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

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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 2023 in accordance with the approved 2014 Post-Closure Care Plan (PCCP), additional updates provided in slipsheets in 2017 and 2018 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 zone (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 weeks of June 5, 2023, and June 12, 2023.

Monitoring wells that had final turbidity values of greater than 10 nephelometric turbidity units (NTU) after low-flow sampling for at least three consecutive sampling events (unless previously redeveloped within the last three years) were redeveloped in accordance with the PCCP for the Site in May 2023 prior to the sampling, including B-28.

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) or peristaltic pump. 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, 2023, and sampling occurred between June 8, 2023, and June 13, 2023. 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 elevation contour map was prepared for the perched zone ([Figure 3](#)) and a potentiometric surface contour map was prepared 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. When reviewing the groundwater elevation contour map for the perched zone please keep in mind that groundwater in the perched zone includes discontinuous perched saturated zones within an otherwise clayey matrix.

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 perched zone static water elevations were generally higher compared to the previous gauging event (October 2022), yet consistent with historical data. It is noted that the late summer

and fall of 2022 were unusually dry.

The drift unit static water elevations were consistent with historical data and the previous gauging event (October 2022). Groundwater in the drift unit flows in a southerly direction.

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 within the range of the historic results, which ranged from below the reporting limit to 37 µg/L at B-9 (8/31/1995).
- Copper concentrations ranged from below the reporting limit of 5 µg/L in monitoring wells B-7, B-18A, B-20D, B-21D, B-21D duplicate, B-22D, B-27D, B-28, and OBG MW-16D to 9 µg/L in monitoring well B-24r. The results were within the range of the historic results, which ranged from below the reporting limit to 203 µg/L at OBG MW-16D (6/25/2009). Exceptions include results from samples from B-23Dr (6 µg/L), which was elevated compared to previous results that have been below the reporting limit and B-24r (9 µg/L), which was elevated compared to previous results that have ranged from below the reporting limit to 8 µg/L (6/24/2014).
- Nickel concentrations ranged from below the reporting limit of 5 µg/L in monitoring wells B-7, B-19Ar, B-20D, B-21D, B-21D duplicate, B-22D, B-23Dr, B-27D, and OBG MW-16D to 12 µg/L in monitoring well B-24r. The results were within the range of the historic results, which ranged from below the reporting limit to 370 µg/L at B-22D (6/21/1995). Exceptions include results from samples from B-28 (8 µg/L), which was elevated compared to previous results that have ranged from below the reporting limit to 5 µg/L (6/3/2013).
- Zinc concentrations ranged from below the reporting limit of 5 µg/L in monitoring wells B-7, B-20D, B-21D, B-21D duplicate, B-27D, and OBG MW-16D to 13 µg/L in monitoring wells B-9 and B-19Ar. The results were within the range of the historic 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 of 20 µg/L in wells B-7 and B-18A to 2,320 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 11 µg/L in monitoring well B-19Ar to 123 µg/L in monitoring well B-18A. 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 10,100 µg/L in monitoring well OBG MW-16D to 67,800 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).
- TOC concentrations ranged from 1.30 mg/L in monitoring well B-18A to 4.4 mg/L in monitoring well B-7. The results were within the range of the historic results, which ranged from below the reporting limit to 71 mg/L at B-9 (11/13/1996). An exception includes the result from sample from B-24Ar (2.7 mg/L), which was less compared to previous results that have ranged from 2.9 mg/L (6/12/2018) to 8 mg/L (6/7/2005).
- TOX concentrations ranged from below the reporting limit of 10 µg/L in monitoring well B-28 to 54.1 µg/L in monitoring well B-9. Seven samples (B-18A, B-20D, B-21D, B-21D duplicate, B-

22D, B-23Dr, B-27D, and OBG MW-16D) had an estimated value less than the reporting limit, but greater than the method detection limit and were qualified with a "J" value. The results were within the range of the historic results, which ranged from below the reporting limit to 230 µg/L at B-7 (11/30/2016).

- pH concentrations ranged from 6.71 in monitoring well B-9 to 7.37 in monitoring wells B-22D and 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 638 µs/cm in monitoring well B-27D to 2,290 µs/cm in monitoring well B-9. The results were within the range of 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). An exception includes the result from sample from B-24Ar (1,370 µs/cm), which was elevated compared to previous results that have ranged from 857 µs/cm (6/7/2005) to 1,307 µs/cm (6/20/2017).
- Chloride concentrations ranged from below the reporting limit of 10 mg/L in monitoring wells B-20D, B-21D, B-21D duplicate, B-22D, B-27D, and OBG MW-16D to 93 mg/L in monitoring well B-19Ar. The results were within the range of previous results, which ranged from below the reporting limit to 163 mg/L at B-24r (12/23/1998). Exceptions include results from samples from B-18A (24 mg/L), which were elevated compared to previous results that have ranged from 7 mg/L (10/17/2001) to 22 mg/L (6/8/2022), B-19Ar (93 mg/L) that have ranged from 51 mg/L (6/29/2006) to 90 mg/L (6/9/2022), and B-24r (51 mg/L) that have ranged from 44 mg/L (6/24/2015) to 50 mg/L (6/8/2022).
- Sulfate concentrations ranged from 17 mg/L in monitoring well B-27D to 841 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 included the results from samples B-24r (287 mg/L), which was elevated compared to previous results that have ranged from 182 mg/L (6/28/2006) to 271 mg/L (6/17/2020) and B-28 (172 mg/L), which was elevated compared to previous results that have ranged from 78 mg/L (6/16/2010) to 166 mg/L (6/7/2022).
- Cyanide concentrations were not detected above their respective reporting limits in the monitoring wells sampled during the June 2022 sampling event.
- Phenols concentrations ranged from below the reporting limit of 0.02 mg/L in monitoring wells B-7, B-9, B-19Ar, B-20D, B-21D, B-21D duplicate, B-22D, B-23Dr, B-24r, B-27D, B-28, and OBG MW-16D to 0.04 mg/L in monitoring wells B-18A.
- VOC concentrations were not detected except for chloromethane in OBG MW-16D (19 µg/L), MW-DUP-061223 (B-21D) (17 µg/L), Equipment Blank-061323 (11 µg/L), Trip Blank-060823 (20 µg/L), and Trip Blank-061323 (8 µg/L). It was not detected in the laboratory blank samples; therefore, based on the concentrations detected in the blank samples, the source of chloromethane appears to be related to cross contamination during the field work and/or during transportation to the laboratory. Accordingly, the results for OBG MW-16D (19 µg/L) and MW-DUP-061223 (B-21D) (17 µg/L) are considered as estimated values.

Chloromethane has not been detected in monitoring wells or landfill sumps since June 2011, where there was a detection of 2 µg/l for chloromethane in Sump C. Chloromethane has been detected at low levels in air throughout the world and is also present in some lakes and streams and has

been found in drinking water at very low levels.¹

There was a Shewhart control limit exceedance for nickel in monitoring well B-28 (8 µg/L) during this sampling event. Therefore, in accordance with the Post-Closure Care Plan (PCCP), on July 6, 2023, EGLE was notified via email of the exceedance and the monitoring well was resampled for nickel on July 10, 2023. The results from the initial sample collected from monitoring well B-28 had a concentration of less than the reporting limit of 5 µg/L for chromium and copper, and 8 µg/L for nickel and zinc.

Nickel was not detected above the reporting limit (5 µg/L) in the resample for monitoring well B-28; therefore, the resampling result did not confirm the spike nor the Shewhart control limit exceedance for nickel in B-28. The exceedance is due to a background data set for nickel for this well that is based primarily on non-detects resulting in a very low background mean and standard deviation (2.88 and 0.88, respectively). It is also possible that the turbidity and/or a lower depth to water, could have impacted sample results for B-28.

In addition, leak detection Vault F, the closest leak detection vault located just to the north of B-28 was non-detect for chromium, copper, and zinc, and nickel was detected at 5 µg/L. A decreasing trend was observed for nickel in Vault F. In the June 2020 sampling event, nickel was detected at 18 µg/L and has been steadily decreasing.

The metals results from the closest monitoring wells were non-detect or similar to or less than previous results. Nickel was non-detect in monitoring wells B-7 and was detected at 5 µg/L at B-9. Metals in the other vaults were either not detected or detected at a concentration of 20 µg/L or less, which are considered low concentrations.

The spike and Shewhart control limit exceedance in nickel in B-28 does not suggest there was a release from the landfill because concentrations of other metals/parameters do not support a release has occurred. If a release from the landfill had occurred, nickel and potentially other metals concentrations in B-28 and potentially in other monitoring wells would be expected to increase. Furthermore, the laboratory reviewed their quality control (QC) data and there were no QC or reporting issues.

Therefore, the result for the resample from monitoring well B-28 is being relied upon and the spike and Shewhart control limit exceedance does not appear to be a result of a release from the landfill.

¹ Agency for Toxic Substances and Disease Registry (ATSDR). Toxicological Profile for Chloromethane (Update). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.

3. SUMMARY

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 except for the chloride and chloromethane results which are treated as estimated values. 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-21D and MW-Dup-061223 (B-21D) were within acceptable limits except for chloromethane; which was below the detection limit in the original sample and a concentration of 17 µg/L in the duplicate sample, TOX; which had an estimated concentration of 6.88 µg/L in the original sample and an estimated concentration of 5.60 µg/L in the duplicate sample, and sodium which had a concentration of 20,300 µg/L in the original sample and a concentration of 13,900 µg/L in the duplicate sample.

There were no exceedances of the Shewhart control limits during this sampling event, except for the previously discussed nickel results from monitoring well B-28. The recent Shewhart control limit exceedances have been due to background data sets for metals that are largely based on non-detects resulting in very low background means and standard deviations. Ramboll is proposing that if there is a Shewhart exceedance with a concentration of 10 µg/l or less for chromium, copper, nickel, and zinc, then resampling will not be required, and the exceedance will be reported and evaluated within the semiannual report. Ten (10) µg/l is recommended as a trigger for resampling for chromium, copper, nickel, and zinc because of the very low standard deviations from baseline results. A concentration of 10 µg/l would not diminish the ability to detect a leak from the landfill and would still provide adequate monitoring of the integrity of the landfill. Significant spikes and Shewhart control exceedances would still be detected and evaluated. Increasing the trigger concentration for resampling would help reduce the number of "false positive" out-of-control outcomes.

There were no trends observed during this monitoring event. Spikes were observed in monitoring wells B-19A for copper, B-21D for specific conductivity, B-24Ar for copper, B-28 for nickel, and B-28 for specific conductivity. These spikes do not suggest there was a release from the landfill because concentrations of other metals/parameters do not support a release has occurred, including data from the landfill sumps and vaults. The trends will continue to be evaluated during future sampling events. The Shewhart control charts are included as [Appendix E](#).

In order to address the possibility that turbidity is affecting results, during future sampling events, additional time will be taken after purging for monitoring wells that are purged dry, to make sure the monitoring wells have sufficiently recovered prior to sample collection and turbidity will be measured prior to sample collection.

The next sampling event (annual event) is currently scheduled for November 2023. 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

A handwritten signature in blue ink that reads "Clifford Scott Yantz". The signature is written in a cursive style. Below the signature is a horizontal line.

Clifford S. Yantz
Managing Hydrogeologist – Ramboll Americas Engineering Solutions, Inc.
Agent for RACER Trust

Date: August 30, 2023

cc: file

TABLES

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

June 6, 2023

Well ID	Top of Casing Elevation (ft)*	Depth to Water (ft)	Static Water Elevation (ft)
<i>Landfill Monitoring Wells</i>			
B-7	813.63	18.08	795.55
B-9	807.45	6.90	800.55
B-18A	810.85	23.55	787.30
B-19A	812.66	9.04	803.62
B-19AR	811.80	39.64	772.16
B-20D	815.14	70.12	745.02
B-21D	821.07	80.83	740.24
B-22D	822.15	84.40	737.75
B-23DR	812.12	80.87	731.25
B-24R	816.04	14.35	801.69
B-27D	812.70	75.65	737.05
B-28	816.46	6.61	809.85
OBG MW-16D	807.43	58.04	749.39
<i>former WWTP Monitoring Wells</i>			
OBG MW-1	811.56	6.10	805.46
OBG MW-2	813.77	--	
OBG MW-3	810.09	5.86	804.23
OBG MW-4	812.66	6.05	806.61
OBG MW-5	816.04	7.95	808.09
OBG MW-6	815.75	12.01	803.74
OBG MW-7	813.47	--	
OBG MW-8	817.50	10.04	807.46
OBG MW-9	809.97	4.48	805.49
OBG MW-10	811.54	7.08	804.46
<i>Additional Site Monitoring Wells</i>			
OBG MW-11	801.94	6.95	794.99
OBG MW-12D	797.13	47.68	749.45
OBG MW-12S	796.88	8.14	788.74
OBG MW-13	801.81	7.18	794.63
OBG MW-14	810.98	5.54	805.44
OBG MW-15D	810.68	79.48	731.20
OBG MW-17D	800.09	50.74	749.35
OBG MW-17S	800.51	11.03	789.48
OBG MW-18D	800.17	50.62	749.55
OBG MW-18S	799.32	14.27	785.05
OBG MW-19D	795.37	48.02	747.35
OBG MW-20	783.93	27.23	DRY
OBG MW-21	797.49	6.84	790.65
OBG MW-22	794.11	5.79	788.32
OBG MW-23 (D)	776.76	28.59	748.17
OBG MW-24	781.50	3.90	777.60
OBG MW-25R	783.12	6.66	776.46
OBG MW-26	772.34	6.33	766.01
OBG MW-27 (D)	771.94	23.65	748.29
OBG MW-28	800.35	12.61	787.74
OBG MW-29 (D)	773.28	25.44	747.84
<i>Piezometers</i>			
PZ-3R	785.36	7.26	778.10
<i>Peregrine Site Wells</i>			
MW-19-13	807.85	2.70	805.15
MW-20-13	810.81	4.24	806.57
MW-15-10	808.15	76.65	731.50
MW-16-10	798.64	66.93	731.71
PFW-1	809.51	77.62	731.89

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, except for OBG MW-25R and PZ-3R that were surveyed in April 2023.

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. PZ-1 was abandoned on December 21, 2022 due to being flooded during high Middle Pond levels. Monitoring wells OBG MW-25R and PZ-3R were replaced on December 21, 2022.

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-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	--	--	--	--	--	--	--
	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
	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	--	--	--	--	--	--	--
	11/7/2002	2.6	<30	7.38	490	9.5	<5	<5	<5	<5	140	8	11,900	2	<0.005	<0.020	32
	11/7/2002	2.7	<30	--	--	--	<5	<5	<5	<5	140	6	11,200	2	<0.005	<0.020	30
Duplicate	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	<5	110	7	--	2	<0.005	<0.010	31
	6/30/2004	4.2	<30	6.28	570	15.8	<5	<5	<5	7	--	--	--	--	--	--	--
	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	--	--	--	--
	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	--	--	--	--	--	--	--
	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	--	--	--	--	--	--	--
OBG MW-16D	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
	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
	6/12/2023	1.8	6.10 J	7.37	653	12.19	<5	<5	<5	<5	2,320	62	10,100	<10	<0.004	<0.02	29

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-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	--	--	--	--
Duplicate	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	58	<0.005	<0.020	161
	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
Replicate	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	<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	--	--	--	--	--	--	--
	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	43,700	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
	11/2/2022	6.4	32.9	6.97	1,073	12.97	<5	6	<5	11	--	--	--	34	--	--	--
	6/9/2023	4.4	18.0	7.04	965	15.16	<5	<5	<5	<5	<20	23	40,700	28	<0.004	<0.02	160.00

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-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	<20	70	--	--	--	--	--	--
	11/13/1996	71.0	<5	6.79	3,280	9.2	<20	<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	--	--	--	--	--	--	--
Duplicate	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
Replicate	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
	11/2/2022	4.6	36.6	6.59	2,150	15.03	<5	15	6	14	--	--	--	62	--	--	--
	6/9/2023	1.8	54.1	6.71	2,290	12.68	<5	6	5	13	20	107	58,200	71	<0.004	<0.02	841

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	--	--	--	--
Duplicate	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
	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
Duplicate	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
	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
Replicate	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	--	--	--	--	--	--	--
Duplicate	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
	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	--	--	--	--	--	--	--
	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	--	--	--	--	--	--	--
Duplicate	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
	6/3/2019	3.8	<150	7.36	1,056	11.2	<5	<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	<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	35,200	22	<0.004	<0.02	124
	11/2/2022	3.3	4.16 J	6.81	1,086	13.42	<5	43	<5	43	--	--	--	21 L	--	--	--
	11/2/2022	3.2	11.2	6.81	1,006	13.42	<5	40	<5	45	--	--	--	20	--	--	--
	12/22/2022	--	--	--	--	--	--	34	--	--	--	--	--	--	--	--	--
	6/9/2023	1.30	4.82 J	6.97	1,100	14.65	<5	<5	8	12	<20	123	33,300	24	<0.004	0.04	129

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	--	--	--	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	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	<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	
B-19AR	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	--	--	--	--	
	2/14/2006	--	--	7.95	840	5.9	<5	--	--	--	--	--	--	--	--	--	--	
	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	
	11/30/2006	6.2	33.7	7.18	1,300	11.4	5	<4	<5	<5	--	--	--	--	--	--	--	
Replicate	6/7/2007	2	<30	6.97	899	11.4	6	4	4	9	70	21	19,700	58	<0.005	<0.010	136	
	11/13/2007	1.5	<30	7.27	1,070	12.1	3	7	26	11	--	--	--	--	--	--	--	
	6/25/2008	2.4	38.8	7.13	1,060	17.4	<5	3	<5	16	380	9	18,500	58	<0.005	<0.010	148	
	11/18/2008	1.3	<30	7.00	1,052	8.0	<5	1	<5	14	--	--	--	--	--	--	--	
	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	
	11/19/2009	2	<30	7.41	994	10.4	<5	<4	<5	7	--	--	--	--	--	--	--	
	6/15/2010	2	<30	7.57	992	16.1	<5	<4	<5	<5	<20	<5	19,800	59	<0.005	<0.020	154	
	11/10/2010	2	<30	6.91	1,128	8.7	12	<4	<5	<5	--	--	--	--	--	--	--	
	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	
	6/22/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--	
	11/16/2011	2	26	7.06	1,091	8.4	<5	<4	<5	5	--	--	--	--	--	--	--	
	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	
	12/6/2012	1.8	<40	7.36	1,129	10.2	<5	<4	5	6	--	--	--	--	--	--	--	
	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	
	11/6/2013	1.6	3.6	7.33	1,104	11.6	<5	<4	10	<5	--	--	--	--	--	--	--	
	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	
	11/20/2014	2.1	190	7.37	1,038	6.16	<5	6	6	10	--	--	--	--	--	--	--	
	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	
	11/19/2015	1.4	17	6.90	1,170	10.6	<5	<5	7	7	--	--	--	--	--	--	--	
	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	
	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	--	--	--	--	--	--	--
		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
		11/7/2017	2.6	120	7.05	1,134	12.0	<5	<5	<5	<5	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	
	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	
	11/21/2019	2.4	<40	7.36	1,121	11.1	7	6	12	23	--	--	--	--	--	--	--	
	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	
	11/5/2020	6.6	19.4	7.02	1,172	13.0	8	108	11	42	--	--	--	--	--	--	--	
	12/4/2020	--	--	--	--	--	<5	<5	6	13	--	--	--	--	--	--	--	
	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	
	11/4/2021	3.6	10.1	7.14	926	11.4	<5	<5	<5	7	--	--	--	--	--	--	--	
	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	
	11/2/2022	3.1	12.5	6.82	1,126	13.81	<5	<5	<5	20	--	--	--	88	--	--	--	
	6/12/2023	1.6	37.3	6.97	1,210	17.04	<5	7	<5	13	360	11	19,100	93	<0.004	<0.02	156	

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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-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	<20	40	--	--	--	--	--	--
	11/13/1996	16.0	<5	7.69	1,075	6.7	<20	<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	--	--	--	--	--	--	--	--	--	--	--	--	3	<0.005	<0.020	92
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	3	<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
Duplicate	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	7	<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	--	--	--	--	--	--	--
Duplicate	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
	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	--	--	--	--	--	--	--
	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
	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
	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
Duplicate	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
	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
	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
	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
	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
Duplicate	6/13/2023	1.5	5.62 J	7.19	836	13.35	<5	<5	<5	<5	1,960	43	14,400	<10	<0.004	<0.02	107

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	<20	--	--	--	--	--	--	--
	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
Duplicate	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	<5	<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
Duplicate	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	<5	<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	--	--	--	--	--	--	--
Replicate	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
	6/12/2023	1.4	6.88 J	7.23	793	13.83	<5	<5	<5	<5	1,350	32	20,300 J	<10	<0.004	<0.02	89
	6/12/2023	1.4	5.60 J	7.22	791	13.95	<5	<5	<5	<5	1,360	32	13,900 J	<10	<0.004	<0.02	91

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TABLE 2
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Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

		Indicator Parameters					Dissolved Metals (µg/L)								Inorganics (mg/L)			
Monitoring Well	Sample Date	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-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		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	--	--	--	--	--	--	--	
Duplicate	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	
	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	
Duplicate	11/14/2007	1.1	<30	7.30	710	14.2	2	2	3	6	--	--	--	--	--	--	--	
	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	
Duplicate	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		<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	<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	7.76	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	13.0	<5	<5	<5	<5	1,320	25	28,000	<10	<0.004	<0.02	59	
	6/9/2023	1.4	5.64 J	7.37	701	15.61	<5	<5	<5	6	1,270	25	28,200	<10	<0.004	<0.02	56	

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	--	--	--	--	
Duplicate	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	2	<0.005	<0.020	21	
	4/26/1999	3.6	<100	8.10	552	13.3	<10	<10	<5	<10	--	--	--	--	--	--	--	
	4/26/1999	3.0	<100	NS	NS	NS	<10	<10	<5	<10	--	--	--	--	--	--	--	
	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	
	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	--	--	--	--	--	--	--	
Duplicate	11/7/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	6/3/2003	3.9	<30	6.86	640	12.9	<5	<5	<5	<5	--	--	--	--	--	--	--	
	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	--	--	--	--	--	--	--	
	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	
	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	
	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	
Duplicate	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	
	11/11/2010	2	21.5	7.28	743	12.8	11	<4	<5	<5	--	--	--	--	--	--	--	
	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	
	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	
6/8/2023	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	13.5	<5	<5	<5	<5	1,870	41	25,600	34	<0.004	<0.02	64	
	6/8/2023	1.4	8.44 J	7.22	809	13.63	<5	6	<5	7	1,710	38	26,900	33	<0.004	<0.02	58	

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	--	--	--	--	--	--	--	--	--	--	--	NS	NS	NS	NS	NS	
	5/4/1998	4.0	<5	6.52	1,410	11.6	<10	<10	8	20	--	--	--	--	--	--	--	
	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	
	Duplicate	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
	Replicate	6/21/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Dup. Replicate	6/21/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Duplicate	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	--	--	--	--	--	--	--	
	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	<5	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		
Duplicate	11/5/2020	5.2	18.5	7.07	1,257	14.4	<5	<5	<5	<5	--	--	--	--	--	--	--	
	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	
Duplicate	11/5/2021	4.0	9.72 J	7.21	1,008	11.9	<5	<5	<5	<5	--	--	--	--	--	--	--	
	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	
11/2/2022	5.2	33.5	6.97	1,186	13.84	<5	<5	<5	10	--	--	--	46	--	--	--		
	6/8/2023	2.7	12.8	7.04	1,370	19.47	<5	9	12	10	30	20	67,800	51	<0.004	<0.02	287	

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-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
	6/15/2010	2	31.2	7.41	652	15.7	<5	<4	<5	<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	--	--	--	--	--	--	--
	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	--	--	--	--	--	--	--
Duplicate	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
	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
	6/8/2023	1.4	3.82 J	7.36	638	12.74	<5	<5	<5	<5	950	27	39,100	<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
		EGLE Residential Drinking Water Criteria & RBSLs					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
	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	--	--	--	--	--	--	--
	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
Replicate	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
	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	--	--	--	--	--	--	--
	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	--	--	--	--	--	--	--
Duplicate	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
	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	--	--	--	--	--	--	--
	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
	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
Re-sample	11/2/2022	3.1	6.34 J	6.90	936	15.15	<5	9	<5	6	--	--	--	11 L	--	--	--
	12/21/2022	--	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--
	6/8/2023	1.6	<10	7.05	949	16.41	<5	<5	8	8	30	85	19,300	11	<0.004	<0.02	172

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
	6/13/2023	<1	<10	--	1.5	--		<5	<5	<5	<5	<20	<5	<5,000	<2.5	<0.004	<0.02	<2.5

- 1) < = Not detected.
2) NS = Not sampled, insufficient liquid encountered.
3) NR = No Result, insufficient sample volume.
4) T = Temperature in degrees Celsius.
5) -- = Not analyzed.
6) Dup = Duplicate sample.
- 7) A = Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005.
8) 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)
9) J = Value is estimated.
10) L = Elevated reporting limit due to low sample amount
11) Monitoring wells B-19 and B-24 were replaced on March 15, 2005.

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

	B-7	B-9	B-18A	OBG MW-16D	B-19Ar	B-20D	B-21D	MW-DUP-061223 (B-21D)
Parameter	9-Jun-23	9-Jun-23	9-Jun-23	12-Jun-23	12-Jun-23	13-Jun-23	12-Jun-23	12-Jun-23
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	19	<5	<5	<5	17 J
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-Methylnapthalene	<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
1,1,2,2-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)

	B-22D	B-23Dr	B-24r	B-27D	B-28	Equipment Blank- 061323	Trip Blank- 060823	Trip Blank- 061323
Parameter	9-Jun-23	8-Jun-23	8-Jun-23	8-Jun-23	8-Jun-23	13-Jun-23	8-Jun-23	13-Jun-23
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	11	20	8
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-Methylnapthalene	<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
1,1,2,2-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

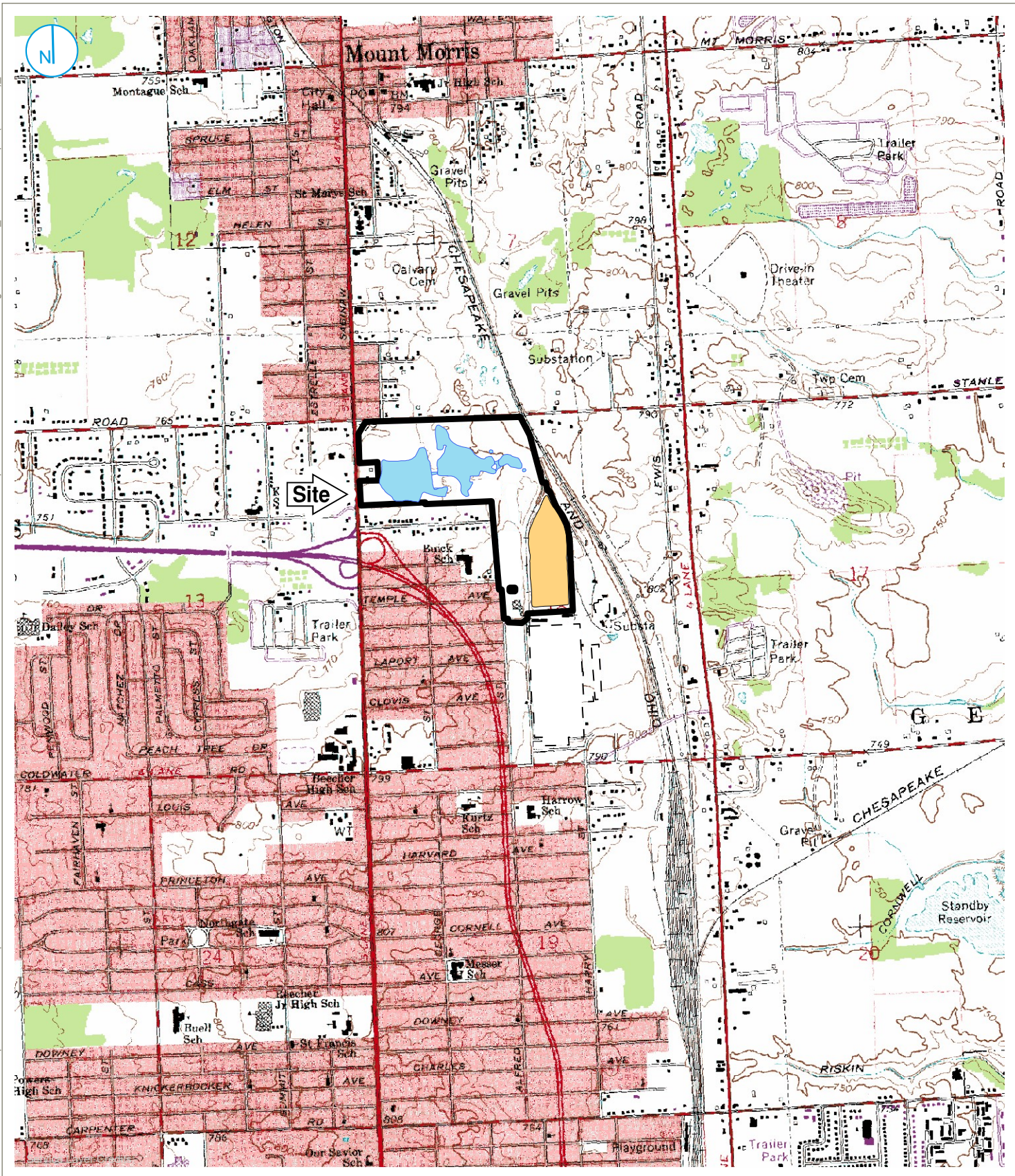
Notes:

Analysis in µg/L

EPA Method 8260 used for analysis.

Dup- Duplicate analysis

FIGURES



Map Scale: 1:124,000;
Map Center: 83°41'9"W 43°5'51"N

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

0 1,000 2,000 Feet

SITE LOCATION

FIGURE 01

RACER TRUST
Coldwater Road Landfill
Flint, Michigan

A RAMBOLL COMPANY

RAMBOLL



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

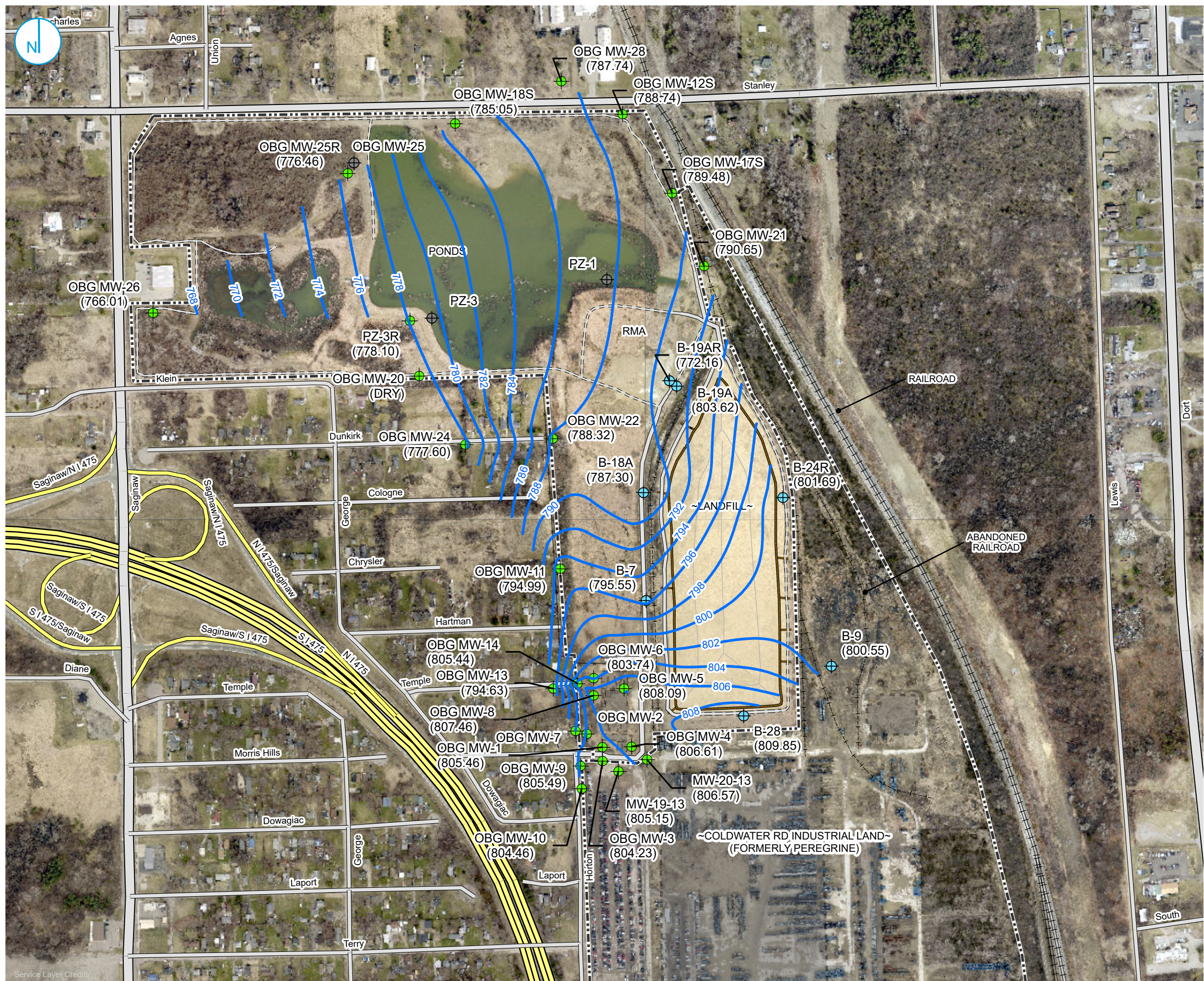
SITE LAYOUT

RACER TRUST
COLDWATER ROAD
FLINT, MICHIGAN

FIGURE 2

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY





- LANDFILL MONITORING WELL /
PIEZOMETER
- OTHER MONITORING WELL /
PIEZOMETER
- ABANDONED WELL;
- GROUNDWATER CONTOUR
(JUNE 6, 2023)
- PROPERTY BOUNDARY
- FORMER BUILDING
- (800.93) GROUNDWATER ELEVATION

NOTES
THE GROUNDWATER ELEVATION FOR MONITORING WELLS B-19A AND B-19AR 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.

0 225 450
Feet

**PERCHED ZONE GROUNDWATER
ELEVATION MAP
JUNE 6, 2023**

RACER TRUST
COLDWATER ROAD
FLINT, MICHIGAN

FIGURE 3

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY



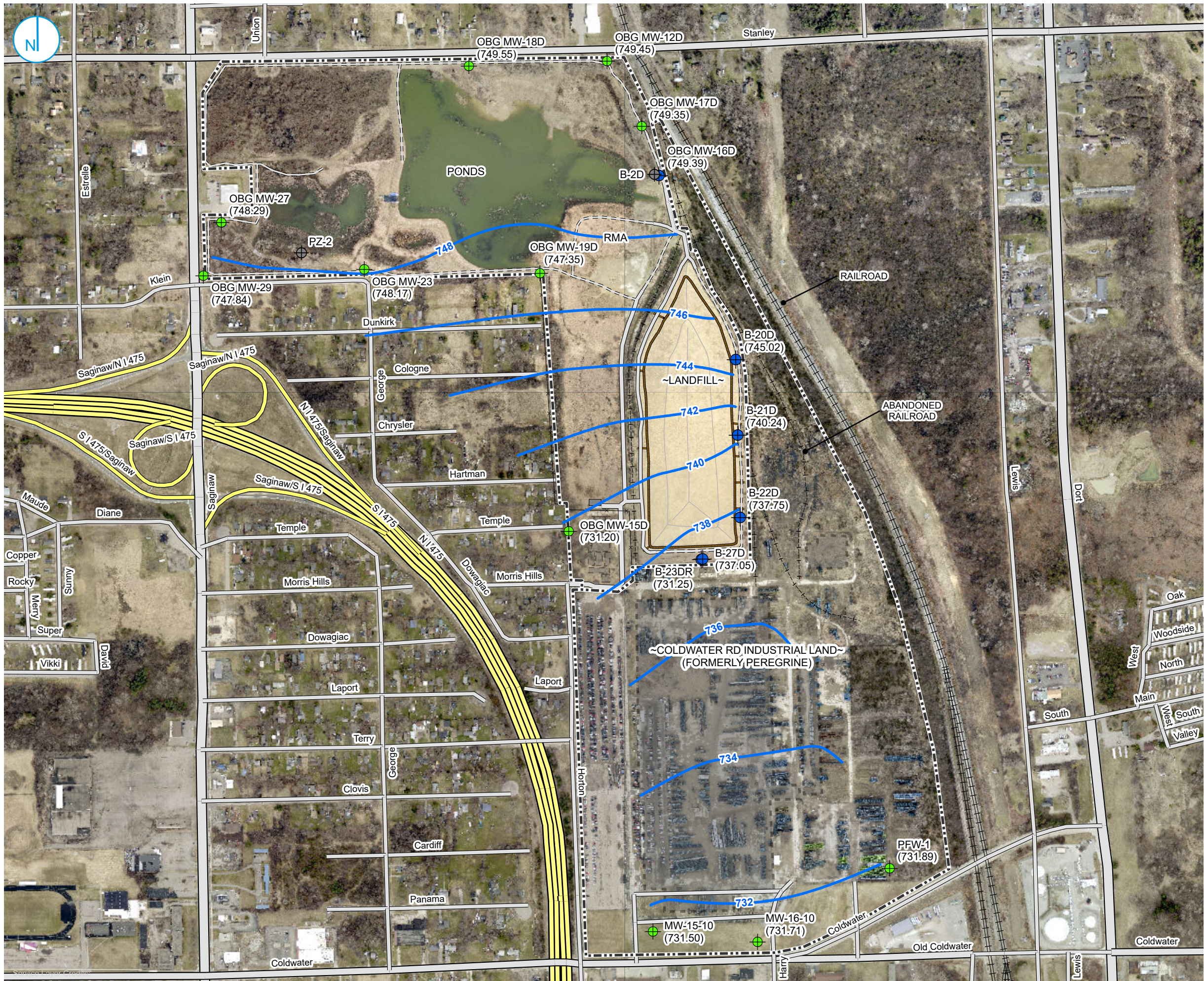


FIGURE 4

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY



APPENDIX A

SAMPLING PROCEDURES

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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 <u>6/6/2023 6/9/2023</u>						
Site Name <u>RACER Coldwater Rd</u>		Weather <u>Sunny 60's °F</u>				
Location <u>Flint, MI</u>		Well # <u>B-7</u>				
Project No. <u>1940103462</u>		Evacuation Method <u>Whale Pump-Peristaltic</u>				
Personnel <u>JMK</u>		Sampling Method <u>Purged Dry</u>				
Well Information:						
Depth of Well * <u>28.86</u> 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 * <u>18.05 20.22</u> ft.						
Length of Water Column <u>10.81</u> ft.						
Volume of Water in Well <u>1.76</u> gal.(s)						
3X Volume of Water in Well <u>5.29</u> gal.(s)		Volume removed before sampling <u>2.0</u> gal.(s)				
		Did well go dry? <u>yes</u>				
* Measurements taken from ☒ Well Casing ☐ Protective Casing ☐ (Other, Specify) _____						
Instrument Calibration: Calibrated within range						
pH <u>Yes</u>						
ORP <u>Yes</u>						
Conductivity <u>Yes</u>						
DO <u>Yes</u>						
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>17.78</u>	initial <u>16.87</u>	initial <u>0.90</u>	initial <u>3.07</u>	initial <u>6.52</u>	initial <u>76.3</u>	initial <u>568</u>
5 min <u>Issue with sonde - stopped pumping</u>						
10 min _____						
15 min <u>Restart 10:27- low flow</u>						
20 min <u>18.82</u>	<u>13.12</u>	<u>0.96</u>	<u>7.20</u>	<u>7.20</u>	<u>97.2</u>	<u>317</u>
25 min <u>20.65</u>	<u>12.93</u>	<u>0.99</u>	<u>2.73</u>	<u>7.17</u>	<u>89.6</u>	<u>123.00</u>
30 min <u>24.75</u>	<u>11.23</u>	<u>0.99</u>	<u>2.71</u>	<u>7.17</u>	<u>80.1</u>	<u>57.7</u>
35 min <u>Well Purged Dry- 2 gallons</u>						
40 min <u>6/9/2023</u>						
45 min <u>20.22</u>	<u>23.41</u>	<u>433.25</u>	<u>3.58</u>	<u>7.05</u>	<u>77.6</u>	<u>86.8</u>
50 min <u>21.11</u>	<u>16.03</u>	<u>376.15</u>	<u>2.15</u>	<u>7.06</u>	<u>62.3</u>	<u>44.6</u>
55 min <u>21.69</u>	<u>15.10</u>	<u>376.10</u>	<u>2.02</u>	<u>7.05</u>	<u>58.3</u>	<u>23.1</u>
60 min <u>22.20</u>	<u>15.16</u>	<u>376.98</u>	<u>1.99</u>	<u>7.04</u>	<u>56.9</u>	<u>29.4</u>
65 min _____						
70 min _____						
75 min _____						
80 min _____						
85 min _____						
90 min _____						
Water Sample:						
Time Collected <u>6/9/2023 - 12:45</u>						
Physical Appearance at Start			Physical Appearance at Sampling			
Color _____			Color <u>Clear</u>			
Odor <u>None</u>			Odor <u>None</u>			
Turbidity (> 100 NTU) <u>550</u>			Turbidity (> 100 NTU) <u>30</u>			
Sheen/Free Product <u>None</u>			Sheen/Free Product <u>None</u>			
Samples collected:						
Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered		
Dissolved Metals - Cu, Cr, Ni, Zn	1	125 ml Plastic	HNO ₃	yes		
TOC	2	40 ml Glass	H ₂ SO ₄			
TOX	1	250 ml Plastic	H ₂ SO ₄			
SpC	1	500 ml Plasic	None			
Notes: Sped up after first 5 min						

RAMBOLL		Standard Groundwater Sampling Log											
Date	6/8/2023		Weather	Hazy 70's °F									
Site Name	RACER Coldwater Rd		Well #	B-9									
Location	Flint, MI		Evacuation Method	Whale Pump-Peristaltic									
Project No.	1940103462		Sampling Method	Purged Dry									
Personnel	KBS												
Well Information:													
Depth of Well *	25.25 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 *	6.58 10.70 ft.												
Length of Water Column	18.67 ft.												
Volume of Water in Well	3.04 gal.(s)												
3X Volume of Water in Well	9.13 gal.(s)		Volume removed before sampling 6.0 gal.(s)										
			Did well go dry? yes										
* Measurements taken from			(Other, Specify)										
Well Casing			X Protective Casing										
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	7.55	initial	22.95	initial	1.92	initial	1.02	initial	7.38	initial	113.7	initial	+1000
5 min	9.17		16.86		2.17		0.21		7.46		101.4		+1000
10 min	13.40		13.72		2.22		0.14		7.29		94.1		803
15 min	18.05		12.65		2.40		0.20		7.00		74.5		833
20 min	19.30		12.40		2.30		0.62		6.89		64.0		1010
25 min	20.35		12.25		2.20		1.16		6.88		59.6		+1000
30 min	22.45		12.03		1.89		4.20		6.99		56.0		+1000
35 min			6 gallons- Dry										
40 min													
45 min	11.15		16.53		847.91		4.14		6.72		86.7		455
50 min	12.27		13.03		914.46		3.56		6.72		73.3		109
55 min	12.68		12.68		909.13		3.73		6.71		70.1		47.9
60 min													
65 min													
70 min													
75 min													
80 min													
85 min													
90 min													
Water Sample:													
Time Collected		10:10											
Physical Appearance at Start						Physical Appearance at Sampling							
Color		Grayish Brown				Color		Clear					
Odor		None				Odor		None					
Turbidity (> 100 NTU)		+1000				Turbidity (> 100 NTU)		40-50					
Sheen/Free Product		None				Sheen/Free Product		None					
Samples collected:													
Analyses		# Bottles		Bottle size/type		Preservative		Field Filtered					
Dissolved Metals - Cu, Cr, Ni, Zn		1		125 ml Plastic		HNO3		yes					
TOC		2		40 ml Glass		H2SO4							
TOX		1		250 ml Plastic		H2SO4							
SpC		1		500 ml Plasic		None							
Notes:													
After 5 min turned pump up													

RAMBOLL		Standard Groundwater Sampling Log				
Date 6/6/2023						
Site Name RACER Coldwater Rd		Weather Cloudy 60's °F				
Location Flint, MI		Well # B-18A				
Project No. 1940103462		Evacuation Method Whale Pump-Peristaltic				
Personnel JMK		Sampling Method Purge Dry				
Well Information:						
Depth of Well * 43.58 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 * 23.45 ft.						
Length of Water Column 20.13 ft.						
Volume of Water in Well 3.28 gal.(s)						
3X Volume of Water in Well 9.84 gal.(s)		Volume removed before sampling 5 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 measured0.3 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 22.98	initial 17.90	initial 1.04	initial 4.11	initial 7.20	initial 95.9	initial 697.0
5 min						
10 min	24.14	13.35	0.82	3.53	7.02	100.9
15 min	27.29	12.03	0.82	3.91	7.00	90.9
20 min	29.55	12.02	0.82	2.96	7.00	85.6
25 min	31.67	12.33	0.83	3.17	7.00	82.9
30 min	33.31	12.67	0.84	3.09	6.99	82.5
35 min	34.82	12.79	0.84	3.2	6.99	81.5
40 min	35.92	13.19	0.85	3.21	6.98	82.2
45 min	36.89	13.66	0.86	3.11	6.98	81.7
50 min	37.54	14.25	0.87	2.79	6.97	80.0
55 min	37.85	14.65	0.87	2.72	6.97	79.9
60 min	Purged Dry- 5 gal					
65 min	6/9/2023					
70 min	28.23					151
75 min						
80 min						
85 min						
90 min						
95 min						
Water Sample:						
Time Collected 11:00						
Physical Appearance at Start			Physical Appearance at Sampling			
Color Grey		Color Clear				
Odor None		Odor None				
Turbidity (> 100 NTU) 700		Turbidity (> 100 NTU) 150				
Sheen/Free Product None		Sheen/Free Product None				
Samples collected:						
Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered		
Dissolved Metals - Cu, Cr, Ni, Zn	1	125 ml Plastic	HNO3	yes		
TOC	2	40 ml Glass	H2SO4			
TOX	1	250 ml Plastic	H2SO4			
SpC	1	500 ml Plastic	None			
Notes:						
Sped up pump 11:18 after drawdown more than 0.3 well went dry 12:04						

Date 12/19/22 | 12/22/22
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940103462
 Personnel KBS

Weather Cloudy, 39 °F
 Well # B-18A (Resample)
 Evacuation Method Whale Pump-Peristaltic
 Sampling Method Purge Dry

Well Information:

Depth of Well * 43.58 ft.
 Depth to Water * 21.74 | 33.87 ft.
 Length of Water Column 21.84 ft.
 Volume of Water in Well 3.55 gal.(s)
 3X Volume of Water in Well 10.67 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 8.5 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>23.24</u>	initial	<u>10.8</u>	initial	<u>1.07</u>	initial	<u>4.5</u>	initial	<u>6.54</u>	initial	<u>197.8</u>	initial	<u>5.83</u>
5 min	<u>25.20</u>		<u>11.20</u>		<u>1.06</u>		<u>3.06</u>		<u>6.69</u>		<u>190.9</u>		<u>3.10</u>
10 min	<u>29.60</u>		<u>11.7</u>		<u>1.06</u>		<u>2.44</u>		<u>6.79</u>		<u>185.2</u>		<u>3.92</u>
15 min	<u>36.10</u>		<u>11.9</u>		<u>1.06</u>		<u>0.30</u>		<u>6.89</u>		<u>174.4</u>		<u>11.4</u>
20 min	<u>39.24</u>		<u>11.90</u>		<u>1.06</u>		<u>1.36</u>		<u>6.90</u>		<u>163.6</u>		<u>21.2</u>
25 min	<u>40.00</u>		<u>11.50</u>		<u>1.08</u>		<u>0.56</u>		<u>6.93</u>		<u>110.0</u>		<u>13.3</u>
30 min			<u>11.50</u>		<u>1.08</u>		<u>1.63</u>		<u>6.92</u>		<u>88.9</u>		<u>10.7</u>
35 min	<u>42.30</u>		<u>11.3</u>		<u>1.08</u>		<u>1.8</u>		<u>6.94</u>		<u>65.1</u>		
40 min													
45 min	<u>12/22/2022</u>												
50 min	<u>32.65</u>		<u>10.9</u>		<u>1.10</u>		<u>2.68</u>		<u>6.85</u>		<u>35.2</u>		<u>43.2</u>
55 min	<u>33.64</u>		<u>11.1</u>		<u>1.10</u>		<u>2.37</u>		<u>6.84</u>		<u>56.5</u>		<u>37.5</u>
60 min													<u>23.6</u>
65 min											<u>After Filter</u>		<u>3.1</u>
70 min													
75 min													
80 min													
85 min													
90 min													

Water Sample:

Time Collected 12/22/22 - 12:55

Physical Appearance at Start

Physical Appearance at Sampling

Color Slightly Cloudy
 Odor None
 Turbidity (> 100 NTU) No
 Sheen/Free Product None

Color Clear
 Odor None
 Turbidity (> 100 NTU) No
 Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
Dissolved Metals - Cu	1	125 ml Plastic	HNO ₃	yes

Notes:

RAMBOLL		Standard Groundwater Sampling Log				
Date 6/6/2023						
Site Name RACER Coldwater Rd		Weather Overcast, 70's °F				
Location Flint, MI		Well # B-19Ar				
Project No. 1940103462		Evacuation Method Whale Pump				
Personnel JMK		Sampling Method Purge Dry				
Well Information:						
Depth of Well * 47.12 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 * 39.58 39.49 ft.						
Length of Water Column 7.54 ft.						
Volume of Water in Well 1.23 gal.(s)						
3X Volume of Water in Well 3.69 gal.(s)		Volume removed before sampling 2 gal.(s)				
		Did well go dry? yes				
* Measurements taken from X 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 39.25	initial 20.00	initial 980	initial 3.40	initial 7.12	initial 108.8	initial 764
5 min 40.74	15.31	1000	3.59	7.08	101.2	585
10 min 41.36	15.43	1200	3.38	7.07	92.5	533
15 min 41.85	15.29	980	2.7	7.04	85.6	209.0
20 min 42.39	15.47	990	2.65	7.03	80.4	173.0
25 min 42.76	15.38	980	2.72	7.05	76.4	176
30 min Purged Dry- 2 gal						
35 min						After filter
40 min 39.48	17.04	656.69	4.80	6.97	77.1	63
45 min						
50 min						
55 min						
60 min						
65 min						
70 min						
75 min						
80 min						
85 min						
90 min						
Water Sample:						
Time Collected 17:10						
Physical Appearance at Start			Physical Appearance at Sampling			
Color Grey		Color Grey				
Odor None		Odor None				
Turbidity (> 100 NTU) 800		Turbidity (> 100 NTU) 63				
Sheen/Free Product None		Sheen/Free Product None				
Samples collected:						
Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered		
Dissolved Metals - Cu, Cr, Ni, Zn	1	125 ml Plastic	HNO3	yes		
TOC	2	40 ml Glass	H2SO4			
TOX	1	250 ml Plastic	H2SO4			
SpC	1	500 ml Plasic	None			
Notes:						

Standard Groundwater Sampling Log

Date6/6/2023
Site NameRACER Coldwater Rd
LocationFlint, MI
Project No.1940103462
PersonnelJMK

WeatherOvercast, 70's °F
Well #B-24r
Evacuation MethodWhale Pump-Peristaltic
Sampling MethodPurge Dry

Well Information:

Depth of Well *30.38ft.
Depth to Water *14.45 | 15.66ft.
Length of Water Column15.93ft.
Volume of Water in Well2.60gal.(s)
3X Volume of Water in Well7.79gal.(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 sampling8gal.(s)
Did well go dry?yes

* Measurements taken fromXWell CasingProtective Casing(Other, Specify)

Instrument Calibration:

Calibrated within range
pHYes
ORPYes
ConductivityYes
DOYes

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	14.12	initial 16.59	initial 1.04	initial 6.79	initial 7.27	initial 92.0	initial 467
5 min	15.85	13.62	1.34	7.31	7.17	83.5	138
10 min	18.75	11.12	0.99	7.33	7.13	78.4	59.7
15 min	20.54	11.07	1.36	6.73	7.10	74.0	38.2
20 min	20.86	10.98	1.15	5.27	7.08	70.7	46.5
25 min	23.18	10.71	1.01	4.31	7.06	68.4	49.0
30 min	1/25/1900	11.37	1.34	3.47	7.11	62.1	31.0
35 min	Sump Stopped- Well Dry						
40 min	6/8/2023						
45 min	15.66	22.58	1.22	5.61	7.19	99.0	80.6
50 min	15.49	17.95	1.37	6.00	7.08	86.0	24.2
55 min	15.61	19.05	1.34	7.20	7.08	81.8	20.8
60 min	15.74	19.47	1.35	5.20	7.04	77.8	19.9
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected13:40

Physical Appearance at Start

Physical Appearance at Sampling

ColorTan
OdorNone
Turbidity (> 100 NTU)407
Sheen/Free ProductNone

ColorNone
OdorNone
Turbidity (> 100 NTU)19.9
Sheen/Free ProductNone

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
Dissolved Metals - Cu, Cr, Ni, Zn	1	125 ml. Plastic	HNO ₃	yes
TOC	2	40 ml Glass	H ₂ SO ₄	
TOX	1	250 ml Plastic	H ₂ SO ₄	
SpC	1	500 ml Plastic	None	

Notes:

Purged 6-8 until 3 well volumes 6-8 low flowed 4x5 min @ ~100 mil min

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		Standard Groundwater Sampling Log					
Date	6/13/2023						
Site Name	RACER Coldwater Rd						
Location	Flint, MI						
Project No.	1940103462						
Personnel	SEH, KBS						
Weather	Sunny, Cloudy, 60's °F						
Well #	B-20D						
Evacuation Method	bladder pump						
Sampling Method	low flow						
Well Information:							
Depth of Well *	90.91	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 *	70.80	ft.					
Length of Water Column	20.11	ft.					
Volume of Water in Well	3.28	gal.(s)					
3X Volume of Water in Well	9.83	gal.(s)	Volume removed before sampling <u>5</u> gal.(s) Did well go dry? <u>no</u>				
* 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	70.8	initial 13.62	initial 287.92	initial 0.15	initial 7.18	initial -119.7	initial 422
5 min	70.77	13.43	286.35	0.07	7.18	-119.6	187
10 min	70.76	13.64	286.59	0.07	7.18	-119.8	168
15 min	70.77	13.59	287.29	0.06	7.18	-118.6	77.3
20 min	70.78	13.62	287.20	0.06	7.18	-118.2	73.0
25 min	70.76	13.69	285.55	0.04	7.18	-118.0	46.3
30 min	70.77	13.56	286.51	0.04	7.19	-117.5	43.9
35 min	70.8	13.62	286.72	0.03	7.19	-117.3	43.7
40 min	70.79	13.60	285.39	0.03	7.19	-116.9	42.1
45 min	70.77	13.57	286.46	0.02	7.19	-116.5	41.9
50 min	70.76	13.35	286.16	0.03	7.19	-116.6	39.4
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							
Water Sample:							
Time Collected	12:05						
Physical Appearance at Start				Physical Appearance at Sampling			
Color	Clear, Slightly Cloudy			Color	Mostly Clear		
Odor	None			Odor	None		
Turbidity (> 100 NTU)	422			Turbidity (> 100 NTU)	39.4		
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 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:							

		Standard Groundwater Sampling Log				
Date	6/12/2023					
Site Name	RACER Coldwater Rd		Weather	Overcast, 70's °F		
Location	Flint, MI		Well #	B-21D		
Project No.	1940103462		Evacuation Method	bladder pump		
Personnel	JMK		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 *	80.21	ft.				
Length of Water Column	18.09	ft.				
Volume of Water in Well	2.95	gal.(s)				
3X Volume of Water in Well	8.85	gal.(s)	Volume removed before sampling 5 gal.(s) Did well go dry? no			
* Measurements taken from X 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 81.23	initial 16.83	initial 351.30	initial 3.37	initial 7.44	initial 25.7	initial 956
5 min 81.39	12.66	379.01	0.33	7.27	-53.1	831
10 min 81.50	12.12	390.78	0.14	7.25	-70.2	978
15 min 81.53	12.35	397.50	0.16	7.25	-78.2	761
20 min 81.40	12.45	402.52	0.16	7.25	-82.0	669
25 min 81.12	13.20	408.43	0.17	7.25	-86.3	542
30 min 81.14	12.69	411.74	0.17	7.24	-86.9	692
35 min 81.15	12.94	414.86	0.15	7.24	-88.6	342
40 min 81.14	12.72	412.38	0.14	7.25	-87.8	266
45 min 81.13	12.67	414.02	0.13	7.25	-88.4	211
50 min 81.14	12.73	416.10	0.12	7.25	-89.2	184
55 min 81.12	12.54	415.88	0.11	7.25	-89.1	147
60 min 81.13	12.74	417.67	0.11	7.24	-89.5	149
65 min 81.13	12.92	418.88	0.10	7.24	-90.1	134
70 min 81.12	12.97	420.01	0.09	7.24	-90.6	113
75 min 81.12	13.03	425.78	0.09	7.24	-92.5	104
80 min 81.10	13.20	426.89	0.09	7.24	-92.9	87.2
85 min 81.09	13.02	430.10	0.09	7.24	-93.3	80.2
90 min 81.11	12.98	430.88	0.09	7.24	-93.6	67.7
95 min 81.12	13.29	432.19	0.09	7.24	-94.1	76.2
100 min 81.11	13.20	436.08	0.08	7.23	-95.4	81.8
105 min 81.13	13.38	433.65	0.07	7.24	-95.8	70.9
110 min 81.12	13.56	434.16	0.07	7.23	-96.5	64.0
115 min 81.10	13.83	437.49	0.07	7.23	-97.7	54.8
120 min 81.12	13.95	438.21	0.10	7.23	-96.9	52.9
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:						

RAMBOLL		Standard Groundwater Sampling Log											
Date	6/9/2023												
Site Name	RACER Coldwater Rd												
Location	Flint, MI												
Project No.	1940103462												
Personnel	SEH												
Weather	Sunny, hazy, high 70s °F												
Well #	B-22D												
Evacuation Method	bladder pump												
Sampling Method	low flow												
Well Information:													
Depth of Well *	99.30	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 *	84.30	ft.											
Length of Water Column	15.00	ft.											
Volume of Water in Well	2.45	gal.(s)											
3X Volume of Water in Well	7.34	gal.(s)											
Volume removed before sampling			3 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	Temperature Celsius	Conductivity uS/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	84.30	initial	15.34	initial	0.34	initial	0.59	initial	7.30	initial	-140.2	initial	114
5 min	84.84		14.21		0.34		0.31		7.37		-168.6		76.9
10 min	84.76		14.52		0.35		0.29		7.36		-166.9		73.9
15 min	84.72		15.27		0.34		0.29		7.37		-158.1		50.0
20 min	84.71		15.20		0.34		0.28		7.37		-154.4		45.7
25 min	84.70		15.24		0.34		0.26		7.37		-149.2		38.9
30 min	84.68		15.11		0.34		0.23		7.37		-145.7		34.0
35 min	84.66		14.96		0.34		0.22		7.37		-144.3		28.6
40 min	84.69		15.16		0.35		0.20		7.37		-143		22.9
45 min	84.73		15.02		0.34		0.19		7.37		-141.9		17.9
50 min	84.69		15.00		0.34		0.18		7.37		-140.3		16.3
55 min	84.69		15.17		0.34		0.17		7.37		-139.7		13.9
60 min	84.71		15.22		0.35		0.16		7.37		-139.4		12.5
65 min	84.70		15.45		0.35		0.16		7.37		-138.6		13.8
70 min	84.68		15.61		0.34		0.16		7.37		-138.9		13.2
75 min													
80 min													
85 min													
90 min													
95 min													
100 min													
Water Sample:													
Time Collected		10:55											
Physical Appearance at Start				Physical Appearance at Sampling									
Color	Clear, slightly cloudy			Color	Clear								
Odor	None			Odor	None								
Turbidity (> 100 NTU)	114			Turbidity (> 100 NTU)	13.20								
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		HNO3		yes							
Cyanide	1	125 ml Plastic		NAOH									
Phenols	1	125 ml Amber		H2SO4									
TOC	2	40 ml Glass		H2SO4									
TOX	1	250 ml Amber		H2SO4									
Sulfate, Chlorides, SpC	1	500 ml Plasic		None									
Notes:													
Flow Rate 150 ml/min- 9:40A													
Flow Rate 150 ml/min- 10:40A													

		Standard Groundwater Sampling Log					
Date	6/8/2023						
Site Name	RACER Coldwater Rd						
Location	Flint, MI						
Project No.	1940103462						
Personnel	KBS/ SEH						
Weather	Sunny, hazy 70s °F						
Well #	B-23Dr						
Evacuation Method	bladder pump						
Sampling Method	low flow						
Well Information:							
Depth of Well *	110.50	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 *	80.75	ft.					
Length of Water Column	29.75	ft.					
Volume of Water in Well	4.85	gal.(s)					
3X Volume of Water in Well	14.55	gal.(s)					
		Volume removed before sampling	5.5	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	80.81	initial 15.46	initial 915.53	initial 0.62	initial 7.18	initial -90.7	initial 109
5 min	80.78	13.74	945.33	0.32	7.20	-96.1	113
10 min	80.75	13.48	937.16	0.25	7.21	-97.0	111
15 min	80.80	13.45	893.22	0.21	7.23	-96.0	79.2
20 min	80.74	13.36	899.20	0.17	7.22	-94.1	38.9
25 min	80.77	13.46	911.66	0.13	7.22	-94.0	32.6
30 min	80.77	13.35	913.09	0.12	7.22	-93.9	26.3
35 min	80.74	13.42	915.09	0.10	7.22	-94.4	21.4
40 min	80.78	13.50	912.78	0.08	7.22	-93.4	18.5
45 min	80.77	13.51	910.94	0.07	7.22	-94.4	14.0
50 min	80.76	13.58	910.81	0.06	7.22	-94.9	12.5
55 min	80.78	13.60	910.09	0.05	7.22	-95.1	10.6
60 min	80.74	13.66	910.81	0.04	7.22	-95.5	7.91
65 min	80.77	13.76	907.34	0.04	7.22	-95.8	9.22
70 min	80.77	13.63	910.65	0.04	7.22	-96.3	9.27
75 min							
80 min							
85 min							
90 min							
Water Sample:							
Time Collected	12:00						
Physical Appearance at Start				Physical Appearance at Sampling			
Color	Clear			Color	Clear		
Odor	none			Odor	none		
Turbidity (> 100 NTU)	109			Turbidity (> 100 NTU)	9.27		
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:							
Pumping rate 200 ml/ minute- bladder pump							

		Standard Groundwater Sampling Log				
Date	6/8/2023					
Site Name	RACER Coldwater Rd		Weather	Sunny, Hazy, 70s		
Location	Flint, MI		Well #	B-27D		
Project No.	1940103462		Evacuation Method	badder pump		
Personnel	KBS/ SEH		Sampling Method	low flow		
Well Information:						
Depth of Well *	89.93	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 *	75.39	ft.				
Length of Water Column	14.54	ft.				
Volume of Water in Well	2.37	gal.(s)				
3X Volume of Water in Well	7.11	gal.(s)	Volume removed before sampling <u>3.5</u> gal.(s) Did well go dry? <u>no</u>			
* 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 76.10	initial 17.10	initial 705.66	initial 0.25	initial 7.37	initial -105.7	initial +1000
5 min 76.14	14.10	730.66	0.08	7.37	-115.3	+1000
10 min 76.14	13.55	733.86	0.02	7.37	-114.7	+1000
15 min 76.16	13.34	735.36	0.00	7.36	-113.8	55.9
20 min 76.20	13.35	734.91	0.00	7.37	-113.7	58.9
25 min 76.18	13.11	738.51	0.00	7.37	-112.5	241
30 min 76.22	13.07	740.16	0.00	7.37	-112.0	465
35 min 76.24	13.12	742.73	0.00	7.36	-111.5	851
40 min 76.23	13.12	742.57	0.00	7.36	-111.2	846
45 min 76.22	13.22	742.96	0.00	7.36	-110.6	871
50 min 76.18	13.24	739.96	0.00	7.36	-109.9	839
55 min 76.20	13.29	739.52	0.00	7.36	-110.0	816
60 min 76.20	13.30	740.40	0.00	7.35	-109.6	457
65 min 76.17	13.29	741.47	0.00	7.36	-109.5	485
70 min 76.20	13.10	742.87	0.00	7.36	-109.1	857
75 min 76.18	12.91	744.55	0.00	7.36	-108.8	858
80 min 76.21	12.80	747.06	0.00	7.36	-108.4	660
85 min 76.20	13.37	744.17	0.00	7.36	-108.9	483
90 min 76.21	13.33	742.71	0.00	7.36	-109.1	644
95 min 76.27	13.29	744.38	0.00	7.36	-109.1	848
100 min 76.21	13.20	741.19	0.00	7.36	-108.7	759
105 min 76.22	12.90	739.27	0.00	7.36	-107.8	505
110 min 76.27	12.67	745.25	0.00	7.36	-107.1	458
115 min 76.28	12.75	745.17	0.00	7.36	-107.0	371
120 min 76.26	12.74	744.53	0.00	7.36	-107.0	302
Water Sample:						
Time Collected	16:05					
Physical Appearance at Start			Physical Appearance at Sampling			
Color	Cloudy Brown		Color	Cloudy, light brown		
Odor	None		Odor	None		
Turbidity (> 100 NTU)	+1000		Turbidity (> 100 NTU)	302.0		
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:						
Pump flow- 200 ml/ minute						
Flow check @ 15:05- still 200 ml/ minute						
Flow check @ 15:45- still 200 ml/ minute						

		Standard Groundwater Sampling Log					
Date	6/12/2023						
Site Name	RACER Coldwater Rd						
Location	Flint, MI						
Project No.	1940103462						
Personnel	JMK						
Weather	sunny, 60's						
Well #	OBG MW-16D						
Evacuation Method	bladder pump						
Sampling Method	low flow						
Well Information:							
Depth of Well *	75.10	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 *	58.04	ft.					
Length of Water Column	17.06	ft.					
Volume of Water in Well	2.78	gal.(s)					
3X Volume of Water in Well	8.34	gal.(s)	Volume removed before sampling 2 1/2 gal.(s) Did well go dry? no				
* Measurements taken from X 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	58.11	initial 17.43	initial 330.71	initial 1.66	initial 7.35	initial -133.4	initial 500.0
5 min	58.12	11.73	369.96	0.09	7.38	-138.7	272.0
10 min	58.14	11.78	373.06	0.08	7.38	-135.5	66.7
15 min	58.14	12.17	373.18	0.09	7.37	-134.8	25.1
20 min	58.13	12.12	373.32	0.09	7.37	-133.5	19.2
25 min	58.10	12.14	373.65	0.07	7.37	-133.1	15.0
30 min	58.12	12.19	373.92	0.05	7.37	-132.6	10.7
35 min	58.12	12.16	373.65	0.05	7.37	-132.2	10.6
40 min	58.13	12.19	374.00	0.04	7.37	-132.1	5.87
45 min							
50 min							
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							
Water Sample:							
Time Collected	15:30						
Physical Appearance at Start				Physical Appearance at Sampling			
Color	Grey			Color	Clear		
Odor	None			Odor	None		
Turbidity (> 100 NTU)	500.0			Turbidity (> 100 NTU)	Below 10		
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:							

APPENDIX C

ANALYTICAL LABORATORY RESULTS



Analytical Laboratory Report

Report ID: S49604.01(01)
Generated on 06/27/2023

Report to

Attention: Clifford Yantz
Ramboll Americas
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Ann Arbor, MI 48105

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

Additional Contacts: Kevin Schneider

Report produced by

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

Report Summary

Lab Sample ID(s): S49604.01-S49604.09
Project: RACER Coldwater Road
Collected Date(s): 06/08/2023 - 06/09/2023
Submitted Date/Time: 06/09/2023 15:40
Sampled by: Kevin Schneider
P.O. #: 1940004462 TASK 001

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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.

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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 (9 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S49604.01	B-28	Groundwater	06/08/23 10:50
S49604.02	B-23DR	Groundwater	06/08/23 12:00
S49604.03	B-24R	Groundwater	06/08/23 13:40
S49604.04	B-27D	Groundwater	06/08/23 16:05
S49604.05	Trip Blank-060823	Water	06/08/23 00:01
S49604.06	B-9	Groundwater	06/09/23 10:10
S49604.07	B-22D	Groundwater	06/09/23 10:55
S49604.08	B-18A	Groundwater	06/09/23 11:00
S49604.09	B-7	Groundwater	06/09/23 12:45



Analytical Laboratory Report

Lab Sample ID: S49604.01

Sample Tag: B-28

Collected Date/Time: 06/08/2023 10:50

Matrix: Groundwater

COC Reference: 153093

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.1	IR
2	40ml Glass	H2SO4	Yes	2.1	IR
1	125ml Amber	H2SO4	Yes	2.1	IR
1	250ml Amber	H2SO4	Yes	2.1	IR
1	125ml Plastic	NaOH	Yes	2.1	IR
2	125ml Plastic	HNO3	Yes	2.1	IR
1	250ml Plastic	None	Yes	2.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/14/23 10:24	ACK	
Metal Digestion	Completed	SW3015A	06/13/23 10:30	CCM	
Metal Digestion	Completed	SW3015A	06/13/23 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/14/23 14:20, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	949	1		umhos/cm	1		

Method: E300.0, Run Date: 06/11/23 07:55, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	11	10	0.16	mg/L	10	16887-00-6	
Sulfate	172	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/12/23 10:28, 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: 06/14/23 15:30, Analyst: JKB

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

Method: SM5310C, Run Date: 06/15/23 13:21, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	1.6	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/13/23 15:02, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	19.3	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/23 12:43, 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	



Analytical Laboratory Report

Lab Sample ID: S49604.01 (continued)

Sample Tag: B-28

Method: E200.8, Run Date: 06/13/23 12:43, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.085	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	0.008	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: 06/14/23 01:03, Analyst: NDK

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: S49604.01 (continued)

Sample Tag: B-28

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 01:03, Analyst: NDK (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: 06/22/23 15:35, 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: S49604.02

Sample Tag: B-23DR

Collected Date/Time: 06/08/2023 12:00

Matrix: Groundwater

COC Reference: 153093

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.1	IR
2	40ml Glass	H2SO4	Yes	2.1	IR
1	125ml Amber	H2SO4	Yes	2.1	IR
1	250ml Amber	H2SO4	Yes	2.1	IR
1	125ml Plastic	NaOH	Yes	2.1	IR
2	125ml Plastic	HNO3	Yes	2.1	IR
1	250ml Plastic	None	Yes	2.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/14/23 10:24	ACK	
Metal Digestion	Completed	SW3015A	06/13/23 10:30	CCM	
Metal Digestion	Completed	SW3015A	06/13/23 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/14/23 14:22, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	809	1		umhos/cm	1		

Method: E300.0, Run Date: 06/11/23 08:08, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	33	10	0.16	mg/L	10	16887-00-6	
Sulfate	58	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/12/23 10:30, 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: 06/14/23 15:32, Analyst: JKB

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

Method: SM5310C, Run Date: 06/15/23 13:37, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	1.4	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/13/23 15:03, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	26.9	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/23 12:46, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	0.006	0.005		mg/L	5	7440-50-8	
Iron, Dissolved	1.71	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S49604.02 (continued)

Sample Tag: B-23DR

Method: E200.8, Run Date: 06/13/23 12:46, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.038	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	0.007	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 01:22, Analyst: NDK

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: S49604.02 (continued)

Sample Tag: B-23DR

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 01:22, Analyst: NDK (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: 06/23/23 14:47, 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: S49604.03

Sample Tag: B-24R

Collected Date/Time: 06/08/2023 13:40

Matrix: Groundwater

COC Reference: 153093

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.1	IR
2	40ml Glass	H2SO4	Yes	2.1	IR
1	125ml Amber	H2SO4	Yes	2.1	IR
1	250ml Amber	H2SO4	Yes	2.1	IR
1	125ml Plastic	NaOH	Yes	2.1	IR
2	125ml Plastic	HNO3	Yes	2.1	IR
1	250ml Plastic	None	Yes	2.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/14/23 10:24	ACK	
Metal Digestion	Completed	SW3015A	06/13/23 10:30	CCM	
Metal Digestion	Completed	SW3015A	06/13/23 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/14/23 14:23, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	1,370	1		umhos/cm	1		

Method: E300.0, Run Date: 06/11/23 08:21, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	51	10	0.16	mg/L	10	16887-00-6	

Method: E300.0, Run Date: 06/11/23 10:17, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sulfate	287	25	1.5	mg/L	25	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/12/23 10:32, 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: 06/14/23 15:34, Analyst: JKB

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

Method: SM5310C, Run Date: 06/15/23 13:53, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	2.7	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/13/23 15:05, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	67.8	2.5		mg/L	50	7440-23-5	



Analytical Laboratory Report

Lab Sample ID: S49604.03 (continued)

Sample Tag: B-24R

Method: E200.8, Run Date: 06/13/23 13:01, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	0.009	0.005		mg/L	5	7440-50-8	
Iron, Dissolved	0.03	0.02		mg/L	5	7439-89-6	
Manganese, Dissolved	0.020	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	0.012	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: 06/14/23 01:41, Analyst: NDK

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: S49604.03 (continued)

Sample Tag: B-24R

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 01:41, Analyst: NDK (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: 06/23/23 15:24, 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: S49604.04

Sample Tag: B-27D

Collected Date/Time: 06/08/2023 16:05

Matrix: Groundwater

COC Reference: 153093

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.1	IR
2	40ml Glass	H2SO4	Yes	2.1	IR
1	125ml Amber	H2SO4	Yes	2.1	IR
1	250ml Amber	H2SO4	Yes	2.1	IR
1	125ml Plastic	NaOH	Yes	2.1	IR
2	125ml Plastic	HNO3	Yes	2.1	IR
1	250ml Plastic	None	Yes	2.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/14/23 10:24	ACK	
Metal Digestion	Completed	SW3015A	06/13/23 10:30	CCM	
Metal Digestion	Completed	SW3015A	06/13/23 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/14/23 14:24, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	638	1		umhos/cm	1		

Method: E300.0, Run Date: 06/11/23 08:34, 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: 06/12/23 10:36, 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: 06/14/23 15:36, Analyst: JKB

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

Method: SM5310C, Run Date: 06/15/23 14:08, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	1.4	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/13/23 15:06, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	39.1	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/23 13:04, 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	0.95	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S49604.04 (continued)

Sample Tag: B-27D

Method: E200.8, Run Date: 06/13/23 13:04, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.027	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: 06/14/23 02:01, Analyst: NDK

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: S49604.04 (continued)

Sample Tag: B-27D

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 02:01, Analyst: NDK (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: 06/23/23 16:45, 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: S49604.05

Sample Tag: Trip Blank-060823

Collected Date/Time: 06/08/2023 00:01

Matrix: Water

COC Reference: 153093

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	2.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/14/23 10:24	ACK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 00:04, Analyst: NDK

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	20	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: S49604.05 (continued)

Sample Tag: Trip Blank-060823

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 00:04, Analyst: NDK (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	
1,1,1,2-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: S49604.06

Sample Tag: B-9

Collected Date/Time: 06/09/2023 10:10

Matrix: Groundwater

COC Reference: 153093

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.1	IR
2	40ml Glass	H2SO4	Yes	2.1	IR
1	125ml Amber	H2SO4	Yes	2.1	IR
1	250ml Amber	H2SO4	Yes	2.1	IR
1	125ml Plastic	NaOH	Yes	2.1	IR
2	125ml Plastic	HNO3	Yes	2.1	IR
1	250ml Plastic	None	Yes	2.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/14/23 10:24	ACK	
Metal Digestion	Completed	SW3015A	06/13/23 10:30	CCM	
Metal Digestion	Completed	SW3015A	06/13/23 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/14/23 14:27, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	2,290	1		umhos/cm	1		

Method: E300.0, Run Date: 06/11/23 08:47, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	71	10	0.16	mg/L	10	16887-00-6	

Method: E300.0, Run Date: 06/11/23 10:30, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sulfate	841	50	3.0	mg/L	50	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/12/23 10:38, 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: 06/16/23 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: 06/15/23 15:11, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	1.8	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/13/23 15:08, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	58.2	2.5		mg/L	50	7440-23-5	



Analytical Laboratory Report

Lab Sample ID: S49604.06 (continued)

Sample Tag: B-9

Method: E200.8, Run Date: 06/13/23 13:07, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	0.006	0.005		mg/L	5	7440-50-8	
Iron, Dissolved	0.02	0.02		mg/L	5	7439-89-6	
Manganese, Dissolved	0.107	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	0.005	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	0.013	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 02:21, Analyst: NDK

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: S49604.06 (continued)

Sample Tag: B-9

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 02:21, Analyst: NDK (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: 06/16/23 00:48, 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: S49604.07

Sample Tag: B-22D

Collected Date/Time: 06/09/2023 10:55

Matrix: Groundwater

COC Reference: 153093

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.1	IR
2	40ml Glass	H2SO4	Yes	2.1	IR
1	125ml Amber	H2SO4	Yes	2.1	IR
1	250ml Amber	H2SO4	Yes	2.1	IR
1	125ml Plastic	NaOH	Yes	2.1	IR
2	125ml Plastic	HNO3	Yes	2.1	IR
1	250ml Plastic	None	Yes	2.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/14/23 10:24	ACK	
Metal Digestion	Completed	SW3015A	06/13/23 10:30	CCM	
Metal Digestion	Completed	SW3015A	06/13/23 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/14/23 14:28, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	701	1		umhos/cm	1		

Method: E300.0, Run Date: 06/11/23 09:00, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	10	0.16	mg/L	10	16887-00-6	
Sulfate	56	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/12/23 10:40, 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: 06/16/23 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: 06/15/23 15:27, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	1.4	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/13/23 15:11, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	28.2	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/23 13:10, 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	1.27	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S49604.07 (continued)

Sample Tag: B-22D

Method: E200.8, Run Date: 06/13/23 13:10, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
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	0.006	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 02:41, Analyst: NDK

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: S49604.07 (continued)

Sample Tag: B-22D

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 02:41, Analyst: NDK (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: 06/16/23 01:32, 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: S49604.08

Sample Tag: B-18A

Collected Date/Time: 06/09/2023 11:00

Matrix: Groundwater

COC Reference: 153093

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.1	IR
2	40ml Glass	H2SO4	Yes	2.1	IR
1	125ml Amber	H2SO4	Yes	2.1	IR
1	250ml Amber	H2SO4	Yes	2.1	IR
1	125ml Plastic	NaOH	Yes	2.1	IR
2	125ml Plastic	HNO3	Yes	2.1	IR
1	250ml Plastic	None	Yes	2.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/14/23 10:24	ACK	
Metal Digestion	Completed	SW3015A	06/13/23 10:30	CCM	
Metal Digestion	Completed	SW3015A	06/13/23 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/14/23 14:29, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	1,100	1		umhos/cm	1		

Method: E300.0, Run Date: 06/11/23 09:13, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	24	10	0.16	mg/L	10	16887-00-6	
Sulfate	129	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/12/23 10:42, 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: 06/16/23 16:20, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	0.04	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/15/23 15:43, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	1.3	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/13/23 15:12, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	33.3	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/23 13:13, 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	Not detected	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S49604.08 (continued)

Sample Tag: B-18A

Method: E200.8, Run Date: 06/13/23 13:13, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.123	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	0.008	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	0.012	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 03:00, Analyst: NDK

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: S49604.08 (continued)

Sample Tag: B-18A

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 03:00, Analyst: NDK (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: 06/23/23 17:22, 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: S49604.09

Sample Tag: B-7

Collected Date/Time: 06/09/2023 12:45

Matrix: Groundwater

COC Reference: 153093

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.1	IR
2	40ml Glass	H2SO4	Yes	2.1	IR
1	125ml Amber	H2SO4	Yes	2.1	IR
1	250ml Amber	H2SO4	Yes	2.1	IR
1	125ml Plastic	NaOH	Yes	2.1	IR
2	125ml Plastic	HNO3	Yes	2.1	IR
1	250ml Plastic	None	Yes	2.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/14/23 10:24	ACK	
Metal Digestion	Completed	SW3015A	06/13/23 10:30	CCM	
Metal Digestion	Completed	SW3015A	06/13/23 14:00	CCM	

Inorganics

Method: E120.1, Run Date: 06/14/23 14:30, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	965	1		umhos/cm	1		

Method: E300.0, Run Date: 06/11/23 09:25, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	28	10	0.16	mg/L	10	16887-00-6	
Sulfate	160	10	0.59	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/12/23 10:44, 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: 06/16/23 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: 06/15/23 15:59, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	4.4	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/13/23 15:19, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	40.7	2.5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/13/23 13:16, 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	Not detected	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S49604.09 (continued)

Sample Tag: B-7

Method: E200.8, Run Date: 06/13/23 13:16, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.023	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: 06/14/23 03:20, Analyst: NDK

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: S49604.09 (continued)

Sample Tag: B-7

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/14/23 03:20, Analyst: NDK (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: 06/23/23 12:36, 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.

Merit Laboratories Login Checklist

Lab Set ID:S49604

Client:RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

Submitted:06/09/2023 15:40 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. ☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 2.1
02. ☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun	
03. ☐ Yes ☒ No ☐ N/A	Samples shipped	
04. ☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box	
05. ☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody		
06. ☒ Yes ☐ No ☐ N/A	COC adequately filled out	
07. ☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab	
08. ☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC	
09. ☒ Yes ☐ No ☐ N/A	Subcontracting needed? Subcontracted to:	Eurofins
Preservation		
10. ☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation	
11. ☒ Yes ☐ No ☐ N/A	Completed pH checks on preserved samples? (no VOAs)	
12. ☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions		
13. ☒ Yes ☐ No ☐ N/A	All bottles intact	
14. ☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used	
15. ☒ Yes ☐ No ☐ N/A	Merit bottles used	
16. ☒ Yes ☐ No ☐ N/A	Sufficient sample volume received	
17. ☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration	
18. ☒ Yes ☐ No ☐ N/A	Samples submitted within holding time	
19. ☐ Yes ☒ No ☐ 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: S49604 Submitted: 06/09/2023 15:40

Client: RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

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

Initial Preservation Check: 06/09/2023 16:22 MMC

Preservation Recheck (E200.8): N/A

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

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S49604.01	125ml Amber H2SO4	<2			
S49604.01	125ml Plastic HNO3	<2			
S49604.01	125ml Plastic HNO3	<2			
S49604.01	125ml Plastic NaOH	>12			
S49604.01	250ml Amber H2SO4	<2			
S49604.02	125ml Amber H2SO4	<2			
S49604.02	125ml Plastic HNO3	<2			
S49604.02	125ml Plastic HNO3	<2			
S49604.02	125ml Plastic NaOH	>12			
S49604.02	250ml Amber H2SO4	<2			
S49604.03	125ml Amber H2SO4	<2			
S49604.03	125ml Plastic HNO3	<2			
S49604.03	125ml Plastic HNO3	<2			
S49604.03	125ml Plastic NaOH	>12			
S49604.03	250ml Amber H2SO4	<2			
S49604.04	125ml Amber H2SO4	<2			
S49604.04	125ml Plastic HNO3	<2			
S49604.04	125ml Plastic HNO3	<2			
S49604.04	125ml Plastic NaOH	>12			
S49604.04	250ml Amber H2SO4	<2			
S49604.06	125ml Amber H2SO4	<2			
S49604.06	125ml Plastic HNO3	<2			
S49604.06	125ml Plastic HNO3	<2			
S49604.06	125ml Plastic NaOH	10	0.5	<2	Lot# 1003225N
S49604.06	250ml Amber H2SO4	<2			
S49604.07	125ml Amber H2SO4	<2			
S49604.07	125ml Plastic HNO3	<2			
S49604.07	125ml Plastic HNO3	<2			
S49604.07	125ml Plastic NaOH	>12			

Merit Laboratories Bottle Preservation Check

Lab Set ID: S49604 Submitted: 06/09/2023 15:40

Client: RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

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

Initial Preservation Check: 06/09/2023 16:22 MMC

Preservation Recheck (E200.8): N/A

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

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S49604.07	250ml Amber H2SO4	<2			
S49604.08	125ml Amber H2SO4	<2			
S49604.08	125ml Plastic HNO3	<2			
S49604.08	125ml Plastic HNO3	<2			
S49604.08	125ml Plastic NaOH	>12			
S49604.08	250ml Amber H2SO4	<2			
S49604.09	125ml Amber H2SO4	<2			
S49604.09	125ml Plastic HNO3	<2			
S49604.09	125ml Plastic HNO3	<2			
S49604.09	125ml Plastic NaOH	>12			
S49604.09	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 153093

REPORT TO

CONTACT NAME Clifford Yantz / Kevin Schneider
COMPANY Ramboll
ADDRESS 2090 Commonwealth Blvd
CITY Am Arbor STATE MI ZIP CODE 48105
PHONE NO. 313-333-0211 P.O. NO. 1940006516 TWS# 001
E-MAIL ADDRESS clifford.yantz@ramboll.com QUOTE NO. Kevin.Schneider@ramboll.com

CHAIN OF CUSTODY RECORD

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

INVOICE TO

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME RACER Coldwater Road SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider 2-5-LL

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=WIFE A=AIR WS=WASTE

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives							OTHER
	DATE	TIME				HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER			
4960401	6/18/23	1050	B-28	GW	11	1	3	2	4	1			
02	↓	1200	B-23DR		11	1	3	2	4	1			
03		1340	B-24R		11	1	3	2	4	1			
04		1605	B-27D		11	1	3	2	4	1			
05		—	Trip Blank-060823	QC	1	1							
06	6/19/23	10:10	B-9	GW	11	1	3	2	4	1			
07		10:55	B-22D	GW	11	1	3	2	4	1			
08		1100	B-18A	GW	11	1	3	2	4	1			
09		12:45	B-7	GW	11	1	3	2	4	1			

RELINQUISHED BY: SIGNATURE/ORGANIZATION	SAMPLER <u>X</u>	DATE 6/19/23	TIME 14:45
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 6/19/23	TIME 16:45
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 6/19/23	TIME 15:40
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 6/19/23	TIME 1540

NOTES: TEMP. ON ARRIVAL 2.1

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



June 27, 2023

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

Re: Halogen Analysis
Work Order: 625721
SDG: S49604

Dear John Lavery:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 13, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

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,

Jordan Melton 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: S49604 GEL Work Order: 625721

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 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, 2023

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

East Lansing, Michigan 48823

Contact: John Lavery
Project: Halogen Analysis

Client Sample ID: S49604.01
Sample ID: 625721001
Matrix: Ground Water
Collect Date: 08-JUN-23 12:25
Receive Date: 13-JUN-23
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	RM3	06/22/23	1535	2444245	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, 2023

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

East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID:	S49604.02	Project:	MERI00220
Sample ID:	625721002	Client ID:	MERI001
Matrix:	Ground Water		
Collect Date:	08-JUN-23 12:08		
Receive Date:	13-JUN-23		
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	8.44	3.33	10.0	ug/L		1	RM3	06/23/23	1447	2448948	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, 2023

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

East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID:	S49604.03	Project:	MERI00220
Sample ID:	625721003	Client ID:	MERI001
Matrix:	Ground Water		
Collect Date:	08-JUN-23 12:50		
Receive Date:	13-JUN-23		
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		12.8	3.33	10.0	ug/L		1	RM3	06/23/23	1524	2448948	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, 2023

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

East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID:	S49604.04	Project:	MERI00220
Sample ID:	625721004	Client ID:	MERI001
Matrix:	Ground Water		
Collect Date:	08-JUN-23 13:21		
Receive Date:	13-JUN-23		
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	3.82	3.33	10.0	ug/L		1	RM3	06/23/23	1645	2448948	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, 2023

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

Contact: East Lansing, Michigan 48823
John Lavery
Project: Halogen Analysis

Client Sample ID:	S49604.06	Project:	MERI00220
Sample ID:	625721005	Client ID:	MERI001
Matrix:	Ground Water		
Collect Date:	09-JUN-23 10:10		
Receive Date:	13-JUN-23		
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		54.1	3.33	10.0	ug/L		1	RMJ	06/16/23	0048	2444231	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

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Certificate of Analysis

Report Date: June 27, 2023

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

East Lansing, Michigan 48823

Contact: John Lavery
Project: Halogen Analysis

Client Sample ID: S49604.07
Sample ID: 625721006
Matrix: Ground Water
Collect Date: 09-JUN-23 10:55
Receive Date: 13-JUN-23
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	5.64	3.33	10.0	ug/L		1	RMJ	06/16/23	0132	2444231	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

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Certificate of Analysis

Report Date: June 27, 2023

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

East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID: S49604.08
Sample ID: 625721007
Matrix: Ground Water
Collect Date: 09-JUN-23 11:00
Receive Date: 13-JUN-23
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	4.82	3.33	10.0	ug/L		1	RM3	06/23/23	1722	2448948	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, 2023

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

East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID:	S49604.09	Project:	MERI00220
Sample ID:	625721008	Client ID:	MERI001
Matrix:	Ground Water		
Collect Date:	09-JUN-23 12:45		
Receive Date:	13-JUN-23		
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		18.0	3.33	10.0	ug/L		1	RM3	06/23/23	1236	2448948	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 27, 2023

Page 1 of 3

Contact: Merit Laboratories Inc.
2680 East Lansing Drive
East Lansing, Michigan
John Laverty
Workorder: 625721

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Halogen Analysis											
Batch	2444231										
QC1205433503	625721006	DUP									
Total Organic Halogens	J	5.64	J	8.64	ug/L	42 ^		(+/-10.0)	RMJ	06/16/23	01:52
QC1205433502	LCS										
Total Organic Halogens	100			81.6	ug/L		81.6	(71%-120%)		06/16/23	00:15
QC1205433501	MB										
Total Organic Halogens			U	ND	ug/L					06/15/23	23:53
QC1205433504	625721006	MS									
Total Organic Halogens	100 J	5.64		88.3	ug/L		82.7	(50%-144%)		06/16/23	02:13
Batch	2444245										
QC1205440505	626530033	DUP									
Total Organic Halogens			J	4.40	ug/L	N/A		(+/-10.0)	RM3	06/22/23	14:01
QC1205433534	LCS										
Total Organic Halogens	100			97.1	ug/L		97.1	(71%-120%)		06/22/23	13:21
QC1205433533	MB										
Total Organic Halogens			U	ND	ug/L					06/22/23	12:59
QC1205440506	626530033	MS									
Total Organic Halogens	100			81.8	ug/L		81.8	(50%-144%)		06/22/23	14:59
Batch	2448948										
QC1205441976	626530035	DUP									
Total Organic Halogens	U	ND	U	ND	ug/L	N/A			RM3	06/23/23	13:30
QC1205441975	LCS										
Total Organic Halogens	100			87.4	ug/L		87.4	(71%-120%)		06/23/23	11:57

GEL LABORATORIES LLC

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

QC Summary

Workorder: 625721

Page 2 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Halogen Analysis											
Batch	2448948										
QC1205441974	MB										
Total Organic Halogens			U	ND	ug/L				RM3	06/23/23	11:32
QC1205441977	626530035	MS									
Total Organic Halogens	100	U	ND	76.7	ug/L		75.1	(50%-144%)		06/23/23	13:50

Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- N1 See case narrative
- 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.
- B The target analyte was detected in the associated blank.
- 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
- J See case narrative for an explanation

GEL LABORATORIES LLC

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

QC Summary

Workorder: 625721

Page 3 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time

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 either the sample or 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 #: S49604
Work Order #: 625721**

Product: Total Organic Halogens (TOX)

Analytical Method: SW846 9020B

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

Analytical Batch: 2444231

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
625721005	S49604.06
625721006	S49604.07
1205433501	Method Blank (MB)
1205433502	Laboratory Control Sample (LCS)
1205433503	625721006(S49604.07) Sample Duplicate (DUP)
1205433504	625721006(S49604.07) 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: 2444245

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>

625721001	S49604.01
1205433533	Method Blank (MB)
1205433534	Laboratory Control Sample (LCS)
1205440505	626530033(NonSDG) Sample Duplicate (DUP)
1205440506	626530033(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 were re-analyzed to verify the results. The reanalysis data with passing instrument QC was reported. 1205440505 (Non SDG 626530033DUP) and 1205440506 (Non SDG 626530033MS).

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: 2448948

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
625721002	S49604.02
625721003	S49604.03
625721004	S49604.04
625721007	S49604.08
625721008	S49604.09
1205441974	Method Blank (MB)
1205441975	Laboratory Control Sample (LCS)
1205441976	626530035(NonSDG) Sample Duplicate (DUP)
1205441977	626530035(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 625721002 (S49604.02), 625721003 (S49604.03), 625721004 (S49604.04), 625721007 (S49604.08) and 625721008 (S49604.09) were re-analyzed due to CCV failure. The reanalysis data with passing instrument QC was reported.

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

625721

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

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		
E-MAIL ADDRESS		results@meritlabs.com			

PROJECT NO./NAME		S49604		SAMPLE(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 SL=SLUDGE	WW=WASTEWATER DW=DRINKING WATER	S=SOIL O=OIL	L=LIQUID WP=WIPE	SD=SOLID A=AIR W=WASTE
YEAR	DATE	TIME	IDENTIFICATION-DESCRIPTION		
6/8/23	1225		S49604.01		
6/8/23	1208		S49604.02		
6/8/23	1250		S49604.03		
6/8/23	1321		S49604.04		
6/9/23	1010		S49604.06		
6/9/23	1055		S49604.07		
6/9/23	1100		S49604.08		
6/9/23	1245		S49604.09		

MATRIX	CONTAINERS & PRESERVATIVES	OTHER
GW	1	X
GW	1	X
GW	1	X
GW	1	X
GW	1	X
GW	1	X
GW	1	X
GW	1	X

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

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

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

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

SAMPLE RECEIPT & REVIEW FORM

Client: <u>MEPI</u>		SDG/AR/COC/Work Order: <u>625-721</u>	
Received By: <u>QG</u>		Date Received: <u>6/13/23</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other <u>12 466 477 01 6205 9919</u>	
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?	☒	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>0</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		Comments/Qualifiers (Required for Non-Conforming Items)	
1	Shipping containers received intact and sealed?	☒	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	☒	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	☒	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: _____ *all temperatures are recorded in Celsius TEMP: <u>5°C</u>
4	Daily check performed and passed on IR temperature gun?	☒	Temperature Device Serial #: <u>IR2-20</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	☒	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	☒	Sample ID's and Containers Affected: If Preservation added, Lot#: _____ If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
7	Do any samples require Volatile Analysis?	☒	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?	☒	ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?	☒	ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?	☒	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?	☒	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	☒	
13	COC form is properly signed in relinquished/received sections?	☒	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials

Date

6-14-23 Page 1 of 1

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 27 June 2023

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	SC000122023-4
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	2022-160
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	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



Quality Control Report

Report ID: QC-S49604-01
Generated on 06/27/2023

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): S49604.01-S49604.09
Project: RACER Coldwater Road
Submitted Date/Time: 06/09/2023 15:40
Sampled by: Kevin Schneider
P.O. #: 1940004462 TASK 001

QC Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-10)
Prep Batch Summary (Pages 11-13)
Surrogates per Lab Sample (Pages 14-22)
Surrogates per QC Sample (Page 23)
Batch QC Results (Pages 24-38)

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: S49604.01

Sample Tag: B-28

Collected Date/Time: 06/08/2023 10:50

Matrix: Groundwater

COC Reference: 153093

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/11/23 07:55	CL230611-W1-B	CL230611-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/14/23 14:20	COND230614-W2	COND230614-W2	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN06/12/23 10:28	CN230612-W1	CN230612-W1		No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/14/23 15:30	PHL230614-W1	PHL230614-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/11/23 07:55	SFT230611-W1-B	SFT230611-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 13:21	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/13/23 12:43	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/23 12:43	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/23 12:43	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/23 12:43	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/23 12:43	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/13/23 15:02	MT4-23-0613B	MTD-061323-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/23 12:43	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 01:03	230613B9	VF230613W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49604.02

Sample Tag: B-23DR

Collected Date/Time: 06/08/2023 12:00

Matrix: Groundwater

COC Reference: 153093

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/11/23 08:08	CL230611-W1-B	CL230611-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/14/23 14:22	COND230614-W2	COND230614-W2	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/12/23 10:30	CN230612-W1	CN230612-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/14/23 15:32	PHL230614-W1	PHL230614-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/11/23 08:08	SFT230611-W1-B	SFT230611-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 13:37	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/13/23 12:46	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/23 12:46	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/23 12:46	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/23 12:46	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/23 12:46	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/13/23 15:03	MT4-23-0613B	MTD-061323-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/23 12:46	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 01:22	230613B9	VF230613W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49604.03

Sample Tag: B-24R

Collected Date/Time: 06/08/2023 13:40

Matrix: Groundwater

COC Reference: 153093

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/11/23 08:21	CL230611-W1-B	CL230611-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/14/23 14:23	COND230614-W2	COND230614-W2	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN06/12/23 10:32	06/12/23 10:32	CN230612-W1	CN230612-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/14/23 15:34	PHL230614-W1	PHL230614-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/11/23 10:17	SFT230611-W1-B	SFT230611-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 13:53	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/13/23 13:01	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/23 13:01	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/23 13:01	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/23 13:01	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/23 13:01	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/13/23 15:05	MT4-23-0613B	MTD-061323-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/23 13:01	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 01:41	230613B9	VF230613W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49604.04

Sample Tag: B-27D

Collected Date/Time: 06/08/2023 16:05

Matrix: Groundwater

COC Reference: 153093

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/11/23 08:34	CL230611-W1-B	CL230611-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/14/23 14:24	COND230614-W2	COND230614-W2	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN06/12/23 10:36	CN230612-W1	CN230612-W1	CN230612-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/14/23 15:36	PHL230614-W1	PHL230614-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/11/23 08:34	SFT230611-W1-B	SFT230611-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 14:08	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/13/23 13:04	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/23 13:04	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/23 13:04	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/23 13:04	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/23 13:04	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/13/23 15:06	MT4-23-0613B	MTD-061323-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/23 13:04	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 02:01	230613B9	VF230613W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49604.05

Sample Tag: Trip Blank-060823

Collected Date/Time: 06/08/2023 00:01

Matrix: Water

COC Reference: 153093

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 00:04	230613B9	VF230613W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49604.06

Sample Tag: B-9

Collected Date/Time: 06/09/2023 10:10

Matrix: Groundwater

COC Reference: 153093

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/11/23 08:47	CL230611-W1-B	CL230611-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/14/23 14:27	COND230614-W2	COND230614-W2	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/12/23 10:38	CN230612-W1	CN230612-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/23 16:12	PHL230616-W1	PHL230616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/11/23 10:30	SFT230611-W1-B	SFT230611-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 15:11	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/13/23 13:07	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/23 13:07	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/23 13:07	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/23 13:07	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/23 13:07	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/13/23 15:08	MT4-23-0613B	MTD-061323-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/23 13:07	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 02:21	230613B9	VF230613W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49604.07

Sample Tag: B-22D

Collected Date/Time: 06/09/2023 10:55

Matrix: Groundwater

COC Reference: 153093

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/11/23 09:00	CL230611-W1-B	CL230611-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/14/23 14:28	COND230614-W2	COND230614-W2	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN06/12/23 10:40	CN230612-W1	CN230612-W1	CN230612-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/23 16:18	PHL230616-W1	PHL230616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/11/23 09:00	SFT230611-W1-B	SFT230611-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 15:27	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/13/23 13:10	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/23 13:10	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/23 13:10	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/23 13:10	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/23 13:10	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/13/23 15:11	MT4-23-0613B	MTD-061323-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/23 13:10	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 02:41	230613B9	VF230613W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49604.08

Sample Tag: B-18A

Collected Date/Time: 06/09/2023 11:00

Matrix: Groundwater

COC Reference: 153093

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/11/23 09:13	CL230611-W1-B	CL230611-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/14/23 14:29	COND230614-W2	COND230614-W2	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/12/23 10:42	CN230612-W1	CN230612-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/23 16:20	PHL230616-W1	PHL230616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/11/23 09:13	SFT230611-W1-B	SFT230611-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 15:43	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/13/23 13:13	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/23 13:13	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/23 13:13	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/23 13:13	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/23 13:13	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/13/23 15:12	MT4-23-0613B	MTD-061323-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/23 13:13	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 03:00	230613B9	VF230613W3	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49604.09

Sample Tag: B-7

Collected Date/Time: 06/09/2023 12:45

Matrix: Groundwater

COC Reference: 153093

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/11/23 09:25	CL230611-W1-B	CL230611-W1-B	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/14/23 14:30	COND230614-W2	COND230614-W2	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN06/12/23 10:44	06/12/23 10:44	CN230612-W1	CN230612-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/23 16:22	PHL230616-W1	PHL230616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/11/23 09:25	SFT230611-W1-B	SFT230611-W1-B	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 15:59	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/13/23 13:16	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/13/23 13:16	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/13/23 13:16	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/13/23 13:16	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/13/23 13:16	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/13/23 15:19	MT4-23-0613B	MTD-061323-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/13/23 13:16	MT4-23-0613A	MTD-061323-2	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 03:20	230613B9	VF230613W3	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: CL230611-W1-B

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49604.01	Chloride	E300.0	06/11/23 07:55	CL230611-W1-B
S49604.02	Chloride	E300.0	06/11/23 08:08	CL230611-W1-B
S49604.03	Chloride	E300.0	06/11/23 08:21	CL230611-W1-B
S49604.04	Chloride	E300.0	06/11/23 08:34	CL230611-W1-B
S49604.06	Chloride	E300.0	06/11/23 08:47	CL230611-W1-B
S49604.07	Chloride	E300.0	06/11/23 09:00	CL230611-W1-B
S49604.08	Chloride	E300.0	06/11/23 09:13	CL230611-W1-B
S49604.09	Chloride	E300.0	06/11/23 09:25	CL230611-W1-B

Inorganics, Prep Batch ID: CN230612-W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49604.01	Cyanide, Total	E335.4/SM4500-CN	06/12/23 10:28	CN230612-W1
S49604.02	Cyanide, Total	E335.4/SM4500-CN	06/12/23 10:30	CN230612-W1
S49604.03	Cyanide, Total	E335.4/SM4500-CN	06/12/23 10:32	CN230612-W1
S49604.04	Cyanide, Total	E335.4/SM4500-CN	06/12/23 10:36	CN230612-W1
S49604.06	Cyanide, Total	E335.4/SM4500-CN	06/12/23 10:38	CN230612-W1
S49604.07	Cyanide, Total	E335.4/SM4500-CN	06/12/23 10:40	CN230612-W1
S49604.08	Cyanide, Total	E335.4/SM4500-CN	06/12/23 10:42	CN230612-W1
S49604.09	Cyanide, Total	E335.4/SM4500-CN	06/12/23 10:44	CN230612-W1

Inorganics, Prep Batch ID: COND230614-W2

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49604.01	Conductivity	E120.1	06/14/23 14:20	COND230614-W2
S49604.02	Conductivity	E120.1	06/14/23 14:22	COND230614-W2
S49604.03	Conductivity	E120.1	06/14/23 14:23	COND230614-W2
S49604.04	Conductivity	E120.1	06/14/23 14:24	COND230614-W2
S49604.06	Conductivity	E120.1	06/14/23 14:27	COND230614-W2
S49604.07	Conductivity	E120.1	06/14/23 14:28	COND230614-W2
S49604.08	Conductivity	E120.1	06/14/23 14:29	COND230614-W2
S49604.09	Conductivity	E120.1	06/14/23 14:30	COND230614-W2

Inorganics, Prep Batch ID: PHL230614-W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49604.01	Phenols	E420.1	06/14/23 15:30	PHL230614-W1
S49604.02	Phenols	E420.1	06/14/23 15:32	PHL230614-W1
S49604.03	Phenols	E420.1	06/14/23 15:34	PHL230614-W1
S49604.04	Phenols	E420.1	06/14/23 15:36	PHL230614-W1

Inorganics, Prep Batch ID: PHL230616-W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49604.06	Phenols	E420.1	06/16/23 16:12	PHL230616-W1
S49604.07	Phenols	E420.1	06/16/23 16:18	PHL230616-W1
S49604.08	Phenols	E420.1	06/16/23 16:20	PHL230616-W1
S49604.09	Phenols	E420.1	06/16/23 16:22	PHL230616-W1

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: SFT230611-W1-B

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49604.01	Sulfate	E300.0	06/11/23 07:55	SFT230611-W1-B
S49604.02	Sulfate	E300.0	06/11/23 08:08	SFT230611-W1-B
S49604.03	Sulfate	E300.0	06/11/23 10:17	SFT230611-W1-B
S49604.04	Sulfate	E300.0	06/11/23 08:34	SFT230611-W1-B
S49604.06	Sulfate	E300.0	06/11/23 10:30	SFT230611-W1-B
S49604.07	Sulfate	E300.0	06/11/23 09:00	SFT230611-W1-B
S49604.08	Sulfate	E300.0	06/11/23 09:13	SFT230611-W1-B
S49604.09	Sulfate	E300.0	06/11/23 09:25	SFT230611-W1-B

Inorganics, Prep Batch ID: TOC230615-W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49604.01	TOC	SM5310C	06/15/23 13:21	TOC230615-W1
S49604.02	TOC	SM5310C	06/15/23 13:37	TOC230615-W1
S49604.03	TOC	SM5310C	06/15/23 13:53	TOC230615-W1
S49604.04	TOC	SM5310C	06/15/23 14:08	TOC230615-W1
S49604.06	TOC	SM5310C	06/15/23 15:11	TOC230615-W1
S49604.07	TOC	SM5310C	06/15/23 15:27	TOC230615-W1
S49604.08	TOC	SM5310C	06/15/23 15:43	TOC230615-W1
S49604.09	TOC	SM5310C	06/15/23 15:59	TOC230615-W1

Metals, Prep Batch ID: MTD-061323-2

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49604.01	Chromium, Dissolved	E200.8	06/13/23 12:43	MT4-23-0613A
S49604.01	Copper, Dissolved	E200.8	06/13/23 12:43	MT4-23-0613A
S49604.01	Iron, Dissolved	E200.8	06/13/23 12:43	MT4-23-0613A
S49604.01	Manganese, Dissolved	E200.8	06/13/23 12:43	MT4-23-0613A
S49604.01	Nickel, Dissolved	E200.8	06/13/23 12:43	MT4-23-0613A
S49604.01	Zinc, Dissolved	E200.8	06/13/23 12:43	MT4-23-0613A
S49604.02	Chromium, Dissolved	E200.8	06/13/23 12:46	MT4-23-0613A
S49604.02	Copper, Dissolved	E200.8	06/13/23 12:46	MT4-23-0613A
S49604.02	Iron, Dissolved	E200.8	06/13/23 12:46	MT4-23-0613A
S49604.02	Manganese, Dissolved	E200.8	06/13/23 12:46	MT4-23-0613A
S49604.02	Nickel, Dissolved	E200.8	06/13/23 12:46	MT4-23-0613A
S49604.02	Zinc, Dissolved	E200.8	06/13/23 12:46	MT4-23-0613A
S49604.03	Chromium, Dissolved	E200.8	06/13/23 13:01	MT4-23-0613A
S49604.03	Copper, Dissolved	E200.8	06/13/23 13:01	MT4-23-0613A
S49604.03	Iron, Dissolved	E200.8	06/13/23 13:01	MT4-23-0613A
S49604.03	Manganese, Dissolved	E200.8	06/13/23 13:01	MT4-23-0613A
S49604.03	Nickel, Dissolved	E200.8	06/13/23 13:01	MT4-23-0613A
S49604.03	Zinc, Dissolved	E200.8	06/13/23 13:01	MT4-23-0613A
S49604.04	Chromium, Dissolved	E200.8	06/13/23 13:04	MT4-23-0613A
S49604.04	Copper, Dissolved	E200.8	06/13/23 13:04	MT4-23-0613A
S49604.04	Iron, Dissolved	E200.8	06/13/23 13:04	MT4-23-0613A
S49604.04	Manganese, Dissolved	E200.8	06/13/23 13:04	MT4-23-0613A
S49604.04	Nickel, Dissolved	E200.8	06/13/23 13:04	MT4-23-0613A
S49604.04	Zinc, Dissolved	E200.8	06/13/23 13:04	MT4-23-0613A
S49604.06	Chromium, Dissolved	E200.8	06/13/23 13:07	MT4-23-0613A

QC Report - Prep Batch Summary

Metals, Prep Batch ID: MTD-061323-2 (continued)

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49604.06	Copper, Dissolved	E200.8	06/13/23 13:07	MT4-23-0613A
S49604.06	Iron, Dissolved	E200.8	06/13/23 13:07	MT4-23-0613A
S49604.06	Manganese, Dissolved	E200.8	06/13/23 13:07	MT4-23-0613A
S49604.06	Nickel, Dissolved	E200.8	06/13/23 13:07	MT4-23-0613A
S49604.06	Zinc, Dissolved	E200.8	06/13/23 13:07	MT4-23-0613A
S49604.07	Chromium, Dissolved	E200.8	06/13/23 13:10	MT4-23-0613A
S49604.07	Copper, Dissolved	E200.8	06/13/23 13:10	MT4-23-0613A
S49604.07	Iron, Dissolved	E200.8	06/13/23 13:10	MT4-23-0613A
S49604.07	Manganese, Dissolved	E200.8	06/13/23 13:10	MT4-23-0613A
S49604.07	Nickel, Dissolved	E200.8	06/13/23 13:10	MT4-23-0613A
S49604.07	Zinc, Dissolved	E200.8	06/13/23 13:10	MT4-23-0613A
S49604.08	Chromium, Dissolved	E200.8	06/13/23 13:13	MT4-23-0613A
S49604.08	Copper, Dissolved	E200.8	06/13/23 13:13	MT4-23-0613A
S49604.08	Iron, Dissolved	E200.8	06/13/23 13:13	MT4-23-0613A
S49604.08	Manganese, Dissolved	E200.8	06/13/23 13:13	MT4-23-0613A
S49604.08	Nickel, Dissolved	E200.8	06/13/23 13:13	MT4-23-0613A
S49604.08	Zinc, Dissolved	E200.8	06/13/23 13:13	MT4-23-0613A
S49604.09	Chromium, Dissolved	E200.8	06/13/23 13:16	MT4-23-0613A
S49604.09	Copper, Dissolved	E200.8	06/13/23 13:16	MT4-23-0613A
S49604.09	Iron, Dissolved	E200.8	06/13/23 13:16	MT4-23-0613A
S49604.09	Manganese, Dissolved	E200.8	06/13/23 13:16	MT4-23-0613A
S49604.09	Nickel, Dissolved	E200.8	06/13/23 13:16	MT4-23-0613A
S49604.09	Zinc, Dissolved	E200.8	06/13/23 13:16	MT4-23-0613A

Metals, Prep Batch ID: MTD-061323-5

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49604.01	Sodium	E200.8	06/13/23 15:02	MT4-23-0613B
S49604.02	Sodium	E200.8	06/13/23 15:03	MT4-23-0613B
S49604.03	Sodium	E200.8	06/13/23 15:05	MT4-23-0613B
S49604.04	Sodium	E200.8	06/13/23 15:06	MT4-23-0613B
S49604.06	Sodium	E200.8	06/13/23 15:08	MT4-23-0613B
S49604.07	Sodium	E200.8	06/13/23 15:11	MT4-23-0613B
S49604.08	Sodium	E200.8	06/13/23 15:12	MT4-23-0613B
S49604.09	Sodium	E200.8	06/13/23 15:19	MT4-23-0613B

Organics - Volatiles, Prep Batch ID: VF230613W3

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49604.01	Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 01:03	230613B9
S49604.02	Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 01:22	230613B9
S49604.03	Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 01:41	230613B9
S49604.04	Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 02:01	230613B9
S49604.05	Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 00:04	230613B9
S49604.06	Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 02:21	230613B9
S49604.07	Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 02:41	230613B9
S49604.08	Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 03:00	230613B9
S49604.09	Volatile Organics - DEQ List	SW5030C/8260C	06/14/23 03:20	230613B9

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49604.01

Sample Tag: B-28

Collected Date/Time: 06/08/2023 10:50

Matrix: Groundwater

COC Reference: 153093

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230613B9, Run Date: 06/14/2023 01:03, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		108.6	80.0	124.0
1,2-Dichloroethane-D4		84.3	72.0	125.0
Toluene-D8		97.1	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49604.02

Sample Tag: B-23DR

Collected Date/Time: 06/08/2023 12:00

Matrix: Groundwater

COC Reference: 153093

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230613B9, Run Date: 06/14/2023 01:22, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		108.2	80.0	124.0
1,2-Dichloroethane-D4		86.1	72.0	125.0
Toluene-D8		97.1	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49604.03

Sample Tag: B-24R

Collected Date/Time: 06/08/2023 13:40

Matrix: Groundwater

COC Reference: 153093

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230613B9, Run Date: 06/14/2023 01:41, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		108.6	80.0	124.0
1,2-Dichloroethane-D4		83.0	72.0	125.0
Toluene-D8		97.2	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49604.04

Sample Tag: B-27D

Collected Date/Time: 06/08/2023 16:05

Matrix: Groundwater

COC Reference: 153093

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230613B9, Run Date: 06/14/2023 02:01, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		107.2	80.0	124.0
1,2-Dichloroethane-D4		85.4	72.0	125.0
Toluene-D8		98.5	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49604.05

Sample Tag: Trip Blank-060823

Collected Date/Time: 06/08/2023 00:01

Matrix: Water

COC Reference: 153093

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230613B9, Run Date: 06/14/2023 00:04, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		107.8	80.0	124.0
1,2-Dichloroethane-D4		82.1	72.0	125.0
Toluene-D8		96.5	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49604.06

Sample Tag: B-9

Collected Date/Time: 06/09/2023 10:10

Matrix: Groundwater

COC Reference: 153093

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230613B9, Run Date: 06/14/2023 02:21, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		108.5	80.0	124.0
1,2-Dichloroethane-D4		86.2	72.0	125.0
Toluene-D8		98.0	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49604.07

Sample Tag: B-22D

Collected Date/Time: 06/09/2023 10:55

Matrix: Groundwater

COC Reference: 153093

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230613B9, Run Date: 06/14/2023 02:41, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		109.3	80.0	124.0
1,2-Dichloroethane-D4		89.4	72.0	125.0
Toluene-D8		97.8	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49604.08

Sample Tag: B-18A

Collected Date/Time: 06/09/2023 11:00

Matrix: Groundwater

COC Reference: 153093

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230613B9, Run Date: 06/14/2023 03:00, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		107.2	80.0	124.0
1,2-Dichloroethane-D4		86.3	72.0	125.0
Toluene-D8		98.2	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49604.09

Sample Tag: B-7

Collected Date/Time: 06/09/2023 12:45

Matrix: Groundwater

COC Reference: 153093

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230613B9, Run Date: 06/14/2023 03:20, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		110.2	80.0	124.0
1,2-Dichloroethane-D4		95.3	72.0	125.0
Toluene-D8		98.5	89.0	112.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF230613W3

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 230613B9.BLKW13B

Run in Batch: 230613B9, Run Date: 06/13/2023 23:44, Prep Date: 06/13/2023, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		109.3	80.0	124.0
1,2-Dichloroethane-D4		85.9	72.0	125.0
Toluene-D8		97.9	89.0	112.0

Laboratory Control Sample (LCS)

Lab Sample ID: 230613B9.LCSW13B

Run in Batch: 230613B9, Run Date: 06/13/2023 22:26, Prep Date: 06/13/2023, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		116.1	80.0	124.0
1,2-Dichloroethane-D4		81.9	72.0	125.0
Toluene-D8		99.5	89.0	112.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 230613B9.LCSDW13B, Parent Sample ID: 230613B9.LCSW13B

Run in Batch: 230613B9, Run Date: 06/13/2023 22:45, Prep Date: 06/13/2023, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		117.1	80.0	124.0
1,2-Dichloroethane-D4		79.3	72.0	125.0
Toluene-D8		97.7	89.0	112.0

QC Report - Batch QC Results

Inorganics, Prep Batch ID: CL230611-W1-B

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

Blank (BLK)

Lab Sample ID: CL230611-W1-B.LRB1

Run in Batch: CL230611-W1-B, Run Date: 06/11/2023 07:17, Prep Date: 06/11/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Chloride		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CL230611-W1-B.LCS1

Run in Batch: CL230611-W1-B, Run Date: 06/11/2023 07:43, Prep Date: 06/11/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Chloride		98	90	110

Matrix Spike (MS)

Lab Sample ID: CL230611-W1-B.MS1, Parent Sample ID: S49604.02

Run in Batch: CL230611-W1-B, Run Date: 06/11/2023 09:51, Prep Date: 06/11/2023, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL
Chloride		109	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CL230611-W1-B.MSD1, Parent Sample ID: CL230611-W1-B.MS1

Run in Batch: CL230611-W1-B, Run Date: 06/11/2023 10:04, Prep Date: 06/11/2023, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chloride		109	80	120	0	15

Duplicate (DUP)

Lab Sample ID: CL230611-W1-B.DP1, Parent Sample ID: S49604.02

Run in Batch: CL230611-W1-B, Run Date: 06/11/2023 09:38, Prep Date: 06/11/2023, Matrix: Liquid, Dilution: 10

Analyte	Flags	RPD	RPD CL
Chloride		3	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: CN230612-W1

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

Blank (BLK)

Lab Sample ID: CN230612-W1.LRB1

Run in Batch: CN230612-W1, Run Date: 06/12/2023 10:00, Prep Date: 06/12/2023, Matrix: Liquid, Dilution: 2

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

Laboratory Control Sample (LCS)

Lab Sample ID: CN230612-W1.LCS1

Run in Batch: CN230612-W1, Run Date: 06/12/2023 10:06, Prep Date: 06/12/2023, Matrix: Liquid, Dilution: 1

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

Matrix Spike (MS)

Lab Sample ID: CN230612-W1.MS1, Parent Sample ID: S49531.02

Run in Batch: CN230612-W1, Run Date: 06/12/2023 10:12, Prep Date: 06/12/2023, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL
Cyanide, Total		94	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN230612-W1.MSD1, Parent Sample ID: CN230612-W1.MS1

Run in Batch: CN230612-W1, Run Date: 06/12/2023 10:14, Prep Date: 06/12/2023, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Cyanide, Total		92	80	120	2	15

Duplicate (DUP)

Lab Sample ID: CN230612-W1.DP1, Parent Sample ID: S49531.02

Run in Batch: CN230612-W1, Run Date: 06/12/2023 10:10, Prep Date: 06/12/2023, Matrix: Liquid, Dilution: 2

Analyte	Flags	RPD	RPD CL
Cyanide, Total		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: COND230614-W2

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

Blank (BLK)

Lab Sample ID: COND230614-W2.LRB1

Run in Batch: COND230614-W2, Run Date: 06/14/2023 13:38, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Conductivity		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: COND230614-W2.LCS1

Run in Batch: COND230614-W2, Run Date: 06/14/2023 13:45, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Conductivity		99.4	90	110

Laboratory Control Sample (LCS)

Lab Sample ID: COND230614-W2.LCS2

Run in Batch: COND230614-W2, Run Date: 06/14/2023 13:47, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Conductivity		92.8	90	110

Duplicate (DUP)

Lab Sample ID: COND230614-W2.DP1, Parent Sample ID: S49464.01

Run in Batch: COND230614-W2, Run Date: 06/14/2023 13:51, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
Conductivity		0.0	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: PHL230614-W1

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

Blank (BLK)

Lab Sample ID: PHL230614-W1.LRB1

Run in Batch: PHL230614-W1, Run Date: 06/14/2023 15:00, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Phenols		ND	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHL230614-W1.LCS1

Run in Batch: PHL230614-W1, Run Date: 06/14/2023 15:04, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Phenols		99	90	110

Matrix Spike (MS)

Lab Sample ID: PHL230614-W1.MS1, Parent Sample ID: S49360.01

Run in Batch: PHL230614-W1, Run Date: 06/14/2023 15:14, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Phenols		100	80	120

Duplicate (DUP)

Lab Sample ID: PHL230614-W1.DP1, Parent Sample ID: S49347.01

Run in Batch: PHL230614-W1, Run Date: 06/14/2023 15:08, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1.7

Analyte	Flags	RPD	RPD CL
Phenols	*	24	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: PHL230616-W1

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

Blank (BLK)

Lab Sample ID: PHL230616-W1.LRB1

Run in Batch: PHL230616-W1, Run Date: 06/16/2023 16:00, Prep Date: 06/16/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Phenols		ND	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHL230616-W1.LCS1

Run in Batch: PHL230616-W1, Run Date: 06/16/2023 16:04, Prep Date: 06/16/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Phenols		96	90	110

Matrix Spike (MS)

Lab Sample ID: PHL230616-W1.MS1, Parent Sample ID: S49604.06

Run in Batch: PHL230616-W1, Run Date: 06/16/2023 16:16, Prep Date: 06/16/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Phenols		94	90	110

Duplicate (DUP)

Lab Sample ID: PHL230616-W1.DP1, Parent Sample ID: S49604.06

Run in Batch: PHL230616-W1, Run Date: 06/16/2023 16:14, Prep Date: 06/16/2023, Matrix: Liquid, Dilution: 1.7

Analyte	Flags	RPD	RPD CL
Phenols		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: SFT230611-W1-B

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

Blank (BLK)

Lab Sample ID: SFT230611-W1-B.LRB1

Run in Batch: SFT230611-W1-B, Run Date: 06/11/2023 07:17, Prep Date: 06/11/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Sulfate		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: SFT230611-W1-B.LCS1

Run in Batch: SFT230611-W1-B, Run Date: 06/11/2023 07:43, Prep Date: 06/11/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Sulfate		98	90	110

Matrix Spike (MS)

Lab Sample ID: SFT230611-W1-B.MS1, Parent Sample ID: S49604.02

Run in Batch: SFT230611-W1-B, Run Date: 06/11/2023 09:51, Prep Date: 06/11/2023, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL
Sulfate		99	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: SFT230611-W1-B.MSD1, Parent Sample ID: SFT230611-W1-B.MS1

Run in Batch: SFT230611-W1-B, Run Date: 06/11/2023 10:04, Prep Date: 06/11/2023, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sulfate		99	80	120	0	15

Duplicate (DUP)

Lab Sample ID: SFT230611-W1-B.DP1, Parent Sample ID: S49604.02

Run in Batch: SFT230611-W1-B, Run Date: 06/11/2023 09:38, Prep Date: 06/11/2023, Matrix: Liquid, Dilution: 10

Analyte	Flags	RPD	RPD CL
Sulfate		2	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: TOC230615-W1

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

Blank (BLK)

Lab Sample ID: TOC230615-W1.LRB1

Run in Batch: TOC230615-W1, Run Date: 06/15/2023 12:27, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
TOC		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TOC230615-W1.LCS1

Run in Batch: TOC230615-W1, Run Date: 06/15/2023 13:03, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
TOC		99	90	110

Matrix Spike (MS)

Lab Sample ID: TOC230615-W1.MS1, Parent Sample ID: S49604.02

Run in Batch: TOC230615-W1, Run Date: 06/15/2023 14:40, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
TOC		99	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: TOC230615-W1.MSD1, Parent Sample ID: TOC230615-W1.MS1

Run in Batch: TOC230615-W1, Run Date: 06/15/2023 14:56, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
TOC		99	80	120	0	15

Duplicate (DUP)

Lab Sample ID: TOC230615-W1.DP1, Parent Sample ID: S49604.02

Run in Batch: TOC230615-W1, Run Date: 06/15/2023 14:24, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
TOC		<1	15

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-061323-2

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

Blank (BLK)

Lab Sample ID: MT4-23-0613A.022.LRB

Run in Batch: MT4-23-0613A, Run Date: 06/13/2023 11:55, Prep Date: 06/13/2023, 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: MT4-23-0613A.021.LCS

Run in Batch: MT4-23-0613A, Run Date: 06/13/2023 11:52, Prep Date: 06/13/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Chromium		98	85	115
Copper		95	85	115
Iron		99	85	115
Manganese		96	85	115
Nickel		97	85	115
Zinc		99	85	115

Matrix Spike (MS)

Lab Sample ID: MT4-23-0613A.047.MS, Parent Sample ID: S49604.01

Run in Batch: MT4-23-0613A, Run Date: 06/13/2023 12:50, Prep Date: 06/13/2023, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Chromium		106	75	125
Copper		100	75	125
Iron		107	75	125
Manganese		105	75	125
Nickel		104	75	125
Zinc		101	75	125

Matrix Spike (MS)

Lab Sample ID: MT4-23-0613A.062.MS, Parent Sample ID: S49604.09

Run in Batch: MT4-23-0613A, Run Date: 06/13/2023 13:17, Prep Date: 06/13/2023, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Chromium		104	75	125
Copper		97	75	125
Iron		101	75	125
Manganese		100	75	125
Nickel		97	75	125
Zinc		98	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-23-0613A.048.MSD, Parent Sample ID: MT4-23-0613A.047.MS

Run in Batch: MT4-23-0613A, Run Date: 06/13/2023 12:51, Prep Date: 06/13/2023, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chromium		105	75	125	1	20
Copper		97	75	125	2	20

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-061323-2 (continued)

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

Matrix Spike Duplicate (MSD) (continued)

Lab Sample ID: MT4-23-0613A.048.MSD, Parent Sample ID: MT4-23-0613A.047.MS

Run in Batch: MT4-23-0613A, Run Date: 06/13/2023 12:51, Prep Date: 06/13/2023, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Iron		105	75	125	2	20
Manganese		102	75	125	2	20
Nickel		99	75	125	5	20
Zinc		102	75	125	1	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-23-0613A.063.MSD, Parent Sample ID: MT4-23-0613A.062.MS

Run in Batch: MT4-23-0613A, Run Date: 06/13/2023 13:19, Prep Date: 06/13/2023, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chromium		104	75	125	0	20
Copper		98	75	125	2	20
Iron		101	75	125	0	20
Manganese		99	75	125	1	20
Nickel		99	75	125	2	20
Zinc		103	75	125	5	20

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-061323-5

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

Blank (BLK)

Lab Sample ID: MT4-23-0613B.014.LRB

Run in Batch: MT4-23-0613B, Run Date: 06/13/2023 14:52, Prep Date: 06/13/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Sodium		ND	0.05	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: MT4-23-0613B.013.LCS

Run in Batch: MT4-23-0613B, Run Date: 06/13/2023 14:51, Prep Date: 06/13/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Sodium		99	85	115

Matrix Spike (MS)

Lab Sample ID: MT4-23-0613B.037.MS, Parent Sample ID: S49604.01

Run in Batch: MT4-23-0613B, Run Date: 06/13/2023 15:16, Prep Date: 06/13/2023, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL
Sodium		97	75	125

Matrix Spike (MS)

Lab Sample ID: MT4-23-0613B.042.MS, Parent Sample ID: S49604.09

Run in Batch: MT4-23-0613B, Run Date: 06/13/2023 15:20, Prep Date: 06/13/2023, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL
Sodium		103	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-23-0613B.038.MSD, Parent Sample ID: MT4-23-0613B.037.MS

Run in Batch: MT4-23-0613B, Run Date: 06/13/2023 15:16, Prep Date: 06/13/2023, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sodium		97	75	125	0	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-23-0613B.043.MSD, Parent Sample ID: MT4-23-0613B.042.MS

Run in Batch: MT4-23-0613B, Run Date: 06/13/2023 15:20, Prep Date: 06/13/2023, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sodium		100	75	125	2	20

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF230613W3

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

Blank (BLK)

Lab Sample ID: 230613B9.BLKW13B

Run in Batch: 230613B9, Run Date: 06/13/2023 23:44, Prep Date: 06/13/2023, 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: VF230613W3 (continued)

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

Blank (BLK) (continued)

Lab Sample ID: 230613B9.BLKW13B

Run in Batch: 230613B9, Run Date: 06/13/2023 23:44, Prep Date: 06/13/2023, 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: 230613B9.LCSW13B

Run in Batch: 230613B9, Run Date: 06/13/2023 22:26, Prep Date: 06/13/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Diethyl ether		99.0	67.4	121.2
Acetone		93.5	29.9	161.5
Methyl iodide		110.4	68.8	116.4
Carbon disulfide		95.7	63.8	137.4
tert-Methyl butyl ether (MTBE)		111.2	73.2	122.4
Acrylonitrile		91.5	69.9	128.9
2-Butanone (MEK)		97.9	44.0	134.4
Dichlorodifluoromethane		72.7	10.0	222.8
Chloromethane		95.1	23.8	166.5
Vinyl chloride		94.1	43.5	149.1
Bromomethane		91.8	56.8	151.3
Chloroethane		89.7	53.4	149.4
Trichlorofluoromethane		77.7	59.7	151.8
1,1-Dichloroethene		89.7	69.6	139.4
Methylene chloride		101.0	73.3	121.1
trans-1,2-Dichloroethene		97.9	73.6	129.3
1,1-Dichloroethane		98.8	71.5	126.2
cis-1,2-Dichloroethene		104.2	76.6	122.1
Tetrahydrofuran		96.2	59.0	117.9
Chloroform		102.6	78.4	124.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF230613W3 (continued)

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

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 230613B9.LCSW13B

Run in Batch: 230613B9, Run Date: 06/13/2023 22:26, Prep Date: 06/13/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Bromochloromethane		109.2	78.2	120.8
1,1,1-Trichloroethane		98.3	79.4	130.9
4-Methyl-2-pentanone (MIBK)		102.2	71.6	125.2
2-Hexanone		103.3	55.4	136.9
Carbon tetrachloride		102.2	72.6	133.0
Benzene		108.6	79.9	124.9
1,2-Dichloroethane		99.9	76.0	126.3
Trichloroethene		109.0	79.7	124.2
1,2-Dichloropropane		106.3	78.6	126.4
Bromodichloromethane		108.4	80.4	128.2
Dibromomethane		118.3	76.9	122.1
cis-1,3-Dichloropropene		111.8	79.8	129.9
Toluene		109.0	79.8	124.5
trans-1,3-Dichloropropene		112.2	74.0	131.3
1,1,2-Trichloroethane		109.1	78.7	123.1
Tetrachloroethene		115.1	74.5	124.5
trans-1,4-Dichloro-2-butene		97.2	68.6	135.4
Dibromochloromethane		110.2	74.6	127.2
1,2-Dibromoethane		109.0	70.3	133.7
Chlorobenzene		107.4	79.2	122.7
1,1,1,2-Tetrachloroethane		112.9	80.3	128.2
Ethylbenzene		108.1	79.5	129.1
p,m-Xylene		109.2	79.4	132.2
o-Xylene		106.9	80.2	131.0
Styrene		109.6	69.5	126.7
Isopropylbenzene		110.5	74.4	121.5
Bromoform		116.5	69.4	128.0
1,1,2,2-Tetrachloroethane		106.7	79.8	126.3
1,2,3-Trichloropropane		107.4	78.3	138.8
n-Propylbenzene		110.0	82.0	130.7
Bromobenzene		115.9	78.7	124.6
1,3,5-Trimethylbenzene		113.4	81.3	128.9
tert-Butylbenzene		104.7	80.7	128.9
1,2,4-Trimethylbenzene		114.4	81.4	130.8
sec-Butylbenzene		96.7	77.4	129.8
p-Isopropyltoluene		98.6	79.8	137.5
1,3-Dichlorobenzene		101.1	77.0	131.3
1,4-Dichlorobenzene		101.2	20.7	137.7
1,2-Dichlorobenzene		103.8	10.0	166.2
1,2,3-Trimethylbenzene		98.2	76.3	124.2
n-Butylbenzene		96.0	80.0	133.3
Hexachloroethane		110.8	23.8	138.1
1,2-Dibromo-3-chloropropane		102.2	21.2	189.4
1,2,4-Trichlorobenzene		105.2	27.4	143.4
1,2,3-Trichlorobenzene		106.8	75.4	131.4
Naphthalene		104.8	32.9	135.8

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF230613W3 (continued)

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

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 230613B9.LCSW13B

Run in Batch: 230613B9, Run Date: 06/13/2023 22:26, Prep Date: 06/13/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Methylnaphthalene		94.9	25.5	165.5

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 230613B9.LCSDW13B, Parent Sample ID: 230613B9.LCSW13B

Run in Batch: 230613B9, Run Date: 06/13/2023 22:45, Prep Date: 06/13/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Diethyl ether		93.3	67.4	121.2	5.9	30.0
Acetone		97.2	29.9	161.5	3.8	30.0
Methyl iodide		106.6	68.8	116.4	3.5	30.0
Carbon disulfide		92.5	63.8	137.4	3.4	30.0
tert-Methyl butyl ether (MTBE)		109.1	73.2	122.4	1.9	30.0
Acrylonitrile		90.3	69.9	128.9	1.3	30.0
2-Butanone (MEK)		103.0	44.0	134.4	5.0	30.0
Dichlorodifluoromethane		71.4	10.0	222.8	1.9	30.0
Chloromethane		90.9	23.8	166.5	4.5	30.0
Vinyl chloride		91.3	43.5	149.1	3.0	30.0
Bromomethane		87.8	56.8	151.3	4.4	30.0
Chloroethane		85.8	53.4	149.4	4.4	30.0
Trichlorofluoromethane		76.0	59.7	151.8	2.3	30.0
1,1-Dichloroethene		86.8	69.6	139.4	3.2	30.0
Methylene chloride		94.8	73.3	121.1	6.3	30.0
trans-1,2-Dichloroethene		92.0	73.6	129.3	6.3	30.0
1,1-Dichloroethane		92.6	71.5	126.2	6.5	30.0
cis-1,2-Dichloroethene		100.7	76.6	122.1	3.4	30.0
Tetrahydrofuran		98.5	59.0	117.9	2.3	30.0
Chloroform		96.5	78.4	124.0	6.1	30.0
Bromochloromethane		102.9	78.2	120.8	5.9	30.0
1,1,1-Trichloroethane		93.7	79.4	130.9	4.8	30.0
4-Methyl-2-pentanone (MIBK)		102.4	71.6	125.2	0.2	30.0
2-Hexanone		102.8	55.4	136.9	0.5	30.0
Carbon tetrachloride		98.5	72.6	133.0	3.7	30.0
Benzene		102.1	79.9	124.9	6.2	30.0
1,2-Dichloroethane		95.9	76.0	126.3	4.0	30.0
Trichloroethene		104.0	79.7	124.2	4.7	30.0
1,2-Dichloropropane		98.5	78.6	126.4	7.6	30.0
Bromodichloromethane		101.9	80.4	128.2	6.2	30.0
Dibromomethane		112.7	76.9	122.1	4.9	30.0
cis-1,3-Dichloropropene		105.0	79.8	129.9	6.3	30.0
Toluene		103.0	79.8	124.5	5.6	30.0
trans-1,3-Dichloropropene		107.0	74.0	131.3	4.7	30.0
1,1,2-Trichloroethane		104.1	78.7	123.1	4.7	30.0
Tetrachloroethene		110.5	74.5	124.5	4.1	30.0
trans-1,4-Dichloro-2-butene		98.6	68.6	135.4	1.4	30.0
Dibromochloromethane		108.6	74.6	127.2	1.5	30.0
1,2-Dibromoethane		111.4	70.3	133.7	2.2	30.0
Chlorobenzene		106.7	79.2	122.7	0.7	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF230613W3 (continued)

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

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: 230613B9.LCSDW13B, Parent Sample ID: 230613B9.LCSW13B

Run in Batch: 230613B9, Run Date: 06/13/2023 22:45, Prep Date: 06/13/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,1,2-Tetrachloroethane		110.5	80.3	128.2	2.1	30.0
Ethylbenzene		107.5	79.5	129.1	0.5	30.0
p,m-Xylene		108.4	79.4	132.2	0.8	30.0
o-Xylene		105.3	80.2	131.0	1.5	30.0
Styrene		108.6	69.5	126.7	0.9	30.0
Isopropylbenzene		110.4	74.4	121.5	0.0	30.0
Bromoform		118.5	69.4	128.0	1.8	30.0
1,1,2,2-Tetrachloroethane		107.7	79.8	126.3	0.9	30.0
1,2,3-Trichloropropane		109.2	78.3	138.8	1.7	30.0
n-Propylbenzene		109.3	82.0	130.7	0.7	30.0
Bromobenzene		113.8	78.7	124.6	1.8	30.0
1,3,5-Trimethylbenzene		112.0	81.3	128.9	1.3	30.0
tert-Butylbenzene		105.6	80.7	128.9	0.9	30.0
1,2,4-Trimethylbenzene		113.9	81.4	130.8	0.4	30.0
sec-Butylbenzene		96.3	77.4	129.8	0.4	30.0
p-Isopropyltoluene		98.1	79.8	137.5	0.5	30.0
1,3-Dichlorobenzene		97.6	77.0	131.3	3.5	30.0
1,4-Dichlorobenzene		98.3	20.7	137.7	2.9	30.0
1,2-Dichlorobenzene		101.6	10.0	166.2	2.1	30.0
1,2,3-Trimethylbenzene		96.4	76.3	124.2	1.8	30.0
n-Butylbenzene		96.0	80.0	133.3	0.0	30.0
Hexachloroethane		109.5	23.8	138.1	1.1	30.0
1,2-Dibromo-3-chloropropane		105.1	21.2	189.4	2.9	30.0
1,2,4-Trichlorobenzene		107.7	27.4	143.4	2.4	30.0
1,2,3-Trichlorobenzene		108.3	75.4	131.4	1.4	30.0
Naphthalene		108.4	32.9	135.8	3.4	30.0
2-Methylnaphthalene		98.7	25.5	165.5	3.9	30.0

REPORT TO

CONTACT NAME	Clifford Yantz / Kevin Schneider		
COMPANY	Ramboll		
ADDRESS	2090 Commonwealth Blvd		
CITY	Am Arbor	STATE	MA
PHONE NO.	CELL NO. 313-333-0211	ZIP CODE	01810
E-MAIL ADDRESS	P.O. NO. 1940006516 Kevin.Schneider@Ramboll.com Clifford.Yantz@Ramboll.com		

CHAIN OF CUSTODY RECORD

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

INVOICE TO

NAME	
ZIP CODE	

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME	SAMPLER(S) - PLEASE PRINT/SIGN NAME					Certifications
RACER Coldwater Road	Kevin S. Sandoz	X			des	his

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☒ 3 DAYS ☒ STANDARD ☐ OTHER _____

DEVIABLES REQUIRED ☐ STD ☒ LEVEL I ☐ 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=WPE	A=AIR	WS=WASTE

Containers & Preservatives
 Project Locations
☐ Detroit ☐ New York

MERIT LAB NO.	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	OTHER	v	TC	Phae	cyl	Tote	Diss	Spec
	DATE	TIME											
						NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	

[illegible]

.02	1000	B-230K			X	X	X	X	X	X	were field fitted
.03	1340	B-24R			X	X	X	X	X	X	

04	↓	605	B-27D	11	13241	X	X	X	X	X	X	metals ARE:
05 <td>→ <td>— <td>Tap Blank - 26-0823 <td>01 <td>1 <td>X <td></td> <td></td> <td></td> <td></td> <td></td> <td>CC 11 20</td> </td></td></td></td></td></td>	→ <td>— <td>Tap Blank - 26-0823 <td>01 <td>1 <td>X <td></td> <td></td> <td></td> <td></td> <td></td> <td>CC 11 20</td> </td></td></td></td></td>	— <td>Tap Blank - 26-0823 <td>01 <td>1 <td>X <td></td> <td></td> <td></td> <td></td> <td></td> <td>CC 11 20</td> </td></td></td></td>	Tap Blank - 26-0823 <td>01 <td>1 <td>X <td></td> <td></td> <td></td> <td></td> <td></td> <td>CC 11 20</td> </td></td></td>	01 <td>1 <td>X <td></td> <td></td> <td></td> <td></td> <td></td> <td>CC 11 20</td> </td></td>	1 <td>X <td></td> <td></td> <td></td> <td></td> <td></td> <td>CC 11 20</td> </td>	X <td></td> <td></td> <td></td> <td></td> <td></td> <td>CC 11 20</td>						CC 11 20

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

RELINQUISHED BY:	DATE	TIME	SEAL NO.	SEAL INTACT	YES ☐ NO ☐	INITIALS	NOTES:	TEMP. ON ARRIVAL
SIGNATURE/ORGANIZATION	6/2/03	5:40						2.1
RECEIVED BY:	DATE	TIME	SEAL NO.	SEAL INTACT		INITIALS		
	6/2/03	5:40						

SIGNATURE/ORGANIZATION	DATE	YES ☐	NO ☐
<i>[Signature]</i>	6/9/23		1540

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

Rev. 12/02



Analytical Laboratory Report

Report ID: S49713.01(01)
Generated on 06/27/2023

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

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2680 East Lansing Drive
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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): S49713.01-S49713.07
Project: RACER Coldwater Road
Collected Date(s): 06/12/2023 - 06/13/2023
Submitted Date/Time: 06/13/2023 15:00
Sampled by: Kevin Schneider
P.O. #: 1940004462 TASK 001

Table of Contents

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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
S49713.01	MW-DUP-061223	Groundwater	06/12/23 00:01
S49713.02	B-21D	Groundwater	06/12/23 13:30
S49713.03	OBG MW-16D	Groundwater	06/12/23 15:30
S49713.04	B-19AR	Groundwater	06/12/23 17:10
S49713.05	B-20D	Groundwater	06/13/23 12:05
S49713.06	Equipment Blank-061323	Water	06/13/23 12:40
S49713.07	Trip Blank-061323	Water	06/13/23 00:01



Analytical Laboratory Report

Lab Sample ID: S49713.01

Sample Tag: MW-DUP-061223

Collected Date/Time: 06/12/2023 00:01

Matrix: Groundwater

COC Reference: 156513

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.6	IR
2	40ml Glass	H2SO4	Yes	4.6	IR
1	125ml Amber	H2SO4	Yes	4.6	IR
1	250ml Amber	H2SO4	Yes	4.6	IR
1	125ml Plastic	NaOH	Yes	4.6	IR
2	125ml Plastic	HNO3	Yes	4.6	IR
1	250ml Plastic	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/16/23 10:32	ACK	
Metal Digestion	Completed	SW3015A	06/14/23 10:40	CCM	
Metal Digestion	Completed	SW3015A	06/15/23 13:20	JRH	

Inorganics

Method: E120.1, Run Date: 06/20/23 09:31, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	791	1		umhos/cm	1		

Method: E300.0, Run Date: 06/14/23 08:33, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	10	0.13	mg/L	10	16887-00-6	
Sulfate	91	10	1.0	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/15/23 08:38, 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: 06/16/23 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: 06/15/23 16:14, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	1.4	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/15/23 14:35, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	13.9	5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/14/23 12:09, 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	1.36	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S49713.01 (continued)

Sample Tag: MW-DUP-061223

Method: E200.8, Run Date: 06/14/23 12:09, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.032	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: 06/15/23 15:37, Analyst: NDK

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	17	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: S49713.01 (continued)

Sample Tag: MW-DUP-061223

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/15/23 15:37, Analyst: NDK (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: 06/19/23 13:00, 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: S49713.02

Sample Tag: B-21D

Collected Date/Time: 06/12/2023 13:30

Matrix: Groundwater

COC Reference: 156513

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.6	IR
2	40ml Glass	H2SO4	Yes	4.6	IR
1	125ml Amber	H2SO4	Yes	4.6	IR
1	250ml Amber	H2SO4	Yes	4.6	IR
1	125ml Plastic	NaOH	Yes	4.6	IR
2	125ml Plastic	HNO3	Yes	4.6	IR
1	250ml Plastic	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/16/23 10:32	ACK	
Metal Digestion	Completed	SW3015A	06/14/23 10:40	CCM	
Metal Digestion	Completed	SW3015A	06/14/23 13:20	JRH	

Inorganics

Method: E120.1, Run Date: 06/20/23 09:34, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	793	1		umhos/cm	1		

Method: E300.0, Run Date: 06/14/23 08:43, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	10	0.13	mg/L	10	16887-00-6	
Sulfate	89	10	1.0	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/15/23 08:46, 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: 06/16/23 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: 06/15/23 16:30, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	1.4	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/15/23 14:36, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	20.3	5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/14/23 12:12, 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	1.35	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S49713.02 (continued)

Sample Tag: B-21D

Method: E200.8, Run Date: 06/14/23 12:12, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.032	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: 06/15/23 16:00, Analyst: NDK

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: S49713.02 (continued)

Sample Tag: B-21D

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/15/23 16:00, Analyst: NDK (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: 06/19/23 17:35, 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: S49713.03

Sample Tag: OBG MW-16D

Collected Date/Time: 06/12/2023 15:30

Matrix: Groundwater

COC Reference: 156513

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.6	IR
2	40ml Glass	H2SO4	Yes	4.6	IR
1	125ml Amber	H2SO4	Yes	4.6	IR
1	250ml Amber	H2SO4	Yes	4.6	IR
1	125ml Plastic	NaOH	Yes	4.6	IR
2	125ml Plastic	HNO3	Yes	4.6	IR
1	250ml Plastic	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/16/23 10:32	ACK	
Metal Digestion	Completed	SW3015A	06/14/23 10:40	CCM	
Metal Digestion	Completed	SW3015A	06/15/23 13:20	JRH	

Inorganics

Method: E120.1, Run Date: 06/20/23 09:36, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	653	1		umhos/cm	1		

Method: E300.0, Run Date: 06/14/23 08:53, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	10	0.13	mg/L	10	16887-00-6	
Sulfate	29	10	1.0	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/15/23 08:48, 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: 06/16/23 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: 06/15/23 16:46, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	1.8	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/15/23 14:38, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	10.1	5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/14/23 12:16, 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	2.32	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S49713.03 (continued)

Sample Tag: OBG MW-16D

Method: E200.8, Run Date: 06/14/23 12:16, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.062	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: 06/15/23 16:24, Analyst: NDK

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	19	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: S49713.03 (continued)

Sample Tag: OBG MW-16D

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/15/23 16:24, Analyst: NDK (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: 06/19/23 18:09, 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: S49713.04

Sample Tag: B-19AR

Collected Date/Time: 06/12/2023 17:10

Matrix: Groundwater

COC Reference: 156513

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.6	IR
2	40ml Glass	H2SO4	Yes	4.6	IR
1	125ml Amber	H2SO4	Yes	4.6	IR
1	250ml Amber	H2SO4	Yes	4.6	IR
1	125ml Plastic	NaOH	Yes	4.6	IR
2	125ml Plastic	HNO3	Yes	4.6	IR
1	250ml Plastic	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/16/23 10:32	ACK	
Metal Digestion	Completed	SW3015A	06/14/23 10:40	CCM	
Metal Digestion	Completed	SW3015A	06/15/23 13:20	JRH	

Inorganics

Method: E120.1, Run Date: 06/20/23 09:38, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	1,210	1		umhos/cm	1		

Method: E300.0, Run Date: 06/14/23 09:03, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	93	10	0.13	mg/L	10	16887-00-6	
Sulfate	156	10	1.0	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/15/23 08:50, 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: 06/16/23 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: 06/15/23 17:02, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	1.6	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/15/23 14:39, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	19.1	5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/14/23 12:19, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium, Dissolved	Not detected	0.005		mg/L	5	7440-47-3	
Copper, Dissolved	0.007	0.005		mg/L	5	7440-50-8	
Iron, Dissolved	0.36	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S49713.04 (continued)

Sample Tag: B-19AR

Method: E200.8, Run Date: 06/14/23 12:19, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.011	0.005		mg/L	5	7439-96-5	
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	
Zinc, Dissolved	0.013	0.005		mg/L	5	7440-66-6	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/15/23 16:48, Analyst: NDK

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: S49713.04 (continued)

Sample Tag: B-19AR

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/15/23 16:48, Analyst: NDK (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: 06/20/23 13:45, 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: S49713.05

Sample Tag: B-20D

Collected Date/Time: 06/13/2023 12:05

Matrix: Groundwater

COC Reference: 156513

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.6	IR
2	40ml Glass	H2SO4	Yes	4.6	IR
1	125ml Amber	H2SO4	Yes	4.6	IR
1	250ml Amber	H2SO4	Yes	4.6	IR
1	125ml Plastic	NaOH	Yes	4.6	IR
2	125ml Plastic	HNO3	Yes	4.6	IR
1	250ml Plastic	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/16/23 10:32	ACK	
Metal Digestion	Completed	SW3015A	06/14/23 10:40	CCM	
Metal Digestion	Completed	SW3015A	06/15/23 13:20	JRH	

Inorganics

Method: E120.1, Run Date: 06/20/23 09:40, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	836	1		umhos/cm	1		

Method: E300.0, Run Date: 06/14/23 09:13, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	10	0.13	mg/L	10	16887-00-6	
Sulfate	107	10	1.0	mg/L	10	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/15/23 08:52, 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: 06/16/23 16:32, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Phenols	0.02	0.02		mg/L	1.7		

Method: SM5310C, Run Date: 06/15/23 17:17, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	1.5	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/15/23 14:40, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	14.4	5		mg/L	50	7440-23-5	

Method: E200.8, Run Date: 06/14/23 12:21, 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	1.96	0.02		mg/L	5	7439-89-6	



Analytical Laboratory Report

Lab Sample ID: S49713.05 (continued)

Sample Tag: B-20D

Method: E200.8, Run Date: 06/14/23 12:21, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.043	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: 06/15/23 17:11, Analyst: NDK

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: S49713.05 (continued)

Sample Tag: B-20D

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/15/23 17:11, Analyst: NDK (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: 06/20/23 14:37, 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: S49713.06

Sample Tag: Equipment Blank-061323

Collected Date/Time: 06/13/2023 12:40

Matrix: Water

COC Reference: 156513

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.6	IR
2	40ml Glass	H2SO4	Yes	4.6	IR
1	125ml Amber	H2SO4	Yes	4.6	IR
1	250ml Amber	H2SO4	Yes	4.6	IR
1	125ml Plastic	NaOH	Yes	4.6	IR
1	125ml Plastic	HNO3	Yes	4.6	IR
1	250ml Plastic	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/16/23 10:32	ACK	
Metal Digestion	Completed	SW3015A	06/14/23 10:40	CCM	

Inorganics

Method: E120.1, Run Date: 06/20/23 09:41, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Conductivity	1.5	1		umhos/cm	1		

Method: E300.0, Run Date: 06/14/23 09:23, Analyst: JDP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloride	Not detected	2.5	0.03	mg/L	2.5	16887-00-6	
Sulfate	Not detected	2.5	0.26	mg/L	2.5	14808-79-8	

Method: E335.4/SM4500-CN, Run Date: 06/15/23 08:54, 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: 06/16/23 16:34, Analyst: JKB

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

Method: SM5310C, Run Date: 06/15/23 17:33, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TOC	Not detected	1		mg/L	1		

Metals

Method: E200.8, Run Date: 06/15/23 14:32, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Sodium	Not detected	5		mg/L	2	7440-23-5	

Method: E200.8, Run Date: 06/14/23 12:06, 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: S49713.06 (continued)

Sample Tag: Equipment Blank-061323

Method: E200.8, Run Date: 06/14/23 12:06, 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: 06/15/23 15:14, Analyst: NDK

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	11	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: S49713.06 (continued)

Sample Tag: Equipment Blank-061323

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/15/23 15:14, Analyst: NDK (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: 06/20/23 15:12, 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: S49713.07

Sample Tag: Trip Blank-061323

Collected Date/Time: 06/13/2023 00:01

Matrix: Water

COC Reference: 156513

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	06/16/23 10:32	ACK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/15/23 14:50, Analyst: NDK

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	8	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: S49713.07 (continued)

Sample Tag: Trip Blank-061323

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 06/15/23 14:50, Analyst: NDK (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	
1,1,1,2-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:S49713

Client:RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

Submitted:06/13/2023 15:00 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.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 4.6
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☒ Yes ☐ No ☐ N/A	Subcontracting needed? Subcontracted to: GEL
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☒ Yes ☐ No ☐ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☒ No ☐ 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: S49713 Submitted: 06/13/2023 15:00

Client: RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

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

Initial Preservation Check: 06/13/2023 16:14 PFD

Preservation Recheck (E200.8): N/A

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

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S49713.01	125ml Amber H2SO4	<2			
S49713.01	125ml Plastic HNO3	<2			
S49713.01	125ml Plastic HNO3	<2			
S49713.01	125ml Plastic NaOH	>12			
S49713.01	250ml Amber H2SO4	<2			
S49713.02	125ml Amber H2SO4	<2			
S49713.02	125ml Plastic HNO3	<2			
S49713.02	125ml Plastic HNO3	<2			
S49713.02	125ml Plastic NaOH	>12			
S49713.02	250ml Amber H2SO4	<2			
S49713.03	125ml Amber H2SO4	<2			
S49713.03	125ml Plastic HNO3	<2			
S49713.03	125ml Plastic HNO3	<2			
S49713.03	125ml Plastic NaOH	>12			
S49713.03	250ml Amber H2SO4	<2			
S49713.04	125ml Amber H2SO4	<2			
S49713.04	125ml Plastic HNO3	<2			
S49713.04	125ml Plastic HNO3	<2			
S49713.04	125ml Plastic NaOH	>12			
S49713.04	250ml Amber H2SO4	<2			
S49713.05	125ml Amber H2SO4	<2			
S49713.05	125ml Plastic HNO3	<2			
S49713.05	125ml Plastic HNO3	<2			
S49713.05	125ml Plastic NaOH	>12			
S49713.05	250ml Amber H2SO4	<2			
S49713.06	125ml Amber H2SO4	<2			
S49713.06	125ml Plastic HNO3	<2			
S49713.06	125ml Plastic NaOH	>12			
S49713.06	250ml Amber H2SO4	<2			

REPORT TO

CONTACT NAME	Clifford Yantz / Kevin Schneider	
COMPANY	Ramboll	
ADDRESS	2090 Commonwealth Blvd	
CITY	Ann Arbor	
PHONE NO.	CELL NO.	313-333-0211
E-MAIL ADDRESS	Kevin.Schneider@ramboll.com Clifford.Yantz@ramboll.com	
P.O. NO.	STATE	ZIP CODE
1940006516	MI	48105
QUOTE NO.	TAYF	

CHAIN OF CUSTODY RECORD

CONTACT NAME
COMPANY
ADDRESS
CITY
PHONE NO.

INVOICE TO

NAME	ZIP CODE

E-MAIL ADDRESS
 Kevin, sender@Camboll.com
 Clifford, Vantz@Camboll.com
 QUOTE NO.

PROJECT NO./NAME	SAFAR Colubater Pond	SAMPLER(S) - PLEASE PRINT/ SIGN NAME	Kevin Zimmerman

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ 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

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES
	DATE	TIME			

497301	6/13/23	—	MW-DUP-061223	6w 11
02	6/12/23	1330	B-21D	6w 11

03	6/12/23	1530	086 NW-16D	6w 11
04	6/20/23	1710	2-19AF	6w 11

05	6/13/23	1205	B-20D	6w	11
06	6/13/23	1240	Fencepost Blm K-010333	24	16

07	6/13/23	—	Trip Back - 06/13/23	061

5

RELINQUISHED BY: [Signature] DATE 6/13/23 TIME 105
SIGNATURE/ORGANIZATION [Signature] ☒ Sampler

SIGNATURE/ORGANIZATION	DATE	TIME
Joey White	6/13/03	5:00
RELINQUISHED BY:	DATE	TIME
Joey White	6/13/03	5:00

RECEIVED BY:
SIGNATURE/Organization

DATE: 6/15/03 TIME: 1:50

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO THE FOLLOWING:

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



June 27, 2023

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

Re: Halogen Analysis
Work Order: 626458
SDG: S49713

Dear John Lavery:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 16, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

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,

Jordan Melton 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: S49713 GEL Work Order: 626458

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 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, 2023

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

Contact: East Lansing, Michigan 48823
John Lavery
Project: Halogen Analysis

Client Sample ID:	S49713.01	Project:	MERI00220
Sample ID:	626458001	Client ID:	MERI001
Matrix:	Ground Water		
Collect Date:	12-JUN-23 00:01		
Receive Date:	16-JUN-23		
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	5.60	3.33	10.0	ug/L		1	RM3	06/19/23	1300	2446166	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, 2023

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

East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID:	S49713.02	Project:	MERI00220
Sample ID:	626458002	Client ID:	MERI001
Matrix:	Ground Water		
Collect Date:	12-JUN-23 13:30		
Receive Date:	16-JUN-23		
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	6.88	3.33	10.0	ug/L		1	RM3	06/19/23	1735	2446166	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, 2023

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

East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID: S49713.03 Project: MERI00220
Sample ID: 626458003 Client ID: MERI001
Matrix: Ground Water
Collect Date: 12-JUN-23 15:30
Receive Date: 16-JUN-23
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	6.10	3.33	10.0	ug/L		1	RM3	06/19/23	1809	2446166	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, 2023

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

East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID:	S49713.04	Project:	MERI00220
Sample ID:	626458004	Client ID:	MERI001
Matrix:	Ground Water		
Collect Date:	12-JUN-23 17:10		
Receive Date:	16-JUN-23		
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		37.3	3.33	10.0	ug/L		1	RM3	06/20/23	1345	2446778	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, 2023

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

East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID:	S49713.05	Project:	MERI00220
Sample ID:	626458005	Client ID:	MERI001
Matrix:	Ground Water		
Collect Date:	13-JUN-23 12:05		
Receive Date:	16-JUN-23		
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	5.62	3.33	10.0	ug/L		1	RM3	06/20/23	1437	2446778	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, 2023

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

East Lansing, Michigan 48823
Contact: John Lavery
Project: Halogen Analysis

Client Sample ID:	S49713.06	Project:	MERI00220
Sample ID:	626458006	Client ID:	MERI001
Matrix:	Water		
Collect Date:	13-JUN-23 12:40		
Receive Date:	16-JUN-23		
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	RM3	06/20/23	1512	2446778	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 27, 2023

Page 1 of 2

Contact: Merit Laboratories Inc.
2680 East Lansing Drive
East Lansing, Michigan
John Laverty
Workorder: 626458

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Halogen Analysis											
Batch	2446166										
QC1205437138	626458001	DUP									
Total Organic Halogens	J	5.60	U	ND	ug/L	200	^		RM3	06/19/23	13:17
QC1205437137	LCS										
Total Organic Halogens	100			95.4	ug/L		95.4	(71%-120%)		06/19/23	12:41
QC1205437136	MB										
Total Organic Halogens			U	ND	ug/L					06/19/23	12:21
QC1205437139	626458001	MS									
Total Organic Halogens	100	J	5.60	69.8	ug/L		69.8	(50%-144%)		06/19/23	15:33
QC1205437140	626458001	MSD									
Total Organic Halogens	100	J	5.60	63.4	ug/L	9.52	57.8	(0%-20%)		06/19/23	15:50
Batch	2446778										
QC1205438137	626530012	DUP									
Total Organic Halogens	U	ND	U	ND	ug/L	N/A			RM3	06/20/23	16:07
QC1205438136	LCS										
Total Organic Halogens	100			90.8	ug/L		90.8	(71%-120%)		06/20/23	13:13
QC1205438135	MB										
Total Organic Halogens			U	ND	ug/L					06/20/23	12:52
QC1205438138	626530012	MS									
Total Organic Halogens	100	U	ND	79.3	ug/L		78.5	(50%-144%)		06/20/23	16:26

Notes:

The Qualifiers in this report are defined as follows:

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

GEL LABORATORIES LLC

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

QC Summary

Workorder: 626458

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
J	Value is estimated										
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
H	Analytical holding time was exceeded										
<	Result is less than value reported										
>	Result is greater than value reported										
h	Preparation or preservation holding time was exceeded										
R	Sample results are rejected										
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.										
d	5-day BOD--The 2:1 depletion requirement was not met for this sample										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
N/A	RPD or %Recovery limits do not apply.										
ND	Analyte concentration is not detected above the detection limit										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range										
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.										
N1	See case narrative										
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.										
B	The target analyte was detected in the associated blank.										
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										
J	See case narrative for an explanation										

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 either the sample or 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 #: S49713
Work Order #: 626458**

Product: Total Organic Halogens (TOX)

Analytical Method: SW846 9020B

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

Analytical Batch: 2446166

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
626458001	S49713.01
626458002	S49713.02
626458003	S49713.03
1205437136	Method Blank (MB)
1205437137	Laboratory Control Sample (LCS)
1205437138	626458001(S49713.01) Sample Duplicate (DUP)
1205437139	626458001(S49713.01) Matrix Spike (MS)
1205437140	626458001(S49713.01) Matrix Spike Duplicate (MSD)

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: 2446778

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
626458004	S49713.04
626458005	S49713.05
626458006	S49713.06
1205438135	Method Blank (MB)
1205438136	Laboratory Control Sample (LCS)
1205438137	626530012(NonSDG) Sample Duplicate (DUP)
1205438138	626530012(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 were re-analyzed to verify the results. The reanalysis data with passing instrument QC was reported. 626458004 (S49713.04), 626458005 (S49713.05) and 626458006 (S49713.06).

Miscellaneous Information

Additional Comments

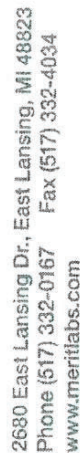
A pair of nitrate wash blanks is analyzed at the start of the batch. Although they are designated as ICB, they are performed for calculating purposes only. The value of the nitrate wash blanks are averaged and subtracted from all samples. Neither of these values should exceed 0.6 ug Cl. The PQL limit 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.



C.O.C. PAGE # _____ OF _____

62578

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE 6/19/23	TIME 1700	☐ Sampler
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE 6/15/23	TIME 1700	
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE 6/15/23	TIME 1700	
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE 6/15/23	TIME 1700	

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

Rev. 5/18/12



Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: MEKI		SDG/AR/COC/Work Order: 626458	
Received By: SNS		Date Received: 6/16/23	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other	
		12466470161521447	
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?		☒	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples 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): 9 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
1	Shipping containers received intact and sealed?	☒	☒
2	Chain of custody documents included with shipment?	☒	☒
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	☒	☒
4	Daily check performed and passed on IR temperature gun?	☒	☒
5	Sample containers intact and sealed?	☒	☒
6	Samples requiring chemical preservation at proper pH?	☒	☒
7	Do any samples require Volatile Analysis?	☒	☒
8	Samples received within holding time?	☒	☒
9	Sample ID's on COC match ID's on bottles?	☒	☒
10	Date & time on COC match date & time on bottles?	☒	☒
11	Number of containers received match number indicated on COC?	☒	☒
12	Are sample containers identifiable as GEL provided by use of GEL labels?	☒	☒
13	COC form is properly signed in relinquished/received sections?	☒	☒
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials

JM

Date

6-19-23

Page

1

of

1

List of current GEL Certifications as of 27 June 2023

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	SC000122023-4
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	2022-160
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	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



Quality Control Report

Report ID: QC-S49713-01
Generated on 06/27/2023

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): S49713.01-S49713.07
Project: RACER Coldwater Road
Submitted Date/Time: 06/13/2023 15:00
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: S49713.01

Sample Tag: MW-DUP-061223

Collected Date/Time: 06/12/2023 00:01

Matrix: Groundwater

COC Reference: 156513

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/14/23 08:33	CL230614-W1-A	CL230614-W1-A	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/20/23 09:31	COND230620-W1	COND230620-W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN06/15/23 08:38	06/15/23 08:38	CN230615-W1	CN230615-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/23 16:24	PHL230616-W1	PHL230616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/14/23 08:33	SFT230614-W1-A	SFT230614-W1-A	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 16:14	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/14/23 12:09	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/14/23 12:09	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/14/23 12:09	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/14/23 12:09	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/14/23 12:09	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/15/23 14:35	MT5-23-0615B	MTD-061523-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/14/23 12:09	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 15:37	230615A7	VF230615W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49713.02

Sample Tag: B-21D

Collected Date/Time: 06/12/2023 13:30

Matrix: Groundwater

COC Reference: 156513

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/14/23 08:43	CL230614-W1-A	CL230614-W1-A	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/20/23 09:34	COND230620-W1	COND230620-W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/15/23 08:46	CN230615-W1	CN230615-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/23 16:26	PHL230616-W1	PHL230616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/14/23 08:43	SFT230614-W1-A	SFT230614-W1-A	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 16:30	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/14/23 12:12	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/14/23 12:12	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/14/23 12:12	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/14/23 12:12	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/14/23 12:12	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/15/23 14:36	MT5-23-0615B	MTD-061523-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/14/23 12:12	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 16:00	230615A7	VF230615W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49713.03

Sample Tag: OBG MW-16D

Collected Date/Time: 06/12/2023 15:30

Matrix: Groundwater

COC Reference: 156513

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/14/23 08:53	CL230614-W1-A	CL230614-W1-A	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/20/23 09:36	COND230620-W1	COND230620-W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/15/23 08:48	CN230615-W1	CN230615-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/23 16:28	PHL230616-W1	PHL230616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/14/23 08:53	SFT230614-W1-A	SFT230614-W1-A	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 16:46	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/14/23 12:16	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/14/23 12:16	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/14/23 12:16	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/14/23 12:16	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/14/23 12:16	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/15/23 14:38	MT5-23-0615B	MTD-061523-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/14/23 12:16	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 16:24	230615A7	VF230615W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49713.04

Sample Tag: B-19AR

Collected Date/Time: 06/12/2023 17:10

Matrix: Groundwater

COC Reference: 156513

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/14/23 09:03	CL230614-W1-A	CL230614-W1-A	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/20/23 09:38	COND230620-W1	COND230620-W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/15/23 08:50	CN230615-W1	CN230615-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/23 16:30	PHL230616-W1	PHL230616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/14/23 09:03	SFT230614-W1-A	SFT230614-W1-A	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 17:02	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/14/23 12:19	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/14/23 12:19	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/14/23 12:19	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/14/23 12:19	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/14/23 12:19	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/15/23 14:39	MT5-23-0615B	MTD-061523-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/14/23 12:19	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 16:48	230615A7	VF230615W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49713.05

Sample Tag: B-20D

Collected Date/Time: 06/13/2023 12:05

Matrix: Groundwater

COC Reference: 156513

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/14/23 09:13	CL230614-W1-A	CL230614-W1-A	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/20/23 09:40	COND230620-W1	COND230620-W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN	06/15/23 08:52	CN230615-W1	CN230615-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/23 16:32	PHL230616-W1	PHL230616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/14/23 09:13	SFT230614-W1-A	SFT230614-W1-A	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 17:17	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium, Dissolved	E200.8	06/14/23 12:21	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Copper, Dissolved	E200.8	06/14/23 12:21	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Iron, Dissolved	E200.8	06/14/23 12:21	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Manganese, Dissolved	E200.8	06/14/23 12:21	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Nickel, Dissolved	E200.8	06/14/23 12:21	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/15/23 14:40	MT5-23-0615B	MTD-061523-5	No	BLK/LCS/MS/MSD
Zinc, Dissolved	E200.8	06/14/23 12:21	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 17:11	230615A7	VF230615W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49713.06

Sample Tag: Equipment Blank-061323

Collected Date/Time: 06/13/2023 12:40

Matrix: Water

COC Reference: 156513

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Chloride	E300.0	06/14/23 09:23	CL230614-W1-A	CL230614-W1-A	No	BLK/LCS/MS/MSD/DU
Conductivity	E120.1	06/20/23 09:41	COND230620-W1	COND230620-W1	No	BLK/LCS/DUP
Cyanide, Total	E335.4/SM4500-CN06/15/23 08:54	06/15/23 08:54	CN230615-W1	CN230615-W1	No	BLK/LCS/MS/MSD/DU
Phenols	E420.1	06/16/23 16:34	PHL230616-W1	PHL230616-W1	No	BLK/LCS/MS/DUP
Sulfate	E300.0	06/14/23 09:23	SFT230614-W1-A	SFT230614-W1-A	No	BLK/LCS/MS/MSD/DU
TOC	SM5310C	06/15/23 17:33	TOC230615-W1	TOC230615-W1	No	BLK/LCS/MS/MSD/DU
<i>Metals</i>						
Chromium	E200.8	06/14/23 12:06	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Copper	E200.8	06/14/23 12:06	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Iron	E200.8	06/14/23 12:06	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Manganese	E200.8	06/14/23 12:06	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Nickel	E200.8	06/14/23 12:06	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
Sodium	E200.8	06/15/23 14:32	MT5-23-0615B	MTD-061523-5	No	BLK/LCS/MS/MSD
Zinc	E200.8	06/14/23 12:06	MT4-23-0614A	MTD-061423-1	No	BLK/LCS/MS/MSD
<i>Organics - Volatiles</i>						
Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 15:14	230615A7	VF230615W2	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S49713.07

Sample Tag: Trip Blank-061323

Collected Date/Time: 06/13/2023 00:01

Matrix: Water

COC Reference: 156513

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 14:50	230615A7	VF230615W2	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: CL230614-W1-A

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49713.01	Chloride	E300.0	06/14/23 08:33	CL230614-W1-A
S49713.02	Chloride	E300.0	06/14/23 08:43	CL230614-W1-A
S49713.03	Chloride	E300.0	06/14/23 08:53	CL230614-W1-A
S49713.04	Chloride	E300.0	06/14/23 09:03	CL230614-W1-A
S49713.05	Chloride	E300.0	06/14/23 09:13	CL230614-W1-A
S49713.06	Chloride	E300.0	06/14/23 09:23	CL230614-W1-A

Inorganics, Prep Batch ID: CN230615-W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49713.01	Cyanide, Total	E335.4/SM4500-CN	06/15/23 08:38	CN230615-W1
S49713.02	Cyanide, Total	E335.4/SM4500-CN	06/15/23 08:46	CN230615-W1
S49713.03	Cyanide, Total	E335.4/SM4500-CN	06/15/23 08:48	CN230615-W1
S49713.04	Cyanide, Total	E335.4/SM4500-CN	06/15/23 08:50	CN230615-W1
S49713.05	Cyanide, Total	E335.4/SM4500-CN	06/15/23 08:52	CN230615-W1
S49713.06	Cyanide, Total	E335.4/SM4500-CN	06/15/23 08:54	CN230615-W1

Inorganics, Prep Batch ID: COND230620-W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49713.01	Conductivity	E120.1	06/20/23 09:31	COND230620-W1
S49713.02	Conductivity	E120.1	06/20/23 09:34	COND230620-W1
S49713.03	Conductivity	E120.1	06/20/23 09:36	COND230620-W1
S49713.04	Conductivity	E120.1	06/20/23 09:38	COND230620-W1
S49713.05	Conductivity	E120.1	06/20/23 09:40	COND230620-W1
S49713.06	Conductivity	E120.1	06/20/23 09:41	COND230620-W1

Inorganics, Prep Batch ID: PHL230616-W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49713.01	Phenols	E420.1	06/16/23 16:24	PHL230616-W1
S49713.02	Phenols	E420.1	06/16/23 16:26	PHL230616-W1
S49713.03	Phenols	E420.1	06/16/23 16:28	PHL230616-W1
S49713.04	Phenols	E420.1	06/16/23 16:30	PHL230616-W1
S49713.05	Phenols	E420.1	06/16/23 16:32	PHL230616-W1
S49713.06	Phenols	E420.1	06/16/23 16:34	PHL230616-W1

Inorganics, Prep Batch ID: SFT230614-W1-A

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49713.01	Sulfate	E300.0	06/14/23 08:33	SFT230614-W1-A
S49713.02	Sulfate	E300.0	06/14/23 08:43	SFT230614-W1-A
S49713.03	Sulfate	E300.0	06/14/23 08:53	SFT230614-W1-A
S49713.04	Sulfate	E300.0	06/14/23 09:03	SFT230614-W1-A
S49713.05	Sulfate	E300.0	06/14/23 09:13	SFT230614-W1-A
S49713.06	Sulfate	E300.0	06/14/23 09:23	SFT230614-W1-A

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: TOC230615-W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49713.01	TOC	SM5310C	06/15/23 16:14	TOC230615-W1
S49713.02	TOC	SM5310C	06/15/23 16:30	TOC230615-W1
S49713.03	TOC	SM5310C	06/15/23 16:46	TOC230615-W1
S49713.04	TOC	SM5310C	06/15/23 17:02	TOC230615-W1
S49713.05	TOC	SM5310C	06/15/23 17:17	TOC230615-W1
S49713.06	TOC	SM5310C	06/15/23 17:33	TOC230615-W1

Metals, Prep Batch ID: MTD-061423-1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49713.01	Chromium, Dissolved	E200.8	06/14/23 12:09	MT4-23-0614A
S49713.01	Copper, Dissolved	E200.8	06/14/23 12:09	MT4-23-0614A
S49713.01	Iron, Dissolved	E200.8	06/14/23 12:09	MT4-23-0614A
S49713.01	Manganese, Dissolved	E200.8	06/14/23 12:09	MT4-23-0614A
S49713.01	Nickel, Dissolved	E200.8	06/14/23 12:09	MT4-23-0614A
S49713.01	Zinc, Dissolved	E200.8	06/14/23 12:09	MT4-23-0614A
S49713.02	Chromium, Dissolved	E200.8	06/14/23 12:12	MT4-23-0614A
S49713.02	Copper, Dissolved	E200.8	06/14/23 12:12	MT4-23-0614A
S49713.02	Iron, Dissolved	E200.8	06/14/23 12:12	MT4-23-0614A
S49713.02	Manganese, Dissolved	E200.8	06/14/23 12:12	MT4-23-0614A
S49713.02	Nickel, Dissolved	E200.8	06/14/23 12:12	MT4-23-0614A
S49713.02	Zinc, Dissolved	E200.8	06/14/23 12:12	MT4-23-0614A
S49713.03	Chromium, Dissolved	E200.8	06/14/23 12:16	MT4-23-0614A
S49713.03	Copper, Dissolved	E200.8	06/14/23 12:16	MT4-23-0614A
S49713.03	Iron, Dissolved	E200.8	06/14/23 12:16	MT4-23-0614A
S49713.03	Manganese, Dissolved	E200.8	06/14/23 12:16	MT4-23-0614A
S49713.03	Nickel, Dissolved	E200.8	06/14/23 12:16	MT4-23-0614A
S49713.03	Zinc, Dissolved	E200.8	06/14/23 12:16	MT4-23-0614A
S49713.04	Chromium, Dissolved	E200.8	06/14/23 12:19	MT4-23-0614A
S49713.04	Copper, Dissolved	E200.8	06/14/23 12:19	MT4-23-0614A
S49713.04	Iron, Dissolved	E200.8	06/14/23 12:19	MT4-23-0614A
S49713.04	Manganese, Dissolved	E200.8	06/14/23 12:19	MT4-23-0614A
S49713.04	Nickel, Dissolved	E200.8	06/14/23 12:19	MT4-23-0614A
S49713.04	Zinc, Dissolved	E200.8	06/14/23 12:19	MT4-23-0614A
S49713.05	Chromium, Dissolved	E200.8	06/14/23 12:21	MT4-23-0614A
S49713.05	Copper, Dissolved	E200.8	06/14/23 12:21	MT4-23-0614A
S49713.05	Iron, Dissolved	E200.8	06/14/23 12:21	MT4-23-0614A
S49713.05	Manganese, Dissolved	E200.8	06/14/23 12:21	MT4-23-0614A
S49713.05	Nickel, Dissolved	E200.8	06/14/23 12:21	MT4-23-0614A
S49713.05	Zinc, Dissolved	E200.8	06/14/23 12:21	MT4-23-0614A
S49713.06	Chromium	E200.8	06/14/23 12:06	MT4-23-0614A
S49713.06	Copper	E200.8	06/14/23 12:06	MT4-23-0614A
S49713.06	Iron	E200.8	06/14/23 12:06	MT4-23-0614A
S49713.06	Manganese	E200.8	06/14/23 12:06	MT4-23-0614A
S49713.06	Nickel	E200.8	06/14/23 12:06	MT4-23-0614A
S49713.06	Zinc	E200.8	06/14/23 12:06	MT4-23-0614A

QC Report - Prep Batch Summary

Metals, Prep Batch ID: MTD-061523-5

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49713.01	Sodium	E200.8	06/15/23 14:35	MT5-23-0615B
S49713.02	Sodium	E200.8	06/15/23 14:36	MT5-23-0615B
S49713.03	Sodium	E200.8	06/15/23 14:38	MT5-23-0615B
S49713.04	Sodium	E200.8	06/15/23 14:39	MT5-23-0615B
S49713.05	Sodium	E200.8	06/15/23 14:40	MT5-23-0615B
S49713.06	Sodium	E200.8	06/15/23 14:32	MT5-23-0615B

Organics - Volatiles, Prep Batch ID: VF230615W2

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S49713.01	Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 15:37	230615A7
S49713.02	Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 16:00	230615A7
S49713.03	Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 16:24	230615A7
S49713.04	Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 16:48	230615A7
S49713.05	Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 17:11	230615A7
S49713.06	Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 15:14	230615A7
S49713.07	Volatile Organics - DEQ List	SW5030C/8260C	06/15/23 14:50	230615A7

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49713.01

Sample Tag: MW-DUP-061223

Collected Date/Time: 06/12/2023 00:01

Matrix: Groundwater

COC Reference: 156513

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230615A7, Run Date: 06/15/2023 15:37, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		101.1	80.0	124.0
1,2-Dichloroethane-D4		99.6	72.0	125.0
Toluene-D8		99.0	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49713.02

Sample Tag: B-21D

Collected Date/Time: 06/12/2023 13:30

Matrix: Groundwater

COC Reference: 156513

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230615A7, Run Date: 06/15/2023 16:00, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		102.4	80.0	124.0
1,2-Dichloroethane-D4		101.9	72.0	125.0
Toluene-D8		99.8	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49713.03

Sample Tag: OBG MW-16D

Collected Date/Time: 06/12/2023 15:30

Matrix: Groundwater

COC Reference: 156513

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230615A7, Run Date: 06/15/2023 16:24, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		103.6	80.0	124.0
1,2-Dichloroethane-D4		103.8	72.0	125.0
Toluene-D8		99.3	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49713.04

Sample Tag: B-19AR

Collected Date/Time: 06/12/2023 17:10

Matrix: Groundwater

COC Reference: 156513

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230615A7, Run Date: 06/15/2023 16:48, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		101.6	80.0	124.0
1,2-Dichloroethane-D4		102.6	72.0	125.0
Toluene-D8		98.5	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49713.05

Sample Tag: B-20D

Collected Date/Time: 06/13/2023 12:05

Matrix: Groundwater

COC Reference: 156513

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230615A7, Run Date: 06/15/2023 17:11, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		102.3	80.0	124.0
1,2-Dichloroethane-D4		103.5	72.0	125.0
Toluene-D8		99.8	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49713.06

Sample Tag: Equipment Blank-061323

Collected Date/Time: 06/13/2023 12:40

Matrix: Water

COC Reference: 156513

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230615A7, Run Date: 06/15/2023 15:14, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		100.9	80.0	124.0
1,2-Dichloroethane-D4		98.5	72.0	125.0
Toluene-D8		98.8	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S49713.07

Sample Tag: Trip Blank-061323

Collected Date/Time: 06/13/2023 00:01

Matrix: Water

COC Reference: 156513

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 230615A7, Run Date: 06/15/2023 14:50, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		102.3	80.0	124.0
1,2-Dichloroethane-D4		102.9	72.0	125.0
Toluene-D8		99.6	89.0	112.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF230615W2

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 230615A7.BLKW15A

Run in Batch: 230615A7, Run Date: 06/15/2023 14:07, Prep Date: 06/15/2023, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		101.7	80.0	124.0
1,2-Dichloroethane-D4		101.2	72.0	125.0
Toluene-D8		99.8	89.0	112.0

Laboratory Control Sample (LCS)

Lab Sample ID: 230615A7.LCSW15A

Run in Batch: 230615A7, Run Date: 06/15/2023 12:33, Prep Date: 06/15/2023, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		100.9	80.0	124.0
1,2-Dichloroethane-D4		104.0	72.0	125.0
Toluene-D8		100.3	89.0	112.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 230615A7.LCSDW15A, Parent Sample ID: 230615A7.LCSW15A

Run in Batch: 230615A7, Run Date: 06/15/2023 12:56, Prep Date: 06/15/2023, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		100.3	80.0	124.0
1,2-Dichloroethane-D4		101.9	72.0	125.0
Toluene-D8		100.4	89.0	112.0

QC Report - Batch QC Results

Inorganics, Prep Batch ID: CL230614-W1-A

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

Blank (BLK)

Lab Sample ID: CL230614-W1-A.LRB1

Run in Batch: CL230614-W1-A, Run Date: 06/14/2023 08:00, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Chloride		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CL230614-W1-A.LCS1

Run in Batch: CL230614-W1-A, Run Date: 06/14/2023 08:23, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Chloride		94	90	110

Matrix Spike (MS)

Lab Sample ID: CL230614-W1-A.MS1, Parent Sample ID: S49713.01

Run in Batch: CL230614-W1-A, Run Date: 06/14/2023 09:43, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL
Chloride		99	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CL230614-W1-A.MSD1, Parent Sample ID: CL230614-W1-A.MS1

Run in Batch: CL230614-W1-A, Run Date: 06/14/2023 09:53, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chloride		99	80	120	0	15

Duplicate (DUP)

Lab Sample ID: CL230614-W1-A.DP1, Parent Sample ID: S49713.01

Run in Batch: CL230614-W1-A, Run Date: 06/14/2023 09:33, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 10

Analyte	Flags	RPD	RPD CL
Chloride		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: CN230615-W1

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

Blank (BLK)

Lab Sample ID: CN230615-W1.LRB1

Run in Batch: CN230615-W1, Run Date: 06/15/2023 08:30, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 2

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

Laboratory Control Sample (LCS)

Lab Sample ID: CN230615-W1.LCS1

Run in Batch: CN230615-W1, Run Date: 06/15/2023 08:36, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Cyanide, Total		105	90	110

Matrix Spike (MS)

Lab Sample ID: CN230615-W1.MS1, Parent Sample ID: S49713.01

Run in Batch: CN230615-W1, Run Date: 06/15/2023 08:42, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL
Cyanide, Total		92	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN230615-W1.MSD1, Parent Sample ID: CN230615-W1.MS1

Run in Batch: CN230615-W1, Run Date: 06/15/2023 08:44, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Cyanide, Total		92	80	120	0	15

Duplicate (DUP)

Lab Sample ID: CN230615-W1.DP1, Parent Sample ID: S49713.01

Run in Batch: CN230615-W1, Run Date: 06/15/2023 08:40, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 2

Analyte	Flags	RPD	RPD CL
Cyanide, Total		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: COND230620-W1

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

Blank (BLK)

Lab Sample ID: COND230620-W1.LRB1

Run in Batch: COND230620-W1, Run Date: 06/20/2023 09:22, Prep Date: 06/20/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Conductivity		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: COND230620-W1.LCS1

Run in Batch: COND230620-W1, Run Date: 06/20/2023 09:27, Prep Date: 06/20/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Conductivity		99.0	90	110

Laboratory Control Sample (LCS)

Lab Sample ID: COND230620-W1.LCS2

Run in Batch: COND230620-W1, Run Date: 06/20/2023 09:28, Prep Date: 06/20/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Conductivity		92.5	90	110

Duplicate (DUP)

Lab Sample ID: COND230620-W1.DP1, Parent Sample ID: S49713.01

Run in Batch: COND230620-W1, Run Date: 06/20/2023 09:33, Prep Date: 06/20/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
Conductivity		0.3	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: PHL230616-W1

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

Blank (BLK)

Lab Sample ID: PHL230616-W1.LRB1

Run in Batch: PHL230616-W1, Run Date: 06/16/2023 16:00, Prep Date: 06/16/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Phenols		ND	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHL230616-W1.LCS1

Run in Batch: PHL230616-W1, Run Date: 06/16/2023 16:04, Prep Date: 06/16/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Phenols		96	90	110

Matrix Spike (MS)

Lab Sample ID: PHL230616-W1.MS1, Parent Sample ID: S49604.06

Run in Batch: PHL230616-W1, Run Date: 06/16/2023 16:16, Prep Date: 06/16/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Phenols		94	90	110

Duplicate (DUP)

Lab Sample ID: PHL230616-W1.DP1, Parent Sample ID: S49604.06

Run in Batch: PHL230616-W1, Run Date: 06/16/2023 16:14, Prep Date: 06/16/2023, Matrix: Liquid, Dilution: 1.7

Analyte	Flags	RPD	RPD CL
Phenols		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: SFT230614-W1-A

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

Blank (BLK)

Lab Sample ID: SFT230614-W1-A.LRB1

Run in Batch: SFT230614-W1-A, Run Date: 06/14/2023 08:00, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Sulfate		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: SFT230614-W1-A.LCS1

Run in Batch: SFT230614-W1-A, Run Date: 06/14/2023 08:23, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Sulfate		95	90	110

Matrix Spike (MS)

Lab Sample ID: SFT230614-W1-A.MS1, Parent Sample ID: S49713.01

Run in Batch: SFT230614-W1-A, Run Date: 06/14/2023 09:43, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL
Sulfate		100	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: SFT230614-W1-A.MSD1, Parent Sample ID: SFT230614-W1-A.MS1

Run in Batch: SFT230614-W1-A, Run Date: 06/14/2023 09:53, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sulfate		101	80	120	1	15

Duplicate (DUP)

Lab Sample ID: SFT230614-W1-A.DP1, Parent Sample ID: S49713.01

Run in Batch: SFT230614-W1-A, Run Date: 06/14/2023 09:33, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 10

Analyte	Flags	RPD	RPD CL
Sulfate		1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: TOC230615-W1

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

Blank (BLK)

Lab Sample ID: TOC230615-W1.LRB1

Run in Batch: TOC230615-W1, Run Date: 06/15/2023 12:27, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
TOC		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TOC230615-W1.LCS1

Run in Batch: TOC230615-W1, Run Date: 06/15/2023 13:03, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
TOC		99	90	110

Matrix Spike (MS)

Lab Sample ID: TOC230615-W1.MS1, Parent Sample ID: S49604.02

Run in Batch: TOC230615-W1, Run Date: 06/15/2023 14:40, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
TOC		99	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: TOC230615-W1.MSD1, Parent Sample ID: TOC230615-W1.MS1

Run in Batch: TOC230615-W1, Run Date: 06/15/2023 14:56, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
TOC		99	80	120	0	15

Duplicate (DUP)

Lab Sample ID: TOC230615-W1.DP1, Parent Sample ID: S49604.02

Run in Batch: TOC230615-W1, Run Date: 06/15/2023 14:24, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
TOC		<1	15

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-061423-1

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

Blank (BLK)

Lab Sample ID: MT4-23-0614A.020.LRB

Run in Batch: MT4-23-0614A, Run Date: 06/14/2023 12:02, Prep Date: 06/14/2023, 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: MT4-23-0614A.019.LCS

Run in Batch: MT4-23-0614A, Run Date: 06/14/2023 11:56, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Chromium		99	85	115
Copper		102	85	115
Iron		108	85	115
Manganese		100	85	115
Nickel		99	85	115
Zinc		100	85	115

Matrix Spike (MS)

Lab Sample ID: MT4-23-0614A.040.MS, Parent Sample ID: S49713.05

Run in Batch: MT4-23-0614A, Run Date: 06/14/2023 12:43, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Chromium		104	75	125
Copper		98	75	125
Iron		100	75	125
Manganese		104	75	125
Nickel		102	75	125
Zinc		101	75	125

Matrix Spike (MS)

Lab Sample ID: MT4-23-0614A.059.MS, Parent Sample ID: S49722.04

Run in Batch: MT4-23-0614A, Run Date: 06/14/2023 13:17, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Chromium		98	75	125
Copper		92	75	125
Manganese		84	75	125
Nickel		95	75	125
Zinc		95	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-23-0614A.041.MSD, Parent Sample ID: MT4-23-0614A.040.MS

Run in Batch: MT4-23-0614A, Run Date: 06/14/2023 12:44, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chromium		102	75	125	3	20
Copper		98	75	125	0	20
Iron		96	75	125	0	20

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-061423-1 (continued)

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

Matrix Spike Duplicate (MSD) (continued)

Lab Sample ID: MT4-23-0614A.041.MSD, Parent Sample ID: MT4-23-0614A.040.MS

Run in Batch: MT4-23-0614A, Run Date: 06/14/2023 12:44, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Manganese		101	75	125	2	20
Nickel		101	75	125	1	20
Zinc		100	75	125	1	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-23-0614A.060.MSD, Parent Sample ID: MT4-23-0614A.059.MS

Run in Batch: MT4-23-0614A, Run Date: 06/14/2023 13:19, Prep Date: 06/14/2023, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Chromium		96	75	125	2	20
Copper		91	75	125	1	20
Manganese		88	75	125	1	20
Nickel		95	75	125	0	20
Zinc		93	75	125	2	20

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-061523-5

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

Blank (BLK)

Lab Sample ID: MT5-23-0615B.014.LRB

Run in Batch: MT5-23-0615B, Run Date: 06/15/2023 14:28, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Sodium		ND	0.05	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: MT5-23-0615B.013.LCS

Run in Batch: MT5-23-0615B, Run Date: 06/15/2023 14:27, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Sodium		95	85	115

Matrix Spike (MS)

Lab Sample ID: MT5-23-0615B.024.MS, Parent Sample ID: S49713.05

Run in Batch: MT5-23-0615B, Run Date: 06/15/2023 14:45, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL
Sodium		91	75	125

Matrix Spike (MS)

Lab Sample ID: MT5-23-0615B.037.MS, Parent Sample ID: S49793.06

Run in Batch: MT5-23-0615B, Run Date: 06/15/2023 15:05, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL
Sodium		82	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT5-23-0615B.025.MSD, Parent Sample ID: MT5-23-0615B.024.MS

Run in Batch: MT5-23-0615B, Run Date: 06/15/2023 14:47, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sodium		90	75	125	1	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT5-23-0615B.038.MSD, Parent Sample ID: MT5-23-0615B.037.MS

Run in Batch: MT5-23-0615B, Run Date: 06/15/2023 15:06, Prep Date: 06/15/2023, Matrix: Liquid, Dilution: 50

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Sodium		103	75	125	3	20

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF230615W2

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

Blank (BLK)

Lab Sample ID: 230615A7.BLKW15A

Run in Batch: 230615A7, Run Date: 06/15/2023 14:07, Prep Date: 06/15/2023, 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: VF230615W2 (continued)

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

Blank (BLK) (continued)

Lab Sample ID: 230615A7.BLKW15A

Run in Batch: 230615A7, Run Date: 06/15/2023 14:07, Prep Date: 06/15/2023, 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: 230615A7.LCSW15A

Run in Batch: 230615A7, Run Date: 06/15/2023 12:33, Prep Date: 06/15/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Diethyl ether		119.1	67.4	121.2
Acetone		109.0	29.9	161.5
Methyl iodide	*	116.8	68.8	116.4
Carbon disulfide		123.7	63.8	137.4
tert-Methyl butyl ether (MTBE)		121.0	73.2	122.4
Acrylonitrile		121.7	69.9	128.9
2-Butanone (MEK)		116.2	44.0	134.4
Dichlorodifluoromethane		101.7	10.0	222.8
Chloromethane		114.0	23.8	166.5
Vinyl chloride		114.5	43.5	149.1
Bromomethane		113.7	56.8	151.3
Chloroethane		112.5	53.4	149.4
Trichlorofluoromethane		109.6	59.7	151.8
1,1-Dichloroethene		111.1	69.6	139.4
Methylene chloride		112.7	73.3	121.1
trans-1,2-Dichloroethene		114.9	73.6	129.3
1,1-Dichloroethane		115.0	71.5	126.2
cis-1,2-Dichloroethene		115.4	76.6	122.1
Tetrahydrofuran		108.7	59.0	117.9
Chloroform		114.1	78.4	124.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF230615W2 (continued)

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

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 230615A7.LCSW15A

Run in Batch: 230615A7, Run Date: 06/15/2023 12:33, Prep Date: 06/15/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Bromochloromethane		115.0	78.2	120.8
1,1,1-Trichloroethane		117.2	79.4	130.9
4-Methyl-2-pentanone (MIBK)		116.5	71.6	125.2
2-Hexanone		116.8	55.4	136.9
Carbon tetrachloride		110.4	72.6	133.0
Benzene		111.7	79.9	124.9
1,2-Dichloroethane		109.3	76.0	126.3
Trichloroethene		111.1	79.7	124.2
1,2-Dichloropropane		113.3	78.6	126.4
Bromodichloromethane		123.4	80.4	128.2
Dibromomethane		115.6	76.9	122.1
cis-1,3-Dichloropropene		114.2	79.8	129.9
Toluene		111.6	79.8	124.5
trans-1,3-Dichloropropene		115.4	74.0	131.3
1,1,2-Trichloroethane		115.4	78.7	123.1
Tetrachloroethene		109.6	74.5	124.5
trans-1,4-Dichloro-2-butene		120.1	68.6	135.4
Dibromochloromethane		116.7	74.6	127.2
1,2-Dibromoethane		117.1	70.3	133.7
Chlorobenzene		111.0	79.2	122.7
1,1,1,2-Tetrachloroethane		114.3	80.3	128.2
Ethylbenzene		110.6	79.5	129.1
p,m-Xylene		111.4	79.4	132.2
o-Xylene		113.9	80.2	131.0
Styrene		114.9	69.5	126.7
Isopropylbenzene		112.0	74.4	121.5
Bromoform		121.7	69.4	128.0
1,1,2,2-Tetrachloroethane		116.4	79.8	126.3
1,2,3-Trichloropropane		112.7	78.3	138.8
n-Propylbenzene		112.8	82.0	130.7
Bromobenzene		111.0	78.7	124.6
1,3,5-Trimethylbenzene		112.3	81.3	128.9
tert-Butylbenzene		111.3	80.7	128.9
1,2,4-Trimethylbenzene		113.1	81.4	130.8
sec-Butylbenzene		113.5	77.4	129.8
p-Isopropyltoluene		110.0	79.8	137.5
1,3-Dichlorobenzene		112.8	77.0	131.3
1,4-Dichlorobenzene		111.3	20.7	137.7
1,2-Dichlorobenzene		112.5	10.0	166.2
1,2,3-Trimethylbenzene		114.0	76.3	124.2
n-Butylbenzene		116.0	80.0	133.3
Hexachloroethane		121.3	23.8	138.1
1,2-Dibromo-3-chloropropane		121.2	21.2	189.4
1,2,4-Trichlorobenzene		119.6	27.4	143.4
1,2,3-Trichlorobenzene		118.5	75.4	131.4
Naphthalene		122.3	32.9	135.8

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF230615W2 (continued)

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

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 230615A7.LCSW15A

Run in Batch: 230615A7, Run Date: 06/15/2023 12:33, Prep Date: 06/15/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Methylnaphthalene		117.2	25.5	165.5

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 230615A7.LCSDW15A, Parent Sample ID: 230615A7.LCSW15A

Run in Batch: 230615A7, Run Date: 06/15/2023 12:56, Prep Date: 06/15/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Diethyl ether		111.8	67.4	121.2	6.3	30.0
Acetone		105.7	29.9	161.5	3.1	30.0
Methyl iodide		111.3	68.8	116.4	4.8	30.0
Carbon disulfide		119.9	63.8	137.4	3.1	30.0
tert-Methyl butyl ether (MTBE)		114.4	73.2	122.4	5.7	30.0
Acrylonitrile		119.2	69.9	128.9	2.1	30.0
2-Butanone (MEK)		110.8	44.0	134.4	4.8	30.0
Dichlorodifluoromethane		97.5	10.0	222.8	4.2	30.0
Chloromethane		109.0	23.8	166.5	4.4	30.0
Vinyl chloride		109.3	43.5	149.1	4.7	30.0
Bromomethane		108.5	56.8	151.3	4.7	30.0
Chloroethane		106.5	53.4	149.4	5.5	30.0
Trichlorofluoromethane		102.7	59.7	151.8	6.5	30.0
1,1-Dichloroethene		106.6	69.6	139.4	4.1	30.0
Methylene chloride		105.2	73.3	121.1	7.0	30.0
trans-1,2-Dichloroethene		110.1	73.6	129.3	4.2	30.0
1,1-Dichloroethane		108.9	71.5	126.2	5.4	30.0
cis-1,2-Dichloroethene		109.7	76.6	122.1	5.0	30.0
Tetrahydrofuran		106.6	59.0	117.9	2.0	30.0
Chloroform		108.5	78.4	124.0	5.0	30.0
Bromochloromethane		109.7	78.2	120.8	4.8	30.0
1,1,1-Trichloroethane		112.4	79.4	130.9	4.2	30.0
4-Methyl-2-pentanone (MIBK)		113.5	71.6	125.2	2.6	30.0
2-Hexanone		113.5	55.4	136.9	2.8	30.0
Carbon tetrachloride		107.4	72.6	133.0	2.7	30.0
Benzene		106.1	79.9	124.9	5.2	30.0
1,2-Dichloroethane		105.4	76.0	126.3	3.6	30.0
Trichloroethene		107.4	79.7	124.2	3.4	30.0
1,2-Dichloropropane		108.1	78.6	126.4	4.7	30.0
Bromodichloromethane		117.9	80.4	128.2	4.5	30.0
Dibromomethane		110.3	76.9	122.1	4.8	30.0
cis-1,3-Dichloropropene		109.2	79.8	129.9	4.5	30.0
Toluene		107.1	79.8	124.5	4.2	30.0
trans-1,3-Dichloropropene		111.3	74.0	131.3	3.6	30.0
1,1,2-Trichloroethane		110.7	78.7	123.1	4.1	30.0
Tetrachloroethene		105.4	74.5	124.5	3.9	30.0
trans-1,4-Dichloro-2-butene		115.6	68.6	135.4	3.8	30.0
Dibromochloromethane		112.7	74.6	127.2	3.5	30.0
1,2-Dibromoethane		115.3	70.3	133.7	1.6	30.0
Chlorobenzene		107.2	79.2	122.7	3.5	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VF230615W2 (continued)

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

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: 230615A7.LCSDW15A, Parent Sample ID: 230615A7.LCSW15A

Run in Batch: 230615A7, Run Date: 06/15/2023 12:56, Prep Date: 06/15/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,1,2-Tetrachloroethane		110.1	80.3	128.2	3.8	30.0
Ethylbenzene		108.6	79.5	129.1	1.8	30.0
p,m-Xylene		107.1	79.4	132.2	3.9	30.0
o-Xylene		109.8	80.2	131.0	3.7	30.0
Styrene		110.5	69.5	126.7	3.9	30.0
Isopropylbenzene		109.6	74.4	121.5	2.2	30.0
Bromoform		116.5	69.4	128.0	4.3	30.0
1,1,2,2-Tetrachloroethane		114.2	79.8	126.3	1.9	30.0
1,2,3-Trichloropropane		111.3	78.3	138.8	1.3	30.0
n-Propylbenzene		110.0	82.0	130.7	2.5	30.0
Bromobenzene		107.0	78.7	124.6	3.7	30.0
1,3,5-Trimethylbenzene		110.7	81.3	128.9	1.5	30.0
tert-Butylbenzene		108.5	80.7	128.9	2.5	30.0
1,2,4-Trimethylbenzene		111.0	81.4	130.8	1.8	30.0
sec-Butylbenzene		111.6	77.4	129.8	1.7	30.0
p-Isopropyltoluene		107.3	79.8	137.5	2.5	30.0
1,3-Dichlorobenzene		109.1	77.0	131.3	3.3	30.0
1,4-Dichlorobenzene		107.4	20.7	137.7	3.6	30.0
1,2-Dichlorobenzene		109.7	10.0	166.2	2.5	30.0
1,2,3-Trimethylbenzene		110.6	76.3	124.2	3.0	30.0
n-Butylbenzene		113.3	80.0	133.3	2.4	30.0
Hexachloroethane		116.8	23.8	138.1	3.8	30.0
1,2-Dibromo-3-chloropropane		119.1	21.2	189.4	1.8	30.0
1,2,4-Trichlorobenzene		115.9	27.4	143.4	3.1	30.0
1,2,3-Trichlorobenzene		117.8	75.4	131.4	0.6	30.0
Naphthalene		121.0	32.9	135.8	1.0	30.0
2-Methylnaphthalene		116.8	25.5	165.5	0.3	30.0

REPORT TO

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CITY	Ann Arbor	
PHONE NO.	CELL NO.	313-333-0211
E-MAIL ADDRESS	Kevin.Schneider@ramboll.com Clifford.Yantz@ramboll.com	
P.O. NO.	STATE	ZIP CODE
1940006516	MI	48105
QUOTE NO.	TAYF 01	

CHAIN OF CUSTODY RECORD

CONTACT NAME
COMPANY
ADDRESS
CITY
PHONE NO.

INVOICE TO

NAME	ZIP CODE

E-MAIL ADDRESS
 Kevin, sender@Camboll.com
 Clifford, Vantz@Camboll.com

QUOTE NO.

PROJECT NO. NAME	SAMPLER(S) - PLEASE PRINT/SIGN NAME
2007 RACR Coldwater Road	RACR Summer K- LLC

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

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	# OF BOTTLES	MATRIX
	DATE	TIME			

4971301	6/10/33	—	MW-DUF-061223	6w
02	6/10/33	1320	0 215	11

03	01/12/23	0 and	6w
03	01/12/23	0B6 NW-16D	6w

04	6/12/23	1710	B-19AR	6w 11
05	11/12/23	1365	B-20D	6w 11

06	6/13/23	1240	Equipment Blank-061323	QC 10

0/ 06/1323	11p Black - 06/323	QC 1

[illegible]

~~CP~~

RELINQUISHED BY:	☒ Sampler	DATE	TIME
		2/1/88	1

SIGNATURE/Organization	DATE	TIME
RECEIVED BY:	6/19/23	0
SIGNATURE/Organization	6/19/23	0:25

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

SIGNATURE/ORGANIZATION

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

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.:
E-MAIL ADDRESS: results@meritlabs.com

CHAIN OF CUSTODY RECORD

CONTACT NAME: Julie Teague
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

INVOICE TO

CONTACT NAME: Julie Teague
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	SAMPLER(S) - PLEASE PRINT/SIGN NAME	TURNAROUND TIME REQUIRED										DELIVERABLES REQUIRED	STANDARD	OTHER
		1 DAY	2 DAYS	3 DAYS	LEVEL I	LEVEL II	LEVEL III	LEVEL IV	EDD	OTHER				
49713														
MATRIX CODE	GW=GROUNDWATER SL=SLUDGE WW=WASTEWATER DW=DRINKING WATER O=OIL S=SOIL WP=WASTE A=AIR													
YEAR														
DATE														
TIME														
IDENTIFICATION-DESCRIPTION														
SAMPLE TAG														
# OF BOTTLES														
MATRIX														
OTHER PRESERVATIVES														
H ₂ O ₂														
HNO ₃														
H ₂ SO ₄														
NaOH														
MeOH														
OTHER														
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/ORGANIZATION	DATE	TIME
RECEIVED BY: <td></td> <td></td> <td></td>			
RELINQUISHED BY: <td></td> <td></td> <td></td>			
SIGNATURE/ORGANIZATION <td></td> <td></td> <td></td>			
SEAL NO. <td>YES</td> <td>NO</td> <td>INITIALS</td>	YES	NO	INITIALS
SEAL NO. <td>YES</td> <td>NO</td> <td>INITIALS</td>	YES	NO	INITIALS
NOTES: <td colspan="3">TEMP. ON ARRIVAL</td>	TEMP. ON ARRIVAL		

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



Analytical Laboratory Report

Report ID: S50736.01(01)
Generated on 07/14/2023

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): S50736.01
Project: RACER Coldwater Road
Collected Date(s): 07/10/2023
Submitted Date/Time: 07/10/2023 15:07
Sampled by: Kevin Schneider
P.O. #: 1940006516 TASK 001

Table of Contents

Cover Page (Page 1)
General Report Notes (Page 2)
Report Narrative (Page 2)
Laboratory Certifications (Page 3)
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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
E200.8	EPA Method 200.8 Revision 5.4
SW3015A	SW 846 Method 3015A Revision 1 February 2007



Analytical Laboratory Report

Sample Summary (1 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S50736.01	B-28 Resample	Groundwater	07/10/23 13:22



Analytical Laboratory Report

Lab Sample ID: S50736.01

Sample Tag: B-28 Resample

Collected Date/Time: 07/10/2023 13:22

Matrix: Groundwater

COC Reference: 155525

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	12.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3015A	07/14/23 11:00	CCM	

Metals

Method: E200.8, Run Date: 07/14/23 13:34, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Nickel, Dissolved	Not detected	0.005		mg/L	5	7440-02-0	

Merit Laboratories Login Checklist

Lab Set ID:S50736

Client:RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

Submitted:07/10/2023 15:07 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. ☐ Yes ☒ No ☐ N/A	Samples are received at 4C +/- 2C	Thermometer # IR 12.2
02. ☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun	
03. ☐ Yes ☒ No ☐ N/A	Samples shipped	
04. ☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box	
05. ☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody		
06. ☒ Yes ☐ No ☐ N/A	COC adequately filled out	
07. ☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab	
08. ☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC	
09. ☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontracted to:	
Preservation		
10. ☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation	
11. ☒ Yes ☐ No ☐ N/A	Completed pH checks on preserved samples? (no VOAs)	
12. ☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions		
13. ☒ Yes ☐ No ☐ N/A	All bottles intact	
14. ☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used	
15. ☒ Yes ☐ No ☐ N/A	Merit bottles used	
16. ☒ Yes ☐ No ☐ N/A	Sufficient sample volume received	
17. ☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration	
18. ☒ Yes ☐ No ☐ N/A	Samples submitted within holding time	
19. ☐ Yes ☐ No ☒ 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: S50736 Submitted: 07/10/2023 15:07

Client: RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

Initial Preservation Check: 07/10/2023 15:33 MMC

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
S50736.01	125ml Plastic HNO3	<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

155525

REPORT TO

CONTACT NAME	Clifford Yantz / Kevin Sumner		
COMPANY	Lumball		
ADDRESS	290 Commonwealth Blvd		
CITY	Am Arbor	STATE	MI
PHONE NO.	313-333-0211	ZIP CODE	48105
E-MAIL ADDRESS	clifford.yantz@lumball.com		

CHAIN OF CUSTODY RECORD

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

INVOICE TO

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME	RACER Coldwater Road		
SAMPLER(S) - PLEASE PRINT/SIGN NAME	Kevin Sumner		
TURNAROUND TIME REQUIRED	☐ 1 DAY	☐ 2 DAYS	☒ 3 DAYS
DELIVERABLES REQUIRED	☐ STD	☒ LEVEL II	☐ LEVEL III

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

MATRIX	W-WATER	GW-GROUNDWATER	WW=WASTEWATER	S=SOIL	L=LIQUID	SD=SOLID
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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

Certifications	☐ OHIO VAP	☐ Drinking Water
	☐ DoD	☐ NPDES
Project Locations	☐ Detroit	☐ New York
	☐ Other	
Special Instructions	Sample was field Filtered	

Certifications	☐ OHIO VAP	☐ Drinking Water
	☐ DoD	☐ NPDES
Project Locations	☐ Detroit	☐ New York
	☐ Other	
Special Instructions	Sample was field Filtered	

Certifications	☐ OHIO VAP	☐ Drinking Water
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Certifications	☐ OHIO VAP	☐ Drinking Water
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Certifications	☐ OHIO VAP	☐ Drinking Water
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Project Locations	☐ Detroit	☐ New York
	☐ Other	
Special Instructions	Sample was field Filtered	

Certifications	☐ OHIO VAP	☐ Drinking Water
	☐ DoD	☐ NPDES
Project Locations	☐ Detroit	☐ New York
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Special Instructions	Sample was field Filtered	

Certifications	☐ OHIO VAP	☐ Drinking Water
	☐ DoD	☐ NPDES
Project Locations	☐ Detroit	☐ New York
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Special Instructions	Sample was field Filtered	

Certifications	☐ OHIO VAP	☐ Drinking Water
	☐ DoD	☐ NPDES
Project Locations	☐ Detroit	☐ New York
	☐ Other	
Special Instructions	Sample was field Filtered	

Certifications	☐ OHIO VAP	☐ Drinking Water
	☐ DoD	☐ NPDES
Project Locations	☐ Detroit	☐ New York
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Special Instructions	Sample was field Filtered	

Certifications	☐ OHIO VAP	☐ Drinking Water
	☐ DoD	☐ NPDES
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Special Instructions	Sample was field Filtered	

Certifications	☐ OHIO VAP	☐ Drinking Water
	☐ DoD	☐ NPDES
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Certifications	☐ OHIO VAP	☐ Drinking Water
	☐ DoD	☐ NPDES
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Certifications	☐ OHIO VAP	☐ Drinking Water
	☐ DoD	☐ NPDES
Project Locations	☐ Detroit	☐ New York
	☐ Other	
Special Instructions	Sample was field Filtered	

Certifications	☐ OHIO VAP	☐ Drinking Water
	☐ DoD	☐ NPDES
Project Locations	☐ Detroit	☐ New York
	☐ Other	
Special Instructions	Sample was field Filtered	

RELINQUISHED BY:	Signature	DATE	TIME
SIGNATURE/ORGANIZATION		7/10/23	1507
RECEIVED BY:	Signature	DATE	TIME
SIGNATURE/ORGANIZATION		7/10/23	1507
RELINQUISHED BY:	Signature	DATE	TIME
SIGNATURE/ORGANIZATION		7/10/23	1507
RECEIVED BY:	Signature	DATE	TIME
SIGNATURE/ORGANIZATION		7/10/23	1507

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



Quality Control Report

Report ID: QC-S50736-01
Generated on 07/17/2023

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): S50736.01
Project: RACER Coldwater Road
Submitted Date/Time: 07/10/2023 15:07
Sampled by: Kevin Schneider
P.O. #: 1940006516 TASK 001

QC Report Sections

Cover Page (Page 1)
Analysis Summary (Page 2)
Prep Batch Summary (Page 3)
Batch QC Results (Page 4)

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.

A handwritten signature in black ink that reads "Barbara Ball".

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S50736.01

Sample Tag: B-28 Resample

Collected Date/Time: 07/10/2023 13:22

Matrix: Groundwater

COC Reference: 155525

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Nickel, Dissolved	E200.8	07/14/23 13:34	MT4-23-0714A	MTD-071423-2	No	BLK/LCS/MS/MSD

QC Report - Prep Batch Summary

Metals, Prep Batch ID: MTD-071423-2

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S50736.01	Nickel, Dissolved	E200.8	07/14/23 13:34	MT4-23-0714A

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-071423-2

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

Blank (BLK)

Lab Sample ID: MT4-23-0714A.060.LRB

Run in Batch: MT4-23-0714A, Run Date: 07/14/2023 13:25, Prep Date: 07/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Nickel		ND	0.001	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: MT4-23-0714A.059.LCS

Run in Batch: MT4-23-0714A, Run Date: 07/14/2023 13:21, Prep Date: 07/14/2023, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Nickel		101	85	115

Matrix Spike (MS)

Lab Sample ID: MT4-23-0714A.077.MS, Parent Sample ID: S50612.01

Run in Batch: MT4-23-0714A, Run Date: 07/14/2023 13:59, Prep Date: 07/14/2023, Matrix: Liquid, Dilution: 25

Analyte	Flags	% Rec	LCL	UCL
Nickel		99	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-23-0714A.078.MSD, Parent Sample ID: MT4-23-0714A.077.MS

Run in Batch: MT4-23-0714A, Run Date: 07/14/2023 14:01, Prep Date: 07/14/2023, Matrix: Liquid, Dilution: 25

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Nickel		98	75	125	2	20

REPORT TO

CONTACT NAME	Clifford Yantz / Kevin Sumner		
COMPANY	Cumboll		
ADDRESS	2050 Commonwealth Blvd		
CITY	Am Arbor	STATE	MI
		ZIP CODE	48105
PHONE NO.	CELL NO.	P.O. NO.	TASK #
	313-333-0211	1940006516	
E-MAIL ADDRESS	QUOTE NO.		
clifford.yantz@cumboll.com			

CHAIN OF CUSTODY RECORD

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

INVOICE TO

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME	PA CER Coldwater Road	SAMPLER(S) - PLEASE PRINT/SIGN NAME	Kevin Smarley
TURNAROUND TIME REQUIRED		☐ 1 DAY	☐ 2 DAYS
		☐ 3 DAYS	☒ STANDARD
		☐ OTHER	
DELIVERABLES REQUIRED		☐ STD	☒ LEVEL II
		☐ LEVEL III	☐ LEVEL IV
		☐ EDD	☐ OTHER

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

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG. IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER
	DATE	TIME										
5073601	7/10/23	1320	B-28. Resample	6w1	1							

	Certifications	Project Locations	Special Instructions
X Nickel, Dissolved	☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES		Sample was field Filtered

RELINQUISHED BY: SIGNATURE/Organization	<i>[Signature]</i>	☒ Sampler	DATE 7/10/23	TIME 1507
RECEIVED BY: SIGNATURE/Organization	<i>[Signature]</i>		DATE 7/10/23	TIME 1507
RELINQUISHED BY: SIGNATURE/Organization	<i>[Signature]</i>		DATE	TIME
RECEIVED BY: SIGNATURE/Organization			DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE		TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE		TIME
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL <u>12.2</u>	
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS		

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 2023 semiannual groundwater sampling event conducted in June 2023. 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 except chloride, phenols, diethyl ether, and 1,2-dibromo-3-chloropropane and sodium for equipment blank.
- Laboratory blank and trip blank analysis did not indicate evidence of artifacts from the sampling or analytical process (above reporting limit [RL]) except for chloromethane that was detected in Trip Blank-060823 (20 µg/L) and Trip Blank-061323 (8 µg/L) and was also detected in Equipment Blank-061323 (11 µg/L) associated with this sampling event. Chloromethane was also detected in the associated monitoring well samples for OBG MW-16D (19 µg/L) and MW-DUP-061223 (B-21D) (17 µg/L) but was not detected in the associated laboratory blank samples. Therefore, because the source of chloromethane is not known, the results for OBG MW-16D (19 µg/L) and MW-DUP-061223 (B-21D) (17 µg/L) are considered as estimated values.
- Laboratory quantitation (or reporting) limits (RLs) were within the project required limits for undiluted samples, except for diethyl ether and 1,2-dibromo-3-chloropropane.
- No elevated RLs were reported due to matrix interference. Elevated RLs were only associated with samples requiring dilution prior to analysis.
- No breakthroughs exceeding 25% for TOX samples were reported.

The relative percent difference (RPD) for the duplicate sample results for B-21D and MW-DUP-061223 (B-21D) were within acceptable limits except for TOX, sodium, and chloromethane, which are therefore considered estimated values.

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 except for the chloride and chloromethane results which are treated as estimated values.

APPENDIX E

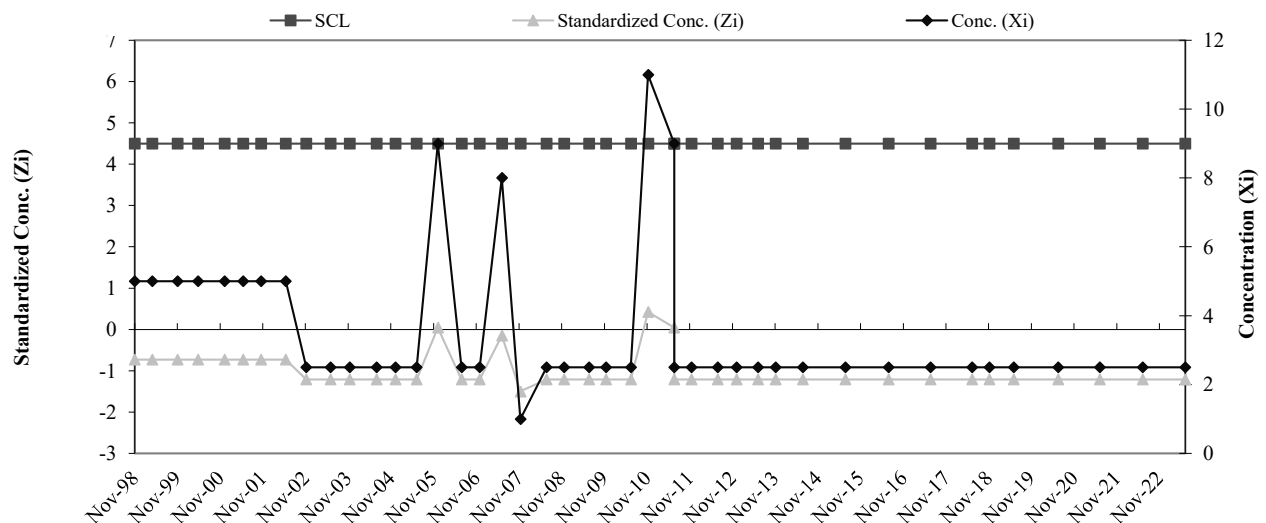
MONITORING WELL CONTROL CHARTS

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	51	Jun-23	4.50	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

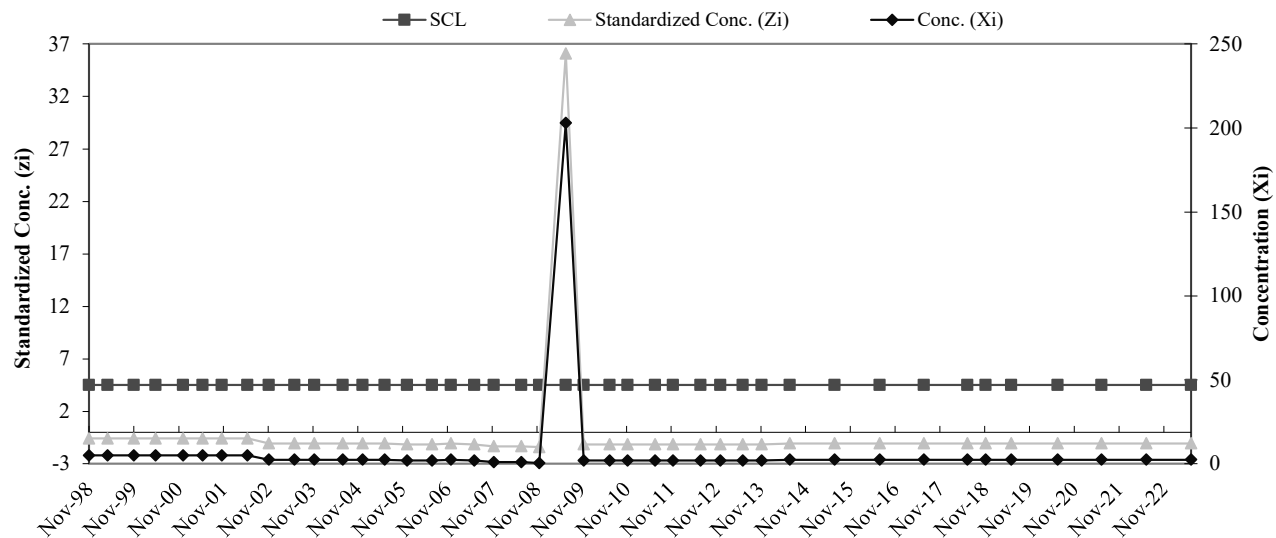


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2D - OBG-MW-16D Cu

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	50	Jun-23	4.5	2.5	-1.04
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

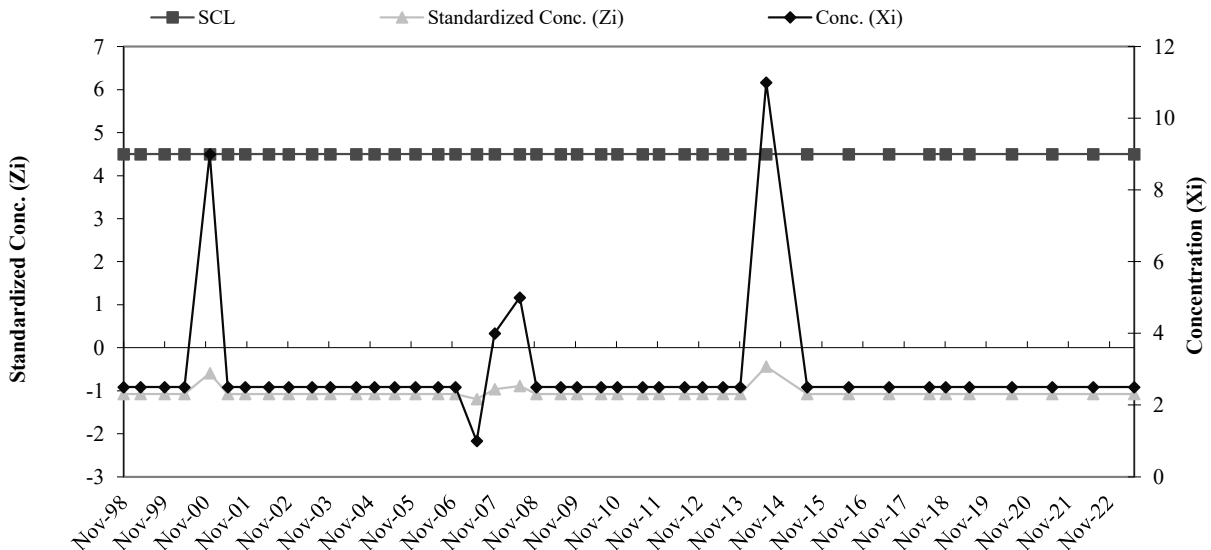


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2D - OBG-MW-16D Ni

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	50	Jun-23	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

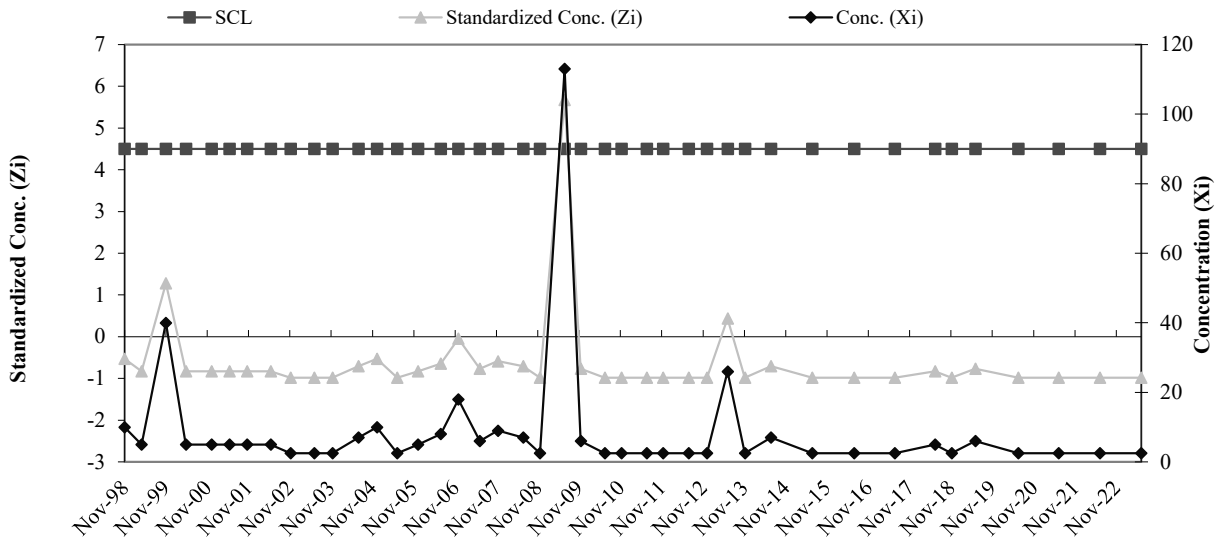


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2D - OBG-MW-16D Zn

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	50	Jun-23	4.5	2.5	-0.98
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

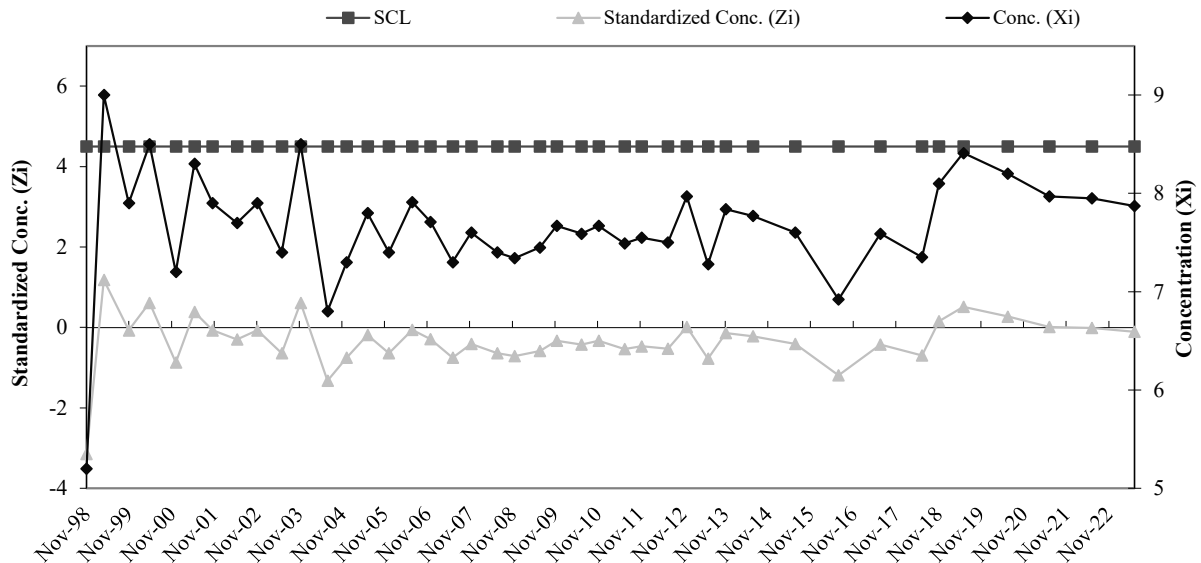


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2D - OBG-MW-16D pH

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	50	Jun-23	4.5	7.4	-0.11
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

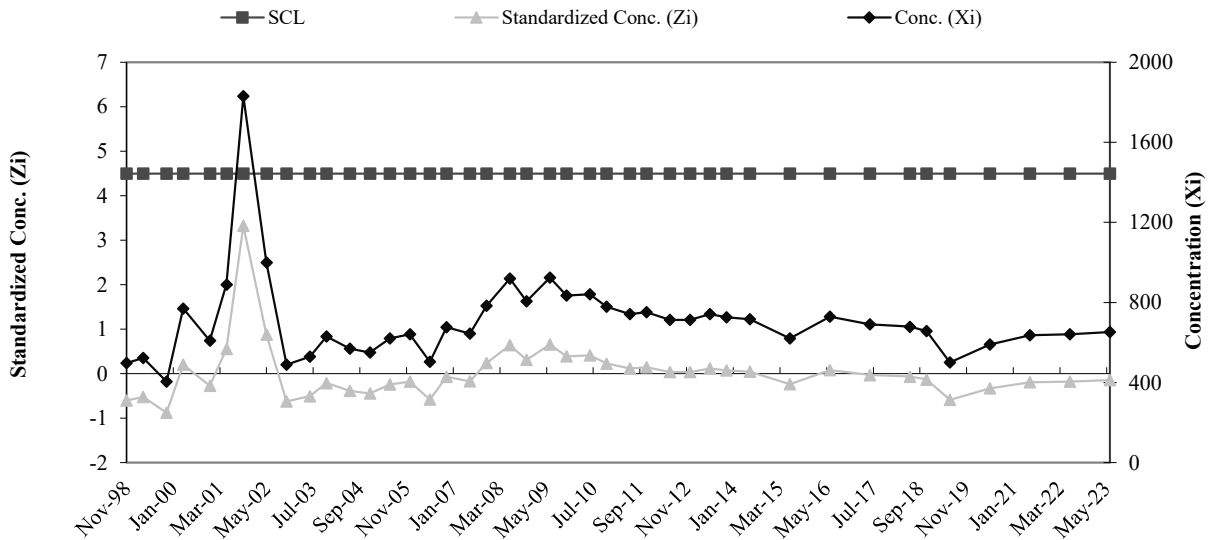


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2D - OBG-MW-16D SpC

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	50	Jun-23	4.5	653.0	-0.14
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

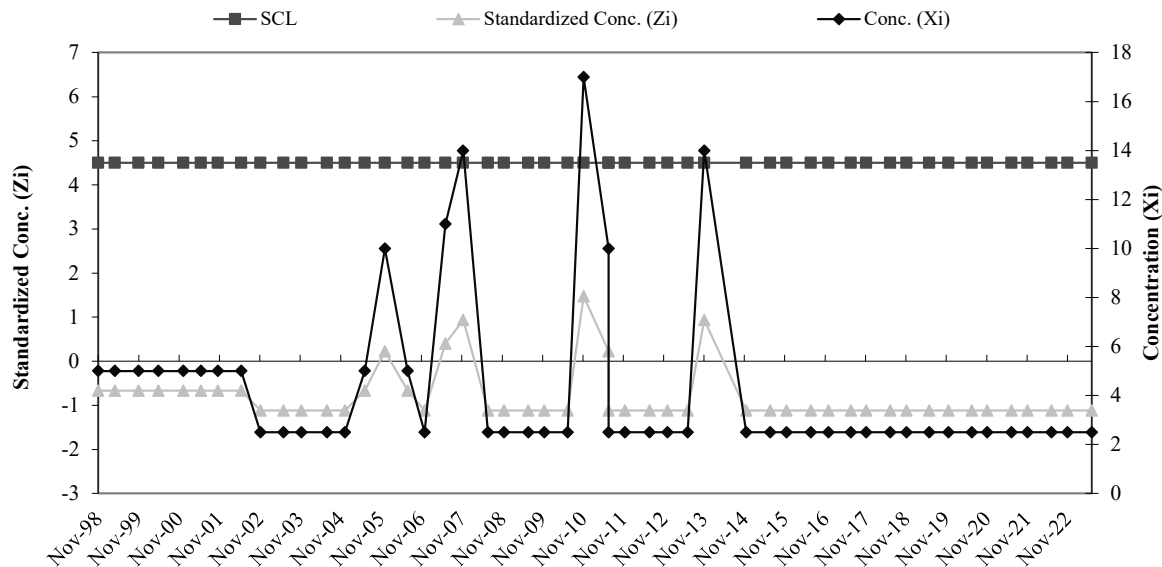


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 Cr

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	57	Nov-22	4.5	2.5	-1.12
31	Nov-09	4.5	2.5	-1.12	58	Jun-23	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



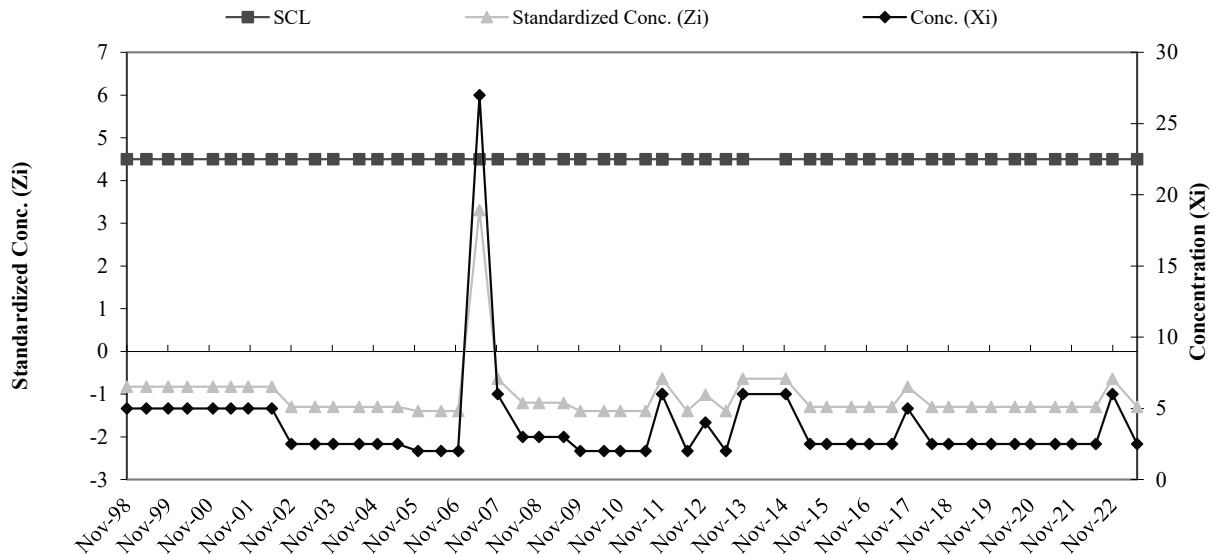
**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART**

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	56	Nov-22	4.5	6	-0.64
31	Nov-09	4.5	2	-1.39	57	Jun-23	4.5	2.5	-1.30
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

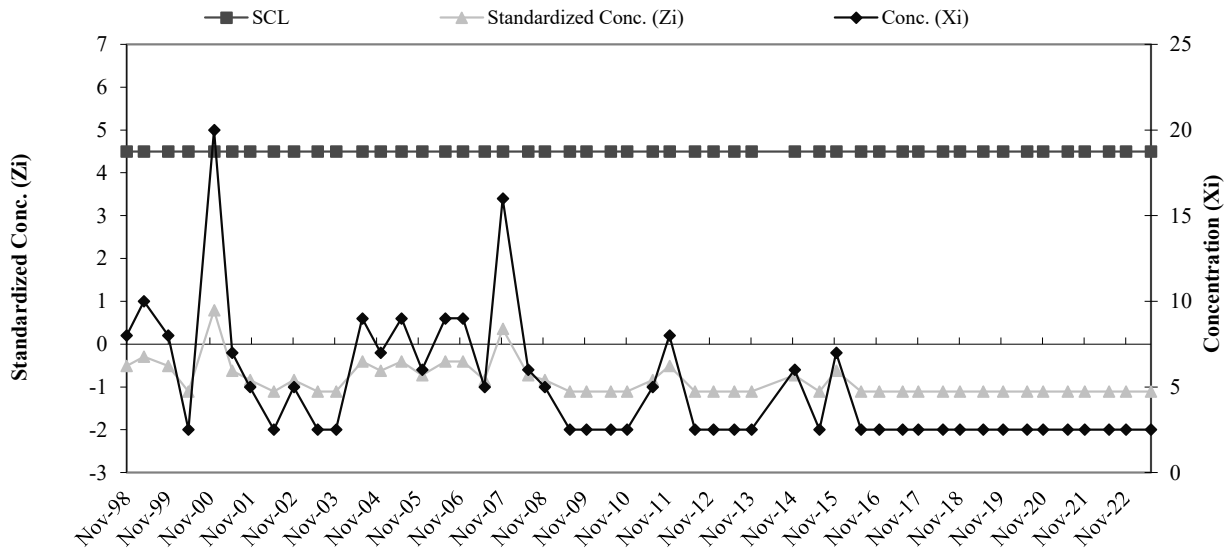


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 Ni

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	56	Nov-22	4.5	2.5	-1.11
31	Nov-09	4.5	2.5	-1.11	57	Jun-23	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

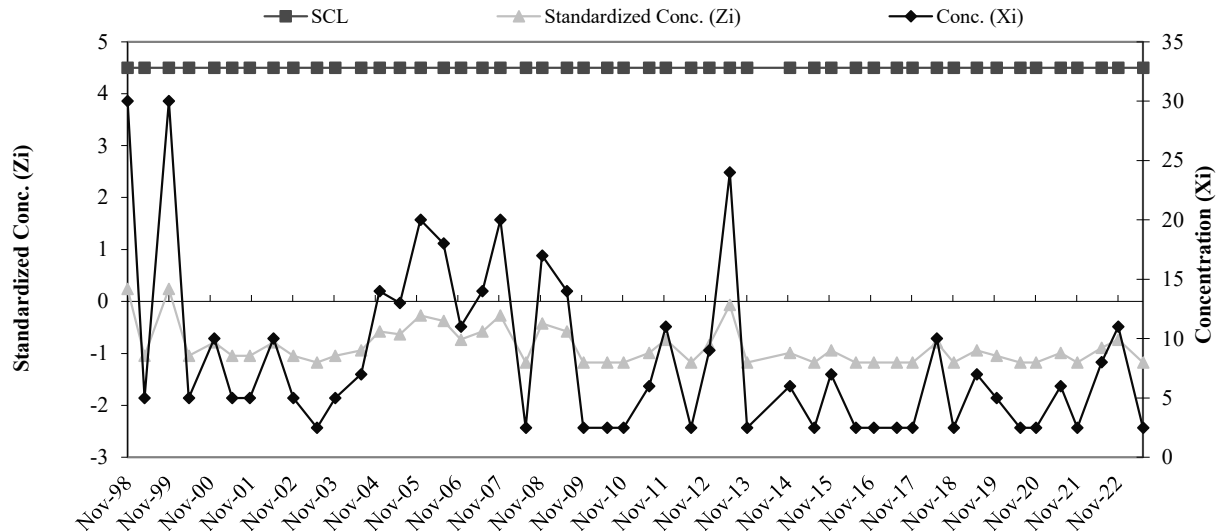


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 Zn

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	56	Nov-22	4.5	11	-0.73
31	Nov-09	4.5	2.5	-1.17	57	Jun-23	4.5	2.5	-1.17
32	Jun-10	4.5	2.5	-1.17			4.5		
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

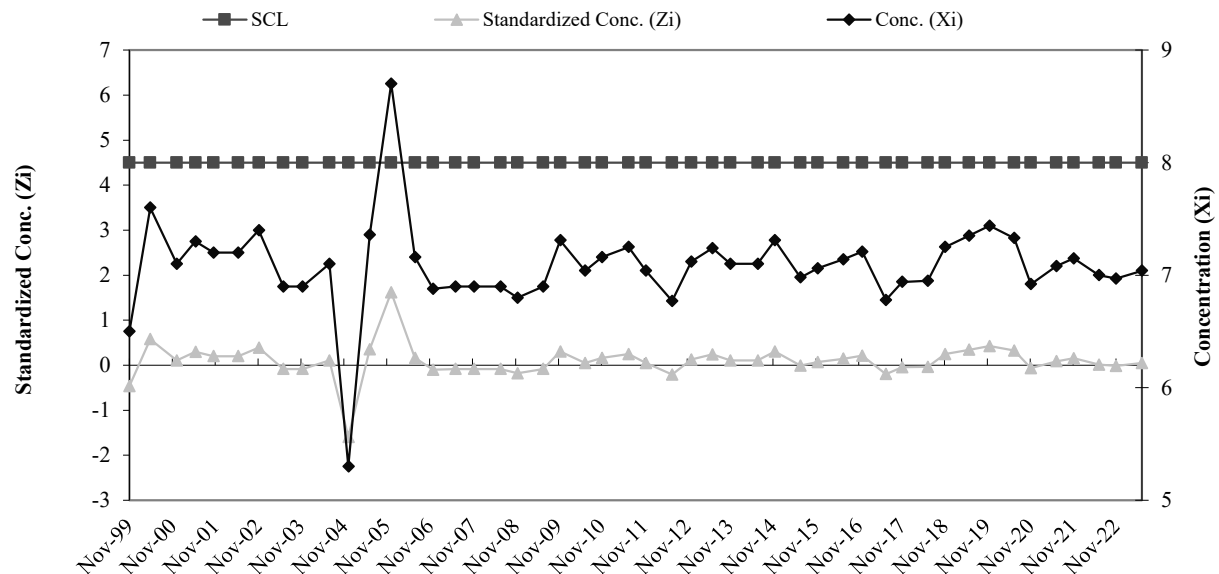


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 pH

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	55	Nov-22	4.5	7.0	-0.02
32	Jun-11	4.5	7.3	0.25	56	Jun-23	4.5	7.0	0.05

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

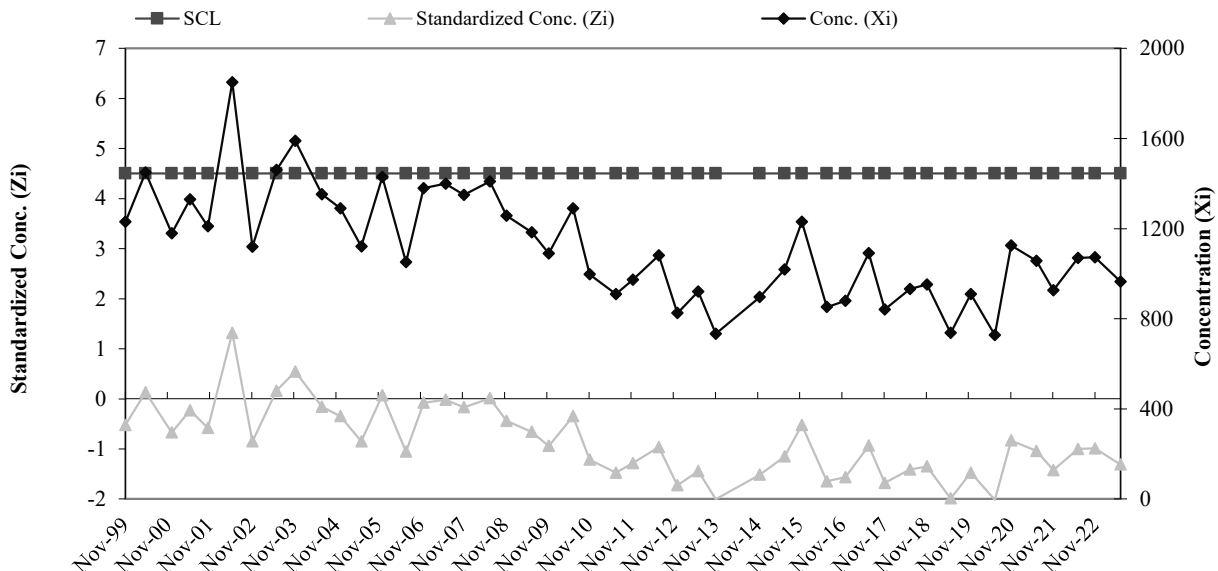


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-7 SpC

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	54	Nov-22	4.5	1073.0	-0.99
31	Nov-10	4.5	997.0	-1.22	55	Jun-23	4.5	965.0	-1.31
32	Jun-11	4.5	910.0	-1.47			4.5		

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

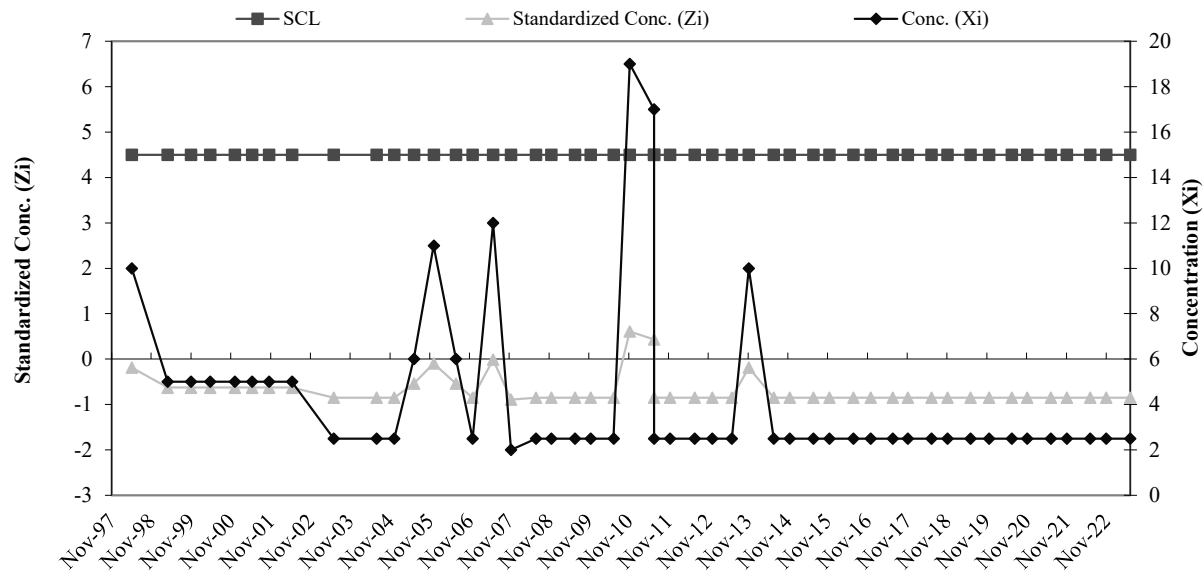


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 Cr

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	56	Nov-22	4.5	2.5	-0.85
32	Jun-11	4.5	17	0.43	57	Jun-23	4.5	2.5	-0.85
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

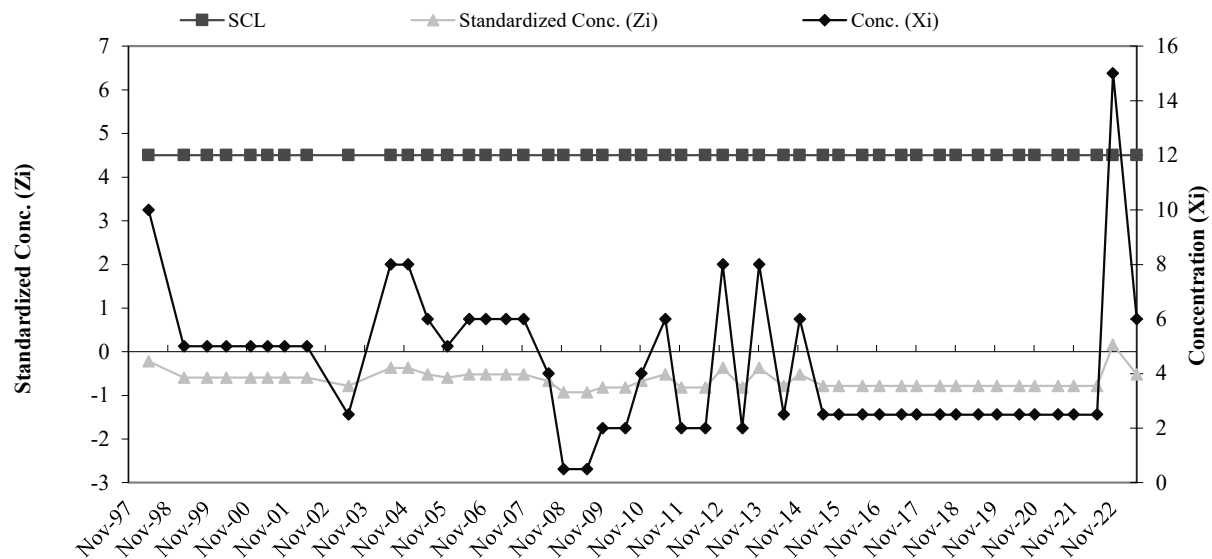


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 Cu

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	55	Nov-22	4.5	15	0.16
32	Jun-11	4.5	6	-0.52	56	Jun-23	4.5	6	-0.52

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

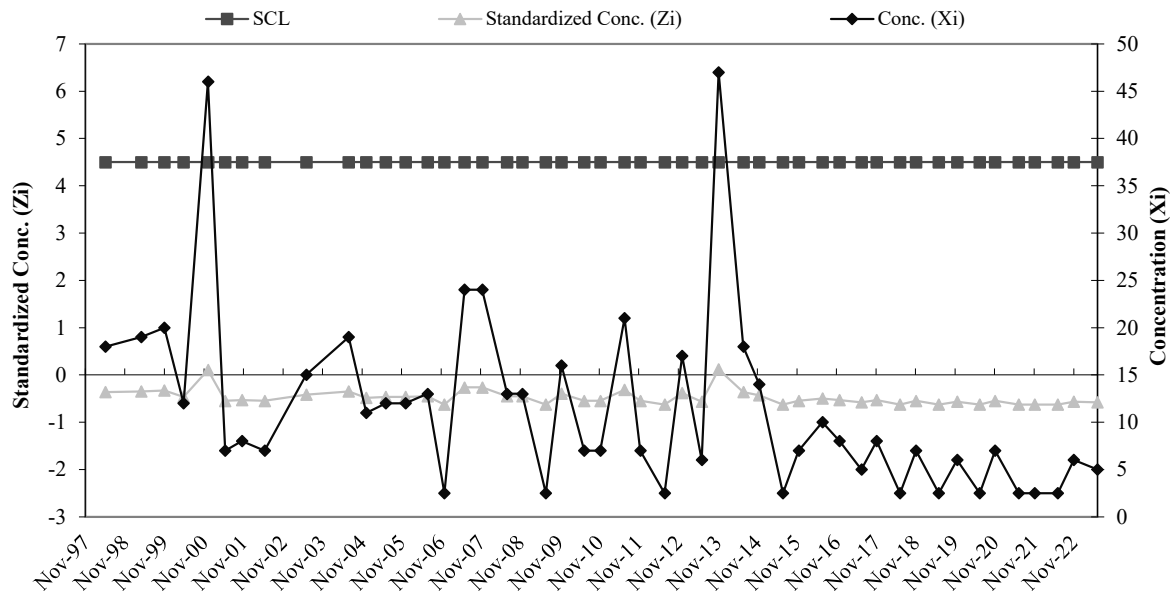


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 Ni

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	55	Nov-22	4.5	6	-0.57
32	Jun-11	4.5	21	-0.31	56	Jun-23	4.5	5	-0.58

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

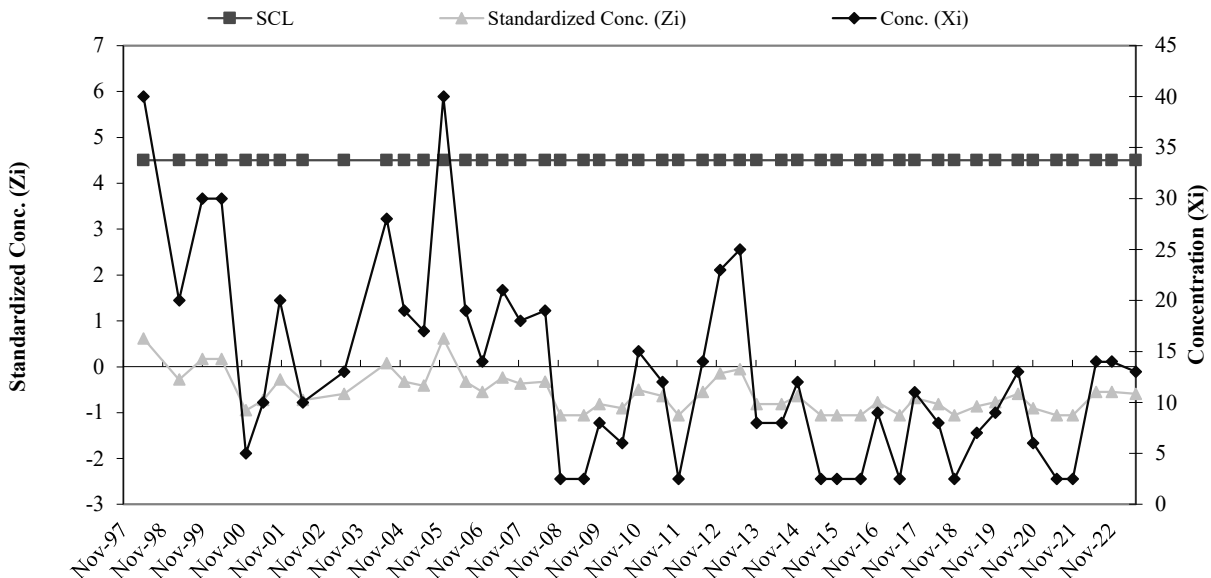


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 Zn

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	55	Nov-22	4.5	14	-0.55
32	Jun-11	4.5	12	-0.64	56	Jun-23	4.5	13	-0.59

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

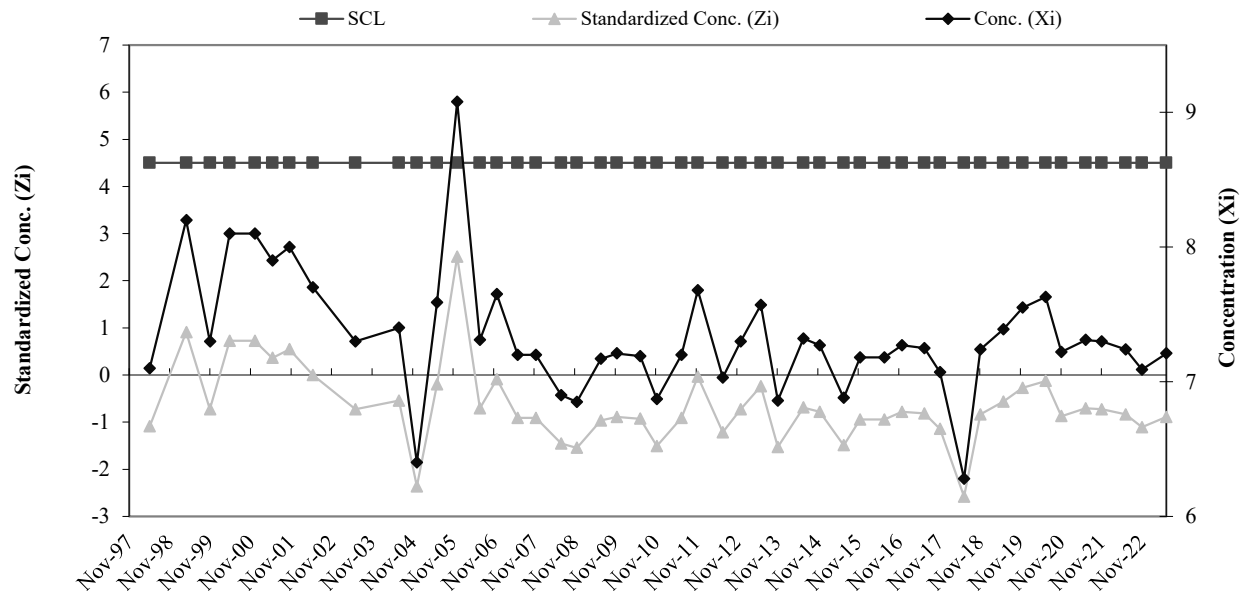


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 pH

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	Jun-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	55	Nov-22	4.5	6.6	-1.11
32	Jun-11	4.5	6.7	-0.91	56	Jun-23	4.5	6.7	-0.89

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

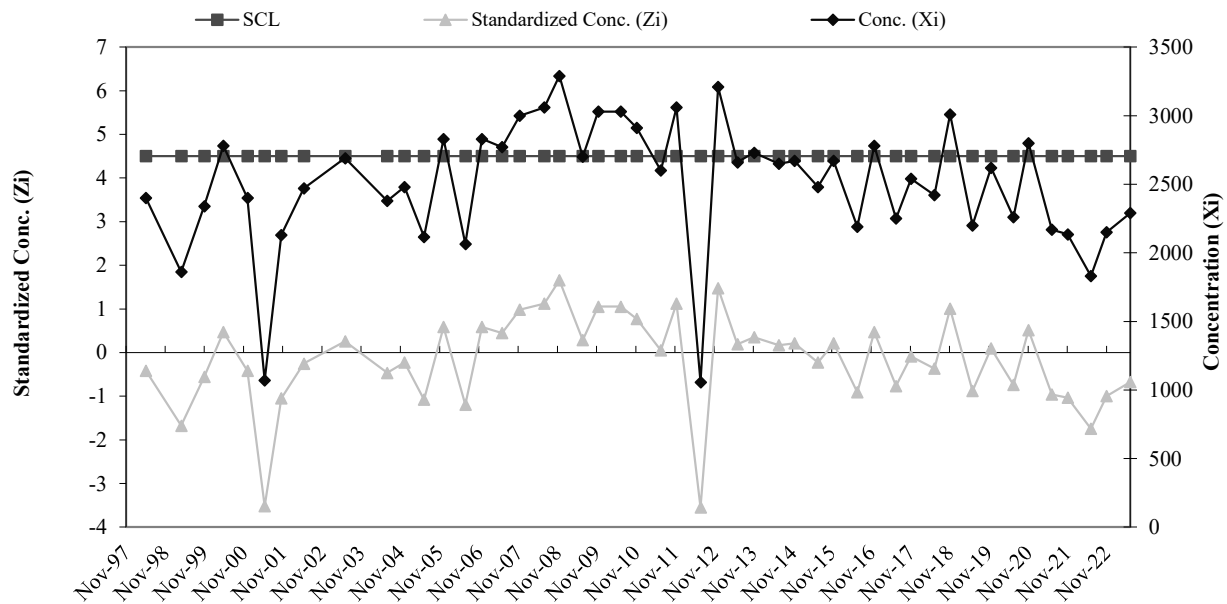


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-9 SpC

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	55	Nov-22	4.5	2150	-1.00
32	Jun-11	4.5	2600	0.05	56	Jun-23	4.5	2290	-0.67

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

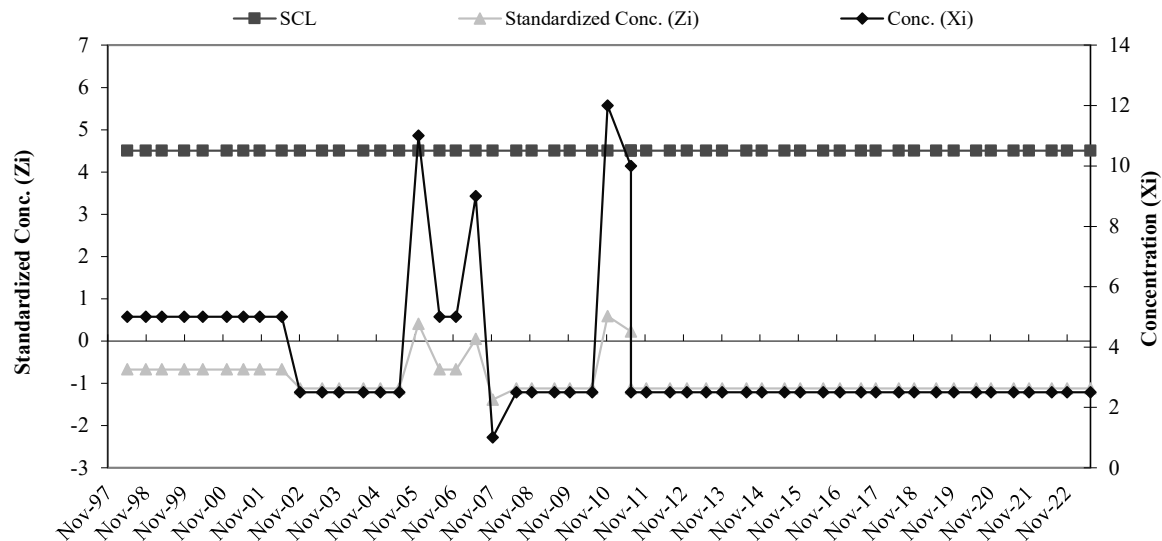


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a Cr

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	59	Nov-22	4.5	2.5	-1.12
32	Nov-09	4.5	2.5	-1.12		Dec-22			
33	Jun-10	4.5	2.5	-1.12		Jun-23	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

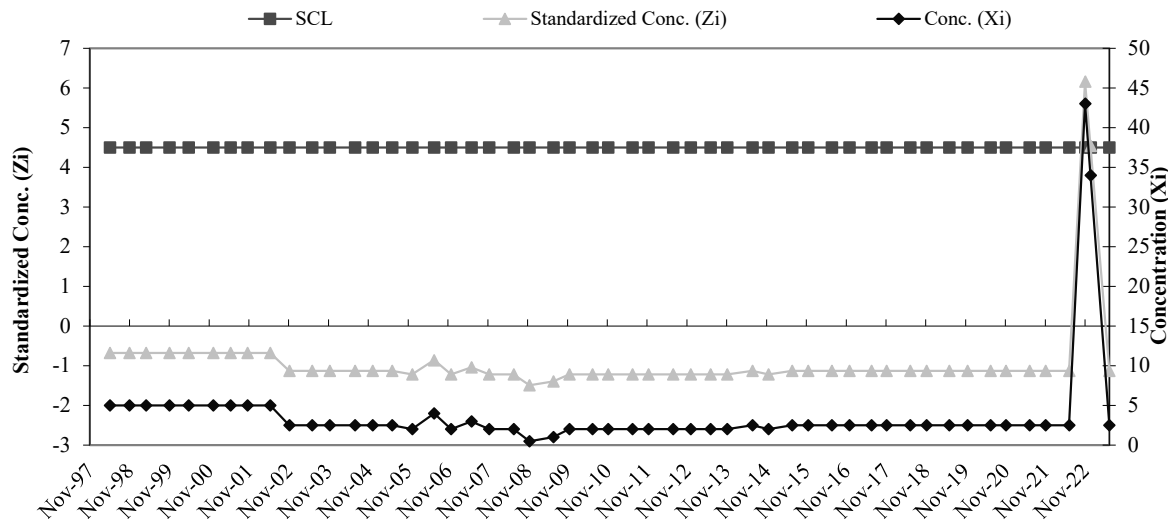


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a Cu

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	8.78	5.56
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	58	Nov-22	4.5	43	6.15
32	Nov-09	4.5	2	-1.22	59	Dec-22	4.5	34	4.54
33	Jun-10	4.5	2	-1.22	60	Jun-23	4.5	2.5	-1.13
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

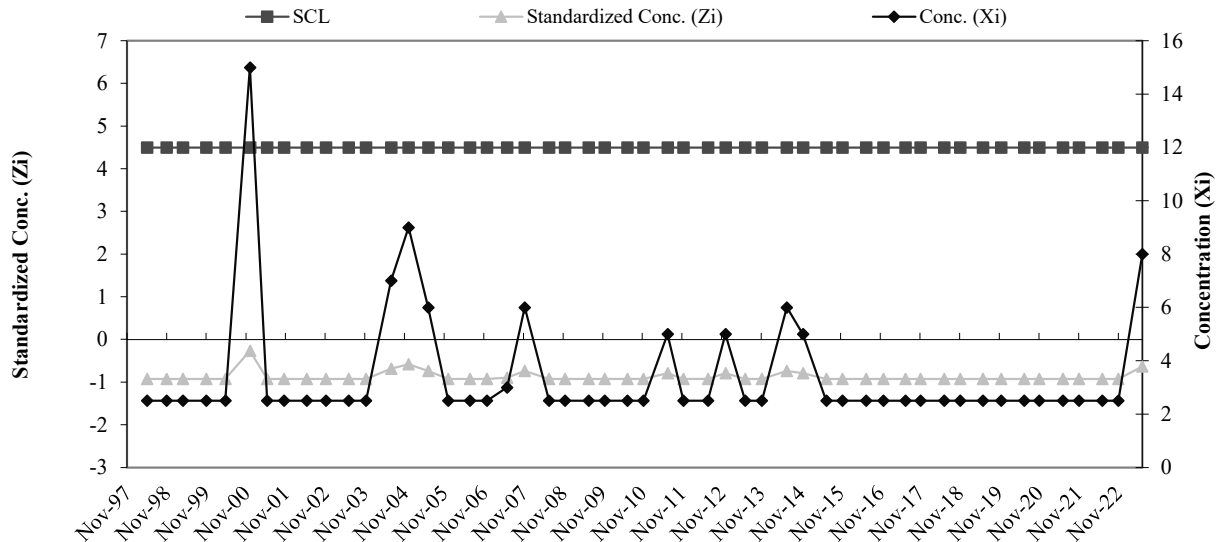


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a Ni

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	58	Nov-22	4.5	2.5	-0.92
32	Nov-09	4.5	2.5	-0.92	59	Jun-23	4.5	8	-0.63
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

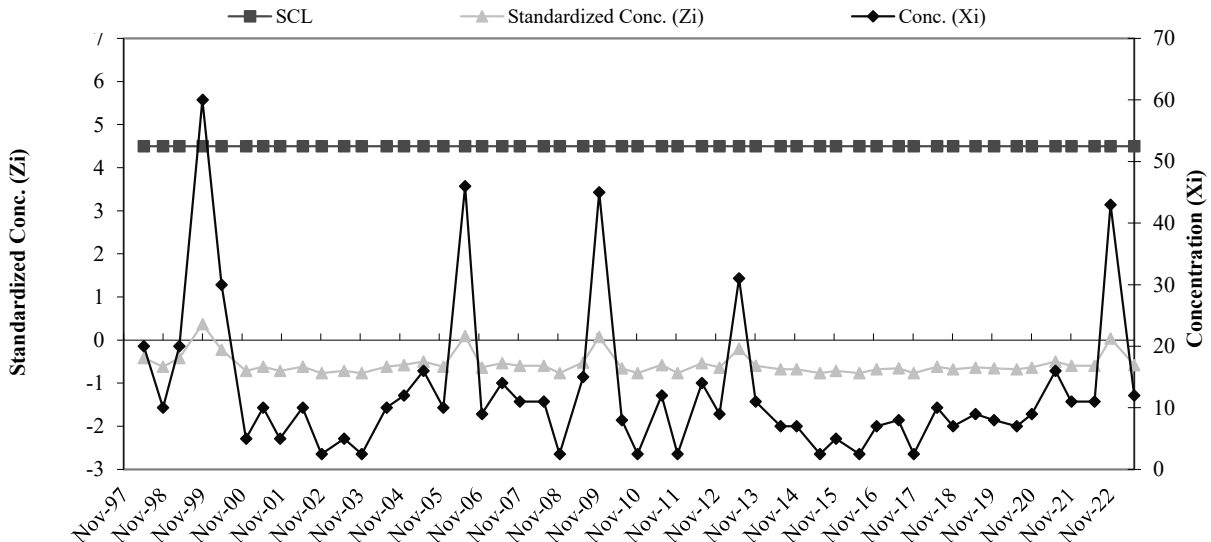


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a Zn

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	58	Nov-22	4.5	43	0.03
32	Nov-09	4.5	45	0.07	59	Jun-23	4.5	12	-0.58
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

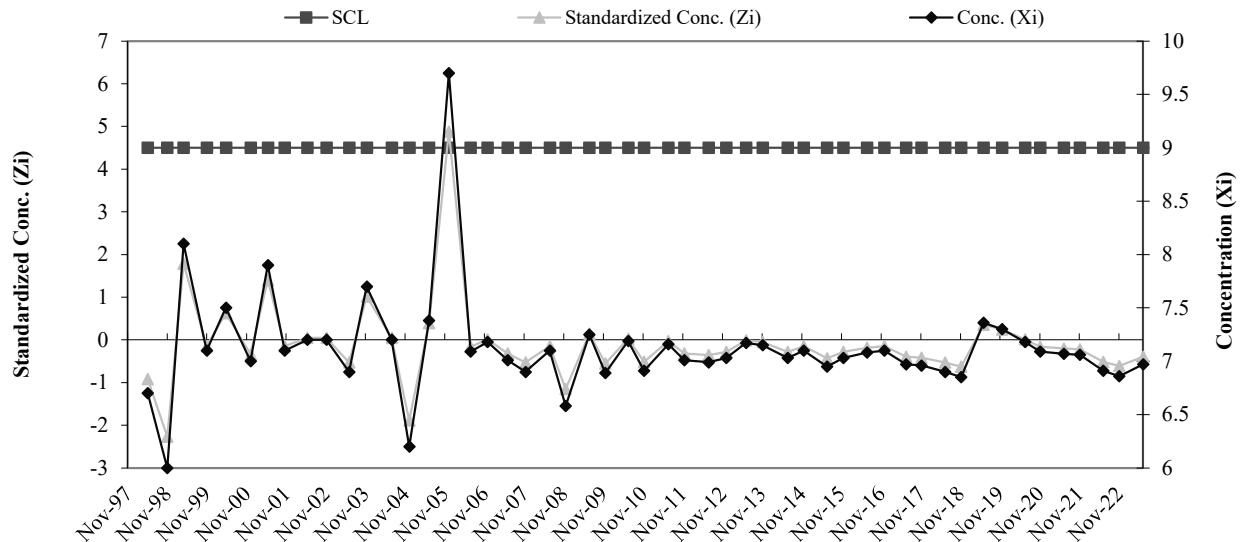


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a pH

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	58	Nov-22	4.5	6.9	-0.61
32	Nov-09	4.5	6.9	-0.55	59	Jun-23	4.5	7.0	-0.40
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

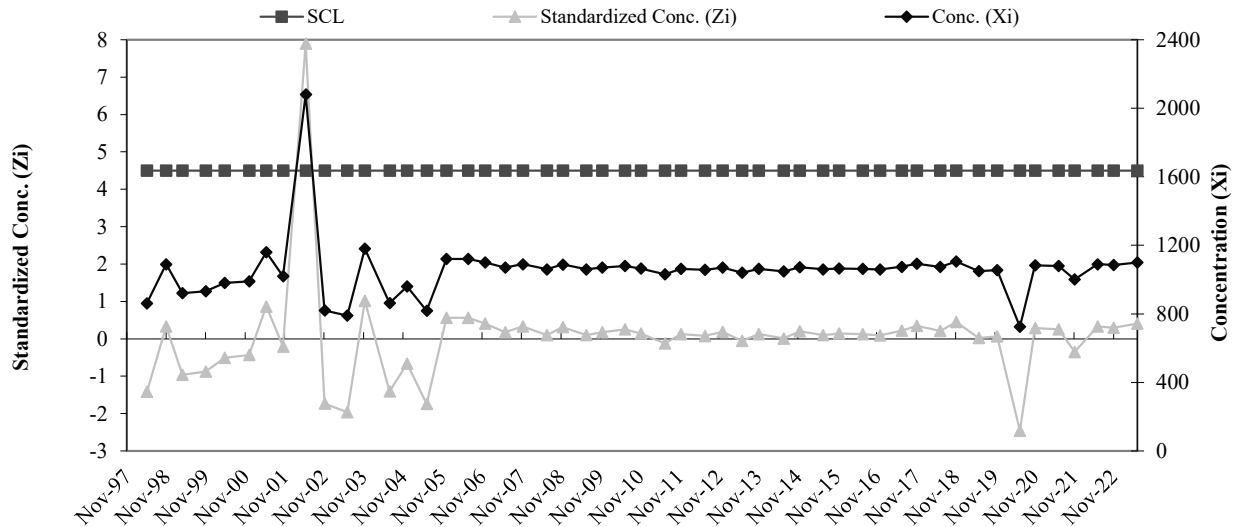


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a SpC

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	58	Nov-22	4.5	1086	0.30
32	Nov-09	4.5	1070	0.18	59	Jun-23	4.5	1100	0.41
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

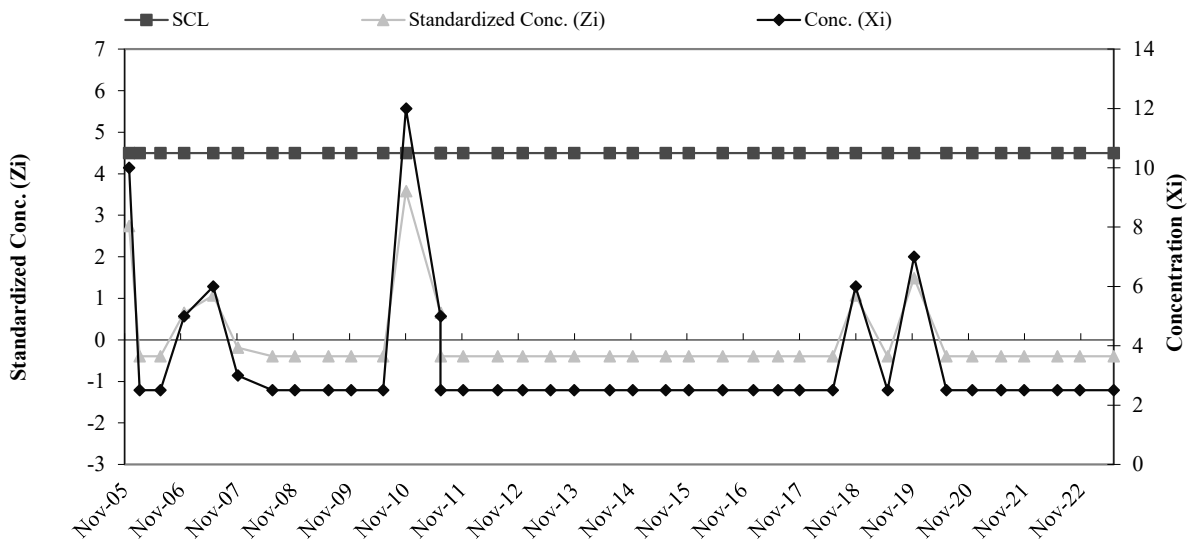


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a Cr

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	45	Nov-22	4.5	2.5	-0.39
18	Nov-09	4.5	2.5	-0.39	46	Jun-23	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

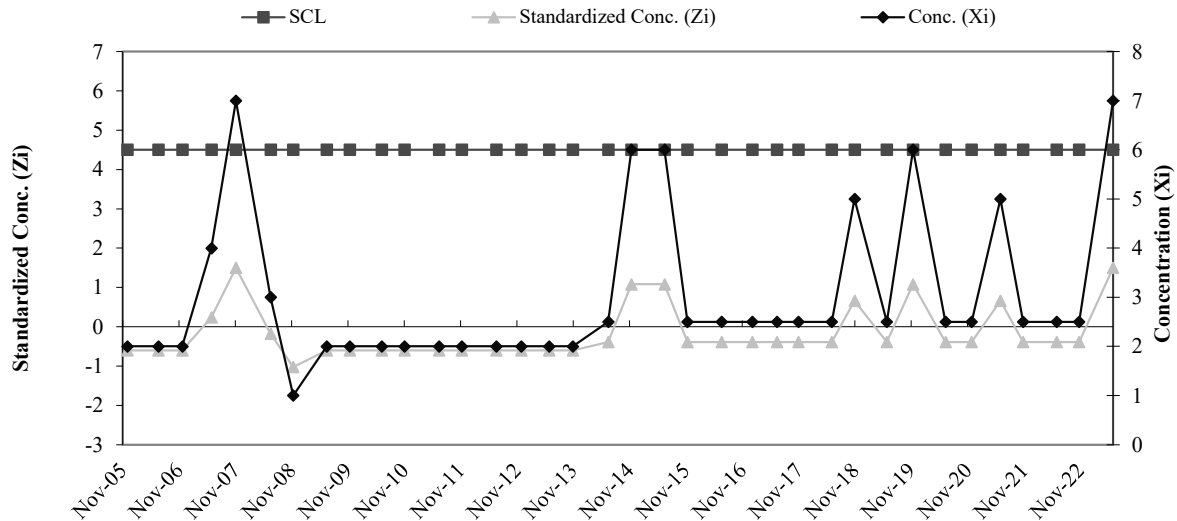


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a Cu

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	43	Nov-22	4.5	2.5	-0.39
17	Nov-09	4.5	2	-0.60	44	Jun-23	4.5	7	1.50
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

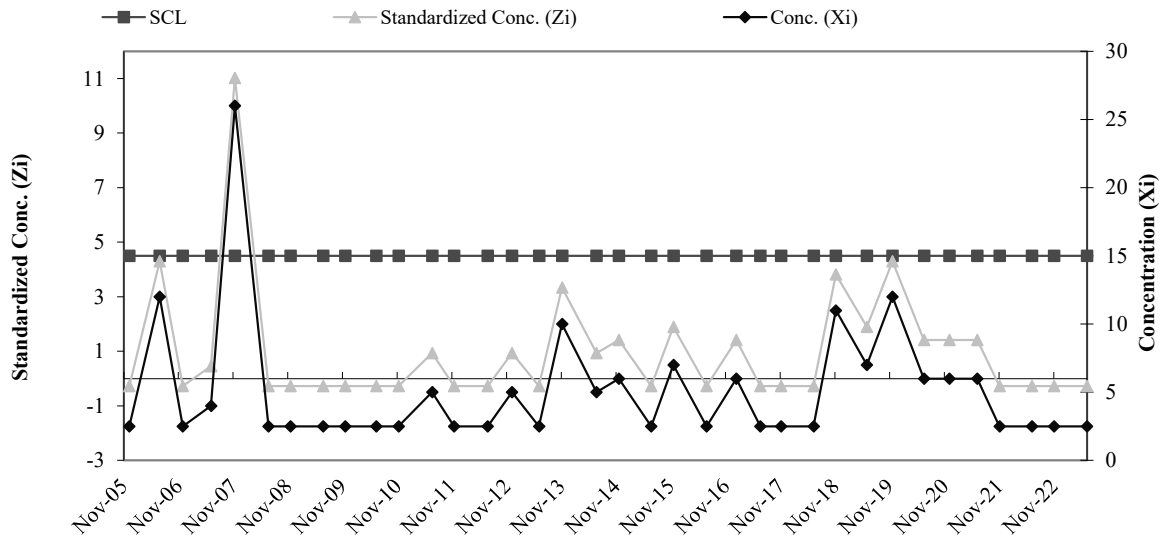


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a Ni

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	44	Nov-22	4.5	2.5	-0.27
17	Nov-09	4.5	2.5	-0.27	45	Jun-23	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

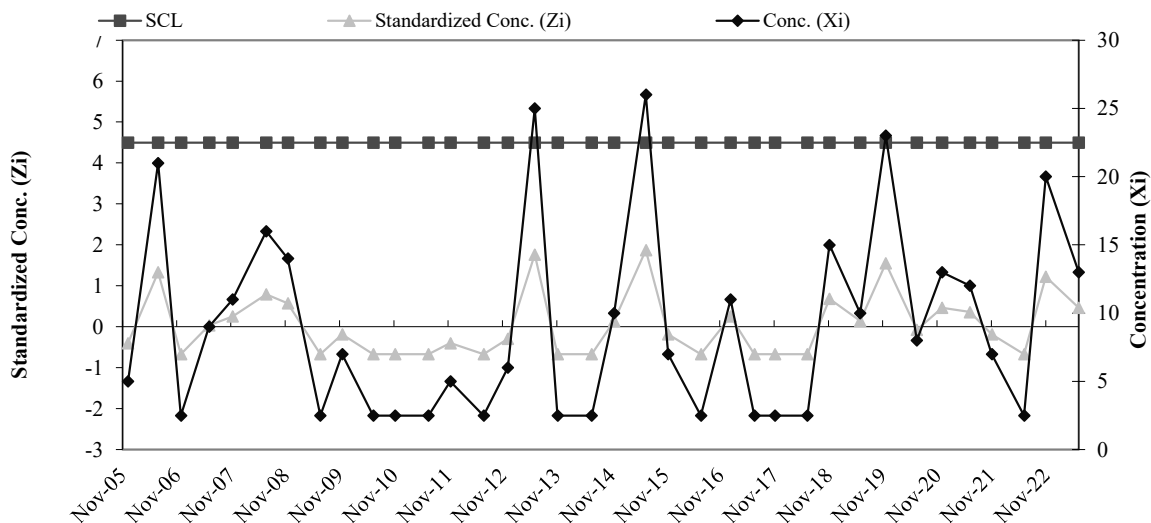


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a Zn

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	43	Nov-22	4.5	20	1.22
16	Jun-09	4.5	2.5	-0.67	44	Jun-23	4.5	13	0.47
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

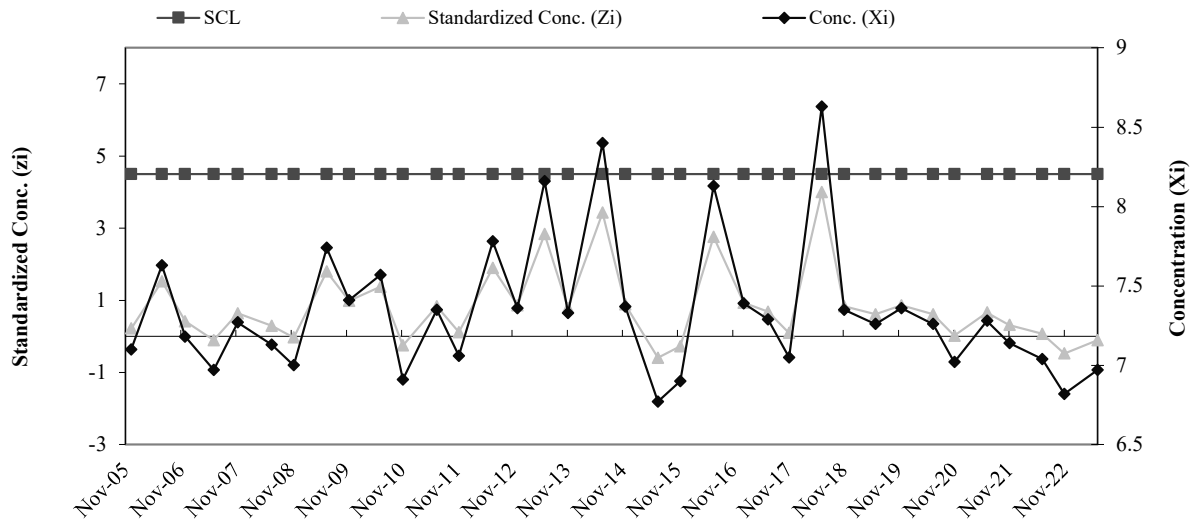


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a pH

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	43	Nov-22	4.5	6.8	-0.47
15	Nov-08	4.5	7.0	-0.03	44	Jun-23	4.5	7.0	-0.10
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

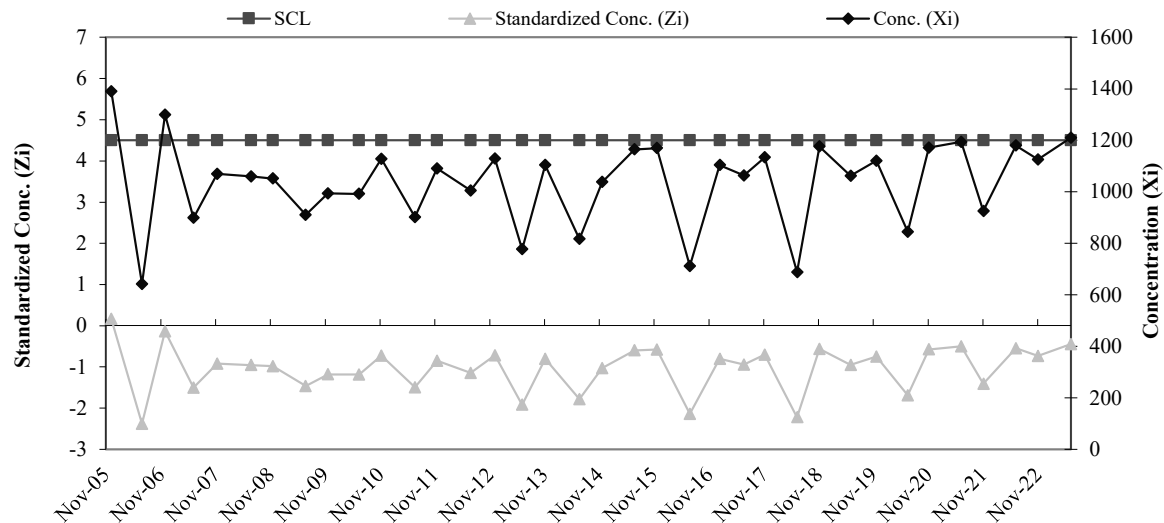


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-19a SpC

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	43	Nov-22	4.5	1126	-0.73
15	Nov-08	4.5	1052	-0.98	44	Jun-23	4.5	1210	-0.44
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

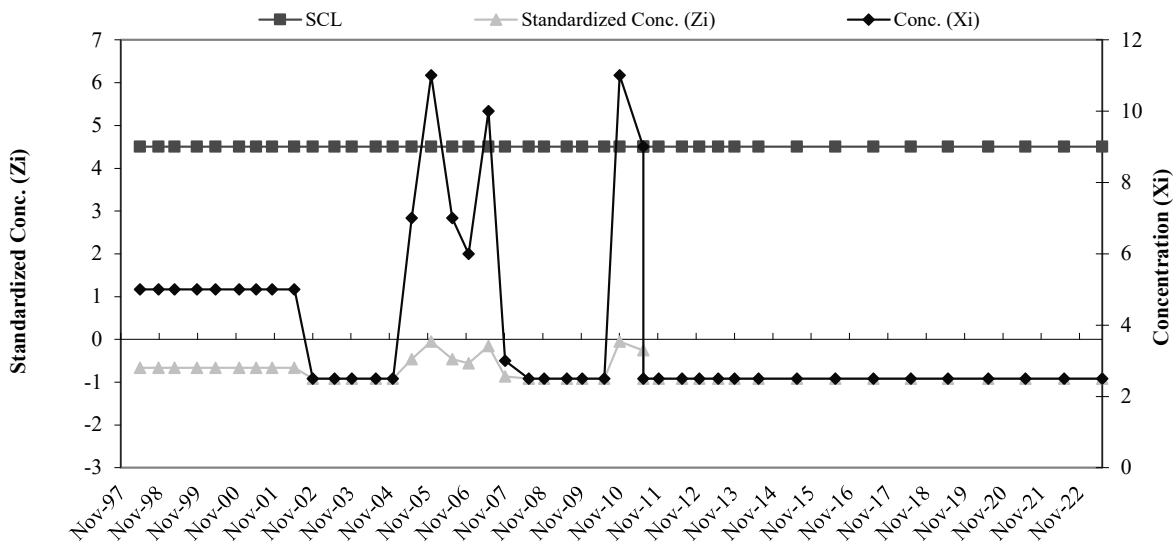


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d Cr

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	51	Jun-23	4.5	2.5	-0.92
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

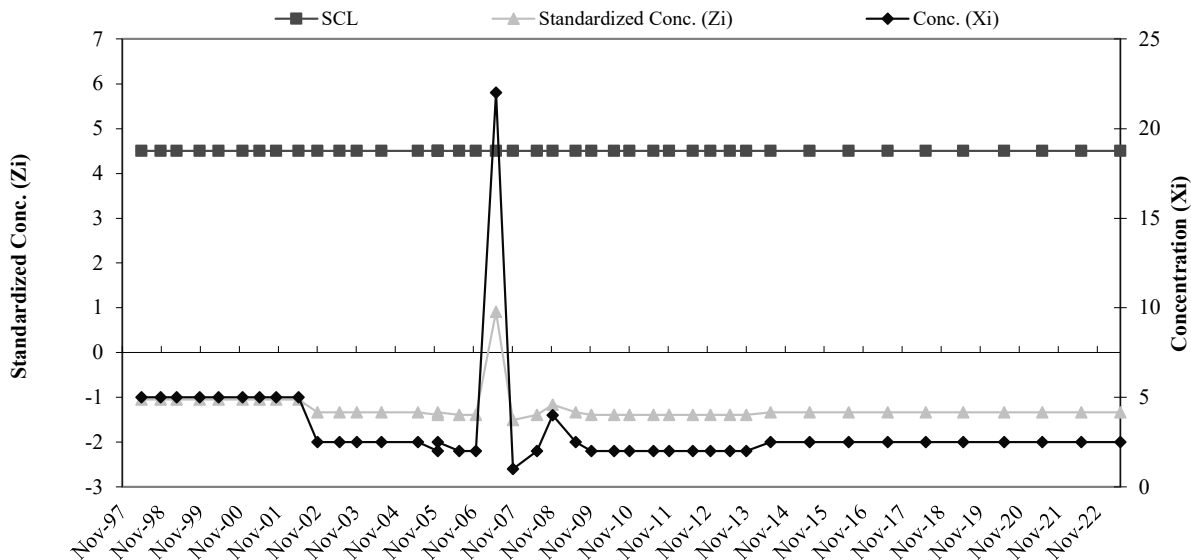


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d Cu

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	50	Jun-23	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

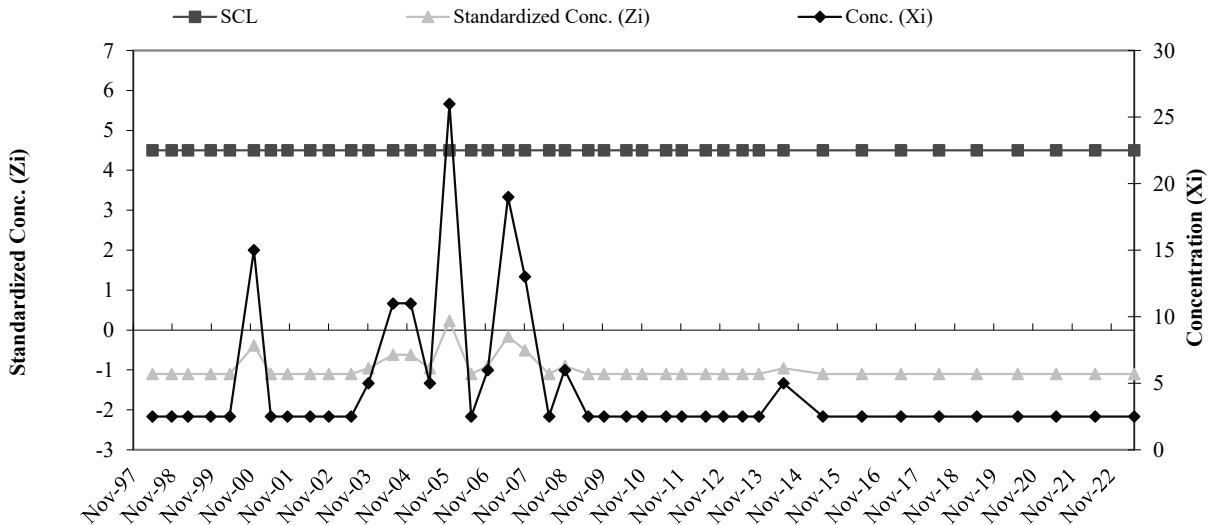


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d Ni

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	50	Jun-23	4.5	2.5	-1.10
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

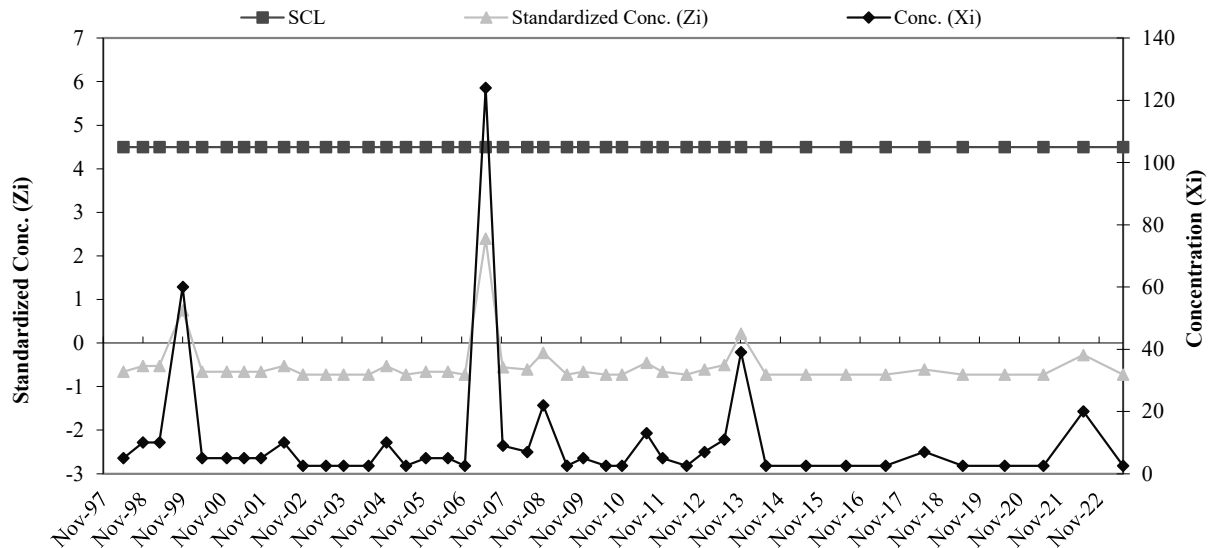


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d Zn

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	50	Jun-23	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

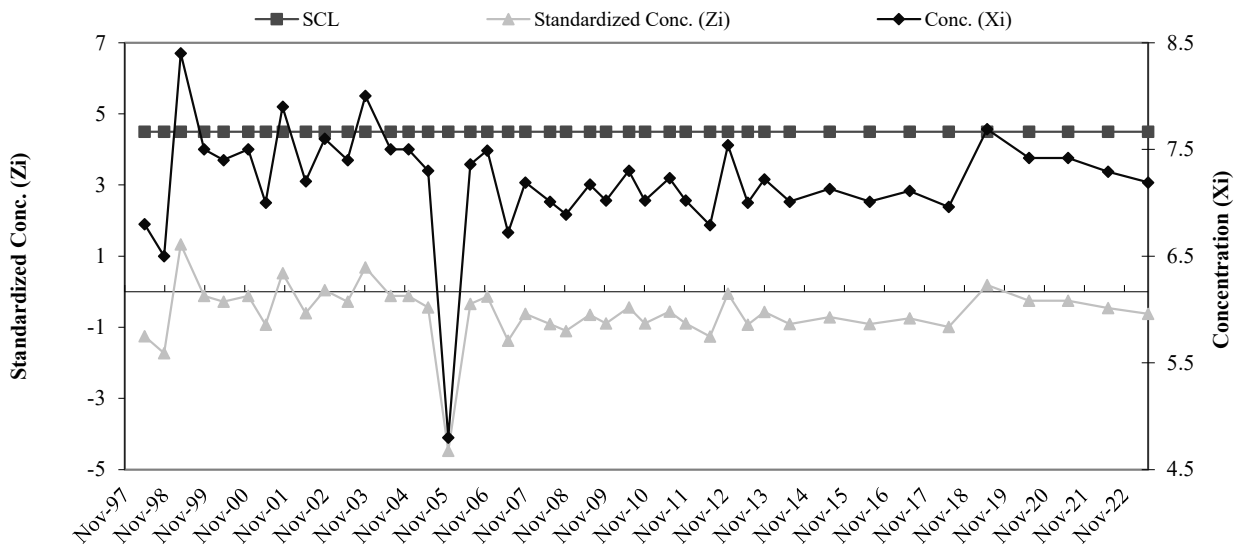


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d pH

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	50	Jun-23	4.5	7.2	-0.62
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

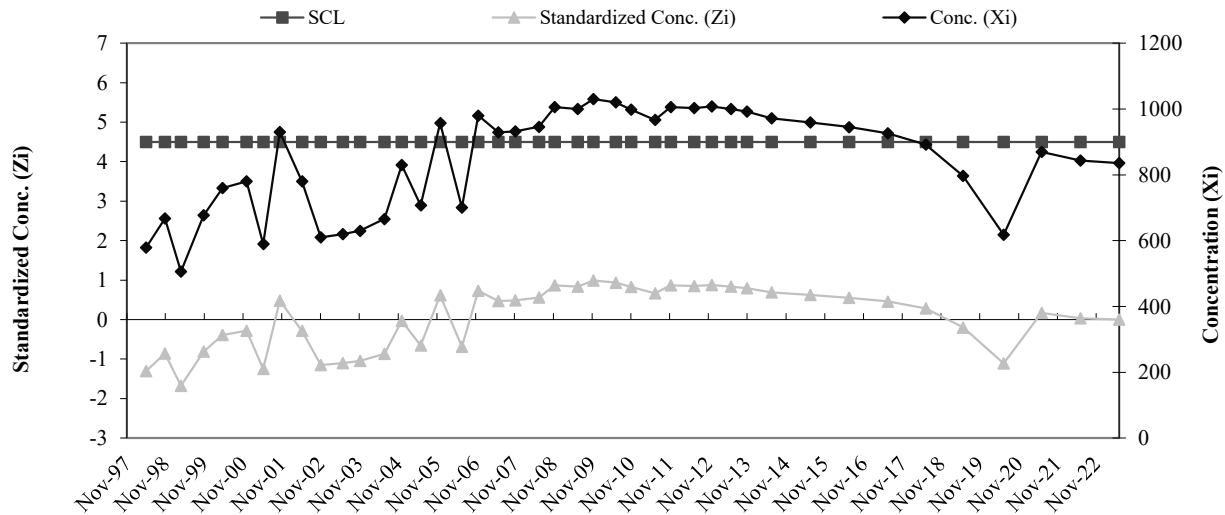


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-20d SpC

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	50	Jun-23	4.5	836	0.00
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

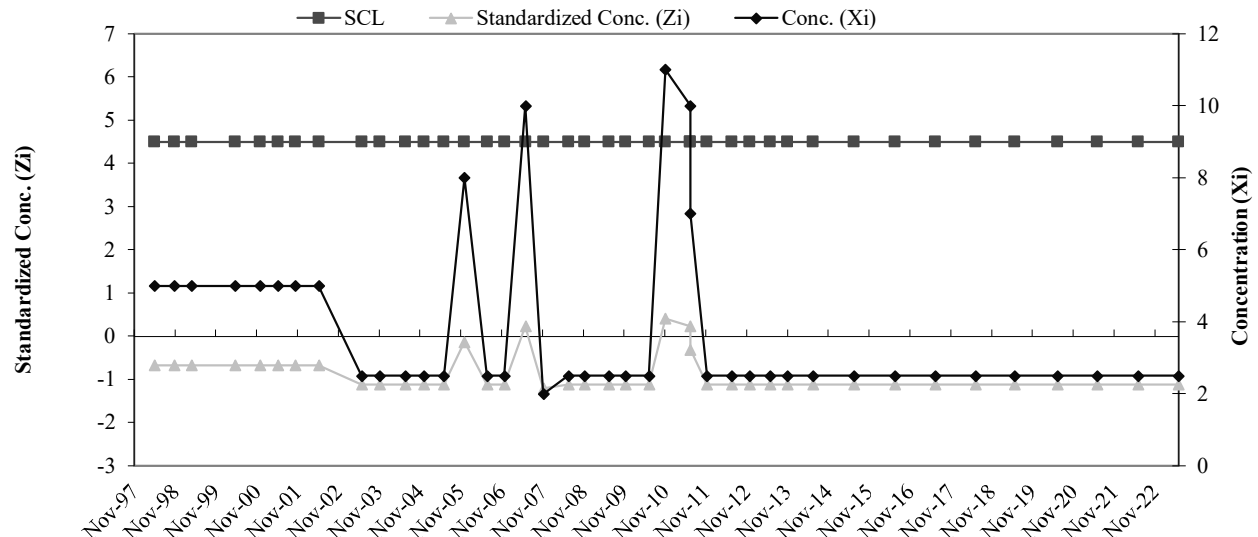


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d Cr

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	50	Jun-23	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

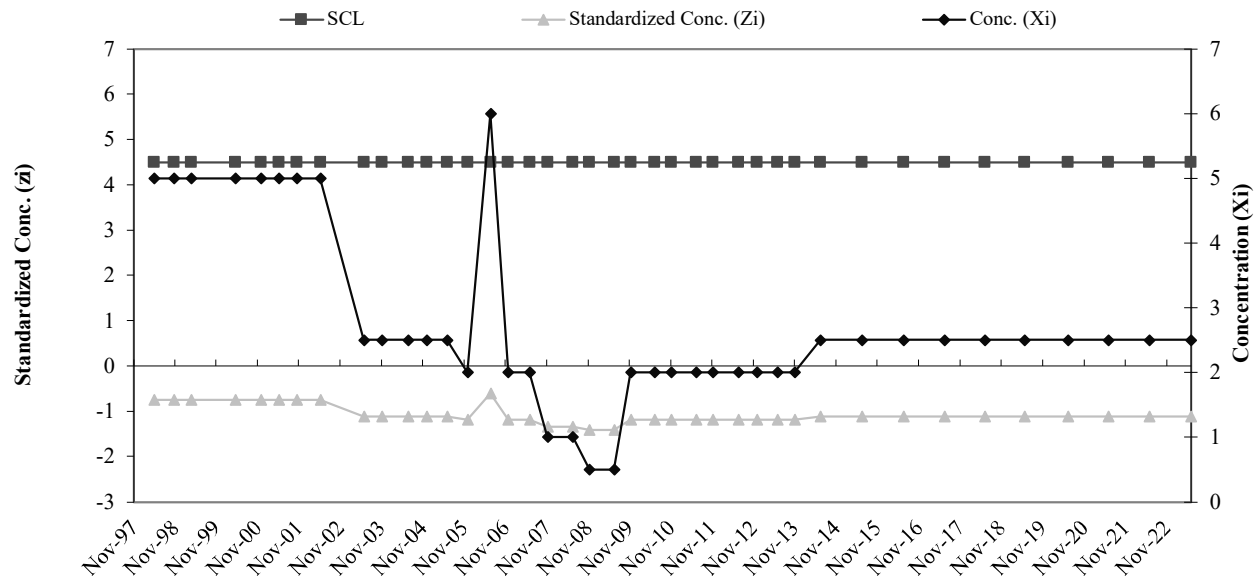


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d Cu

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	49	Jun-23	4.5	2.5	-1.12
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

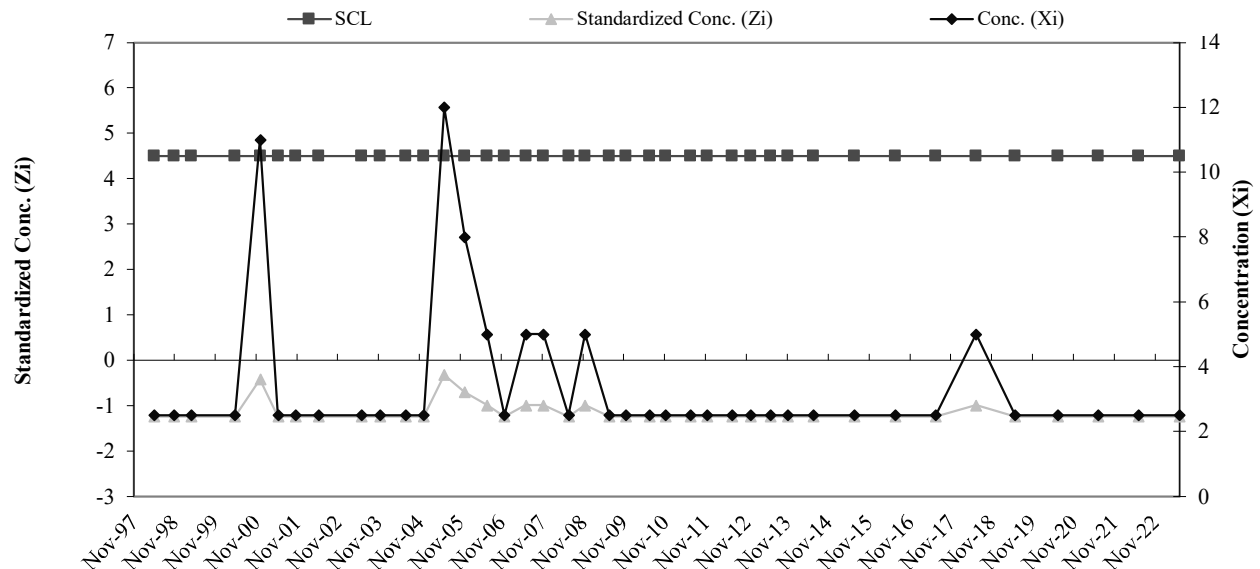


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d Ni

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	49	Jun-23	4.5	2.5	-1.23
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

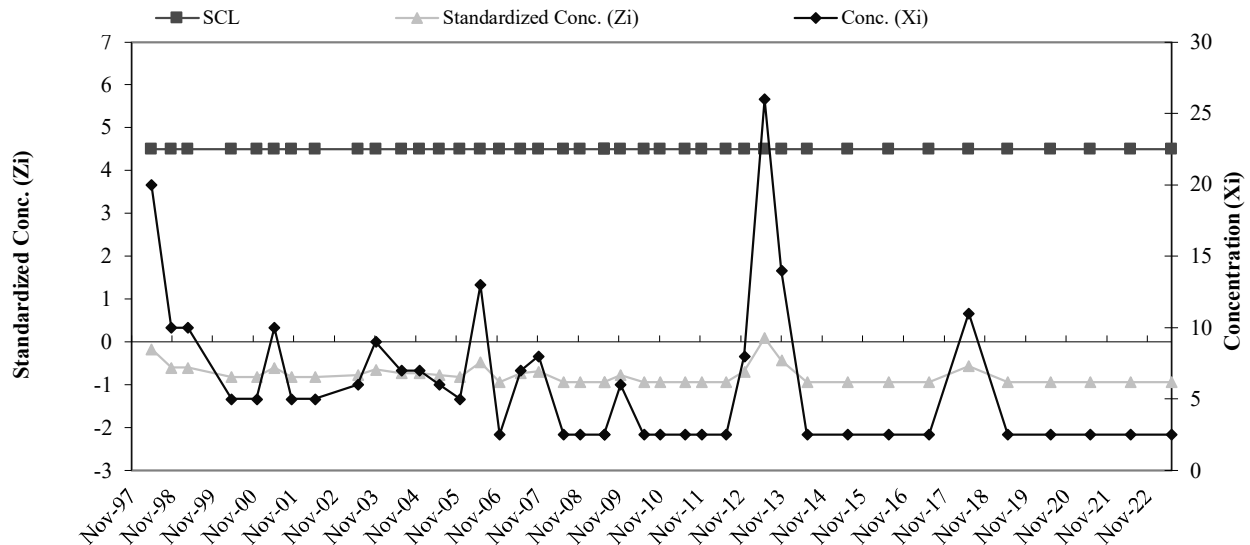


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d Zn

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	50	Jun-23	4.5	2.5	-0.93
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

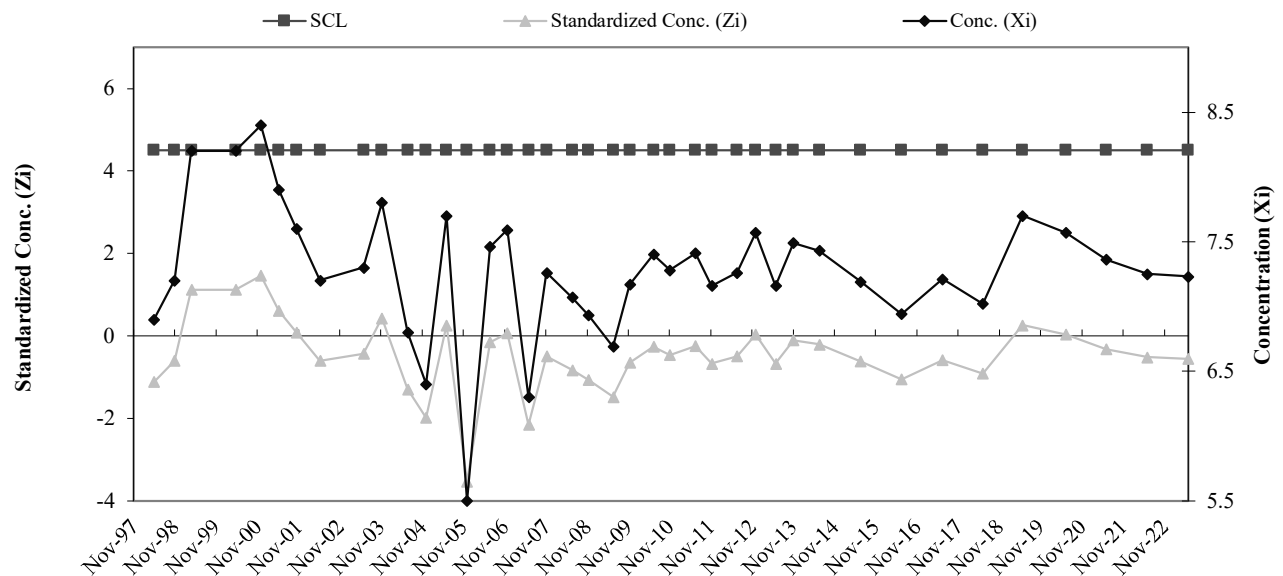


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d pH

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	49	Jun-23	4.5	7.2	-0.55
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

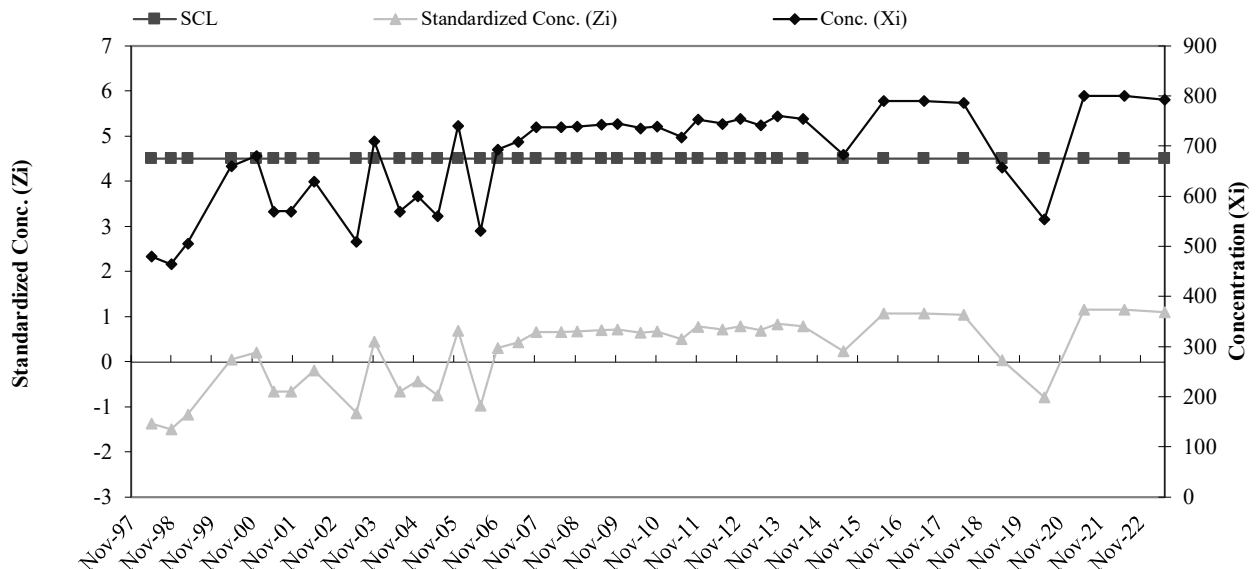


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-21d SpC

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	49	Jun-23	4.5	793	1.10
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

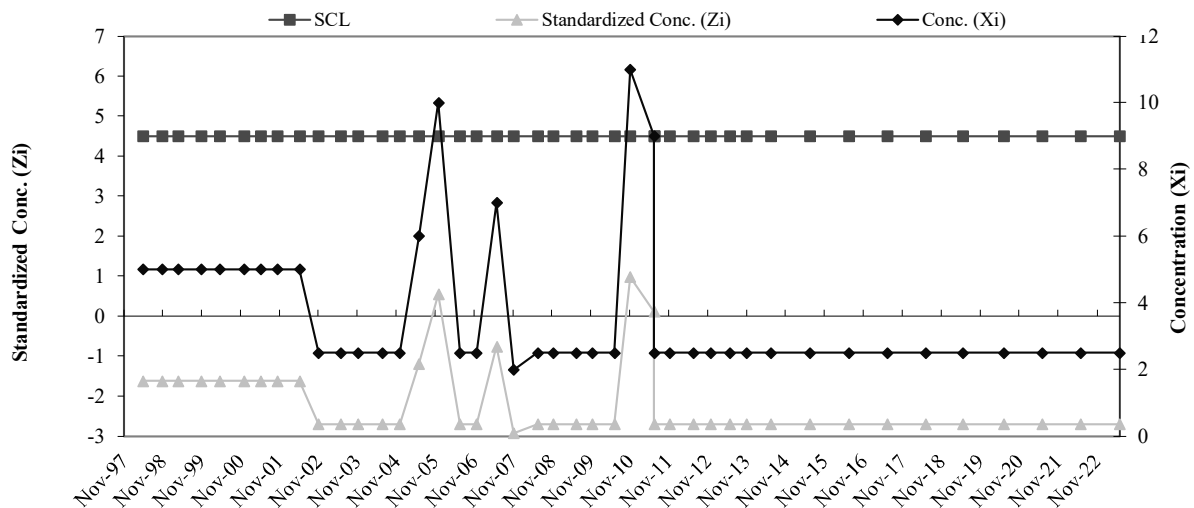


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D Cr

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	51	Jun-23	4.5	2.5	-2.70
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

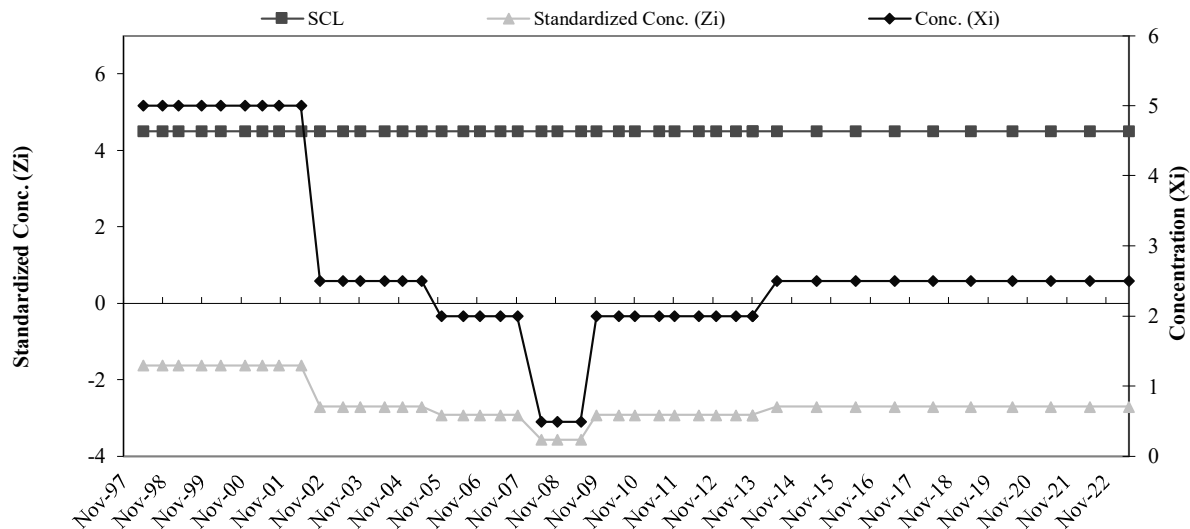


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D Cu

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	51	Jun-23	4.5	2.5	-2.70
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

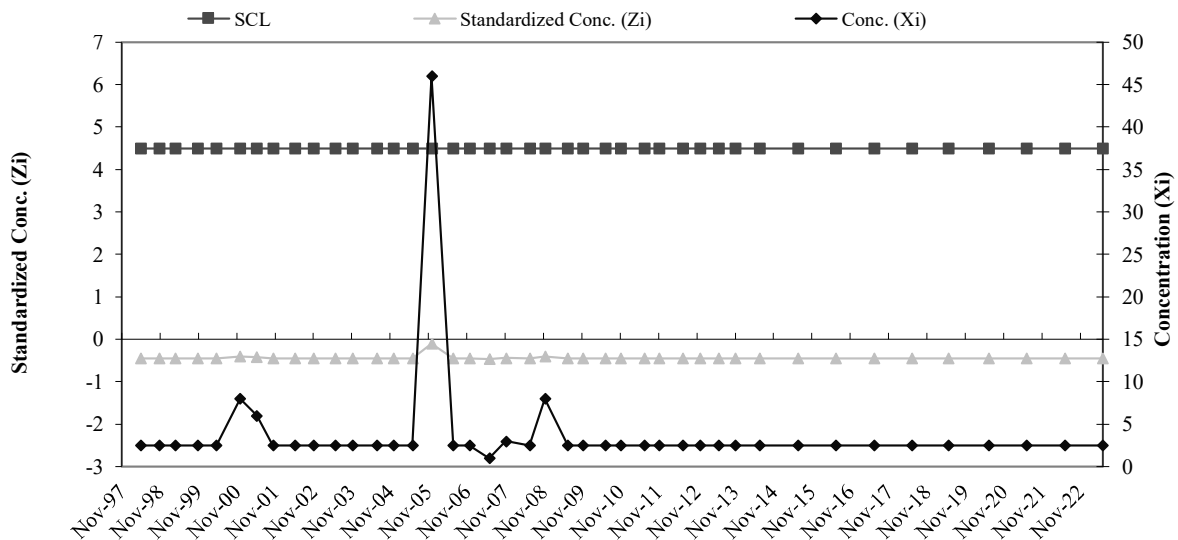


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D Ni

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	50	Jun-23	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

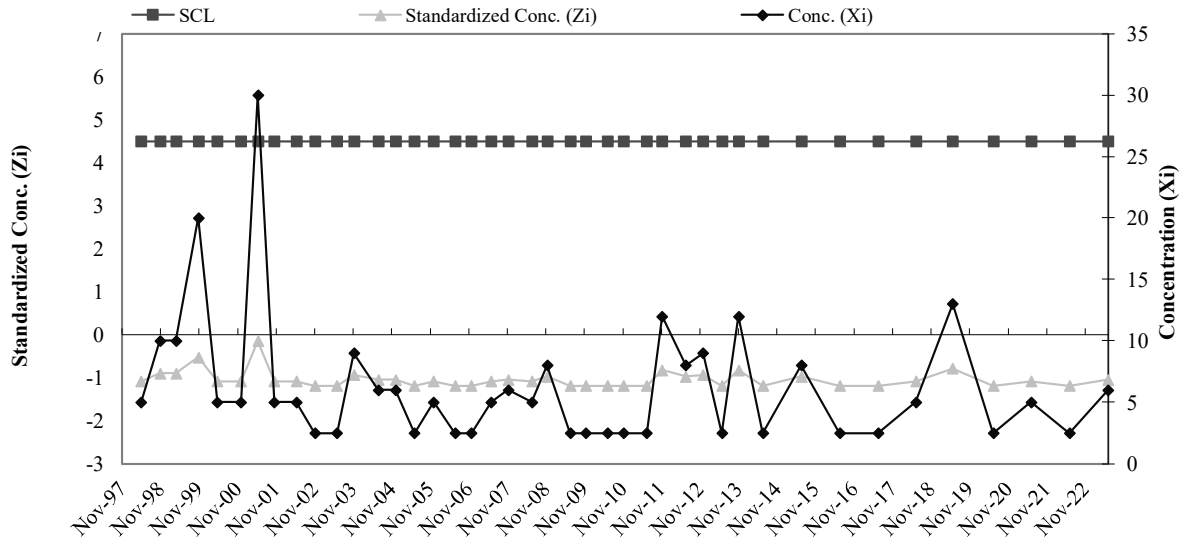


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D Zn

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	50	Jun-23	4.5	6	-1.05
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

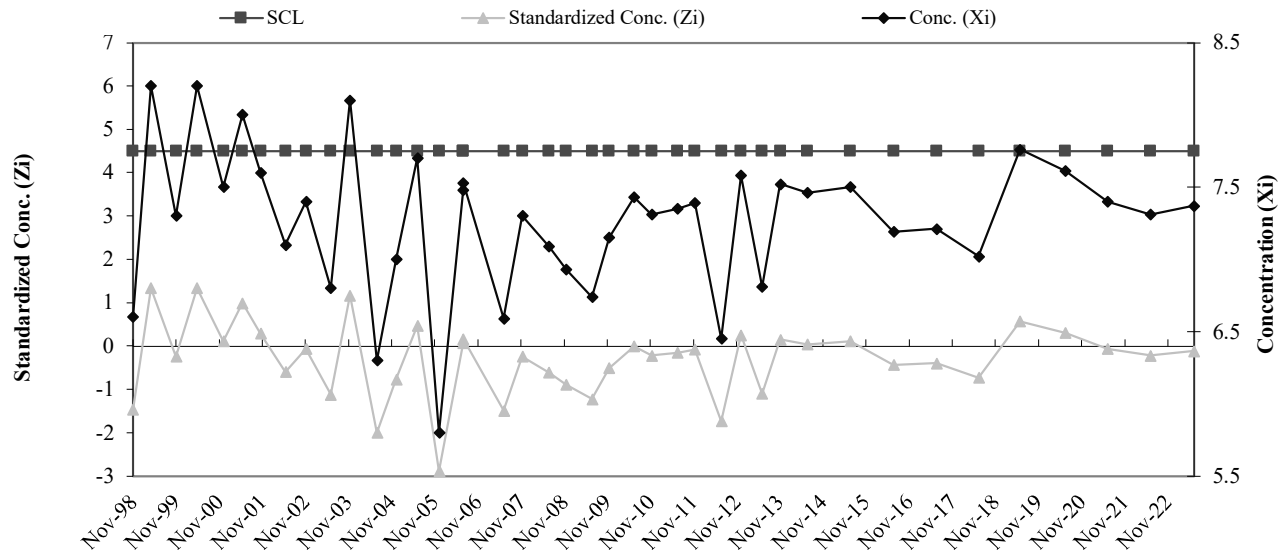


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D pH

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	49	Jun-23	4.5	7.4	-0.12
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

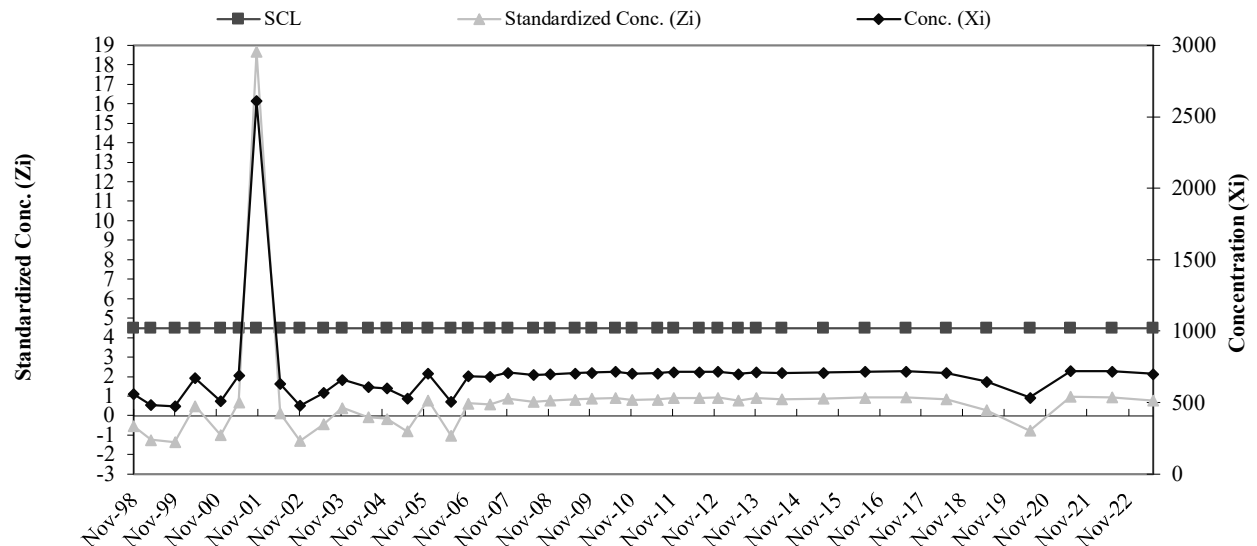


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-22D SpC

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	49	Jun-23	4.5	701	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

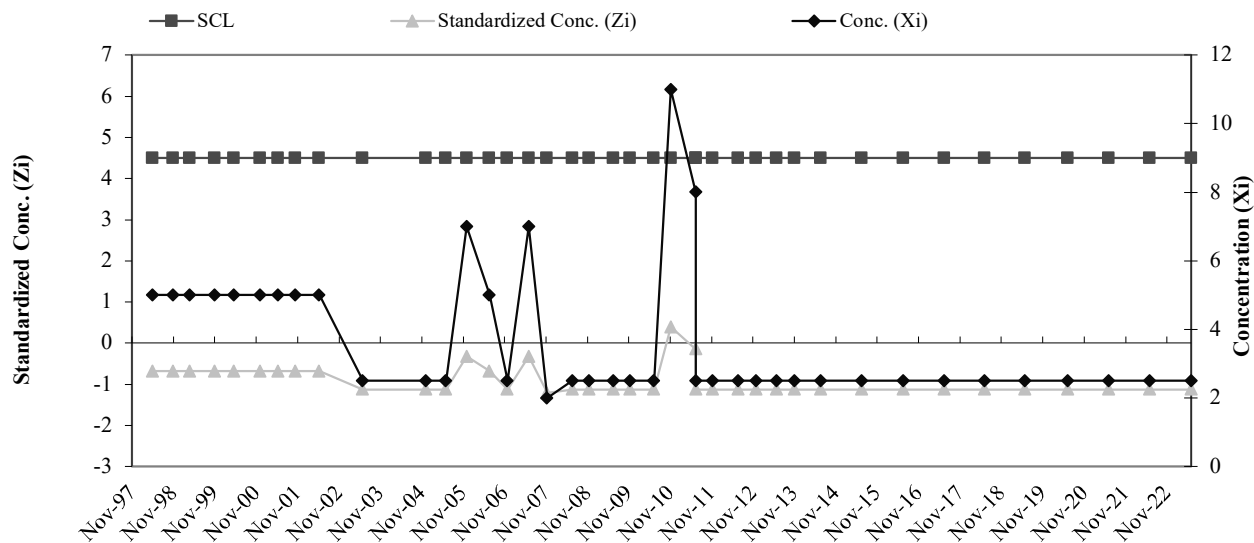


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d Cr

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	48	Jun-23	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

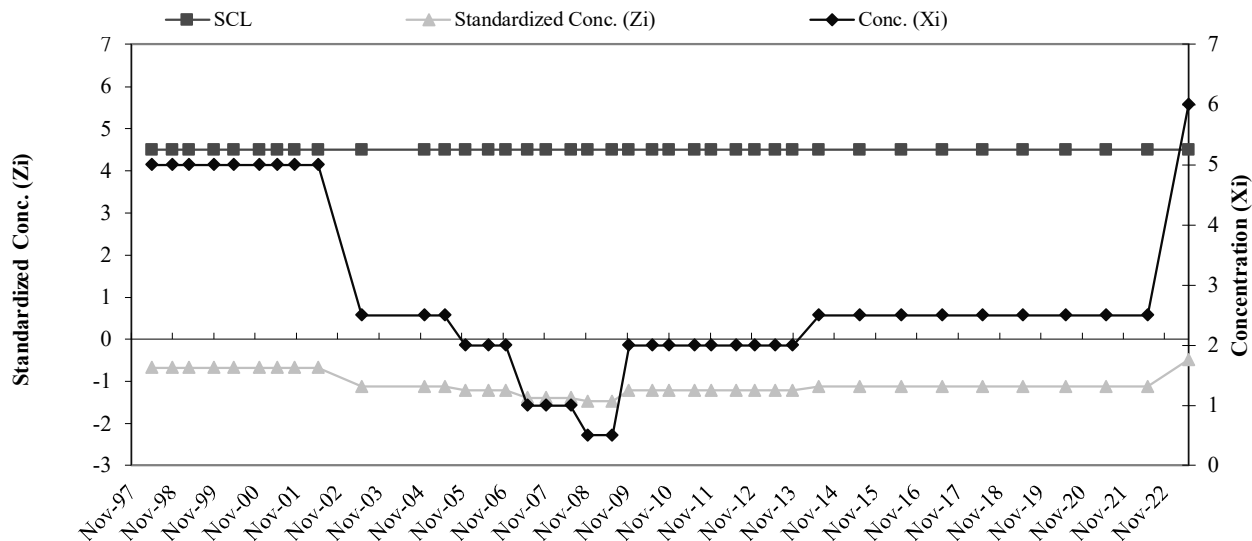


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d Cu

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	47	Jun-23	4.5	6	-0.49
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

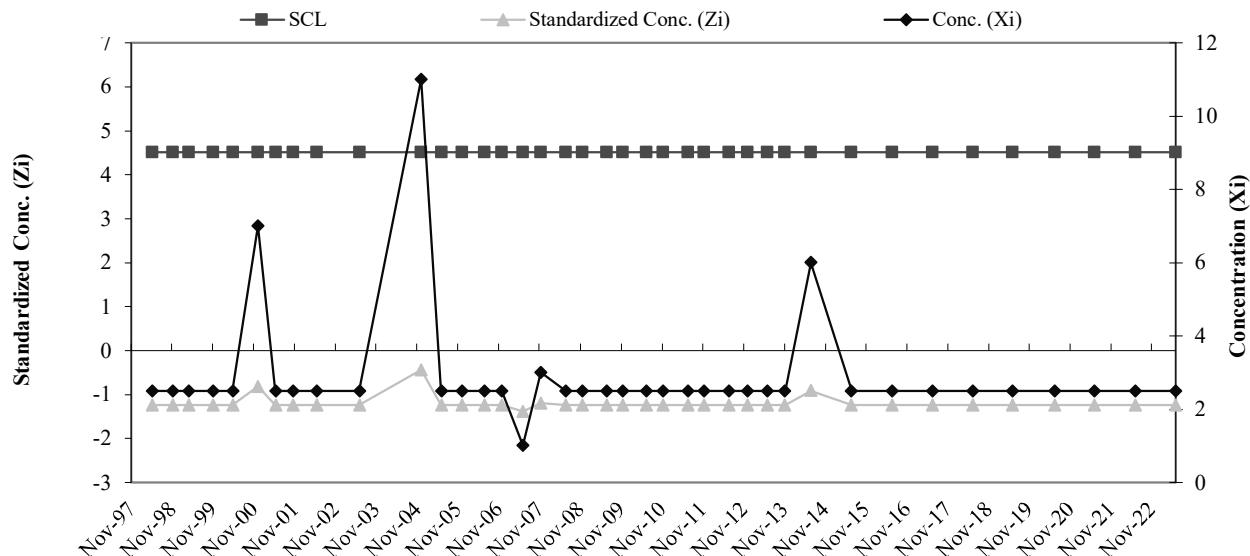


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d Ni

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	47	Jun-23	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

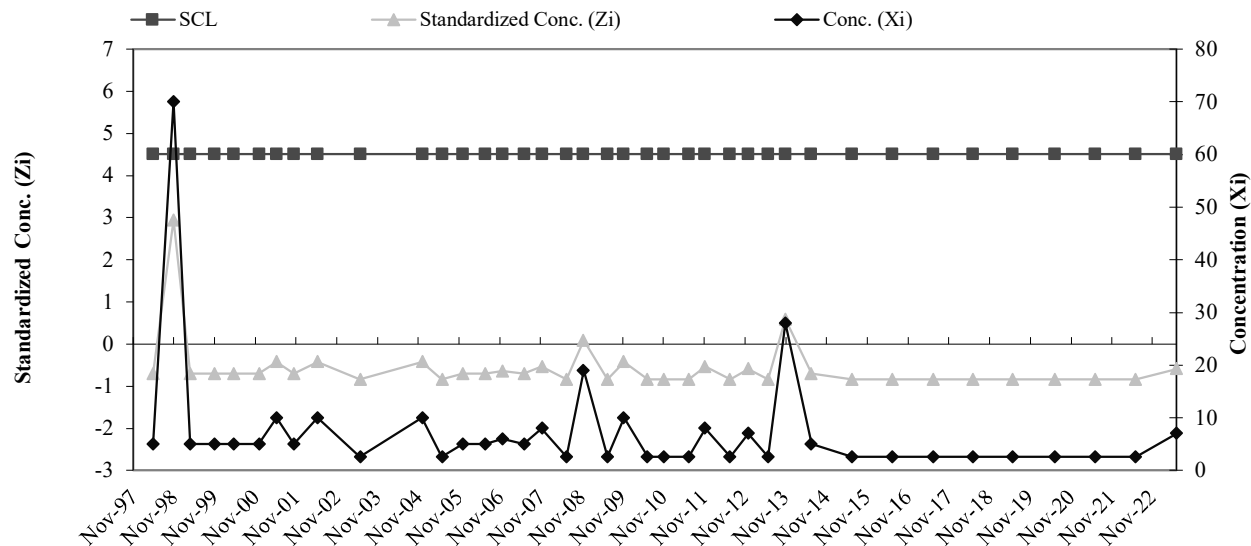


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d Zn

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	47	Jun-23	4.5	7	-0.59
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

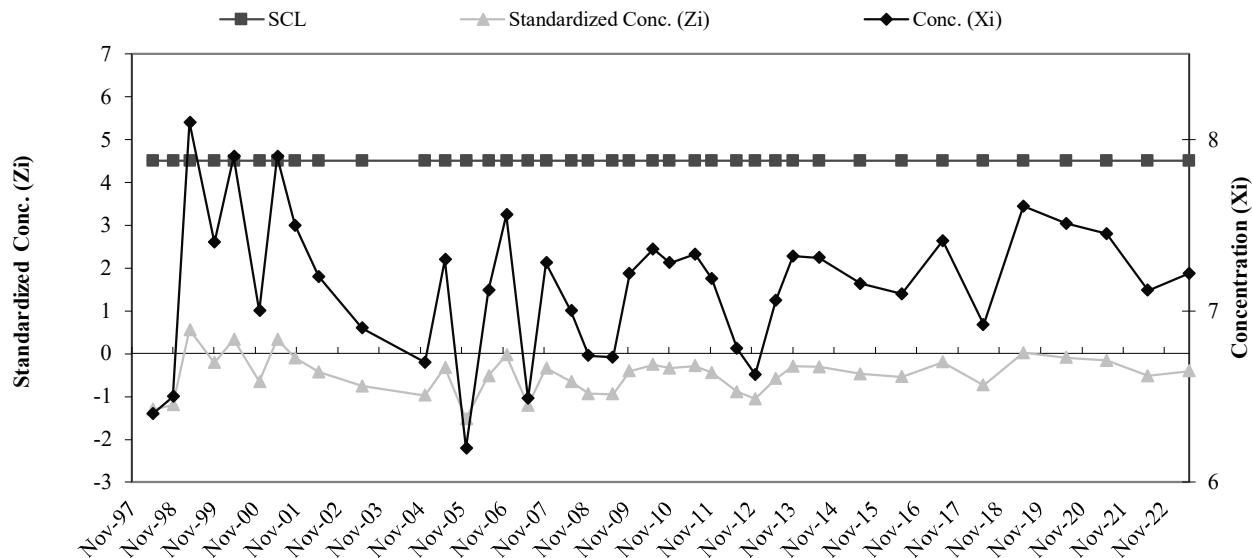


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d pH

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	47	Jun-23	4.5	7.2	-0.40
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

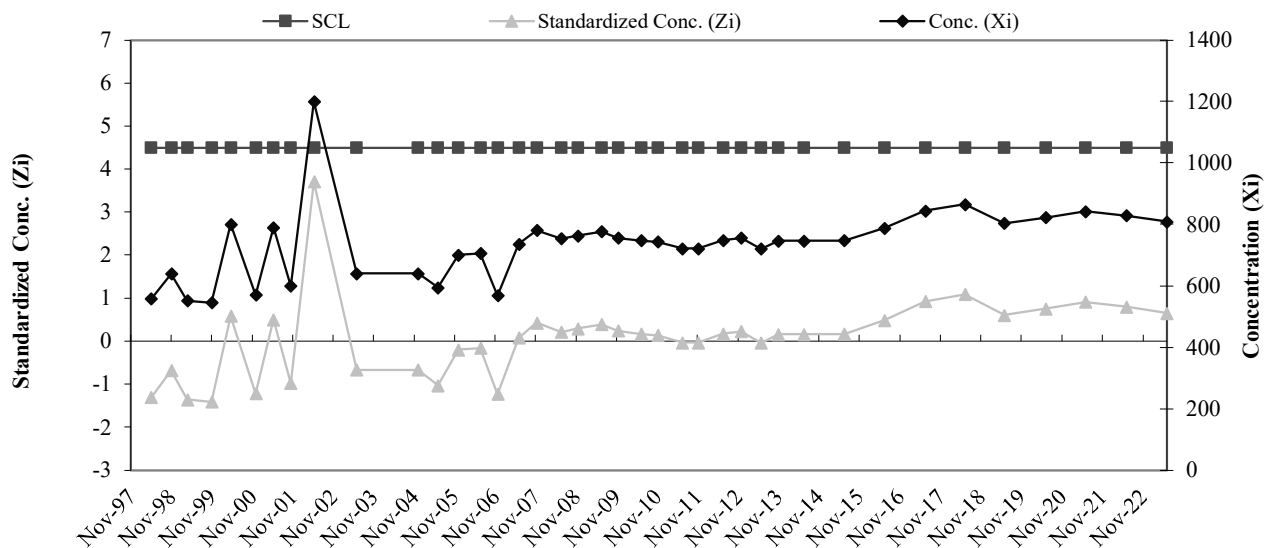


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-23d SpC

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	47	Jun-23	4.5	809	0.65
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

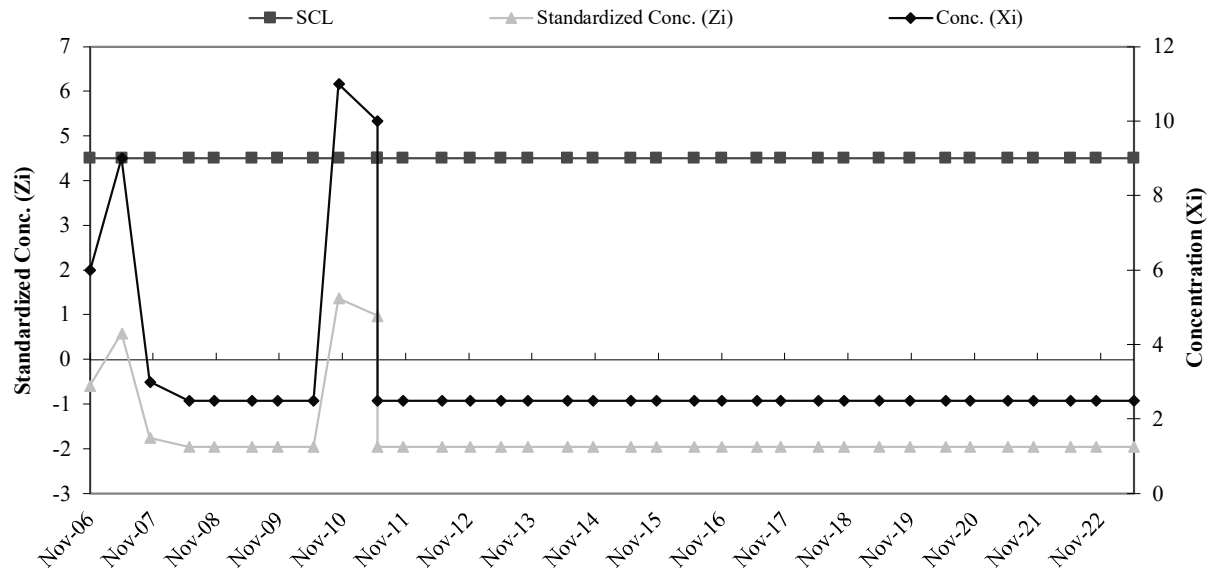


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 Cr

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	42	Nov-22	4.5	2.5	-1.95
17	Nov-10	4.5	11	1.37	43	Jun-23	4.5	2.5	-1.95
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

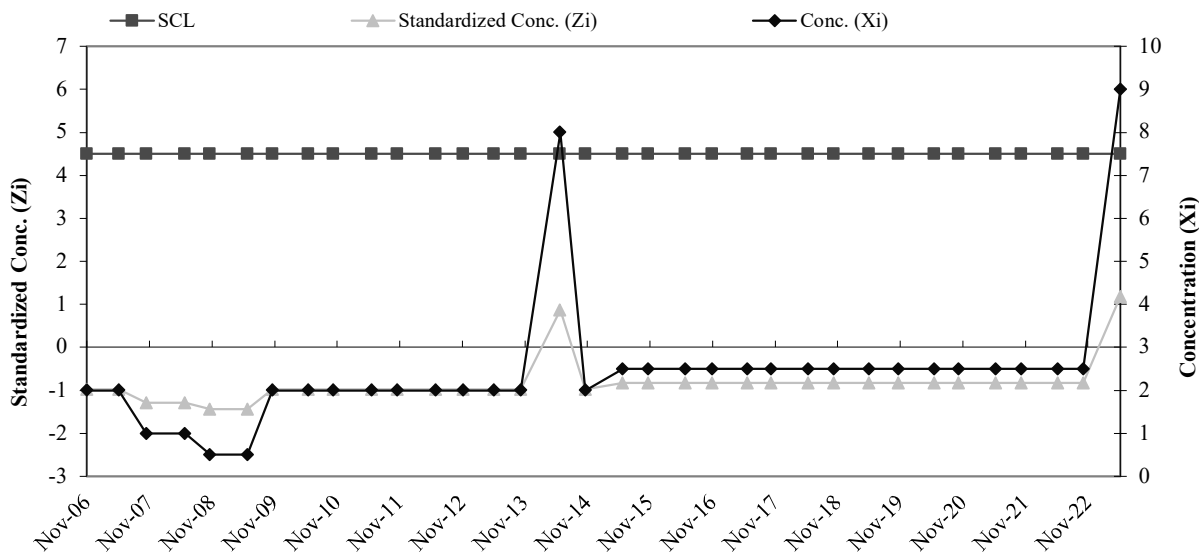


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 Cu

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	41	Nov-22	4.5	2.5	-0.83
16	Jun-10	4.5	2	-0.98	42	Jun-23	4.5	9	1.17
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

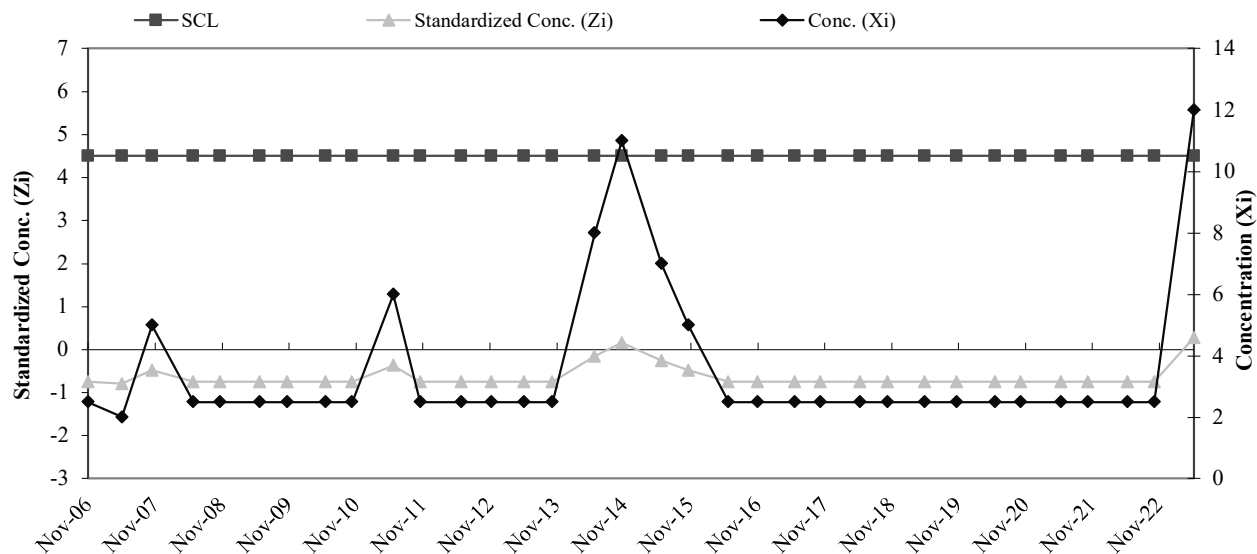


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 Ni

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	41	Nov-22	4.5	2.5	-0.74
16	Jun-10	4.5	2.5	-0.74	42	Jun-23	4.5	12	0.27
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

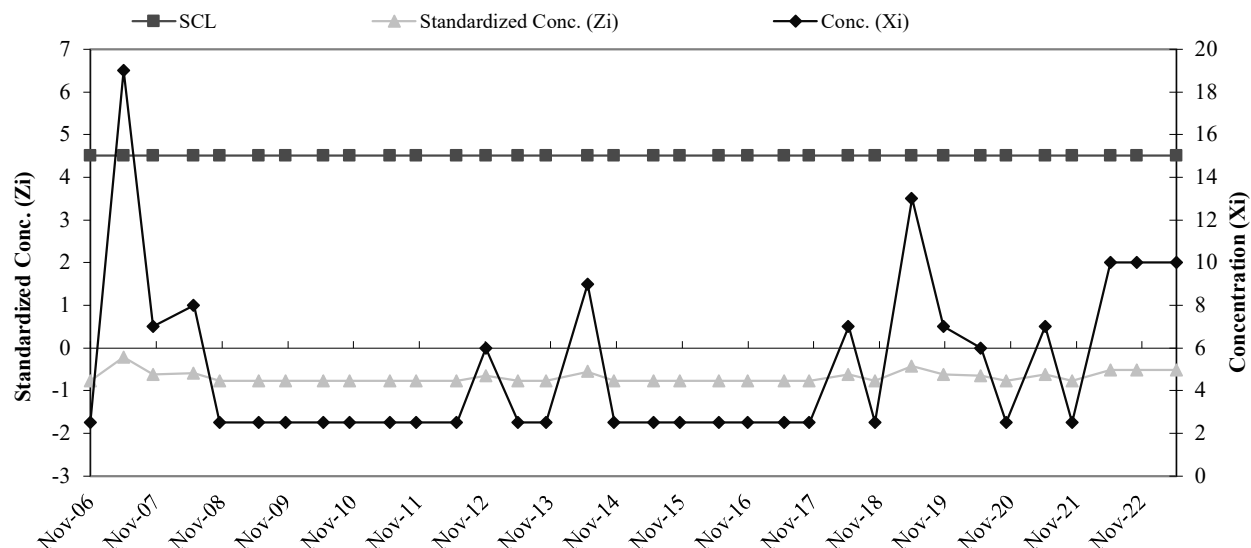


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 Zn

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	41	Nov-22	4.5	10	-0.52
16	Jun-10	4.5	2.5	-0.77	42	Jun-23	4.5	10	-0.52
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

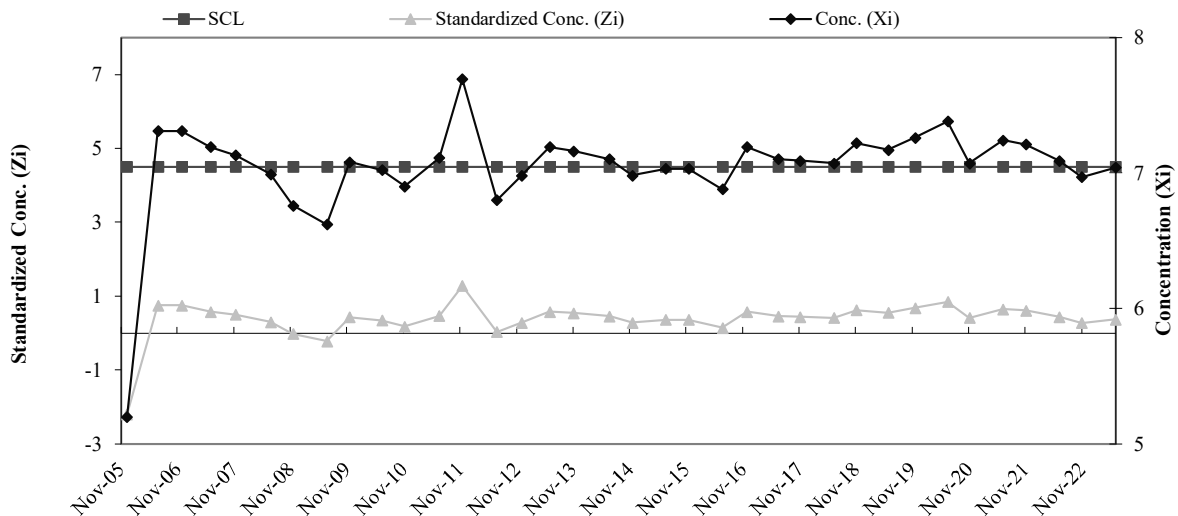


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 pH

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	41	Nov-22	4.5	7.0	0.27
14	Jun-09	4.5	6.6	-0.22	42	Jun-23	4.5	7.0	0.37
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

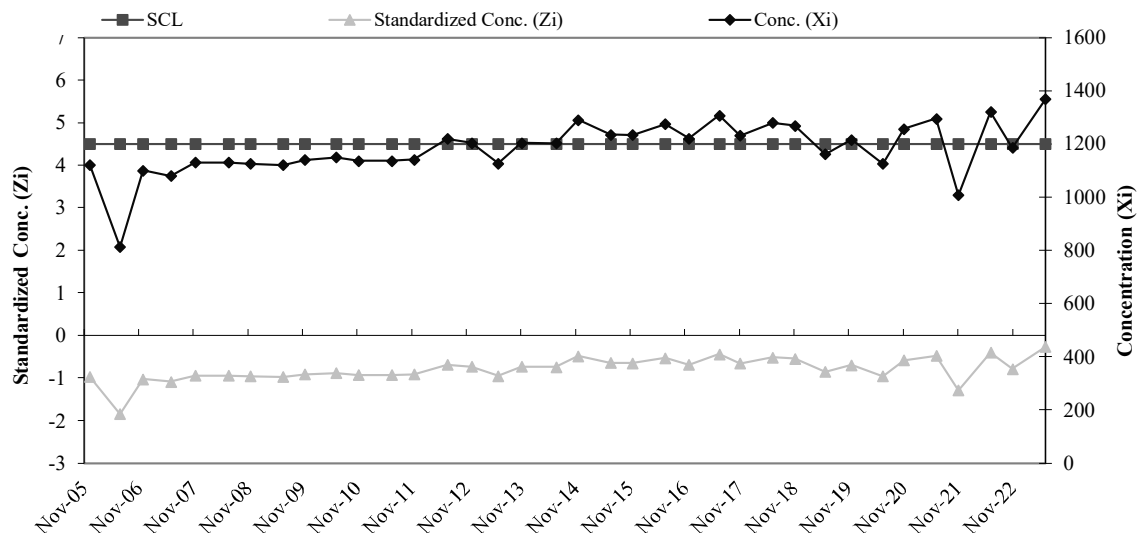


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-24 SpC

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	43	Nov-22	4.5	1186	-0.79
16	Jun-09	4.5	1120	-0.97	44	Jun-23	4.5	1370	-0.26
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

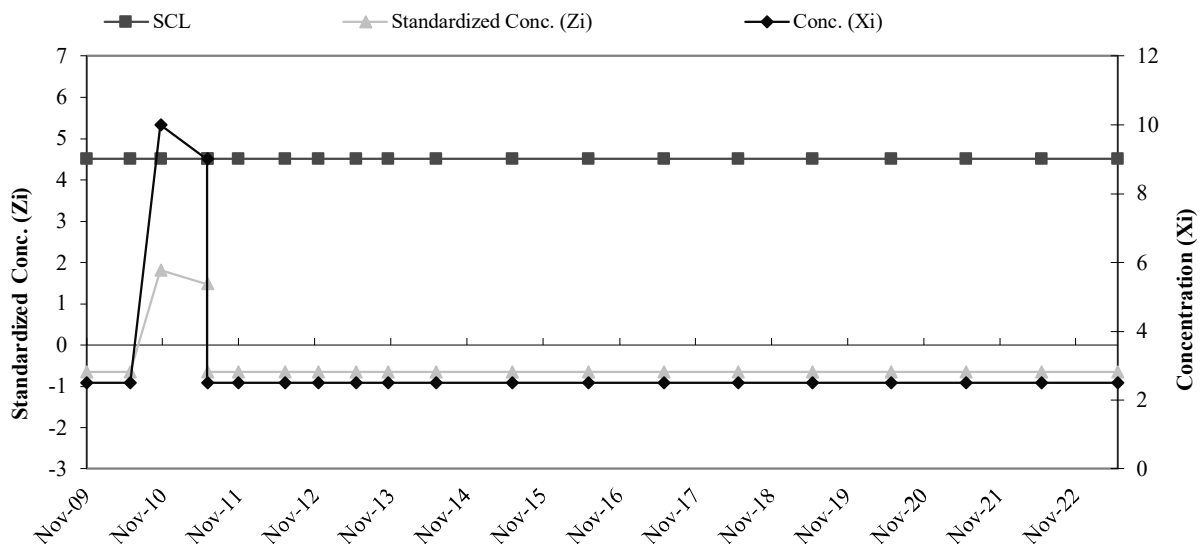


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-27 Cr

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Dec-05	9	4.50	3.05
2	Jun-06	6		
3	Nov-06	2.5		
4	Jun-07	9		
5	Nov-07	2		
6	Jun-08	2.5		
7	Nov-08	2.5		
8	Jun-09	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	2.5	-0.66
10	Jun-10	4.5	2.5	-0.66
11	Nov-10	4.5	10	1.80
12	Jun-11	4.5	9	1.48
13	Jun-11	4.5	2.5	-0.66
14	Nov-11	4.5	2.5	-0.66
15	Jun-12	4.5	2.5	-0.66
16	Dec-12	4.5	2.5	-0.66
17	Jun-13	4.5	2.5	-0.66
18	Nov-13	4.5	2.5	-0.66
19	Jun-14	4.5	2.5	-0.66
20	Jun-15	4.5	2.5	-0.66
21	Jun-16	4.5	2.5	-0.66
22	Jun-17	4.5	2.5	-0.66
23	Jun-18	4.5	2.5	-0.66
24	Jun-19	4.5	2.5	-0.66
25	Jun-20	4.5	2.5	-0.66
26	Jun-21	4.5	2.5	-0.66
27	Jun-22	4.5	2.5	-0.66
28	Jun-23	4.5	2.5	-0.66

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

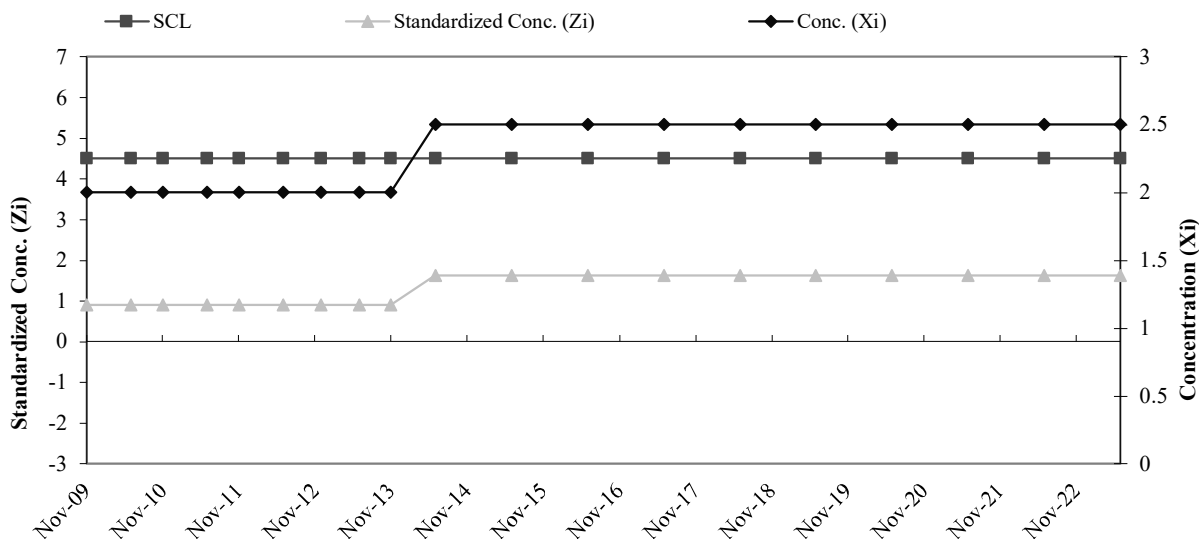


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-27 Cu

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Dec-05	2	1.38	0.69
2	Jun-06	2		
3	Nov-06	2		
4	Jun-07	2		
5	Nov-07	1		
6	Jun-08	0.5		
7	Nov-08	0.5		
8	Jun-09	1		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	2	0.90
10	Jun-10	4.5	2	0.90
11	Nov-10	4.5	2	0.90
12	Jun-11	4.5	2	0.90
13	Nov-11	4.5	2	0.90
14	Jun-12	4.5	2	0.90
15	Dec-12	4.5	2	0.90
16	Jun-13	4.5	2	0.90
17	Nov-13	4.5	2	0.90
18	Jun-14	4.5	2.5	1.62
19	Jun-15	4.5	2.5	1.62
20	Jun-16	4.5	2.5	1.62
21	Jun-17	4.5	2.5	1.62
22	Jun-18	4.5	2.5	1.62
23	Jun-19	4.5	2.5	1.62
24	Jun-20	4.5	2.5	1.62
25	Jun-21	4.5	2.5	1.62
26	Jun-22	4.5	2.5	1.62
27	Jun-23	4.5	2.5	1.62

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

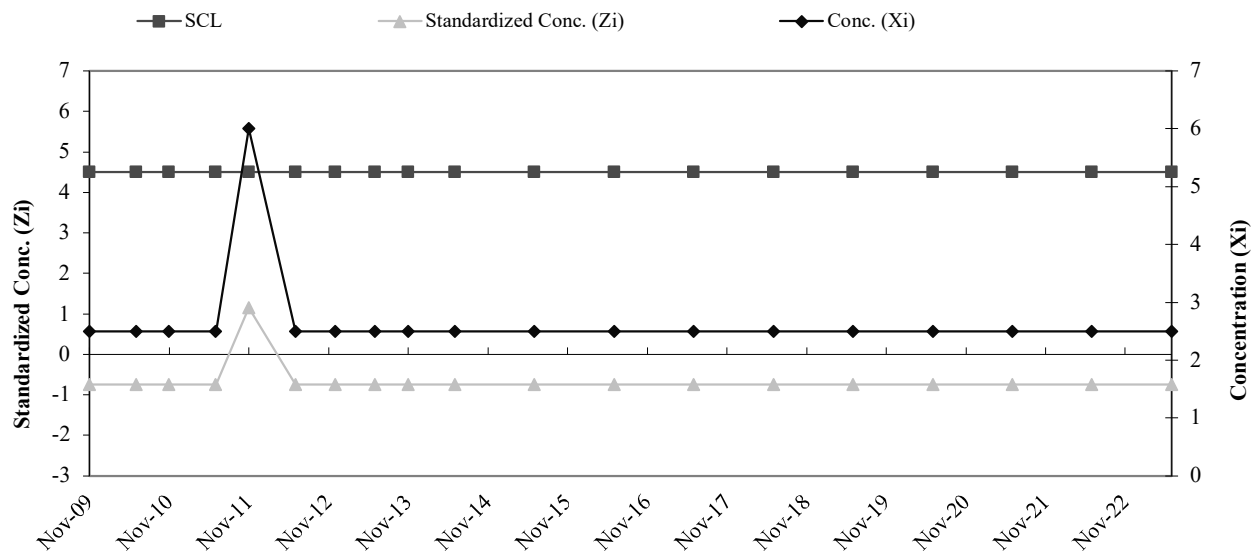


B-27 Ni

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Dec-05	6	3.88	1.85
2	Jun-06	7		
3	Nov-06	2.5		
4	Jun-07	3		
5	Nov-07	5		
6	Jun-08	2.5		
7	Nov-08	2.5		
8	Jun-09	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	2.5	-0.74
10	Jun-10	4.5	2.5	-0.74
11	Nov-10	4.5	2.5	-0.74
12	Jun-11	4.5	2.5	-0.74
13	Nov-11	4.5	6	1.15
14	Jun-12	4.5	2.5	-0.74
15	Dec-12	4.5	2.5	-0.74
16	Jun-13	4.5	2.5	-0.74
17	Nov-13	4.5	2.5	-0.74
18	Jun-14	4.5	2.5	-0.74
19	Jun-15	4.5	2.5	-0.74
20	Jun-16	4.5	2.5	-0.74
21	Jun-17	4.5	2.5	-0.74
22	Jun-18	4.5	2.5	-0.74
23	Jun-19	4.5	2.5	-0.74
24	Jun-20	4.5	2.5	-0.74
25	Jun-21	4.5	2.5	-0.74
26	Jun-22	4.5	2.5	-0.74
27	Jun-23	4.5	2.5	-0.74

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Z_i = Standardized Mean

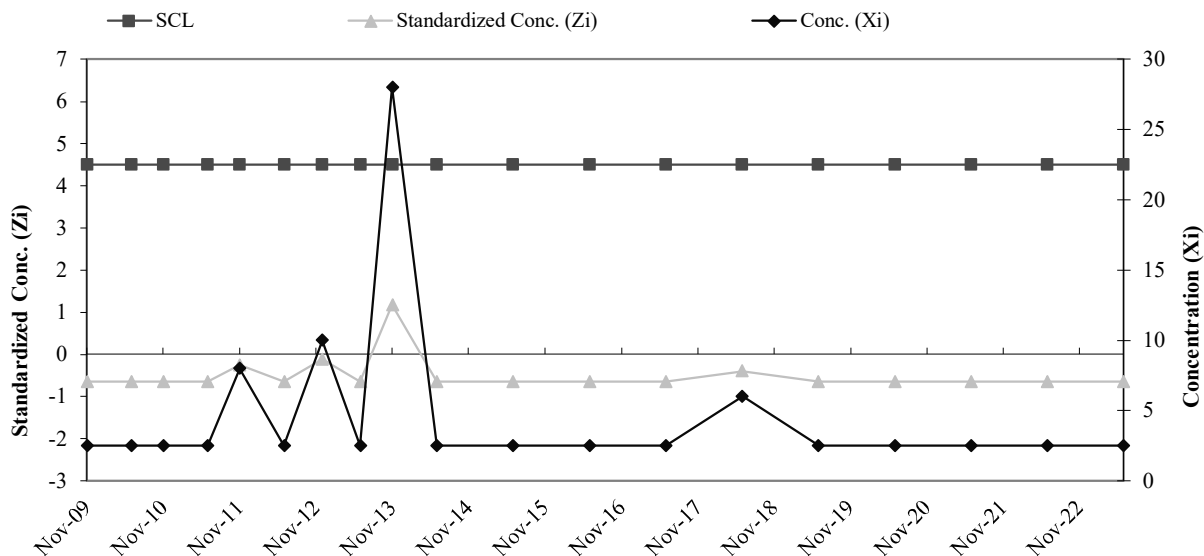


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-27 Zn

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Dec-05	5	11.56	13.97
2	Jun-06	6		
3	Nov-06	6		
4	Jun-07	36		
5	Nov-07	32		
6	Jun-08	2.5		
7	Nov-08	2.5		
8	Jun-09	2.5		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	2.5	-0.65
10	Jun-10	4.5	2.5	-0.65
11	Nov-10	4.5	2.5	-0.65
12	Jun-11	4.5	2.5	-0.65
13	Nov-11	4.5	8	-0.26
14	Jun-12	4.5	2.5	-0.65
15	Dec-12	4.5	10	-0.11
16	Jun-13	4.5	2.5	-0.65
17	Nov-13	4.5	28	1.18
18	Jun-14	4.5	2.5	-0.65
19	Jun-15	4.5	2.5	-0.65
20	Jun-16	4.5	2.5	-0.65
21	Jun-17	4.5	2.5	-0.65
22	Jun-18	4.5	6	-0.40
23	Jun-19	4.5	2.5	-0.65
24	Jun-20	4.5	2.5	-0.65
25	Jun-21	4.5	2.5	-0.65
26	Jun-22	4.5	2.5	-0.65
27	Jun-23	4.5	2.5	-0.65

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

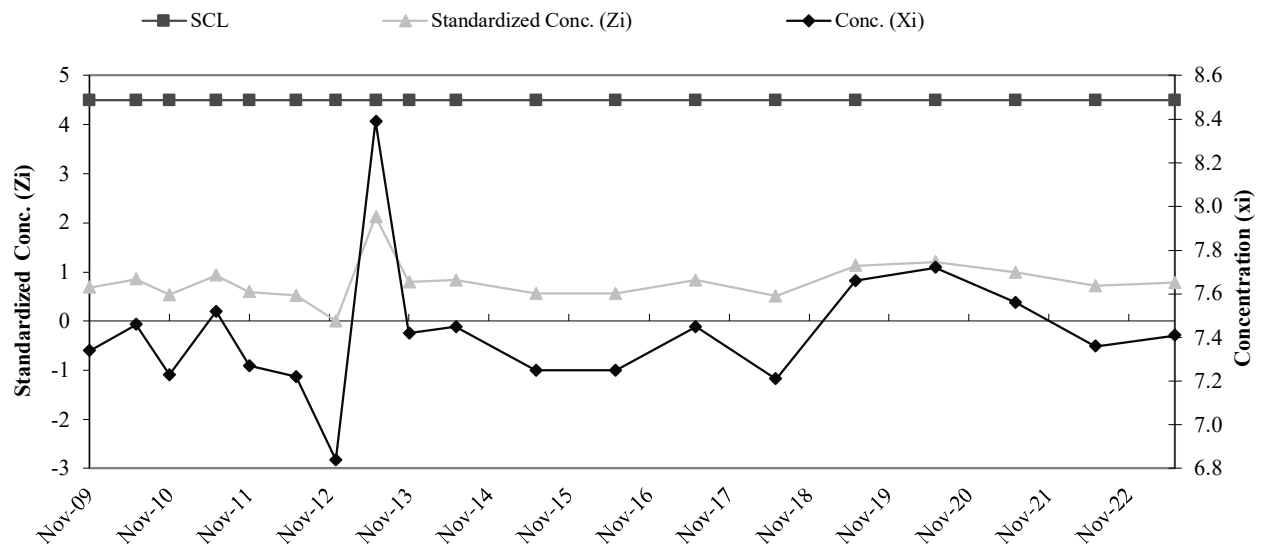


B-27 pH

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Dec-05	5.1	6.79	0.73
2	Jun-06	7.1		
3	Nov-06	7.5		
4	Jun-07	6.6		
5	Nov-07	7.3		
6	Jun-08	7.1		
7	Nov-08	6.8		
8	Jun-09	6.8		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	7.3	0.69
10	Jun-10	4.5	7.4	0.85
11	Nov-10	4.5	7.2	0.54
12	Jun-11	4.5	7.5	0.94
13	Nov-11	4.5	7.2	0.59
14	Jun-12	4.5	7.2	0.52
15	Dec-12	4.5	6.8	0.00
16	Jun-13	4.5	8.3	2.13
17	Nov-13	4.5	7.4	0.80
18	Jun-14	4.5	7.4	0.84
19	Jun-15	4.5	7.2	0.57
20	Jun-16	4.5	7.2	0.57
21	Jun-17	4.5	7.4	0.84
22	Jun-18	4.5	7.2	0.51
23	Jun-19	4.5	7.6	1.13
24	Jun-20	4.5	7.7	1.21
25	Jun-21	4.5	7.5	0.99
26	Jun-22	4.5	7.3	0.72
27	Jun-23	4.5	7.4	0.79

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

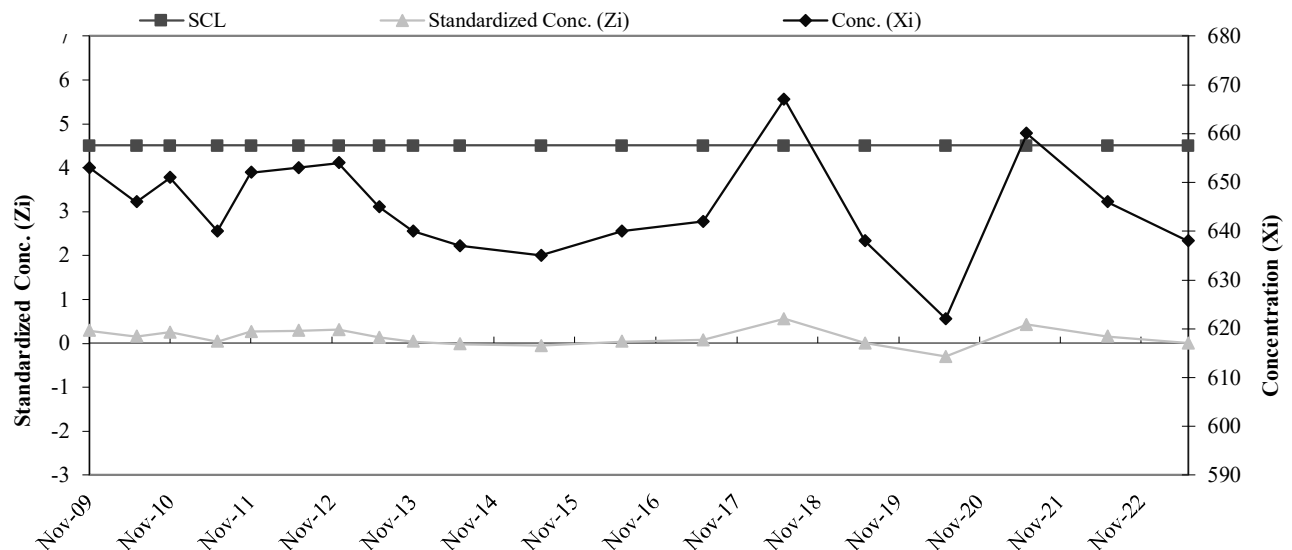


B-27 SpC

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Dec-05	714	637.75	52.08
2	Jun-06	594		
3	Nov-06	540		
4	Jun-07	628		
5	Nov-07	649		
6	Jun-08	659		
7	Nov-08	667		
8	Jun-09	651		

Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-09	4.5	653	0.29
10	Jun-10	4.5	646	0.16
11	Nov-10	4.5	651	0.25
12	Jun-11	4.5	640	0.04
13	Nov-11	4.5	652	0.27
14	Jun-12	4.5	653	0.29
15	Dec-12	4.5	654	0.31
16	Jun-13	4.5	645	0.14
17	Nov-13	4.5	640	0.04
18	Jun-14	4.5	637	-0.01
19	Jun-15	4.5	635	-0.05
20	Jun-16	4.5	640	0.04
21	Jun-17	4.5	642	0.08
22	Jun-18	4.5	667	0.56
23	Jun-19	4.5	638	0.00
24	Jun-20	4.5	622	-0.30
25	Jun-21	4.5	660	0.43
26	Jun-22	4.5	646	0.16
27	Jun-23	4.5	638	0.00

h = Decision Value for CUSUM, SCL = Shewart Control Limit, k = Standard Error Shift Detection Parameter, Zi = Standardized Mean

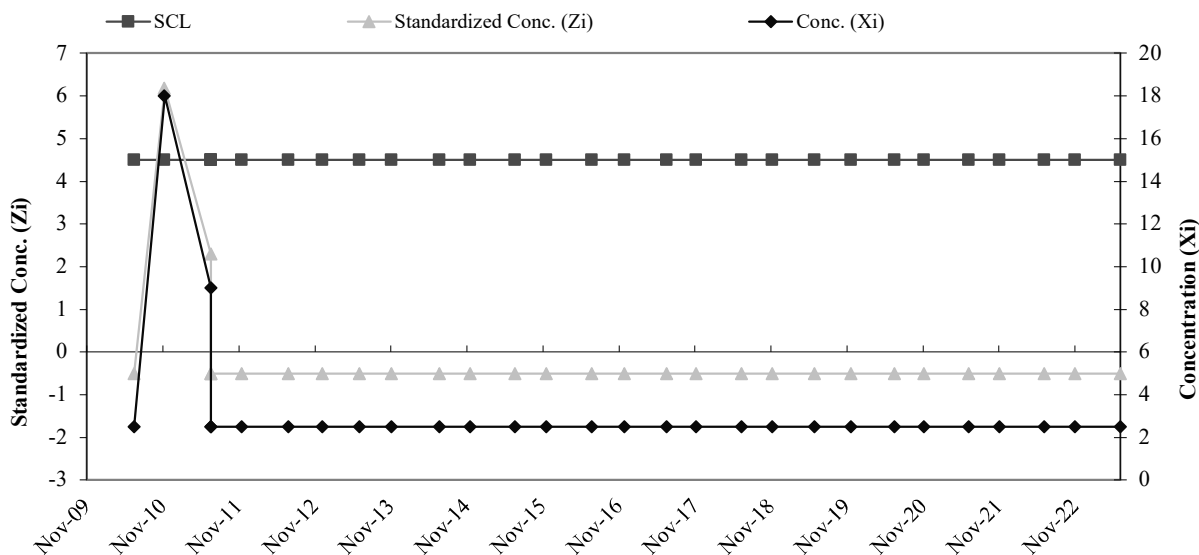


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 Cr

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	36	Nov-22	4.5	2.5	-0.51
12	Jun-11	4.5	2.5	-0.51	37	Jun-23	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

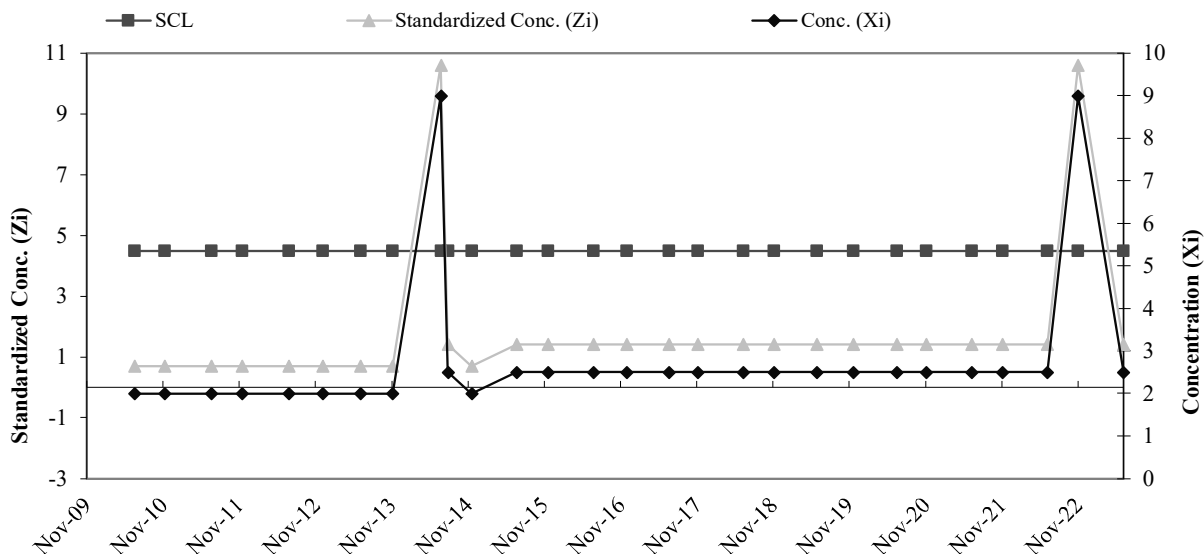


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 Cu

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	35	Nov-22	4.5	9	10.61
12	Nov-11	4.5	2	0.71	36	Jun-23	4.5	2.5	1.41
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

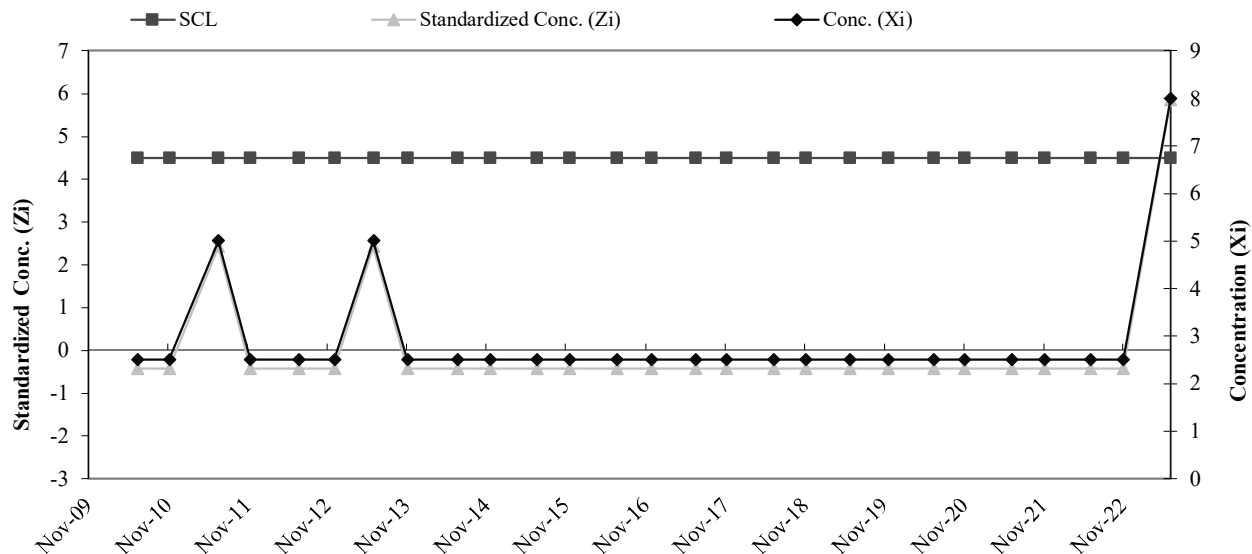


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 Ni

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	32	Nov-22	4.5	2.5	-0.43
9	Jun-11	4.5	5	2.43	33	Jun-23	4.5	8	5.85
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

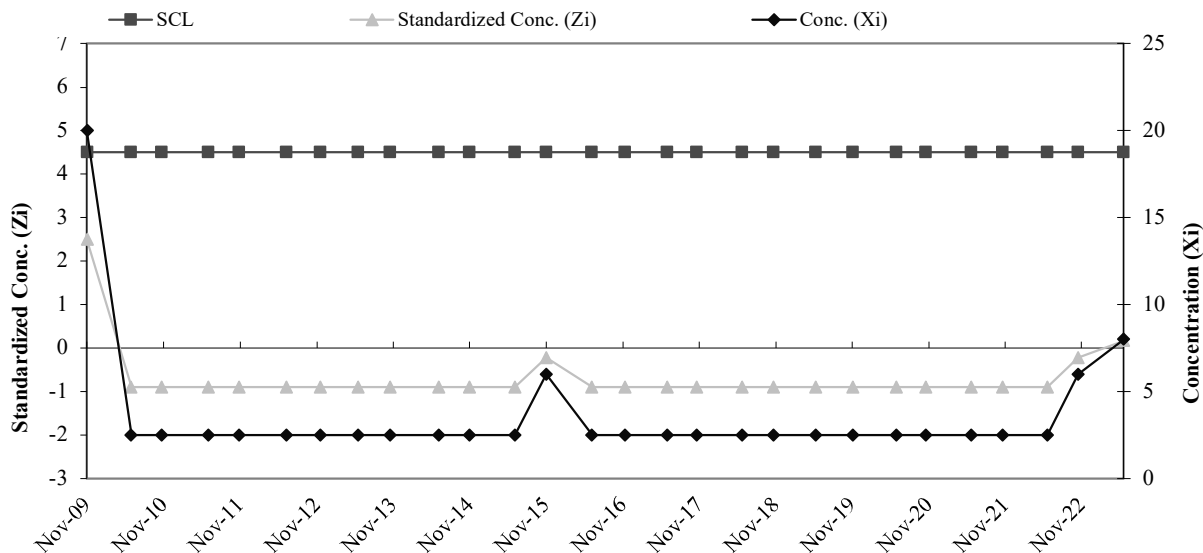


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 Zn

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	35	Nov-22	4.5	6	-0.22
11	Nov-10	4.5	2.5	-0.90	36	Jun-23	4.5	8	0.17
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

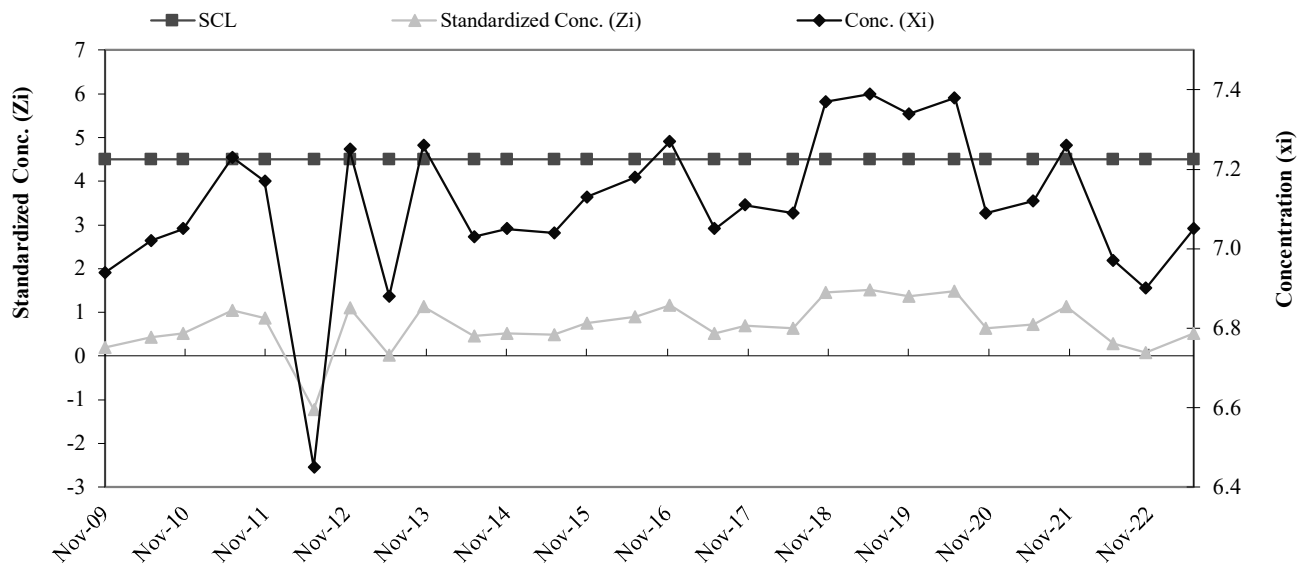


COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-28 pH

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	35	Nov-22	4.5	6.9	0.08
12	Jun-11	4.5	7.2	1.04	36	Jun-23	4.5	7.1	0.51
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	35	Nov-22	4.5	936	1.47
12	Jun-11	4.5	837	-0.13	36	Jun-23	4.5	949	1.68
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

