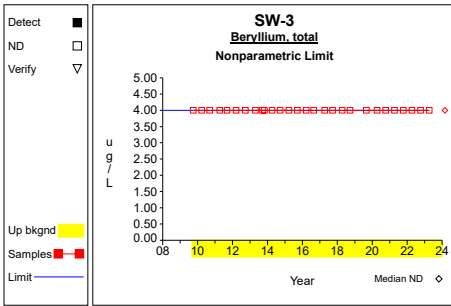
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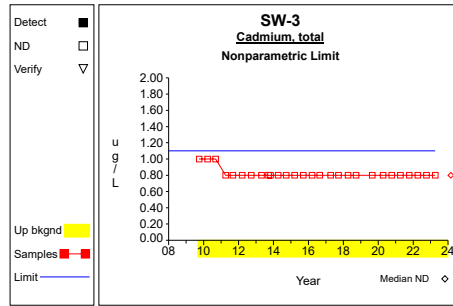
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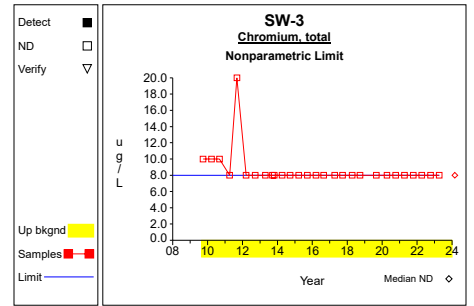
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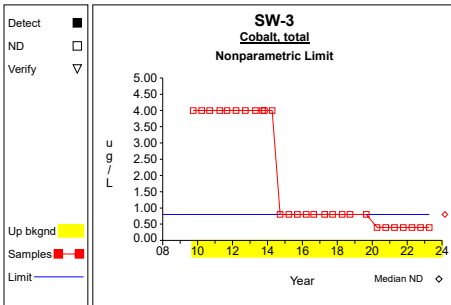
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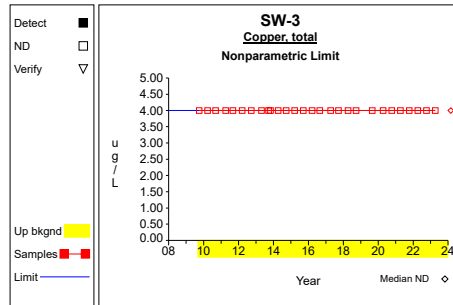
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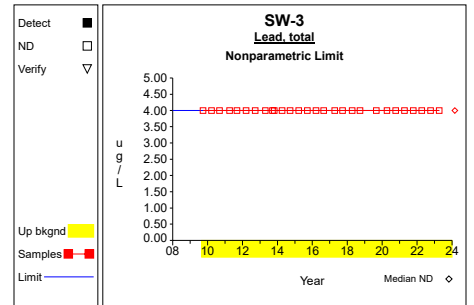
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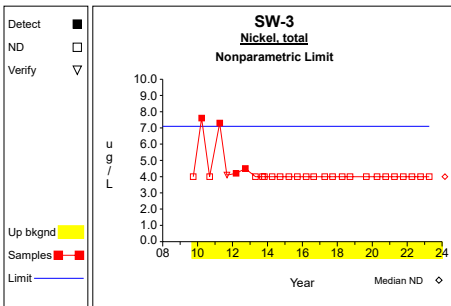
Graph 82



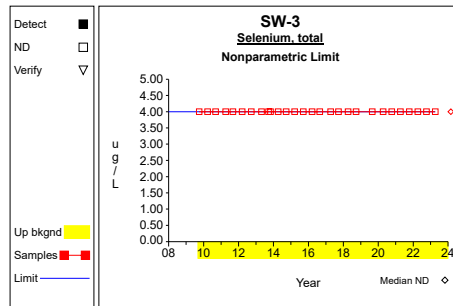
Graph 83



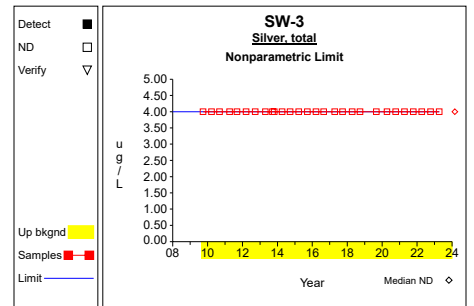
Graph 84



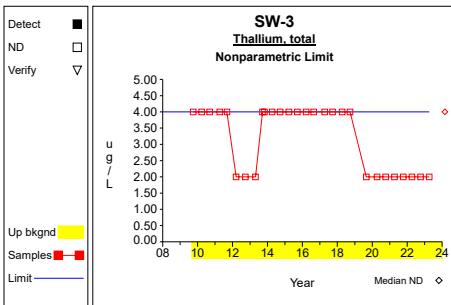
Graph 85



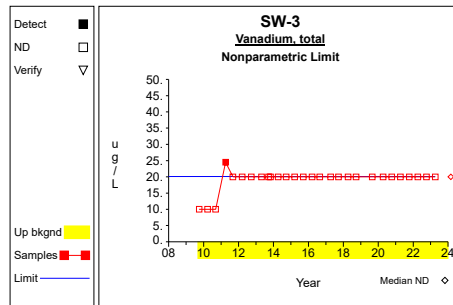
Graph 86



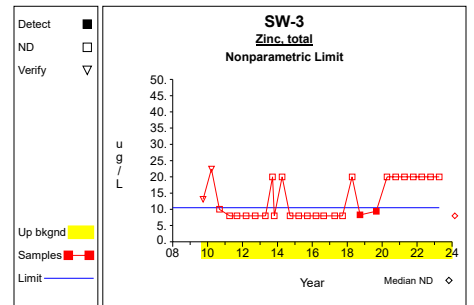
Graph 87



Graph 88

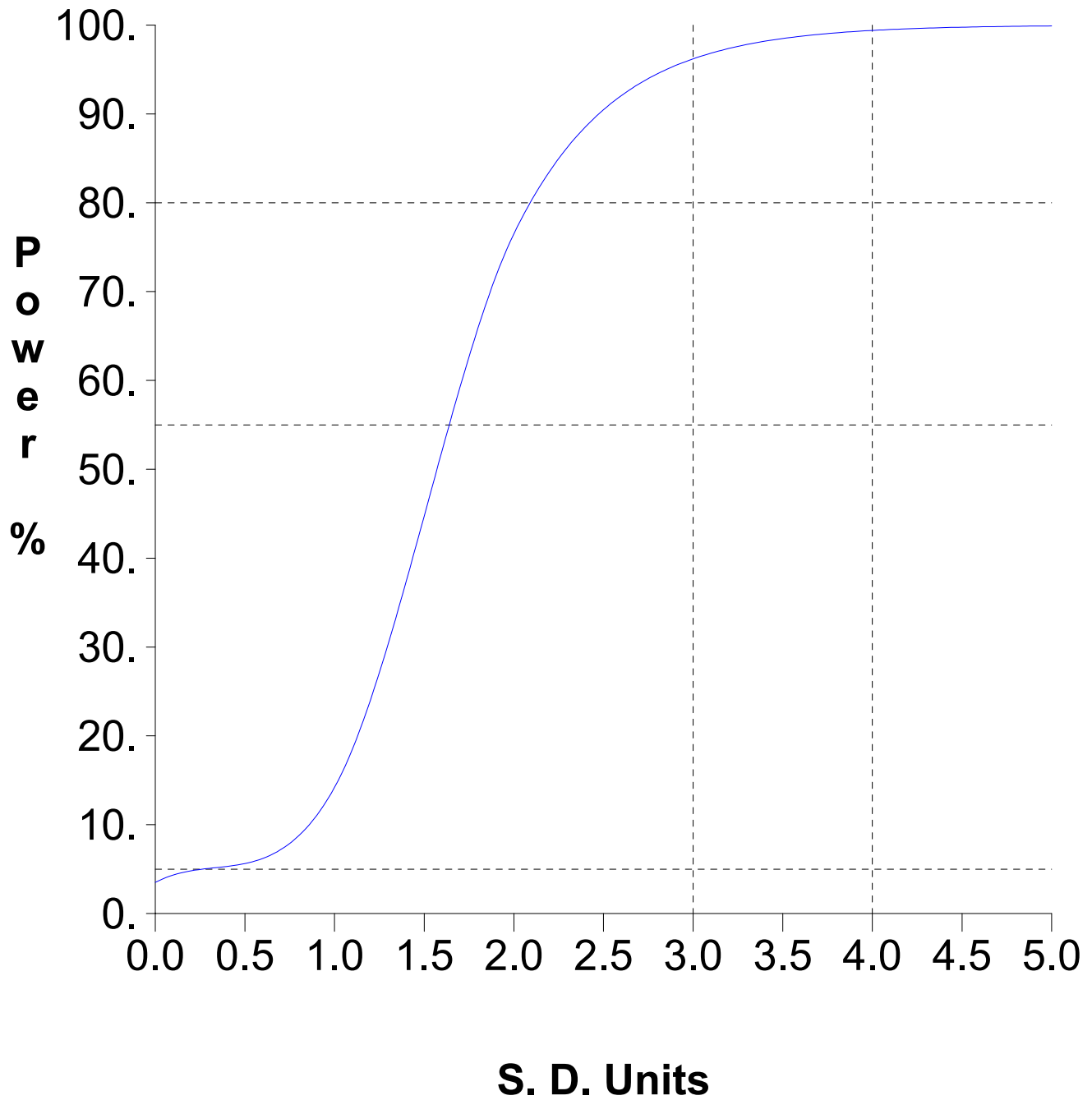


Graph 89



Graph 90

# 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
Barium, total	ug/L	MW90-14	4	236.750	74.772	1.176	148.796	324.704	2000.000	dec
Cadmium, total	ug/L	MW90-14	4	0.500	0.200	1.176	0.265	0.735	5.000	
Cobalt, total	ug/L	MW90-14	4	1.775	0.741	1.176	0.903	2.647	2.100	
Nickel, total	ug/L	MW90-14	4	21.925	11.738	1.176	8.118	35.732	100.000	
Barium, total	ug/L	MW90-4	4	349.000	23.310	1.176	321.581	376.419	2000.000	
Cadmium, total	ug/L	MW90-4	4	1.075	1.350	1.176	0.000	2.663	5.000	
Cobalt, total	ug/L	MW90-4	4	0.800	0.800	1.176	0.000	1.741	2.100	
Nickel, total	ug/L	MW90-4	4	2.525	1.050	1.176	1.290	3.760	100.000	
Barium, total	ug/L	MW90-7	4	233.750	36.773	1.176	190.494	277.006	2000.000	
Cadmium, total	ug/L	MW90-7	4	0.400	0.000	1.176	0.400	0.400	5.000	
Cobalt, total	ug/L	MW90-7	4	3.425	2.606	1.176	0.360	6.490	2.100	
Nickel, total	ug/L	MW90-7	4	24.475	6.407	1.176	16.939	32.011	100.000	dec
Barium, total	ug/L	MW91-19	4	415.250	69.978	1.176	332.936	497.564	2000.000	
Cadmium, total	ug/L	MW91-19	4	1.025	1.250	1.176	0.000	2.495	5.000	
Cobalt, total	ug/L	MW91-19	4	0.875	0.695	1.176	0.058	1.692	2.100	
Nickel, total	ug/L	MW91-19	4	5.475	4.121	1.176	0.628	10.322	100.000	
Barium, total	ug/L	MW91-20	4	189.250	11.236	1.176	176.033	202.467	2000.000	inc
Cadmium, total	ug/L	MW91-20	4	0.950	1.100	1.176	0.000	2.244	5.000	
Cobalt, total	ug/L	MW91-20	4	0.400	0.000	1.176	0.400	0.400	2.100	
Nickel, total	ug/L	MW91-20	4	2.000	0.000	1.176	2.000	2.000	100.000	

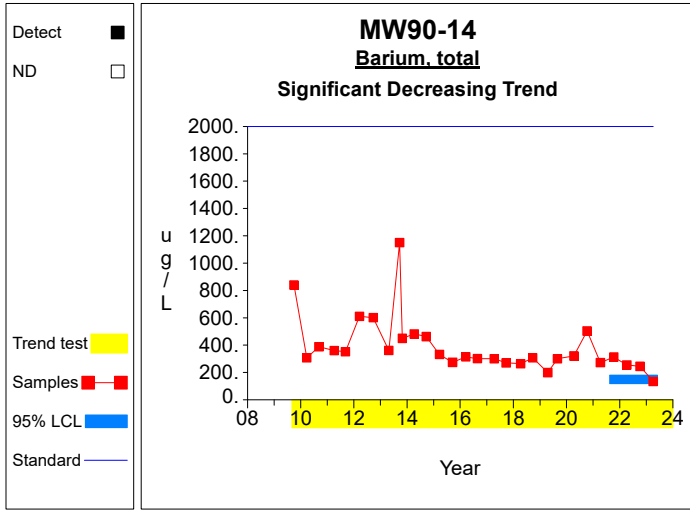
\* - Insufficient Data

\*\* - Significant Exceedance

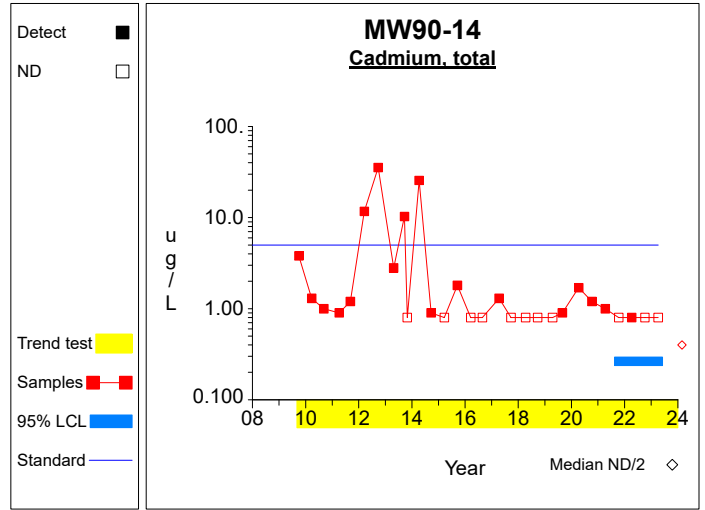
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

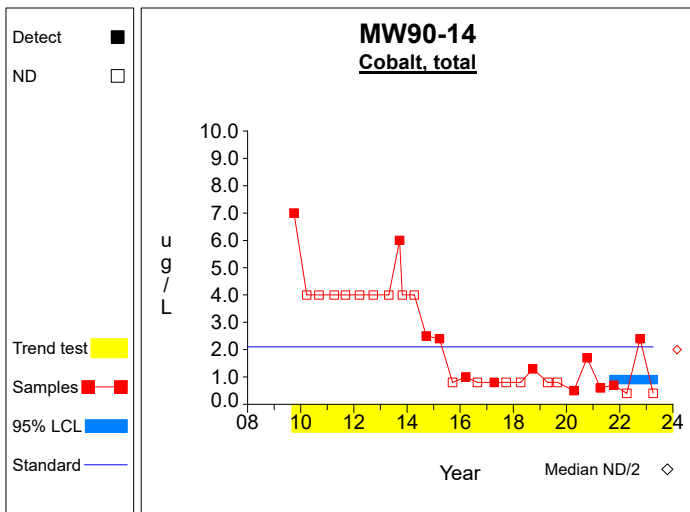
### Confidence Limits (Assessment)



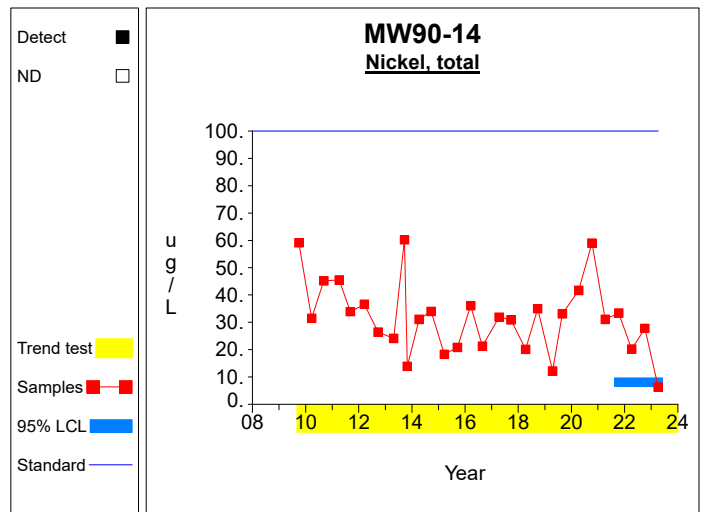
Graph 1



Graph 2

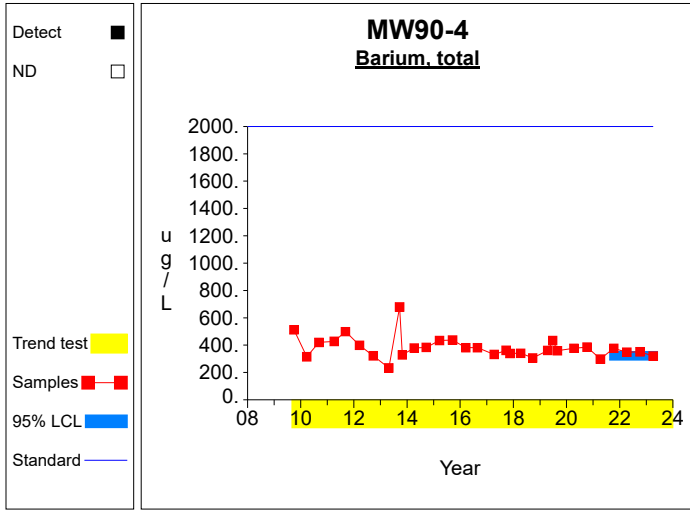


Graph 3

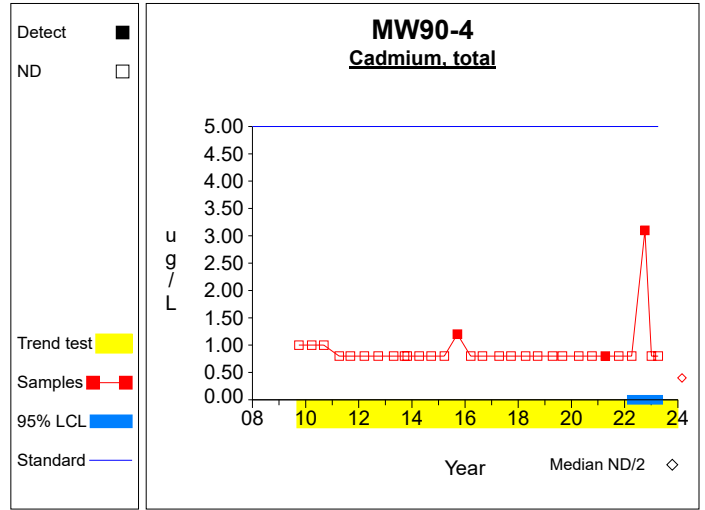


Graph 4

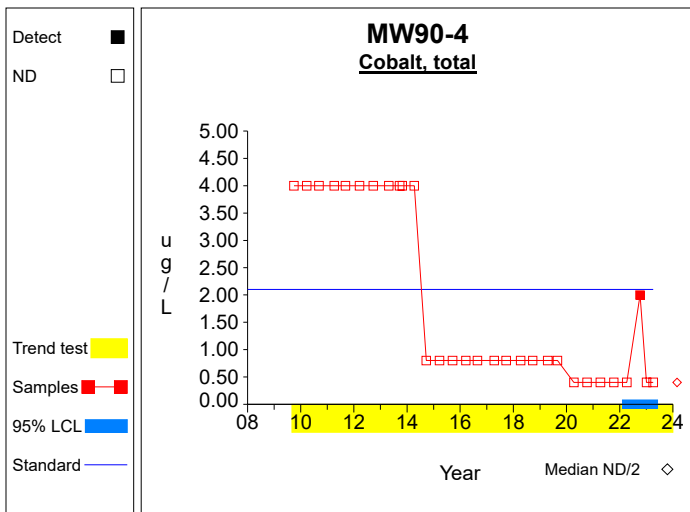
### Confidence Limits (Assessment)



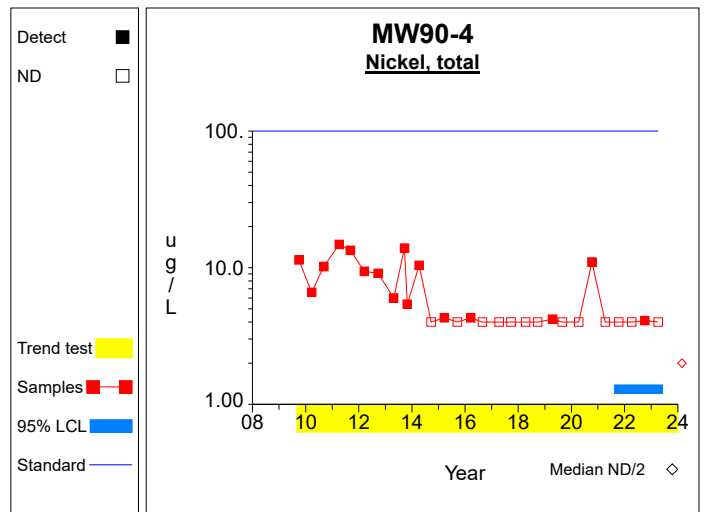
Graph 5



Graph 6

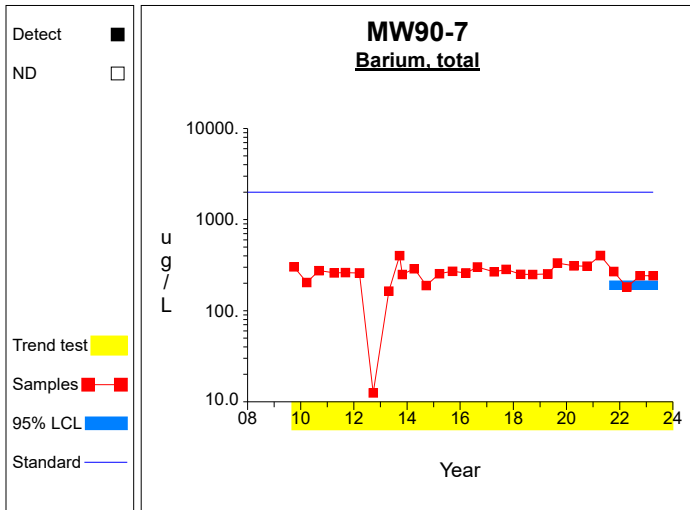


Graph 7

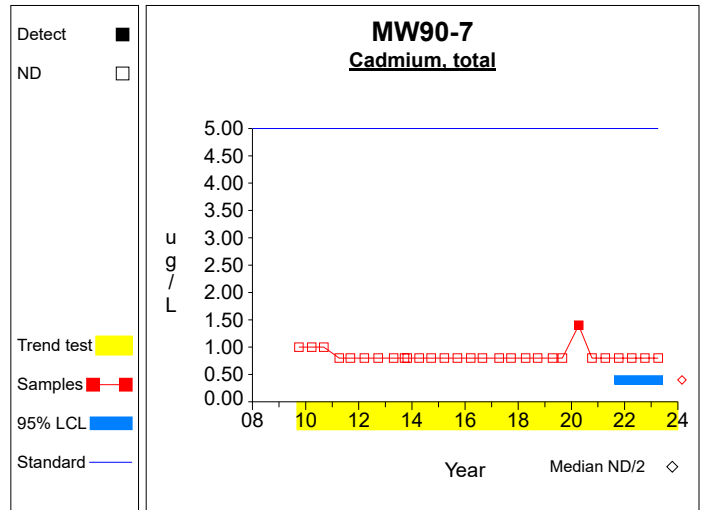


Graph 8

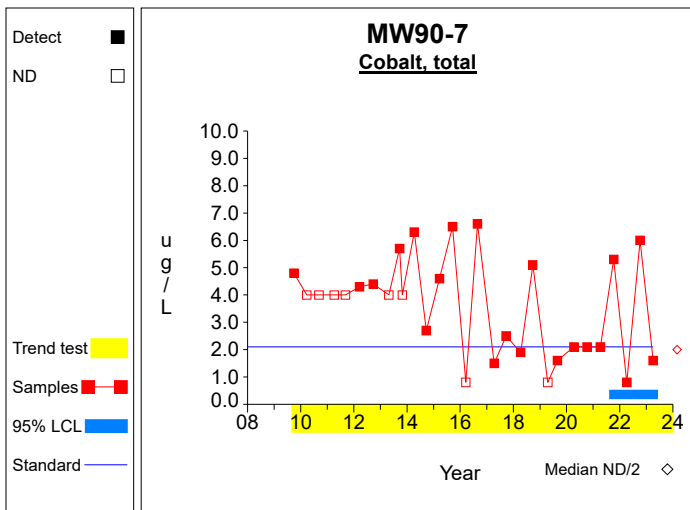
## Confidence Limits (Assessment)



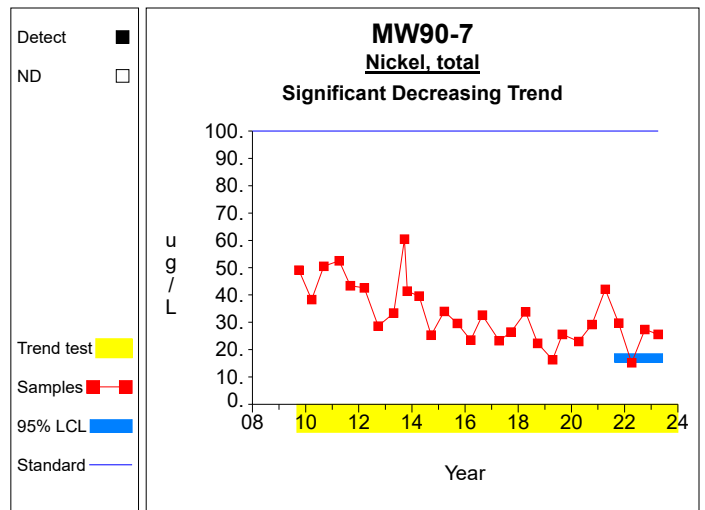
**Graph 9**



**Graph 10**

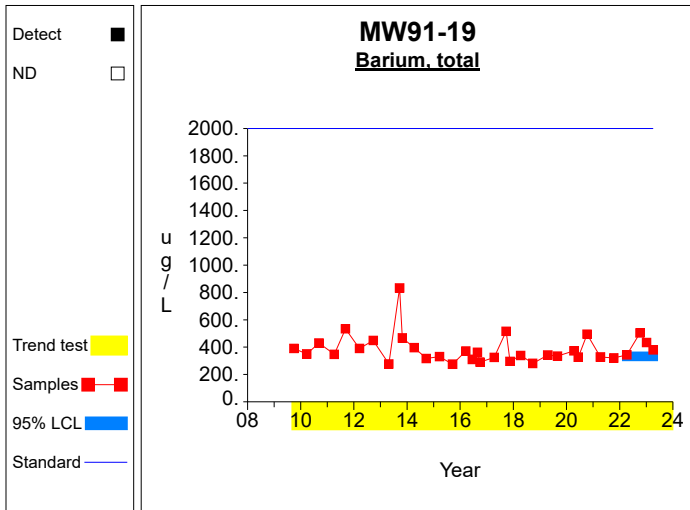


**Graph 11**

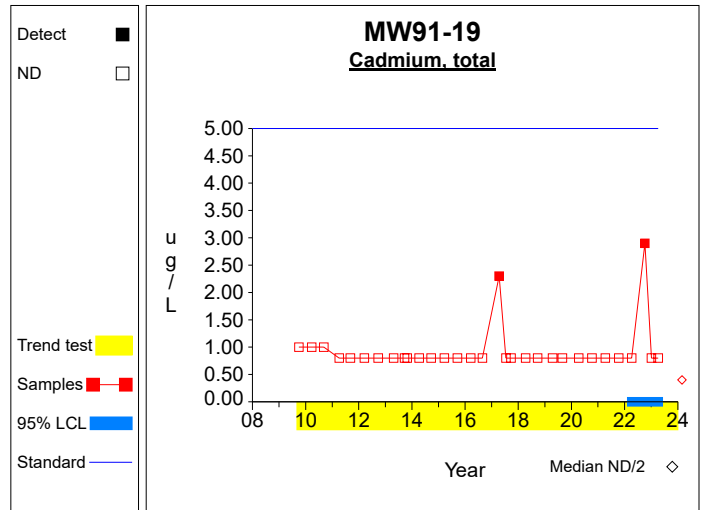


**Graph 12**

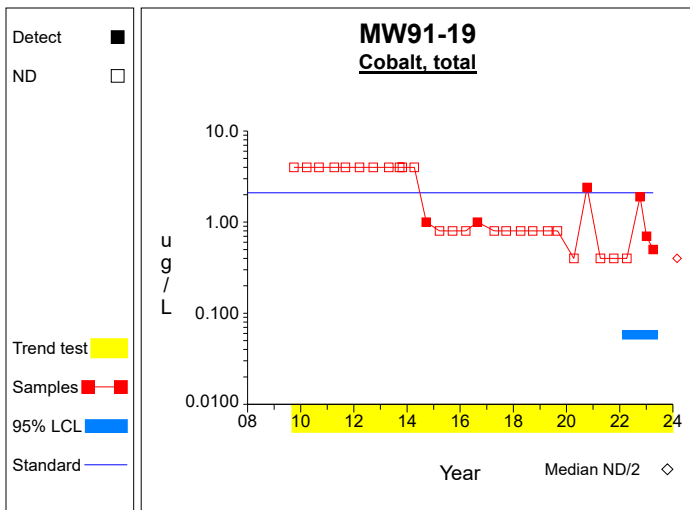
## Confidence Limits (Assessment)



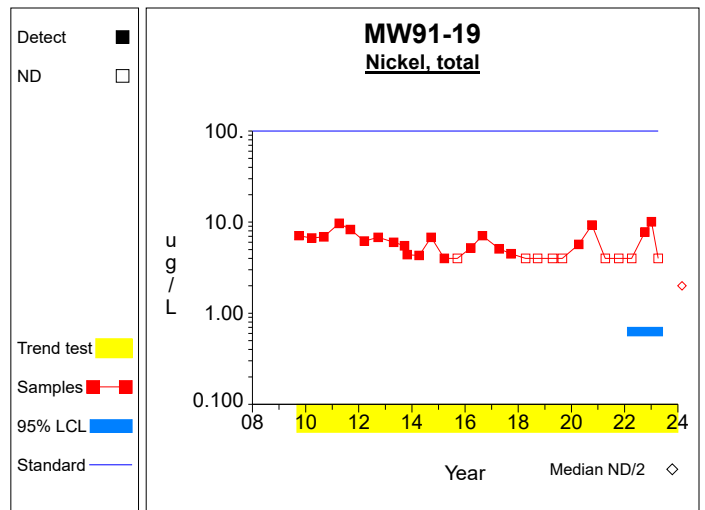
**Graph 13**



**Graph 14**



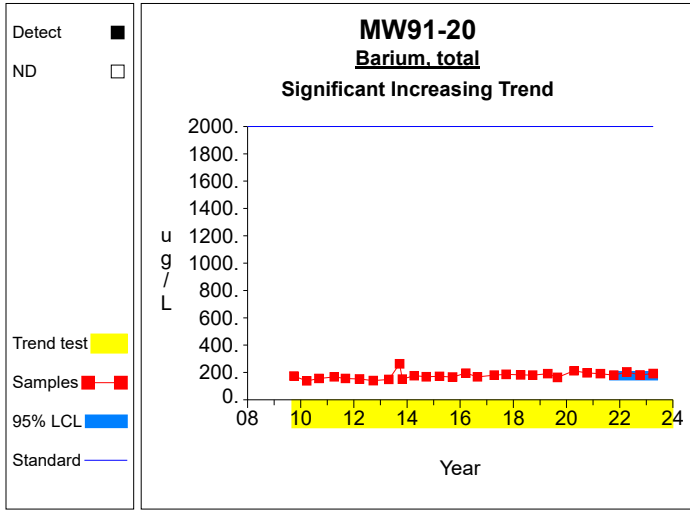
**Graph 15**



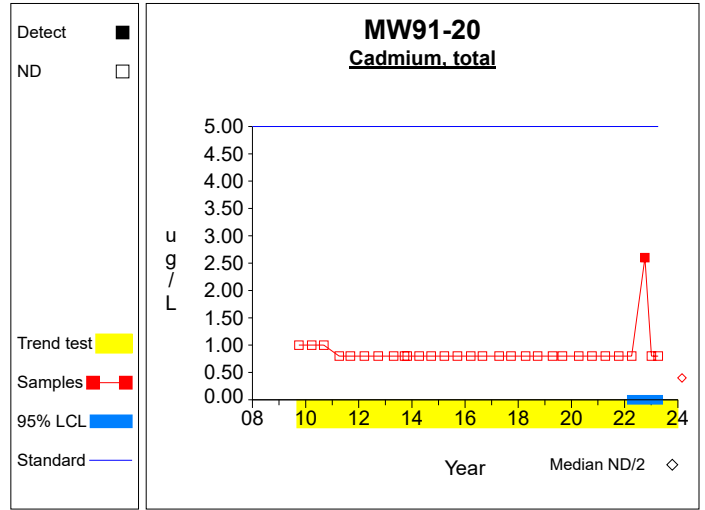
**Graph 16**



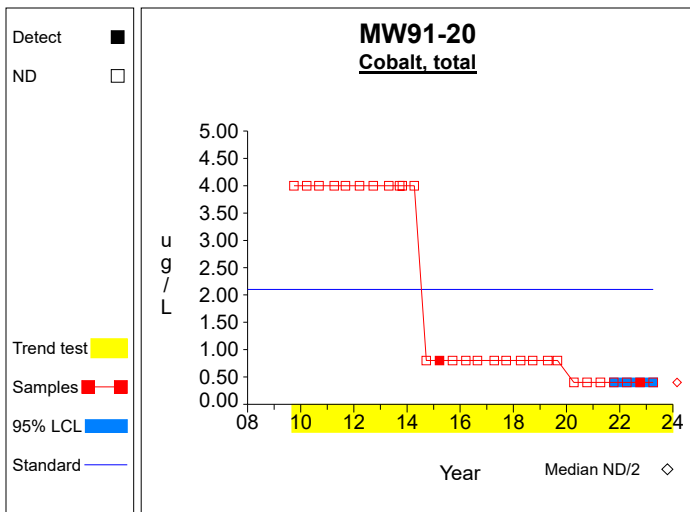
### Confidence Limits (Assessment)



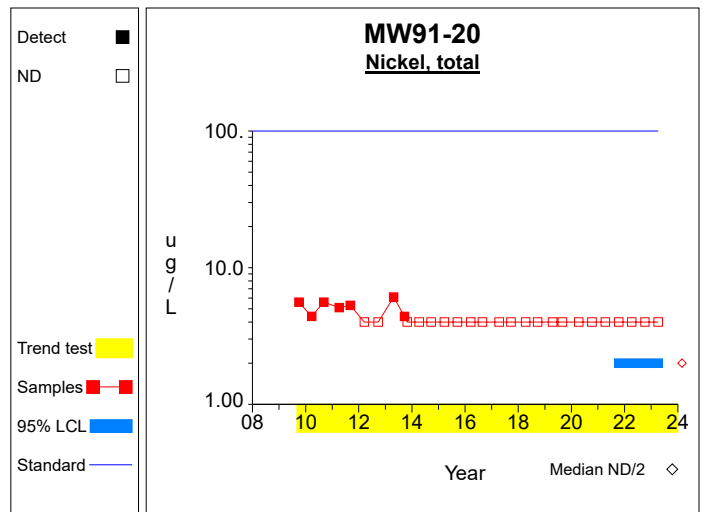
Graph 17



Graph 18



Graph 19



Graph 20

**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	MW90-14	26	3	32			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	MW90-14	26	3	32			4.0000	4.0000			8.9000	nonpar	.99	**
Barium, total	ug/L	MW90-14	26	3	32	409.0000	204.8559	245.0000	134.0000	409.0000	409.0000	1740.5630	normal		
Beryllium, total	ug/L	MW90-14	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW90-14	26	3	32	4.2308	8.3210	0.8000	0.8000	4.2308	4.2308	58.3173	normal		
Chromium, total	ug/L	MW90-14	26	3	32			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	MW90-14	26	3	32	3.2500	1.6698	2.4000	0.4000	3.2500	3.2500	14.1036	normal		
Copper, total	ug/L	MW90-14	26	3	32	5.5846	3.4028	4.0000	4.0000	5.5846	5.5846	27.7027	normal		
Lead, total	ug/L	MW90-14	26	3	32			4.0000	4.0000			6.2000	nonpar	.99	**
Nickel, total	ug/L	MW90-14	26	3	32	33.3231	12.8175	27.8000	6.3000	33.3231	33.3231	116.6368	normal		
Selenium, total	ug/L	MW90-14	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Silver, total	ug/L	MW90-14	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW90-14	26	3	32			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	MW90-14	26	3	32			20.0000	20.0000			26.4000	nonpar	.99	**
Zinc, total	ug/L	MW90-14	26	3	32	10.7115	6.7267	20.0000	20.0000	14.9549	10.7115	54.4354	normal		
Antimony, total	ug/L	MW90-17	25	3	28			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	MW90-17	25	3	28			4.0000	4.0000			4.0000	nonpar	.99	**
Barium, total	ug/L	MW90-17	25	3	28	238.2400	42.2328	288.0000	307.0000	285.4108	322.4963	512.7530	normal		
Beryllium, total	ug/L	MW90-17	25	3	28			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW90-17	26	3	29			0.8000	0.8000			1.1000	nonpar	.99	**
Chromium, total	ug/L	MW90-17	25	3	28			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	MW90-17	25	3	28			0.4000	0.4000			0.8000	nonpar	.99	**
Copper, total	ug/L	MW90-17	25	3	28			4.0000	4.0000			4.0000	nonpar	.99	**
Lead, total	ug/L	MW90-17	25	3	28			4.0000	4.0000			4.0000	nonpar	.99	**
Nickel, total	ug/L	MW90-17	25	3	28			4.0000	4.0000			7.1000	nonpar	.99	**
Selenium, total	ug/L	MW90-17	25	3	28			4.0000	4.0000			4.0000	nonpar	.99	**
Silver, total	ug/L	MW90-17	25	3	28			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW90-17	25	3	28			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	MW90-17	25	3	28			20.0000	20.0000			20.1000	nonpar	.99	**
Zinc, total	ug/L	MW90-17	25	3	29			20.0000	20.0000			10.5000	nonpar	.99	**
Antimony, total	ug/L	MW90-4	26	3	32			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	MW90-4	26	3	32			4.0000	4.0000			4.5000	nonpar	.99	**
Barium, total	ug/L	MW90-4	28	3	34	385.6786	82.5501	351.0000	320.0000	385.6786	385.6786	922.2544	normal		
Beryllium, total	ug/L	MW90-4	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW90-4	26	4	33			0.8000	0.8000			1.2000	nonpar	.99	**
Chromium, total	ug/L	MW90-4	26	3	32			8.0000	8.0000			9.9000	nonpar	.99	**
Cobalt, total	ug/L	MW90-4	26	4	33			0.4000	0.4000			0.8000	nonpar	.99	**
Copper, total	ug/L	MW90-4	26	3	32	5.0500	2.1098	4.0000	4.0000	5.0500	5.0500	18.7639	normal		
Lead, total	ug/L	MW90-4	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Nickel, total	ug/L	MW90-4	26	3	32	6.8615	3.6953	4.1000	4.0000	6.8615	6.8615	30.8810	normal		
Selenium, total	ug/L	MW90-4	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Silver, total	ug/L	MW90-4	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW90-4	26	3	32			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	MW90-4	26	3	32			20.0000	20.0000			30.0000	nonpar	.99	**
Zinc, total	ug/L	MW90-4	26	3	32	11.2769	6.5059	20.0000	20.0000	11.2769	11.2769	53.5652	normal		
Antimony, total	ug/L	MW90-7	26	3	33			2.0000	2.0000			2.0000	nonpar	.99	**

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 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	
Arsenic, total	ug/L	MW90-7	26	3	33	4.8154	1.7681	4.0000	4.0000	4.8154	4.8154	16.3080	normal		
Barium, total	ug/L	MW90-7	25	3	33	274.9600	53.4864	242.0000	242.0000	274.9600	274.9600	622.6213	normal		
Beryllium, total	ug/L	MW90-7	26	3	33			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW90-7	26	3	33			0.8000	0.8000			1.4000	nonpar	.99	**
Chromium, total	ug/L	MW90-7	26	3	33			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	MW90-7	26	3	33	3.9269	1.5019	6.0000	1.6000	4.8736	3.9269	13.6891	normal		
Copper, total	ug/L	MW90-7	26	3	33			4.0000	4.0000			4.0000	nonpar	.99	**
Lead, total	ug/L	MW90-7	26	3	33			4.0000	4.0000			4.0000	nonpar	.99	**
Nickel, total	ug/L	MW90-7	26	3	33	34.4808	10.8781	27.4000	25.6000	34.4808	34.4808	105.1886	normal		
Selenium, total	ug/L	MW90-7	26	3	33			4.0000	4.0000			21.2000	nonpar	.99	**
Silver, total	ug/L	MW90-7	26	3	33			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW90-7	26	3	33			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	MW90-7	26	3	33			20.0000	20.0000			23.1000	nonpar	.99	**
Zinc, total	ug/L	MW90-7	26	3	33			20.0000	20.0000			15.0000	nonpar	.99	**
Antimony, total	ug/L	MW91-19	26	3	32			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	MW91-19	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Barium, total	ug/L	MW91-19	30	4	37	379.9667	110.3613	434.0000	380.0000	392.4914	379.9667	1097.3152	normal		
Beryllium, total	ug/L	MW91-19	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW91-19	27	4	34			0.8000	0.8000			2.3000	nonpar	.99	**
Chromium, total	ug/L	MW91-19	26	3	32			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	MW91-19	26	4	33			0.7000	0.5000			2.4000	nonpar	.99	**
Copper, total	ug/L	MW91-19	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Lead, total	ug/L	MW91-19	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Nickel, total	ug/L	MW91-19	26	4	33	5.6769	1.7168	10.1000	4.0000	9.6479	5.6769	16.8362	normal		
Selenium, total	ug/L	MW91-19	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Silver, total	ug/L	MW91-19	26	3	32			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW91-19	26	3	32			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	MW91-19	26	3	32			20.0000	20.0000			20.8000	nonpar	.99	**
Zinc, total	ug/L	MW91-19	26	3	32			20.0000	20.0000			18.1000	nonpar	.99	**
Antimony, total	ug/L	MW91-20	26	3	29			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	MW91-20	26	3	29			4.0000	4.0000			4.0000	nonpar	.99	**
Barium, total	ug/L	MW91-20	26	3	29	175.2692	25.4394	181.0000	192.0000	175.2692	175.2692	340.6255	normal		
Beryllium, total	ug/L	MW91-20	26	3	29			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW91-20	26	4	30			0.8000	0.8000			0.8000	nonpar	.99	**
Chromium, total	ug/L	MW91-20	26	3	29			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	MW91-20	26	3	29			0.4000	0.4000			0.8000	nonpar	.99	**
Copper, total	ug/L	MW91-20	26	3	29			4.0000	4.0000			4.0000	nonpar	.99	**
Lead, total	ug/L	MW91-20	26	3	29			4.0000	4.0000			4.0000	nonpar	.99	**
Nickel, total	ug/L	MW91-20	26	3	29	4.3269	0.6315	4.0000	4.0000	4.3269	4.3269	8.4320	normal		
Selenium, total	ug/L	MW91-20	26	3	29	5.9577	4.1790	4.0000	4.0000	5.9577	5.9577	33.1213	normal		
Silver, total	ug/L	MW91-20	26	3	29			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW91-20	26	3	29			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	MW91-20	26	3	29			20.0000	20.0000			22.4000	nonpar	.99	**
Zinc, total	ug/L	MW91-20	26	3	29			20.0000	20.0000			14.6000	nonpar	.99	**
Antimony, total	ug/L	SW-3	25	3	29			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	SW-3	25	3	29			4.0000	4.0000			4.0000	nonpar	.99	**

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 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	
Barium, total	ug/L	SW-3	25	3	29	291.6800	64.2766	288.0000	209.0000	291.6800	291.6800	709.4777	normal	.99	**
Beryllium, total	ug/L	SW-3	25	3	29			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	SW-3	25	3	29			0.8000	0.8000			0.8000	nonpar	.99	**
Chromium, total	ug/L	SW-3	25	3	29			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	SW-3	25	3	29			0.4000	0.4000			0.8000	nonpar	.99	**
Copper, total	ug/L	SW-3	25	3	29			4.0000	4.0000			4.0000	nonpar	.99	**
Lead, total	ug/L	SW-3	25	3	29			4.0000	4.0000			4.0000	nonpar	.99	**
Nickel, total	ug/L	SW-3	25	3	29			4.0000	4.0000			7.6000	nonpar	.99	**
Selenium, total	ug/L	SW-3	25	3	29			4.0000	4.0000			4.0000	nonpar	.99	**
Silver, total	ug/L	SW-3	25	3	29			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	SW-3	25	3	29			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	SW-3	25	3	29			20.0000	20.0000			24.5000	nonpar	.99	**
Zinc, total	ug/L	SW-3	25	3	29			20.0000	20.0000			22.4000	nonpar	.99	**

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  
1% Significance Level**

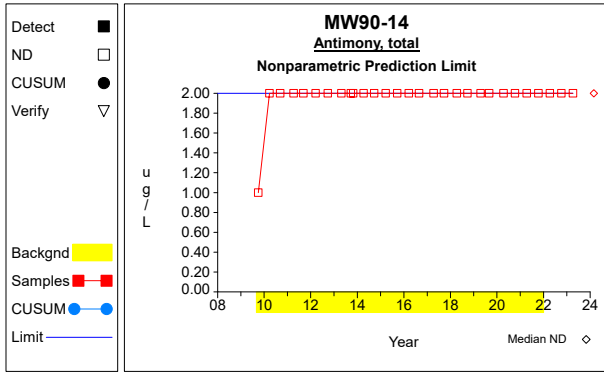
Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Barium, total	ug/L	MW90-7	09/24/2012	12.5000		09/30/2009-10/11/2021	26	0.4819

N = Total number of independent measurements in background at each well.

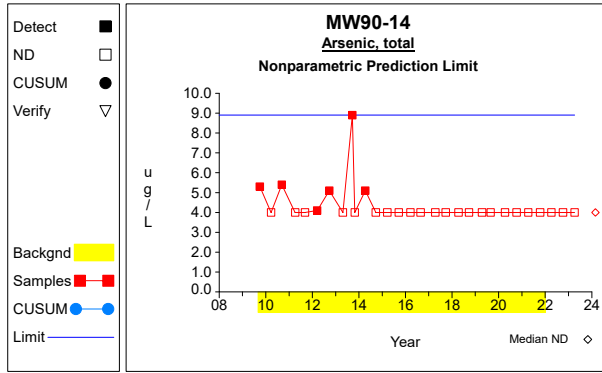
Date Range = Dates of the first and last measurements included in background at each well.

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.

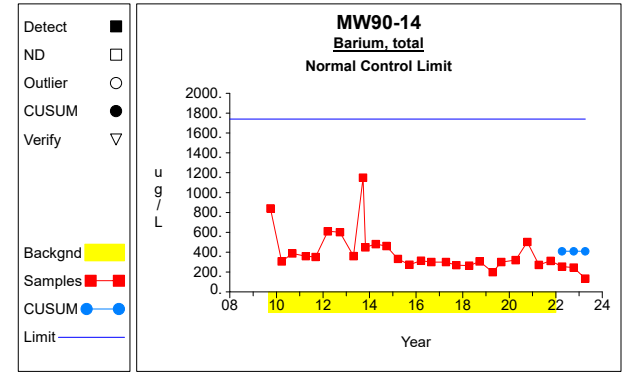
# Intra-Well Control Charts / Prediction Limits



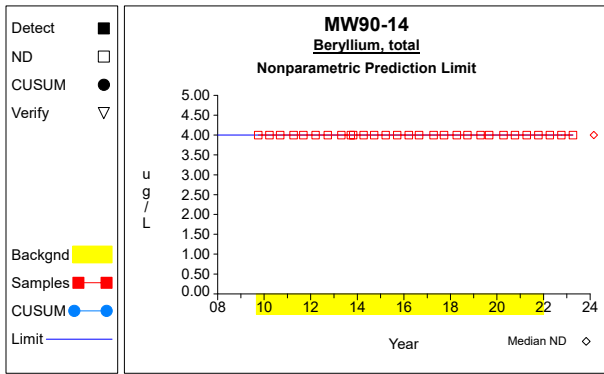
Graph 1



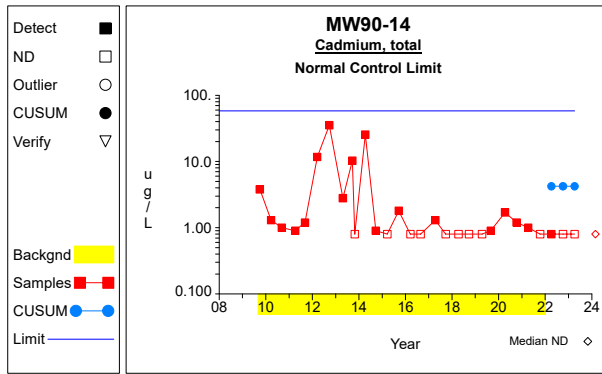
Graph 2



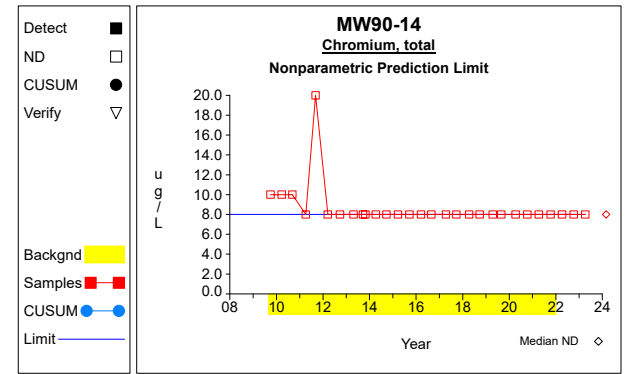
Graph 3



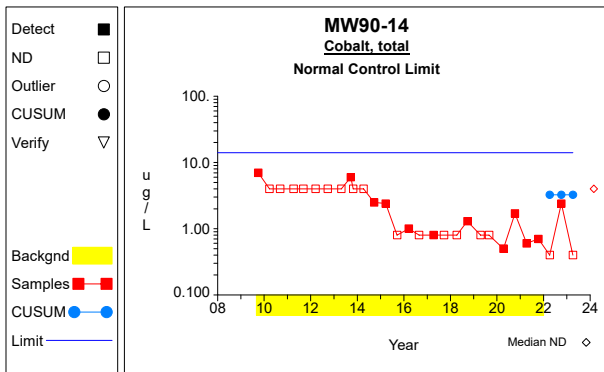
Graph 4



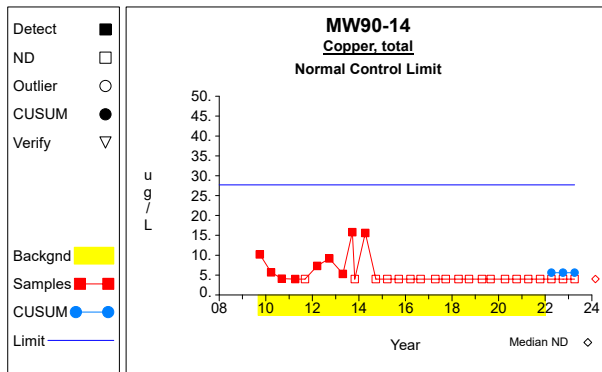
Graph 5



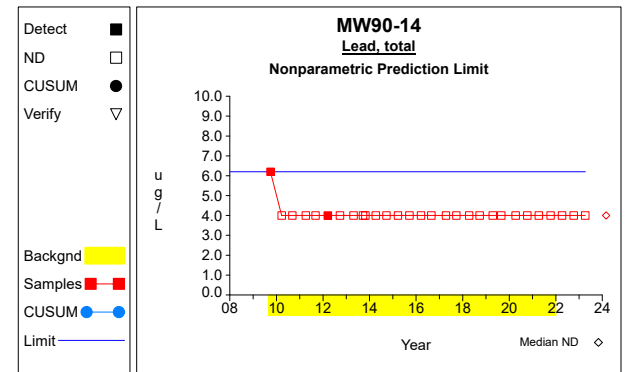
Graph 6



Graph 7

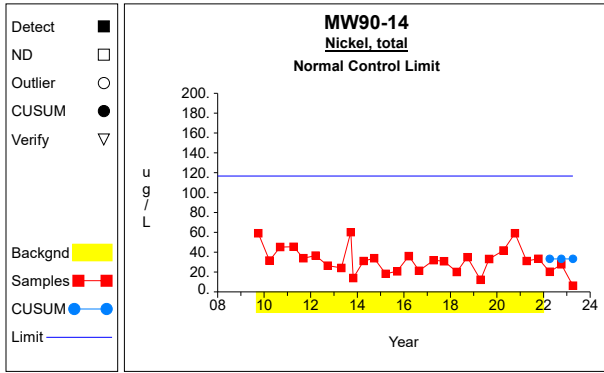


Graph 8

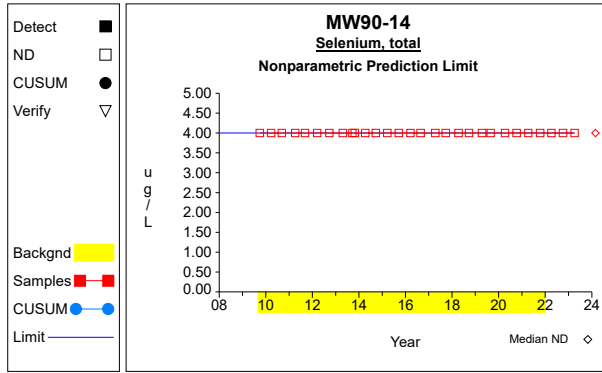


Graph 9

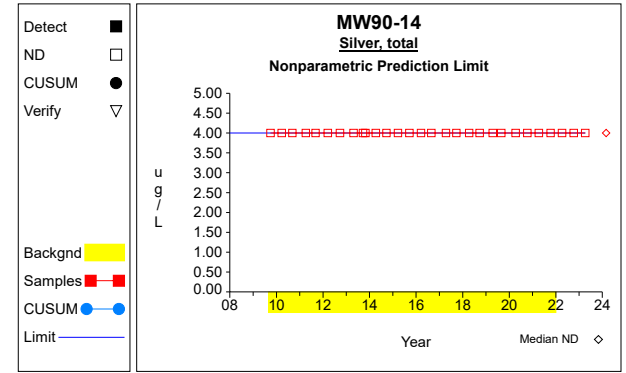
### Intra-Well Control Charts / Prediction Limits



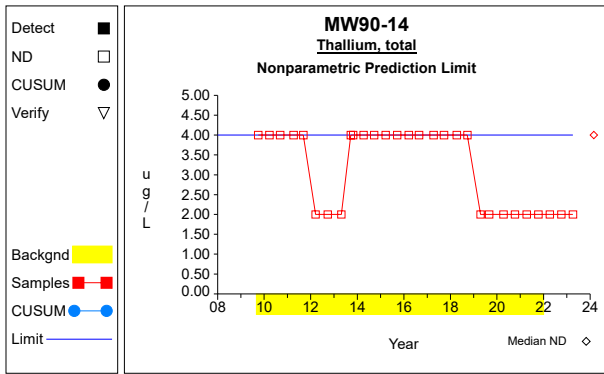
Graph 10



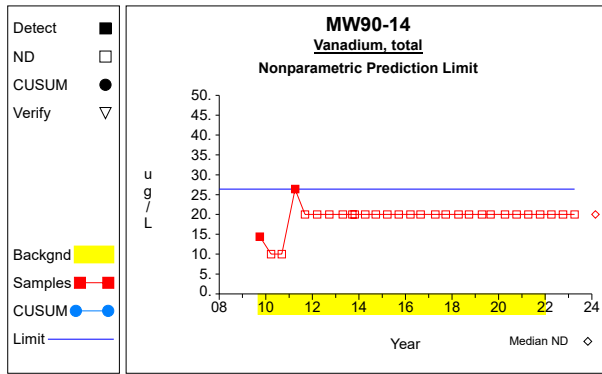
Graph 11



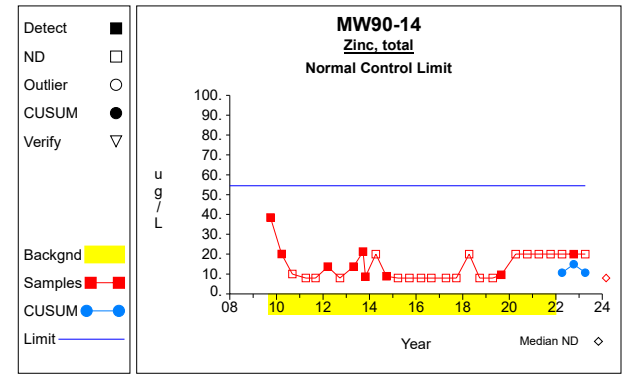
Graph 12



Graph 13



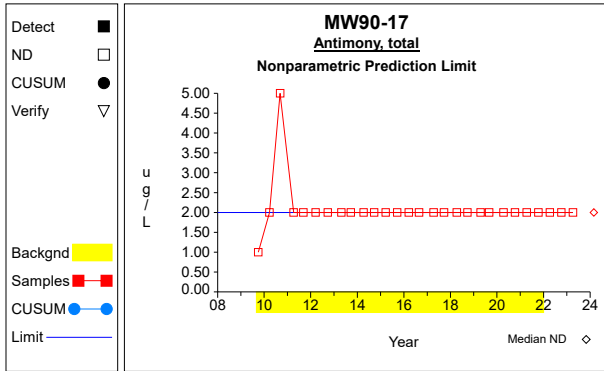
Graph 14



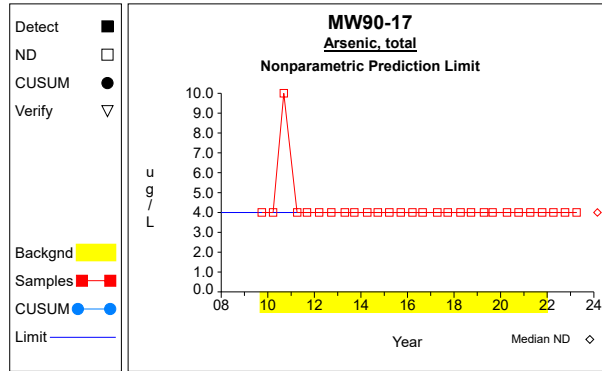
Graph 15



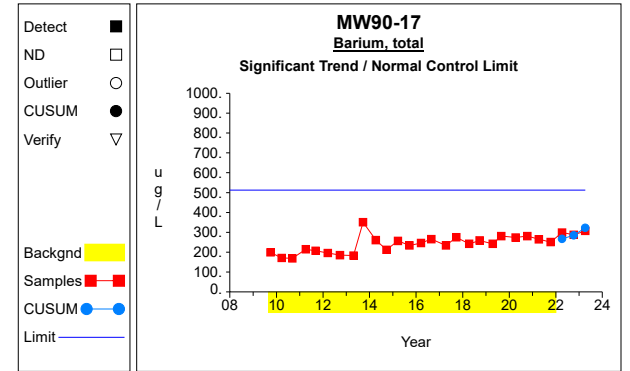
# Intra-Well Control Charts / Prediction Limits



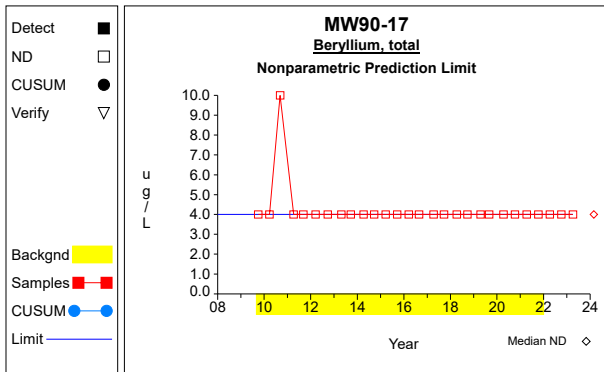
Graph 16



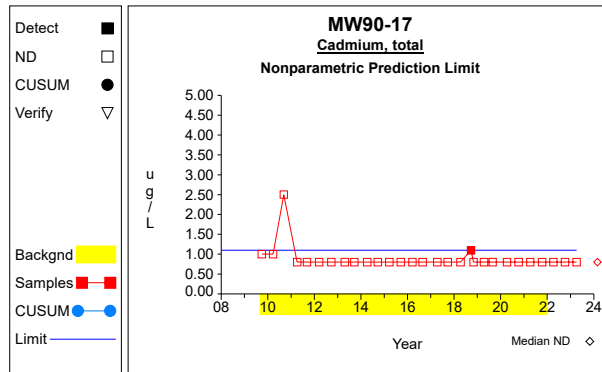
Graph 17



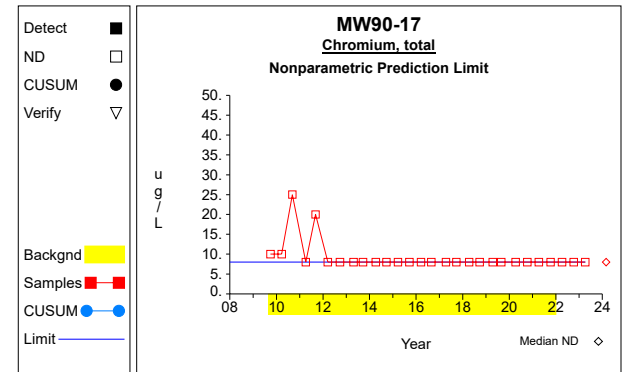
Graph 18



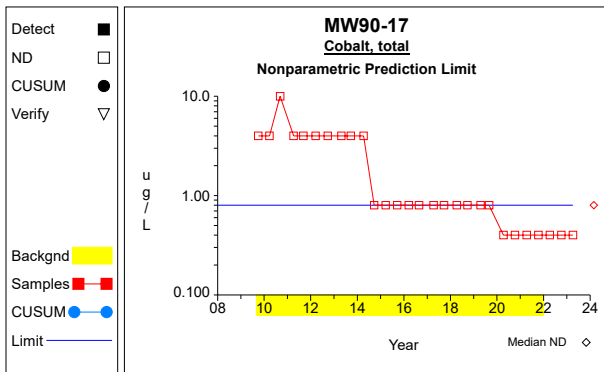
Graph 19



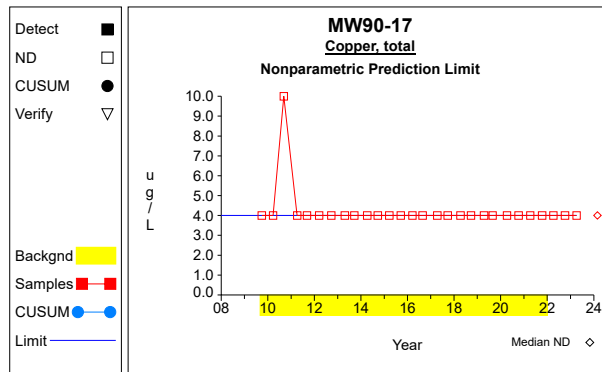
Graph 20



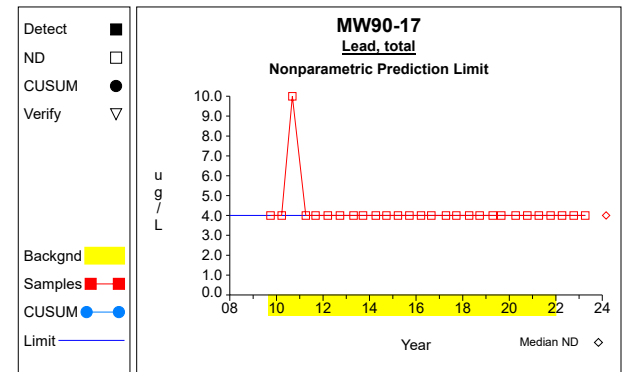
Graph 21



Graph 22

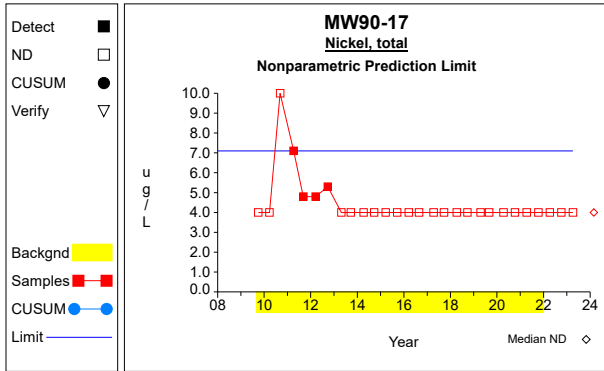


Graph 23

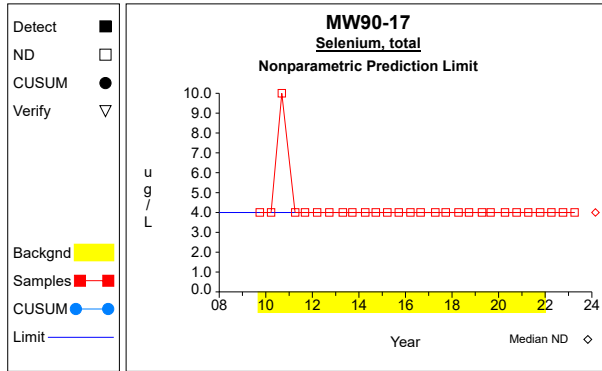


Graph 24

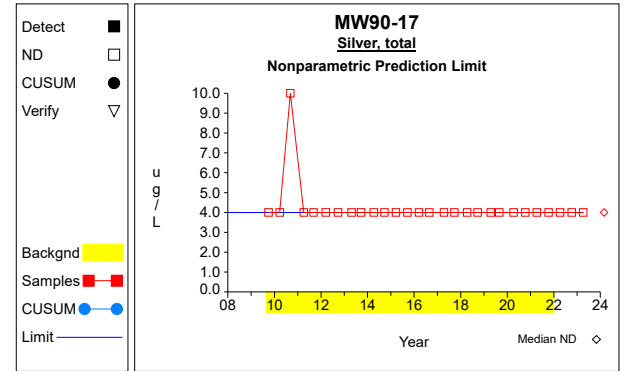
### Intra-Well Control Charts / Prediction Limits



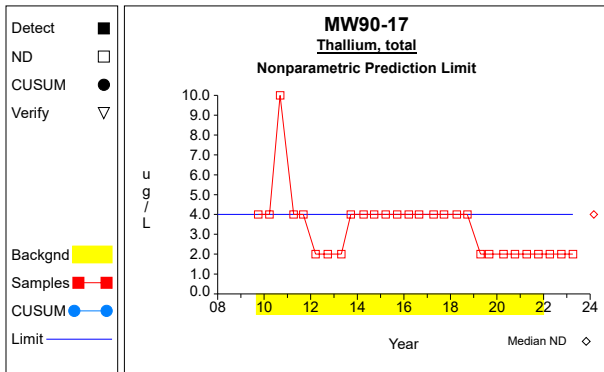
Graph 25



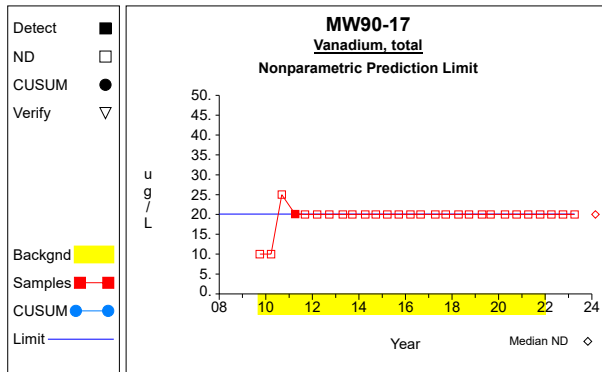
Graph 26



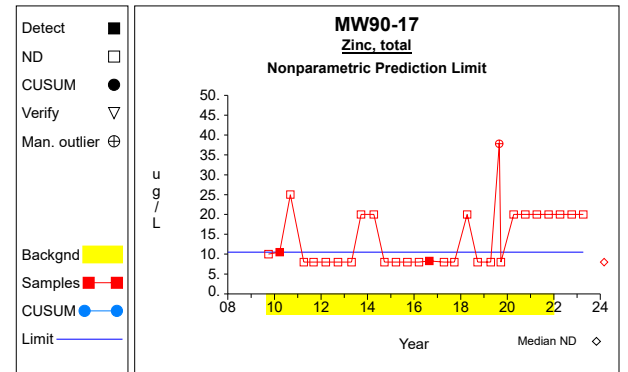
Graph 27



Graph 28

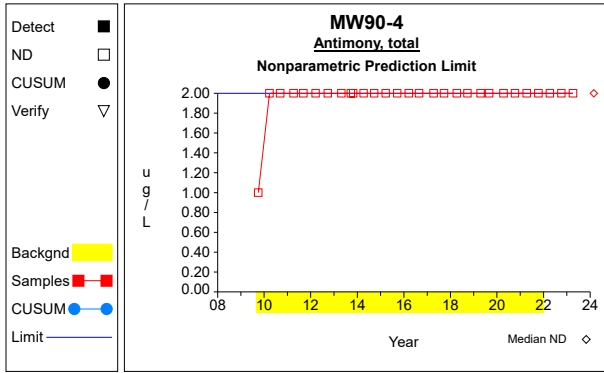


Graph 29

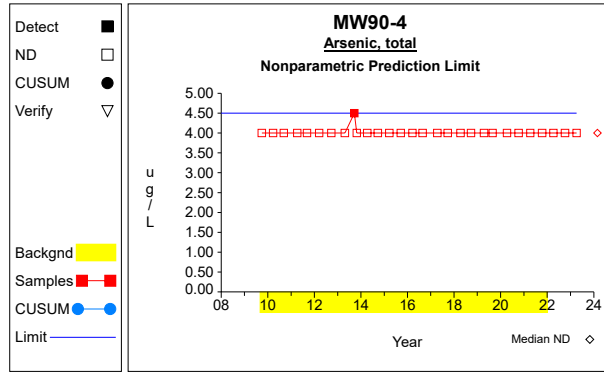


Graph 30

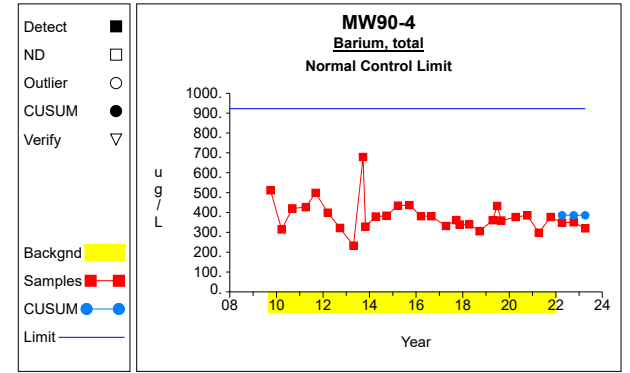
# Intra-Well Control Charts / Prediction Limits



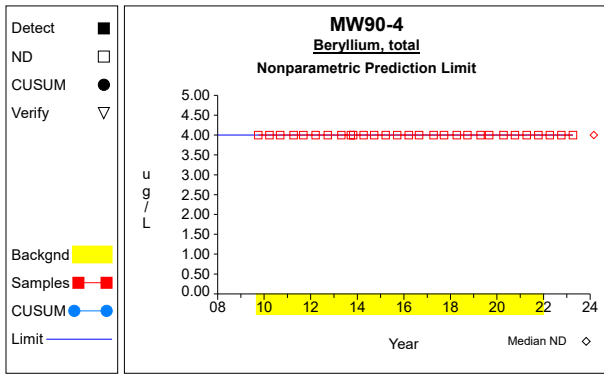
Graph 31



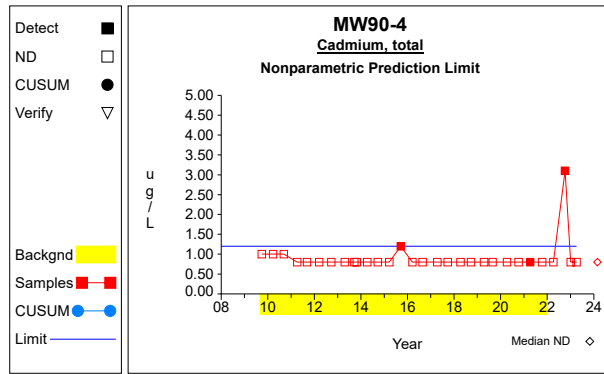
Graph 32



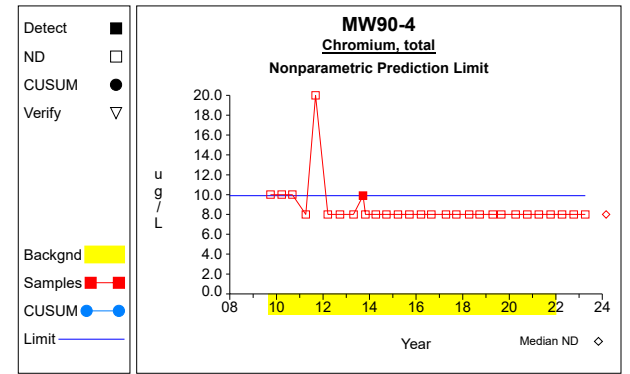
Graph 33



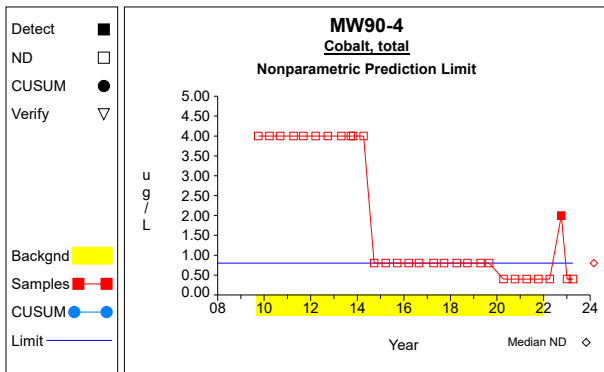
Graph 34



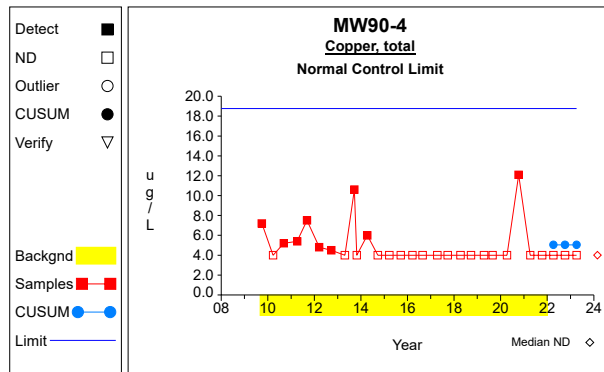
Graph 35



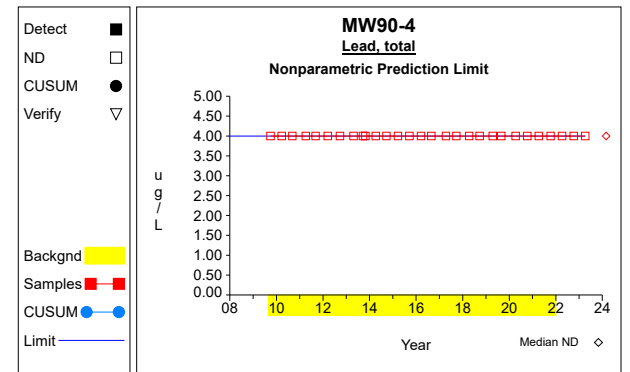
Graph 36



Graph 37

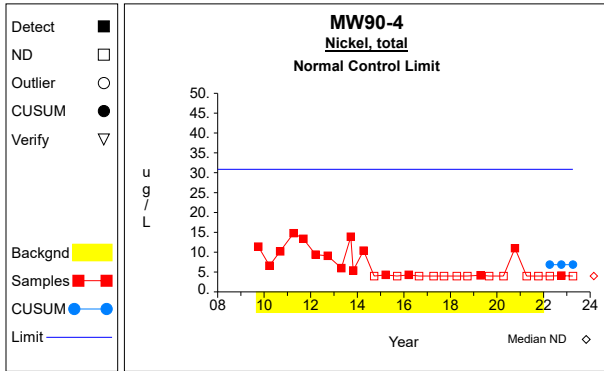


Graph 38

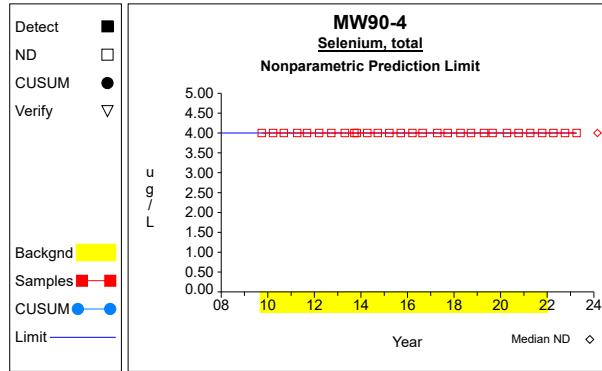


Graph 39

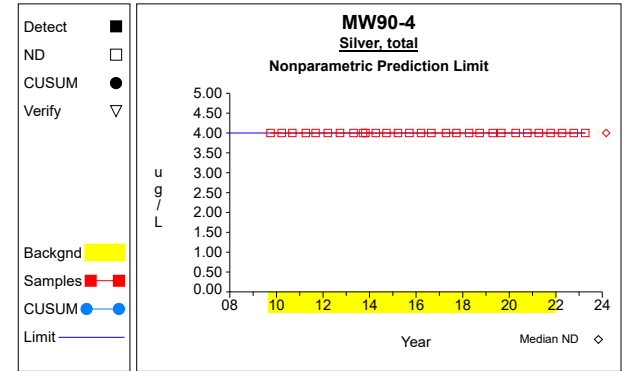
### Intra-Well Control Charts / Prediction Limits



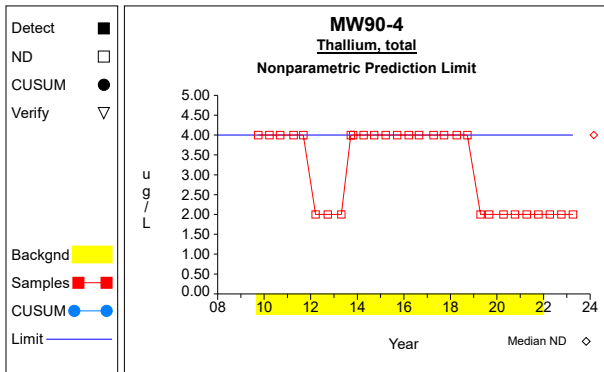
Graph 40



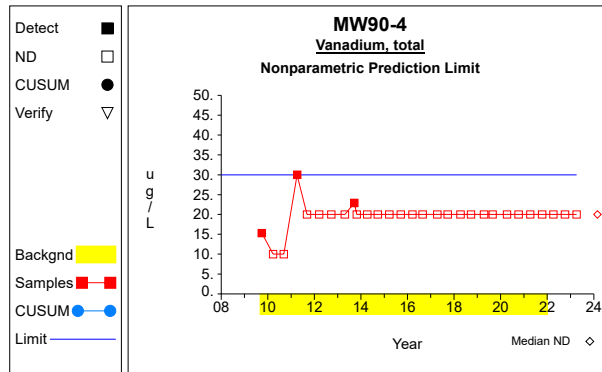
Graph 41



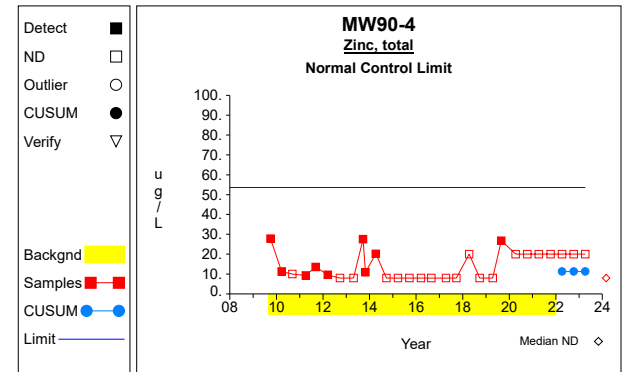
Graph 42



Graph 43

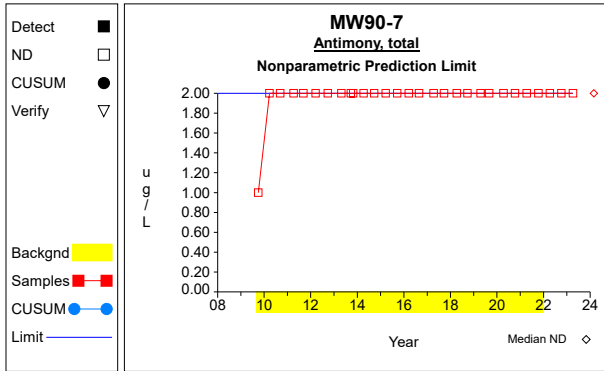


Graph 44

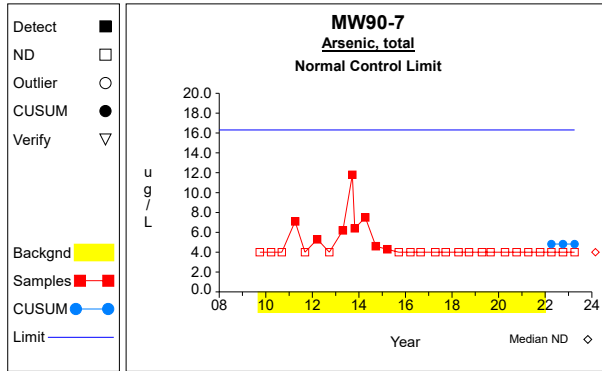


Graph 45

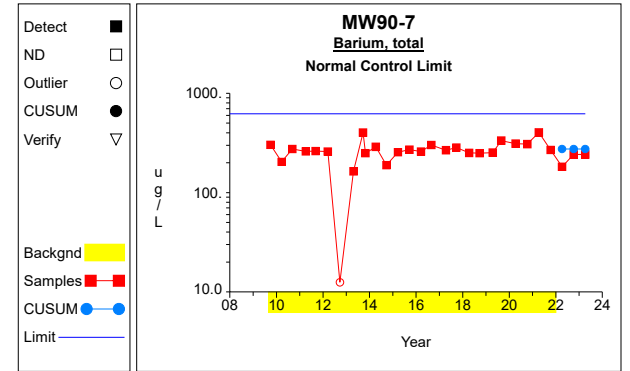
# Intra-Well Control Charts / Prediction Limits



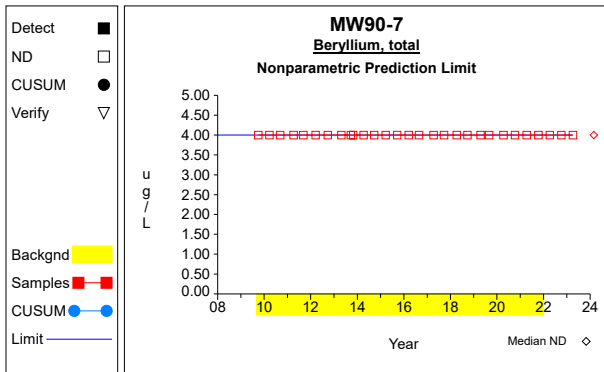
Graph 46



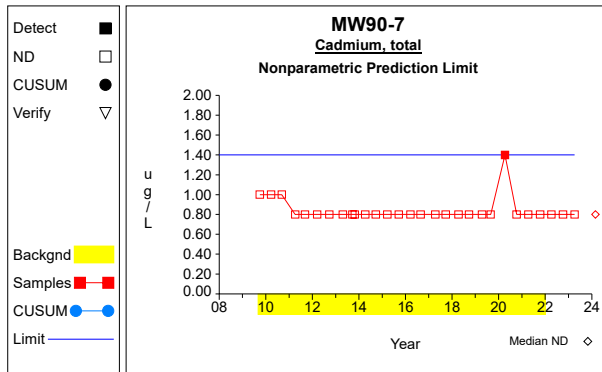
Graph 47



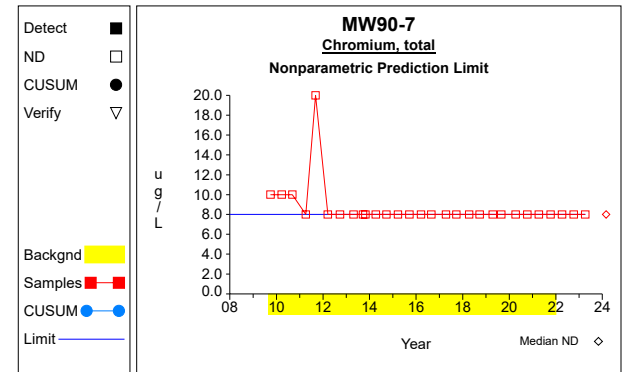
Graph 48



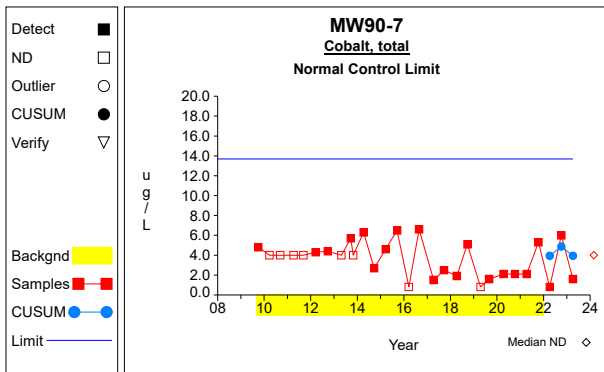
Graph 49



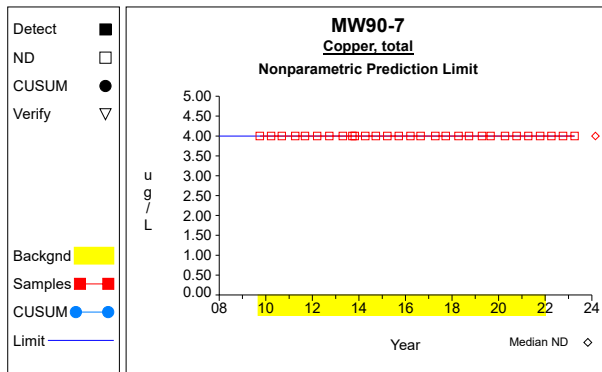
Graph 50



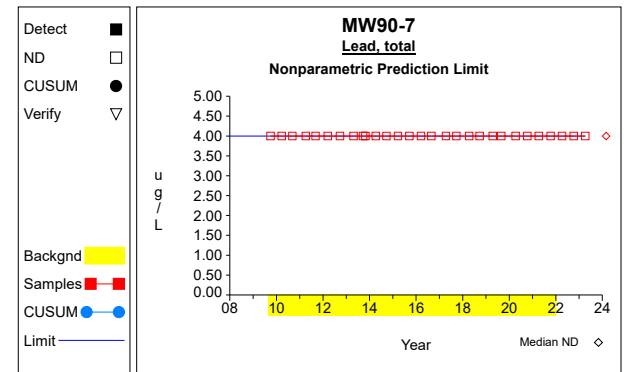
Graph 51



Graph 52

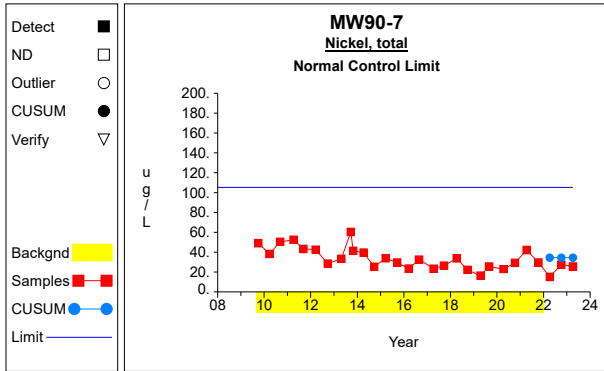


Graph 53

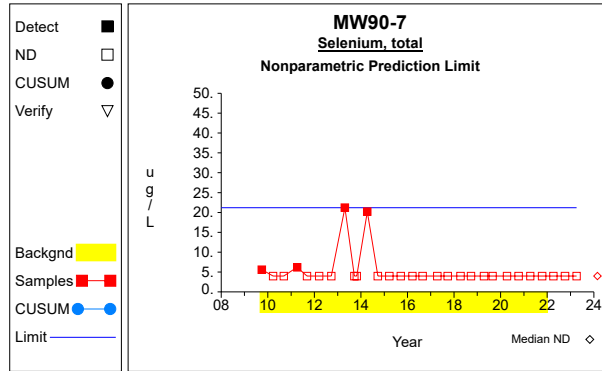


Graph 54

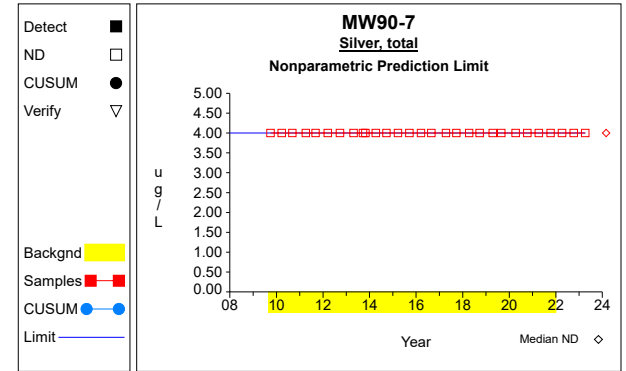
## Intra-Well Control Charts / Prediction Limits



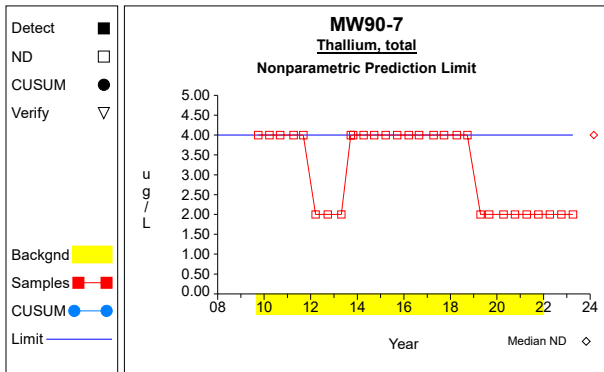
**Graph 55**



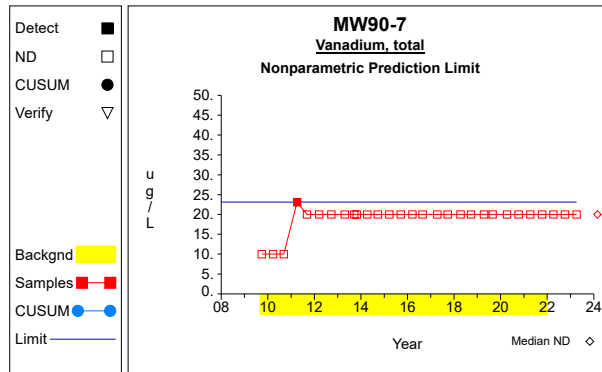
**Graph 56**



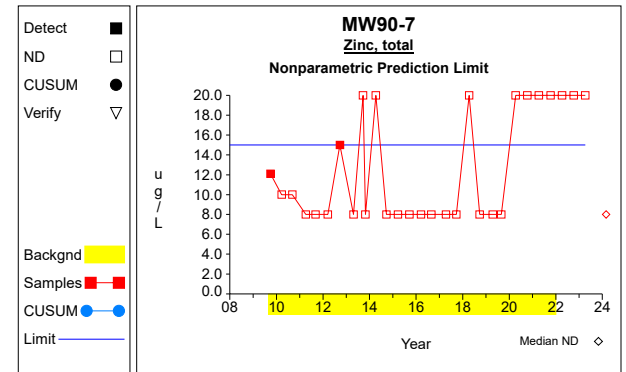
**Graph 57**



**Graph 58**

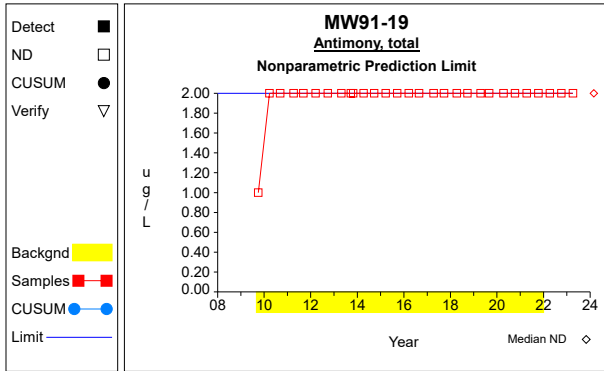


**Graph 59**

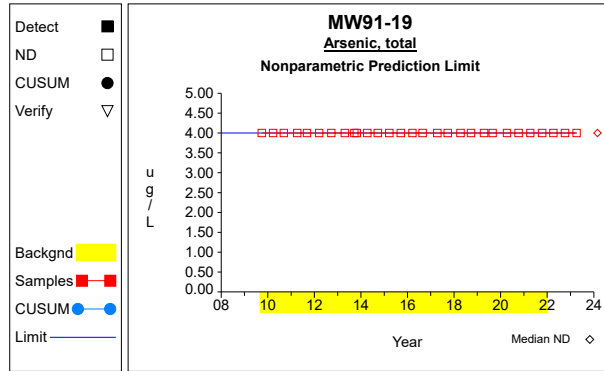


**Graph 60**

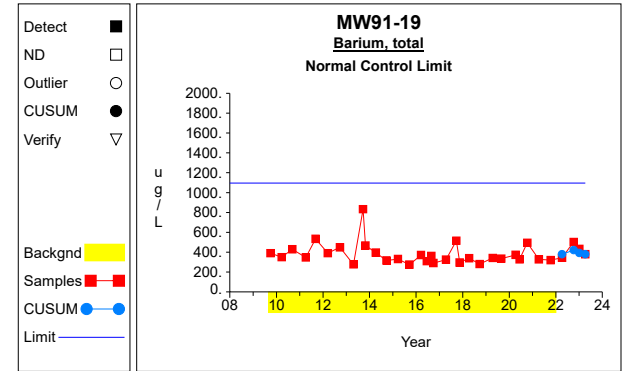
# Intra-Well Control Charts / Prediction Limits



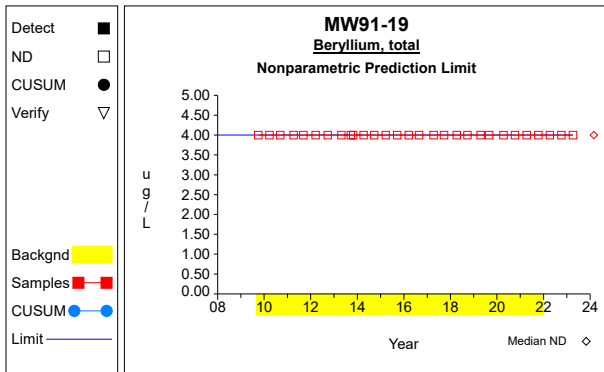
Graph 61



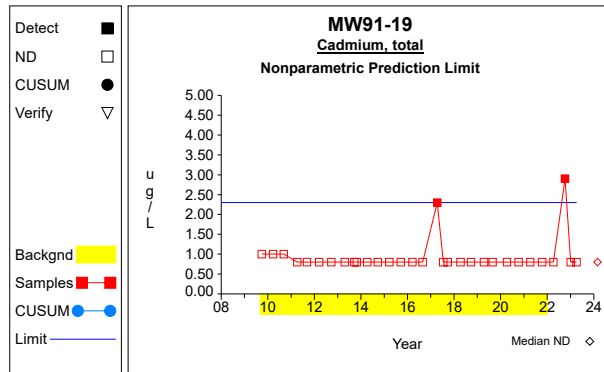
Graph 62



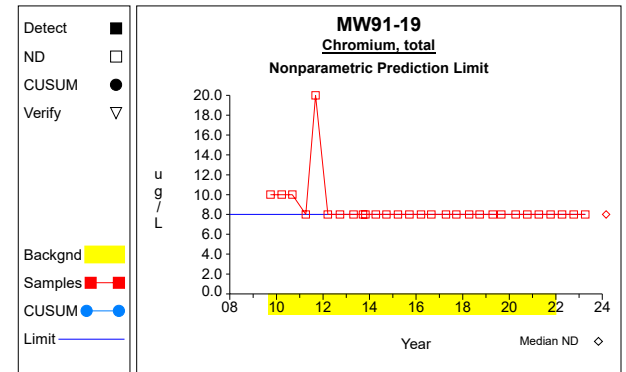
Graph 63



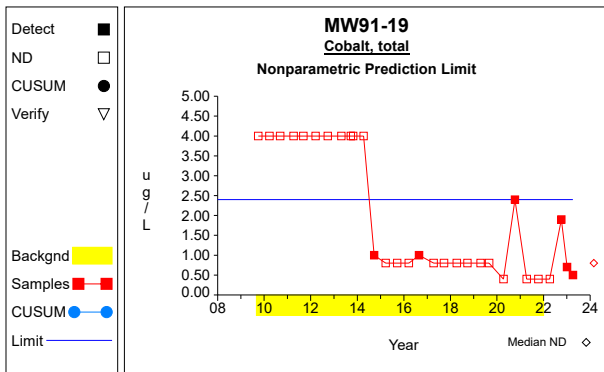
Graph 64



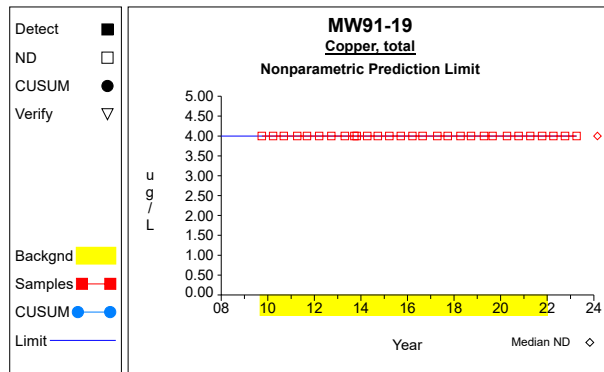
Graph 65



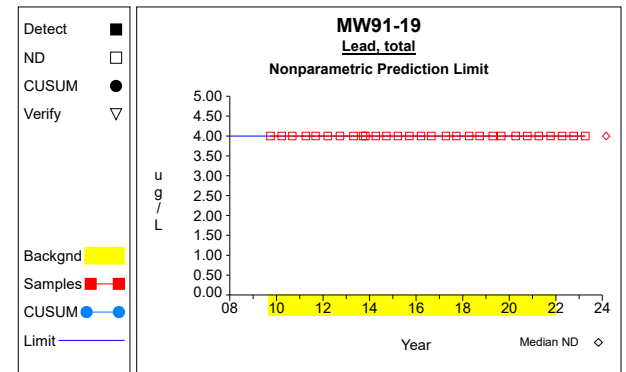
Graph 66



Graph 67

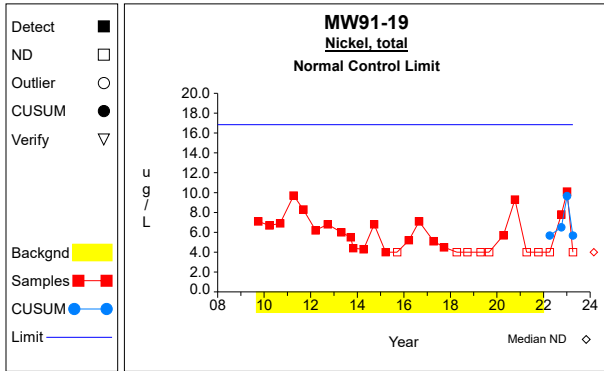


Graph 68

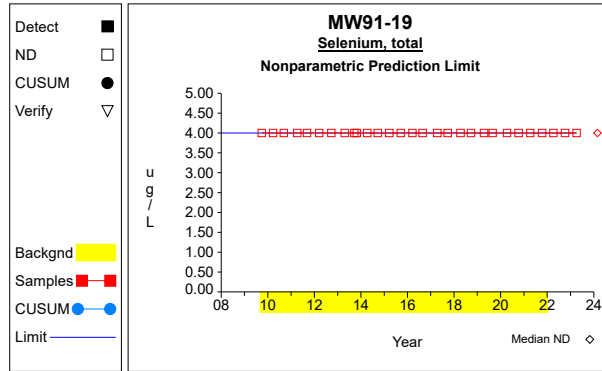


Graph 69

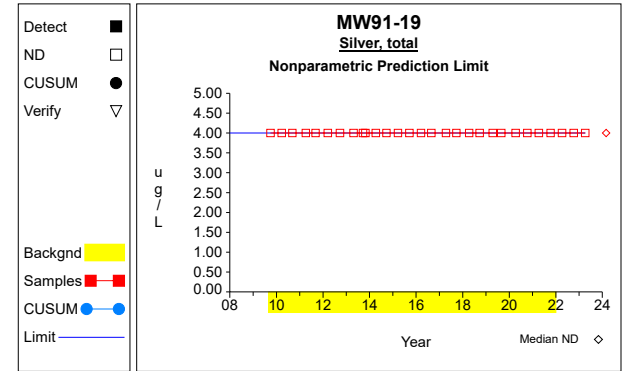
### Intra-Well Control Charts / Prediction Limits



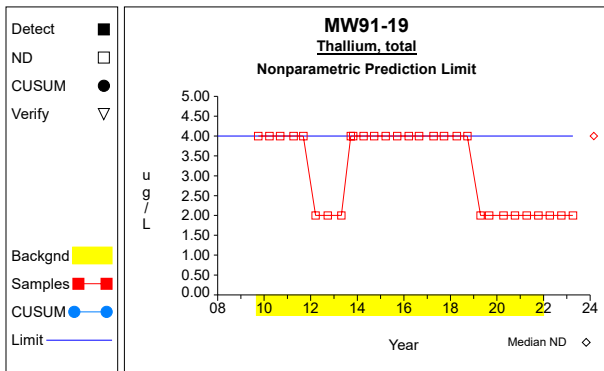
Graph 70



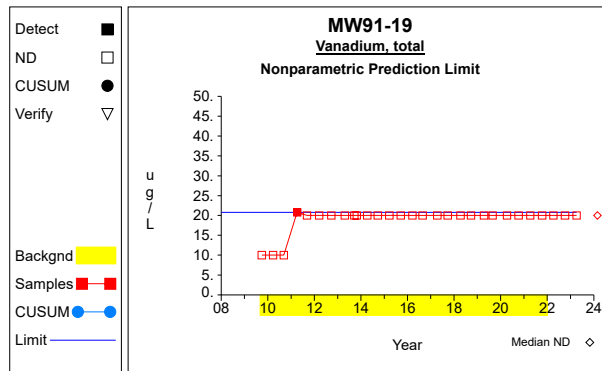
Graph 71



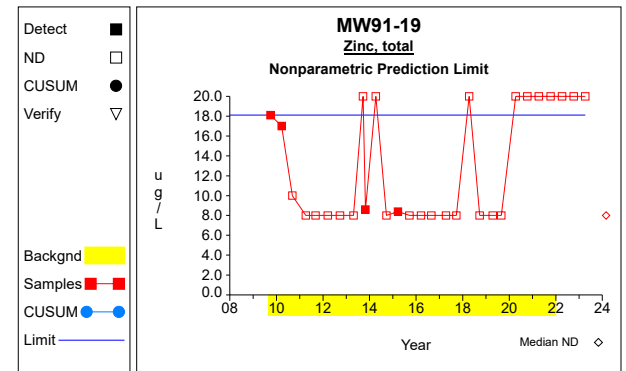
Graph 72



Graph 73



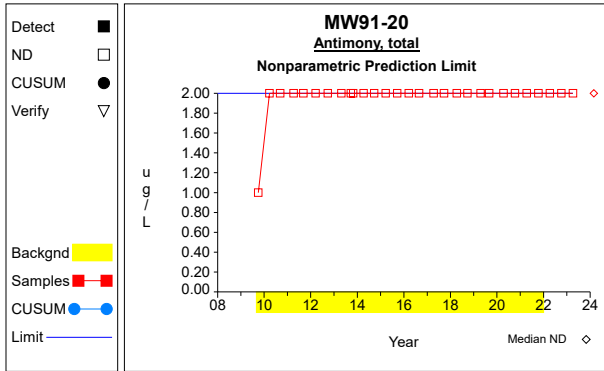
Graph 74



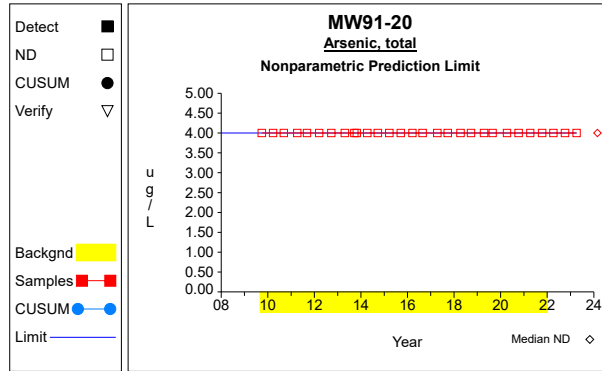
Graph 75



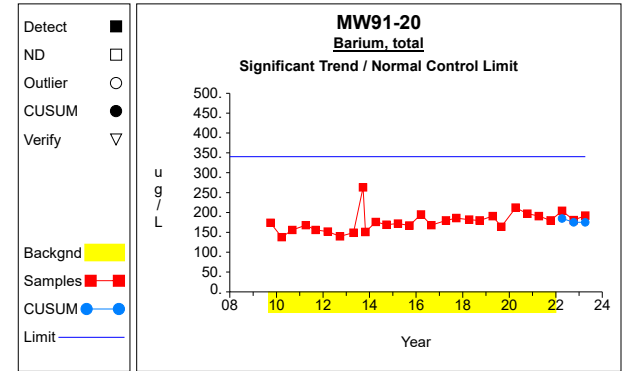
# Intra-Well Control Charts / Prediction Limits



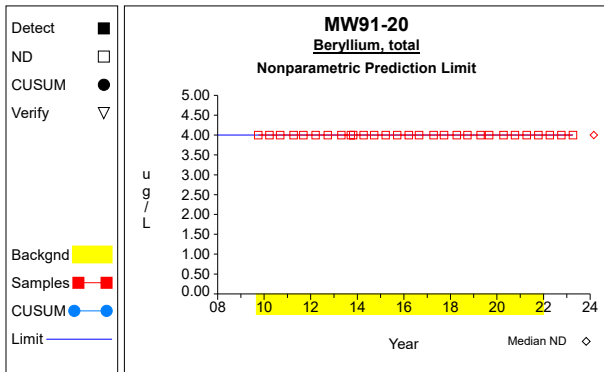
Graph 76



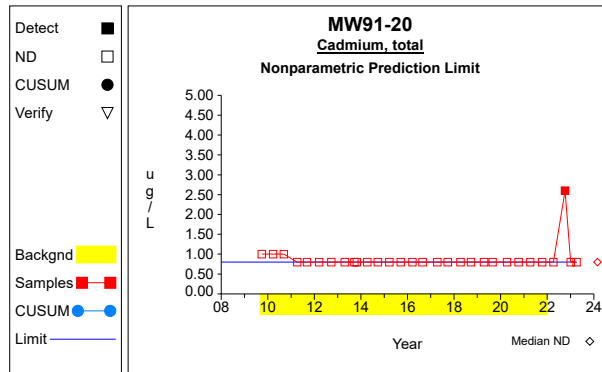
Graph 77



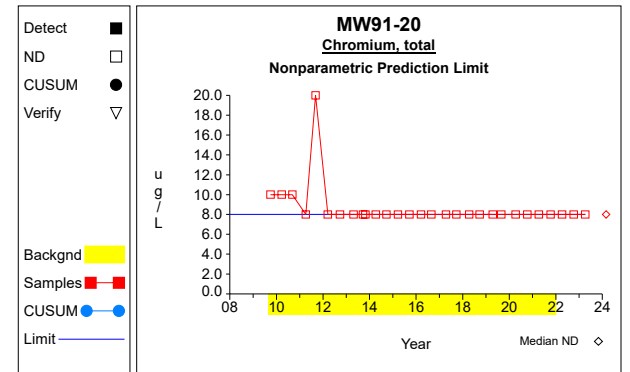
Graph 78



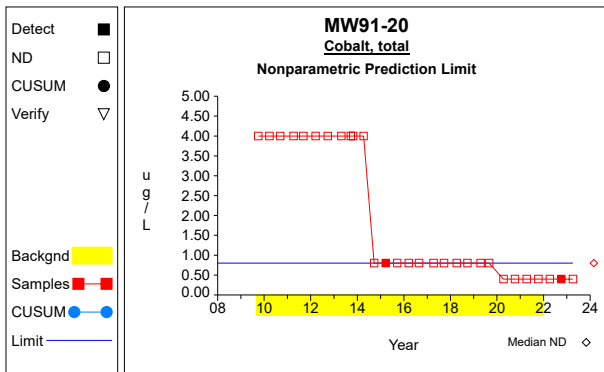
Graph 79



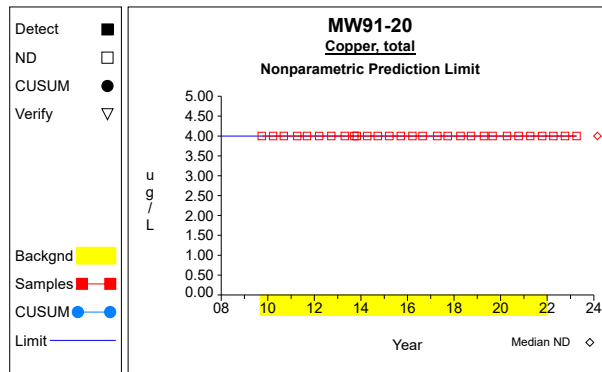
Graph 80



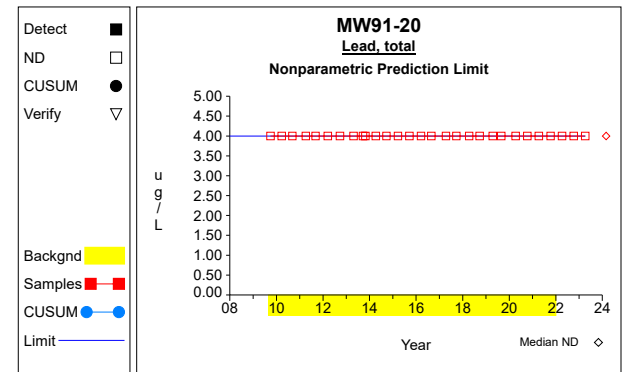
Graph 81



Graph 82

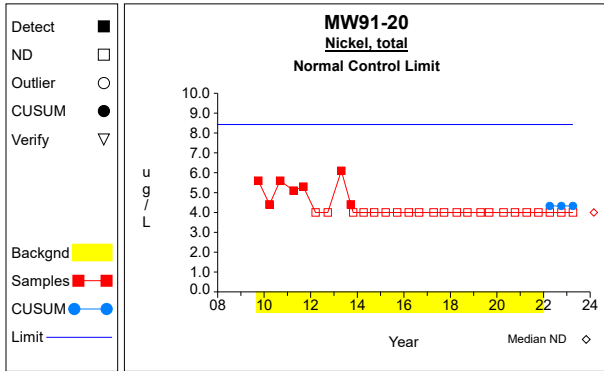


Graph 83

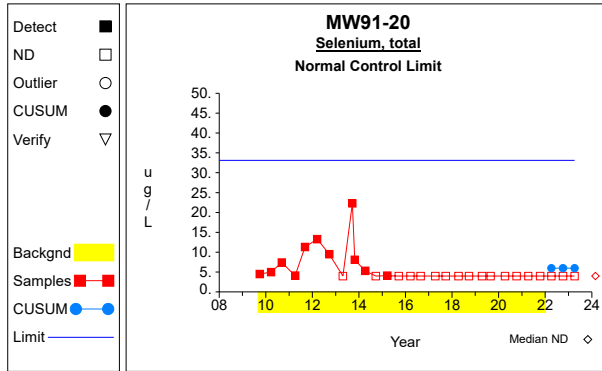


Graph 84

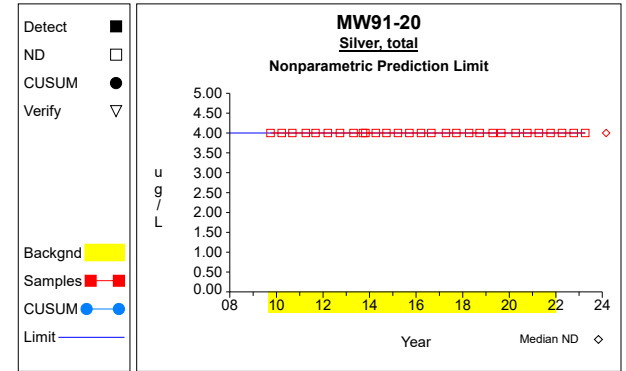
### Intra-Well Control Charts / Prediction Limits



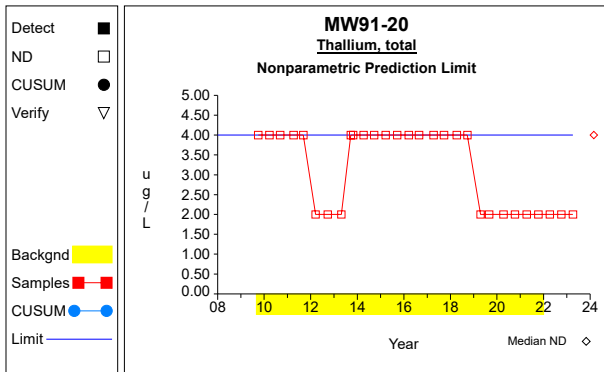
Graph 85



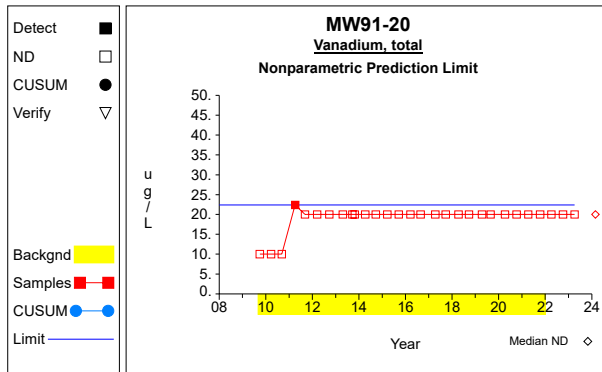
Graph 86



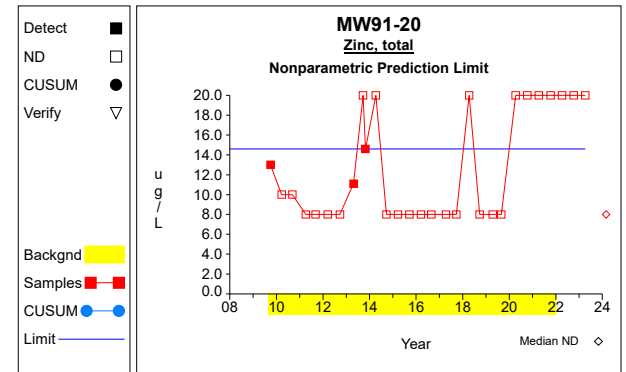
Graph 87



Graph 88

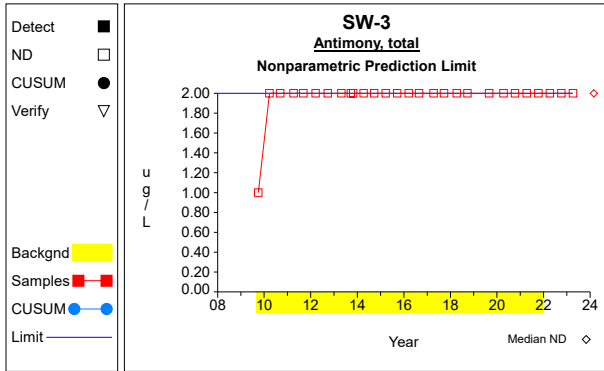


Graph 89

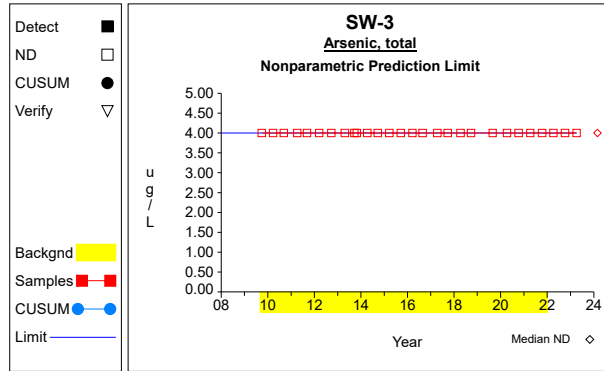


Graph 90

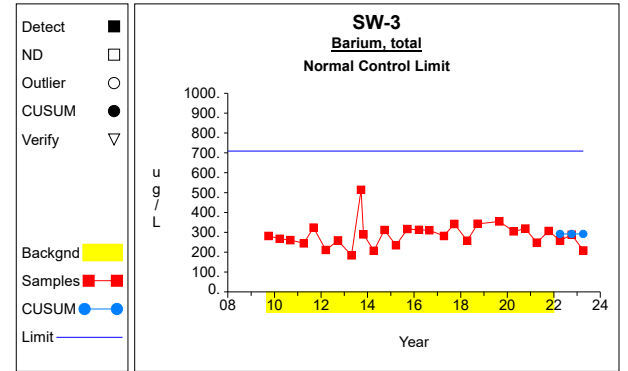
# Intra-Well Control Charts / Prediction Limits



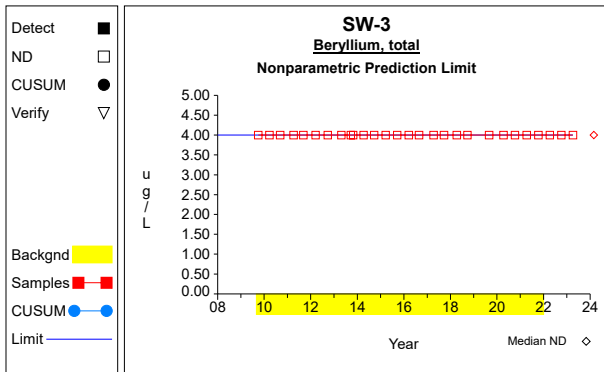
Graph 91



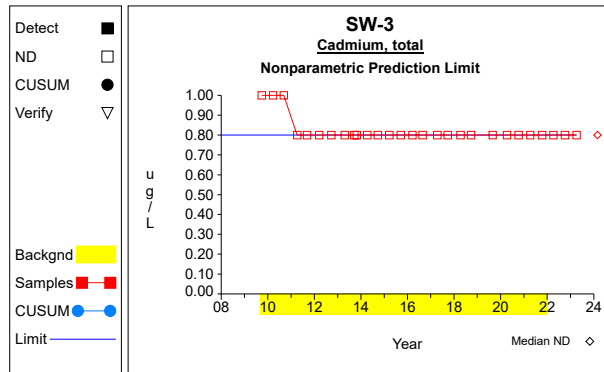
Graph 92



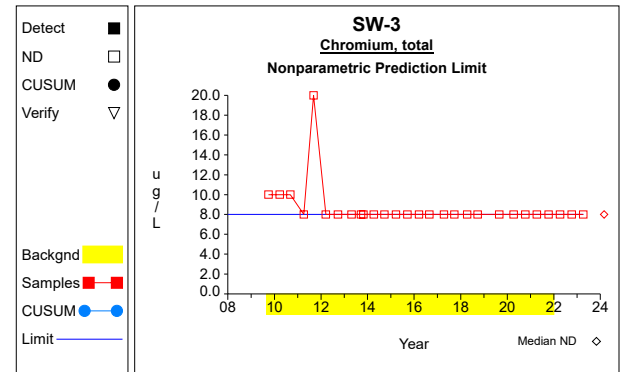
Graph 93



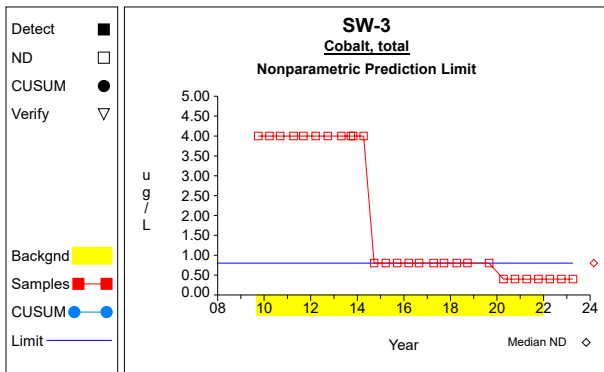
Graph 94



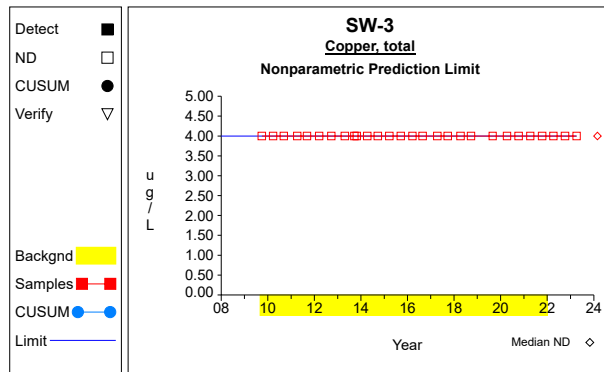
Graph 95



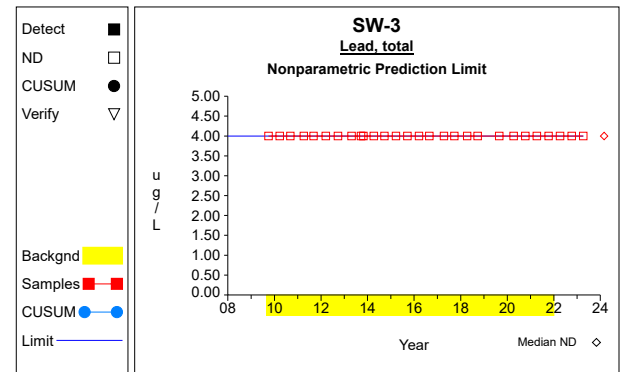
Graph 96



Graph 97

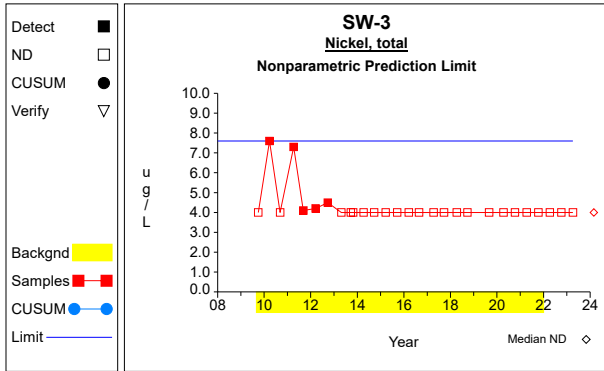


Graph 98

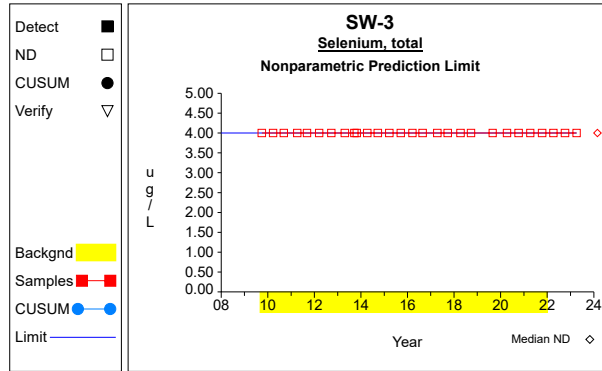


Graph 99

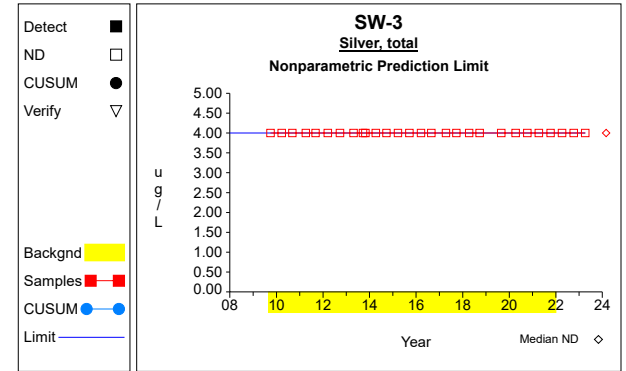
### Intra-Well Control Charts / Prediction Limits



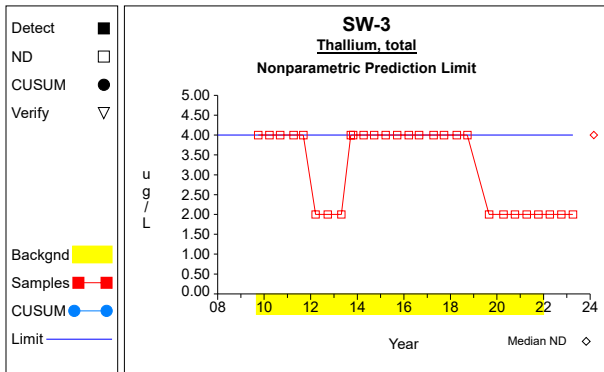
Graph 100



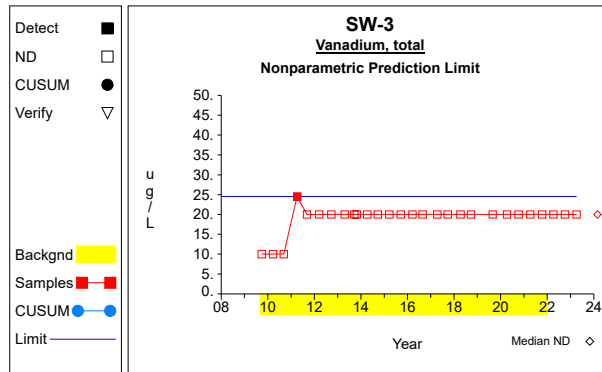
Graph 101



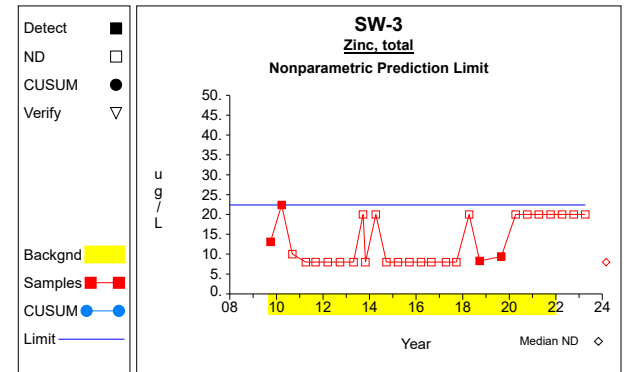
Graph 102



Graph 103

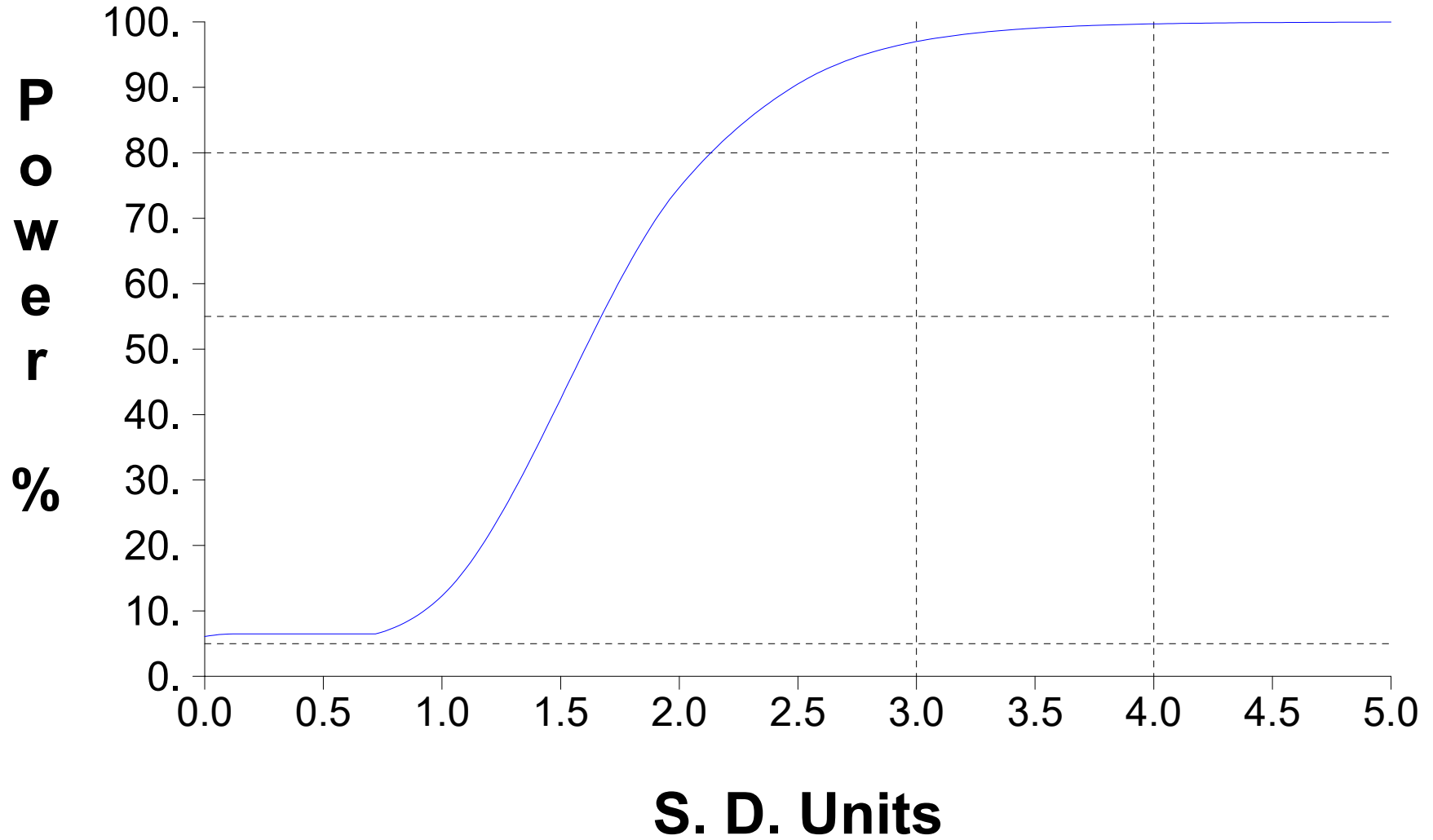


Graph 104



Graph 105

# 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
1,1-dichloroethane	MW90-14	9/30/2009		1.4	1.0	ug/L
Acetone	MW90-14	10/16/2008		13.6	10.0	ug/L
Bis(2-ethylhexyl)phthalate	MW90-14	9/24/2018		12	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-14	11/01/2018		21	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-14	4/16/2019		6	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-14	8/29/2019		9	6	ug/L
Chloroethane	MW90-14	9/30/2009		2.2	1.0	ug/L
Acetone	MW90-17	9/23/2017		12.9	10.0	ug/L
Bis(2-ethylhexyl)phthalate	MW90-4	4/09/2021		9	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-4	10/06/2022		14	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-7	4/16/2019		9	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-7	6/25/2019		11	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-7	8/29/2019		15	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-7	4/10/2020		7	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-7	4/09/2021		7	6	ug/L
Acetone	SW-3	9/06/2007		5.42	10.00	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

**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
Bis(2-ethylhexyl)phthalate	ug/L	MW90-14	4	3.000	0.000	1.176	3.000	3.000	6.000	
Bis(2-ethylhexyl)phthalate	ug/L	MW90-4	4	7.250	5.315	1.176	0.998	13.502	6.000	
Bis(2-ethylhexyl)phthalate	ug/L	MW90-7	4	4.000	2.000	1.176	1.647	6.353	6.000	
Bis(2-ethylhexyl)phthalate	ug/L	MW91-19	3							*

\* - Insufficient Data

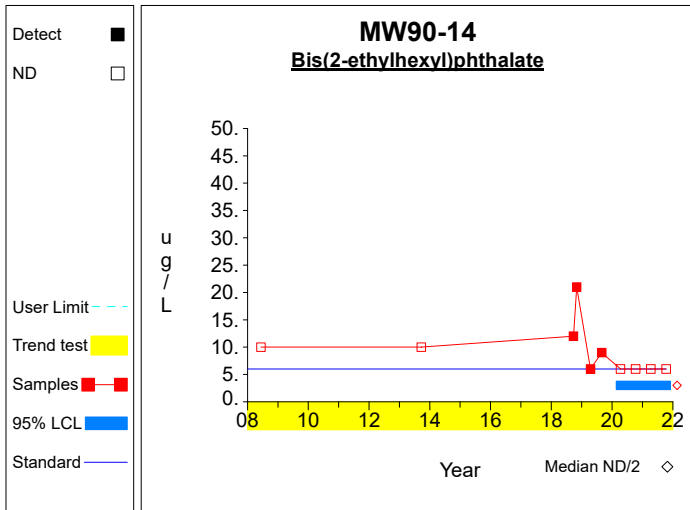
\*\* - Significant Exceedance

LCL = Lower Confidence Limit

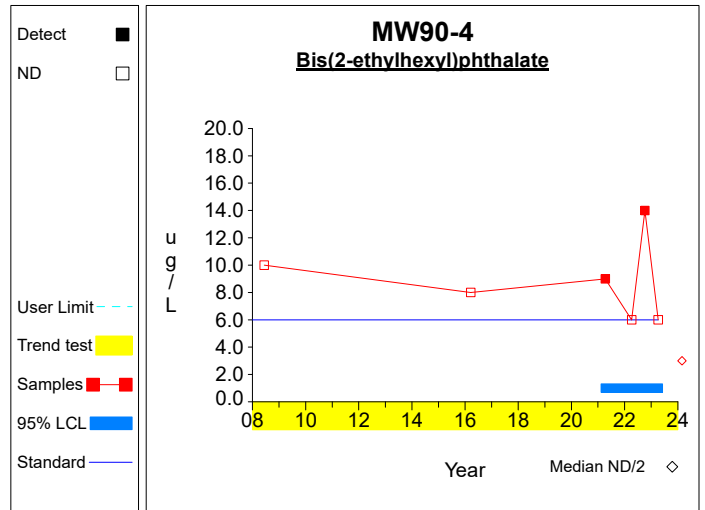
UCL = Upper Confidence Limit



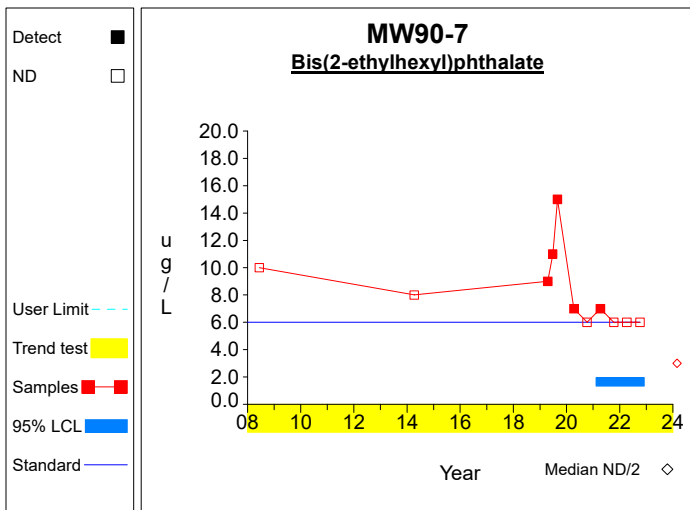
# Confidence Limits (Assessment)



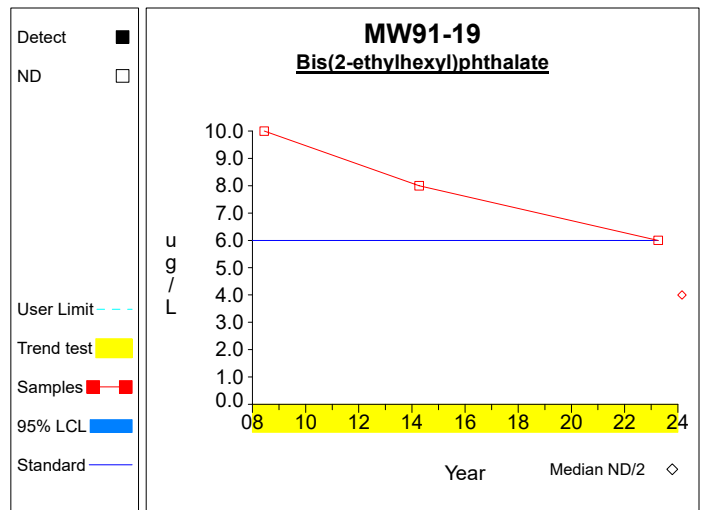
Graph 1



Graph 2



Graph 3



Graph 4

## Appendix C.2 – 2<sup>nd</sup> Semester Statistical Report

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**Results of the Ground Water Statistics  
for Audubon County Sanitary Landfill**

**Second Semi-Annual Monitoring Event in 2023**

*Prepared for:*  
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1881 215<sup>th</sup> Street  
Audubon, Iowa 50025

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**November 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 second semi-annual monitoring event in 2023 at Audubon County Sanitary Landfill in Audubon, Iowa. The ground water at Audubon County Sanitary Landfill is monitored by background well MW90-17 and compliance wells MW90-4, MW90-7, MW90-14, MW91-19, MW91-20, and SW-3. These monitoring wells were sampled on October 13, 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. Both interwell and intrawell methodologies are described and then applied to the Audubon 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

The groundwater monitoring network for Audubon County Sanitary Landfill includes upgradient well MW90-17 and compliance wells MW90-4, MW90-7, MW90-14, MW91-19, MW91-20, and SW-3. 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	<i>trans</i> -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	<i>cis</i> -1,2-Dichloroethene	1,1,2,2-Tetrachloroethane
Bromoform	<i>trans</i> -1,2-Dichloroethene	Tetrachloroethene
Carbon disulfide	1,2-Dichloropropane	Toluene
Carbon tetrachloride	<i>cis</i> -1,3-Dichloropropene	1,1,1-Trichloroethane
Chlorobenzene	<i>trans</i> -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. Both of these methods were applied to the Audubon County Sanitary Landfill data using the DUMPStat<sup>®</sup> statistical program. DUMPStat<sup>®</sup> 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 well MW90-17 during the period from September 2009 through the current data. A summary of the background data from monitoring well MW90-17 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 MW90-4, MW90-7, MW90-14, MW91-19, MW91-20 and SW-3, compared to the site prediction limits. 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 at Audubon County Landfill  
during the Second Semi-Annual Monitoring Event in 2023**

Well	Trace Metal Detected	Result, µg/L	Prediction Limit, µg/L	Prediction Limit Type	Verified/ Awaiting verification
MW90-14	Barium	381	360.4350	Normal	Awaiting verification
	Cobalt	0.9	0.8000	Nonparametric	Awaiting verification
	Nickel	36.5	7.1000	Nonparametric	Awaiting verification
MW90-7	Cobalt	19.8	0.8000	Nonparametric	Verified
	Nickel	29.4	7.1000	Nonparametric	Verified
MW91-19	Barium	482	360.4350	Normal	Verified
	Cobalt	1.4	0.8000	Nonparametric	Awaiting verification

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 4% and the test becomes sensitive to 3 standard deviation unit increases over background.

The past and current verified 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 (Attachment C). 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 are below the respective USEPA MCLs or Iowa statewide standards.

### **Intrawell statistics**

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.

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.

The combined Shewhart-CUSUM control chart assumes that the data are independent and normally distributed with a fixed mean and a constant variance. Independent data is much more critical than the normality assumption. To achieve independence, it is recommended that data are collected no more frequently than quarterly to account for seasonal variation. The combined Shewhart-CUSUM control chart is extremely robust to deviations from normality. Because the control charts do not use a specific multiplier based on a normal distribution, it is more conservative to assume normality.

It is recommended that at least eight rounds of data be available to provide a reliable estimate of the mean and standard deviation of the parameter concentration, although the control charts will be generated with as few as four data points. Having only four data points may produce greater uncertainty in the mean and standard deviation of the background data, leading to higher control limits, thus having a potentially high false negative rate.

Many groundwater 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 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. Thirteen independent measurements (with 1 resample) are necessary to achieve a 99% confidence (1% false positive rate) nonparametric prediction limit. Eight independent measurements (for pass 1 of 2 resamples) are necessary to achieve a 99% confidence nonparametric prediction limit. The nonparametric prediction limit is the largest determination out of the data set collected for that well and parameter. If the detection frequency is 0% after thirteen samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit.

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<sup>®</sup> 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 background data for each well and constituent is tested for existing trends using Sen's nonparametric estimate of trend. 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 Appendix I trace metals data from wells MW90-17, MW90-4, MW90-7, MW90-14, MW91-19, MW91-20, and SW-3 were evaluated using the combined Shewhart-CUSUM control chart method. The previous background included historical data obtained from September 2009 through 2019.

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 included data obtained from September 2009 through 2021.

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 most current data, the control limit exceedances detected are summarized in the table below.

**Summary of Exceedances - Second Semi-Annual Monitoring Event In 2023**

Well	Trace Metal	Result	CUSUM Value	Control Limit	Control Limit Type	Verified/Awaiting Verification
MW90-7	Cobalt	19.8	18.6736	13.6891	Normal	Awaiting verification

Increasing trends were detected in the background data for barium at upgradient well MW90-17 and barium at MW91-20.

A control chart factor was selected to provide a balance of the site-wide false positive and false negative rates. A statistical power curve indicates the expected false assessments for the site as a whole. The site-wide false positive rate is 6% and the test becomes sensitive to 3 standard deviation units 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. There were no organic compounds detected in the ground water at Audubon County Sanitary Landfill during the second semi-annual monitoring event in 2023. Historical VOC detections are summarized in Attachment E. Historically, there have been no verified VOC detections.

The previously verified bis(2-ethylhexyl)phthalate detections were evaluated against the ground water protection standards (GWPS) using confidence limits. 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 95% LCLs for bis(2-ethylhexyl)phthalate do not exceed the USEPA MCL of 6 µg/L.

**Attachment A**

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

Table 1

Analytical Data Summary for 10/13/2023

Constituents	Units	MW90-14	MW90-17	MW90-4	MW90-7	MW91-19	MW91-20	SW-3
(3,4)-methylphenol	ug/L	<.8						
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
1,1-dichloropropene	ug/L	<.1						
1,2,3-trichloropropane	ug/L	<.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	<.1	<.5	<.5	<.5	<.5	<.5	<.5
1,2-dibromoethane (edb)	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
1,2-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
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 (mek)	ug/L	<.5	<10	<10	<10	<10	<10	<10
2-chloronaphthalene	ug/L	<.8						
2-chlorophenol	ug/L	<.8						
2-hexanone	ug/L	<.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						
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 (mibk)	ug/L	<.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 *						
Acetone	ug/L	<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
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

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

Table 1

## Analytical Data Summary for 10/13/2023

Constituents	Units	MW90-14	MW90-17	MW90-4	MW90-7	MW91-19	MW91-20	SW-3
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4
Azobenzene	ug/L	<8						
Barium, total	ug/L	381	314	342	302	482	210	255
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1
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
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		<6				
Bis[2-chloroisopropyl]ether	ug/L	<8						
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
Butyl benzyl phthalate	ug/L	<8						
Cadmium, total	ug/L	<.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
Chlordane	ug/L	<1						
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate	ug/L	<8						
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
Chloroprene	ug/L	<1						
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8
Chrysene	ug/L	<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	.9	<.4	<.4	19.8	1.4	<.4	<.4
Copper, total	ug/L	<4	<4	<4	<4	<4	<4	<4
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
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1						
Dieldrin	ug/L	<.05						
Diethyl phthalate	ug/L	<8						
Dimethoate	ug/L	<.4						
Dimethyl phthalate	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
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	<2	<1	<1	<1	<1	<1	<1
Isobutanol	ug/L	<1000						
Isodrin	ug/L	<8						

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

Table 1

Analytical Data Summary for 10/13/2023

Constituents	Units	MW90-14	MW90-17	MW90-4	MW90-7	MW91-19	MW91-20	SW-3
Isophorone	ug/L	<8						
Isosafrole	ug/L	<8						
Kepone	ug/L	<8						
Lead, total	ug/L	<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
Naphthalene	ug/L	<8						
Nickel, total	ug/L	36.5	<4.0	4.3	29.4	5.3	<4.0	<4.0
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						
Pcb-1016	ug/L	<.2						
Pcb-1221	ug/L	<.2						
Pcb-1232	ug/L	<.2						
Pcb-1242	ug/L	<.2						
Pcb-1248	ug/L	<.2						
Pcb-1254	ug/L	<.2						
Pcb-1260	ug/L	<.2						
Pentachlorobenzene	ug/L	<8						
Pentachloronitrobenzene	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
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	mg/L	<.1						
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<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
Toxaphene	ug/L	<.2						
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
Vinyl acetate	ug/L	<5	<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	<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	MW90-17	09/30/2009	ND	1.0000	2.0000	**
Antimony, total	ug/L	MW90-17	03/23/2010	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/07/2010	ND	5.0000	2.0000	**
Antimony, total	ug/L	MW90-17	04/05/2011	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/06/2011	ND	2.0000		
Antimony, total	ug/L	MW90-17	03/16/2012	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/24/2012	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/24/2013	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/20/2013	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/08/2014	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/22/2014	ND	2.0000		
Antimony, total	ug/L	MW90-17	03/20/2015	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/17/2015	ND	2.0000		
Antimony, total	ug/L	MW90-17	03/17/2016	ND	2.0000		
Antimony, total	ug/L	MW90-17	08/26/2016	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/11/2017	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/23/2017	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/10/2018	ND	2.0000		
Antimony, total	ug/L	MW90-17	09/24/2018	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/16/2019	ND	2.0000		
Antimony, total	ug/L	MW90-17	08/29/2019	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/10/2020	ND	2.0000		
Antimony, total	ug/L	MW90-17	10/09/2020	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/09/2021	ND	2.0000		
Antimony, total	ug/L	MW90-17	10/11/2021	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/07/2022	ND	2.0000		
Antimony, total	ug/L	MW90-17	10/06/2022	ND	2.0000		
Antimony, total	ug/L	MW90-17	04/05/2023	ND	2.0000		
Antimony, total	ug/L	MW90-17	10/13/2023	ND	2.0000		
Arsenic, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Arsenic, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Arsenic, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Arsenic, total	ug/L	MW90-17	03/16/2012	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/24/2012	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Arsenic, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Arsenic, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Arsenic, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Arsenic, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Arsenic, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Arsenic, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Arsenic, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Arsenic, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Arsenic, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Arsenic, total	ug/L	MW90-17	10/13/2023	ND	4.0000		
Barium, total	ug/L	MW90-17	09/30/2009		199.0000		
Barium, total	ug/L	MW90-17	03/23/2010		171.0000		
Barium, total	ug/L	MW90-17	09/07/2010		169.0000		
Barium, total	ug/L	MW90-17	04/05/2011		215.0000		
Barium, total	ug/L	MW90-17	09/06/2011		207.0000		
Barium, total	ug/L	MW90-17	03/16/2012		196.0000		
Barium, total	ug/L	MW90-17	09/24/2012		185.0000		
Barium, total	ug/L	MW90-17	04/24/2013		183.0000		
Barium, total	ug/L	MW90-17	09/20/2013		351.0000		
Barium, total	ug/L	MW90-17	04/08/2014		261.0000		
Barium, total	ug/L	MW90-17	09/22/2014		212.0000		
Barium, total	ug/L	MW90-17	03/20/2015		257.0000		
Barium, total	ug/L	MW90-17	09/17/2015		234.0000		
Barium, total	ug/L	MW90-17	03/17/2016		246.0000		
Barium, total	ug/L	MW90-17	08/26/2016		266.0000		
Barium, total	ug/L	MW90-17	04/11/2017		234.0000		

\* - 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	
Barium, total	ug/L	MW90-17	09/23/2017		275.0000		
Barium, total	ug/L	MW90-17	04/10/2018		242.0000		
Barium, total	ug/L	MW90-17	09/24/2018		259.0000		
Barium, total	ug/L	MW90-17	04/16/2019		242.0000		
Barium, total	ug/L	MW90-17	08/29/2019		281.0000		
Barium, total	ug/L	MW90-17	04/10/2020		274.0000		
Barium, total	ug/L	MW90-17	10/09/2020		281.0000		
Barium, total	ug/L	MW90-17	04/09/2021		265.0000		
Barium, total	ug/L	MW90-17	10/11/2021		251.0000		
Barium, total	ug/L	MW90-17	04/07/2022		299.0000		
Barium, total	ug/L	MW90-17	10/06/2022		288.0000		
Barium, total	ug/L	MW90-17	04/05/2023		307.0000		
Barium, total	ug/L	MW90-17	10/13/2023		314.0000		
Beryllium, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Beryllium, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Beryllium, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Beryllium, total	ug/L	MW90-17	03/16/2012	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/24/2012	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Beryllium, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Beryllium, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Beryllium, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Beryllium, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Beryllium, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Beryllium, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Beryllium, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Beryllium, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Beryllium, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Beryllium, total	ug/L	MW90-17	10/13/2023	ND	4.0000		
Cadmium, total	ug/L	MW90-17	09/30/2009	ND	1.0000	0.8000	**
Cadmium, total	ug/L	MW90-17	03/23/2010	ND	1.0000	0.8000	**
Cadmium, total	ug/L	MW90-17	09/07/2010	ND	2.5000	0.8000	**
Cadmium, total	ug/L	MW90-17	04/05/2011	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/06/2011	ND	0.8000		
Cadmium, total	ug/L	MW90-17	03/16/2012	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/24/2012	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/24/2013	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/20/2013	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/08/2014	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/22/2014	ND	0.8000		
Cadmium, total	ug/L	MW90-17	03/20/2015	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/17/2015	ND	0.8000		
Cadmium, total	ug/L	MW90-17	03/17/2016	ND	0.8000		
Cadmium, total	ug/L	MW90-17	08/26/2016	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/11/2017	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/23/2017	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/10/2018	ND	0.8000		
Cadmium, total	ug/L	MW90-17	09/24/2018	ND	1.1000		
Cadmium, total	ug/L	MW90-17	11/01/2018	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/16/2019	ND	0.8000		
Cadmium, total	ug/L	MW90-17	08/29/2019	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/10/2020	ND	0.8000		
Cadmium, total	ug/L	MW90-17	10/09/2020	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/09/2021	ND	0.8000		
Cadmium, total	ug/L	MW90-17	10/11/2021	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/07/2022	ND	0.8000		
Cadmium, total	ug/L	MW90-17	10/06/2022	ND	0.8000		
Cadmium, total	ug/L	MW90-17	04/05/2023	ND	0.8000		
Cadmium, total	ug/L	MW90-17	10/13/2023	ND	0.8000		
Chromium, total	ug/L	MW90-17	09/30/2009	ND	10.0000	8.0000	**
Chromium, total	ug/L	MW90-17	03/23/2010	ND	10.0000	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	MW90-17	09/07/2010	ND	25.0000	8.0000	**
Chromium, total	ug/L	MW90-17	04/05/2011	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/06/2011	ND	20.0000	8.0000	**
Chromium, total	ug/L	MW90-17	03/16/2012	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/24/2012	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/24/2013	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/20/2013	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/08/2014	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/22/2014	ND	8.0000		
Chromium, total	ug/L	MW90-17	03/20/2015	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/17/2015	ND	8.0000		
Chromium, total	ug/L	MW90-17	03/17/2016	ND	8.0000		
Chromium, total	ug/L	MW90-17	08/26/2016	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/11/2017	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/23/2017	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/10/2018	ND	8.0000		
Chromium, total	ug/L	MW90-17	09/24/2018	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/16/2019	ND	8.0000		
Chromium, total	ug/L	MW90-17	08/29/2019	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/10/2020	ND	8.0000		
Chromium, total	ug/L	MW90-17	10/09/2020	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/09/2021	ND	8.0000		
Chromium, total	ug/L	MW90-17	10/11/2021	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/07/2022	ND	8.0000		
Chromium, total	ug/L	MW90-17	10/06/2022	ND	8.0000		
Chromium, total	ug/L	MW90-17	04/05/2023	ND	8.0000		
Chromium, total	ug/L	MW90-17	10/13/2023	ND	8.0000		
Cobalt, total	ug/L	MW90-17	09/30/2009	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	03/23/2010	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	09/07/2010	ND	10.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	04/05/2011	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	09/06/2011	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	03/16/2012	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	09/24/2012	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	04/24/2013	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	09/20/2013	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	04/08/2014	ND	4.0000	0.8000	**
Cobalt, total	ug/L	MW90-17	09/22/2014	ND	0.8000		
Cobalt, total	ug/L	MW90-17	03/20/2015	ND	0.8000		
Cobalt, total	ug/L	MW90-17	09/17/2015	ND	0.8000		
Cobalt, total	ug/L	MW90-17	03/17/2016	ND	0.8000		
Cobalt, total	ug/L	MW90-17	08/26/2016	ND	0.8000		
Cobalt, total	ug/L	MW90-17	04/11/2017	ND	0.8000		
Cobalt, total	ug/L	MW90-17	09/23/2017	ND	0.8000		
Cobalt, total	ug/L	MW90-17	04/10/2018	ND	0.8000		
Cobalt, total	ug/L	MW90-17	09/24/2018	ND	0.8000		
Cobalt, total	ug/L	MW90-17	04/16/2019	ND	0.8000		
Cobalt, total	ug/L	MW90-17	08/29/2019	ND	0.8000		
Cobalt, total	ug/L	MW90-17	04/10/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	10/09/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	04/09/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	10/11/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	04/07/2022	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	10/06/2022	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	04/05/2023	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW90-17	10/13/2023	ND	0.4000	0.8000	**
Copper, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Copper, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Copper, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Copper, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Copper, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Copper, total	ug/L	MW90-17	03/16/2012	ND	4.0000		
Copper, total	ug/L	MW90-17	09/24/2012	ND	4.0000		
Copper, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Copper, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Copper, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Copper, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Copper, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Copper, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Copper, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Copper, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Copper, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Copper, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Copper, total	ug/L	MW90-17	04/10/2018	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	
Copper, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Copper, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Copper, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Copper, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Copper, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Copper, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Copper, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Copper, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Copper, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Copper, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Copper, total	ug/L	MW90-17	10/13/2023	ND	4.0000		
Lead, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Lead, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Lead, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Lead, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Lead, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Lead, total	ug/L	MW90-17	03/16/2012	ND	4.0000		
Lead, total	ug/L	MW90-17	09/24/2012	ND	4.0000		
Lead, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Lead, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Lead, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Lead, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Lead, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Lead, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Lead, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Lead, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Lead, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Lead, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Lead, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Lead, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Lead, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Lead, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Lead, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Lead, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Lead, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Lead, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Lead, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Lead, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Lead, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Lead, total	ug/L	MW90-17	10/13/2023	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Nickel, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Nickel, total	ug/L	MW90-17	04/05/2011		7.1000		
Nickel, total	ug/L	MW90-17	09/06/2011		4.8000		
Nickel, total	ug/L	MW90-17	03/16/2012		4.8000		
Nickel, total	ug/L	MW90-17	09/24/2012		5.3000		
Nickel, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Nickel, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Nickel, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Nickel, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Nickel, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Nickel, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Nickel, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Nickel, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Nickel, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Nickel, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Nickel, total	ug/L	MW90-17	10/13/2023	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Selenium, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Selenium, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/06/2011	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	MW90-17	03/16/2012	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/24/2012	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Selenium, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Selenium, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Selenium, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Selenium, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Selenium, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Selenium, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Selenium, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Selenium, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Selenium, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Selenium, total	ug/L	MW90-17	10/13/2023	ND	4.0000		
Silver, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Silver, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Silver, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Silver, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Silver, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Silver, total	ug/L	MW90-17	03/16/2012	ND	4.0000		
Silver, total	ug/L	MW90-17	09/24/2012	ND	4.0000		
Silver, total	ug/L	MW90-17	04/24/2013	ND	4.0000		
Silver, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Silver, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Silver, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Silver, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Silver, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Silver, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Silver, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Silver, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Silver, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Silver, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Silver, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Silver, total	ug/L	MW90-17	04/16/2019	ND	4.0000		
Silver, total	ug/L	MW90-17	08/29/2019	ND	4.0000		
Silver, total	ug/L	MW90-17	04/10/2020	ND	4.0000		
Silver, total	ug/L	MW90-17	10/09/2020	ND	4.0000		
Silver, total	ug/L	MW90-17	04/09/2021	ND	4.0000		
Silver, total	ug/L	MW90-17	10/11/2021	ND	4.0000		
Silver, total	ug/L	MW90-17	04/07/2022	ND	4.0000		
Silver, total	ug/L	MW90-17	10/06/2022	ND	4.0000		
Silver, total	ug/L	MW90-17	04/05/2023	ND	4.0000		
Silver, total	ug/L	MW90-17	10/13/2023	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/30/2009	ND	4.0000		
Thallium, total	ug/L	MW90-17	03/23/2010	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/07/2010	ND	10.0000	4.0000	**
Thallium, total	ug/L	MW90-17	04/05/2011	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/06/2011	ND	4.0000		
Thallium, total	ug/L	MW90-17	03/16/2012	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	09/24/2012	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	04/24/2013	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	09/20/2013	ND	4.0000		
Thallium, total	ug/L	MW90-17	04/08/2014	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/22/2014	ND	4.0000		
Thallium, total	ug/L	MW90-17	03/20/2015	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/17/2015	ND	4.0000		
Thallium, total	ug/L	MW90-17	03/17/2016	ND	4.0000		
Thallium, total	ug/L	MW90-17	08/26/2016	ND	4.0000		
Thallium, total	ug/L	MW90-17	04/11/2017	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/23/2017	ND	4.0000		
Thallium, total	ug/L	MW90-17	04/10/2018	ND	4.0000		
Thallium, total	ug/L	MW90-17	09/24/2018	ND	4.0000		
Thallium, total	ug/L	MW90-17	04/16/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	08/29/2019	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	
Thallium, total	ug/L	MW90-17	04/10/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	10/09/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	04/09/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	10/11/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	04/07/2022	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	10/06/2022	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	04/05/2023	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW90-17	10/13/2023	ND	2.0000	4.0000	**
Vanadium, total	ug/L	MW90-17	09/30/2009	ND	10.0000	20.0000	**
Vanadium, total	ug/L	MW90-17	03/23/2010	ND	10.0000	20.0000	**
Vanadium, total	ug/L	MW90-17	09/07/2010	ND	25.0000	20.0000	**
Vanadium, total	ug/L	MW90-17	04/05/2011		20.1000		
Vanadium, total	ug/L	MW90-17	09/06/2011	ND	20.0000		
Vanadium, total	ug/L	MW90-17	03/16/2012	ND	20.0000		
Vanadium, total	ug/L	MW90-17	09/24/2012	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/24/2013	ND	20.0000		
Vanadium, total	ug/L	MW90-17	09/20/2013	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/08/2014	ND	20.0000		
Vanadium, total	ug/L	MW90-17	09/22/2014	ND	20.0000		
Vanadium, total	ug/L	MW90-17	03/20/2015	ND	20.0000		
Vanadium, total	ug/L	MW90-17	09/17/2015	ND	20.0000		
Vanadium, total	ug/L	MW90-17	03/17/2016	ND	20.0000		
Vanadium, total	ug/L	MW90-17	08/26/2016	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/11/2017	ND	20.0000		
Vanadium, total	ug/L	MW90-17	09/23/2017	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/10/2018	ND	20.0000		
Vanadium, total	ug/L	MW90-17	09/24/2018	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/16/2019	ND	20.0000		
Vanadium, total	ug/L	MW90-17	08/29/2019	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/10/2020	ND	20.0000		
Vanadium, total	ug/L	MW90-17	10/09/2020	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/09/2021	ND	20.0000		
Vanadium, total	ug/L	MW90-17	10/11/2021	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/07/2022	ND	20.0000		
Vanadium, total	ug/L	MW90-17	10/06/2022	ND	20.0000		
Vanadium, total	ug/L	MW90-17	04/05/2023	ND	20.0000		
Vanadium, total	ug/L	MW90-17	10/13/2023	ND	20.0000		
Zinc, total	ug/L	MW90-17	09/30/2009	ND	10.0000	8.0000	**
Zinc, total	ug/L	MW90-17	03/23/2010		10.5000		
Zinc, total	ug/L	MW90-17	09/07/2010	ND	25.0000	8.0000	**
Zinc, total	ug/L	MW90-17	04/05/2011	ND	8.0000		
Zinc, total	ug/L	MW90-17	09/06/2011	ND	8.0000		
Zinc, total	ug/L	MW90-17	03/16/2012	ND	8.0000		
Zinc, total	ug/L	MW90-17	09/24/2012	ND	8.0000		
Zinc, total	ug/L	MW90-17	04/24/2013	ND	8.0000		
Zinc, total	ug/L	MW90-17	09/20/2013	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	04/08/2014	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	09/22/2014	ND	8.0000		
Zinc, total	ug/L	MW90-17	03/20/2015	ND	8.0000		
Zinc, total	ug/L	MW90-17	09/17/2015	ND	8.0000		
Zinc, total	ug/L	MW90-17	03/17/2016	ND	8.0000		
Zinc, total	ug/L	MW90-17	08/26/2016		8.3000		
Zinc, total	ug/L	MW90-17	04/11/2017	ND	8.0000		
Zinc, total	ug/L	MW90-17	09/23/2017	ND	8.0000		
Zinc, total	ug/L	MW90-17	04/10/2018	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	09/24/2018	ND	8.0000		
Zinc, total	ug/L	MW90-17	04/16/2019	ND	8.0000		
Zinc, total	ug/L	MW90-17	08/29/2019		37.8000		*
Zinc, total	ug/L	MW90-17	09/23/2019	ND	8.0000		
Zinc, total	ug/L	MW90-17	04/10/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	10/09/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	04/09/2021	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	10/11/2021	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	04/07/2022	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	10/06/2022	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	04/05/2023	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW90-17	10/13/2023	ND	20.0000	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 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, total	ug/L	MW90-14	10/13/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW90-14	10/13/2023	ND	4.0000		4.0000
Barium, total	ug/L	MW90-14	10/13/2023		381.0000	*	360.4350
Beryllium, total	ug/L	MW90-14	10/13/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW90-14	10/13/2023	ND	0.8000		1.1000
Chromium, total	ug/L	MW90-14	10/13/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW90-14	10/13/2023		0.9000	*	0.8000
Copper, total	ug/L	MW90-14	10/13/2023	ND	4.0000		4.0000
Lead, total	ug/L	MW90-14	10/13/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW90-14	10/13/2023		36.5000	*	7.1000
Selenium, total	ug/L	MW90-14	10/13/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW90-14	10/13/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW90-14	10/13/2023	ND	2.0000		4.0000
Vanadium, total	ug/L	MW90-14	10/13/2023	ND	20.0000		20.1000
Zinc, total	ug/L	MW90-14	10/13/2023	ND	20.0000		10.5000
Antimony, total	ug/L	MW90-4	10/13/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW90-4	10/13/2023	ND	4.0000		4.0000
Barium, total	ug/L	MW90-4	10/13/2023		342.0000		360.4350
Beryllium, total	ug/L	MW90-4	10/13/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW90-4	10/13/2023	ND	0.8000		1.1000
Chromium, total	ug/L	MW90-4	10/13/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW90-4	10/13/2023	ND	0.4000		0.8000
Copper, total	ug/L	MW90-4	10/13/2023	ND	4.0000		4.0000
Lead, total	ug/L	MW90-4	10/13/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW90-4	10/13/2023		4.3000		7.1000
Selenium, total	ug/L	MW90-4	10/13/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW90-4	10/13/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW90-4	10/13/2023	ND	2.0000		4.0000
Vanadium, total	ug/L	MW90-4	10/13/2023	ND	20.0000		20.1000
Zinc, total	ug/L	MW90-4	10/13/2023	ND	20.0000		10.5000
Antimony, total	ug/L	MW90-7	10/13/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW90-7	10/13/2023	ND	4.0000		4.0000
Barium, total	ug/L	MW90-7	10/13/2023		302.0000		360.4350
Beryllium, total	ug/L	MW90-7	10/13/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW90-7	10/13/2023	ND	0.8000		1.1000
Chromium, total	ug/L	MW90-7	10/13/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW90-7	10/13/2023		19.8000	***	0.8000
Copper, total	ug/L	MW90-7	10/13/2023	ND	4.0000		4.0000
Lead, total	ug/L	MW90-7	10/13/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW90-7	10/13/2023		29.4000	***	7.1000
Selenium, total	ug/L	MW90-7	10/13/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW90-7	10/13/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW90-7	10/13/2023	ND	2.0000		4.0000
Vanadium, total	ug/L	MW90-7	10/13/2023	ND	20.0000		20.1000
Zinc, total	ug/L	MW90-7	10/13/2023	ND	20.0000		10.5000
Antimony, total	ug/L	MW91-19	10/13/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW91-19	10/13/2023	ND	4.0000		4.0000
Barium, total	ug/L	MW91-19	10/13/2023		482.0000	***	360.4350
Beryllium, total	ug/L	MW91-19	10/13/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW91-19	10/13/2023	ND	0.8000		1.1000
Chromium, total	ug/L	MW91-19	10/13/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW91-19	10/13/2023		1.4000	*	0.8000
Copper, total	ug/L	MW91-19	10/13/2023	ND	4.0000		4.0000
Lead, total	ug/L	MW91-19	10/13/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW91-19	10/13/2023		5.3000		7.1000
Selenium, total	ug/L	MW91-19	10/13/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW91-19	10/13/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW91-19	10/13/2023	ND	2.0000		4.0000
Vanadium, total	ug/L	MW91-19	10/13/2023	ND	20.0000		20.1000
Zinc, total	ug/L	MW91-19	10/13/2023	ND	20.0000		10.5000
Antimony, total	ug/L	MW91-20	10/13/2023	ND	2.0000		2.0000
Arsenic, total	ug/L	MW91-20	10/13/2023	ND	4.0000		4.0000
Barium, total	ug/L	MW91-20	10/13/2023		210.0000		360.4350
Beryllium, total	ug/L	MW91-20	10/13/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW91-20	10/13/2023	ND	0.8000		1.1000
Chromium, total	ug/L	MW91-20	10/13/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW91-20	10/13/2023	ND	0.4000		0.8000
Copper, total	ug/L	MW91-20	10/13/2023	ND	4.0000		4.0000
Lead, total	ug/L	MW91-20	10/13/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW91-20	10/13/2023		4.0000		7.1000
Selenium, total	ug/L	MW91-20	10/13/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW91-20	10/13/2023	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	MW91-20	10/13/2023	ND	2.0000	4.0000
Vanadium, total	ug/L	MW91-20	10/13/2023	ND	20.0000	20.1000
Zinc, total	ug/L	MW91-20	10/13/2023	ND	20.0000	10.5000
Antimony, total	ug/L	SW-3	10/13/2023	ND	2.0000	2.0000
Arsenic, total	ug/L	SW-3	10/13/2023	ND	4.0000	4.0000
Barium, total	ug/L	SW-3	10/13/2023		255.0000	360.4350
Beryllium, total	ug/L	SW-3	10/13/2023	ND	4.0000	4.0000
Cadmium, total	ug/L	SW-3	10/13/2023	ND	0.8000	1.1000
Chromium, total	ug/L	SW-3	10/13/2023	ND	8.0000	8.0000
Cobalt, total	ug/L	SW-3	10/13/2023	ND	0.4000	0.8000
Copper, total	ug/L	SW-3	10/13/2023	ND	4.0000	4.0000
Lead, total	ug/L	SW-3	10/13/2023	ND	4.0000	4.0000
Nickel, total	ug/L	SW-3	10/13/2023	ND	4.0000	7.1000
Selenium, total	ug/L	SW-3	10/13/2023	ND	4.0000	4.0000
Silver, total	ug/L	SW-3	10/13/2023	ND	4.0000	4.0000
Thallium, total	ug/L	SW-3	10/13/2023	ND	2.0000	4.0000
Vanadium, total	ug/L	SW-3	10/13/2023	ND	20.0000	20.1000
Zinc, total	ug/L	SW-3	10/13/2023	ND	20.0000	10.5000

- \* - 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	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, total	0	29	0.000	0	193	0.000
Arsenic, total	0	29	0.000	25	193	0.130
Barium, total	29	29	1.000	200	200	1.000
Beryllium, total	0	29	0.000	1	193	0.005
Cadmium, total	1	30	0.033	32	197	0.162
Chromium, total	0	29	0.000	1	193	0.005
Cobalt, total	0	29	0.000	45	195	0.231
Copper, total	0	29	0.000	18	193	0.093
Lead, total	0	29	0.000	6	193	0.031
Nickel, total	4	29	0.138	114	194	0.588
Selenium, total	0	29	0.000	15	193	0.078
Silver, total	0	29	0.000	0	193	0.000
Thallium, total	0	29	0.000	0	193	0.000
Vanadium, total	1	29	0.034	9	193	0.047
Zinc, total	2	29	0.069	44	193	0.228

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	29	0.000									nonpar
Arsenic, total	0	29	0.000									nonpar
Barium, total	29	29	1.000	0.804	0.047					2.326	normal	normal
Beryllium, total	0	29	0.000									nonpar
Cadmium, total	1	30	0.033									nonpar
Chromium, total	0	29	0.000									nonpar
Cobalt, total	0	29	0.000									nonpar
Copper, total	0	29	0.000									nonpar
Lead, total	0	29	0.000									nonpar
Nickel, total	4	29	0.138	1.529	1.344					2.326	normal	nonpar
Selenium, total	0	29	0.000									nonpar
Silver, total	0	29	0.000									nonpar
Thallium, total	0	29	0.000									nonpar
Vanadium, total	1	29	0.034									nonpar
Zinc, total	2	29	0.069									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	29					2.0000	nonpar	***	0.99
Arsenic, total	ug/L	0	29					4.0000	nonpar	***	0.99
Barium, total	ug/L	29	29	247.0345	45.1976	0.0100	2.5090	360.4350	normal		
Beryllium, total	ug/L	0	29					4.0000	nonpar	***	0.99
Cadmium, total	ug/L	1	30					1.1000	nonpar		0.99
Chromium, total	ug/L	0	29					8.0000	nonpar	***	0.99
Cobalt, total	ug/L	0	29					0.8000	nonpar	***	0.99
Copper, total	ug/L	0	29					4.0000	nonpar	***	0.99
Lead, total	ug/L	0	29					4.0000	nonpar	***	0.99
Nickel, total	ug/L	4	29					7.1000	nonpar		0.99
Selenium, total	ug/L	0	29					4.0000	nonpar	***	0.99
Silver, total	ug/L	0	29					4.0000	nonpar	***	0.99
Thallium, total	ug/L	0	29					4.0000	nonpar	***	0.99
Vanadium, total	ug/L	1	29					20.1000	nonpar		0.99
Zinc, total	ug/L	2	29					10.5000	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  
1% Significance Level**

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
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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
Barium, total	ug/L	MW90-14	06/09/2008		386.0000	*	360.4350
Barium, total	ug/L	MW90-14	10/16/2008		394.0000	*	360.4350
Barium, total	ug/L	MW90-14	03/05/2009		368.0000	*	360.4350
Barium, total	ug/L	MW90-14	09/30/2009		840.0000	*	360.4350
Barium, total	ug/L	MW90-14	03/23/2010		307.0000	*	360.4350
Barium, total	ug/L	MW90-14	09/07/2010		388.0000	*	360.4350
Barium, total	ug/L	MW90-14	04/05/2011		360.0000		360.4350
Barium, total	ug/L	MW90-14	09/06/2011		352.0000		360.4350
Barium, total	ug/L	MW90-14	03/16/2012		611.0000	*	360.4350
Barium, total	ug/L	MW90-14	09/24/2012		601.0000	*	360.4350
Barium, total	ug/L	MW90-14	04/24/2013		361.0000	*	360.4350
Barium, total	ug/L	MW90-14	09/20/2013		1150.0000	*	360.4350
Barium, total	ug/L	MW90-14	10/28/2013		450.0000	*	360.4350
Barium, total	ug/L	MW90-14	04/08/2014		482.0000	*	360.4350
Barium, total	ug/L	MW90-14	09/22/2014		462.0000	*	360.4350
Barium, total	ug/L	MW90-14	03/20/2015		332.0000		360.4350
Barium, total	ug/L	MW90-14	09/17/2015		274.0000		360.4350
Barium, total	ug/L	MW90-14	03/17/2016		314.0000		360.4350
Barium, total	ug/L	MW90-14	08/26/2016		301.0000		360.4350
Barium, total	ug/L	MW90-14	04/11/2017		300.0000		360.4350
Barium, total	ug/L	MW90-14	09/23/2017		270.0000		360.4350
Barium, total	ug/L	MW90-14	04/10/2018		264.0000		360.4350
Barium, total	ug/L	MW90-14	09/24/2018		307.0000		360.4350
Barium, total	ug/L	MW90-14	04/16/2019		199.0000		360.4350
Barium, total	ug/L	MW90-14	08/29/2019		300.0000		360.4350
Barium, total	ug/L	MW90-14	04/10/2020		321.0000		360.4350
Barium, total	ug/L	MW90-14	10/09/2020		503.0000	*	360.4350
Barium, total	ug/L	MW90-14	04/09/2021		272.0000		360.4350
Barium, total	ug/L	MW90-14	10/11/2021		313.0000		360.4350
Barium, total	ug/L	MW90-14	04/07/2022		255.0000		360.4350
Barium, total	ug/L	MW90-14	10/06/2022		245.0000		360.4350
Barium, total	ug/L	MW90-14	04/05/2023		134.0000		360.4350
Barium, total	ug/L	MW90-14	10/13/2023		381.0000	*	360.4350
Cobalt, total	ug/L	MW90-14	06/09/2008	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-14	10/16/2008	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-14	03/05/2009	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-14	09/30/2009		7.0000	*	0.8000
Cobalt, total	ug/L	MW90-14	03/23/2010	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	09/07/2010	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	04/05/2011	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	09/06/2011	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	03/16/2012	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	09/24/2012	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	04/24/2013	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	09/20/2013		6.0000	*	0.8000
Cobalt, total	ug/L	MW90-14	10/28/2013	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	04/08/2014	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-14	09/22/2014		2.5000	*	0.8000
Cobalt, total	ug/L	MW90-14	03/20/2015		2.4000	*	0.8000
Cobalt, total	ug/L	MW90-14	09/17/2015	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-14	03/17/2016		1.0000	*	0.8000
Cobalt, total	ug/L	MW90-14	08/26/2016	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-14	04/11/2017		0.8000	**	0.8000
Cobalt, total	ug/L	MW90-14	09/23/2017	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-14	04/10/2018	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-14	09/24/2018		1.3000	*	0.8000
Cobalt, total	ug/L	MW90-14	04/16/2019	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-14	08/29/2019	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-14	04/10/2020		0.5000		0.8000
Cobalt, total	ug/L	MW90-14	10/09/2020		1.7000	*	0.8000
Cobalt, total	ug/L	MW90-14	04/09/2021		0.6000		0.8000
Cobalt, total	ug/L	MW90-14	10/11/2021		0.7000		0.8000
Cobalt, total	ug/L	MW90-14	04/07/2022	ND	0.4000		0.8000
Cobalt, total	ug/L	MW90-14	10/06/2022		2.4000	*	0.8000
Cobalt, total	ug/L	MW90-14	04/05/2023	ND	0.4000		0.8000
Cobalt, total	ug/L	MW90-14	10/13/2023		0.9000	*	0.8000
Nickel, total	ug/L	MW90-14	06/09/2008		69.7000	*	7.1000
Nickel, total	ug/L	MW90-14	10/16/2008		65.3000	*	7.1000
Nickel, total	ug/L	MW90-14	03/05/2009	ND	50.0000		7.1000
Nickel, total	ug/L	MW90-14	09/30/2009		59.1000	*	7.1000
Nickel, total	ug/L	MW90-14	03/23/2010		31.5000	*	7.1000

\* - 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	MW90-14	09/07/2010		45.2000	*	7.1000
Nickel, total	ug/L	MW90-14	04/05/2011		45.5000	*	7.1000
Nickel, total	ug/L	MW90-14	09/06/2011		33.9000	*	7.1000
Nickel, total	ug/L	MW90-14	03/16/2012		36.6000	*	7.1000
Nickel, total	ug/L	MW90-14	09/24/2012		26.4000	*	7.1000
Nickel, total	ug/L	MW90-14	04/24/2013		24.1000	*	7.1000
Nickel, total	ug/L	MW90-14	09/20/2013		60.2000	*	7.1000
Nickel, total	ug/L	MW90-14	10/28/2013		13.9000	*	7.1000
Nickel, total	ug/L	MW90-14	04/08/2014		31.1000	*	7.1000
Nickel, total	ug/L	MW90-14	09/22/2014		34.0000	*	7.1000
Nickel, total	ug/L	MW90-14	03/20/2015		18.3000	*	7.1000
Nickel, total	ug/L	MW90-14	09/17/2015		20.8000	*	7.1000
Nickel, total	ug/L	MW90-14	03/17/2016		36.1000	*	7.1000
Nickel, total	ug/L	MW90-14	08/26/2016		21.3000	*	7.1000
Nickel, total	ug/L	MW90-14	04/11/2017		31.9000	*	7.1000
Nickel, total	ug/L	MW90-14	09/23/2017		30.9000	*	7.1000
Nickel, total	ug/L	MW90-14	04/10/2018		20.1000	*	7.1000
Nickel, total	ug/L	MW90-14	09/24/2018		35.0000	*	7.1000
Nickel, total	ug/L	MW90-14	04/16/2019		12.2000	*	7.1000
Nickel, total	ug/L	MW90-14	08/29/2019		33.1000	*	7.1000
Nickel, total	ug/L	MW90-14	04/10/2020		41.7000	*	7.1000
Nickel, total	ug/L	MW90-14	10/09/2020		59.0000	*	7.1000
Nickel, total	ug/L	MW90-14	04/09/2021		31.1000	*	7.1000
Nickel, total	ug/L	MW90-14	10/11/2021		33.4000	*	7.1000
Nickel, total	ug/L	MW90-14	04/07/2022		20.2000	*	7.1000
Nickel, total	ug/L	MW90-14	10/06/2022		27.8000	*	7.1000
Nickel, total	ug/L	MW90-14	04/05/2023		6.3000	*	7.1000
Nickel, total	ug/L	MW90-14	10/13/2023		36.5000	*	7.1000
Cobalt, total	ug/L	MW90-7	09/07/2007	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-7	06/09/2008	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-7	10/16/2008	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-7	03/05/2009	ND	20.0000		0.8000
Cobalt, total	ug/L	MW90-7	09/30/2009		4.8000	*	0.8000
Cobalt, total	ug/L	MW90-7	03/23/2010	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-7	09/07/2010	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-7	04/05/2011	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-7	09/06/2011	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-7	03/16/2012		4.3000	*	0.8000
Cobalt, total	ug/L	MW90-7	09/24/2012		4.4000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/24/2013	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-7	09/20/2013		5.7000	*	0.8000
Cobalt, total	ug/L	MW90-7	10/28/2013	ND	4.0000		0.8000
Cobalt, total	ug/L	MW90-7	04/08/2014		6.3000	*	0.8000
Cobalt, total	ug/L	MW90-7	09/22/2014		2.7000	*	0.8000
Cobalt, total	ug/L	MW90-7	03/20/2015		4.6000	*	0.8000
Cobalt, total	ug/L	MW90-7	09/17/2015		6.5000	*	0.8000
Cobalt, total	ug/L	MW90-7	03/17/2016	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-7	08/26/2016		6.6000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/11/2017		1.5000	*	0.8000
Cobalt, total	ug/L	MW90-7	09/23/2017		2.5000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/10/2018		1.9000	*	0.8000
Cobalt, total	ug/L	MW90-7	09/24/2018		5.1000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/16/2019	ND	0.8000		0.8000
Cobalt, total	ug/L	MW90-7	08/29/2019		1.6000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/10/2020		2.1000	*	0.8000
Cobalt, total	ug/L	MW90-7	10/09/2020		2.1000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/09/2021		2.1000	*	0.8000
Cobalt, total	ug/L	MW90-7	10/11/2021		5.3000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/07/2022		0.8000	**	0.8000
Cobalt, total	ug/L	MW90-7	10/06/2022		6.0000	*	0.8000
Cobalt, total	ug/L	MW90-7	04/05/2023		1.6000	*	0.8000
Cobalt, total	ug/L	MW90-7	10/13/2023		19.8000	*	0.8000
Nickel, total	ug/L	MW90-7	09/07/2007	ND	50.0000		7.1000
Nickel, total	ug/L	MW90-7	06/09/2008	ND	50.0000		7.1000
Nickel, total	ug/L	MW90-7	10/16/2008		54.9000	*	7.1000
Nickel, total	ug/L	MW90-7	03/05/2009	ND	50.0000		7.1000
Nickel, total	ug/L	MW90-7	09/30/2009		49.1000	*	7.1000
Nickel, total	ug/L	MW90-7	03/23/2010		38.3000	*	7.1000
Nickel, total	ug/L	MW90-7	09/07/2010		50.5000	*	7.1000
Nickel, total	ug/L	MW90-7	04/05/2011		52.5000	*	7.1000
Nickel, total	ug/L	MW90-7	09/06/2011		43.4000	*	7.1000

\* - 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	MW90-7	03/16/2012		42.6000 *	7.1000
Nickel, total	ug/L	MW90-7	09/24/2012		28.6000 *	7.1000
Nickel, total	ug/L	MW90-7	04/24/2013		33.4000 *	7.1000
Nickel, total	ug/L	MW90-7	09/20/2013		60.4000 *	7.1000
Nickel, total	ug/L	MW90-7	10/28/2013		41.4000 *	7.1000
Nickel, total	ug/L	MW90-7	04/08/2014		39.6000 *	7.1000
Nickel, total	ug/L	MW90-7	09/22/2014		25.3000 *	7.1000
Nickel, total	ug/L	MW90-7	03/20/2015		34.0000 *	7.1000
Nickel, total	ug/L	MW90-7	09/17/2015		29.6000 *	7.1000
Nickel, total	ug/L	MW90-7	03/17/2016		23.5000 *	7.1000
Nickel, total	ug/L	MW90-7	08/26/2016		32.6000 *	7.1000
Nickel, total	ug/L	MW90-7	04/11/2017		23.3000 *	7.1000
Nickel, total	ug/L	MW90-7	09/23/2017		26.4000 *	7.1000
Nickel, total	ug/L	MW90-7	04/10/2018		33.8000 *	7.1000
Nickel, total	ug/L	MW90-7	09/24/2018		22.3000 *	7.1000
Nickel, total	ug/L	MW90-7	04/16/2019		16.3000 *	7.1000
Nickel, total	ug/L	MW90-7	08/29/2019		25.6000 *	7.1000
Nickel, total	ug/L	MW90-7	04/10/2020		23.0000 *	7.1000
Nickel, total	ug/L	MW90-7	10/09/2020		29.2000 *	7.1000
Nickel, total	ug/L	MW90-7	04/09/2021		42.1000 *	7.1000
Nickel, total	ug/L	MW90-7	10/11/2021		29.7000 *	7.1000
Nickel, total	ug/L	MW90-7	04/07/2022		15.2000 *	7.1000
Nickel, total	ug/L	MW90-7	10/06/2022		27.4000 *	7.1000
Nickel, total	ug/L	MW90-7	04/05/2023		25.6000 *	7.1000
Nickel, total	ug/L	MW90-7	10/13/2023		29.4000 *	7.1000
Barium, total	ug/L	MW91-19	06/09/2008		331.0000	360.4350
Barium, total	ug/L	MW91-19	10/16/2008		331.0000	360.4350
Barium, total	ug/L	MW91-19	03/05/2009		374.0000 *	360.4350
Barium, total	ug/L	MW91-19	09/30/2009		390.0000 *	360.4350
Barium, total	ug/L	MW91-19	03/23/2010		350.0000	360.4350
Barium, total	ug/L	MW91-19	09/07/2010		430.0000 *	360.4350
Barium, total	ug/L	MW91-19	04/05/2011		347.0000	360.4350
Barium, total	ug/L	MW91-19	09/06/2011		534.0000 *	360.4350
Barium, total	ug/L	MW91-19	03/16/2012		390.0000 *	360.4350
Barium, total	ug/L	MW91-19	09/24/2012		449.0000 *	360.4350
Barium, total	ug/L	MW91-19	04/24/2013		277.0000	360.4350
Barium, total	ug/L	MW91-19	09/20/2013		833.0000 *	360.4350
Barium, total	ug/L	MW91-19	10/28/2013		467.0000 *	360.4350
Barium, total	ug/L	MW91-19	04/08/2014		396.0000 *	360.4350
Barium, total	ug/L	MW91-19	09/22/2014		317.0000	360.4350
Barium, total	ug/L	MW91-19	03/20/2015		331.0000	360.4350
Barium, total	ug/L	MW91-19	09/17/2015		275.0000	360.4350
Barium, total	ug/L	MW91-19	03/17/2016		372.0000 *	360.4350
Barium, total	ug/L	MW91-19	06/15/2016		310.0000	360.4350
Barium, total	ug/L	MW91-19	08/26/2016		362.0000 *	360.4350
Barium, total	ug/L	MW91-19	09/29/2016		291.0000	360.4350
Barium, total	ug/L	MW91-19	04/11/2017		325.0000	360.4350
Barium, total	ug/L	MW91-19	09/23/2017		516.0000 *	360.4350
Barium, total	ug/L	MW91-19	11/15/2017		296.0000	360.4350
Barium, total	ug/L	MW91-19	04/10/2018		339.0000	360.4350
Barium, total	ug/L	MW91-19	09/24/2018		281.0000	360.4350
Barium, total	ug/L	MW91-19	04/16/2019		342.0000	360.4350
Barium, total	ug/L	MW91-19	08/29/2019		335.0000	360.4350
Barium, total	ug/L	MW91-19	04/10/2020		373.0000 *	360.4350
Barium, total	ug/L	MW91-19	06/09/2020		327.0000	360.4350
Barium, total	ug/L	MW91-19	10/09/2020		495.0000 *	360.4350
Barium, total	ug/L	MW91-19	04/09/2021		328.0000	360.4350
Barium, total	ug/L	MW91-19	10/11/2021		321.0000	360.4350
Barium, total	ug/L	MW91-19	04/07/2022		343.0000	360.4350
Barium, total	ug/L	MW91-19	10/06/2022		504.0000 *	360.4350
Barium, total	ug/L	MW91-19	01/04/2023		434.0000 *	360.4350
Barium, total	ug/L	MW91-19	04/05/2023		380.0000 *	360.4350
Barium, total	ug/L	MW91-19	10/13/2023		482.0000 *	360.4350
Cobalt, total	ug/L	MW91-19	06/09/2008	ND	20.0000	0.8000
Cobalt, total	ug/L	MW91-19	10/16/2008	ND	20.0000	0.8000
Cobalt, total	ug/L	MW91-19	03/05/2009	ND	20.0000	0.8000
Cobalt, total	ug/L	MW91-19	09/30/2009	ND	4.0000	0.8000
Cobalt, total	ug/L	MW91-19	03/23/2010	ND	4.0000	0.8000
Cobalt, total	ug/L	MW91-19	09/07/2010	ND	4.0000	0.8000
Cobalt, total	ug/L	MW91-19	04/05/2011	ND	4.0000	0.8000
Cobalt, total	ug/L	MW91-19	09/06/2011	ND	4.0000	0.8000

\* - 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
Cobalt, total	ug/L	MW91-19	03/16/2012	ND	4.0000		0.8000
Cobalt, total	ug/L	MW91-19	09/24/2012	ND	4.0000		0.8000
Cobalt, total	ug/L	MW91-19	04/24/2013	ND	4.0000		0.8000
Cobalt, total	ug/L	MW91-19	09/20/2013	ND	4.0000		0.8000
Cobalt, total	ug/L	MW91-19	10/28/2013	ND	4.0000		0.8000
Cobalt, total	ug/L	MW91-19	04/08/2014	ND	4.0000		0.8000
Cobalt, total	ug/L	MW91-19	09/22/2014		1.0000	*	0.8000
Cobalt, total	ug/L	MW91-19	03/20/2015	ND	0.8000		0.8000
Cobalt, total	ug/L	MW91-19	09/17/2015	ND	0.8000		0.8000
Cobalt, total	ug/L	MW91-19	03/17/2016	ND	0.8000		0.8000
Cobalt, total	ug/L	MW91-19	08/26/2016		1.0000	*	0.8000
Cobalt, total	ug/L	MW91-19	04/11/2017	ND	0.8000		0.8000
Cobalt, total	ug/L	MW91-19	09/23/2017	ND	0.8000		0.8000
Cobalt, total	ug/L	MW91-19	04/10/2018	ND	0.8000		0.8000
Cobalt, total	ug/L	MW91-19	09/24/2018	ND	0.8000		0.8000
Cobalt, total	ug/L	MW91-19	04/16/2019	ND	0.8000		0.8000
Cobalt, total	ug/L	MW91-19	08/29/2019	ND	0.8000		0.8000
Cobalt, total	ug/L	MW91-19	04/10/2020	ND	0.4000		0.8000
Cobalt, total	ug/L	MW91-19	10/09/2020		2.4000	*	0.8000
Cobalt, total	ug/L	MW91-19	04/09/2021	ND	0.4000		0.8000
Cobalt, total	ug/L	MW91-19	10/11/2021	ND	0.4000		0.8000
Cobalt, total	ug/L	MW91-19	04/07/2022	ND	0.4000		0.8000
Cobalt, total	ug/L	MW91-19	10/06/2022		1.9000	*	0.8000
Cobalt, total	ug/L	MW91-19	01/04/2023		0.7000		0.8000
Cobalt, total	ug/L	MW91-19	04/05/2023		0.5000		0.8000
Cobalt, total	ug/L	MW91-19	10/13/2023		1.4000	*	0.8000

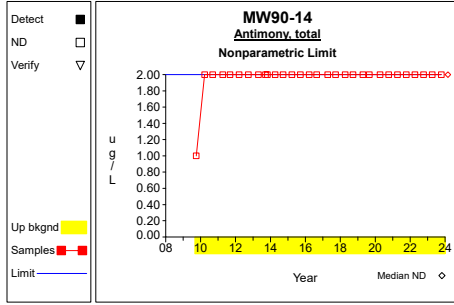
\* - Significantly increased over background.

\*\* - Detect at limit for 100% NDs in background (NPPL only).

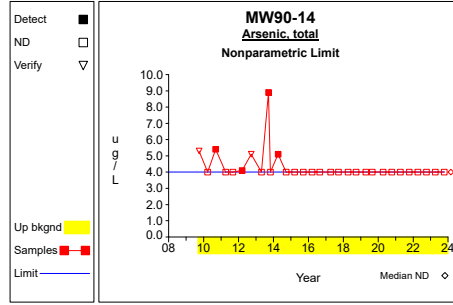
\*\*\* - Manual exclusion.

ND = Not Detected, Result = detection limit.

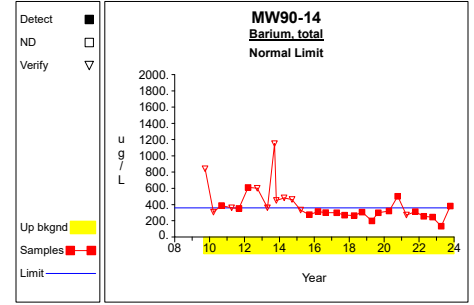
# Up vs. Down Prediction Limits



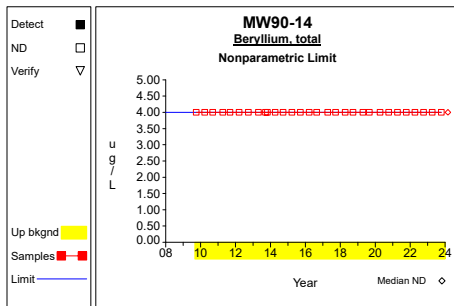
Graph 1



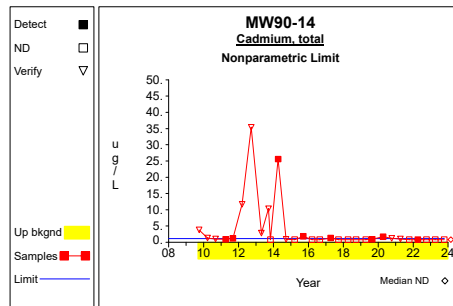
Graph 2



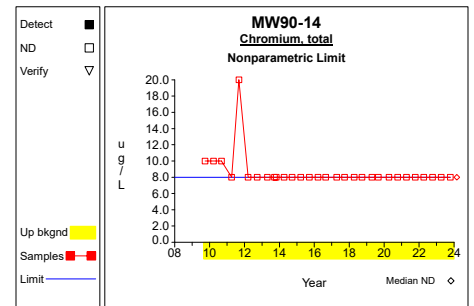
Graph 3



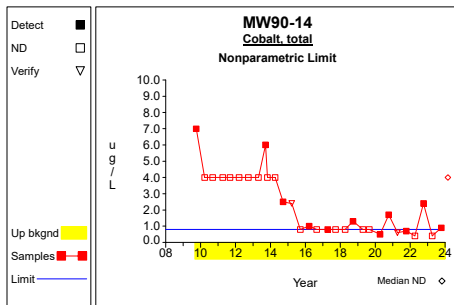
Graph 4



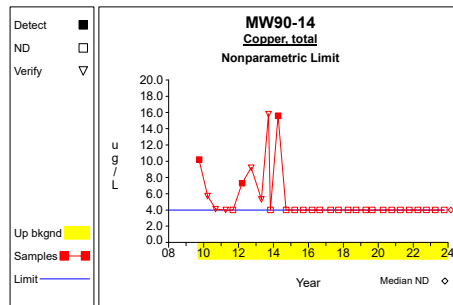
Graph 5



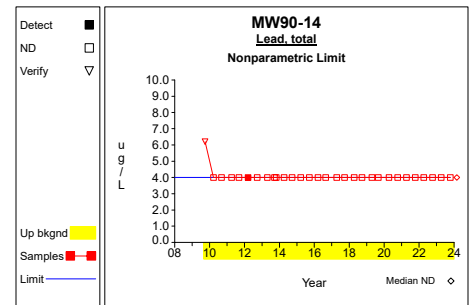
Graph 6



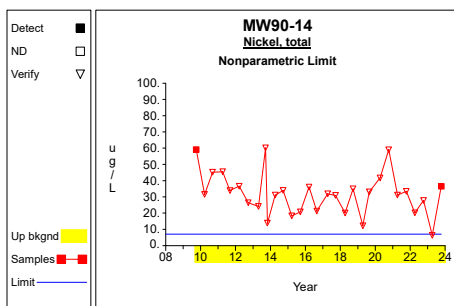
Graph 7



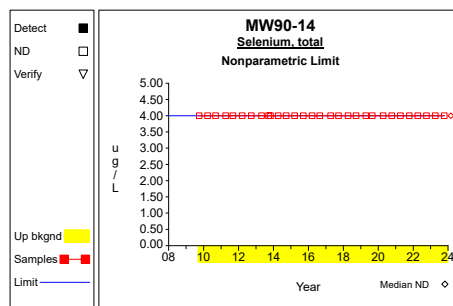
Graph 8



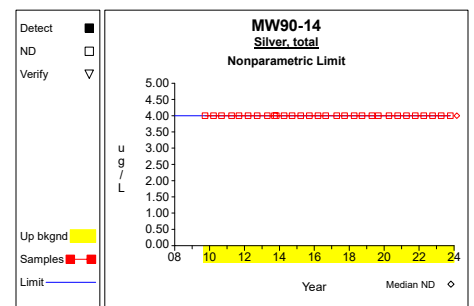
Graph 9



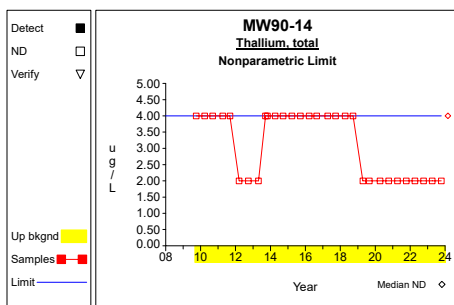
Graph 10



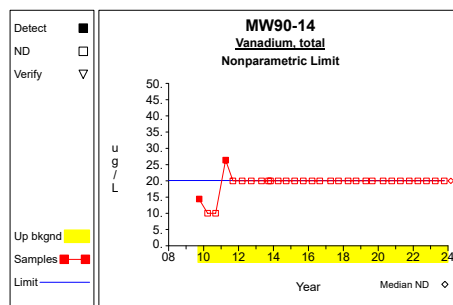
Graph 11



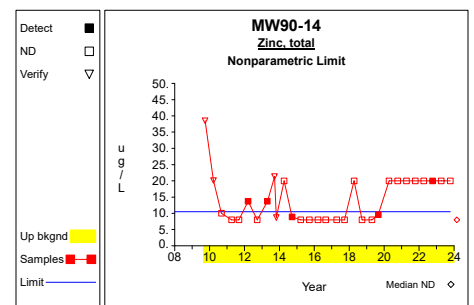
Graph 12



Graph 13

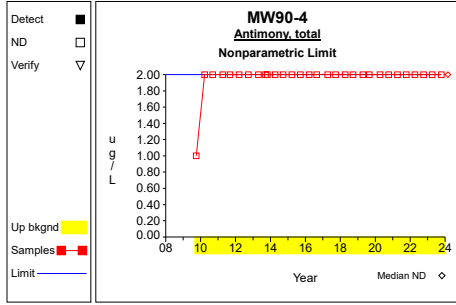


Graph 14

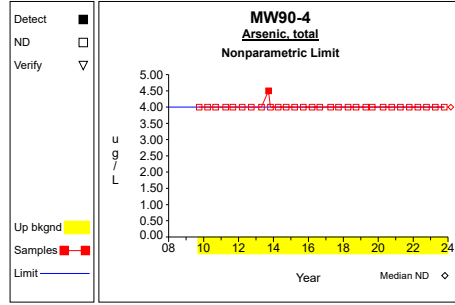


Graph 15

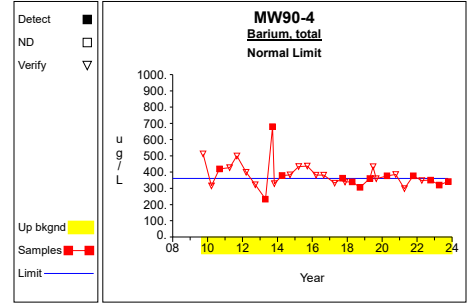
# Up vs. Down Prediction Limits



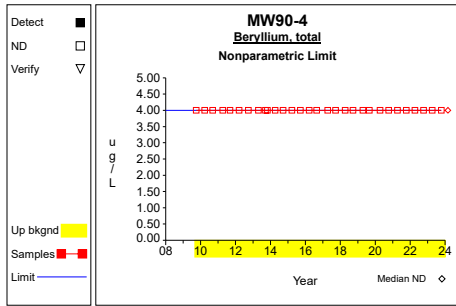
Graph 16



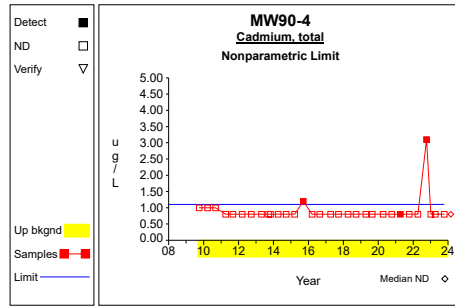
Graph 17



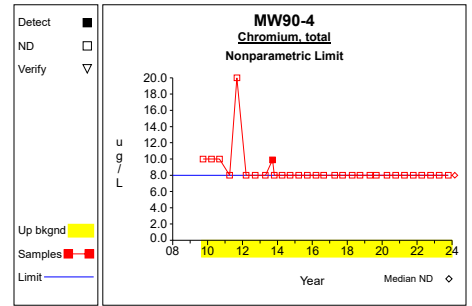
Graph 18



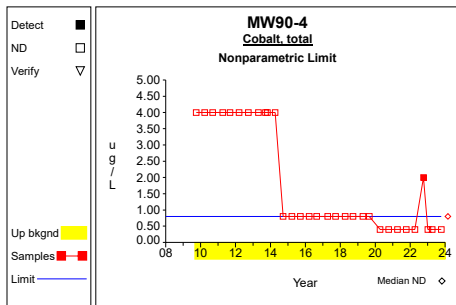
Graph 19



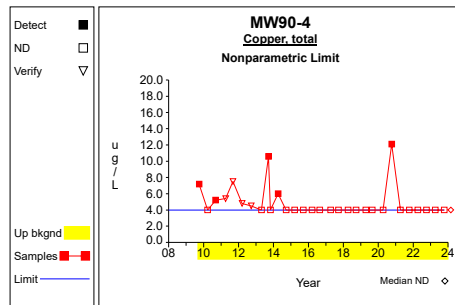
Graph 20



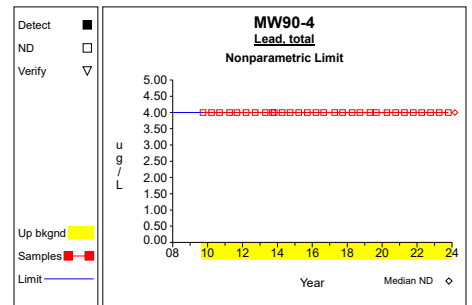
Graph 21



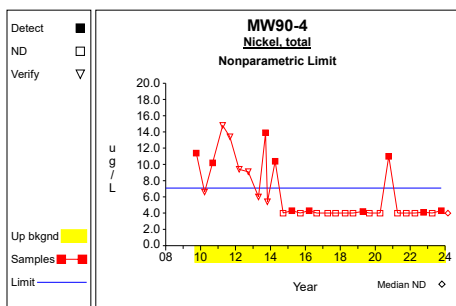
Graph 22



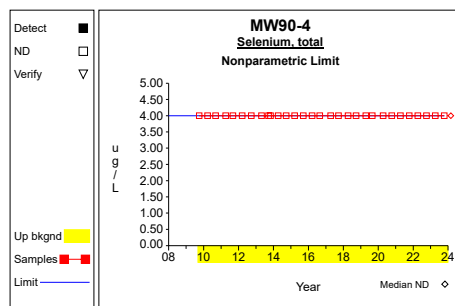
Graph 23



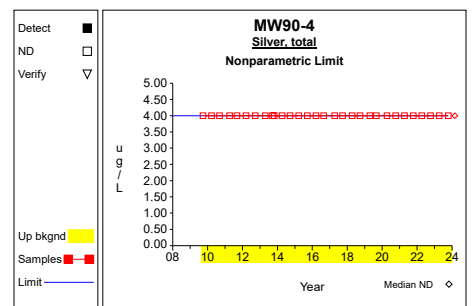
Graph 24



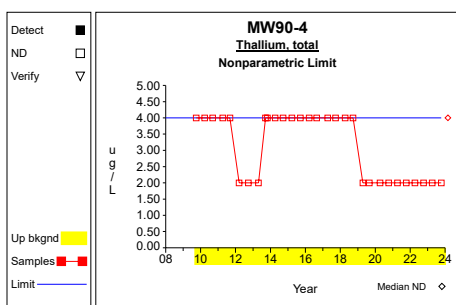
Graph 25



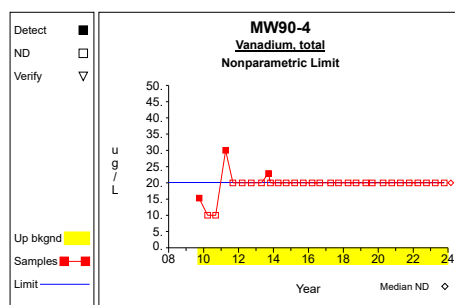
Graph 26



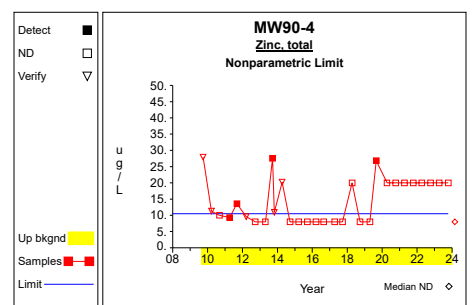
Graph 27



Graph 28



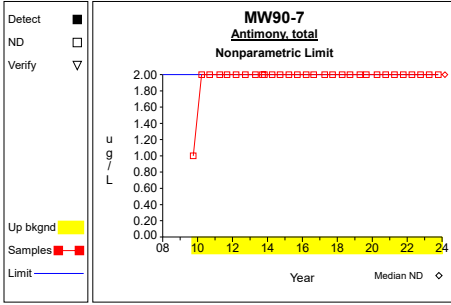
Graph 29



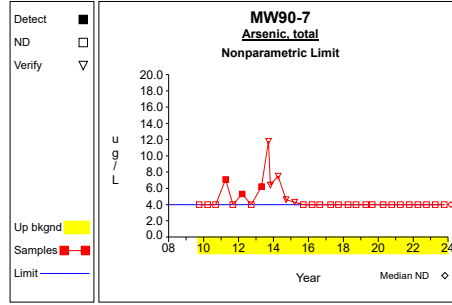
Graph 30



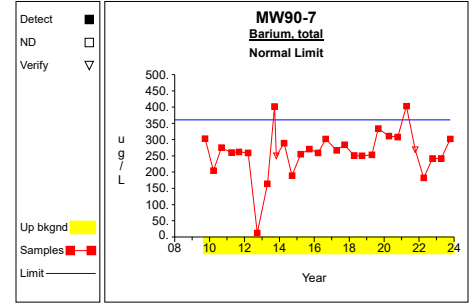
# Up vs. Down Prediction Limits



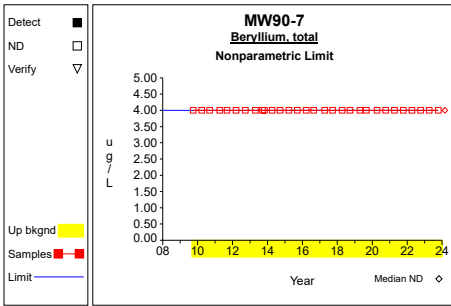
Graph 31



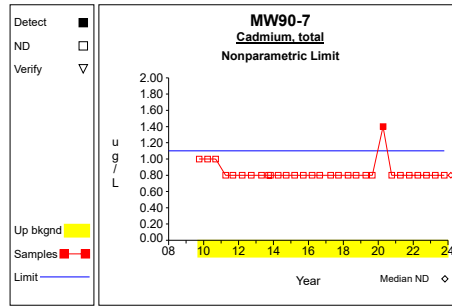
Graph 32



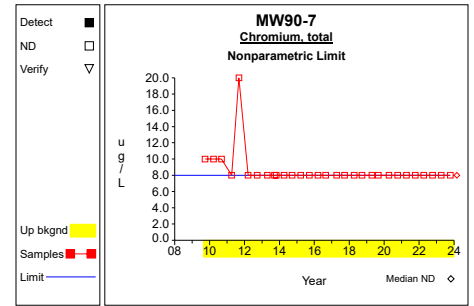
Graph 33



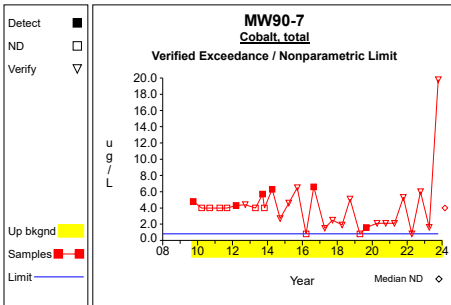
Graph 34



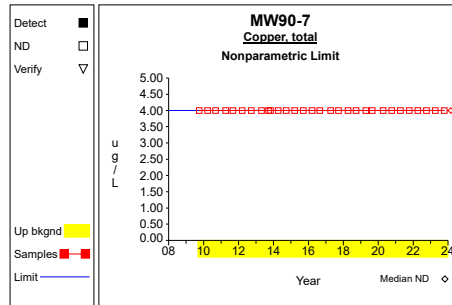
Graph 35



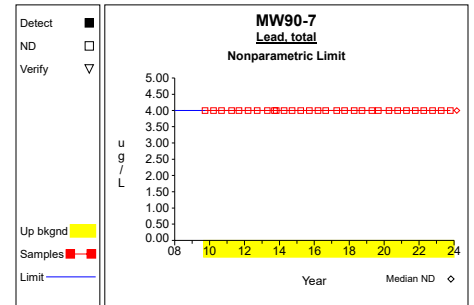
Graph 36



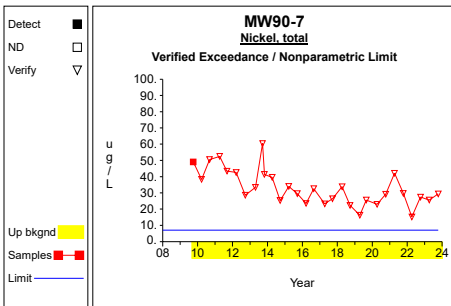
Graph 37



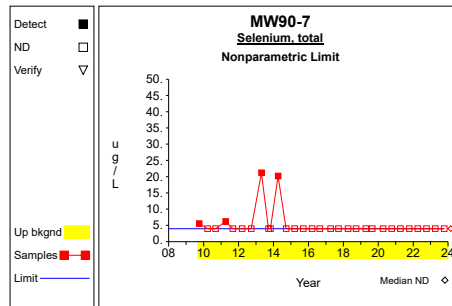
Graph 38



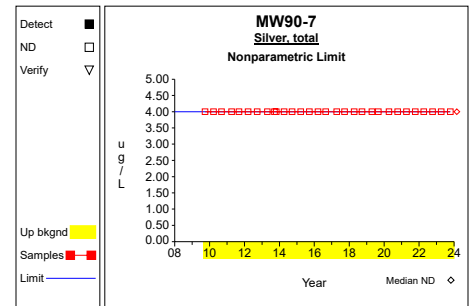
Graph 39



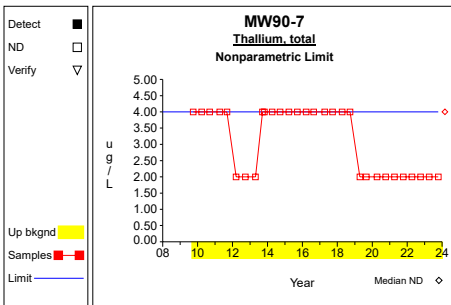
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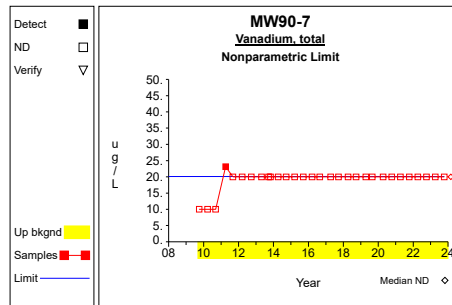
Graph 41



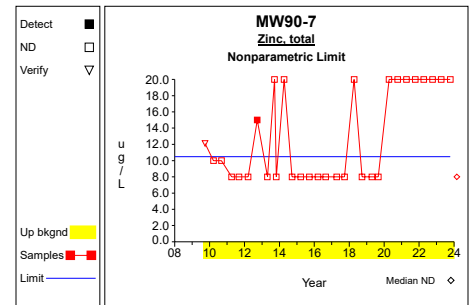
Graph 42



Graph 43

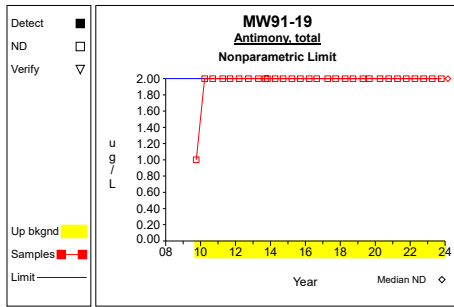


Graph 44

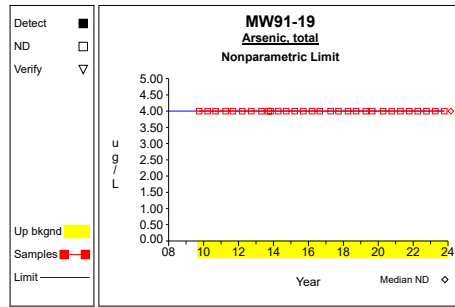


Graph 45

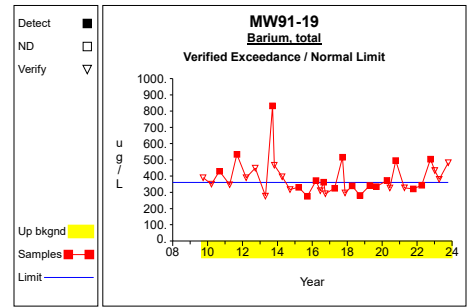
# Up vs. Down Prediction Limits



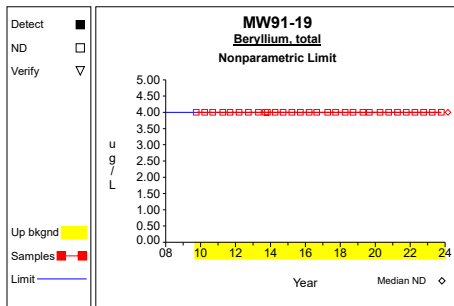
Graph 46



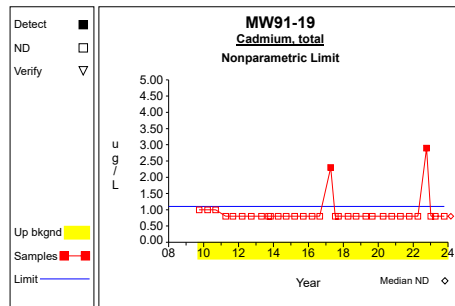
Graph 47



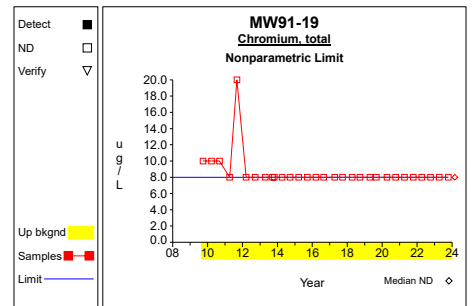
Graph 48



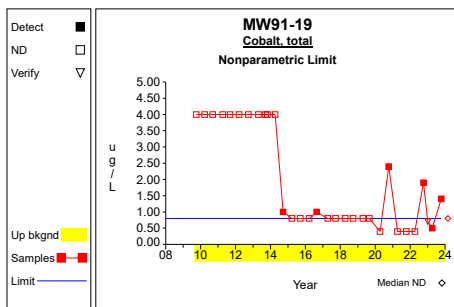
Graph 49



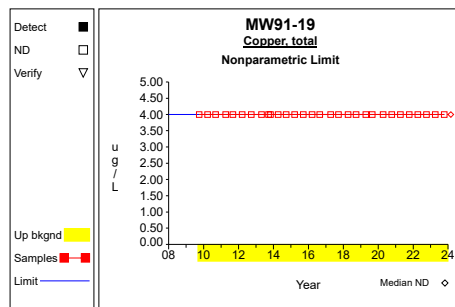
Graph 50



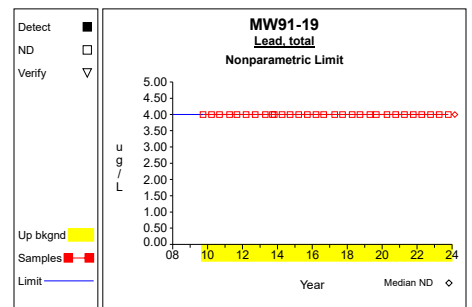
Graph 51



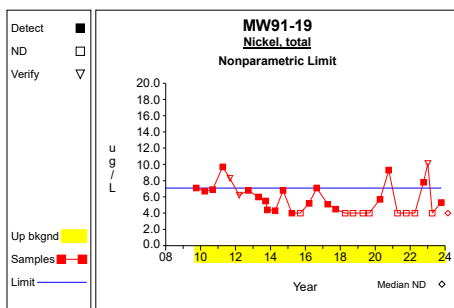
Graph 52



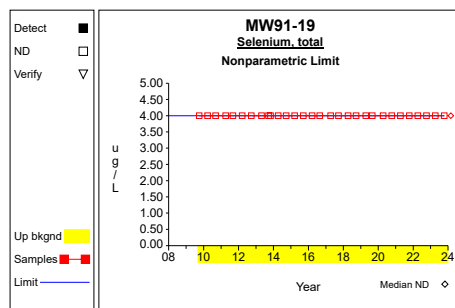
Graph 53



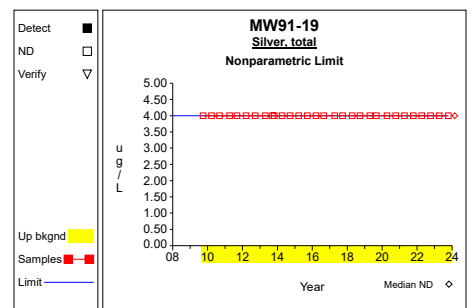
Graph 54



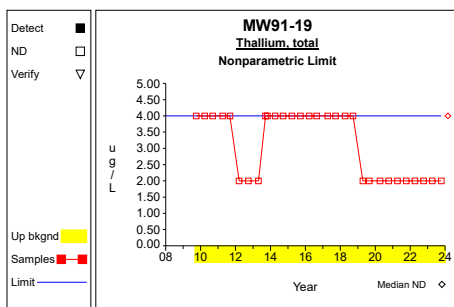
Graph 55



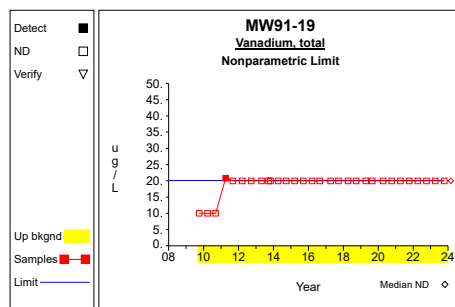
Graph 56



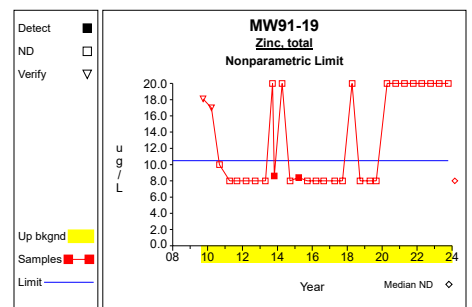
Graph 57



Graph 58

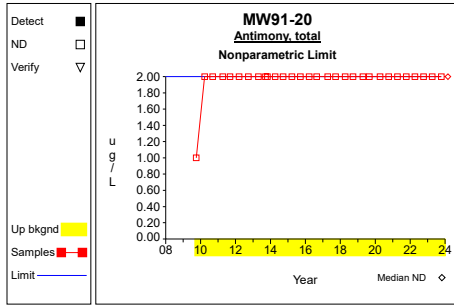


Graph 59

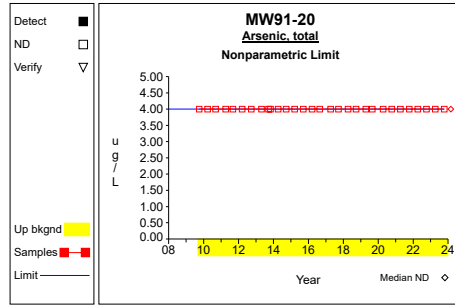


Graph 60

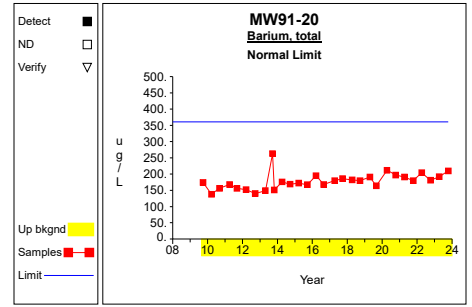
# Up vs. Down Prediction Limits



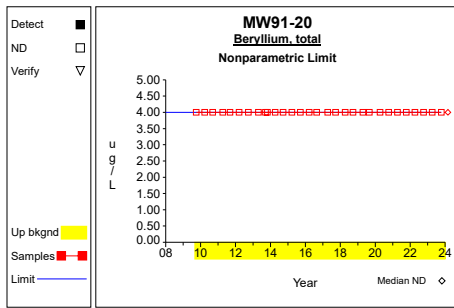
Graph 61



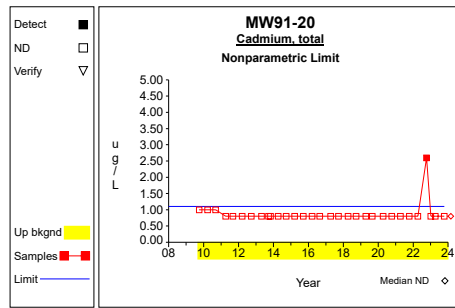
Graph 62



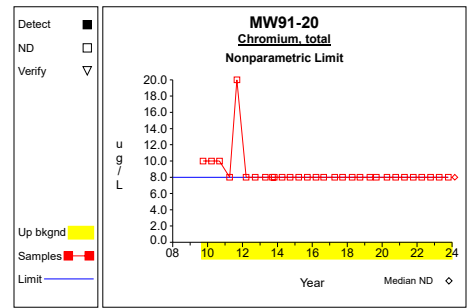
Graph 63



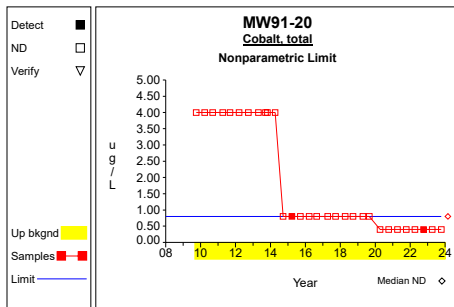
Graph 64



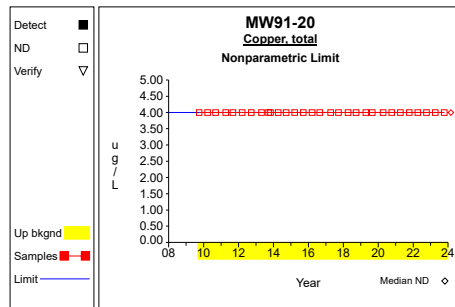
Graph 65



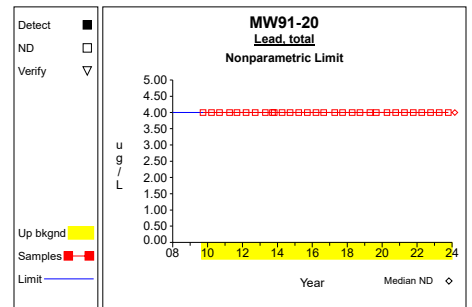
Graph 66



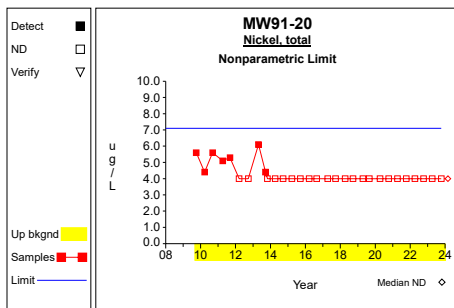
Graph 67



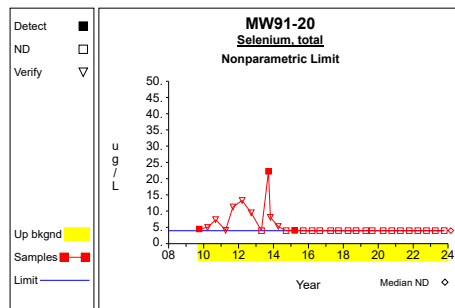
Graph 68



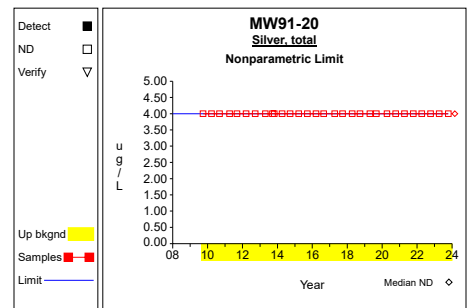
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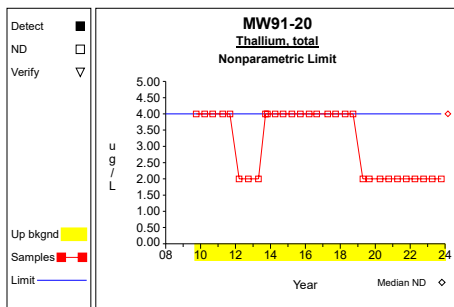
Graph 70



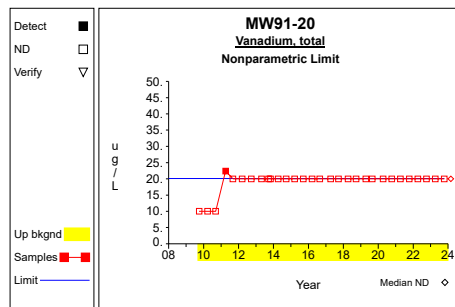
Graph 71



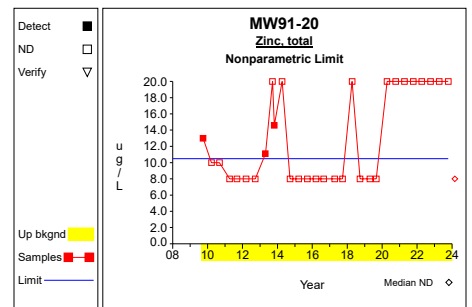
Graph 72



Graph 73

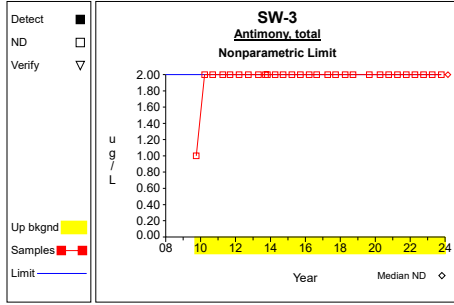


Graph 74

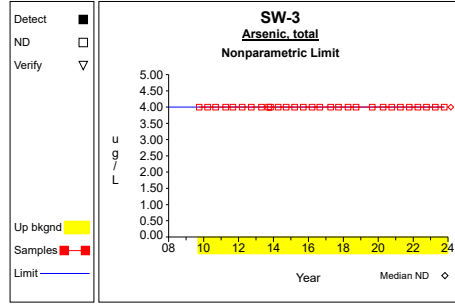


Graph 75

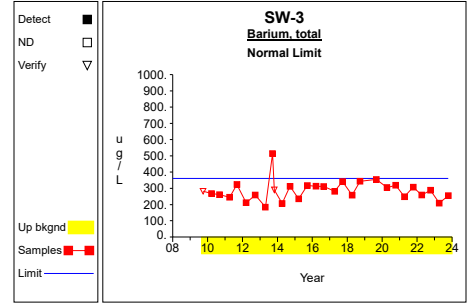
# Up vs. Down Prediction Limits



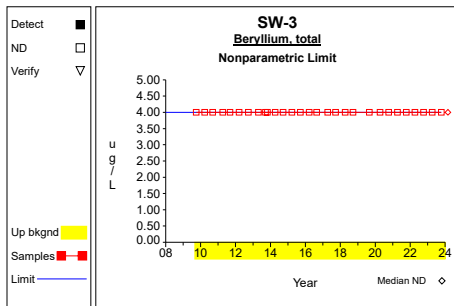
Graph 76



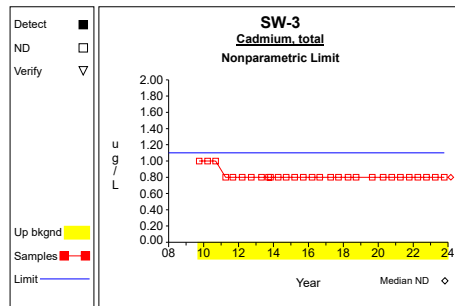
Graph 77



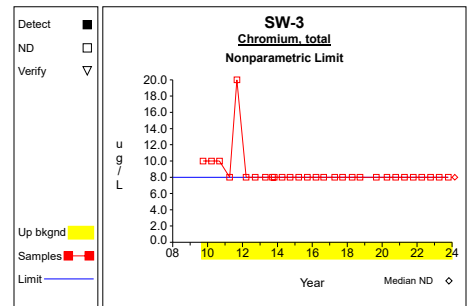
Graph 78



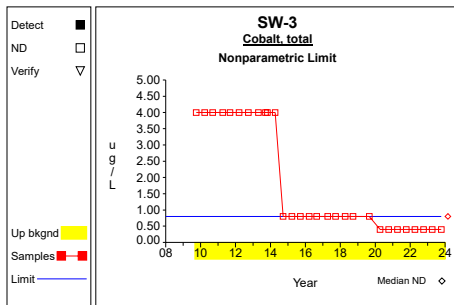
Graph 79



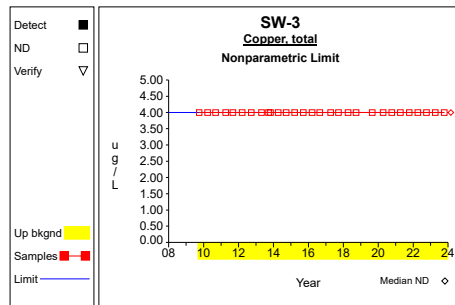
Graph 80



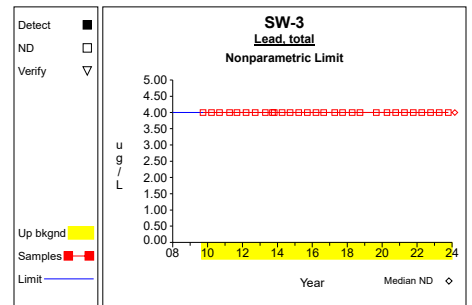
Graph 81



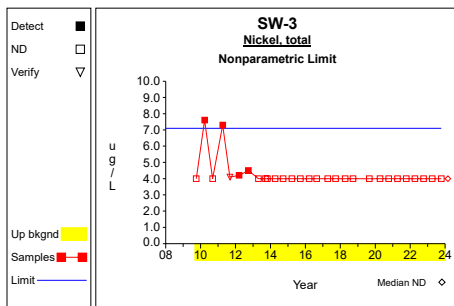
Graph 82



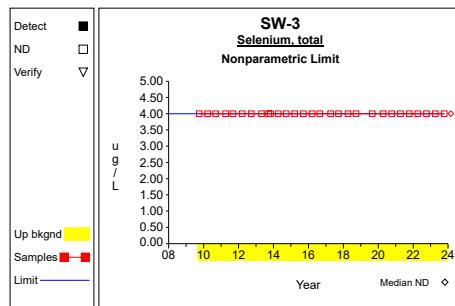
Graph 83



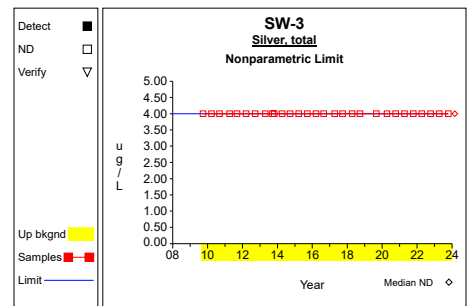
Graph 84



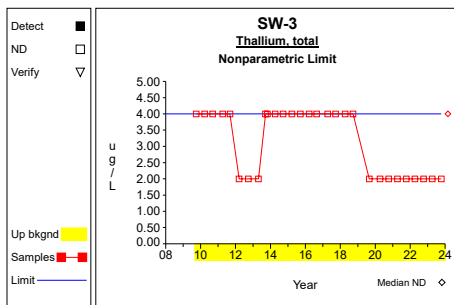
Graph 85



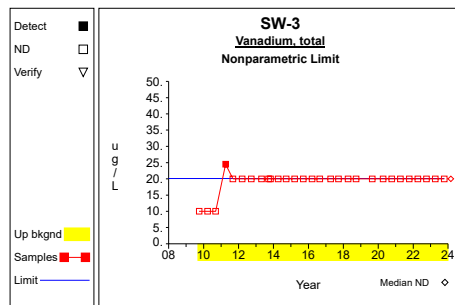
Graph 86



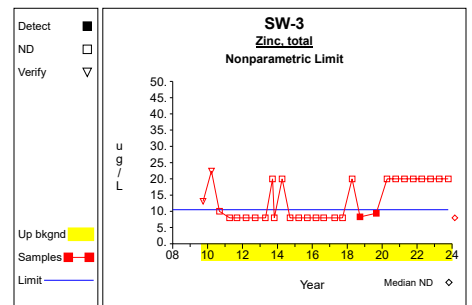
Graph 87



Graph 88

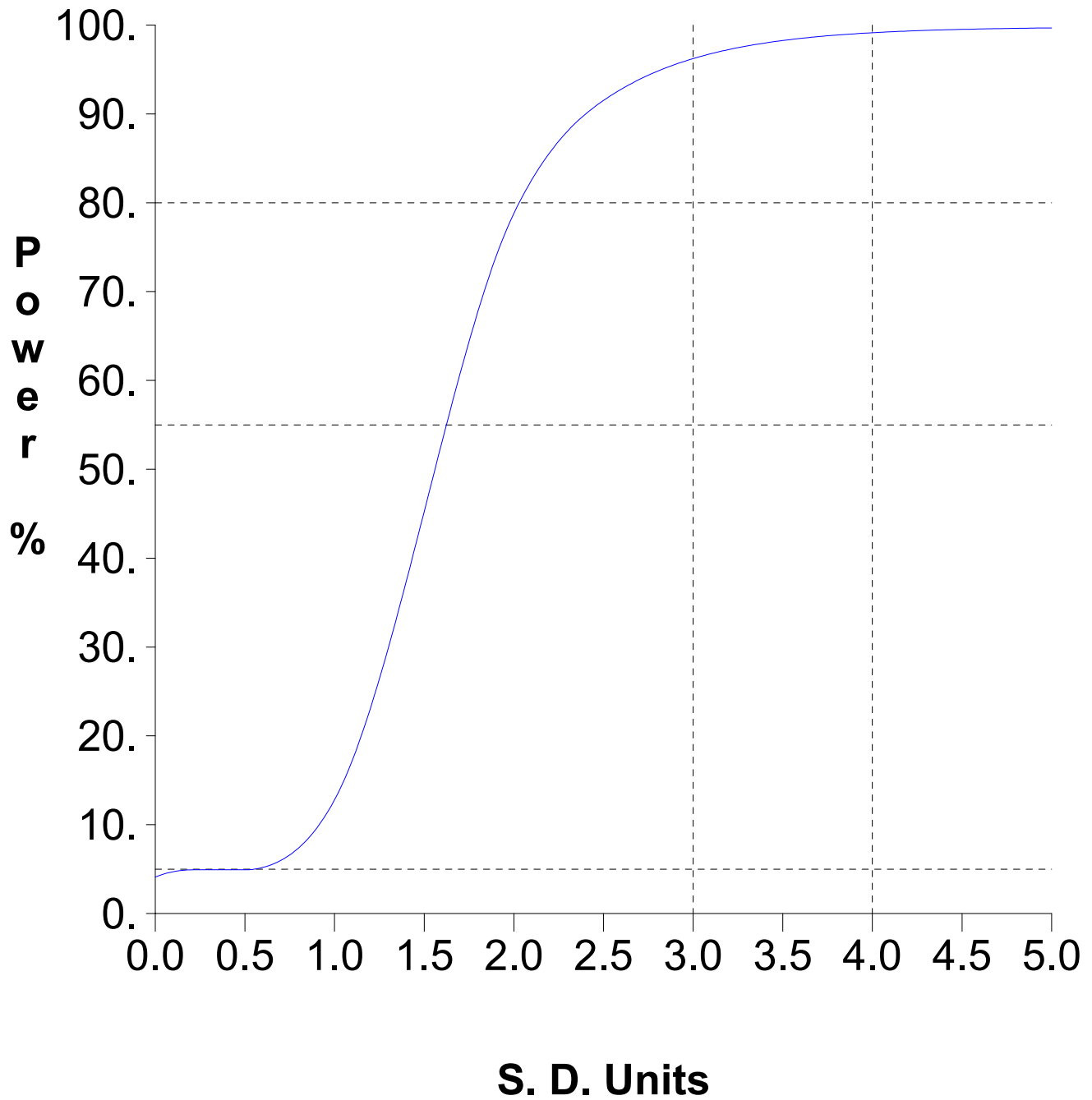


Graph 89



Graph 90

# 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
Barium, total	ug/L	MW90-14	4	253.750	101.013	1.176	134.930	372.570	2000.000	dec
Cadmium, total	ug/L	MW90-14	4	0.500	0.200	1.176	0.265	0.735	5.000	
Cobalt, total	ug/L	MW90-14	4	1.825	0.645	1.176	1.066	2.584	2.100	
Nickel, total	ug/L	MW90-14	4	22.700	12.802	1.176	7.641	37.759	100.000	
Barium, total	ug/L	MW90-4	4	340.250	14.009	1.176	323.771	356.729	2000.000	
Cadmium, total	ug/L	MW90-4	4	1.075	1.350	1.176	0.000	2.663	5.000	
Cobalt, total	ug/L	MW90-4	4	0.800	0.800	1.176	0.000	1.741	2.100	
Nickel, total	ug/L	MW90-4	4	3.100	1.273	1.176	1.603	4.597	100.000	
Barium, total	ug/L	MW90-7	4	242.000	48.990	1.176	184.374	299.626	2000.000	
Cadmium, total	ug/L	MW90-7	4	0.400	0.000	1.176	0.400	0.400	5.000	
Cobalt, total	ug/L	MW90-7	4	7.050	8.802	1.176	0.000	17.404	2.100	
Nickel, total	ug/L	MW90-7	4	24.400	6.327	1.176	16.958	31.842	100.000	dec
Barium, total	ug/L	MW91-19	4	450.000	55.064	1.176	385.229	514.771	2000.000	
Cadmium, total	ug/L	MW91-19	4	1.025	1.250	1.176	0.000	2.495	5.000	
Cobalt, total	ug/L	MW91-19	4	1.125	0.645	1.176	0.366	1.884	2.100	
Nickel, total	ug/L	MW91-19	4	6.300	3.473	1.176	2.215	10.385	100.000	
Barium, total	ug/L	MW91-20	4	196.750	12.894	1.176	181.583	211.917	2000.000	inc
Cadmium, total	ug/L	MW91-20	4	0.950	1.100	1.176	0.000	2.244	5.000	
Cobalt, total	ug/L	MW91-20	4	0.400	0.000	1.176	0.400	0.400	2.100	
Nickel, total	ug/L	MW91-20	4	2.000	0.000	1.176	2.000	2.000	100.000	

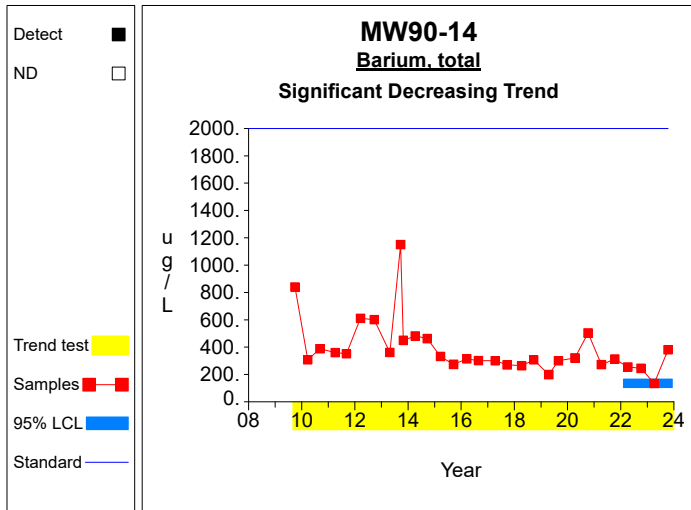
\* - Insufficient Data

\*\* - Significant Exceedance

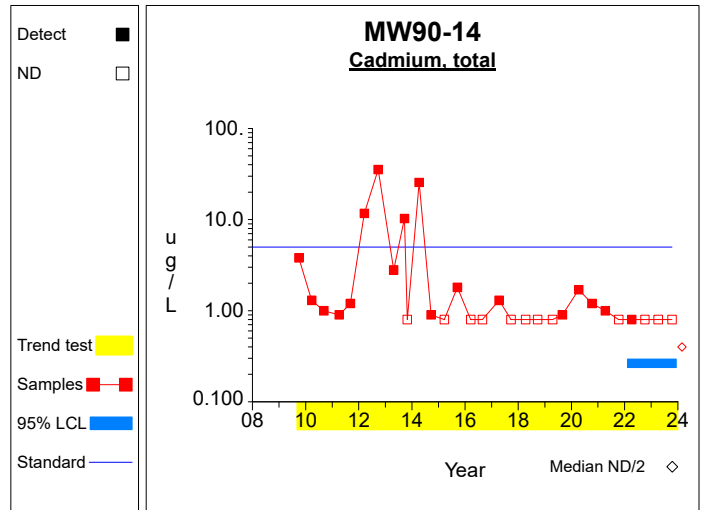
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

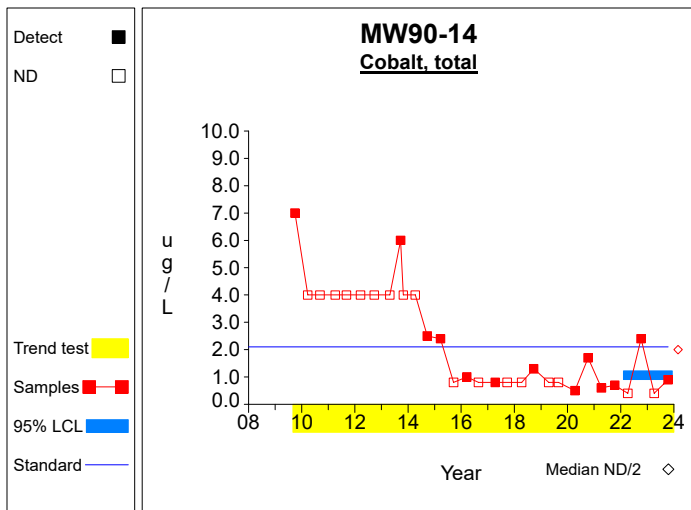
## Confidence Limits (Assessment)



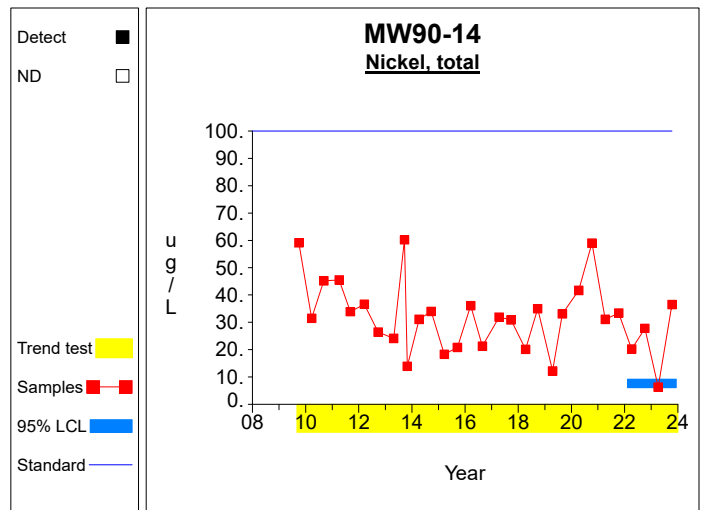
**Graph 1**



**Graph 2**



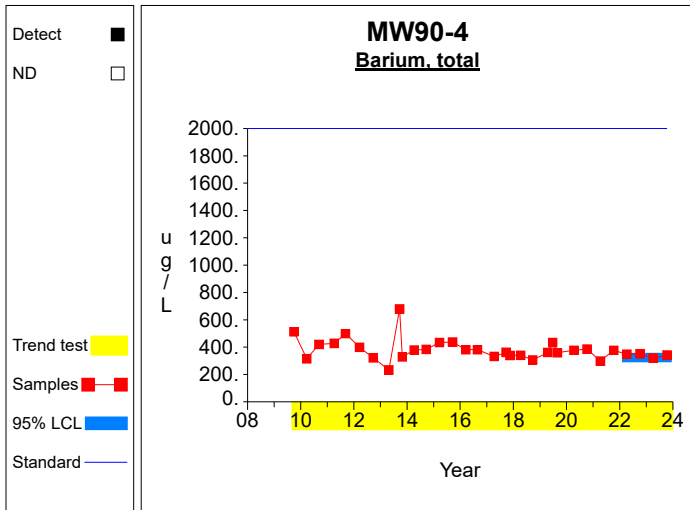
**Graph 3**



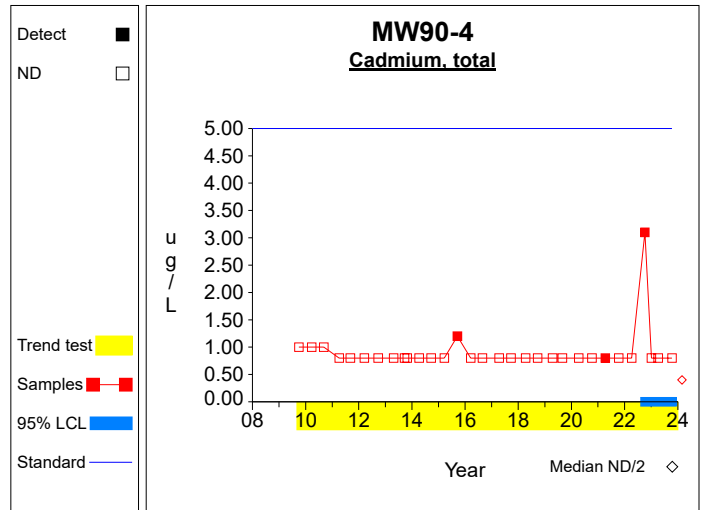
**Graph 4**



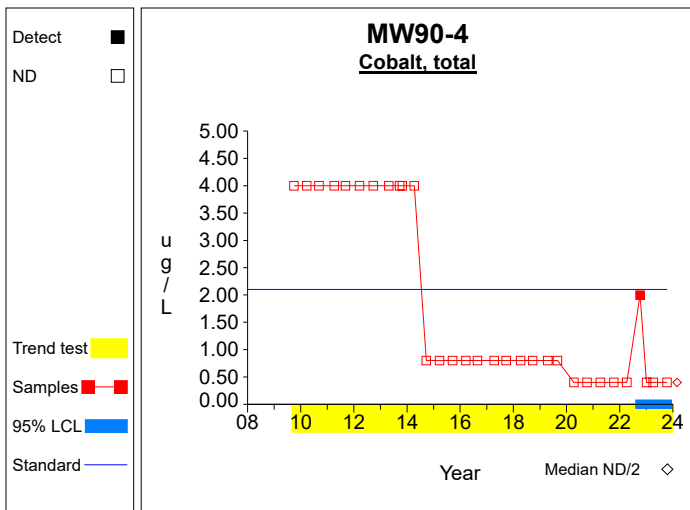
### Confidence Limits (Assessment)



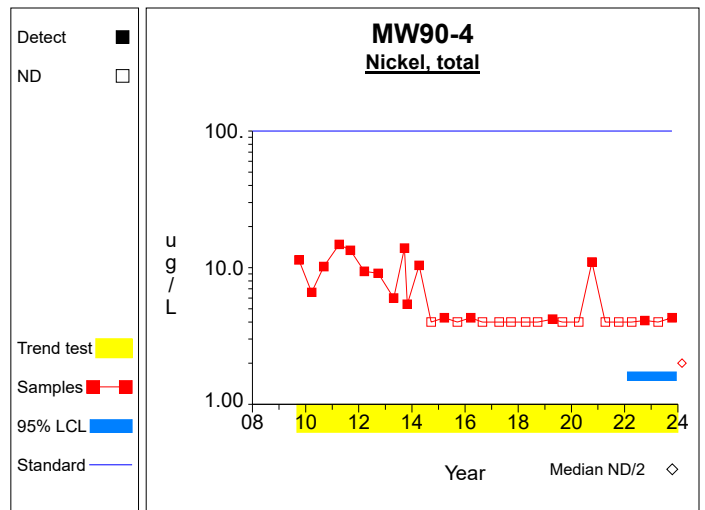
**Graph 5**



**Graph 6**

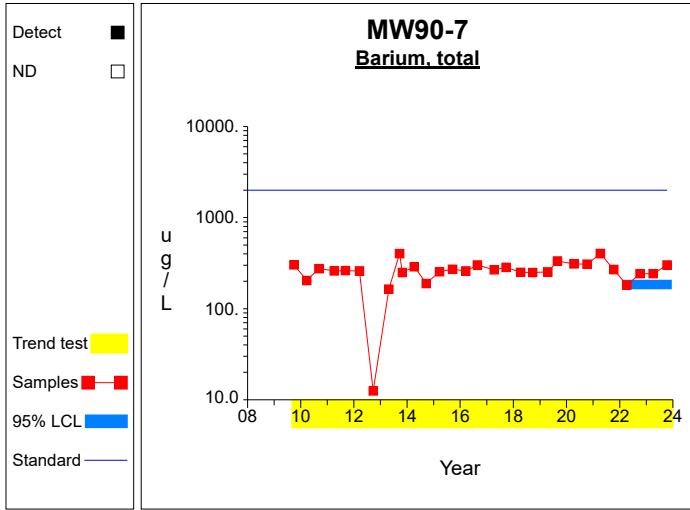


**Graph 7**

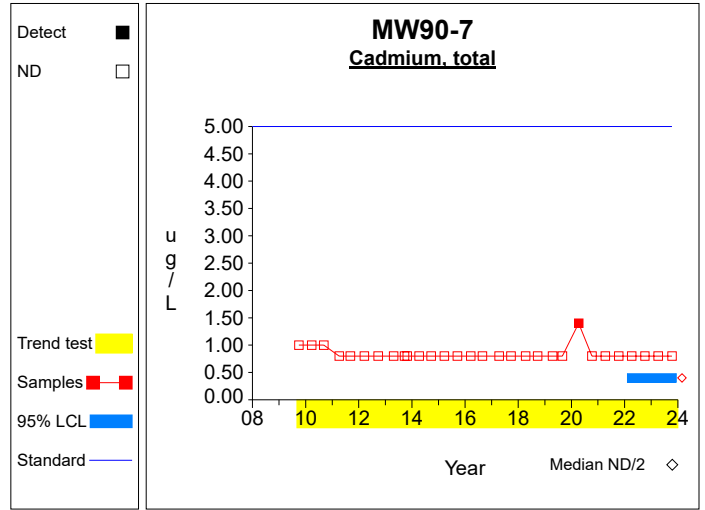


**Graph 8**

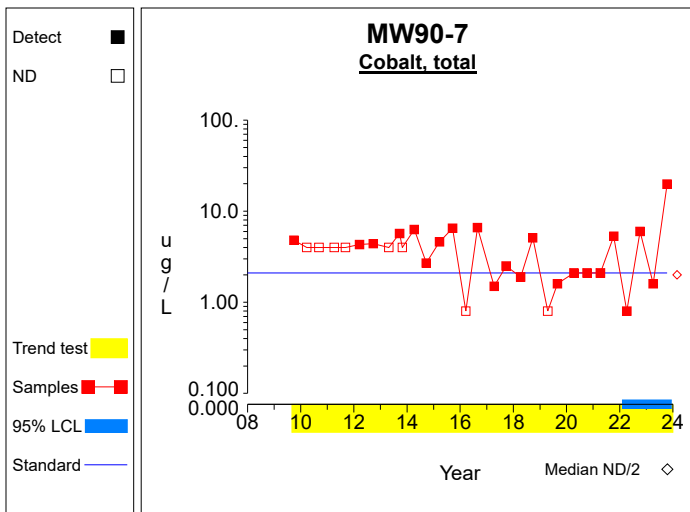
### Confidence Limits (Assessment)



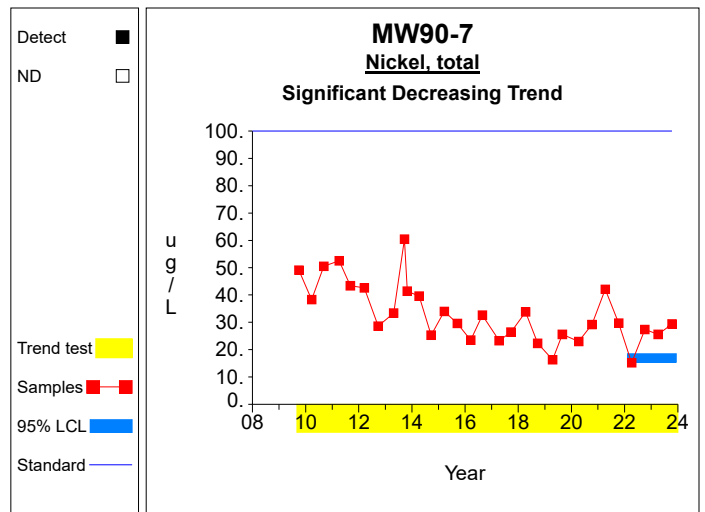
**Graph 9**



**Graph 10**

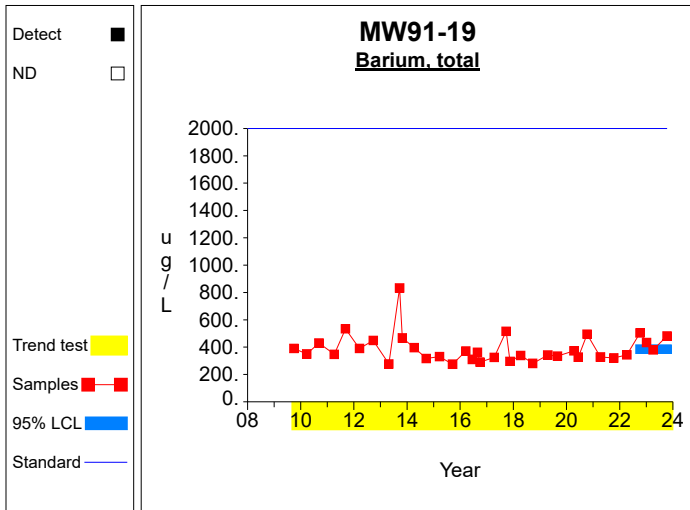


**Graph 11**

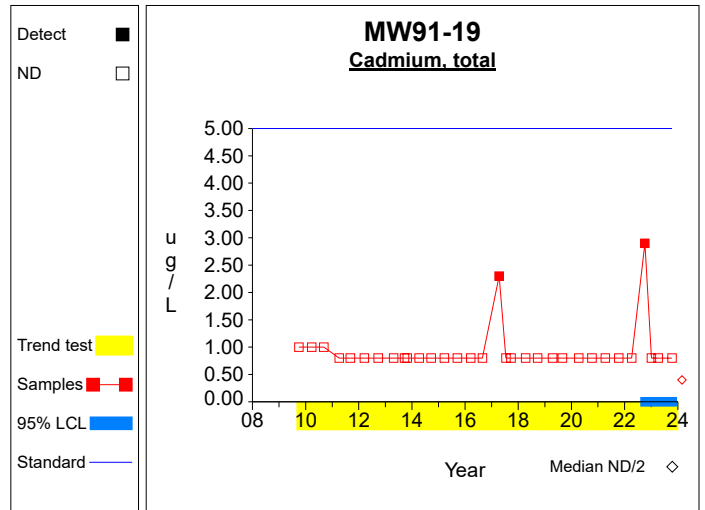


**Graph 12**

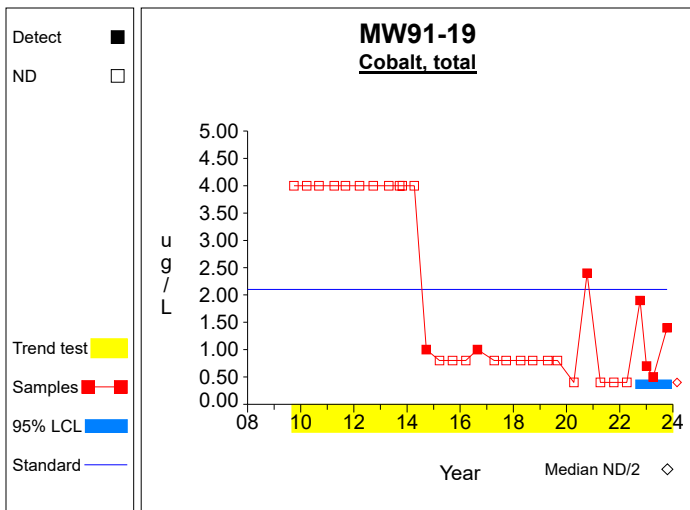
### Confidence Limits (Assessment)



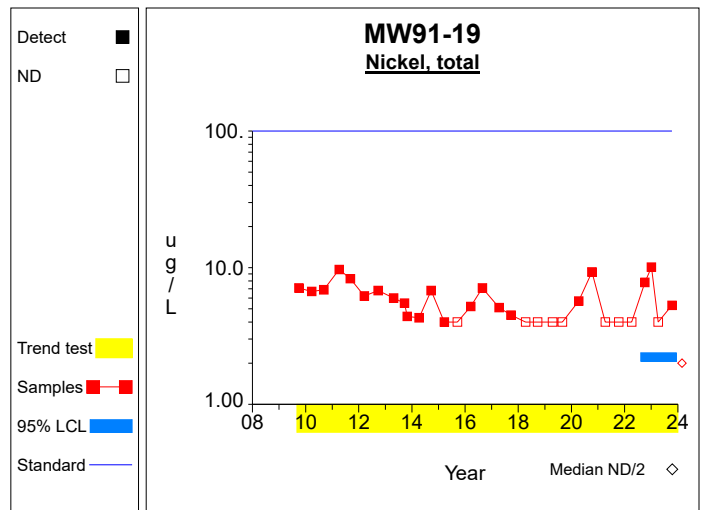
**Graph 13**



**Graph 14**

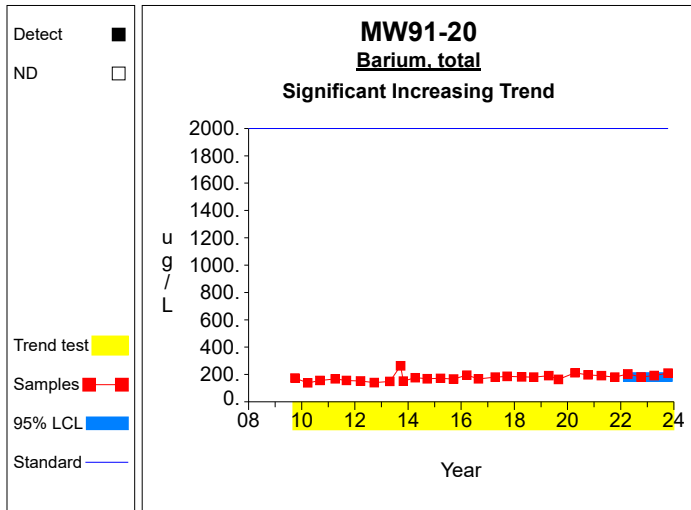


**Graph 15**

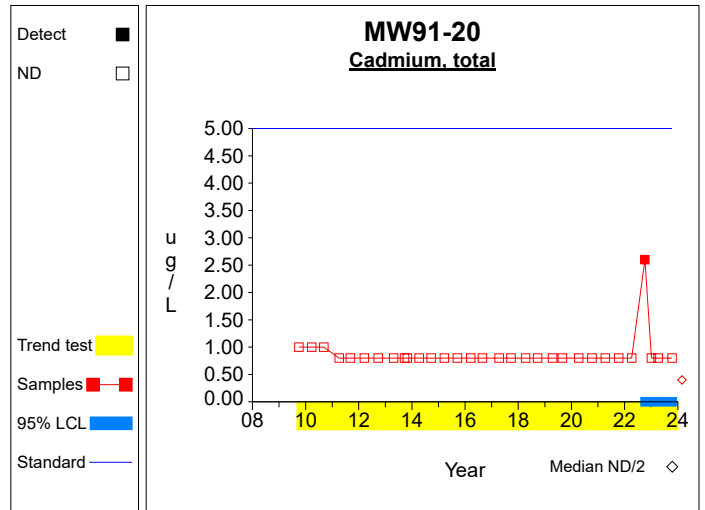


**Graph 16**

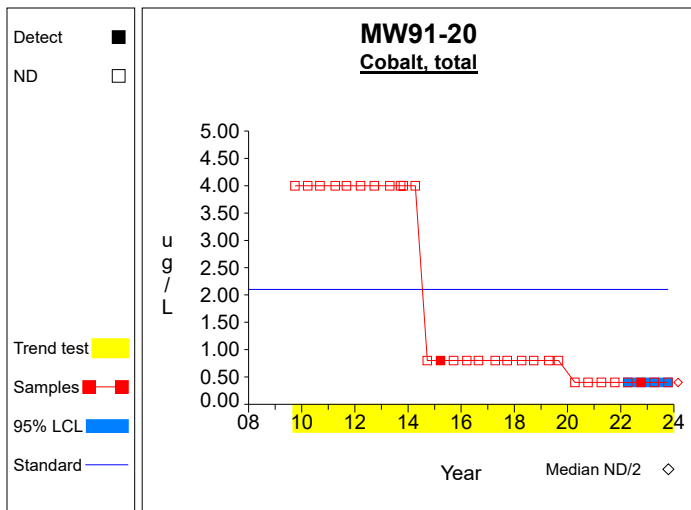
# Confidence Limits (Assessment)



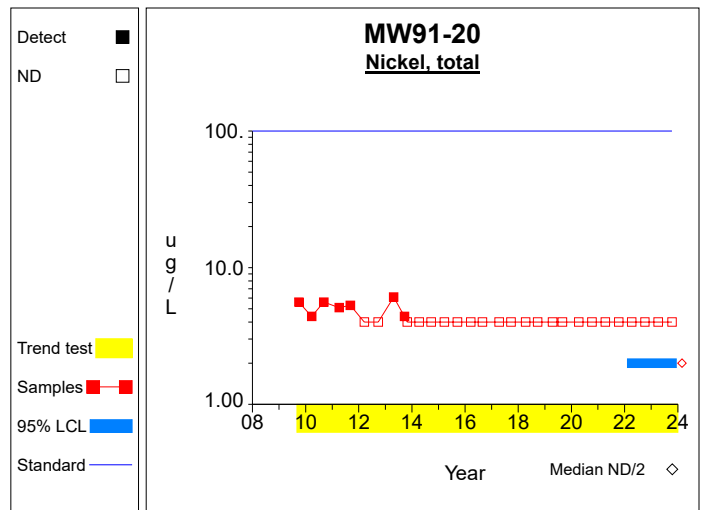
Graph 17



Graph 18



Graph 19



Graph 20

**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	MW90-14	26	4	33			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	MW90-14	26	4	33			4.0000	4.0000			8.9000	nonpar	.99	**
Barium, total	ug/L	MW90-14	26	4	33	409.0000	204.8559	134.0000	381.0000	409.0000	409.0000	1740.5630	normal		
Beryllium, total	ug/L	MW90-14	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW90-14	26	4	33	4.2308	8.3210	0.8000	0.8000	4.2308	4.2308	58.3173	normal		
Chromium, total	ug/L	MW90-14	26	4	33			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	MW90-14	26	4	33	3.2500	1.6698	0.4000	0.9000	3.2500	3.2500	14.1036	normal		
Copper, total	ug/L	MW90-14	26	4	33	5.5846	3.4028	4.0000	4.0000	5.5846	5.5846	27.7027	normal		
Lead, total	ug/L	MW90-14	26	4	33			4.0000	4.0000			6.2000	nonpar	.99	**
Nickel, total	ug/L	MW90-14	26	4	33	33.3231	12.8175	6.3000	36.5000	33.3231	33.3231	116.6368	normal		
Selenium, total	ug/L	MW90-14	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Silver, total	ug/L	MW90-14	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW90-14	26	4	33			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	MW90-14	26	4	33			20.0000	20.0000			26.4000	nonpar	.99	**
Zinc, total	ug/L	MW90-14	26	4	33	10.7115	6.7267	20.0000	20.0000	10.7115	10.7115	54.4354	normal		
Antimony, total	ug/L	MW90-17	25	4	29			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	MW90-17	25	4	29			4.0000	4.0000			4.0000	nonpar	.99	**
Barium, total	ug/L	MW90-17	25	4	29	238.2400	42.2328	307.0000	314.0000	322.4963	366.5817	512.7530	normal		
Beryllium, total	ug/L	MW90-17	25	4	29			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW90-17	26	4	30			0.8000	0.8000			1.1000	nonpar	.99	**
Chromium, total	ug/L	MW90-17	25	4	29			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	MW90-17	25	4	29			0.4000	0.4000			0.8000	nonpar	.99	**
Copper, total	ug/L	MW90-17	25	4	29			4.0000	4.0000			4.0000	nonpar	.99	**
Lead, total	ug/L	MW90-17	25	4	29			4.0000	4.0000			4.0000	nonpar	.99	**
Nickel, total	ug/L	MW90-17	25	4	29			4.0000	4.0000			7.1000	nonpar	.99	**
Selenium, total	ug/L	MW90-17	25	4	29			4.0000	4.0000			4.0000	nonpar	.99	**
Silver, total	ug/L	MW90-17	25	4	29			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW90-17	25	4	29			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	MW90-17	25	4	29			20.0000	20.0000			20.1000	nonpar	.99	**
Zinc, total	ug/L	MW90-17	25	4	30			20.0000	20.0000			10.5000	nonpar	.99	**
Antimony, total	ug/L	MW90-4	26	4	33			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	MW90-4	26	4	33			4.0000	4.0000			4.5000	nonpar	.99	**
Barium, total	ug/L	MW90-4	28	4	35	385.6786	82.5501	320.0000	342.0000	385.6786	385.6786	922.2544	normal		
Beryllium, total	ug/L	MW90-4	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW90-4	26	5	34			0.8000	0.8000			1.2000	nonpar	.99	**
Chromium, total	ug/L	MW90-4	26	4	33			8.0000	8.0000			9.9000	nonpar	.99	**
Cobalt, total	ug/L	MW90-4	26	5	34			0.4000	0.4000			0.8000	nonpar	.99	**
Copper, total	ug/L	MW90-4	26	4	33	5.0500	2.1098	4.0000	4.0000	5.0500	5.0500	18.7639	normal		
Lead, total	ug/L	MW90-4	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Nickel, total	ug/L	MW90-4	26	4	33	6.8615	3.6953	4.0000	4.3000	6.8615	6.8615	30.8810	normal		
Selenium, total	ug/L	MW90-4	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Silver, total	ug/L	MW90-4	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW90-4	26	4	33			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	MW90-4	26	4	33			20.0000	20.0000			30.0000	nonpar	.99	**
Zinc, total	ug/L	MW90-4	26	4	33	11.2769	6.5059	20.0000	20.0000	11.2769	11.2769	53.5652	normal		
Antimony, total	ug/L	MW90-7	26	4	34			2.0000	2.0000			2.0000	nonpar	.99	**

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 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	
Arsenic, total	ug/L	MW90-7	26	4	34	4.8154	1.7681	4.0000	4.0000	4.8154	4.8154	16.3080	normal		
Barium, total	ug/L	MW90-7	25	4	34	274.9600	53.4864	242.0000	302.0000	274.9600	274.9600	622.6213	normal		
Beryllium, total	ug/L	MW90-7	26	4	34			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW90-7	26	4	34			0.8000	0.8000			1.4000	nonpar	.99	**
Chromium, total	ug/L	MW90-7	26	4	34			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	MW90-7	26	4	34	3.9269	1.5019	1.6000	19.8000	3.9269	18.6736	13.6891	normal		
Copper, total	ug/L	MW90-7	26	4	34			4.0000	4.0000			4.0000	nonpar	.99	**
Lead, total	ug/L	MW90-7	26	4	34			4.0000	4.0000			4.0000	nonpar	.99	**
Nickel, total	ug/L	MW90-7	26	4	34	34.4808	10.8781	25.6000	29.4000	34.4808	34.4808	105.1886	normal		
Selenium, total	ug/L	MW90-7	26	4	34			4.0000	4.0000			21.2000	nonpar	.99	**
Silver, total	ug/L	MW90-7	26	4	34			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW90-7	26	4	34			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	MW90-7	26	4	34			20.0000	20.0000			23.1000	nonpar	.99	**
Zinc, total	ug/L	MW90-7	26	4	34			20.0000	20.0000			15.0000	nonpar	.99	**
Antimony, total	ug/L	MW91-19	26	4	33			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	MW91-19	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Barium, total	ug/L	MW91-19	30	5	38	379.9667	110.3613	380.0000	482.0000	379.9667	399.2290	1097.3152	normal		
Beryllium, total	ug/L	MW91-19	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW91-19	27	5	35			0.8000	0.8000			2.3000	nonpar	.99	**
Chromium, total	ug/L	MW91-19	26	4	33			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	MW91-19	26	5	34			0.5000	1.4000			2.4000	nonpar	.99	**
Copper, total	ug/L	MW91-19	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Lead, total	ug/L	MW91-19	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Nickel, total	ug/L	MW91-19	26	5	34	5.6769	1.7168	4.0000	5.3000	5.6769	5.6769	16.8362	normal		
Selenium, total	ug/L	MW91-19	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Silver, total	ug/L	MW91-19	26	4	33			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW91-19	26	4	33			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	MW91-19	26	4	33			20.0000	20.0000			20.8000	nonpar	.99	**
Zinc, total	ug/L	MW91-19	26	4	33			20.0000	20.0000			18.1000	nonpar	.99	**
Antimony, total	ug/L	MW91-20	26	4	30			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	MW91-20	26	4	30			4.0000	4.0000			4.0000	nonpar	.99	**
Barium, total	ug/L	MW91-20	26	4	30	175.2692	25.4394	192.0000	210.0000	175.2692	190.9204	340.6255	normal		
Beryllium, total	ug/L	MW91-20	26	4	30			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	MW91-20	26	5	31			0.8000	0.8000			0.8000	nonpar	.99	**
Chromium, total	ug/L	MW91-20	26	4	30			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	MW91-20	26	4	30			0.4000	0.4000			0.8000	nonpar	.99	**
Copper, total	ug/L	MW91-20	26	4	30			4.0000	4.0000			4.0000	nonpar	.99	**
Lead, total	ug/L	MW91-20	26	4	30			4.0000	4.0000			4.0000	nonpar	.99	**
Nickel, total	ug/L	MW91-20	26	4	30	4.3269	0.6315	4.0000	4.0000	4.3269	4.3269	8.4320	normal		
Selenium, total	ug/L	MW91-20	26	4	30	5.9577	4.1790	4.0000	4.0000	5.9577	5.9577	33.1213	normal		
Silver, total	ug/L	MW91-20	26	4	30			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	MW91-20	26	4	30			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	MW91-20	26	4	30			20.0000	20.0000			22.4000	nonpar	.99	**
Zinc, total	ug/L	MW91-20	26	4	30			20.0000	20.0000			14.6000	nonpar	.99	**
Antimony, total	ug/L	SW-3	25	4	30			2.0000	2.0000			2.0000	nonpar	.99	**
Arsenic, total	ug/L	SW-3	25	4	30			4.0000	4.0000			4.0000	nonpar	.99	**

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 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	
Barium, total	ug/L	SW-3	25	4	30	291.6800	64.2766	209.0000	255.0000	291.6800	291.6800	709.4777	normal	.99	**
Beryllium, total	ug/L	SW-3	25	4	30			4.0000	4.0000			4.0000	nonpar	.99	**
Cadmium, total	ug/L	SW-3	25	4	30			0.8000	0.8000			0.8000	nonpar	.99	**
Chromium, total	ug/L	SW-3	25	4	30			8.0000	8.0000			8.0000	nonpar	.99	**
Cobalt, total	ug/L	SW-3	25	4	30			0.4000	0.4000			0.8000	nonpar	.99	**
Copper, total	ug/L	SW-3	25	4	30			4.0000	4.0000			4.0000	nonpar	.99	**
Lead, total	ug/L	SW-3	25	4	30			4.0000	4.0000			4.0000	nonpar	.99	**
Nickel, total	ug/L	SW-3	25	4	30			4.0000	4.0000			7.6000	nonpar	.99	**
Selenium, total	ug/L	SW-3	25	4	30			4.0000	4.0000			4.0000	nonpar	.99	**
Silver, total	ug/L	SW-3	25	4	30			4.0000	4.0000			4.0000	nonpar	.99	**
Thallium, total	ug/L	SW-3	25	4	30			2.0000	2.0000			4.0000	nonpar	.99	**
Vanadium, total	ug/L	SW-3	25	4	30			20.0000	20.0000			24.5000	nonpar	.99	**
Zinc, total	ug/L	SW-3	25	4	30			20.0000	20.0000			22.4000	nonpar	.99	**

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  
1% Significance Level**

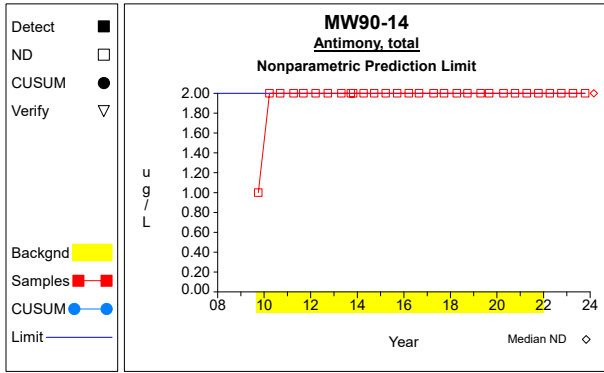
Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Barium, total	ug/L	MW90-7	09/24/2012	12.5000		09/30/2009-10/11/2021	26	0.4819

N = Total number of independent measurements in background at each well.

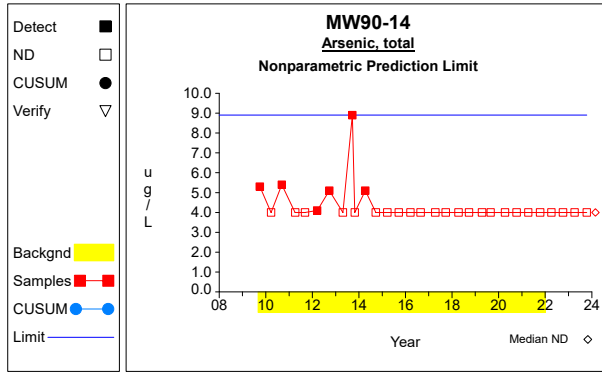
Date Range = Dates of the first and last measurements included in background at each well.

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.

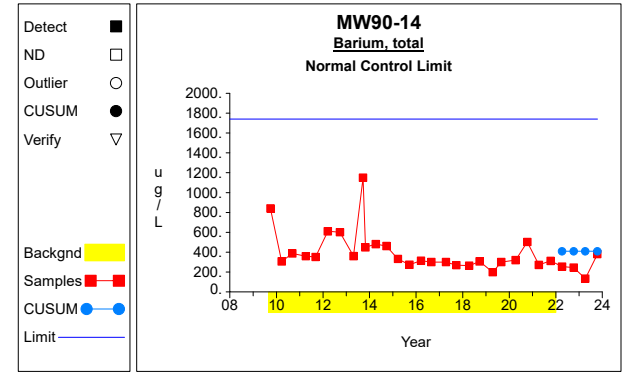
# Intra-Well Control Charts / Prediction Limits



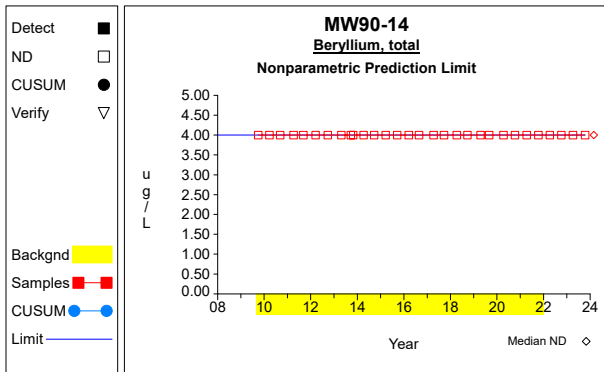
Graph 1



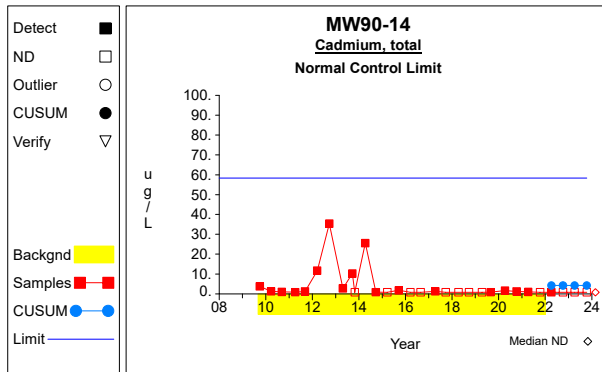
Graph 2



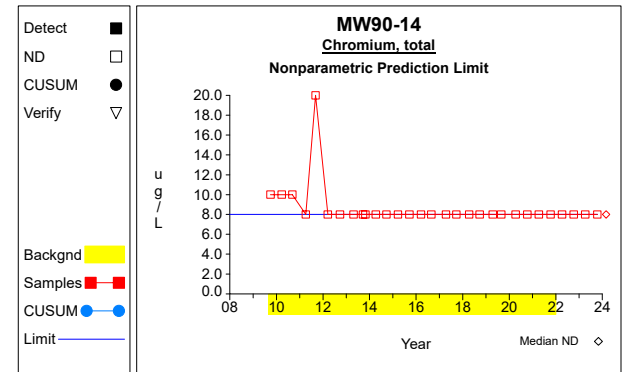
Graph 3



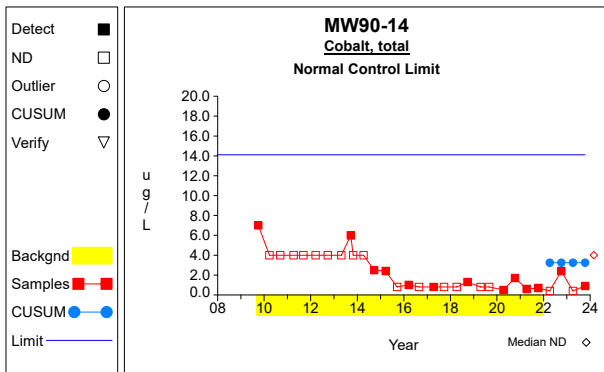
Graph 4



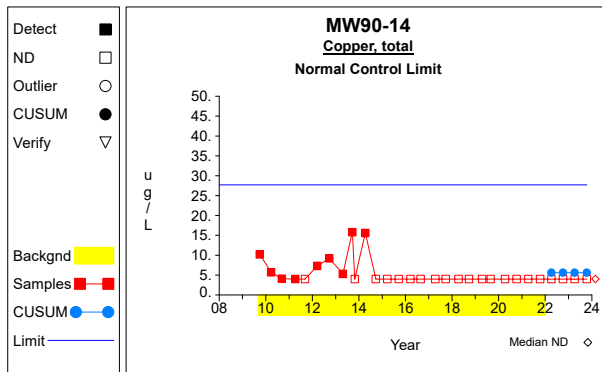
Graph 5



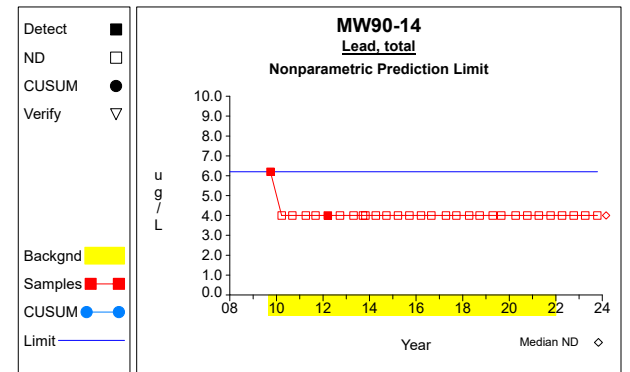
Graph 6



Graph 7

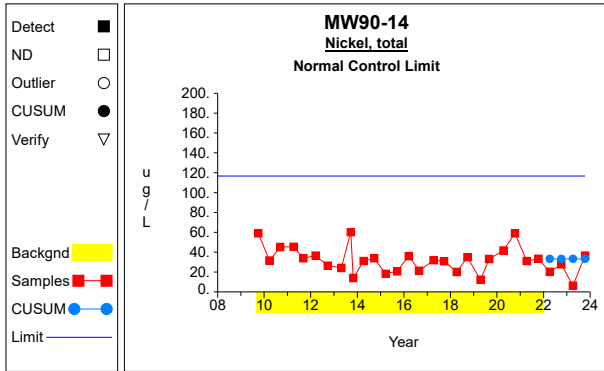


Graph 8

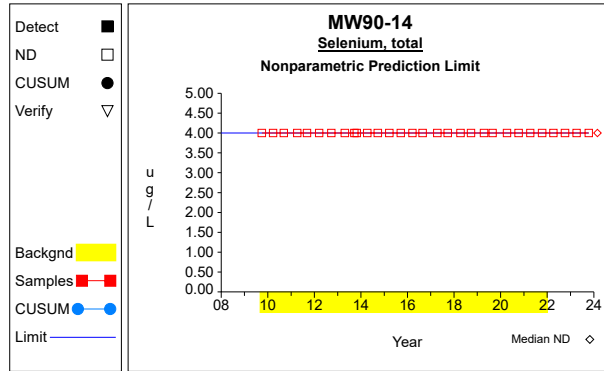


Graph 9

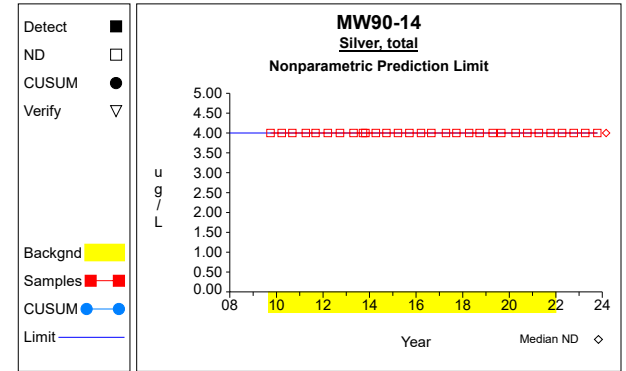
## Intra-Well Control Charts / Prediction Limits



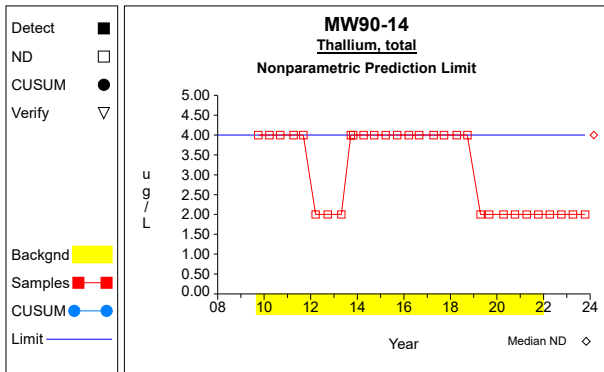
**Graph 10**



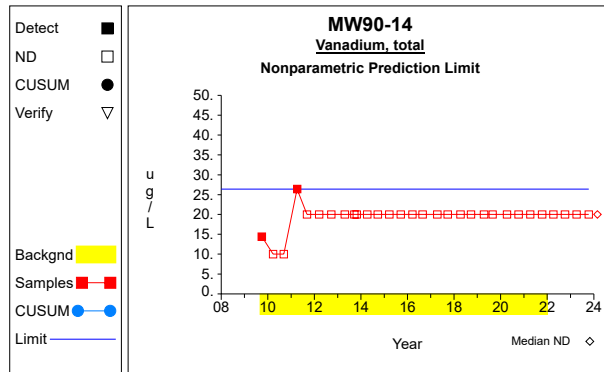
**Graph 11**



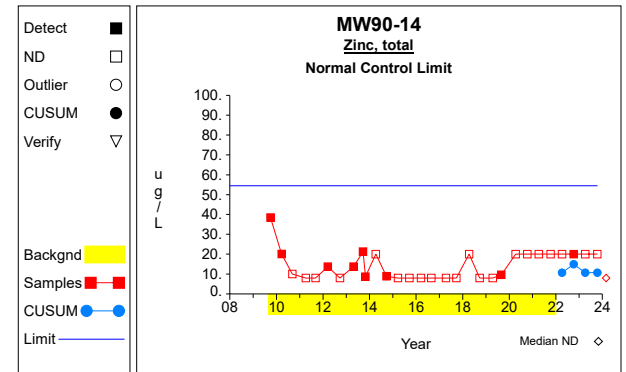
**Graph 12**



**Graph 13**

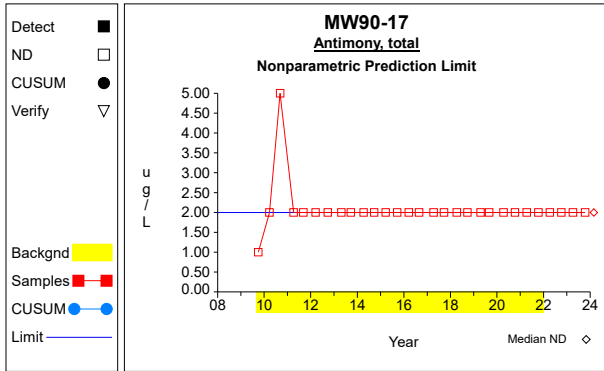


**Graph 14**

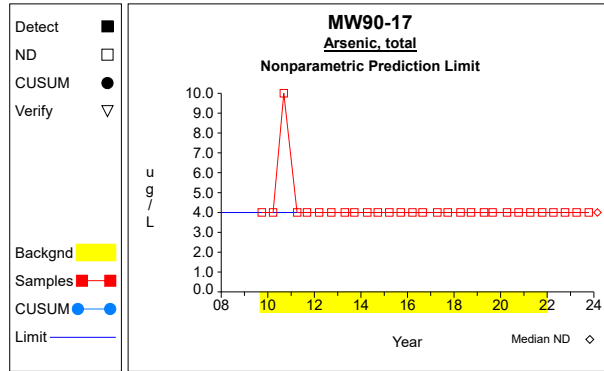


**Graph 15**

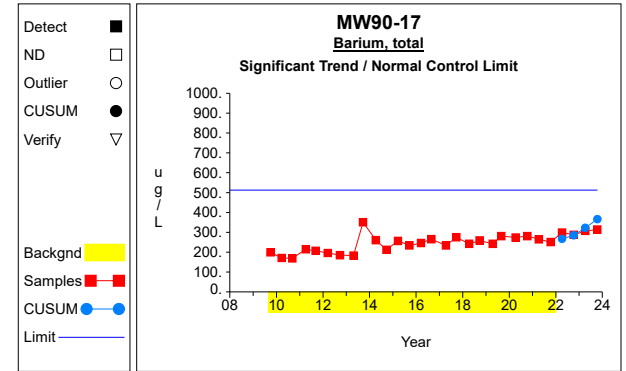
### Intra-Well Control Charts / Prediction Limits



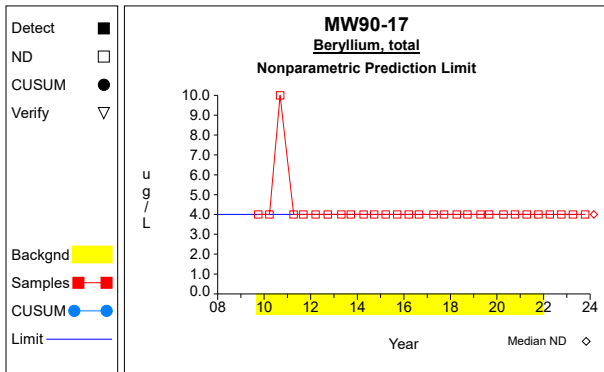
Graph 16



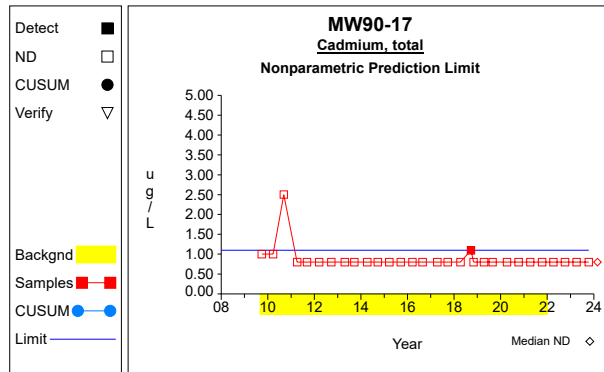
Graph 17



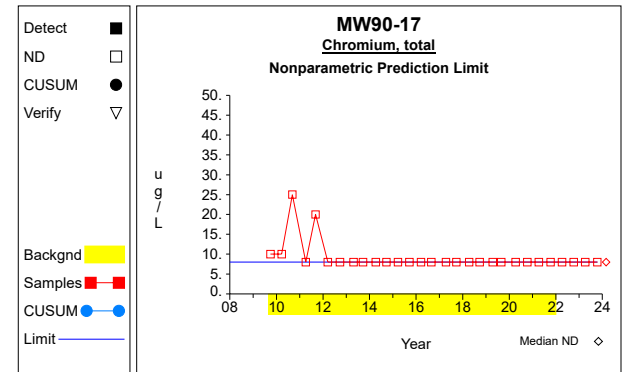
Graph 18



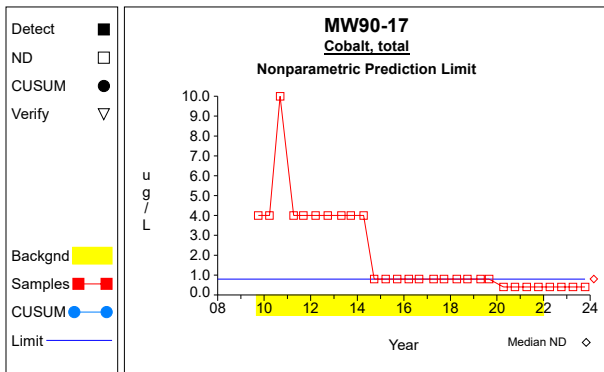
Graph 19



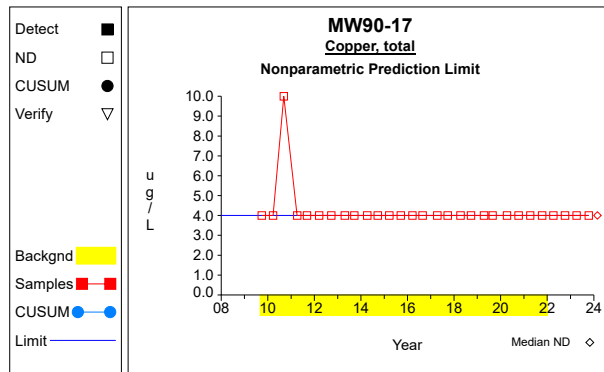
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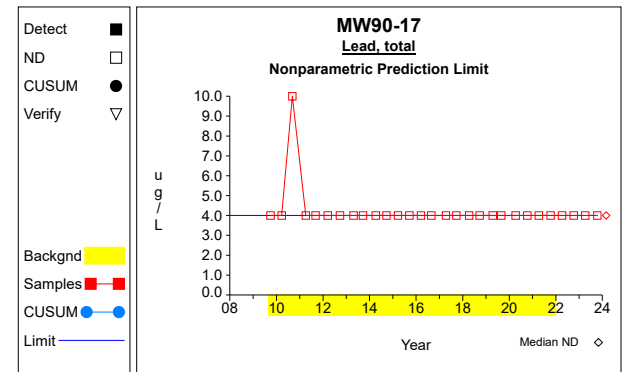
Graph 21



Graph 22

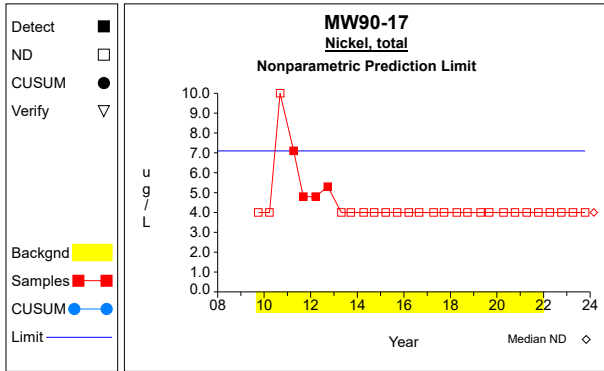


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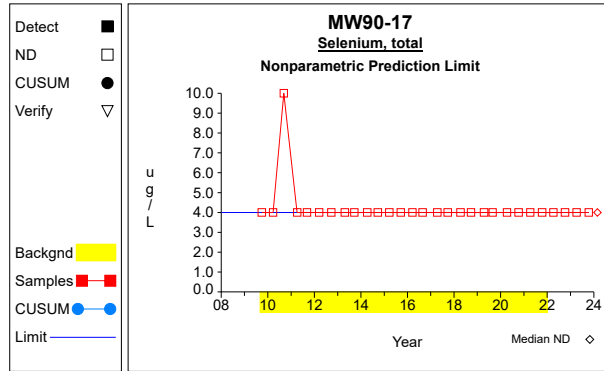


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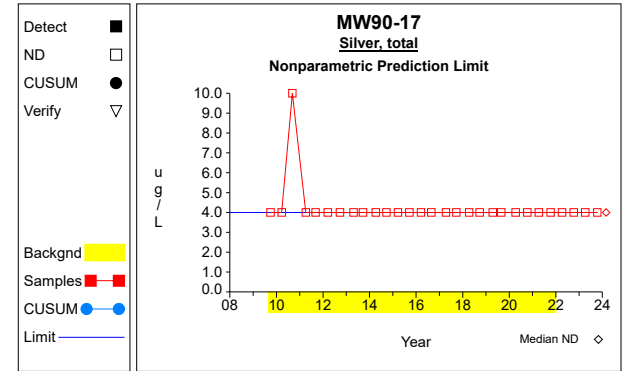
### Intra-Well Control Charts / Prediction Limits



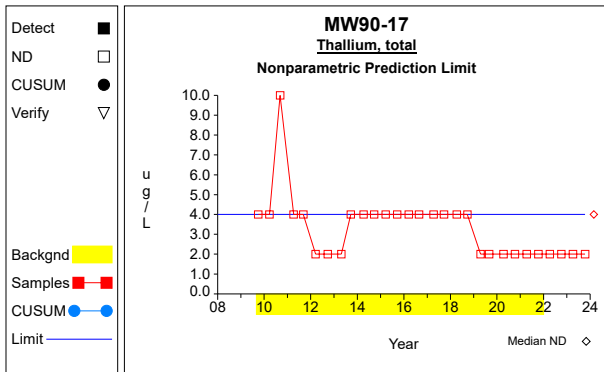
Graph 25



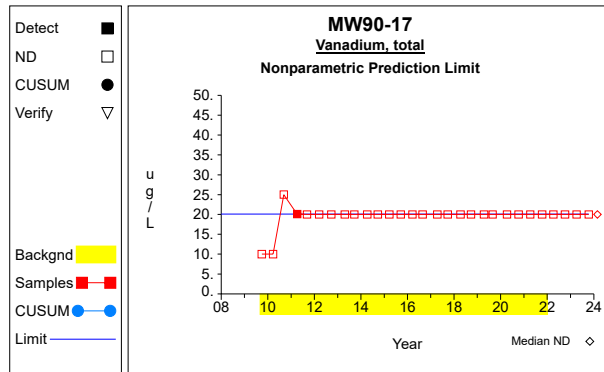
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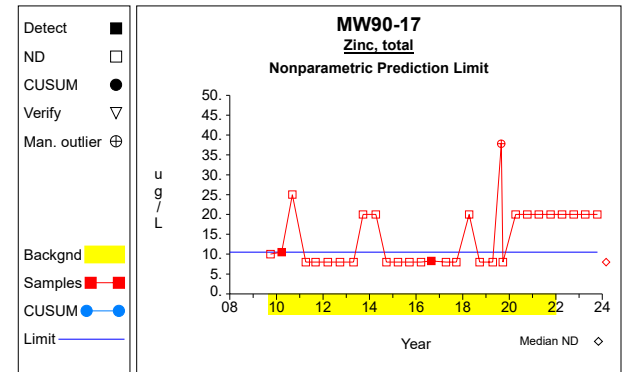
Graph 27



Graph 28

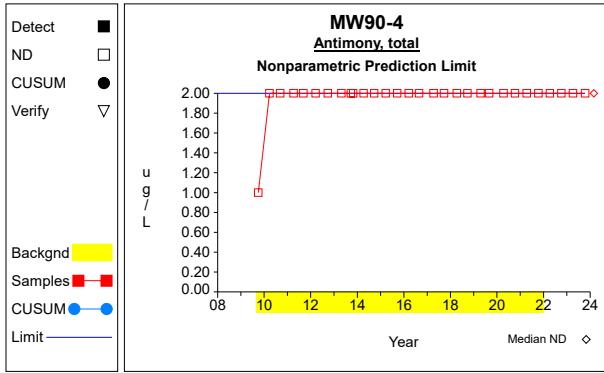


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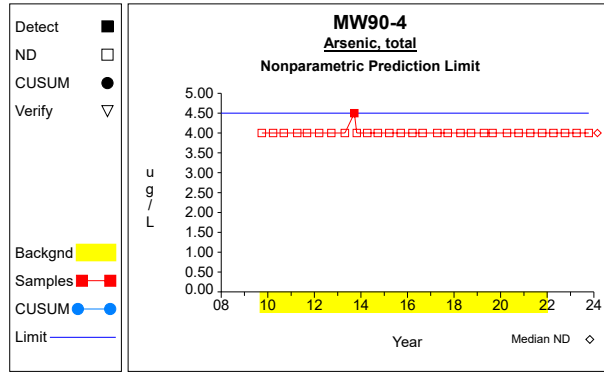


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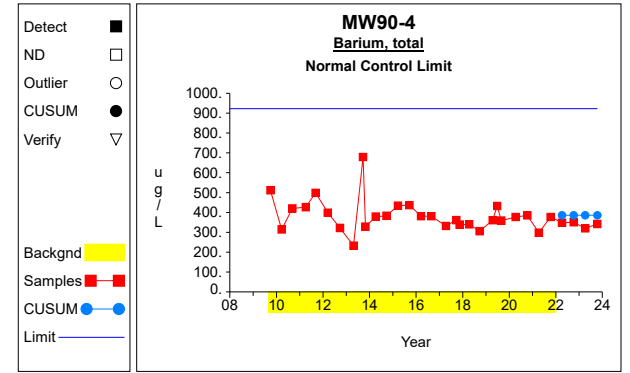
# Intra-Well Control Charts / Prediction Limits



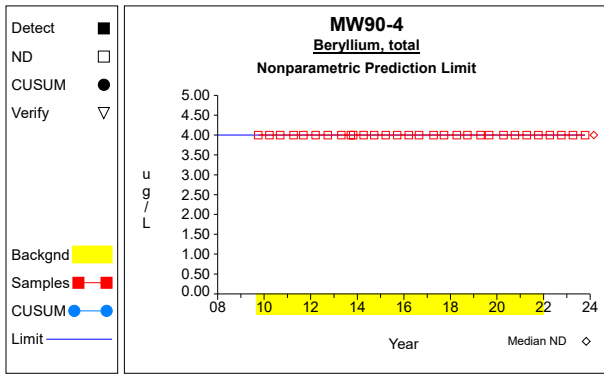
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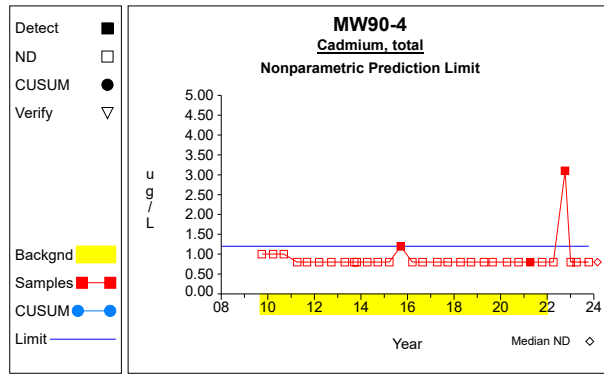
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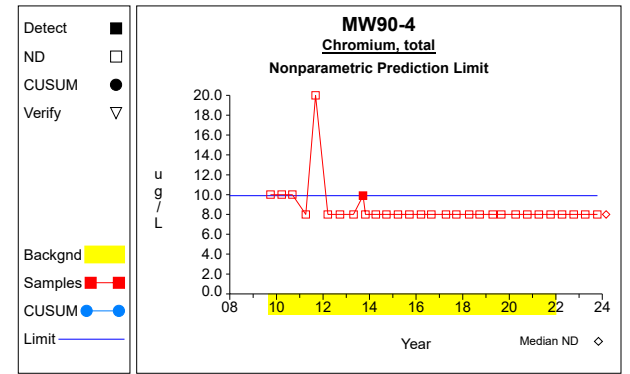
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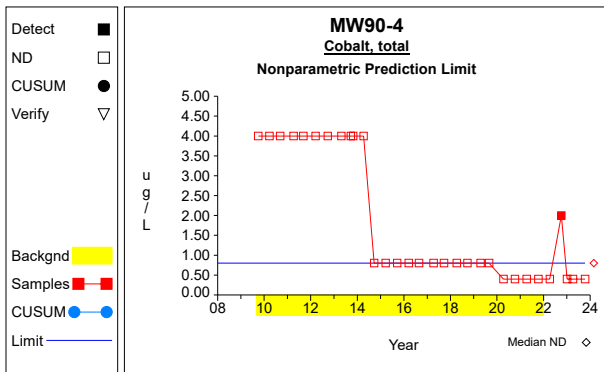
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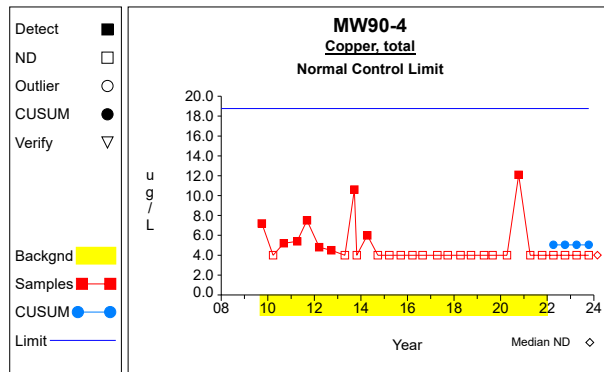
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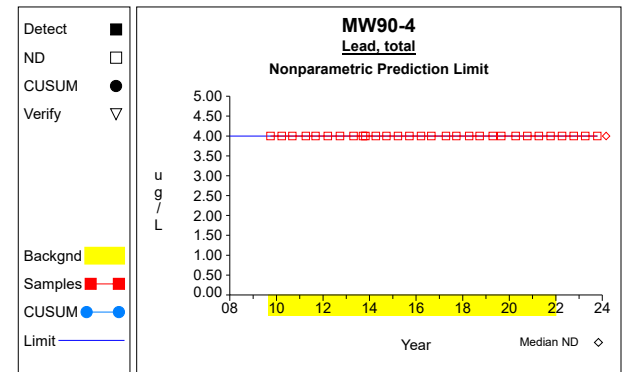
Graph 36



Graph 37

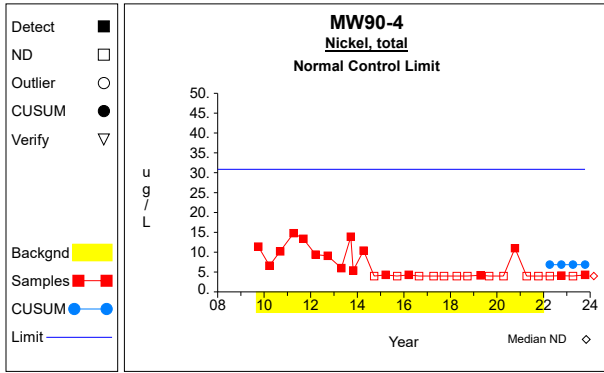


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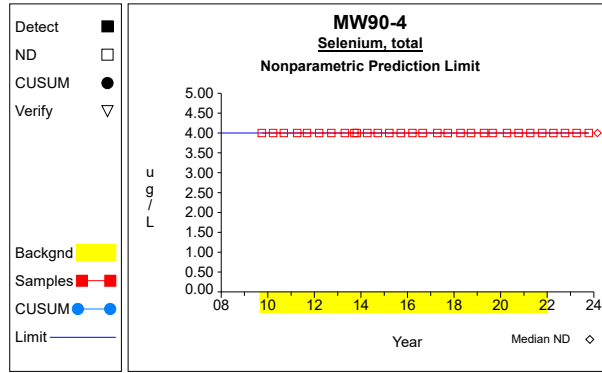


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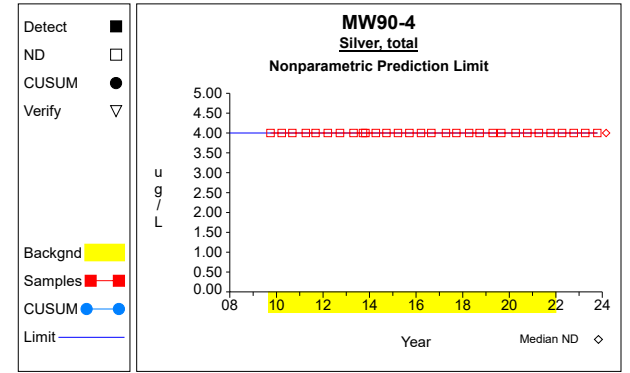
## Intra-Well Control Charts / Prediction Limits



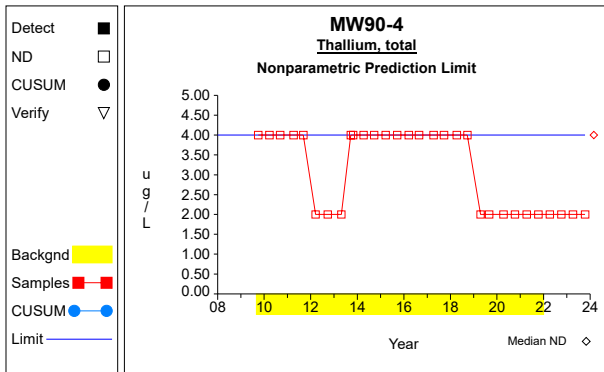
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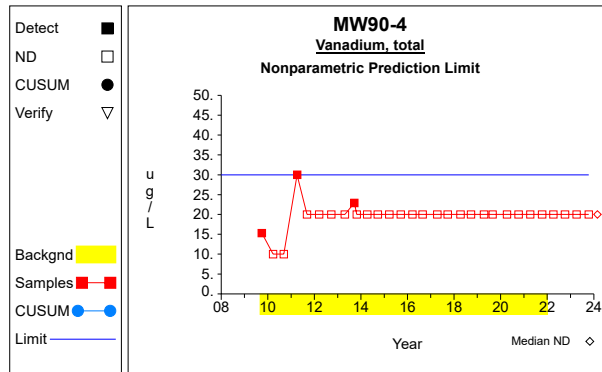
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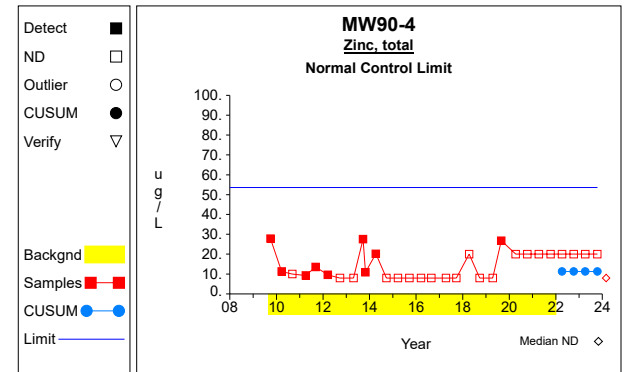
**Graph 42**



**Graph 43**

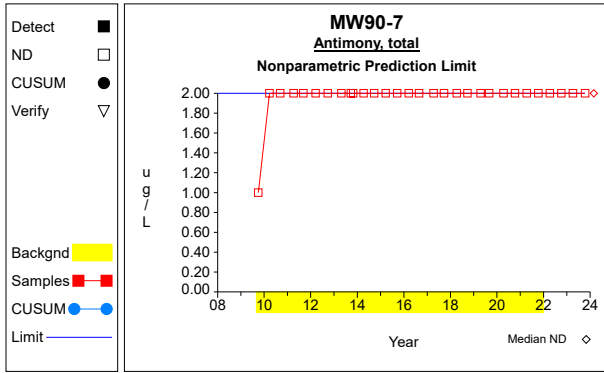


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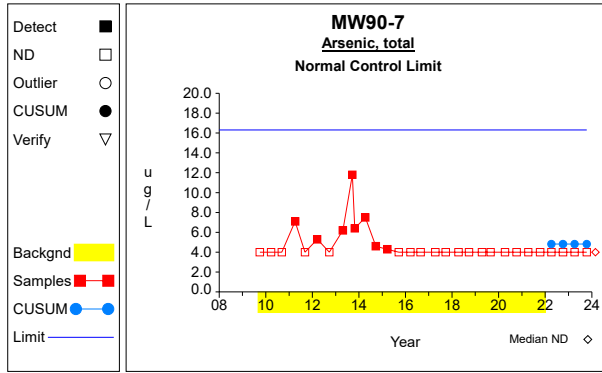


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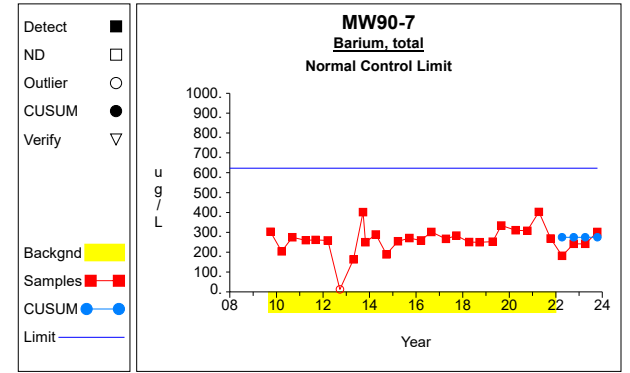
# Intra-Well Control Charts / Prediction Limits



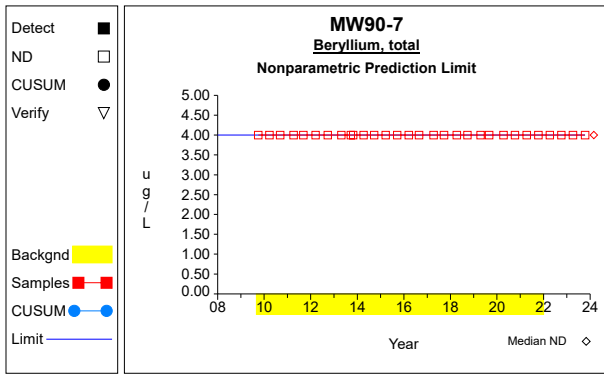
Graph 46



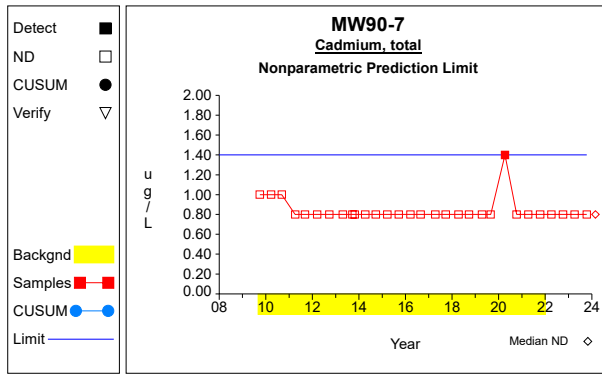
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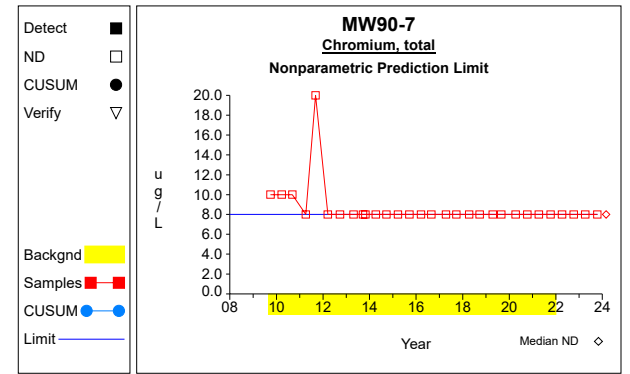
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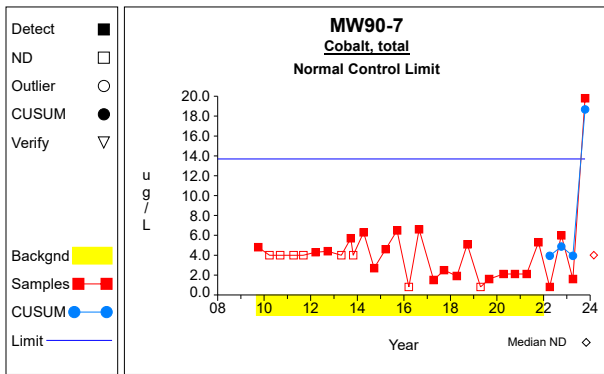
Graph 49



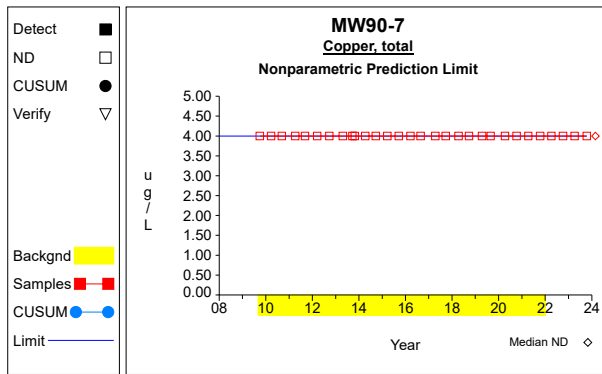
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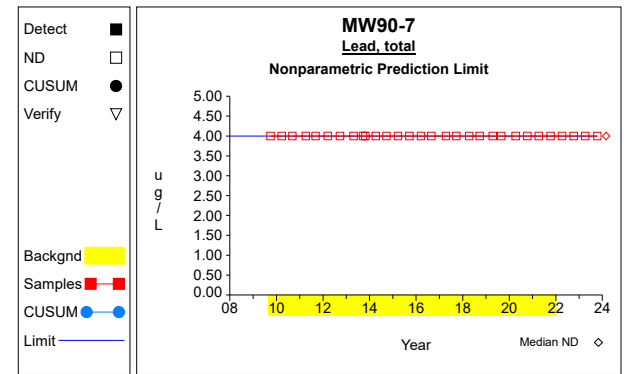
Graph 51



Graph 52



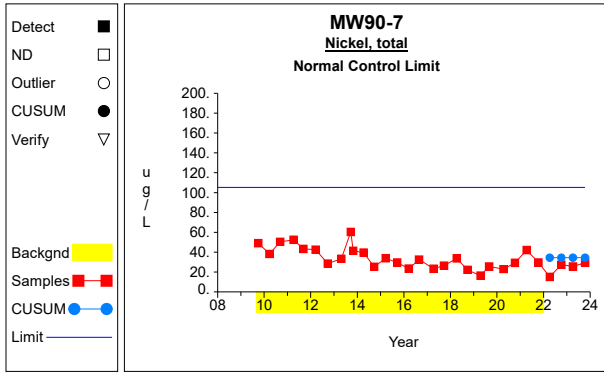
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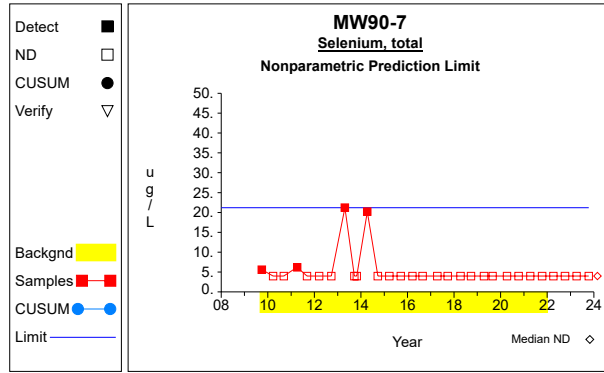
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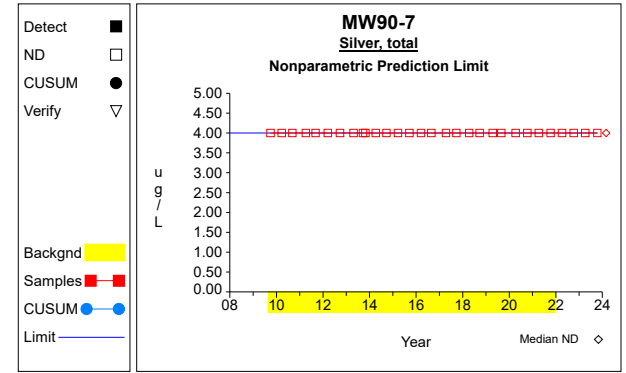
### Intra-Well Control Charts / Prediction Limits



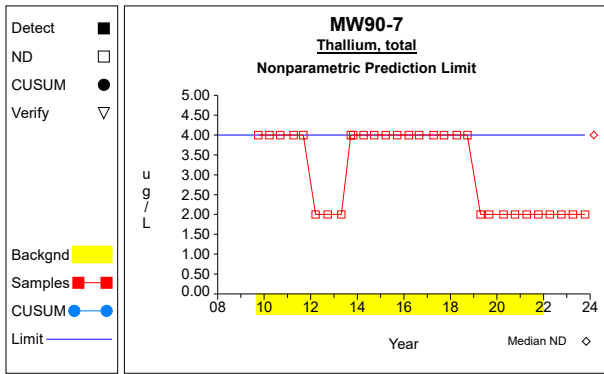
Graph 55



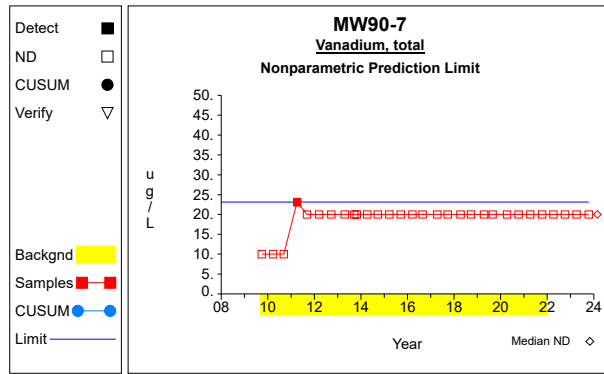
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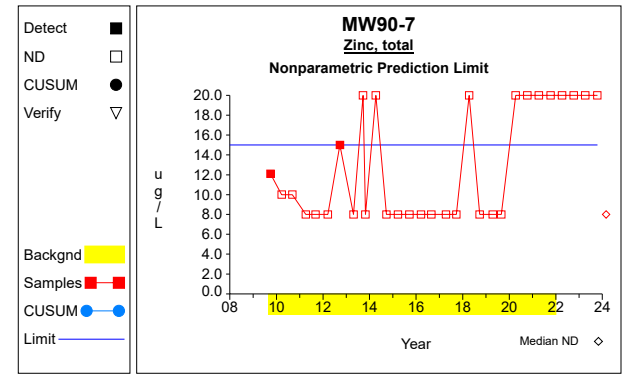
Graph 57



Graph 58

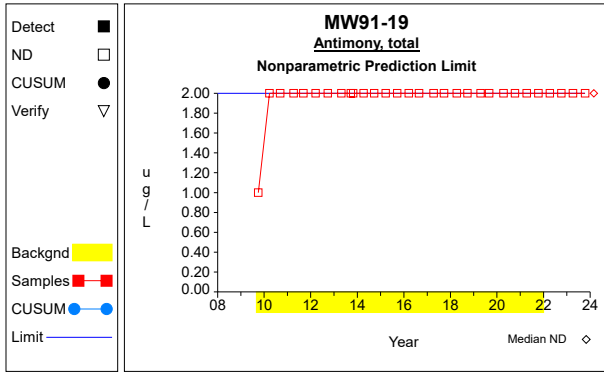


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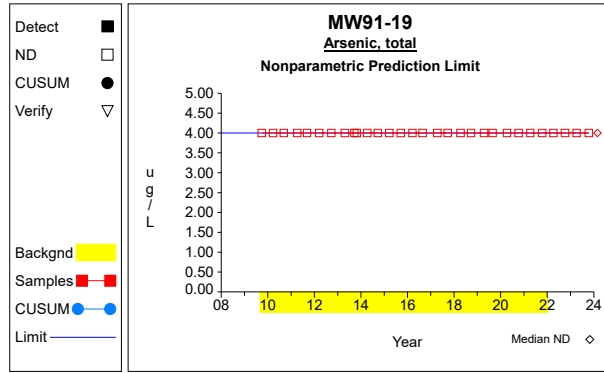


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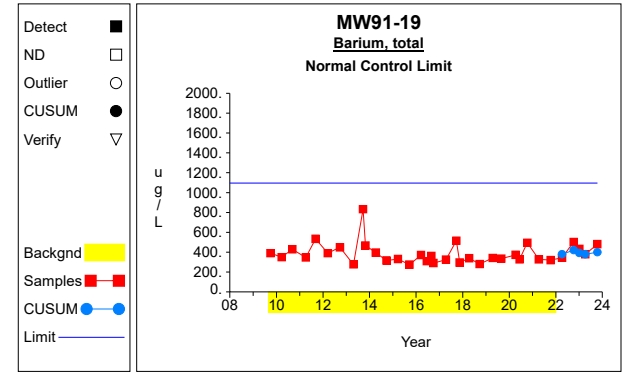
# Intra-Well Control Charts / Prediction Limits



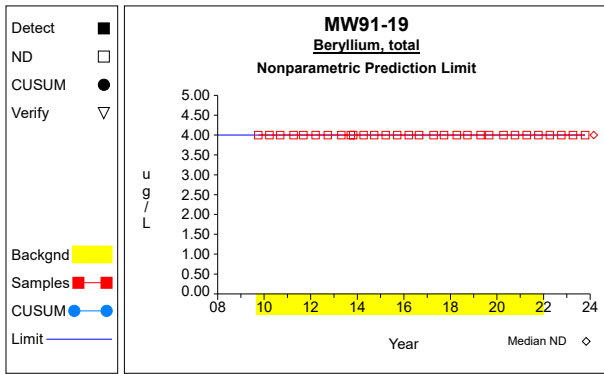
Graph 61



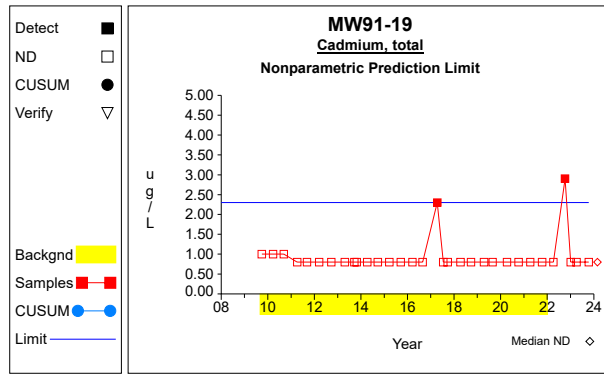
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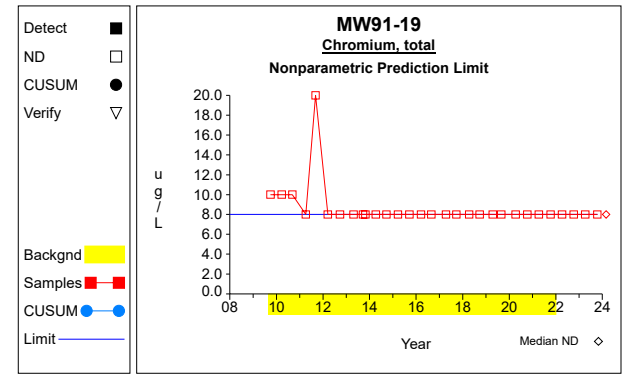
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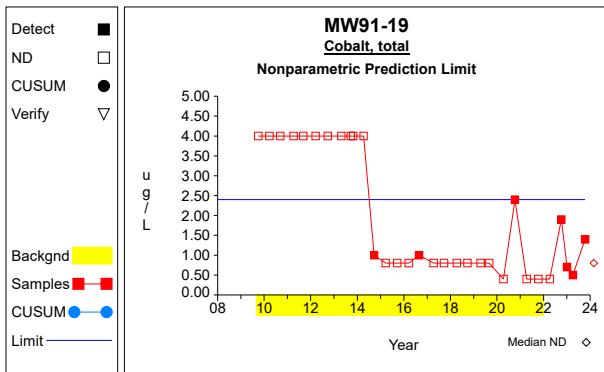
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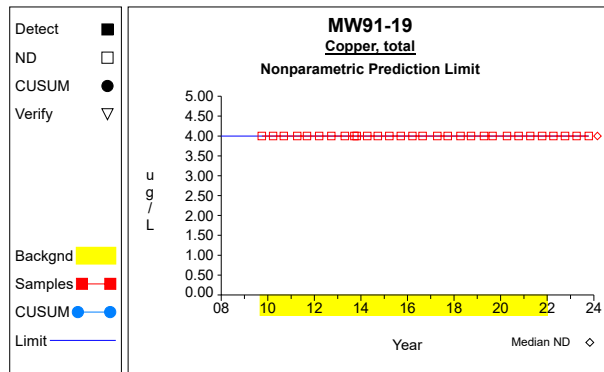
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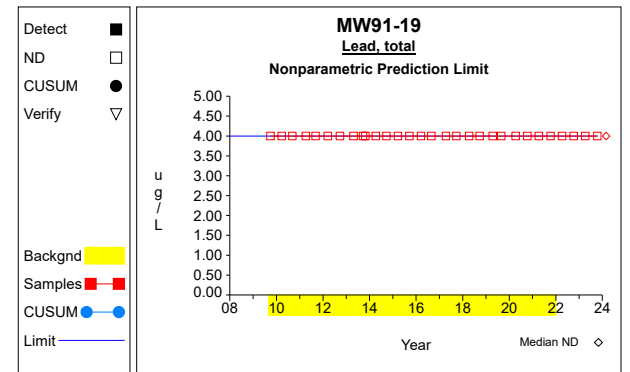
Graph 66



Graph 67

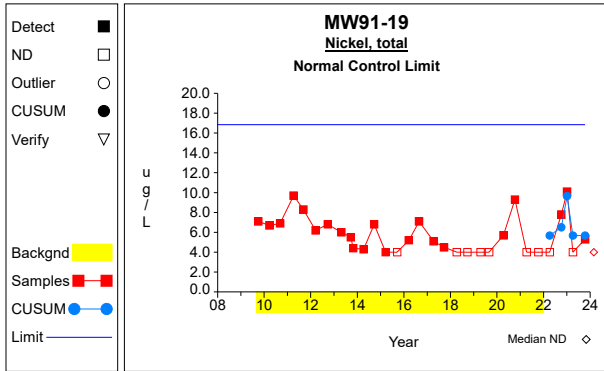


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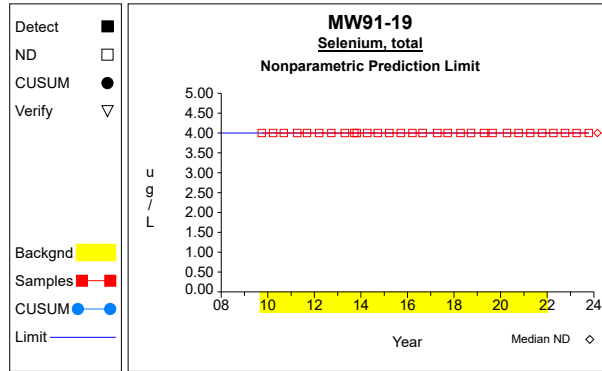


Graph 69

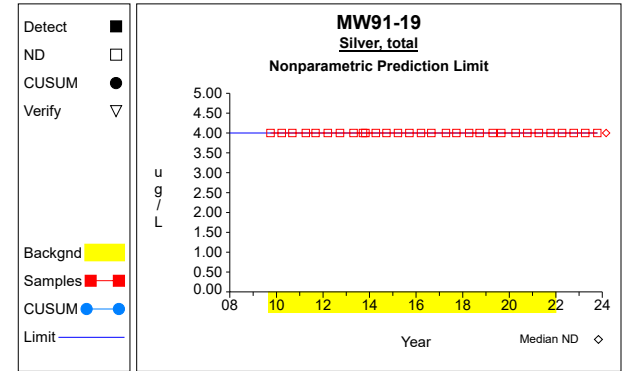
## Intra-Well Control Charts / Prediction Limits



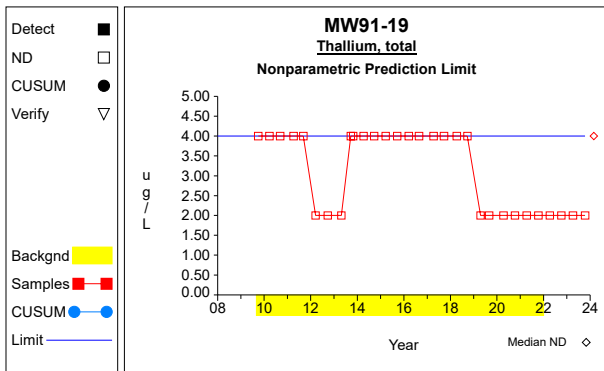
**Graph 70**



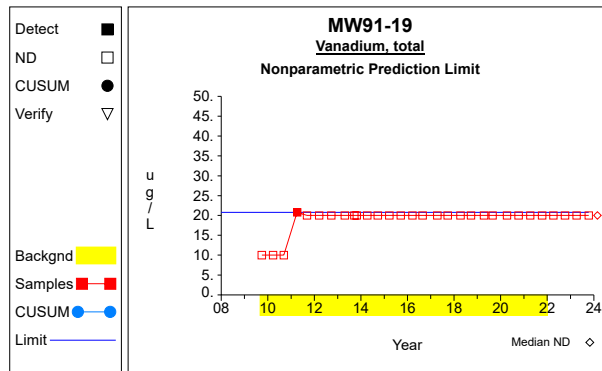
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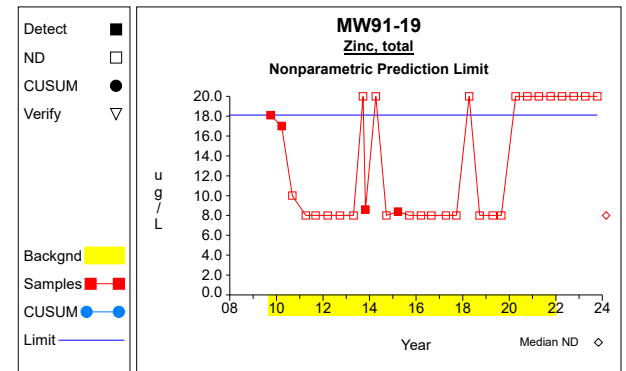
**Graph 72**



**Graph 73**

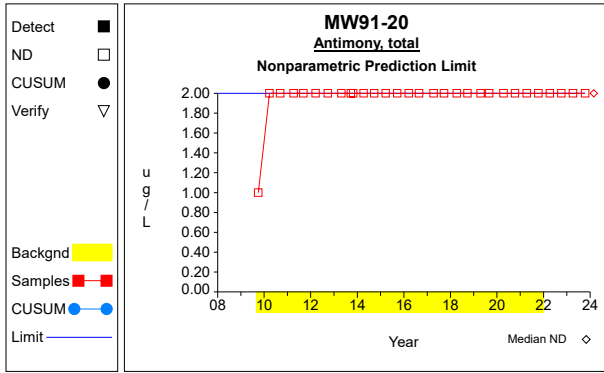


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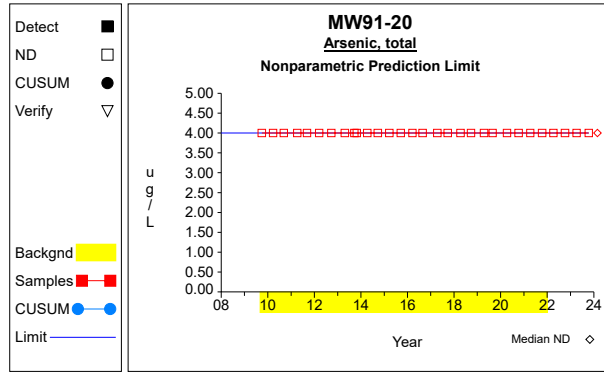


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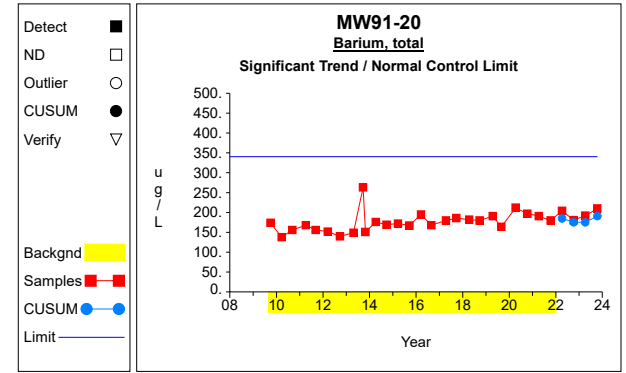
# Intra-Well Control Charts / Prediction Limits



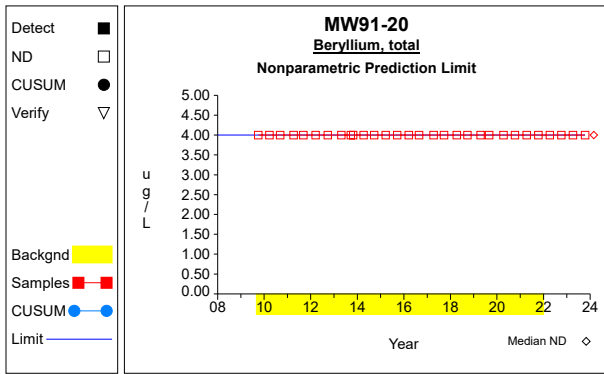
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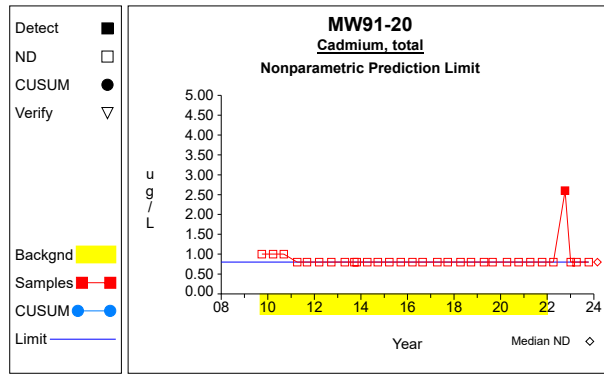
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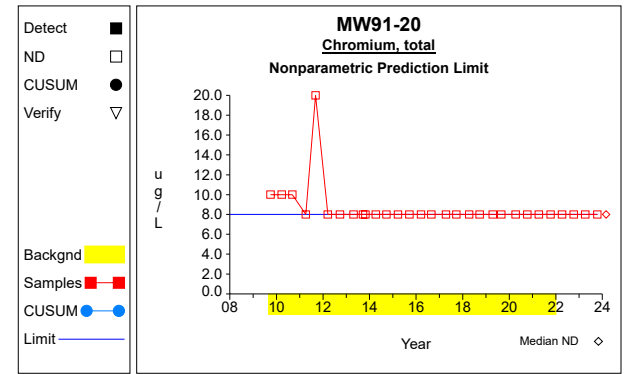
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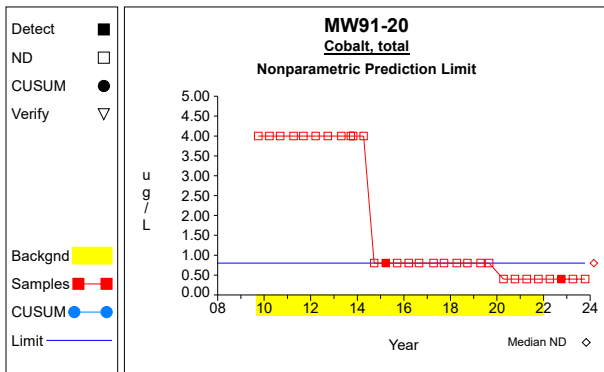
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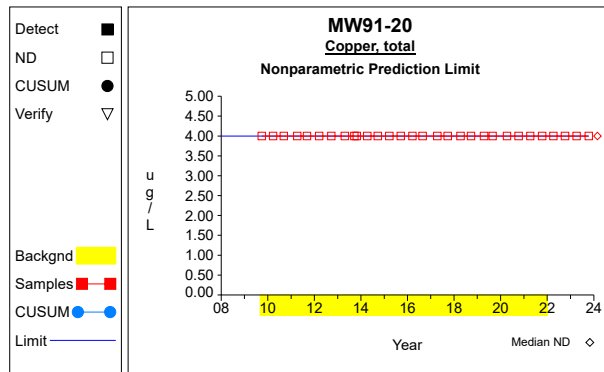
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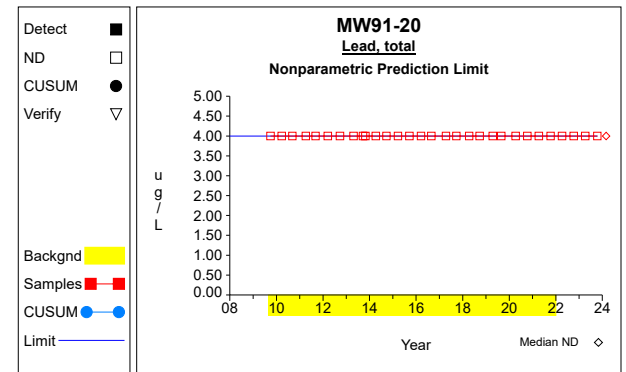
Graph 81



Graph 82

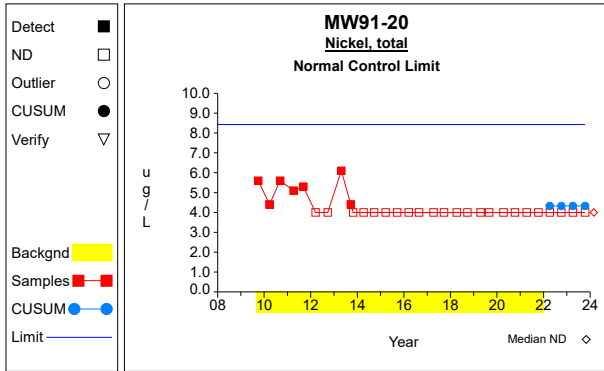


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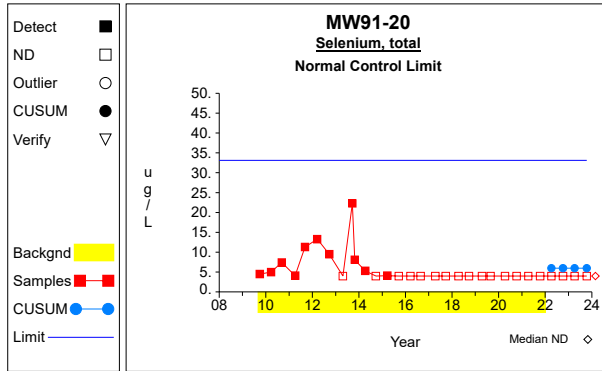


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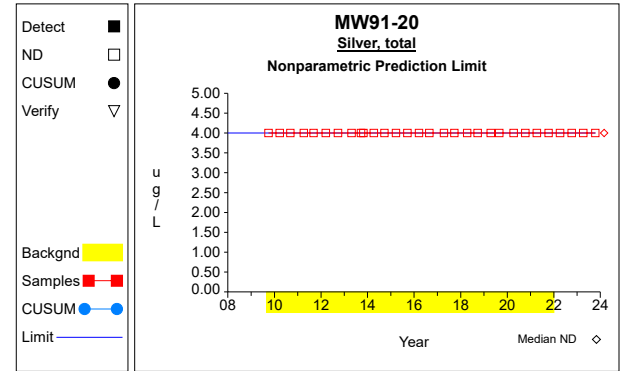
### Intra-Well Control Charts / Prediction Limits



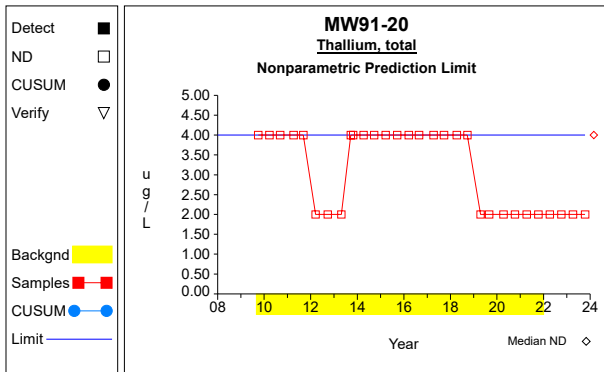
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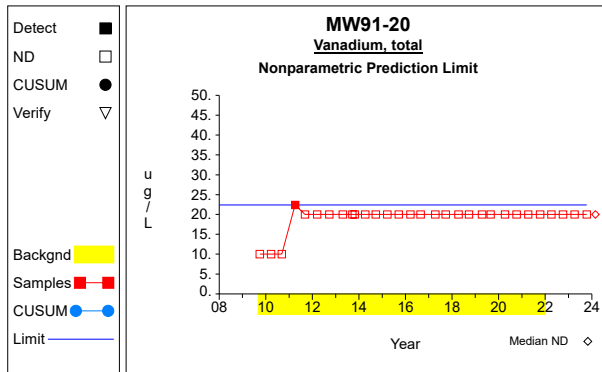
Graph 86



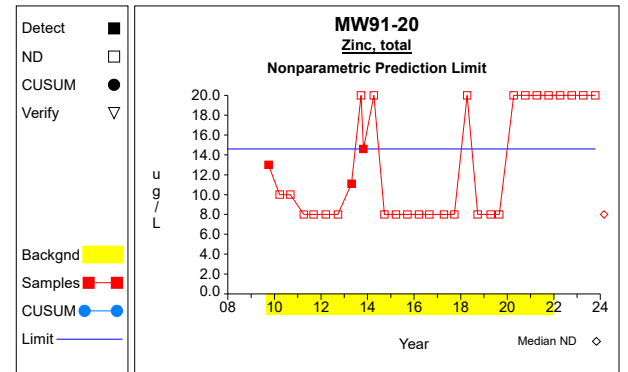
Graph 87



Graph 88

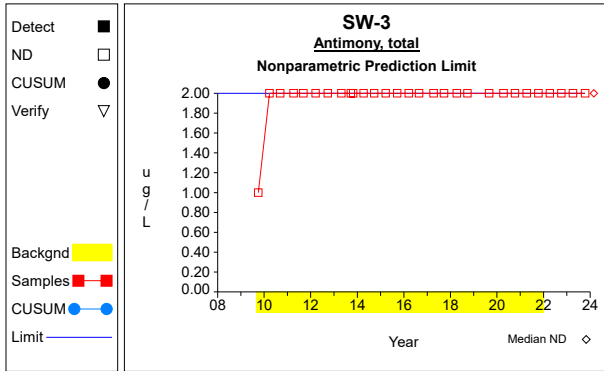


Graph 89

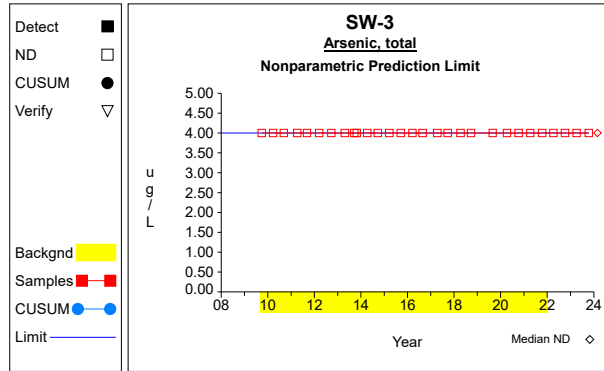


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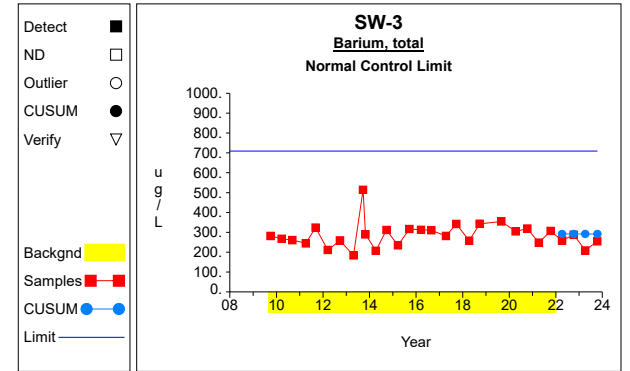
# Intra-Well Control Charts / Prediction Limits



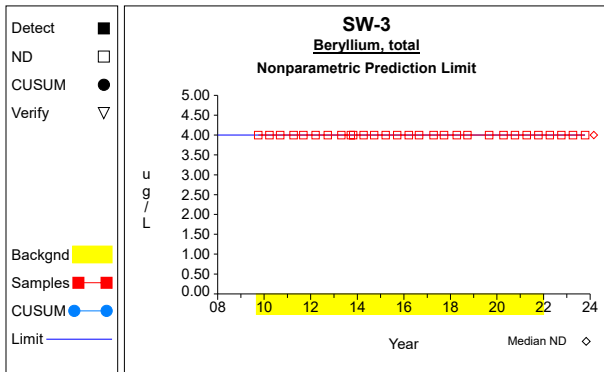
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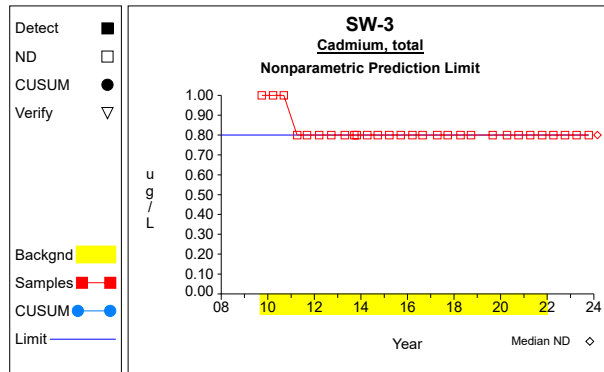
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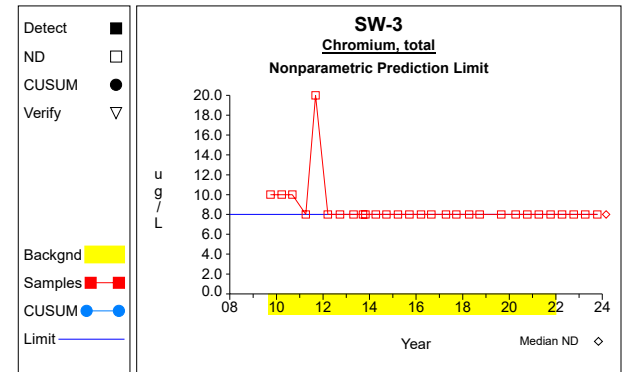
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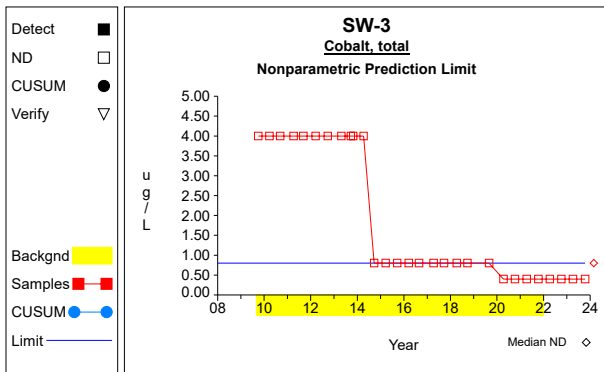
Graph 94



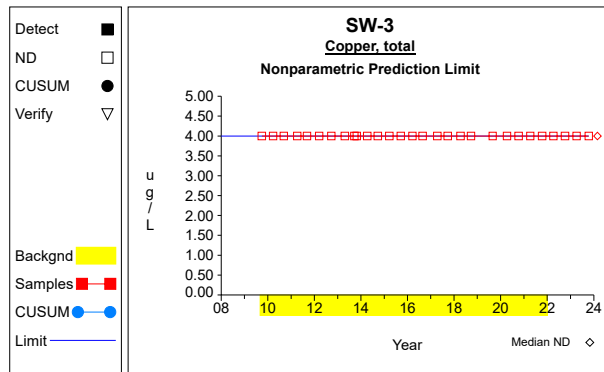
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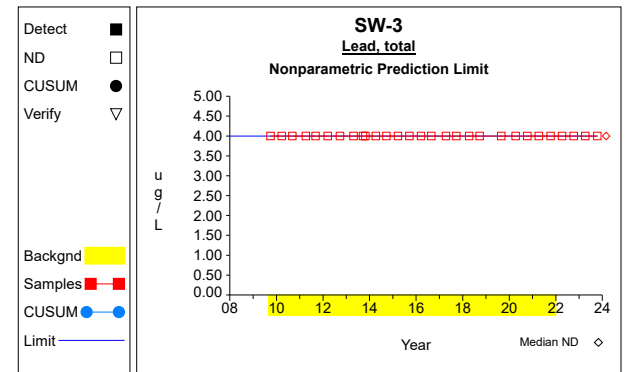
Graph 96



Graph 97

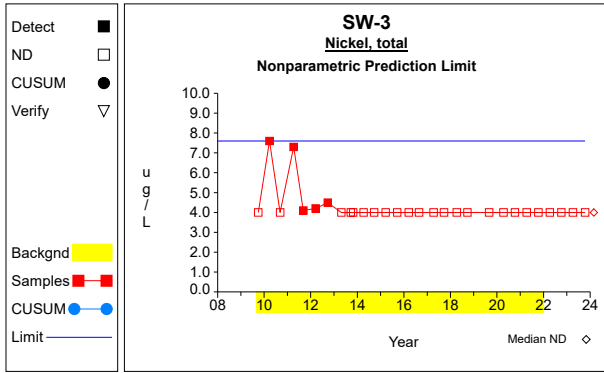


Graph 98

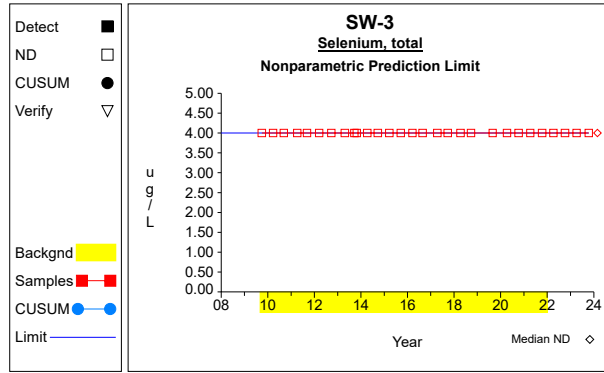


Graph 99

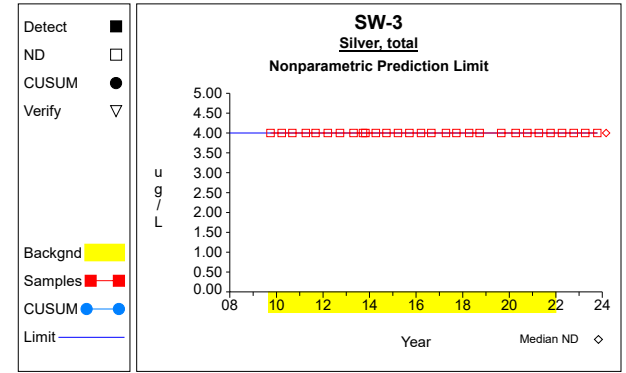
### Intra-Well Control Charts / Prediction Limits



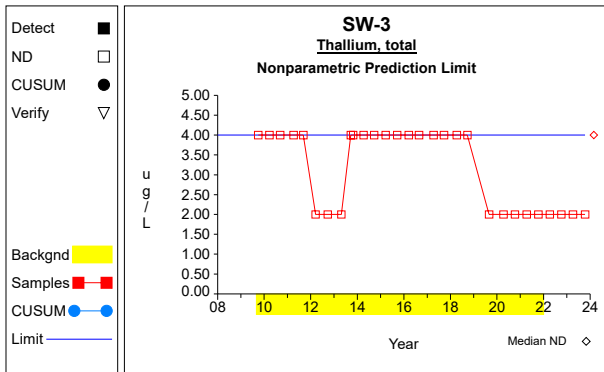
Graph 100



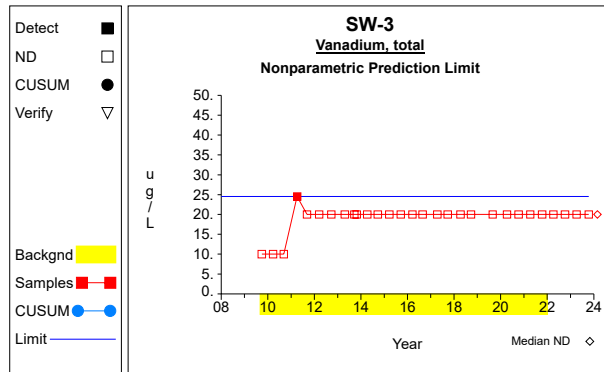
Graph 101



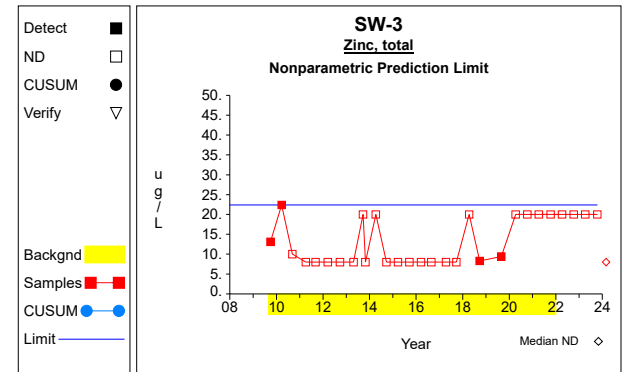
Graph 102



Graph 103

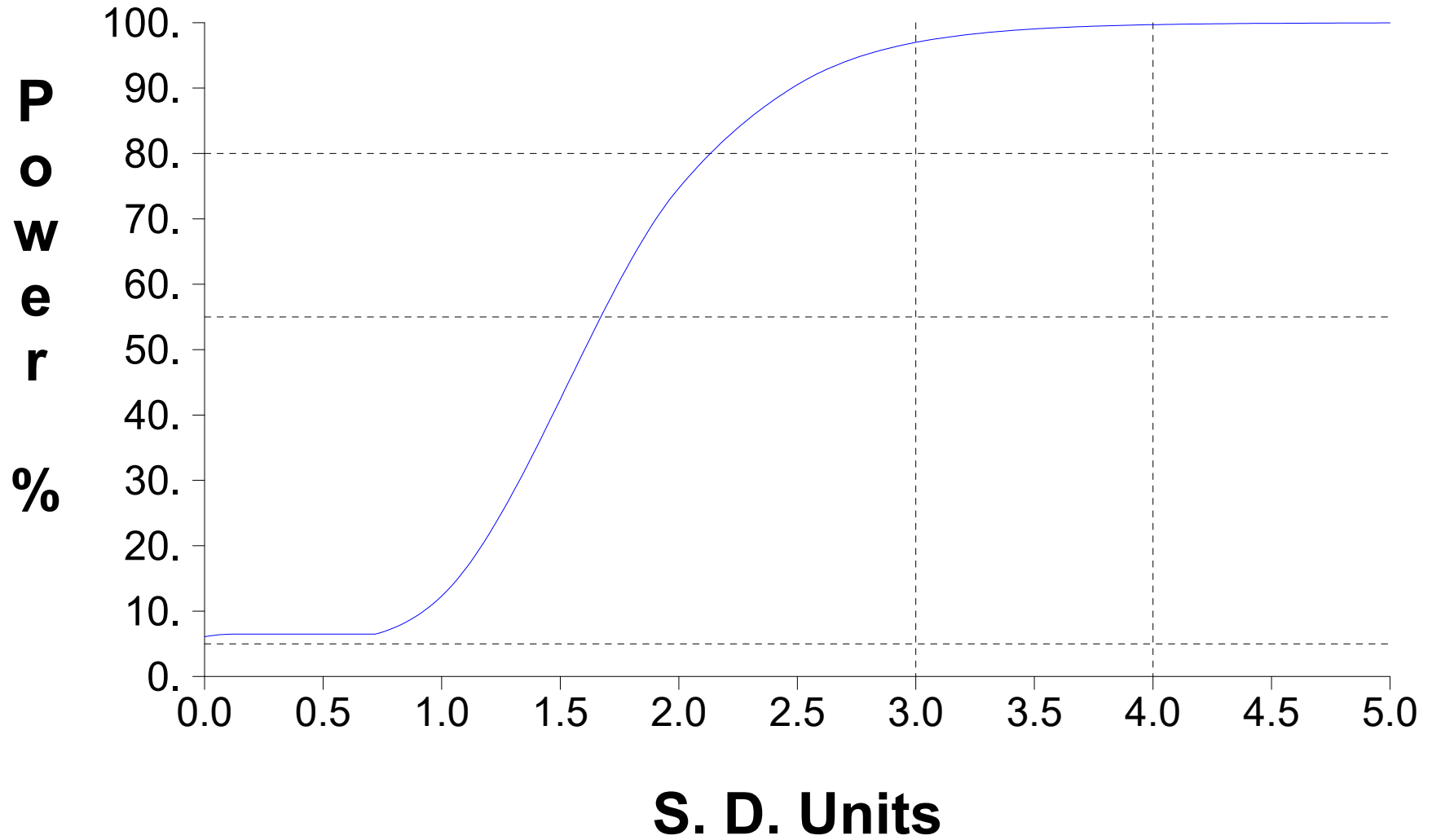


Graph 104



Graph 105

# 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
1,1-dichloroethane	MW90-14	9/30/2009		1.4	1.0	ug/L
Acetone	MW90-14	10/16/2008		13.6	10.0	ug/L
Bis(2-ethylhexyl)phthalate	MW90-14	9/24/2018		12	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-14	11/01/2018		21	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-14	4/16/2019		6	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-14	8/29/2019		9	6	ug/L
Chloroethane	MW90-14	9/30/2009		2.2	1.0	ug/L
Acetone	MW90-17	9/23/2017		12.9	10.0	ug/L
Bis(2-ethylhexyl)phthalate	MW90-4	4/09/2021		9	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-4	10/06/2022		14	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-7	4/16/2019		9	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-7	6/25/2019		11	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-7	8/29/2019		15	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-7	4/10/2020		7	6	ug/L
Bis(2-ethylhexyl)phthalate	MW90-7	4/09/2021		7	6	ug/L
Acetone	SW-3	9/06/2007		5.42	10.00	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

**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
Bis(2-ethylhexyl)phthalate	ug/L	MW90-14	4	3.000	0.000	1.176	3.000	3.000	6.000	
Bis(2-ethylhexyl)phthalate	ug/L	MW90-4	4	5.750	5.500	1.176	0.000	12.220	6.000	
Bis(2-ethylhexyl)phthalate	ug/L	MW90-7	4	4.000	2.000	1.176	1.647	6.353	6.000	
Bis(2-ethylhexyl)phthalate	ug/L	MW91-19	3							*

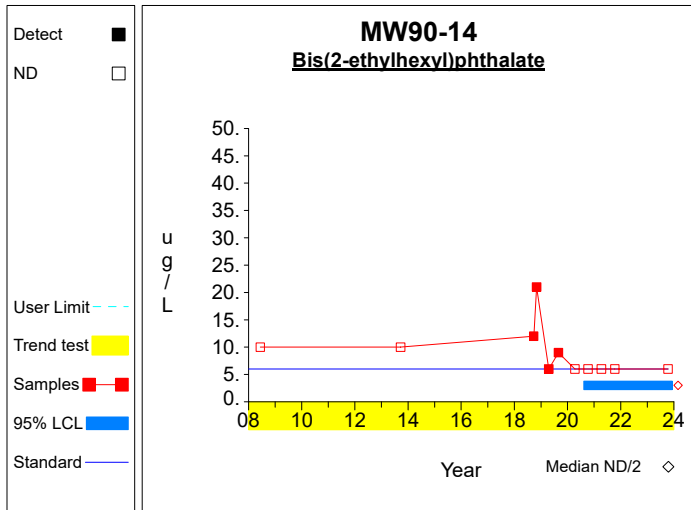
\* - Insufficient Data

\*\* - Significant Exceedance

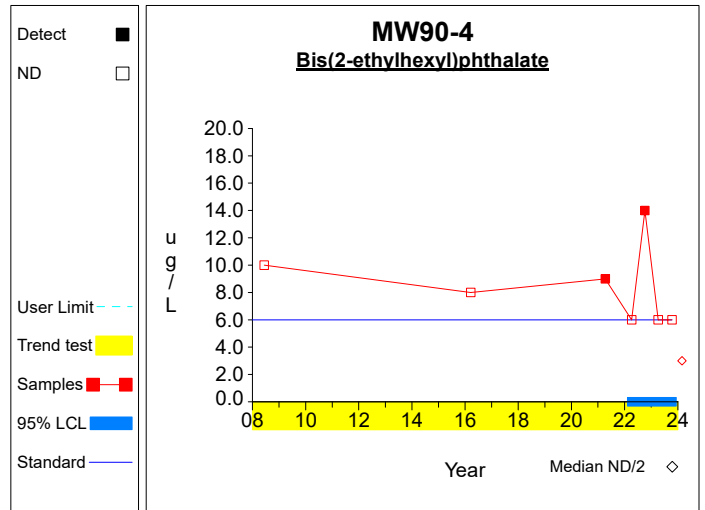
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

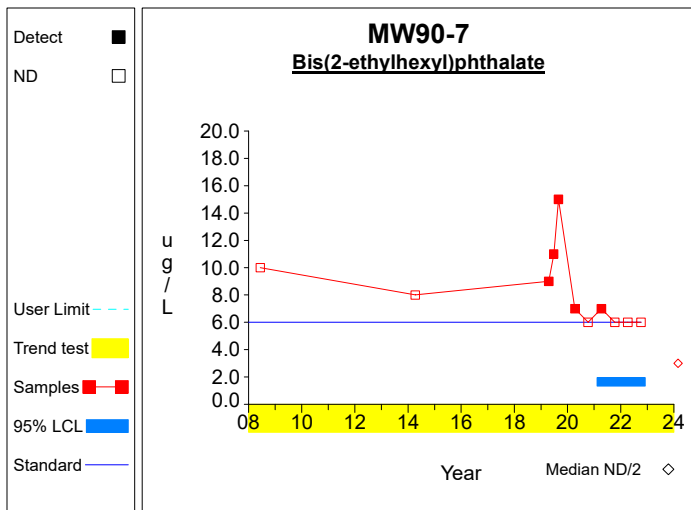
## Confidence Limits (Assessment)



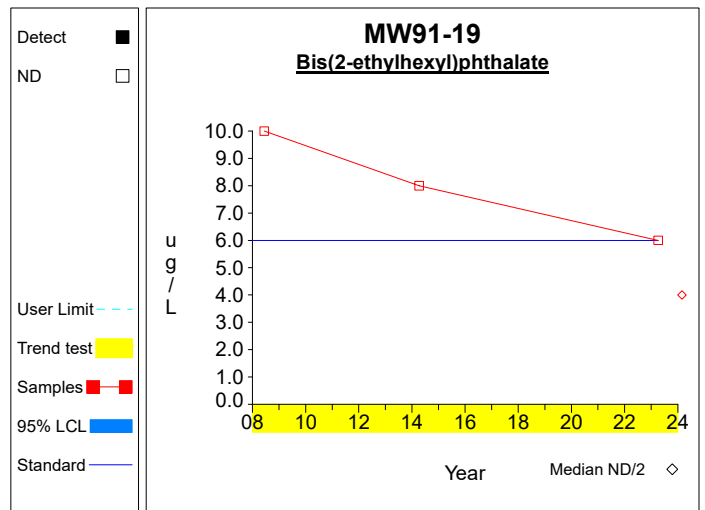
**Graph 1**



**Graph 2**



**Graph 3**



**Graph 4**

## **APPENDIX D**

### **Summary of Appendix II Events & Compound Detections (over time)**

***Bis(2-ethylhexyl) Phthalate Detection (ug/L) Summary (green highlights indicate full Appendix II sample events)***

<b>Date</b>	<b>MW90-4</b>	<b>MW90-7</b>	<b>MW90-14</b>	<b>MW90-19</b>
6/9/2008	<10	<10	<10	<10
9/24/2012	NT	NT	NT	NT
4/24/2013	NT	NT	NT	NT
9/20/2013	NT	NT	<10	NT
4/8/2014	NT	<8	NT	<8
9/22/2014	NT	NT	NT	NT
3/20/2015	NT	NT	NT	NT
9/17/2015	NT	NT	NT	NT
3/17/2016	<8	NT	NT	NT
8/26/2016	NT	NT	NT	NT
4/11/2017	NT	NT	NT	NT
9/23/2017	NT	NT	NT	NT
4/10/2018	NT	NT	NT	NT
9/24/2018	NT	NT	<b>12.0</b>	NT
11/1/2018	NT	NT	<b>21.0</b>	NT
4/16/2019	NT	<b>9.0</b>	<b>6.0</b>	NT
6/25/2019	NT	<b>11.0</b>	NT	NT
8/29/2019	NT	<b>15.0</b>	<b>9.0</b>	NT
4/10/2020	NT	<b>7.0</b>	<6	NT
10/9/2020	NT	<6	<6	NT
4/9/2021	<b>9.0</b>	<b>7.0</b>	<6	NT
10/11/2021	NT	<6	<6	NT
4/7/2022	<6	<6	NT	NT
10/6/2022	<b>14.0</b>	<6	NT	NT
4/5/2023	<6	NT	NT	<6
10/13/2023	<6	NT	<6	NT

## **Appendix E**

### **Summary of Annual Leachate Disposal (1996 to Present)**

## Volumes of Leachate Collected

<b>Month of Hauling or Recirculation</b>	<b>Volume Hauled or Recirculated (gals)</b>
August 1996 (Hauled)	246,000
May 1997 (Hauled)	290,250
May 1998 (Hauled)	225,000
July 1999 (Hauled)	344,250
June 2001 (Hauled)	379,200
January 2003-October 2003 (Recirculated)	1,700,000
June 2004 (Hauled)	462,000
December 2006 (Hauled)	312,000
May 2008 (Hauled)	206,500
December 2008 (Hauled)	232,500
May 2010 (Hauled)	364,000
December 2011 (Hauled)	157,500
November 2014 (Hauled)	28,000
March 2015 (Hauled)	354,000
May 2016 (Hauled)	394,200
April 2018 (Hauled)	189,800
December 2018 (Hauled)	43,800
April 2019 (Hauled)	175,200
June 2019 (Hauled)	7,300
July 2019 (Hauled)	116,800
August 2020 (Hauled)	204,400
2021	None hauled
2022	None hauled
2023 (Hauled)	153,300



## **Appendix F**

### **Comprehensive Leachate Testing Results – Lab Report**

## ANALYTICAL REPORT

October 19, 2022

Work Order: **1FJ0440**

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Report To
Tami Anderson Audubon County Landfill 1881 215th St Audubon, IA 50025

Work Order Information
Date Received: 10/6/2022 8:10:00AM Collector: Anderson, Tami Phone: (712) 563-3589 PO Number:

Project: Audubon Co. - Leachate

Project Number: Audubon Co. - Leachate

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1FJ0440-01</b>	Leachate			Matrix: Water		Collected: 10/05/22 08:30	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1FJ0337	EPA 8260B	AJM	10/07/22 13:09	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1FJ0337	EPA 8260B	AJM	10/07/22 13:09	
1,2-Dichlorobenzene	<1.0 ug/L	1.0	1FJ0337	EPA 8260B	AJM	10/07/22 13:09	
1,4-Dichlorobenzene	<1.0 ug/L	1.0	1FJ0337	EPA 8260B	AJM	10/07/22 13:09	
Benzene	<1.0 ug/L	1.0	1FJ0337	EPA 8260B	AJM	10/07/22 13:09	
Carbon Tetrachloride	<1.0 ug/L	1.0	1FJ0337	EPA 8260B	AJM	10/07/22 13:09	
Toluene	<1.0 ug/L	1.0	1FJ0337	EPA 8260B	AJM	10/07/22 13:09	
Surrogate: Dibromofluoromethane	105 %			80-126	AJM	10/07/22 13:09	
Surrogate: 1,2-Dichloroethane-d4	111 %			63-138	AJM	10/07/22 13:09	
Surrogate: Toluene-d8	98.2 %			87-116	AJM	10/07/22 13:09	
Surrogate: 4-Bromofluorobenzene	104 %			85-111	AJM	10/07/22 13:09	
BOD (5 day)	<5 mg/L	5	1FJ0198	SM 5210 B	LAE	10/06/22 14:55	
Cyanide, total	<0.005 mg/L	0.005	1FJ0684	EPA 9010B	AKW	10/14/22 12:15	
<b>COD, total</b>	<b>46 mg/L</b>	<b>20</b>	1FJ0376	EPA 410.4	AKW	10/10/22 13:34	
<b>Solids, total dissolved</b>	<b>329 mg/L</b>	<b>5</b>	1FJ0488	USGS I-1750-85	MEAH	10/12/22 9:05	
<b>Solids, total suspended</b>	<b>5 mg/L</b>	<b>3</b>	1FJ0504	USGS I-3765-85	MEAH	10/12/22 16:05	
<b>Chloride</b>	<b>91.6 mg/L</b>	<b>10.0</b>	1FJ0949	300.0	MID	10/18/22 18:02	
Arsenic, total	<0.0040 mg/L	0.0040	1FJ0382	EPA 6020A	RVV	10/17/22 19:33	
<b>Barium, total</b>	<b>0.143 mg/L</b>	<b>0.0040</b>	1FJ0382	EPA 6020A	RVV	10/17/22 19:33	
<b>Boron, total</b>	<b>0.287 mg/L</b>	<b>0.100</b>	1FJ0613	EPA 6010B	JAR	10/15/22 1:00	
Cadmium, total	<0.0008 mg/L	0.0008	1FJ0382	EPA 6020A	RVV	10/17/22 19:33	
Chromium, total	<0.0080 mg/L	0.0080	1FJ0382	EPA 6020A	RVV	10/17/22 19:33	
<b>Copper, total</b>	<b>0.0058 mg/L</b>	<b>0.0040</b>	1FJ0382	EPA 6020A	RVV	10/17/22 19:33	
<b>Iron, total</b>	<b>0.199 mg/L</b>	<b>0.100</b>	1FJ0613	EPA 6010B	JAR	10/15/22 1:00	
Mercury, total	<0.00050 mg/L	0.00050	1FJ0473	EPA 7470A	JAR	10/13/22 10:22	
<b>Magnesium, total</b>	<b>21.0 mg/L</b>	<b>0.100</b>	1FJ0613	EPA 6010B	JAR	10/15/22 1:00	
Molybdenum, total	<0.0040 mg/L	0.0040	1FJ0382	EPA 6020A	RVV	10/17/22 19:33	
<b>Nickel, total</b>	<b>0.0151 mg/L</b>	<b>0.0040</b>	1FJ0382	EPA 6020A	RVV	10/17/22 19:33	
Lead, total	<0.0040 mg/L	0.0040	1FJ0382	EPA 6020A	RVV	10/17/22 19:33	

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Audubon County Landfill  
1881 215th St  
Audubon, IA 50025

October 19, 2022  
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**Work Order: 1FJ0440**

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
<b>1FJ0440-01</b>	Leachate			Matrix: Water		Collected: 10/05/22 08:30	
Selenium, total	<0.0040 mg/L	0.0040	1FJ0382	EPA 6020A	RVV	10/17/22 19:33	
<b>Zinc, total</b>	<b>0.0301 mg/L</b>	<b>0.0200</b>	1FJ0382	EPA 6020A	RVV	10/17/22 19:33	
<b>1FJ0440-01RE1</b>	Leachate			Matrix: Water		Collected: 10/05/22 08:30	
Trichloroethylene	<1.0 ug/L	1.0	1FJ0403	EPA 8260B	AJM	10/10/22 15:42	
Surrogate: Dibromofluoromethane	108 %			80-126	AJM	10/10/22 15:42	
Surrogate: 1,2-Dichloroethane-d4	117 %			63-138	AJM	10/10/22 15:42	
Surrogate: Toluene-d8	99.1 %			87-116	AJM	10/10/22 15:42	
Surrogate: 4-Bromofluorobenzene	93.5 %			85-111	AJM	10/10/22 15:42	

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1881 215th St  
Audubon, IA 50025

October 19, 2022  
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**Work Order: 1FJ0440**

**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
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**Batch 1FJ0337 - EPA 5030B**

<b>Blank (1FJ0337-BLK1)</b>			Prepared & Analyzed: 10/07/22							
Surrogate: Dibromofluoromethane	53.4		ug/L	50.0440		107	80-126			
Surrogate: 1,2-Dichloroethane-d4	55.5		"	50.0720		111	63-138			
Surrogate: Toluene-d8	49.3		"	50.0640		98.4	87-116			
Surrogate: 4-Bromofluorobenzene	52.2		"	50.1200		104	85-111			
1,1-Dichloroethylene	ND	1.0	"							
1,1,1-Trichloroethane	ND	1.0	"							
Carbon Tetrachloride	ND	1.0	"							
Benzene	ND	1.0	"							
Toluene	ND	1.0	"							
1,4-Dichlorobenzene	ND	1.0	"							
1,2-Dichlorobenzene	ND	1.0	"							

<b>LCS (1FJ0337-BS1)</b>			Prepared & Analyzed: 10/07/22							
Surrogate: Dibromofluoromethane	53.5		ug/L	50.0440		107	80-126			
Surrogate: 1,2-Dichloroethane-d4	53.2		"	50.0720		106	63-138			
Surrogate: Toluene-d8	51.1		"	50.0640		102	87-116			
Surrogate: 4-Bromofluorobenzene	50.7		"	50.1200		101	85-111			
1,1-Dichloroethylene	54.70	1.0	"	50.0000		109	76-140			
1,1,1-Trichloroethane	47.91	1.0	"	49.9750		95.9	67-121			
Carbon Tetrachloride	52.01	1.0	"	50.0000		104	71-131			
Benzene	51.08	1.0	"	50.0000		102	77-130			
Toluene	48.29	1.0	"	50.0000		96.6	77-130			
1,4-Dichlorobenzene	47.08	1.0	"	50.0000		94.2	69-128			
1,2-Dichlorobenzene	46.03	1.0	"	50.0000		92.1	70-125			

<b>Matrix Spike (1FJ0337-MS1)</b>			Source: 1FJ0508-05		Prepared & Analyzed: 10/07/22					
Surrogate: Dibromofluoromethane	544		ug/L	500.440		109	80-126			
Surrogate: 1,2-Dichloroethane-d4	548		"	500.720		110	63-138			
Surrogate: Toluene-d8	510		"	500.640		102	87-116			
Surrogate: 4-Bromofluorobenzene	512		"	501.200		102	85-111			
1,1-Dichloroethylene	572.7	10.0	"	500.000	ND	115	68-153			
1,1,1-Trichloroethane	498.7	10.0	"	499.750	ND	99.8	71-118			
Carbon Tetrachloride	544.6	10.0	"	500.000	ND	109	71-133			
Benzene	521.3	10.0	"	500.000	ND	104	81-125			
Toluene	491.0	10.0	"	500.000	ND	98.2	82-123			
1,4-Dichlorobenzene	484.0	10.0	"	500.000	ND	96.8	70-124			
1,2-Dichlorobenzene	470.7	10.0	"	500.000	ND	94.1	68-123			

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Work Order: 1FJ0440

**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
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**Batch 1FJ0337 - EPA 5030B**

Matrix Spike Dup (1FJ0337-MSD1)	Source: 1FJ0508-05			Prepared & Analyzed: 10/07/22						
Surrogate: Dibromofluoromethane	539		ug/L	500.440		108	80-126			
Surrogate: 1,2-Dichloroethane-d4	545		"	500.720		109	63-138			
Surrogate: Toluene-d8	503		"	500.640		101	87-116			
Surrogate: 4-Bromofluorobenzene	517		"	501.200		103	85-111			
1,1-Dichloroethylene	604.5	10.0	"	500.000	ND	121	68-153	5.40	21	
1,1,1-Trichloroethane	517.6	10.0	"	499.750	ND	104	71-118	3.72	15	
Carbon Tetrachloride	569.7	10.0	"	500.000	ND	114	71-133	4.51	14	
Benzene	533.0	10.0	"	500.000	ND	107	81-125	2.22	12	
Toluene	511.2	10.0	"	500.000	ND	102	82-123	4.03	12	
1,4-Dichlorobenzene	478.7	10.0	"	500.000	ND	95.7	70-124	1.10	28	
1,2-Dichlorobenzene	470.6	10.0	"	500.000	ND	94.1	68-123	0.0212	29	

**Batch 1FJ0403 - EPA 5030B**

Blank (1FJ0403-BLK1)	Prepared & Analyzed: 10/10/22									
Surrogate: Dibromofluoromethane	53.4		ug/L	50.1360		106	80-126			
Surrogate: 1,2-Dichloroethane-d4	58.1		"	50.2960		116	63-138			
Surrogate: Toluene-d8	49.8		"	50.4800		98.6	87-116			
Surrogate: 4-Bromofluorobenzene	46.9		"	50.2080		93.5	85-111			
Trichloroethylene	ND	1.0	"							

LCS (1FJ0403-BS1)	Prepared & Analyzed: 10/10/22									
Surrogate: Dibromofluoromethane	51.7		ug/L	50.1360		103	80-126			
Surrogate: 1,2-Dichloroethane-d4	56.7		"	50.2960		113	63-138			
Surrogate: Toluene-d8	49.8		"	50.4800		98.7	87-116			
Surrogate: 4-Bromofluorobenzene	48.6		"	50.2080		96.9	85-111			
Trichloroethylene	50.72	1.0	"	50.0000		101	80-124			

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Audubon County Landfill  
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Audubon, IA 50025

October 19, 2022  
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Work Order: 1FJ0440

**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
<b>Batch 1FJ0403 - EPA 5030B</b>										
<b>LCS (1FJ0403-BS2)</b>				Prepared & Analyzed: 10/10/22						
Surrogate: Dibromofluoromethane	52.1		ug/L	50.1360		104	80-126			
Surrogate: 1,2-Dichloroethane-d4	56.5		"	50.2960		112	63-138			
Surrogate: Toluene-d8	49.8		"	50.4800		98.7	87-116			
Surrogate: 4-Bromofluorobenzene	48.2		"	50.2080		95.9	85-111			
Trichloroethylene	33.74	1.0	"	50.0000		67.5	80-124			QS-01
<b>Matrix Spike (1FJ0403-MS1)</b>				Source: 1FJ0740-02 Prepared & Analyzed: 10/10/22						
Surrogate: Dibromofluoromethane	512		ug/L	501.360		102	80-126			
Surrogate: 1,2-Dichloroethane-d4	528		"	502.960		105	63-138			
Surrogate: Toluene-d8	484		"	504.800		95.8	87-116			
Surrogate: 4-Bromofluorobenzene	474		"	502.080		94.5	85-111			
Trichloroethylene	440.5	10.0	"	500.000	ND	88.1	83-120			
<b>Matrix Spike Dup (1FJ0403-MSD1)</b>				Source: 1FJ0740-02 Prepared & Analyzed: 10/10/22						
Surrogate: Dibromofluoromethane	510		ug/L	501.360		102	80-126			
Surrogate: 1,2-Dichloroethane-d4	527		"	502.960		105	63-138			
Surrogate: Toluene-d8	485		"	504.800		96.1	87-116			
Surrogate: 4-Bromofluorobenzene	474		"	502.080		94.4	85-111			
Trichloroethylene	439.0	10.0	"	500.000	ND	87.8	83-120	0.341	11	

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.

Audubon County Landfill  
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Audubon, IA 50025

October 19, 2022  
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Work Order: 1FJ0440

**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
<b>Batch 1FJ0198 - General Prep Micro</b>										
<b>Blank (1FJ0198-BLK1)</b> Prepared & Analyzed: 10/06/22										
BOD (5 day)	ND	4	mg/L							B-06
<b>Blank (1FJ0198-BLK2)</b> Prepared & Analyzed: 10/06/22										
BOD (5 day)	ND	4	mg/L							
<b>Duplicate (1FJ0198-DUP1)</b> Source: 1FJ0275-02 Prepared & Analyzed: 10/06/22										
BOD (5 day)	264	4	mg/L		298			12.1	29	
<b>Reference (1FJ0198-SRM1)</b> Prepared & Analyzed: 10/06/22										
BOD (5 day)	212	4	mg/L	198.000		107	84.6-115.4			
<b>Reference (1FJ0198-SRM2)</b> Prepared & Analyzed: 10/06/22										
BOD (5 day)	219	4	mg/L	198.000		111	84.6-115.4			
<b>Batch 1FJ0376 - Wet Chem Preparation</b>										
<b>Blank (1FJ0376-BLK1)</b> Prepared & Analyzed: 10/10/22										
COD, total	ND	20	mg/L							
<b>LCS (1FJ0376-BS1)</b> Prepared & Analyzed: 10/10/22										
COD, total	105	27	mg/L	100.000		105	90-110			
<b>Matrix Spike (1FJ0376-MS1)</b> Source: 1FJ0637-01 Prepared & Analyzed: 10/10/22										
COD, total	48.7	20	mg/L	42.8571	ND	114	90-110			QM-07
<b>Matrix Spike Dup (1FJ0376-MSD1)</b> Source: 1FJ0637-01 Prepared & Analyzed: 10/10/22										
COD, total	50.2	20	mg/L	42.8571	ND	117	90-110	3.07	10	QM-07

*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.*

Audubon County Landfill  
1881 215th St  
Audubon, IA 50025

October 19, 2022  
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Work Order: 1FJ0440

**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
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**Batch 1FJ0488 - Wet Chem Preparation**

<b>Blank (1FJ0488-BLK1)</b>				Prepared: 10/11/22 Analyzed: 10/12/22						
Solids, total dissolved	ND	5	mg/L							
<b>LCS (1FJ0488-BS1)</b>				Prepared: 10/11/22 Analyzed: 10/12/22						
Solids, total dissolved	94	5	mg/L	100.000		93.9	71-114			
<b>Duplicate (1FJ0488-DUP1)</b>		<b>Source: 1FJ0381-01</b>		Prepared: 10/11/22 Analyzed: 10/12/22						
Solids, total dissolved	1840	5	mg/L		1880			2.58	30	

**Batch 1FJ0504 - Wet Chem Preparation**

<b>Blank (1FJ0504-BLK1)</b>				Prepared: 10/11/22 Analyzed: 10/12/22						
Solids, total suspended	ND	1	mg/L							
<b>LCS (1FJ0504-BS1)</b>				Prepared: 10/11/22 Analyzed: 10/12/22						
Solids, total suspended	16.3	1	mg/L	15.0000		109	74-114			
<b>Duplicate (1FJ0504-DUP1)</b>		<b>Source: 1FJ0478-01</b>		Prepared: 10/11/22 Analyzed: 10/12/22						
Solids, total suspended	126	10	mg/L		149			16.7	30	

**Batch 1FJ0684 - Wet Chem Preparation**

<b>Blank (1FJ0684-BLK1)</b>				Prepared & Analyzed: 10/14/22						
Cyanide, total	ND	0.005	mg/L							
<b>LCS (1FJ0684-BS1)</b>				Prepared & Analyzed: 10/14/22						
Cyanide, total	0.0170	0.005	mg/L	0.0200000		85.1	68-137			

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Audubon County Landfill  
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Audubon, IA 50025

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**Work Order: 1FJ0440**

**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
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**Batch 1FJ0684 - Wet Chem Preparation**

<b>Matrix Spike (1FJ0684-MS1)</b>	<b>Source: 1FJ0440-01</b>			<b>Prepared &amp; Analyzed: 10/14/22</b>						
Cyanide, total	0.0169	0.005	mg/L	0.0200000	ND	84.5	57-150			
<b>Matrix Spike Dup (1FJ0684-MSD1)</b>	<b>Source: 1FJ0440-01</b>			<b>Prepared &amp; Analyzed: 10/14/22</b>						
Cyanide, total	0.0266	0.005	mg/L	0.0200000	ND	133	57-150	44.6	20	QR-02

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1881 215th St  
Audubon, IA 50025

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Work Order: 1FJ0440

**Determination of Inorganic Anions - Quality Control**  
**Keystone Laboratories - Newton**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1FJ0949 - General Prep HPLC/IC**

<b>Blank (1FJ0949-BLK1)</b>				Prepared & Analyzed: 10/18/22						
Chloride	ND	1.0	mg/L							
<b>Blank (1FJ0949-BLK2)</b>				Prepared & Analyzed: 10/18/22						
Chloride	ND	1.0	mg/L							
<b>LCS (1FJ0949-BS1)</b>				Prepared & Analyzed: 10/18/22						
Chloride	14.84	1.0	mg/L	15.4295		96.2	90-110			
<b>LCS Dup (1FJ0949-BSD1)</b>				Prepared & Analyzed: 10/18/22						
Chloride	14.86	1.0	mg/L	15.4295		96.3	90-110	0.128	10	
<b>MRL Check (1FJ0949-MRL1)</b>				Prepared & Analyzed: 10/18/22						
Chloride	0.66	1.0	mg/L	0.611236		107	50-150			
<b>Matrix Spike (1FJ0949-MS1)</b>		<b>Source: 1FJ0861-02</b>		Prepared & Analyzed: 10/18/22						
Chloride	21.62	1.0	mg/L	15.4295	6.34	99.0	80-120			
<b>Matrix Spike Dup (1FJ0949-MSD1)</b>		<b>Source: 1FJ0861-02</b>		Prepared & Analyzed: 10/18/22						
Chloride	21.51	1.0	mg/L	15.4295	6.34	98.3	80-120	0.510	10	

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**Work Order: 1FJ0440**

**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
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**Batch 1FJ0382 - EPA 3005A Total Recoverable Metals**

**Blank (1FJ0382-BLK1)**

Prepared: 10/10/22 Analyzed: 10/17/22

Arsenic, total	ND	0.0040	mg/L							
Barium, total	ND	0.0040	"							
Cadmium, total	ND	0.0008	"							
Chromium, total	ND	0.0080	"							
Copper, total	ND	0.0040	"							
Lead, total	ND	0.0040	"							
Molybdenum, total	ND	0.0040	"							
Nickel, total	ND	0.0040	"							
Selenium, total	ND	0.0040	"							
Zinc, total	ND	0.0200	"							

**LCS (1FJ0382-BS1)**

Prepared: 10/10/22 Analyzed: 10/17/22

Arsenic, total	0.0952	0.0040	mg/L	0.100000		95.2	80-120			
Barium, total	0.108	0.0040	"	0.100000		108	80-120			
Cadmium, total	0.0958	0.0008	"	0.100000		95.8	80-120			
Chromium, total	0.0965	0.0080	"	0.100000		96.5	80-120			
Copper, total	0.0992	0.0040	"	0.100000		99.2	80-120			
Lead, total	0.0967	0.0040	"	0.100000		96.7	80-120			
Molybdenum, total	0.0983	0.0040	"	0.100000		98.3	80-120			
Nickel, total	0.100	0.0040	"	0.100000		100	80-120			
Selenium, total	0.1043	0.0040	"	0.100000		104	80-120			
Zinc, total	0.0956	0.0200	"	0.100000		95.6	80-120			

**Matrix Spike (1FJ0382-MS1)**

Source: 1FJ0776-01

Prepared: 10/10/22 Analyzed: 10/17/22

Arsenic, total	0.0970	0.0040	mg/L	0.100000	0.0020	95.0	75-125			
Barium, total	0.168	0.0040	"	0.100000	0.0624	105	75-125			
Cadmium, total	0.0902	0.0008	"	0.100000	0.0004	89.8	75-125			
Chromium, total	0.116	0.0080	"	0.100000	0.0248	90.9	75-125			
Copper, total	0.117	0.0040	"	0.100000	0.0280	88.9	75-125			
Lead, total	0.0900	0.0040	"	0.100000	0.0010	89.1	75-125			
Molybdenum, total	0.104	0.0040	"	0.100000	0.0037	100	75-125			
Nickel, total	0.0954	0.0040	"	0.100000	0.0026	92.9	75-125			
Selenium, total	0.1030	0.0040	"	0.100000	0.0021	101	75-125			
Zinc, total	0.110	0.0200	"	0.100000	0.0208	89.6	75-125			

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Work Order: 1FJ0440

**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
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**Batch 1FJ0382 - EPA 3005A Total Recoverable Metals**

Matrix Spike Dup (1FJ0382-MSD1)	Source: 1FJ0776-01			Prepared: 10/10/22 Analyzed: 10/17/22					
Arsenic, total	0.103	0.0040	mg/L	0.100000	0.0020	101	75-125	5.78	20
Barium, total	0.177	0.0040	"	0.100000	0.0624	115	75-125	5.65	20
Cadmium, total	0.0936	0.0008	"	0.100000	0.0004	93.2	75-125	3.66	20
Chromium, total	0.120	0.0080	"	0.100000	0.0248	95.1	75-125	3.60	20
Copper, total	0.127	0.0040	"	0.100000	0.0280	99.1	75-125	8.34	20
Lead, total	0.0922	0.0040	"	0.100000	0.0010	91.2	75-125	2.33	20
Molybdenum, total	0.107	0.0040	"	0.100000	0.0037	104	75-125	3.09	20
Nickel, total	0.105	0.0040	"	0.100000	0.0026	102	75-125	9.49	20
Selenium, total	0.1076	0.0040	"	0.100000	0.0021	106	75-125	4.36	20
Zinc, total	0.112	0.0200	"	0.100000	0.0208	91.5	75-125	1.70	20

Post Spike (1FJ0382-PS1)	Source: 1FJ0776-01			Prepared: 10/10/22 Analyzed: 10/17/22					
Arsenic, total	0.0801		mg/L	0.0800000	0.0019	97.7	80-120		
Barium, total	0.146		"	0.0800000	0.0611	107	80-120		
Cadmium, total	0.0740		"	0.0800000	0.0004	92.0	80-120		
Chromium, total	0.0992		"	0.0800000	0.0243	93.7	80-120		
Copper, total	0.105		"	0.0800000	0.0275	96.7	80-120		
Lead, total	0.0729		"	0.0800000	0.0010	89.9	80-120		
Molybdenum, total	0.0849		"	0.0800000	0.0037	102	80-120		
Nickel, total	0.0793		"	0.0800000	0.0025	96.0	80-120		
Selenium, total	0.0800		"	0.0800000	0.0020	97.4	80-120		
Zinc, total	0.0939		"	0.0800000	0.0204	91.9	80-120		

**Batch 1FJ0473 - EPA 7470A Hg Water**

Blank (1FJ0473-BLK1)	Prepared: 10/11/22 Analyzed: 10/13/22		
Mercury, total	ND	0.00050	mg/L

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Work Order: 1FJ0440

**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
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**Batch 1FJ0473 - EPA 7470A Hg Water**

<b>LCS (1FJ0473-BS1)</b>				Prepared: 10/11/22 Analyzed: 10/13/22						
Mercury, total	0.00264	0.00050	mg/L	0.00250000		105	80-120			
<b>Matrix Spike (1FJ0473-MS1)</b>				Source: 1FJ0164-01 Prepared: 10/11/22 Analyzed: 10/13/22						
Mercury, total	0.00282	0.00050	mg/L	0.00250000	ND	113	75-125			
<b>Matrix Spike Dup (1FJ0473-MSD1)</b>				Source: 1FJ0164-01 Prepared: 10/11/22 Analyzed: 10/13/22						
Mercury, total	0.00263	0.00050	mg/L	0.00250000	ND	105	75-125	7.27	20	

**Batch 1FJ0613 - EPA 3010A Digestion (Water)**

<b>Blank (1FJ0613-BLK1)</b>				Prepared: 10/13/22 Analyzed: 10/15/22						
Boron, total	ND	0.100	mg/L							
Iron, total	ND	0.100	"							
Magnesium, total	ND	0.100	"							
<b>LCS (1FJ0613-BS1)</b>				Prepared: 10/13/22 Analyzed: 10/15/22						
Boron, total	0.214	0.100	mg/L	0.200000		107	80-120			
Iron, total	2.41	0.100	"	2.20000		109	80-120			
Magnesium, total	2.41	0.100	"	2.20000		109	80-120			
<b>Matrix Spike (1FJ0613-MS1)</b>				Source: 1FJ0440-01 Prepared: 10/13/22 Analyzed: 10/15/22						
Boron, total	0.502	0.100	mg/L	0.200000	0.287	108	75-125			
Iron, total	2.51	0.100	"	2.20000	0.199	105	75-125			
Magnesium, total	24.0	0.100	"	2.20000	21.0	137	75-125			QM-4X
<b>Matrix Spike Dup (1FJ0613-MSD1)</b>				Source: 1FJ0440-01 Prepared: 10/13/22 Analyzed: 10/15/22						
Boron, total	0.526	0.100	mg/L	0.200000	0.287	119	75-125	4.52	20	
Iron, total	2.59	0.100	"	2.20000	0.199	109	75-125	3.30	20	
Magnesium, total	25.5	0.100	"	2.20000	21.0	204	75-125	6.03	20	QM-4X

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**Work Order: 1FJ0440**

**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
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**Batch 1FJ0613 - EPA 3010A Digestion (Water)**

<b>Post Spike (1FJ0613-PS1)</b>	<b>Source: 1FJ0440-01</b>		<b>Prepared: 10/13/22</b>		<b>Analyzed: 10/15/22</b>	
Boron, total	1.10	mg/L	0.800000	0.287	101	80-120
Iron, total	9.25	"	8.800000	0.199	103	80-120
Magnesium, total	30.7	"	8.800000	21.0	110	80-120

ND = Non Detect; REC= Recovery; RPD= Relative Percent Difference

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**Work Order: 1FJ0440**

**Certified Analyses Included In This Report**

Method/Matrix	Analyte	Certifications
<b>300.0 in Water</b>	Chloride	KS-NT,SIA1X
<b>EPA 410.4 in Water</b>	COD, total	KS-NT,SIA1X
<b>EPA 6010B in Water</b>	Boron, total	KS-NT,SIA1X
	Iron, total	KS-NT,SIA1X
	Magnesium, total	KS-NT,SIA1X
<b>EPA 6020A in Water</b>	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
	Molybdenum, total	SIA1X
	Nickel, total	SIA1X,KS-NT
	Selenium, total	SIA1X,KS-NT
	Zinc, total	SIA1X,KS-NT
<b>EPA 7470A in Water</b>	Mercury, total	KS-NT,SIA1X
<b>EPA 8260B in Water</b>	1,1-Dichloroethylene	KS-NT,SIA1X
	1,1,1-Trichloroethane	KS-NT,SIA1X
	Carbon Tetrachloride	KS-NT,SIA1X
	Benzene	KS-NT,SIA1X
	Trichloroethylene	KS-NT,SIA1X
	Toluene	KS-NT,SIA1X
	1,4-Dichlorobenzene	KS-NT,SIA1X
	1,2-Dichlorobenzene	KS-NT,SIA1X
<b>EPA 9010B in Water</b>	Cyanide, total	KS-NT,SIA1X
<b>SM 5210 B in Water</b>	BOD (5 day)	SIA1X
<b>USGS I-1750-85 in Water</b>	Solids, total dissolved	KS-NT,SIA1X
<b>USGS I-3765-85 in Water</b>	Solids, total suspended	SIA1X,KS-NT

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1881 215th St  
Audubon, IA 50025

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**Work Order: 1FJ0440**

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	10/31/2022
MO-KC	Missouri Department of Natural Resources	140	04/30/2023
SIA1X	Iowa Dept. of Natural Resources (updated certificate pending)	95	02/01/2024

**Notes and Definitions**

- B-06 Unseeded Blank equals .3mg/L
- 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-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration.
- 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



Keystone Laboratories

Sue Thompson  
Client Services Manager

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CHAIN OF CUSTODY RECORD



600 East 17th Street  
 Newton, IA 50208  
 641-792-8451



1 F J 0 4 4 0

Audubon County Landfill  
 PM: Sue Thompson

SITE INFORMATION

Sampler: Tami Anderson  
 Project: Audubon Co. - Leachate

REPORT TO

Tami Anderson  
 Audubon County Landfill  
 1881 215th St  
 Audubon, IA 50025

REPORT TO

Tami Anderson  
 Audubon County Landfill  
 1881 215th St  
 Audubon, IA 50025

SPECIAL INSTRUCTIONS

None

Turn Around Time

Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

LAB USE ONLY

Work Order 1FJ0440

Temperature 1.9

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	Leachate	Water	GRAB	10/5/22	8:30am	1	8260@1,1,1-tca 8260@1,2-dcb 8260@benzene 8260@ice as-t-6020 bod-5210 cd-t-6020 cu-t-9010b cr-t-6020 fe-t-6010 mg-t-6010 ni-t-6020 se-t-6020 iss-t-3763-85	8260@1,1-dce 8260@1,4-dcb 8260@carbon-tet 8260@toluene ba-t-6020 b-t-6010 cl-300.0 cod-t-410.4 cu-t-6020 hg-t-7470 mo-t-6020 pb-t-6020 tds-t-1750-85 zn-t-6020	<u>01</u>

Relinquished By Jamie Anderson Date/Time 10-5-22 9:00am

Relinquished By Amy Hochstetler Date/Time 10-6-22 8:10  
 Received for Lab By \_\_\_\_\_ Date/Time \_\_\_\_\_

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

Remarks: