

Intended for

Michigan Department of Environment, Great Lakes, and Energy

Document type

Post-Closure Groundwater Monitoring Semiannual Report 2022

Date

August 2022

**COLDWATER ROAD LANDFILL -
MID 005 356 860
POST-CLOSURE GROUNDWATER
MONITORING REPORT**



Bright ideas. Sustainable change.

COLDWATER ROAD LANDFILL - MID 005 356 860 POST-CLOSURE GROUNDWATER MONITORING REPORT

Project name **RACER Trust Coldwater Road Landfill**
Project no. **15388/1940102192**
Recipient **Jacob Runge**
Document type **Semiannual Report**
Version **2**
Date **August 29, 2022**
Prepared by **Kalyssa Ramirez**
Checked by **Clifford Yantz**
Approved by **Clifford Yantz**
Description **Post-Closure Groundwater Monitoring Semiannual Report**

Ramboll
2090 Commonwealth Blvd.
Ann Arbor, MI 48105
USA

T 734-761-4000
F 734-761-2050
<https://ramboll.com>

TABLE OF CONTENTS

1.	Introduction	1
2.	Sampling and analysis	2
3.	Summary	5

TABLES

Table 1:	Depth to Groundwater Levels
Table 2:	Historical Analytical Results
Table 3:	VOCs Analytical Results

FIGURES

Figure 1:	Site Location Map
Figure 2:	Site Layout
Figure 3:	Perched Zone Groundwater Potentiometric Surface Map
Figure 4:	Drift Unit Groundwater Potentiometric Surface Map

APPENDICES

No table of contents entries found.	Sampling Procedures
Appendix B:	Groundwater Sampling Logs
Appendix C:	Analytical Laboratory Results
Appendix D:	Groundwater Sampling Program QA/QC Summary
Appendix E:	Monitoring Well Control Charts

1. INTRODUCTION

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, Ramboll Americas Engineering Solutions, Inc. (Ramboll) has prepared this report to present the results of the semiannual groundwater sampling event conducted in June 2022 for the Coldwater Road Landfill (Site) (**Figure 1**).

2. SAMPLING AND ANALYSIS

During this event groundwater samples were collected from six monitoring wells screened in perched zones (B-7, B-9, B-18A, B-19Ar, B-24r, and B-28) and six monitoring wells screened in the drift unit (B-20D, B-21D, B-22D, B-23Dr, B-27D, and OBG MW-16D). Samples were collected during the week of June 6, 2022.

The groundwater samples were analyzed for specific conductivity (Method 120.1), chloride (Method 300.0), cyanide (CN, Method 335.4), sulfate (Method 300.0), phenols (Method 420.1), total organic carbon (TOC, Method 5310C), total organic halides (TOX, Method 9020B), volatile organic compounds (VOCs, Method 8260B), dissolved metals (chromium [Cr], copper [Cu], nickel [Ni], zinc [Zn], iron [Fe], manganese [Mn]), and total sodium (Na, Method 200.8).

The event also included field measurements for pH, specific conductivity, dissolved oxygen, oxidation reduction potential, temperature, and turbidity. Groundwater samples from the perched zone were collected using a Whale pump (B-7, B-9, B-18A, B-19Ar, and B-24r). The wells were purged "dry", allowed to recharge, and the samples were collected as soon as sufficient water was present to obtain the necessary sample volume. This was done in accordance with Ramboll procedures and the site-specific Field Method Guide ([Appendix A](#)) because low-flow sampling techniques resulted in greater than 0.3 ft of drawdown in each of the perched zone wells sampled during this event.

Groundwater samples from the drift unit were collected using a bladder pump and low-flow sampling techniques. Samples to be analyzed for dissolved metals were field filtered. Groundwater sampling logs are included in [Appendix B](#).

Well gauging was conducted on June 6, 2022 and sampling occurred between June 7, 2022 through June 10, 2022. The results are presented in three separate tables: [Table 1](#) - Depth to Groundwater Levels in Monitoring Wells; [Table 2](#) - Post-Closure Monitoring - Historical Analytical Results (Physical Parameters, TOC, TOX, and Metals); and [Table 3](#) - Post-Closure Monitoring - Analytical Results (Volatile Organics). Laboratory analytical reports are included in [Appendix C](#).

A Site location map ([Figure 1](#)) and monitoring well location (*i.e.*, Site layout) map ([Figure 2](#)) are also included. A groundwater potentiometric surface map was completed for the perched zone wells ([Figure 3](#)) and for the deeper drift unit ([Figure 4](#)). Additional site monitoring wells (not part of the landfill monitoring program) were used to aid in the creation of the contour maps.

The perched zone static water elevations were similar or down approximately 1 foot (at most 3.6 feet at OBG MW-24) compared to the elevations collected the previous year. The groundwater in the perched zone includes discontinuous perched saturated zones within an otherwise clayey matrix.

[Figure 3](#) provides interpreted potentiometric surface contours for the groundwater elevation data collected during the June 2022 semiannual sampling event. Based on these contours, the groundwater flow direction in the perched zone appears to be predominantly toward the northwest but turning toward the west in the westward extension of the Site.

The drift unit static water elevations were consistent with historical data. Groundwater in the drift unit flows in a southerly direction as shown on [Figure 4](#). Additional site monitoring wells (not part of the landfill monitoring program) were used to aid in the creation of the groundwater contours.

A review of the analytical data presented in the attached tables indicates analytical results similar to previous sampling events, a summary of the data is provided below:

- Chromium concentrations were not detected above the reporting limit of 5 µg/L. The results were similar or less than previous results, which ranged from below the reporting limit to 37 µg/L at B-9 (8/31/1995).
- Copper concentrations were not detected above the reporting limit of 5 µg/L. The results were similar or less than previous results, which ranged from below the reporting limit to 203 µg/L at OBG MW-16D (6/25/2009).
- Nickel concentrations were not detected above the reporting limit of 5 µg/L. The results were similar or less than previous results, which ranged from below the reporting limit to 370 µg/L at B-22D (6/21/1995).
- Zinc concentrations ranged from below the reporting limit of 5 µg/L in monitoring wells OBG MW-16D, B-19Ar, MW-DUP-061022 (B-20D), B-21D, B-22D, B-23D, B-27D, and B-28 to 20 µg/L in monitoring well B-20D. The results were similar or less than previous results, which ranged from below the reporting limit to 150 µg/L at B-18A (6/21/1995).
- Iron concentrations ranged from below the reporting limit (B-18A) to 2,050 µg/L in monitoring well OBG-MW-16D. The results were similar or less than previous results which ranged from below the reporting limit to 10,600 µg/L at B-24r (6/7/2005).
- Manganese concentrations ranged from 9 µg/L in monitoring well B-7 to 180 µg/L in monitoring well B-9. The results were similar or less than previous results which ranged from below the reporting limit to 1,900 µg/L at B-9 (6/5/2007).
- Sodium concentrations ranged from 10,800 µg/L in monitoring well OBG MW-16D to 62,900 µg/L in monitoring well B-24r. The results were similar or less than previous results which ranged from 7,280 µg/L in monitoring well OBG MW-16D (6/25/2014) to 114,000 µg/L at B-19Ar (12/9/2004).
- Chloride concentrations ranged from below the reporting limit of 10 mg/L in monitoring wells OBG MW-16D, B-20D, MW-DUP-061022 (B-20D), B-21D, B-22D, B-27D to 90 mg/L in monitoring well B-19Ar. The results were similar or less than previous results which ranged from below the reporting limit to 163 mg/L at B-24r (12/23/1998). An exception includes B-18A (22 mg/L), which was elevated compared to previous results that have ranged from 7 mg/L (12/8/2000 and 10/17/2001) to 21 mg/L (6/11/2021).
- Sulfate concentrations ranged from 17 mg/L in monitoring well B-27D to 562 mg/L in monitoring well B-9. The results were similar or less than previous results which ranged from 14 mg/L in monitoring well B-27D to 1,350 mg/L in monitoring well B-9 (12/9/2004). Exceptions include results from samples from B-22D (59 mg/L) and B-28 (166 mg/L), which were elevated compared to previous results that have ranged from 28 mg/L (12/23/1998) to 58 mg/L (6/17/2020) for B-22D and 7 mg/L (6/16/2010) to 161 mg/L (6/9/2021) for B-28.
- TOC concentrations ranged from 3.6 mg/L in monitoring well B-23Dr and MW-DUP-061022 (B-20D) to 7.9 mg/L in monitoring well B-7. The results were similar or less than previous results, which ranged from below the reporting limit to 71 mg/L at B-9 (11/13/1996). An exception includes the result from the sample from B-28 (5.1 mg/L), which was elevated compared to previous results that have ranged from 1.1 mg/L (11/19/2008 and 6/24/2009) to 3.8 mg/L (11/5/2020).
- TOX concentrations were not detected above the method detection limit of 10 µg/L in monitoring wells OBG MW-16D, B-18A, MW-DUP-061022 (B-20D), B-21D, B-23Dr, and B-27D to 17.7 µg/L

in monitoring well B-24r. The results were similar or less than previous results, which ranged from below the reporting limit to 230 µg/L at B-7 (11/30/2016).

- pH concentrations ranged from 6.74 in monitoring well B-9 to 7.45 in monitoring well OBG-MW-16D. The results were within the range of previous results, which ranged from 4.60 in monitoring well B-7 (11/5/1998) to 9.73 in monitoring well B-18A (12/8/2005).
- Specific conductivity ranged from 641 µs/cm in monitoring well OBG-MW-16D to 1,830 µs/cm in monitoring well B-9. The results were comparable to previous results, which ranged from 405 µs/cm in monitoring well OBG MW-16D (11/5/1999) to 3,290 µs/cm in monitoring well B-9 (11/20/2008).
- Cyanide, phenols, and VOCs concentrations were not detected above their respective reporting limits in the monitoring wells sampled during the June 2022 sampling event.

3. SUMMARY

A QA/QC review of the field and analytical data indicates that the data is useable for the intended purpose without deviations from quality assurance standards that would require rejection or further qualification of the data. Details of the data verification results for the groundwater monitoring data are included in [Appendix D](#).

The relative percent difference (RPD) for the duplicate sample results for B-20D and MW-DUP-061022 (B-20D) were within acceptable limits, except for zinc which indicated an RPD 87.5%. Both the sample (zinc at 20 µg/L) and duplicate sample (zinc at <5 µg/L) data are reported without qualification, and the sample data (worst case) was used in the statistical analysis for this well.

There were no exceedances of the Shewart control limits (SCL) during this sampling event. There were spikes for specific conductivity in monitoring wells B-21D (800 µS/cm) and B-28 (936 µS/cm). The spikes at B-21D and B-28 were not confirmed by the concentrations of metals, which were not detected (for the four primary metals [Cr, Cu, Ni, and Zn] in particular).

There were negative (decreasing) trends in monitoring wells B-19Ar for zinc and OBG MW-16D, B-21D and B-22D for pH. The trends were calculated using regression analysis over the last four sampling events per the Post Closure Care Plan, January 2014. The negative trends for zinc and pH do not suggest there was a release from the landfill because concentrations of other metals/parameters do not support a release has occurred. In addition, if a release from the landfill had occurred, zinc concentrations would be expected to increase. The trends will continue to be evaluated during future sampling events. No other trends or spikes were observed during this monitoring event. The Shewart control charts are included as [Appendix E](#).

The next sampling event (annual event) is currently scheduled for November 2022. If you have any questions, please feel free to contact Clifford Yantz at (313) 333-0211.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

On Behalf of RACER Trust



Clifford S. Yantz

Managing Hydrogeologist – Ramboll Americas Engineering Solutions, Inc.

As agent for RACER Trust

Date: August 23, 2022

cc: file

TABLES



TABLE 1
RACER Trust - Coldwater Road
Depth to Groundwater Levels in Monitoring Wells

June 6, 2022

Well ID	Top of Casing Elevation (ft)*	Depth to Water (ft)	Static Water Elevation (ft)
<i>Landfill Monitoring Wells</i>			
B-7	813.63	16.85	796.78
B-9	807.45	4.45	803.00
B-18A	810.85	20.57	790.28
B-19A	812.66	9.34	803.32
B-19AR	811.80	37.53	774.27
B-20D	815.14	68.43	746.71
B-21D	821.07	79.11	741.96
B-22D	822.15	83.41	738.74
B-23DR	812.12	80.16	731.96
B-24R	816.04	13.55	802.49
B-27D	812.70	74.74	737.96
B-28	816.46	5.04	811.42
OBG MW-16D	807.43	56.06	751.37
<i>former WWTP Monitoring Wells</i>			
OBG MW-1	811.56	5.61	805.95
OBG MW-2	813.77	8.01	805.76
OBG MW-3	810.09	4.75	805.34
OBG MW-4	812.66	5.74	806.92
OBG MW-5	816.04	7.63	808.41
OBG MW-6	815.75	11.49	804.26
OBG MW-7	813.47	8.06	805.41
OBG MW-8	817.50	9.47	808.03
OBG MW-9	809.97	4.35	805.62
OBG MW-10	811.54	7.05	804.49
<i>Additional Site Monitoring Wells</i>			
OBG MW-11	801.94	5.84	796.10
OBG MW-12D	797.13	45.59	751.54
OBG MW-12S	796.88	8.03	788.85
OBG MW-13	801.81	5.32	796.49
OBG MW-14	810.98	7.36	803.62
OBG MW-15D	810.68	78.83	731.85
OBG MW-17D	800.09	48.70	751.39
OBG MW-17S	800.51	10.65	789.86
OBG MW-18D	800.17	48.49	751.68
OBG MW-18S	799.32	12.22	787.10
OBG MW-19D	796.64	45.91	750.73
OBG MW-20	783.93	27.22	DRY
OBG MW-21	798.60	5.75	792.85
OBG MW-22	794.11	4.40	789.71
OBG MW-23 (D)	776.76	26.50	750.26
OBG MW-24	781.50	3.35	778.15
OBG MW-26	772.34	5.63	766.71
OBG MW-27 (D)	771.94	20.98	750.96
OBG MW-28	800.35	11.56	788.79
OBG MW-29 (D)	773.28	23.26	750.02
<i>Piezometers</i>			
PZ-1	790.30	under water	--
<i>Peregrine Site Wells</i>			
MW-19-13	807.85	2.35	805.50
MW-20-13	810.81	4.85	805.96
MW-15-10	808.15	76.00	732.15
MW-16-10	798.64	66.22	732.42
PFW-1	809.51	76.94	732.57

Notes

Casing elevations were provided by Norwy & Hale Surveyors and are in feet relative to National Geodetic Vertical Datum

-- No data.

Top of casing elevations were resurveyed in June 2017. OBG MW-29 was surveyed on October 29, 2021.

OBG MW-19D and OBG MW-21 were resurveyed on October 29, 2021 after being repaired.

R - Indicates a replacement well location.

Monitoring wells OBG MW-25, PZ-2, and PZ-3 were abandon on July 7, 2020 as part of the onsite berm construction.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)				
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate	
		<i>EGLE Residential Drinking Water Criteria & RBSLs</i>							100 (A)	1,000 (E)	100 (A)	2,400						
B-2D	6/21/1995	5.3	<10	9.01	434	15.0	<20	<20	<30	<20	--	--	--	--	--	--	--	
	8/31/1995	6.3	130	8.27	479	14.4	<20	<20	<40	<20	--	--	--	--	--	--	--	
	2/9/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/19/1996	5.2	<100	7.52	580	12.4	<20	<20	<20	<20	--	--	--	--	--	--	--	
	8/21/1996	7.4	<5	7.69	641	13.9	<20	<20	<20	50	--	--	--	--	--	--	--	
	11/13/1996	11.0	<5	7.26	769	7.6	<20	<20	<20	30	--	--	--	--	--	--	--	
	5/6/1997	26.0	<100	6.30	1500	7.0	<10	<10	28	30	--	--	--	--	--	--	--	
	11/6/1997	15.0	<100	6.90	660	9.0	<10	<10	39	<10	280	577	--	12	<0.005	<0.020	79	
	5/4/1998	29.0	12	6.68	549	12.4	<10	<10	<5	<10	--	--	--	--	--	--	--	
	11/5/1998	52.0	18	4.70	498	8.6	<10	<10	<5	<10	<10	17	33,600	--	--	--	--	
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	13	<0.005	<0.020	40	
	4/26/1999	52.0	<100	8.50	523	14.5	<10	<10	<5	<10	--	--	--	--	--	--	--	
	11/5/1999	6.4	<100	7.40	405	12.8	<10	<10	<5	40	70	21	35,100	4	<0.005	<0.020	42	
	4/26/2000	5.4	<100	7.96	770	17.4	<10	<10	<5	<10	--	--	--	4	--	--	--	
	12/8/2000	5.5	<10	6.68	610	9.7	<10	<10	9	<10	40	--	22,900	7	<0.005	<0.020	81	
	5/15/2001	5.5	<100	7.79	890	13.2	<10	<10	<5	<10	--	--	--	--	--	--	--	
	10/18/2001	4.1	<100	7.43	1830	9.4	<10	<10	<5	<10	230	--	12,900	2	<0.005	<0.020	32	
	Duplicate	10/18/2001	3.6	<100	7.39	1780	7.8	<10	<10	<5	<10	210	--	12,700	1	<0.005	<0.020	32
		5/16/2002	4.0	<100	7.19	1000	11.6	<10	<10	<5	<10	--	--	--	--	--	--	
	Duplicate	11/7/2002	2.6	<30	7.38	490	9.5	<5	<5	<5	140	8	11,900	2	<0.005	<0.020	32	
		11/7/2002	2.7	<30	--	--	--	<5	<5	<5	140	6	11,200	2	<0.005	<0.020	30	
		6/3/2003	4.4	<30	6.91	530	12.9	<5	<5	<5	<5	--	--	--	--	--	--	
		11/13/2003	2.8	<30	7.97	630	7.7	<5	<5	<5	110	7	--	2	<0.005	<0.010	31	
		6/30/2004	4.2	<30	6.28	570	15.8	<5	<5	<5	7	--	--	2	--	--	--	
		12/10/2004	2.0	<30	6.83	550	10.2	<5	<5	<5	10	760	145	10,700	2	<0.005	<0.010	35
		6/8/2005	2.0	<30	7.95	620	11.5	<5	<5	<5	<5	660	199	10,900	<5	<0.005	<0.010	34
		12/8/2005	3.0	<30	6.89	642	10.2	9	<4	<5	<10	140	120	13,300	--	--	--	
	Duplicate	6/28/2006	6.3	<30	7.41	671	12.2	<5	<4	<5	8	110	70	15,000	2	<0.005	<0.010	50
	6/28/2006	5.1	<30	7.41	682	12.2	<5	<4	<5	8	120	70	15,200	3	<0.005	<0.010	50	
	11/30/2006	5.1	43.3	7.21	677	8.4	<5	<4	<5	18	--	--	--	--	--	--		
	6/8/2007	2.4	69.1	6.78	644	14.1	8	2	1	6	110	104	14,800	4	<0.005	<0.010	44	
	11/14/2007	5.2	<30	7.06	783	14.9	1	1	4	9	--	--	--	--	--	--		
	6/25/2008	5.7	<60	6.90	920	18.4	<5	1	5	7	350	32	26,100	10	<0.005	<0.010	98	
	11/20/2008	4.5	<30	6.84	806	9.1	<5	<1	<5	<5	--	--	--	--	--	--		
	6/25/2009	5.6	<30	6.95	924	23.7	<5	203	<5	113	22	77	29,700	10	<0.005	<0.010	104	
	11/16/2009	4	<30	7.17	835	10.2	<5	<4	<5	6	--	--	--	--	--	--		
	6/16/2010	5	<30	7.09	841	13.9	<5	<4	<5	<5	40	83	19,000	7	<0.005	<0.020	75	
	11/10/2010	4	<30	7.17	779	11.3	11	<4	<5	<5	--	--	--	--	--	--		
Replicate	6/21/2011	2.9	<30	6.99	742	19.3	9	<4	<5	<5	250	55	16,900	6	<0.005	<0.010	57	
	6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--		
	11/15/2011	3	16	7.05	751	11.3	<5	<4	<5	<5	--	--	--	--	--	--		
	6/27/2012	2.2	16	7.00	714	12.7	<5	<4	<5	<5	<20	25	17,300	<5	<0.005	<0.02	43	
	12/6/2012	2.6	<40	7.47	714	10.2	<5	<4	<5	<5	--	--	--	--	--	--		
	6/6/2013	1.6	<10	6.78	742	12.5	<5	<4	<5	26	990	31	24,400	<5	<0.005	<0.02	68	
	11/6/2013	2.6	<10	7.34	726	11.8	<5	<4	<5	<5	--	--	--	--	--	--		
	6/25/2014	2.6	<30	7.27	717	12.8	<5	<5	11	7	<20	26	7,280	<5	<0.005	<0.02	48	
	6/24/2015	2.2	<30	7.12	621	12.4	<5	<5	<5	<5	<20	11	15,100	<5	<0.005	<0.02	41	
	6/27/2016	2.6	55	6.42	730	17.2	<5	<5	<5	<5	40	<5	16,100	<5	<0.005	<0.02	50	
	6/22/2017	2.3	<30	7.09	691	12.5	<5	<5	<5	<5	20	7	15,500	<5	<0.005	<0.02	44	
	6/13/2018	2.1	<60	6.85	679	14.1	<5	<5	<5	5	2,640	162	13,400	<5	<0.005	<0.02	40	
OBG MW-16D	11/7/2018	3.3	<150	7.60	657	9.7	<5	<5	<5	<5	2,870	47	18,400	<5	<0.005	<0.02	32	
	6/4/2019	5.0	<150	7.91	501	12.4	<5	<5	<5	6	340	53	15,800	<10	<0.004	<0.02	32	
	6/18/2020	2.7	<40	7.70	590	13.2	<5	<5	<5	<5	1,090	62	11,500	<10	<0.004	<0.02	30	
	6/10/2021	3.3	<10	7.47	636	13.5	<5	<5	<5	<5	1,940	61	12,400	<10	<0.004	<0.02	28	
	6/10/2022	4.0	<10	7.45	641	12.2	<5	<5	<5	<5	2,050	58	10,800	<10	<0.004	<0.02	30	

See notes on page 13.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		<i>EGLE Residential Drinking Water Criteria & RBSLs</i>							100 (A)	1,000 (E)	100 (A)	2,400					
B-7	6/21/1995	8.7	23	7.48	1509	13.8	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	--	--	--	--	--	<20	<20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	14.0	120	--	--	--	<20	<20	<40	22	--	--	--	--	--	--	--
	6/19/1996	20.0	<100	6.91	1,508	13.2	<20	<20	<20	20	--	--	--	--	--	--	--
	8/21/1996	55.0	26	7.59	1,567	17.1	<20	<20	<20	60	--	--	--	--	--	--	--
	11/13/1996	27.0	<5	7.95	1,960	7.2	<20	<20	<20	50	--	--	--	--	--	--	--
	5/6/1997	16.0	<100	7.20	780	11.0	<10	10	14	10	--	--	--	--	--	--	--
	11/6/1997	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/4/1998	6.0	<5	6.61	1,270	10.7	<10	<10	<5	20	--	--	--	--	--	--	--
	11/5/1998	4.0	<10	4.60	1,240	11.2	<10	<10	8	30	10	424	31,000	--	--	--	--
12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	58	<0.005	<0.020	161	
Duplicate	4/26/1999	3.9	<100	7.50	1,413	14.2	<10	<10	10	<10	--	--	--	--	--	--	--
	11/5/1999	5.1	<100	6.50	1,230	14.2	<10	<10	8	30	260	313	41,800	64	<0.005	<0.020	301
	4/26/2000	4.8	<100	7.58	1,450	10.2	<10	<10	<5	<10	--	--	--	--	--	--	--
	4/26/2000	5.9	<100	NS	NS	NS	<10	<10	6	10	--	--	--	--	--	--	--
	12/8/2000	4.2	<10	7.05	1,180	9.5	<10	<10	20	10	50	--	58,900	79	<0.005	<0.020	227
	5/16/2001	5.0	<100	7.30	1,330	13.0	<10	<10	7	<10	--	--	--	--	--	--	--
	10/18/2001	5.3	<100	7.19	1,210	12.5	<10	<10	5	<10	330	--	60,800	81	<0.005	NA	205
	5/16/2002	3.9	<100	7.19	1,850	11.9	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/7/2002	NR	NR	7.35	1,120	10.3	<5	<5	5	5	250	<5	65,500	NA	NA	NA	NA
	6/4/2003	3.3	<30	6.90	1,460	12.6	<5	<5	<5	<5	--	--	--	--	--	--	--
	11/13/2003	3.9	<30	6.90	1,590	9.6	<5	<5	<5	5	190	<5	--	85	<0.005	<0.010	279
	6/30/2004	4.3	43	7.13	1,353	16.0	<5	<5	9	7	--	--	--	--	--	--	--
	12/9/2004	4.0	<30	5.32	1,290	10.8	<5	<5	7	14	180	74	71,200	78	<0.005	<0.010	251
	6/8/2005	7.0	86	7.36	1,121	10.9	5	<5	9	13	170	31	81,900	80	<0.005	<0.010	254
	12/7/2005	7.5	<30	8.70	1,430	12.2	10	<4	6	20	150	50	85,300	--	--	--	--
	6/29/2006	4.3	<30	7.19	1,470	11.7	5	<4	9	18	190	150	76,900	73	<0.005	<0.010	270
	11/29/2006	4.4	<30	6.88	1,380	15.3	<5	<4	9	11	--	--	--	--	--	--	--
	6/7/2007	3.9	23.7	6.87	1,400	13.4	11	27	5	14	130	42	87,300	72	<0.005	<0.010	208
	11/14/2007	3.5	<30	6.85	1,350	13.4	14	6	16	20	--	--	--	--	--	--	--
	6/25/2008	3.8	72.9	6.90	1,410	20.7	<5	3	6	<5	350	10	94,800	68	<0.005	<0.010	222
11/17/2008	4.6	20.5	6.80	1,258	5.5	3	5	17	--	--	--	--	--	--	--	--	
6/24/2009	4.5	<30	6.90	1,184	20.0	<5	3	<5	14	67	36	84,500	40	<0.005	<0.010	154	
11/17/2009	8	25.3	7.31	1,090	10.3	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/17/2010	5	<30	7.04	1,290	16.3	<5	<4	<5	<5	<20	47	86,000	61	<0.005	<0.020	160	
11/8/2010	8	103	7.16	997	13.9	17	<4	<5	<5	--	--	--	--	--	--	--	
6/22/2011	4.3	25	7.25	910	13.7	10	<4	5	6	220	6	55,200	26	<0.005	<0.010	88	
6/22/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--	--
11/16/2011	5	28	7.04	974	12.8	<5	6	8	11	--	--	--	--	--	--	--	
6/27/2012	3.7	97	6.77	1,082	15.0	<5	<4	<5	<5	<20	58	64,900	40	<0.005	<0.02	134	
12/6/2012	7.9	<40	7.12	825	8.7	<5	4	<5	9	--	--	--	--	--	--	--	
6/5/2013	4.5	6	7.24	921	14.0	<5	<4	<5	24	30	13	27,500	32	<0.005	<0.02	106	
11/4/2013	8.7	16	7.10	733	11.6	14	6	<5	<5	--	--	--	--	--	--	--	
6/25/2014	--	--	7.10	--	13.3	--	--	--	--	--	--	--	--	--	--	--	--
11/18/2014	6.5	28	7.31	896	4.8	<5	6	6	6	--	--	--	--	--	--	--	
6/24/2015	4.2	<30	6.98	1,019	16.3	<5	<5	<5	<5	<20	69	58,900	36	<0.005	<0.02	122	
11/18/2015	3.7	16	7.06	1,231	14.7	<5	<5	7	7	--	--	--	--	--	--	--	
6/23/2016	3.9	77	7.14	852	15.1	<5	<5	<5	<5	30	41	41,700	22	<0.005	<0.02	82	
11/30/2016	5.3	230	7.21	880	13.3	<5	<5	<5	<5	--	--	--	--	--	--	--	
6/21/2017	3.9	12	6.78	1,092	11.0	<5	<5	<5	<5	40	37	51,700	41	<0.005	<0.02	155	
11/7/2017	6.5	39	6.94	841	10.8	<5	5	<5	<5	--	--	--	--	--	--	--	
6/12/2018	4.2	<60	6.95	932	11.0	<5	<5	<5	10	230	26	39,800	27	<0.005	<0.02	116	
11/7/2018	6.5	170	7.25	952	11.4	<5	<5	<5	<5	--	--	--	--	--	--	--	
5/30/2019	6.0	<150	7.35	737	10.7	<5	<5	<5	7	40	<5	32,400	20	<0.004	<0.02	110	
11/21/2019	5.4	<40	7.44	910	12.5	<5	<5	<5	5	--	41	--	--	--	--	--	
6/18/2020	5.6	<40	7.33	728	15.3	<5	<5	<5	<5	130	41	35,400	27	<0.004	<0.02	145	
11/5/2020	6.2	21.0	6.92	1,126	13.5	<5	<5	<5	<5	--	--	--	--	--	--	--	
6/11/2021	6.3	15.0	7.08	1,057	18.8	<5	<5	<5	6	90	6	43700	27	<0.004	<0.02	167	
11/5/2021	6.6	21.2	7.15	927	13.0	<5	<5	<5	<5	--	--	--	--	--	--	--	
6/8/2022	7.9	13.5	7.00	1,070	14.97	<5	<5	<5	8	20	9	49,000	33	<0.004	<0.02	171	

See notes on page 13.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		EGL Residential Drinking Water Criteria & RBSLs							100 (A)	1,000 (E)	100 (A)	2,400					
B-9	6/21/1995	3.5	34	7.68	2,400	14.6	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	3.9	<10	7.72	1,829	14.8	37	43	<40	<20	--	--	--	--	--	--	--
	2/9/1996	3.1	<10	7.34	2,860	8.0	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	2.1	<100	6.81	2,550	11.5	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	2.3	<5	8.04	2,310	16.4	<20	<20	<20	70	--	--	--	--	--	--	--
	11/13/1996	71.0	<5	6.79	3,280	9.2	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	3.0	<100	6.80	2,600	10.0	<10	<10	51	20	--	--	--	--	--	--	--
	11/6/1997	2.0	<100	6.50	2,800	11.0	<10	<10	183	40	650	741	--	141	<0.005	<0.020	1,178
	5/4/1998	3.0	<5	6.58	2,400	14.5	10	10	18	40	--	--	--	--	--	--	--
	11/5/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS	NS	NS
	4/26/1999	4.0	<100	7.69	1,860	12.2	<10	<10	19	20	--	--	--	--	--	--	--
	11/5/1999	2.5	<100	6.75	2,340	15.4	<10	<10	20	30	610	1280	47,100	128	<0.005	<0.020	1,222
	4/26/2000	5.5	<100	7.56	2,780	9.5	<10	<10	12	30	--	--	--	--	--	--	--
	12/8/2000	5.0	<10	7.56	2,400	7.8	<10	<10	46	<10	50	--	69,500	142	<0.005	<0.020	1,246
	5/16/2001	4.8	<100	7.41	1,070	12.6	<10	<10	7	10	--	--	--	--	--	--	--
	10/17/2001	4.0	<100	7.54	2,130	10.8	<10	<10	8	20	940	--	66,000	122	<0.005	NA	1,150
	5/16/2002	1.9	<100	7.19	2,470	11.6	<10	<10	7	10	--	--	--	--	--	--	--
	11/7/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2003	2.2	57	6.78	2,690	10.7	<5	<5	15	13	--	--	--	--	--	--	--
11/13/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
6/30/2004	3.8	NS	6.91	2,379	12.7	<5	8	19	28	--	--	--	--	--	--	--	
12/9/2004	3.0	<30	5.88	2,480	11.4	<5	<5	11	19	570	248	55,900	149	<0.005	<0.010	1,350	
6/8/2005	4.0	<30	7.09	2,116	10.3	6	6	12	17	480	701	58,300	128	<0.005	<0.010	1,160	
12/7/2005	5.0	<30	8.58	2,830	11.9	11	5	12	40	320	410	58,500	--	--	--	--	
6/29/2006	1.9	<30	6.82	2,820	12.4	6	6	13	19	390	330	63,600	125	<0.005	<0.010	1,150	
11/30/2006	2.7	36.7	7.15	2,830	12.5	<5	6	<5	14	--	--	--	--	--	--	--	
6/5/2007	2.1	<30	6.70	2,770	11.0	12	6	24	21	320	1,900	67,300	112	<0.005	<0.010	1,120	
11/16/2007	2.0	27.4	6.67	3,000	9.4	2	6	24	18	--	--	--	--	--	--	--	
7/2/2008	1.8	36.4	6.44	3,060	19.7	<5	4	13	19	780	812	64,200	133	<0.005	<0.010	1,280	
11/20/2008	2.2	15.9	6.35	3,290	8.1	<5	<1	13	<5	--	--	--	--	--	--	--	
11/20/2008	2.0	127	6.35	3,280	8.1	<5	<1	13	<5	--	--	--	--	--	--	--	
6/25/2009	1.6	<30	6.67	2,700	19.8	<5	<1	<5	<5	59	173	65,300	107	<0.005	<0.010	1,120	
11/16/2009	3	84.1	6.71	3,030	12.7	<5	<4	16	8	--	--	--	--	--	--	--	
6/15/2010	3	27.5	6.69	3,030	13.0	<5	<4	7	6	460	475	70,700	117	<0.005	<0.020	1,230	
11/11/2010	3	37.5	6.37	2,910	12.9	19	4	7	15	--	--	--	--	--	--	--	
6/22/2011	1.9	<30	6.70	2,600	14.0	17	6	21	12	780	661	63,300	99	<0.005	<0.010	972	
6/22/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--	
11/16/2011	2	50	7.18	3,060	12.9	<5	<4	7	<5	--	--	--	--	--	--	--	
6/26/2012	2	21	6.53	2,770	14.0	<5	<4	8	<5	60	433	73,700	101	<0.005	<0.02	1,110	
12/5/2012	2.3	19	6.80	3,210	12.0	<5	8	17	23	--	--	--	--	--	--	--	
6/5/2013	2.1	15	7.07	2,660	12.5	<5	<4	6	25	40	173	66,400	106	<0.005	<0.02	1,150	
11/6/2013	2.2	NS	6.36	2,730	13.0	10	8	47	8	--	--	--	--	--	--	--	
6/25/2014	1.9	25	6.82	2,650	11.5	<5	<5	18	8	<20	159	27,100	108	<0.005	<0.02	1,070	
11/19/2014	2.1	29	6.77	2,670	8.12	<5	6	14	12	--	--	--	--	--	--	--	
6/24/2015	2.0	17	6.38	2,480	11.8	<5	<5	<5	<5	<20	89	62,400	87	<0.005	<0.02	1,040	
11/18/2015	2.0	<30	6.68	2,670	13.5	<5	<5	7	<5	--	--	--	--	--	--	--	
6/24/2016	1.9	150	6.68	2,190	12.9	<5	<5	10	<5	20	95	52,800	71	<0.005	<0.02	776	
11/29/2016	1.9	13	6.77	2,780	13.9	<5	<5	8	9	--	--	--	--	--	--	--	
6/20/2017	1.8	12	6.75	2,250	11.5	<5	<5	5	<5	17	172	54,600	74	<0.005	<0.02	770	
11/7/2017	2.1	<30	6.57	2,540	13.1	<5	<5	8	11	--	--	--	--	--	--	--	
6/12/2018	1.9	<60	5.78	2,420	11.6	<5	<5	6	8	20	89	55,500	85	<0.005	<0.02	931	
11/6/2018	4.9	<150	6.74	3,010	13.6	<5	<5	7	<5	--	--	--	--	--	--	--	
6/3/2019	4.3	<150	6.89	2,200	10.7	<5	<5	<5	7	70	12	52,200	69	<0.004	<0.02	838	
11/21/2019	3.2	77	7.05	2,620	12.8	<5	<5	6	9	--	--	--	--	--	--	--	
6/17/2020	4.3	45	7.13	2,260	13.1	<5	<5	<5	13	160	31	52,200	76	<0.004	<0.02	929	
11/5/2020	7.3	14.6	6.72	2,800	13.8	<5	<5	7	6	--	--	--	--	--	--	--	
6/11/2021	5.4	<10	6.85	2,168	14.7	<5	<5	<5	<5	50	124	50,700	62	<0.004	<0.02	731	
11/4/2021	4.8	5.68 J	6.80	2,135	13.9	<5	<5	<5	<5	--	--	--	--	--	--	--	
6/8/2022	7.0	7.40 J	6.74	1,830	14.25	<5	<5	<5	14	70	180	45,900	46	<0.004	<0.02	562	

See notes on page 13.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		EGLE Residential Drinking Water Criteria & RBSLs					100 (A)	1,000 (E)	100 (A)	2,400							
B-18A	6/21/1995	2.7	<10	7.54	1,048	13.3	<20	<20	<30	150	--	--	--	--	--	--	--
	8/31/1995	3.0	<10	7.91	989	13.2	<20	<20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	2.3	<10	7.42	1,021	9.3	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	1.4	<100	7.04	944	13.2	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	2.4	<5	7.49	1,041	12.8	<20	<20	<20	60	--	--	--	--	--	--	--
	11/13/1996	19.0	<5	7.22	1,331	6.4	<20	<20	<20	70	--	--	--	--	--	--	--
	5/6/1997	2.0	<100	6.50	900	10.0	<10	<10	13	10	--	--	--	--	--	--	--
	11/6/1997	4.0	<100	6.40	1,100	10.0	<10	<10	62	10	380	62	--	12	<0.005	<0.020	130
	5/4/1998	2.0	<5	6.72	862	11.8	<10	<10	<5	20	--	--	--	--	--	--	--
	11/5/1998	1.0	<10	6.00	1,090	11.8	<10	<10	<5	10	240	128	46,000	--	--	--	--
12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	10	<0.005	<0.020	133	
4/26/1999	2.1	<100	8.10	921	14.0	<10	<10	<5	20	--	--	--	--	--	--	--	
11/5/1999	4.3	<100	7.10	832	14.0	<10	<10	<5	60	180	155	39,200	8	<0.005	<0.020	130	
4/26/2000	2.4	<100	7.50	980	10.4	<10	<10	<5	30	--	--	--	--	--	--	--	
12/8/2000	2.6	<10	6.96	990	9.9	<10	<10	15	<10	<10	--	34,500	7	<0.005	<0.020	126	
Duplicate	12/8/2000	2.6	<10	--	--	--	<10	<10	13	<10	40	--	35,100	7	<0.005	<0.020	112
5/16/2001	2.4	<100	7.91	1,160	12.9	<10	<10	<5	10	--	--	--	--	--	--	--	
10/17/2001	2.2	<100	7.09	1,020	12.2	<10	<10	<5	<10	350	--	35,400	7	<0.005	<0.020	132	
5/16/2002	1.5	<100	7.19	2,080	12.2	<10	<10	<5	10	--	--	--	--	--	--	--	
11/7/2002	1.9	<30	7.16	820	10.1	<5	<5	<5	<5	190	26	40,800	10	<0.005	<0.020	134	
6/4/2003	1.6	<30	6.92	790	13.1	<5	<5	<5	5	--	--	--	--	--	--	--	
11/13/2003	1	<30	7.68	1,180	7.1	<5	<5	<5	<5	160	<5	--	10	<0.005	<0.010	129	
Duplicate	11/13/2003	--	--	--	--	--	--	--	--	--	--	--	11	<0.005	<0.010	130	
6/29/2004	1.2	<30	7.19	863	12.0	<5	<5	7	10	--	--	--	--	--	--	--	
12/9/2004	3	<30	6.19	960	10.5	<5	<5	9	12	900	363	37,900	14	<0.005	<0.010	127	
6/8/2005	2	<30	7.38	819	10.9	<5	<5	6	16	170	80	40,000	11	<0.005	<0.010	120	
12/8/2005	2.6	<30	9.73	1,120	10.1	11	<4	<5	10	390	170	47,000	--	--	--	--	
6/27/2006	1.2	<30	7.09	1,110	13.2	5	4	<5	46	170	50	48,200	13	<0.005	<0.010	125	
11/30/2006	1.4	119	7.18	1,100	11.5	5	<4	<5	9	--	--	--	--	--	--	--	
6/4/2007	1	19.9	7.01	1,070	13.2	9	3	3	14	110	22	51,800	15	<0.005	<0.010	114	
11/14/2007	<1	19	6.91	1,090	13.7	1	2	6	11	--	--	--	--	--	--	--	
6/25/2008	12	34.1	7.10	1,060	20.4	<5	2	<5	11	310	<5	54,800	15	<0.005	<0.010	110	
11/18/2008	<1	<30	6.58	1,088	2.9	<5	<1	<5	<5	--	--	--	--	--	--	--	
6/24/2009	<1	<30	7.25	1,060	26.2	<5	1	<5	15	<20	<5	53,100	16	<0.005	<0.010	111	
11/18/2009	2	<30	6.89	1,070	11.7	<5	<4	<5	45	--	--	--	--	--	--	--	
6/17/2010	1	<30	7.19	1,080	17.5	<5	<4	<5	8	<20	<5	45,500	15	<0.005	<0.020	109	
11/10/2010	2	28	6.91	1,065	9.5	12	<4	<5	<5	--	--	--	--	--	--	--	
6/21/2011	1.2	<30	7.16	1,031	18.8	10	<4	5	12	240	<5	46,100	17	<0.005	<0.010	103	
6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--	
11/15/2011	1	28	7.01	1,063	12.0	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/27/2012	1.2	<40	6.99	1,057	14.4	<5	<4	<5	<5	30	26	50,000	18	<0.005	<0.02	103	
Duplicate	6/27/2012	1.2	<40	6.99	1,054	14.4	<5	<4	<5	5	40	27	46,500	18	<0.005	<0.02	101
12/6/2012	1.5	<40	7.03	1,071	9.3	<5	<4	5	9	--	--	--	--	--	--	--	
6/5/2013	1.5	4.7	7.17	1,040	14.6	<5	<4	<5	31	20	12	43,900	19	<0.005	<0.02	110	
11/5/2013	1.4	<10	7.15	1,063	12.1	<5	<4	<5	11	--	--	--	--	--	--	--	
6/24/2014	1.5	<30	7.03	1,048	12.8	<5	<5	6	7	<20	20	20,500	18	<0.005	<0.02	107	
11/19/2014	1.4	16	7.10	1,073	6.27	<5	<4	5	7	--	--	--	--	--	--	--	
Duplicate	11/19/2014	1.5	<60	7.10	1,072	6.27	<5	<4	5	7	--	--	--	--	--	--	
6/23/2015	1.3	<30	6.95	1,060	15.5	<5	<5	<5	<5	30	10	43,600	18	<0.005	<0.02	110	
11/18/2015	1.4	<30	7.03	1,065	12.2	<5	<5	<5	5	--	--	--	--	--	--	--	
6/23/2016	1.4	55	7.08	1,063	13.8	<5	<5	<5	<5	30	7	42,400	19	<0.005	<0.02	108	
11/30/2016	1.2	<30	7.10	1,059	11.4	<5	<5	<5	7	--	--	--	--	--	--	--	
6/20/2017	1.5	<30	6.97	1,075	12.7	<5	<5	<5	8	<20	27	36,300	18	<0.005	<0.02	118	
11/7/2017	1.2	<30	6.96	1,092	11.6	<5	<5	<5	<5	--	--	--	--	--	--	--	
6/12/2018	1.4	<60	6.90	1,074	12.4	<5	<5	<5	10	160	41	32,900	16	<0.005	<0.02	131	
11/7/2018	3.0	<150	6.85	1,106	11.7	<5	<5	<5	7	--	--	--	--	--	--	--	
6/3/2019	3.6	<150	7.36	1,050	11.2	<5	<5	<5	9	<20	15	34,900	18	<0.004	<0.02	127	
Duplicate	6/3/2019	3.8	<150	7.36	1,056	11.2	<5	<5	34	110	16	35,300	17	<0.004	<0.02	127	
11/20/2019	2.2	65	7.30	1,055	11.2	<5	<5	<5	8	--	--	--	--	--	--	--	
6/18/2020	3.2	44	7.18	725	13.2	<5	<5	<5	7	50	65	39,700	20	<0.004	<0.02	137	
Duplicate	6/18/2020	3.9	<40	7.18	769	13.2	<5	<5	6	50	68	40,800	20	<0.004	<0.02	138	
11/5/2020	4.3	9.42	7.09	1,084	13.2	<5	<5	<5	9	--	--	--	--	--	--	--	
6/11/2021	3.7	8.78 J	7.07	1,080	16.0	<5	<5	<5	16	30	40	40,000	21	<0.004	<0.02	125	
11/5/2021	2.5	<10	7.06	1,001	11.4	<5	<5	<5	11	--	--	--	--	--	--	--	
6/8/2022	5.4	<10	6.91	1,090	13.66	<5	<5	<5	11	<20	39	35200	22	<0.004	<0.02	124	

See notes on page 13.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		EGLE Residential Drinking Water Criteria & RBSLs					100 (A)	1,000 (E)	100 (A)	2,400							
B-19A	6/21/1995	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	8/31/1995	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	2/9/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	6/19/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	8/21/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	11/13/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	5/6/1997	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	11/6/1997	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	WD	WD	WD	WD
	5/4/1998	3.0	<5	6.84	1,480	10.1	<10	<10	<5	30	--	--	--	--	--	--	--
	11/5/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS	NS	NS
	4/26/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	11/5/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/26/2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--
	12/8/2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/16/2001	4.0	<100	7.14	1,050	11.8	<10	<10	<5	<10	--	--	--	--	--	--	--
	10/17/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/16/2002	6.0	<100	7.19	1,740	10.6	<10	<10	<5	10	--	--	--	--	--	--	--
	11/7/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/4/2003	5.8	<30	6.92	1,350	12.9	<5	<5	<5	<5	--	--	--	--	--	--	--
11/13/2003	3.4	<30	7.59	1,620	10.2	<5	<5	<5	20	<5	--	--	148	<0.005	<0.010	229	
6/29/2004	3.9	<30	7.17	1,316	14.7	<5	<5	<5	8	--	--	--	--	--	--	--	
12/9/2004	5.0	33	6.24	1,340	9.9	<5	<5	<5	9	240	11	111,000	116	<0.005	<0.010	233	
Duplicate	12/9/2004	5.0	<30	--	--	--	<5	<5	<5	7	170	<5	114,000	116	<0.005	<0.010	233
Duplicate	6/7/2005	3.0	<30	7.09	829	12.2	<5	<5	7	<5	1,320	228	15,700	52	<0.005	<0.010	130
Duplicate	12/8/2005	5.5	<30	--	1,390	--	10	<4	<5	20	160	<20	81,400	--	--	--	--
Re-sample	12/8/2005	5.3	<30	7.13	1,390	12.3	10	<4	<5	<10	150	<20	74,800	--	--	--	--
Re-sample	2/14/2006	--	--	7.95	840	5.9	--	<5	--	--	--	--	--	--	--	--	--
Re-sample	6/29/2006	2.7	<30	7.58	860	12.0	<5	<4	12	21	240	210	22,400	51	<0.005	<0.010	153
Re-sample	11/30/2006	6.2	33.7	7.18	1,300	11.4	5	<4	<5	<5	--	--	--	--	--	--	--
Re-sample	6/7/2007	2	<30	6.97	899	11.4	6	4	4	9	70	21	19,700	58	<0.005	<0.010	136
Re-sample	11/13/2007	1.5	<30	7.27	1,070	12.1	3	7	26	11	--	--	--	--	--	--	--
Re-sample	6/25/2008	2.4	38.8	7.13	1,060	17.4	3	<5	16	380	9	18,500	58	<0.005	<0.010	148	
Re-sample	11/18/2008	1.3	<30	7.00	1,052	8.0	<5	1	<5	14	--	--	--	--	--	--	--
Re-sample	6/24/2009	1.0	<30	7.74	911	17.3	<5	2	<5	<5	36	<5	21,200	60	<0.005	<0.010	147
Re-sample	11/19/2009	2	<30	7.41	994	10.4	<5	<4	<5	7	--	--	--	--	--	--	--
Re-sample	6/15/2010	2	<30	7.57	992	16.1	<5	<4	<5	<5	<20	<5	19,800	59	<0.005	<0.020	154
Re-sample	11/10/2010	2	<30	6.91	1,128	8.7	12	<4	<5	<5	--	--	--	--	--	--	--
Re-sample	6/22/2011	1.5	<30	7.35	902	17.2	5	<4	5	<5	240	<5	22,400	64	<0.005	<0.010	140
Re-sample	6/22/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--
Re-sample	11/16/2011	2	26	7.06	1,091	8.4	<5	<4	<5	5	--	--	--	--	--	--	--
Re-sample	6/27/2012	1.5	<40	7.78	1,005	13.3	<5	<4	<5	<5	<20	<5	23,200	62	<0.005	<0.02	145
Re-sample	12/6/2012	1.8	<40	7.36	1,129	10.2	<5	<4	5	6	--	--	--	--	--	--	--
Re-sample	6/5/2013	1.5	39	8.16	777	13.0	<5	<4	<5	25	40	<5	27,700	72	<0.005	<0.02	136
Re-sample	11/6/2013	1.6	3.6	7.33	1,104	11.6	<5	<4	10	<5	--	--	--	--	--	--	--
Re-sample	6/23/2014	2.0	23	8.40	817	17.3	<5	<5	5	<5	<20	<5	11,900	74	<0.005	<0.02	136
Re-sample	11/20/2014	2.1	190	7.37	1,038	6.16	<5	6	6	10	--	--	--	--	--	--	--
Re-sample	6/23/2015	1.5	<30	6.77	1,165	20.2	<5	6	<5	26	30	50	28,700	72	<0.005	<0.02	132
Re-sample	11/19/2015	1.4	17	6.90	1,170	10.6	<5	<5	7	--	--	--	--	--	--	--	--
Re-sample	6/27/2016	1.5	71	8.13	712	18.8	<5	<5	<5	<5	40	<5	26,700	70	<0.005	<0.02	128
Re-sample	11/30/2016	1.8	12	7.39	1,104	11.2	14	14	20	39	--	--	--	--	--	--	--
Re-sample	1/12/2017	--	--	7.34	--	11.1	<5	<5	6	11	--	--	--	--	--	--	--
Re-sample	6/21/2017	2.0	30	7.29	1,064	12.1	<5	<5	<5	<5	<20	13	28,200	75	<0.005	<0.02	131
Re-sample	11/7/2017	2.6	120	7.05	1,134	12.0	<5	<5	<5	<5	--	--	--	--	--	--	--
Re-sample	6/12/2018	1.8	<60	8.63	688	12.5	<5	<5	<5	<5	30	<5	24,700	81	<0.005	<0.02	135
Re-sample	11/7/2018	5.9	<150	7.35	1,176	11.1	6	5	11	15	--	--	--	--	--	--	--
Re-sample	6/3/2019	6.5	<150	7.26	1,062	11.7	<5	<5	7	10	2,760	203	27,300	82	<0.004	<0.02	148
Re-sample	11/21/2019	2.4	<40	7.36	1,121	11.1	7	6	12	23	--	--	--	--	--	--	--
Re-sample	6/18/2020	3.1	<40	7.26	845	13.4	<5	<5	6	8	1,180	276	22,200	88	<0.004	<0.02	157
Re-sample	11/5/2020	6.6	19.4	7.02	1,172	13.0	8	108	11	42	--	--	--	--	--	--	--
Re-sample	12/4/2020	--	--	--	--	--	<5	<5	6	13	--	--	--	--	--	--	--
Re-sample	6/9/2021	4.0	5.8 J	7.28	1,194	18.1	<5	5	6	12	1,690	217	23,800	88	<0.004	<0.02	150
Re-sample	11/4/2021	3.6	10.1	7.14	926	11.4	<5	<5	<5	7	--	--	--	--	--	--	--
Re-sample	6/9/2022	4.5	5.22 J	7.04	1,180	15.21	<5	<5	<5	<5	40	56	19,900	90	<0.004	<0.02	151

See notes on page 13.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		<i>EGLE Residential Drinking Water Criteria & RBSLs</i>					100 (A)	1,000 (E)	100 (A)	2,400							
B-20D	6/21/1995	2.8	<10	8.27	771	15.1	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	4.7	47	8.10	1,204	14.6	<20	20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	21.0	38	7.12	801	9.1	32	28	54	120	--	--	--	--	--	--	--
	6/19/1996	2.4	<100	7.92	745	11.9	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	3.0	<5	7.97	750	13.1	<20	<20	<20	40	--	--	--	--	--	--	--
	11/13/1996	16.0	<5	7.69	1,075	6.7	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	3.0	<100	6.80	640	10.0	<10	<10	15	10	--	--	--	--	--	--	--
	11/6/1997	5.0	<100	6.70	700	10.0	<10	20	41	<10	260	35	--	5	<0.005	<0.020	101
	5/4/1998	4.0	<5	6.77	579	12.2	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	3.0	11	6.47	667	13.5	<10	<10	<5	10	<10	18	31,000	--	--	--	--
Duplicate	11/5/1998	5.0	16	6.48	677	13.6	<10	<10	<5	10	170	8	30,300	--	--	--	
Duplicate	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	<0.005	<0.020	92	
Duplicate	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	<0.005	<0.020	89	
	4/26/1999	3.2	<100	8.40	506	13.0	<10	<10	<5	10	--	--	--	--	--	--	
	11/5/1999	5.3	<100	7.45	677	12.5	<10	<10	<5	60	130	60	31,400	33	<0.005	<0.020	105
	4/26/2000	3.2	<100	7.40	760	14.9	<10	<10	<5	<10	--	--	--	--	--	--	
	12/8/2000	3.2	<10	7.45	780	4.7	<10	<10	15	<10	20	--	19,700	2	<0.005	<0.020	113
	5/15/2001	2.7	<100	6.99	590	13.0	<10	<10	<5	<10	--	--	--	--	--	--	
	10/18/2001	2.5	<100	7.85	930	10.4	<10	<10	<5	<10	300	--	20,600	2	<0.005	<0.020	105
	5/16/2002	3.2	<100	7.21	780	11.9	<10	<10	<5	10	--	--	--	--	--	--	
	11/7/2002	1.8	<30	7.59	610	8.7	<5	<5	<5	<5	250	74	20,900	3	<0.005	<0.020	115
	6/3/2003	2.5	<30	7.36	620	12.8	<5	<5	<5	<5	--	--	--	--	--	--	
	11/13/2003	1.3	<30	7.97	630	7.7	<5	<5	5	<5	200	15	--	5	<0.005	<0.010	127
	6/29/2004	9.4	<30	7.48	666	13.1	<5	<5	11	<5	--	--	--	--	--	--	
	12/10/2004	2.0	<30	6.59	830	10.8	<5	<5	11	10	2,110	92	16,800	3	<0.005	<0.010	148
	6/7/2005	4.0	<30	7.30	707	11.9	<5	<5	5	<5	2,140	66	16,500	<5	<0.005	<0.010	155
	12/8/2005	4.1	<30	4.84	957	11.1	11	<4	26	<10	120	120	20,600	--	--	--	
	6/28/2006	1.7	<30	7.36	979	12.5	7	<4	<5	5	2,120	60	17,600	2	<0.005	<0.010	169
	11/30/2006	3.4	<30	7.49	980	12.5	6	<4	6	<5	--	--	--	--	--	--	
	6/8/2007	3.4	30.9	6.72	929	13.4	10	22	19	124	610	160	25,500	4	<0.005	0.074	144
	11/13/2007	2.1	<30	7.19	932	13.5	3	1	13	9	--	--	--	--	--	--	
	6/25/2008	<1	<60	7.01	946	15.5	<5	2	<5	7	2,400	55	19,500	4	<0.005	<0.010	164
	11/18/2008	1	36.1	6.89	1,006	12.6	<5	4	6	22	--	--	--	--	--	--	
	6/24/2009	1.1	<30	7.17	1,000	19.4	<5	<1	<5	<5	1,720	56	21,000	3	<0.005	<0.010	180
Duplicate	6/24/2009	<1	<30	7.17	1,010	19.4	<5	<1	<5	<5	1,640	56	20,800	3	<0.005	<0.010	183
	11/18/2009	2	<30	7.02	1,030	12.1	<5	<4	<5	5	--	--	--	--	--	--	
	6/16/2010	2	<30	7.30	1,020	15.1	<5	<4	<5	<5	1,930	49	19,000	2	<0.005	<0.020	177
	11/9/2010	3	<30	7.02	998	11.7	11	<4	<5	<5	--	--	--	--	--	--	
Replicate	6/22/2011	1.6	<30	7.23	967	15.5	9	<4	<5	13	2,550	54	18,600	<5	<0.005	<0.010	164
	6/22/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	
	11/16/2011	2	50	7.02	1,006	9.8	<5	<4	<5	5	--	--	--	--	--	--	
Duplicate	11/16/2011	2	26	7.02	1,002	9.8	<5	<4	<5	6	--	--	--	--	--	--	
	6/25/2012	2	15	6.79	1,003	12.8	<5	<4	<5	<5	1,700	53	21,400	<5	<0.005	<0.02	183
	12/6/2012	1.8	<40	7.54	1,008	9.8	<5	<4	<5	7	--	--	--	--	--	--	
	6/5/2013	1.7	<10	7.00	1,000	11.5	<5	<4	<5	11	1,840	48	19,500	<5	<0.005	<0.02	201
Duplicate	6/5/2013	1.9	<10	7.00	1,000	11.5	<5	<4	<5	<5	1,780	47	17,100	<5	<0.005	<0.02	200
	11/5/2013	1.7	NS	7.22	992	11.8	<5	<4	<5	39	--	--	--	--	--	--	
	6/23/2014	1.9	<30	7.01	972	13.8	<5	<5	5	<5	1,360	47	8,620	<5	<0.005	<0.02	192
	6/24/2015	1.8	<30	7.13	959	13.7	<5	<5	<5	<5	1,960	48	18,500	<10	<0.005	<0.02	178
Duplicate	6/24/2015	1.7	<30	7.13	958	13.7	<5	<5	<5	<5	1,970	50	18,600	<10	<0.005	<0.02	178
	6/23/2016	1.7	68	7.01	945	17.4	<5	<5	<5	<5	1,880	65	18,500	<5	<0.005	<0.02	161
	6/22/2017	1.6	<30	7.11	926	12.4	<5	<5	<5	<5	2,080	48	18,700	<5	<0.005	<0.02	144
Duplicate	6/22/2017	1.6	<30	7.11	926	12.4	<5	<5	<5	<5	2,140	49	18,300	<5	<0.005	<0.02	146
	6/14/2018	1.5	<60	6.96	882	14.3	<5	<5	<5	5	2,440	67	18,100	<5	<0.005	<0.02	132
Duplicate	6/14/2018	3.0	<60	6.96	892	14.3	<5	<5	<5	7	2,630	72	17,300	<5	<0.005	<0.02	130
	5/31/2019	3.0	<150	7.69	797	12.1	<5	<5	<5	<5	910	41	21,400	<10	<0.004	<0.02	119
	6/18/2020	2.9	67	7.47	618	15.5	<5	<5	<5	<5	1,730	47	17,100	<10	<0.004	<0.02	132
	6/9/2021	3.5	15.5	7.42	870	13.9	<5	<5	<5	<5	2,100	51	17,000	<10	<0.004	<0.02	124
Duplicate	6/9/2022	4.0	3.4 J	7.29	843	12.56	<5	<5	<5	20	1,980	48	15,900	<10	<0.004	<0.02	115
Duplicate	6/10/2022	3.6	<10	7.29	845	12.56	<5	<5	<5	<5	1,910	47	15,800	<10	<0.004	<0.02	115

See notes on page 13.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		EGLE Residential Drinking Water Criteria & RBSLs							100 (A)	1,000 (E)	100 (A)	2,400					
B-21D	6/21/1995	4.2	<10	8.27	870	14.5	<20	<20	<30	61	--	--	--	--	--	--	--
	8/31/1995	3.3	19	8.09	684	14.2	<20	21	<40	<20	--	--	--	--	--	--	--
	2/9/1996	4.1	<10	7.70	646	8.6	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	5.3	<100	7.58	577	14.1	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	2.5	<5	7.93	576	13.8	<20	<20	<20	50	--	--	--	--	--	--	--
	11/13/1996	17.0	<5	7.28	810	8.8	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	2.0	<100	6.82	530	10.2	<10	<10	8	<10	--	--	--	--	--	--	--
	11/6/1997	3.0	<100	6.70	540	10.0	<10	<10	30	<10	240	27	--	2	<0.005	<0.020	33
	5/4/1998	16.0	<5	6.90	480	11.5	<10	<10	<5	20	--	--	--	--	--	--	--
	11/5/1998	5.0	<10	7.24	565	7.8	<10	<10	<5	10	240	43	26,700	--	--	--	--
12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	2	<0.005	<0.020	15	
4/26/1999	11.0	<100	8.24	506	13.0	<10	<10	<5	10	--	--	--	--	--	--	--	
11/5/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
4/26/2000	2.5	<100	8.20	660	14.1	<10	<10	<5	<10	--	--	--	--	--	--	--	
12/8/2000	4.2	<10	8.44	680	7.1	<10	<10	11	<10	<10	--	29,600	2	<0.005	<0.020	36	
5/15/2001	1.9	<100	7.94	570	13.0	<10	<10	<5	10	--	--	--	--	--	--	--	
5/15/2001	1.9	<100	8.32	560	13.0	<10	<10	<5	10	--	--	--	--	--	--	--	
10/18/2001	3.4	<100	7.61	570	13.7	<10	<10	<5	<10	200	--	22,200	1	<0.005	<0.020	41	
5/16/2002	6.1	<100	7.19	630	11.7	<10	<10	<5	<10	--	--	--	--	--	--	--	
11/7/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
6/3/2003	5.8	<30	7.27	510	13.0	<5	<5	<5	6	--	--	--	--	--	--	--	
11/13/2003	1.0	<30	7.81	710	8.7	<5	<5	<5	9	100	<5	--	4	<0.005	<0.010	48	
6/30/2004	4.0	<30	6.77	570	14.8	<5	<5	<5	7	--	--	--	--	--	--	--	
12/10/2004	2.0	<30	6.40	600	9.9	<5	<5	<5	7	1,330	44	20,100	2	<0.005	<0.010	50	
6/8/2005	3.0	<30	7.70	560	14.2	<5	<5	12	6	1,350	72	21,000	<5	<0.005	<0.010	44	
12/8/2005	4.4	<30	5.49	741	11.4	8	<4	8	<10	1,070	60	21,500	--	--	--	--	
6/28/2006	1.5	<30	7.44	718	12.8	<5	6	5	13	430	60	23,500	2	<0.005	<0.010	53	
11/30/2006	1.8	49.1	7.59	693	11.5	<4	<4	<5	<5	--	--	--	--	--	--	--	
6/8/2007	1.2	<30	6.30	709	13.2	10	2	5	7	1,200	49	21,500	4	<0.005	<0.010	60	
11/14/2007	<1	<30	7.26	738	14.5	2	1	5	8	--	--	--	--	--	--	--	
6/26/2008	1.8	16.8	7.07	738	16.9	<5	1	<5	<5	1,390	40	22,700	3	<0.005	<0.010	60	
11/19/2008	1.1	<30	6.93	739	11.0	<5	<1	5	<5	--	--	--	--	--	--	--	
6/25/2009	<1	<30	6.69	743	16.1	<5	<1	<5	<5	1,210	34	25,100	3	<0.005	<0.010	64	
11/19/2009	2	41.2	7.17	745	10.2	<5	<4	<5	6	--	--	--	--	--	--	--	
11/19/2009	2	<30	7.17	739	10.2	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/17/2010	2	<30	7.40	736	13.2	<5	<4	<5	<5	980	34	23,700	3	<0.005	<0.020	58	
11/10/2010	1	<30	7.28	739	11.0	11	<4	<5	<5	--	--	--	--	--	--	--	
6/22/2011	1.4	<30	7.41	718	19.5	10	<4	<5	<5	1,540	33	23,300	<5	<0.005	<0.010	61	
6/22/2011	--	--	--	--	--	7	--	--	--	--	--	--	--	--	--	--	
11/16/2011	1	7.9	7.16	753	10.6	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/26/2012	1.3	<40	7.26	745	19.5	<5	<4	<5	<5	640	42	25,800	<5	<0.005	<0.02	66	
12/6/2012	1.6	<40	7.57	754	9.1	--	<4	<5	8	--	--	--	--	--	--	--	
6/5/2013	1.6	<10	7.16	742	13.5	<5	<4	<5	26	990	31	24,400	<5	<0.005	<0.02	68	
11/6/2013	1.5	<10	7.49	760	12.1	<5	<4	<5	14	--	--	--	--	--	--	--	
6/24/2014	1.5	<30	7.43	754	16.5	<5	<5	<5	<5	850	28	11,200	<5	<0.005	<0.02	77	
6/24/2015	1.4	<30	7.19	683	15.2	<5	<5	<5	<5	710	37	24,700	<10	<0.005	<0.02	81	
6/24/2016	1.4	59	6.94	790	15.2	<5	<5	<5	<5	1,290	35	22,600	<5	<0.005	<0.02	91	
6/21/2017	1.4	<30	7.21	790	13.0	<5	<5	<5	<5	1,210	36	25,000	<5	<0.005	<0.02	90	
6/14/2018	1.4	<60	7.02	786	14.4	<5	<5	5	11	4,310	123	22,700	<5	<0.005	<0.02	90	
5/30/2019	2.7	<150	7.70	658	11.9	<5	<5	<5	<5	270	30	25,600	<10	<0.004	<0.02	79	
6/17/2020	2.9	40	7.57	554	12.5	<5	<5	<5	<5	1,400	33	21,200	<10	<0.004	<0.02	108	
6/10/2021	3.3	<10	7.36	800	15.7	<5	<5	<5	<5	1,920	45	24,600	<10	<0.004	<0.02	90	
6/8/2022	4.1	<10	7.25	800	12.3	<5	<5	<5	<5	1,550	30	22,900	<10	<0.004	<0.02	97	

See notes on page 13.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		<i>EGLE Residential Drinking Water Criteria & RBSLs</i>							100 (A)	1,000 (E)	100 (A)	2,400					
B-22D	6/21/1995	2.6	<10	7.71	573	15.5	<20	<20	370	<20	--	--	--	--	--	--	--
	8/31/1995	4.5	47	8.25	739	14.3	<20	<20	<40	47	--	--	--	--	--	--	--
	2/9/1996	6.9	<10	NS	NS	NS	<20	<20	<40	80	--	--	--	--	--	--	--
	6/19/1996	1.8	<100	7.51	600	13.4	<20	<20	<20	20	--	--	--	--	--	--	--
	8/21/1996	1.7	<5	8.08	608	14.2	<20	<20	<20	50	--	--	--	--	--	--	--
	11/13/1996	10.0	<5	7.22	817	7.7	<20	<20	<20	50	--	--	--	--	--	--	--
	5/6/1997	2.0	<100	6.67	550	10.1	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/6/1997	7.0	<100	6.90	550	10.0	<10	<10	29	10	1,360	55	--	2	<0.005	<0.020	32
	5/4/1998	5.0	<5	7.07	501	11.7	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	6.0	<10	6.60	559	9.8	<10	<10	<5	10	1,180	47	23,800	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	2	<0.005	<0.020	28
	4/26/1999	18.0	<100	8.20	485	13.2	<10	<10	<5	10	--	--	--	--	--	--	--
	11/5/1999	2.6	<100	7.30	474	13.6	<10	<10	<5	20	90	31	27,900	2	<0.005	<0.020	29
	4/26/2000	2.5	<100	8.20	670	14.2	<10	<10	<5	<10	--	--	--	--	--	--	--
	12/8/2000	2.5	<10	7.49	510	5.4	<10	<10	8	<10	<10	--	26,500	2	<0.005	<0.020	31
	5/15/2001	6.7	<100	8.01	690	13.7	<10	<10	6	30	--	--	--	--	--	--	--
	10/18/2001	1.7	<100	7.59	2,610	10.2	<10	<10	<5	<10	200	--	27,800	1	<0.005	<0.020	33
	5/16/2002	3.2	<100	7.06	630	12.1	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/7/2002	1.5	<30	7.39	480	8.8	<5	<5	<5	<5	120	11	25,200	2	<0.005	<0.020	35
	6/3/2003	2.3	<30	6.78	570	13.1	<5	<5	<5	<5	--	--	--	--	--	--	--
11/14/2003	1.6	<30	8.05	660	9.8	<5	<5	<5	9	6	<5	--	3	<0.005	<0.010	37	
6/30/2004	1.7	<30	6.27	610	15.5	<5	<5	<5	6	--	--	--	--	--	--	--	
12/10/2004	2.0	<30	6.95	600	10.3	<5	<5	<5	6	1,280	37	25,100	2	<0.005	<0.010	42	
6/8/2005	2.0	<30	7.67	531	13.2	6	<5	<5	<5	1,370	38	23,700	<5	<0.005	<0.010	40	
12/8/2005	2.7	<30	5.75	702	11.7	10	<4	46	<10	2,200	250	25,400	--	--	--	--	
6/28/2006	<1	<30	7.48	682	13.0	<5	<4	<5	<5	1,290	30	25,800	2	<0.005	<0.010	42	
11/30/2006	2.2	<30	7.53	684	13.3	<5	<4	<5	7	--	--	--	--	--	--	--	
11/30/2006	5.3	<30	7.53	676	13.3	<5	<4	<5	<5	--	--	--	--	--	--	--	
Duplicate	6/8/2007	3.8	<30	6.59	680	14.3	7	2	1	5	1,180	32	28,100	3	<0.005	<0.010	46
Duplicate	6/8/2007	3.1	21.1	6.59	669	14.3	9	2	1	4	1,210	31	28,400	4	<0.005	<0.010	47
11/14/2007	1.1	<30	7.30	710	14.2	2	2	3	6	--	--	--	--	--	--	--	
Duplicate	6/26/2008	1.7	22.6	7.09	694	19.3	<5	<1	<5	5	1,100	33	25,900	3	<0.005	<0.010	46
6/26/2008	2.6	<30	7.09	710	19.3	<5	<1	<5	7	1,150	34	26,400	3	<0.005	<0.010	46	
11/19/2008	8.9	<30	6.93	699	8.2	<5	<1	8	8	--	--	--	--	--	--	--	
6/25/2009	1.1	<30	6.74	705	16.6	<5	<1	<5	<5	1,340	30	28,500	2	<0.005	<0.010	54	
11/18/2009	2	<30	7.15	710	11.4	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/16/2010	2	<30	7.43	715	15.7	<5	<4	<5	<5	1,100	28	26,000	2	<0.005	<0.020	51	
11/11/2010	2	<30	7.31	704	10.3	11	<4	<5	<5	--	--	--	--	--	--	--	
Replicate	6/21/2011	1.3	<30	7.35	705	17.0	9	<4	<5	<5	1,460	30	27,300	<5	<0.005	<0.010	50
6/21/2011	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--
11/14/2011	2	76	7.39	714	10.1	<5	<4	<5	12	--	--	--	--	--	--	--	
6/25/2012	2	<40	6.45	714	12.7	<5	<4	<5	8	1,830	42	30,000	<5	<0.005	<0.02	51	
12/6/2012	1.6	<40	7.58	716	10.1	<5	<4	<5	9	--	--	--	--	--	--	--	
6/3/2013	1.6	46	6.81	701	15.6	<5	<4	<5	<5	1,000	27	28,100	<5	<0.005	<0.02	53	
11/6/2013	1.5	<10	7.52	713	11.4	<5	<4	<5	12	--	--	--	--	--	--	--	
6/24/2014	1.5	<30	7.46	707	14.7	<5	<5	<5	<5	850	26	12,700	<5	<0.005	<0.02	53	
6/23/2015	1.8	<30	7.46	710	13.0	<5	<5	<5	8	1,030	27	28,300	<10	<0.005	<0.02	55	
6/22/2016	2.4	100	7.19	716	13.0	<5	<5	<5	<5	920	27	27,100	<5	<0.005	<0.02	54	
Duplicate	6/22/2016	2.4	29	7.19	716	13.0	<5	<5	<5	950	28	27,300	<5	<0.005	<0.02	54	
6/21/2017	1.5	<30	7.21	718	13.4	<5	<5	<5	<5	970	30	29,000	<5	<0.005	<0.02	54	
6/13/2018	1.5	<60	7.02	707	14.6	<5	<5	<5	5	1,320	29	31,000	<5	<0.005	<0.02	54	
5/30/2019	3.1	<150	7.6	647	11.7	<5	<5	<5	13	320	27	28,500	<10	<0.004	<0.02	55	
6/17/2020	5.2	<40	7.61	535	15.2	<5	<5	<5	<5	1,560	36	26,700	<10	<0.004	<0.02	58	
6/10/2021	2.8	88.8	7.40	722	16.3	<5	<5	<5	5	1,310	27	28,700	<10	<0.004	<0.02	54	
6/8/2022	4.3	5.42 J	7.31	718	12.99	<5	<5	<5	<5	1,320	25	28,000	<10	<0.004	<0.02	59	

See notes on page 13.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		EGLE Residential Drinking Water Criteria & RBSLs					100 (A)	1,000 (E)	100 (A)	2,400							
B-23D	6/21/1995	3.4	<10	7.27	680	15.1	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	3.9	96	8.24	845	15.4	<20	<20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	3.8	34	7.54	751	11.3	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	2.2	<100	8.25	632	14.2	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	1.7	<5	8.94	691	14.6	<20	<20	<20	50	--	--	--	--	--	--	--
	11/13/1996	40.0	<5	7.66	977	7.6	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	2.0	<100	6.80	610	11.0	<10	<10	9	<10	--	--	--	--	--	--	--
	11/6/1997	3.0	<100	6.00	620	10.0	<10	<10	31	<10	160	15	--	2	<0.005	<0.020	25
	5/4/1998	2.0	<5	6.38	558	12.2	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	5.0	<10	6.50	639	9.8	<10	<10	<5	70	<10	<5	29,700	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	2	<0.005	<0.020	21
	4/26/1999	3.6	<100	8.10	552	13.3	<10	<10	<5	<10	--	--	--	--	--	--	--
	Duplicate 4/26/1999	3.0	<100	NS	NS	NS	<10	<10	<5	<10	--	--	--	--	--	--	--
Duplicate 11/5/1999	3.4	<100	7.40	546	13.3	<10	<10	<5	<10	80	14	34,700	3	<0.005	<0.020	26	
Duplicate 11/5/1999	3.1	<100	NS	NS	NS	<10	<10	<5	<10	90	15	33,300	3	<0.005	<0.020	25	
4/26/2000	3.2	<100	7.90	800	13.7	<10	<10	<5	<10	--	--	--	--	--	--	--	
12/8/2000	2.0	<10	6.99	570	7.0	<10	<10	7	<10	60	--	35,400	2	<0.005	<0.020	22	
5/15/2001	3.2	<100	7.88	790	13.1	<10	<10	<5	10	--	--	--	--	--	--	--	
10/17/2001	1.8	<100	7.46	600	11.3	<10	<10	<5	<10	170	--	32,800	2	<0.005	<0.020	23	
5/16/2002	5.4	<100	7.19	1200	11.2	<10	<10	<5	10	--	--	--	--	--	--	--	
11/7/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Duplicate 6/3/2003	3.9	<30	6.86	640	12.9	<5	<5	<5	<5	--	--	--	--	--	--	--	
Duplicate 6/3/2003	3.7	<30	--	--	--	<5	<5	<5	<5	--	--	--	--	--	--	--	
11/13/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
6/30/2004	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--	--	--	
B-23DR 12/10/2004	2.0	<30	6.66	640	11.3	<5	<5	11	10	500	65	30,500	2	<0.005	<0.010	25	
Duplicate 6/7/2005	2.0	<30	7.34	594	12.2	<5	<5	<5	<5	2,520	49	20,600	25	<0.005	<0.010	60	
Duplicate 6/7/2005	2.0	<30	--	--	--	<5	<5	<5	<5	2,580	48	20,600	25	<0.005	<0.010	59	
12/8/2005	3.8	<30	6.22	700	6.1	7	<4	<5	<10	370	60	39,200	--	--	--	--	
6/27/2006	1.2	<30	7.12	760	13.4	5	<4	<5	5	2,280	50	20,500	26	<0.005	0.010	67	
11/30/2006	2.2	<30	7.56	568	11.8	<5	<4	<5	6	--	--	--	--	--	--	--	
6/8/2007	1.1	33.7	6.49	736	13.1	7	1	1	5	1,100	43	23,800	28	<0.005	<0.010	62	
11/16/2007	<1	<30	7.28	780	21.4	2	1	3	8	--	--	--	--	--	--	--	
6/26/2008	2.0	27.2	7.00	753	18.2	<5	1	<5	<5	1,850	44	23,700	22	<0.005	<0.010	54	
11/21/2008	<1	<30	6.74	763	6.0	<5	<1	<5	19	--	--	--	--	--	--	--	
6/25/2009	<1	<30	6.73	776	18.9	<5	<1	<5	<5	1,500	43	23,900	29	<0.005	<0.010	63	
11/18/2009	2	<30	7.22	756	11.9	<5	<4	<5	10	--	--	--	--	--	--	--	
6/16/2010	2	<30	7.36	747	18.2	<5	<4	<5	<5	950	35	23,200	20	<0.005	<0.020	45	
Duplicate 11/11/2010	2	21.5	7.28	743	12.8	11	<4	<5	<5	--	--	--	--	--	--	--	
Duplicate 11/11/2010	2	<30	7.28	742	12.8	11	<4	<5	<5	--	--	--	--	--	--	--	
Replicate 6/21/2011	1.2	<30	7.33	721	18.0	8	<4	<5	<5	1,520	37	22,400	22	<0.005	<0.010	48	
Replicate 6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--	
11/15/2011	1	49	7.19	721	13.1	<5	<4	<5	8	--	--	--	--	--	--	--	
6/26/2012	1	<40	6.78	748	12.7	<5	<4	<5	<5	1,810	42	25,100	25	<0.005	<0.02	50	
12/5/2012	1.6	<40	6.63	755	9.6	<5	<4	<5	7	--	--	--	--	--	--	--	
6/3/2013	1.4	14	7.06	720	15.4	<5	<4	<5	<5	980	32	23,500	20	<0.005	<0.02	44	
11/5/2013	1.4	4	7.32	746	12.6	<5	<4	<5	28	--	--	--	--	--	--	--	
6/25/2014	3.0	<30	7.31	746	13.9	<5	<5	6	5	970	36	10,900	26	<0.005	0.025	51	
6/24/2015	1.9	<30	7.16	747	14.9	<5	<5	<5	<5	1,370	39	24,300	22	<0.005	<0.02	47	
6/22/2016	1.5	60	7.10	788	14.6	<5	<5	<5	<5	1,600	38	23,500	30	<0.005	<0.02	54	
6/21/2017	1.5	<30	7.41	844	12.8	<5	<5	<5	<5	400	45	27,300	38	<0.005	<0.02	64	
6/14/2018	1.3	<60	6.92	865	15.9	<5	<5	<5	<5	2,320	53	30,100	43	<0.005	<0.02	65	
6/4/2019	2.6	<150	7.61	803	12.3	<5	<5	<5	<5	830	42	28,300	44	<0.004	<0.02	71	
6/16/2020	2.7	<40	7.51	822	15.0	<5	<5	<5	<5	1,840	42	28,200	40	<0.004	<0.02	68	
6/9/2021	3.5	3.84 J	7.45	842	14.9	<5	<5	<5	<5	1,860	42	28,100	34	<0.004	<0.02	62	
6/9/2022	3.6	<10	7.12	828	13.52	<5	<5	<5	<5	1,870	41	25,600	34	<0.004	<0.02	64	

See notes on page 13.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)				
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate	
		EGLE Residential Drinking Water Criteria & RBSLs					100 (A)	1,000 (E)	100 (A)	2,400								
B-24	6/21/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	8/31/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	2/9/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/19/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	8/21/1996	5.6	<5	7.80	1,502	12.7	<20	<20	<20	90	--	--	--	--	--	--	--	
	11/13/1996	20.0	<5	7.09	2,030	7.8	<20	<20	<20	50	--	--	--	--	--	--	--	
	5/6/1997	5.0	<100	6.40	1,700	10.0	<10	<10	31	10	--	--	--	--	--	--	--	
	11/6/1997	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	5/4/1998	4.0	<5	6.52	1,410	11.6	<10	<10	8	20	--	--	--	--	NS	NS	NS	
	11/5/1998	4.0	23	5.50	1,595	10.4	<10	<10	9	20	60	120	27,700	--	--	--	--	
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	163	<0.005	<0.020	205	
	4/26/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	
	11/5/1999	NS	NS	7.20	1,152	13.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	4/26/2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	
	12/8/2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	5/15/2001	NS	NS	6.40	1,450	12.9	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	
10/17/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
5/16/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--		
11/7/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
6/3/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--		
11/13/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
6/30/2004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--		
12/9/2004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
B-24R	6/7/2005	8.0	<30	7.27	857	10.6	8	<5	<5	<5	10,600	448	27,100	49	<0.005	<0.010	206	
	12/8/2005	6.6	<30	5.16	1,120	11.9	11	<4	<5	10	3,180	210	28,700	--	--	--	--	
	6/28/2006	4.7	<30	7.31	1,080	11.9	6	<4	<5	<5	3,760	210	27,700	48	<0.005	<0.010	182	
	11/30/2006	4.8	30	7.31	1,100	11.7	6	<4	<5	<5	--	--	--	--	--	--	--	
	6/4/2007	4.5	110	7.19	1,080	11.0	9	2	2	19	2,400	194	27,900	47	<0.005	<0.010	184	
	11/13/2007	4.1	30.1	7.13	1,130	14.0	3	1	5	7	--	--	--	--	--	--	--	
	6/26/2008	4.3	<30	6.99	1,130	19.0	<5	1	<5	8	3,490	175	39,600	46	<0.005	<0.010	189	
	11/18/2008	3.8	<30	6.76	1,125	5.3	<5	<1	<5	<5	--	--	--	--	--	--	--	
	6/24/2009	5.2	<30	6.62	1,120	17.4	<5	<1	<5	<5	4,000	155	38,400	48	<0.005	<0.010	201	
	11/18/2009	5	86.4	7.08	1,140	12.9	<5	<4	<5	<5	--	--	--	--	--	--	--	
	6/16/2010	4	22.7	7.02	1,150	16.3	<5	<4	<5	<5	1,880	222	39,500	46	<0.005	<0.020	196	
	11/9/2010	5	26.8	6.90	1,136	13.5	11	<4	<5	<5	--	--	--	--	--	--	--	
	6/21/2011	3.7	<30	7.11	1,136	17.5	10	<4	6	<5	1,130	255	51,700	45	<0.005	<0.010	206	
	6/21/2011	3.7	<30	7.11	1,137	17.5	8	<4	6	<5	1,070	255	52,000	45	<0.005	<0.010	206	
	Duplicate	6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--
	Dup. Replicate	6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--
11/16/2011	4	24	7.69	1,141	11.1	<5	<4	<5	<5	--	--	--	--	--	--	--	--	
6/26/2012	3.5	16	6.80	1,219	13.7	<5	<4	<5	<5	1,200	242	72,000	45	<0.005	<0.02	219		
12/6/2012	4.2	48	6.98	1,204	10.2	<5	<4	<5	6	--	--	--	--	--	--	--	--	
6/3/2013	4	4.8	7.19	1,127	11.4	<5	<4	<5	<5	110	130	38,600	45	<0.005	<0.02	227		
11/5/2013	4	5.5	7.16	1,203	12.6	<5	<4	<5	<5	--	--	--	--	--	--	--	--	
Duplicate	11/5/2013	4	<10	7.16	1,203	12.6	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/24/2014	3.7	16	7.10	1,202	13.9	<5	8	8	9	60	238	24,300	45	<0.005	<0.02	243		
Duplicate	6/24/2014	3.7	16	7.10	1,201	13.9	<5	<5	7	8	231	25,000	46	<0.005	<0.02	240		
11/19/2014	3.9	21	6.98	1,290	5.44	<5	<4	11	<5	--	--	--	--	--	--	--	--	
6/24/2015	3.5	<30	7.03	1,235	15.4	<5	<5	7	<5	<20	240	59,600	44	<0.005	<0.02	261		
11/18/2015	3.6	19	7.03	1,234	12.9	<5	<5	5	<5	--	--	--	--	--	--	--	--	
Duplicate	11/18/2015	3.5	18	7.03	1,233	12.9	<5	<5	6	7	--	--	--	--	--	--	--	
6/23/2016	3.2	110	6.88	1,275	15.0	<5	<5	<5	<5	320	210	67,800	45	<0.005	<0.02	245		
11/29/2016	3.4	12	7.19	1,220	10.7	<5	<5	<5	<5	--	--	--	--	--	--	--	--	
6/20/2017	3.1	14	7.10	1,307	11.4	<5	<5	<5	<5	<20	74	74,400	48	<0.005	<0.02	246		
11/7/2017	3.4	<30	7.09	1,231	11.3	<5	<5	<5	<5	--	--	--	--	--	--	--	--	
6/12/2018	2.9	<60	7.07	1,280	11.4	<5	<5	<5	7	100	64	64,500	47	<0.005	<0.02	240		
11/7/2018	3.7	<150	7.22	1,269	11.0	<5	<5	<5	<5	--	--	--	--	--	--	--	--	
5/30/2019	4.7	<150	7.17	1,161	11.2	<5	<5	<5	13	540	108	70,100	46	<0.004	<0.02	249		
11/21/2019	4.0	59	7.26	1,216	11.8	<5	<5	<5	7	--	--	--	--	--	--	--	--	
6/17/2020	5.4	<40	7.38	1,125	14.9	<5	<5	<5	6	70	44	62,600	49	<0.004	<0.02	271		
11/5/2020	5.2	18.5	7.07	1,257	14.4	<5	<5	<5	<5	--	--	--	--	--	--	--	--	
Duplicate	11/5/2020	5.2	4.26	7.07	1,226	14.4	<5	<5	<5	<5	--	--	--	--	--	--	--	
6/10/2021	5.3	11.4	7.24	1,295	17.8	<5	<5	<5	7	170	54	67,600	49	<0.004	<0.02	258		
11/5/2021	4.0	9.72 J	7.21	1,008	11.9	<5	<5	<5	<5	--	--	--	--	--	--	--	--	
Duplicate	11/5/2021	3.6	7.92 J	7.21	1,210	11.9	<5	<5	<5	6	--	--	--	--	--	--	--	
6/8/2022	7.3	17.7	7.09	1,320	12.89	<5	<5	<5	10	30	45	62,900	50	<0.004	<0.02	264		

See notes on page 13.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)				
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate	
		<i>EGLE Residential Drinking Water Criteria & RBSLs</i>							100 (A)	1,000 (E)	100 (A)	2,400						
B-27D	12/8/2005	3.7	<30	5.14	714	4.8	9	<4	6	<10	240	140	34,200	--	--	--	--	
	6/27/2006	1.3	<30	7.11	644	13.5	6	<4	7	6	1,050	110	32,300	--	--	--	--	
	11/30/2006	<1	<30	7.49	540	11.7	<5	<4	<5	6	--	--	--	--	--	--	--	
	6/8/2007	4	25.7	6.58	628	14.6	9	2	3	36	1,520	58	36,300	4	<0.005	<0.010	23	
	11/15/2007	1.9	<30	7.33	649	11.6	2	1	5	32	--	--	--	--	--	--	--	
	6/26/2008	1.7	<30	7.05	659	16.3	<5	<1	<5	<5	300	59	33,900	2	<0.005	<0.010	23	
	11/21/2008	1.3	<30	6.81	667	6.6	<5	<1	<5	<5	--	--	--	--	--	--	--	
	6/25/2009	<1	<30	6.79	651	16.5	<5	1	<5	<5	2,030	52	37,200	2	<0.005	<0.010	20	
	11/18/2009	2	<30	7.29	653	11.2	<5	<4	<5	<5	--	--	--	--	--	--	--	
	6/15/2010	2	<30	7.41	646	15.7	<5	<4	<5	<5	1,250	36	32,200	2	<0.005	<0.020	19	
	Duplicate	6/15/2010	2	31.2	7.41	652	15.7	<5	<4	<5	1,220	35	31,700	2	<0.005	<0.020	20	
		11/9/2010	2	<30	7.18	651	13.3	10	<4	<5	<5	--	--	--	--	--	--	--
	Replicate	6/21/2011	1.5	<30	7.47	640	15.6	9	<4	<5	<5	1,370	29	34,600	<5	<0.005	<0.010	19
		6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--
		11/15/2011	1	34	7.22	652	12.1	<5	<4	6	8	--	--	--	--	--	--	--
	6/26/2012	1.5	<40	7.17	653	13.0	<5	<4	<5	<5	1,450	28	34,200	<5	<0.005	<0.02	20	
	12/5/2012	1.7	<40	6.79	654	11.0	<5	<4	<5	10	--	--	--	--	--	--	--	
	6/3/2013	1.5	4.3	8.34	645	12.1	<5	<4	<5	<5	1,670	29	32,500	<5	<0.005	<0.02	21	
	11/5/2013	1.8	<10	7.37	640	12.0	<5	<4	<5	28	--	--	--	--	--	--	--	
	6/24/2014	1.9	<30	7.40	637	16.0	<5	<5	<5	<5	680	34	15,800	<5	<0.005	<0.02	18	
	6/22/2015	1.8	<30	7.20	635	14.2	<5	<5	<5	<5	710	27	34,100	<5	<0.005	<0.02	18	
	6/22/2016	1.6	30	7.20	640	14.1	<5	<5	<5	<5	930	20	33,200	<5	<0.005	<0.02	15	
	6/20/2017	1.4	<30	7.40	642	14.7	<5	<5	<5	<5	1,220	43	35,600	<5	<0.005	<0.02	17	
	6/12/2018	1.7	<60	7.16	667	12.6	<5	<5	<5	6	1,380	33	43,700	<5	<0.005	<0.02	16	
	6/4/2019	3.5	<150	7.61	638	12.4	<5	<5	<5	<5	1,040	32	47,500	<5	<0.004	<0.02	15	
	6/17/2020	3.4	<40	7.67	622	12.6	<5	<5	<5	<5	1,180	28	35,700	<10	<0.004	<0.02	17	
	6/11/2021	2.8	8.52 J	7.51	660	13.5	<5	<5	<5	<5	1,300	28	39,400	<10	<0.004	<0.02	14	
Duplicate	6/11/2021	2.5	10.4	7.51	635	13.5	<5	<5	<5	<5	1,440	31	40,400	<10	<0.004	<0.02	14	
	6/9/2022	3.9	<10	7.31	646	13.5	<5	<5	<5	<5	970	19	35,900	<10	<0.004	<0.02	17	

See notes on page 13.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)				
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate	
		<i>EGLE Residential Drinking Water Criteria & RBSLs</i>							100 (A)	1,000 (E)	100 (A)	2,400						
Duplicate	11/21/2005	--	--	6.21	994	12.3	--	--	--	<5	--	--	--	--	--	--	--	
	11/21/2005	--	--	6.21	--	12.3	--	--	--	7	--	--	--	--	--	--	--	
Duplicate B-28	6/27/2006	3	<30	7.12	828	13.2	5	<4	<5	18	2,380	210	17,000	--	--	--	--	
	12/1/2006	2.4	<30	7.48	812	12.3	<5	<4	<5	5	--	--	--	--	--	--	--	
	12/1/2006	3.3	<30	7.48	810	12.3	<5	<4	<5	<5	--	--	--	--	--	--	--	
	6/5/2007	2.1	<30	6.84	845	10.6	9	2	3	6	1,690	160	25,100	12	<0.005	<0.010	87	
	11/15/2007	2.5	15	6.81	816	9.1	3	2	5	11	--	--	--	--	--	--	--	
	6/27/2008	1.8	<30	6.87	840	17.6	<5	1	<5	5	370	84	16,300	10	<0.005	<0.010	88	
	11/19/2008	1.1	<30	6.75	804	7.0	<5	<1	<5	<5	--	--	--	--	--	--	--	
	6/24/2009	1.1	<30	6.96	822	19.5	<5	<1	<5	<5	204	132	14,600	10	<0.005	<0.010	84	
	11/18/2009	2	<30	6.94	814	11.6	<5	<4	<5	20	--	--	--	--	--	--	--	
	6/16/2010	2	<30	7.02	841	17.6	<5	<4	<5	<5	790	173	19,100	12	<0.005	<0.020	78	
Replicate	11/10/2010	3	<30	7.05	813	13.3	18	<4	<5	<5	--	--	--	--	--	--	--	
	6/21/2011	1.5	<30	7.23	837	14.1	9	<4	5	<5	1,380	130	23,400	12	<0.005	<0.010	80	
	6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--	
	11/15/2011	2	160	7.17	823	12.5	<5	<4	<5	<5	--	--	--	--	--	--	--	
	6/26/2012	2	<40	6.45	849	13.0	<5	<4	<5	<5	1,960	84	29,800	12	<0.005	<0.02	80	
	Duplicate	12/6/2012	1.6	<40	7.25	823	11.4	<5	<4	<5	<5	--	--	--	--	--	--	--
		12/6/2012	1.7	<40	7.25	823	11.4	<5	<4	<5	<5	--	--	--	--	--	--	--
	Replicate	6/3/2013	1.5	10	6.88	834	13.1	<5	<4	5	<5	1,310	111	26,000	12	<0.005	<0.02	87
		11/5/2013	1.6	<10	7.26	842	12.9	<5	<4	<5	<5	--	--	--	--	--	--	--
		6/24/2014	1.5	<30	7.03	852	12.2	<5	9	<5	<5	1,490	53	15,400	12	<0.005	<0.02	89
7/28/2014		--	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	
11/19/2014		1.6	<60	7.05	844	7.48	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/22/2015		1.5	<30	7.04	860	13.4	<5	<5	<5	<5	3,330	53	37,100	11	<0.005	<0.02	92	
11/18/2015		1.6	<30	7.13	849	13.8	<5	<5	<5	6	--	--	--	--	--	--	--	
6/24/2016		1.6	49	7.18	866	15.0	<5	<5	<5	<5	4,960	53	45,800	11	<0.005	<0.02	92	
Duplicate		11/29/2016	1.5	<30	7.27	853	12.6	<5	<5	<5	<5	--	--	--	--	--	--	--
		11/29/2016	1.5	16	7.27	860	12.6	<5	<5	<5	<5	--	--	--	--	--	--	--
Duplicate	6/20/2017	1.6	18	7.05	863	11.4	<5	<5	<5	<5	80	35	30,000	13	<0.005	<0.02	106	
	11/7/2017	1.6	<30	7.11	859	12.5	<5	<5	<5	<5	--	--	--	--	--	--	--	
	11/7/2017	1.5	<30	7.11	867	12.5	<5	<5	<5	<5	--	--	--	--	--	--	--	
	6/12/2018	1.6	<60	7.09	839	12.2	<5	<5	<5	<5	60	27	14,600	12	<0.005	<0.02	100	
Duplicate	11/7/2018	1.5	<150	7.37	880	11.8	<5	<5	<5	<5	--	--	--	--	--	--	--	
	11/7/2018	1.6	<150	7.37	880	11.8	<5	<5	<5	<5	--	--	--	--	--	--	--	
Duplicate	5/29/2019	3.4	<150	7.39	803	11.0	<5	<5	<5	<5	50	84	16,200	13	<0.004	<0.02	118	
	11/21/2019	2.1	<40	7.34	839	12.2	<5	<5	<5	5	--	--	--	--	--	--	--	
	6/16/2020	2.8	41	7.38	862	14.4	<5	<5	<5	<5	110	74	14,200	13	<0.004	<0.02	142	
	11/5/2020	3.8	<10	7.09	904	13.8	<5	<5	<5	<5	--	--	--	--	--	--	--	
	6/9/2021	3.6	8.14 J	7.12	936	15.1	<5	<5	<5	<5	280	82	14,900	11	<0.004	<0.02	161	
Duplicate	11/5/2021	2.2	<10	7.26	674	12.2	<5	<5	<5	<5	--	--	--	--	--	--	--	
	6/7/2022	5.1	9.16 J	6.97	936	11.09	<5	<5	<5	<5	810	93	20,100	12	<0.004	<0.02	166	

See notes on page 13.

TABLE 2
RACER Trust - Coldwater Road
Post-Closure Monitoring - Historical Analytical Results
Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Monitoring Well	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	Temp	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		EGLE Residential Drinking Water Criteria & RBSLs							100 (A)	1,000 (E)	100 (A)	2,400					
Equipment Blank	12/10/2004	<1	<30	--	--	--	<5	<5	<5	11	<20	13	810	<2	<0.005	<0.010	<2
	6/8/2005	<1	<30	--	--	--	<5	<5	<5	<5	<20	<5	120	<5	<0.005	<0.010	<5
	12/8/2005	<1	<30	--	5	--	<5	<4	<5	<10	<100	<20	<1000	--	--	--	--
	6/28/2006	<1	<30	--	12	--	<5	<4	<5	<5	<100	<20	<1000	<1	<0.005	<0.010	<1
	12/1/2006	<1	<30	--	26	--	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/8/2007	<1	26	--	13	--	<5	1	1	13	<20	11	340	<2	<0.005	<0.010	<2
	11/15/2007	<1	<30	--	4	--	<5	1	1	9	--	--	--	--	--	--	--
	6/26/2008	<1	<30	--	3	--	<5	1	<5	<5	100	7	420	<2	<0.005	<0.010	<2
	11/19/2008	<1	<30	--	6	--	<5	1	<5	<5	--	--	--	--	--	--	--
	6/25/2009	<1	<30	--	24	--	<5	<1	<5	<5	110	<5	200	<2	<0.005	<0.010	<2
	11/19/2009	0.7	<30	--	5	--	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/17/2010	0.4	<30	--	4	--	<5	<4	<5	<5	<20	<5	<200	<2	<0.005	<0.020	<2
	11/11/2010	1	<30	--	1.2	--	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/22/2011	0.88	<30	--	3	--	<5	<4	<5	<5	<20	<5	460	<2	<0.005	<0.010	<2
	11/16/2011	<1	4.9	--	1,330	--	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/27/2012	<1	<20	--	3	--	<5	<4	<5	13	50	<5	6,350	<2	<0.005	<0.02	<2
	12/6/2012	<1	<40	--	17.0	--	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/6/2013	<1	<10	--	1,370	--	<5	<4	<5	<5	<20	<5	<500	<2	<0.005	<0.02	<2
	11/6/2013	<1	<10	--	2,350	--	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/24/2014	<1	<30	--	1,930	--	<5	<5	<5	<5	<20	<5	<1000	<2.5	<0.005	<0.02	<2.5
	6/24/2015	<1	<30	--	4.09	--	<5	<5	<5	<5	<20	<5	140	<2	<0.005	<0.02	<2
	6/24/2016	<1	6.2	--	2,220	--	<5	<5	<5	<5	<20	<5	<500	<2.5	<0.005	<0.02	<2
	6/22/2017	<1	<30	--	5,780	--	<5	<5	<5	<5	<20	<5	<200	<5	<0.005	<0.02	<5
11/7/2017	<1	<30	--	7.07	--	<5	<5	<5	<5	--	--	--	--	--	--	--	
6/14/2018	1.2	<60	--	28.8	--	<5	<5	<5	<5	<20	<5	<250	<2.5	<0.005	<0.02	<2.5	
6/3/2019	<1	<150	--	2.63	--	<5	<5	<5	<5	<20	<5	530	<2.5	<0.004	<0.02	<2.5	
6/18/2020	<1	<40	--	3.31	--	<5	<5	<5	<5	<20	<5	<500	<2.5	<0.004	<0.02	<2.5	
6/11/2021	<1	<10	--	1,400.00	--	<5	<5	<5	<5	<20	<5	<500	<2.5	<0.004	<0.02	<2.5	
6/10/2022	<1	<10	--	<1	--	<5	<5	<5	<5	<20	<5	<2,500	<2.5	<0.004	<0.02	<2.5	

Notes

- 1) < = Not detected.
- 2) NS = Not sampled, insufficient liquid encountered.
- 3) NR = No Result, insufficient sample volume.
- 4) J = Estimated value less than reporting limit, but greater than method detection limit.
- 5) T = Temperature in degrees Celsius.
- 6) -- = Not analyzed.
- 7) Dup = Duplicate sample.
- Exceeds MDEQ Residential Drinking Water Criteria
- 8) A = Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005.
- 9) E = Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA)



TABLE 3
RACER Trust - Coldwater Road
Landfill Leachate Sumps - Analytical Results
Volatile Organic Compounds (µg/L)

Parameter	B-7	B-9	B-18A	OBG MW-16D	B-19Ar	B-20D	B-21D	B-22D
	8-Jun-22	8-Jun-22	8-Jun-22	10-Jun-22	9-Jun-22	10-Jun-22	8-Jun-22	8-Jun-22
Acetone	<50	<50	<50	<50	<50	<50	<50	<50
Acrylonitrile	<2	<2	<2	<2	<2	<2	<2	<2
2-Butanone	<25	<25	<25	<25	<25	<25	<25	<25
Benzene	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1
Bromobenzene	<1	<1	<1	<1	<1	<1	<1	<1
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	<5	<5	<5	<5	<5	<5	<5	<5
sec-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	<5	<5	<5	<5	<5	<5	<5	<5
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromoethane	<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
1,3-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5
Dibromomethane	<5	<5	<5	<5	<5	<5	<5	<5
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<5	<5	<5
Diethyl ether	<10	<10	<10	<10	<10	<10	<10	<10
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	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	<50	<50	<50	<50	<50	<50	<50	<50
Hexachloroethane	<5	<5	<5	<5	<5	<5	<5	<5
p-Isopropyltoluene	<5	<5	<5	<5	<5	<5	<5	<5
Isopropylbenzene	<5	<5	<5	<5	<5	<5	<5	<5
2-Methylnaphthalene	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone	<50	<50	<50	<50	<50	<50	<50	<50
tert-Methyl butyl ether (MTBE)	<5	<5	<5	<5	<5	<5	<5	<5
Methyl iodide	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5
Napthalene	<5	<5	<5	<5	<5	<5	<5	<5
n-Propylbenzene	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	<1	<1	<1	<1	<1	<1	<1	<1
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
1,1,1,2,2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3-Trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trimethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5
1,2,4-Trimethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1
Tetrahydrofuran	<90	<90	<90	<90	<90	<90	<90	<90
Toluene	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene	<1	<1	<1	<1	<1	<1	<1	<1
p,m-Xylene	<2	<2	<2	<2	<2	<2	<2	<2

Notes:
 Analysis in µg/L
 EPA Method 8260 used for analysis.
 Dup- Duplicate analysis

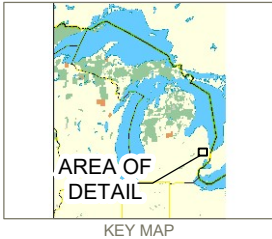
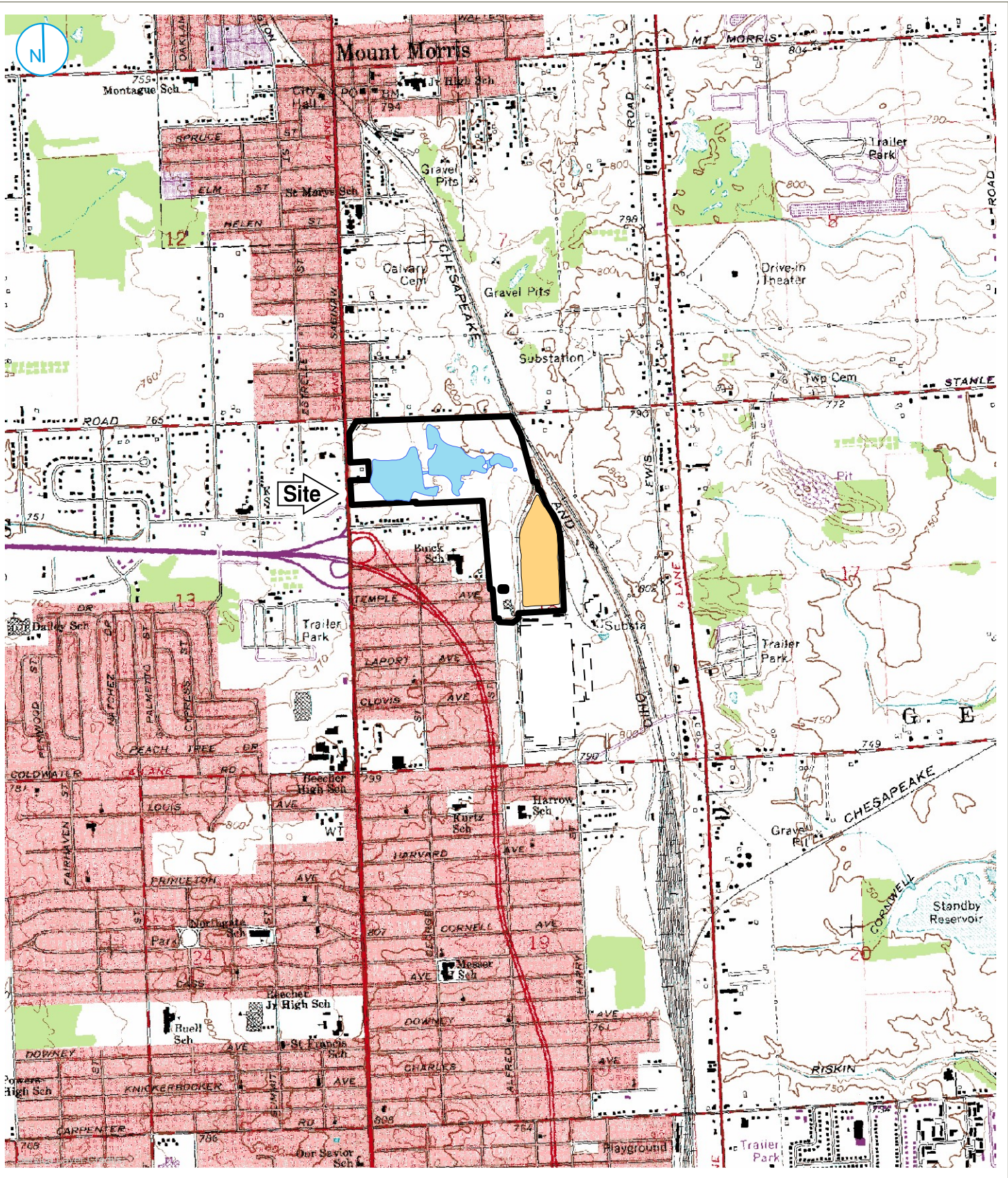


TABLE 3
RACER Trust - Coldwater Road
Landfill Leachate Sumps - Analytical Results
Volatile Organic Compounds (µg/L)

Parameter	B-23Dr	B-24r	B-27D	MW-DUP-061022 (B-27D)	B-28	Equipment Blank-1	Trip Blank-060822	Trip Blank-060922	Trip Blank-061022
	8-Jun-22	8-Jun-22	9-Jun-22	10-Jun-22	7-Jun-22	10-Jun-22	8-Jun-22	9-Jun-22	10-Jun-22
Acetone	<50	<50	<50	<50	<50	<50	<50	<50	<50
Acrylonitrile	<2	<2	<2	<2	<2	<2	<2	<2	<2
2-Butanone	<25	<25	<25	<25	<25	<25	<25	<25	<25
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<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	<5	<5	<5	<5	<5	<5	<5	<5	<5
sec-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5
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-Dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromoethane	<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
1,3-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
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
Dibromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromomethane	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5
Diethyl ether	<10	<10	<10	<10	<10	<10	<10	<10	<10
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	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	<50	<50	<50	<50	<50	<50	<50	<50	<50
Hexachloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5
p-Isopropyltoluene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Isopropylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Methylnaphthalene	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone	<50	<50	<50	<50	<50	<50	<50	<50	<50
tert-Methyl butyl ether (MTBE)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methyl iodide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Napthalene	<5	<5	<5	<5	<5	<5	<5	<5	<5
n-Propylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
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
1,1,1,2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3-Trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trimethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2,4-Trimethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrahydrofuran	<90	<90	<90	<90	<90	<90	<90	<90	<90
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
p,m-Xylene	<2	<2	<2	<2	<2	<2	<2	<2	<2

Notes:
 Analysis in µg/L
 EPA Method 8260 used for analysis.
 Dup- Duplicate analysis

FIGURES



- Wetlands
- Site Buildings
- Landfill-poly
- Former Powerhouse
- Former Plant
- Landfill Property

SITE LOCATION

FIGURE 01

Map Scale: 1:1,24,000;
 Map Center: 83°41'9"W 43°5'51"N



RACER TRUST
 Coldwater Road Landfill
 Flint, Michigan

A RAMBOLL COMPANY





- PERCHED MONITORING WELL
- DRIFT MONITORING WELL
- OTHER MONITORING WELL / PIEZOMETER
- ABANDONED WELL
- LEACHATE COLLECTION SUMP
- ACCESS PORT FOR LEAK DETECTION VAULT
- PROPERTY BOUNDARY
- FORMER BUILDING

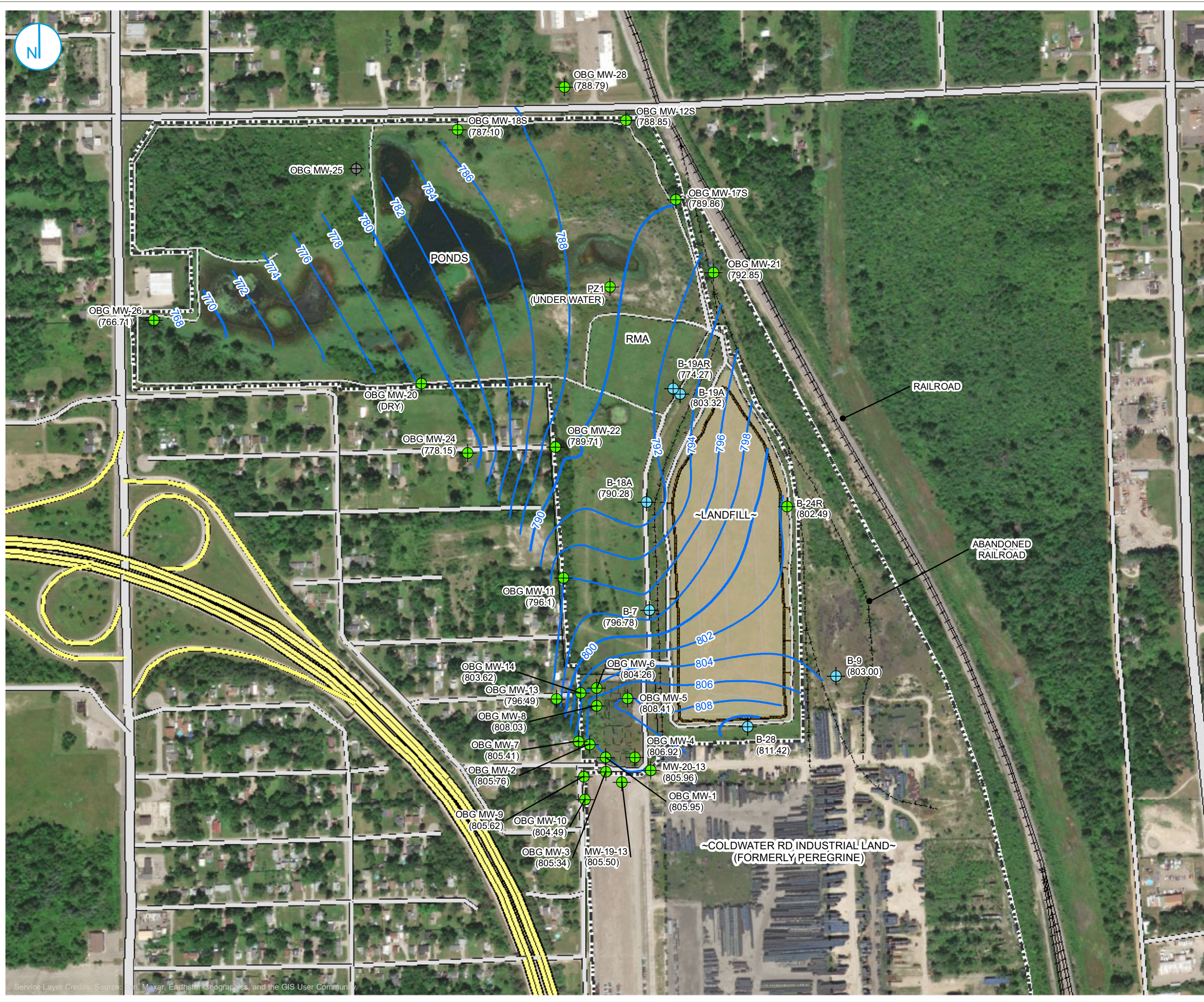


SITE LAYOUT

Racer Trust
COLDWATER ROAD
FLINT, MICHIGAN

FIGURE 2





- ABANDONED WELL
 - LANDFILL MONITORING WELL / PIEZOMETER
 - OTHER MONITORING WELL / PIEZOMETER
 - GROUNDWATER CONTOUR (JUNE 6, 2022)
 - PROPERTY BOUNDARY
 - FORMER BUILDING
- (800.93) GROUNDWATER ELEVATION

NOTES
 THE GROUNDWATER ELEVATION FOR MONITORING WELLS B-19A, B-19AR, AND PZ-1 WERE NOT USED IN DEVELOPING THE GROUNDWATER POTENTIOMETRIC SURFACE DUE TO THE DEPTH OF THESE WELLS AND VERTICAL GRADIENTS AT THE SITE.

THE ADDITIONAL SITE MONITORING WELLS WERE USED IN THE CREATION OF THE GROUNDWATER CONTOURS BUT ARE NOT PART OF THE LANDFILL MONITORING PROGRAM.



PERCHED ZONE GROUNDWATER ELEVATION MAP
 JUNE 6, 2022

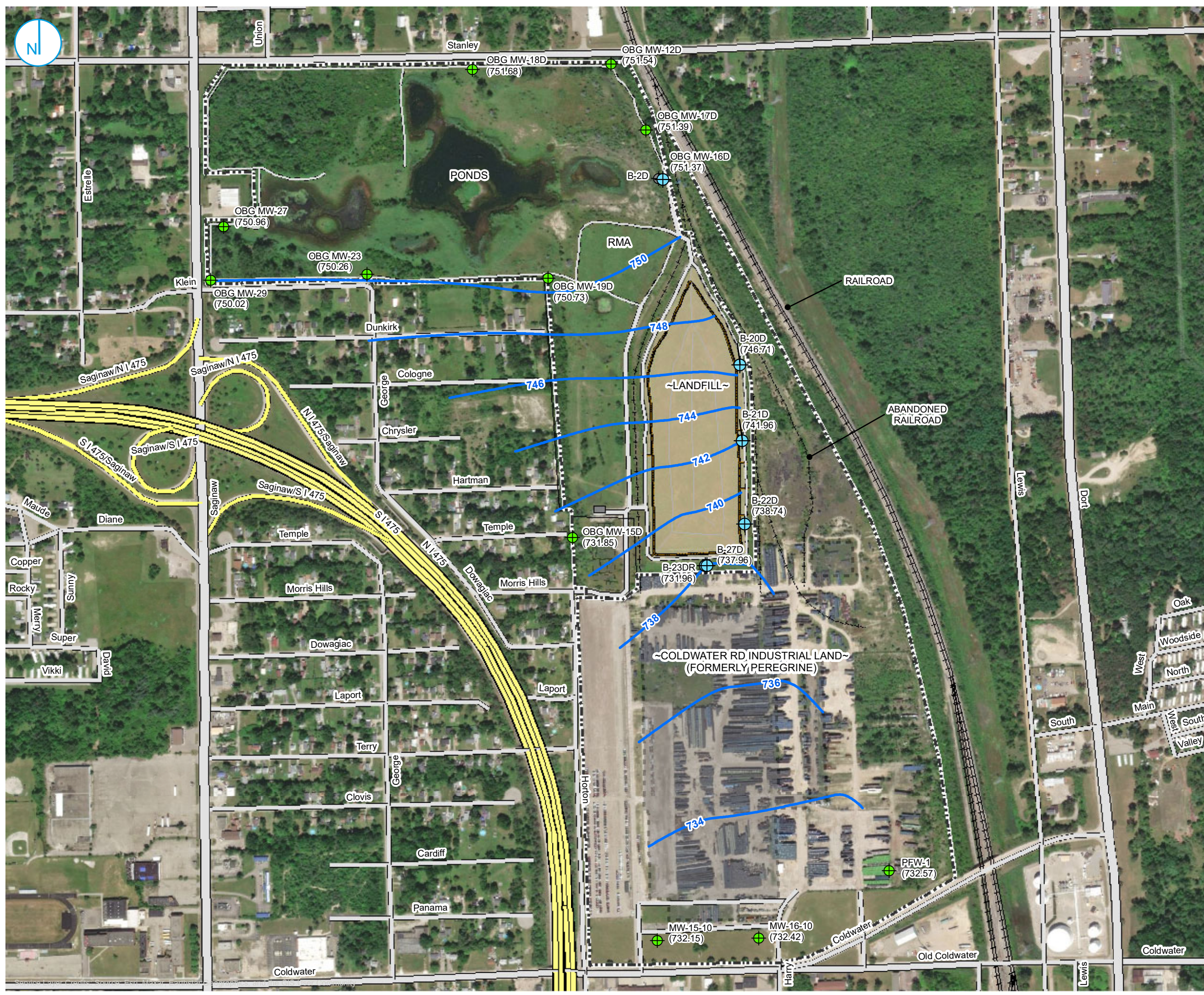
RACER TRUST
 COLDWATER ROAD
 FLINT, MICHIGAN

FIGURE 3

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.
 A RAMBOLL COMPANY



Service Layer Credits: Sources: Esri, Maxar, Earthstar Geographics, and the GIS User Community



- LANDFILL MONITORING WELL / PIEZOMETER
 - ABANDONED WELL
 - OTHER MONITORING WELL / PIEZOMETER
 - GROUNDWATER CONTOUR (JUNE 6, 2022)
 - PROPERTY BOUNDARY
 - FORMER BUILDING
- (800.93) GROUNDWATER ELEVATION

NOTES
 THE GROUNDWATER ELEVATIONS FOR MONITORING WELLS B-23DR AND OBG MW-15D WERE NOT USED IN DEVELOPING THE GROUNDWATER POTENTIOMETRIC SURFACE DUE TO THE DEPTH OF THESE WELLS AND APPARENT VERTICAL GRADIENT WITHIN THE DRIFT UNIT.

THE ADDITIONAL SITE MONITORING WELLS WERE USED IN THE CREATION OF THE GROUNDWATER CONTOURS BUT ARE NOT PART OF THE LANDFILL MONITORING PROGRAM.



DRIFT UNIT GROUNDWATER ELEVATION MAP
 JUNE 6, 2022

RACER TRUST
 COLDWATER ROAD
 FLINT, MICHIGAN

FIGURE 4

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.
 A RAMBOLL COMPANY



APPENDIX A
SAMPLING PROCEDURES

Table of Contents

<u>1 Introduction</u>	2
<u>2 Procedural Guidelines</u>	3
<u>2.1 Preparatory Requirements</u>	3
<u>2.2 Well Purging and Stabilization Monitoring (Low Stress/Low Flow Method)</u>	3
<u>2.3 Sample Preservation</u>	5
<u>2.4 Sample Management and Chain-of-Custody</u>	6
<u>2.5 Quality Assurance/Quality Control (QA/QC) Measures</u>	6
<u>3 References</u>	7

1 Introduction

This procedure is for the collection of groundwater samples for laboratory analysis. The objective of most groundwater quality monitoring programs is to obtain samples that are representative of existing groundwater conditions, or samples that retain the physical and chemical properties of the groundwater within an aquifer.

One of the most important aspects of groundwater sampling is acquiring samples that are free of suspended silt, sediment, or other fine grained particulates. Fine grain materials may often have a variety of chemical components sorbed to the particle or have the ability to sorb chemicals from the aqueous phase to the particle, which will bias the subsequent analytical results.

Constituents known to have an affinity for fine-grained particulates are: polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), and inorganics. Monitoring programs where these constituents are suspected or known to be prevalent must employ sampling methods that minimize particulate presence.

The "Low Stress/Low Flow" purging and sampling method will be utilized to purge the well to allow representative water from the formation to replace the standing water within the sampling zone of the well. Experience has shown that the low stress/low flow technique typically achieves representative groundwater samples with minimal particulate interference.

Lastly, in extreme cases "ultra-low flow" techniques have been employed at select sites where low stress/low flow methods were used, yet particulate-sensitive constituents continue to bias the analytical results, or excessive drawdown is produced using standard low stress/low flow methods due to the presence of low permeability materials within a well's screened zone. Ultra-low flow techniques are conducted at purging rates below 100 ml per minute, and should only be utilized after low stress/low flow methods have been attempted (see Section 2.2 for further discussion on the purging of wells prior to sample collection).

2 Procedural Guidelines

The following describes techniques for groundwater sampling: Low Stress/Low Flow Methods. Low stress/low flow methods will be employed when it is critical to collect groundwater samples truly representative of the groundwater present, and to minimize the impact of sediment/colloid presence.

2.1 PREPARATORY REQUIREMENTS

Prior to groundwater sampling, an inspection will be performed on each well. The inspection will include:

- Inspecting the concrete pad for cracks
- Inspecting the protective steel cover
- Inspecting the integrity of the PVC well casing (to the extent possible)
- Inspecting the well caps
- Inspecting the well identification markings to confirm they are legible (if illegible, re-mark)
- Inspecting the locks to assess whether they are in good working condition.

Results of the well inspection will be documented on the Groundwater Sampling Log for each well. If the inspection indicates repairs are required, these will be performed prior to the next sampling event. Corrective actions implemented to repair well(s) will also be documented on the Groundwater Sampling Log and/or the field notebook for the facility.

Groundwater purging and sampling data will be recorded on the Groundwater Sampling Log.

2.2 WELL PURGING AND STABILIZATION MONITORING (LOW STRESS/LOW FLOW METHOD)

The procedure for sampling the monitoring wells is as follows:

- 1) Sampling equipment will first be decontaminated prior to each use by the following protocol:
 - Scrub equipment thoroughly in a low-sudsing detergent solution (e.g., Alconox). Pump low-sudsing detergent solution through submersible pump for approximately 5 minutes, if utilized
 - Rinse equipment thoroughly with distilled water, and pump distilled water through submersible pump, if utilized
 - Wrap equipment in plastic for handling and/or storage until next use
 - Decontamination of disposable tubing, if used, will not be necessary
- 2) Calibrate field instrument and document calibration activity. Calibration shall be performed in accordance with manufacturer's recommendations, and noted on the Groundwater Sampling Log

- 3) An electric water level probe will be used to measure the depth from the top of the casing to the top of water to the nearest 0.01-ft. The measurement will be recorded in a dedicated field notebook and Groundwater Sampling Log
- 4) Measure the depth from the top of casing to the bottom of the well for the initial sampling event
- 5) Slowly lower the pump and/or tubing into the well positioning the pump intake at the mid-point of the well screen taking care to minimize disturbing the well
- 6) During the purging of the well, monitor and record the field indicator parameters (pH, temperature, conductivity, oxidation-reduction (redox) reaction potential (ORP), dissolved oxygen (DO), and turbidity) approximately every 5 minutes. Stabilization is considered achieved when the final groundwater flow rate is achieved, and three consecutive readings for each parameter are within the following limits:

pH	±0.1 pH units for three consecutive readings;
temperature	±3 percent for three consecutive readings;
conductivity	±3 percent for three consecutive readings;
ORP	±10 millivolts (mV) for three consecutive readings;
DO	±10 percent for three consecutive readings; and
Turbidity	±10 percent for three consecutive readings or a final value of less than 5 nephelometric turbidity units (NTU).
- 7) Verify that drawdowns of 0.3 ft or less are maintained and make adjustments as necessary. Record drawdown measurements and note adjustments in pumping rates as necessary on the Groundwater Sampling Log. If drawdowns of 0.3 ft or less cannot be maintained utilize ultra-low flow purge techniques. However, if ultra-low flow purging still results in excessive drawdown, the well will be purged “dry” and allowed to recharge, and the sample will be collected as soon as sufficient water is present to obtain the necessary sample volume
- 8) Obtain a sample for chemical analyses immediately upon stabilization of field parameter measurements. Field filter the sample for dissolved metals using a 0.45-micron filter prior to preserving with acid. Samples are to be collected in the order of volatility as follows: TOC/TOX (or VOCs) and dissolved metals.

If after 2 hours of purging the indicator parameters have not stabilized, as recommended in the USEPA guidance, the purging will be discontinued and the sample will be collected with an explanation of attempts to achieve stabilization.

Either a decontaminated submersible pump or peristaltic pump (for shallow wells only) may be utilized to purge each well. If a submersible pump is utilized in the purging process, then it will be decontaminated prior to and after sampling each well. Sampling equipment must be protected from the

ground surface by a clean plastic sheet laid around the work area. Water from purging will not be containerized.

2.3 SAMPLE PRESERVATION

Sample bottles will be labeled with sample identification, collection date and time, filtration/preservative status. Sample bottles will be filled and capped securely and immediately preserved (if required) and stored at 4 degrees Celsius in a cooler.

The cooler and samples will be prepared for shipment or transport by the following procedure:

- 1)** Prepare cooler(s) for shipment.
 - Tape drain(s) of cooler shut
 - Place mailing label with laboratory address on top of cooler(s).
- 2)** Arrange sample containers in a manner to prevent potential sample container breakage.
- 3)** Confirm the bottle labels are completed correctly. Place clear tape over bottle labels to prevent moisture accumulation from causing the label to peel off.
- 4)** Seal sample containers within plastic zip-lock bags to prevent packing material from contacting samples.
- 5)** Place packing material at the bottom of the cooler to act as a cushion for the sample containers.
- 6)** Fill remaining spaces with packing material.
- 7)** Confirm containers are firmly packed in cooler.
- 8)** If ice is required to preserve the samples, cubes should be repackaged in double zip-lock bags, and placed on top of the packing material.
- 9)** Sign COC form (or obtain signature) and indicate the time and date it was relinquished to Federal Express or other carrier, as appropriate.
- 10)** Separate copies of COC forms. Seal proper copies within a large zip-lock bag and tape to inside lid of cooler. Retain copies of forms in-house.
- 11)** Close lid and latch.
- 12)** Tape cooler shut on both ends, making several complete revolutions with strapping tape.
- 13)** Relinquish to Federal Express or other courier service. Retain airbill receipt for project records (Note: Samples will be shipped for "NEXT DAY" delivery).

If samples are delivered directly to the laboratory, or the laboratories in-house courier, by the sampling team, the packaging/shipping requirements may be omitted. COC procedures; however, must be strictly maintained.

2.4 SAMPLE MANAGEMENT AND CHAIN-OF-CUSTODY

COC procedures document the history of sample containers and samples from the time of preparation of sample containers through sample collection, shipment, and analysis. A sample is considered in custody if:

- The sample is in the sampler's physical possession
- The sample is secured by the sampler to prevent tampering
- The sample is secured by the sampler employee in an area that is restricted to authorized personnel.

To maintain a record of sample collection, transfer between personnel, shipment, and receipt by the laboratory, a COC record will be completed for each sample at each sampling location. Each time the samples are transferred, signatures of the person relinquishing and receiving the samples, as well as the date and time, will be documented.

Parallel field notebook/Groundwater Sampling Log and COC records will be maintained. Recorded information will include:

- Sampling Location
- Time and Date
- Sampling Method
- Method of Preservation.

Additionally, the field notebook will also include information on weather conditions, depth to water, total depth of the well, field parameter and instrument calibration records and other useful or pertinent information. The notebook will be kept at the facility or with their designated contractor.

2.5 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) MEASURES

Field QA/QC procedures will consist of collecting one equipment blank (if reusable equipment is used) and one duplicate sample (one additional sample from one of the wells) for each sampling event. The duplicate sample will be assigned a separate sample identification and submitted to the laboratory "blind".

The procedure for collecting an equipment blank will be to pass distilled water through the decontaminated sampling device into a laboratory-supplied sample bottles. An equipment blank sample will not be required if disposable sampling equipment is used.

3 References

USEPA Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures (EPA/540/S -95/504).

USEPA (Region 1) Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells (EQASOP-GW 001), January 19, 2010.

USEPA RCRA Groundwater Monitoring: Draft Technical Guidance (EPA/530-R-93-001).

MDEQ RRD Operational Memorandum No. 2: Sampling and Analysis.

**APPENDIX B
GROUNDWATER SAMPLING LOGS**

RAMBOLL **Standard Groundwater Sampling Log**

Date 6/6/22 | 6/8/22
 Site Name RACER Coldwater Rd Weather Light rain, cloudy 60s | Cloudy 60s
 Location Flint, MI Well # B-7
 Project No. 1940102192 Evacuation Method Whale Pump-Peristaltic
 Personnel WHL Sampling Method Purged Dry

Well Information:
 Depth of Well * 28.86 ft.
 Depth to Water * 16.85 | 19.36 ft.
 Length of Water Column 11.81 ft.
 Volume of Water in Well 1.93 gal.(s)
 3X Volume of Water in Well 5.87 gal.(s)

Water Volume /ft. for:
 X 2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 2.0 gal.(s)
 Did well go dry? yes

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration: Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured	Temperature Celsius	Conductivity mS/cm	Dissolved Oxygen mg/L	pH	ORP mV	Turbidity NTUs
	0.3 feet or less	±3 percent	±3 percent	±10 percent	±0.1 pH units	±10 millivolts	±10 percent
initial	<u>17.18</u>	initial <u>21.38</u>	initial <u>0.22</u>	initial <u>6.01</u>	initial <u>6.12</u>	initial <u>45.7</u>	initial <u>10.5</u>
5 min	<u>19.09</u>	<u>12.85</u>	<u>0.24</u>	<u>1.53</u>	<u>6.97</u>	<u>40.4</u>	<u>75.7</u>
10 min	<u>21.69</u>	<u>12.49</u>	<u>0.24</u>	<u>2.11</u>	<u>7.04</u>	<u>46.7</u>	<u>11.0</u>
15 min							
20 min	Well Dry Purged 2 Gallons						
25 min							
30 min	<u>6/8/22 - 22.16</u>	<u>17.04</u>	<u>1.16</u>	<u>1.80</u>	<u>7.01</u>	<u>97.4</u>	<u>17.6</u>
35 min	<u>22.55</u>	<u>15.16</u>	<u>1.20</u>	<u>1.29</u>	<u>7.00</u>	<u>93.5</u>	<u>16.4</u>
40 min	<u>22.91</u>	<u>14.97</u>	<u>1.21</u>	<u>1.10</u>	<u>7.00</u>	<u>71.5</u>	<u>14.3</u>
45 min							
50 min							
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:
 Time Collected 6/8/22 - 12:41

Physical Appearance at Start Physical Appearance at Sampling

Color clear Color clear
 Odor no Odor no
 Turbidity (> 100 NTU) 10.50 Turbidity (> 100 NTU) 14.3
 Sheen/Free Product no Sheen/Free Product no

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
VOCs	3	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO ₃	yes
Cyanide	1	125 ml Amber	NAOH	
Phenols	1	125 ml Plastic	H ₂ SO ₄	
TOC	2	40 ml Glass	H ₂ SO ₄	
TOX	1	250 ml Plastic	H ₂ SO ₄	
Sulfate, Chlorides, SpC	1	500 ml Plastic	None	

Notes: Sped up at 14:37 turned to max at 14:48 | 12:37 started pumping let water run into bucket for ~ 1 min before sampling. 13:17 DTW- 21.81 after sampling (75 mL/min)

Date 6/7/22 | 6/8/22
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940102192
 Personnel WHL

Weather Partly cloudy 60s | Sunny 70s
 Well # B-9
 Evacuation Method Whale Pump-Peristaltic
 Sampling Method Purged Dry

Well Information:

Depth of Well * 25.25 ft.
 Depth to Water * 4.45 | 4.13 ft.
 Length of Water Column 20.80 ft.
 Volume of Water in Well 3.39 gal.(s)
 3X Volume of Water in Well 10.17 gal.(s)

Water Volume /ft. for:
<input checked="" type="checkbox"/> 2" Diameter Well = 0.163 X LWC
<input type="checkbox"/> 4" Diameter Well = 0.653 X LWC
<input type="checkbox"/> 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 5.0 gal.(s)
 Did well go dry? yes

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>5.33</u>	initial <u>26.20</u>	initial <u>2.06</u>	initial <u>0.32</u>	initial <u>6.62</u>	initial <u>76.9</u>	initial <u>41.7</u>
5 min	<u>9.23</u>	<u>11.27</u>	<u>2.27</u>	<u>0.11</u>	<u>6.59</u>	<u>77.0</u>	<u>91.6</u>
10 min	<u>15.80</u>	<u>11.37</u>	<u>2.29</u>	<u>0.23</u>	<u>6.59</u>	<u>58.4</u>	<u>39.4</u>
15 min	<u>20.14</u>	<u>11.81</u>	<u>2.25</u>	<u>0.52</u>	<u>6.59</u>	<u>26.0</u>	<u>66.8</u>
20 min	<u>21.76</u>	<u>11.26</u>	<u>2.16</u>	<u>4.11</u>	<u>6.71</u>	<u>33.2</u>	<u>958</u>
25 min							
30 min	<u>Well Went Dry Purged 4.5 Gallons</u>						
35 min							
40 min	<u>6/8/22 - 4.59</u>	<u>19.79</u>	<u>1.95</u>	<u>3.99</u>	<u>6.74</u>	<u>72.2</u>	<u>126</u>
45 min	<u>5.32</u>	<u>15.22</u>	<u>2.07</u>	<u>4.43</u>	<u>6.74</u>	<u>106.9</u>	<u>46.5</u>
50 min	<u>6.11</u>	<u>14.25</u>	<u>2.08</u>	<u>5.05</u>	<u>6.74</u>	<u>106.7</u>	<u>35.0</u>
55 min	<u>Purged ~0.5 Gallons</u>						
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 6/8/22 - 11:25

Physical Appearance at Start

Physical Appearance at Sampling

Color slight brown/ turbid
 Odor no
 Turbidity (> 100 NTU) 41.7
 Sheen/Free Product no

Color clear
 Odor no
 Turbidity (> 100 NTU) 35.0
 Sheen/Free Product no

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
VOCs	3	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO ₃	yes
Cyanide	1	125 ml Amber	NAOH	
Phenols	1	125 ml Plastic	H ₂ SO ₄	
TOC	2	40 ml Glass	H ₂ SO ₄	
TOX	1	250 ml Plastic	H ₂ SO ₄	
Sulfate, Chlorides, SpC	1	500 ml Plastic	None	

Notes:

13:05 drawing down quickly, turned up pump | 11:07 started pump 150 mL/min. 9.19 DTW after sampling.

Standard Groundwater Sampling Log

Date 6/6/22 | 6/8/22
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940102192
 Personnel WHL

Weather cloudy, 60's
 Well # B-18A
 Evacuation Method Whale Pump-Peristaltic
 Sampling Method purged dry

Well Information:

Depth of Well * 43.58 ft.
 Depth to Water * 20.57 | 31.86 ft.
 Length of Water Column 23.01 ft.
 Volume of Water in Well 3.75 gal.(s)
 3X Volume of Water in Well 11.25 gal.(s)

Water Volume /ft. for:
 X 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 7.25 gal.(s)
 Did well go dry? yes

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>20.95</u>	initial <u>21.28</u>	initial <u>0.88</u>	initial <u>5.23</u>	initial <u>7.25</u>	initial <u>77.4</u>	initial <u>7.10</u>
5 min	<u>21.94</u>	<u>12.94</u>	<u>0.97</u>	<u>3.70</u>	<u>7.23</u>	<u>79.5</u>	<u>3.55</u>
10 min	<u>23.38</u>	<u>12.83</u>	<u>0.97</u>	<u>3.62</u>	<u>7.22</u>	<u>79.9</u>	<u>0.02</u>
15 min	<u>24.59</u>	<u>12.84</u>	<u>0.90</u>	<u>3.49</u>	<u>7.20</u>	<u>80.9</u>	<u>0.42</u>
20 min	<u>26.73</u>	<u>12.46</u>	<u>0.88</u>	<u>3.03</u>	<u>7.17</u>	<u>81.2</u>	<u>0.02</u>
25 min	<u>28.43</u>	<u>12.25</u>	<u>0.89</u>	<u>2.92</u>	<u>7.16</u>	<u>81.7</u>	<u>0.37</u>
30 min	<u>31.33</u>	<u>12.16</u>	<u>0.88</u>	<u>2.67</u>	<u>7.16</u>	<u>81.3</u>	<u>0.02</u>
35 min	<u>35.39</u>	<u>12.15</u>	<u>0.98</u>	<u>1.18</u>	<u>7.15</u>	<u>73.2</u>	<u>1.85</u>
40 min	<u>39.07</u>	<u>12.26</u>	<u>0.98</u>	<u>0.86</u>	<u>7.09</u>	<u>72.4</u>	<u>0.25</u>
45 min	<u>39.79</u>	<u>12.30</u>	<u>0.98</u>	<u>0.82</u>	<u>7.09</u>	<u>57.0</u>	<u>3.81</u>
50 min	Tried to adjust pump, tubing came out						
55 min	Started pumping again						
60 min	Well Dry 7.25 gallons purged						
65 min	<u>6/8/22 - 31.86</u>						<u>17.9</u>
70 min	<u>34.20</u>	<u>22.42</u>	<u>1.09</u>	<u>1.61</u>	<u>6.93</u>	<u>139.6</u>	<u>9.02</u>
75 min	<u>35.35</u>	<u>13.81</u>	<u>1.21</u>	<u>2.04</u>	<u>6.90</u>	<u>122.6</u>	<u>7.81</u>
80 min	<u>35.95</u>	<u>13.66</u>	<u>1.21</u>	<u>1.95</u>	<u>6.91</u>	<u>114.0</u>	<u>4.74</u>
85 min							
90 min							

Water Sample:

Time Collected 6/8/22 - 15:35

Physical Appearance at Start

Physical Appearance at Sampling

Color slightly cloudy
 Odor None
 Turbidity (> 100 NTU) 52.9
 Sheen/Free Product None

Color clear
 Odor None
 Turbidity (> 100 NTU) 4.74
 Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
VOCs	3	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO ₃	yes
Cyanide	1	125 ml Amber	NAOH	
Phenols	1	125 ml Plastic	H ₂ SO ₄	
TOC	2	40 ml Glass	H ₂ SO ₄	
TOX	1	250 ml Plastic	H ₂ SO ₄	
Sulfate, Chlorides, SpC	1	500 ml Plastic	None	

Notes:

Collected sample then readings

Standard Groundwater Sampling Log

Date 6/7/2012 | 6/9/2022
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940102192
 Personnel WHL

Weather cloudy, 58
 Well # B-19Ar
 Evacuation Method Whale Pump
 Sampling Method Purge Dry

Well Information:

Depth of Well * 47.12 ft.
 Depth to Water * 37.53 | 38.06 ft.
 Length of Water Column 9.59 ft.
 Volume of Water in Well 1.56 gal.(s)
 3X Volume of Water in Well 4.69 gal.(s)

Water Volume /ft. for:
 X 2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 2.75 gal.(s)
 Did well go dry? yes

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>38.89</u>	initial <u>12.89</u>	initial <u>1.30</u>	initial <u>0.21</u>	initial <u>7.00</u>	initial <u>43.8</u>	initial <u>156</u>
5 min	<u>40.98</u>	<u>12.34</u>	<u>1.21</u>	<u>1.32</u>	<u>6.97</u>	<u>56.8</u>	<u>71.3</u>
10 min	<u>41.77</u>	<u>12.34</u>	<u>1.26</u>	<u>0.95</u>	<u>6.92</u>	<u>67.2</u>	<u>43.0</u>
15 min	<u>43.53</u>	<u>12.06</u>	<u>1.31</u>	<u>0.12</u>	<u>6.90</u>	<u>63.0</u>	<u>79.3</u>
20 min	<u>Well went dry</u>						
25 min							
30 min							
35 min	<u>6/9/22 - 38.06</u>	<u>32.00</u>	<u>0.92</u>	<u>2.65</u>	<u>7.40</u>	<u>42.1</u>	<u>451</u>
40 min	<u>39.75</u>	<u>21.25</u>	<u>1.05</u>	<u>1.89</u>	<u>7.15</u>	<u>54.2</u>	<u>139</u>
45 min		<u>15.21</u>	<u>1.18</u>	<u>2.15</u>	<u>7.04</u>	<u>60.8</u>	<u>59.4</u>
50 min						Before metals collection	<u>51.6</u>
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 6/9/22 - 12:55

Physical Appearance at Start

Physical Appearance at Sampling

Color clear
 Odor no
 Turbidity (> 100 NTU) 156
 Sheen/Free Product no

Color clear
 Odor no
 Turbidity (> 100 NTU) 51.6
 Sheen/Free Product no

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
VOCs	<u>3</u>	<u>40 ml Glass</u>	<u>HCL</u>	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	<u>1</u>	<u>125 ml Plastic</u>	<u>HNO₃</u>	<u>yes</u>
Cyanide	<u>1</u>	<u>125 ml Amber</u>	<u>NAOH</u>	
Phenols	<u>1</u>	<u>125 ml Plastic</u>	<u>H₂SO₄</u>	
TOC	<u>2</u>	<u>40 ml Glass</u>	<u>H₂SO₄</u>	
TOX	<u>1</u>	<u>250 ml Plastic</u>	<u>H₂SO₄</u>	
Sulfate, Chlorides, SpC	<u>1</u>	<u>500 ml Plastic</u>	<u>None</u>	

Notes:

10:04 turned pump up, drawing down too fast

Standard Groundwater Sampling Log

Date 6/10/2022
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940102192
 Personnel KBS

Weather _____
 Well # B-20D
 Evacuation Method bladder pump
 Sampling Method low flow

Well Information:

Depth of Well * 90.91 ft.
 Depth to Water * 68.60 ft.
 Length of Water Column 22.31 ft.
 Volume of Water in Well 3.63 gal.(s)
 3X Volume of Water in Well 10.90 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 4.5 gal.(s)
 Did well go dry? no

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>69.20</u>	initial <u>15.36</u>	initial <u>0.80</u>	initial <u>0.82</u>	initial <u>7.34</u>	initial <u>-86.2</u>	initial <u>192</u>
5 min		<u>13.72</u>	<u>0.81</u>	<u>0.82</u>	<u>7.33</u>	<u>-87.6</u>	<u>133</u>
10 min	<u>69.41</u>	<u>12.98</u>	<u>0.84</u>	<u>0.11</u>	<u>7.32</u>	<u>-87.7</u>	<u>102</u>
15 min		<u>12.43</u>	<u>0.84</u>	<u>0.08</u>	<u>7.31</u>	<u>-86.6</u>	<u>99.8</u>
20 min	<u>69.49</u>	<u>12.27</u>	<u>0.85</u>	<u>0.06</u>	<u>7.30</u>	<u>-85.3</u>	<u>70.2</u>
25 min		<u>12.34</u>	<u>0.85</u>	<u>0.05</u>	<u>7.30</u>	<u>-84.6</u>	<u>58.6</u>
30 min	<u>69.55</u>	<u>12.11</u>	<u>0.85</u>	<u>0.03</u>	<u>7.30</u>	<u>-83.4</u>	<u>66.1</u>
35 min		<u>12.23</u>	<u>0.85</u>	<u>0.02</u>	<u>7.29</u>	<u>-83.7</u>	
40 min	<u>69.55</u>	<u>12.20</u>	<u>0.85</u>	<u>0.11</u>	<u>7.29</u>	<u>-79.3</u>	<u>59.0</u>
45 min		<u>12.57</u>	<u>0.84</u>	<u>0.03</u>	<u>7.29</u>	<u>-80.7</u>	<u>28.0</u>
50 min	<u>69.58</u>	<u>12.26</u>	<u>0.84</u>	<u>0.03</u>	<u>7.29</u>	<u>-80.5</u>	<u>31.0</u>
55 min		<u>12.44</u>	<u>0.85</u>	<u>0.02</u>	<u>7.28</u>	<u>-80.7</u>	<u>19.1</u>
60 min	<u>69.58</u>	<u>12.56</u>	<u>0.84</u>	<u>0.02</u>	<u>7.29</u>	<u>-80.8</u>	<u>19.6</u>
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 6/10/22 - 11:32

Physical Appearance at Start

Physical Appearance at Sampling

Color clear
 Odor no
 Turbidity (> 100 NTU) 192
 Sheen/Free Product no

Color clear
 Odor no
 Turbidity (> 100 NTU) 19.6
 Sheen/Free Product no

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
VOCs	3	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO ₃	yes
Cyanide	1	125 ml Amber	NAOH	
Phenols	1	125 ml Plastic	H ₂ SO ₄	
TOC	2	40 ml Glass	H ₂ SO ₄	
TOX	1	250 ml Plastic	H ₂ SO ₄	
Sulfate, Chlorides, SpC	1	500 ml Plastic	None	

Notes:

DUP collected

Standard Groundwater Sampling Log

Date 6/8/2022
 Site Name RACER Coldwater Rd Weather overcast
 Location Flint, MI Well # B-21D
 Project No. 1940102192 Evacuation Method bladder pump
 Personnel KBS Sampling Method low flow

Well Information:

Depth of Well * 98.30 ft. Water Volume /ft. for:
 X 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC
 Depth to Water * 78.67 ft.
 Length of Water Column 19.63 ft.
 Volume of Water in Well 3.20 gal.(s)
 3X Volume of Water in Well 9.60 gal.(s)
 Volume removed before sampling 4 gal.(s)
 Did well go dry? no
 * Measurements taken from Well Casing Protective Casing (Other, Specify)

Instrument Calibration:

Calibrated within range
 pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity uS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>79.91</u>	initial <u>20.65</u>	initial <u>711.34</u>	initial <u>5.63</u>	initial <u>7.55</u>	initial <u>-48.4</u>	initial <u>857</u>
5 min	<u>79.95</u>	<u>13.12</u>	<u>829.83</u>	<u>2.12</u>	<u>7.32</u>	<u>-35.3</u>	<u>882</u>
10 min	<u>79.95</u>	<u>12.75</u>	<u>834.54</u>	<u>1.78</u>	<u>7.32</u>	<u>-40.4</u>	<u>692</u>
15 min	<u>80.02</u>	<u>12.52</u>	<u>855.98</u>	<u>1.86</u>	<u>7.31</u>	<u>-70.4</u>	<u>368</u>
20 min	<u>80.00</u>	<u>12.58</u>	<u>811.78</u>	<u>1.62</u>	<u>7.28</u>	<u>-41.2</u>	<u>285</u>
25 min	<u>80.03</u>	<u>12.66</u>	<u>885.60</u>	<u>1.37</u>	<u>7.28</u>	<u>-46.6</u>	<u>202</u>
30 min	<u>80.03</u>	<u>12.53</u>	<u>916.61</u>	<u>1.02</u>	<u>7.26</u>	<u>-50.3</u>	<u>147</u>
35 min	<u>80.05</u>	<u>12.63</u>	<u>931.96</u>	<u>1.03</u>	<u>7.26</u>	<u>-50.9</u>	<u>114</u>
40 min	<u>80.07</u>	<u>12.53</u>	<u>943.87</u>	<u>1.05</u>	<u>7.26</u>	<u>-51.7</u>	<u>98.2</u>
45 min	<u>80.01</u>	<u>12.59</u>	<u>944.20</u>	<u>0.87</u>	<u>7.26</u>	<u>-50.5</u>	<u>99.4</u>
50 min	<u>80.00</u>	<u>12.72</u>	<u>948.81</u>	<u>1.06</u>	<u>7.26</u>	<u>-74.3</u>	<u>77.0</u>
55 min	<u>79.99</u>	<u>12.43</u>	<u>950.61</u>	<u>0.79</u>	<u>7.26</u>	<u>-72.8</u>	<u>80.8</u>
60 min	<u>80.00</u>	<u>12.40</u>	<u>946.28</u>	<u>0.86</u>	<u>7.25</u>	<u>-74.2</u>	<u>73.7</u>
65 min	<u>80.02</u>	<u>12.40</u>	<u>1011.5</u>	<u>0.73</u>	<u>7.25</u>	<u>-47.7</u>	<u>75.0</u>
70 min	<u>80.02</u>	<u>12.35</u>	<u>943.69</u>	<u>0.82</u>	<u>7.25</u>	<u>-48.8</u>	<u>73.0</u>
75 min	<u>80.02</u>	<u>12.35</u>	<u>944.11</u>	<u>0.73</u>	<u>7.25</u>	<u>-49.3</u>	<u>71.5</u>
80 min	<u>80.02</u>	<u>12.53</u>	<u>946.84</u>	<u>0.69</u>	<u>7.25</u>	<u>-73.4</u>	<u>65.9</u>
85 min	<u>80.02</u>	<u>12.47</u>	<u>951.63</u>	<u>0.93</u>	<u>7.25</u>	<u>-73.7</u>	<u>52.3</u>
90 min	<u>80.02</u>	<u>12.38</u>	<u>949.34</u>	<u>0.76</u>	<u>7.25</u>	<u>-49.3</u>	<u>59.5</u>
95 min	<u>80.02</u>	<u>12.36</u>	<u>950.30</u>	<u>0.64</u>	<u>7.25</u>	<u>-73.8</u>	<u>51.1</u>
100 min	<u>80.02</u>	<u>12.48</u>	<u>955.91</u>	<u>0.66</u>	<u>7.23</u>	<u>-52.3</u>	<u>53.4</u>
105 min	<u>80.02</u>	<u>12.57</u>	<u>950.46</u>	<u>0.83</u>	<u>7.24</u>	<u>-55.4</u>	<u>47.5</u>
110 min	<u>80.01</u>	<u>12.48</u>	<u>952.69</u>	<u>0.71</u>	<u>7.24</u>	<u>-57.0</u>	<u>38.9</u>
115 min	<u>80.01</u>	<u>12.36</u>	<u>952.82</u>	<u>0.70</u>	<u>7.25</u>	<u>-55.7</u>	<u>44.5</u>
120 min	<u>80.02</u>	<u>12.30</u>	<u>955.25</u>	<u>0.74</u>	<u>7.25</u>	<u>-79.8</u>	<u>47.1</u>

Water Sample:

Time Collected 15:55
 Physical Appearance at Start Physical Appearance at Sampling
 Color cloudy/ clear Color clear
 Odor no Odor no
 Turbidity (> 100 NTU) 857 Turbidity (> 100 NTU) 47.1
 Sheen/Free Product no Sheen/Free Product no

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
VOCs	3	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO ₃	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Amber	H ₂ SO ₄	
TOC	2	40 ml Glass	H ₂ SO ₄	
TOX	1	250 ml Amber	H ₂ SO ₄	
Sulfate, Chlorides, SpC	1	500 ml Plastic	None	

Notes:

Standard Groundwater Sampling Log

Date 6/8/2022
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940102192
 Personnel KBS

Weather _____
 Well # B-22D
 Evacuation Method bladder pump
 Sampling Method low flow

Well Information:

Depth of Well * 99.30 ft.
 Depth to Water * 83.30 ft.
 Length of Water Column 16.00 ft.
 Volume of Water in Well 2.60 gal.(s)
 3X Volume of Water in Well 7.82 gal.(s)

Water Volume /ft. for:
 X 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 4.0 gal.(s)
 Did well go dry? no

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity uS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>84.1</u>	initial <u>17.31</u>	initial <u>784.21</u>	initial <u>1.06</u>	initial <u>7.30</u>	initial <u>-24.4</u>	initial <u>104</u>
5 min	<u>83.85</u>	<u>13.30</u>	<u>848.05</u>	<u>0.31</u>	<u>7.33</u>	<u>-30.5</u>	<u>73.1</u>
10 min	<u>83.78</u>	<u>13.62</u>	<u>843.74</u>	<u>0.35</u>	<u>7.33</u>	<u>-61.3</u>	<u>66.6</u>
15 min	<u>83.80</u>	<u>13.54</u>	<u>844.92</u>	<u>0.37</u>	<u>7.32</u>	<u>-31.0</u>	<u>60.1</u>
20 min	<u>83.75</u>	<u>13.79</u>	<u>844.61</u>	<u>0.33</u>	<u>7.31</u>	<u>-33.2</u>	<u>57.9</u>
25 min	<u>83.75</u>	<u>13.58</u>	<u>844.69</u>	<u>0.28</u>	<u>7.31</u>	<u>-35.3</u>	<u>46.2</u>
30 min	<u>83.75</u>	<u>13.95</u>	<u>841.04</u>	<u>0.23</u>	<u>7.31</u>	<u>-38.0</u>	<u>29.9</u>
35 min	<u>83.77</u>	<u>13.70</u>	<u>842.47</u>	<u>0.21</u>	<u>7.31</u>	<u>-71.8</u>	<u>27.1</u>
40 min	<u>83.76</u>	<u>13.66</u>	<u>839.17</u>	<u>0.19</u>	<u>7.31</u>	<u>-39.4</u>	<u>23.7</u>
45 min	<u>83.75</u>	<u>13.33</u>	<u>844.73</u>	<u>0.17</u>	<u>7.31</u>	<u>-73.6</u>	<u>19.9</u>
50 min	<u>83.75</u>	<u>13.52</u>	<u>840.98</u>	<u>0.16</u>	<u>7.31</u>	<u>-41.6</u>	<u>17.7</u>
55 min	<u>83.75</u>	<u>13.35</u>	<u>843.76</u>	<u>0.15</u>	<u>7.31</u>	<u>-75.7</u>	<u>12.5</u>
60 min	<u>83.74</u>	<u>13.76</u>	<u>843.93</u>	<u>0.14</u>	<u>7.30</u>	<u>-77.7</u>	<u>9.96</u>
65 min	<u>83.77</u>	<u>13.89</u>	<u>839.65</u>	<u>0.13</u>	<u>7.30</u>	<u>-45.1</u>	<u>10.1</u>
70 min	<u>83.75</u>	<u>13.81</u>	<u>837.71</u>	<u>0.12</u>	<u>7.30</u>	<u>-45.6</u>	<u>9.70</u>
75 min	<u>83.74</u>	<u>13.60</u>	<u>840.66</u>	<u>0.12</u>	<u>7.31</u>	<u>-78.7</u>	<u>9.90</u>
80 min	<u>83.76</u>	<u>13.58</u>	<u>837.93</u>	<u>0.11</u>	<u>7.31</u>	<u>-45.8</u>	<u>7.39</u>
85 min	<u>83.80</u>	<u>13.30</u>	<u>839.07</u>	<u>0.10</u>	<u>7.30</u>	<u>-45.9</u>	<u>7.69</u>
90 min	<u>83.79</u>	<u>13.11</u>	<u>841.05</u>	<u>0.10</u>	<u>7.31</u>	<u>-79.0</u>	<u>5.31</u>
95 min	<u>83.75</u>	<u>13.06</u>	<u>843.00</u>	<u>0.09</u>	<u>7.31</u>	<u>-79.6</u>	<u>5.55</u>
100 min		<u>12.99</u>	<u>845.96</u>	<u>0.09</u>	<u>7.31</u>	<u>-80.2</u>	<u>6.42</u>

Water Sample:

Time Collected 12:15

Physical Appearance at Start

Physical Appearance at Sampling

Color clear/ gray
 Odor no
 Turbidity (> 100 NTU) 104
 Sheen/Free Product no

Color clear
 Odor no
 Turbidity (> 100 NTU) 6.42
 Sheen/Free Product no

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
VOCs	3	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO ₃	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Amber	H ₂ SO ₄	
TOC	2	40 ml Glass	H ₂ SO ₄	
TOX	1	250 ml Amber	H ₂ SO ₄	
Sulfate, Chlorides, SpC	1	500 ml Plastic	None	

Notes:

Initial flow 200 mL/min
 At 15 min flow 125 mL/min

Standard Groundwater Sampling Log

Date 6/9/2022
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940102192
 Personnel KRR/ KBS

Weather mostly sunny, 70s
 Well # B-23Dr
 Evacuation Method bladder pump
 Sampling Method low flow

Well Information:

Depth of Well * 110.50 ft.
 Depth to Water * 80.26 ft.
 Length of Water Column 30.24 ft.
 Volume of Water in Well 4.92 gal.(s)
 3X Volume of Water in Well 14.78 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 3.5 gal.(s)
 Did well go dry? no

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>80.27</u>	initial <u>20.65</u>	initial <u>737.96</u>	initial <u>4.42</u>	initial <u>7.65</u>	initial <u>-55.8</u>	initial <u>110</u>
5 min	<u>80.27</u>	<u>13.40</u>	<u>972.38</u>	<u>0.44</u>	<u>7.18</u>	<u>-68.4</u>	<u>109</u>
10 min	<u>80.27</u>	<u>13.30</u>	<u>981.07</u>	<u>0.23</u>	<u>7.14</u>	<u>-67.5</u>	<u>114</u>
15 min	<u>80.27</u>	<u>13.26</u>	<u>973.60</u>	<u>0.17</u>	<u>7.13</u>	<u>-67.8</u>	<u>68.8</u>
20 min	<u>80.27</u>	<u>13.21</u>	<u>955.84</u>	<u>0.13</u>	<u>7.15</u>	<u>-65.5</u>	<u>47.9</u>
25 min	<u>80.27</u>	<u>13.20</u>	<u>944.39</u>	<u>0.11</u>	<u>7.14</u>	<u>-87.6</u>	<u>36.0</u>
30 min	<u>80.27</u>	<u>13.22</u>	<u>951.71</u>	<u>0.09</u>	<u>7.13</u>	<u>-65.1</u>	<u>28.1</u>
35 min	<u>80.27</u>	<u>13.28</u>	<u>957.17</u>	<u>0.07</u>	<u>7.13</u>	<u>-86.5</u>	<u>19.3</u>
40 min	<u>80.27</u>	<u>13.35</u>	<u>957.36</u>	<u>0.06</u>	<u>7.13</u>	<u>-86.8</u>	<u>21.2</u>
45 min	<u>80.27</u>	<u>13.35</u>	<u>951.89</u>	<u>0.05</u>	<u>7.13</u>	<u>85.6</u>	<u>22.6</u>
50 min	<u>80.27</u>	<u>13.33</u>	<u>948.12</u>	<u>0.04</u>	<u>7.13</u>	<u>-85.5</u>	<u>12.1</u>
55 min	<u>80.27</u>	<u>13.48</u>	<u>954.87</u>	<u>0.04</u>	<u>7.13</u>	<u>-85.6</u>	<u>10.2</u>
60 min	<u>80.27</u>	<u>13.52</u>	<u>950.37</u>	<u>0.03</u>	<u>7.12</u>	<u>-85.4</u>	<u>9.87</u>
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 12:20

Physical Appearance at Start

Physical Appearance at Sampling

Color light gray
 Odor no
 Turbidity (> 100 NTU) 110
 Sheen/Free Product no

Color clear
 Odor no
 Turbidity (> 100 NTU) 9.87
 Sheen/Free Product no

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
VOCs	3	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO ₃	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Amber	H ₂ SO ₄	
TOC	2	40 ml Glass	H ₂ SO ₄	
TOX	1	250 ml Amber	H ₂ SO ₄	
Sulfate, Chlorides, SpC	1	500 ml Plastic	None	

Notes:

Initial flow 300 mL/min
 At 5 min flow 225 mL/min

Standard Groundwater Sampling Log

Date 6/7/22 | 6/8/22
 Site Name RACER Coldwater Rd Weather partly cloudy, 60s | sunny 70s
 Location Flint, MI Well # B-24r
 Project No. 1940102192 Evacuation Method Whale Pump-Peristaltic
 Personnel WHL Sampling Method purge dry

Well Information:

Depth of Well * 30.38 ft. Water Volume /ft. for:
 Depth to Water * 13.47 | 13.28 ft. X 2" Diameter Well = 0.163 X LWC
 Length of Water Column 16.91 ft. 4" Diameter Well = 0.653 X LWC
 Volume of Water in Well 2.76 gal.(s) 6" Diameter Well = 1.469 X LWC
 3X Volume of Water in Well 8.27 gal.(s)
 Volume removed before sampling 9 gal.(s)
 Did well go dry? yes
 * Measurements taken from Well Casing Protective Casing (Other, Specify)

Instrument Calibration:

Calibrated within range
 pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>13.95</u>	initial <u>23.91</u>	initial <u>1.13</u>	initial <u>1.68</u>	initial <u>7.11</u>	initial <u>53.5</u>	initial <u>136</u>
5 min	<u>14.57</u>	<u>13.94</u>	<u>1.35</u>	<u>0.54</u>	<u>6.95</u>	<u>73.0</u>	<u>85.5</u>
10 min	<u>15.28</u>	<u>12.93</u>	<u>1.35</u>	<u>0.46</u>	<u>6.94</u>	<u>71.4</u>	<u>62.4</u>
15 min	<u>15.76</u>	<u>13.12</u>	<u>1.36</u>	<u>0.43</u>	<u>6.93</u>	<u>68.3</u>	<u>33.9</u>
20 min	<u>17.26</u>	<u>11.72</u>	<u>1.38</u>	<u>0.33</u>	<u>6.94</u>	<u>66.4</u>	<u>13.9</u>
25 min	<u>19.09</u>	<u>11.38</u>	<u>1.43</u>	<u>0.33</u>	<u>6.93</u>	<u>64.7</u>	<u>10.0</u>
30 min	<u>20.24</u>	<u>11.21</u>	<u>1.47</u>	<u>0.48</u>	<u>6.91</u>	<u>63.5</u>	<u>12.4</u>
35 min	<u>20.59</u>	<u>11.10</u>	<u>1.51</u>	<u>0.36</u>	<u>6.89</u>	<u>61.5</u>	<u>22.6</u>
40 min	<u>22.64</u>	<u>10.54</u>	<u>1.50</u>	<u>1.41</u>	<u>6.94</u>	<u>61.7</u>	<u>498</u>
45 min	<u>25.26</u>	<u>10.81</u>	<u>1.38</u>	<u>0.17</u>	<u>6.93</u>	<u>32.7</u>	<u>114</u>
50 min	Well purged dry. Purged 8 gal						
55 min							
60 min							
65 min							
70 min	<u>6/8/22 - 13.69</u>	<u>15.38</u>	<u>1.35</u>	<u>6.64</u>	<u>7.13</u>	<u>74.4</u>	<u>34.4</u>
75 min	<u>14.46</u>	<u>12.82</u>	<u>1.45</u>	<u>7.43</u>	<u>7.10</u>	<u>129.2</u>	<u>29.3</u>
80 min	<u>14.68</u>	<u>12.89</u>	<u>1.44</u>	<u>7.54</u>	<u>7.09</u>	<u>126.2</u>	<u>39.0</u>
85 min	Purged 0.5 gallons						
90 min							

Water Sample:

Time Collected 6/8/2022 - 10:05
 Physical Appearance at Start Physical Appearance at Sampling
 Color clear, slightly grey Color clear
 Odor no Odor no
 Turbidity (> 100 NTU) 136 Turbidity (> 100 NTU) 39.0
 Sheen/Free Product no Sheen/Free Product no

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
VOCs	3	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO ₃	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Amber	H ₂ SO ₄	
TOC	2	40 ml Glass	H ₂ SO ₄	
TOX	1	250 ml Amber	H ₂ SO ₄	
Sulfate, Chlorides, SpC	1	500 ml Plastic	None	

Notes: 6/7/2022 6/8/2022
14:53 pumping slowed down increased 9:44 started pumping 150 mL/min
15:10 turned pump up DTW- 14.58 after sampling

Standard Groundwater Sampling Log

Date 6/9/2022
 Site Name RACER Coldwater Rd Weather sunny, 70s
 Location Flint, MI Well # B-27D
 Project No. 1940102192 Evacuation Method badder pump
 Personnel KBS/ KRR Sampling Method low flow

Well Information:

Depth of Well * 88.40 ft.
 Depth to Water * 74.65 ft.
 Length of Water Column 13.75 ft.
 Volume of Water in Well 2.24 gal.(s)
 3X Volume of Water in Well 6.72 gal.(s)

Water Volume /ft. for:
 X 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 5 gal.(s)
 Did well go dry? no
 * Measurements taken from Well Casing Protective Casing (Other, Specify)

Instrument Calibration:

Calibrated within range
 pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	75.18	initial 17.18	initial 690.73	initial 0.93	initial 7.02	initial -54.2	initial 915
5 min	75.11	13.57	739.30	0.05	7.29	-72.0	985
10 min	75.06	13.43	736.90	0.03	7.31	-73.5	1020
15 min	75.10	13.38	730.44	0.02	7.32	-96.3	887
20 min	75.07	13.42	729.11	0.00	7.32	-96.9	799
25 min		13.40	729.27	0.00	7.32	-74.2	672
30 min	75.10	13.30	724.66	-0.01	7.32	-73.9	530
35 min	75.10	13.26	722.36	-0.02	7.32	-95.3	474
40 min	75.11	13.14	722.37	-0.02	7.32	-95.7	412
45 min	75.10	13.14	726.08	-0.03	7.32	-95.1	313
50 min	75.10	12.97	728.11	-0.02	7.32	-94.0	296
55 min		13.23	722.84	-0.03	7.32	-95.1	273
60 min	75.10	13.11	722.52	-0.04	7.32	-93.3	223
65 min		13.01	719.28	-0.04	7.32	-93.2	180
70 min		13.07	721.80	-0.04	7.32	-93.2	161
75 min		13.40	721.89	-0.04	7.31	-93.2	141
80 min	75.13	13.35	719.76	-0.04	7.32	-92.3	135
85 min		13.12	721.95	-0.04	7.32	-91.8	119
90 min		13.68	713.78	-0.05	7.31	-91.9	112
95 min		13.72	713.48	-0.05	7.31	-91.5	99.9
100 min		13.49	715.44	-0.05	7.32	-91.7	78.1
105 min	75.10	13.12	719.17	-0.05	7.32	-90.8	79.7
110 min		12.91	721.98	-0.05	7.32	-90.9	70.7
115 min		12.77	721.98	-0.05	7.32	-91.1	65.9
120 min	75.14	13.53	720.27	-0.05	7.31	-91.7	61.8

Water Sample:

Time Collected 15:46
 Physical Appearance at Start Physical Appearance at Sampling
 Color Gray Color cloudy/ clear
 Odor None Odor None
 Turbidity (> 100 NTU) 915 Turbidity (> 100 NTU) 61.8
 Sheen/Free Product None Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
VOCs	3	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO ₃	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Amber	H ₂ SO ₄	
TOC	2	40 ml Glass	H ₂ SO ₄	
TOX	1	250 ml Amber	H ₂ SO ₄	
Sulfate, Chlorides, SpC	1	500 ml Plastic	None	

Notes:

Initial Flow- 175 mL/min
 Flow at 5 min- 150 mL/min

Standard Groundwater Sampling Log

Date 6/7/2022
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940102192
 Personnel WHL

Weather cloudy, 59 degrees Fahrenheit
 Well # B-28
 Evacuation Method Whale Pump-Peristaltic
 Sampling Method Whale Pump-Peristaltic

Well Information:

Depth of Well * 32.21 ft.
 Depth to Water * 5.04 ft.
 Length of Water Column 27.17 ft.
 Volume of Water in Well 4.43 gal.(s)
 3X Volume of Water in Well 13.29 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 13.5 gal.(s)
 Did well go dry? no

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>5.29</u>	initial <u>14.1</u>	initial <u>1.01</u>	initial <u>0.40</u>	initial <u>7.08</u>	initial <u>79.3</u>	initial <u>38.2</u>
5 min	<u>6.98</u>	<u>12.02</u>	<u>1.05</u>	<u>0.08</u>	<u>6.94</u>	<u>66.1</u>	<u>20.1</u>
10 min	<u>8.02</u>	<u>12.11</u>	<u>1.06</u>	<u>0.20</u>	<u>6.92</u>	<u>61.3</u>	<u>19.8</u>
15 min	<u>15.81</u>	<u>10.87</u>	<u>1.07</u>	<u>0.00</u>	<u>6.93</u>	<u>26.1</u>	<u>9.96</u>
20 min	<u>17.15</u>	<u>11.19</u>	<u>1.07</u>	<u>0.01</u>	<u>6.92</u>	<u>12.2</u>	<u>6.07</u>
25 min	<u>17.33</u>	<u>11.29</u>	<u>1.07</u>	<u>0.00</u>	<u>6.92</u>	<u>2.7</u>	<u>5.03</u>
30 min	<u>18.11</u>	<u>11.19</u>	<u>1.07</u>	<u>0.00</u>	<u>6.93</u>	<u>-9.0</u>	<u>2.30</u>
35 min	<u>16.26</u>	<u>11.86</u>	<u>1.07</u>	<u>0.47</u>	<u>6.93</u>	<u>-4.2</u>	<u>2.91</u>
40 min	<u>19.64</u>	<u>10.93</u>	<u>1.09</u>	<u>0.06</u>	<u>6.93</u>	<u>-10.8</u>	<u>0.25</u>
45 min	<u>20.97</u>	<u>10.95</u>	<u>1.08</u>	<u>0.16</u>	<u>6.93</u>	<u>-7.5</u>	<u>1.84</u>
50 min	<u>22.40</u>	<u>11.00</u>	<u>1.08</u>	<u>0.5</u>	<u>6.95</u>	<u>-0.4</u>	<u>3.28</u>
55 min	<u>23.31</u>	<u>10.77</u>	<u>1.09</u>	<u>0.22</u>	<u>6.94</u>	<u>-10.1</u>	<u>4.41</u>
60 min	<u>23.32</u>	<u>10.81</u>	<u>1.09</u>	<u>0.42</u>	<u>6.95</u>	<u>-5.9</u>	<u>5.67</u>
65 min	<u>23.59</u>	<u>10.72</u>	<u>1.09</u>	<u>0.75</u>	<u>6.96</u>	<u>-3.6</u>	<u>80.8</u>
70 min	<u>23.27</u>	<u>11.09</u>	<u>1.08</u>	<u>0.93</u>	<u>6.97</u>	<u>-2.9</u>	<u>59.8</u>
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 12:04

Physical Appearance at Start

Physical Appearance at Sampling

Color clear Color clear
 Odor no Odor no
 Turbidity (> 100 NTU) 38 Turbidity (> 100 NTU) 59.8
 Sheen/Free Product no Sheen/Free Product no

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
VOCs	3	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO ₃	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Amber	H ₂ SO ₄	
TOC	2	40 ml Glass	H ₂ SO ₄	
TOX	1	250 ml Amber	H ₂ SO ₄	
Sulfate, Chlorides, SpC	1	500 ml Plastic	None	

Notes:

At 11:01 sped pump up
 At 11:07 slowed pump to try to get 3 well volumes
 At 35 min of purging pump head came unplugged

Standard Groundwater Sampling Log

Date 6/10/2022
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940102192
 Personnel KBS

Weather sunny, 70's
 Well # OBG MW-16D
 Evacuation Method bladder pump
 Sampling Method low flow

Well Information:

Depth of Well * 75.10 ft.
 Depth to Water * 56.30 ft.
 Length of Water Column 18.80 ft.
 Volume of Water in Well 3.06 gal.(s)
 3X Volume of Water in Well 9.19 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 2 gal.(s)
 Did well go dry? no

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>56.32</u>	initial <u>20.20</u>	initial <u>0.14</u>	initial <u>2.21</u>	initial <u>7.35</u>	initial <u>-97.8</u>	initial <u>51.1</u>
5 min	<u>56.32</u>	<u>13.57</u>	<u>0.15</u>	<u>0.74</u>	<u>7.45</u>	<u>-107.3</u>	<u>30.3</u>
10 min	<u>56.32</u>	<u>12.59</u>	<u>0.16</u>	<u>0.72</u>	<u>7.46</u>	<u>-102.3</u>	<u>24.6</u>
15 min	<u>56.32</u>	<u>12.40</u>	<u>0.16</u>	<u>0.71</u>	<u>7.45</u>	<u>-101.3</u>	<u>25.2</u>
20 min	<u>56.32</u>	<u>12.20</u>	<u>0.16</u>	<u>0.63</u>	<u>7.46</u>	<u>-101.2</u>	<u>12.6</u>
25 min	<u>56.32</u>	<u>12.22</u>	<u>0.17</u>	<u>0.47</u>	<u>7.45</u>	<u>-101.6</u>	<u>9.63</u>
30 min	<u>56.32</u>	<u>12.16</u>	<u>0.16</u>	<u>0.46</u>	<u>7.46</u>	<u>-102.1</u>	<u>7.31</u>
35 min	<u>56.32</u>	<u>12.20</u>	<u>0.16</u>	<u>0.45</u>	<u>7.45</u>	<u>-101.9</u>	<u>6.39</u>
40 min							
45 min							
50 min							
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 13:08

Physical Appearance at Start

Physical Appearance at Sampling

Color slightly cloudy Color clear
 Odor no Odor no
 Turbidity (> 100 NTU) 51.1 Turbidity (> 100 NTU) 6.39
 Sheen/Free Product no Sheen/Free Product no

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
VOCs	3	40 ml Glass	HCL	
Dissolved Metals - Cu, Cr, Ni, Zn, Fe, Mn, Na	1	125 ml Plastic	HNO ₃	yes
Cyanide	1	125 ml Plastic	NAOH	
Phenols	1	125 ml Amber	H ₂ SO ₄	
TOC	2	40 ml Glass	H ₂ SO ₄	
TOX	1	250 ml Amber	H ₂ SO ₄	
Sulfate, Chlorides, SpC	1	500 ml Plastic	None	

Notes: Pumping rate 150 ml per min

APPENDIX C
ANALYTICAL LABORATORY RESULTS



Analytical Laboratory Report

Report ID: S36836.01(01)
Generated on 06/24/2022

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Additional Contacts: Kevin Schneider

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:

John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S36836.01-S36836.04
Project: RACER Coldwater Road
Collected Date(s): 06/07/2022 - 06/08/2022
Submitted Date/Time: 06/08/2022 15:30
Sampled by: Kevin Schneider
P.O. #: 1940004462 TASK 001

Table of Contents

Cover Page (Page 1)
General Report Notes (Page 2)
Report Narrative (Page 2)
Laboratory Certifications (Page 3)
Qualifier Descriptions (Page 3)
Glossary of Abbreviations (Page 3)
Method Summary (Page 4)
Sample Summary (Page 5)

Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
E120.1	EPA Method 120.1 Revision 1982
E200.8	EPA Method 200.8 Revision 5.4
E300.0	EPA Method 300.0 Revision 2.1 (1993)
E335.4/SM4500-CN	EPA Method 335.4 Revision 1.0 / Standard Method 4500-CN E 20th Edition
E420.1	EPA Method 420.1 Editorial Revision 1978
N/A	Not Applicable
SM5310C	Standard Method 5310C 2011
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW9020B	SW 846 Method 9020B Revision 2 September 1994



Analytical Laboratory Report

Sample Summary (4 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S36836.01	B-28	Groundwater	06/07/22 12:04
S36836.02	B-24R	Groundwater	06/08/22 10:05
S36836.03	B-9	Groundwater	06/08/22 11:25
S36836.04	Trip Blank-060822	Liquid	06/08/22 12:04



Analytical Laboratory Report

Lab Sample ID: S36836.01

Sample Tag: B-28

Collected Date/Time: 06/07/2022 12:04

Matrix: Groundwater

COC Reference: 148228

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.6	IR
2	40ml Glass	H2SO4	Yes	3.6	IR
1	125ml Amber	H2SO4	Yes	3.6	IR
1	250ml Amber	H2SO4	Yes	3.6	IR
1	125ml Plastic	NaOH	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	1L Plastic	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/13/22 09:30	KAG	
Metal Digestion	Completed	SW3015A	06/13/22 12:20	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/09/22 16:37, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	936	1		umhos/cm	1		

Method: E300.0, Run Date: 06/09/22 09:19, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	12	10	0.13	mg/L	10	16887-00-6	
Sulfate	166	10	1.0	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/10/22 10:20, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/15/22 17:22, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/16/22 15:05, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	5.1	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:21, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	20.1	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/22 14:22, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	



Analytical Laboratory Report

Lab Sample ID: S36836.01 (continued)

Sample Tag: B-28

Method: E200.8, Run Date: 06/13/22 14:22, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Iron, Dissolved	0.81	0.02		mg/L	5	7439-89-6	
Manganese, Dissolved	0.093	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	Not detected	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/13/22 17:49, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S36836.01 (continued)

Sample Tag: B-28

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/13/22 17:49, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/20/22 23:14, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S36836.02

Sample Tag: B-24R

Collected Date/Time: 06/08/2022 10:05

Matrix: Groundwater

COC Reference: 148228

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.6	IR
2	40ml Glass	H2SO4	Yes	3.6	IR
1	125ml Amber	H2SO4	Yes	3.6	IR
1	250ml Amber	H2SO4	Yes	3.6	IR
1	125ml Plastic	NaOH	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	1L Plastic	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/13/22 16:10	NDK	
Metal Digestion	Completed	SW3015A	06/13/22 12:20	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/09/22 15:38, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	1,320	1		umhos/cm	1		

Method: E300.0, Run Date: 06/09/22 09:29, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	50	10	0.13	mg/L	10	16887-00-6	

Method: E300.0, Run Date: 06/09/22 11:20, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sulfate	264	25	2.6	mg/L	25	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/10/22 10:22, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/15/22 17:24, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/16/22 15:24, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	7.3	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:23, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	62.9	2.5		mg/L	50	7440-23-5	



Analytical Laboratory Report

Lab Sample ID: S36836.02 (continued)

Sample Tag: B-24R

Method: E200.8, Run Date: 06/13/22 14:32, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	
Iron, Dissolved	0.03	0.02		mg/L	5	7439-89-6	
Manganese, Dissolved	0.045	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	0.010	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/10/22 18:07, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	



Analytical Laboratory Report

Lab Sample ID: S36836.02 (continued)

Sample Tag: B-24R

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/10/22 18:07, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/21/22 00:33, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S36836.03

Sample Tag: B-9

Collected Date/Time: 06/08/2022 11:25

Matrix: Groundwater

COC Reference: 148228

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.6	IR
2	40ml Glass	H2SO4	Yes	3.6	IR
1	125ml Amber	H2SO4	Yes	3.6	IR
1	250ml Amber	H2SO4	Yes	3.6	IR
1	125ml Plastic	NaOH	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	1L Plastic	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/13/22 09:30	KAG	
Metal Digestion	Completed	SW3015A	06/13/22 12:20	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/09/22 15:39, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	1,830	1		umhos/cm	1		

Method: E300.0, Run Date: 06/09/22 09:39, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	46	10	0.13	mg/L	10	16887-00-6	

Method: E300.0, Run Date: 06/09/22 11:30, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sulfate	562	25	2.6	mg/L	25	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/10/22 10:24, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/15/22 17:26, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/16/22 15:43, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	7.0	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:24, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	45.9	2.5		mg/L	50	7440-23-5	



Analytical Laboratory Report

Lab Sample ID: S36836.03 (continued)

Sample Tag: B-9

Method: E200.8, Run Date: 06/13/22 14:34, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	
Iron, Dissolved	0.07	0.02		mg/L	5	7439-89-6	
Manganese, Dissolved	0.180	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	0.014	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/10/22 18:31, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	



Analytical Laboratory Report

Lab Sample ID: S36836.03 (continued)

Sample Tag: B-9

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/10/22 18:31, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/21/22 01:52, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S36836.04

Sample Tag: Trip Blank-060822

Collected Date/Time: 06/08/2022 12:04

Matrix: Liquid

COC Reference: 148228

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/13/22 09:30	KAG	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/10/22 16:57, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S36836.04 (continued)

Sample Tag: Trip Blank-060822

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/10/22 16:57, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Merit Laboratories Login Checklist

Lab Set ID:S36836

Client:OBG02 (Ramboll Americas)

Project: RACER Coldwater Road

Submitted:06/08/2022 15:30 Login User: PFD

Attention: Clifford Yantz

Address: Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Selection	Description	Note
Sample Receiving		
01.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples are received at 4C +/- 2C Thermometer # IR 3.6
02.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Received on ice/ cooling process begun
03.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples shipped
04.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples left in 24 hr. drop box
05.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	COC adequately filled out
07.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	COC signed and relinquished to the lab
08.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sample tag on bottles match COC
09.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Subcontracting needed? Subcontracted to: GEL 1Z4664770163634741
Preservation		
10.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Do sample have correct chemical preservation
11.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Completed pH checks on preserved samples? (no VOAs)
12.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Did any samples need to be preserved in the lab? See checklist
Bottle Conditions		
13.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	All bottles intact
14.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Appropriate analytical bottles are used
15.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Merit bottles used
16.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sufficient sample volume received
17.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples require laboratory filtration
18.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples submitted within holding time
19.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Do water VOC or TOX bottles contain headspace

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S36836 Submitted: 06/08/2022 15:30

Attention: Clifford Yantz
 Address: Ramboll Americas
 2090 Commonwealth Blvd
 Ann Arbor, MI 48105

Client: OBG02 (Ramboll Americas)

Project: RACER Coldwater Road

Initial Preservation Check: 06/08/2022 16:17 PFD

Phone: 313-333-0211 FAX:
 Email: Clifford.Yantz@ramboll.com

Preservation Recheck (E200.8): N/A

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S36836.01	125ml Amber H2SO4	<2			
S36836.01	125ml Plastic HNO3	<2			
S36836.01	125ml Plastic HNO3	<2			
S36836.01	125ml Plastic NaOH	11	1.2	>12	Lot# 1015215N
S36836.01	250ml Amber H2SO4	<2			
S36836.02	125ml Amber H2SO4	<2			
S36836.02	125ml Plastic HNO3	<2			
S36836.02	125ml Plastic HNO3	<2			
S36836.02	125ml Plastic NaOH	11	0.7	>12	Lot# 1015215N
S36836.02	250ml Amber H2SO4	<2			
S36836.03	125ml Amber H2SO4	<2			
S36836.03	125ml Plastic HNO3	<2			
S36836.03	125ml Plastic HNO3	<2			
S36836.03	125ml Plastic NaOH	9	2.2	>12	Lot# 1015215N
S36836.03	250ml Amber H2SO4	<2			



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE # 1 OF 1 148228

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Clifford Yantz / Kevin Schneider
 COMPANY Ramboll
 ADDRESS 2090 Commonwealth Blvd
 CITY Ann Arbor STATE MI ZIP CODE 48105
 PHONE NO. _____ CELL NO. 313-332-0211 P.O. NO. 1940004462 Task 001
 E-MAIL ADDRESS Kevin.Schneider@Ramboll.com QUOTE NO. _____
Clifford.Yantz@Ramboll.com

CONTACT NAME SAME
 COMPANY _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP CODE _____
 PHONE NO. _____ E-MAIL ADDRESS _____

PROJECT NO./NAME RACER Coldwater Road SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider TK SKL
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

	VOCs	Toc	Phenols	Cyanide	Sulfate	specific conductivity	Chlorides	Tox	Dissolved Metals	Total Sodium	Certifications
											<input type="checkbox"/> OHIO VAP <input type="checkbox"/> Drinking Water
											<input type="checkbox"/> DoD <input type="checkbox"/> NPDES
											Project Locations
											<input type="checkbox"/> Detroit <input type="checkbox"/> New York
											<input type="checkbox"/> Other _____
											Special Instructions

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives																
	DATE	TIME				NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER										
<u>36836.01</u>	<u>6/7/22</u>	<u>1204</u>	<u>B-28</u>	<u>GW</u>	<u>11</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>4</u>	<u>1</u>												
<u>.02</u>	<u>6/8/22</u>	<u>1005</u>	<u>B-24R</u>	<u>GW</u>	<u>11</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>4</u>	<u>1</u>												
<u>.03</u>	<u>6/8/22</u>	<u>1125</u>	<u>B-9</u>	<u>GW</u>	<u>11</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>4</u>	<u>1</u>												
<u>.04</u>	<u>6/8/22</u>	<u>-</u>	<u>Trip Blank - 060822</u>	<u>L</u>	<u>1</u>	<u>1</u>																

Dissoimed metals were field filtered

Metals ARE: Cu, Cr, Ni, Zn, Fe, Mn

RELINQUISHED BY: TK SKL Sampler DATE 6/8/22 TIME 10:07
 SIGNATURE/ORGANIZATION _____
 RECEIVED BY: J. Smith DATE 6/8/22 TIME 12:07
 SIGNATURE/ORGANIZATION _____
 RECEIVED BY: Patricia DATE 6/8/22 TIME 15:30
 SIGNATURE/ORGANIZATION _____

RELINQUISHED BY: _____ DATE _____ TIME _____
 SIGNATURE/ORGANIZATION _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SIGNATURE/ORGANIZATION _____

SEAL NO. _____ SEAL INTACT YES NO INITIALS _____
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____

NOTES: _____ TEMP. ON ARRIVAL 3.6

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



June 22, 2022

John Laverty
Merit Laboratories Inc.
2680 East Lansing Drive
East Lansing, Michigan 48823

Re: Halogen Analysis
Work Order: 582710
SDG: S36836

Dear John Laverty:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 10, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1614.

Sincerely,

Joanne Harley for
Delaney Stone
Project Manager

Purchase Order: GELP20-0014
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

**Certificate of Analysis Report
for**

MERI001 Merit Laboratories, Inc.

Client SDG: S36836 GEL Work Order: 582710

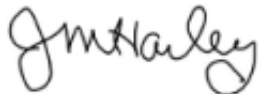
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Delaney Stone.



Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 22, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive
East Lansing, Michigan 48823
Contact: John Laverty
Project: Halogen Analysis

Client Sample ID: S36836.01 Project: MERI00220
Sample ID: 582710001 Client ID: MERI001
Matrix: Ground Water
Collect Date: 07-JUN-22 12:04
Receive Date: 10-JUN-22
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens	J	9.16	3.33	10.0	ug/L		1	RMJ	06/20/22	2314	2278873	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 22, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive
East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID: S36836.02 Project: MERI00220
Sample ID: 582710002 Client ID: MERI001
Matrix: Ground Water
Collect Date: 08-JUN-22 10:05
Receive Date: 10-JUN-22
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens		17.7	3.33	10.0	ug/L		1	RMJ	06/21/22	0033	2278873	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 22, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive

East Lansing, Michigan 48823

Contact: John Lavery
Project: Halogen Analysis

Client Sample ID: S36836.03
Sample ID: 582710003
Matrix: Ground Water
Collect Date: 08-JUN-22 11:25
Receive Date: 10-JUN-22
Collector: Client

Project: MERI00220
Client ID: MERI001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens	J	7.40	3.33	10.0	ug/L		1	RMJ	06/21/22	0152	2278873	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: June 22, 2022

Page 1 of 2

Merit Laboratories Inc.
2680 East Lansing Drive
East Lansing, Michigan

Contact: John Laverty

Workorder: 582710

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Halogen Analysis											
Batch	2278873										
QC1205118030	582710001	DUP									
Total Organic Halogens	J	9.16	J	7.38	ug/L	21.5 ^		(+/-10.0)	RMJ	06/21/22	00:53
QC1205118029	LCS										
Total Organic Halogens	100			80.4	ug/L		80.4	(71%-120%)		06/20/22	22:30
QC1205119951	LCSD										
Total Organic Halogens	100			82.0	ug/L	1.97	82	(0%-20%)		06/20/22	22:54
QC1205118028	MB										
Total Organic Halogens			U	ND	ug/L					06/20/22	22:09
QC1205118031	582710001	MS									
Total Organic Halogens	100	J	9.16	87.3	ug/L		79.9	(50%-144%)		06/21/22	00:12

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- R Sample results are rejected

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 582710

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
U		Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.									
X		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
Z		Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.									
^		RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
d		5-day BOD--The 2:1 depletion requirement was not met for this sample									
e		5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes									
h		Preparation or preservation holding time was exceeded									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where the duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**General Chemistry
Technical Case Narrative
Merit Laboratories, Inc.
SDG #: S36836
Work Order #: 582710**

Product: Total Organic Halogens (TOX)

Analytical Method: SW846 9020B

Analytical Procedure: GL-GC-E-007 REV# 16

Analytical Batch: 2278873

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
582710001	S36836.01
582710002	S36836.02
582710003	S36836.03
1205118028	Method Blank (MB)
1205118029	Laboratory Control Sample (LCS)
1205118030	582710001(S36836.01) Sample Duplicate (DUP)
1205118031	582710001(S36836.01) Matrix Spike (MS)
1205119951	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments

A pair of nitrate wash blanks is analyzed at the start of the batch. Although they are designated as ICB, they are performed for calculating purposes only. The value of the nitrate wash blanks are averaged and subtracted from all samples. Neither of these values should exceed 0.6 ug Cl. The PQL limit typically applied to ICB results does not apply in this application, since the results are used only to determine background concentrations and are subtracted from all calculated results.

Breakthrough effect

Breakthrough effect: If the value for a sample is greater than the reporting limit (10 ug/L), the result for the second slug should not be greater than 25% of the combined value of the first and second slug. Results which do not meet these criteria are designated with a "Fail" comment in the Breakthrough effect column on the Logbook page; however, the "fail" designation is not applicable for samples with a result of less than 10 ug/L.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE # _____ OF _____

882710

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME: Project Management Team
 COMPANY: Merit Laboratories
 ADDRESS: 2680 East Lansing Drive
 CITY: East Lansing STATE: MI ZIP CODE: 48823
 PHONE NO.: 517-332-0167 FAX NO.: P.O. NO.:
 E-MAIL ADDRESS: results@meritlabs.com QUOTE NO.:

CONTACT NAME: Julie Teague SAME
 COMPANY: Merit Laboratories
 ADDRESS: 2680 East Lansing Drive
 CITY: East Lansing STATE: MI ZIP CODE: 48823
 PHONE NO.: 517-332-0167 E-MAIL ADDRESS: juliet@meritlabs.com

PROJECT NO./NAME: S36836 SAMPLER(S) - PLEASE PRINT/SIGN NAME:
 TURNAROUND TIME REQUIRED: 1 DAY 2 DAYS 3 DAYS STANDARD OTHER
 DELIVERABLES REQUIRED: STD LEVEL II LEVEL III LEVEL IV EDD OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

MTRX	# OF BOTTLES	# Containers & Preservatives							TOX	Certifications	Project Locations	Special Instructions
		NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER				
GW	1				X				✓			
GW	1				X				✓			
GW	1				X				✓			

Certifications: OHIO VAP Drinking Water
 DoD NPDES
 Project Locations: Detroit New York
 Other

(Ship on ice)
 Subcontracted to
GEL
 2040 Savage Road
 Charleston, SC 29407

RELINQUISHED BY: *Patricia Penn* Sampler DATE: 6/9/22 TIME: 1700
 RECEIVED BY: *WPS* DATE: 6/9/22 TIME: 1700

RELINQUISHED BY: DATE: TIME:
 RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:
 RECEIVED BY: *GEL* DATE: 6-10-22 TIME: 1100

SEAL NO. SEAL INTACT YES NO INITIALS: NOTES: TEMP. ON ARRIVAL:
 SEAL NO. SEAL INTACT YES NO INITIALS:

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

SAMPLE RECEIPT & REVIEW FORM

DS

Client: <u>MERI</u>		SDG/AR/COC/Work Order: <u>582710</u>		
Received By: <u>DC</u>		Date Received: <u>6-10-22</u>		
Carrier and Tracking Number		FedEx Express FedEx Ground <u>UPS</u> Field Services Courier Other <u>1Z40027701603034741</u>		
Suspected Hazard Information		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.		
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___		
B) Did the client designate the samples are to be received as radioactive?		COC notation or radioactive stickers on containers equal client designation.		
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u> </u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3		
D) Did the client designate samples are hazardous?		COC notation or hazard labels on containers equal client designation.		
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____		
Sample Receipt Criteria		Yes	NA	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 <= 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: _____ *all temperatures are recorded in Celsius TEMP: <u>00</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-22</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
				Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
				Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):				

PM (or PMA) review: Initials KW Date 6/13/22 Page ___ of ___

List of current GEL Certifications as of 22 June 2022

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122022-5
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



Quality Control Report

Report ID: QC-S36836-01
Generated on 06/24/2022

Report to
Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Report Produced by
Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: 313-333-0211 FAX:

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S36836.01-S36836.04
Project: RACER Coldwater Road
Submitted Date/Time: 06/08/2022 15:30
Sampled by: Kevin Schneider
P.O. #: 1940004462 TASK 001

QC Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-5)
Prep Batch Summary (Pages 6-7)
Surrogates per Lab Sample (Pages 8-11)
Surrogates per QC Sample (Pages 12-13)
Batch QC Results (Pages 14-32)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S36836.01

Sample Tag: B-28

Collected Date/Time: 06/07/2022 12:04

Matrix: Groundwater

COC Reference: 148228

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/09/22 09:19	CL220609-W1-A	CL220609-W1-A	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/09/22 16:37	COND220609W1	COND220609W1	No	BLK/DUP
Cyanide, Total	E335.4/SM4500-CN	06/10/22 10:20	CN220610-W1	CN220610-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/15/22 17:22	PHL220615-W1	PHL220615-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/09/22 09:19	SFT220609-W1-A	SFT220609-W1-A	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/16/22 15:05	TOC220616-W1	TOC220616-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium, Dissolved	E200.8	06/13/22 14:22	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/22 14:22	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/22 14:22	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/22 14:22	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/22 14:22	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:21	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/22 14:22	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/13/22 17:49	220613A3	VF220613W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S36836.02

Sample Tag: B-24R

Collected Date/Time: 06/08/2022 10:05

Matrix: Groundwater

COC Reference: 148228

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/09/22 09:29	CL220609-W1-A	CL220609-W1-A	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/09/22 15:38	COND220609W1	COND220609W1	No	BLK/DUP
Cyanide, Total	E335.4/SM4500-CN	06/10/22 10:22	CN220610-W1	CN220610-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/15/22 17:24	PHL220615-W1	PHL220615-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/09/22 11:20	SFT220609-W1-A	SFT220609-W1-A	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/16/22 15:24	TOC220616-W1	TOC220616-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium, Dissolved	E200.8	06/13/22 14:32	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/22 14:32	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/22 14:32	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/22 14:32	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/22 14:32	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:23	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/22 14:32	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/10/22 18:07	220610A3	VF220610W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S36836.03

Sample Tag: B-9

Collected Date/Time: 06/08/2022 11:25

Matrix: Groundwater

COC Reference: 148228

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/09/22 09:39	CL220609-W1-A	CL220609-W1-A	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/09/22 15:39	COND220609W1	COND220609W1	No	BLK/DUP
Cyanide, Total	E335.4/SM4500-CN	06/10/22 10:24	CN220610-W1	CN220610-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/15/22 17:26	PHL220615-W1	PHL220615-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/09/22 11:30	SFT220609-W1-A	SFT220609-W1-A	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/16/22 15:43	TOC220616-W1	TOC220616-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium, Dissolved	E200.8	06/13/22 14:34	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/22 14:34	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/22 14:34	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/22 14:34	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/22 14:34	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:24	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/22 14:34	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/10/22 18:31	220610A3	VF220610W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S36836.04

Sample Tag: Trip Blank-060822

Collected Date/Time: 06/08/2022 12:04

Matrix: Liquid

COC Reference: 148228

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/10/22 16:57	220610A3	VF220610W2	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: CL220609-W1-A

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36836.01	Chloride	E300.0	06/09/22 09:19	CL220609-W1-A
S36836.02	Chloride	E300.0	06/09/22 09:29	CL220609-W1-A
S36836.03	Chloride	E300.0	06/09/22 09:39	CL220609-W1-A

Inorganics, Prep Batch ID: CN220610-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36836.01	Cyanide, Total	E335.4/SM4500-CN06/10/22 10:20	06/10/22 10:20	CN220610-W1
S36836.02	Cyanide, Total	E335.4/SM4500-CN06/10/22 10:22	06/10/22 10:22	CN220610-W1
S36836.03	Cyanide, Total	E335.4/SM4500-CN06/10/22 10:24	06/10/22 10:24	CN220610-W1

Inorganics, Prep Batch ID: COND220609W1

Surrogates: No, QC Types: BLK/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36836.01	Conductivity	E120.1	06/09/22 16:37	COND220609W1
S36836.02	Conductivity	E120.1	06/09/22 15:38	COND220609W1
S36836.03	Conductivity	E120.1	06/09/22 15:39	COND220609W1

Inorganics, Prep Batch ID: PHL220615-W1

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36836.01	Phenols	E420.1	06/15/22 17:22	PHL220615-W1
S36836.02	Phenols	E420.1	06/15/22 17:24	PHL220615-W1
S36836.03	Phenols	E420.1	06/15/22 17:26	PHL220615-W1

Inorganics, Prep Batch ID: SFT220609-W1-A

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36836.01	Sulfate	E300.0	06/09/22 09:19	SFT220609-W1-A
S36836.02	Sulfate	E300.0	06/09/22 11:20	SFT220609-W1-A
S36836.03	Sulfate	E300.0	06/09/22 11:30	SFT220609-W1-A

Inorganics, Prep Batch ID: TOC220616-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36836.01	TOC	SM5310C	06/16/22 15:05	TOC220616-W1
S36836.02	TOC	SM5310C	06/16/22 15:24	TOC220616-W1
S36836.03	TOC	SM5310C	06/16/22 15:43	TOC220616-W1

Metals, Prep Batch ID: MTD-061322-3

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36836.01	Chromium, Dissolved	E200.8	06/13/22 14:22	MT4-22-0613B
S36836.01	Copper, Dissolved	E200.8	06/13/22 14:22	MT4-22-0613B
S36836.01	Iron, Dissolved	E200.8	06/13/22 14:22	MT4-22-0613B
S36836.01	Manganese, Dissolved	E200.8	06/13/22 14:22	MT4-22-0613B
S36836.01	Nickel, Dissolved	E200.8	06/13/22 14:22	MT4-22-0613B
S36836.01	Zinc, Dissolved	E200.8	06/13/22 14:22	MT4-22-0613B
S36836.02	Chromium, Dissolved	E200.8	06/13/22 14:32	MT4-22-0613B
S36836.02	Copper, Dissolved	E200.8	06/13/22 14:32	MT4-22-0613B

QC Report - Prep Batch Summary

Metals, Prep Batch ID: MTD-061322-3 (continued)

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36836.02	Iron, Dissolved	E200.8	06/13/22 14:32	MT4-22-0613B
S36836.02	Manganese, Dissolved	E200.8	06/13/22 14:32	MT4-22-0613B
S36836.02	Nickel, Dissolved	E200.8	06/13/22 14:32	MT4-22-0613B
S36836.02	Zinc, Dissolved	E200.8	06/13/22 14:32	MT4-22-0613B
S36836.03	Chromium, Dissolved	E200.8	06/13/22 14:34	MT4-22-0613B
S36836.03	Copper, Dissolved	E200.8	06/13/22 14:34	MT4-22-0613B
S36836.03	Iron, Dissolved	E200.8	06/13/22 14:34	MT4-22-0613B
S36836.03	Manganese, Dissolved	E200.8	06/13/22 14:34	MT4-22-0613B
S36836.03	Nickel, Dissolved	E200.8	06/13/22 14:34	MT4-22-0613B
S36836.03	Zinc, Dissolved	E200.8	06/13/22 14:34	MT4-22-0613B

Metals, Prep Batch ID: MTD-062122-7

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36836.01	Sodium	E200.8	06/21/22 15:21	MT4-22-0621B
S36836.02	Sodium	E200.8	06/21/22 15:23	MT4-22-0621B
S36836.03	Sodium	E200.8	06/21/22 15:24	MT4-22-0621B

Organics - Volatiles, Prep Batch ID: VF220610W2

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36836.02	Volatile Organics - DEQ List	SW5030C/8260C	06/10/22 18:07	220610A3
S36836.03	Volatile Organics - DEQ List	SW5030C/8260C	06/10/22 18:31	220610A3
S36836.04	Volatile Organics - DEQ List	SW5030C/8260C	06/10/22 16:57	220610A3

Organics - Volatiles, Prep Batch ID: VF220613W2

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36836.01	Volatile Organics - DEQ List	SW5030C/8260C	06/13/22 17:49	220613A3

QC Report - Surrogates per Lab Sample

Lab Sample ID: S36836.01

Sample Tag: B-28

Collected Date/Time: 06/07/2022 12:04

Matrix: Groundwater

COC Reference: 148228

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220613A3, Run Date: 06/13/2022 17:49, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		114.0	80.0	124.0
1,2-Dichloroethane-D4		103.2	72.0	125.0
Toluene-D8		107.0	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S36836.02

Sample Tag: B-24R

Collected Date/Time: 06/08/2022 10:05

Matrix: Groundwater

COC Reference: 148228

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220610A3, Run Date: 06/10/2022 18:07, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		112.4	80.0	124.0
1,2-Dichloroethane-D4		93.4	72.0	125.0
Toluene-D8		104.0	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S36836.03

Sample Tag: B-9

Collected Date/Time: 06/08/2022 11:25

Matrix: Groundwater

COC Reference: 148228

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220610A3, Run Date: 06/10/2022 18:31, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		112.6	80.0	124.0
1,2-Dichloroethane-D4		94.2	72.0	125.0
Toluene-D8		105.6	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S36836.04

Sample Tag: Trip Blank-060822

Collected Date/Time: 06/08/2022 12:04

Matrix: Liquid

COC Reference: 148228

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220610A3, Run Date: 06/10/2022 16:57, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		111.0	80.0	124.0
1,2-Dichloroethane-D4		89.4	72.0	125.0
Toluene-D8		105.0	89.0	112.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF220610W2

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 220610A3.BLKW10A

Run in Batch: 220610A3, Run Date: 06/10/2022 16:25, Prep Date: 06/10/2022, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		111.0	80.0	124.0
1,2-Dichloroethane-D4		92.8	72.0	125.0
Toluene-D8		104.0	89.0	112.0

Laboratory Control Sample (LCS)

Lab Sample ID: 220610A3.LCSW10A

Run in Batch: 220610A3, Run Date: 06/10/2022 14:52, Prep Date: 06/10/2022, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		116.6	80.0	124.0
1,2-Dichloroethane-D4		96.0	72.0	125.0
Toluene-D8		105.2	89.0	112.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 220610A3.LCSDW10A, Parent Sample ID: 220610A3.LCSW10A

Run in Batch: 220610A3, Run Date: 06/10/2022 15:15, Prep Date: 06/10/2022, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		115.4	80.0	124.0
1,2-Dichloroethane-D4		91.6	72.0	125.0
Toluene-D8		105.6	89.0	112.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF220613W2

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 220613A3.BLKW13A

Run in Batch: 220613A3, Run Date: 06/13/2022 11:34, Prep Date: 06/13/2022, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		113.2	80.0	124.0
1,2-Dichloroethane-D4		101.2	72.0	125.0
Toluene-D8		105.4	89.0	112.0

Laboratory Control Sample (LCS)

Lab Sample ID: 220613A3.LCSW13A

Run in Batch: 220613A3, Run Date: 06/13/2022 10:01, Prep Date: 06/13/2022, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		115.4	80.0	124.0
1,2-Dichloroethane-D4		94.8	72.0	125.0
Toluene-D8		105.2	89.0	112.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 220613A3.LCSDW13A, Parent Sample ID: 220613A3.LCSW13A

Run in Batch: 220613A3, Run Date: 06/13/2022 10:24, Prep Date: 06/13/2022, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		115.2	80.0	124.0
1,2-Dichloroethane-D4		93.0	72.0	125.0
Toluene-D8		105.4	89.0	112.0

QC Report - Batch QC Results

Inorganics, Prep Batch ID: CL220609-W1-A

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CL220609-W1-A.LRB1

Run in Batch: CL220609-W1-A, Run Date: 06/09/2022 07:56, Prep Date: 06/09/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Chloride		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CL220609-W1-A.LCS1

Run in Batch: CL220609-W1-A, Run Date: 06/09/2022 08:19, Prep Date: 06/09/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Chloride		97	90	110

Matrix Spike (MS)

Lab Sample ID: CL220609-W1-A.MS1, Parent Sample ID: S36797.01

Run in Batch: CL220609-W1-A, Run Date: 06/09/2022 10:19, Prep Date: 06/09/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL
Chloride		102	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CL220609-W1-A.MSD1, Parent Sample ID: CL220609-W1-A.MS1

Run in Batch: CL220609-W1-A, Run Date: 06/09/2022 10:29, Prep Date: 06/09/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chloride		102	80	120	0	15

Duplicate (DUP)

Lab Sample ID: CL220609-W1-A.DP1, Parent Sample ID: S36797.01

Run in Batch: CL220609-W1-A, Run Date: 06/09/2022 10:09, Prep Date: 06/09/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	RPD	RPD CL
Chloride		2	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: CN220610-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN220610-W1.LRB1

Run in Batch: CN220610-W1, Run Date: 06/10/2022 10:00, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 2

Analyte	Flags	Conc	RDL	Units
Cyanide, Total		ND	0.004	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN220610-W1.LCS1

Run in Batch: CN220610-W1, Run Date: 06/10/2022 10:06, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Cyanide, Total		103	90	110

Matrix Spike (MS)

Lab Sample ID: CN220610-W1.MS1, Parent Sample ID: S36939.01

Run in Batch: CN220610-W1, Run Date: 06/10/2022 10:12, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL
Cyanide, Total		96	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN220610-W1.MSD1, Parent Sample ID: CN220610-W1.MS1

Run in Batch: CN220610-W1, Run Date: 06/10/2022 10:14, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Cyanide, Total		96	80	120	0	15

Duplicate (DUP)

Lab Sample ID: CN220610-W1.DP1, Parent Sample ID: S36939.01

Run in Batch: CN220610-W1, Run Date: 06/10/2022 10:10, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 2

Analyte	Flags	RPD	RPD CL
Cyanide, Total		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: COND220609W1

Surrogates: No, QC Types: BLK/DUP

Blank (BLK)

Lab Sample ID: COND220609W1.LRB1

Run in Batch: COND220609W1, Run Date: 06/09/2022 15:31, Prep Date: 06/09/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Conductivity		ND	NA	mg/L

Duplicate (DUP)

Lab Sample ID: COND220609W1.DP1, Parent Sample ID: S36853.07

Run in Batch: COND220609W1, Run Date: 06/09/2022 15:56, Prep Date: 06/09/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
Conductivity		0.4	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: PHL220615-W1

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHL220615-W1.LRB1

Run in Batch: PHL220615-W1, Run Date: 06/15/2022 17:00, Prep Date: 06/15/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Phenols		ND	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHL220615-W1.LCS1

Run in Batch: PHL220615-W1, Run Date: 06/15/2022 17:04, Prep Date: 06/15/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Phenols		104	90	110

Matrix Spike (MS)

Lab Sample ID: PHL220615-W1.MS1, Parent Sample ID: S36780.02

Run in Batch: PHL220615-W1, Run Date: 06/15/2022 17:18, Prep Date: 06/15/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Phenols		104	90	110

Duplicate (DUP)

Lab Sample ID: PHL220615-W1.DP1, Parent Sample ID: S36780.01

Run in Batch: PHL220615-W1, Run Date: 06/15/2022 17:08, Prep Date: 06/15/2022, Matrix: Liquid, Dilution: 3.3

Analyte	Flags	RPD	RPD CL
Phenols		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: SFT220609-W1-A

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: SFT220609-W1-A.LRB1

Run in Batch: SFT220609-W1-A, Run Date: 06/09/2022 07:56, Prep Date: 06/09/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Sulfate		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: SFT220609-W1-A.LCS1

Run in Batch: SFT220609-W1-A, Run Date: 06/09/2022 08:19, Prep Date: 06/09/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Sulfate		95	90	110

Matrix Spike (MS)

Lab Sample ID: SFT220609-W1-A.MS1, Parent Sample ID: S36797.01

Run in Batch: SFT220609-W1-A, Run Date: 06/09/2022 10:19, Prep Date: 06/09/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL
Sulfate		97	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: SFT220609-W1-A.MSD1, Parent Sample ID: SFT220609-W1-A.MS1

Run in Batch: SFT220609-W1-A, Run Date: 06/09/2022 10:29, Prep Date: 06/09/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sulfate		97	80	120	0	15

Duplicate (DUP)

Lab Sample ID: SFT220609-W1-A.DP1, Parent Sample ID: S36797.01

Run in Batch: SFT220609-W1-A, Run Date: 06/09/2022 10:09, Prep Date: 06/09/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	RPD	RPD CL
Sulfate		3	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: TOC220616-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: TOC220616-W1.LRB1

Run in Batch: TOC220616-W1, Run Date: 06/16/2022 11:52, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
TOC		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TOC220616-W1.LCS1

Run in Batch: TOC220616-W1, Run Date: 06/16/2022 12:32, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
TOC		94	90	110

Matrix Spike (MS)

Lab Sample ID: TOC220616-W1.MS1, Parent Sample ID: S36661.17

Run in Batch: TOC220616-W1, Run Date: 06/16/2022 14:27, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
TOC		99	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: TOC220616-W1.MSD1, Parent Sample ID: TOC220616-W1.MS1

Run in Batch: TOC220616-W1, Run Date: 06/16/2022 14:46, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
TOC		96	80	120	2	15

Duplicate (DUP)

Lab Sample ID: TOC220616-W1.DP1, Parent Sample ID: S36661.17

Run in Batch: TOC220616-W1, Run Date: 06/16/2022 14:07, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
TOC		9	15

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-061322-3

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Blank (BLK)

Lab Sample ID: MT4-22-0613B.022.LRB

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:03, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Chromium		ND	0.001	mg/L
Copper		ND	0.001	mg/L
Iron		ND	0.004	mg/L
Manganese		ND	0.001	mg/L
Nickel		ND	0.001	mg/L
Zinc		ND	0.001	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: MT4-22-0613B.020.LCS

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:00, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Chromium		102	85	115
Copper		103	85	115
Iron		104	85	115
Manganese		101	85	115
Nickel		102	85	115
Zinc		101	85	115

Matrix Spike (MS)

Lab Sample ID: MT4-22-0613B.035.MS, Parent Sample ID: S36836.01

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:25, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Chromium		103	75	125
Copper		98	75	125
Iron		104	75	125
Manganese		98	75	125
Nickel		103	75	125
Zinc		108	75	125

Matrix Spike (MS)

Lab Sample ID: MT4-22-0613B.051.MS, Parent Sample ID: S36953.06

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:48, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Chromium		100	75	125
Copper		97	75	125
Iron		99	75	125
Manganese		97	75	125
Nickel		101	75	125
Zinc		101	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-22-0613B.036.MSD, Parent Sample ID: MT4-22-0613B.035.MS

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:26, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chromium		101	75	125	2	20
Copper		99	75	125	0	20

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-061322-3 (continued)

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Matrix Spike Duplicate (MSD) (continued)

Lab Sample ID: MT4-22-0613B.036.MSD, Parent Sample ID: MT4-22-0613B.035.MS

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:26, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Iron		108	75	125	1	20
Manganese		99	75	125	1	20
Nickel		100	75	125	3	20
Zinc		106	75	125	2	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-22-0613B.052.MSD, Parent Sample ID: MT4-22-0613B.051.MS

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:49, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chromium		103	75	125	4	20
Copper		98	75	125	0	20
Iron		100	75	125	1	20
Manganese		100	75	125	2	20
Nickel		101	75	125	0	20
Zinc		106	75	125	5	20

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-062122-7

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Blank (BLK)

Lab Sample ID: MT4-22-0621B.015.LRB

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:18, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Sodium		ND	0.05	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: MT4-22-0621B.014.LCS

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:18, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Sodium		100	85	115

Matrix Spike (MS)

Lab Sample ID: MT4-22-0621B.035.MS, Parent Sample ID: S37003.01

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:37, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL
Sodium		101	75	125

Matrix Spike (MS)

Lab Sample ID: MT4-22-0621B.050.MS, Parent Sample ID: S37073.01

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:49, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL
Sodium		100	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-22-0621B.036.MSD, Parent Sample ID: MT4-22-0621B.035.MS

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:38, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sodium		100	75	125	1	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-22-0621B.051.MSD, Parent Sample ID: MT4-22-0621B.050.MS

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:50, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sodium		112	75	125	4	20

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220610W2

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 220610A3.BLKW10A

Run in Batch: 220610A3, Run Date: 06/10/2022 16:25, Prep Date: 06/10/2022, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Diethyl ether		ND	1.00	ug/l
Acetone		ND	10.00	ug/l
Methyl iodide		ND	1.00	ug/l
Carbon disulfide		ND	1.00	ug/l
tert-Methyl butyl ether (MTBE)		ND	1.00	ug/l
Acrylonitrile		ND	1.00	ug/l
2-Butanone (MEK)		ND	10.00	ug/l
Dichlorodifluoromethane		ND	1.00	ug/l
Chloromethane		ND	1.00	ug/l
Vinyl chloride		ND	1.00	ug/l
Bromomethane		ND	1.00	ug/l
Chloroethane		ND	1.00	ug/l
Trichlorofluoromethane		ND	1.00	ug/l
1,1-Dichloroethene		ND	1.00	ug/l
Methylene chloride		ND	1.00	ug/l
trans-1,2-Dichloroethene		ND	1.00	ug/l
1,1-Dichloroethane		ND	1.00	ug/l
cis-1,2-Dichloroethene		ND	1.00	ug/l
Tetrahydrofuran		ND	10.00	ug/l
Chloroform		ND	1.00	ug/l
Bromochloromethane		ND	1.00	ug/l
1,1,1-Trichloroethane		ND	1.00	ug/l
4-Methyl-2-pentanone (MIBK)		ND	10.00	ug/l
2-Hexanone		ND	10.00	ug/l
Carbon tetrachloride		ND	1.00	ug/l
Benzene		ND	1.00	ug/l
1,2-Dichloroethane		ND	1.00	ug/l
Trichloroethene		ND	1.00	ug/l
1,2-Dichloropropane		ND	1.00	ug/l
Bromodichloromethane		ND	1.00	ug/l
Dibromomethane		ND	1.00	ug/l
cis-1,3-Dichloropropene		ND	1.00	ug/l
Toluene		ND	1.00	ug/l
trans-1,3-Dichloropropene		ND	1.00	ug/l
1,1,2-Trichloroethane		ND	1.00	ug/l
Tetrachloroethene		ND	1.00	ug/l
trans-1,4-Dichloro-2-butene		ND	1.00	ug/l
Dibromochloromethane		ND	1.00	ug/l
1,2-Dibromoethane		ND	1.00	ug/l
Chlorobenzene		ND	1.00	ug/l
1,1,1,2-Tetrachloroethane		ND	1.00	ug/l
Ethylbenzene		ND	1.00	ug/l
p,m-Xylene		ND	1.00	ug/l
o-Xylene		ND	1.00	ug/l
Styrene		ND	1.00	ug/l
Isopropylbenzene		ND	1.00	ug/l

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220610W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK) (continued)

Lab Sample ID: 220610A3.BLKW10A

Run in Batch: 220610A3, Run Date: 06/10/2022 16:25, Prep Date: 06/10/2022, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Bromoform		ND	1.00	ug/l
1,1,2,2-Tetrachloroethane		ND	1.00	ug/l
1,2,3-Trichloropropane		ND	1.00	ug/l
n-Propylbenzene		ND	1.00	ug/l
Bromobenzene		ND	1.00	ug/l
1,3,5-Trimethylbenzene		ND	1.00	ug/l
tert-Butylbenzene		ND	1.00	ug/l
1,2,4-Trimethylbenzene		ND	1.00	ug/l
sec-Butylbenzene		ND	1.00	ug/l
p-Isopropyltoluene		ND	1.00	ug/l
1,3-Dichlorobenzene		ND	1.00	ug/l
1,4-Dichlorobenzene		ND	1.00	ug/l
1,2-Dichlorobenzene		ND	1.00	ug/l
1,2,3-Trimethylbenzene		ND	1.00	ug/l
n-Butylbenzene		ND	1.00	ug/l
Hexachloroethane		ND	1.00	ug/l
1,2-Dibromo-3-chloropropane		ND	1.00	ug/l
1,2,4-Trichlorobenzene		ND	1.00	ug/l
1,2,3-Trichlorobenzene		ND	1.00	ug/l
Naphthalene		ND	1.00	ug/l
2-Methylnaphthalene		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 220610A3.LCSW10A

Run in Batch: 220610A3, Run Date: 06/10/2022 14:52, Prep Date: 06/10/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Diethyl ether		103.6	67.4	121.2
Acetone		128.8	29.9	161.5
Methyl iodide		100.0	68.8	116.4
Carbon disulfide		92.0	63.8	137.4
tert-Methyl butyl ether (MTBE)		88.5	73.2	122.4
Acrylonitrile		122.0	69.9	128.9
2-Butanone (MEK)		130.1	44.0	134.4
Dichlorodifluoromethane		65.4	10.0	222.8
Chloromethane		91.4	23.8	166.5
Vinyl chloride		81.7	43.5	149.1
Bromomethane		105.9	56.8	151.3
Chloroethane		97.3	53.4	149.4
Trichlorofluoromethane		85.7	59.7	151.8
1,1-Dichloroethene		86.0	69.6	139.4
Methylene chloride		99.7	73.3	121.1
trans-1,2-Dichloroethene		93.1	73.6	129.3
1,1-Dichloroethane		94.9	71.5	126.2
cis-1,2-Dichloroethene		100.7	76.6	122.1
Tetrahydrofuran	*	133.5	59.0	117.9
Chloroform		96.8	78.4	124.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220610W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 220610A3.LCSW10A

Run in Batch: 220610A3, Run Date: 06/10/2022 14:52, Prep Date: 06/10/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Bromochloromethane		105.7	78.2	120.8
1,1,1-Trichloroethane		87.7	79.4	130.9
4-Methyl-2-pentanone (MIBK)		117.9	71.6	125.2
2-Hexanone		127.8	55.4	136.9
Carbon tetrachloride		90.9	72.6	133.0
Benzene		101.0	79.9	124.9
1,2-Dichloroethane		98.9	76.0	126.3
Trichloroethene		98.7	79.7	124.2
1,2-Dichloropropane		106.1	78.6	126.4
Bromodichloromethane		104.7	80.4	128.2
Dibromomethane		115.0	76.9	122.1
cis-1,3-Dichloropropene		109.1	79.8	129.9
Toluene		98.9	79.8	124.5
trans-1,3-Dichloropropene		109.7	74.0	131.3
1,1,2-Trichloroethane		110.3	78.7	123.1
Tetrachloroethene		100.9	74.5	124.5
trans-1,4-Dichloro-2-butene		113.1	68.6	135.4
Dibromochloromethane		113.9	74.6	127.2
1,2-Dibromoethane		115.1	70.3	133.7
Chlorobenzene		111.4	79.2	122.7
1,1,1,2-Tetrachloroethane		112.7	80.3	128.2
Ethylbenzene		104.1	79.5	129.1
p,m-Xylene		106.2	79.4	132.2
o-Xylene		108.2	80.2	131.0
Styrene		114.4	69.5	126.7
Isopropylbenzene		102.0	74.4	121.5
Bromoform		122.6	69.4	128.0
1,1,2,2-Tetrachloroethane		120.5	79.8	126.3
1,2,3-Trichloropropane		122.0	78.3	138.8
n-Propylbenzene		99.3	82.0	130.7
Bromobenzene		117.1	78.7	124.6
1,3,5-Trimethylbenzene		104.7	81.3	128.9
tert-Butylbenzene		92.4	80.7	128.9
1,2,4-Trimethylbenzene		105.2	81.4	130.8
sec-Butylbenzene		81.7	77.4	129.8
p-Isopropyltoluene		87.9	79.8	137.5
1,3-Dichlorobenzene		104.5	77.0	131.3
1,4-Dichlorobenzene		105.2	20.7	137.7
1,2-Dichlorobenzene		104.8	10.0	166.2
1,2,3-Trimethylbenzene		96.3	76.3	124.2
n-Butylbenzene		81.6	80.0	133.3
Hexachloroethane		88.3	23.8	138.1
1,2-Dibromo-3-chloropropane		128.5	21.2	189.4
1,2,4-Trichlorobenzene		99.0	27.4	143.4
1,2,3-Trichlorobenzene		98.7	75.4	131.4
Naphthalene		111.1	32.9	135.8

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220610W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 220610A3.LCSW10A

Run in Batch: 220610A3, Run Date: 06/10/2022 14:52, Prep Date: 06/10/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Methylnaphthalene		106.2	25.5	165.5

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 220610A3.LCSDW10A, Parent Sample ID: 220610A3.LCSW10A

Run in Batch: 220610A3, Run Date: 06/10/2022 15:15, Prep Date: 06/10/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Diethyl ether		101.2	67.4	121.2	2.3	30.0
Acetone		120.5	29.9	161.5	6.7	30.0
Methyl iodide		97.2	68.8	116.4	2.9	30.0
Carbon disulfide		88.6	63.8	137.4	3.8	30.0
tert-Methyl butyl ether (MTBE)		86.7	73.2	122.4	2.0	30.0
Acrylonitrile		118.6	69.9	128.9	2.8	30.0
2-Butanone (MEK)		120.0	44.0	134.4	8.1	30.0
Dichlorodifluoromethane		62.2	10.0	222.8	5.1	30.0
Chloromethane		87.3	23.8	166.5	4.6	30.0
Vinyl chloride		78.6	43.5	149.1	3.8	30.0
Bromomethane		102.5	56.8	151.3	3.2	30.0
Chloroethane		94.0	53.4	149.4	3.5	30.0
Trichlorofluoromethane		81.3	59.7	151.8	5.2	30.0
1,1-Dichloroethene		82.2	69.6	139.4	4.5	30.0
Methylene chloride		96.0	73.3	121.1	3.7	30.0
trans-1,2-Dichloroethene		89.0	73.6	129.3	4.5	30.0
1,1-Dichloroethane		91.4	71.5	126.2	3.7	30.0
cis-1,2-Dichloroethene		96.3	76.6	122.1	4.4	30.0
Tetrahydrofuran	*	124.8	59.0	117.9	6.7	30.0
Chloroform		93.9	78.4	124.0	3.0	30.0
Bromochloromethane		103.3	78.2	120.8	2.3	30.0
1,1,1-Trichloroethane		85.2	79.4	130.9	2.9	30.0
4-Methyl-2-pentanone (MIBK)		111.3	71.6	125.2	5.7	30.0
2-Hexanone		119.5	55.4	136.9	6.8	30.0
Carbon tetrachloride		88.1	72.6	133.0	3.2	30.0
Benzene		97.4	79.9	124.9	3.6	30.0
1,2-Dichloroethane		96.8	76.0	126.3	2.1	30.0
Trichloroethene		95.3	79.7	124.2	3.5	30.0
1,2-Dichloropropane		103.2	78.6	126.4	2.8	30.0
Bromodichloromethane		101.5	80.4	128.2	3.1	30.0
Dibromomethane		112.4	76.9	122.1	2.3	30.0
cis-1,3-Dichloropropene		106.3	79.8	129.9	2.6	30.0
Toluene		95.3	79.8	124.5	3.8	30.0
trans-1,3-Dichloropropene		106.3	74.0	131.3	3.1	30.0
1,1,2-Trichloroethane		107.4	78.7	123.1	2.6	30.0
Tetrachloroethene		98.8	74.5	124.5	2.2	30.0
trans-1,4-Dichloro-2-butene		111.9	68.6	135.4	1.1	30.0
Dibromochloromethane		112.6	74.6	127.2	1.2	30.0
1,2-Dibromoethane		113.9	70.3	133.7	1.1	30.0
Chlorobenzene		108.7	79.2	122.7	2.5	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220610W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: 220610A3.LCSDW10A, Parent Sample ID: 220610A3.LCSW10A

Run in Batch: 220610A3, Run Date: 06/10/2022 15:15, Prep Date: 06/10/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,1,2-Tetrachloroethane		110.5	80.3	128.2	2.0	30.0
Ethylbenzene		101.9	79.5	129.1	2.1	30.0
p,m-Xylene		104.2	79.4	132.2	1.9	30.0
o-Xylene		105.8	80.2	131.0	2.2	30.0
Styrene		112.2	69.5	126.7	2.0	30.0
Isopropylbenzene		100.7	74.4	121.5	1.3	30.0
Bromoform		120.9	69.4	128.0	1.4	30.0
1,1,2,2-Tetrachloroethane		117.5	79.8	126.3	2.5	30.0
1,2,3-Trichloropropane		119.6	78.3	138.8	2.0	30.0
n-Propylbenzene		96.8	82.0	130.7	2.5	30.0
Bromobenzene		115.3	78.7	124.6	1.5	30.0
1,3,5-Trimethylbenzene		102.0	81.3	128.9	2.6	30.0
tert-Butylbenzene		90.3	80.7	128.9	2.3	30.0
1,2,4-Trimethylbenzene		102.6	81.4	130.8	2.5	30.0
sec-Butylbenzene		81.2	77.4	129.8	0.6	30.0
p-Isopropyltoluene		85.9	79.8	137.5	2.3	30.0
1,3-Dichlorobenzene		104.0	77.0	131.3	0.6	30.0
1,4-Dichlorobenzene		104.6	20.7	137.7	0.6	30.0
1,2-Dichlorobenzene		104.5	10.0	166.2	0.2	30.0
1,2,3-Trimethylbenzene		96.7	76.3	124.2	0.3	30.0
n-Butylbenzene		80.8	80.0	133.3	1.0	30.0
Hexachloroethane		87.4	23.8	138.1	1.0	30.0
1,2-Dibromo-3-chloropropane		122.9	21.2	189.4	4.5	30.0
1,2,4-Trichlorobenzene		97.4	27.4	143.4	1.6	30.0
1,2,3-Trichlorobenzene		97.8	75.4	131.4	0.9	30.0
Naphthalene		108.1	32.9	135.8	2.7	30.0
2-Methylnaphthalene		101.8	25.5	165.5	4.3	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220613W2

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 220613A3.BLKW13A

Run in Batch: 220613A3, Run Date: 06/13/2022 11:34, Prep Date: 06/13/2022, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Diethyl ether		ND	1.00	ug/l
Acetone		ND	10.00	ug/l
Methyl iodide		ND	1.00	ug/l
Carbon disulfide		ND	1.00	ug/l
tert-Methyl butyl ether (MTBE)		ND	1.00	ug/l
Acrylonitrile		ND	1.00	ug/l
2-Butanone (MEK)		ND	10.00	ug/l
Dichlorodifluoromethane		ND	1.00	ug/l
Chloromethane		ND	1.00	ug/l
Vinyl chloride		ND	1.00	ug/l
Bromomethane		ND	1.00	ug/l
Chloroethane		ND	1.00	ug/l
Trichlorofluoromethane		ND	1.00	ug/l
1,1-Dichloroethene		ND	1.00	ug/l
Methylene chloride		ND	1.00	ug/l
trans-1,2-Dichloroethene		ND	1.00	ug/l
1,1-Dichloroethane		ND	1.00	ug/l
cis-1,2-Dichloroethene		ND	1.00	ug/l
Tetrahydrofuran		ND	10.00	ug/l
Chloroform		ND	1.00	ug/l
Bromochloromethane		ND	1.00	ug/l
1,1,1-Trichloroethane		ND	1.00	ug/l
4-Methyl-2-pentanone (MIBK)		ND	10.00	ug/l
2-Hexanone		ND	10.00	ug/l
Carbon tetrachloride		ND	1.00	ug/l
Benzene		ND	1.00	ug/l
1,2-Dichloroethane		ND	1.00	ug/l
Trichloroethene		ND	1.00	ug/l
1,2-Dichloropropane		ND	1.00	ug/l
Bromodichloromethane		ND	1.00	ug/l
Dibromomethane		ND	1.00	ug/l
cis-1,3-Dichloropropene		ND	1.00	ug/l
Toluene		ND	1.00	ug/l
trans-1,3-Dichloropropene		ND	1.00	ug/l
1,1,2-Trichloroethane		ND	1.00	ug/l
Tetrachloroethene		ND	1.00	ug/l
trans-1,4-Dichloro-2-butene		ND	1.00	ug/l
Dibromochloromethane		ND	1.00	ug/l
1,2-Dibromoethane		ND	1.00	ug/l
Chlorobenzene		ND	1.00	ug/l
1,1,1,2-Tetrachloroethane		ND	1.00	ug/l
Ethylbenzene		ND	1.00	ug/l
p,m-Xylene		ND	1.00	ug/l
o-Xylene		ND	1.00	ug/l
Styrene		ND	1.00	ug/l
Isopropylbenzene		ND	1.00	ug/l

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220613W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK) (continued)

Lab Sample ID: 220613A3.BLKW13A

Run in Batch: 220613A3, Run Date: 06/13/2022 11:34, Prep Date: 06/13/2022, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Bromoform		ND	1.00	ug/l
1,1,2,2-Tetrachloroethane		ND	1.00	ug/l
1,2,3-Trichloropropane		ND	1.00	ug/l
n-Propylbenzene		ND	1.00	ug/l
Bromobenzene		ND	1.00	ug/l
1,3,5-Trimethylbenzene		ND	1.00	ug/l
tert-Butylbenzene		ND	1.00	ug/l
1,2,4-Trimethylbenzene		ND	1.00	ug/l
sec-Butylbenzene		ND	1.00	ug/l
p-Isopropyltoluene		ND	1.00	ug/l
1,3-Dichlorobenzene		ND	1.00	ug/l
1,4-Dichlorobenzene		ND	1.00	ug/l
1,2-Dichlorobenzene		ND	1.00	ug/l
1,2,3-Trimethylbenzene		ND	1.00	ug/l
n-Butylbenzene		ND	1.00	ug/l
Hexachloroethane		ND	1.00	ug/l
1,2-Dibromo-3-chloropropane		ND	1.00	ug/l
1,2,4-Trichlorobenzene		ND	1.00	ug/l
1,2,3-Trichlorobenzene		ND	1.00	ug/l
Naphthalene		ND	1.00	ug/l
2-Methylnaphthalene		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 220613A3.LCSW13A

Run in Batch: 220613A3, Run Date: 06/13/2022 10:01, Prep Date: 06/13/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Diethyl ether		111.1	67.4	121.2
Acetone		124.4	29.9	161.5
Methyl iodide		107.6	68.8	116.4
Carbon disulfide		106.4	63.8	137.4
tert-Methyl butyl ether (MTBE)		93.4	73.2	122.4
Acrylonitrile		128.2	69.9	128.9
2-Butanone (MEK)		129.9	44.0	134.4
Dichlorodifluoromethane		82.1	10.0	222.8
Chloromethane		102.0	23.8	166.5
Vinyl chloride		97.2	43.5	149.1
Bromomethane		116.5	56.8	151.3
Chloroethane		109.9	53.4	149.4
Trichlorofluoromethane		102.1	59.7	151.8
1,1-Dichloroethene		100.4	69.6	139.4
Methylene chloride		104.8	73.3	121.1
trans-1,2-Dichloroethene		103.1	73.6	129.3
1,1-Dichloroethane		103.9	71.5	126.2
cis-1,2-Dichloroethene		107.5	76.6	122.1
Tetrahydrofuran	*	133.1	59.0	117.9
Chloroform		103.6	78.4	124.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220613W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 220613A3.LCSW13A

Run in Batch: 220613A3, Run Date: 06/13/2022 10:01, Prep Date: 06/13/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Bromochloromethane		112.2	78.2	120.8
1,1,1-Trichloroethane		99.4	79.4	130.9
4-Methyl-2-pentanone (MIBK)		120.4	71.6	125.2
2-Hexanone		130.8	55.4	136.9
Carbon tetrachloride		103.7	72.6	133.0
Benzene		108.6	79.9	124.9
1,2-Dichloroethane		104.7	76.0	126.3
Trichloroethene		107.7	79.7	124.2
1,2-Dichloropropane		112.9	78.6	126.4
Bromodichloromethane		111.5	80.4	128.2
Dibromomethane		117.8	76.9	122.1
cis-1,3-Dichloropropene		115.3	79.8	129.9
Toluene		105.6	79.8	124.5
trans-1,3-Dichloropropene		115.5	74.0	131.3
1,1,2-Trichloroethane		115.3	78.7	123.1
Tetrachloroethene		114.0	74.5	124.5
trans-1,4-Dichloro-2-butene		129.0	68.6	135.4
Dibromochloromethane		117.9	74.6	127.2
1,2-Dibromoethane		119.0	70.3	133.7
Chlorobenzene		116.3	79.2	122.7
1,1,1,2-Tetrachloroethane		115.4	80.3	128.2
Ethylbenzene		111.6	79.5	129.1
p,m-Xylene		113.8	79.4	132.2
o-Xylene		113.7	80.2	131.0
Styrene		120.4	69.5	126.7
Isopropylbenzene		111.8	74.4	121.5
Bromoform		127.7	69.4	128.0
1,1,2,2-Tetrachloroethane		123.5	79.8	126.3
1,2,3-Trichloropropane		121.5	78.3	138.8
n-Propylbenzene		109.5	82.0	130.7
Bromobenzene		121.4	78.7	124.6
1,3,5-Trimethylbenzene		112.2	81.3	128.9
tert-Butylbenzene		101.6	80.7	128.9
1,2,4-Trimethylbenzene		112.6	81.4	130.8
sec-Butylbenzene		91.1	77.4	129.8
p-Isopropyltoluene		96.1	79.8	137.5
1,3-Dichlorobenzene		108.7	77.0	131.3
1,4-Dichlorobenzene		108.7	20.7	137.7
1,2-Dichlorobenzene		107.3	10.0	166.2
1,2,3-Trimethylbenzene		100.3	76.3	124.2
n-Butylbenzene		91.1	80.0	133.3
Hexachloroethane		97.9	23.8	138.1
1,2-Dibromo-3-chloropropane		122.5	21.2	189.4
1,2,4-Trichlorobenzene		101.4	27.4	143.4
1,2,3-Trichlorobenzene		99.0	75.4	131.4
Naphthalene		108.6	32.9	135.8

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220613W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 220613A3.LCSW13A

Run in Batch: 220613A3, Run Date: 06/13/2022 10:01, Prep Date: 06/13/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Methylnaphthalene		105.0	25.5	165.5

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 220613A3.LCSDW13A, Parent Sample ID: 220613A3.LCSW13A

Run in Batch: 220613A3, Run Date: 06/13/2022 10:24, Prep Date: 06/13/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Diethyl ether		114.2	67.4	121.2	2.7	30.0
Acetone		128.3	29.9	161.5	3.1	30.0
Methyl iodide		105.6	68.8	116.4	1.9	30.0
Carbon disulfide		102.0	63.8	137.4	4.2	30.0
tert-Methyl butyl ether (MTBE)		94.6	73.2	122.4	1.3	30.0
Acrylonitrile		127.3	69.9	128.9	0.7	30.0
2-Butanone (MEK)		133.3	44.0	134.4	2.6	30.0
Dichlorodifluoromethane		80.0	10.0	222.8	2.5	30.0
Chloromethane		98.2	23.8	166.5	3.8	30.0
Vinyl chloride		93.3	43.5	149.1	4.0	30.0
Bromomethane		111.5	56.8	151.3	4.4	30.0
Chloroethane		105.7	53.4	149.4	3.9	30.0
Trichlorofluoromethane		98.7	59.7	151.8	3.4	30.0
1,1-Dichloroethene		96.9	69.6	139.4	3.6	30.0
Methylene chloride		103.2	73.3	121.1	1.6	30.0
trans-1,2-Dichloroethene		100.1	73.6	129.3	2.9	30.0
1,1-Dichloroethane		101.4	71.5	126.2	2.5	30.0
cis-1,2-Dichloroethene		106.4	76.6	122.1	1.1	30.0
Tetrahydrofuran	*	136.5	59.0	117.9	2.5	30.0
Chloroform		102.6	78.4	124.0	1.0	30.0
Bromochloromethane		112.9	78.2	120.8	0.7	30.0
1,1,1-Trichloroethane		97.6	79.4	130.9	1.9	30.0
4-Methyl-2-pentanone (MIBK)		120.7	71.6	125.2	0.2	30.0
2-Hexanone		132.9	55.4	136.9	1.6	30.0
Carbon tetrachloride		101.4	72.6	133.0	2.2	30.0
Benzene		107.0	79.9	124.9	1.5	30.0
1,2-Dichloroethane		105.1	76.0	126.3	0.3	30.0
Trichloroethene		105.6	79.7	124.2	2.0	30.0
1,2-Dichloropropane		112.9	78.6	126.4	0.1	30.0
Bromodichloromethane		111.9	80.4	128.2	0.4	30.0
Dibromomethane		120.6	76.9	122.1	2.3	30.0
cis-1,3-Dichloropropene		116.5	79.8	129.9	1.0	30.0
Toluene		104.7	79.8	124.5	0.8	30.0
trans-1,3-Dichloropropene		117.8	74.0	131.3	2.0	30.0
1,1,2-Trichloroethane		117.9	78.7	123.1	2.2	30.0
Tetrachloroethene		112.2	74.5	124.5	1.6	30.0
trans-1,4-Dichloro-2-butene		131.2	68.6	135.4	1.7	30.0
Dibromochloromethane		120.7	74.6	127.2	2.3	30.0
1,2-Dibromoethane		121.4	70.3	133.7	2.0	30.0
Chlorobenzene		115.6	79.2	122.7	0.5	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220613W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: 220613A3.LCSDW13A, Parent Sample ID: 220613A3.LCSW13A

Run in Batch: 220613A3, Run Date: 06/13/2022 10:24, Prep Date: 06/13/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,1,2-Tetrachloroethane		116.7	80.3	128.2	1.2	30.0
Ethylbenzene		111.6	79.5	129.1	0.0	30.0
p,m-Xylene		114.0	79.4	132.2	0.2	30.0
o-Xylene		113.1	80.2	131.0	0.5	30.0
Styrene		120.4	69.5	126.7	0.0	30.0
Isopropylbenzene		111.4	74.4	121.5	0.3	30.0
Bromoform	*	130.6	69.4	128.0	2.2	30.0
1,1,2,2-Tetrachloroethane		125.1	79.8	126.3	1.3	30.0
1,2,3-Trichloropropane		125.9	78.3	138.8	3.6	30.0
n-Propylbenzene		108.9	82.0	130.7	0.6	30.0
Bromobenzene		123.0	78.7	124.6	1.2	30.0
1,3,5-Trimethylbenzene		111.3	81.3	128.9	0.8	30.0
tert-Butylbenzene		101.5	80.7	128.9	0.1	30.0
1,2,4-Trimethylbenzene		111.3	81.4	130.8	1.2	30.0
sec-Butylbenzene		92.2	77.4	129.8	1.2	30.0
p-Isopropyltoluene		97.5	79.8	137.5	1.4	30.0
1,3-Dichlorobenzene		111.2	77.0	131.3	2.3	30.0
1,4-Dichlorobenzene		111.7	20.7	137.7	2.6	30.0
1,2-Dichlorobenzene		110.0	10.0	166.2	2.5	30.0
1,2,3-Trimethylbenzene		102.9	76.3	124.2	2.6	30.0
n-Butylbenzene		91.9	80.0	133.3	0.8	30.0
Hexachloroethane		98.3	23.8	138.1	0.4	30.0
1,2-Dibromo-3-chloropropane		131.3	21.2	189.4	6.9	30.0
1,2,4-Trichlorobenzene		104.5	27.4	143.4	3.0	30.0
1,2,3-Trichlorobenzene		103.7	75.4	131.4	4.7	30.0
Naphthalene		114.2	32.9	135.8	5.1	30.0
2-Methylnaphthalene		109.8	25.5	165.5	4.4	30.0



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE # 1 OF 1

148228

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Clifford Yantz / Kevin Schneider
 COMPANY Ramboll
 ADDRESS 2090 Commonwealth Blvd
 CITY Ann Arbor STATE MI ZIP CODE 48105
 PHONE NO. CELL NO. 313-332-0211 P.O. NO. 1940004462 Task 001
 E-MAIL ADDRESS Kevin.Schneider@Ramboll.com Clifford.Yantz@Ramboll.com QUOTE NO.

CONTACT NAME SAME
 COMPANY
 ADDRESS
 CITY STATE ZIP CODE
 PHONE NO. E-MAIL ADDRESS

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME RACER Coldwater Road SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider TK SLL
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives										Special Instructions							
	DATE	TIME				NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	VOCs	Toc	Phenols		Cyanide	Sulfate	specific conductivity	Chlorides	Tox	Dissolved Metals	Total Sodium
36836.01	6/7/22	1204	B-28	GW	11	1	3	2	4	1								X	X	X	X	X	Dissolved metals were field filtered
.02	6/8/22	1005	B-24R	GW	11	1	3	2	4	1								X	X	X	X	X	
.03	6/8/22	1125	B-9	GW	11	1	3	2	4	1								X	X	X	X	X	
.04	6/8/22	-	Trip Blank-060822	L	1	1												X					Metals ARE: Cu, Cr, Ni, Zn, Fe, Mn

RELINQUISHED BY: TK SLL Sampler
 SIGNATURE/Organization
 RECEIVED BY: JMM
 SIGNATURE/Organization
 RECEIVED BY: Patricia
 SIGNATURE/Organization

DATE TIME
6/8/22 10:07
6/8/22 10:07
6/8/22 15:30
6/8/22 15:30

RELINQUISHED BY: _____ DATE TIME _____
 SIGNATURE/Organization
 RECEIVED BY: _____ DATE TIME _____
 SIGNATURE/Organization

SEAL NO. SEAL INTACT YES NO INITIALS
 SEAL NO. SEAL INTACT YES NO INITIALS

NOTES: TEMP. ON ARRIVAL 3.6

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE # _____ OF _____

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME **Project Management Team**
 COMPANY **Merit Laboratories**
 ADDRESS **2680 East Lansing Drive**
 CITY **East Lansing** STATE **MI** ZIP CODE **48823**
 PHONE NO. **517-332-0167** FAX NO. _____ P.O. NO. _____
 E-MAIL ADDRESS **results@meritlabs.com** QUOTE NO. _____

CONTACT NAME **Julie Teague** SAME
 COMPANY **Merit Laboratories**
 ADDRESS **2680 East Lansing Drive**
 CITY **East Lansing** STATE **MI** ZIP CODE **48823**
 PHONE NO. **517-332-0167** E-MAIL ADDRESS **juliet@meritlabs.com**

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME **S36836** SAMPLER(S) - PLEASE PRINT/SIGN NAME _____
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

Certifications
 OHIO VAP Drinking Water
 DoD NPDES
 Project Locations
 Detroit New York
 Other _____
 Special Instructions

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	TOX
	DATE	TIME											
	6/7/22	1204	S36836.01	GW	1				X				✓
	6/8/22	1005	S36836.02	GW	1				X				✓
	6/8/22	1125	S36836.03	GW	1				X				✓

(Ship on ice)
 Subcontracted to
GEL
 2040 Savage Road
 Charleston, SC 29407

RELINQUISHED BY: *Patricia Dean* Sampler DATE *6/9/22* TIME *1700*
 SIGNATURE/ORGANIZATION _____
 RECEIVED BY: *UPS* DATE *6/9/22* TIME *1700*
 SIGNATURE/ORGANIZATION _____
 RELINQUISHED BY: _____ DATE _____ TIME _____
 SIGNATURE/ORGANIZATION _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SIGNATURE/ORGANIZATION _____

RELINQUISHED BY: _____ DATE _____ TIME _____
 SIGNATURE/ORGANIZATION _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SIGNATURE/ORGANIZATION _____
 SEAL NO. SEAL INTACT INITIALS NOTES: TEMP. ON ARRIVAL _____
 YES NO
 SEAL NO. SEAL INTACT INITIALS
 YES NO

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



Analytical Laboratory Report

Report ID: S36953.01(01)
Generated on 06/29/2022

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Additional Contacts: Kevin Schneider

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S36953.01-S36953.07
Project: RACER Coldwater Road
Collected Date(s): 06/08/2022 - 06/09/2022
Submitted Date/Time: 06/09/2022 16:15
Sampled by: Kevin Schneider
P.O. #: 1940004462 TASK 001

Table of Contents

- Cover Page (Page 1)
- General Report Notes (Page 2)
- Report Narrative (Page 2)
- Laboratory Certifications (Page 3)
- Qualifier Descriptions (Page 3)
- Glossary of Abbreviations (Page 3)
- Method Summary (Page 4)
- Sample Summary (Page 5)

Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
E120.1	EPA Method 120.1 Revision 1982
E200.8	EPA Method 200.8 Revision 5.4
E300.0	EPA Method 300.0 Revision 2.1 (1993)
E335.4/SM4500-CN	EPA Method 335.4 Revision 1.0 / Standard Method 4500-CN E 20th Edition
E420.1	EPA Method 420.1 Editorial Revision 1978
N/A	Not Applicable
SM5310C	Standard Method 5310C 2011
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW9020B	SW 846 Method 9020B Revision 2 September 1994



Analytical Laboratory Report

Sample Summary (7 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S36953.01	B-22D	Groundwater	06/08/22 12:15
S36953.02	B-7	Groundwater	06/08/22 12:41
S36953.03	B-18A	Groundwater	06/08/22 15:35
S36953.04	B-21D	Groundwater	06/08/22 15:55
S36953.05	B-23DR	Groundwater	06/09/22 12:20
S36953.06	B-19AR	Groundwater	06/09/22 12:55
S36953.07	Trip Blank-060922	Liquid	06/09/22 00:01



Analytical Laboratory Report

Lab Sample ID: S36953.01

Sample Tag: B-22D

Collected Date/Time: 06/08/2022 12:15

Matrix: Groundwater

COC Reference: 148232

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.6	IR
2	40ml Glass	H2SO4	Yes	3.6	IR
1	125ml Amber	H2SO4	Yes	3.6	IR
1	250ml Amber	H2SO4	Yes	3.6	IR
1	125ml Plastic	NaOH	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	1L Plastic	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/15/22 13:45	NDK	
Metal Digestion	Completed	SW3015A	06/13/22 12:20	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/13/22 14:49, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	718	1		umhos/cm	1		

Method: E300.0, Run Date: 06/10/22 13:39, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	10	0.16	mg/L	10	16887-00-6	
Sulfate	59	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/11/22 09:08, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/16/22 16:06, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/17/22 13:21, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	4.3	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:26, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	28.0	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/22 14:35, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	



Analytical Laboratory Report

Lab Sample ID: S36953.01 (continued)

Sample Tag: B-22D

Method: E200.8, Run Date: 06/13/22 14:35, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Iron, Dissolved	1.32	0.02		mg/L	5	7439-89-6	
Manganese, Dissolved	0.025	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	Not detected	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 16:50, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S36953.01 (continued)

Sample Tag: B-22D

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 16:50, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/21/22 21:58, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S36953.02

Sample Tag: B-7

Collected Date/Time: 06/08/2022 12:41

Matrix: Groundwater

COC Reference: 148232

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.6	IR
2	40ml Glass	H2SO4	Yes	3.6	IR
1	125ml Amber	H2SO4	Yes	3.6	IR
1	250ml Amber	H2SO4	Yes	3.6	IR
1	125ml Plastic	NaOH	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	1L Plastic	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/15/22 13:45	NDK	
Metal Digestion	Completed	SW3015A	06/13/22 12:20	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/13/22 14:53, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	1,070	1		umhos/cm	1		

Method: E300.0, Run Date: 06/10/22 13:52, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	33	10	0.16	mg/L	10	16887-00-6	
Sulfate	171	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/11/22 09:16, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/16/22 16:12, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/17/22 14:38, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	7.9	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:28, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	49.0	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/22 14:36, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	



Analytical Laboratory Report

Lab Sample ID: S36953.02 (continued)

Sample Tag: B-7

Method: E200.8, Run Date: 06/13/22 14:36, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Iron, Dissolved	0.02	0.02		mg/L	5	7439-89-6	
Manganese, Dissolved	0.009	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	0.008	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 17:13, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S36953.02 (continued)

Sample Tag: B-7

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 17:13, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/22/22 03:18, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S36953.03

Sample Tag: B-18A

Collected Date/Time: 06/08/2022 15:35

Matrix: Groundwater

COC Reference: 148232

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.6	IR
2	40ml Glass	H2SO4	Yes	3.6	IR
1	125ml Amber	H2SO4	Yes	3.6	IR
1	250ml Amber	H2SO4	Yes	3.6	IR
1	125ml Plastic	NaOH	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	1L Plastic	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/15/22 13:45	NDK	
Metal Digestion	Completed	SW3015A	06/13/22 12:20	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/13/22 14:55, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	1,090	1		umhos/cm	1		

Method: E300.0, Run Date: 06/10/22 14:05, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	22	10	0.16	mg/L	10	16887-00-6	
Sulfate	124	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/11/22 09:18, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/16/22 16:14, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/17/22 14:57, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	5.4	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:29, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	35.2	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/22 14:38, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	



Analytical Laboratory Report

Lab Sample ID: S36953.03 (continued)

Sample Tag: B-18A

Method: E200.8, Run Date: 06/13/22 14:38, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Iron, Dissolved	Not detected	0.02		mg/L	5	7439-89-6	
Manganese, Dissolved	0.039	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	0.011	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 17:37, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S36953.03 (continued)

Sample Tag: B-18A

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 17:37, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/25/22 00:32, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S36953.04

Sample Tag: B-21D

Collected Date/Time: 06/08/2022 15:55

Matrix: Groundwater

COC Reference: 148232

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.6	IR
2	40ml Glass	H2SO4	Yes	3.6	IR
1	125ml Amber	H2SO4	Yes	3.6	IR
1	250ml Amber	H2SO4	Yes	3.6	IR
1	125ml Plastic	NaOH	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	1L Plastic	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/15/22 13:45	NDK	
Metal Digestion	Completed	SW3015A	06/13/22 12:20	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/13/22 14:56, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	800	1		umhos/cm	1		

Method: E300.0, Run Date: 06/10/22 14:18, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	10	0.16	mg/L	10	16887-00-6	
Sulfate	97	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/11/22 09:20, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/16/22 16:16, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/17/22 15:15, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	4.1	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:31, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	22.9	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/22 14:39, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	



Analytical Laboratory Report

Lab Sample ID: ~~S36953.04~~ (continued)

Sample Tag: B-21D

Method: E200.8, Run Date: 06/13/22 14:39, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Iron, Dissolved	1.55	0.02		mg/L	5	7439-89-6	
Manganese, Dissolved	0.030	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	Not detected	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 18:00, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S36953.04 (continued)

Sample Tag: B-21D

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 18:00, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/25/22 01:16, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S36953.05

Sample Tag: B-23DR

Collected Date/Time: 06/09/2022 12:20

Matrix: Groundwater

COC Reference: 148232

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.6	IR
2	40ml Glass	H2SO4	Yes	3.6	IR
1	125ml Amber	H2SO4	Yes	3.6	IR
1	250ml Amber	H2SO4	Yes	3.6	IR
1	125ml Plastic	NaOH	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	1L Plastic	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/15/22 13:45	NDK	
Metal Digestion	Completed	SW3015A	06/13/22 12:20	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/13/22 14:56, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	828	1		umhos/cm	1		

Method: E300.0, Run Date: 06/10/22 14:30, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	34	10	0.16	mg/L	10	16887-00-6	
Sulfate	64	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/11/22 09:22, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/16/22 16:18, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/17/22 15:34, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	3.6	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:32, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	25.6	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/22 14:40, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	



Analytical Laboratory Report

Lab Sample ID: S36953.05 (continued)

Sample Tag: B-23DR

Method: E200.8, Run Date: 06/13/22 14:40, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Iron, Dissolved	1.87	0.02		mg/L	5	7439-89-6	
Manganese, Dissolved	0.041	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	Not detected	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 18:23, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S36953.05 (continued)

Sample Tag: B-23DR

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 18:23, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/28/22 00:06, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S36953.06

Sample Tag: B-19AR

Collected Date/Time: 06/09/2022 12:55

Matrix: Groundwater

COC Reference: 148232

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.6	IR
2	40ml Glass	H2SO4	Yes	3.6	IR
1	125ml Amber	H2SO4	Yes	3.6	IR
1	250ml Amber	H2SO4	Yes	3.6	IR
1	125ml Plastic	NaOH	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	125ml Plastic	HNO3	Yes	3.6	IR
1	1L Plastic	None	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/15/22 13:45	NDK	
Metal Digestion	Completed	SW3015A	06/13/22 12:20	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/13/22 14:58, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	1,180	1		umhos/cm	1		

Method: E300.0, Run Date: 06/10/22 14:43, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	90	10	0.16	mg/L	10	16887-00-6	
Sulfate	151	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/11/22 09:24, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/16/22 16:20, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/17/22 15:53, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	4.5	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:34, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	19.9	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/22 14:42, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	



Analytical Laboratory Report

Lab Sample ID: S36953.06 (continued)

Sample Tag: B-19AR

Method: E200.8, Run Date: 06/13/22 14:42, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Iron, Dissolved	0.04	0.02		mg/L	5	7439-89-6	
Manganese, Dissolved	0.056	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	Not detected	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 18:46, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	



Analytical Laboratory Report

Lab Sample ID: S36953.06 (continued)

Sample Tag: B-19AR

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 18:46, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/25/22 03:03, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S36953.07

Sample Tag: Trip Blank-060922

Collected Date/Time: 06/09/2022 00:01

Matrix: Liquid

COC Reference: 148232

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	3.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/15/22 13:45	NDK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 15:17, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S36953.07 (continued)

Sample Tag: Trip Blank-060922

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/22 15:17, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Merit Laboratories Login Checklist

Lab Set ID:S36953

Client:OBG02 (Ramboll Americas)

Project: RACER Coldwater Road

Submitted:06/09/2022 16:15 Login User: PFD

Attention: Clifford Yantz

Address: Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Selection	Description	Note
-----------	-------------	------

Sample Receiving

- | | | |
|-----|--------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 01. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Samples are received at 4C +/- 2C Thermometer # IR 3.6 |
| 02. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Received on ice/ cooling process begun |
| 03. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples shipped |
| 04. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples left in 24 hr. drop box |
| 05. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Are there custody seals/tape or is the drop box locked |

Chain of Custody

- | | | |
|-----|--------------------------------------------------------------------------------------------------|----------------------------------------------|
| 06. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | COC adequately filled out |
| 07. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | COC signed and relinquished to the lab |
| 08. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Sample tag on bottles match COC |
| 09. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Subcontracting needed? Subcontracted to: GEL |

Preservation

- | | | |
|-----|--------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 10. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Do sample have correct chemical preservation |
| 11. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Completed pH checks on preserved samples? (no VOAs) |
| 12. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Did any samples need to be preserved in the lab? |

Bottle Conditions

- | | | |
|-----|--------------------------------------------------------------------------------------------------|-----------------------------------------------|
| 13. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | All bottles intact |
| 14. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Appropriate analytical bottles are used |
| 15. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Merit bottles used |
| 16. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Sufficient sample volume received |
| 17. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples require laboratory filtration |
| 18. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Samples submitted within holding time |
| 19. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Do water VOC or TOX bottles contain headspace |

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S36953 Submitted: 06/09/2022 16:15

Attention: Clifford Yantz
 Address: Ramboll Americas
 2090 Commonwealth Blvd
 Ann Arbor, MI 48105

Client: OBG02 (Ramboll Americas)

Project: RACER Coldwater Road

Initial Preservation Check: 06/10/2022 09:10 PFD

Phone: 313-333-0211 FAX:
 Email: Clifford.Yantz@ramboll.com

Preservation Recheck (E200.8): N/A

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S36953.01	125ml Amber H2SO4	<2			
S36953.01	125ml Plastic HNO3	<2			
S36953.01	125ml Plastic HNO3	<2			
S36953.01	125ml Plastic NaOH	>12			
S36953.01	250ml Amber H2SO4	<2			
S36953.02	125ml Amber H2SO4	<2			
S36953.02	125ml Plastic HNO3	<2			
S36953.02	125ml Plastic HNO3	<2			
S36953.02	125ml Plastic NaOH	>12			
S36953.02	250ml Amber H2SO4	<2			
S36953.03	125ml Amber H2SO4	<2			
S36953.03	125ml Plastic HNO3	<2			
S36953.03	125ml Plastic HNO3	<2			
S36953.03	125ml Plastic NaOH	>12			
S36953.03	250ml Amber H2SO4	<2			
S36953.04	125ml Amber H2SO4	<2			
S36953.04	125ml Plastic HNO3	<2			
S36953.04	125ml Plastic HNO3	<2			
S36953.04	125ml Plastic NaOH	>12			
S36953.04	250ml Amber H2SO4	<2			
S36953.05	125ml Amber H2SO4	<2			
S36953.05	125ml Plastic HNO3	<2			
S36953.05	125ml Plastic HNO3	<2			
S36953.05	125ml Plastic NaOH	>12			
S36953.05	250ml Amber H2SO4	<2			
S36953.06	125ml Amber H2SO4	<2			
S36953.06	125ml Plastic HNO3	<2			
S36953.06	125ml Plastic HNO3	<2			
S36953.06	125ml Plastic NaOH	>12			

Merit Laboratories Bottle Preservation Check

Lab Set ID: S36953 Submitted: 06/09/2022 16:15

Client: OBG02 (Ramboll Americas)

Project: RACER Coldwater Road

Initial Preservation Check: 06/10/2022 09:10 PFD

Preservation Recheck (E200.8): N/A

Attention: Clifford Yantz

Address: Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S36953.06	250ml Amber H2SO4	<2			



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE # 1 OF 1

148232

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME: Clifford Yantz / Kevin Schneider
 COMPANY: Ramboll
 ADDRESS: 2090 Commonwealth Blvd
 CITY: Ann Arbor STATE: MI ZIP CODE: 48105
 PHONE NO.: CELL NO.: 313-333-0211 P.O. NO.: 1940004462 TASK 021
 E-MAIL ADDRESS: Kevin.Schneider@Ramboll.com Clifford.Yantz@Ramboll.com

CONTACT NAME: SAME
 COMPANY:
 ADDRESS:
 CITY: STATE: ZIP CODE:
 PHONE NO.: E-MAIL ADDRESS:

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME: RACER Coldwater Road
 SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider K SKL
 TURNAROUND TIME REQUIRED: 1 DAY 2 DAYS 3 DAYS STANDARD OTHER
 DELIVERABLES REQUIRED: STD LEVEL II LEVEL III LEVEL IV EDD OTHER

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	VOCs	TOC	Phenols	Cyanide	Sulfate	specific conductivity	chlorides	Tox	Dissolved Metals	Total Sodium	Certifications		Project Locations		Special Instructions	
	DATE	TIME																					<input type="checkbox"/> OHIO VAP	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> DoD	<input type="checkbox"/> NPDES		<input type="checkbox"/> Detroit
36953.01	6/8/22	1215	B-22D	GW	11	1	3	2	4	1			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Dissolved metals
.02	6/8/22	1241	B-7	GW	11	1	3	2	4	1			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	were field filtered
.03	6/8/22	1535	B-18A	GW	11	1	3	2	4	1			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
.04	6/8/22	1515	B-21D	GW	11	1	3	2	4	1			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Metals ARE:
.05	6/9/22	1220	B-23DR	GW	11	1	3	2	4	1			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Cu, Cr, Ni, Zn, Fe, Mn
.06	6/9/22	1255	B-19AR	GW	11	1	3	2	4	1			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
.07	6/9/22	-	Trip Blank - 060922	L	1	1							X															

RELINQUISHED BY: *K SKL* X Sampler DATE: 6/9/22 TIME: 14:40
 SIGNATURE/Organization: *[Signature]*
 RECEIVED BY: *[Signature]* DATE: 6/9/22 TIME: 14:40
 SIGNATURE/Organization: *[Signature]*
 RELINQUISHED BY: *[Signature]* DATE: 6/9/22 TIME: 16:15
 SIGNATURE/Organization: *[Signature]*
 RECEIVED BY: *[Signature]* DATE: 6/9/22 TIME: 16:15
 SIGNATURE/Organization: *[Signature]*

RELINQUISHED BY: DATE: TIME:
 SIGNATURE/Organization:
 RECEIVED BY: DATE: TIME:
 SIGNATURE/Organization:
 SEAL NO. SEAL INTACT YES NO INITIALS: NOTES: TEMP. ON ARRIVAL: 3.6
 SEAL NO. SEAL INTACT YES NO INITIALS:

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

cmbsw

Merit Laboratories, Inc.
Field pH Bench Sheet

Date: 6/19/20	Meter/Probe #: HACH HQ1559	Electrode: HACH PH101A
Analyst: DM	Matrix: WATER	

Calibration

Buffer Date Made	Buffer Lot #	Reading	Temp. (°C)	Limits	Slope	Notes:
pH=7.00 Date: 6/19/20	HACH A1173	7.02	20.0	± 0.05 STD units		
pH=4.01 Date: 6/19/20	HACH A1190	4.00	20.0	± 0.05 STD units		
pH=10.01 Date: 6/19/20	HACH A1137	10.05	20.0	± 0.05 STD units		
Check SUD Date: 6/19/20	HACH A1137	4.99	20.0	± 0.05 STD units		
LCS Date:				± 0.05 STD units		

Analysis

Sample Tag	Reading	Temp.	Limits	Notes
1. SUD	7.28	18.0°C		
DUP SUD Dup	7.28	18.1°C	± 0.1 STD units	
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
End Check: Buffer = SUD	SUD	20.0	± 0.05 STD units	



June 28, 2022

John Laverty
Merit Laboratories Inc.
2680 East Lansing Drive
East Lansing, Michigan 48823

Re: Halogen Analysis
Work Order: 582907
SDG: S36953

Dear John Laverty:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 14, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1614.

Sincerely,

Delaney Stone
Project Manager

Purchase Order: GELP20-0014
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

**Certificate of Analysis Report
for**

MERI001 Merit Laboratories, Inc.

Client SDG: S36953 GEL Work Order: 582907

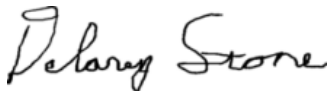
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Delaney Stone.



Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 28, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive
East Lansing, Michigan 48823
Contact: John Laverty
Project: Halogen Analysis

Client Sample ID: S36953.01 Project: MERI00220
Sample ID: 582907001 Client ID: MERI001
Matrix: Water
Collect Date: 08-JUN-22 12:15
Receive Date: 14-JUN-22
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens	J	5.42	3.33	10.0	ug/L		1	RMJ	06/21/22	2158	2279799	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 28, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive

East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID:	S36953.02	Project:	MERI00220
Sample ID:	582907002	Client ID:	MERI001
Matrix:	Water		
Collect Date:	08-JUN-22 12:41		
Receive Date:	14-JUN-22		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens		13.5	3.33	10.0	ug/L		1	RMJ	06/22/22	0318	2279799	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 28, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive

East Lansing, Michigan 48823

Contact: John Laverty
Project: Halogen Analysis

Client Sample ID: S36953.03 Project: MERI00220
Sample ID: 582907003 Client ID: MERI001
Matrix: Water
Collect Date: 08-JUN-22 15:35
Receive Date: 14-JUN-22
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens	U	ND	3.33	10.0	ug/L		1	RMJ	06/25/22	0032	2282182	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 28, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive

East Lansing, Michigan 48823

Contact: John Lavery
Project: Halogen Analysis

Client Sample ID: S36953.04
Sample ID: 582907004
Matrix: Water
Collect Date: 08-JUN-22 15:55
Receive Date: 14-JUN-22
Collector: Client

Project: MERI00220
Client ID: MERI001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens	U	ND	3.33	10.0	ug/L		1	RMJ	06/25/22	0116	2282182	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 28, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive
East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID: S36953.06 Project: MERI00220
Sample ID: 582907006 Client ID: MERI001
Matrix: Water
Collect Date: 09-JUN-22 12:55
Receive Date: 14-JUN-22
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens	J	5.22	3.33	10.0	ug/L		1	RMJ	06/25/22	0303	2282182	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: June 28, 2022

Page 1 of 3

Merit Laboratories Inc.
2680 East Lansing Drive
East Lansing, Michigan

Contact: John Laverty

Workorder: 582907

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Halogen Analysis											
Batch 2279799											
QC1205119954 582907001 DUP											
Total Organic Halogens	J	5.42	J	4.40	ug/L	20.8 ^		(+/-10.0)	RMJ	06/21/22	22:17
QC1205119953 LCS											
Total Organic Halogens	100			85.3	ug/L		85.3	(71%-120%)		06/21/22	21:39
QC1205119952 MB											
Total Organic Halogens			U	ND	ug/L					06/21/22	21:18
QC1205119955 582907001 MS											
Total Organic Halogens	100 J	5.42		92.5	ug/L		87.1	(50%-144%)		06/21/22	22:58
Batch 2282182											
QC1205124715 582866029 DUP											
Total Organic Halogens	U	ND	U	ND	ug/L	N/A			RMJ	06/24/22	21:19
QC1205124714 LCS											
Total Organic Halogens	100			98.5	ug/L		98.5	(71%-120%)		06/24/22	20:34
QC1205124713 MB											
Total Organic Halogens			U	ND	ug/L					06/24/22	20:09
QC1205124716 582866029 MS											
Total Organic Halogens	100 U	ND		86.1	ug/L		86.1	(50%-144%)		06/24/22	22:14
Batch 2282186											
QC1205124720 583670001 DUP											
Total Organic Halogens	J	9.76	U	ND	ug/L	200			RMJ	06/28/22	12:40
QC1205124719 LCS											
Total Organic Halogens	100			102	ug/L		102	(71%-120%)		06/27/22	23:26

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 582907

Page 2 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Halogen Analysis											
Batch	2282186										
QC1205124718	MB										
Total Organic Halogens			U	ND	ug/L				RMJ	06/27/22	23:06
QC1205124721	583670001	MS									
Total Organic Halogens	100	J	9.76	95.3	ug/L		85.5	(50%-144%)		06/28/22	01:11

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- h Preparation or preservation holding time was exceeded

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 582907

Page 3 of 3

<u>Parmname</u>	<u>NOM</u>	<u>Sample Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD/D%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
-----------------	------------	--------------------	-----------	--------------	---------------	-------------	--------------	--------------	-------------	-------------

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where the duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**General Chemistry
Technical Case Narrative
Merit Laboratories, Inc.
SDG #: S36953
Work Order #: 582907**

Product: Total Organic Halogens (TOX)
Analytical Method: SW846 9020B
Analytical Procedure: GL-GC-E-007 REV# 16
Analytical Batch: 2279799

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
582907001	S36953.01
582907002	S36953.02
1205119952	Method Blank (MB)
1205119953	Laboratory Control Sample (LCS)
1205119954	582907001(S36953.01) Sample Duplicate (DUP)
1205119955	582907001(S36953.01) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments

A pair of nitrate wash blanks is analyzed at the start of the batch. Although they are designated as ICB, they are performed for calculating purposes only. The value of the nitrate wash blanks are averaged and subtracted from all samples. Neither of these values should exceed 0.6 ug Cl. The PQL limit typically applied to ICB results does not apply in this application, since the results are used only to determine background concentrations and are subtracted from all calculated results.

Breakthrough effect

Breakthrough effect: If the value for a sample is greater than the reporting limit (10 ug/L), the result for the second slug should not be greater than 25% of the combined value of the first and second slug. Results which do not meet these criteria are designated with a "Fail" comment in the Breakthrough effect column on the Logbook page; however, the "fail" designation is not applicable for samples with a result of less than 10 ug/L.

Product: Total Organic Halogens (TOX)
Analytical Method: SW846 9020B
Analytical Procedure: GL-GC-E-007 REV# 16
Analytical Batch: 2282182

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
------------------------------	--------------------------------------------

582907003	S36953.03
582907004	S36953.04
582907006	S36953.06
1205124713	Method Blank (MB)
1205124714	Laboratory Control Sample (LCS)
1205124715	582866029(NonSDG) Sample Duplicate (DUP)
1205124716	582866029(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Re-analysis

Samples 582907003 (S36953.03), 582907004 (S36953.04), 582907005 (S36953.05) and 582907006 (S36953.06) were re-analyzed to verify the results.

Miscellaneous Information

Additional Comments

A pair of nitrate wash blanks is analyzed at the start of the batch. Although they are designated as ICB, they are performed for calculating purposes only. The value of the nitrate wash blanks are averaged and subtracted from all samples. Neither of these values should exceed 0.6 ug Cl. The PQL limit typically applied to ICB results does not apply in this application, since the results are used only to determine background concentrations and are subtracted from all calculated results.

Breakthrough effect

Breakthrough effect: If the value for a sample is greater than the reporting limit (10 ug/L), the result for the second slug should not be greater than 25% of the combined value of the first and second slug. Results which do not meet these criteria are designated with a "Fail" comment in the Breakthrough effect column on the Logbook page; however, the "fail" designation is not applicable for samples with a result of less than 10 ug/L.

Product: Total Organic Halogens (TOX)

Analytical Method: SW846 9020B

Analytical Procedure: GL-GC-E-007 REV# 16

Analytical Batch: 2282186

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
582907005	S36953.05
1205124718	Method Blank (MB)
1205124719	Laboratory Control Sample (LCS)
1205124720	583670001(NonSDG) Sample Duplicate (DUP)
1205124721	583670001(NonSDG) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information**Sample Re-analysis**

Sample was re-analyzed to verify the result. The reanalysis data with passing instrument QC was reported. 582907005 (S36953.05).

Miscellaneous Information**Additional Comments**

A pair of nitrate wash blanks is analyzed at the start of the batch. Although they are designated as ICB, they are performed for calculating purposes only. The value of the nitrate wash blanks are averaged and subtracted from all samples. Neither of these values should exceed 0.6 ug Cl. The PQL limit typically applied to ICB results does not apply in this application, since the results are used only to determine background concentrations and are subtracted from all calculated results.

Breakthrough effect

Breakthrough effect: If the value for a sample is greater than the reporting limit (10 ug/L), the result for the second slug should not be greater than 25% of the combined value of the first and second slug. Results which do not meet these criteria are designated with a "Fail" comment in the Breakthrough effect column on the Logbook page; however, the "fail" designation is not applicable for samples with a result of less than 10 ug/L.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE # _____ OF _____

582901

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME **Project Management Team**
 COMPANY **Merit Laboratories**
 ADDRESS **2680 East Lansing Drive**
 CITY **East Lansing** STATE **MI** ZIP CODE **48823**
 PHONE NO. **517-332-0167** FAX NO. _____ P.O. NO. _____
 E-MAIL ADDRESS **results@meritlabs.com** QUOTE NO. _____

CONTACT NAME **Julie Teague** SAME
 COMPANY **Merit Laboratories**
 ADDRESS **2680 East Lansing Drive**
 CITY **East Lansing** STATE **MI** ZIP CODE **48823**
 PHONE NO. **517-332-0167** E-MAIL ADDRESS **juliet@meritlabs.com**

PROJECT NO./NAME **S36953** SAMPLER(S) - PLEASE PRINT/SIGN NAME _____
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	TOX
	DATE	TIME											
	6/8/22	1215	S36953.01	GW	1				X				✓
	6/8/22	1241	S36953.02	GW	1				X				✓
	6/8/22	1535	S36953.03	GW	1				X				✓
	6/8/22	1555	S36953.04	GW	1				X				✓
	6/9/22	1220	S36953.05	GW	1				X				✓
	6/9/22	1255	S36953.06	GW	1				X				✓

Certifications
 OHIO VAP Drinking Water
 DoD NPDES
 Project Locations
 Detroit New York
 Other _____
 Special Instructions

(Ship on ice)
 Subcontracted to
GEL
 2040 Savage Road
 Charleston, SC 29407

RELINQUISHED BY: *[Signature]* Sampler DATE **6/13/22** TIME **1700**
 RECEIVED BY: *[Signature]* UPS DATE **6/13/22** TIME **1700**
 RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: _____ DATE _____ TIME _____

RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: *[Signature]* **GEL** DATE **6-14-22** TIME **1035**
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____
 NOTES: _____ TEMP. ON ARRIVAL _____

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

SAMPLE RECEIPT & REVIEW FORM

DS

Client: MERT		SDG/AR/COC/Work Order: 582907/2915	
Received By: DC		Date Received: 6-14-22	
Carrier and Tracking Number		FedEx Express FedEx Ground <u>UPS</u> Field Services Courier Other 1Z41604770162979612	
Suspected Hazard Information		Yes	No
*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts) <u>0</u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____
Sample Receipt Criteria		Yes	NA
Comments/Qualifiers (Required for Non-Conforming Items)			
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>3°</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-22</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>	ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials RAW Date 6/15/22 Page ___ of ___

List of current GEL Certifications as of 28 June 2022

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122022-5
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



Quality Control Report

Report ID: QC-S36953-01
Generated on 06/28/2022

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S36953.01-S36953.07
Project: RACER Coldwater Road
Submitted Date/Time: 06/09/2022 16:15
Sampled by: Kevin Schneider
P.O. #: 1940004462 TASK 001

QC Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-8)
Prep Batch Summary (Pages 9-11)
Surrogates per Lab Sample (Pages 12-18)
Surrogates per QC Sample (Page 19)
Batch QC Results (Pages 20-33)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S36953.01

Sample Tag: B-22D

Collected Date/Time: 06/08/2022 12:15

Matrix: Groundwater

COC Reference: 148232

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/10/22 13:39	CL220610-W2-B	CL220610-W2-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/13/22 14:49	COND220613W1	COND220613W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/11/22 09:08	CN220611-W1	CN220611-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/22 16:06	PHL220616-W1	PHL220616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/10/22 13:39	SFT220610-W2-B	SFT220610-W2-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/17/22 13:21	TOC220617-W1	TOC220617-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium, Dissolved	E200.8	06/13/22 14:35	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/22 14:35	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/22 14:35	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/22 14:35	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/22 14:35	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:26	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/22 14:35	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 16:50	220614A3	VF220614W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S36953.02

Sample Tag: B-7

Collected Date/Time: 06/08/2022 12:41

Matrix: Groundwater

COC Reference: 148232

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/10/22 13:52	CL220610-W2-B	CL220610-W2-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/13/22 14:53	COND220613W1	COND220613W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/11/22 09:16	CN220611-W1	CN220611-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/22 16:12	PHL220616-W1	PHL220616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/10/22 13:52	SFT220610-W2-B	SFT220610-W2-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/17/22 14:38	TOC220617-W1	TOC220617-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/13/22 14:36	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/22 14:36	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/22 14:36	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/22 14:36	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/22 14:36	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:28	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/22 14:36	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 17:13	220614A3	VF220614W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S36953.03

Sample Tag: B-18A

Collected Date/Time: 06/08/2022 15:35

Matrix: Groundwater

COC Reference: 148232

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/10/22 14:05	CL220610-W2-B	CL220610-W2-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/13/22 14:55	COND220613W1	COND220613W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN06	06/11/22 09:18	CN220611-W1	CN220611-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/22 16:14	PHL220616-W1	PHL220616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/10/22 14:05	SFT220610-W2-B	SFT220610-W2-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/17/22 14:57	TOC220617-W1	TOC220617-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium, Dissolved	E200.8	06/13/22 14:38	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/22 14:38	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/22 14:38	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/22 14:38	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/22 14:38	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:29	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/22 14:38	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 17:37	220614A3	VF220614W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S36953.04

Sample Tag: B-21D

Collected Date/Time: 06/08/2022 15:55

Matrix: Groundwater

COC Reference: 148232

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/10/22 14:18	CL220610-W2-B	CL220610-W2-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/13/22 14:56	COND220613W1	COND220613W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/11/22 09:20	CN220611-W1	CN220611-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/22 16:16	PHL220616-W1	PHL220616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/10/22 14:18	SFT220610-W2-B	SFT220610-W2-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/17/22 15:15	TOC220617-W1	TOC220617-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium, Dissolved	E200.8	06/13/22 14:39	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/22 14:39	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/22 14:39	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/22 14:39	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/22 14:39	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:31	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/22 14:39	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 18:00	220614A3	VF220614W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S36953.05

Sample Tag: B-23DR

Collected Date/Time: 06/09/2022 12:20

Matrix: Groundwater

COC Reference: 148232

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/10/22 14:30	CL220610-W2-B	CL220610-W2-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/13/22 14:56	COND220613W1	COND220613W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/11/22 09:22	CN220611-W1	CN220611-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/22 16:18	PHL220616-W1	PHL220616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/10/22 14:30	SFT220610-W2-B	SFT220610-W2-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/17/22 15:34	TOC220617-W1	TOC220617-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium, Dissolved	E200.8	06/13/22 14:40	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/22 14:40	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/22 14:40	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/22 14:40	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/22 14:40	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:32	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/22 14:40	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 18:23	220614A3	VF220614W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S36953.06

Sample Tag: B-19AR

Collected Date/Time: 06/09/2022 12:55

Matrix: Groundwater

COC Reference: 148232

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/10/22 14:43	CL220610-W2-B	CL220610-W2-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/13/22 14:58	COND220613W1	COND220613W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/11/22 09:24	CN220611-W1	CN220611-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/22 16:20	PHL220616-W1	PHL220616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/10/22 14:43	SFT220610-W2-B	SFT220610-W2-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/17/22 15:53	TOC220617-W1	TOC220617-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium, Dissolved	E200.8	06/13/22 14:42	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/22 14:42	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/22 14:42	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/22 14:42	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/22 14:42	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:34	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/22 14:42	MT4-22-0613B	MTD-061322-3	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 18:46	220614A3	VF220614W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S36953.07

Sample Tag: Trip Blank-060922

Collected Date/Time: 06/09/2022 00:01

Matrix: Liquid

COC Reference: 148232

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 15:17	220614A3	VF220614W2	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: CL220610-W2-B

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36953.01	Chloride	E300.0	06/10/22 13:39	CL220610-W2-B
S36953.02	Chloride	E300.0	06/10/22 13:52	CL220610-W2-B
S36953.03	Chloride	E300.0	06/10/22 14:05	CL220610-W2-B
S36953.04	Chloride	E300.0	06/10/22 14:18	CL220610-W2-B
S36953.05	Chloride	E300.0	06/10/22 14:30	CL220610-W2-B
S36953.06	Chloride	E300.0	06/10/22 14:43	CL220610-W2-B

Inorganics, Prep Batch ID: CN220611-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36953.01	Cyanide, Total	E335.4/SM4500-CN06/11/22 09:08	06/11/22 09:08	CN220611-W1
S36953.02	Cyanide, Total	E335.4/SM4500-CN06/11/22 09:16	06/11/22 09:16	CN220611-W1
S36953.03	Cyanide, Total	E335.4/SM4500-CN06/11/22 09:18	06/11/22 09:18	CN220611-W1
S36953.04	Cyanide, Total	E335.4/SM4500-CN06/11/22 09:20	06/11/22 09:20	CN220611-W1
S36953.05	Cyanide, Total	E335.4/SM4500-CN06/11/22 09:22	06/11/22 09:22	CN220611-W1
S36953.06	Cyanide, Total	E335.4/SM4500-CN06/11/22 09:24	06/11/22 09:24	CN220611-W1

Inorganics, Prep Batch ID: COND220613W1

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36953.01	Conductivity	E120.1	06/13/22 14:49	COND220613W1
S36953.02	Conductivity	E120.1	06/13/22 14:53	COND220613W1
S36953.03	Conductivity	E120.1	06/13/22 14:55	COND220613W1
S36953.04	Conductivity	E120.1	06/13/22 14:56	COND220613W1
S36953.05	Conductivity	E120.1	06/13/22 14:56	COND220613W1
S36953.06	Conductivity	E120.1	06/13/22 14:58	COND220613W1

Inorganics, Prep Batch ID: PHL220616-W1

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36953.01	Phenols	E420.1	06/16/22 16:06	PHL220616-W1
S36953.02	Phenols	E420.1	06/16/22 16:12	PHL220616-W1
S36953.03	Phenols	E420.1	06/16/22 16:14	PHL220616-W1
S36953.04	Phenols	E420.1	06/16/22 16:16	PHL220616-W1
S36953.05	Phenols	E420.1	06/16/22 16:18	PHL220616-W1
S36953.06	Phenols	E420.1	06/16/22 16:20	PHL220616-W1

Inorganics, Prep Batch ID: SFT220610-W2-B

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36953.01	Sulfate	E300.0	06/10/22 13:39	SFT220610-W2-B
S36953.02	Sulfate	E300.0	06/10/22 13:52	SFT220610-W2-B
S36953.03	Sulfate	E300.0	06/10/22 14:05	SFT220610-W2-B
S36953.04	Sulfate	E300.0	06/10/22 14:18	SFT220610-W2-B
S36953.05	Sulfate	E300.0	06/10/22 14:30	SFT220610-W2-B
S36953.06	Sulfate	E300.0	06/10/22 14:43	SFT220610-W2-B

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: TOC220617-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36953.01	TOC	SM5310C	06/17/22 13:21	TOC220617-W1
S36953.02	TOC	SM5310C	06/17/22 14:38	TOC220617-W1
S36953.03	TOC	SM5310C	06/17/22 14:57	TOC220617-W1
S36953.04	TOC	SM5310C	06/17/22 15:15	TOC220617-W1
S36953.05	TOC	SM5310C	06/17/22 15:34	TOC220617-W1
S36953.06	TOC	SM5310C	06/17/22 15:53	TOC220617-W1

Metals, Prep Batch ID: MTD-061322-3

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36953.01	Chromium, Dissolved	E200.8	06/13/22 14:35	MT4-22-0613B
S36953.01	Copper, Dissolved	E200.8	06/13/22 14:35	MT4-22-0613B
S36953.01	Iron, Dissolved	E200.8	06/13/22 14:35	MT4-22-0613B
S36953.01	Manganese, Dissolved	E200.8	06/13/22 14:35	MT4-22-0613B
S36953.01	Nickel, Dissolved	E200.8	06/13/22 14:35	MT4-22-0613B
S36953.01	Zinc, Dissolved	E200.8	06/13/22 14:35	MT4-22-0613B
S36953.02	Chromium, Dissolved	E200.8	06/13/22 14:36	MT4-22-0613B
S36953.02	Copper, Dissolved	E200.8	06/13/22 14:36	MT4-22-0613B
S36953.02	Iron, Dissolved	E200.8	06/13/22 14:36	MT4-22-0613B
S36953.02	Manganese, Dissolved	E200.8	06/13/22 14:36	MT4-22-0613B
S36953.02	Nickel, Dissolved	E200.8	06/13/22 14:36	MT4-22-0613B
S36953.02	Zinc, Dissolved	E200.8	06/13/22 14:36	MT4-22-0613B
S36953.03	Chromium, Dissolved	E200.8	06/13/22 14:38	MT4-22-0613B
S36953.03	Copper, Dissolved	E200.8	06/13/22 14:38	MT4-22-0613B
S36953.03	Iron, Dissolved	E200.8	06/13/22 14:38	MT4-22-0613B
S36953.03	Manganese, Dissolved	E200.8	06/13/22 14:38	MT4-22-0613B
S36953.03	Nickel, Dissolved	E200.8	06/13/22 14:38	MT4-22-0613B
S36953.03	Zinc, Dissolved	E200.8	06/13/22 14:38	MT4-22-0613B
S36953.04	Chromium, Dissolved	E200.8	06/13/22 14:39	MT4-22-0613B
S36953.04	Copper, Dissolved	E200.8	06/13/22 14:39	MT4-22-0613B
S36953.04	Iron, Dissolved	E200.8	06/13/22 14:39	MT4-22-0613B
S36953.04	Manganese, Dissolved	E200.8	06/13/22 14:39	MT4-22-0613B
S36953.04	Nickel, Dissolved	E200.8	06/13/22 14:39	MT4-22-0613B
S36953.04	Zinc, Dissolved	E200.8	06/13/22 14:39	MT4-22-0613B
S36953.05	Chromium, Dissolved	E200.8	06/13/22 14:40	MT4-22-0613B
S36953.05	Copper, Dissolved	E200.8	06/13/22 14:40	MT4-22-0613B
S36953.05	Iron, Dissolved	E200.8	06/13/22 14:40	MT4-22-0613B
S36953.05	Manganese, Dissolved	E200.8	06/13/22 14:40	MT4-22-0613B
S36953.05	Nickel, Dissolved	E200.8	06/13/22 14:40	MT4-22-0613B
S36953.05	Zinc, Dissolved	E200.8	06/13/22 14:40	MT4-22-0613B
S36953.06	Chromium, Dissolved	E200.8	06/13/22 14:42	MT4-22-0613B
S36953.06	Copper, Dissolved	E200.8	06/13/22 14:42	MT4-22-0613B
S36953.06	Iron, Dissolved	E200.8	06/13/22 14:42	MT4-22-0613B
S36953.06	Manganese, Dissolved	E200.8	06/13/22 14:42	MT4-22-0613B
S36953.06	Nickel, Dissolved	E200.8	06/13/22 14:42	MT4-22-0613B
S36953.06	Zinc, Dissolved	E200.8	06/13/22 14:42	MT4-22-0613B

QC Report - Prep Batch Summary

Metals, Prep Batch ID: MTD-062122-7

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36953.01	Sodium	E200.8	06/21/22 15:26	MT4-22-0621B
S36953.02	Sodium	E200.8	06/21/22 15:28	MT4-22-0621B
S36953.03	Sodium	E200.8	06/21/22 15:29	MT4-22-0621B
S36953.04	Sodium	E200.8	06/21/22 15:31	MT4-22-0621B
S36953.05	Sodium	E200.8	06/21/22 15:32	MT4-22-0621B
S36953.06	Sodium	E200.8	06/21/22 15:34	MT4-22-0621B

Organics - Volatiles, Prep Batch ID: VF220614W2

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S36953.01	Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 16:50	220614A3
S36953.02	Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 17:13	220614A3
S36953.03	Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 17:37	220614A3
S36953.04	Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 18:00	220614A3
S36953.05	Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 18:23	220614A3
S36953.06	Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 18:46	220614A3
S36953.07	Volatile Organics - DEQ List	SW5030C/8260C	06/14/22 15:17	220614A3

QC Report - Surrogates per Lab Sample

Lab Sample ID: S36953.01

Sample Tag: B-22D

Collected Date/Time: 06/08/2022 12:15

Matrix: Groundwater

COC Reference: 148232

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220614A3, Run Date: 06/14/2022 16:50, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		111.2	80.0	124.0
1,2-Dichloroethane-D4		92.8	72.0	125.0
Toluene-D8		105.6	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S36953.02

Sample Tag: B-7

Collected Date/Time: 06/08/2022 12:41

Matrix: Groundwater

COC Reference: 148232

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220614A3, Run Date: 06/14/2022 17:13, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		112.0	80.0	124.0
1,2-Dichloroethane-D4		97.8	72.0	125.0
Toluene-D8		105.4	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S36953.03

Sample Tag: B-18A

Collected Date/Time: 06/08/2022 15:35

Matrix: Groundwater

COC Reference: 148232

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220614A3, Run Date: 06/14/2022 17:37, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		114.6	80.0	124.0
1,2-Dichloroethane-D4		93.0	72.0	125.0
Toluene-D8		104.8	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S36953.04

Sample Tag: B-21D

Collected Date/Time: 06/08/2022 15:55

Matrix: Groundwater

COC Reference: 148232

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220614A3, Run Date: 06/14/2022 18:00, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		113.6	80.0	124.0
1,2-Dichloroethane-D4		94.0	72.0	125.0
Toluene-D8		105.6	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S36953.05

Sample Tag: B-23DR

Collected Date/Time: 06/09/2022 12:20

Matrix: Groundwater

COC Reference: 148232

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220614A3, Run Date: 06/14/2022 18:23, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		112.2	80.0	124.0
1,2-Dichloroethane-D4		93.0	72.0	125.0
Toluene-D8		106.4	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S36953.06

Sample Tag: B-19AR

Collected Date/Time: 06/09/2022 12:55

Matrix: Groundwater

COC Reference: 148232

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220614A3, Run Date: 06/14/2022 18:46, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		115.2	80.0	124.0
1,2-Dichloroethane-D4		101.4	72.0	125.0
Toluene-D8		105.6	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S36953.07

Sample Tag: Trip Blank-060922

Collected Date/Time: 06/09/2022 00:01

Matrix: Liquid

COC Reference: 148232

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220614A3, Run Date: 06/14/2022 15:17, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		113.8	80.0	124.0
1,2-Dichloroethane-D4		95.4	72.0	125.0
Toluene-D8		106.4	89.0	112.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF220614W2

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 220614A3.BLKW14A

Run in Batch: 220614A3, Run Date: 06/14/2022 13:10, Prep Date: 06/14/2022, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		114.8	80.0	124.0
1,2-Dichloroethane-D4		95.2	72.0	125.0
Toluene-D8		106.2	89.0	112.0

Laboratory Control Sample (LCS)

Lab Sample ID: 220614A3.LCSW14A

Run in Batch: 220614A3, Run Date: 06/14/2022 11:37, Prep Date: 06/14/2022, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		114.4	80.0	124.0
1,2-Dichloroethane-D4		87.2	72.0	125.0
Toluene-D8		106.8	89.0	112.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 220614A3.LCSDW14A, Parent Sample ID: 220614A3.LCSW14A

Run in Batch: 220614A3, Run Date: 06/14/2022 12:00, Prep Date: 06/14/2022, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		116.6	80.0	124.0
1,2-Dichloroethane-D4		91.8	72.0	125.0
Toluene-D8		106.4	89.0	112.0

QC Report - Batch QC Results

Inorganics, Prep Batch ID: CL220610-W2-B

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CL220610-W2-B.LRB1

Run in Batch: CL220610-W2-B, Run Date: 06/10/2022 13:01, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Chloride		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CL220610-W2-B.LCS1

Run in Batch: CL220610-W2-B, Run Date: 06/10/2022 13:26, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Chloride		98	90	110

Matrix Spike (MS)

Lab Sample ID: CL220610-W2-B.MS1, Parent Sample ID: S36953.01

Run in Batch: CL220610-W2-B, Run Date: 06/10/2022 15:09, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL
Chloride		96	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CL220610-W2-B.MSD1, Parent Sample ID: CL220610-W2-B.MS1

Run in Batch: CL220610-W2-B, Run Date: 06/10/2022 15:22, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chloride		96	80	120	0	15

Duplicate (DUP)

Lab Sample ID: CL220610-W2-B.DP1, Parent Sample ID: S36953.01

Run in Batch: CL220610-W2-B, Run Date: 06/10/2022 14:56, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	RPD	RPD CL
Chloride		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: CN220611-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN220611-W1.LRB1

Run in Batch: CN220611-W1, Run Date: 06/11/2022 09:00, Prep Date: 06/11/2022, Matrix: Liquid, Dilution: 2

Analyte	Flags	Conc	RDL	Units
Cyanide, Total		ND	0.004	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN220611-W1.LCS1

Run in Batch: CN220611-W1, Run Date: 06/11/2022 09:06, Prep Date: 06/11/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Cyanide, Total		104	90	110

Matrix Spike (MS)

Lab Sample ID: CN220611-W1.MS1, Parent Sample ID: S36953.01

Run in Batch: CN220611-W1, Run Date: 06/11/2022 09:12, Prep Date: 06/11/2022, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL
Cyanide, Total		94	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN220611-W1.MSD1, Parent Sample ID: CN220611-W1.MS1

Run in Batch: CN220611-W1, Run Date: 06/11/2022 09:14, Prep Date: 06/11/2022, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Cyanide, Total		94	80	120	0	15

Duplicate (DUP)

Lab Sample ID: CN220611-W1.DP1, Parent Sample ID: S36953.01

Run in Batch: CN220611-W1, Run Date: 06/11/2022 09:10, Prep Date: 06/11/2022, Matrix: Liquid, Dilution: 2

Analyte	Flags	RPD	RPD CL
Cyanide, Total		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: COND220613W1

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: COND220613W1.LRB1

Run in Batch: COND220613W1, Run Date: 06/13/2022 14:43, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Conductivity		ND	NA	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: COND220613W1.LCS1

Run in Batch: COND220613W1, Run Date: 06/13/2022 14:46, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Conductivity		97.7	90	110

Duplicate (DUP)

Lab Sample ID: COND220613W1.DP1, Parent Sample ID: S36966.01

Run in Batch: COND220613W1, Run Date: 06/13/2022 15:00, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 6

Analyte	Flags	RPD	RPD CL
Conductivity		0.1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: PHL220616-W1

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHL220616-W1.LRB1

Run in Batch: PHL220616-W1, Run Date: 06/16/2022 16:00, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Phenols		ND	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHL220616-W1.LCS1

Run in Batch: PHL220616-W1, Run Date: 06/16/2022 16:04, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Phenols		102	90	110

Matrix Spike (MS)

Lab Sample ID: PHL220616-W1.MS1, Parent Sample ID: S36953.01

Run in Batch: PHL220616-W1, Run Date: 06/16/2022 16:10, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Phenols		103	90	110

Duplicate (DUP)

Lab Sample ID: PHL220616-W1.DP1, Parent Sample ID: S36953.01

Run in Batch: PHL220616-W1, Run Date: 06/16/2022 16:08, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1.7

Analyte	Flags	RPD	RPD CL
Phenols		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: SFT220610-W2-B

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: SFT220610-W2-B.LRB1

Run in Batch: SFT220610-W2-B, Run Date: 06/10/2022 13:01, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Sulfate		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: SFT220610-W2-B.LCS1

Run in Batch: SFT220610-W2-B, Run Date: 06/10/2022 13:26, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Sulfate		98	90	110

Matrix Spike (MS)

Lab Sample ID: SFT220610-W2-B.MS1, Parent Sample ID: S36953.01

Run in Batch: SFT220610-W2-B, Run Date: 06/10/2022 15:09, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL
Sulfate		102	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: SFT220610-W2-B.MSD1, Parent Sample ID: SFT220610-W2-B.MS1

Run in Batch: SFT220610-W2-B, Run Date: 06/10/2022 15:22, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sulfate		102	80	120	0	15

Duplicate (DUP)

Lab Sample ID: SFT220610-W2-B.DP1, Parent Sample ID: S36953.01

Run in Batch: SFT220610-W2-B, Run Date: 06/10/2022 14:56, Prep Date: 06/10/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	RPD	RPD CL
Sulfate		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: TOC220617-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: TOC220617-W1.LRB1

Run in Batch: TOC220617-W1, Run Date: 06/17/2022 12:23, Prep Date: 06/17/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
TOC		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TOC220617-W1.LCS1

Run in Batch: TOC220617-W1, Run Date: 06/17/2022 13:02, Prep Date: 06/17/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
TOC		95	90	110

Matrix Spike (MS)

Lab Sample ID: TOC220617-W1.MS1, Parent Sample ID: S36953.01

Run in Batch: TOC220617-W1, Run Date: 06/17/2022 13:59, Prep Date: 06/17/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
TOC		100	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: TOC220617-W1.MSD1, Parent Sample ID: TOC220617-W1.MS1

Run in Batch: TOC220617-W1, Run Date: 06/17/2022 14:19, Prep Date: 06/17/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
TOC		99	80	120	2	15

Duplicate (DUP)

Lab Sample ID: TOC220617-W1.DP1, Parent Sample ID: S36953.01

Run in Batch: TOC220617-W1, Run Date: 06/17/2022 13:40, Prep Date: 06/17/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
TOC		<1	15

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-061322-3

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Blank (BLK)

Lab Sample ID: MT4-22-0613B.022.LRB

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:03, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Chromium		ND	0.001	mg/L
Copper		ND	0.001	mg/L
Iron		ND	0.004	mg/L
Manganese		ND	0.001	mg/L
Nickel		ND	0.001	mg/L
Zinc		ND	0.001	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: MT4-22-0613B.020.LCS

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:00, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Chromium		102	85	115
Copper		103	85	115
Iron		104	85	115
Manganese		101	85	115
Nickel		102	85	115
Zinc		101	85	115

Matrix Spike (MS)

Lab Sample ID: MT4-22-0613B.035.MS, Parent Sample ID: S36836.01

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:25, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Chromium		103	75	125
Copper		98	75	125
Iron		104	75	125
Manganese		98	75	125
Nickel		103	75	125
Zinc		108	75	125

Matrix Spike (MS)

Lab Sample ID: MT4-22-0613B.051.MS, Parent Sample ID: S36953.06

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:48, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Chromium		100	75	125
Copper		97	75	125
Iron		99	75	125
Manganese		97	75	125
Nickel		101	75	125
Zinc		101	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-22-0613B.036.MSD, Parent Sample ID: MT4-22-0613B.035.MS

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:26, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chromium		101	75	125	2	20
Copper		99	75	125	0	20

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-061322-3 (continued)

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Matrix Spike Duplicate (MSD) (continued)

Lab Sample ID: MT4-22-0613B.036.MSD, Parent Sample ID: MT4-22-0613B.035.MS

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:26, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Iron		108	75	125	1	20
Manganese		99	75	125	1	20
Nickel		100	75	125	3	20
Zinc		106	75	125	2	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-22-0613B.052.MSD, Parent Sample ID: MT4-22-0613B.051.MS

Run in Batch: MT4-22-0613B, Run Date: 06/13/2022 14:49, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chromium		103	75	125	4	20
Copper		98	75	125	0	20
Iron		100	75	125	1	20
Manganese		100	75	125	2	20
Nickel		101	75	125	0	20
Zinc		106	75	125	5	20

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-062122-7

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Blank (BLK)

Lab Sample ID: MT4-22-0621B.015.LRB

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:18, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Sodium		ND	0.05	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: MT4-22-0621B.014.LCS

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:18, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Sodium		100	85	115

Matrix Spike (MS)

Lab Sample ID: MT4-22-0621B.035.MS, Parent Sample ID: S37003.01

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:37, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL
Sodium		101	75	125

Matrix Spike (MS)

Lab Sample ID: MT4-22-0621B.050.MS, Parent Sample ID: S37073.01

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:49, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL
Sodium		100	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-22-0621B.036.MSD, Parent Sample ID: MT4-22-0621B.035.MS

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:38, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sodium		100	75	125	1	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-22-0621B.051.MSD, Parent Sample ID: MT4-22-0621B.050.MS

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:50, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sodium		112	75	125	4	20

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220614W2

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 220614A3.BLKW14A

Run in Batch: 220614A3, Run Date: 06/14/2022 13:10, Prep Date: 06/14/2022, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Diethyl ether		ND	1.00	ug/l
Acetone		ND	10.00	ug/l
Methyl iodide		ND	1.00	ug/l
Carbon disulfide		ND	1.00	ug/l
tert-Methyl butyl ether (MTBE)		ND	1.00	ug/l
Acrylonitrile		ND	1.00	ug/l
2-Butanone (MEK)		ND	10.00	ug/l
Dichlorodifluoromethane		ND	1.00	ug/l
Chloromethane		ND	1.00	ug/l
Vinyl chloride		ND	1.00	ug/l
Bromomethane		ND	1.00	ug/l
Chloroethane		ND	1.00	ug/l
Trichlorofluoromethane		ND	1.00	ug/l
1,1-Dichloroethene		ND	1.00	ug/l
Methylene chloride		ND	1.00	ug/l
trans-1,2-Dichloroethene		ND	1.00	ug/l
1,1-Dichloroethane		ND	1.00	ug/l
cis-1,2-Dichloroethene		ND	1.00	ug/l
Tetrahydrofuran		ND	10.00	ug/l
Chloroform		ND	1.00	ug/l
Bromochloromethane		ND	1.00	ug/l
1,1,1-Trichloroethane		ND	1.00	ug/l
4-Methyl-2-pentanone (MIBK)		ND	10.00	ug/l
2-Hexanone		ND	10.00	ug/l
Carbon tetrachloride		ND	1.00	ug/l
Benzene		ND	1.00	ug/l
1,2-Dichloroethane		ND	1.00	ug/l
Trichloroethene		ND	1.00	ug/l
1,2-Dichloropropane		ND	1.00	ug/l
Bromodichloromethane		ND	1.00	ug/l
Dibromomethane		ND	1.00	ug/l
cis-1,3-Dichloropropene		ND	1.00	ug/l
Toluene		ND	1.00	ug/l
trans-1,3-Dichloropropene		ND	1.00	ug/l
1,1,2-Trichloroethane		ND	1.00	ug/l
Tetrachloroethene		ND	1.00	ug/l
trans-1,4-Dichloro-2-butene		ND	1.00	ug/l
Dibromochloromethane		ND	1.00	ug/l
1,2-Dibromoethane		ND	1.00	ug/l
Chlorobenzene		ND	1.00	ug/l
1,1,1,2-Tetrachloroethane		ND	1.00	ug/l
Ethylbenzene		ND	1.00	ug/l
p,m-Xylene		ND	1.00	ug/l
o-Xylene		ND	1.00	ug/l
Styrene		ND	1.00	ug/l
Isopropylbenzene		ND	1.00	ug/l

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220614W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK) (continued)

Lab Sample ID: 220614A3.BLKW14A

Run in Batch: 220614A3, Run Date: 06/14/2022 13:10, Prep Date: 06/14/2022, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Bromoform		ND	1.00	ug/l
1,1,2,2-Tetrachloroethane		ND	1.00	ug/l
1,2,3-Trichloropropane		ND	1.00	ug/l
n-Propylbenzene		ND	1.00	ug/l
Bromobenzene		ND	1.00	ug/l
1,3,5-Trimethylbenzene		ND	1.00	ug/l
tert-Butylbenzene		ND	1.00	ug/l
1,2,4-Trimethylbenzene		ND	1.00	ug/l
sec-Butylbenzene		ND	1.00	ug/l
p-Isopropyltoluene		ND	1.00	ug/l
1,3-Dichlorobenzene		ND	1.00	ug/l
1,4-Dichlorobenzene		ND	1.00	ug/l
1,2-Dichlorobenzene		ND	1.00	ug/l
1,2,3-Trimethylbenzene		ND	1.00	ug/l
n-Butylbenzene		ND	1.00	ug/l
Hexachloroethane		ND	1.00	ug/l
1,2-Dibromo-3-chloropropane		ND	1.00	ug/l
1,2,4-Trichlorobenzene		ND	1.00	ug/l
1,2,3-Trichlorobenzene		ND	1.00	ug/l
Naphthalene		ND	1.00	ug/l
2-Methylnaphthalene		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 220614A3.LCSW14A

Run in Batch: 220614A3, Run Date: 06/14/2022 11:37, Prep Date: 06/14/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Diethyl ether		106.7	67.4	121.2
Acetone		122.3	29.9	161.5
Methyl iodide		103.5	68.8	116.4
Carbon disulfide		99.6	63.8	137.4
tert-Methyl butyl ether (MTBE)		87.4	73.2	122.4
Acrylonitrile		119.3	69.9	128.9
2-Butanone (MEK)		121.1	44.0	134.4
Dichlorodifluoromethane		74.4	10.0	222.8
Chloromethane		94.7	23.8	166.5
Vinyl chloride		89.7	43.5	149.1
Bromomethane		112.0	56.8	151.3
Chloroethane		102.4	53.4	149.4
Trichlorofluoromethane		95.3	59.7	151.8
1,1-Dichloroethene		92.8	69.6	139.4
Methylene chloride		100.4	73.3	121.1
trans-1,2-Dichloroethene		97.5	73.6	129.3
1,1-Dichloroethane		98.0	71.5	126.2
cis-1,2-Dichloroethene		103.6	76.6	122.1
Tetrahydrofuran	*	123.6	59.0	117.9
Chloroform		98.8	78.4	124.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220614W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 220614A3.LCSW14A

Run in Batch: 220614A3, Run Date: 06/14/2022 11:37, Prep Date: 06/14/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Bromochloromethane		108.6	78.2	120.8
1,1,1-Trichloroethane		94.8	79.4	130.9
4-Methyl-2-pentanone (MIBK)		112.4	71.6	125.2
2-Hexanone		119.9	55.4	136.9
Carbon tetrachloride		100.5	72.6	133.0
Benzene		104.5	79.9	124.9
1,2-Dichloroethane		102.2	76.0	126.3
Trichloroethene		103.8	79.7	124.2
1,2-Dichloropropane		108.9	78.6	126.4
Bromodichloromethane		107.9	80.4	128.2
Dibromomethane		116.2	76.9	122.1
cis-1,3-Dichloropropene		112.3	79.8	129.9
Toluene		103.4	79.8	124.5
trans-1,3-Dichloropropene		112.5	74.0	131.3
1,1,2-Trichloroethane		112.5	78.7	123.1
Tetrachloroethene		110.6	74.5	124.5
trans-1,4-Dichloro-2-butene		122.4	68.6	135.4
Dibromochloromethane		114.1	74.6	127.2
1,2-Dibromoethane		114.8	70.3	133.7
Chlorobenzene		112.4	79.2	122.7
1,1,1,2-Tetrachloroethane		111.5	80.3	128.2
Ethylbenzene		107.9	79.5	129.1
p,m-Xylene		109.6	79.4	132.2
o-Xylene		109.5	80.2	131.0
Styrene		115.0	69.5	126.7
Isopropylbenzene		108.4	74.4	121.5
Bromoform		122.1	69.4	128.0
1,1,2,2-Tetrachloroethane		115.4	79.8	126.3
1,2,3-Trichloropropane		116.3	78.3	138.8
n-Propylbenzene		105.8	82.0	130.7
Bromobenzene		117.9	78.7	124.6
1,3,5-Trimethylbenzene		108.6	81.3	128.9
tert-Butylbenzene		97.8	80.7	128.9
1,2,4-Trimethylbenzene		107.8	81.4	130.8
sec-Butylbenzene		91.2	77.4	129.8
p-Isopropyltoluene		96.6	79.8	137.5
1,3-Dichlorobenzene		108.9	77.0	131.3
1,4-Dichlorobenzene		109.5	20.7	137.7
1,2-Dichlorobenzene		107.2	10.0	166.2
1,2,3-Trimethylbenzene		100.4	76.3	124.2
n-Butylbenzene		90.8	80.0	133.3
Hexachloroethane		97.0	23.8	138.1
1,2-Dibromo-3-chloropropane		118.3	21.2	189.4
1,2,4-Trichlorobenzene		100.9	27.4	143.4
1,2,3-Trichlorobenzene		100.1	75.4	131.4
Naphthalene		107.1	32.9	135.8

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220614W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 220614A3.LCSW14A

Run in Batch: 220614A3, Run Date: 06/14/2022 11:37, Prep Date: 06/14/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Methylnaphthalene		100.7	25.5	165.5

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 220614A3.LCSDW14A, Parent Sample ID: 220614A3.LCSW14A

Run in Batch: 220614A3, Run Date: 06/14/2022 12:00, Prep Date: 06/14/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Diethyl ether		110.5	67.4	121.2	3.6	30.0
Acetone		137.7	29.9	161.5	11.8	30.0
Methyl iodide		108.7	68.8	116.4	4.9	30.0
Carbon disulfide		106.1	63.8	137.4	6.3	30.0
tert-Methyl butyl ether (MTBE)		92.0	73.2	122.4	5.2	30.0
Acrylonitrile		126.5	69.9	128.9	5.8	30.0
2-Butanone (MEK)	*	134.7	44.0	134.4	10.6	30.0
Dichlorodifluoromethane		84.1	10.0	222.8	12.2	30.0
Chloromethane		102.1	23.8	166.5	7.5	30.0
Vinyl chloride		99.1	43.5	149.1	9.9	30.0
Bromomethane		115.7	56.8	151.3	3.2	30.0
Chloroethane		111.3	53.4	149.4	8.3	30.0
Trichlorofluoromethane		106.6	59.7	151.8	11.2	30.0
1,1-Dichloroethene		102.0	69.6	139.4	9.4	30.0
Methylene chloride		104.6	73.3	121.1	4.1	30.0
trans-1,2-Dichloroethene		103.2	73.6	129.3	5.6	30.0
1,1-Dichloroethane		103.4	71.5	126.2	5.3	30.0
cis-1,2-Dichloroethene		107.9	76.6	122.1	4.1	30.0
Tetrahydrofuran	*	132.3	59.0	117.9	6.8	30.0
Chloroform		103.7	78.4	124.0	4.8	30.0
Bromochloromethane		111.3	78.2	120.8	2.4	30.0
1,1,1-Trichloroethane		101.8	79.4	130.9	7.0	30.0
4-Methyl-2-pentanone (MIBK)		121.3	71.6	125.2	7.6	30.0
2-Hexanone		134.7	55.4	136.9	11.6	30.0
Carbon tetrachloride		110.8	72.6	133.0	9.7	30.0
Benzene		110.4	79.9	124.9	5.5	30.0
1,2-Dichloroethane		106.9	76.0	126.3	4.5	30.0
Trichloroethene		109.9	79.7	124.2	5.7	30.0
1,2-Dichloropropane		115.6	78.6	126.4	5.9	30.0
Bromodichloromethane		113.3	80.4	128.2	4.9	30.0
Dibromomethane		121.8	76.9	122.1	4.7	30.0
cis-1,3-Dichloropropene		117.3	79.8	129.9	4.4	30.0
Toluene		109.6	79.8	124.5	5.8	30.0
trans-1,3-Dichloropropene		117.7	74.0	131.3	4.4	30.0
1,1,2-Trichloroethane		118.0	78.7	123.1	4.7	30.0
Tetrachloroethene		121.6	74.5	124.5	9.4	30.0
trans-1,4-Dichloro-2-butene		134.5	68.6	135.4	9.4	30.0
Dibromochloromethane		121.3	74.6	127.2	6.2	30.0
1,2-Dibromoethane		119.9	70.3	133.7	4.4	30.0
Chlorobenzene		117.4	79.2	122.7	4.3	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220614W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: 220614A3.LCSDW14A, Parent Sample ID: 220614A3.LCSW14A

Run in Batch: 220614A3, Run Date: 06/14/2022 12:00, Prep Date: 06/14/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,1,2-Tetrachloroethane		118.0	80.3	128.2	5.6	30.0
Ethylbenzene		114.9	79.5	129.1	6.3	30.0
p,m-Xylene		117.5	79.4	132.2	6.9	30.0
o-Xylene		115.2	80.2	131.0	5.1	30.0
Styrene		120.4	69.5	126.7	4.6	30.0
Isopropylbenzene		115.0	74.4	121.5	5.9	30.0
Bromoform	*	129.7	69.4	128.0	6.1	30.0
1,1,2,2-Tetrachloroethane		124.7	79.8	126.3	7.8	30.0
1,2,3-Trichloropropane		128.3	78.3	138.8	9.8	30.0
n-Propylbenzene		112.0	82.0	130.7	5.7	30.0
Bromobenzene		121.9	78.7	124.6	3.4	30.0
1,3,5-Trimethylbenzene		115.1	81.3	128.9	5.8	30.0
tert-Butylbenzene		105.2	80.7	128.9	7.4	30.0
1,2,4-Trimethylbenzene		114.4	81.4	130.8	5.9	30.0
sec-Butylbenzene		95.7	77.4	129.8	4.9	30.0
p-Isopropyltoluene		100.7	79.8	137.5	4.2	30.0
1,3-Dichlorobenzene		111.3	77.0	131.3	2.2	30.0
1,4-Dichlorobenzene		111.8	20.7	137.7	2.1	30.0
1,2-Dichlorobenzene		109.2	10.0	166.2	1.8	30.0
1,2,3-Trimethylbenzene		102.9	76.3	124.2	2.4	30.0
n-Butylbenzene		95.6	80.0	133.3	5.1	30.0
Hexachloroethane		99.9	23.8	138.1	2.9	30.0
1,2-Dibromo-3-chloropropane		131.3	21.2	189.4	10.4	30.0
1,2,4-Trichlorobenzene		104.1	27.4	143.4	3.2	30.0
1,2,3-Trichlorobenzene		103.8	75.4	131.4	3.6	30.0
Naphthalene		113.3	32.9	135.8	5.7	30.0
2-Methylnaphthalene		110.9	25.5	165.5	9.7	30.0



Analytical Laboratory Report

Report ID: S37003.01(01)
Generated on 06/28/2022

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Additional Contacts: Kevin Schneider

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S37003.01-S37003.06
Project: RACER Coldwater Road
Collected Date(s): 06/09/2022 - 06/10/2022
Submitted Date/Time: 06/10/2022 15:00
Sampled by: Kevin Schneider
P.O. #: 1940004462 TASK 001

Table of Contents

- Cover Page (Page 1)
- General Report Notes (Page 2)
- Report Narrative (Page 2)
- Laboratory Certifications (Page 3)
- Qualifier Descriptions (Page 3)
- Glossary of Abbreviations (Page 3)
- Method Summary (Page 4)
- Sample Summary (Page 5)

Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
E120.1	EPA Method 120.1 Revision 1982
E200.8	EPA Method 200.8 Revision 5.4
E300.0	EPA Method 300.0 Revision 2.1 (1993)
E335.4/SM4500-CN	EPA Method 335.4 Revision 1.0 / Standard Method 4500-CN E 20th Edition
E420.1	EPA Method 420.1 Editorial Revision 1978
N/A	Not Applicable
SM5310C	Standard Method 5310C 2011
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW9020B	SW 846 Method 9020B Revision 2 September 1994



Analytical Laboratory Report

Sample Summary (6 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S37003.01	B-27D	Groundwater	06/09/22 15:46
S37003.02	B-20D	Groundwater	06/10/22 11:32
S37003.03	OBG MW-16D	Groundwater	06/10/22 13:08
S37003.04	MW-DUP-061022	Groundwater	06/10/22 00:01
S37003.05	Trip Blank-061022	Liquid	06/10/22 00:01
S37003.06	Equipment Blank-061022	Liquid	06/10/22 13:55



Analytical Laboratory Report

Lab Sample ID: S37003.01

Sample Tag: B-27D

Collected Date/Time: 06/09/2022 15:46

Matrix: Groundwater

COC Reference: 131119

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.3	IR
2	40ml Glass	H2SO4	Yes	2.3	IR
1	125ml Amber	H2SO4	Yes	2.3	IR
1	250ml Amber	H2SO4	Yes	2.3	IR
1	125ml Plastic	NaOH	Yes	2.3	IR
2	125ml Plastic	HNO3	Yes	2.3	IR
1	1L Plastic	None	Yes	2.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/17/22 11:15	BDO	
Metal Digestion	Completed	SW3015A	06/22/22 09:40	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/13/22 15:08, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	646	1		umhos/cm	1		

Method: E300.0, Run Date: 06/13/22 13:20, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	10	0.16	mg/L	10	16887-00-6	
Sulfate	17	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/13/22 11:34, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/16/22 16:22, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/17/22 16:12, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	3.9	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:36, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	35.9	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/22/22 10:44, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	
Iron, Dissolved	0.97	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S37003.01 (continued)

Sample Tag: B-27D

Method: E200.8, Run Date: 06/22/22 10:44, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.019	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	Not detected	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/16/22 15:10, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S37003.01 (continued)

Sample Tag: B-27D

Volatiles Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/16/22 15:10, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/22/22 21:51, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S37003.02

Sample Tag: B-20D

Collected Date/Time: 06/10/2022 11:32

Matrix: Groundwater

COC Reference: 131119

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.3	IR
2	40ml Glass	H2SO4	Yes	2.3	IR
1	125ml Amber	H2SO4	Yes	2.3	IR
1	250ml Amber	H2SO4	Yes	2.3	IR
1	125ml Plastic	NaOH	Yes	2.3	IR
2	125ml Plastic	HNO3	Yes	2.3	IR
1	1L Plastic	None	Yes	2.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/17/22 11:15	BDO	
Metal Digestion	Completed	SW3015A	06/22/22 09:40	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/13/22 15:09, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	843	1		umhos/cm	1		

Method: E300.0, Run Date: 06/13/22 13:33, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	10	0.16	mg/L	10	16887-00-6	
Sulfate	115	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/13/22 11:36, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/16/22 16:24, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/17/22 16:31, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	4.0	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:41, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	15.9	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/22/22 10:46, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	
Iron, Dissolved	1.98	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S37003.02 (continued)

Sample Tag: B-20D

Method: E200.8, Run Date: 06/22/22 10:46, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.048	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	0.020	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/16/22 15:32, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S37003.02 (continued)

Sample Tag: B-20D

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/16/22 15:32, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/22/22 23:36, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S37003.03

Sample Tag: OBG MW-16D

Collected Date/Time: 06/10/2022 13:08

Matrix: Groundwater

COC Reference: 131119

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.3	IR
2	40ml Glass	H2SO4	Yes	2.3	IR
1	125ml Amber	H2SO4	Yes	2.3	IR
1	250ml Amber	H2SO4	Yes	2.3	IR
1	125ml Plastic	NaOH	Yes	2.3	IR
2	125ml Plastic	HNO3	Yes	2.3	IR
1	1L Plastic	None	Yes	2.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/17/22 11:15	BDO	
Metal Digestion	Completed	SW3015A	06/22/22 09:40	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/13/22 15:14, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	641	1		umhos/cm	1		

Method: E300.0, Run Date: 06/13/22 13:45, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	10	0.16	mg/L	10	16887-00-6	
Sulfate	30	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/13/22 11:38, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/16/22 16:26, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/17/22 16:50, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	4.0	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:42, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	10.8	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/22/22 10:48, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	
Iron, Dissolved	2.05	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S37003.03 (continued)

Sample Tag: OBG MW-16D

Method: E200.8, Run Date: 06/22/22 10:48, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.058	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	Not detected	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/16/22 15:56, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S37003.03 (continued)

Sample Tag: OBG MW-16D

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/16/22 15:56, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/23/22 00:40, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S37003.04

Sample Tag: MW-DUP-061022

Collected Date/Time: 06/10/2022 00:01

Matrix: Groundwater

COC Reference: 131119

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.3	IR
2	40ml Glass	H2SO4	Yes	2.3	IR
1	125ml Amber	H2SO4	Yes	2.3	IR
1	250ml Amber	H2SO4	Yes	2.3	IR
1	125ml Plastic	NaOH	Yes	2.3	IR
2	125ml Plastic	HNO3	Yes	2.3	IR
1	1L Plastic	None	Yes	2.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/17/22 11:15	BDO	
Metal Digestion	Completed	SW3015A	06/22/22 09:40	CCM	
Metal Digestion	Completed	SW3015A	06/21/22 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/13/22 15:15, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	845	1		umhos/cm	1		

Method: E300.0, Run Date: 06/13/22 13:58, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	10	0.16	mg/L	10	16887-00-6	
Sulfate	115	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/13/22 11:40, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/16/22 16:28, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/17/22 17:09, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	3.6	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:44, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	15.8	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/22/22 10:50, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	Not detected	0.005		mg/L	5	7440-50-8	
Iron, Dissolved	1.91	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S37003.04 (continued)

Sample Tag: MW-DUP-061022

Method: E200.8, Run Date: 06/22/22 10:50, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.047	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	Not detected	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/16/22 16:19, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S37003.04 (continued)

Sample Tag: MW-DUP-061022

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/16/22 16:19, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/23/22 01:24, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.



Analytical Laboratory Report

Lab Sample ID: S37003.05

Sample Tag: Trip Blank-061022

Collected Date/Time: 06/10/2022 00:01

Matrix: Liquid

COC Reference: 131119

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	2.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/17/22 11:15	BDO	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/16/22 14:22, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S37003.05 (continued)

Sample Tag: Trip Blank-061022

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/16/22 14:22, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S37003.06

Sample Tag: Equipment Blank-061022

Collected Date/Time: 06/10/2022 13:55

Matrix: Liquid

COC Reference: 131119

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.3	IR
2	40ml Glass	H2SO4	Yes	2.3	IR
1	125ml Amber	H2SO4	Yes	2.3	IR
1	250ml Amber	H2SO4	Yes	2.3	IR
1	125ml Plastic	NaOH	Yes	2.3	IR
1	125ml Plastic	HNO3	Yes	2.3	IR
1	1L Plastic	None	Yes	2.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/17/22 11:15	BDO	
Metal Digestion	Completed	SW3015A	06/22/22 09:40	CCM	

Inorganics

Method: E120.1, Run Date: 06/13/22 15:17, Analyst: PJH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	Not detected	1		umhos/cm	1		

Method: E300.0, Run Date: 06/13/22 14:11, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	2.5	0.04	mg/L	2.5	16887-00-6	
Sulfate	Not detected	2.5	0.15	mg/L	2.5	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/13/22 11:42, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Total	Not detected	0.004	0.001	mg/L	2	57-12-5	

Method: E420.1, Run Date: 06/16/22 16:30, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	Not detected	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/17/22 17:28, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	Not detected	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/21/22 15:45, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	Not detected	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/22/22 10:42, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium	Not detected	0.005		mg/L	2	7440-47-3	
Copper	Not detected	0.005		mg/L	2	7440-50-8	
Iron	Not detected	0.02		mg/L	2	7439-89-6	
Manganese	Not detected	0.005		mg/L	2	7439-96-5	



Analytical Laboratory Report

Lab Sample ID: S37003.06 (continued)

Sample Tag: Equipment Blank-061022

Method: E200.8, Run Date: 06/22/22 10:42, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Nickel	Not detected	0.005		mg/L	2	7440-02-0	
Zinc	Not detected	0.005		mg/L	2	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/16/22 14:46, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene*	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	



Analytical Laboratory Report

Lab Sample ID: S37003.06 (continued)

Sample Tag: Equipment Blank-061022

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/16/22 14:46, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Organics

Method: SW9020B, Run Date: 06/23/22 02:25, Analyst: GEL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOX*	Completed	3,000		ug/L	1		O

O-Analysis performed by outside laboratory. See attached report.

Merit Laboratories Login Checklist

Lab Set ID:S37003

Client:OBG02 (Ramboll Americas)

Project: RACER Coldwater Road

Submitted:06/10/2022 15:00 Login User: MMC

Attention: Clifford Yantz

Address: Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Selection	Description	Note
Sample Receiving		
01.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples are received at 4C +/- 2C Thermometer # IR 2.3
02.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Received on ice/ cooling process begun
03.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples shipped
04.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples left in 24 hr. drop box
05.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	COC adequately filled out
07.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	COC signed and relinquished to the lab
08.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sample tag on bottles match COC
09.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Subcontracting needed? Subcontracted to: GEL
Preservation		
10.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Do sample have correct chemical preservation
11.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Completed pH checks on preserved samples? (no VOAs)
12.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	All bottles intact
14.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Appropriate analytical bottles are used
15.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Merit bottles used
16.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sufficient sample volume received
17.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples require laboratory filtration
18.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples submitted within holding time
19.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Do water VOC or TOX bottles contain headspace

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S37003 Submitted: 06/10/2022 15:00

Attention: Clifford Yantz
 Address: Ramboll Americas
 2090 Commonwealth Blvd
 Ann Arbor, MI 48105

Client: OBG02 (Ramboll Americas)

Project: RACER Coldwater Road

Initial Preservation Check: 06/10/2022 16:05 MMC

Phone: 313-333-0211 FAX:
 Email: Clifford.Yantz@ramboll.com

Preservation Recheck (E200.8): N/A

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S37003.01	125ml Amber H2SO4	<2			
S37003.01	125ml Plastic HNO3	<2			
S37003.01	125ml Plastic HNO3	<2			
S37003.01	125ml Plastic NaOH	>12			
S37003.01	250ml Amber H2SO4	<2			
S37003.02	125ml Amber H2SO4	<2			
S37003.02	125ml Plastic HNO3	<2			
S37003.02	125ml Plastic HNO3	<2			
S37003.02	125ml Plastic NaOH	>12			
S37003.02	250ml Amber H2SO4	<2			
S37003.03	125ml Amber H2SO4	<2			
S37003.03	125ml Plastic HNO3	<2			
S37003.03	125ml Plastic HNO3	<2			
S37003.03	125ml Plastic NaOH	>12			
S37003.03	250ml Amber H2SO4	<2			
S37003.04	125ml Amber H2SO4	<2			
S37003.04	125ml Plastic HNO3	<2			
S37003.04	125ml Plastic HNO3	<2			
S37003.04	125ml Plastic NaOH	>12			
S37003.04	250ml Amber H2SO4	<2			
S37003.06	125ml Amber H2SO4	<2			
S37003.06	125ml Plastic HNO3	<2			
S37003.06	125ml Plastic NaOH	>12			
S37003.06	250ml Amber H2SO4	<2			



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE # 1 OF 1

131119

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Clifford Yantz / Kevin Schneider
 COMPANY Ramboll
 ADDRESS 2090 Commonwealth Blvd
 CITY Ann Arbor STATE Mi ZIP CODE 48105
 PHONE NO. 313-333-8211 FAX NO. _____ P.O. NO. 1940004462 Task
 E-MAIL ADDRESS clifford.yantz@ramboll.com / kevin.schneider@ramboll.com QUOTE NO. _____

CONTACT NAME X SAME
 COMPANY _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP CODE _____
 PHONE NO. _____ E-MAIL ADDRESS _____

PROJECT NO./NAME RACER Coldwater Road SAMPLER(S) - PLEASE PRINT / SIGN NAME Kevin Schneider
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

VOCs	TOC / TOX	Phenols	Cyanide	Sulfate	Specific Conductivity	Chlorides	Total Sodium	Dissolved Metals	Total Metals	Certifications
										<input type="checkbox"/> OHIO VAP <input type="checkbox"/> Drinking Water
										<input type="checkbox"/> DoD <input type="checkbox"/> NPDES
										Project Locations
										<input type="checkbox"/> Detroit <input type="checkbox"/> New York
										<input type="checkbox"/> Other _____
										Special Instructions

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives										Special Instructions						
	DATE	TIME				NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	VOCs	TOC / TOX	Phenols		Cyanide	Sulfate	Specific Conductivity	Chlorides	Total Sodium	Dissolved Metals
37003.01	6/9/22	1546	B-27D	GW	11	1	3	2	4	1												Dissolved metals
.02	6/10/22	1132	B-20D	GW	11	1	3	2	4	1												Were field filtered
.03	6/10/22	1308	OBG MW-16D	GW	11	1	3	2	4	1												
.04	6/10/22	-	MW-DUP-061022	GW	11	1	3	2	4	1												Metals ARE:
.05	6/10/22	-	Trip Blank - 061022	L	1	1																Cu, Cr, Ni, Zn, Fe, Mn
.06	6/10/22	1355	Equipment Blank-061022	L	10	1	3	2	4	1												

RELINQUISHED BY: [Signature] Sampler DATE 6/10/22 TIME 14:15
 RECEIVED BY: [Signature] DATE 6/10/22 TIME 14:15
 RELINQUISHED BY: [Signature] DATE 6/10/22 TIME 15:00
 RECEIVED BY: [Signature] DATE 6/10/22 TIME 15:00

RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SEAL NO. SEAL INTACT YES NO INITIALS _____
 SEAL NO. SEAL INTACT YES NO INITIALS _____
 NOTES: TEMP. ON ARRIVAL 2.3

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE # _____ OF _____

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME **Project Management Team**
 COMPANY **Merit Laboratories**
 ADDRESS **2680 East Lansing Drive**
 CITY **East Lansing** STATE **MI** ZIP CODE **48823**
 PHONE NO. **517-332-0167** FAX NO. _____ P.O. NO. _____
 E-MAIL ADDRESS **results@meritlabs.com** QUOTE NO. _____

CONTACT NAME **Julie Teague** SAME
 COMPANY **Merit Laboratories**
 ADDRESS **2680 East Lansing Drive**
 CITY **East Lansing** STATE **MI** ZIP CODE **48823**
 PHONE NO. **517-332-0167** E-MAIL ADDRESS **juliet@meritlabs.com**

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME **S37003** SAMPLER(S) - PLEASE PRINT/SIGN NAME _____
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

Certifications
 OHIO VAP Drinking Water
 DoD NPDES
 Project Locations
 Detroit New York
 Other _____
 Special Instructions

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	TOX
	DATE	TIME											
	6/9/22	1546	S37003.01	GW	1			X					✓
	6/10/22	1132	S37003.02	GW	1			X					✓
	6/10/22	1308	S37003.03	GW	1			X					✓
	6/10/22	0001	S37003.04	GW	1			X					✓
	6/10/22	1355	S37003.06	GW	1			X					✓

(Ship on ice)
 Subcontracted to
GEL
 2040 Savage Road
 Charleston, SC 29407

RELINQUISHED BY: *Patricia Al* Sampler DATE **6/13/22** TIME **1700**
 SIGNATURE/ORGANIZATION _____
 RECEIVED BY: *UPS* DATE **6/13/22** TIME **1700**
 SIGNATURE/ORGANIZATION _____

RELINQUISHED BY: _____ DATE _____ TIME _____
 SIGNATURE/ORGANIZATION _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SIGNATURE/ORGANIZATION _____

SEAL NO. SEAL INTACT INITIALS NOTES: TEMP. ON ARRIVAL _____
 YES NO
 SEAL NO. SEAL INTACT INITIALS
 YES NO

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



June 27, 2022

John Laverty
Merit Laboratories Inc.
2680 East Lansing Drive
East Lansing, Michigan 48823

Re: Halogen Analysis
Work Order: 582915
SDG: S37003

Dear John Laverty:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 14, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1614.

Sincerely,

Delaney Stone
Project Manager

Purchase Order: GELP20-0014
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

**Certificate of Analysis Report
for**

MERI001 Merit Laboratories, Inc.

Client SDG: S37003 GEL Work Order: 582915

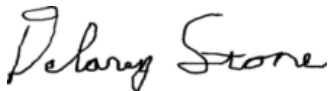
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Delaney Stone.



Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 27, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive

East Lansing, Michigan 48823

Contact: John Lavery
Project: Halogen Analysis

Client Sample ID:	S37003.01	Project:	MERI00220
Sample ID:	582915001	Client ID:	MERI001
Matrix:	Water		
Collect Date:	09-JUN-22 15:46		
Receive Date:	14-JUN-22		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens	U	ND	3.33	10.0	ug/L		1	RMJ	06/22/22	2151	2280339	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 27, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive

East Lansing, Michigan 48823

Contact: John Lavery
Project: Halogen Analysis

Client Sample ID:	S37003.02	Project:	MERI00220
Sample ID:	582915002	Client ID:	MERI001
Matrix:	Water		
Collect Date:	10-JUN-22 11:32		
Receive Date:	14-JUN-22		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens	J	3.40	3.33	10.0	ug/L		1	RMJ	06/22/22	2336	2280339	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 27, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive

East Lansing, Michigan 48823
Contact: John Laverty
Project: Halogen Analysis

Client Sample ID:	S37003.03	Project:	MERI00220
Sample ID:	582915003	Client ID:	MERI001
Matrix:	Water		
Collect Date:	10-JUN-22 13:08		
Receive Date:	14-JUN-22		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens	U	ND	3.33	10.0	ug/L		1	RMJ	06/23/22	0040	2280339	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 27, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive
East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID: S37003.04 Project: MERI00220
Sample ID: 582915004 Client ID: MERI001
Matrix: Water
Collect Date: 10-JUN-22 00:01
Receive Date: 14-JUN-22
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens	U	ND	3.33	10.0	ug/L		1	RMJ	06/23/22	0124	2280339	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: June 27, 2022

Company : Merit Laboratories Inc.
Address : 2680 East Lansing Drive

East Lansing, Michigan 48823

Contact: John Laverty
Project: Halogen Analysis

Client Sample ID: S37003.06
Sample ID: 582915005
Matrix: Water
Collect Date: 10-JUN-22 13:55
Receive Date: 14-JUN-22
Collector: Client

Project: MERI00220
Client ID: MERI001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Halogen Analysis												
SW9020B TOX (Organic Halogen) "As Received"												
Total Organic Halogens	U	ND	3.33	10.0	ug/L		1	RMJ	06/23/22	0225	2280339	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9020B		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: June 27, 2022

Page 1 of 2

Merit Laboratories Inc.
2680 East Lansing Drive
East Lansing, Michigan

Contact: John Laverty

Workorder: 582915

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Halogen Analysis											
Batch	2280339										
QC1205120953	582915001	DUP									
Total Organic Halogens	U	ND	U	ND	ug/L	N/A			RMJ	06/22/22	22:13
QC1205120952	LCS										
Total Organic Halogens	100			84.5	ug/L		84.5	(71%-120%)		06/22/22	21:12
QC1205120951	MB										
Total Organic Halogens			U	ND	ug/L					06/22/22	20:50
QC1205120954	582915001	MS									
Total Organic Halogens	100	U	ND	89.7	ug/L		88	(50%-144%)		06/22/22	22:58

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 582915

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
^										
d										
e										
h										

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where the duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**General Chemistry
Technical Case Narrative
Merit Laboratories, Inc.
SDG #: S37003
Work Order #: 582915**

Product: Total Organic Halogens (TOX)
Analytical Method: SW846 9020B
Analytical Procedure: GL-GC-E-007 REV# 16
Analytical Batch: 2280339

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
582915001	S37003.01
582915002	S37003.02
582915003	S37003.03
582915004	S37003.04
582915005	S37003.06
1205120951	Method Blank (MB)
1205120952	Laboratory Control Sample (LCS)
1205120953	582915001(S37003.01) Sample Duplicate (DUP)
1205120954	582915001(S37003.01) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments

A pair of nitrate wash blanks is analyzed at the start of the batch. Although they are designated as ICB, they are performed for calculating purposes only. The value of the nitrate wash blanks are averaged and subtracted from all samples. Neither of these values should exceed 0.6 ug Cl. The PQL limit typically applied to ICB results does not apply in this application, since the results are used only to determine background concentrations and are subtracted from all calculated results.

Breakthrough effect

Breakthrough effect: If the value for a sample is greater than the reporting limit (10 ug/L), the result for the second slug should not be greater than 25% of the combined value of the first and second slug. Results which do not meet these criteria are designated with a "Fail" comment in the Breakthrough effect column on the Logbook page; however, the "fail" designation is not applicable for samples with a result of less than 10 ug/L.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

SAMPLE RECEIPT & REVIEW FORM

DS

Client: **MERI** SDG/AR/COC/Work Order: **582907/2915**
 Received By: **DC** Date Received: **6-14-22**
 Carrier and Tracking Number: **1Z4604770162979612**
 FedEx Express FedEx Ground UPS Field Services Courier Other

Suspected Hazard Information

Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	A) Shipped as a DOT Hazardous? COC notation or radioactive stickers on containers equal client designation.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	B) Did the client designate the samples are to be received as radioactive? COC notation or radioactive stickers on containers equal client designation.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	C) Did the RSO classify the samples as radioactive? Maximum Net Counts Observed* (Observed Counts - Area Background Counts) <u>0</u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	D) Did the client designate samples are hazardous? COC notation or hazard labels on containers equal client designation.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	E) Did the RSO identify possible hazards? If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>3°</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-22</u> Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Preservation added, Lot#:
				If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
				Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials RW Date 6/15/22 Page ___ of ___

List of current GEL Certifications as of 27 June 2022

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122022-5
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



Quality Control Report

Report ID: QC-S37003-01
Generated on 06/28/2022

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S37003.01-S37003.06
Project: RACER Coldwater Road
Submitted Date/Time: 06/10/2022 15:00
Sampled by: Kevin Schneider
P.O. #: 1940004462 TASK 001

QC Report Sections

- Cover Page (Page 1)
- Analysis Summary (Pages 2-7)
- Prep Batch Summary (Pages 8-9)
- Surrogates per Lab Sample (Pages 10-15)
- Surrogates per QC Sample (Page 16)
- Batch QC Results (Pages 17-29)

Report Flag Descriptions

- *: QC result is outside of indicated control limits
- W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S37003.01

Sample Tag: B-27D

Collected Date/Time: 06/09/2022 15:46

Matrix: Groundwater

COC Reference: 131119

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/13/22 13:20	CL220613-W1-B	CL220613-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/13/22 15:08	COND220613W1	COND220613W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/13/22 11:34	CN220613-W1	CN220613-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/22 16:22	PHL220616-W1	PHL220616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/13/22 13:20	SFT220613-W1-B	SFT220613-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/17/22 16:12	TOC220617-W1	TOC220617-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium, Dissolved	E200.8	06/22/22 10:44	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/22/22 10:44	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/22/22 10:44	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/22/22 10:44	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/22/22 10:44	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:36	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/22/22 10:44	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/16/22 15:10	220616A3	VF220616W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S37003.02

Sample Tag: B-20D

Collected Date/Time: 06/10/2022 11:32

Matrix: Groundwater

COC Reference: 131119

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/13/22 13:33	CL220613-W1-B	CL220613-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/13/22 15:09	COND220613W1	COND220613W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/13/22 11:36	CN220613-W1	CN220613-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/22 16:24	PHL220616-W1	PHL220616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/13/22 13:33	SFT220613-W1-B	SFT220613-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/17/22 16:31	TOC220617-W1	TOC220617-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium, Dissolved	E200.8	06/22/22 10:46	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/22/22 10:46	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/22/22 10:46	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/22/22 10:46	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/22/22 10:46	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:41	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/22/22 10:46	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/16/22 15:32	220616A3	VF220616W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S37003.03

Sample Tag: OBG MW-16D

Collected Date/Time: 06/10/2022 13:08

Matrix: Groundwater

COC Reference: 131119

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/13/22 13:45	CL220613-W1-B	CL220613-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/13/22 15:14	COND220613W1	COND220613W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/13/22 11:38	CN220613-W1	CN220613-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/22 16:26	PHL220616-W1	PHL220616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/13/22 13:45	SFT220613-W1-B	SFT220613-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/17/22 16:50	TOC220617-W1	TOC220617-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium, Dissolved	E200.8	06/22/22 10:48	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/22/22 10:48	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/22/22 10:48	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/22/22 10:48	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/22/22 10:48	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:42	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/22/22 10:48	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/16/22 15:56	220616A3	VF220616W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S37003.04

Sample Tag: MW-DUP-061022

Collected Date/Time: 06/10/2022 00:01

Matrix: Groundwater

COC Reference: 131119

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/13/22 13:58	CL220613-W1-B	CL220613-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/13/22 15:15	COND220613W1	COND220613W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/13/22 11:40	CN220613-W1	CN220613-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/22 16:28	PHL220616-W1	PHL220616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/13/22 13:58	SFT220613-W1-B	SFT220613-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/17/22 17:09	TOC220617-W1	TOC220617-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium, Dissolved	E200.8	06/22/22 10:50	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/22/22 10:50	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/22/22 10:50	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/22/22 10:50	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/22/22 10:50	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:44	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/22/22 10:50	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/16/22 16:19	220616A3	VF220616W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S37003.05

Sample Tag: Trip Blank-061022

Collected Date/Time: 06/10/2022 00:01

Matrix: Liquid

COC Reference: 131119

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/16/22 14:22	220616A3	VF220616W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S37003.06

Sample Tag: Equipment Blank-061022

Collected Date/Time: 06/10/2022 13:55

Matrix: Liquid

COC Reference: 131119

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Chloride	E300.0	06/13/22 14:11	CL220613-W1-B	CL220613-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/13/22 15:17	COND220613W1	COND220613W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/13/22 11:42	CN220613-W1	CN220613-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/22 16:30	PHL220616-W1	PHL220616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/13/22 14:11	SFT220613-W1-B	SFT220613-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/17/22 17:28	TOC220617-W1	TOC220617-W1	No	BLK/LCS/MS/MSD/DU
Metals						
Chromium	E200.8	06/22/22 10:42	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Copper	E200.8	06/22/22 10:42	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Iron	E200.8	06/22/22 10:42	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Manganese	E200.8	06/22/22 10:42	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Nickel	E200.8	06/22/22 10:42	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/21/22 15:45	MT4-22-0621B	MTD-062122-7	No	BLK/LCS/MS/MSD
Zinc	E200.8	06/22/22 10:42	MT4-22-0622A	MTD-062222-1	No	BLK/LCS/MS/MSD
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/16/22 14:46	220616A3	VF220616W3	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: CL220613-W1-B

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S37003.01	Chloride	E300.0	06/13/22 13:20	CL220613-W1-B
S37003.02	Chloride	E300.0	06/13/22 13:33	CL220613-W1-B
S37003.03	Chloride	E300.0	06/13/22 13:45	CL220613-W1-B
S37003.04	Chloride	E300.0	06/13/22 13:58	CL220613-W1-B
S37003.06	Chloride	E300.0	06/13/22 14:11	CL220613-W1-B

Inorganics, Prep Batch ID: CN220613-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S37003.01	Cyanide, Total	E335.4/SM4500-CN	06/13/22 11:34	CN220613-W1
S37003.02	Cyanide, Total	E335.4/SM4500-CN	06/13/22 11:36	CN220613-W1
S37003.03	Cyanide, Total	E335.4/SM4500-CN	06/13/22 11:38	CN220613-W1
S37003.04	Cyanide, Total	E335.4/SM4500-CN	06/13/22 11:40	CN220613-W1
S37003.06	Cyanide, Total	E335.4/SM4500-CN	06/13/22 11:42	CN220613-W1

Inorganics, Prep Batch ID: COND220613W1

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S37003.01	Conductivity	E120.1	06/13/22 15:08	COND220613W1
S37003.02	Conductivity	E120.1	06/13/22 15:09	COND220613W1
S37003.03	Conductivity	E120.1	06/13/22 15:14	COND220613W1
S37003.04	Conductivity	E120.1	06/13/22 15:15	COND220613W1
S37003.06	Conductivity	E120.1	06/13/22 15:17	COND220613W1

Inorganics, Prep Batch ID: PHL220616-W1

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S37003.01	Phenols	E420.1	06/16/22 16:22	PHL220616-W1
S37003.02	Phenols	E420.1	06/16/22 16:24	PHL220616-W1
S37003.03	Phenols	E420.1	06/16/22 16:26	PHL220616-W1
S37003.04	Phenols	E420.1	06/16/22 16:28	PHL220616-W1
S37003.06	Phenols	E420.1	06/16/22 16:30	PHL220616-W1

Inorganics, Prep Batch ID: SFT220613-W1-B

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S37003.01	Sulfate	E300.0	06/13/22 13:20	SFT220613-W1-B
S37003.02	Sulfate	E300.0	06/13/22 13:33	SFT220613-W1-B
S37003.03	Sulfate	E300.0	06/13/22 13:45	SFT220613-W1-B
S37003.04	Sulfate	E300.0	06/13/22 13:58	SFT220613-W1-B
S37003.06	Sulfate	E300.0	06/13/22 14:11	SFT220613-W1-B

Inorganics, Prep Batch ID: TOC220617-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S37003.01	TOC	SM5310C	06/17/22 16:12	TOC220617-W1
S37003.02	TOC	SM5310C	06/17/22 16:31	TOC220617-W1
S37003.03	TOC	SM5310C	06/17/22 16:50	TOC220617-W1
S37003.04	TOC	SM5310C	06/17/22 17:09	TOC220617-W1
S37003.06	TOC	SM5310C	06/17/22 17:28	TOC220617-W1

QC Report - Prep Batch Summary

Metals, Prep Batch ID: MTD-062122-7

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S37003.01	Sodium	E200.8	06/21/22 15:36	MT4-22-0621B
S37003.02	Sodium	E200.8	06/21/22 15:41	MT4-22-0621B
S37003.03	Sodium	E200.8	06/21/22 15:42	MT4-22-0621B
S37003.04	Sodium	E200.8	06/21/22 15:44	MT4-22-0621B
S37003.06	Sodium	E200.8	06/21/22 15:45	MT4-22-0621B

Metals, Prep Batch ID: MTD-062222-1

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S37003.01	Chromium, Dissolved	E200.8	06/22/22 10:44	MT4-22-0622A
S37003.01	Copper, Dissolved	E200.8	06/22/22 10:44	MT4-22-0622A
S37003.01	Iron, Dissolved	E200.8	06/22/22 10:44	MT4-22-0622A
S37003.01	Manganese, Dissolved	E200.8	06/22/22 10:44	MT4-22-0622A
S37003.01	Nickel, Dissolved	E200.8	06/22/22 10:44	MT4-22-0622A
S37003.01	Zinc, Dissolved	E200.8	06/22/22 10:44	MT4-22-0622A
S37003.02	Chromium, Dissolved	E200.8	06/22/22 10:46	MT4-22-0622A
S37003.02	Copper, Dissolved	E200.8	06/22/22 10:46	MT4-22-0622A
S37003.02	Iron, Dissolved	E200.8	06/22/22 10:46	MT4-22-0622A
S37003.02	Manganese, Dissolved	E200.8	06/22/22 10:46	MT4-22-0622A
S37003.02	Nickel, Dissolved	E200.8	06/22/22 10:46	MT4-22-0622A
S37003.02	Zinc, Dissolved	E200.8	06/22/22 10:46	MT4-22-0622A
S37003.03	Chromium, Dissolved	E200.8	06/22/22 10:48	MT4-22-0622A
S37003.03	Copper, Dissolved	E200.8	06/22/22 10:48	MT4-22-0622A
S37003.03	Iron, Dissolved	E200.8	06/22/22 10:48	MT4-22-0622A
S37003.03	Manganese, Dissolved	E200.8	06/22/22 10:48	MT4-22-0622A
S37003.03	Nickel, Dissolved	E200.8	06/22/22 10:48	MT4-22-0622A
S37003.03	Zinc, Dissolved	E200.8	06/22/22 10:48	MT4-22-0622A
S37003.04	Chromium, Dissolved	E200.8	06/22/22 10:50	MT4-22-0622A
S37003.04	Copper, Dissolved	E200.8	06/22/22 10:50	MT4-22-0622A
S37003.04	Iron, Dissolved	E200.8	06/22/22 10:50	MT4-22-0622A
S37003.04	Manganese, Dissolved	E200.8	06/22/22 10:50	MT4-22-0622A
S37003.04	Nickel, Dissolved	E200.8	06/22/22 10:50	MT4-22-0622A
S37003.04	Zinc, Dissolved	E200.8	06/22/22 10:50	MT4-22-0622A
S37003.06	Chromium	E200.8	06/22/22 10:42	MT4-22-0622A
S37003.06	Copper	E200.8	06/22/22 10:42	MT4-22-0622A
S37003.06	Iron	E200.8	06/22/22 10:42	MT4-22-0622A
S37003.06	Manganese	E200.8	06/22/22 10:42	MT4-22-0622A
S37003.06	Nickel	E200.8	06/22/22 10:42	MT4-22-0622A
S37003.06	Zinc	E200.8	06/22/22 10:42	MT4-22-0622A

Organics - Volatiles, Prep Batch ID: VF220616W3

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S37003.01	Volatile Organics - DEQ List	SW5030C/8260C	06/16/22 15:10	220616A3
S37003.02	Volatile Organics - DEQ List	SW5030C/8260C	06/16/22 15:32	220616A3
S37003.03	Volatile Organics - DEQ List	SW5030C/8260C	06/16/22 15:56	220616A3
S37003.04	Volatile Organics - DEQ List	SW5030C/8260C	06/16/22 16:19	220616A3
S37003.05	Volatile Organics - DEQ List	SW5030C/8260C	06/16/22 14:22	220616A3
S37003.06	Volatile Organics - DEQ List	SW5030C/8260C	06/16/22 14:46	220616A3

QC Report - Surrogates per Lab Sample

Lab Sample ID: S37003.01

Sample Tag: B-27D

Collected Date/Time: 06/09/2022 15:46

Matrix: Groundwater

COC Reference: 131119

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220616A3, Run Date: 06/16/2022 15:10, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		103.8	80.0	124.0
1,2-Dichloroethane-D4		85.6	72.0	125.0
Toluene-D8		100.2	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S37003.02

Sample Tag: B-20D

Collected Date/Time: 06/10/2022 11:32

Matrix: Groundwater

COC Reference: 131119

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220616A3, Run Date: 06/16/2022 15:32, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		104.6	80.0	124.0
1,2-Dichloroethane-D4		90.8	72.0	125.0
Toluene-D8		99.8	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S37003.03

Sample Tag: OBG MW-16D

Collected Date/Time: 06/10/2022 13:08

Matrix: Groundwater

COC Reference: 131119

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220616A3, Run Date: 06/16/2022 15:56, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		104.8	80.0	124.0
1,2-Dichloroethane-D4		91.0	72.0	125.0
Toluene-D8		98.6	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S37003.04

Sample Tag: MW-DUP-061022

Collected Date/Time: 06/10/2022 00:01

Matrix: Groundwater

COC Reference: 131119

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220616A3, Run Date: 06/16/2022 16:19, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		104.4	80.0	124.0
1,2-Dichloroethane-D4		92.0	72.0	125.0
Toluene-D8		100.6	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S37003.05

Sample Tag: Trip Blank-061022

Collected Date/Time: 06/10/2022 00:01

Matrix: Liquid

COC Reference: 131119

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220616A3, Run Date: 06/16/2022 14:22, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		105.4	80.0	124.0
1,2-Dichloroethane-D4		90.0	72.0	125.0
Toluene-D8		99.4	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S37003.06

Sample Tag: Equipment Blank-061022

Collected Date/Time: 06/10/2022 13:55

Matrix: Liquid

COC Reference: 131119

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 220616A3, Run Date: 06/16/2022 14:46, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		107.2	80.0	124.0
1,2-Dichloroethane-D4		94.2	72.0	125.0
Toluene-D8		100.2	89.0	112.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF220616W3

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 220616A3.BLKW16A

Run in Batch: 220616A3, Run Date: 06/16/2022 13:55, Prep Date: 06/16/2022, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		107.6	80.0	124.0
1,2-Dichloroethane-D4		97.6	72.0	125.0
Toluene-D8		99.2	89.0	112.0

Laboratory Control Sample (LCS)

Lab Sample ID: 220616A3.LCSW16A

Run in Batch: 220616A3, Run Date: 06/16/2022 12:22, Prep Date: 06/16/2022, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		108.8	80.0	124.0
1,2-Dichloroethane-D4		89.6	72.0	125.0
Toluene-D8		100.0	89.0	112.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 220616A3.LCSDW16A, Parent Sample ID: 220616A3.LCSW16A

Run in Batch: 220616A3, Run Date: 06/16/2022 12:45, Prep Date: 06/16/2022, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		110.0	80.0	124.0
1,2-Dichloroethane-D4		89.4	72.0	125.0
Toluene-D8		100.6	89.0	112.0

QC Report - Batch QC Results

Inorganics, Prep Batch ID: CL220613-W1-B

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CL220613-W1-B.LRB1

Run in Batch: CL220613-W1-B, Run Date: 06/13/2022 12:42, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Chloride		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CL220613-W1-B.LCS1

Run in Batch: CL220613-W1-B, Run Date: 06/13/2022 13:07, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Chloride		96	90	110

Matrix Spike (MS)

Lab Sample ID: CL220613-W1-B.MS1, Parent Sample ID: S37003.01

Run in Batch: CL220613-W1-B, Run Date: 06/13/2022 15:03, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL
Chloride		96	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CL220613-W1-B.MSD1, Parent Sample ID: CL220613-W1-B.MS1

Run in Batch: CL220613-W1-B, Run Date: 06/13/2022 15:15, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chloride		96	80	120	0	15

Duplicate (DUP)

Lab Sample ID: CL220613-W1-B.DP1, Parent Sample ID: S37003.01

Run in Batch: CL220613-W1-B, Run Date: 06/13/2022 14:50, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	RPD	RPD CL
Chloride		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: CN220613-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN220613-W1.LRB1

Run in Batch: CN220613-W1, Run Date: 06/13/2022 11:00, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 2

Analyte	Flags	Conc	RDL	Units
Cyanide, Total		ND	0.004	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN220613-W1.LCS1

Run in Batch: CN220613-W1, Run Date: 06/13/2022 11:06, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Cyanide, Total		105	90	110

Matrix Spike (MS)

Lab Sample ID: CN220613-W1.MS1, Parent Sample ID: S36973.01

Run in Batch: CN220613-W1, Run Date: 06/13/2022 11:12, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL
Cyanide, Total		92	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN220613-W1.MSD1, Parent Sample ID: CN220613-W1.MS1

Run in Batch: CN220613-W1, Run Date: 06/13/2022 11:14, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Cyanide, Total		92	80	120	0	15

Duplicate (DUP)

Lab Sample ID: CN220613-W1.DP1, Parent Sample ID: S36973.01

Run in Batch: CN220613-W1, Run Date: 06/13/2022 11:10, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 2

Analyte	Flags	RPD	RPD CL
Cyanide, Total		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: COND220613W1

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: COND220613W1.LRB1

Run in Batch: COND220613W1, Run Date: 06/13/2022 14:43, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Conductivity		ND	NA	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: COND220613W1.LCS1

Run in Batch: COND220613W1, Run Date: 06/13/2022 14:46, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Conductivity		97.7	90	110

Duplicate (DUP)

Lab Sample ID: COND220613W1.DP1, Parent Sample ID: S36966.01

Run in Batch: COND220613W1, Run Date: 06/13/2022 15:00, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 6

Analyte	Flags	RPD	RPD CL
Conductivity		0.1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: PHL220616-W1

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHL220616-W1.LRB1

Run in Batch: PHL220616-W1, Run Date: 06/16/2022 16:00, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Phenols		ND	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHL220616-W1.LCS1

Run in Batch: PHL220616-W1, Run Date: 06/16/2022 16:04, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Phenols		102	90	110

Matrix Spike (MS)

Lab Sample ID: PHL220616-W1.MS1, Parent Sample ID: S36953.01

Run in Batch: PHL220616-W1, Run Date: 06/16/2022 16:10, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Phenols		103	90	110

Duplicate (DUP)

Lab Sample ID: PHL220616-W1.DP1, Parent Sample ID: S36953.01

Run in Batch: PHL220616-W1, Run Date: 06/16/2022 16:08, Prep Date: 06/16/2022, Matrix: Liquid, Dilution: 1.7

Analyte	Flags	RPD	RPD CL
Phenols		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: SFT220613-W1-B

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: SFT220613-W1-B.LRB1

Run in Batch: SFT220613-W1-B, Run Date: 06/13/2022 12:42, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Sulfate		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: SFT220613-W1-B.LCS1

Run in Batch: SFT220613-W1-B, Run Date: 06/13/2022 13:07, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Sulfate		98	90	110

Matrix Spike (MS)

Lab Sample ID: SFT220613-W1-B.MS1, Parent Sample ID: S37003.01

Run in Batch: SFT220613-W1-B, Run Date: 06/13/2022 15:03, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL
Sulfate		98	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: SFT220613-W1-B.MSD1, Parent Sample ID: SFT220613-W1-B.MS1

Run in Batch: SFT220613-W1-B, Run Date: 06/13/2022 15:15, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sulfate		98	80	120	0	15

Duplicate (DUP)

Lab Sample ID: SFT220613-W1-B.DP1, Parent Sample ID: S37003.01

Run in Batch: SFT220613-W1-B, Run Date: 06/13/2022 14:50, Prep Date: 06/13/2022, Matrix: Liquid, Dilution: 10

Analyte	Flags	RPD	RPD CL
Sulfate		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: TOC220617-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: TOC220617-W1.LRB1

Run in Batch: TOC220617-W1, Run Date: 06/17/2022 12:23, Prep Date: 06/17/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
TOC		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TOC220617-W1.LCS1

Run in Batch: TOC220617-W1, Run Date: 06/17/2022 13:02, Prep Date: 06/17/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
TOC		95	90	110

Matrix Spike (MS)

Lab Sample ID: TOC220617-W1.MS1, Parent Sample ID: S36953.01

Run in Batch: TOC220617-W1, Run Date: 06/17/2022 13:59, Prep Date: 06/17/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
TOC		100	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: TOC220617-W1.MSD1, Parent Sample ID: TOC220617-W1.MS1

Run in Batch: TOC220617-W1, Run Date: 06/17/2022 14:19, Prep Date: 06/17/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
TOC		99	80	120	2	15

Duplicate (DUP)

Lab Sample ID: TOC220617-W1.DP1, Parent Sample ID: S36953.01

Run in Batch: TOC220617-W1, Run Date: 06/17/2022 13:40, Prep Date: 06/17/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
TOC		<1	15

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-062122-7

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Blank (BLK)

Lab Sample ID: MT4-22-0621B.015.LRB

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:18, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Sodium		ND	0.05	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: MT4-22-0621B.014.LCS

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:18, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Sodium		100	85	115

Matrix Spike (MS)

Lab Sample ID: MT4-22-0621B.035.MS, Parent Sample ID: S37003.01

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:37, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL
Sodium		101	75	125

Matrix Spike (MS)

Lab Sample ID: MT4-22-0621B.050.MS, Parent Sample ID: S37073.01

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:49, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL
Sodium		100	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-22-0621B.036.MSD, Parent Sample ID: MT4-22-0621B.035.MS

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:38, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sodium		100	75	125	1	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-22-0621B.051.MSD, Parent Sample ID: MT4-22-0621B.050.MS

Run in Batch: MT4-22-0621B, Run Date: 06/21/2022 15:50, Prep Date: 06/21/2022, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sodium		112	75	125	4	20

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-062222-1

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Blank (BLK)

Lab Sample ID: MT4-22-0622A.019.LRB

Run in Batch: MT4-22-0622A, Run Date: 06/22/2022 10:40, Prep Date: 06/22/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Chromium		ND	0.001	mg/L
Copper		ND	0.001	mg/L
Iron		ND	0.004	mg/L
Manganese		ND	0.001	mg/L
Nickel		ND	0.001	mg/L
Zinc		ND	0.001	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: MT4-22-0622A.018.LCS

Run in Batch: MT4-22-0622A, Run Date: 06/22/2022 10:39, Prep Date: 06/22/2022, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Chromium		99	85	115
Copper		99	85	115
Iron		99	85	115
Manganese		102	85	115
Nickel		99	85	115
Zinc		99	85	115

Matrix Spike (MS)

Lab Sample ID: MT4-22-0622A.039.MS, Parent Sample ID: S37003.04

Run in Batch: MT4-22-0622A, Run Date: 06/22/2022 11:00, Prep Date: 06/22/2022, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Chromium		104	75	125
Copper		97	75	125
Iron		116	75	125
Manganese		106	75	125
Nickel		100	75	125
Zinc		106	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-22-0622A.040.MSD, Parent Sample ID: MT4-22-0622A.039.MS

Run in Batch: MT4-22-0622A, Run Date: 06/22/2022 11:02, Prep Date: 06/22/2022, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chromium		102	75	125	2	20
Copper		98	75	125	1	20
Iron		92	75	125	3	20
Manganese		100	75	125	5	20
Nickel		100	75	125	0	20
Zinc		101	75	125	5	20

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220616W3

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 220616A3.BLKW16A

Run in Batch: 220616A3, Run Date: 06/16/2022 13:55, Prep Date: 06/16/2022, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Diethyl ether		ND	1.00	ug/l
Acetone		ND	10.00	ug/l
Methyl iodide		ND	1.00	ug/l
Carbon disulfide		ND	1.00	ug/l
tert-Methyl butyl ether (MTBE)		ND	1.00	ug/l
Acrylonitrile		ND	1.00	ug/l
2-Butanone (MEK)		ND	10.00	ug/l
Dichlorodifluoromethane		ND	1.00	ug/l
Chloromethane		ND	1.00	ug/l
Vinyl chloride		ND	1.00	ug/l
Bromomethane		ND	1.00	ug/l
Chloroethane		ND	1.00	ug/l
Trichlorofluoromethane		ND	1.00	ug/l
1,1-Dichloroethene		ND	1.00	ug/l
Methylene chloride		ND	1.00	ug/l
trans-1,2-Dichloroethene		ND	1.00	ug/l
1,1-Dichloroethane		ND	1.00	ug/l
cis-1,2-Dichloroethene		ND	1.00	ug/l
Tetrahydrofuran		ND	10.00	ug/l
Chloroform		ND	1.00	ug/l
Bromochloromethane		ND	1.00	ug/l
1,1,1-Trichloroethane		ND	1.00	ug/l
4-Methyl-2-pentanone (MIBK)		ND	10.00	ug/l
2-Hexanone		ND	10.00	ug/l
Carbon tetrachloride		ND	1.00	ug/l
Benzene		ND	1.00	ug/l
1,2-Dichloroethane		ND	1.00	ug/l
Trichloroethene		ND	1.00	ug/l
1,2-Dichloropropane		ND	1.00	ug/l
Bromodichloromethane		ND	1.00	ug/l
Dibromomethane		ND	1.00	ug/l
cis-1,3-Dichloropropene		ND	1.00	ug/l
Toluene		ND	1.00	ug/l
trans-1,3-Dichloropropene		ND	1.00	ug/l
1,1,2-Trichloroethane		ND	1.00	ug/l
Tetrachloroethene		ND	1.00	ug/l
trans-1,4-Dichloro-2-butene		ND	1.00	ug/l
Dibromochloromethane		ND	1.00	ug/l
1,2-Dibromoethane		ND	1.00	ug/l
Chlorobenzene		ND	1.00	ug/l
1,1,1,2-Tetrachloroethane		ND	1.00	ug/l
Ethylbenzene		ND	1.00	ug/l
p,m-Xylene		ND	1.00	ug/l
o-Xylene		ND	1.00	ug/l
Styrene		ND	1.00	ug/l
Isopropylbenzene		ND	1.00	ug/l

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220616W3 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK) (continued)

Lab Sample ID: 220616A3.BLKW16A

Run in Batch: 220616A3, Run Date: 06/16/2022 13:55, Prep Date: 06/16/2022, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Bromoform		ND	1.00	ug/l
1,1,2,2-Tetrachloroethane		ND	1.00	ug/l
1,2,3-Trichloropropane		ND	1.00	ug/l
n-Propylbenzene		ND	1.00	ug/l
Bromobenzene		ND	1.00	ug/l
1,3,5-Trimethylbenzene		ND	1.00	ug/l
tert-Butylbenzene		ND	1.00	ug/l
1,2,4-Trimethylbenzene		ND	1.00	ug/l
sec-Butylbenzene		ND	1.00	ug/l
p-Isopropyltoluene		ND	1.00	ug/l
1,3-Dichlorobenzene		ND	1.00	ug/l
1,4-Dichlorobenzene		ND	1.00	ug/l
1,2-Dichlorobenzene		ND	1.00	ug/l
1,2,3-Trimethylbenzene		ND	1.00	ug/l
n-Butylbenzene		ND	1.00	ug/l
Hexachloroethane		ND	1.00	ug/l
1,2-Dibromo-3-chloropropane		ND	1.00	ug/l
1,2,4-Trichlorobenzene		ND	1.00	ug/l
1,2,3-Trichlorobenzene		ND	1.00	ug/l
Naphthalene		ND	1.00	ug/l
2-Methylnaphthalene		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 220616A3.LCSW16A

Run in Batch: 220616A3, Run Date: 06/16/2022 12:22, Prep Date: 06/16/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Diethyl ether		90.6	67.4	121.2
Acetone		110.9	29.9	161.5
Methyl iodide		90.2	68.8	116.4
Carbon disulfide		87.5	63.8	137.4
tert-Methyl butyl ether (MTBE)		77.6	73.2	122.4
Acrylonitrile		106.7	69.9	128.9
2-Butanone (MEK)		114.5	44.0	134.4
Dichlorodifluoromethane		74.7	10.0	222.8
Chloromethane		88.8	23.8	166.5
Vinyl chloride		84.2	43.5	149.1
Bromomethane		101.4	56.8	151.3
Chloroethane		95.8	53.4	149.4
Trichlorofluoromethane		88.2	59.7	151.8
1,1-Dichloroethene		84.2	69.6	139.4
Methylene chloride		88.4	73.3	121.1
trans-1,2-Dichloroethene		85.8	73.6	129.3
1,1-Dichloroethane		86.8	71.5	126.2
cis-1,2-Dichloroethene		90.8	76.6	122.1
Tetrahydrofuran		114.0	59.0	117.9
Chloroform		87.7	78.4	124.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220616W3 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 220616A3.LCSW16A

Run in Batch: 220616A3, Run Date: 06/16/2022 12:22, Prep Date: 06/16/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Bromochloromethane		95.7	78.2	120.8
1,1,1-Trichloroethane		85.1	79.4	130.9
4-Methyl-2-pentanone (MIBK)		104.3	71.6	125.2
2-Hexanone		114.2	55.4	136.9
Carbon tetrachloride		91.7	72.6	133.0
Benzene		93.9	79.9	124.9
1,2-Dichloroethane		91.1	76.0	126.3
Trichloroethene		93.1	79.7	124.2
1,2-Dichloropropane		97.9	78.6	126.4
Bromodichloromethane		96.3	80.4	128.2
Dibromomethane		104.2	76.9	122.1
cis-1,3-Dichloropropene		99.6	79.8	129.9
Toluene		93.5	79.8	124.5
trans-1,3-Dichloropropene		100.3	74.0	131.3
1,1,2-Trichloroethane		100.7	78.7	123.1
Tetrachloroethene		101.6	74.5	124.5
trans-1,4-Dichloro-2-butene		107.7	68.6	135.4
Dibromochloromethane		108.4	74.6	127.2
1,2-Dibromoethane		109.7	70.3	133.7
Chlorobenzene		106.4	79.2	122.7
1,1,1,2-Tetrachloroethane		106.6	80.3	128.2
Ethylbenzene		102.7	79.5	129.1
p,m-Xylene		104.1	79.4	132.2
o-Xylene		104.2	80.2	131.0
Styrene		110.3	69.5	126.7
Isopropylbenzene		103.7	74.4	121.5
Bromoform		116.2	69.4	128.0
1,1,2,2-Tetrachloroethane		114.1	79.8	126.3
1,2,3-Trichloropropane		115.1	78.3	138.8
n-Propylbenzene		101.3	82.0	130.7
Bromobenzene		111.3	78.7	124.6
1,3,5-Trimethylbenzene		102.9	81.3	128.9
tert-Butylbenzene		95.2	80.7	128.9
1,2,4-Trimethylbenzene		103.2	81.4	130.8
sec-Butylbenzene		88.3	77.4	129.8
p-Isopropyltoluene		92.9	79.8	137.5
1,3-Dichlorobenzene		103.2	77.0	131.3
1,4-Dichlorobenzene		103.7	20.7	137.7
1,2-Dichlorobenzene		102.1	10.0	166.2
1,2,3-Trimethylbenzene		95.0	76.3	124.2
n-Butylbenzene		87.8	80.0	133.3
Hexachloroethane		92.9	23.8	138.1
1,2-Dibromo-3-chloropropane		121.4	21.2	189.4
1,2,4-Trichlorobenzene		97.2	27.4	143.4
1,2,3-Trichlorobenzene		97.0	75.4	131.4
Naphthalene		105.5	32.9	135.8

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220616W3 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 220616A3.LCSW16A

Run in Batch: 220616A3, Run Date: 06/16/2022 12:22, Prep Date: 06/16/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Methylnaphthalene		99.6	25.5	165.5

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 220616A3.LCSDW16A, Parent Sample ID: 220616A3.LCSW16A

Run in Batch: 220616A3, Run Date: 06/16/2022 12:45, Prep Date: 06/16/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Diethyl ether		91.4	67.4	121.2	0.9	30.0
Acetone		104.6	29.9	161.5	5.8	30.0
Methyl iodide		89.2	68.8	116.4	1.1	30.0
Carbon disulfide		84.9	63.8	137.4	3.0	30.0
tert-Methyl butyl ether (MTBE)		75.1	73.2	122.4	3.3	30.0
Acrylonitrile		103.4	69.9	128.9	3.1	30.0
2-Butanone (MEK)		104.0	44.0	134.4	9.6	30.0
Dichlorodifluoromethane		71.3	10.0	222.8	4.7	30.0
Chloromethane		85.2	23.8	166.5	4.1	30.0
Vinyl chloride		81.2	43.5	149.1	3.7	30.0
Bromomethane		98.3	56.8	151.3	3.1	30.0
Chloroethane		92.3	53.4	149.4	3.6	30.0
Trichlorofluoromethane		85.5	59.7	151.8	3.1	30.0
1,1-Dichloroethene		82.5	69.6	139.4	2.0	30.0
Methylene chloride		85.8	73.3	121.1	3.0	30.0
trans-1,2-Dichloroethene		82.8	73.6	129.3	3.5	30.0
1,1-Dichloroethane		83.7	71.5	126.2	3.7	30.0
cis-1,2-Dichloroethene		87.5	76.6	122.1	3.7	30.0
Tetrahydrofuran		105.8	59.0	117.9	7.4	30.0
Chloroform		84.3	78.4	124.0	4.0	30.0
Bromochloromethane		93.1	78.2	120.8	2.8	30.0
1,1,1-Trichloroethane		83.3	79.4	130.9	2.1	30.0
4-Methyl-2-pentanone (MIBK)		99.0	71.6	125.2	5.2	30.0
2-Hexanone		105.4	55.4	136.9	8.0	30.0
Carbon tetrachloride		90.4	72.6	133.0	1.4	30.0
Benzene		91.4	79.9	124.9	2.7	30.0
1,2-Dichloroethane		87.8	76.0	126.3	3.7	30.0
Trichloroethene		90.5	79.7	124.2	2.8	30.0
1,2-Dichloropropane		95.8	78.6	126.4	2.2	30.0
Bromodichloromethane		93.8	80.4	128.2	2.6	30.0
Dibromomethane		101.4	76.9	122.1	2.7	30.0
cis-1,3-Dichloropropene		98.0	79.8	129.9	1.7	30.0
Toluene		90.4	79.8	124.5	3.4	30.0
trans-1,3-Dichloropropene		97.1	74.0	131.3	3.2	30.0
1,1,2-Trichloroethane		98.8	78.7	123.1	1.9	30.0
Tetrachloroethene		97.3	74.5	124.5	4.4	30.0
trans-1,4-Dichloro-2-butene		103.3	68.6	135.4	4.2	30.0
Dibromochloromethane		105.1	74.6	127.2	3.1	30.0
1,2-Dibromoethane		105.1	70.3	133.7	4.2	30.0
Chlorobenzene		102.8	79.2	122.7	3.4	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF220616W3 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: 220616A3.LCSDW16A, Parent Sample ID: 220616A3.LCSW16A

Run in Batch: 220616A3, Run Date: 06/16/2022 12:45, Prep Date: 06/16/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,1,2-Tetrachloroethane		104.3	80.3	128.2	2.2	30.0
Ethylbenzene		99.7	79.5	129.1	2.9	30.0
p,m-Xylene		102.2	79.4	132.2	1.8	30.0
o-Xylene		101.4	80.2	131.0	2.7	30.0
Styrene		107.0	69.5	126.7	3.1	30.0
Isopropylbenzene		100.9	74.4	121.5	2.8	30.0
Bromoform		111.9	69.4	128.0	3.8	30.0
1,1,2,2-Tetrachloroethane		108.7	79.8	126.3	4.8	30.0
1,2,3-Trichloropropane		108.2	78.3	138.8	6.2	30.0
n-Propylbenzene		98.8	82.0	130.7	2.5	30.0
Bromobenzene		109.4	78.7	124.6	1.7	30.0
1,3,5-Trimethylbenzene		101.3	81.3	128.9	1.6	30.0
tert-Butylbenzene		91.6	80.7	128.9	3.8	30.0
1,2,4-Trimethylbenzene		99.9	81.4	130.8	3.3	30.0
sec-Butylbenzene		83.6	77.4	129.8	5.4	30.0
p-Isopropyltoluene		87.9	79.8	137.5	5.5	30.0
1,3-Dichlorobenzene		98.2	77.0	131.3	4.9	30.0
1,4-Dichlorobenzene		98.4	20.7	137.7	5.3	30.0
1,2-Dichlorobenzene		97.6	10.0	166.2	4.5	30.0
1,2,3-Trimethylbenzene		90.8	76.3	124.2	4.5	30.0
n-Butylbenzene		83.0	80.0	133.3	5.7	30.0
Hexachloroethane		87.6	23.8	138.1	5.9	30.0
1,2-Dibromo-3-chloropropane		107.2	21.2	189.4	12.4	30.0
1,2,4-Trichlorobenzene		91.1	27.4	143.4	6.5	30.0
1,2,3-Trichlorobenzene		89.8	75.4	131.4	7.7	30.0
Naphthalene		96.0	32.9	135.8	9.5	30.0
2-Methylnaphthalene		90.1	25.5	165.5	10.0	30.0



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE # 1 OF 1

131119

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Clifford Yantz / Kevin Schneider
 COMPANY Ramboll
 ADDRESS 2090 Commonwealth Blvd
 CITY Ann Arbor STATE Mi ZIP CODE 48105
 PHONE NO. 313-333-8211 FAX NO. _____ P.O. NO. 1940004462 Task
 E-MAIL ADDRESS clifford.yantz@ramboll.com / kevin.schneider@ramboll.com QUOTE NO. _____

CONTACT NAME X SAME
 COMPANY _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP CODE _____
 PHONE NO. _____ E-MAIL ADDRESS _____

PROJECT NO./NAME RACER Coldwater Road SAMPLER(S) - PLEASE PRINT / SIGN NAME Kevin Schneider
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

# Containers & Preservatives		VOCs	Toc / Tox	Phenols	Cyanide	Sulfate	Specific Conductivity	Chlorides	Total Sodium	Dissolved Metals	Total Metals	Certifications
												<input type="checkbox"/> OHIO VAP <input type="checkbox"/> Drinking Water
												<input type="checkbox"/> DoD <input type="checkbox"/> NPDES
												Project Locations
												<input type="checkbox"/> Detroit <input type="checkbox"/> New York
												<input type="checkbox"/> Other _____
												Special Instructions

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	VOCs	Toc / Tox	Phenols	Cyanide	Sulfate	Specific Conductivity	Chlorides	Total Sodium	Dissolved Metals	Total Metals	Special Instructions
	DATE	TIME																					
37003.01	6/9/22	1546	B-27D	GW	11	1	3	2	4	1			X	X	X	X	X	X	X	X	X	X	Dissolved metals
.02	6/10/22	1132	B-20D	GW	11	1	3	2	4	1			X	X	X	X	X	X	X	X	X	X	were field filtered
.03	6/10/22	1308	OBG MW-16D	GW	11	1	3	2	4	1			X	X	X	X	X	X	X	X	X	X	
.04	6/10/22	-	MW-DUP-061022	GW	11	1	3	2	4	1			X	X	X	X	X	X	X	X	X	X	Metals ARE:
.05	6/10/22	-	Trip Blank -061022	L	1	1							X										Cu, Cr, Ni, Zn, Fe, Mn
.06	6/10/22	1355	Equipment Blank-061022	L	10	1	3	2	4	1			X	X	X	X	X	X	X	X	X	X	

RELINQUISHED BY: [Signature] Sampler DATE 6/10/22 TIME 14:15
 RECEIVED BY: [Signature] DATE 6/10/22 TIME 14:15
 RELINQUISHED BY: [Signature] DATE 6/10/22 TIME 15:00
 RECEIVED BY: [Signature] DATE 6/10/22 TIME 15:00

RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SEAL NO. SEAL INTACT YES NO INITIALS _____
 SEAL NO. SEAL INTACT YES NO INITIALS _____
 NOTES: TEMP. ON ARRIVAL 2.3

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

**APPENDIX D
GROUNDWATER SAMPLING PROGRAM QA/QC SUMMARY**

Appendix D

Quality Assurance/Quality Control Summary

Data verification was independently performed by Ramboll Americas Engineering Solutions, Inc. (Ramboll) to assess the groundwater monitoring data quality for samples collected during the 2022 semiannual groundwater sampling event conducted in June 2022. Data verification was utilized to confirm the quality of the field and laboratory (Merit Laboratories, Inc. [Merit] of East Lansing, Michigan and GEL Laboratories, LLC [GEL] subcontract for TOX analysis) data. The data verification included review of: (1) laboratory documentation, (2) chain-of-custody (COC) documentation, (3) target analyte results, (4) laboratory data qualifiers, if any, (5) laboratory reporting (quantitation) limits, (6) laboratory blank analysis, and (7) quality control samples, including duplicate samples.

The results of the data verification indicated the following:

- Laboratory documentation was complete.
- Chain-of-custody (COC) documentation was complete.
- Target analyte results were reported in accordance with the project requirements.
- Laboratory blank analysis did not indicate evidence of artifacts from the sampling or analytical process (above reporting limit [RL]).
- Laboratory quantitation (or reporting) limits (RLs) were within the project required limits for undiluted samples, except laboratory control sample and laboratory control sample duplicate had lab samples with percent recovery that were outside of the upper control limit (biased high). Laboratory samples 220610A3.LCSW10A, 220610A3.LCSDW10A, 220613A3.LCSW13A, 220613A3.LCSDW13A, 220614A3.LCSW14A and 220614A3.LCSDW14A had a percent recovery for Tetrahydrofuran that was outside of the upper control limit (biased high). Laboratory samples 220613A3.LCSDW13A and 220614A3.LCSDW14A for Bromoform had percent recovery that were outside the upper control limit (biased high). Laboratory sample 220614A3.LCSDW14A for 2-Butanone (MEK) was outside of the upper control limit (biased high) for percent recovery. However, because the associated samples were non-detect for the effected analytes, the data are reported without qualification.
- No elevated RLs were reported due to matrix interference or that were not due to sample dilution.
- No breakthroughs exceeding 25% for TOX samples were reported.

The relative percent difference (RPD) for the duplicate sample results for B-20D and MW-DUP-061022 (B-20D) were within acceptable limits, except for zinc which indicated an RPD of 87.5%. Both the sample (zinc at 20 µg/L) and duplicate sample (zinc at <5 µg/L) data are reported without qualification, and the sample data (worst case) was used in the statistical analysis for this well.

Furthermore, the instrument utilized for measurement of field parameters calibrated within range (deviation from standard of less than 3 percent) for pH, oxidation reduction potential (ORP), specific conductivity (conductivity), and dissolved oxygen (DO); therefore, operated within manufacturers specifications during sample collection.

The data verification indicates that the overall usability of the groundwater monitoring data is acceptable for the intended use without further qualification or rejection of the data.

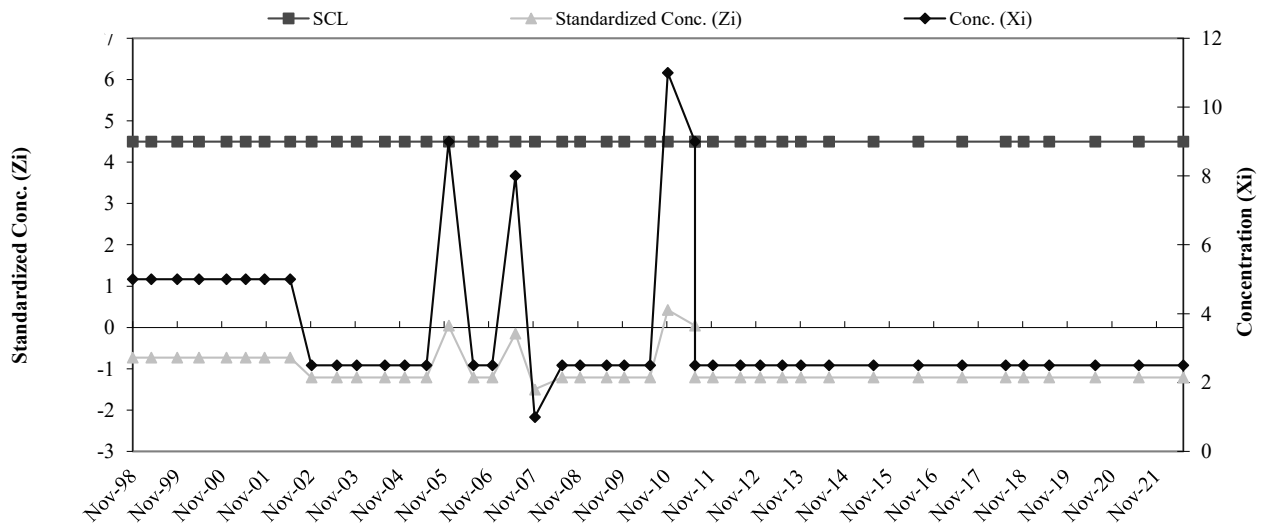
APPENDIX E
MONITORING WELL CONTROL CHARTS

**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2D - OBG-MW-16D Cr**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	8.78	5.19
2	Aug-95	10		
3	Jun-96	10		
4	Aug-96	10		
5	Nov-96	10		
6	May-97	10		
7	Nov-97	5		
8	May-98	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	5	-0.73	36	Nov-11	4.50	2.5	-1.21
10	Apr-99	4.5	5	-0.73	37	Jun-12	4.50	2.5	-1.21
11	Nov-99	4.5	5	-0.73	38	Dec-12	4.50	2.5	-1.21
12	Apr-00	4.5	5	-0.73	39	Jun-13	4.50	2.5	-1.21
13	Dec-00	4.5	5	-0.73	40	Nov-13	4.50	2.5	-1.21
14	May-01	4.5	5	-0.73	41	Jun-14	4.50	2.5	-1.21
15	Oct-01	4.5	5	-0.73	42	Jun-15	4.50	2.5	-1.21
16	May-02	4.5	5	-0.73	43	Jun-16	4.50	2.5	-1.21
17	Nov-02	4.5	2.5	-1.21	44	Jun-17	4.50	2.5	-1.21
18	Jun-03	4.5	2.5	-1.21	45	Jun-18	4.50	2.5	-1.21
19	Nov-03	4.5	2.5	-1.21	46	Nov-18	4.50	2.5	-1.21
20	Jun-04	4.5	2.5	-1.21	47	Jun-19	4.50	2.5	-1.21
21	Dec-04	4.5	2.5	-1.21	48	Jun-20	4.50	2.5	-1.21
22	Jun-05	4.5	2.5	-1.21	49	Jun-21	4.50	2.5	-1.21
23	Dec-05	4.5	9	0.04	50	Jun-22	4.50	2.5	-1.21
24	Jun-06	4.5	2.5	-1.21					
25	Nov-06	4.5	2.5	-1.21					
26	Jun-07	4.5	8	-0.15					
27	Nov-07	4.5	1	-1.50					
28	Jun-08	4.5	2.5	-1.21					
29	Nov-08	4.5	2.5	-1.21					
30	Jun-09	4.5	2.5	-1.21					
31	Nov-09	4.5	2.5	-1.21					
32	Jun-10	4.5	2.5	-1.21					
33	Nov-10	4.5	11	0.43					
34	Jun-11	4.5	9	0.04					
35	Jun-11	4.5	2.5	-1.21					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

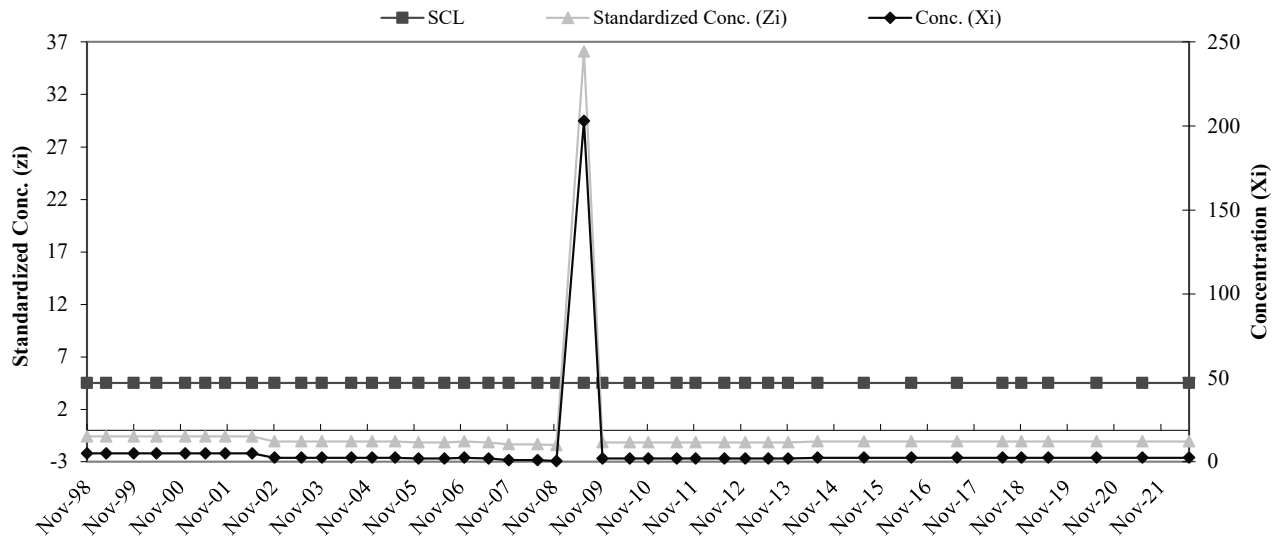


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2D - OBG-MW-16D Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	8.13	5.40
2	Aug-95	10		
3	Jun-96	10		
4	Aug-96	10		
5	Nov-96	10		
6	May-97	5		
7	Nov-97	5		
8	May-98	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	5	-0.58	35	Nov-11	4.5	2	-1.14
10	Apr-99	4.5	5	-0.58	36	Jun-12	4.5	2	-1.14
11	Nov-99	4.5	5	-0.58	37	Dec-12	4.5	2	-1.14
12	Apr-00	4.5	5	-0.58	38	Jun-13	4.5	2	-1.14
13	Dec-00	4.5	5	-0.58	39	Nov-13	4.5	2	-1.14
14	May-01	4.5	5	-0.58	40	Jun-14	4.5	2.5	-1.04
15	Oct-01	4.5	5	-0.58	41	Jun-15	4.5	2.5	-1.04
16	May-02	4.5	5	-0.58	42	Jun-16	4.5	2.5	-1.04
17	Nov-02	4.5	2.5	-1.04	43	Jun-17	4.5	2.5	-1.04
18	Jun-03	4.5	2.5	-1.04	44	Jun-18	4.5	2.5	-1.04
19	Nov-03	4.5	2.5	-1.04	45	Nov-18	4.5	2.5	-1.04
20	Jun-04	4.5	2.5	-1.04	46	Jun-19	4.5	2.5	-1.04
21	Dec-04	4.5	2.5	-1.04	47	Jun-20	4.5	2.5	-1.04
22	Jun-05	4.5	2.5	-1.04	48	Jun-21	4.5	2.5	-1.04
23	Dec-05	4.5	2	-1.14	49	Jun-22	4.5	2.5	-1.04
24	Jun-06	4.5	2	-1.14					
25	Nov-06	4.5	2.5	-1.04					
26	Jun-07	4.5	2	-1.14					
27	Nov-07	4.5	1	-1.32					
28	Jun-08	4.5	1	-1.32					
29	Nov-08	4.5	0.5	-1.41					
30	Jun-09	4.5	203	36.09					
31	Nov-09	4.5	2	-1.14					
32	Jun-10	4.5	2	-1.14					
33	Nov-10	4.5	2	-1.14					
34	Jun-11	4.5	2	-1.14					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

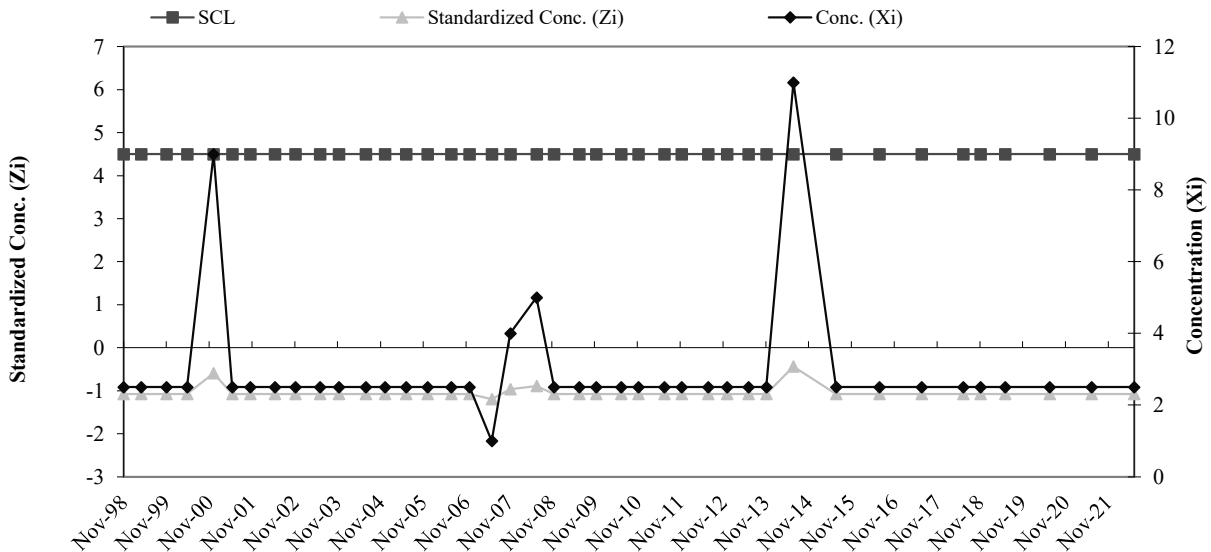


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2D - OBG-MW-16D Ni**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15	16.83	13.28
2	Aug-95	20		
3	Jun-96	10		
4	Aug-96	10		
5	Nov-96	10		
6	May-97	28		
7	Nov-97	39		
8	May-98	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	2.5	-1.08	35	Nov-11	4.5	2.5	-1.08
10	Apr-99	4.5	2.5	-1.08	36	Jun-12	4.5	2.5	-1.08
11	Nov-99	4.5	2.5	-1.08	37	Dec-12	4.5	2.5	-1.08
12	Apr-00	4.5	2.5	-1.08	38	Jun-13	4.5	2.5	-1.08
13	Dec-00	4.5	9	-0.59	39	Nov-13	4.5	2.5	-1.08
14	May-01	4.5	2.5	-1.08	40	Jun-14	4.5	11	-0.44
15	Oct-01	4.5	2.5	-1.08	41	Jun-15	4.5	2.5	-1.08
16	May-02	4.5	2.5	-1.08	42	Jun-16	4.5	2.5	-1.08
17	Nov-02	4.5	2.5	-1.08	43	Jun-17	4.5	2.5	-1.08
18	Jun-03	4.5	2.5	-1.08	44	Jun-18	4.5	2.5	-1.08
19	Nov-03	4.5	2.5	-1.08	45	Nov-18	4.5	2.5	-1.08
20	Jun-04	4.5	2.5	-1.08	46	Jun-19	4.5	2.5	-1.08
21	Dec-04	4.5	2.5	-1.08	47	Jun-20	4.5	2.5	-1.08
22	Jun-05	4.5	2.5	-1.08	48	Jun-21	4.5	2.5	-1.08
23	Dec-05	4.5	2.5	-1.08	49	Jun-22	4.5	2.5	-1.08
24	Jun-06	4.5	2.5	-1.08					
25	Nov-06	4.5	2.5	-1.08					
26	Jun-07	4.5	1	-1.19					
27	Nov-07	4.5	4	-0.97					
28	Jun-08	4.5	5	-0.89					
29	Nov-08	4.5	2.5	-1.08					
30	Jun-09	4.5	2.5	-1.08					
31	Nov-09	4.5	2.5	-1.08					
32	Jun-10	4.5	2.5	-1.08					
33	Nov-10	4.5	2.5	-1.08					
34	Jun-11	4.5	2.5	-1.08					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

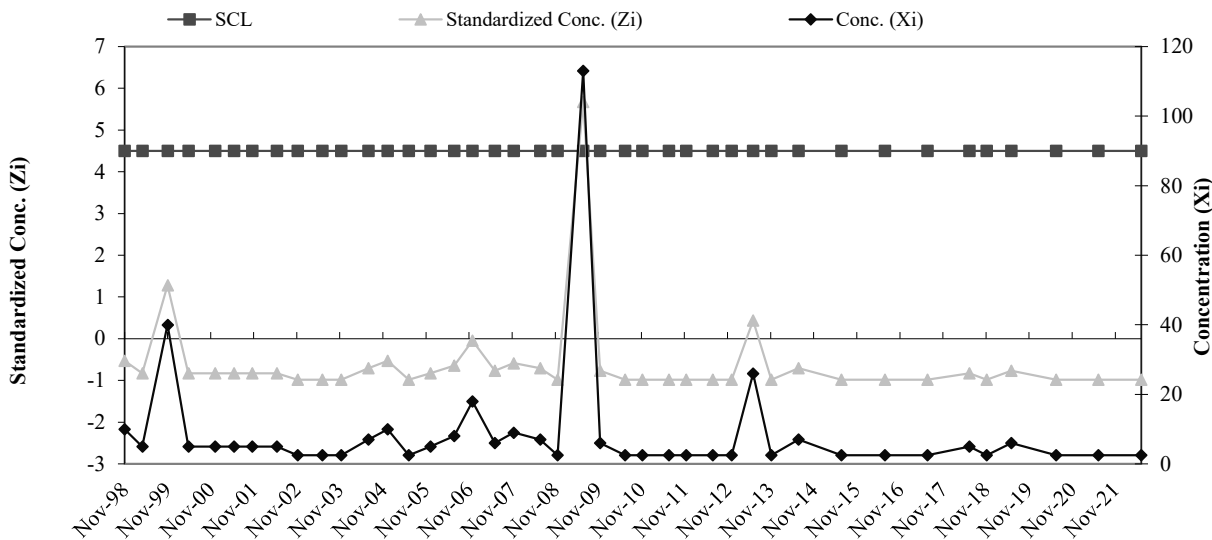


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2D - OBG-MW-16D Zn**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	18.75	16.62
2	Aug-95	10		
3	Jun-96	10		
4	Aug-96	50		
5	Nov-96	30		
6	May-97	30		
7	Nov-97	5		
8	May-98	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	10	-0.53	35	Nov-11	4.5	2.5	-0.98
10	Apr-99	4.5	5	-0.83	36	Jun-12	4.5	2.5	-0.98
11	Nov-99	4.5	40	1.28	37	Dec-12	4.5	2.5	-0.98
12	Apr-00	4.5	5	-0.83	38	Jun-13	4.5	26	0.44
13	Dec-00	4.5	5	-0.83	39	Nov-13	4.5	2.5	-0.98
14	May-01	4.5	5	-0.83	40	Jun-14	4.5	7	-0.71
15	Oct-01	4.5	5	-0.83	41	Jun-15	4.5	2.5	-0.98
16	May-02	4.5	5	-0.83	42	Jun-16	4.5	2.5	-0.98
17	Nov-02	4.5	2.5	-0.98	43	Jun-17	4.5	2.5	-0.98
18	Jun-03	4.5	2.5	-0.98	44	Jun-18	4.5	5	-0.83
19	Nov-03	4.5	2.5	-0.98	45	Nov-18	4.5	2.5	-0.98
20	Jun-04	4.5	7	-0.71	46	Jun-19	4.5	6	-0.77
21	Dec-04	4.5	10	-0.53	47	Jun-20	4.5	2.5	-0.98
22	Jun-05	4.5	2.5	-0.98	48	Jun-21	4.5	2.5	-0.98
23	Dec-05	4.5	5	-0.83	49	Jun-22	4.5	2.5	-0.98
24	Jun-06	4.5	8	-0.65					
25	Nov-06	4.5	18	-0.05					
26	Jun-07	4.5	6	-0.77					
27	Nov-07	4.5	9	-0.59					
28	Jun-08	4.5	7	-0.71					
29	Nov-08	4.5	2.5	-0.98					
30	Jun-09	4.5	113	5.67					
31	Nov-09	4.5	6	-0.77					
32	Jun-10	4.5	2.5	-0.98					
33	Nov-10	4.5	2.5	-0.98					
34	Jun-11	4.5	2.5	-0.98					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

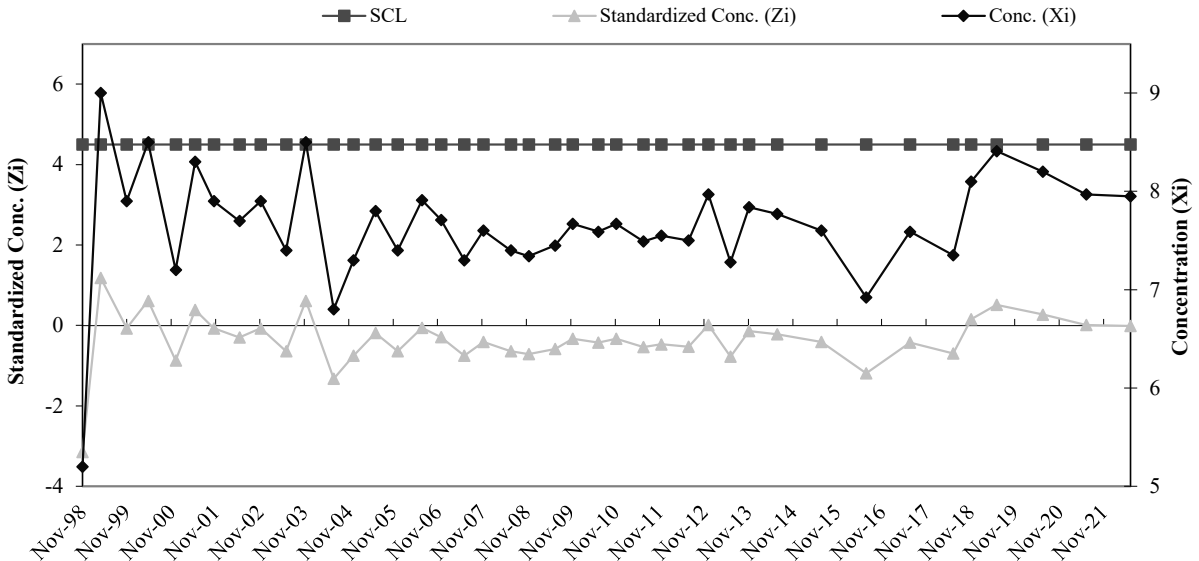


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2D - OBG-MW-16D pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	9.0	7.46	0.88
2	Aug-95	8.3		
3	Jun-96	7.5		
4	Aug-96	7.7		
5	Nov-96	7.3		
6	May-97	6.3		
7	Nov-97	6.9		
8	May-98	6.7		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	4.7	-3.15	35	Nov-11	4.5	7.1	-0.47
10	Apr-99	4.5	8.5	1.18	36	Jun-12	4.5	7.0	-0.53
11	Nov-99	4.5	7.4	-0.07	37	Dec-12	4.5	7.5	0.01
12	Apr-00	4.5	8.0	0.61	38	Jun-13	4.5	6.8	-0.78
13	Dec-00	4.5	6.7	-0.87	39	Nov-13	4.5	7.3	-0.14
14	May-01	4.5	7.8	0.38	40	Jun-14	4.5	7.3	-0.22
15	Oct-01	4.5	7.4	-0.07	41	Jun-15	4.5	7.1	-0.41
16	May-02	4.5	7.2	-0.30	42	Jun-16	4.5	6.4	-1.19
17	Nov-02	4.5	7.4	-0.07	43	Jun-17	4.5	7.1	-0.42
18	Jun-03	4.5	6.9	-0.64	44	Jun-18	4.5	6.9	-0.70
19	Nov-03	4.5	8.0	0.61	45	Nov-18	4.5	7.6	0.16
20	Jun-04	4.5	6.3	-1.32	46	Jun-19	4.5	7.9	0.51
21	Dec-04	4.5	6.8	-0.75	47	Jun-20	4.5	7.7	0.27
22	Jun-05	4.5	7.3	-0.19	48	Jun-21	4.5	7.5	0.01
23	Dec-05	4.5	6.9	-0.64	49	Jun-22	4.5	7.5	-0.01
24	Jun-06	4.5	7.4	-0.06					
25	Nov-06	4.5	7.2	-0.29					
26	Jun-07	4.5	6.8	-0.75					
27	Nov-07	4.5	7.1	-0.41					
28	Jun-08	4.5	6.9	-0.64					
29	Nov-08	4.5	6.8	-0.71					
30	Jun-09	4.5	7.0	-0.58					
31	Nov-09	4.5	7.2	-0.33					
32	Jun-10	4.5	7.1	-0.42					
33	Nov-10	4.5	7.2	-0.33					
34	Jun-11	4.5	7.0	-0.54					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

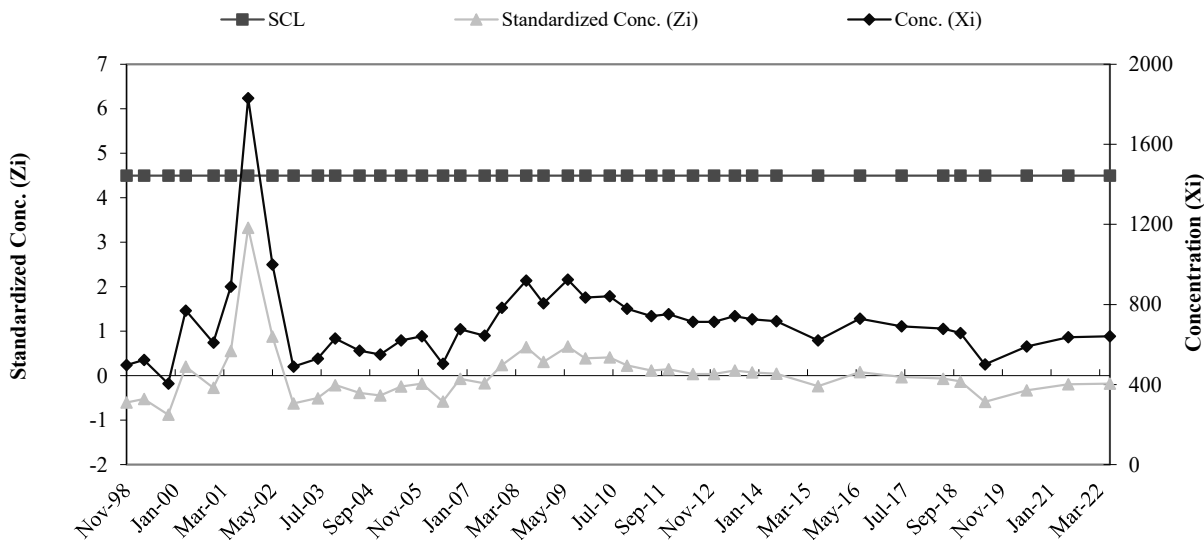


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2D - OBG-MW-16D SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	434.0	701.50	339.46
2	Aug-95	479.0		
3	Jun-96	580.0		
4	Aug-96	641.0		
5	Nov-96	769.0		
6	May-97	1500.0		
7	Nov-97	660.0		
8	May-98	549.0		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	498.0	-0.60	35	Nov-11	4.5	751.0	0.15
10	Apr-99	4.5	523.0	-0.53	36	Jun-12	4.5	714.0	0.04
11	Nov-99	4.5	405.0	-0.87	37	Dec-12	4.5	714.0	0.04
12	Apr-00	4.5	770.0	0.20	38	Jun-13	4.5	742.0	0.12
13	Dec-00	4.5	610.0	-0.27	39	Nov-13	4.5	726.0	0.07
14	May-01	4.5	890.0	0.56	40	Jun-14	4.5	717.0	0.05
15	Oct-01	4.5	1830.0	3.32	41	Jun-15	4.5	621.0	-0.24
16	May-02	4.5	1000.0	0.88	42	Jun-16	4.5	730.0	0.08
17	Nov-02	4.5	490.0	-0.62	43	Jun-17	4.5	691.0	-0.03
18	Jun-03	4.5	530.0	-0.51	44	Jun-18	4.5	679.0	-0.07
19	Nov-03	4.5	630.0	-0.21	45	Nov-18	4.5	657.0	-0.13
20	Jun-04	4.5	570.0	-0.39	46	Jun-19	4.5	501.0	-0.59
21	Dec-04	4.5	550.0	-0.45	47	Jun-20	4.5	590.0	-0.33
22	Jun-05	4.5	620.0	-0.24	48	Jun-21	4.5	636.0	-0.19
23	Dec-05	4.5	642.0	-0.18	49	Jun-22	4.5	641.0	-0.18
24	Jun-06	4.5	504.1	-0.58					
25	Nov-06	4.5	677.0	-0.07					
26	Jun-07	4.5	644.0	-0.17					
27	Nov-07	4.5	783.0	0.24					
28	Jun-08	4.5	920.0	0.64					
29	Nov-08	4.5	806.0	0.31					
30	Jun-09	4.5	924.0	0.66					
31	Nov-09	4.5	835.0	0.39					
32	Jun-10	4.5	841.0	0.41					
33	Nov-10	4.5	779.0	0.23					
34	Jun-11	4.5	742.0	0.12					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean



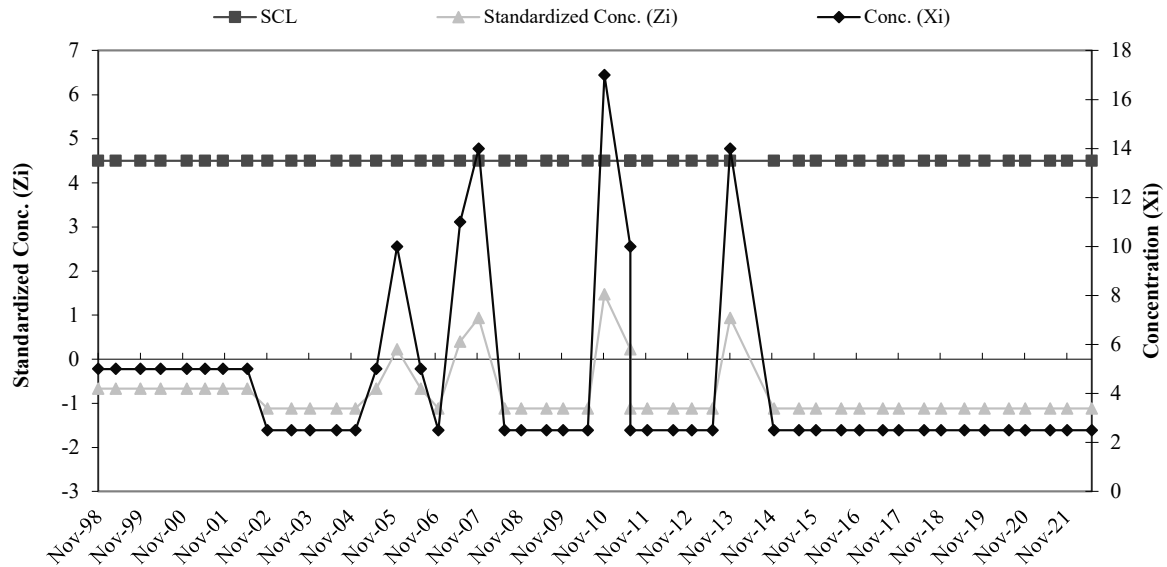
**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART**

B-7 Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	8.75	5.60
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	May-98	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	5	-0.67	36	Nov-11	4.5	2.5	-1.12
10	Apr-99	4.5	5	-0.67	37	Jun-12	4.5	2.5	-1.12
11	Nov-99	4.5	5	-0.67	38	Dec-12	4.5	2.5	-1.12
12	Apr-00	4.5	5	-0.67	39	Jun-13	4.5	2.5	-1.12
13	Dec-00	4.5	5	-0.67	40	Nov-13	4.5	14	0.94
14	May-01	4.5	5	-0.67	41	Nov-14	4.5	2.5	-1.12
15	Oct-01	4.5	5	-0.67	42	Jun-15	4.5	2.5	-1.12
16	May-02	4.5	5	-0.67	43	Nov-15	4.5	2.5	-1.12
17	Nov-02	4.5	2.5	-1.12	44	Jun-16	4.5	2.5	-1.12
18	Jun-03	4.5	2.5	-1.12	45	Nov-16	4.5	2.5	-1.12
19	Nov-03	4.5	2.5	-1.12	46	Jun-17	4.5	2.5	-1.12
20	Jun-04	4.5	2.5	-1.12	47	Nov-17	4.5	2.5	-1.12
21	Dec-04	4.5	2.5	-1.12	48	Jun-18	4.5	2.5	-1.12
22	Jun-05	4.5	5	-0.67	49	Nov-18	4.5	2.5	-1.12
23	Dec-05	4.5	10	0.22	50	May-19	4.5	2.5	-1.12
24	Jun-06	4.5	5	-0.67	51	Nov-19	4.5	2.5	-1.12
25	Nov-06	4.5	2.5	-1.12	52	Jun-20	4.5	2.5	-1.12
26	Jun-07	4.5	11	0.40	53	Nov-20	4.5	2.5	-1.12
27	Nov-07	4.5	14	0.94	54	Jun-21	4.5	2.5	-1.12
28	Jun-08	4.5	2.5	-1.12	55	Nov-21	4.5	2.5	-1.12
29	Nov-08	4.5	2.5	-1.12	56	Jun-22	4.5	2.5	-1.12
30	Jun-09	4.5	2.5	-1.12					
31	Nov-09	4.5	2.5	-1.12					
32	Jun-10	4.5	2.5	-1.12					
33	Nov-10	4.5	17	1.47					
34	Jun-11	4.5	10	0.22					
35	Jun-11	4.5	2.5	-1.12					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean



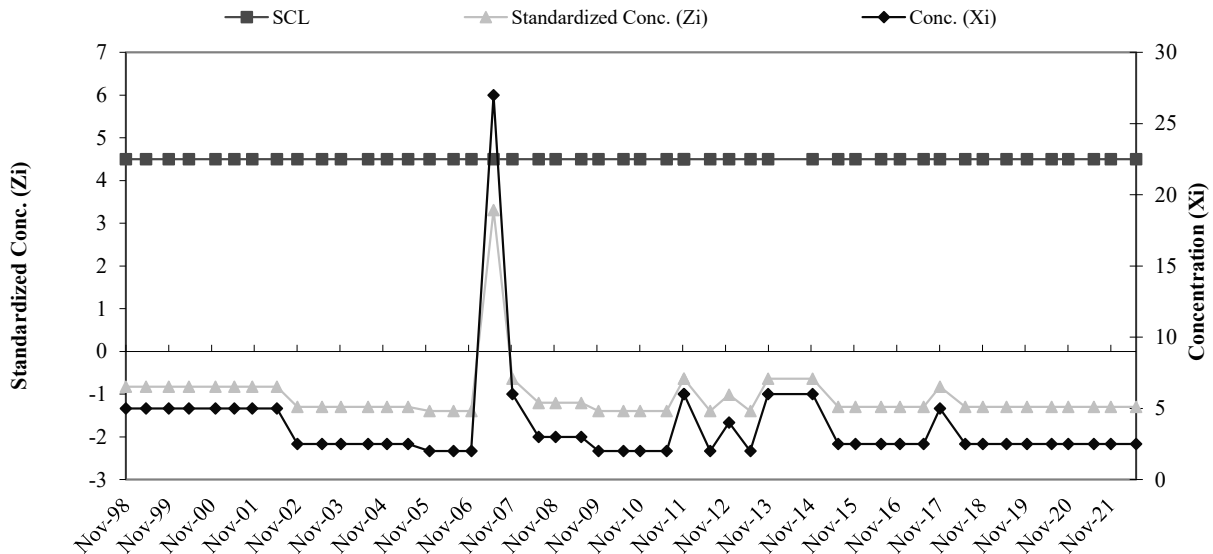
**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART**

B-7 Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	9.40	5.32
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	10		
8	May-98	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	5	-0.83	35	Nov-11	4.5	6	-0.64
10	Apr-99	4.5	5	-0.83	36	Jun-12	4.5	2	-1.39
11	Nov-99	4.5	5	-0.83	37	Dec-12	4.5	4	-1.02
12	Apr-00	4.5	5	-0.83	38	Jun-13	4.5	2	-1.39
13	Dec-00	4.5	5	-0.83	39	Nov-13	4.5	6	-0.64
14	May-01	4.5	5	-0.83	40	Nov-14	4.5	6	-0.64
15	Oct-01	4.5	5	-0.83	41	Jun-15	4.5	2.5	-1.30
16	May-02	4.5	5	-0.83	42	Nov-15	4.5	2.5	-1.30
17	Nov-02	4.5	2.5	-1.30	43	Jun-16	4.5	2.5	-1.30
18	Jun-03	4.5	2.5	-1.30	44	Nov-16	4.5	2.5	-1.30
19	Nov-03	4.5	2.5	-1.30	45	Jun-17	4.5	2.5	-1.30
20	Jun-04	4.5	2.5	-1.30	46	Nov-17	4.5	5	-0.83
21	Dec-04	4.5	2.5	-1.30	47	Jun-18	4.5	2.5	-1.30
22	Jun-05	4.5	2.5	-1.30	48	Nov-18	4.5	2.5	-1.30
23	Dec-05	4.5	2	-1.39	49	May-19	4.5	2.5	-1.30
24	Jun-06	4.5	2	-1.39	50	Nov-19	4.5	2.5	-1.30
25	Nov-06	4.5	2	-1.39	51	Jun-20	4.5	2.5	-1.30
26	Jun-07	4.5	27	3.31	52	Nov-20	4.5	2.5	-1.30
27	Nov-07	4.5	6	-0.64	53	Jun-21	4.5	2.5	-1.30
28	Jun-08	4.5	3	-1.20	54	Nov-21	4.5	2.5	-1.30
29	Nov-08	4.5	3	-1.20	55	Jun-22	4.5	2.5	-1.30
30	Jun-09	4.5	3	-1.20					
31	Nov-09	4.5	2	-1.39					
32	Jun-10	4.5	2	-1.39					
33	Nov-10	4.5	2	-1.39					
34	Jun-11	4.5	2	-1.39					
35	Nov-11	4.5	6	-0.64					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

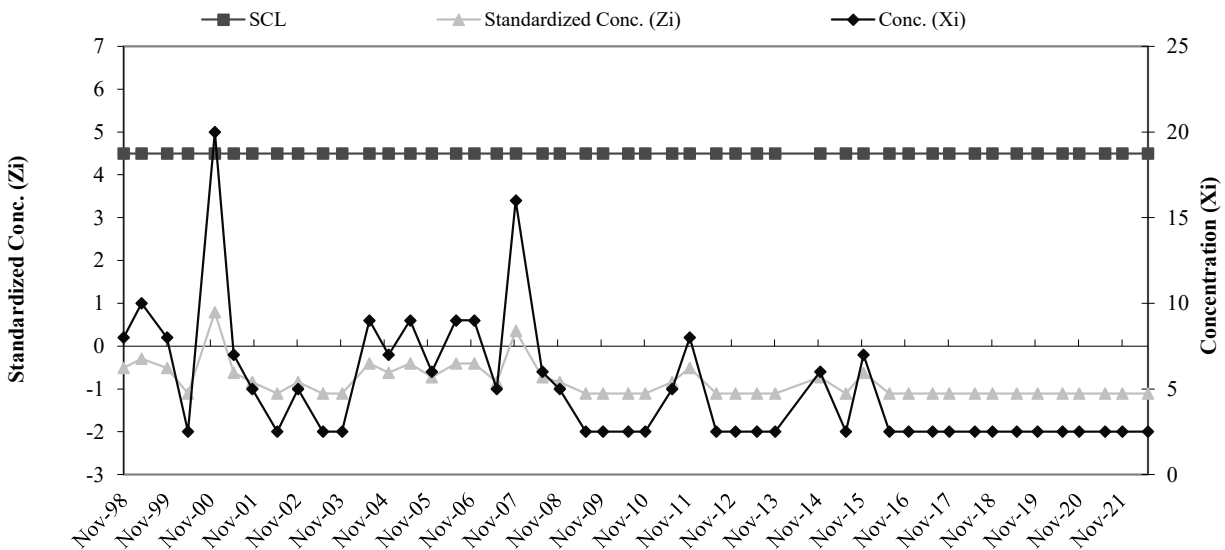


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 Ni**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15	12.70	9.19
2	Aug-95	20		
3	Feb-96	20		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	20		
7	May-97	14		
8	May-98	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	8	-0.51	35	Nov-11	4.5	8	-0.51
10	Apr-99	4.5	10	-0.29	36	Jun-12	4.5	2.5	-1.11
11	Nov-99	4.5	8	-0.51	37	Dec-12	4.5	2.5	-1.11
12	Apr-00	4.5	2.5	-1.11	38	Jun-13	4.5	2.5	-1.11
13	Dec-00	4.5	20	0.79	39	Nov-13	4.5	2.5	-1.11
14	May-01	4.5	7	-0.62	40	Nov-14	4.5	6	-0.73
15	Oct-01	4.5	5	-0.84	41	Jun-15	4.5	2.5	-1.11
16	May-02	4.5	2.5	-1.11	42	Nov-15	4.5	7	-0.62
17	Nov-02	4.5	5	-0.84	43	Jun-16	4.5	2.5	-1.11
18	Jun-03	4.5	2.5	-1.11	44	Nov-16	4.5	2.5	-1.11
19	Nov-03	4.5	2.5	-1.11	45	Jun-17	4.5	2.5	-1.11
20	Jun-04	4.5	9	-0.40	46	Nov-17	4.5	2.5	-1.11
21	Dec-04	4.5	7	-0.62	47	Jun-18	4.5	2.5	-1.11
22	Jun-05	4.5	9	-0.40	48	Nov-18	4.5	2.5	-1.11
23	Dec-05	4.5	6	-0.73	49	May-19	4.5	2.5	-1.11
24	Jun-06	4.5	9	-0.40	50	Nov-19	4.5	2.5	-1.11
25	Nov-06	4.5	9	-0.40	51	Jun-20	4.5	2.5	-1.11
26	Jun-07	4.5	5	-0.84	52	Nov-20	4.5	2.5	-1.11
27	Nov-07	4.5	16	0.36	53	Jun-21	4.5	2.5	-1.11
28	Jun-08	4.5	6	-0.73	54	Nov-21	4.5	2.5	-1.11
29	Nov-08	4.5	5	-0.84	55	Jun-22	4.5	2.5	-1.11
30	Jun-09	4.5	2.5	-1.11					
31	Nov-09	4.5	2.5	-1.11					
32	Jun-10	4.5	2.5	-1.11					
33	Nov-10	4.5	2.5	-1.11					
34	Jun-11	4.5	5	-0.84					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean



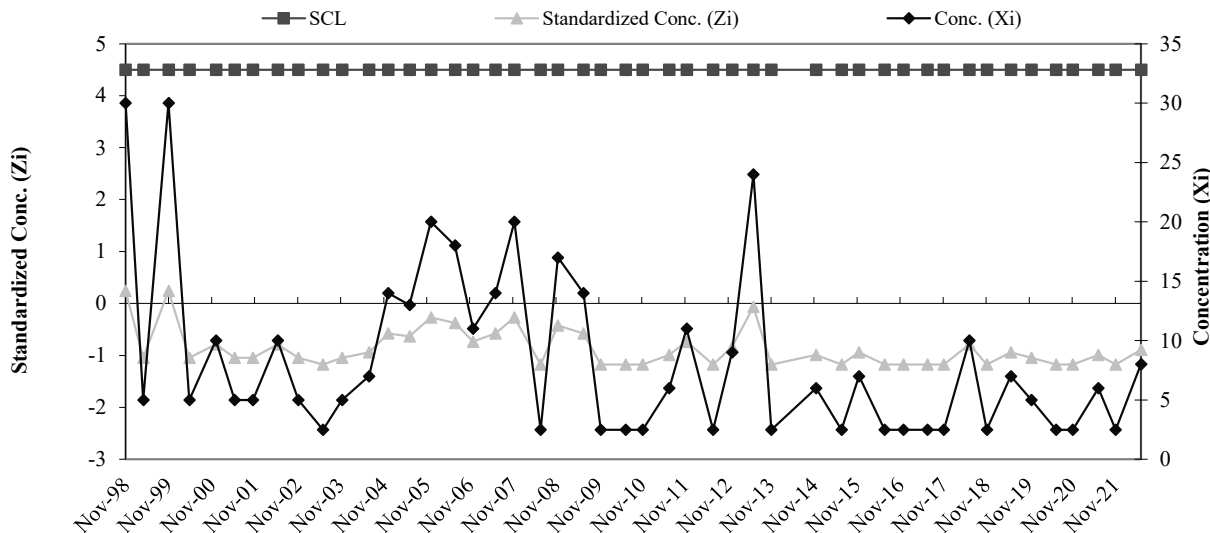
**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART**

B-7 Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	25.25	19.40
2	Aug-95	10		
3	Feb-96	22		
4	Jun-96	20		
5	Aug-96	60		
6	Nov-96	50		
7	May-97	10		
8	May-98	20		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	30	0.24	35	Nov-11	4.5	11	-0.73
10	Apr-99	4.5	5	-1.04	36	Jun-12	4.5	2.5	-1.17
11	Nov-99	4.5	30	0.24	37	Dec-12	4.5	9	-0.84
12	Apr-00	4.5	5	-1.04	38	Jun-13	4.5	24	-0.06
13	Dec-00	4.5	10	-0.79	39	Nov-13	4.5	2.5	-1.17
14	May-01	4.5	5	-1.04	40	Nov-14	4.5	6	-0.99
15	Oct-01	4.5	5	-1.04	41	Jun-15	4.5	2.5	-1.17
16	May-02	4.5	10	-0.79	42	Nov-15	4.5	7	-0.94
17	Nov-02	4.5	5	-1.04	43	Jun-16	4.5	2.5	-1.17
18	Jun-03	4.5	2.5	-1.17	44	Nov-16	4.5	2.5	-1.17
19	Nov-03	4.5	5	-1.04	45	Jun-17	4.5	2.5	-1.17
20	Jun-04	4.5	7	-0.94	46	Nov-17	4.5	2.5	-1.17
21	Dec-04	4.5	14	-0.58	47	Jun-18	4.5	10	-0.79
22	Jun-05	4.5	13	-0.63	48	Nov-18	4.5	2.5	-1.17
23	Dec-05	4.5	20	-0.27	49	May-19	4.5	7	-0.94
24	Jun-06	4.5	18	-0.37	50	Nov-19	4.5	5	-1.04
25	Nov-06	4.5	11	-0.73	51	Jun-20	4.5	2.5	-1.17
26	Jun-07	4.5	14	-0.58	52	Nov-20	4.5	2.5	-1.17
27	Nov-07	4.5	20	-0.27	53	Jun-21	4.5	6	-0.99
28	Jun-08	4.5	2.5	-1.17	54	Nov-21	4.5	2.5	-1.17
29	Nov-08	4.5	17	-0.43	55	Jun-22	4.5	8	-0.89
30	Jun-09	4.5	14	-0.58			4.5		
31	Nov-09	4.5	2.5	-1.17					
32	Jun-10	4.5	2.5	-1.17					
33	Nov-10	4.5	2.5	-1.17					
34	Jun-11	4.5	6	-0.99					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

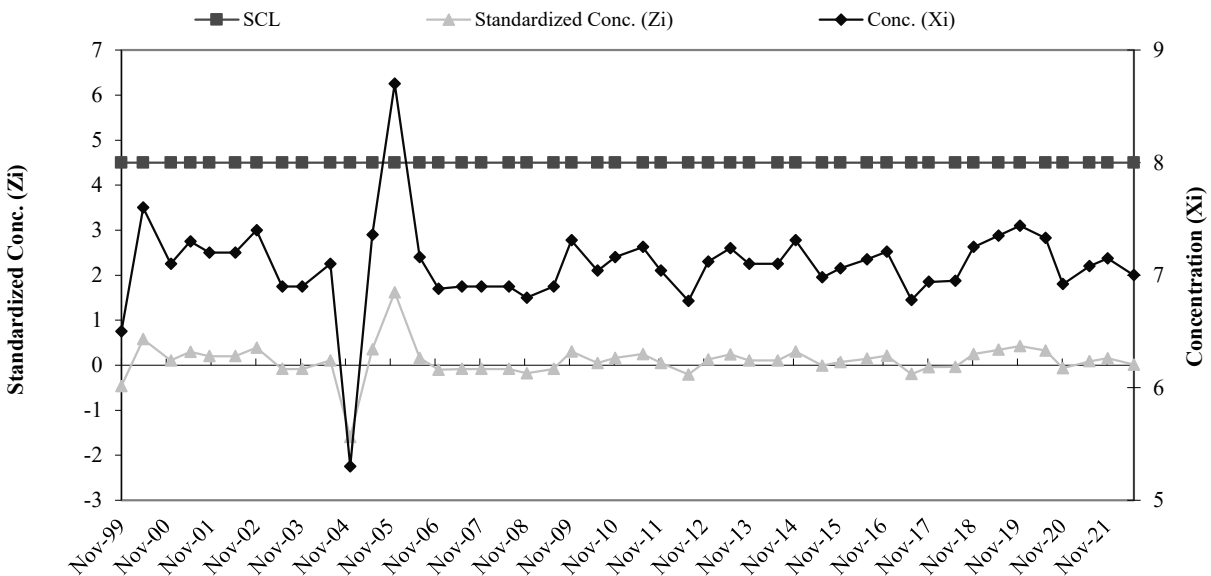


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	7.5	6.99	1.06
2	Jun-96	6.9		
3	Aug-96	7.6		
4	Nov-96	8.0		
5	May-97	7.2		
6	May-98	6.6		
7	Nov-98	4.6		
8	Apr-99	7.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-99	4.5	6.5	-0.46	33	Nov-11	4.5	7.0	0.05
10	Apr-00	4.5	7.6	0.58	34	Jun-12	4.5	6.8	-0.21
11	Dec-00	4.5	7.1	0.11	35	Dec-12	4.5	7.1	0.13
12	May-01	4.5	7.3	0.30	36	Jun-13	4.5	7.2	0.24
13	Oct-01	4.5	7.2	0.20	37	Nov-13	4.5	7.1	0.11
14	May-02	4.5	7.2	0.20	38	Jun-14	4.5	7.1	0.11
15	Nov-02	4.5	7.4	0.39	39	Nov-14	4.5	7.3	0.30
16	Jun-03	4.5	6.9	-0.08	40	Jun-15	4.5	7.0	-0.01
17	Nov-03	4.5	6.9	-0.08	41	Nov-15	4.5	7.1	0.07
18	Jun-04	4.5	7.1	0.11	42	Jun-16	4.5	7.1	0.14
19	Dec-04	4.5	5.3	-1.60	43	Nov-16	4.5	7.2	0.21
20	Jun-05	4.5	7.4	0.35	44	Jun-17	4.5	6.8	-0.20
21	Dec-05	4.5	8.7	1.62	45	Nov-17	4.5	6.9	-0.04
22	Jun-06	4.5	7.2	0.16	46	Jun-18	4.5	7.0	-0.04
23	Nov-06	4.5	6.9	-0.10	47	Nov-18	4.5	7.3	0.25
24	Jun-07	4.5	6.9	-0.08	48	May-19	4.5	7.4	0.34
25	Nov-07	4.5	6.9	-0.08	49	Nov-19	4.5	7.4	0.43
26	Jun-08	4.5	6.9	-0.08	50	Jun-20	4.5	7.3	0.32
27	Nov-08	4.5	6.8	-0.18	51	Nov-20	4.5	6.9	-0.06
28	Jun-09	4.5	6.9	-0.08	52	Jun-21	4.5	7.1	0.09
29	Nov-09	4.5	7.3	0.30	53	Nov-21	4.5	7.2	0.15
30	Jun-10	4.5	7.0	0.05	54	Jun-22	4.5	7.0	0.01
31	Nov-10	4.5	7.2	0.16					
32	Jun-11	4.5	7.3	0.25					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

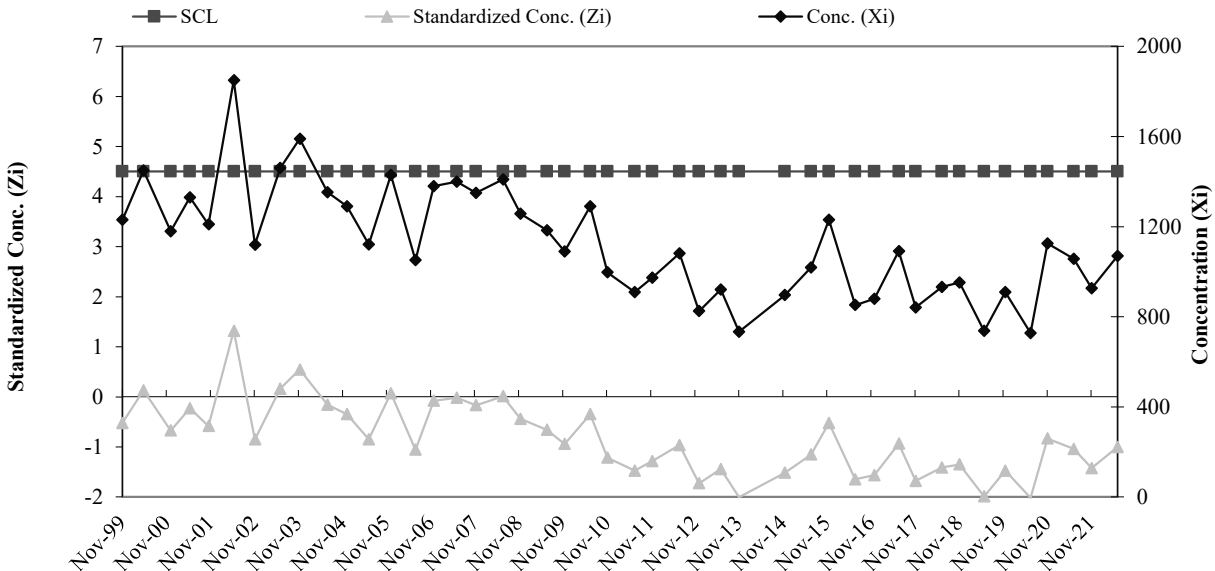


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	1509.0	1,405.88	336.33
2	Jun-96	1508.0		
3	Aug-96	1567.0		
4	Nov-96	1960.0		
5	May-97	780.0		
6	May-98	1270.0		
7	Nov-98	1240.0		
8	Apr-99	1413.0		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-99	4.5	1230.0	-0.52	33	Nov-11	4.5	974.0	-1.28
10	Apr-00	4.5	1450.0	0.13	34	Jun-12	4.5	1082.0	-0.96
11	Dec-00	4.5	1180.0	-0.67	35	Dec-12	4.5	825.0	-1.73
12	May-01	4.5	1330.0	-0.23	36	Jun-13	4.5	921.0	-1.44
13	Oct-01	4.5	1210.0	-0.58	37	Nov-13	4.5	733.0	-2.00
14	May-02	4.5	1850.0	1.32	38	Nov-14	4.5	896.0	-1.52
15	Nov-02	4.5	1120.0	-0.85	39	Jun-15	4.5	1019.0	-1.15
16	Jun-03	4.5	1460.0	0.16	40	Nov-15	4.5	1231.0	-0.52
17	Nov-03	4.5	1590.0	0.55	41	Jun-16	4.5	852.0	-1.65
18	Jun-04	4.5	1353.0	-0.16	42	Nov-16	4.5	880.0	-1.56
19	Dec-04	4.5	1290.0	-0.34	43	Jun-17	4.5	1092.0	-0.93
20	Jun-05	4.5	1121.0	-0.85	44	Nov-17	4.5	841.0	-1.68
21	Dec-05	4.5	1430.0	0.07	45	Jun-18	4.5	932.0	-1.41
22	Jun-06	4.5	1051.0	-1.06	46	Nov-18	4.5	952.0	-1.35
23	Nov-06	4.5	1380.0	-0.08	47	May-19	4.5	737.0	-1.99
24	Jun-07	4.5	1400.0	-0.02	48	Nov-19	4.5	910.0	-1.47
25	Nov-07	4.5	1350.0	-0.17	49	Jun-20	4.5	728.0	-2.02
26	Jun-08	4.5	1410.0	0.01	50	Nov-20	4.5	1126.0	-0.83
27	Nov-08	4.5	1258.0	-0.44	51	Jun-21	4.5	1057.0	-1.04
28	Jun-09	4.5	1184.0	-0.66	52	Nov-21	4.5	927.0	-1.42
29	Nov-09	4.5	1090.0	-0.94	53	Jun-22	4.5	1070.0	-1.00
30	Jun-10	4.5	1290.0	-0.34			4.5		
31	Nov-10	4.5	997.0	-1.22					
32	Jun-11	4.5	910.0	-1.47					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean



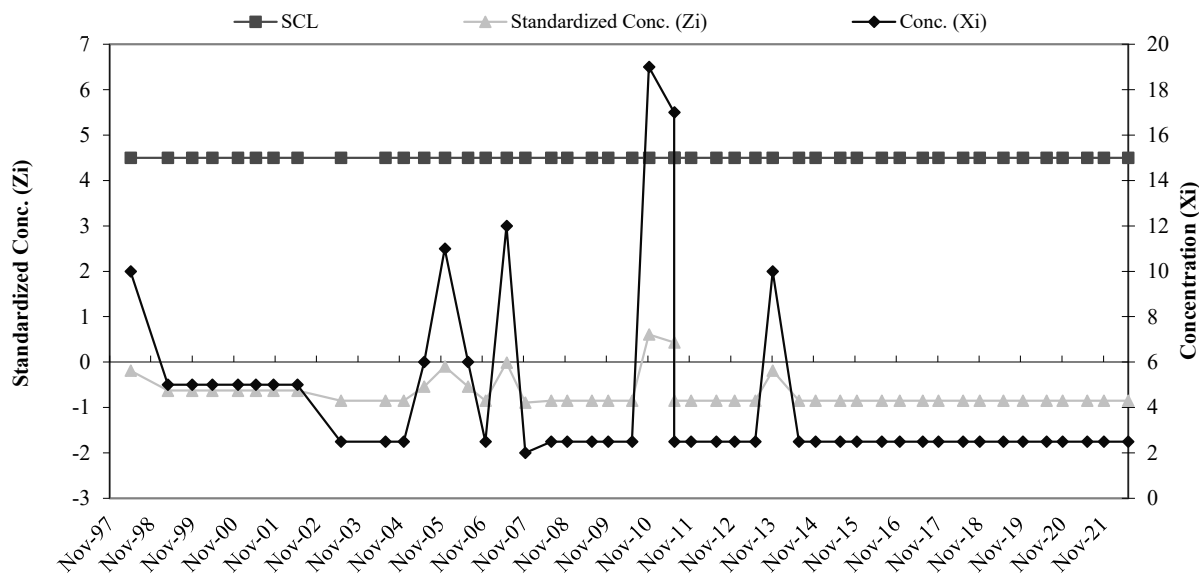
**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART**

B-9 Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	12.12	11.34
2	Aug-95	37		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	10	-0.19	34	Nov-11	4.5	2.5	-0.85
10	Apr-99	4.5	5	-0.63	35	Jun-12	4.5	2.5	-0.85
11	Nov-99	4.5	5	-0.63	36	Dec-12	4.5	2.5	-0.85
12	Apr-00	4.5	5	-0.63	37	Jun-13	4.5	2.5	-0.85
13	Dec-00	4.5	5	-0.63	38	Nov-13	4.5	10	-0.19
14	May-01	4.5	5	-0.63	39	Jun-14	4.5	2.5	-0.85
15	Oct-01	4.5	5	-0.63	40	Nov-14	4.5	2.5	-0.85
16	May-02	4.5	5	-0.63	41	Jun-15	4.5	2.5	-0.85
17	Jun-03	4.5	2.5	-0.85	42	Nov-15	4.5	2.5	-0.85
18	Jun-04	4.5	2.5	-0.85	43	Jun-16	4.5	2.5	-0.85
19	Dec-04	4.5	2.5	-0.85	44	Nov-16	4.5	2.5	-0.85
20	Jun-05	4.5	6	-0.54	45	Jun-17	4.5	2.5	-0.85
21	Dec-05	4.5	11	-0.10	46	Nov-17	4.5	2.5	-0.85
22	Jun-06	4.5	6	-0.54	47	Jun-18	4.5	2.5	-0.85
23	Nov-06	4.5	2.5	-0.85	48	Nov-18	4.5	2.5	-0.85
24	Jun-07	4.5	12	-0.01	49	Jun-19	4.5	2.5	-0.85
25	Nov-07	4.5	2	-0.89	50	Nov-19	4.5	2.5	-0.85
26	Jul-08	4.5	2.5	-0.85	51	Jun-20	4.5	2.5	-0.85
27	Nov-08	4.5	2.5	-0.85	52	Nov-20	4.5	2.5	-0.85
28	Jun-09	4.5	2.5	-0.85	53	Jun-21	4.5	2.5	-0.85
29	Nov-09	4.5	2.5	-0.85	54	Nov-21	4.5	2.5	-0.85
30	Jun-10	4.5	2.5	-0.85	55	Jun-22	4.5	2.5	-0.85
31	Nov-10	4.5	19	0.61					
32	Jun-11	4.5	17	0.43					
33	Jun-11	4.5	2.5	-0.85					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean



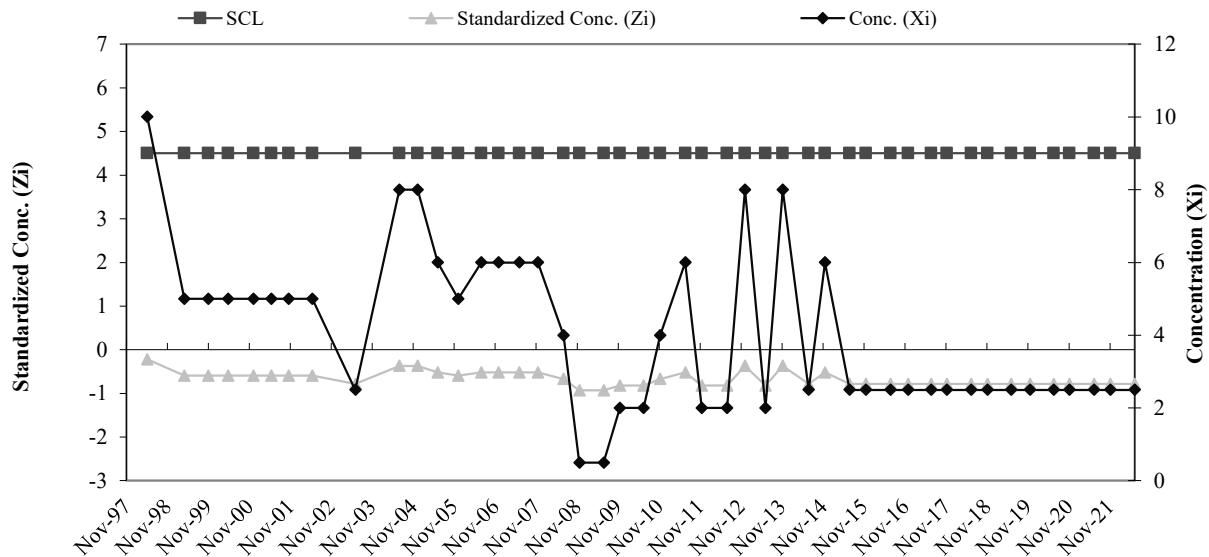
**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART**

B-9 Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	12.87	13.26
2	Aug-95	43		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	10	-0.22	33	Nov-11	4.5	2	-0.82
10	Apr-99	4.5	5	-0.59	34	Jun-12	4.5	2	-0.82
11	Nov-99	4.5	5	-0.59	35	Dec-12	4.5	8	-0.37
12	Apr-00	4.5	5	-0.59	36	Jun-13	4.5	2	-0.82
13	Dec-00	4.5	5	-0.59	37	Nov-13	4.5	8	-0.37
14	May-01	4.5	5	-0.59	38	Jun-14	4.5	2.5	-0.78
15	Oct-01	4.5	5	-0.59	39	Nov-14	4.5	6	-0.52
16	May-02	4.5	5	-0.59	40	Jun-15	4.5	2.5	-0.78
17	Jun-03	4.5	2.5	-0.78	41	Nov-15	4.5	2.5	-0.78
18	Jun-04	4.5	8	-0.37	42	Jun-16	4.5	2.5	-0.78
19	Dec-04	4.5	8	-0.37	43	Nov-16	4.5	2.5	-0.78
20	Jun-05	4.5	6	-0.52	44	Jun-17	4.5	2.5	-0.78
21	Dec-05	4.5	5	-0.59	45	Nov-17	4.5	2.5	-0.78
22	Jun-06	4.5	6	-0.52	46	Jun-18	4.5	2.5	-0.78
23	Nov-06	4.5	6	-0.52	47	Nov-18	4.5	2.5	-0.78
24	Jun-07	4.5	6	-0.52	48	Jun-19	4.5	2.5	-0.78
25	Nov-07	4.5	6	-0.52	49	Nov-19	4.5	2.5	-0.78
26	Jul-08	4.5	4	-0.67	50	Jun-20	4.5	2.5	-0.78
27	Nov-08	4.5	0.5	-0.93	51	Nov-20	4.5	2.5	-0.78
28	Jun-09	4.5	0.5	-0.93	52	Jun-21	4.5	2.5	-0.78
29	Nov-09	4.5	2	-0.82	53	Nov-21	4.5	2.5	-0.78
30	Jun-10	4.5	2	-0.82	54	Jun-22	4.5	2.5	-0.78
31	Nov-10	4.5	4	-0.67					
32	Jun-11	4.5	6	-0.52					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

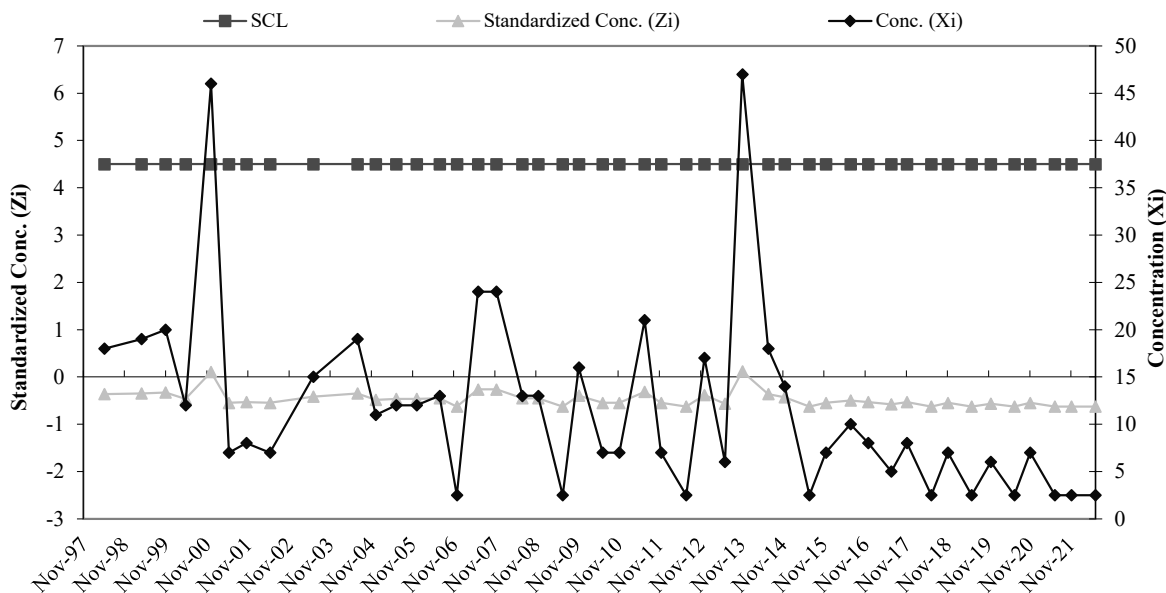


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 Ni**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15	39.83	59.86
2	Aug-95	20		
3	Feb-96	20		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	51		
8	Nov-97	183		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	18	-0.36	33	Nov-11	4.5	7	-0.55
10	Apr-99	4.5	19	-0.35	34	Jun-12	4.5	2.5	-0.62
11	Nov-99	4.5	20	-0.33	35	Dec-12	4.5	17	-0.38
12	Apr-00	4.5	12	-0.46	36	Jun-13	4.5	6	-0.57
13	Dec-00	4.5	46	0.10	37	Nov-13	4.5	47	0.12
14	May-01	4.5	7	-0.55	38	Jun-14	4.5	18	-0.36
15	Oct-01	4.5	8	-0.53	39	Nov-14	4.5	14	-0.43
16	May-02	4.5	7	-0.55	40	Jun-15	4.5	2.5	-0.62
17	Jun-03	4.5	15	-0.41	41	Nov-15	4.5	7	-0.55
18	Jun-04	4.5	19	-0.35	42	Jun-16	4.5	10	-0.50
19	Dec-04	4.5	11	-0.48	43	Nov-16	4.5	8	-0.53
20	Jun-05	4.5	12	-0.46	44	Jun-17	4.5	5	-0.58
21	Dec-05	4.5	12	-0.46	45	Nov-17	4.5	8	-0.53
22	Jun-06	4.5	13	-0.45	46	Jun-18	4.5	2.5	-0.62
23	Nov-06	4.5	2.5	-0.62	47	Nov-18	4.5	7	-0.55
24	Jun-07	4.5	24	-0.26	48	Jun-19	4.5	2.5	-0.62
25	Nov-07	4.5	24	-0.26	49	Nov-19	4.5	6	-0.57
26	Jul-08	4.5	13	-0.45	50	Jun-20	4.5	2.5	-0.62
27	Nov-08	4.5	13	-0.45	51	Nov-20	4.5	7	-0.55
28	Jun-09	4.5	2.5	-0.62	52	Jun-21	4.5	2.5	-0.62
29	Nov-09	4.5	16	-0.40	53	Nov-21	4.5	2.5	-0.62
30	Jun-10	4.5	7	-0.55	54	Jun-22	4.5	2.5	-0.62
31	Nov-10	4.5	7	-0.55					
32	Jun-11	4.5	21	-0.31					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

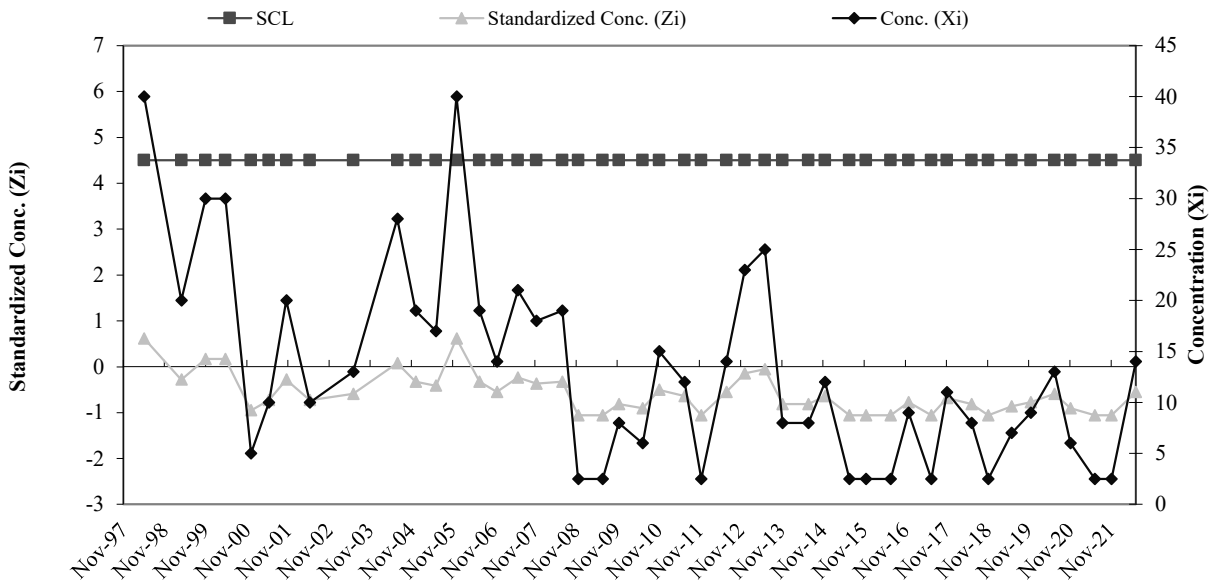


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	26.23	22.36
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	70		
6	Nov-96	40		
7	May-97	20		
8	Nov-97	40		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	40	0.62	33	Nov-11	4.5	2.5	-1.06
10	Apr-99	4.5	20	-0.28	34	Jun-12	4.5	14	-0.55
11	Nov-99	4.5	30	0.17	35	Dec-12	4.5	23	-0.14
12	Apr-00	4.5	30	0.17	36	Jun-13	4.5	25	-0.06
13	Dec-00	4.5	5	-0.95	37	Nov-13	4.5	8	-0.82
14	May-01	4.5	10	-0.73	38	Jun-14	4.5	8	-0.82
15	Oct-01	4.5	20	-0.28	39	Nov-14	4.5	12	-0.64
16	May-02	4.5	10	-0.73	40	Jun-15	4.5	2.5	-1.06
17	Jun-03	4.5	13	-0.59	41	Nov-15	4.5	2.5	-1.06
18	Jun-04	4.5	28	0.08	42	Jun-16	4.5	2.5	-1.06
19	Dec-04	4.5	19	-0.32	43	Nov-16	4.5	9	-0.77
20	Jun-05	4.5	17	-0.41	44	Jun-17	4.5	2.5	-1.06
21	Dec-05	4.5	40	0.62	45	Nov-17	4.5	11	-0.68
22	Jun-06	4.5	19	-0.32	46	Jun-18	4.5	8	-0.82
23	Nov-06	4.5	14	-0.55	47	Nov-18	4.5	2.5	-1.06
24	Jun-07	4.5	21	-0.23	48	Jun-19	4.5	7	-0.86
25	Nov-07	4.5	18	-0.37	49	Nov-19	4.5	9	-0.77
26	Jul-08	4.5	19	-0.32	50	Jun-20	4.5	13	-0.59
27	Nov-08	4.5	2.5	-1.06	51	Nov-20	4.5	6	-0.90
28	Jun-09	4.5	2.5	-1.06	52	Jun-21	4.5	2.5	-1.06
29	Nov-09	4.5	8	-0.82	53	Nov-21	4.5	2.5	-1.06
30	Jun-10	4.5	6	-0.90	54	Jun-22	4.5	14	-0.55
31	Nov-10	4.5	15	-0.50					
32	Jun-11	4.5	12	-0.64					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

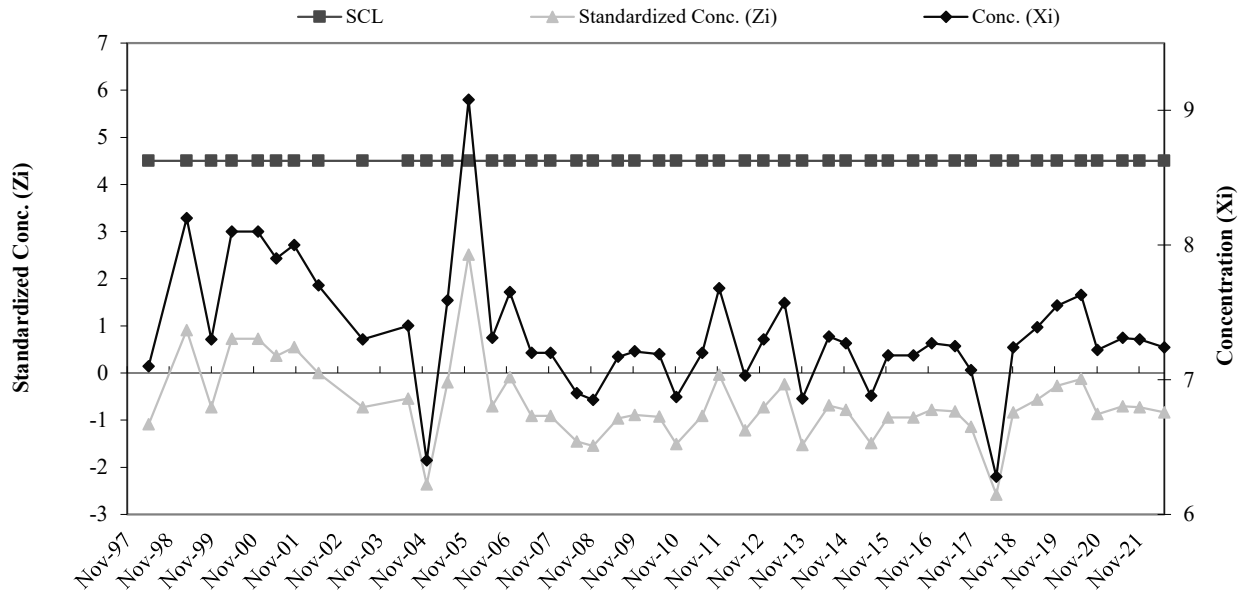


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 pH**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	7.7	7.20	0.55
2	Aug-95	7.7		
3	Feb-96	7.3		
4	Jun-96	6.8		
5	Aug-96	8.0		
6	Nov-96	6.8		
7	May-97	6.8		
8	Nov-97	6.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.6	-1.09	33	Nov-11	4.5	7.2	-0.04
10	Apr-99	4.5	7.7	0.91	34	Jun-12	4.5	6.5	-1.22
11	Nov-99	4.5	6.8	-0.73	35	Dec-12	4.5	6.8	-0.73
12	Apr-00	4.5	7.6	0.73	36	Jun-13	4.5	7.1	-0.24
13	Dec-00	4.5	7.6	0.73	37	Nov-13	4.5	6.4	-1.53
14	May-01	4.5	7.4	0.36	38	Jun-14	4.5	6.8	-0.69
15	Oct-01	4.5	7.5	0.55	39	Nov-14	4.5	6.8	-0.78
16	May-02	4.5	7.2	0.00	40	Jun-15	4.5	6.4	-1.49
17	Jun-03	4.5	6.8	-0.73	41	Nov-15	4.5	6.7	-0.94
18	Jun-04	4.5	6.9	-0.55	42	Jun-16	4.5	6.7	-0.94
19	Dec-04	4.5	5.9	-2.36	43	Nov-16	4.5	6.8	-0.78
20	Jun-05	4.5	7.1	-0.20	44	Jun-17	4.5	6.8	-0.82
21	Dec-05	4.5	8.6	2.51	45	Nov-17	4.5	6.6	-1.14
22	Jun-06	4.5	6.8	-0.71	46	Nov-18	4.5	5.8	-2.58
23	Nov-06	4.5	7.2	-0.09	47	Nov-18	4.5	6.7	-0.84
24	Jun-07	4.5	6.7	-0.91	48	Jun-19	4.5	6.9	-0.56
25	Nov-07	4.5	6.7	-0.91	49	Nov-19	4.5	7.1	-0.27
26	Jul-08	4.5	6.4	-1.45	50	Jun-20	4.5	7.1	-0.13
27	Nov-08	4.5	6.4	-1.54	51	Nov-20	4.5	6.7	-0.87
28	Jun-09	4.5	6.7	-0.96	52	Jun-21	4.5	6.8	-0.71
29	Nov-09	4.5	6.7	-0.89	53	Nov-21	4.5	6.8	-0.73
30	Jun-10	4.5	6.7	-0.93	54	Jun-22	4.5	6.7	-0.84
31	Nov-10	4.5	6.4	-1.51					
32	Jun-11	4.5	6.7	-0.91					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

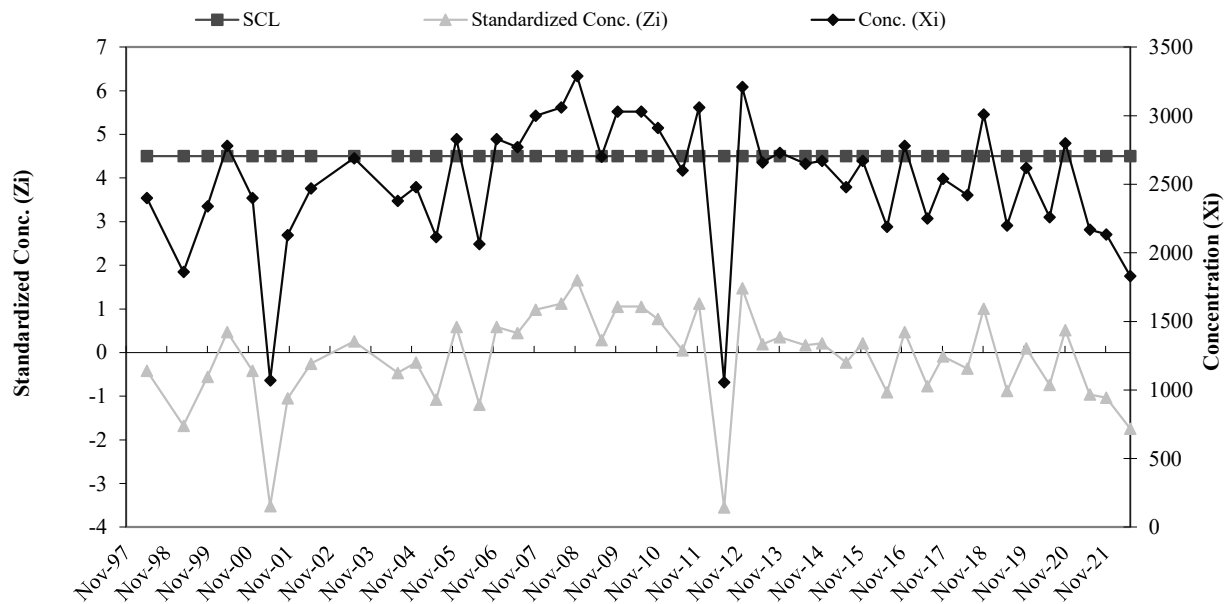


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 SpC**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	2400	2,578.63	428.85
2	Aug-95	1829		
3	Feb-96	2860		
4	Jun-96	2550		
5	Aug-96	2310		
6	Nov-96	3280		
7	May-97	2600		
8	Nov-97	2800		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2400	-0.42	33	Nov-11	4.5	3060	1.12
10	Apr-99	4.5	1860	-1.68	34	Jun-12	4.5	1057	-3.55
11	Nov-99	4.5	2340	-0.56	35	Dec-12	4.5	3210	1.47
12	Apr-00	4.5	2780	0.47	36	Jun-13	4.5	2660	0.19
13	Dec-00	4.5	2400	-0.42	37	Nov-13	4.5	2730	0.35
14	May-01	4.5	1070	-3.52	38	Jun-14	4.5	2650	0.17
15	Oct-01	4.5	2130	-1.05	39	Nov-14	4.5	2670	0.21
16	May-02	4.5	2470	-0.25	40	Jun-15	4.5	2480	-0.23
17	Jun-03	4.5	2690	0.26	41	Nov-15	4.5	2670	0.21
18	Jun-04	4.5	2379	-0.47	42	Jun-16	4.5	2190	-0.91
19	Dec-04	4.5	2480	-0.23	43	Nov-16	4.5	2780	0.47
20	Jun-05	4.5	2116	-1.08	44	Jun-17	4.5	2250	-0.77
21	Dec-05	4.5	2830	0.59	45	Nov-17	4.5	2540	-0.09
22	Jun-06	4.5	2065	-1.20	46	Jun-18	4.5	2420	-0.37
23	Nov-06	4.5	2830	0.59	47	Nov-18	4.5	3010	1.01
24	Jun-07	4.5	2770	0.45	48	Jun-19	4.5	2200	-0.88
25	Nov-07	4.5	3000	0.98	49	Nov-19	4.5	2620	0.10
26	Jul-08	4.5	3060	1.12	50	Jun-20	4.5	2260	-0.74
27	Nov-08	4.5	3290	1.66	51	Nov-20	4.5	2800	0.52
28	Jun-09	4.5	2700	0.28	52	Jun-21	4.5	2168	-0.96
29	Nov-09	4.5	3030	1.05	53	Nov-21	4.5	2135	-1.03
30	Jun-10	4.5	3030	1.05	54	Jun-22	4.5	1830	-1.75
31	Nov-10	4.5	2910	0.77					
32	Jun-11	4.5	2600	0.05					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

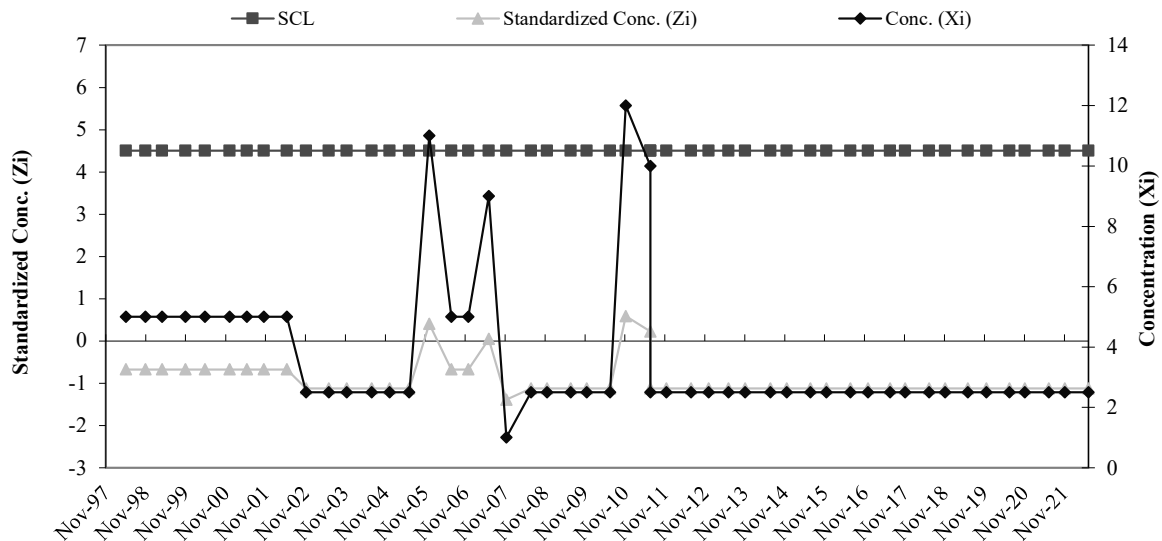


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	8.74	5.57
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.67	37	Nov-11	4.5	2.5	-1.12
10	Nov-98	4.5	5	-0.67	38	Jun-12	4.5	2.5	-1.12
11	Apr-99	4.5	5	-0.67	39	Dec-12	4.5	2.5	-1.12
12	Nov-99	4.5	5	-0.67	40	Jun-13	4.5	2.5	-1.12
13	Apr-00	4.5	5	-0.67	41	Nov-13	4.5	2.5	-1.12
14	Dec-00	4.5	5	-0.67	42	Jun-14	4.5	2.5	-1.12
15	May-01	4.5	5	-0.67	43	Nov-14	4.5	2.5	-1.12
16	Oct-01	4.5	5	-0.67	44	Jun-15	4.5	2.5	-1.12
17	May-02	4.5	5	-0.67	45	Nov-15	4.5	2.5	-1.12
18	Nov-02	4.5	2.5	-1.12	46	Jun-16	4.5	2.5	-1.12
19	Jun-03	4.5	2.5	-1.12	47	Nov-16	4.5	2.5	-1.12
20	Nov-03	4.5	2.5	-1.12	48	Jun-17	4.5	2.5	-1.12
21	Jun-04	4.5	2.5	-1.12	49	Nov-17	4.5	2.5	-1.12
22	Dec-04	4.5	2.5	-1.12	50	Jun-18	4.5	2.5	-1.12
23	Jun-05	4.5	2.5	-1.12	51	Nov-18	4.5	2.5	-1.12
24	Dec-05	4.5	11	0.41	52	Jun-19	4.5	2.5	-1.12
25	Jun-06	4.5	5	-0.67	53	Nov-19	4.5	2.5	-1.12
26	Nov-06	4.5	5	-0.67	54	Jun-20	4.5	2.5	-1.12
27	Jun-07	4.5	9	0.05	55	Nov-20	4.5	2.5	-1.12
28	Nov-07	4.5	1	-1.39	56	Jun-21	4.5	2.5	-1.12
29	Jun-08	4.5	2.5	-1.12	57	Nov-21	4.5	2.5	-1.12
30	Nov-08	4.5	2.5	-1.12	58	Jun-22	4.5	2.5	-1.12
31	Jun-09	4.5	2.5	-1.12					
32	Nov-09	4.5	2.5	-1.12					
33	Jun-10	4.5	2.5	-1.12					
34	Nov-10	4.5	12	0.59					
35	Jun-11	4.5	10	0.23					
36	Jun-11	4.5	2.5	-1.12					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean



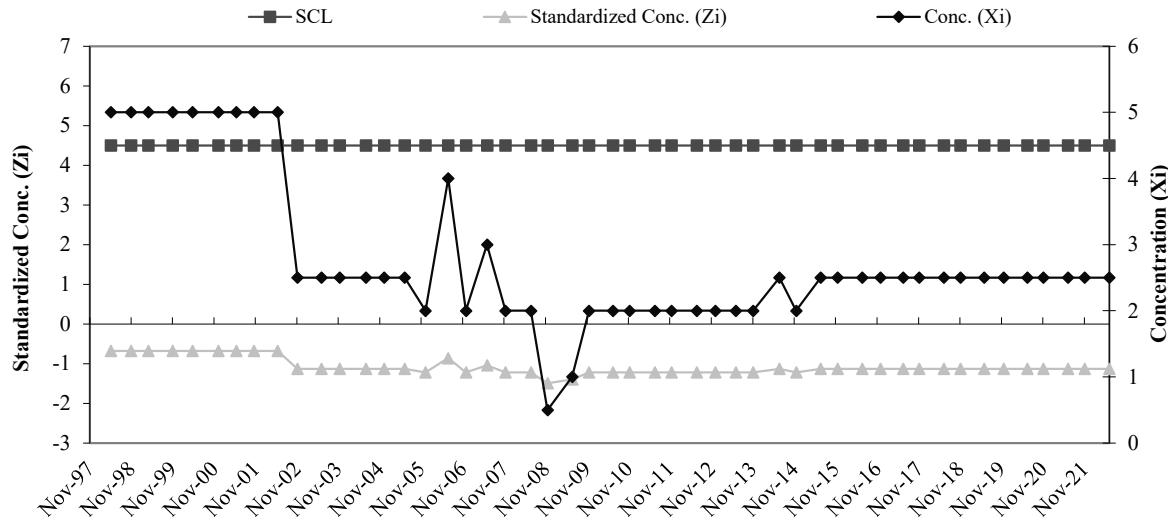
**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART**

B-18a Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	8.78	5.56
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.68	36	Nov-11	4.5	2	-1.22
10	Nov-98	4.5	5	-0.68	37	Jun-12	4.5	2	-1.22
11	Apr-99	4.5	5	-0.68	38	Dec-12	4.5	2	-1.22
12	Nov-99	4.5	5	-0.68	39	Jun-13	4.5	2	-1.22
13	Apr-00	4.5	5	-0.68	40	Nov-13	4.5	2	-1.22
14	Dec-00	4.5	5	-0.68	41	Jun-14	4.5	2.5	-1.13
15	May-01	4.5	5	-0.68	42	Nov-14	4.5	2	-1.22
16	Oct-01	4.5	5	-0.68	43	Jun-15	4.5	2.5	-1.13
17	May-02	4.5	5	-0.68	44	Nov-15	4.5	2.5	-1.13
18	Nov-02	4.5	2.5	-1.13	45	Jun-16	4.5	2.5	-1.13
19	Jun-03	4.5	2.5	-1.13	46	Nov-16	4.5	2.5	-1.13
20	Nov-03	4.5	2.5	-1.13	47	Jun-17	4.5	2.5	-1.13
21	Jun-04	4.5	2.5	-1.13	48	Nov-17	4.5	2.5	-1.13
22	Dec-04	4.5	2.5	-1.13	49	Jun-18	4.5	2.5	-1.13
23	Jun-05	4.5	2.5	-1.13	50	Nov-18	4.5	2.5	-1.13
24	Dec-05	4.5	2	-1.22	51	Jun-19	4.5	2.5	-1.13
25	Jun-06	4.5	4	-0.86	52	Nov-19	4.5	2.5	-1.13
26	Nov-06	4.5	2	-1.22	53	Jun-20	4.5	2.5	-1.13
27	Jun-07	4.5	3	-1.04	54	Nov-20	4.5	2.5	-1.13
28	Nov-07	4.5	2	-1.22	55	Jun-21	4.5	2.5	-1.13
29	Jun-08	4.5	2	-1.22	56	Nov-21	4.5	2.5	-1.13
30	Nov-08	4.5	0.5	-1.49	57	Jun-22	4.5	2.5	-1.13
31	Jun-09	4.5	1	-1.40					
32	Nov-09	4.5	2	-1.22					
33	Jun-10	4.5	2	-1.22					
34	Nov-10	4.5	2	-1.22					
35	Jun-11	4.5	2	-1.22					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean



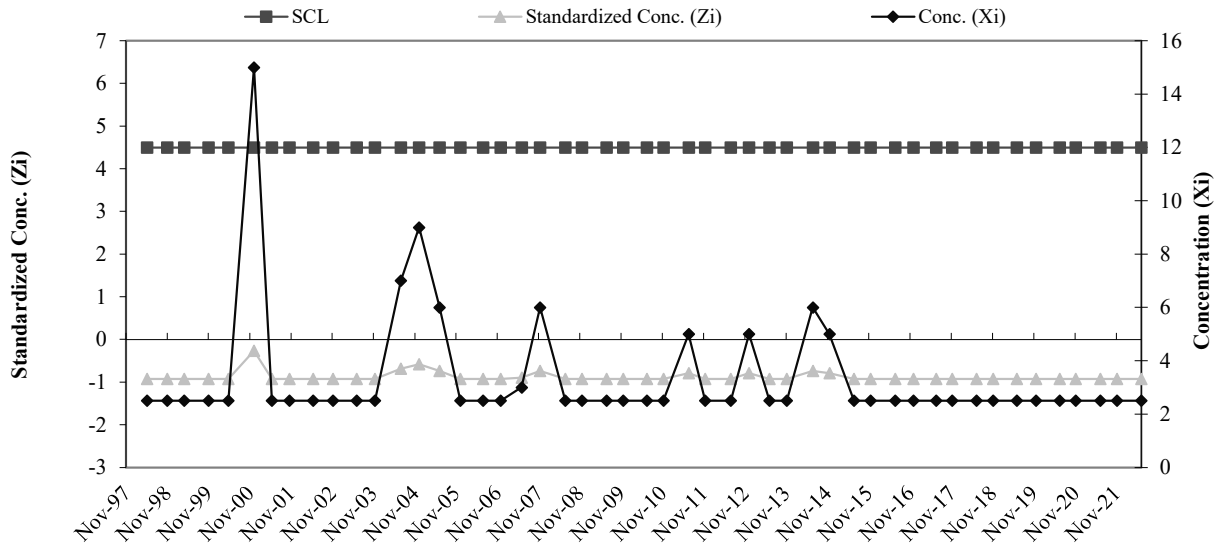
**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART**

B-18a Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15	20.01	18.96
2	Aug-95	20		
3	Feb-96	20		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	13		
8	Nov-97	62		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-0.92	36	Nov-11	4.5	2.5	-0.92
10	Nov-98	4.5	2.5	-0.92	37	Jun-12	4.5	2.5	-0.92
11	Apr-99	4.5	2.5	-0.92	38	Dec-12	4.5	5	-0.79
12	Nov-99	4.5	2.5	-0.92	39	Jun-13	4.5	2.5	-0.92
13	Apr-00	4.5	2.5	-0.92	40	Nov-13	4.5	2.5	-0.92
14	Dec-00	4.5	15	-0.26	41	Jun-14	4.5	6	-0.74
15	May-01	4.5	2.5	-0.92	42	Nov-14	4.5	5	-0.79
16	Oct-01	4.5	2.5	-0.92	43	Jun-15	4.5	2.5	-0.92
17	May-02	4.5	2.5	-0.92	44	Nov-15	4.5	2.5	-0.92
18	Nov-02	4.5	2.5	-0.92	45	Jun-16	4.5	2.5	-0.92
19	Jun-03	4.5	2.5	-0.92	46	Nov-16	4.5	2.5	-0.92
20	Nov-03	4.5	2.5	-0.92	47	Jun-17	4.5	2.5	-0.92
21	Jun-04	4.5	7	-0.69	48	Nov-17	4.5	2.5	-0.92
22	Dec-04	4.5	9	-0.58	49	Jun-18	4.5	2.5	-0.92
23	Jun-05	4.5	6	-0.74	50	Nov-18	4.5	2.5	-0.92
24	Dec-05	4.5	2.5	-0.92	51	Jun-19	4.5	2.5	-0.92
25	Jun-06	4.5	2.5	-0.92	52	Nov-19	4.5	2.5	-0.92
26	Nov-06	4.5	2.5	-0.92	53	Jun-20	4.5	2.5	-0.92
27	Jun-07	4.5	3	-0.90	54	Nov-20	4.5	2.5	-0.92
28	Nov-07	4.5	6	-0.74	55	Jun-21	4.5	2.5	-0.92
29	Jun-08	4.5	2.5	-0.92	56	Nov-21	4.5	2.5	-0.92
30	Nov-08	4.5	2.5	-0.92	57	Jun-22	4.5	2.5	-0.92
31	Jun-09	4.5	2.5	-0.92					
32	Nov-09	4.5	2.5	-0.92					
33	Jun-10	4.5	2.5	-0.92					
34	Nov-10	4.5	2.5	-0.92					
35	Jun-11	4.5	5	-0.79					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean



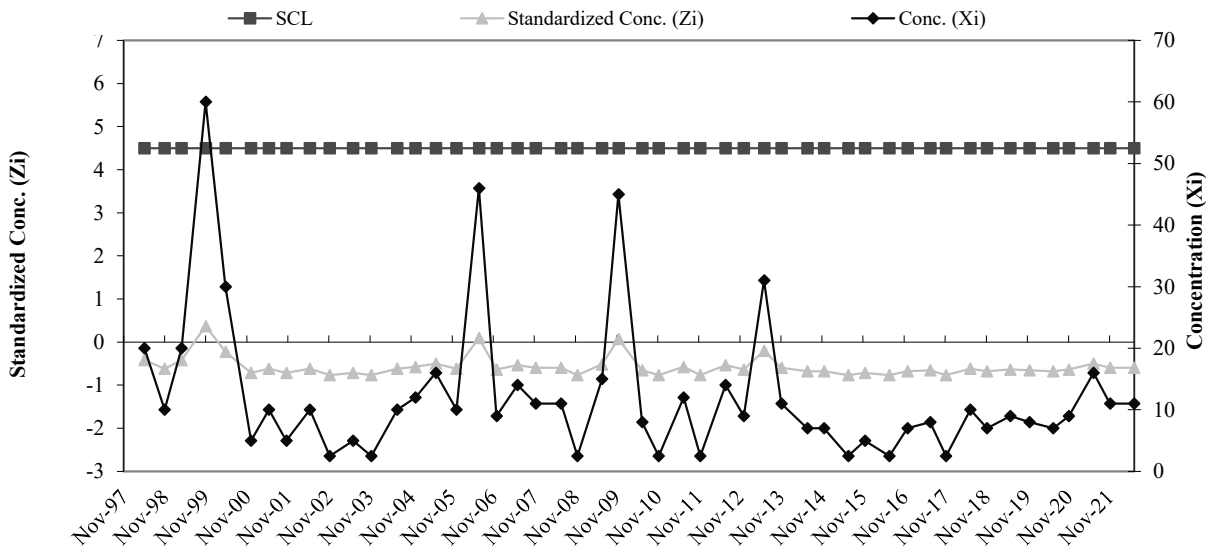
**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART**

B-18a Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	150	41.25	50.67
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	60		
6	Nov-96	70		
7	May-97	10		
8	Nov-97	10		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	20	-0.42	36	Nov-11	4.5	2.5	-0.76
10	Nov-98	4.5	10	-0.62	37	Jun-12	4.5	14	-0.54
11	Apr-99	4.5	20	-0.42	38	Dec-12	4.5	9	-0.64
12	Nov-99	4.5	60	0.37	39	Jun-13	4.5	31	-0.20
13	Apr-00	4.5	30	-0.22	40	Nov-13	4.5	11	-0.60
14	Dec-00	4.5	5	-0.72	41	Jun-14	4.5	7	-0.68
15	May-01	4.5	10	-0.62	42	Nov-14	4.5	7	-0.68
16	Oct-01	4.5	5	-0.72	43	Jun-15	4.5	2.5	-0.76
17	May-02	4.5	10	-0.62	44	Nov-15	4.5	5	-0.72
18	Nov-02	4.5	2.5	-0.76	45	Jun-16	4.5	2.5	-0.76
19	Jun-03	4.5	5	-0.72	46	Nov-16	4.5	7	-0.68
20	Nov-03	4.5	2.5	-0.76	47	Jun-17	4.5	8	-0.66
21	Jun-04	4.5	10	-0.62	48	Nov-17	4.5	2.5	-0.76
22	Dec-04	4.5	12	-0.58	49	Jun-18	4.5	10	-0.62
23	Jun-05	4.5	16	-0.50	50	Nov-18	4.5	7	-0.68
24	Dec-05	4.5	10	-0.62	51	Jun-19	4.5	9	-0.64
25	Jun-06	4.5	46	0.09	52	Nov-19	4.5	8	-0.66
26	Nov-06	4.5	9	-0.64	53	Jun-20	4.5	7	-0.68
27	Jun-07	4.5	14	-0.54	54	Nov-20	4.5	9	-0.64
28	Nov-07	4.5	11	-0.60	55	Jun-21	4.5	16	-0.50
29	Jun-08	4.5	11	-0.60	56	Nov-21	4.5	11	-0.60
30	Nov-08	4.5	2.5	-0.76	57	Jun-22	4.5	11	-0.60
31	Jun-09	4.5	15	-0.52					
32	Nov-09	4.5	45	0.07					
33	Jun-10	4.5	8	-0.66					
34	Nov-10	4.5	2.5	-0.76					
35	Jun-11	4.5	12	-0.58					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

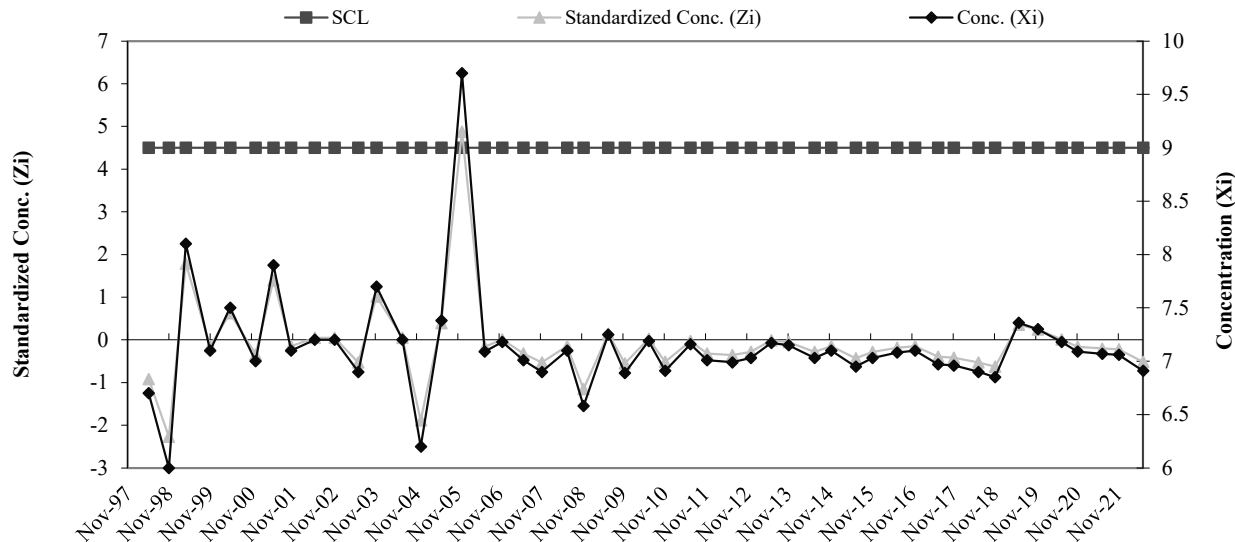


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a pH**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	7.5	7.18	0.52
2	Aug-95	7.9		
3	Feb-96	7.4		
4	Jun-96	7.0		
5	Aug-96	7.5		
6	Nov-96	7.2		
7	May-97	6.5		
8	Nov-97	6.4		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.7	-0.92	36	Nov-11	4.5	7.0	-0.32
10	Nov-98	4.5	6.0	-2.27	37	Jun-12	4.5	7.0	-0.36
11	Apr-99	4.5	8.1	1.79	38	Dec-12	4.5	7.0	-0.28
12	Nov-99	4.5	7.1	-0.14	39	Jun-13	4.5	7.2	-0.01
13	Apr-00	4.5	7.5	0.63	40	Nov-13	4.5	7.2	-0.05
14	Dec-00	4.5	7.0	-0.34	41	Jun-14	4.5	7.0	-0.28
15	May-01	4.5	7.9	1.40	42	Nov-14	4.5	7.1	-0.14
16	Oct-01	4.5	7.1	-0.14	43	Jun-15	4.5	7.0	-0.43
17	May-02	4.5	7.2	0.05	44	Nov-15	4.5	7.0	-0.28
18	Nov-02	4.5	7.2	0.05	45	Jun-16	4.5	7.1	-0.18
19	Jun-03	4.5	6.9	-0.53	46	Nov-16	4.5	7.1	-0.14
20	Nov-03	4.5	7.7	1.01	47	Jun-17	4.5	7.0	-0.40
21	Jun-04	4.5	7.2	0.05	48	Nov-17	4.5	7.0	-0.42
22	Dec-04	4.5	6.2	-1.88	49	Jun-18	4.5	6.9	-0.53
23	Jun-05	4.5	7.4	0.40	50	Nov-18	4.5	6.9	-0.63
24	Dec-05	4.5	9.7	4.88	51	Jun-19	4.5	7.4	0.36
25	Jun-06	4.5	7.1	-0.16	52	Nov-19	4.5	7.3	0.24
26	Nov-06	4.5	7.2	0.01	53	Jun-20	4.5	7.2	0.01
27	Jun-07	4.5	7.0	-0.32	54	Nov-20	4.5	7.1	-0.16
28	Nov-07	4.5	6.9	-0.53	55	Jun-21	4.5	7.1	-0.20
29	Jun-08	4.5	7.1	-0.14	56	Nov-21	4.5	7.1	-0.22
30	Nov-08	4.5	6.6	-1.15	57	Jun-22	4.5	6.9	-0.51
31	Jun-09	4.5	7.3	0.14					
32	Nov-09	4.5	6.9	-0.55					
33	Jun-10	4.5	7.2	0.03					
34	Nov-10	4.5	6.9	-0.51					
35	Jun-11	4.5	7.2	-0.03					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

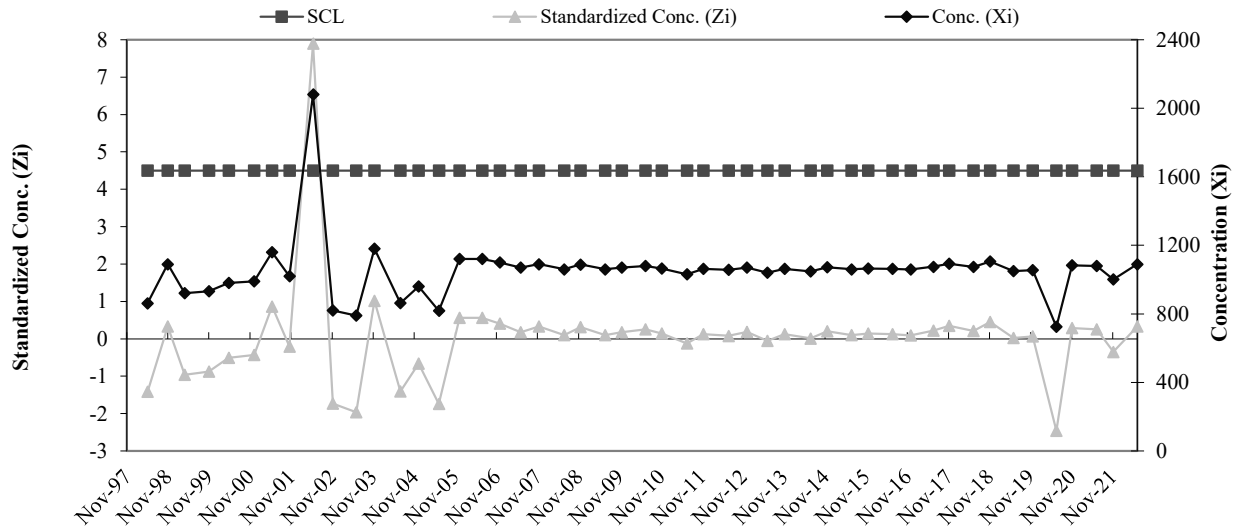


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	1048	1,046.75	130.80
2	Aug-95	989		
3	Feb-96	1021		
4	Jun-96	944.0		
5	Aug-96	1041		
6	Nov-96	1331		
7	May-97	900		
8	Nov-97	1100		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	862	-1.41	36	Nov-11	4.5	1063	0.12
10	Nov-98	4.5	1090.0	0.33	37	Jun-12	4.5	1057	0.08
11	Apr-99	4.5	921	-0.96	38	Dec-12	4.5	1071	0.19
12	Nov-99	4.5	932	-0.88	39	Jun-13	4.5	1040	-0.05
13	Apr-00	4.5	980	-0.51	40	Nov-13	4.5	1063	0.12
14	Dec-00	4.5	990.0	-0.43	41	Jun-14	4.5	1048	0.01
15	May-01	4.5	1160	0.87	42	Nov-14	4.5	1073	0.20
16	Oct-01	4.5	1020	-0.20	43	Jun-15	4.5	1060	0.10
17	May-02	4.5	2080	7.90	44	Nov-15	4.5	1065	0.14
18	Nov-02	4.5	820	-1.73	45	Jun-16	4.5	1063	0.12
19	Jun-03	4.5	790	-1.96	46	Nov-16	4.5	1059	0.09
20	Nov-03	4.5	1180	1.02	47	Jun-17	4.5	1075	0.22
21	Jun-04	4.5	863	-1.40	48	Nov-17	4.5	1092	0.35
22	Dec-04	4.5	960	-0.66	49	Jun-18	4.5	1074	0.21
23	Jun-05	4.5	819	-1.74	50	Nov-18	4.5	1106	0.45
24	Dec-05	4.5	1120	0.56	51	Jun-19	4.5	1050	0.02
25	Jun-06	4.5	1120	0.56	52	Nov-19	4.5	1055	0.06
26	Nov-06	4.5	1100	0.41	53	Jun-20	4.5	725	-2.46
27	Jun-07	4.5	1070	0.18	54	Nov-20	4.5	1084	0.28
28	Nov-07	4.5	1090	0.33	55	Jun-21	4.5	1080	0.25
29	Jun-08	4.5	1060	0.10	56	Nov-21	4.5	1001	-0.35
30	Nov-08	4.5	1088	0.32	57	Jun-22	4.5	1090	0.33
31	Jun-09	4.5	1060	0.10					
32	Nov-09	4.5	1070	0.18					
33	Jun-10	4.5	1080	0.25					
34	Nov-10	4.5	1065	0.14					
35	Jun-11	4.5	1031	-0.12					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

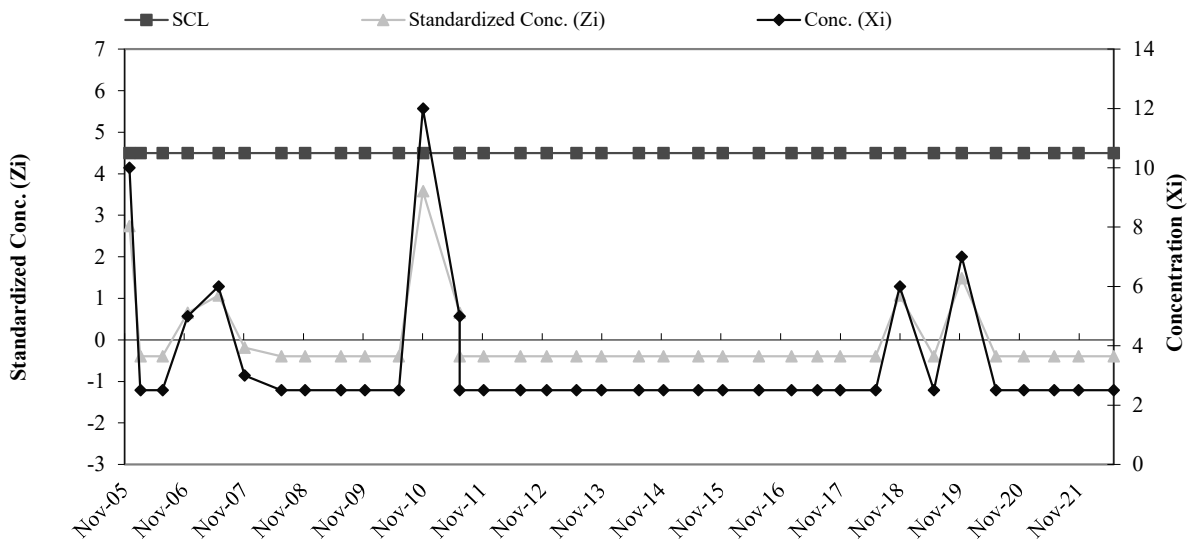


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	May-98	5	3.44	2.39
2	May-01	5		
3	May-02	5		
4	Jun-03	2.5		
5	Nov-03	2.5		
6	Jun-04	2.5		
7	Dec-04	2.5		
8	Jun-05	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	10	2.74	37	Nov-18	4.5	6	1.07
10	Feb-06	4.5	2.5	-0.39	38	Jun-19	4.5	2.5	-0.39
11	Jun-06	4.5	2.5	-0.39	39	Nov-19	4.5	7	1.49
12	Nov-06	4.5	5	0.65	40	Jun-20	4.5	2.5	-0.39
13	Jun-07	4.5	6	1.07	41	Dec-20	4.5	2.5	-0.39
14	Nov-07	4.5	3	-0.18	42	Jun-21	4.5	2.5	-0.39
15	Jun-08	4.5	2.5	-0.39	43	Nov-21	4.5	2.5	-0.39
16	Nov-08	4.5	2.5	-0.39	44	Jun-22	4.5	2.5	-0.39
17	Jun-09	4.5	2.5	-0.39					
18	Nov-09	4.5	2.5	-0.39					
19	Jun-10	4.5	2.5	-0.39					
20	Nov-10	4.5	12	3.58					
21	Jun-11	4.5	5	0.65					
22	Jun-11	4.5	2.5	-0.39					
23	Nov-11	4.5	2.5	-0.39					
24	Jun-12	4.5	2.5	-0.39					
25	Dec-12	4.5	2.5	-0.39					
26	Jun-13	4.5	2.5	-0.39					
27	Nov-13	4.5	2.5	-0.39					
28	Jun-14	4.5	2.5	-0.39					
29	Nov-14	4.5	2.5	-0.39					
30	Jun-15	4.5	2.5	-0.39					
31	Nov-15	4.5	2.5	-0.39					
32	Jun-16	4.5	2.5	-0.39					
33	Jan-17	4.5	2.5	-0.39					
34	Jun-17	4.5	2.5	-0.39					
35	Nov-17	4.5	2.5	-0.39					
36	Jun-18	4.5	2.5	-0.39					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

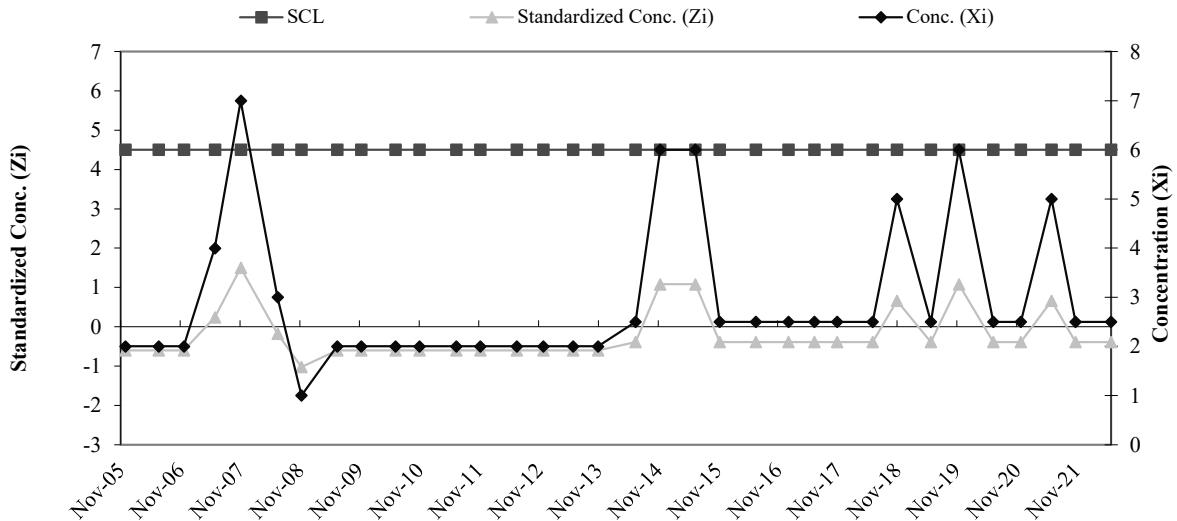


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a Cu**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	May-98	5	3.43	2.38
2	May-01	5		
3	May-02	5		
4	Jun-03	2.5		
5	Nov-03	2.5		
6	Jun-04	2.5		
7	Dec-04	2.5		
8	Jun-05	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	2	-0.60	36	Jun-19	4.5	2.5	-0.39
10	Jun-06	4.5	2	-0.60	37	Nov-19	4.5	6	1.08
11	Nov-06	4.5	2	-0.60	38	Jun-20	4.5	2.5	-0.39
12	Jun-07	4.5	4	0.24	39	Dec-20	4.5	2.5	-0.39
13	Nov-07	4.5	7	1.50	40	Jun-21	4.5	5	0.66
14	Jun-08	4.5	3	-0.18	41	Nov-21	4.5	2.5	-0.39
15	Nov-08	4.5	1	-1.02	42	Jun-22	4.5	2.5	-0.39
16	Jun-09	4.5	2	-0.60					
17	Nov-09	4.5	2	-0.60					
18	Jun-10	4.5	2	-0.60					
19	Nov-10	4.5	2	-0.60					
20	Jun-11	4.5	2	-0.60					
21	Nov-11	4.5	2	-0.60					
22	Jun-12	4.5	2	-0.60					
23	Dec-12	4.5	2	-0.60					
24	Jun-13	4.5	2	-0.60					
25	Nov-13	4.5	2	-0.60					
26	Jun-14	4.5	2.5	-0.39					
27	Nov-14	4.5	6	1.08					
28	Jun-15	4.5	6	1.08					
29	Nov-15	4.5	2.5	-0.39					
30	Jun-16	4.5	2.5	-0.39					
31	Jan-17	4.5	2.5	-0.39					
32	Jun-17	4.5	2.5	-0.39					
33	Nov-17	4.5	2.5	-0.39					
34	Jun-18	4.5	2.5	-0.39					
35	Nov-18	4.5	5	0.66					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

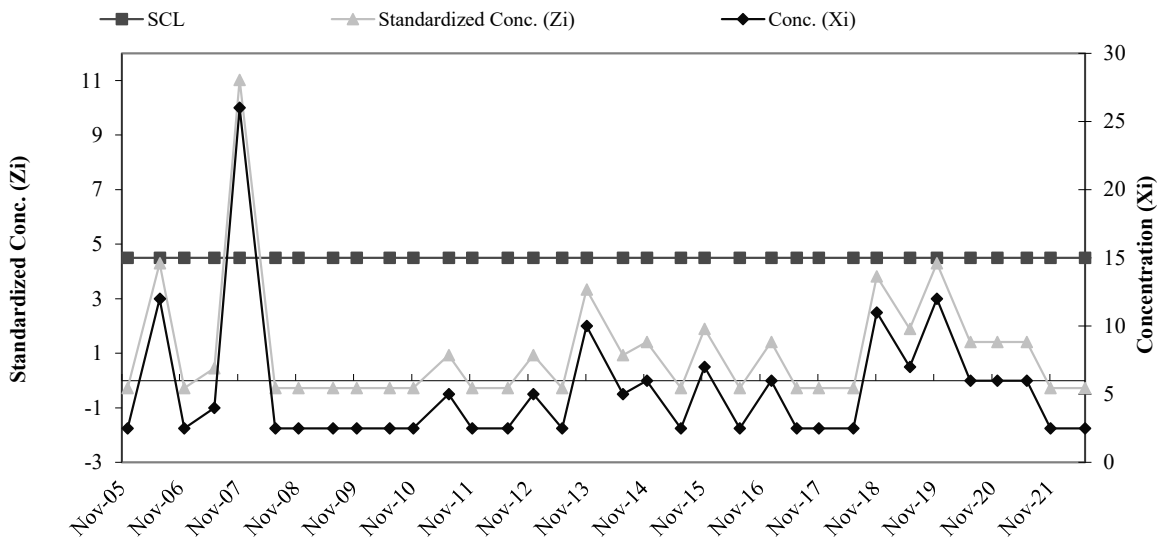


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a Ni**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	May-98	2.5	3.06	2.08
2	May-01	2.5		
3	May-02	2.5		
4	Jun-03	2.5		
5	Nov-03	2.5		
6	Jun-04	2.5		
7	Dec-04	2.5		
8	Jun-05	7		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	2.5	-0.27	37	Jun-19	4.5	7	1.89
10	Jun-06	4.5	12	4.30	38	Nov-19	4.5	12	4.30
11	Nov-06	4.5	2.5	-0.27	39	Jun-20	4.5	6	1.41
12	Jun-07	4.5	4	0.45	40	Dec-20	4.5	6	1.41
13	Nov-07	4.5	26	11.03	41	Jun-21	4.5	6	1.41
14	Jun-08	4.5	2.5	-0.27	42	Nov-21	4.5	2.5	-0.27
15	Nov-08	4.5	2.5	-0.27	43	Jun-22	4.5	2.5	-0.27
16	Jun-09	4.5	2.5	-0.27					
17	Nov-09	4.5	2.5	-0.27					
19	Jun-10	4.5	2.5	-0.27					
20	Nov-10	4.5	2.5	-0.27					
21	Jun-11	4.5	5	0.93					
22	Nov-11	4.5	2.5	-0.27					
23	Jun-12	4.5	2.5	-0.27					
24	Dec-12	4.5	5	0.93					
25	Jun-13	4.5	2.5	-0.27					
26	Nov-13	4.5	10	3.34					
27	Jun-14	4.5	5	0.93					
28	Nov-14	4.5	6	1.41					
29	Jun-15	4.5	2.5	-0.27					
30	Nov-15	4.5	7	1.89					
31	Jun-16	4.5	2.5	-0.27					
32	Jan-17	4.5	6	1.41					
33	Jun-17	4.5	2.5	-0.27					
34	Nov-17	4.5	2.5	-0.27					
35	Jun-18	4.5	2.5	-0.27					
36	Nov-18	4.5	11	3.82					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean



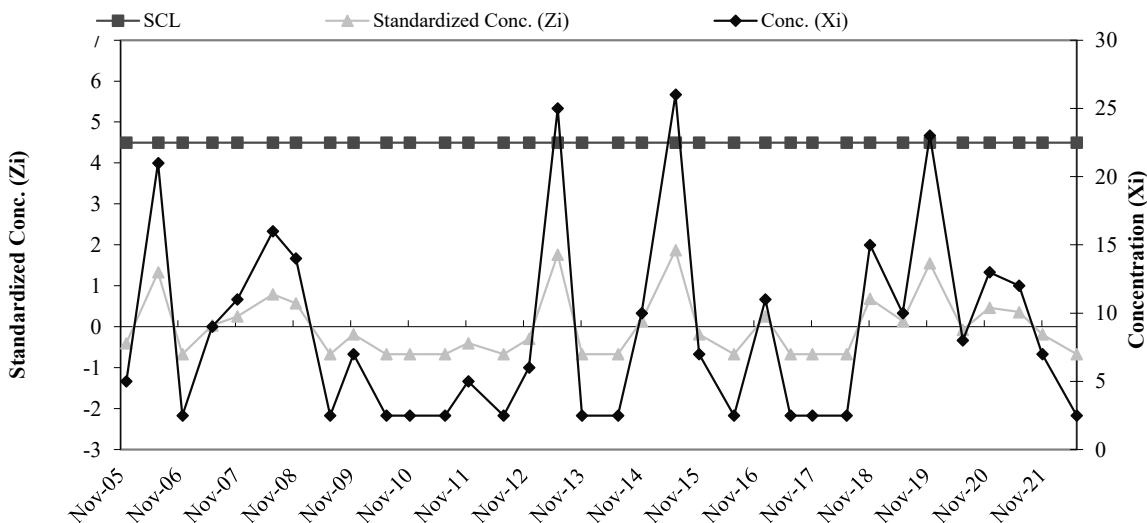
**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART**

B-19a Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	May-98	30	8.69	9.24
2	May-01	5		
3	May-02	10		
4	Jun-03	2.5		
5	Nov-03	2.5		
6	Jun-04	8		
7	Dec-04	9		
8	Jun-05	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	5	-0.40	37	Nov-19	4.5	23	1.55
10	Jun-06	4.5	21	1.33	38	Jun-20	4.5	8	-0.07
11	Nov-06	4.5	2.5	-0.67	39	Dec-20	4.5	13	0.47
12	Jun-07	4.5	9	0.03	40	Jun-21	4.5	12	0.36
13	Nov-07	4.5	11	0.25	41	Nov-21	4.5	7	-0.18
14	Jun-08	4.5	16	0.79	42	Jun-22	4.5	2.5	-0.67
15	Nov-08	4.5	14	0.57					
16	Jun-09	4.5	2.5	-0.67					
17	Nov-09	4.5	7	-0.18					
18	Jun-10	4.5	2.5	-0.67					
19	Nov-10	4.5	2.5	-0.67					
20	Jun-11	4.5	2.5	-0.67					
21	Nov-11	4.5	5	-0.40					
22	Jun-12	4.5	2.5	-0.67					
23	Dec-12	4.5	6	-0.29					
24	Jun-13	4.5	25	1.77					
25	Nov-13	4.5	2.5	-0.67					
26	Jun-14	4.5	2.5	-0.67					
27	Nov-14	4.5	10	0.14					
28	Jun-15	4.5	26	1.87					
29	Nov-15	4.5	7	-0.18					
30	Jun-16	4.5	2.5	-0.67					
31	Jan-17	4.5	11	0.25					
32	Jun-17	4.5	2.5	-0.67					
33	Nov-17	4.5	2.5	-0.67					
34	Jun-18	4.5	2.5	-0.67					
35	Nov-18	4.5	15	0.68					
36	Jun-19	4.5	10	0.14					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

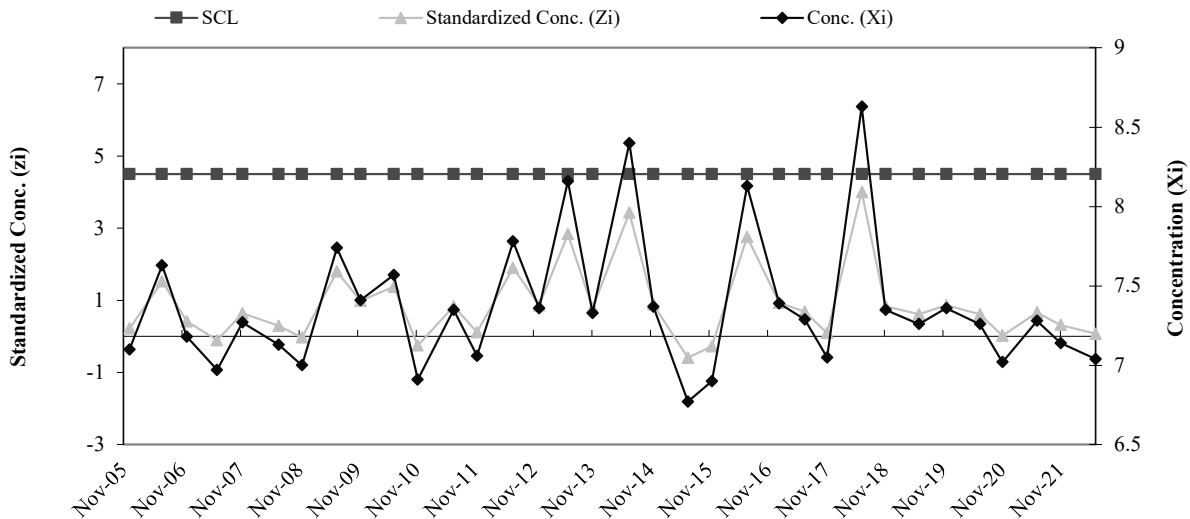


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a pH**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	May-98	6.8	7.01	0.40
2	May-01	7.1		
3	May-02	7.2		
4	Jun-03	6.9		
5	Nov-03	7.6		
6	Jun-04	7.2		
7	Dec-04	6.2		
8	Jun-05	7.1		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	7.1	0.22	38	Jun-20	4.5	7.3	0.61
10	Jun-06	4.5	7.6	1.53	39	Nov-20	4.5	7.0	0.02
11	Nov-06	4.5	7.2	0.42	40	Jun-21	4.5	7.3	0.66
12	Jun-07	4.5	7.0	-0.10	41	Nov-21	4.5	7.1	0.32
13	Nov-07	4.5	7.3	0.64	42	Jun-22	4.5	7.0	0.07
14	Jun-08	4.5	7.1	0.29					
15	Nov-08	4.5	7.0	-0.03					
16	Jun-09	4.5	7.7	1.80					
17	Nov-09	4.5	7.4	0.99					
18	Jun-10	4.5	7.6	1.38					
19	Nov-10	4.5	6.9	-0.25					
20	Jun-11	4.5	7.4	0.84					
21	Nov-11	4.5	7.1	0.12					
22	Jun-12	4.5	7.8	1.90					
23	Dec-12	4.5	7.4	0.86					
24	Jun-13	4.5	8.2	2.84					
25	Nov-13	4.5	7.3	0.79					
26	Jun-14	4.5	8.4	3.43					
27	Nov-14	4.5	7.4	0.89					
28	Jun-15	4.5	6.8	-0.60					
29	Nov-15	4.5	6.9	-0.27					
30	Jun-16	4.5	8.1	2.76					
31	Jan-17	4.5	7.4	0.94					
32	Jun-17	4.5	7.3	0.69					
33	Nov-17	4.5	7.1	0.10					
34	Jun-18	4.5	8.6	4.00					
35	Nov-18	4.5	7.4	0.84					
36	Jun-19	4.5	7.3	0.61					
37	Nov-19	4.5	7.4	0.86					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

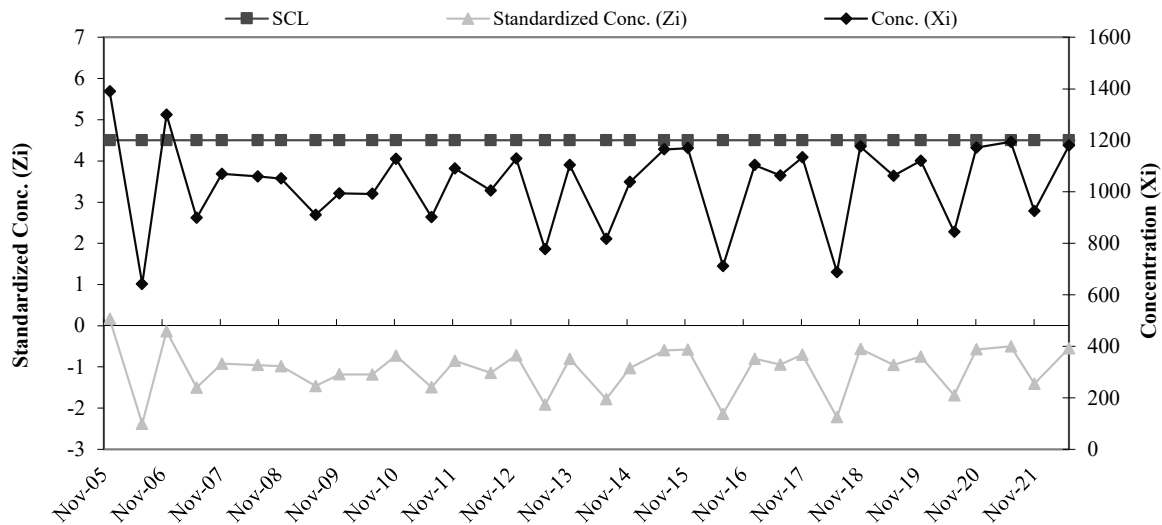


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	May-98	1480	1,340.63	293.72
2	May-01	1050		
3	May-02	1740		
4	Jun-03	1350		
5	Nov-03	1620		
6	Jun-04	1316		
7	Dec-04	1340		
8	Jun-05	829		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	1390	0.17	38	Jun-20	4.5	845	-1.69
10	Jun-06	4.5	642	-2.38	39	Nov-20	4.5	1172	-0.57
11	Nov-06	4.5	1300	-0.14	40	Jun-21	4.5	1194	-0.50
12	Jun-07	4.5	899	-1.50	41	Nov-21	4.5	926	-1.41
13	Nov-07	4.5	1070	-0.92	42	Jun-22	4.5	1180	-0.55
14	Jun-08	4.5	1060	-0.96					
15	Nov-08	4.5	1052	-0.98					
16	Jun-09	4.5	911	-1.46					
17	Nov-09	4.5	994	-1.18					
18	Jun-10	4.5	992	-1.19					
19	Nov-10	4.5	1128	-0.72					
20	Jun-11	4.5	902	-1.49					
21	Nov-11	4.5	1091	-0.85					
22	Jun-12	4.5	1005	-1.14					
23	Dec-12	4.5	1129	-0.72					
24	Jun-13	4.5	777	-1.92					
25	Nov-13	4.5	1104	-0.81					
26	Jun-14	4.5	817	-1.78					
27	Nov-14	4.5	1038	-1.03					
28	Jun-15	4.5	1165	-0.60					
29	Nov-15	4.5	1170	-0.58					
30	Jun-16	4.5	712	-2.14					
31	Jan-17	4.5	1104	-0.81					
32	Jun-17	4.5	1064	-0.94					
33	Nov-17	4.5	1134	-0.70					
34	Jun-18	4.5	688	-2.22					
35	Nov-18	4.5	1176	-0.56					
36	Jun-19	4.5	1062	-0.95					
37	Nov-19	4.5	1121	-0.75					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

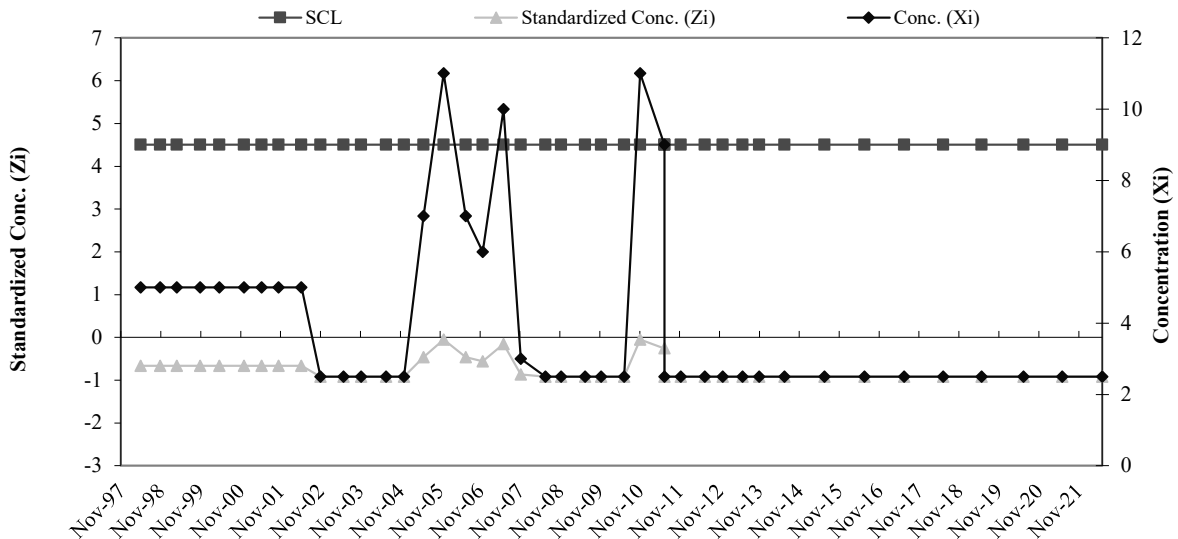


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	11.51	9.80
2	Aug-95	10		
3	Feb-96	32		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.66	37	Nov-11	4.5	2.5	-0.92
10	Nov-98	4.5	5	-0.66	38	Jun-12	4.5	2.5	-0.92
11	Apr-99	4.5	5	-0.66	39	Dec-12	4.5	2.5	-0.92
12	Nov-99	4.5	5	-0.66	40	Jun-13	4.5	2.5	-0.92
13	Apr-00	4.5	5	-0.66	41	Nov-13	4.5	2.5	-0.92
14	Dec-00	4.5	5	-0.66	42	Jun-14	4.5	2.5	-0.92
15	May-01	4.5	5	-0.66	43	Jun-15	4.5	2.5	-0.92
16	Oct-01	4.5	5	-0.66	44	Jun-16	4.5	2.5	-0.92
17	May-02	4.5	5	-0.66	45	Jun-17	4.5	2.5	-0.92
18	Nov-02	4.5	2.5	-0.92	46	Jun-18	4.5	2.5	-0.92
19	Jun-03	4.5	2.5	-0.92	47	May-19	4.5	2.5	-0.92
20	Nov-03	4.5	2.5	-0.92	48	Jun-20	4.5	2.5	-0.92
21	Jun-04	4.5	2.5	-0.92	49	Jun-21	4.5	2.5	-0.92
22	Dec-04	4.5	2.5	-0.92	50	Jun-22	4.5	2.5	-0.92
23	Jun-05	4.5	7	-0.46					
24	Dec-05	4.5	11	-0.05					
25	Jun-06	4.5	7	-0.46					
26	Nov-06	4.5	6	-0.56					
27	Jun-07	4.5	10	-0.15					
28	Nov-07	4.5	3	-0.87					
29	Jun-08	4.5	2.5	-0.92					
30	Nov-08	4.5	2.5	-0.92					
31	Jun-09	4.5	2.5	-0.92					
32	Nov-09	4.5	2.5	-0.92					
33	Jun-10	4.5	2.5	-0.92					
34	Nov-10	4.5	11	-0.05					
35	Jun-11	4.5	9	-0.26					
36	Jun-11	4.5	2.5	-0.92					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

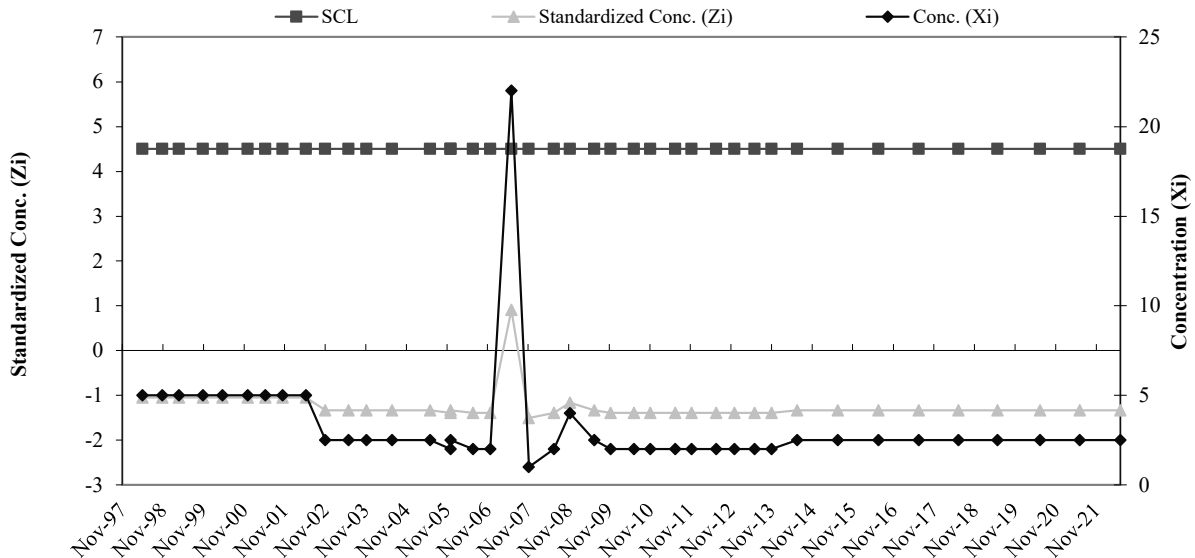


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	14.13	8.70
2	Aug-95	20		
3	Feb-96	28		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	20		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-1.05	36	Nov-11	4.5	2	-1.39
10	Nov-98	4.5	5	-1.05	37	Jun-12	4.5	2	-1.39
11	Apr-99	4.5	5	-1.05	38	Dec-12	4.5	2	-1.39
12	Nov-99	4.5	5	-1.05	39	Jun-13	4.5	2	-1.39
13	Apr-00	4.5	5	-1.05	40	Nov-13	4.5	2	-1.39
14	Dec-00	4.5	5	-1.05	41	Jun-14	4.5	2.5	-1.34
15	May-01	4.5	5	-1.05	42	Jun-15	4.5	2.5	-1.34
16	Oct-01	4.5	5	-1.05	43	Jun-16	4.5	2.5	-1.34
17	May-02	4.5	5	-1.05	44	Jun-17	4.5	2.5	-1.34
18	Nov-02	4.5	2.5	-1.34	45	Jun-18	4.5	2.5	-1.34
19	Jun-03	4.5	2.5	-1.34	46	May-19	4.5	2.5	-1.34
20	Nov-03	4.5	2.5	-1.34	47	Jun-20	4.5	2.5	-1.34
21	Jun-04	4.5	2.5	-1.34	48	Jun-21	4.5	2.5	-1.34
22	Dec-05	4.5	2.5	-1.34	49	Jun-22	4.5	2.5	-1.34
23	Jun-05	4.5	2.5	-1.34					
24	Dec-05	4.5	2	-1.39					
25	Jun-06	4.5	2	-1.39					
26	Nov-06	4.5	2	-1.39					
27	Jun-07	4.5	22	0.90					
28	Nov-07	4.5	1	-1.51					
29	Jun-08	4.5	2	-1.39					
30	Nov-08	4.5	4	-1.16					
31	Jun-09	4.5	2.5	-1.34					
32	Nov-09	4.5	2	-1.39					
33	Jun-10	4.5	2	-1.39					
34	Nov-10	4.5	2	-1.39					
35	Jun-11	4.5	2	-1.39					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

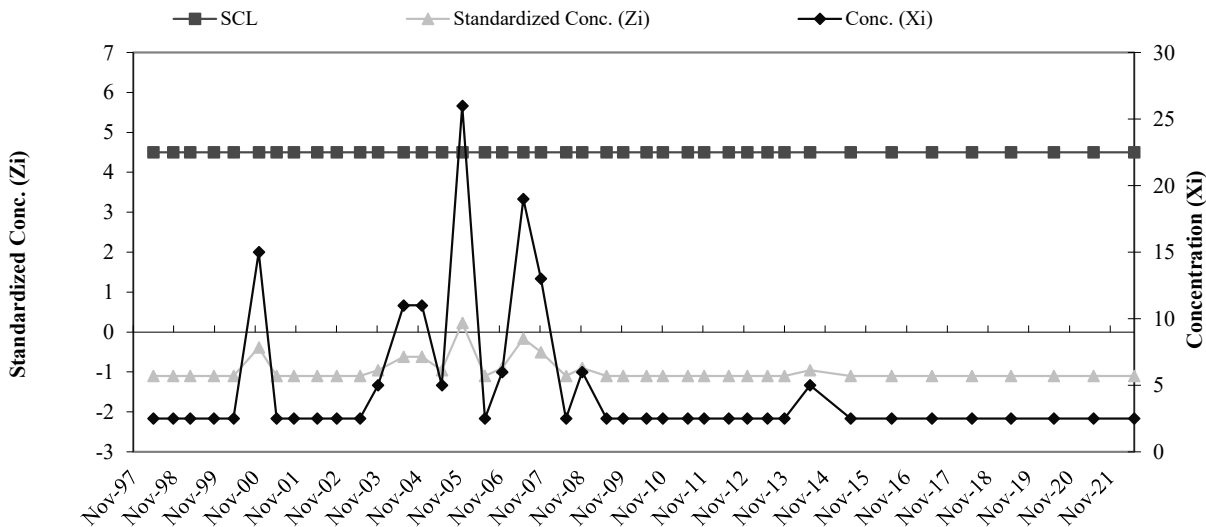


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d Ni**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15	21.88	17.64
2	Aug-95	20		
3	Feb-96	54		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	15		
8	Nov-97	41		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-1.10	36	Nov-11	4.5	2.5	-1.10
10	Nov-98	4.5	2.5	-1.10	37	Jun-12	4.5	2.5	-1.10
11	Apr-99	4.5	2.5	-1.10	38	Dec-12	4.5	2.5	-1.10
12	Nov-99	4.5	2.5	-1.10	39	Jun-13	4.5	2.5	-1.10
13	Apr-00	4.5	2.5	-1.10	40	Nov-13	4.5	2.5	-1.10
14	Dec-00	4.5	15	-0.39	41	Jun-14	4.5	5	-0.96
15	May-01	4.5	2.5	-1.10	42	Jun-15	4.5	2.5	-1.10
16	Oct-01	4.5	2.5	-1.10	43	Jun-16	4.5	2.5	-1.10
17	May-02	4.5	2.5	-1.10	44	Jun-17	4.5	2.5	-1.10
18	Nov-02	4.5	2.5	-1.10	45	Jun-18	4.5	2.5	-1.10
19	Jun-03	4.5	2.5	-1.10	46	May-19	4.5	2.5	-1.10
20	Nov-03	4.5	5	-0.96	47	Jun-20	4.5	2.5	-1.10
21	Jun-04	4.5	11	-0.62	48	Jun-21	4.5	2.5	-1.10
22	Dec-04	4.5	11	-0.62	49	Jun-22	4.5	2.5	-1.10
23	Jun-05	4.5	5	-0.96					
24	Dec-05	4.5	26	0.23					
25	Jun-06	4.5	2.5	-1.10					
26	Nov-06	4.5	6	-0.90					
27	Jun-07	4.5	19	-0.16					
28	Nov-07	4.5	13	-0.50					
29	Jun-08	4.5	2.5	-1.10					
30	Nov-08	4.5	6	-0.90					
31	Jun-09	4.5	2.5	-1.10					
32	Nov-09	4.5	2.5	-1.10					
33	Jun-10	4.5	2.5	-1.10					
34	Nov-10	4.5	2.5	-1.10					
35	Jun-11	4.5	2.5	-1.10					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

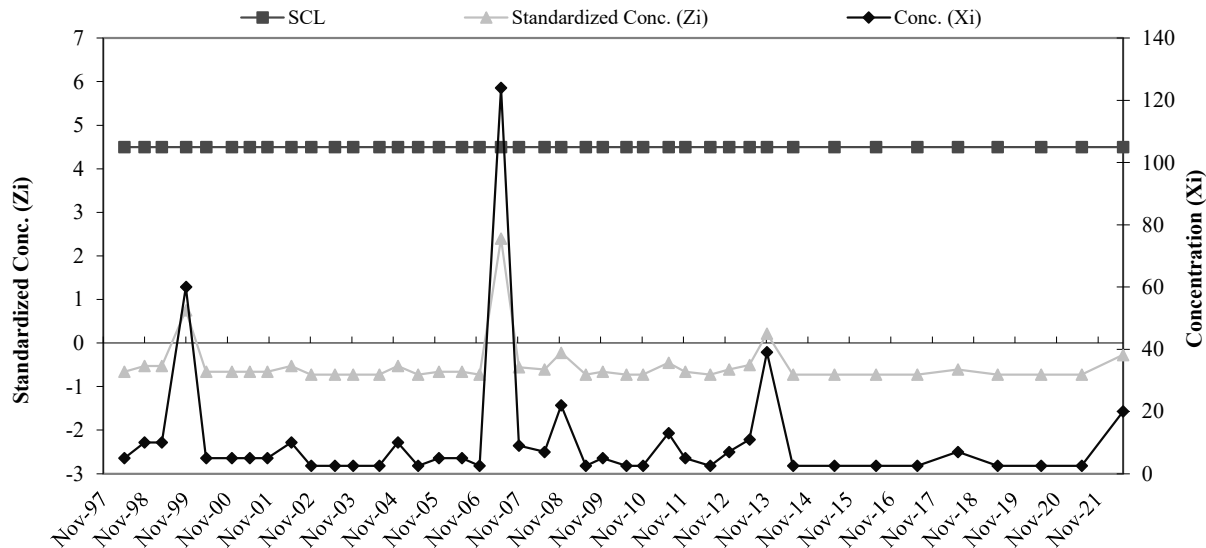


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d Zn**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	30.66	38.93
2	Aug-95	10		
3	Feb-96	120		
4	Jun-96	10		
5	Aug-96	40		
6	Nov-96	40		
7	May-97	10		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.66	36	Nov-11	4.5	5	-0.66
10	Nov-98	4.5	10	-0.53	37	Jun-12	4.5	2.5	-0.72
11	Apr-99	4.5	10	-0.53	38	Dec-12	4.5	7	-0.61
12	Nov-99	4.5	60	0.75	39	Jun-13	4.5	11	-0.51
13	Apr-00	4.5	5	-0.66	40	Nov-13	4.5	39	0.21
14	Dec-00	4.5	5	-0.66	41	Jun-14	4.5	2.5	-0.72
15	May-01	4.5	5	-0.66	42	Jun-15	4.5	2.5	-0.72
16	Oct-01	4.5	5	-0.66	43	Jun-16	4.5	2.5	-0.72
17	May-02	4.5	10	-0.53	44	Jun-17	4.5	2.5	-0.72
18	Nov-02	4.5	2.5	-0.72	45	Jun-18	4.5	7	-0.61
19	Jun-03	4.5	2.5	-0.72	46	May-19	4.5	2.5	-0.72
20	Nov-03	4.5	2.5	-0.72	47	Jun-20	4.5	2.5	-0.72
21	Jun-04	4.5	2.5	-0.72	48	Jun-21	4.5	2.5	-0.72
22	Dec-04	4.5	10	-0.53	49	Jun-22	4.5	20	-0.27
23	Jun-05	4.5	2.5	-0.72					
24	Dec-05	4.5	5	-0.66					
25	Jun-06	4.5	5	-0.66					
26	Nov-06	4.5	2.5	-0.72					
27	Jun-07	4.5	124	2.40					
28	Nov-07	4.5	9	-0.56					
29	Jun-08	4.5	7	-0.61					
30	Nov-08	4.5	22	-0.22					
31	Jun-09	4.5	2.5	-0.72					
32	Nov-09	4.5	5	-0.66					
33	Jun-10	4.5	2.5	-0.72					
34	Nov-10	4.5	2.5	-0.72					
35	Jun-11	4.5	13	-0.45					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

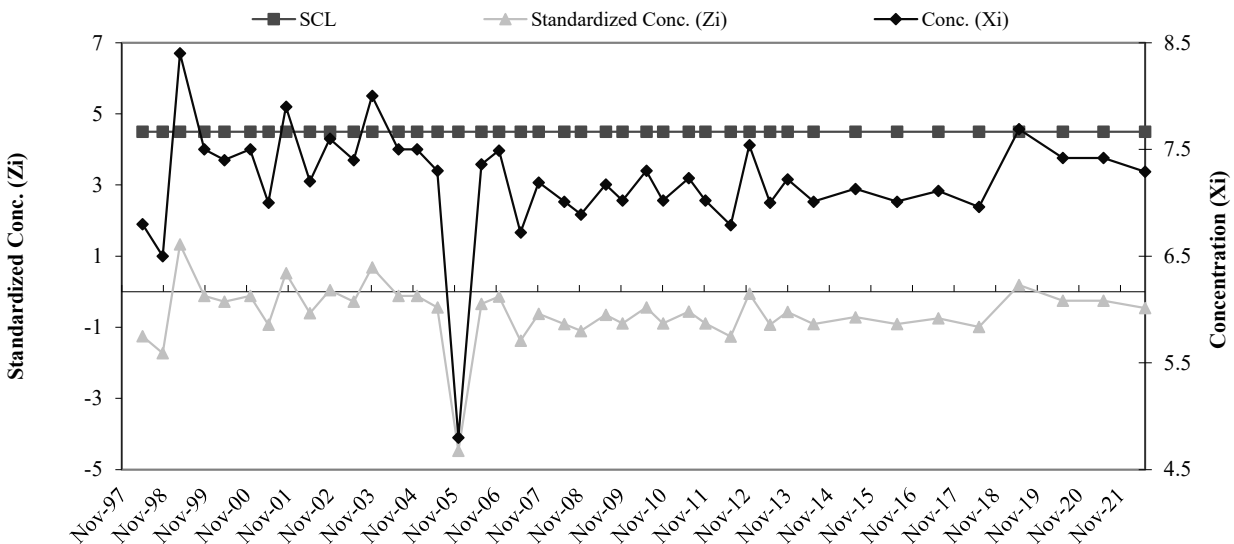


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	8.3	7.58	0.62
2	Aug-95	8.1		
3	Feb-96	7.1		
4	Jun-96	7.9		
5	Aug-96	8.0		
6	Nov-96	7.7		
7	May-97	6.8		
8	Nov-97	6.7		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.8	-1.25	36	Nov-11	4.5	7.0	-0.89
10	Nov-98	4.5	6.5	-1.73	37	Jun-12	4.5	6.8	-1.27
11	Apr-99	4.5	8.4	1.33	38	Dec-12	4.5	7.5	-0.06
12	Nov-99	4.5	7.5	-0.12	39	Jun-13	4.5	7.0	-0.93
13	Apr-00	4.5	7.4	-0.28	40	Nov-13	4.5	7.2	-0.57
14	Dec-00	4.5	7.5	-0.12	41	Jun-14	4.5	7.0	-0.91
15	May-01	4.5	7.0	-0.93	42	Jun-15	4.5	7.1	-0.72
16	Oct-01	4.5	7.9	0.52	43	Jun-16	4.5	7.0	-0.91
17	May-02	4.5	7.2	-0.60	44	Jun-17	4.5	7.1	-0.75
18	Nov-02	4.5	7.6	0.04	45	Jun-18	4.5	7.0	-0.99
19	Jun-03	4.5	7.4	-0.28	46	May-19	4.5	7.7	0.19
20	Nov-03	4.5	8.0	0.68	47	Jun-20	4.5	7.4	-0.25
21	Jun-04	4.5	7.5	-0.12	48	Jun-21	4.5	7.4	-0.25
22	Dec-04	4.5	7.5	-0.12	49	Jun-22	4.5	7.3	-0.46
23	Jun-05	4.5	7.3	-0.44					
24	Dec-05	4.5	4.8	-4.47					
25	Jun-06	4.5	7.4	-0.35					
26	Nov-06	4.5	7.5	-0.14					
27	Jun-07	4.5	6.7	-1.38					
28	Nov-07	4.5	7.2	-0.62					
29	Jun-08	4.5	7.0	-0.91					
30	Nov-08	4.5	6.9	-1.10					
31	Jun-09	4.5	7.2	-0.65					
32	Nov-09	4.5	7.0	-0.89					
33	Jun-10	4.5	7.3	-0.44					
34	Nov-10	4.5	7.0	-0.89					
35	Jun-11	4.5	7.2	-0.56					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

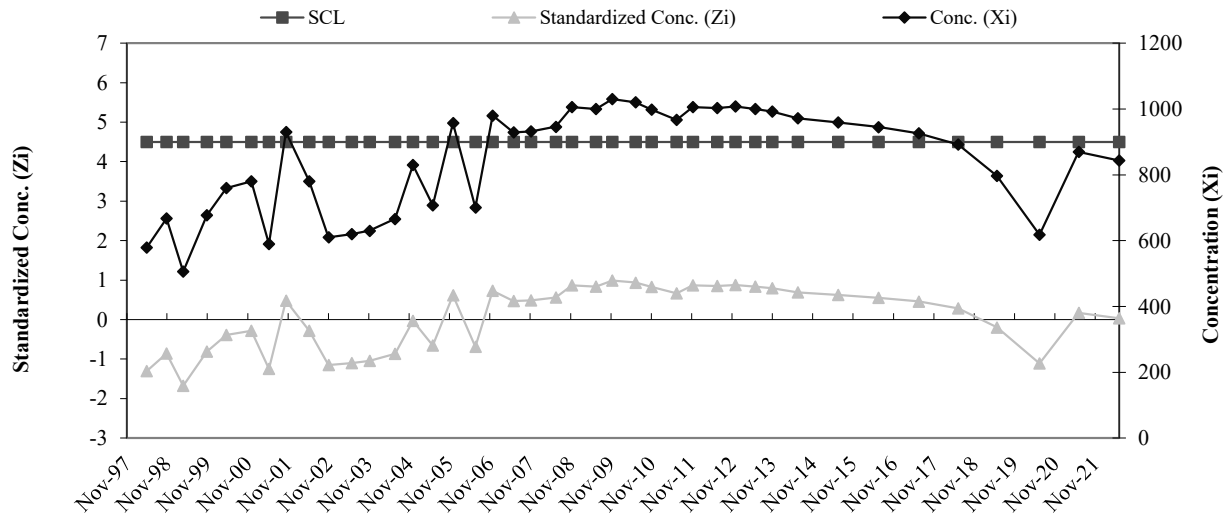


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	771	835.75	196.61
2	Aug-95	1204		
3	Feb-96	801		
4	Jun-96	745		
5	Aug-96	750		
6	Nov-96	1075		
7	May-97	640		
8	Nov-97	700		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	579	-1.31	36	Nov-11	4.5	1006	0.87
10	Nov-98	4.5	667	-0.86	37	Jun-12	4.5	1003	0.85
11	Apr-99	4.5	506	-1.68	38	Dec-12	4.5	1008	0.88
12	Nov-99	4.5	677	-0.81	39	Jun-13	4.5	1000	0.84
13	Apr-00	4.5	760	-0.39	40	Nov-13	4.5	992	0.79
14	Dec-00	4.5	780	-0.28	41	Jun-14	4.5	972	0.69
15	May-01	4.5	590	-1.25	42	Jun-15	4.5	959	0.63
16	Oct-01	4.5	930	0.48	43	Jun-16	4.5	945	0.56
17	May-02	4.5	780	-0.28	44	Jun-17	4.5	926	0.46
18	Nov-02	4.5	610	-1.15	45	Jun-18	4.5	892	0.29
19	Jun-03	4.5	620	-1.10	46	May-19	4.5	797	-0.20
20	Nov-03	4.5	630	-1.05	47	Jun-20	4.5	618	-1.11
21	Jun-04	4.5	666	-0.86	48	Jun-21	4.5	870	0.17
22	Dec-04	4.5	830	-0.03	49	Jun-22	4.5	843	0.04
23	Jun-05	4.5	707	-0.65					
24	Dec-05	4.5	957	0.62					
25	Jun-06	4.5	701	-0.69					
26	Nov-06	4.5	980	0.73					
27	Jun-07	4.5	929	0.47					
28	Nov-07	4.5	932	0.49					
29	Jun-08	4.5	946	0.56					
30	Nov-08	4.5	1006	0.87					
31	Jun-09	4.5	1000	0.84					
32	Nov-09	4.5	1030	0.99					
33	Jun-10	4.5	1020	0.94					
34	Nov-10	4.5	998	0.83					
35	Jun-11	4.5	967	0.67					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

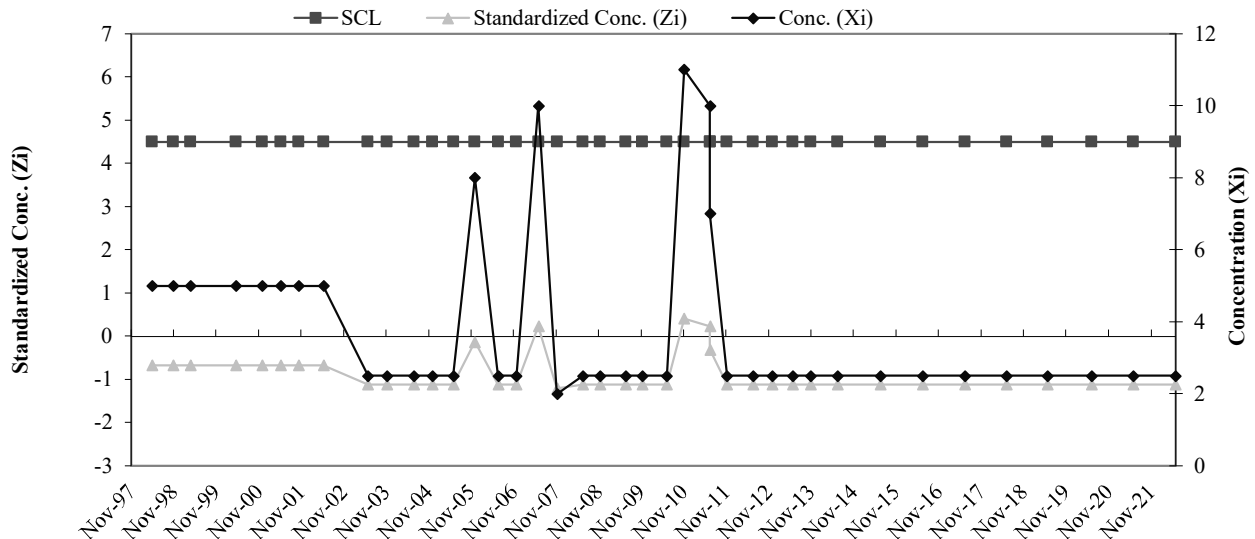


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d Cr**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	8.74	5.57
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.67	36	Nov-11	4.5	2.5	-1.12
10	Nov-98	4.5	5	-0.67	37	Jun-12	4.5	2.5	-1.12
11	Apr-99	4.5	5	-0.67	38	Dec-12	4.5	2.5	-1.12
12	Apr-00	4.5	5	-0.67	39	Jun-13	4.5	2.5	-1.12
13	Dec-00	4.5	5	-0.67	40	Nov-13	4.5	2.5	-1.12
14	May-01	4.5	5	-0.67	41	Jun-14	4.5	2.5	-1.12
15	Oct-01	4.5	5	-0.67	42	Jun-15	4.5	2.5	-1.12
16	May-02	4.5	5	-0.67	43	Jun-16	4.5	2.5	-1.12
18	Jun-03	4.5	2.5	-1.12	44	Jun-17	4.5	2.5	-1.12
19	Nov-03	4.5	2.5	-1.12	45	Jun-18	4.5	2.5	-1.12
20	Jun-04	4.5	2.5	-1.12	46	May-19	4.5	2.5	-1.12
21	Dec-04	4.5	2.5	-1.12	47	Jun-20	4.5	2.5	-1.12
22	Jun-05	4.5	2.5	-1.12	48	Jun-21	4.5	2.5	-1.12
23	Dec-05	4.5	8	-0.13	49	Jun-22	4.5	2.5	-1.12
24	Jun-06	4.5	2.5	-1.12					
25	Nov-06	4.5	2.5	-1.12					
26	Jun-07	4.5	10	0.23					
27	Nov-07	4.5	2	-1.21					
28	Jun-08	4.5	2.5	-1.12					
29	Nov-08	4.5	2.5	-1.12					
30	Jun-09	4.5	2.5	-1.12					
31	Nov-09	4.5	2.5	-1.12					
32	Jun-10	4.5	2.5	-1.12					
33	Nov-10	4.5	11	0.41					
34	Jun-11	4.5	10	0.23					
35	Jun-11	4.5	7	-0.31					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

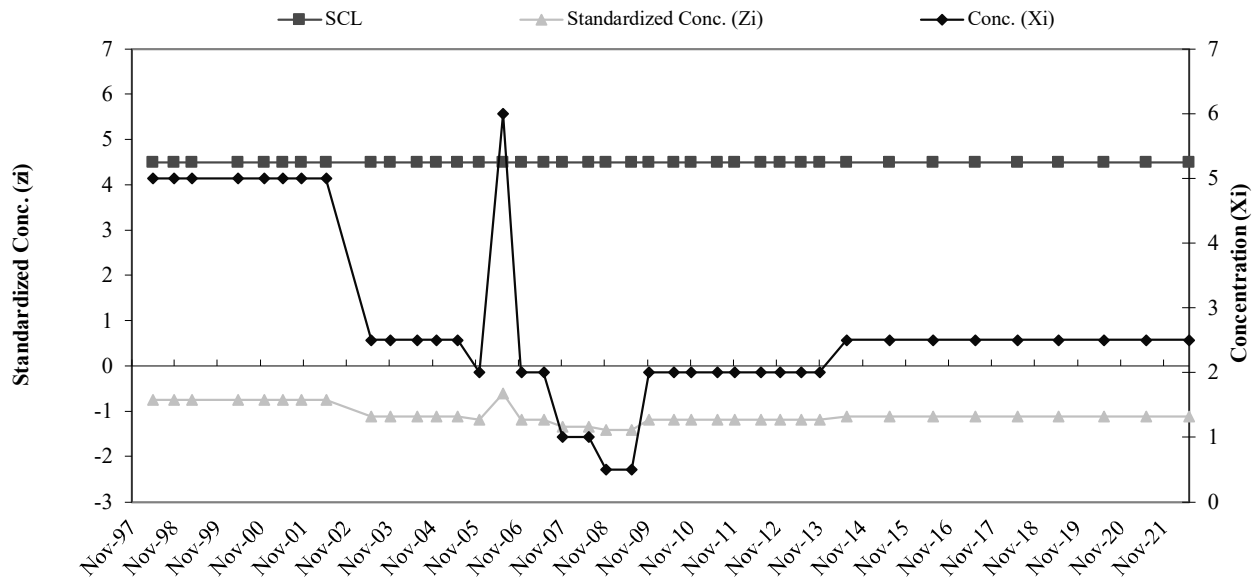


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d Cu**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	10.13	6.83
2	Aug-95	21		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.75	35	Nov-11	4.5	2	-1.19
10	Nov-98	4.5	5	-0.75	36	Jun-12	4.5	2	-1.19
11	Apr-99	4.5	5	-0.75	37	Dec-12	4.5	2	-1.19
12	Apr-00	4.5	5	-0.75	38	Jun-13	4.5	2	-1.19
13	Dec-00	4.5	5	-0.75	39	Nov-13	4.5	2	-1.19
14	May-01	4.5	5	-0.75	40	Jun-14	4.5	2.5	-1.12
15	Oct-01	4.5	5	-0.75	41	Jun-15	4.5	2.5	-1.12
16	May-02	4.5	5	-0.75	42	Jun-16	4.5	2.5	-1.12
18	Jun-03	4.5	2.5	-1.12	43	Jun-17	4.5	2.5	-1.12
19	Nov-03	4.5	2.5	-1.12	44	Jun-18	4.5	2.5	-1.12
20	Jun-04	4.5	2.5	-1.12	45	May-19	4.5	2.5	-1.12
21	Dec-04	4.5	2.5	-1.12	46	Jun-20	4.5	2.5	-1.12
22	Jun-05	4.5	2.5	-1.12	47	Jun-21	4.5	2.5	-1.12
23	Dec-05	4.5	2	-1.19	48	Jun-22	4.5	2.5	-1.12
24	Jun-06	4.5	6	-0.60					
25	Nov-06	4.5	2	-1.19					
26	Jun-07	4.5	2	-1.19					
27	Nov-07	4.5	1	-1.34					
28	Jun-08	4.5	1	-1.34					
29	Nov-08	4.5	0.5	-1.41					
30	Jun-09	4.5	0.5	-1.41					
31	Nov-09	4.5	2	-1.19					
32	Jun-10	4.5	2	-1.19					
33	Nov-10	4.5	2	-1.19					
34	Jun-11	4.5	2	-1.19					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

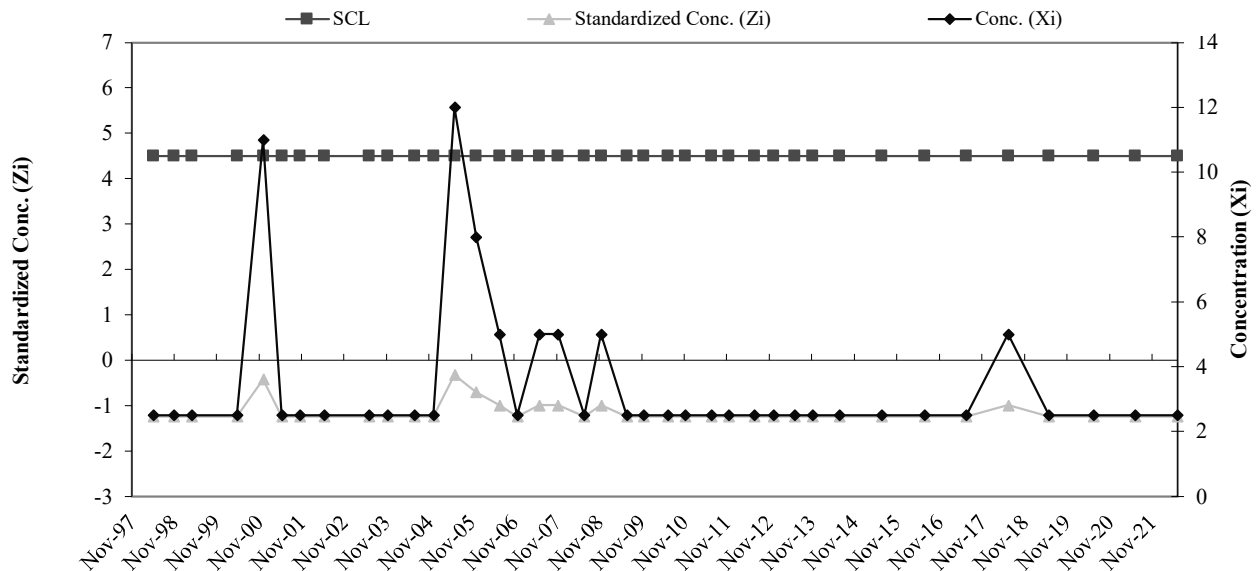


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d Ni**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15	15.37	10.43
2	Aug-95	20		
3	Feb-96	20		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	8		
8	Nov-97	30		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-1.23	35	Nov-11	4.5	2.5	-1.23
10	Nov-98	4.5	2.5	-1.23	36	Jun-12	4.5	2.5	-1.23
11	Apr-99	4.5	2.5	-1.23	37	Dec-12	4.5	2.5	-1.23
12	Apr-00	4.5	2.5	-1.23	38	Jun-13	4.5	2.5	-1.23
13	Dec-00	4.5	11	-0.42	39	Nov-13	4.5	2.5	-1.23
14	May-01	4.5	2.5	-1.23	40	Jun-14	4.5	2.5	-1.23
15	Oct-01	4.5	2.5	-1.23	41	Jun-15	4.5	2.5	-1.23
16	May-02	4.5	2.5	-1.23	42	Jun-16	4.5	2.5	-1.23
18	Jun-03	4.5	2.5	-1.23	43	Jun-17	4.5	2.5	-1.23
19	Nov-03	4.5	2.5	-1.23	44	Jun-18	4.5	5	-0.99
20	Jun-04	4.5	2.5	-1.23	45	May-19	4.5	2.5	-1.23
20	Dec-04	4.5	2.5	-1.23	46	Jun-20	4.5	2.5	-1.23
21	Jun-05	4.5	12	-0.32	47	Jun-21	4.5	2.5	-1.23
22	Dec-05	4.5	8	-0.71	48	Jun-22	4.5	2.5	-1.23
23	Jun-06	4.5	5	-0.99					
24	Nov-06	4.5	2.5	-1.23					
25	Jun-07	4.5	5	-0.99					
26	Nov-07	4.5	5	-0.99					
27	Jun-08	4.5	2.5	-1.23					
28	Nov-08	4.5	5	-0.99					
30	Jun-09	4.5	2.5	-1.23					
31	Nov-09	4.5	2.5	-1.23					
32	Jun-10	4.5	2.5	-1.23					
33	Nov-10	4.5	2.5	-1.23					
34	Jun-11	4.5	2.5	-1.23					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

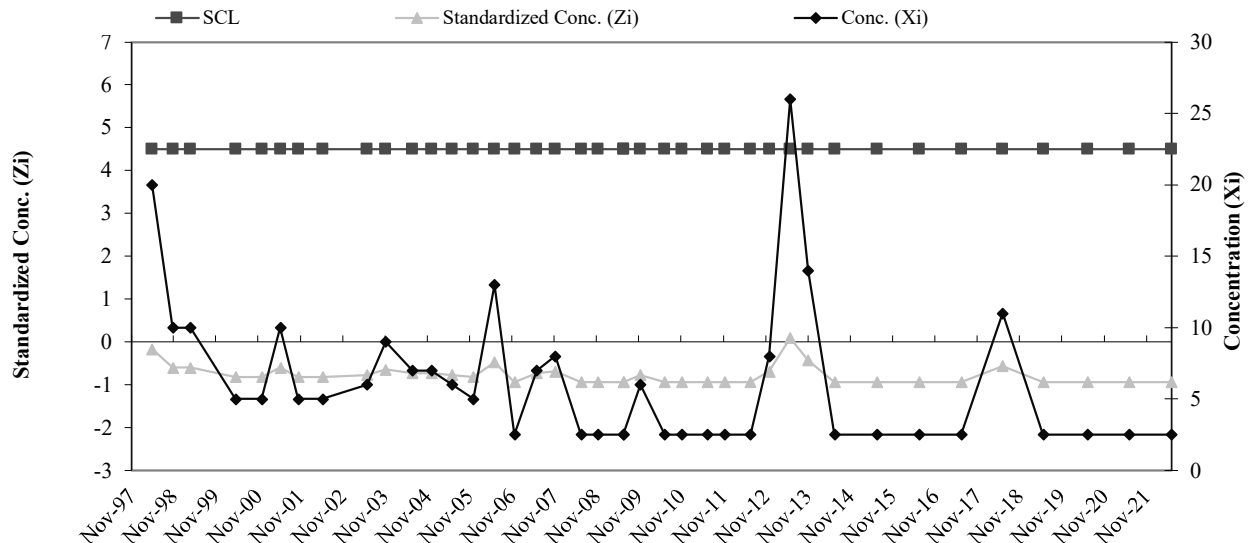


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	61	23.89	23.00
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	50		
6	Nov-96	40		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	20	-0.17	36	Nov-11	4.5	2.5	-0.93
10	Nov-98	4.5	10	-0.60	37	Jun-12	4.5	2.5	-0.93
11	Apr-99	4.5	10	-0.60	38	Dec-12	4.5	8	-0.69
12	Apr-00	4.5	5	-0.82	39	Jun-13	4.5	26	0.09
13	Dec-00	4.5	5	-0.82	40	Nov-13	4.5	14	-0.43
14	May-01	4.5	10	-0.60	41	Jun-14	4.5	2.5	-0.93
15	Oct-01	4.5	5	-0.82	42	Jun-15	4.5	2.5	-0.93
16	May-02	4.5	5	-0.82	43	Jun-16	4.5	2.5	-0.93
18	Jun-03	4.5	6	-0.78	44	Jun-17	4.5	2.5	-0.93
19	Nov-03	4.5	9	-0.65	45	Jun-18	4.5	11	-0.56
20	Jun-04	4.5	7	-0.73	46	May-19	4.5	2.5	-0.93
21	Dec-04	4.5	7	-0.73	47	Jun-20	4.5	2.5	-0.93
22	Jun-05	4.5	6	-0.78	48	Jun-21	4.5	2.5	-0.93
23	Dec-05	4.5	5	-0.82	49	Jun-22	4.5	2.5	-0.93
24	Jun-06	4.5	13	-0.47					
25	Nov-06	4.5	2.5	-0.93					
26	Jun-07	4.5	7	-0.73					
27	Nov-07	4.5	8	-0.69					
28	Jun-08	4.5	2.5	-0.93					
29	Nov-08	4.5	2.5	-0.93					
30	Jun-09	4.5	2.5	-0.93					
31	Jun-09	4.5	2.5	-0.93					
32	Nov-09	4.5	6	-0.78					
33	Jun-10	4.5	2.5	-0.93					
34	Nov-10	4.5	2.5	-0.93					
35	Jun-11	4.5	2.5	-0.93					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

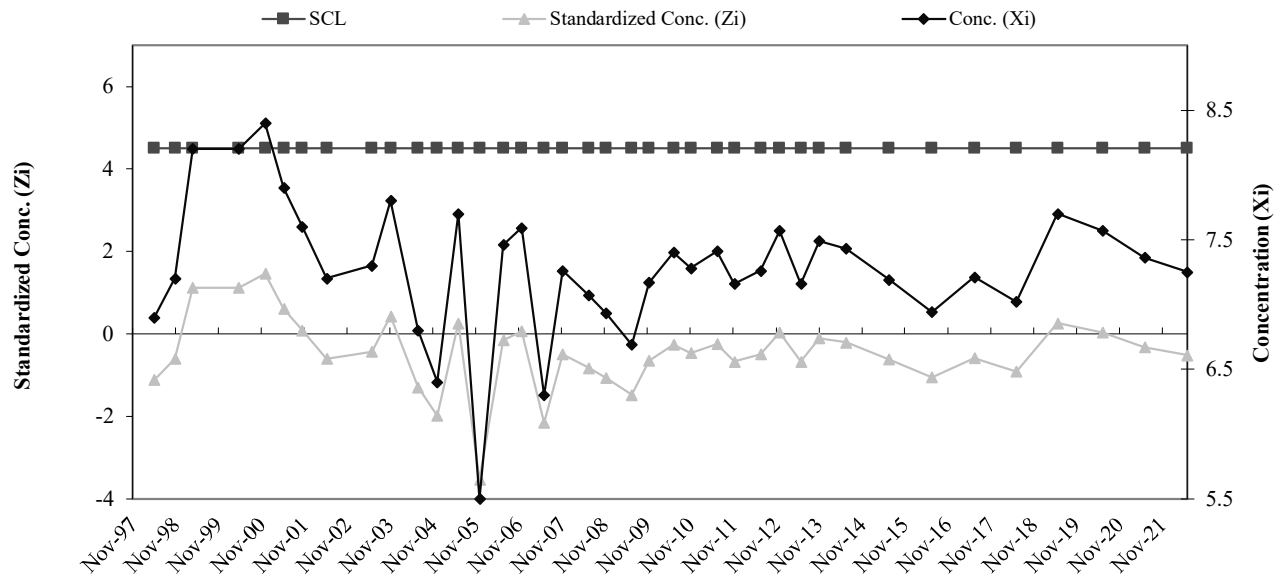


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d pH**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	8.3	7.55	0.58
2	Aug-95	8.1		
3	Feb-96	7.7		
4	Jun-96	7.6		
5	Aug-96	7.9		
6	Nov-96	7.3		
7	May-97	6.8		
8	Nov-97	6.7		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.9	-1.12	35	Nov-11	4.5	7.2	-0.67
10	Nov-98	4.5	7.2	-0.60	36	Jun-12	4.5	7.3	-0.50
11	Apr-99	4.5	8.2	1.12	37	Dec-12	4.5	7.6	0.03
12	Apr-00	4.5	8.2	1.12	38	Jun-13	4.5	7.2	-0.67
13	Dec-00	4.5	8.4	1.46	39	Nov-13	4.5	7.5	-0.10
14	May-01	4.5	7.9	0.60	40	Jun-14	4.5	7.4	-0.21
15	Oct-01	4.5	7.6	0.09	41	Jun-15	4.5	7.2	-0.62
16	May-02	4.5	7.2	-0.60	42	Jun-16	4.5	6.9	-1.05
18	Jun-03	4.5	7.3	-0.43	43	Jun-17	4.5	7.2	-0.59
19	Nov-03	4.5	7.8	0.43	44	Jun-18	4.5	7.0	-0.91
20	Jun-04	4.5	6.8	-1.29	45	May-19	4.5	7.7	0.26
21	Dec-04	4.5	6.4	-1.98	46	Jun-20	4.5	7.6	0.03
22	Jun-05	4.5	7.7	0.26	47	Jun-21	4.5	7.4	-0.33
23	Dec-05	4.5	5.5	-3.53	48	Jun-22	4.5	7.3	-0.52
24	Jun-06	4.5	7.5	-0.16					
25	Nov-06	4.5	7.6	0.07					
26	Jun-07	4.5	6.3	-2.15					
27	Nov-07	4.5	7.3	-0.50					
28	Jun-08	4.5	7.1	-0.83					
29	Nov-08	4.5	6.9	-1.07					
30	Jun-09	4.5	6.7	-1.48					
31	Nov-09	4.5	7.2	-0.65					
32	Jun-10	4.5	7.4	-0.26					
33	Nov-10	4.5	7.3	-0.47					
34	Jun-11	4.5	7.4	-0.24					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

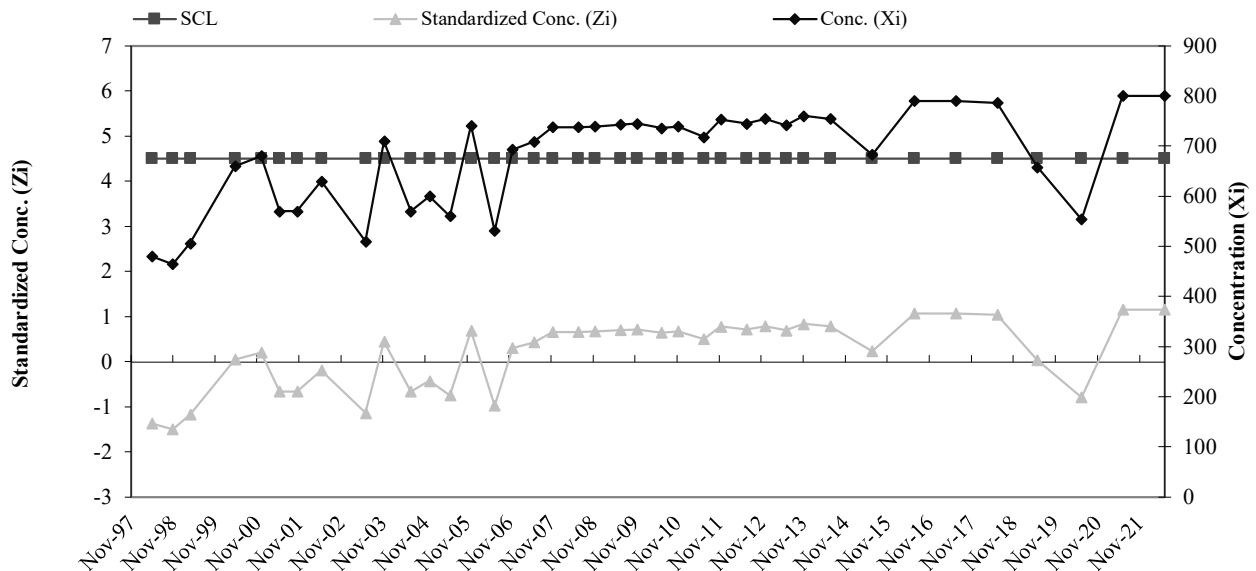


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d SpC**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	870	654.13	126.68
2	Aug-95	684		
3	Feb-96	646		
4	Jun-96	577		
5	Aug-96	576		
6	Nov-96	810		
7	May-97	530		
8	Nov-97	540		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	480	-1.37	35	Nov-11	4.5	753	0.78
10	Nov-98	4.5	465	-1.49	36	Jun-12	4.5	745	0.72
11	Apr-99	4.5	506	-1.17	37	Dec-12	4.5	754	0.79
12	Apr-00	4.5	660	0.05	38	Jun-13	4.5	742	0.69
13	Dec-00	4.5	680	0.20	39	Nov-13	4.5	760	0.84
14	May-01	4.5	570	-0.66	40	Jun-14	4.5	754	0.79
15	Oct-01	4.5	570	-0.66	41	Jun-15	4.5	683	0.23
16	May-02	4.5	630	-0.19	42	Jun-16	4.5	790	1.07
18	Jun-03	4.5	510	-1.14	43	Jun-17	4.5	790	1.07
19	Nov-03	4.5	710	0.44	44	Jun-18	4.5	786	1.04
20	Jun-04	4.5	570	-0.66	45	May-19	4.5	658	0.03
21	Dec-04	4.5	600	-0.43	46	Jun-20	4.5	554	-0.79
22	Jun-05	4.5	560	-0.74	47	Jun-21	4.5	800	1.15
23	Dec-05	4.5	741	0.69	48	Jun-22	4.5	800	1.15
24	Jun-06	4.5	531.3	-0.97					
25	Nov-06	4.5	693	0.31					
26	Jun-07	4.5	709	0.43					
27	Nov-07	4.5	738	0.66					
28	Jun-08	4.5	738	0.66					
29	Nov-08	4.5	739	0.67					
30	Jun-09	4.5	743	0.70					
31	Nov-09	4.5	745	0.72					
32	Jun-10	4.5	736	0.65					
33	Nov-10	4.5	739	0.67					
34	Jun-11	4.5	718	0.50					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

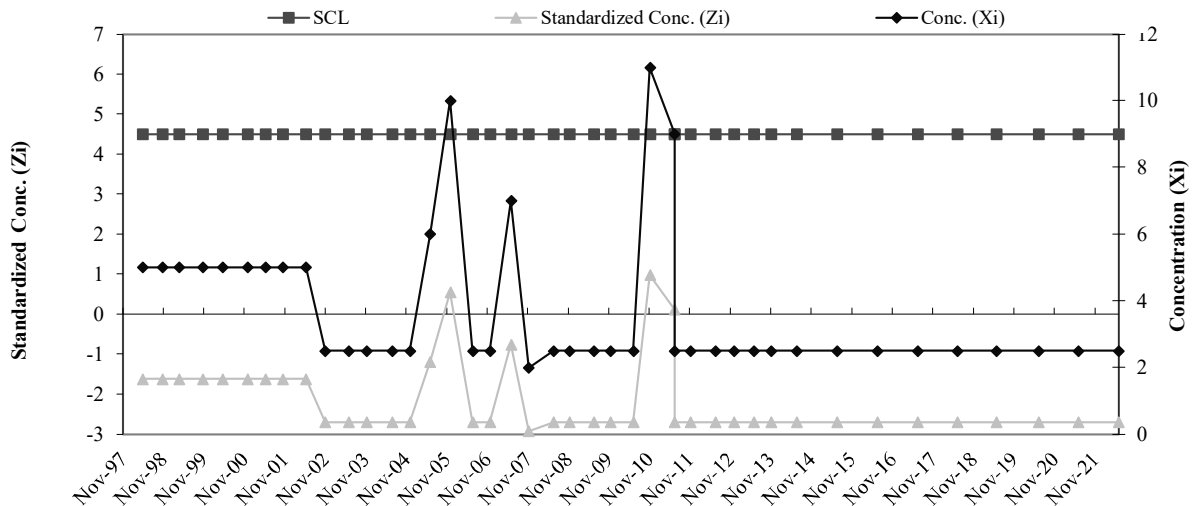


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	8.75	2.31
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-1.62	37	Nov-11	4.5	2.5	-2.70
10	Nov-98	4.5	5	-1.62	38	Jun-12	4.5	2.5	-2.70
11	Apr-99	4.5	5	-1.62	39	Dec-12	4.5	2.5	-2.70
12	Nov-99	4.5	5	-1.62	40	Jun-13	4.5	2.5	-2.70
13	Apr-00	4.5	5	-1.62	41	Nov-13	4.5	2.5	-2.70
14	Dec-00	4.5	5	-1.62	42	Jun-14	4.5	2.5	-2.70
15	May-01	4.5	5	-1.62	43	Jun-15	4.5	2.5	-2.70
16	Oct-01	4.5	5	-1.62	44	Jun-16	4.5	2.5	-2.70
17	May-02	4.5	5	-1.62	45	Jun-17	4.5	2.5	-2.70
18	Nov-02	4.5	2.5	-2.70	46	Jun-18	4.5	2.5	-2.70
19	Jun-03	4.5	2.5	-2.70	47	May-19	4.5	2.5	-2.70
20	Nov-03	4.5	2.5	-2.70	48	Jun-20	4.5	2.5	-2.70
21	Jun-04	4.5	2.5	-2.70	49	Jun-21	4.5	2.5	-2.70
22	Dec-04	4.5	2.5	-2.70	50	Jun-22	4.5	2.5	-2.70
23	Jun-05	4.5	6	-1.19					
24	Dec-05	4.5	10	0.54					
25	Jun-06	4.5	2.5	-2.70					
26	Nov-06	4.5	2.5	-2.70					
27	Jun-07	4.5	7	-0.76					
28	Nov-07	4.5	2	-2.92					
29	Jun-08	4.5	2.5	-2.70					
30	Nov-08	4.5	2.5	-2.70					
31	Jun-09	4.5	2.5	-2.70					
32	Nov-09	4.5	2.5	-2.70					
33	Jun-10	4.5	2.5	-2.70					
34	Nov-10	4.5	11	0.97					
35	Jun-11	4.5	9	0.11					
36	Jun-11	4.5	2.5	-2.70					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

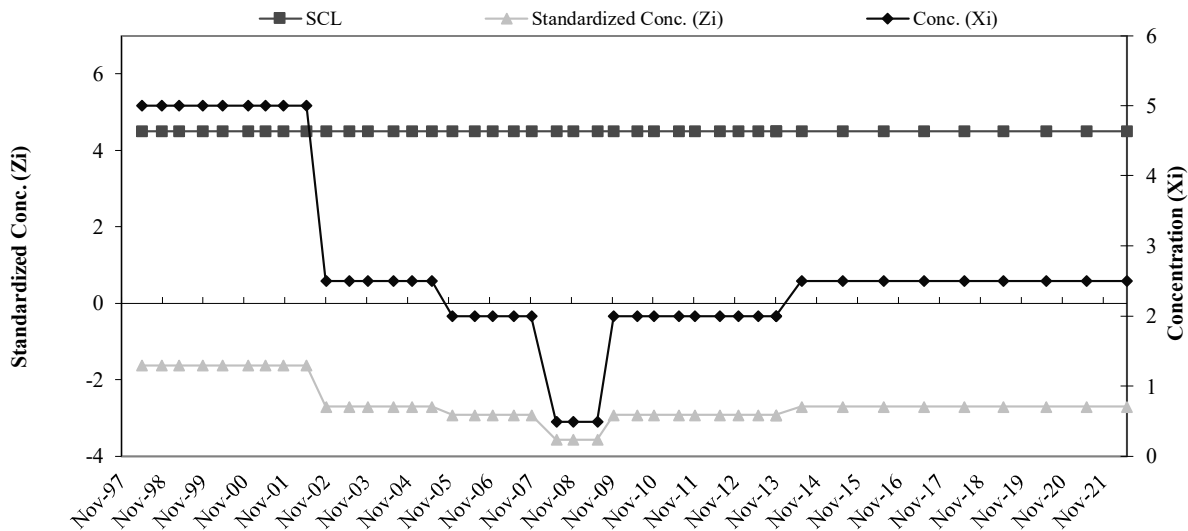


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D Cu**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	8.75	2.31
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-1.62	36	Nov-11	4.5	2	-2.92
10	Nov-98	4.5	5	-1.62	37	Jun-12	4.5	2	-2.92
11	Apr-99	4.5	5	-1.62	38	Dec-12	4.5	2	-2.92
12	Nov-99	4.5	5	-1.62	39	Jun-13	4.5	2	-2.92
13	Apr-00	4.5	5	-1.62	40	Nov-13	4.5	2	-2.92
14	Dec-00	4.5	5	-1.62	41	Nov-13	4.5	2	-2.92
15	May-01	4.5	5	-1.62	42	Jun-14	4.5	2.5	-2.70
16	Oct-01	4.5	5	-1.62	43	Jun-15	4.5	2.5	-2.70
17	May-02	4.5	5	-1.62	44	Jun-16	4.5	2.5	-2.70
18	Nov-02	4.5	2.5	-2.70	45	Jun-17	4.5	2.5	-2.70
19	Jun-03	4.5	2.5	-2.70	46	Jun-18	4.5	2.5	-2.70
20	Nov-03	4.5	2.5	-2.70	47	May-19	4.5	2.5	-2.70
21	Jun-04	4.5	2.5	-2.70	48	Jun-20	4.5	2.5	-2.70
22	Dec-04	4.5	2.5	-2.70	49	Jun-21	4.5	2.5	-2.70
23	Jun-05	4.5	2.5	-2.70	50	Jun-22	4.5	2.5	-2.70
24	Dec-05	4.5	2	-2.92					
25	Jun-06	4.5	2	-2.92					
26	Nov-06	4.5	2	-2.92					
27	Jun-07	4.5	2	-2.92					
28	Nov-07	4.5	2	-2.92					
29	Jun-08	4.5	0.5	-3.56					
30	Nov-08	4.5	0.5	-3.56					
31	Jun-09	4.5	0.5	-3.56					
32	Nov-09	4.5	2	-2.92					
33	Jun-10	4.5	2	-2.92					
34	Nov-10	4.5	2	-2.92					
35	Jun-11	4.5	2	-2.92					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

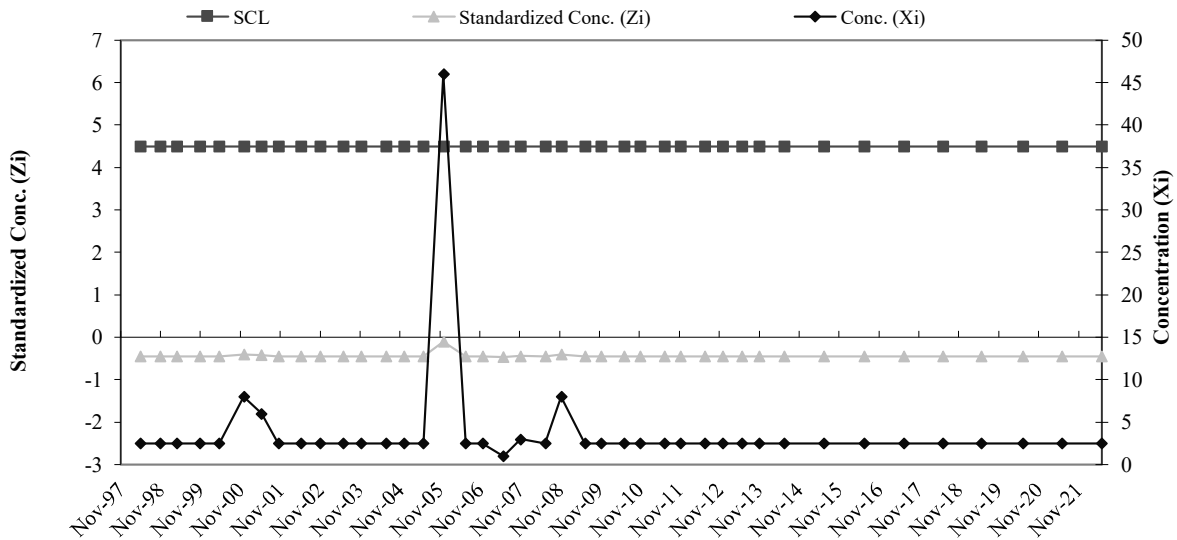


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	370	58.94	125.96
2	Aug-95	20		
3	Feb-96	20		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	2.5		
8	Nov-97	29		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-0.45	36	Nov-11	4.5	2.5	-0.45
10	Nov-98	4.5	2.5	-0.45	37	Jun-12	4.5	2.5	-0.45
11	Apr-99	4.5	2.5	-0.45	38	Dec-12	4.5	2.5	-0.45
12	Nov-99	4.5	2.5	-0.45	39	Jun-13	4.5	2.5	-0.45
13	Apr-00	4.5	2.5	-0.45	40	Nov-13	4.5	2.5	-0.45
14	Dec-00	4.5	8	-0.40	41	Jun-14	4.5	2.5	-0.45
15	May-01	4.5	6	-0.42	42	Jun-15	4.5	2.5	-0.45
16	Oct-01	4.5	2.5	-0.45	43	Jun-16	4.5	2.5	-0.45
17	May-02	4.5	2.5	-0.45	44	Jun-17	4.5	2.5	-0.45
18	Nov-02	4.5	2.5	-0.45	45	Jun-18	4.5	2.5	-0.45
19	Jun-03	4.5	2.5	-0.45	46	May-19	4.5	2.5	-0.45
20	Nov-03	4.5	2.5	-0.45	47	Jun-20	4.5	2.5	-0.45
21	Jun-04	4.5	2.5	-0.45	48	Jun-21	4.5	2.5	-0.45
22	Dec-04	4.5	2.5	-0.45	49	Jun-22	4.5	2.5	-0.45
23	Jun-05	4.5	2.5	-0.45					
24	Dec-05	4.5	46	-0.10					
25	Jun-06	4.5	2.5	-0.45					
26	Nov-06	4.5	2.5	-0.45					
27	Jun-07	4.5	1	-0.46					
28	Nov-07	4.5	3	-0.44					
29	Jun-08	4.5	2.5	-0.45					
30	Nov-08	4.5	8	-0.40					
31	Jun-09	4.5	2.5	-0.45					
32	Nov-09	4.5	2.5	-0.45					
33	Jun-10	4.5	2.5	-0.45					
34	Nov-10	4.5	2.5	-0.45					
35	Jun-11	4.5	2.5	-0.45					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

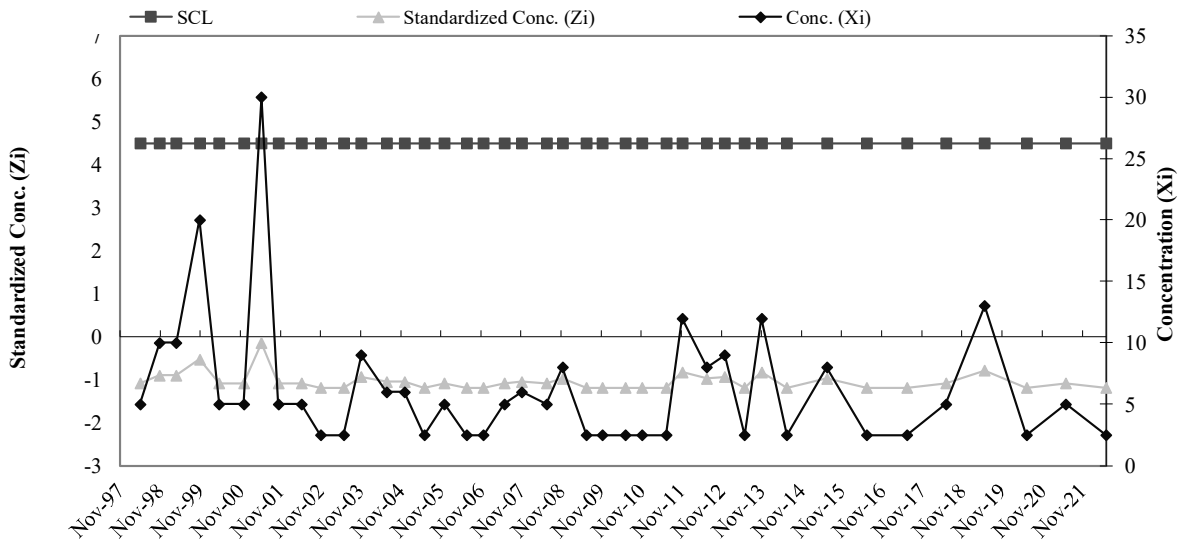


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	34.00	26.69
2	Aug-95	47		
3	Feb-96	80		
4	Jun-96	20		
5	Aug-96	50		
6	Nov-96	50		
7	May-97	5		
8	Nov-97	10		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-1.09	36	Nov-11	4.5	12	-0.82
10	Nov-98	4.5	10	-0.90	37	Jun-12	4.5	8	-0.97
11	Apr-99	4.5	10	-0.90	38	Dec-12	4.5	9	-0.94
12	Nov-99	4.5	20	-0.52	39	Jun-13	4.5	2.5	-1.18
13	Apr-00	4.5	5	-1.09	40	Nov-13	4.5	12	-0.82
14	Dec-00	4.5	5	-1.09	41	Jun-14	4.5	2.5	-1.18
15	May-01	4.5	30	-0.15	42	Jun-15	4.5	8	-0.97
16	Oct-01	4.5	5	-1.09	43	Jun-16	4.5	2.5	-1.18
17	May-02	4.5	5	-1.09	44	Jun-17	4.5	2.5	-1.18
18	Nov-02	4.5	2.5	-1.18	45	Jun-18	4.5	5	-1.09
19	Jun-03	4.5	2.5	-1.18	46	May-19	4.5	13	-0.79
20	Nov-03	4.5	9	-0.94	47	Jun-20	4.5	2.5	-1.18
21	Jun-04	4.5	6	-1.05	48	Jun-21	4.5	5	-1.09
22	Dec-04	4.5	6	-1.05	49	Jun-22	4.5	2.5	-1.18
23	Jun-05	4.5	2.5	-1.18					
24	Dec-05	4.5	5	-1.09					
25	Jun-06	4.5	2.5	-1.18					
26	Nov-06	4.5	2.5	-1.18					
27	Jun-07	4.5	5	-1.09					
28	Nov-07	4.5	6	-1.05					
29	Jun-08	4.5	5	-1.09					
30	Nov-08	4.5	8	-0.97					
31	Jun-09	4.5	2.5	-1.18					
32	Nov-09	4.5	2.5	-1.18					
33	Jun-10	4.5	2.5	-1.18					
34	Nov-10	4.5	2.5	-1.18					
35	Jun-11	4.5	2.5	-1.18					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

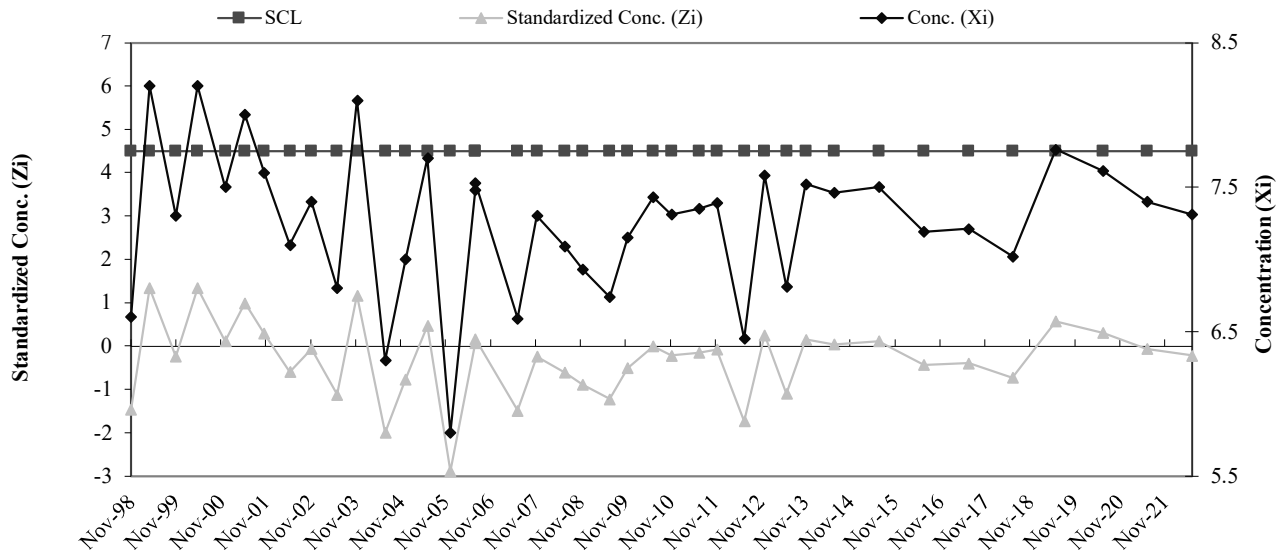


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D pH**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	7.7	7.44	0.57
2	Aug-95	8.3		
3	Jun-96	7.5		
4	Aug-96	8.1		
5	Nov-96	7.2		
6	May-97	6.7		
7	Nov-97	6.9		
8	May-98	7.1		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	6.6	-1.47	35	Nov-11	4.5	7.4	-0.08
10	Apr-99	4.5	8.2	1.34	36	Jun-12	4.5	6.5	-1.74
11	Nov-99	4.5	7.3	-0.24	37	Dec-12	4.5	7.6	0.25
12	Apr-00	4.5	8.2	1.34	38	Jun-13	4.5	6.8	-1.10
13	Dec-00	4.5	7.5	0.11	39	Nov-13	4.5	7.5	0.15
14	May-01	4.5	8	0.99	40	Jun-14	4.5	7.5	0.04
15	Oct-01	4.5	7.6	0.29	41	Jun-15	4.5	7.5	0.11
16	May-02	4.5	7.1	-0.59	42	Jun-16	4.5	7.2	-0.44
17	Nov-02	4.5	7.4	-0.07	43	Jun-17	4.5	7.2	-0.40
18	Jun-03	4.5	6.8	-1.12	44	Jun-18	4.5	7.0	-0.73
19	Nov-03	4.5	8.1	1.17	45	May-19	4.5	7.8	0.57
20	Jun-04	4.5	6.3	-2.00	46	Jun-20	4.5	7.6	0.30
21	Dec-04	4.5	7	-0.77	47	Jun-21	4.5	7.4	-0.07
22	Jun-05	4.5	7.7	0.46	48	Jun-22	4.5	7.3	-0.22
23	Dec-05	4.5	5.8	-2.88					
24	Jun-06	4.5	7.5	0.07					
25	Jun-06	4.5	7.5	0.16					
26	Jun-07	4.5	6.6	-1.49					
27	Nov-07	4.5	7.3	-0.24					
28	Jun-08	4.5	7.1	-0.61					
29	Nov-08	4.5	6.9	-0.89					
30	Jun-09	4.5	6.7	-1.23					
31	Nov-09	4.5	7.2	-0.51					
32	Jun-10	4.5	7.4	-0.01					
33	Nov-10	4.5	7.3	-0.22					
34	Jun-11	4.5	7.4	-0.15					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

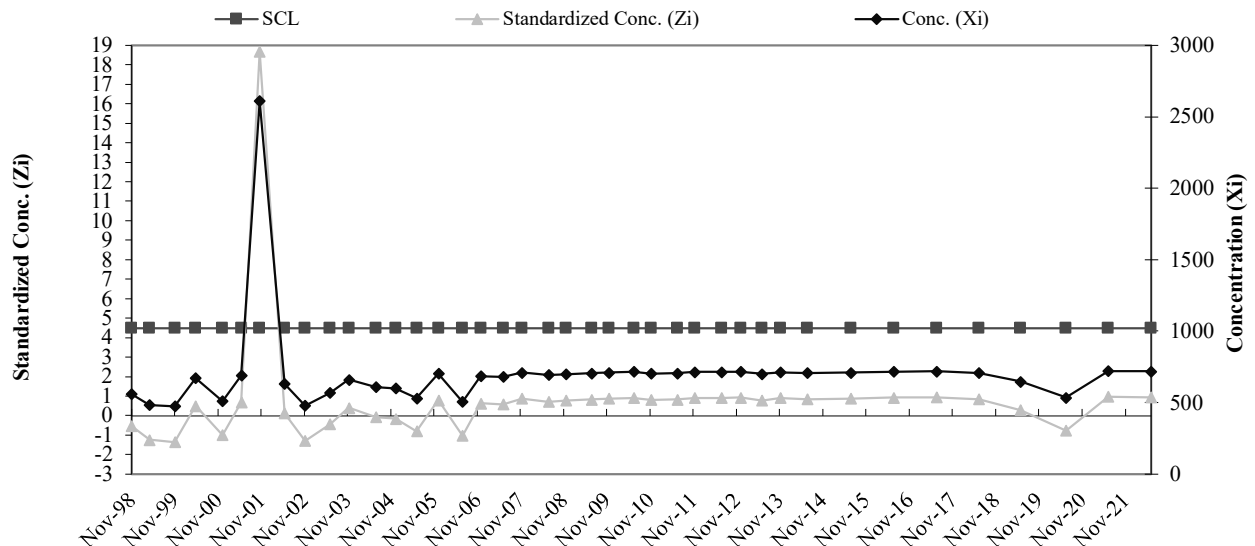


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	573	617.25	106.65
2	Aug-95	739		
3	Jun-96	600		
4	Aug-96	608		
5	Nov-96	817		
6	May-97	550		
7	Nov-97	550		
8	May-98	501		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	559	-0.55	35	Nov-11	4.5	714	0.91
10	Apr-99	4.5	485	-1.24	36	Jun-12	4.5	714	0.91
11	Nov-99	4.5	474	-1.34	37	Dec-12	4.5	716	0.93
12	Apr-00	4.5	670	0.49	38	Jun-13	4.5	701	0.79
13	Dec-00	4.5	510	-1.01	39	Nov-13	4.5	713	0.90
14	May-01	4.5	690	0.68	40	Jun-14	4.5	707	0.84
15	Oct-01	4.5	2610	18.68	41	Jun-15	4.5	710	0.87
16	May-02	4.5	630	0.12	42	Jun-16	4.5	716	0.93
17	Nov-02	4.5	480	-1.29	43	Jun-17	4.5	718	0.94
18	Jun-03	4.5	570	-0.44	44	Jun-18	4.5	707	0.84
19	Nov-03	4.5	660	0.40	45	May-19	4.5	647	0.28
20	Jun-04	4.5	610	-0.07	46	Jun-20	4.5	535	-0.77
21	Dec-04	4.5	600	-0.16	47	Jun-21	4.5	722	0.98
22	Jun-05	4.5	531	-0.81	48	Jun-22	4.5	718	0.94
23	Dec-05	4.5	702	0.79					
24	Jun-06	4.5	507	-1.04					
25	Nov-06	4.5	684	0.63					
26	Jun-07	4.5	680	0.59					
27	Nov-07	4.5	710	0.87					
28	Jun-08	4.5	694	0.72					
29	Nov-08	4.5	699	0.77					
30	Jun-09	4.5	705	0.82					
31	Nov-09	4.5	710	0.87					
32	Jun-10	4.5	715	0.92					
33	Nov-10	4.5	704	0.81					
34	Jun-11	4.5	705	0.82					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

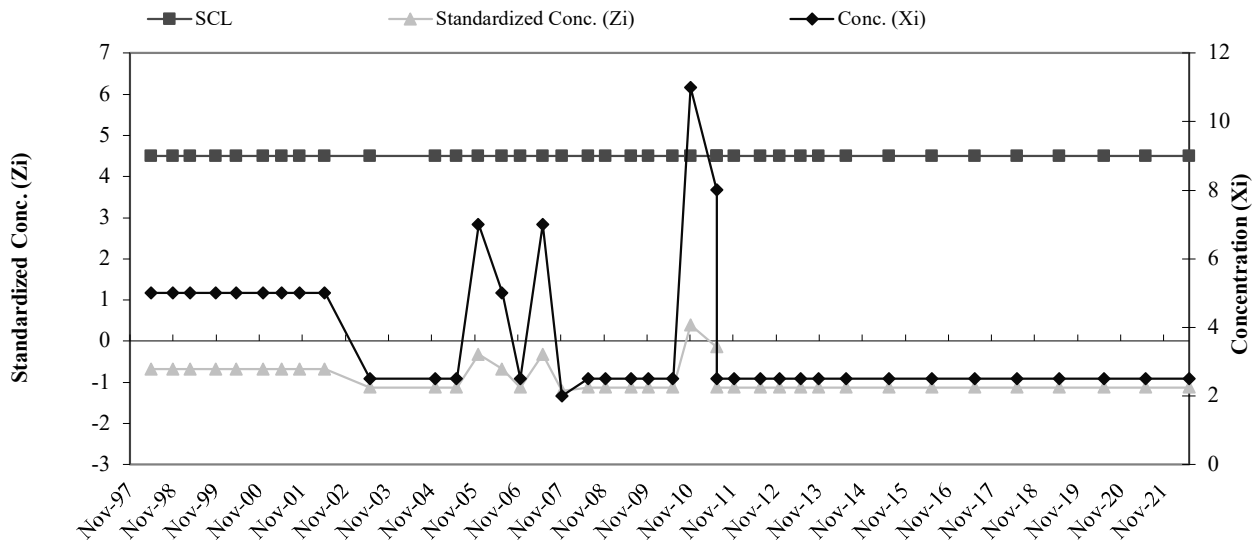


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	8.79	5.60
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.68	34	Nov-11	4.5	2.5	-1.12
10	Nov-98	4.5	5	-0.68	35	Jun-12	4.5	2.5	-1.12
11	Apr-99	4.5	5	-0.68	36	Dec-12	4.5	2.5	-1.12
12	Nov-99	4.5	5	-0.68	37	Jun-13	4.5	2.5	-1.12
13	Apr-00	4.5	5	-0.68	38	Nov-13	4.5	2.5	-1.12
14	Dec-00	4.5	5	-0.68	39	Jun-14	4.5	2.5	-1.12
15	May-01	4.5	5	-0.68	40	Jun-15	4.5	2.5	-1.12
16	Oct-01	4.5	5	-0.68	41	Jun-16	4.5	2.5	-1.12
17	May-02	4.5	5	-0.68	42	Jun-17	4.5	2.5	-1.12
18	Jun-03	4.5	2.5	-1.12	43	Jun-18	4.5	2.5	-1.12
19	Dec-04	4.5	2.5	-1.12	44	Jun-19	4.5	2.5	-1.12
20	Jun-05	4.5	2.5	-1.12	45	Jun-20	4.5	2.5	-1.12
21	Dec-05	4.5	7.0	-0.32	46	Jun-21	4.5	2.5	-1.12
22	Jun-06	4.5	5.0	-0.68	47	Jun-22	4.5	2.5	-1.12
23	Nov-06	4.5	2.5	-1.12					
24	Jun-07	4.5	7	-0.32					
25	Nov-07	4.5	2	-1.21					
26	Jun-08	4.5	2.5	-1.12					
27	Nov-08	4.5	2.5	-1.12					
28	Jun-09	4.5	2.5	-1.12					
29	Nov-09	4.5	2.5	-1.12					
30	Jun-10	4.5	2.5	-1.12					
31	Nov-10	4.5	11	0.39					
32	Jun-11	4.5	8	-0.14					
33	Jun-11	4.5	2.5	-1.12					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

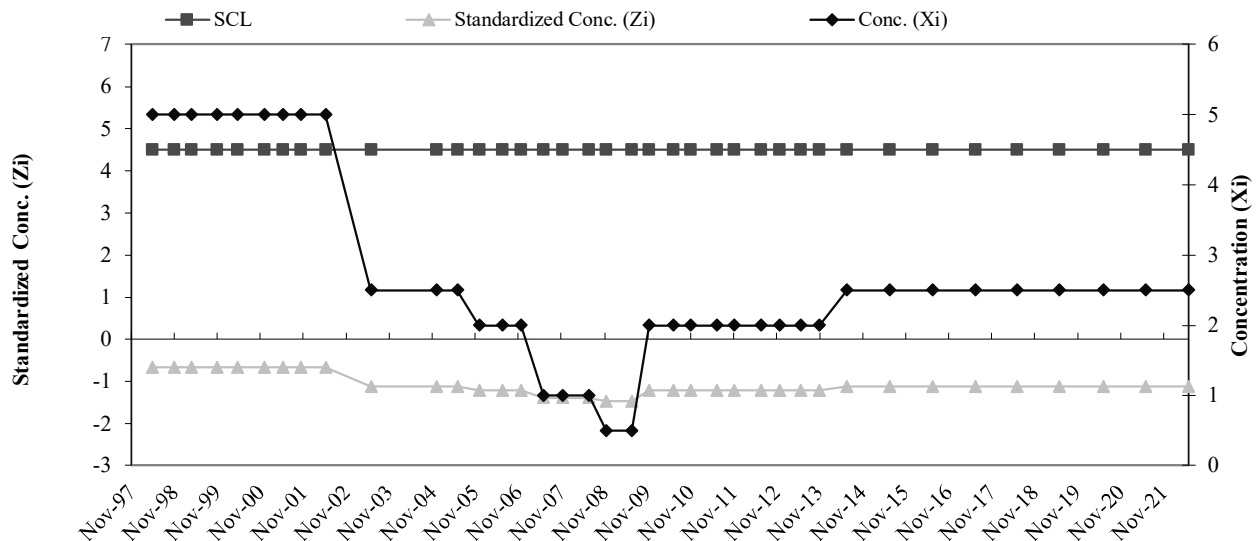


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	8.75	5.59
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.67	33	Nov-11	4.5	2	-1.21
10	Nov-98	4.5	5	-0.67	34	Jun-12	4.5	2	-1.21
11	Apr-99	4.5	5	-0.67	35	Dec-12	4.5	2	-1.21
12	Nov-99	4.5	5	-0.67	36	Jun-13	4.5	2	-1.21
13	Apr-00	4.5	5	-0.67	37	Nov-13	4.5	2	-1.21
14	Dec-00	4.5	5	-0.67	38	Jun-14	4.5	2.5	-1.12
15	May-01	4.5	5	-0.67	39	Jun-15	4.5	2.5	-1.12
16	Oct-01	4.5	5	-0.67	40	Jun-16	4.5	2.5	-1.12
17	May-02	4.5	5	-0.67	41	Jun-17	4.5	2.5	-1.12
18	Jun-03	4.5	2.5	-1.12	42	Jun-18	4.5	2.5	-1.12
19	Dec-04	4.5	2.5	-1.12	43	Jun-19	4.5	2.5	-1.12
20	Jun-05	4.5	2.5	-1.12	44	Jun-20	4.5	2.5	-1.12
21	Dec-05	4.5	2.0	-1.21	45	Jun-21	4.5	2.5	-1.12
22	Jun-06	4.5	2.0	-1.21	46	Jun-22	4.5	2.5	-1.12
23	Nov-06	4.5	2.0	-1.21					
24	Jun-07	4.5	1	-1.39					
25	Nov-07	4.5	1	-1.39					
26	Jun-08	4.5	1	-1.39					
27	Nov-08	4.5	0.5	-1.48					
28	Jun-09	4.5	0.5	-1.48					
29	Nov-09	4.5	2	-1.21					
30	Jun-10	4.5	2	-1.21					
31	Nov-10	4.5	2	-1.21					
32	Jun-11	4.5	2	-1.21					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

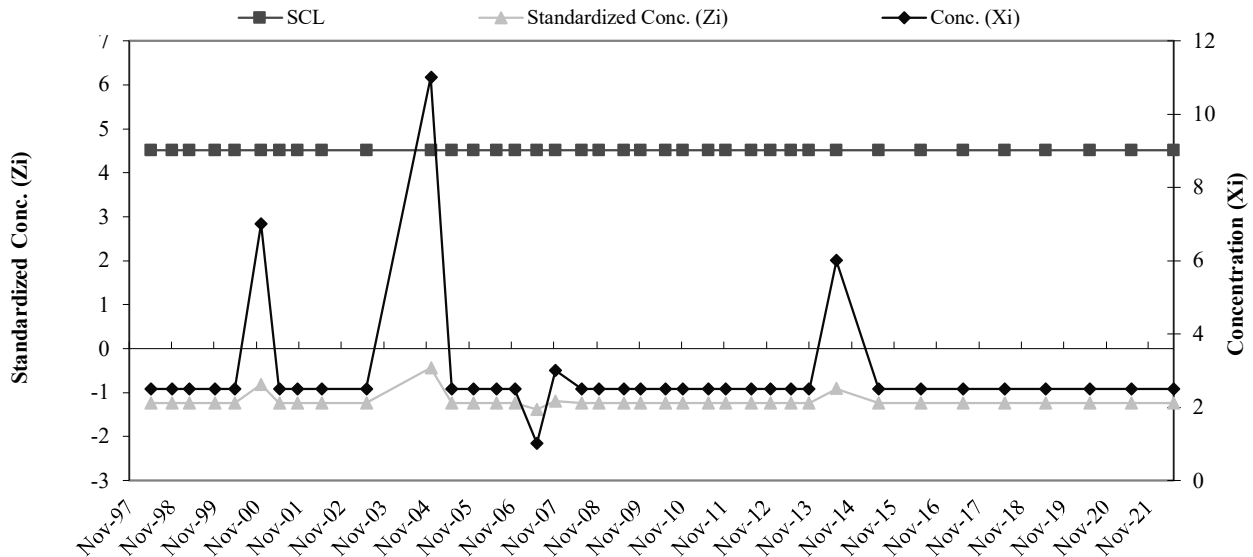


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	15	15.61	10.57
2	Aug-95	20		
3	Feb-96	20		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	9		
8	Nov-97	31		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-1.24	33	Nov-11	4.5	2.5	-1.24
10	Nov-98	4.5	2.5	-1.24	34	Jun-12	4.5	2.5	-1.24
11	Apr-99	4.5	2.5	-1.24	35	Dec-12	4.5	2.5	-1.24
12	Nov-99	4.5	2.5	-1.24	36	Jun-13	4.5	2.5	-1.24
13	Apr-00	4.5	2.5	-1.24	37	Nov-13	4.5	2.5	-1.24
14	Dec-00	4.5	7.0	-0.81	38	Jun-14	4.5	6	-0.91
15	May-01	4.5	2.5	-1.24	39	Jun-15	4.5	2.5	-1.24
16	Oct-01	4.5	2.5	-1.24	40	Jun-16	4.5	2.5	-1.24
17	May-02	4.5	2.5	-1.24	41	Jun-17	4.5	2.5	-1.24
18	Jun-03	4.5	2.5	-1.24	42	Jun-18	4.5	2.5	-1.24
19	Dec-04	4.5	11.0	-0.44	43	Jun-19	4.5	2.5	-1.24
20	Jun-05	4.5	2.5	-1.24	44	Jun-20	4.5	2.5	-1.24
21	Dec-05	4.5	2.5	-1.24	45	Jun-21	4.5	2.5	-1.24
22	Jun-06	4.5	2.5	-1.24	46	Jun-22	4.5	2.5	-1.24
23	Nov-06	4.5	2.5	-1.24					
24	Jun-07	4.5	1	-1.38					
25	Nov-07	4.5	3	-1.19					
26	Jun-08	4.5	2.5	-1.24					
27	Nov-08	4.5	2.5	-1.24					
28	Jun-09	4.5	2.5	-1.24					
29	Nov-09	4.5	2.5	-1.24					
30	Jun-10	4.5	2.5	-1.24					
31	Nov-10	4.5	2.5	-1.24					
32	Jun-11	4.5	2.5	-1.24					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

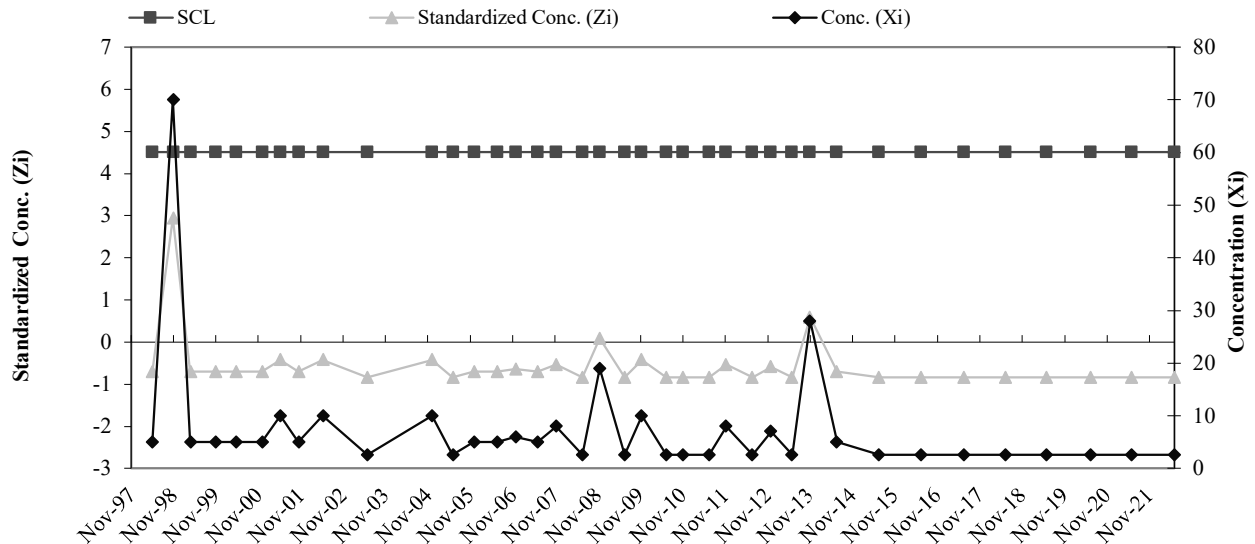


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	17.49	17.84
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	50		
6	Nov-96	40		
7	May-97	5		
8	Nov-97	5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5.0	-0.70	33	Nov-11	4.5	8	-0.53
10	Nov-98	4.5	70.0	2.94	34	Jun-12	4.5	2.5	-0.84
11	Apr-99	4.5	5.0	-0.70	35	Dec-12	4.5	7	-0.59
12	Nov-99	4.5	5.0	-0.70	36	Jun-13	4.5	2.5	-0.84
13	Apr-00	4.5	5.0	-0.70	37	Nov-13	4.5	28	0.59
14	Dec-00	4.5	5.0	-0.70	38	Jun-14	4.5	5	-0.70
15	May-01	4.5	10.0	-0.42	39	Jun-15	4.5	2.5	-0.84
16	Oct-01	4.5	5.0	-0.70	40	Jun-16	4.5	2.5	-0.84
17	May-02	4.5	10.0	-0.42	41	Jun-17	4.5	2.5	-0.84
18	Jun-03	4.5	2.5	-0.84	42	Jun-18	4.5	2.5	-0.84
19	Dec-04	4.5	10.0	-0.42	43	Jun-19	4.5	2.5	-0.84
20	Jun-05	4.5	2.5	-0.84	44	Jun-20	4.5	2.5	-0.84
21	Dec-05	4.5	5.0	-0.70	45	Jun-21	4.5	2.5	-0.84
22	Jun-06	4.5	5.0	-0.70	46	Jun-22	4.5	2.5	-0.84
23	Nov-06	4.5	6.0	-0.64					
24	Jun-07	4.5	5	-0.70					
25	Nov-07	4.5	8	-0.53					
26	Jun-08	4.5	2.5	-0.84					
27	Nov-08	4.5	19	0.08					
28	Jun-09	4.5	2.5	-0.84					
29	Nov-09	4.5	10	-0.42					
30	Jun-10	4.5	2.5	-0.84					
31	Nov-10	4.5	2.5	-0.84					
32	Jun-11	4.5	2.5	-0.84					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

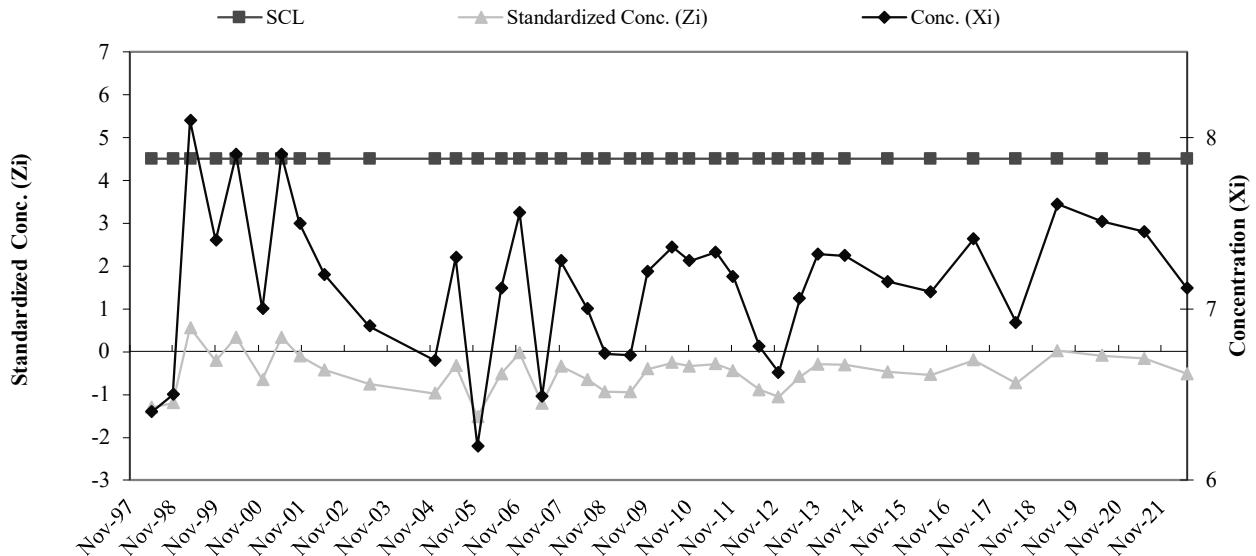


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	7.3	7.59	0.91
2	Aug-95	8.2		
3	Feb-96	7.5		
4	Jun-96	8.3		
5	Aug-96	8.9		
6	Nov-96	7.7		
7	May-97	6.8		
8	Nov-97	6.0		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.4	-1.30	33	Nov-11	4.5	7.2	-0.43
10	Nov-98	4.5	6.5	-1.19	34	Jun-12	4.5	6.8	-0.88
11	Apr-99	4.5	8.1	0.56	35	Dec-12	4.5	6.6	-1.05
12	Nov-99	4.5	7.4	-0.21	36	Jun-13	4.5	7.1	-0.58
13	Apr-00	4.5	7.9	0.34	37	Nov-13	4.5	7.3	-0.29
14	Dec-00	4.5	7.0	-0.64	38	Jun-14	4.5	7.3	-0.30
15	May-01	4.5	7.9	0.34	39	Jun-15	4.5	7.2	-0.47
16	Oct-01	4.5	7.5	-0.10	40	Jun-16	4.5	7.1	-0.53
17	May-02	4.5	7.2	-0.42	41	Jun-17	4.5	7.4	-0.19
18	Jun-03	4.5	6.9	-0.75	42	Jun-18	4.5	6.9	-0.73
19	Dec-04	4.5	6.7	-0.97	43	Jun-19	4.5	7.6	0.02
20	Jun-05	4.5	7.3	-0.31	44	Jun-20	4.5	7.5	-0.08
21	Dec-05	4.5	6.2	-1.52	45	Jun-21	4.5	7.5	-0.15
22	Jun-06	4.5	7.1	-0.51	46	Jun-22	4.5	7.1	-0.51
23	Nov-06	4.5	7.6	-0.03					
24	Jun-07	4.5	6.5	-1.20					
25	Nov-07	4.5	7.3	-0.34					
26	Jun-08	4.5	7.0	-0.64					
27	Nov-08	4.5	6.7	-0.93					
28	Jun-09	4.5	6.7	-0.94					
29	Nov-09	4.5	7.2	-0.40					
30	Jun-10	4.5	7.4	-0.25					
31	Nov-10	4.5	7.3	-0.34					
32	Jun-11	4.5	7.3	-0.28					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

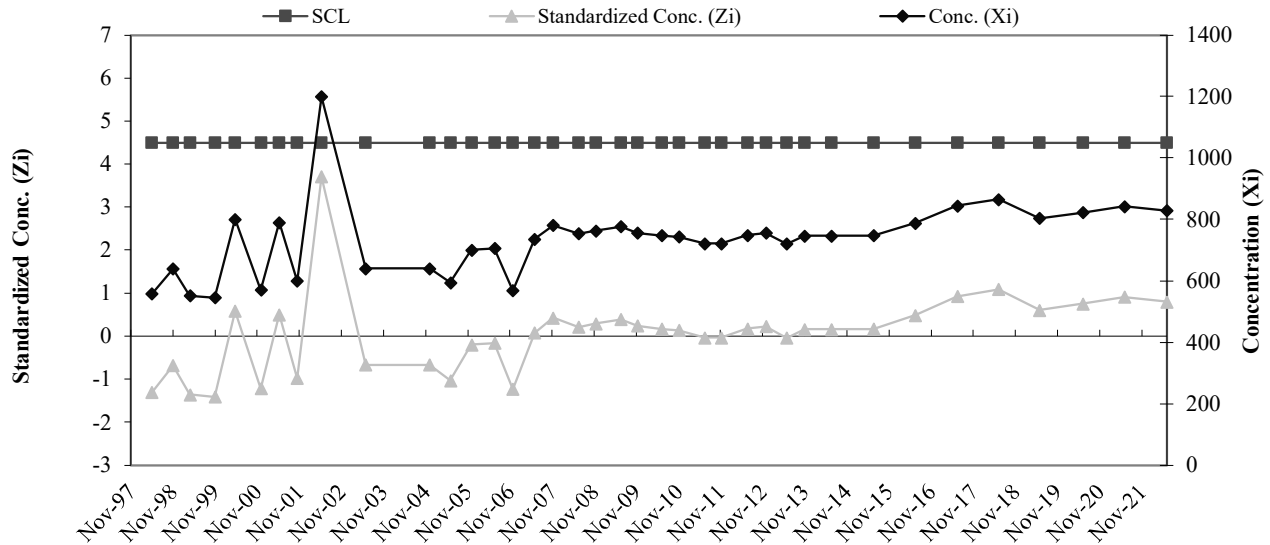


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d SpC**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	680	725.75	127.98
2	Aug-95	845		
3	Feb-96	751		
4	Jun-96	632		
5	Aug-96	691		
6	Nov-96	977		
7	May-97	610		
8	Nov-97	620		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	558	-1.31	33	Nov-11	4.5	721	-0.04
10	Nov-98	4.5	639	-0.68	34	Jun-12	4.5	748	0.17
11	Apr-99	4.5	552	-1.36	35	Dec-12	4.5	755	0.23
12	Nov-99	4.5	546	-1.40	36	Jun-13	4.5	720	-0.04
13	Apr-00	4.5	800	0.58	37	Nov-13	4.5	746	0.16
14	Dec-00	4.5	570	-1.22	38	Jun-14	4.5	746	0.16
15	May-01	4.5	790	0.50	39	Jun-15	4.5	747	0.17
16	Oct-01	4.5	600	-0.98	40	Jun-16	4.5	788	0.49
17	May-02	4.5	1200	3.71	41	Jun-17	4.5	844	0.92
18	Jun-03	4.5	640	-0.67	42	Jun-18	4.5	865	1.09
19	Dec-04	4.5	640	-0.67	43	Jun-19	4.5	803	0.60
20	Jun-05	4.5	594	-1.03	44	Jun-20	4.5	822	0.75
21	Dec-05	4.5	700	-0.20	45	Jun-21	4.5	842	0.91
22	Jun-06	4.5	705	-0.16	46	Jun-22	4.5	828	0.80
23	Nov-06	4.5	568	-1.23					
24	Jun-07	4.5	736	0.08					
25	Nov-07	4.5	780	0.42					
26	Jun-08	4.5	753	0.21					
27	Nov-08	4.5	763	0.29					
28	Jun-09	4.5	776	0.39					
29	Nov-09	4.5	756	0.24					
30	Jun-10	4.5	747	0.17					
31	Nov-10	4.5	743	0.13					
32	Jun-11	4.5	721	-0.04					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

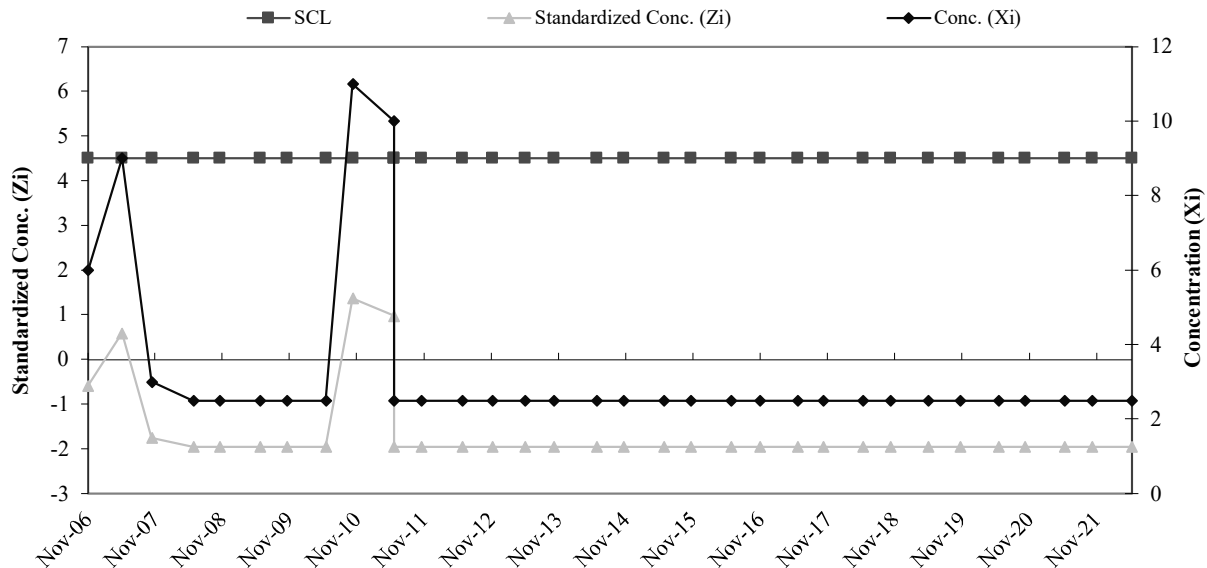


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 Cr**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Aug-96	10	7.50	2.56
2	Nov-96	10		
3	May-97	5		
4	May-98	5		
5	Nov-03	5		
6	Jun-05	8		
7	Dec-05	11		
8	Jun-06	6		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-06	4.5	6	-0.59	35	May-19	4.5	2.5	-1.95
10	Jun-07	4.5	9	0.59	36	Nov-19	4.5	2.5	-1.95
11	Nov-07	4.5	3	-1.76	37	Jun-20	4.5	2.5	-1.95
12	Jun-08	4.5	2.5	-1.95	38	Nov-20	4.5	2.5	-1.95
13	Nov-08	4.5	2.5	-1.95	39	Jun-21	4.5	2.5	-1.95
14	Jun-09	4.5	2.5	-1.95	40	Nov-21	4.5	2.5	-1.95
15	Nov-09	4.5	2.5	-1.95	41	Jun-22	4.5	2.5	-1.95
16	Jun-10	4.5	2.5	-1.95					
17	Nov-10	4.5	11	1.37					
18	Jun-11	4.5	10	0.98					
19	Jun-11	4.5	2.5	-1.95					
20	Nov-11	4.5	2.5	-1.95					
21	Jun-12	4.5	2.5	-1.95					
22	Dec-12	4.5	2.5	-1.95					
23	Jun-13	4.5	2.5	-1.95					
24	Nov-13	4.5	2.5	-1.95					
25	Jun-14	4.5	2.5	-1.95					
26	Nov-14	4.5	2.5	-1.95					
27	Jun-15	4.5	2.5	-1.95					
28	Nov-15	4.5	2.5	-1.95					
29	Jun-16	4.5	2.5	-1.95					
30	Nov-16	4.5	2.5	-1.95					
31	Jun-17	4.5	2.5	-1.95					
32	Nov-17	4.5	2.5	-1.95					
33	Jun-18	4.5	2.5	-1.95					
34	Nov-18	4.5	2.5	-1.95					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

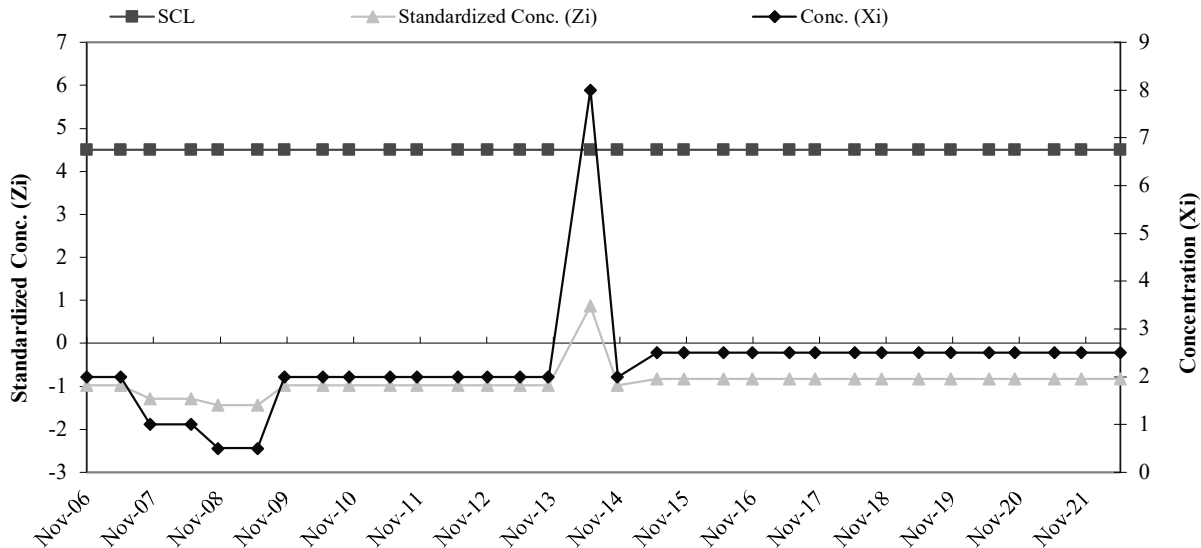


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Aug-96	10	5.19	3.25
2	Nov-96	10		
3	May-97	5		
4	May-98	5		
5	Nov-03	5		
6	Jun-05	2.5		
7	Dec-05	2		
8	Jun-06	2		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-06	4.5	2	-0.98	35	Nov-19	4.5	2.5	-0.83
10	Jun-07	4.5	2	-0.98	36	Jun-20	4.5	2.5	-0.83
11	Nov-07	4.5	1	-1.29	37	Nov-20	4.5	2.5	-0.83
12	Jun-08	4.5	1	-1.29	38	Jun-21	4.5	2.5	-0.83
13	Nov-08	4.5	0.5	-1.44	39	Nov-21	4.5	2.5	-0.83
14	Jun-09	4.5	0.5	-1.44	40	Jun-22	4.5	2.5	-0.83
15	Nov-09	4.5	2	-0.98					
16	Jun-10	4.5	2	-0.98					
17	Nov-10	4.5	2	-0.98					
18	Jun-11	4.5	2	-0.98					
19	Nov-11	4.5	2	-0.98					
20	Jun-12	4.5	2	-0.98					
21	Dec-12	4.5	2	-0.98					
22	Jun-13	4.5	2	-0.98					
23	Nov-13	4.5	2	-0.98					
24	Jun-14	4.5	8	0.87					
25	Nov-14	4.5	2	-0.98					
26	Jun-15	4.5	2.5	-0.83					
27	Nov-15	4.5	2.5	-0.83					
28	Jun-16	4.5	2.5	-0.83					
29	Nov-16	4.5	2.5	-0.83					
30	Jun-17	4.5	2.5	-0.83					
31	Nov-17	4.5	2.5	-0.83					
32	Jun-18	4.5	2.5	-0.83					
33	Nov-18	4.5	2.5	-0.83					
34	May-19	4.5	2.5	-0.83					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

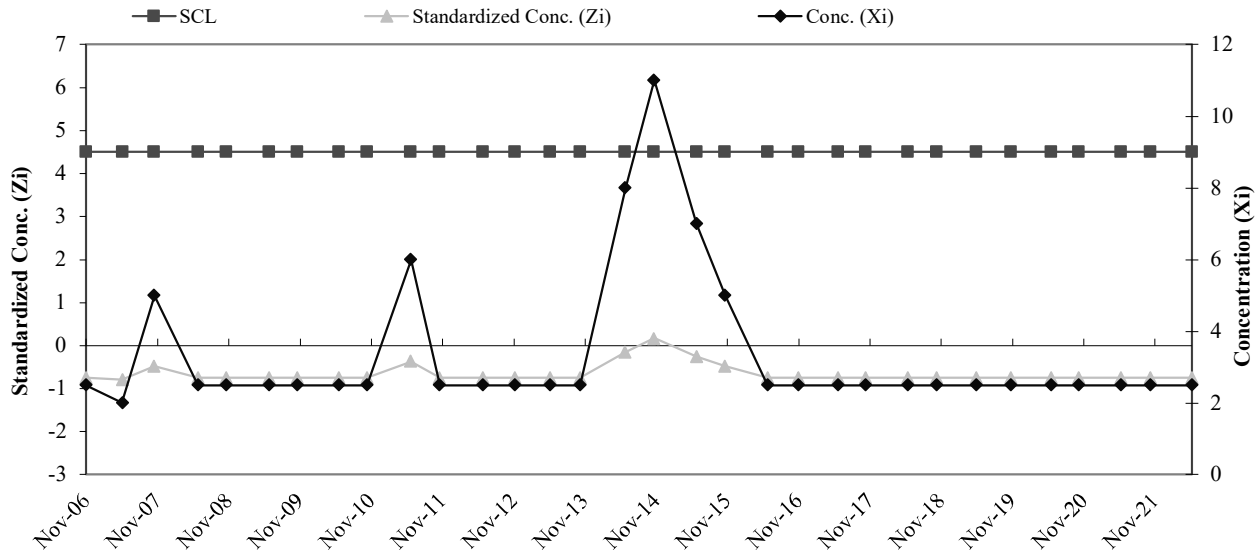


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Aug-96	10	9.44	9.35
2	Nov-96	10		
3	May-97	31		
4	May-98	8		
5	Nov-03	9		
6	Jun-05	2.5		
7	Dec-05	2.5		
8	Jun-06	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-06	4.5	2.5	-0.74	35	Nov-19	4.5	2.5	-0.74
10	Jun-07	4.5	2	-0.80	36	Jun-20	4.5	2.5	-0.74
11	Nov-07	4.5	5	-0.47	37	Nov-20	4.5	2.5	-0.74
12	Jun-08	4.5	2.5	-0.74	38	Jun-21	4.5	2.5	-0.74
13	Nov-08	4.5	2.5	-0.74	39	Nov-21	4.5	2.5	-0.74
14	Jun-09	4.5	2.5	-0.74	40	Jun-22	4.5	2.5	-0.74
15	Nov-09	4.5	2.5	-0.74					
16	Jun-10	4.5	2.5	-0.74					
17	Nov-10	4.5	2.5	-0.74					
18	Jun-11	4.5	6	-0.37					
19	Nov-11	4.5	2.5	-0.74					
20	Jun-12	4.5	2.5	-0.74					
21	Dec-12	4.5	2.5	-0.74					
22	Jun-13	4.5	2.5	-0.74					
23	Nov-13	4.5	2.5	-0.74					
24	Jun-14	4.5	8	-0.15					
25	Nov-14	4.5	11	0.17					
26	Jun-15	4.5	7	-0.26					
27	Nov-15	4.5	5	-0.47					
28	Jun-16	4.5	2.5	-0.74					
29	Nov-16	4.5	2.5	-0.74					
30	Jun-17	4.5	2.5	-0.74					
31	Nov-17	4.5	2.5	-0.74					
32	Jun-18	4.5	2.5	-0.74					
33	Nov-18	4.5	2.5	-0.74					
34	May-19	4.5	2.5	-0.74					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

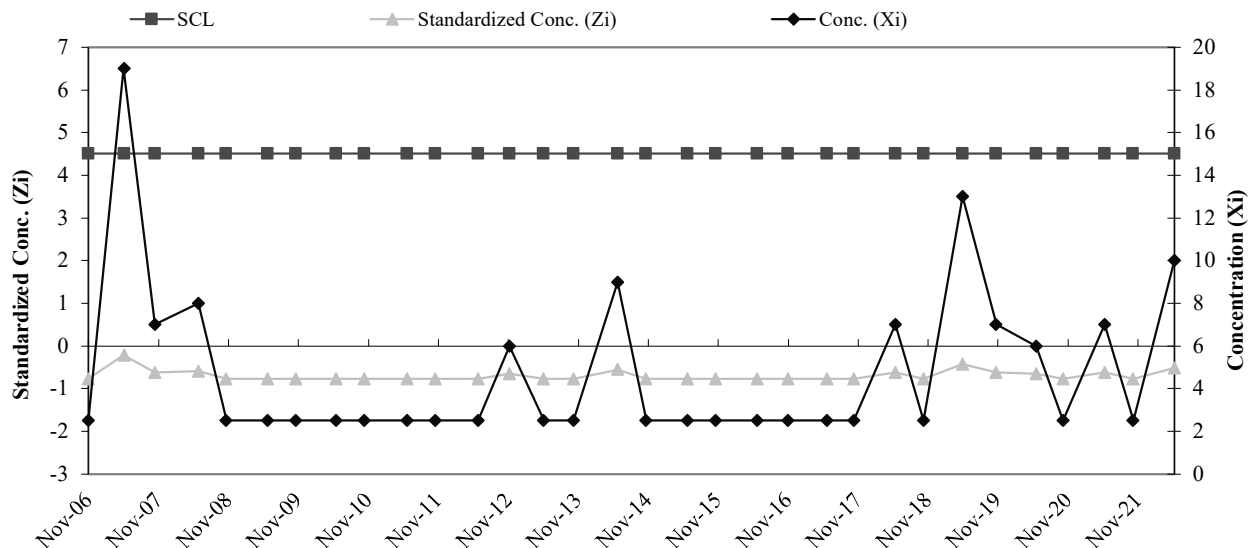


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Aug-96	90	25.63	30.14
2	Nov-96	50		
3	May-97	10		
4	May-98	20		
5	Nov-03	20		
6	Jun-05	2.5		
7	Dec-05	10		
8	Jun-06	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-06	4.5	2.5	-0.77	35	Nov-19	4.5	7	-0.62
10	Jun-07	4.5	19	-0.22	36	Jun-20	4.5	6	-0.65
11	Nov-07	4.5	7	-0.62	37	Nov-20	4.5	2.5	-0.77
12	Jun-08	4.5	8	-0.58	38	Jun-21	4.5	7	-0.62
13	Nov-08	4.5	2.5	-0.77	39	Nov-21	4.5	2.5	-0.77
14	Jun-09	4.5	2.5	-0.77	40	Jun-22	4.5	10	-0.52
15	Nov-09	4.5	2.5	-0.77					
16	Jun-10	4.5	2.5	-0.77					
17	Nov-10	4.5	2.5	-0.77					
18	Jun-11	4.5	2.5	-0.77					
19	Nov-11	4.5	2.5	-0.77					
20	Jun-12	4.5	2.5	-0.77					
21	Dec-12	4.5	6	-0.65					
22	Jun-13	4.5	2.5	-0.77					
23	Nov-13	4.5	2.5	-0.77					
24	Jun-14	4.5	9	-0.55					
25	Nov-14	4.5	2.5	-0.77					
26	Jun-15	4.5	2.5	-0.77					
27	Nov-15	4.5	2.5	-0.77					
28	Jun-16	4.5	2.5	-0.77					
29	Nov-16	4.5	2.5	-0.77					
30	Jun-17	4.5	2.5	-0.77					
31	Nov-17	4.5	2.5	-0.77					
32	Jun-18	4.5	7	-0.62					
33	Nov-18	4.5	2.5	-0.77					
34	May-19	4.5	13	-0.42					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

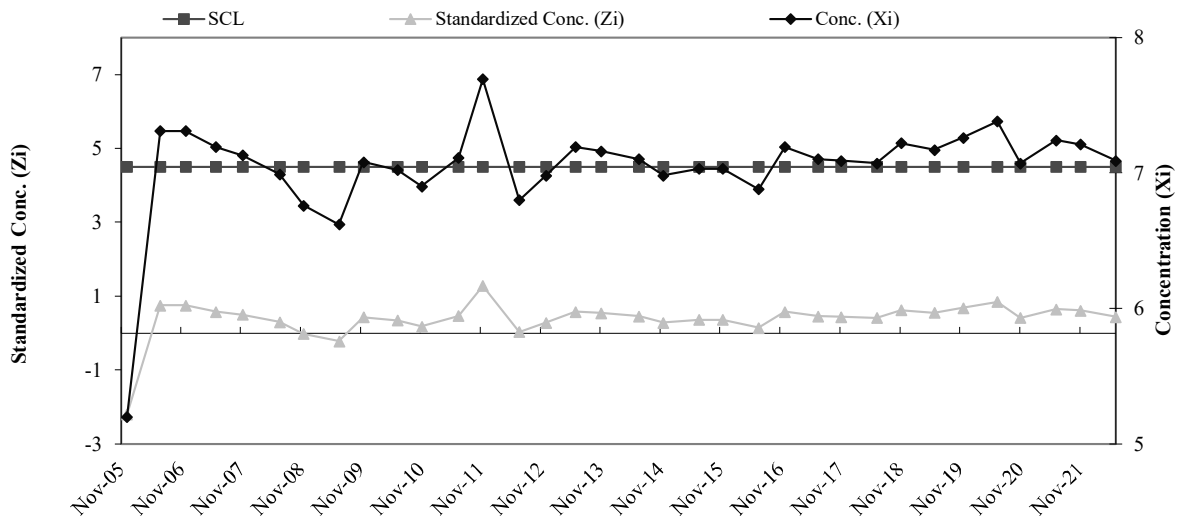


**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 pH**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Aug-96	7.8	6.78	0.72
2	Nov-96	7.1		
3	May-97	6.4		
4	May-98	7		
5	Nov-98	6		
6	Nov-99	7		
7	May-01	6.4		
8	Jun-05	7.3		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	5.2	-2.20	35	Nov-19	4.5	7.3	0.68
10	Jun-06	4.5	7.3	0.75	36	Jun-20	4.5	7.4	0.84
11	Nov-06	4.5	7.3	0.75	37	Nov-20	4.5	7.1	0.41
12	Jun-07	4.5	7.2	0.58	38	Jun-21	4.5	7.2	0.65
13	Nov-07	4.5	7.1	0.50	39	Nov-21	4.5	7.2	0.61
14	Jun-08	4.5	7.0	0.30	40	Jun-22	4.5	7.1	0.44
15	Nov-08	4.5	6.8	-0.02					
14	Jun-09	4.5	6.6	-0.22					
15	Nov-09	4.5	7.1	0.43					
16	Jun-10	4.5	7.0	0.34					
17	Nov-10	4.5	6.9	0.17					
18	Jun-11	4.5	7.1	0.47					
19	Nov-11	4.5	7.7	1.28					
20	Jun-12	4.5	6.8	0.03					
21	Dec-12	4.5	7.0	0.29					
22	Jun-13	4.5	7.2	0.58					
23	Nov-13	4.5	7.2	0.54					
24	Jun-14	4.5	7.1	0.45					
25	Nov-14	4.5	7.0	0.29					
26	Jun-15	4.5	7.0	0.36					
27	Nov-15	4.5	7.0	0.36					
28	Jun-16	4.5	6.9	0.15					
29	Nov-16	4.5	7.2	0.58					
30	Jun-17	4.5	7.1	0.45					
31	Nov-17	4.5	7.1	0.44					
32	Jun-18	4.5	7.1	0.41					
33	Nov-18	4.5	7.2	0.62					
34	May-19	4.5	7.2	0.55					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

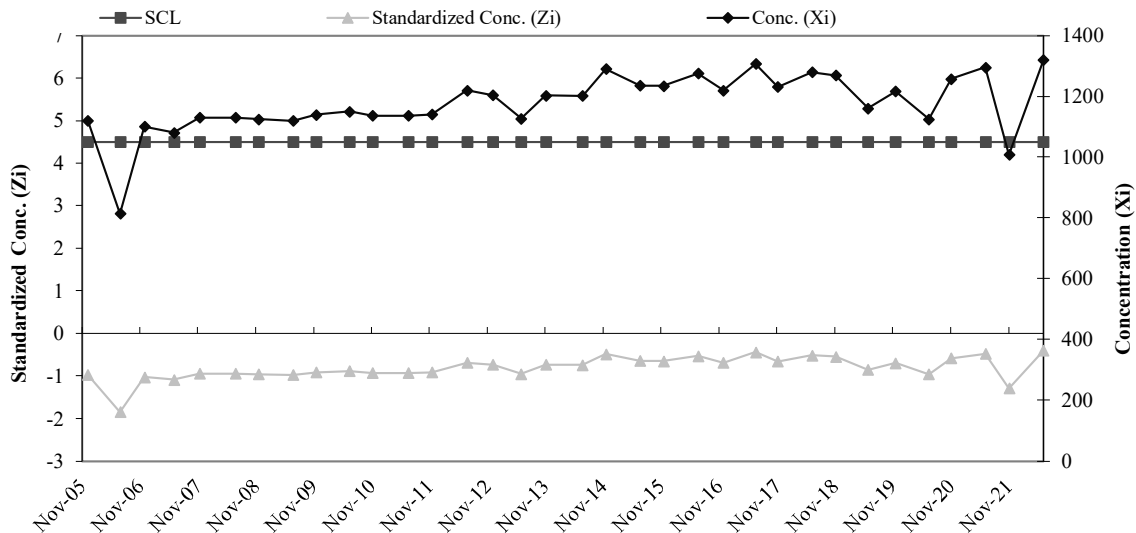


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Aug-96	1502	1,462.00	351.23
2	Nov-96	2030		
3	May-97	1700		
4	May-98	1410		
5	Nov-98	1595		
6	Nov-99	1152		
7	May-01	1450		
8	Jun-05	857		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Dec-05	4.5	1120	-0.97	37	Nov-19	4.5	1216	-0.70
10	Jun-06	4.5	814	-1.84	38	Jun-20	4.5	1125	-0.96
11	Nov-06	4.5	1100	-1.03	39	Nov-20	4.5	1257	-0.58
12	Jun-07	4.5	1080	-1.09	40	Jun-21	4.5	1295	-0.48
13	Nov-07	4.5	1130	-0.95	41	Nov-21	4.5	1008	-1.29
14	Jun-08	4.5	1130	-0.95	42	Jun-22	4.5	1320	-0.40
15	Nov-08	4.5	1125	-0.96					
16	Jun-09	4.5	1120	-0.97					
17	Nov-09	4.5	1140	-0.92					
18	Jun-10	4.5	1150	-0.89					
19	Nov-10	4.5	1136	-0.93					
20	Jun-11	4.5	1136	-0.93					
21	Nov-11	4.5	1141	-0.91					
22	Jun-12	4.5	1219	-0.69					
23	Dec-12	4.5	1204	-0.73					
24	Jun-13	4.5	1127	-0.95					
25	Nov-13	4.5	1203	-0.74					
26	Jun-14	4.5	1202	-0.74					
27	Nov-14	4.5	1290	-0.49					
28	Jun-15	4.5	1235	-0.65					
29	Nov-15	4.5	1234	-0.65					
30	Jun-16	4.5	1275	-0.53					
31	Nov-16	4.5	1220	-0.69					
32	Jun-17	4.5	1307	-0.44					
33	Nov-17	4.5	1231	-0.66					
34	Jun-18	4.5	1280	-0.52					
35	Nov-18	4.5	1269	-0.55					
36	May-19	4.5	1161	-0.86					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

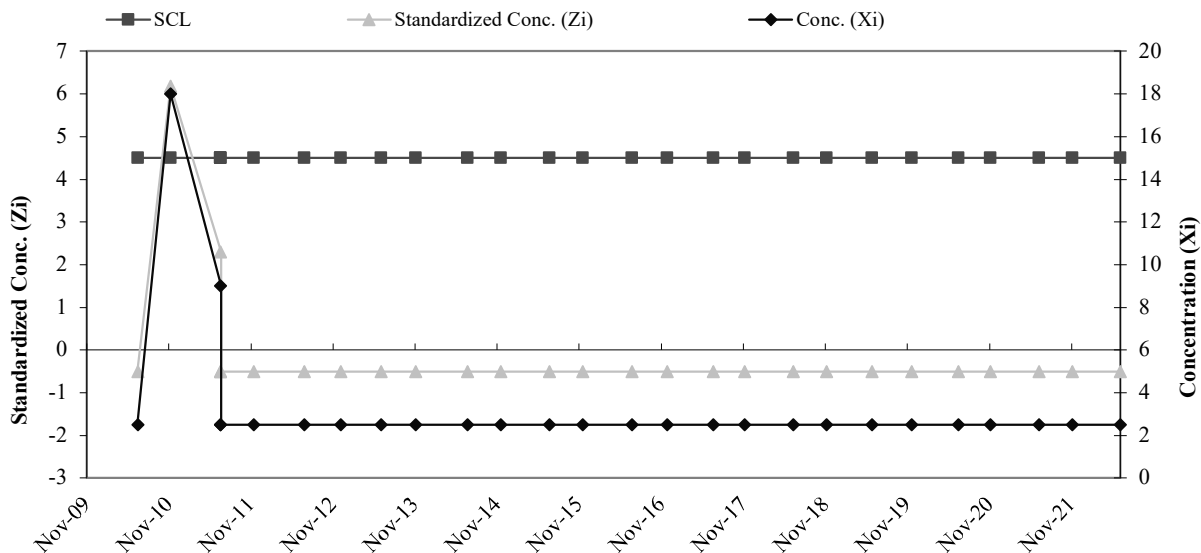


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-06	5	3.69	2.31
2	Dec-06	2.5		
3	Jun-07	9		
4	Nov-07	3		
5	Jun-08	2.5		
6	Nov-08	2.5		
7	Jun-09	2.5		
8	Nov-09	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Jun-10	4.5	2.5	-0.51	34	Nov-21	4.5	2.5	-0.51
10	Nov-10	4.5	18	6.19	35	Jun-22	4.5	2.5	-0.51
11	Jun-11	4.5	9	2.30					
12	Jun-11	4.5	2.5	-0.51					
13	Jun-11	4.5	2.5	-0.51					
14	Nov-11	4.5	2.5	-0.51					
15	Jun-12	4.5	2.5	-0.51					
16	Dec-12	4.5	2.5	-0.51					
17	Jun-13	4.5	2.5	-0.51					
18	Nov-13	4.5	2.5	-0.51					
19	Jun-14	4.5	2.5	-0.51					
20	Nov-14	4.5	2.5	-0.51					
21	Jun-15	4.5	2.5	-0.51					
22	Nov-15	4.5	2.5	-0.51					
23	Jun-16	4.5	2.5	-0.51					
24	Nov-16	4.5	2.5	-0.51					
25	Jun-17	4.5	2.5	-0.51					
26	Nov-17	4.5	2.5	-0.51					
27	Jun-18	4.5	2.5	-0.51					
28	Nov-18	4.5	2.5	-0.51					
29	May-19	4.5	2.5	-0.51					
30	Nov-19	4.5	2.5	-0.51					
31	Jun-20	4.5	2.5	-0.51					
32	Nov-20	4.5	2.5	-0.51					
33	Jun-21	4.5	2.5	-0.51					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

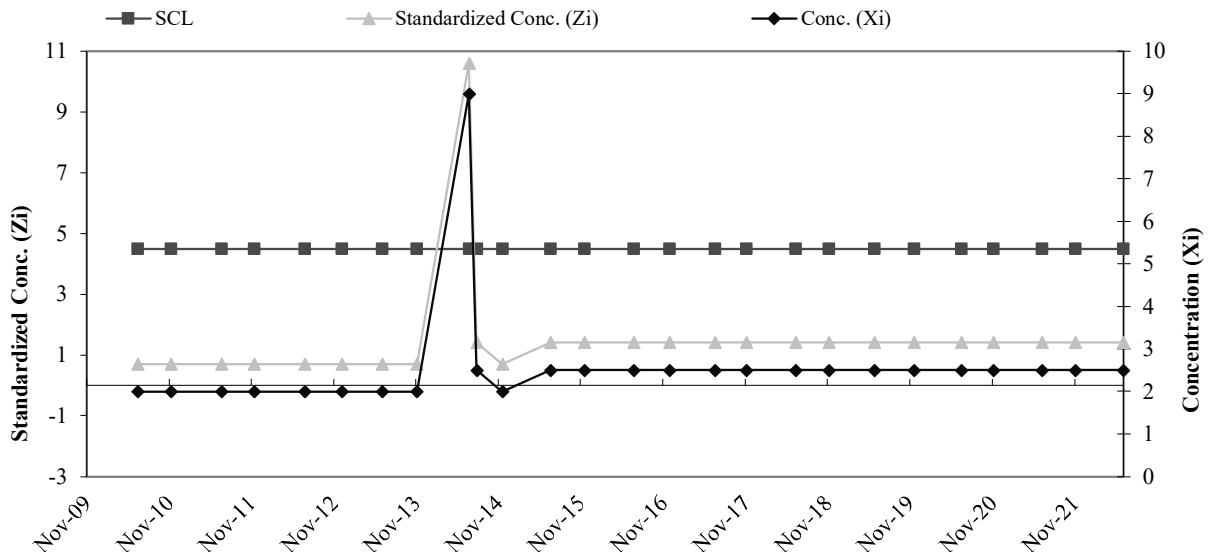


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-06	2	1.50	0.71
2	Dec-06	2		
3	Jun-07	2		
4	Nov-07	2		
5	Jun-08	1		
6	Nov-08	0.5		
7	Jun-09	0.5		
8	Nov-09	2		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Jun-10	4.5	2	0.71	33	Nov-21	4.5	2.5	1.41
10	Nov-10	4.5	2	0.71	34	Jun-22	4.5	2.5	1.41
11	Jun-11	4.5	2	0.71					
12	Nov-11	4.5	2	0.71					
13	Jun-12	4.5	2	0.71					
14	Dec-12	4.5	2	0.71					
15	Jun-13	4.5	2	0.71					
16	Nov-13	4.5	2	0.71					
17	Jun-14	4.5	9	10.61					
18	Jul-14	4.5	2.5	1.41					
19	Nov-14	4.5	2	0.71					
20	Jun-15	4.5	2.5	1.41					
21	Nov-15	4.5	2.5	1.41					
22	Jun-16	4.5	2.5	1.41					
23	Nov-16	4.5	2.5	1.41					
24	Jun-17	4.5	2.5	1.41					
25	Nov-17	4.5	2.5	1.41					
26	Jun-18	4.5	2.5	1.41					
27	Nov-18	4.5	2.5	1.41					
28	May-19	4.5	2.5	1.41					
29	Nov-19	4.5	2.5	1.41					
30	Jun-20	4.5	2.5	1.41					
31	Nov-20	4.5	2.5	1.41					
32	Jun-21	4.5	2.5	1.41					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

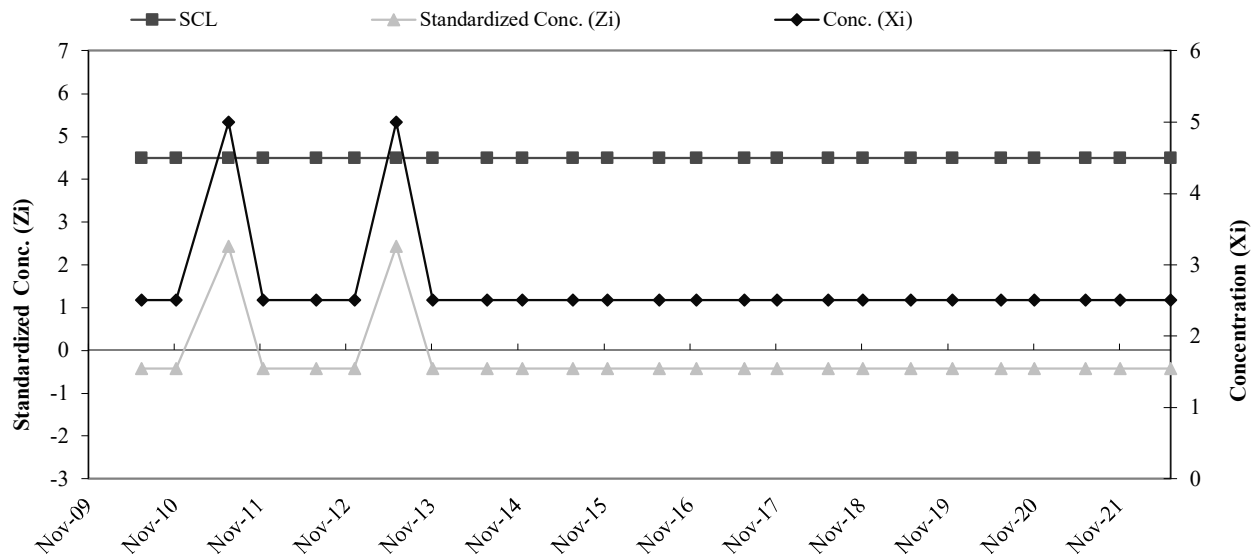


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-06	2.5	2.88	0.88
2	Dec-06	2.5		
3	Jun-07	3		
4	Nov-07	5		
5	Jun-08	2.5		
6	Nov-08	2.5		
7	Jun-09	2.5		
8	Nov-09	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Jun-10	4.5	2.5	-0.43	31	Jun-22	4.5	2.5	-0.43
10	Nov-10	4.5	2.5	-0.43					
9	Jun-11	4.5	5	2.43					
10	Nov-11	4.5	2.5	-0.43					
11	Jun-12	4.5	2.5	-0.43					
12	Dec-12	4.5	2.5	-0.43					
13	Jun-13	4.5	5	2.43					
14	Nov-13	4.5	2.5	-0.43					
15	Jun-14	4.5	2.5	-0.43					
16	Nov-14	4.5	2.5	-0.43					
17	Jun-15	4.5	2.5	-0.43					
18	Nov-15	4.5	2.5	-0.43					
19	Jun-16	4.5	2.5	-0.43					
20	Nov-16	4.5	2.5	-0.43					
21	Jun-17	4.5	2.5	-0.43					
22	Nov-17	4.5	2.5	-0.43					
23	Jun-18	4.5	2.5	-0.43					
24	Nov-18	4.5	2.5	-0.43					
25	May-19	4.5	2.5	-0.43					
26	Nov-19	4.5	2.5	-0.43					
27	Jun-20	4.5	2.5	-0.43					
28	Nov-20	4.5	2.5	-0.43					
29	Jun-21	4.5	2.5	-0.43					
30	Nov-21	4.5	2.5	-0.43					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

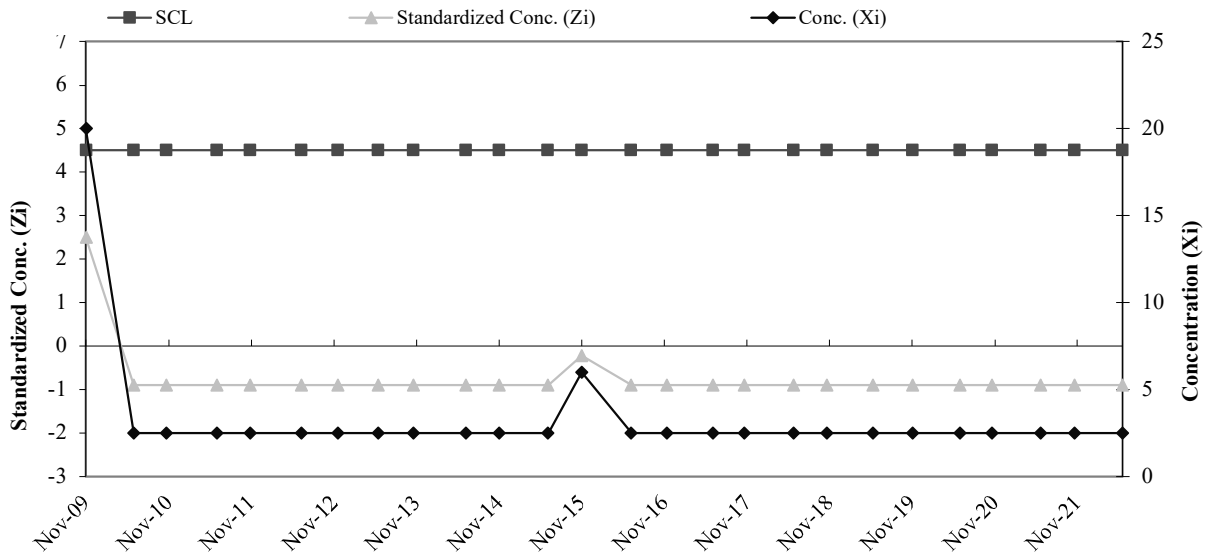


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Nov-05	7	7.13	5.16
2	Jun-06	18		
3	Dec-06	5		
4	Jun-07	6		
5	Nov-07	11		
6	Jun-08	5		
7	Nov-08	2.5		
8	Jun-09	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	20	2.50	34	Jun-22	4.5	2.5	-0.90
10	Jun-10	4.5	2.5	-0.90					
11	Nov-10	4.5	2.5	-0.90					
12	Jun-11	4.5	2.5	-0.90					
13	Nov-11	4.5	2.5	-0.90					
14	Jun-12	4.5	2.5	-0.90					
15	Dec-12	4.5	2.5	-0.90					
16	Jun-13	4.5	2.5	-0.90					
17	Nov-13	4.5	2.5	-0.90					
18	Jun-14	4.5	2.5	-0.90					
19	Nov-14	4.5	2.5	-0.90					
20	Jun-15	4.5	2.5	-0.90					
21	Nov-15	4.5	6	-0.22					
22	Jun-16	4.5	2.5	-0.90					
23	Nov-16	4.5	2.5	-0.90					
24	Jun-17	4.5	2.5	-0.90					
25	Nov-17	4.5	2.5	-0.90					
26	Jun-18	4.5	2.5	-0.90					
27	Nov-18	4.5	2.5	-0.90					
28	May-19	4.5	2.5	-0.90					
29	Nov-19	4.5	2.5	-0.90					
30	Jun-20	4.5	2.5	-0.90					
31	Nov-20	4.5	2.5	-0.90					
32	Jun-21	4.5	2.5	-0.90					
33	Nov-21	4.5	2.5	-0.90					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

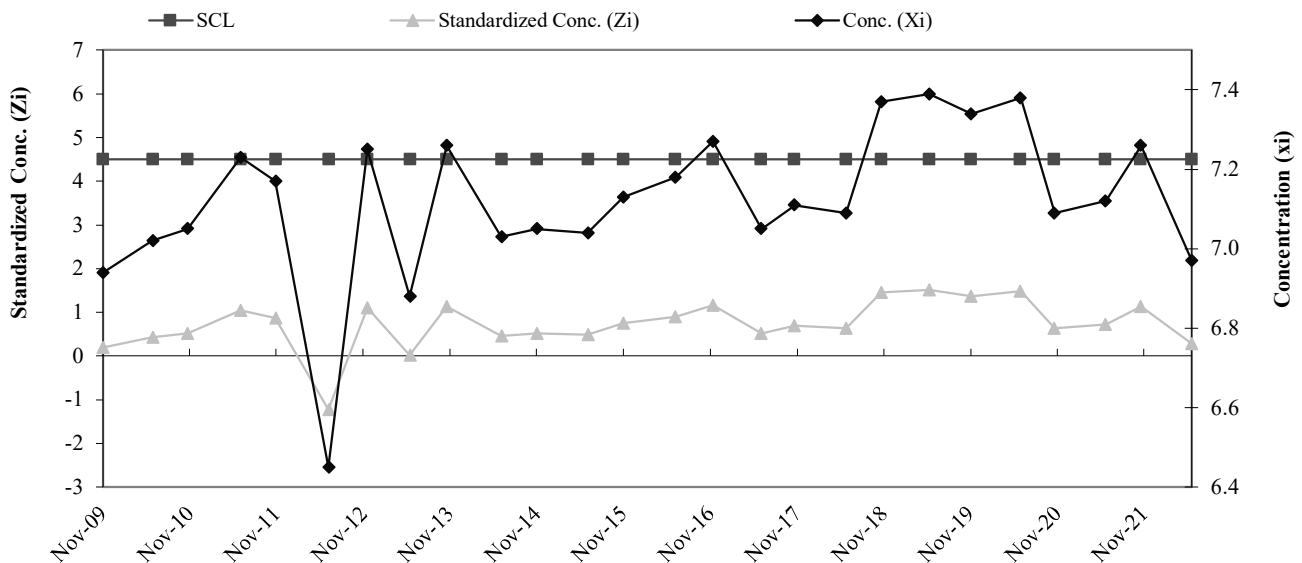


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Nov-05	6.2	6.87	0.34
2	Jun-06	7.1		
3	Dec-06	7.4		
4	Jun-07	6.8		
5	Nov-07	6.8		
6	Jun-08	6.9		
7	Nov-08	6.8		
8	Jun-09	7.0		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	6.9	0.19	33	Nov-21	4.5	7.3	1.13
10	Jun-10	4.5	7.0	0.43	34	Jun-22	4.5	7.0	0.28
11	Nov-10	4.5	7.1	0.51					
12	Jun-11	4.5	7.2	1.04					
13	Nov-11	4.5	7.2	0.87					
14	Jun-12	4.5	6.5	-1.24					
15	Dec-12	4.5	7.3	1.10					
16	Jun-13	4.5	6.9	0.02					
17	Nov-13	4.5	7.3	1.13					
18	Jun-14	4.5	7.0	0.46					
19	Nov-14	4.5	7.1	0.51					
20	Jun-15	4.5	7.0	0.49					
21	Nov-15	4.5	7.1	0.75					
22	Jun-16	4.5	7.2	0.89					
23	Nov-16	4.5	7.3	1.16					
24	Jun-17	4.5	7.1	0.51					
25	Nov-17	4.5	7.1	0.69					
26	Jun-18	4.5	7.1	0.63					
27	Nov-18	4.5	7.4	1.45					
28	May-19	4.5	7.4	1.51					
29	Nov-19	4.5	7.3	1.36					
30	Jun-20	4.5	7.4	1.48					
31	Nov-20	4.5	7.1	0.63					
32	Jun-21	4.5	7.1	0.72					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean



**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 SpC**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Nov-05	994	845.13	61.71
2	Jun-06	828		
3	Dec-06	812		
4	Jun-07	845		
5	Nov-07	816		
6	Jun-08	840		
7	Nov-08	804		
8	Jun-09	822		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)	Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	814	-0.50	33	Nov-21	4.5	674	-2.77
10	Jun-10	4.5	841	-0.07	34	Jun-22	4.5	936	1.47
11	Nov-10	4.5	813	-0.52					
12	Jun-11	4.5	837	-0.13					
13	Nov-11	4.5	823	-0.36					
14	Jun-12	4.5	849	0.06					
15	Dec-12	4.5	823	-0.36					
16	Jun-13	4.5	834	-0.18					
17	Nov-13	4.5	842	-0.05					
18	Jun-14	4.5	852	0.11					
19	Nov-14	4.5	844	-0.02					
20	Jun-15	4.5	860	0.24					
21	Nov-15	4.5	849	0.06					
22	Jun-16	4.5	866	0.34					
23	Nov-16	4.5	853	0.13					
24	Jun-17	4.5	863	0.29					
25	Nov-17	4.5	859	0.22					
26	Jun-18	4.5	839	-0.10					
27	Nov-18	4.5	880	0.57					
28	May-19	4.5	803	-0.68					
29	Nov-19	4.5	833	-0.20					
30	Jun-20	4.5	862	0.27					
31	Nov-20	4.5	904	0.95					
32	Jun-21	4.5	936	1.47					

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

