

POST-CLOSURE GROUNDWATER MONITORING – ANNUAL REPORT - FINAL

**Post-Closure Groundwater Monitoring Report
Coldwater Road Landfill
Flint, Michigan
MID 005 356 860**

**RACER Trust
Ypsilanti, Michigan**

February 2013



15388 | 48630

**Post-Closure Groundwater Monitoring
Coldwater Road Landfill
Flint, Michigan
MID 005 356 860**

**Prepared for RACER Trust
Ypsilanti, Michigan**



**SCOTT L. CORMIER, P.E.
VICE PRESIDENT
O'BRIEN & GERE ENGINEERS, INC.**



February 25, 2013

Mr. Richard Conforti, P.E.

Environmental Engineer
Michigan Department of Environmental Quality
Waste and Hazardous Material Division
P.O. Box 30241
Lansing, Michigan 48909-7741

RE: Post-Closure Groundwater Monitoring 2012 Annual Report
Coldwater Road Landfill, Flint, Michigan
MID 005 356 860
FILE: 15388 /48630/rep

Dear Mr. Conforti:

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, O'Brien & Gere is pleased to present the results of the annual groundwater sampling event conducted in December 2012 for the Coldwater Road Landfill site (Figure 1). The groundwater samples were analyzed for total organic carbon (TOC, Method 415.1), total organic halogen (TOX, Method 9020A), specific conductivity (Method 120.1), and dissolved metals (chromium (Cr), copper (Cu), nickel (Ni), zinc (Zn), Method 200.8).

The event also included field measurements for pH, specific conductivity, dissolved oxygen, oxidation reduction potential, temperature, and turbidity. Groundwater samples were collected using a bladder or peristaltic pump, and low-flow sampling techniques in accordance with O'Brien & Gere procedures and the site-specific Field Method Guide (Appendix A). Samples to be analyzed for dissolved metals were field filtered. Groundwater sampling logs are included in (Appendix B).

Gauging and sampling were conducted on December 5, 2012 through December 6, 2012. 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, Specific Conductivity, Metals). 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 map was completed for the shallow wells (Figure 3) and a groundwater potentiometric surface map was completed for the deeper drift aquifer (Figure 4).

Contours were not plotted for groundwater in the shallow wells because the wells monitor discontinuous perched zones and therefore the water level elevations exhibited no pattern.

The drift aquifer static water elevations, which were calculated from depth to water measurements collected on December 5, 2012, were consistent with historical data. Groundwater in the drift aquifer flows in a southerly direction as shown on (Figure 4).

Groundwater samples were collected from six monitoring wells screened in perched zones and six monitoring wells screened in the drift aquifer during this sampling event.

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

- Chromium concentrations were not detected above the method detection limits
- Copper concentrations were not detected above method detection limits, except in monitoring well B-7 (4 µg/L), and B-9 (8 µg/L) which was comparable to previous sample results

37000 Grand River Avenue, Suite 260, Farmington Hills, MI 48335 | p 248-477-5701 | f 248-477-5962 | www.obg.com

- Nickel concentrations were not detected above method detection limits; except in monitoring wells B-9 (17 µg/L), B-18A (5 µg/L), and B-19Ar (5µg/L) which was comparable to previous sample results
- Zinc concentrations increased, but were comparable to previous sampling results
- TOC concentrations were comparable to previous sample results
- TOX concentrations were not detected above method detection limits, except in monitoring well B-9 (19 µg/L) and B-24r (48 µg/L) which was comparable to previous sample results
- pH concentrations increased, but were comparable to previous sample results, except in well B-18A, which remained unchanged and in wells B-19Ar, B-23D and B-27D, which decreased
- Specific conductivity results were comparable to previous sample results or increased

The duplicate sample results collected from monitoring well B-28 were comparable to the original sample.

There were no exceedances of the Shewart control limits (SCL) during this sampling event (Appendix D). During this sampling event there was a spike of specific conductivity (3,210) in monitoring well B-9. The spike for specific conductivity was not a confirmed spike (as defined in Section 5.7.2 of the Post-Closure Care Plan, O'Brien & Gere, 2008) and does not suggest there was a release from the landfill. There were also negative (*i.e.*, decreasing concentration) trends for pH in monitoring wells B-23Dr and B-27D. The spike in specific conductivity and negative pH trends will continue to be monitored during future sampling events. No other spikes or trends were observed during this monitoring event.

The next sampling event (annual event) is currently scheduled for June 2013. If you have any questions, please feel free to contact either of us at (248) 477-5701.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.



Scott L. Cormier, PE
Vice President

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.



Clifford S. Yantz
Technical Associate

cc: David Favero – RACER Trust
Kevin Schneider – O'Brien & Gere

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with 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 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



Scott L. Cormier, P.E.
Vice President – O'Brien & Gere Engineers, Inc.

Agent for RACER Trust

February 25, 2013

Date

cc: file

TABLES

Table 1
RACER Trust - Coldwater Road Landfill Facility
Depth to Ground Water Levels in Monitoring Wells
December 5, 2012

Well	Top Of Casing Elev. (ft) *	Depth To Water (ft)	Static Water Elev. (ft)
B-2D	805.18	57.10	748.08
B-7	815.20	19.68	795.52
B-9	809.16	9.34	799.82
B-18A	812.25	26.02	786.23
B-19A	813.89	14.15	799.74
B-19AR	813.15	41.79	771.36
B-20D	816.61	72.76	743.85
B-21D	822.60	83.70	738.90
B-22D	823.73	87.16	736.57
B-23DR	813.72	83.87	729.85
B-24R	817.37	19.00	798.37
B-27D**	814.36	78.73	735.63
B-28	818.07	9.25	808.82

Notes

Casing elevations were provided by Bartow & King Engineers and are in feet relative to National Geodetic Vertical Datum

* - Top of casing elevations were resurveyed in May 2005 after the installation of the replacement wells.

R - Indicates a replacement well location.

** - Top of casing elevation was surveyed in December 2005 after the installation of the new well.

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-2D	6/21/1995	5.3	<10	9.0	434	15.0	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	6.3	130	8.3	479	14.4	<20	<20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/19/1996	5.2	<100	7.5	580	12.4	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	7.4	<5	7.7	641	13.9	<20	<20	<20	50	--	--	--	--	--	--	--
	11/13/1996	11.0	<5	7.3	769	7.6	<20	<20	<20	30	--	--	--	--	--	--	--
	5/6/1997	26.0	<100	6.3	1500	7.0	10	<10	28	30	--	--	--	--	--	--	--
	11/6/1997	15.0	<100	6.9	660	9.0	<10	<10	39	<10	280	577	--	12	<0.005	<0.020	79
	5/4/1998	29.0	12	6.7	549	12.4	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	52.0	18	4.7	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	8.5	523	14.5	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1999	6.4	<100	7.4	405	12.8	<10	<10	<5	40	70	21	35,100	4	<0.005	<0.020	42
	4/26/2000	5.4	<100	8.0	770	17.4	<10	<10	<5	<10	--	--	--	--	--	--	--
	12/8/2000	5.5	<10	6.7	610	9.7	<10	<10	9	<10	40	--	22,900	7	<0.005	<0.020	81
5/15/2001	5.5	<100	7.8	890	13.2	<10	<10	<5	<10	--	--	--	--	--	--	--	
10/18/2001	4.1	<100	7.4	1830	9.4	<10	<10	<5	<10	230	--	12,900	2	<0.005	<0.020	32	
Dup. 10/18/2001	3.6	<100	7.4	1780	7.8	<10	<10	<5	<10	210	--	12,700	1	<0.005	<0.020	32	
5/16/2002	4.0	<100	7.2	1000	11.6	<10	<10	<5	<10	--	--	--	--	--	--	--	
Dup. 11/7/2002	2.6	<30	7.4	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	
6/3/2003	4.4	<30	6.9	530	12.9	<5	<5	<5	<5	--	--	--	--	--	--	--	
11/13/2003	2.8	<30	8.0	630	7.7	<5	<5	<5	<5	110	7	--	2	<0.005	<0.010	31	
6/30/2004	4.2	<30	6.3	570	15.8	<5	<5	<5	7	--	--	--	--	--	--	--	
12/10/2004	2.0	<30	6.8	550	10.2	<5	<5	<5	10	760	145	10,700	2	<0.005	<0.010	35	
6/8/2005	2.0	<30	8.0	620	11.5	<5	<5	<5	<5	660	199	10,900	<5	<0.005	<0.010	34	
12/8/2005	3.0	<30	6.9	642	10.2	9	<4	<5	<10	140	120	13,300	--	--	--	--	
Dup. 6/28/2006	6.3	<30	7.4	671	12.2	<5	<4	<5	8	110	70	15,000	2	<0.005	<0.010	50	
6/28/2006	5.1	<30	7.4	682	12.2	<5	<4	<5	8	120	70	15,200	3	<0.005	<0.010	50	
11/30/2006	5.1	43.3	7.2	677	8.4	<5	<4	<5	18	--	--	--	--	--	--	--	
6/8/2007	2.4	69.1	6.8	644	14.1	8	2	1	6	110	104	14,800	4	<0.005	<0.010	44	
11/14/2007	5.2	<30	7.1	783	14.9	1	1	4	9	--	--	--	--	--	--	--	
6/25/2008	5.7	<60	6.9	920	18.4	<5	1	5	7	350	32	26,100	10	<0.005	<0.010	98	
11/20/2008	4.5	<30	6.8	806	9.1	<5	<1	<5	<5	--	--	--	--	--	--	--	
6/25/2009	5.6	<30	7.0	924	23.7	<5	203	<5	113	22	77	29,700	10	<0.005	<0.010	104	
11/16/2009	4	<30	7.2	835	10.2	<5	<4	<5	6	--	--	--	--	--	--	--	
6/16/2010	5	<30	7.1	841	13.9	<5	<4	<5	<5	40	83	19,000	7	<0.005	<0.020	75	
11/10/2010	4	<30	7.2	779	11.3	11	<4	<5	<5	--	--	--	--	--	--	--	
6/21/2011	2.9	<30	7.0	742	19.3	9	<4	<5	<5	250	55	16,900	6	<0.005	<0.010	57	
Replicate 6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--	
11/15/2011	3	16	7.1	751	11.3	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/27/2012	2.2	16	7.0	714	12.7	<5	<4	<5	<5	<20	25	17,300	<5	<0.005	<0.02	43	
12/6/2012	2.6	<40	7.5	714	10.2	<5	<4	<5	<5	--	--	--	--	--	--	--	

See notes on page 16.

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Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-7	6/21/1995	8.7	23	7.5	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	6.9	1,508	13.2	<20	<20	<20	20	--	--	--	--	--	--	--
	8/21/1996	55.0	26	7.6	1,567	17.1	<20	<20	<20	60	--	--	--	--	--	--	--
	11/13/1996	27.0	<5	8.0	1,960	7.2	<20	<20	<20	50	--	--	--	--	--	--	--
	5/6/1997	16.0	<100	7.2	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	6.6	1,270	10.7	<10	<10	<5	20	--	--	--	--	--	--	--
	11/5/1998	4.0	<10	4.6	1,240	11.2	<10	<10	8	30	10	424	31,000	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	58	<0.005	<0.020	161
	4/26/1999	3.9	<100	7.5	1,413	14.2	<10	<10	10	<10	--	--	--	--	--	--	--
	11/5/1999	5.1	<100	6.5	1,230	14.2	<10	<10	8	30	260	313	41,800	64	<0.005	<0.020	301
Dup.	4/26/2000	4.8	<100	7.6	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	7.1	1,180	9.5	<10	<10	20	10	50	--	58,900	79	<0.005	<0.020	227
	5/16/2001	5.0	<100	7.3	1,330	13.0	<10	<10	7	<10	--	--	--	--	--	--	--
	10/18/2001	5.3	<100	7.2	1,210	12.5	<10	<10	5	<10	330	--	60,800	81	<0.005	NA	205
	5/16/2002	3.9	<100	7.2	1,850	11.9	<10	<10	<5	10	--	--	--	--	--	--	--
	11/7/2002	NR	NR	7.4	1,120	10.3	<5	<5	5	5	250	<5	65,500	NA	NA	NA	NA
	6/4/2003	3.3	<30	6.9	1,460	12.6	<5	<5	<5	<5	--	--	--	--	--	--	--
	11/13/2003	3.9	<30	6.9	1,590	9.6	<5	<5	<5	5	190	<5	--	85	<0.005	<0.010	279
	6/30/2004	4.3	43	7.1	1,353	16.0	<5	<5	9	7	--	--	--	--	--	--	--
	12/9/2004	4.0	<30	5.3	1,290	10.8	<5	<5	7	14	180	74	71,200	78	<0.005	<0.010	251
	6/8/2005	7.0	86	7.4	1,121	10.9	5	<5	9	13	170	31	81,900	80	<0.005	<0.010	254
	12/7/2005	7.5	<30	8.7	1,430	12.2	10	<4	6	20	150	50	85,300	--	--	--	--
6/29/2006	4.3	<30	7.2	1,470	11.7	5	<4	9	18	190	150	76,900	73	<0.005	<0.010	270	
11/29/2006	4.4	<30	6.9	1,380	15.3	<5	<4	9	11	--	--	--	--	--	--	--	
6/7/2007	3.9	23.7	6.9	1,400	13.4	11	27	5	14	130	42	87,300	72	<0.005	<0.010	208	
11/14/2007	3.5	<30	6.9	1,350	13.4	14	6	16	20	--	--	--	--	--	--	--	
6/25/2008	3.8	72.9	6.9	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	6.8	1,258	5.5	<5	3	5	17	--	--	--	--	--	--	--	
6/24/2009	4.5	<30	6.9	1,184	20.0	<5	3	<5	14	67	36	84,500	40	<0.005	<0.010	154	
11/17/2009	8	25.3	7.3	1,090	10.3	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/17/2010	5	<30	7.0	1,290	16.3	<5	<4	<5	<5	<20	47	86,000	61	<0.005	<0.020	160	
11/8/2010	8	103	7.2	997	13.9	17	<4	<5	<5	--	--	--	--	--	--	--	
6/22/2011	4.3	25	7.3	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	7.0	974	12.8	<5	6	8	11	--	--	--	--	--	--	--	
6/27/2012	3.7	97	6.8	1,082	15.0	<5	<4	<5	<5	<20	58	64,900	40	<0.005	<0.02	134	
12/6/2012	7.9	<40	7.1	825	8.7	<5	4	<5	9	--	--	--	--	--	--	--	

See notes on page 16.

Table 2
RACER Trust - Coldwater Road Landfill Facility
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Physical Parameters, TOC, TOX, Metals, Chloride, Cyanide, Phenols, and Sulfate

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-9	6/21/1995	3.5	34	7.7	2,400	14.6	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	3.9	<10	7.7	1,829	14.8	37	43	<40	<20	--	--	--	--	--	--	--
	2/9/1996	3.1	<10	7.3	2,860	8.0	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	2.1	<100	6.8	2,550	11.5	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	2.3	<5	8.0	2,310	16.4	<20	<20	<20	70	--	--	--	--	--	--	--
	11/13/1996	71.0	<5	6.8	3,280	9.2	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	3.0	<100	6.8	2,600	10.0	<10	<10	51	20	--	--	--	--	--	--	--
	11/6/1997	2.0	<100	6.5	2,800	11.0	<10	<10	183	40	650	741	--	141	<0.005	<0.020	1,178
	5/4/1998	3.0	<5	6.6	2,400	14.5	10	10	18	40	--	--	--	--	--	--	--
	11/5/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS	NS	NS
	4/26/1999	4.0	<100	7.7	1,860	12.2	<10	<10	19	20	--	--	--	--	--	--	--
	11/5/1999	2.5	<100	6.8	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	7.6	2,780	9.5	<10	<10	12	30	--	--	--	--	--	--	--
	12/8/2000	5.0	<10	7.6	2,400	7.8	<10	<10	46	<10	50	--	69,500	142	<0.005	<0.020	1,246
	5/16/2001	4.8	<100	7.4	1,070	12.6	<10	<10	7	10	--	--	--	--	--	--	--
	10/17/2001	4.0	<100	7.5	2,130	10.8	<10	<10	8	20	940	--	66,000	122	<0.005	NA	1,150
	5/16/2002	1.9	<100	7.2	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	6.8	2,690	10.7	<5	<5	15	13	--	--	--	--	--	--	--
	11/13/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/30/2004	3.8	NS	6.9	2,379	12.7	<5	8	19	28	--	--	--	--	--	--	--
	12/9/2004	3.0	<30	5.9	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	7.1	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	8.6	2,830	11.9	11	5	12	40	320	410	58,500	--	--	--	--
	6/29/2006	1.9	<30	6.8	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	7.2	2,830	12.5	<5	6	<5	14	--	--	--	--	--	--	--
6/5/2007	2.1	<30	6.7	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	6.7	3,000	9.4	2	6	24	18	--	--	--	--	--	--	--	
7/2/2008	1.8	36.4	6.4	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	6.4	3,290	8.1	<5	<1	13	<5	--	--	--	--	--	--	--	
11/20/2008	2.0	127	6.4	3,280	8.1	<5	<1	13	<5	--	--	--	--	--	--	--	
6/25/2009	1.6	<30	6.7	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	6.7	3,030	12.7	<5	<4	16	8	--	--	--	--	--	--	--	
6/15/2010	3	27.5	6.7	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	6.4	2,910	12.9	19	4	7	15	--	--	--	--	--	--	--	
6/22/2011	1.9	<30	6.7	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	7.2	3,060	12.9	<5	<4	7	<5	--	--	--	--	--	--	--	
6/26/2012	2	21	6.5	2,770	14.0	<5	<4	8	<5	60	433	73,700	101	<0.005	<0.02	1,110	
12/5/2012	2.3	19	6.8	3,210	12.0	<5	8	17	23	--	--	--	--	--	--	--	

See notes on page 16.

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-14	6/21/1995	4.0	<10	--	--	--	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	--	25	--	--	--	<20	<20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	3.0	<10	7.6	776	8.9	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	1.7	<100	7.3	704	13.6	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	2.6	<5	8.9	748	13.1	<20	<20	<20	60	--	--	--	--	--	--	--
	11/13/1996	76.0	<5	7.8	980	7.2	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	3.0	<100	7.0	670	10.0	<10	<10	11	<10	--	--	--	--	--	--	--
	11/6/1997	2.0	<100	6.8	670	10.0	<10	<10	43	10	550	67	--	12	<0.005	<0.020	61
	5/4/1998	6.0	<5	6.7	558	13.3	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	2.0	<10	6.4	642	9.9	<10	<10	<5	10	<10	<5	13,900	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	8	<0.005	<0.020	47
	4/26/1999	4.5	<100	8.0	488	13.3	<10	<10	<5	30	--	--	--	--	--	--	--
	11/5/1999	NS	NS	7.3	609	14.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/26/2000	7.1	<100	7.4	510	14.7	<10	<10	<5	960	--	--	--	--	--	--	--
	12/8/2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/15/2001	5.0	--	7.8	510	13.2	<10	<10	6	380	--	--	--	--	--	--	--
	10/18/2001	2.1	<100	7.3	750	10.7	<10	<10	8	90	260	--	21,500	6	<0.005	NA	72
	5/16/2002	2.3	NR	7.1	1,790	12.1	<10	<10	<5	60	--	--	--	--	--	--	--
	11/7/2002	NR	NR	7.5	540	9.9	<5	<5	<5	31	170	15	14,400	NA	NA	NA	NA
	6/3/2003	2.4	<30	6.9	710	12.4	<5	<5	<5	54	--	--	--	--	--	--	--
	11/13/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/29/2004	2.8	<30	7.3	693	14.9	<5	<5	<5	26	--	--	--	--	--	--	--
	12/9/2004	5.0	<30	6.6	560	10.5	<5	<5	<5	1,260	160	62	4,390	5	<0.005	<0.010	84
	Re-sample	2/10/2005	--	--	--	--	--	--	--	160	--	--	--	--	--	--	--
		6/8/2005	4.0	<30	7.6	647	11.4	<5	<5	12	40	110	56	18,500	8	<0.005	<0.010
	12/8/2005	4.6	<30	6.1	818	1.6	8	<4	<5	30	210	40	16,000	--	--	--	--
Re-sample	2/14/2006	--	--	8.1	603	9.5	--	--	--	100	--	--	--	--	--	--	--
	6/27/2006	3.5	<30	7.1	767	13.2	<5	<4	<5	1,090	160	90	14,600	6	<0.005	<0.010	93
Re-sample	8/3/2006	--	--	7.5	840	12.4	--	--	--	203	--	--	--	--	--	--	--
	12/1/2006	3.2	<30	7.4	873	12.3	<5	<5	<5	1,440	--	--	--	--	--	--	--
Re-sample	1/30/2007	--	--	8	607	10.1	--	--	--	1,850	--	--	--	--	--	--	--
	6/5/2007	1.6	26.1	7.0	849	11.0	9	3	1	355	520	245	15,200	10	<0.005	<0.010	82
	11/15/2007	1.2	16.1	7.1	803	7.8	2	1	4	134	--	--	--	--	--	--	--

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-18A	6/21/1995	2.7	<10	7.5	1,048	13.3	<20	<20	<30	150	--	--	--	--	--	--	--
	8/31/1995	3.0	<10	7.9	989	13.2	<20	<20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	2.3	<10	7.4	1,021	9.3	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	1.4	<100	7.0	944	13.2	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	2.4	<5	7.5	1,041	12.8	<20	<20	<20	60	--	--	--	--	--	--	--
	11/13/1996	19.0	<5	7.2	1,331	6.4	<20	<20	<20	70	--	--	--	--	--	--	--
	5/6/1997	2.0	<100	6.5	900	10.0	<10	<10	13	10	--	--	--	--	--	--	--
	11/6/1997	4.0	<100	6.4	1,100	10.0	<10	<10	62	10	380	62	--	12	<0.005	<0.020	130
	5/4/1998	2.0	<5	6.7	862	11.8	<10	<10	<5	20	--	--	--	--	--	--	--
	11/5/1998	1.0	<10	6.0	1,090	11.8	<10	<10	<5	10	240	128	46,000	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	10	<0.005	<0.020	133
	4/26/1999	2.1	<100	8.1	921	14.0	<10	<10	<5	20	--	--	--	--	--	--	--
	11/5/1999	4.3	<100	7.1	832	14.0	<10	<10	<5	60	180	155	39,200	8	<0.005	<0.020	130
	4/26/2000	2.4	<100	7.5	980	10.4	<10	<10	<5	30	--	--	--	--	--	--	--
	12/8/2000	2.6	<10	7.0	990	9.9	<10	<10	15	<10	<10	--	34,500	7	<0.005	<0.020	126
Dup. 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	7.9	1,160	12.9	<10	<10	<5	10	--	--	--	--	--	--	--	
10/17/2001	2.2	<100	7.1	1,020	12.2	<10	<10	<5	<10	350	--	35,400	7	<0.005	<0.020	132	
5/16/2002	1.5	<100	7.2	2,080	12.2	<10	<10	<5	10	--	--	--	--	--	--	--	
11/7/2002	1.9	<30	7.2	820	10.1	<5	<5	<5	<5	190	26	40,800	10	<0.005	<0.020	134	
6/4/2003	1.6	<30	6.9	790	13.1	<5	<5	<5	5	--	--	--	--	--	--	--	
Dup. 11/13/2003	1	<30	7.7	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	7.2	863	12.0	<5	<5	7	10	--	--	--	--	--	--	--	
12/9/2004	3	<30	6.2	960	10.5	<5	<5	9	12	900	363	37,900	14	<0.005	<0.010	127	
6/8/2005	2	<30	7.4	819	10.9	<5	<5	6	16	170	80	40,000	11	<0.005	<0.010	120	
12/8/2005	2.6	<30	9.7	1,120	10.1	11	<4	<5	10	390	170	47,000	--	--	--	--	
6/27/2006	1.2	<30	7.1	1,110	13.2	5	4	<5	46	170	50	48,200	13	<0.005	<0.010	125	
11/30/2006	1.4	119	7.2	1,100	11.5	5	<4	<5	9	--	--	--	--	--	--	--	
6/4/2007	1	19.9	7.0	1,070	13.2	9	3	3	14	110	22	51,800	15	<0.005	<0.010	114	
11/14/2007	<1	19	6.9	1,090	13.7	1	2	6	11	--	--	--	--	--	--	--	
6/25/2008	12	34.1	7.1	1,060	20.4	<5	2	<5	11	310	<5	54,800	15	<0.005	<0.010	110	
11/18/2008	<1	<30	6.6	1,088	2.9	<5	<1	<5	<5	--	--	--	--	--	--	--	
6/24/2009	<1	<30	7.3	1,060	26.2	<5	1	<5	15	<20	<5	53,100	16	<0.005	<0.010	111	
11/18/2009	2	<30	6.9	1,070	11.7	<5	<4	<5	45	--	--	--	--	--	--	--	
6/17/2010	1	<30	7.2	1,080	17.5	<5	<4	<5	8	<20	<5	45,500	15	<0.005	<0.020	109	
11/10/2010	2	28	6.9	1,065	9.5	12	<4	<5	<5	--	--	--	--	--	--	--	
6/21/2011	1.2	<30	7.2	1,031	18.8	10	<4	5	12	240	<5	46,100	17	<0.005	<0.010	103	
Replicate 6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--	
11/15/2011	1	28	7.0	1,063	12.0	<5	<4	<5	<5	--	--	--	--	--	--	--	
Dup. 6/27/2012	1.2	<40	7.0	1,057	14.4	<5	<4	<5	<5	30	26	50,000	18	<0.005	<0.02	103	
6/27/2012	1.2	<40	7.0	1,054	14.4	<5	<4	<5	5	40	27	46,500	18	<0.005	<0.02	101	
12/6/2012	1.5	<40	7.0	1,071	9.3	<5	<4	5	9	--	--	--	--	--	--	--	

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	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	6.8	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	7.1	1,050	11.8	<10	<10	<5	<10	--	--	--	--	--	--	--
	10/17/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/16/2002	6.0	<100	7.2	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	6.9	1,350	12.9	<5	<5	<5	<5	--	--	--	--	--	--	--
11/13/2003	3.4	<30	7.6	1,620	10.2	<5	<5	<5	<5	20	<5	--	148	<0.005	<0.010	229	
6/29/2004	3.9	<30	7.2	1,316	14.7	<5	<5	<5	8	--	--	--	--	--	--	--	
12/9/2004	5.0	33	6.2	1,340	9.9	<5	<5	<5	9	240	11	111,000	116	<0.005	<0.010	233	
Dup. B-19AR	12/9/2004	5.0	<30	--	--	--	<5	<5	<5	7	170	<5	114,000	116	<0.005	<0.010	233
Dup. B-19AR	6/7/2005	3.0	<30	7.1	829	12.2	<5	<5	7	<5	1,320	228	15,700	52	<0.005	<0.010	130
Dup. B-19AR	12/8/2005	5.5	<30	--	1,390	--	10	<4	<5	20	160	<20	81,400	--	--	--	--
Dup. B-19AR	12/8/2005	5.3	<30	7.1	1,390	12.3	10	<4	<5	<10	150	<20	74,800	--	--	--	--
Re-sample	2/14/2006	--	--	8.0	840	5.9	<5	--	--	--	--	--	--	--	--	--	--
Re-sample	6/29/2006	2.7	<30	7.6	860	12.0	<5	<4	12	21	240	210	22,400	51	<0.005	<0.010	153
Re-sample	11/30/2006	6.2	33.7	7.2	1,300	11.4	5	<4	<5	<5	--	--	--	--	--	--	--
Re-sample	6/7/2007	2	<30	7.0	899	11.4	6	4	4	9	70	21	19,700	58	<0.005	<0.010	136
Re-sample	11/13/2007	1.5	<30	7.3	1,070	12.1	3	7	26	11	--	--	--	--	--	--	--
Re-sample	6/25/2008	2.4	38.8	7.1	1,060	17.4	<5	3	<5	16	380	9	18,500	58	<0.005	<0.010	148
Re-sample	11/18/2008	1.3	<30	7.0	1,052	8.0	<5	1	<5	14	--	--	--	--	--	--	--
Re-sample	6/24/2009	1.0	<30	7.7	911	17.3	<5	2	<5	<5	36	<5	21,200	60	<0.005	<0.010	147
Re-sample	11/19/2009	2	<30	7.4	994	10.4	<5	<4	<5	7	--	--	--	--	--	--	--
Re-sample	6/15/2010	2	<30	7.6	992	16.1	<5	<4	<5	<5	<20	<5	19,800	59	<0.005	<0.020	154
Re-sample	11/10/2010	2	<30	6.9	1,128	8.7	12	<4	<5	<5	--	--	--	--	--	--	--
Re-sample	6/22/2011	1.5	<30	7.4	902	17.2	5	<4	5	<5	240	<5	22,400	64	<0.005	<0.010	140
Replicate	6/22/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--
Replicate	11/16/2011	2	26	7.1	1,091	8.4	<5	<4	<5	5	--	--	--	--	--	--	--
Replicate	6/27/2012	1.5	<40	7.8	1,005	13.3	<5	<4	<5	<5	<20	<5	23,200	62	<0.005	<0.02	145
Replicate	12/6/2012	1.8	<40	7.4	1,129	10.2	<5	<4	5	6	--	--	--	--	--	--	--

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-20D	6/21/1995	2.8	<10	8.3	771	15.1	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	4.7	47	8.1	1,204	14.6	<20	20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	21.0	38	7.1	801	9.1	32	28	54	120	--	--	--	--	--	--	--
	6/19/1996	2.4	<100	7.9	745	11.9	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	3.0	<5	8.0	750	13.1	<20	<20	<20	40	--	--	--	--	--	--	--
	11/13/1996	16.0	<5	7.7	1,075	6.7	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	3.0	<100	6.8	640	10.0	<10	<10	15	10	--	--	--	--	--	--	--
	11/6/1997	5.0	<100	6.7	700	10.0	<10	20	41	<10	260	35	--	5	<0.005	<0.020	101
	5/4/1998	4.0	<5	6.8	579	12.2	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	3.0	11	6.5	667	13.5	<10	<10	<5	10	<10	18	31,000	--	--	--	--
	Dup. 11/5/1998	5.0	16	6.5	677	13.6	<10	<10	<5	10	170	8	30,300	--	--	--	--
	Dup. 12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	3	<0.005	<0.020	92
	Dup. 12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	3	<0.005	<0.020	89
	4/26/1999	3.2	<100	8.4	506	13.0	<10	<10	<5	10	--	--	--	--	--	--	--
	11/5/1999	5.3	<100	7.5	677	12.5	<10	<10	<5	60	130	60	31,400	33	<0.005	<0.020	105
4/26/2000	3.2	<100	7.4	760	14.9	<10	<10	<5	<10	--	--	--	--	--	--	--	
12/8/2000	3.2	<10	7.5	780	4.7	<10	<10	15	<10	20	--	19,700	2	<0.005	<0.020	113	
5/15/2001	2.7	<100	7.0	590	13.0	<10	<10	<5	<10	--	--	--	--	--	--	--	
10/18/2001	2.5	<100	7.9	930	10.4	<10	<10	<5	<10	300	--	20,600	2	<0.005	<0.020	105	
5/16/2002	3.2	<100	7.2	780	11.9	<10	<10	<5	10	--	--	--	--	--	--	--	
11/7/2002	1.8	<30	7.6	610	8.7	<5	<5	<5	<5	250	74	20,900	3	<0.005	<0.020	115	
6/3/2003	2.5	<30	7.4	620	12.8	<5	<5	<5	<5	--	--	--	--	--	--	--	
11/13/2003	1.3	<30	8.0	630	7.7	<5	<5	5	<5	200	15	--	5	<0.005	<0.010	127	
6/29/2004	9.4	<30	7.5	666	13.1	<5	<5	11	<5	--	--	--	--	--	--	--	
12/10/2004	2.0	<30	6.6	830	10.8	<5	<5	11	10	2,110	92	16,800	3	<0.005	<0.010	148	
6/7/2005	4.0	<30	7.3	707	11.9	7	<5	5	<5	2,140	66	16,500	<5	<0.005	<0.010	155	
12/8/2005	4.1	<30	4.8	957	11.1	11	<4	26	<10	120	120	20,600	--	--	--	--	
6/28/2006	1.7	<30	7.4	979	12.5	7	<4	<5	5	2,120	60	17,600	2	<0.005	<0.010	169	
11/30/2006	3.4	<30	7.5	980	12.5	6	<4	6	<5	--	--	--	--	--	--	--	
6/8/2007	3.4	30.9	6.7	929	13.4	10	22	19	124	610	160	25,500	4	<0.005	0.074	144	
11/13/2007	2.1	<30	7.2	932	13.5	3	1	13	9	--	--	--	--	--	--	--	
6/25/2008	<1	<60	7.0	946	15.5	<5	2	<5	7	2,400	55	19,500	4	<0.005	<0.010	164	
11/18/2008	1	36.1	6.9	1,006	12.6	<5	4	6	22	--	--	--	--	--	--	--	
Dup. 6/24/2009	1.1	<30	7.2	1,000	19.4	<5	<1	<5	<5	1,720	56	21,000	3	<0.005	<0.010	180	
Dup. 6/24/2009	<1	<30	7.2	1,010	19.4	<5	<1	<5	<5	1,640	56	20,800	3	<0.005	<0.010	183	
11/18/2009	2	<30	7.0	1,030	12.1	<5	<4	<5	5	--	--	--	--	--	--	--	
6/16/2010	2	<30	7.3	1,020	15.1	<5	<4	<5	<5	1,930	49	19,000	2	<0.005	<0.020	177	
11/9/2010	3	<30	7.0	998	11.7	11	<4	<5	<5	--	--	--	--	--	--	--	
6/22/2011	1.6	<30	7.2	967	15.5	9	<4	<5	13	2,550	54	18,600	<5	<0.005	<0.010	164	
Replicate 6/22/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--	
11/16/2011	2	50	7.0	1,006	9.8	<5	<4	<5	5	--	--	--	--	--	--	--	
Dup. 11/16/2011	2	26	7.0	1,002	9.8	<5	<4	<5	6	--	--	--	--	--	--	--	
6/25/2012	2	15	6.8	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	7.5	1,008	9.8	<5	<4	<5	7	--	--	--	--	--	--	--	

See notes on page 16.

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-21D	6/21/1995	4.2	<10	8.3	870	14.5	<20	<20	<30	61	--	--	--	--	--	--	--
	8/31/1995	3.3	19	8.1	684	14.2	<20	21	<40	<20	--	--	--	--	--	--	--
	2/9/1996	4.1	<10	7.7	646	8.6	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	5.3	<100	7.6	577	14.1	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	2.5	<5	7.9	576	13.8	<20	<20	<20	50	--	--	--	--	--	--	--
	11/13/1996	17.0	<5	7.3	810	8.8	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	2.0	<100	6.8	530	10.2	<10	<10	8	<10	--	--	--	--	--	--	--
	11/6/1997	3.0	<100	6.7	540	10.0	<10	<10	30	<10	240	27	--	2	<0.005	<0.020	33
	5/4/1998	16.0	<5	6.9	480	11.5	<10	<10	<5	20	--	--	--	--	--	--	--
	11/5/1998	5.0	<10	7.2	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	8.2	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	8.2	660	14.1	<10	<10	<5	<10	--	--	--	--	--	--	--
12/8/2000	4.2	<10	8.4	680	7.1	<10	<10	11	<10	<10	--	29,600	2	<0.005	<0.020	36	
5/15/2001	1.9	<100	7.9	570	13.0	<10	<10	<5	10	--	--	--	--	--	--	--	
5/15/2001	1.9	<100	8.3	560	13.0	<10	<10	<5	10	--	--	--	--	--	--	--	
10/18/2001	3.4	<100	7.6	570	13.7	<10	<10	<5	<10	200	--	22,200	1	<0.005	<0.020	41	
5/16/2002	6.1	<100	7.2	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	7.3	510	13.0	<5	<5	<5	6	--	--	--	--	--	--	--	
11/13/2003	1.0	<30	7.8	710	8.7	<5	<5	<5	9	100	<5	--	4	<0.005	<0.010	48	
6/30/2004	4.0	<30	6.8	570	14.8	<5	<5	<5	7	--	--	--	--	--	--	--	
12/10/2004	2.0	<30	6.4	600	9.9	<5	<5	<5	7	1,330	44	20,100	2	<0.005	<0.010	50	
6/8/2005	3.0	<30	7.7	560	14.2	<5	<5	12	6	1,350	72	21,000	<5	<0.005	<0.010	44	
12/8/2005	4.4	<30	5.5	741	11.4	8	<4	8	<10	1,070	60	21,500	--	--	--	--	
6/28/2006	1.5	<30	7.4	718	12.8	<5	<4	5	13	430	60	23,500	2	<0.005	<0.010	53	
11/30/2006	1.8	49.1	7.6	693	11.5	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/8/2007	1.2	<30	6.3	709	13.2	10	2	5	7	1,200	49	21,500	4	<0.005	<0.010	60	
11/14/2007	<1	<30	7.3	738	14.5	2	1	5	8	--	--	--	--	--	--	--	
6/26/2008	1.8	16.8	7.1	738	16.9	<5	1	<5	<5	1,390	40	22,700	3	<0.005	<0.010	60	
11/19/2008	1.1	<30	6.9	739	11.0	<5	<1	5	<5	--	--	--	--	--	--	--	
6/25/2009	<1	<30	6.7	743	16.1	<5	<1	<5	<5	1,210	34	25,100	3	<0.005	<0.010	64	
11/19/2009	2	41.2	7.2	745	10.2	<5	<4	<5	6	--	--	--	--	--	--	--	
11/19/2009	2	<30	7.2	739	10.2	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/17/2010	2	<30	7.4	736	13.2	<5	<4	<5	<5	980	34	23,700	3	<0.005	<0.020	58	
11/10/2010	1	<30	7.3	739	11.0	11	<4	<5	<5	--	--	--	--	--	--	--	
6/22/2011	1.4	<30	7.4	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	7.2	753	10.6	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/26/2012	1.3	<40	7.3	745	19.5	<5	<4	<5	<5	640	42	25,800	<5	<0.005	<0.02	66	
12/6/2012	1.6	<40	7.6	754	9.1	<5	<4	<5	8	--	--	--	--	--	--	--	

See notes on page 16.

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-22D	6/21/1995	2.6	<10	7.7	573	15.5	<20	<20	370	<20	--	--	--	--	--	--	--
	8/31/1995	4.5	47	8.3	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	7.5	600	13.4	<20	<20	<20	20	--	--	--	--	--	--	--
	8/21/1996	1.7	<5	8.1	608	14.2	<20	<20	<20	50	--	--	--	--	--	--	--
	11/13/1996	10.0	<5	7.2	817	7.7	<20	<20	<20	50	--	--	--	--	--	--	--
	5/6/1997	2.0	<100	6.7	550	10.1	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/6/1997	7.0	<100	6.9	550	10.0	<10	<10	29	10	1,360	55	--	2	<0.005	<0.020	32
	5/4/1998	5.0	<5	7.1	501	11.7	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	6.0	<10	6.6	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	8.2	485	13.2	<10	<10	<5	10	--	--	--	--	--	--	--
	11/5/1999	2.6	<100	7.3	474	13.6	<10	<10	<5	20	90	31	27,900	2	<0.005	<0.020	29
	4/26/2000	2.5	<100	8.2	670	14.2	<10	<10	<5	<10	--	--	--	--	--	--	--
	12/8/2000	2.5	<10	7.5	510	5.4	<10	<10	8	<10	<10	--	26,500	2	<0.005	<0.020	31
	5/15/2001	6.7	<100	8.0	690	13.7	<10	<10	6	30	--	--	--	--	--	--	--
	10/18/2001	1.7	<100	7.6	2,610	10.2	<10	<10	<5	<10	200	--	27,800	1	<0.005	<0.020	33
	5/16/2002	3.2	<100	7.1	630	12.1	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/7/2002	1.5	<30	7.4	480	8.8	<5	<5	<5	<5	120	11	25,200	2	<0.005	<0.020	35
	6/3/2003	2.3	<30	6.8	570	13.1	<5	<5	<5	<5	--	--	--	--	--	--	--
	11/14/2003	1.6	<30	8.1	660	9.8	<5	<5	<5	9	6	<5	--	3	<0.005	<0.010	37
	6/30/2004	1.7	<30	6.3	610	15.5	<5	<5	<5	6	--	--	--	--	--	--	--
	12/10/2004	2.0	<30	7.0	600	10.3	<5	<5	<5	6	1,280	37	25,100	2	<0.005	<0.010	42
	6/8/2005	2.0	<30	7.7	531	13.2	6	<5	<5	<5	1,370	38	23,700	<5	<0.005	<0.010	40
	12/8/2005	2.7	<30	5.8	702	11.7	10	<4	46	<10	2,200	250	25,400	--	--	--	--
	6/28/2006	<1	<30	7.5	682	13.0	<5	<4	<5	<5	1,290	30	25,800	2	<0.005	<0.010	42
11/30/2006	2.2	<30	7.5	684	13.3	<5	<4	<5	7	--	--	--	--	--	--	--	
Dup.	11/30/2006	5.3	<30	7.5	676	13.3	<5	<4	<5	--	--	--	--	--	--	--	
6/8/2007	3.8	<30	6.6	680	14.3	7	2	1	5	1,180	32	28,100	3	<0.005	<0.010	46	
Dup.	6/8/2007	3.1	21.1	6.6	669	14.3	9	2	1	4	1,210	31	28,400	4	<0.005	<0.010	47
11/14/2007	1.1	<30	7.3	710	14.2	2	2	3	6	--	--	--	--	--	--	--	
6/26/2008	1.7	22.6	7.1	694	19.3	<5	<1	<5	5	1,100	33	25,900	3	<0.005	<0.010	46	
Dup.	6/26/2008	2.6	<30	7.1	710	19.3	<5	<1	<5	7	1,150	34	26,400	3	<0.005	<0.010	46
11/19/2008	8.9	<30	6.9	699	8.2	<5	<1	8	8	--	--	--	--	--	--	--	
6/25/2009	1.1	<30	6.7	705	16.6	<5	<1	<5	<5	1,340	30	28,500	2	<0.005	<0.010	54	
11/18/2009	2	<30	7.2	710	11.4	<5	<4	<5	<5	--	--	--	--	--	--	--	
6/16/2010	2	<30	7.4	715	15.7	<5	<4	<5	<5	1,100	28	26,000	2	<0.005	<0.020	51	
11/11/2010	2	<30	7.3	704	10.3	11	<4	<5	<5	--	--	--	--	--	--	--	
6/21/2011	1.3	<30	7.4	705	17.0	9	<4	<5	<5	1,460	30	27,300	<5	<0.005	<0.010	50	
Replicate	6/21/2011	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--	
11/14/2011	2	76	7.4	714	10.1	<5	<4	<5	12	--	--	--	--	--	--	--	
6/25/2012	2	<40	6.5	714	12.7	<5	<4	<5	8	1,830	42	30,000	<5	<0.005	<0.02	51	
12/6/2012	1.6	<40	7.6	716	10.1	<5	<4	<5	9	--	--	--	--	--	--	--	

See notes on page 16.

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-23D	6/21/1995	3.4	<10	7.3	680	15.1	<20	<20	<30	<20	--	--	--	--	--	--	--
	8/31/1995	3.9	96	8.2	845	15.4	<20	<20	<40	<20	--	--	--	--	--	--	--
	2/9/1996	3.8	34	7.5	751	11.3	<20	<20	<40	<20	--	--	--	--	--	--	--
	6/19/1996	2.2	<100	8.3	632	14.2	<20	<20	<20	<20	--	--	--	--	--	--	--
	8/21/1996	1.7	<5	8.9	691	14.6	<20	<20	<20	50	--	--	--	--	--	--	--
	11/13/1996	40.0	<5	7.7	977	7.6	<20	<20	<20	40	--	--	--	--	--	--	--
	5/6/1997	2.0	<100	6.8	610	11.0	<10	<10	9	<10	--	--	--	--	--	--	--
	11/6/1997	3.0	<100	6.0	620	10.0	<10	<10	31	<10	160	15	--	2	<0.005	<0.020	25
	5/4/1998	2.0	<5	6.4	558	12.2	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1998	5.0	<10	6.5	639	9.8	<10	<10	<5	70	<10	<5	29,700	--	--	--	--
	12/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	2	<0.005	<0.020	21
	4/26/1999	3.6	<100	8.1	552	13.3	<10	<10	<5	<10	--	--	--	--	--	--	--
	Dup 4/26/1999	3.0	<100	NS	NS	NS	<10	<10	<5	<10	--	--	--	--	--	--	--
	11/5/1999	3.4	<100	7.4	546	13.3	<10	<10	<5	<10	80	14	34,700	3	<0.005	<0.020	26
	Dup 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	7.9	800	13.7	<10	<10	<5	<10	--	--	--	--	--	--	--	
12/8/2000	2.0	<10	7.0	570	7.0	<10	<10	7	<10	60	--	35,400	2	<0.005	<0.020	22	
5/15/2001	3.2	<100	7.9	790	13.1	<10	<10	<5	10	--	--	--	--	--	--	--	
10/17/2001	1.8	<100	7.5	600	11.3	<10	<10	<5	<10	170	--	32,800	2	<0.005	<0.020	23	
5/16/2002	5.4	<100	7.2	1200	11.2	<10	<10	<5	10	--	--	--	--	--	--	--	
11/7/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
6/3/2003	3.9	<30	6.9	640	12.9	<5	<5	<5	<5	--	--	--	--	--	--	--	
Dup 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	6.7	640.0	11.3	<5	<5	11	10	500	65	30,500	2	<0.005	<0.010	25	
B-23DR 6/7/2005	2.0	<30	7.3	594.0	12.2	<5	<5	<5	<5	2,520	49	20,600	25	<0.005	<0.010	60	
Dup 6/7/2005	2.0	<30	--	--	--	<5	<5	<5	<5	2,580	48	20,600	25	<0.005	<0.010	59	
B-23DR 12/8/2005	3.8	<30	6.2	700.0	6.1	7	<4	<5	<10	370	60	39,200	--	--	--	--	
6/27/2006	1.2	<30	7.1	760.0	13.4	5	<4	<5	5	2,280	50	20,500	26	<0.005	0.010	67	
11/30/2006	2.2	<30	7.6	568.0	11.8	<5	<4	<5	6	--	--	--	--	--	--	--	
6/8/2007	1.1	33.7	6.5	736	13.1	7	1	1	5	1,100	43	23,800	28	<0.005	<0.010	62	
11/16/2007	<1	<30	7.3	780	21.4	2	1	3	8	--	--	--	--	--	--	--	
6/26/2008	2.0	27.2	7.0	753	18.2	<5	1	<5	<5	1,850	44	23,700	22	<0.005	<0.010	54	
11/21/2008	<1	<30	6.7	763	6.0	<5	<1	<5	19	--	--	--	--	--	--	--	
6/25/2009	<1	<30	6.7	776	18.9	<5	<1	<5	<5	1,500	43	23,900	29	<0.005	<0.010	63	
11/18/2009	2	<30	7.2	756	11.9	<5	<4	<5	10	--	--	--	--	--	--	--	
B-23DR 6/16/2010	2	<30	7.4	747	18.2	<5	<4	<5	<5	950	35	23,200	20	<0.005	<0.020	45	
11/11/2010	2	21.5	7.3	743	12.8	11	<4	<5	<5	--	--	--	--	--	--	--	
Dup 11/11/2010	2	<30	7.3	742	12.8	11	<4	<5	<5	--	--	--	--	--	--	--	
6/21/2011	1.2	<30	7.3	721	18.0	8	<4	<5	<5	1,520	37	22,400	22	<0.005	<0.010	48	
Replicate 6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--	
11/15/2011	1	49	7.2	721	13.1	<5	<4	<5	8	--	--	--	--	--	--	--	
6/26/2012	1	<40	6.8	748	12.7	<5	<4	<5	<5	1,810	42	25,100	25	<0.005	<0.020	50	
B-23DR 12/5/2012	1.6	<40	6.6	755	9.6	<5	<4	<5	7	--	--	--	--	--	--	--	

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-24	6/21/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/31/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/9/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/19/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/21/1996	5.6	<5	7.8	1,502	12.7	<20	<20	<20	90	--	--	--	--	--	--	--
	11/13/1996	20.0	<5	7.1	2,030	7.8	<20	<20	<20	50	--	--	--	--	--	--	--
	5/6/1997	5.0	<100	6.4	1,700	10.0	<10	<10	31	10	--	--	--	--	--	--	--
	11/6/1997	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS	NS	NS
	5/4/1998	4.0	<5	6.5	1,410	11.6	<10	<10	8	20	--	--	--	--	--	--	--
	11/5/1998	4.0	23	5.5	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	7.2	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	6.4	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	7.3	857	10.6	8	<5	<5	<5	10,600	448	27,100	49	<0.005	<0.010	206
B-24R	12/8/2005	6.6	<30	5.2	1,120	11.9	11	<4	<5	10	3,180	210	28,700	--	--	--	--
	6/28/2006	4.7	<30	7.3	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	7.3	1,100	11.7	6	<4	<5	<5	--	--	--	--	--	--	--
	6/4/2007	4.5	110	7.2	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	7.1	1,130	14.0	3	1	5	7	--	--	--	--	--	--	--
	6/26/2008	4.3	<30	7.0	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	6.8	1,125	5.3	<5	<1	<5	<5	--	--	--	--	--	--	--
	6/24/2009	5.2	<30	6.6	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	7.1	1,140	12.9	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/16/2010	4	22.7	7.0	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	6.9	1,136	13.5	11	<4	<5	<5	--	--	--	--	--	--	--
	6/21/2011	3.7	<30	7.1	1,136	17.5	10	<4	6	<5	1,130	255	51,700	45	<0.005	<0.010	206
Dup. Replicate	6/21/2011	3.7	<30	7.1	1,137	17.5	8	<4	6	<5	1,070	255	52,000	45	<0.005	<0.010	206
Dup. Replicate	6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--
	6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--
	11/16/2011	4	24	7.7	1,141	11.1	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/26/2012	3.5	16	6.8	1,219	13.7	<5	<4	<5	<5	1,200	242	72,000	45	<0.005	<0.02	219
B-24R	12/6/2012	4.2	48	7.0	1,204	10.2	<5	<4	<5	6	--	--	--	--	--	--	--

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-27D	12/8/2005	3.7	<30	5	714	4.8	9	<4	6	<10	240	140	34,200	--	--	--	--
	6/27/2006	1.3	<30	7.1	644	13.5	6	<4	7	6	1,050	110	32,300	--	--	--	--
	11/30/2006	<1	<30	7.5	540	11.7	<5	<4	<5	6	--	--	--	--	--	--	--
	6/8/2007	4	25.7	6.6	628	14.6	9	2	3	36	1,520	58	36,300	4	<0.005	<0.010	23
	11/15/2007	1.9	<30	7.3	649	11.6	2	1	5	32	--	--	--	--	--	--	--
	6/26/2008	1.7	<30	7.1	659	16.3	<5	<1	<5	<5	300	59	33,900	2	<0.005	<0.010	23
	11/21/2008	1.3	<30	6.8	667	6.6	<5	<1	<5	<5	--	--	--	--	--	--	--
	6/25/2009	<1	<30	6.8	651	16.5	<5	1	<5	<5	2,030	52	37,200	2	<0.005	<0.010	20
	11/18/2009	2	<30	7.3	653	11.2	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/15/2010	2	<30	7.4	646	15.7	<5	<4	<5	<5	1,250	36	32,200	2	<0.005	<0.020	19
	Dup. 6/15/2010	2	31.2	7.4	652	15.7	<5	<4	<5	<5	1,220	35	31,700	2	<0.005	<0.020	20
	11/9/2010	2	<30	7.2	651	13.3	10	<4	<5	<5	--	--	--	--	--	--	--
	6/21/2011	1.5	<30	7.5	640	15.6	9	<4	<5	<5	1,370	29	34,600	<5	<0.005	<0.010	19
Replicate 6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--	--
11/15/2011	1	34	7.2	652	12.1	<5	<4	6	8	--	--	--	--	--	--	--	
6/26/2012	1.5	<40	7.2	653	13.0	<5	<4	<5	<5	1,450	28	34,200	<5	<0.005	<0.02	20	
12/5/2012	1.7	<40	6.8	654	11.0	<5	<4	<5	10	--	--	--	--	--	--	--	

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-28	11/21/2005	--	--	6.2	994	12.3	--	--	--	<5	--	--	--	--	--	--	--
Dup.	11/21/2005	--	--	6.2	--	12.3	--	--	--	7	--	--	--	--	--	--	--
	6/27/2006	3	<30	7.1	828	13.2	5	<4	<5	18	2,380	210	17,000	--	--	--	--
	12/1/2006	2.4	<30	7.5	812	12.3	<5	<4	<5	5	--	--	--	--	--	--	--
Dup.	12/1/2006	3.3	<30	7.5	810	12.3	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/5/2007	2.1	<30	6.8	845	10.6	9	2	3	6	1,690	160	25,100	12	<0.005	<0.010	87
	11/15/2007	2.5	15	6.8	816	9.1	3	2	5	11	--	--	--	--	--	--	--
	6/27/2008	1.8	<30	6.9	840	17.6	<5	1	<5	5	370	84	16,300	10	<0.005	<0.010	88
	11/19/2008	1.1	<30	6.8	804	7.0	<5	<1	<5	<5	--	--	--	--	--	--	--
	6/24/2009	1.1	<30	7.0	822	19.5	<5	<1	<5	<5	204	132	14,600	10	<0.005	<0.010	84
	11/18/2009	2	<30	6.9	814	11.6	<5	<4	<5	20	--	--	--	--	--	--	--
	6/16/2010	2	<30	7.0	841	17.6	<5	<4	<5	<5	790	173	19,100	12	<0.005	<0.020	78
	11/10/2010	3	<30	7.1	813	13.3	18	<4	<5	<5	--	--	--	--	--	--	--
	6/21/2011	1.5	<30	7.2	837	14.1	9	<4	5	<5	1,380	130	23,400	12	<0.005	<0.010	80
Replicate	6/21/2011	--	--	--	--	--	<5	--	--	--	--	--	--	--	--	--	--
	11/15/2011	2	160	7.2	823	12.5	<5	<4	<5	<5	--	--	--	--	--	--	--
	6/26/2012	2	<40	6.5	849	13.0	<5	<4	<5	<5	1,960	84	29,800	12	<0.005	<0.02	80
Dup.	12/6/2012	1.6	<40	7.3	823	11.4	<5	<4	<5	<5	--	--	--	--	--	--	--
	12/6/2012	1.7	<40	7.3	823	11.4	<5	<4	<5	<5	--	--	--	--	--	--	--

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-29	11/21/2005	--	--	6.8	1,870	11.7	--	--	--	11	--	--	--	--	--	--	--
	6/27/2006	--	--	7.1	1,480	12.3	6	<4	<5	28	1,480	140	47,300	--	--	--	--
	12/1/2006	--	--	7.3	--	11.4	8	<4	5	9	--	--	--	--	--	--	--
	6/5/2007	2.4	31.1	6.9	1,402	10.3	11	3	3	8	800	118	46,300	70	<0.005	<0.010	218
	11/15/2007	3.2	17.3	6.9	1,370	12.2	4	2	7	14	--	--	--	--	--	--	--
Dup.	11/15/2007	2.7	16.5	6.9	1,380	12.2	3	2	7	10	--	--	--	--	--	--	--

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

Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)						Inorganics (mg/L)				
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	100 (A)	2,400							
B-30	11/21/2005	--	--	6.8	1,450	12.1	--	--	--	212	--	--	--	--	--	--	--
	6/27/2006	--	--	7.1	1,330	12.3	6	<4	<5	16	2,690	100	21,300	--	--	--	--
	12/1/2006	--	--	7.3	--	10.6	6	<4	<5	8	--	--	--	--	--	--	--
	6/5/2007	2.7	<30	7.0	1,542	10.9	11	4	4	17	1,260	171	25,000	35	<0.005	<0.010	452
	11/15/2007	2.4	17.4	7.0	1,510	9.3	4	3	7	14	--	--	--	--	--	--	--

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Well ID	Sample Date	Indicator Parameters					Dissolved Metals (µg/L)							Inorganics (mg/L)			
		TOC (mg/L)	TOX (µg/L)	pH	SpC	T	Cr	Cu	Ni	Zn	Fe	Mn	Na	Chloride	Cyanide	Phenols	Sulfate
		MDEQ Residential Drinking Water Criteria					100 (A)	1,000 (A)	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	6350	<2	<0.005	<0.02	<2
12/6/2012	<1	<40	--	17.0	--	<5	<4	<5	<5	50	<5	6,350	<2	<0.005	<0.02	<2	

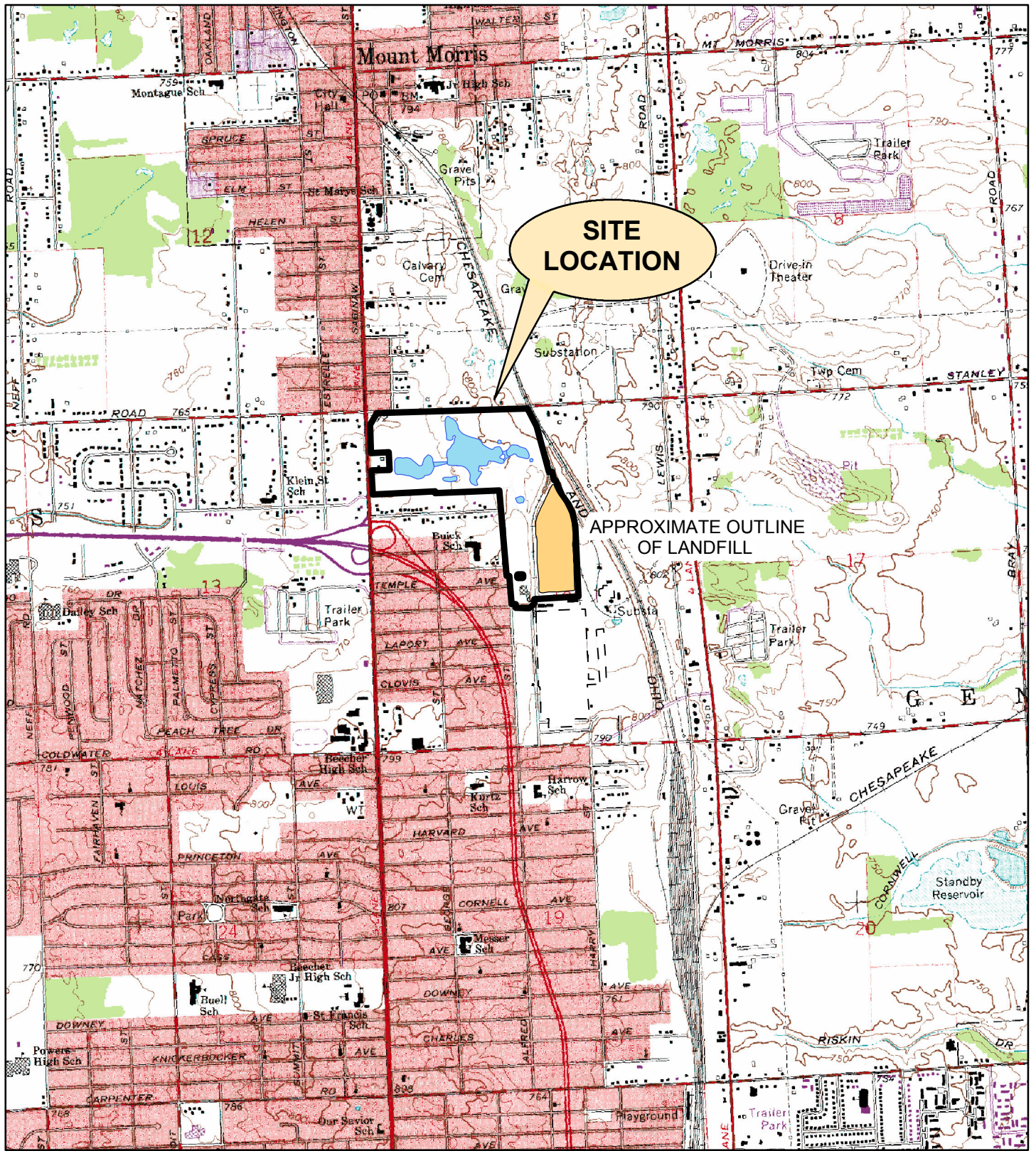
Notes

- 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.
- Exceeds MDEQ Residential Drinking Water Criteria
- 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)

FIGURES

I:\078\PROJECTS\15388 RACER Trust\48630\DOC\2013-01 A report\figures\001.MXD

PLOT DATE: 1/21/2013 KBS



RACER TRUST
COLDWATER ROAD LANDFILL FACILITY
FLINT, MICHIGAN

SITE LOCATION MAP



1076\PROJECTS\15388 RACER Trust\48630\DOCS\REPORTS\2013\01 ANNUAL FIGURES\002.MXD

PLOT DATE: 12-1-2013 KBS

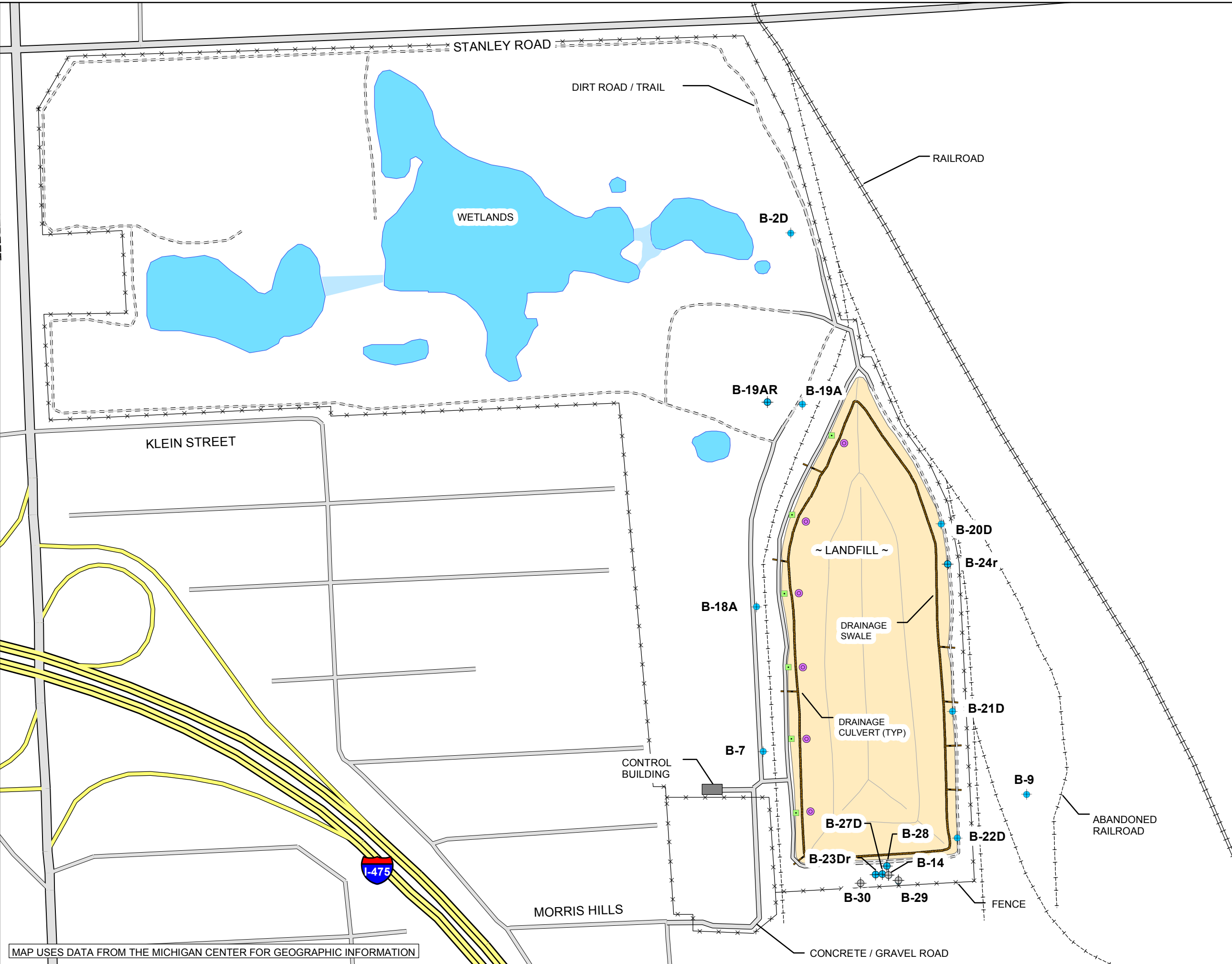






FIGURE 2

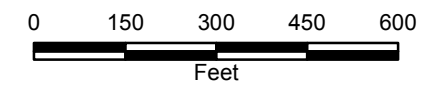


LEGEND

-  LEACHATE COLLECTION SUMP
-  ACCESS PORT FOR LEAK DETECTION VAULT
-  MONITORING WELL
-  ABANDONED WELL

RACER TRUST
COLDWATER ROAD
LANDFILL FACILITY
FLINT, MICHIGAN

SITE LAYOUT



DECEMBER 2012
15388/48630/002

MAP USES DATA FROM THE MICHIGAN CENTER FOR GEOGRAPHIC INFORMATION

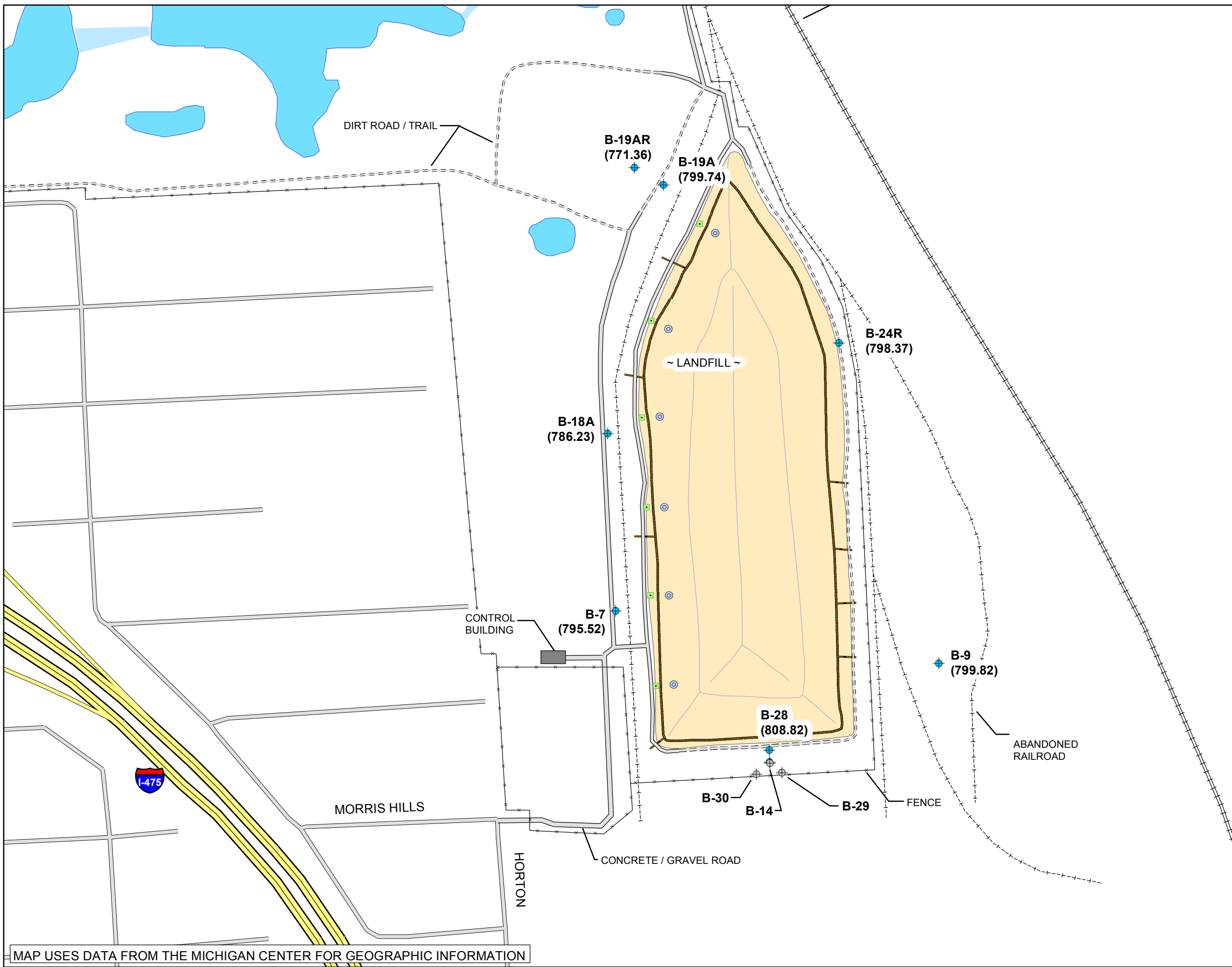





FIGURE 3

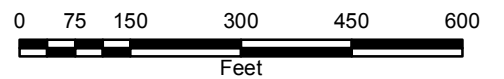


LEGEND

-  MONITORING WELL
-  GROUNDWATER ELEVATION (803.71)
-  ABANDONED WELL

RACER TRUST
COLDWATER ROAD
LANDFILL FACILITY
FLINT, MICHIGAN

**SHALLOW
GROUNDWATER
ELEVATION MAP
DECEMBER 5, 2012**



DECEMBER 2012
15388/48630-003



1078\PROJECTS\15388 RACER TRUST\48630\DCS\REPORTS\2012-12 A FIGURES\004.MXD

PLOT DATE: 1/23/2012 KBS

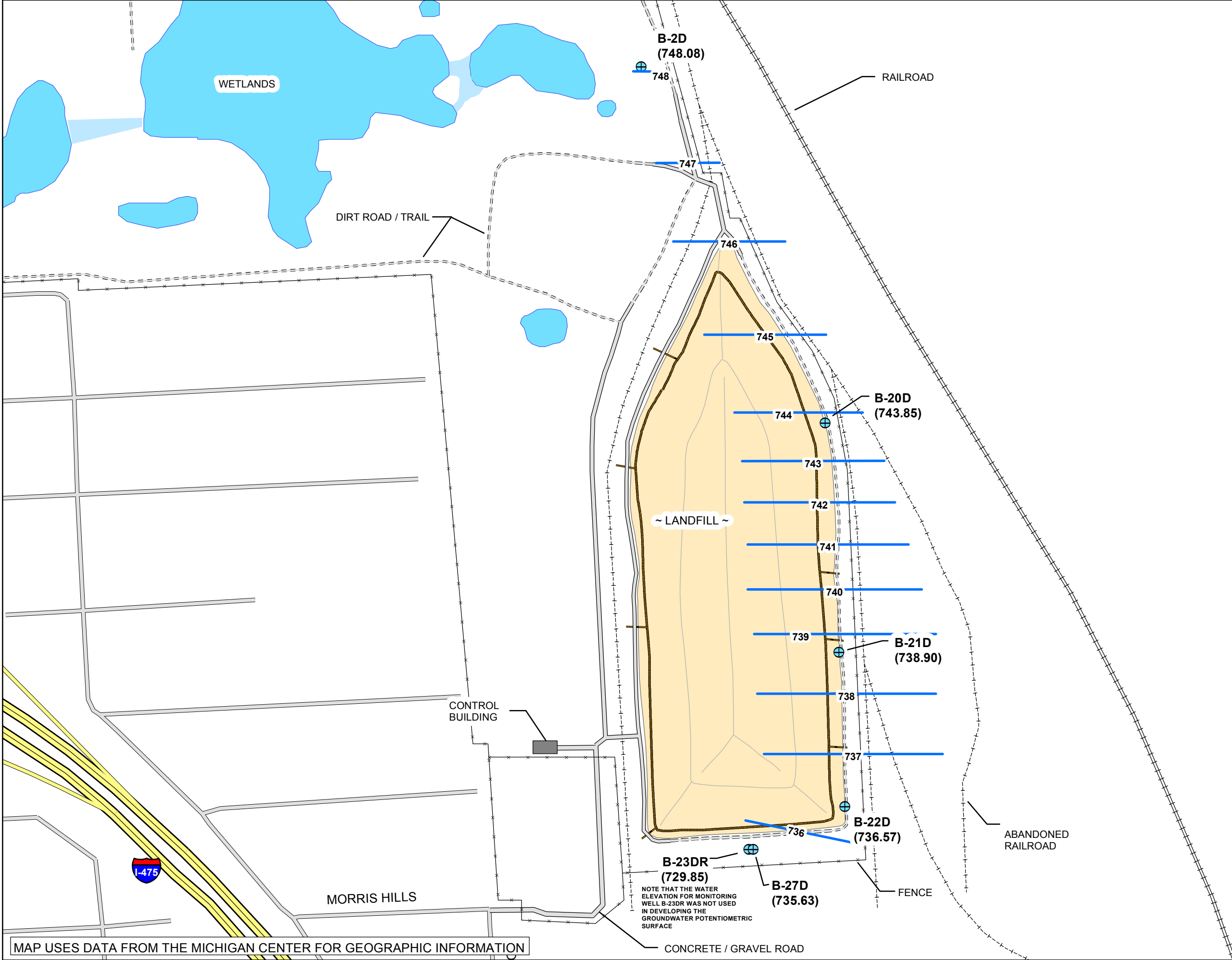





FIGURE 4



LEGEND

-  MONITORING WELL
-  (748.45) GROUNDWATER ELEVATION
-  740 GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION

RACER TRUST
COLDWATER ROAD
LANDFILL FACILITY
FLINT, MICHIGAN

**DRIFT AQUIFER
GROUNDWATER
POTENTIOMETRIC
SURFACE MAP
DECEMBER 5, 2012**



DECEMBER 2012
15388/48630-004



MAP USES DATA FROM THE MICHIGAN CENTER FOR GEOGRAPHIC INFORMATION

APPENDIX A
Sampling Procedures

**GROUND WATER SAMPLING STANDARD OPERATING PROCEDURE
COLDWATER ROAD LANDFILL
FLINT, MICHIGAN**

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Procedural Guidelines..... 2
Equipment/Materials 5
References 7

List of Forms (*Following Text*)

Ground Water Sampling Log

Introduction

This procedure is for the collection of ground water samples for laboratory analysis.

The objective of most ground water quality monitoring programs is to obtain samples that are representative of existing ground water conditions, or samples that retain the physical and chemical properties of the ground water within an aquifer.

One of the most important aspects of ground water 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 sampling method of "preference" for sites where particulate sorption is an issue is the "low stress/low flow" technique described herein. Experience has shown that the "low stress/low flow" technique typically achieves representative ground water 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. Ultra-low flow techniques are conducted at purging rates below 100 mL per minute, and should only be utilized after careful review and a procedural variance has been approved.

GM Procedures Referenced

- FMG 1.4 - Data Recording - Field Books/Digital Recording.
- FMG 5.1 - Water Level Measurements.
- FMG 8.0 - Field Instruments - Use/Calibration
- FMG 9.0 - Equipment Decontamination.

Procedural Guidelines

The following describes the "Low Stress/Low Flow Methods" technique for ground water sampling.

"Low Stress/Low Flow Methods" will be employed at the Coldwater Road Landfill site to collect ground water samples truly representative of the ground water present, and to minimize the impact of sediment/ colloid presence. Analyses typically sensitive to turbidity/sediment issues are PCBs, SVOCs, and inorganic constituents.

Preparatory Requirements

1. Verify well identification and location using borehole log details and location layout figures. Note the condition of the well and inform the Project Manager of any required repair work.
2. For new wells, prior to opening the well cap, measure the breathing space above the well casing with a PID to establish baseline levels. Repeat this measurement once the well cap is opened. If either of these measurements exceeds the air quality criteria in the Health and Safety Plan, field personnel should adjust their PPE accordingly.
3. Prior to commencing the ground water purging/sampling tasks, water level and total well depth measurements must be obtained to determine the volume of water in the well. Refer to FMG 5.1 - Water Level Measurements for details, as necessary. In some settings it may be necessary to allow time for the water level to equilibrate. This condition exists if a watertight seal exists at the well cap and the water level has fluctuated above the top of screen, creating a vacuum or pressurized area within the well casing. Three water level checks will verify static water level conditions or changing conditions.
4. Calculate the water volume in the well. Typically overburden well volumes consider only the quantity of water standing in the well screen and riser; bedrock well volumes are calculated on the quantity of water within the open core hole and within the overburden casing.
5. Estimate the natural ground water flow rate into well to determine the approximate pumping rate for purging/sampling activities.

Well Purging and Stabilization Monitoring (Low Stress/Low Flow Method)

1. The GM method of preference for ground water sampling will be the low stress/low flow method described below.
2. Bladder pumps/submersible variable rate pumps (i.e., Grundfos™ Rediflo or equivalent) or peristaltic pumps are typically employed.
3. Slowly lower the pump, safety cable, tubing and electrical lines into the well to the depth specified by the project requirements. The pump or tubing should be placed in the well as early as possible before sampling is initiated (this is to minimize well disturbance). Peristaltic tubing placement should include a tubing "clamp" at the well head, to minimize vibration transfer into

the water column. The pump or tubing intake must be at the mid-point of the well screen to prevent disturbance and re-suspension of any sediment in the screen base. Bedrock well sampling may require pump/tubing placement in specific fracture zone areas or other areas, which will be identified within the project Work Plan.

4. Before starting the pump, measure the water level again with the pump in the well leaving the water level measuring device in the well when completed.
5. Purge the well at 100 to a maximum of 500 milliliters per minute (mL/min). During purging, the water level should be monitored approximately every 5 minutes, or as appropriate. A steady flow rate should be maintained which results in drawdown of 0.3 ft or less. The rate of pumping should not exceed the natural flow rate conditions of the well being sampled. Care should be taken to maintain pump suction and to avoid entrainment of air in the tubing. Record adjustments made to the pumping rates and water levels immediately after each adjustment.

If drawdowns of 0.3 feet or less can not be maintained because of the permeability of the formation at a particular well location, “ultra-low flow” purge techniques will be employed. Ultra-low flow purge rates are rates below 100 mL/min. However, if ultra-low flow purging still results in the well purging “dry,” the well will be allowed to recharge for the balance of the day. As a sufficient volume of water enters the well, field parameter measurements will be collected and purging will continue up to a maximum of 24 hours from the beginning of purging, at which time the ground water sample from the well will be collected.

6. Calibrate field instrument and document calibration activity. Calibration shall be performed in accordance with manufacturer's recommendations and FMG 8.0 - Field Instruments - Use/Calibration.
7. 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 ground water flow rate is achieved, and three consecutive readings for each parameter are within the following limits:

- pH ± 0.1 pH units of the average value of the three readings;
- temperature ± 3 percent of the average value of the three readings;
- conductivity ± 0.005 milliSiemen per centimeter (mS/cm) of the average value of the three readings for conductivity < 1 mS/cm and ± 0.01 mS/cm of the average value of the three readings for conductivity > 1 MS/cm;
- ORP ± 10 millivolts (mV) of the average value of the three readings;
- DO ± 10 percent of the average value of the three readings; and
- turbidity ± 10 percent of the average value of the three readings, or a final value of less than 5 nephelometric turbidity units (NTU).

8. Should stabilization not be achieved for all field parameters, purging is continued until a maximum of 3 well volumes have been purged from the well. After purging 3 well volumes, purging is continued if the purge water remains visually turbid and appears to be clearing, or if stabilization parameters are varying slightly outside of the stabilization criteria listed above and appear to be approaching stabilization.
9. The pump must not be removed from the well between purging and sampling.

Sampling Techniques

1. Samples are typically collected directly from the pump with the ground water being discharged directly into the appropriate sample container. Avoid handling the interior of the bottle or bottle cap and don new gloves for each well sampled to avoid contamination of the sample.
2. Order of sample collection:
 - VOCs;
 - SVOCs and PCBs;
 - Total organic carbon (TOC);
 - Total organic halogens (TOX);
 - Extractable organics;
 - Total metals;
 - Dissolved metals;
 - Phenols;
 - Cyanide;
 - Sulfate and chloride; and
 - Nitrate and ammonia.
3. For low stress/low flow sampling, samples should be collected at a flow rate between 100 and 250 mL/min and such that drawdown of the water level within the well does not exceed the maximum allowable drawdown of 0.3 ft, except as noted in item 5. under well purging and stabilization monitoring.
4. The pumping rate used to collect a sample for VOCs should not exceed 100 mL/min. Samples should be transferred directly to the final container 40 mL glass vials completely full and topped with a teflon cap. Once capped the vial must be inverted and tapped to check for headspace/air presence (bubbles). If air is present the sample vial will be discarded, and re-collected until free of air.
5. Field filtration will be performed as indicated in the Post-Closure Care Plan. Sediment presence can interfere or bias sample results; false positive findings have been observed when turbid samples for inorganic (and other analytes) are analyzed. Field filtration can eliminate this concern; generally applicable to only inorganic/PCB analysis. In-line disposable filter cartridges are generally the easiest and quickest method for field filtration.

6. Sample labels/sample identification. All samples must be labeled with:
 - A unique sample number;
 - Date and time;
 - Parameters to be analyzed;
 - Project Reference ID; and
 - Sampler's initials.
7. Labels should be secured to the bottle(s) and should be written in indelible inks.

Equipment/Materials

1. pH, conductivity, nephelometric (i.e., turbidity), ORP, DO, and temperature multimeter. A separate turbidity meter may be utilized if necessary.
2. Flow-through cell for multimeter.
3. Field filtration units (if required).
4. Purging/sampling equipment:
 - Peristaltic pump (not suitable for VOCs¹/SVOCs, or drawing water from depths greater than 25 ft²);
 - Suction pumps (not suitable for VOCs/SVOCs, or depths greater than 25 ft);
 - Submersible pumps (suitable for VOCs/SVOCs only at low flow rates); and
 - Bladder pumps (suitable for VOCs/SVOCs).
5. Water level probe.
6. Sampling materials (containers, log book/forms, coolers, chain-of-custody).
7. Post-Closure Care Plan.
8. Health and Safety Plan.

Note¹: Peristaltic pump use for VOC collection is acceptable on select EPA/RCRA and MDEQ sites; this technique has gained acceptance in select areas (MDEQ allows VOC sampling with the peristaltic pump).

Note²: Exception is noted in locations that the suction line can be placed at the desired sample depth (i.e., 100 ft), and the natural recharge maintains a water level within 25 feet of the ground surface.

Field Notes

Field notes must document field activities and measurements collected during the sampling activities. FMG 1.4 - Data Recording - Field Books/Digital Recording describes the data/recording procedure for field activities. The log book/field file should document the following for each well sampled:

- Identification of well.
- PID readings before and after well opening (if required).
- Well depth.
- Static water level depth and measurement technique.
- Sounded well depth.
- Presence of immiscible layers and detection/collection method.
- Well yield – high or low.
- Purge volume, pumping rate, and final disposition.
- Time well purged.
- Measured field parameters and meter calibration records.
- Purge/sampling device used.
- Well sampling sequence.
- Sample appearance.
- Sample odors.
- Sample volume.
- Types of sample containers and sample identification.
- Preservative(s) used.
- Parameters requested for analysis.
- Field analysis data and method(s).
- Sample distribution and transporter.
- Analytical laboratory.
- Chain-of-custody number for shipment to laboratory.
- Field observations on sampling event.
- Name(s) of sampling personnel.
- Climatic conditions including air temperature.
- Problems encountered and any deviations made from the established sampling protocol.

A standard ground water sampling log form for documentation and reporting ground water purging and sampling events will be utilized.

Ground water/Decontamination Fluid Disposal

The Post-Closure Care Plan will identify the required disposal procedures for ground water and decontamination fluids. Ground water disposal methods will vary on a case-by-case basis but may range from:

1. Off-site treatment at private treatment/disposal facilities or public owned treatment facilities.
2. On-site treatment at Facility-operated facilities.

3. Direct discharge to the surrounding ground surface, allowing ground water infiltration to the underlying subsurface regime.

Decontamination fluids should be segregated and collected separately from wash waters/ground water containers.

References

ASTM D5474 - Guide for Selection of Data Elements for Ground water Investigations.

ASTM D4696 - Guide for Pore-Liquid Sampling from the Vadose Zone.

ASTM D5979 - Guide for Conceptualization and Characterization of Ground water Systems.

ASTM D5903 - Guide for Planning and Preparing for a Ground water Sampling Event.

ASTM D4448 - Standard Guide for Sampling Ground water Wells.

ASTM D6001 - Standard Guide for Direct Push Water Sampling for Geo-Environmental Investigations.

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

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

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

APPENDIX B
Groundwater Sampling Logs

O'Brien & Gere Engineers, Inc.

Ground Water Sampling Log

Date 12/6/12
 Site Name Coldwater Road Landfill Weather Cloudy, 40s
 Location Flint, MI Well # B-2D
 Project No. 48630 Evacuation Method bladder pump
 Personnel KBS Sampling Method Low-flow

Well Information:

Depth of Well * 72.97 ft. Water Volume /ft. for:
 Depth to Water * 57.10 ft. X 2" Diameter Well = 0.163 X LWC
 Length of Water Column 15.87 ft. 4" Diameter Well = 0.653 X LWC
 Volume of Water in Well 2.59 gal.(s) 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1 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:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
<u>1200</u>	initial <u>100</u>	initial <u>57.11</u>	initial <u>9.02</u>	initial <u>1.065</u>	initial <u>9.37</u>	initial <u>7.25</u>	initial <u>59.9</u>	initial <u>146</u>
<u>1205</u>	<u>100</u>	<u>57.11</u>	<u>9.70</u>	<u>1.071</u>	<u>6.25</u>	<u>7.31</u>	<u>43.3</u>	<u>78.1</u>
<u>1210</u>	<u>100</u>	<u>57.11</u>	<u>9.94</u>	<u>1.085</u>	<u>4.55</u>	<u>7.36</u>	<u>24.6</u>	<u>41.6</u>
<u>1215</u>	<u>100</u>	<u>57.11</u>	<u>10.26</u>	<u>1.111</u>	<u>3.63</u>	<u>7.41</u>	<u>-17.5</u>	<u>15.2</u>
<u>1220</u>	<u>100</u>	<u>57.11</u>	<u>10.23</u>	<u>1.075</u>	<u>2.78</u>	<u>7.43</u>	<u>-11.0</u>	<u>11.0</u>
<u>1225</u>	<u>100</u>	<u>57.11</u>	<u>10.25</u>	<u>1.045</u>	<u>1.95</u>	<u>7.46</u>	<u>-6.5</u>	<u>6.3</u>
<u>1230</u>	<u>100</u>	<u>57.11</u>	<u>10.24</u>	<u>1.043</u>	<u>1.93</u>	<u>7.46</u>	<u>-6.2</u>	<u>6.1</u>
<u>1235</u>	<u>100</u>	<u>57.11</u>	<u>10.24</u>	<u>1.041</u>	<u>1.90</u>	<u>7.47</u>	<u>-6.4</u>	<u>5.9</u>

Water Sample:

Time Collected 1240

Physical Appearance at Start

Physical Appearance at Sampling

Color Clear Color Clear
 Odor _____ Odor _____
 Turbidity (> 100 NTU) Low Turbidity (> 100 NTU) Low
 Sheen/Free Product _____ Sheen/Free Product _____

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 VOAs	H ₂ SO ₄	
TOX	1	125 ml Glass Amber	H ₂ SO ₄	
SpC	1	125 ml Plastic	None	

Notes:

O'Brien & Gere Engineers, Inc.

Ground Water Sampling Log

Date 12/6/12
 Site Name Coldwater Road Landfill
 Location Flint, MI
 Project No. 48630
 Personnel KBS

Weather 28°F cloudy
 Well # B-7
 Evacuation Method peristaltic pump
 Sampling Method Low-flow

Well Information:

Depth of Well * 31.59 ft.
 Depth to Water * 19.68 ft.
 Length of Water Column _____ ft.
 Volume of Water in Well _____ 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 1 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:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
850	initial <u>6.100</u>	initial <u>20.33</u>	initial <u>7.30</u>	initial <u>0.876</u>	initial <u>10.21</u>	initial <u>6.97</u>	initial <u>199.8</u>	initial <u>52</u>
855		<u>21.52</u>	<u>8.60</u>	<u>0.780</u>	<u>7.32</u>	<u>7.18</u>	<u>108.1</u>	<u>55</u>
900		<u>21.82</u>	<u>8.61</u>	<u>0.781</u>	<u>7.246.95</u>	<u>7.21</u>	<u>80.0</u>	<u>35</u>
905		<u>22.34</u>	<u>8.37</u>	<u>0.774</u>	<u>6.78</u>	<u>7.09</u>	<u>23.2</u>	<u>39</u>
910		<u>22.91</u>	<u>8.82</u>	<u>0.759</u>	<u>6.37</u>	<u>7.11</u>	<u>7.1</u>	<u>41</u>
915		<u>23.35</u>	<u>8.60</u>	<u>0.759</u>	<u>6.51</u>	<u>7.11</u>	<u>1.6</u>	<u>40</u>
920		<u>23.95</u>	<u>8.76</u>	<u>0.756</u>	<u>6.34</u>	<u>7.12</u>	<u>-4.5</u>	<u>38</u>
925	<u>↓</u>	<u>24.28</u>	<u>8.44</u>	<u>0.757</u>	<u>6.20</u>	<u>7.12</u>	<u>-9.6</u>	<u>45</u>

Water Sample: 920
 Time Collected _____

Physical Appearance at Start _____

Physical Appearance at Sampling _____

Color Slightly cloudy
 Odor NONE
 Turbidity (> 100 NTU) Med
 Sheen/Free Product NONE

Color Slightly cloudy
 Odor NONE
 Turbidity (> 100 NTU) Med
 Sheen/Free Product NONE

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 VOAs	H ₂ SO ₄	
TOX	1	125 ml Glass Amber	H ₂ SO ₄	
SpC	1	125 ml Plastic	None	

Notes:

O'Brien & Gere Engineers, Inc.

Ground Water Sampling Log

Date 12/6/12
 Site Name Coldwater Road Landfill
 Location Flint, MI
 Project No. 48030
 Personnel KBS

Weather cloudy 30°F
 Well # B-9
 Evacuation Method peristaltic pump
 Sampling Method Low-flow

Well Information:

Depth of Well * 25.35 ft.
 Depth to Water * 9.34 ft.
 Length of Water Column _____ ft.
 Volume of Water in Well _____ 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 1 1/2 gal.(s)
 Did well go dry? No

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

Instrument Calibration:

Calibrated within Range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
1325	initial < 100	initial 10.15	initial 11.50	initial 2.978	initial 4.21	initial 6.61	initial -28.9	initial 62
1330		11.00	11.39	3.227	0.43	6.67	-109.2	34
1335		11.74	11.71	3.268	0.41	6.73	-120.6	8
1340		12.55	11.84	3.281	0.45	6.76	-123.1	4
1345		13.24	11.79	3.266	0.33	6.78	-123.9	0
1350		13.89	11.93	3.205	0.32	6.77	-120.8	0
1355		14.57	12.04	3.158	0.31	6.82	-119.6	0

Water Sample: 1355
 Time Collected

Physical Appearance at Start: slightly cloudy
 Color slightly cloudy
 Odor NONE
 Turbidity (> 100 NTU) NONE
 Sheen/Free Product NONE

Physical Appearance at Sampling: clear
 Color clear
 Odor NONE
 Turbidity (> 100 NTU) Low
 Sheen/Free Product NONE

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 VOAs	H ₂ SO ₄	
TOX	1	125 ml Glass Amber	H ₂ SO ₄	
SpC	1	125 ml Plastic	None	

Notes:

O'Brien & Gere Engineers, Inc.

Ground Water Sampling Log

Date 12/6/12
 Site Name Coldwater Road Landfill
 Location Flint, MI
 Project No. _____
 Personnel KBS

Weather 28°F cloudy
 Well # B-18A
 Evacuation Method peristaltic pump
 Sampling Method Low-flow

Well Information:

Depth of Well * 43.4 ft.
 Depth to Water * 26.02 ft.
 Length of Water Column _____ ft.
 Volume of Water in Well _____ gal.(s)

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

Volume removed before sampling 1 1/2 gal.(s)
 Did well go dry? NO

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

Instrument Calibration:

Calibrated within Range
 pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
1020	initial <u><100</u>	initial <u>26.59</u>	initial <u>8.32</u>	initial <u>0.988</u>	initial <u>10.23</u>	initial <u>7.30</u>	initial <u>-6.2</u>	initial <u>14</u>
1025	↓	<u>26.93</u>	<u>8.65</u>	<u>0.972</u>	<u>0.90</u>	<u>7.17</u>	<u>-48.9</u>	<u>6</u>
1030	↓	<u>27.48</u>	<u>8.91</u>	<u>0.978</u>	<u>0.68</u>	<u>7.07</u>	<u>-51.2</u>	<u>6</u>
1035	↓	<u>27.94</u>	<u>9.01</u>	<u>0.980</u>	<u>0.49</u>	<u>7.06</u>	<u>-46.0</u>	<u>4</u>
1040	↓	<u>28.41</u>	<u>9.01</u>	<u>0.980</u>	<u>0.36</u>	<u>7.05</u>	<u>-42.7</u>	<u>5</u>
1045	↓	<u>28.74</u>	<u>9.34</u>	<u>0.982</u>	<u>0.33</u>	<u>7.05</u>	<u>-44.3</u>	<u>4</u>
1050	↓	<u>29.18</u>	<u>9.29</u>	<u>0.983</u>	<u>0.31</u>	<u>7.03</u>	<u>-44.3</u>	<u>3</u>

Water Sample:

Time Collected 1050

Physical Appearance at Start

Color clear
 Odor NONE
 Turbidity (> 100 NTU) LOW
 Sheen/Free Product NONE

Physical Appearance at Sampling

Color clear
 Odor NONE
 Turbidity (> 100 NTU) LOW
 Sheen/Free Product NONE

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 VOAs	H ₂ SO ₄	
TOX	1	125 ml Glass Amber	H ₂ SO ₄	
SpC	1	125 ml Plastic	None	

Notes:

O'Brien & Gere Engineers, Inc.

Ground Water Sampling Log

Date 12-6-12
 Site Name Coldwater Road Landfill
 Location Flint, MI
 Project No. 48630
 Personnel KBS

Weather Cloudy, 40s
 Well # B-19Ar
 Evacuation Method bladder pump
 Sampling Method Low-flow

Well Information:

Depth of Well * 46.5 ft.
 Depth to Water * 41.79 ft.
 Length of Water Column 4.71 ft.
 Volume of Water in Well 0.77 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 1 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:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
<u>1310</u> initial	<u>100</u>	initial <u>41.35</u>	initial <u>10.01</u>	initial <u>1.625</u>	initial <u>7.56</u>	initial <u>7.20</u>	initial <u>-17.7</u>	initial <u>135</u>
<u>1315</u>	<u>100</u>	<u>41.36</u>	<u>10.38</u>	<u>1.627</u>	<u>0.24</u>	<u>7.38</u>	<u>-20.5</u>	<u>165</u>
<u>1320</u>	<u>100</u>	<u>41.37</u>	<u>10.29</u>	<u>1.620</u>	<u>0.19</u>	<u>7.41</u>	<u>-11.8</u>	<u>104</u>
<u>1325</u>	<u>100</u>	<u>41.37</u>	<u>10.24</u>	<u>1.623</u>	<u>0.19</u>	<u>7.39</u>	<u>-0.6</u>	<u>92.3</u>
<u>1330</u>	<u>100</u>	<u>41.37</u>	<u>10.25</u>	<u>1.622</u>	<u>0.19</u>	<u>7.38</u>	<u>+1.2</u>	<u>88.7</u>
<u>1335</u>	<u>100</u>	<u>41.37</u>	<u>10.23</u>	<u>1.624</u>	<u>0.19</u>	<u>7.37</u>	<u>1.6</u>	<u>86.4</u>
<u>1340</u>	<u>100</u>	<u>41.37</u>	<u>10.24</u>	<u>1.625</u>	<u>0.19</u>	<u>7.36</u>	<u>2.1</u>	<u>85.3</u>

Water Sample:

Time Collected 1345

Physical Appearance at Start _____

Physical Appearance at Sampling _____

Color Clear
 Odor _____
 Turbidity (> 100 NTU) Low
 Sheen/Free Product _____

Color Clear
 Odor _____
 Turbidity (> 100 NTU) Low
 Sheen/Free Product _____

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 VOAs	H ₂ SO ₄	
TOX	1	125 ml Glass Amber	H ₂ SO ₄	
SpC	1	125 ml Plastic	None	

Notes:

O'Brien & Gere Engineers, Inc.

Ground Water Sampling Log

Date 12/6/12
 Site Name Coldwater Road Landfill
 Location Flint, MI
 Project No. 48630
 Personnel KBS

Weather Sunny, 40S
 Well # B-20D
 Evacuation Method bladder pump
 Sampling Method Low-flow

Well Information:

Depth of Well * 84.97 ft.
 Depth to Water * 72.76 ft.
 Length of Water Column 12.21 ft.
 Volume of Water in Well 1.99 gal.(s)

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

Volume removed before sampling 2.5 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:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
<u>1055</u>	initial <u>200</u>	initial <u>72.76</u>	initial <u>7.29</u>	initial <u>1.263</u>	initial <u>11.26</u>	initial <u>7.57</u>	initial <u>45.4</u>	initial <u>59.3</u>
<u>1100</u>	<u>200</u>	<u>72.76</u>	<u>8.31</u>	<u>1.340</u>	<u>4.58</u>	<u>7.67</u>	<u>-61.6</u>	<u>36.1</u>
<u>1105</u>	<u>200</u>	<u>72.76</u>	<u>9.01</u>	<u>1.414</u>	<u>1.26</u>	<u>7.61</u>	<u>-108.0</u>	<u>24.7</u>
<u>1110</u>	<u>200</u>	<u>72.76</u>	<u>9.16</u>	<u>1.435</u>	<u>0.84</u>	<u>7.58</u>	<u>-112.3</u>	<u>25.1</u>
<u>1115</u>	<u>200</u>	<u>72.76</u>	<u>9.68</u>	<u>1.454</u>	<u>0.62</u>	<u>7.55</u>	<u>-113.8</u>	<u>25.9</u>
<u>1120</u>	<u>200</u>	<u>72.76</u>	<u>9.76</u>	<u>1.458</u>	<u>0.62</u>	<u>7.54</u>	<u>-109.6</u>	<u>25.6</u>
<u>1125</u>	<u>200</u>	<u>72.76</u>	<u>9.73</u>	<u>1.460</u>	<u>0.62</u>	<u>7.54</u>	<u>-109.9</u>	<u>25.4</u>
<u>1130</u>	<u>200</u>	<u>72.76</u>	<u>9.75</u>	<u>1.459</u>	<u>0.62</u>	<u>7.54</u>	<u>-109.5</u>	<u>25.8</u>

Water Sample:

Time Collected 1135

Physical Appearance at Start

Physical Appearance at Sampling

Color Clear
 Odor _____
 Turbidity (> 100 NTU) Low
 Sheen/Free Product _____

Color Clear
 Odor _____
 Turbidity (> 100 NTU) Low
 Sheen/Free Product _____

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 VOAs	H ₂ SO ₄	
TOX	1	125 ml Glass Amber	H ₂ SO ₄	
SpC	1	125 ml Plastic	None	

Notes:

O'Brien & Gere Engineers, Inc.

Ground Water Sampling Log

Date 12/6/12
 Site Name Coldwater Road Landfill
 Location Flint, MI
 Project No. 48030
 Personnel KBS

Weather 40's, sunny
 Well # B-21D
 Evacuation Method bladder pump
 Sampling Method Low-flow

Well Information:

Depth of Well * 97.44 ft.
 Depth to Water * 87.70 ft.
 Length of Water Column 13.74 ft.
 Volume of Water in Well 2.24 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 1.5 gal.(s)
 Did well go dry? No

(Other, Specify) _____

* Measurements taken from Well Casing Protective Casing

Instrument Calibration:

Calibrated within Range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
<u>0950</u> initial	<u>100</u>	initial <u>83.74</u>	initial <u>6.85</u>	initial <u>1.000</u>	initial <u>15.65</u>	initial <u>7.48</u>	initial <u>4.0</u>	initial <u>57.9</u>
<u>0955</u>	<u>100</u>	<u>83.82</u>	<u>8.90</u>	<u>0.958</u>	<u>2.68</u>	<u>7.55</u>	<u>-44.2</u>	<u>39.1</u>
<u>1000</u>	<u>100</u>	<u>83.85</u>	<u>8.60</u>	<u>0.960</u>	<u>2.149</u>	<u>7.60</u>	<u>-38.4</u>	<u>28.3</u>
<u>1005</u>	<u>100</u>	<u>83.85</u>	<u>8.30</u>	<u>0.959</u>	<u>1.18</u>	<u>7.53</u>	<u>-26.2</u>	<u>24.2</u>
<u>1010</u>	<u>100</u>	<u>83.85</u>	<u>8.76</u>	<u>0.960</u>	<u>0.65</u>	<u>7.52</u>	<u>-35.2</u>	<u>22.8</u>
<u>1015</u>	<u>100</u>	<u>83.85</u>	<u>9.05</u>	<u>0.999</u>	<u>0.44</u>	<u>7.57</u>	<u>-48.2</u>	<u>23.1</u>
<u>1020</u>	<u>100</u>	<u>83.85</u>	<u>9.06</u>	<u>1.000</u>	<u>0.42</u>	<u>7.57</u>	<u>-50.4</u>	<u>22.4</u>
<u>1025</u>	<u>100</u>	<u>83.85</u>	<u>9.07</u>	<u>1.002</u>	<u>0.40</u>	<u>7.57</u>	<u>-54.3</u>	<u>22.1</u>
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

Water Sample:

Time Collected 1030

Physical Appearance at Start _____

Physical Appearance at Sampling _____

Color Clear
 Odor _____
 Turbidity (> 100 NTU) Low
 Sheen/Free Product _____

Color Clear
 Odor _____
 Turbidity (> 100 NTU) Low
 Sheen/Free Product _____

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 VOAs	H ₂ SO ₄	
TOX	1	125 ml Glass Amber	H ₂ SO ₄	
SpC	1	125 ml Plastic	None	

Notes:

O'Brien & Gere Engineers, Inc.

Ground Water Sampling Log

Date 12/6/12
 Site Name Coldwater Road Landfill
 Location Flint, MI
 Project No. 48030
 Personnel KBS

Weather Sunny, 40's
 Well # B-22D
 Evacuation Method bladder pump
 Sampling Method Low-flow

Well Information:

Depth of Well * 97.24 ft.
 Depth to Water * 87.16 ft.
 Length of Water Column 10.08 ft.
 Volume of Water in Well 1.64 gal.(s)

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

Volume removed before sampling 2.0 gal.(s)
 Did well go dry? No

(Other, Specify) _____

* Measurements taken from Well Casing Protective Casing _____

Instrument Calibration:

Calibrated within Range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
<u>0850</u>	initial <u>200</u>	initial <u>87.76</u>	initial <u>7.06</u>	initial <u>1.314</u>	initial <u>7.53</u>	initial <u>6.56</u>	initial <u>228.0</u>	initial <u>188</u>
<u>0855</u>	<u>200</u>	<u>87.84</u>	<u>9.08</u>	<u>1.043</u>	<u>1.02</u>	<u>7.08</u>	<u>-2.5</u>	<u>144</u>
<u>0900</u>	<u>200</u>	<u>87.85</u>	<u>9.59</u>	<u>1.032</u>	<u>0.62</u>	<u>7.34</u>	<u>-92.2</u>	<u>92</u>
<u>0905</u>	<u>200</u>	<u>87.86</u>	<u>9.88</u>	<u>1.031</u>	<u>0.63</u>	<u>7.46</u>	<u>-104.9</u>	<u>55.1</u>
<u>0910</u>	<u>200</u>	<u>87.86</u>	<u>10.10</u>	<u>1.031</u>	<u>0.63</u>	<u>7.56</u>	<u>-114.0</u>	<u>27.4</u>
<u>0915</u>	<u>200</u>	<u>87.86</u>	<u>10.08</u>	<u>1.031</u>	<u>0.63</u>	<u>7.57</u>	<u>-116.7</u>	<u>26.7</u>
<u>0920</u>	<u>200</u>	<u>87.87</u>	<u>10.07</u>	<u>1.030</u>	<u>0.62</u>	<u>7.58</u>	<u>-120.2</u>	<u>25.5</u>

Water Sample:

Time Collected 0925

Physical Appearance at Start _____

Physical Appearance at Sampling _____

Color Clear
 Odor _____
 Turbidity (> 100 NTU) Low
 Sheen/Free Product None

Color Clear
 Odor _____
 Turbidity (> 100 NTU) Low
 Sheen/Free Product _____

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 VOAs	H ₂ SO ₄	
TOX	1	125 ml Glass Amber	H ₂ SO ₄	
SpC	1	125 ml Plastic	None	

Notes:

O'Brien & Gere Engineers, Inc.

Ground Water Sampling Log

Date 12/5/12
 Site Name Coldwater Road Landfill
 Location Flint, MI
 Project No. 48le30
 Personnel KBS

Weather Sunny, 30°
 Well # B-23Dr
 Evacuation Method bladder pump
 Sampling Method Low-flow

Well Information:

Depth of Well * 107 ft.
 Depth to Water * 83.87 ft.
 Length of Water Column 23.13 ft.
 Volume of Water in Well 3.77 gal.(s)

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

Volume removed before sampling 2.5 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:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
<u>1505</u> initial	<u>200</u>	initial <u>83.90</u>	initial <u>8.58</u>	initial <u>0.669</u>	initial <u>2.15</u>	initial <u>6.84</u>	initial <u>90.3</u>	initial <u>54.1</u>
<u>1510</u>	<u>200</u>	<u>83.90</u>	<u>9.83</u>	<u>0.690</u>	<u>0.80</u>	<u>6.74</u>	<u>-62.5</u>	<u>32.0</u>
<u>1515</u>	<u>200</u>	<u>83.90</u>	<u>10.34</u>	<u>0.670</u>	<u>0.37</u>	<u>6.69</u>	<u>-75.0</u>	<u>18.9</u>
<u>1520</u>	<u>200</u>	<u>83.90</u>	<u>10.19</u>	<u>0.727</u>	<u>0.32</u>	<u>6.70</u>	<u>-75.3</u>	<u>15.1</u>
<u>1525</u>	<u>200</u>	<u>83.90</u>	<u>9.57</u>	<u>0.730</u>	<u>0.31</u>	<u>6.68</u>	<u>-77.9</u>	<u>10.2</u>
<u>1530</u>	<u>200</u>	<u>83.90</u>	<u>9.58</u>	<u>0.731</u>	<u>0.28</u>	<u>6.65</u>	<u>-77.4</u>	<u>8.3</u>
<u>1535</u>	<u>200</u>	<u>83.90</u>	<u>9.59</u>	<u>0.734</u>	<u>0.29</u>	<u>6.63</u>	<u>-77.6</u>	<u>7.8</u>
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

Water Sample:

Time Collected 1540

Physical Appearance at Start _____

Physical Appearance at Sampling _____

Color Clear
 Odor _____
 Turbidity (> 100 NTU) Low
 Sheen/Free Product _____

Color Clear
 Odor _____
 Turbidity (> 100 NTU) Low
 Sheen/Free Product _____

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 VOAs	H ₂ SO ₄	
TOX	1	125 ml Glass Amber	H ₂ SO ₄	
SpC	1	125 ml Plastic	None	

Notes:

O'Brien & Gere Engineers, Inc.

Ground Water Sampling Log

Date 12/6/12
 Site Name Coldwater Road Landfill
 Location Flint, MI
 Project No. 48030
 Personnel KBS

Weather cloudy 35°F
 Well # B-24r
 Evacuation Method peristaltic pump
 Sampling Method Low-flow

Well Information:

Depth of Well * 29.5 ft.
 Depth to Water * 19.00 ft.
 Length of Water Column _____ ft.
 Volume of Water in Well _____ 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 1 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:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
1445	initial <100	initial 19.50	initial 10.79	initial 1.153	initial 0.74	initial 7.17	initial -112.2	initial 45
1450		20.00	11.00	1.118	0.25	7.16	-112.6	37
1455		20.25	10.77	1.115	0.25	7.03	-114.0	28
1500		20.61	10.83	1.108	0.26	7.09	-112.7	22
1505		20.98	10.57	1.104	0.22	7.00	-112.3	17
1510		21.32	10.67	1.101	0.20	7.03	-111.2	15
1515		21.60	10.45	1.205	0.25	7.01	-109.4	14
1520		21.85	10.17	1.107	0.27	6.98	-106.2	13

Water Sample: Time Collected 1520

Physical Appearance at Start _____ Physical Appearance at Sampling _____

Color slightly cloudy Color clear
 Odor NONE Odor NONE
 Turbidity (> 100 NTU) MED Turbidity (> 100 NTU) LOW
 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	HNO ₃	yes
TOC	2	40 ml VOAs	H ₂ SO ₄	
TOX	1	125 ml Glass Amber	H ₂ SO ₄	
SpC	1	125 ml Plastic	None	

Notes:

O'Brien & Gere Engineers, Inc.

Ground Water Sampling Log

Date 12-5-12
 Site Name Coldwater Road Landfill
 Location Flint, MI
 Project No. 480030
 Personnel KBS

Weather Partly Cloudy, 30°
 Well # B-27D
 Evacuation Method bladder pump
 Sampling Method Low-flow

Well Information:

Depth of Well * 89 ft.
 Depth to Water * 78.73 ft.
 Length of Water Column 10.27 ft.
 Volume of Water in Well 1.67 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 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:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
<u>1240</u>	initial <u>100</u>	initial <u>79.15</u>	initial <u>9.33</u>	initial <u>0.626</u>	initial <u>2.32</u>	initial <u>7.31</u>	initial <u>-45.8</u>	initial <u>over range</u>
<u>1245</u>	<u>100</u>	<u>79.19</u>	<u>10.78</u>	<u>0.604</u>	<u>2.83</u>	<u>7.17</u>	<u>-62.1</u>	<u>over range</u>
<u>1250</u>	<u>100</u>	<u>79.20</u>	<u>11.02</u>	<u>0.604</u>	<u>1.15</u>	<u>7.09</u>	<u>-67.5</u>	<u>over range</u>
<u>1255</u>	<u>100</u>	<u>79.21</u>	<u>11.10</u>	<u>0.604</u>	<u>0.78</u>	<u>6.98</u>	<u>-71.1</u>	<u>over range</u>
<u>1300</u>	<u>100</u>	<u>79.21</u>	<u>10.76</u>	<u>0.609</u>	<u>0.68</u>	<u>6.85</u>	<u>-74.2</u>	<u>over range</u>
<u>1305</u>	<u>100</u>	<u>79.21</u>	<u>10.59</u>	<u>0.610</u>	<u>0.64</u>	<u>6.83</u>	<u>-76.1</u>	<u>over range</u>
<u>1310</u>	<u>100</u>	<u>79.22</u>	<u>10.82</u>	<u>0.610</u>	<u>0.62</u>	<u>6.82</u>	<u>-77.1</u>	<u>over range</u>
<u>1315</u>	<u>100</u>	<u>79.23</u>	<u>11.14</u>	<u>0.610</u>	<u>0.68</u>	<u>6.82</u>	<u>-78.7</u>	<u>over range</u>
<u>1320</u>	<u>100</u>	<u>79.25</u>	<u>11.01</u>	<u>0.615</u>	<u>0.54</u>	<u>6.83</u>	<u>-81.6</u>	<u>over range</u>
<u>1325</u>	<u>100</u>	<u>79.26</u>	<u>11.03</u>	<u>0.615</u>	<u>0.46</u>	<u>6.82</u>	<u>-82.9</u>	<u>over range</u>

Water Sample:

Time Collected 1450

Physical Appearance at Start

Physical Appearance at Sampling

Color Cloudy
 Odor _____
 Turbidity (> 100 NTU) High
 Sheen/Free Product _____

Color Clear
 Odor _____
 Turbidity (> 100 NTU) Low
 Sheen/Free Product _____

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 VOAs	H ₂ SO ₄	
TOX	1	125 ml Glass Amber	H ₂ SO ₄	
SpC	1	125 ml Plastic	None	

Notes:

Time	Pump	Drawdown	Temp	Cond	D.O.	pH	ORP	Turb
1330	100	79.28	11.05	0.616	0.37	6.85	-85.3	770
1335	100	79.29	11.09	0.616	0.34	6.81	-85.3	550
1340	100	79.30	10.97	0.618	0.32	6.83	-85.8	427
1345	100	79.31	10.98	0.618	0.31	6.80	-86.0	283
1350	100	79.32	10.91	0.618	0.30	6.80	-86.1	248
1355	100	79.33	10.93	0.618	0.31	6.79	-86.4	202
1400	100	79.34	10.94	0.618	0.31	6.79	-86.7	205
1405	100	79.35	10.95	0.618	0.30	6.78	-87.0	212
1410	100	79.35	10.94	0.618	0.30	6.78	-87.1	183
1415	100	79.36	10.95	0.618	0.30	6.78	-87.2	157
1420	100	79.36	10.96	0.618	0.31	6.79	-87.3	151
1425	100	79.36	10.96	0.618	0.31	6.79	-87.4	143
1430	100	79.37	10.97	0.618	0.31	6.79	-87.5	121
1435	100	79.38	10.97	0.618	0.31	6.79	-87.6	92
1440	100	79.38	10.98	0.618	0.31	6.79	-87.7	87
1445	100	79.38	10.98	0.618	0.30	6.79	-87.8	85

O'Brien & Gere Engineers, Inc.

Ground Water Sampling Log

Date 12/6/12
 Site Name Coldwater Road Landfill
 Location Flint, MI
 Project No. 48030
 Personnel KBS

Weather cloudy 28°F
 Well # B-28
 Evacuation Method peristaltic pump
 Sampling Method Low-flow

Well Information:

Depth of Well * 31.5 ft.
 Depth to Water * 9.25 ft.
 Length of Water Column _____ ft.
 Volume of Water in Well _____ 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 1 1/2 gal.(s)
 Did well go dry? No

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

Instrument Calibration:

Calibrated within Range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

Time	Pumping Rate (ml/min.)	Drawdown (ft) 0.3 feet or less	Temperature (Celsius) ±3 percent	Conductivity (mS/cm) ±0.005 (mS/cm)	Dissolved Oxygen (mg/L) ±10 percent	pH ±0.1 pH units	ORP (mV) ±10 millivolts	Turbidity (NTUs) ±10 percent
<u>1125</u>	initial <u><100</u>	initial <u>10.35</u>	initial <u>10.62</u>	initial <u>0.771</u>	initial <u>1.26</u>	initial <u>7.23</u>	initial <u>-61.0</u>	initial <u>10</u>
<u>1130</u>	↓	<u>11.11</u>	<u>11.08</u>	<u>0.764</u>	<u>0.52</u>	<u>7.25</u>	<u>-68.0</u>	<u>6</u>
<u>1135</u>	↓	<u>11.69</u>	<u>11.22</u>	<u>0.763</u>	<u>0.38</u>	<u>7.27</u>	<u>-71.8</u>	<u>12</u>
<u>1140</u>	↓	<u>12.11</u>	<u>11.34</u>	<u>0.763</u>	<u>0.27</u>	<u>7.28</u>	<u>-75.0</u>	<u>6</u>
<u>1145</u>	↓	<u>12.74</u>	<u>11.39</u>	<u>0.762</u>	<u>0.24</u>	<u>7.30</u>	<u>-80.6</u>	<u>6</u>
<u>1150</u>	↓	<u>12.23</u>	<u>11.37</u>	<u>0.761</u>	<u>0.27</u>	<u>7.26</u>	<u>-85.9</u>	<u>8</u>
<u>1155</u>	↓	<u>13.48</u>	<u>11.37</u>	<u>0.761</u>	<u>0.29</u>	<u>7.25</u>	<u>-90.3</u>	<u>8</u>

Water Sample:

Time Collected 1155

Physical Appearance at Start _____

Physical Appearance at Sampling _____

Color Clear
 Odor NONE
 Turbidity (> 100 NTU) LOW
 Sheen/Free Product NONE

Color Clear
 Odor NONE
 Turbidity (> 100 NTU) LOW
 Sheen/Free Product NONE

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 VOAs	H ₂ SO ₄	
TOX	1	125 ml Glass Amber	H ₂ SO ₄	
SpC	1	125 ml Plastic	None	

Notes:

DUP-3 collected

APPENDIX C
Analytical Results



Analytical Laboratory Report

Report ID: S54831.01(01)
Generated on 12/19/2012

Report to

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:
Email: Clifford.Yantz@obg.com

Report produced by

Merit Laboratories, Inc.
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Contacts for report questions:

Andy Ball (andyball@meritlabs.com)
Tabitha Faust (tfaust@meritlabs.com)

Report Summary

Lab Sample ID(s): S54831.01-S54831.09
Project: Coldwater Rd Landfill Annual Sampling
Collected Date: 12/05/2012 - 12/06/2012
Submitted Date/Time: 12/06/2012 14:15
Sampled by: Kevin Schneide
P.O. #: 124782

Report Notes

Results relate only to items tested as 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).
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..

Laboratory Certifications:

Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director



Analytical Laboratory Report

Sample Summary (9 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S54831.01	B-27D	Groundwater	12/05/2012 14:50
S54831.02	B-23DR	Groundwater	12/05/2012 15:40
S54831.03	B-22D	Groundwater	12/06/2012 09:25
S54831.04	B-7	Groundwater	12/06/2012 09:30
S54831.05	B-21D	Groundwater	12/06/2012 10:30
S54831.06	B-18A	Groundwater	12/06/2012 10:50
S54831.07	B-20D	Groundwater	12/06/2012 11:35
S54831.08	B-28	Groundwater	12/06/2012 11:55
S54831.09	DUP-3	Groundwater	12/06/2012 00:01



Analytical Laboratory Report

Lab Sample ID: S54831.01
 Sample Tag: B-27D
 Collected Date/Time: 12/05/2012 14:50
 Matrix: Groundwater
 COC Reference: 63756

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Plastic	None	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	654	umhos/cm		120.1	12/12/12 15:10	JKB		
TOC	1.7	mg/L	1	SM 5310C	12/10/12 15:51	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:32	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	12/12/12 15:32	SLS	7440-50-8	
Nickel, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:32	SLS	7440-02-0	
Zinc, Dissolved	0.010	mg/L	0.005	E200.8	12/12/12 15:32	SLS	7440-66-6	
Organics								
TOX	Not detected	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



Analytical Laboratory Report

Lab Sample ID: S54831.02
 Sample Tag: B-23DR
 Collected Date/Time: 12/05/2012 15:40
 Matrix: Groundwater
 COC Reference: 63756

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Plastic	None	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	755	umhos/cm		120.1	12/12/12 15:14	JKB		
TOC	1.6	mg/L	1	SM 5310C	12/10/12 16:10	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:35	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	12/12/12 15:35	SLS	7440-50-8	
Nickel, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:35	SLS	7440-02-0	
Zinc, Dissolved	0.007	mg/L	0.005	E200.8	12/12/12 15:35	SLS	7440-66-6	
Organics								
TOX	Not detected	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



Analytical Laboratory Report

Lab Sample ID: S54831.03
 Sample Tag: B-22D
 Collected Date/Time: 12/06/2012 09:25
 Matrix: Groundwater
 COC Reference: 63756

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Plastic	None	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	716	umhos/cm		120.1	12/12/12 15:16	JKB		
TOC	1.6	mg/L	1	SM 5310C	12/10/12 16:30	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:37	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	12/12/12 15:37	SLS	7440-50-8	
Nickel, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:37	SLS	7440-02-0	
Zinc, Dissolved	0.009	mg/L	0.005	E200.8	12/12/12 15:37	SLS	7440-66-6	
Organics								
TOX	Not detected	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



Analytical Laboratory Report

Lab Sample ID: S54831.04
 Sample Tag: B-7
 Collected Date/Time: 12/06/2012 09:30
 Matrix: Groundwater
 COC Reference: 63756

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Plastic	None	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	825	umhos/cm		120.1	12/12/12 15:18	JKB		
TOC	7.9	mg/L	1	SM 5310C	12/10/12 16:50	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:39	SLS	7440-47-3	
Copper, Dissolved	0.004	mg/L	0.004	E200.8	12/12/12 15:39	SLS	7440-50-8	
Nickel, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:39	SLS	7440-02-0	
Zinc, Dissolved	0.009	mg/L	0.005	E200.8	12/12/12 15:39	SLS	7440-66-6	
Organics								
TOX	Not detected	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



Analytical Laboratory Report

Lab Sample ID: S54831.05
 Sample Tag: B-21D
 Collected Date/Time: 12/06/2012 10:30
 Matrix: Groundwater
 COC Reference: 63756

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Plastic	None	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	754	umhos/cm		120.1	12/12/12 15:20	JKB		
TOC	1.6	mg/L	1	SM 5310C	12/10/12 17:10	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:42	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	12/12/12 15:42	SLS	7440-50-8	
Nickel, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:42	SLS	7440-02-0	
Zinc, Dissolved	0.008	mg/L	0.005	E200.8	12/12/12 15:42	SLS	7440-66-6	
Organics								
TOX	Not detected	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



Analytical Laboratory Report

Lab Sample ID: S54831.06
 Sample Tag: B-18A
 Collected Date/Time: 12/06/2012 10:50
 Matrix: Groundwater
 COC Reference: 63756

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Plastic	None	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	1,071	umhos/cm		120.1	12/12/12 15:22	JKB		
TOC	1.5	mg/L	1	SM 5310C	12/10/12 17:30	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:44	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	12/12/12 15:44	SLS	7440-50-8	
Nickel, Dissolved	0.005	mg/L	0.005	E200.8	12/12/12 15:44	SLS	7440-02-0	
Zinc, Dissolved	0.009	mg/L	0.005	E200.8	12/12/12 15:44	SLS	7440-66-6	
Organics								
TOX	Not detected	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



Analytical Laboratory Report

Lab Sample ID: S54831.07
 Sample Tag: B-20D
 Collected Date/Time: 12/06/2012 11:35
 Matrix: Groundwater
 COC Reference: 63756

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Plastic	None	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	1,008	umhos/cm		120.1	12/12/12 15:24	JKB		
TOC	1.8	mg/L	1	SM 5310C	12/10/12 17:49	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:46	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	12/12/12 15:46	SLS	7440-50-8	
Nickel, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:46	SLS	7440-02-0	
Zinc, Dissolved	0.007	mg/L	0.005	E200.8	12/12/12 15:46	SLS	7440-66-6	
Organics								
TOX	Not detected	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



Analytical Laboratory Report

Lab Sample ID: S54831.08
 Sample Tag: B-28
 Collected Date/Time: 12/06/2012 11:55
 Matrix: Groundwater
 COC Reference: 63756

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Plastic	None	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	823	umhos/cm		120.1	12/12/12 15:26	JKB		
TOC	1.7	mg/L	1	SM 5310C	12/10/12 18:09	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:49	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	12/12/12 15:49	SLS	7440-50-8	
Nickel, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:49	SLS	7440-02-0	
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:49	SLS	7440-66-6	
Organics								
TOX	Not detected	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



Analytical Laboratory Report

Lab Sample ID: S54831.09
 Sample Tag: DUP-3
 Collected Date/Time: 12/06/2012 00:01
 Matrix: Groundwater
 COC Reference: 63756

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Plastic	None	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	823	umhos/cm		120.1	12/12/12 15:28	JKB		
TOC	1.6	mg/L	1	SM 5310C	12/10/12 18:29	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:51	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	12/12/12 15:51	SLS	7440-50-8	
Nickel, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:51	SLS	7440-02-0	
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 15:51	SLS	7440-66-6	
Organics								
TOX	Not detected	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-6333
 www.meritlabs.com

C.O.C. PAGE # 1 OF 1

63756

REPORT TO

CONTACT NAME: Cliff Yantz
 COMPANY: O'Brien & Gere
 ADDRESS: 37000 Grand River
 CITY: Farmington Hills STATE: MI ZIP CODE: 48335
 PHONE NO.: 248-477-5701 FAX NO.:
 E-MAIL ADDRESS: cliffard.yantz@obg.com
 QUOTE NO.: 124782

CHAIN OF CUSTODY RECORD

CONTACT NAME: Dave Favero SAME
 COMPANY: RACER Trust
 ADDRESS: 2930 Ecorse Rd
 CITY: Ypsilanti STATE: MI ZIP CODE: 48198
 PHONE NO.: 217-741-6235 FAX NO.:
 P.O. NO.:

INVOICE TO

PROJECT NO./NAME: Coldwater Rd Landfill Annual sampling
SITE 1103 Task 1
 SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kern Schneider Z SLL

TURNAROUND TIME REQUIRED: 24 HR 48 HR 72 HR
 DELIVERABLES REQUIRED: STANDARD LEVEL II LEVEL III OTHER

MATRIX CODE: GW=GROUNDWATER SL=SLUDGE WW=WASTEWATER O=OIL S=SOIL A=AIR L=LIQUID W=WASTE SD=SOLID M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives								TOC	Specific Grav. Density	Dissolved Co. Cr. Metals (M, Ni, Zn)	TOX	SPECIAL INSTRUCTIONS/NOTES
	DATE	TIME				NONE	HCL	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER						
54831.01	12/5/12	1450	B-27D	GW	5	1		1	3									METALS ARE: Cu, Cr, Ni, Zn
.02	↓	1540	B-23Dr	GW	5	1		1	3									
.03	12/6/12	925	B-22D	GW	5	1		1	3									
.04		930	B-7	GW	5	1		1	3									
.05		1030	B-21D	GW	5	1		1	3									
.06		1050	B-18A	GW	5	1		1	3									
.07		1135	B-20D	GW	5	1		1	3									
.08		1155	B-28	GW	5	1		1	3									
.09	↓	—	DUP-3	GW	5	1		1	3									

RELINQUISHED BY: [Signature] OBG
 RECEIVED BY: [Signature]
 DATE: 12/6/12 TIME: 1300
 DATE: 12-6-12 TIME: 1300

RELINQUISHED BY: [Signature]
 RECEIVED BY: [Signature]
 DATE: 12/6/12 TIME: 1405
 SEAL NO. SEAL INTACT YES NO INITIALS
 SEAL NO. SEAL INTACT YES NO INITIALS
 NOTES: TEMP. ON ARRIVAL 47

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-18496-1
Client Project/Site: S54831

For:
Merit Laboratories
2680 E Lansing Drive
East Lansing, Michigan 48823

Attn: Mr. Andy Ball



Authorized for release by:
12/19/2012 1:04:31 PM

Denise Heckler
Project Manager II
denise.heckler@testamericainc.com



LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Job ID: 240-18496-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative
240-18496-1

Comments

No additional comments.

Receipt

The samples were received on 12/7/2012 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

General Chemistry

Method(s) 9020B: Breakthrough exceeded 10% for the following sample(s): S54831.07 (240-18496-7), S54831.08 (240-18496-8), S54831.09 (240-18496-9). Re-analysis was performed with concurring results. The data has been reported.

No other analytical or quality issues were noted.

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Method Summary

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Method	Method Description	Protocol	Laboratory
9020B	Organic Halides, Total (TOX)	SW846	TAL SAV

Protocol References:

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

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



Sample Summary

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-18496-1	S54831.01	Water	12/05/12 14:50	12/07/12 10:15
240-18496-2	S54831.02	Water	12/05/12 15:40	12/07/12 10:15
240-18496-3	S54831.03	Water	12/06/12 09:25	12/07/12 10:15
240-18496-4	S54831.04	Water	12/06/12 09:30	12/07/12 10:15
240-18496-5	S54831.05	Water	12/06/12 10:30	12/07/12 10:15
240-18496-6	S54831.06	Water	12/06/12 10:50	12/07/12 10:15
240-18496-7	S54831.07	Water	12/06/12 11:35	12/07/12 10:15
240-18496-8	S54831.08	Water	12/06/12 11:55	12/07/12 10:15
240-18496-9	S54831.09	Water	12/06/12 00:00	12/07/12 10:15



Detection Summary

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Client Sample ID: S54831.01

Lab Sample ID: 240-18496-1

No Detections

Client Sample ID: S54831.02

Lab Sample ID: 240-18496-2

No Detections

Client Sample ID: S54831.03

Lab Sample ID: 240-18496-3

No Detections

Client Sample ID: S54831.04

Lab Sample ID: 240-18496-4

No Detections

Client Sample ID: S54831.05

Lab Sample ID: 240-18496-5

No Detections

Client Sample ID: S54831.06

Lab Sample ID: 240-18496-6

No Detections

Client Sample ID: S54831.07

Lab Sample ID: 240-18496-7

No Detections

Client Sample ID: S54831.08

Lab Sample ID: 240-18496-8

No Detections

Client Sample ID: S54831.09

Lab Sample ID: 240-18496-9

No Detections

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Client Sample Results

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Client Sample ID: S54831.01

Lab Sample ID: 240-18496-1

Date Collected: 12/05/12 14:50

Matrix: Water

Date Received: 12/07/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.040	U	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

Client Sample Results

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Client Sample ID: S54831.02

Lab Sample ID: 240-18496-2

Date Collected: 12/05/12 15:40

Matrix: Water

Date Received: 12/07/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.040	U	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

- 1
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Client Sample Results

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Client Sample ID: S54831.03

Lab Sample ID: 240-18496-3

Date Collected: 12/06/12 09:25

Matrix: Water

Date Received: 12/07/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.040	U	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

- 1
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Client Sample Results

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Client Sample ID: S54831.04

Lab Sample ID: 240-18496-4

Date Collected: 12/06/12 09:30

Matrix: Water

Date Received: 12/07/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.040	U	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

Client Sample Results

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Client Sample ID: S54831.05

Lab Sample ID: 240-18496-5

Date Collected: 12/06/12 10:30

Matrix: Water

Date Received: 12/07/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.040	U	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

- 1
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Client Sample Results

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Client Sample ID: S54831.06

Lab Sample ID: 240-18496-6

Date Collected: 12/06/12 10:50

Matrix: Water

Date Received: 12/07/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.040	U	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

- 1
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Client Sample Results

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Client Sample ID: S54831.07

Lab Sample ID: 240-18496-7

Date Collected: 12/06/12 11:35

Matrix: Water

Date Received: 12/07/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.040	U	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

- 1
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Client Sample Results

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Client Sample ID: S54831.08

Lab Sample ID: 240-18496-8

Date Collected: 12/06/12 11:55

Matrix: Water

Date Received: 12/07/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.040	U	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

- 1
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Client Sample Results

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Client Sample ID: S54831.09

Lab Sample ID: 240-18496-9

Date Collected: 12/06/12 00:00

Matrix: Water

Date Received: 12/07/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.040	U	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

QC Sample Results

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 680-260342/1-A

Matrix: Water

Analysis Batch: 260351

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 260342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.010	U	0.010	0.0035	mg/L		12/18/12 08:10	12/18/12 08:10	1

Lab Sample ID: LCS 680-260342/2-A

Matrix: Water

Analysis Batch: 260351

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 260342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOX Result 1	0.0984	0.107		mg/L		109	60 - 140
TOX Result 2	0.0984	0.107		mg/L		109	60 - 140

Lab Sample ID: MB 680-260358/1-A

Matrix: Water

Analysis Batch: 260362

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 260358

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.010	U	0.010	0.0035	mg/L		12/18/12 08:10	12/18/12 08:10	1

Lab Sample ID: LCS 680-260358/2-A

Matrix: Water

Analysis Batch: 260362

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 260358

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOX Result 1	0.0984	0.0982		mg/L		100	60 - 140
TOX Result 2	0.0984	0.0982		mg/L		100	60 - 140

TestAmerica Canton

QC Association Summary

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

General Chemistry

Prep Batch: 260342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18496-8	S54831.08	Total/NA	Water	Carbon Trap	
240-18496-9	S54831.09	Total/NA	Water	Carbon Trap	
LCS 680-260342/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	
MB 680-260342/1-A	Method Blank	Total/NA	Water	Carbon Trap	

Analysis Batch: 260351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18496-8	S54831.08	Total/NA	Water	9020B	260342
240-18496-9	S54831.09	Total/NA	Water	9020B	260342
LCS 680-260342/2-A	Lab Control Sample	Total/NA	Water	9020B	260342
MB 680-260342/1-A	Method Blank	Total/NA	Water	9020B	260342

Prep Batch: 260358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18496-1	S54831.01	Total/NA	Water	Carbon Trap	
240-18496-2	S54831.02	Total/NA	Water	Carbon Trap	
240-18496-3	S54831.03	Total/NA	Water	Carbon Trap	
240-18496-4	S54831.04	Total/NA	Water	Carbon Trap	
240-18496-5	S54831.05	Total/NA	Water	Carbon Trap	
240-18496-6	S54831.06	Total/NA	Water	Carbon Trap	
240-18496-7	S54831.07	Total/NA	Water	Carbon Trap	
LCS 680-260358/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	
MB 680-260358/1-A	Method Blank	Total/NA	Water	Carbon Trap	

Analysis Batch: 260362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18496-1	S54831.01	Total/NA	Water	9020B	260358
240-18496-2	S54831.02	Total/NA	Water	9020B	260358
240-18496-3	S54831.03	Total/NA	Water	9020B	260358
240-18496-4	S54831.04	Total/NA	Water	9020B	260358
240-18496-5	S54831.05	Total/NA	Water	9020B	260358
240-18496-6	S54831.06	Total/NA	Water	9020B	260358
240-18496-7	S54831.07	Total/NA	Water	9020B	260358
LCS 680-260358/2-A	Lab Control Sample	Total/NA	Water	9020B	260358
MB 680-260358/1-A	Method Blank	Total/NA	Water	9020B	260358

Lab Chronicle

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Client Sample ID: S54831.01

Lab Sample ID: 240-18496-1

Date Collected: 12/05/12 14:50

Matrix: Water

Date Received: 12/07/12 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260362	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260358	12/18/12 08:10	DL	TAL SAV

Client Sample ID: S54831.02

Lab Sample ID: 240-18496-2

Date Collected: 12/05/12 15:40

Matrix: Water

Date Received: 12/07/12 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260362	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260358	12/18/12 08:10	DL	TAL SAV

Client Sample ID: S54831.03

Lab Sample ID: 240-18496-3

Date Collected: 12/06/12 09:25

Matrix: Water

Date Received: 12/07/12 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260362	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260358	12/18/12 08:10	DL	TAL SAV

Client Sample ID: S54831.04

Lab Sample ID: 240-18496-4

Date Collected: 12/06/12 09:30

Matrix: Water

Date Received: 12/07/12 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260362	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260358	12/18/12 08:10	DL	TAL SAV

Client Sample ID: S54831.05

Lab Sample ID: 240-18496-5

Date Collected: 12/06/12 10:30

Matrix: Water

Date Received: 12/07/12 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260362	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260358	12/18/12 08:10	DL	TAL SAV

Client Sample ID: S54831.06

Lab Sample ID: 240-18496-6

Date Collected: 12/06/12 10:50

Matrix: Water

Date Received: 12/07/12 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260362	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260358	12/18/12 08:10	DL	TAL SAV

TestAmerica Canton

Lab Chronicle

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Client Sample ID: S54831.07

Lab Sample ID: 240-18496-7

Date Collected: 12/06/12 11:35

Matrix: Water

Date Received: 12/07/12 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260362	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260358	12/18/12 08:10	DL	TAL SAV

Client Sample ID: S54831.08

Lab Sample ID: 240-18496-8

Date Collected: 12/06/12 11:55

Matrix: Water

Date Received: 12/07/12 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260351	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260342	12/18/12 08:10	DL	TAL SAV

Client Sample ID: S54831.09

Lab Sample ID: 240-18496-9

Date Collected: 12/06/12 00:00

Matrix: Water

Date Received: 12/07/12 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260351	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260342	12/18/12 08:10	DL	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Certification Summary

Client: Merit Laboratories
Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAC	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAC	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAC	5	200004	07-31-13
Kansas	NELAC	7	E-10336	01-31-13
Kentucky	State Program	4	58	06-30-13
L-A-B	DoD ELAP		L2315	02-28-13
Minnesota	NELAC	5	039-999-348	12-31-12
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAC	2	OH001	06-30-13
New York	NELAC	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAC	3	68-00340	08-31-13
Texas	NELAC	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAC	3	460175	09-14-13
Washington	State Program	10	C971	01-12-13
West Virginia DEP	State Program	3	210	12-31-12
Wisconsin	State Program	5	999518190	08-31-13

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		0399-01	02-28-13
A2LA	ISO/IEC 17025		399.01	02-28-13
Alabama	State Program	4	41450	06-30-13
Alaska (UST)	State Program	10	UST-104	06-19-13
Arkansas DEQ	State Program	6	88-0692	02-01-13
California	NELAC	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-12
Connecticut	State Program	1	PH-0161	03-31-13
Florida	NELAC	4	E87052	06-30-13
GA Dept. of Agriculture	State Program	4	N/A	12-31-12
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Guam	State Program	9	09-005r	04-17-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAC	5	200022	11-30-12
Indiana	State Program	5	N/A	06-30-13
Iowa	State Program	7	353	07-01-13
Kentucky	State Program	4	90084	12-31-12
Kentucky (UST)	State Program	4	18	02-28-13
Louisiana	NELAC	6	30690	06-30-13
Louisiana	NELAC	6	LA100015	12-31-12
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-12
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	12-31-12

TestAmerica Canton

Certification Summary

Client: Merit Laboratories
 Project/Site: S54831

TestAmerica Job ID: 240-18496-1

Laboratory: TestAmerica Savannah (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13
New Jersey	NELAC	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAC	2	10842	04-01-13
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAC	3	68-00474	06-30-13
Puerto Rico	State Program	2	GA00006	01-01-13
Rhode Island	State Program	1	LAO00244	12-30-12
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAC	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAC	3	460161	06-14-13
Washington	State Program	10	C1794	06-10-13
West Virginia	State Program	3	9950C	12-31-12
West Virginia DEP	State Program	3	94	06-30-13
Wisconsin	State Program	5	999819810	08-31-13
Wyoming	State Program	8	8TMS-Q	06-30-13





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 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE #

OF

82641

REPORT TO

CONTACT NAME: Audrey Ball / Tabith Faust
 COMPANY: _____
 ADDRESS: _____
 CITY: _____ STATE: _____ ZIP CODE: _____
 PHONE NO.: _____ P.O. NO.: _____ QUOTE NO.: _____
 E-MAIL ADDRESS: audreyball@meritlabs.com

CHAIN OF CUSTODY RECORD

CONTACT NAME: Julie Teagell
 COMPANY: _____
 ADDRESS: _____
 CITY: _____ STATE: _____ ZIP CODE: _____
 PHONE NO.: _____ E-MAIL ADDRESS: _____

INVOICE TO

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME: 554831 SAMPLER(S) - PLEASE PRINT/SIGN NAME: _____

TURNAROUND TIME REQUIRED: 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED: STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

MERIT LAB NO. <small>(FOR LAB USE ONLY)</small>	YEAR	DATE	TIME	IDENTIFICATION-DESCRIPTION	# OF		# Containers & Preservatives															
					MATRIX	BOTTLES	NONE	HO	HO	HO	HO	OTHER										
23 of 26		12/6/12	1450	554831.01	SW1	1																
		↓	1540	.02																		
		12/6	0925	.03																		
			0930	.04																		
			1030	.05																		
			1050	.06																		
			1135	.07																		
			1155	.08																		
			---	.09																		

Certifications
 OHIO VAP Drinking Water
 DoD NPDES
 Project Locations
 Detroit New York
 Other _____
 Special Instructions
Sub'd to Test America

201 X X X X X X X X X X

RELINQUISHED BY: _____ DATE: 06/20/12 TIME: 1715
 RECEIVED BY: _____ DATE: _____ TIME: _____
 SIGNATURE/Organization: Audrey Ball
 SEAL NO.: _____ SEAL INTACT: YES NO

RELINQUISHED BY: _____ DATE: _____ TIME: _____
 RECEIVED BY: _____ DATE: 12-17-12 TIME: 1815
 SIGNATURE/Organization: Julie Teagell
 SEAL NO.: _____ SEAL INTACT: YES NO
 NOTES: _____

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

Login Sample Receipt Checklist

Client: Merit Laboratories

Job Number: 240-18496-1

Login Number: 18496

List Number: 1

Creator: Barnett, Eddie T

List Source: TestAmerica Savannah

List Creation: 12/11/12 10:23 AM

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



Analytical Laboratory Report

Report ID: S54872.01(01)
Generated on 12/19/2012

Report to

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:
Email: Clifford.Yantz@obg.com

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:

Andy Ball (andyball@meritlabs.com)
Tabitha Faust (tfaust@meritlabs.com)

Report Summary

Lab Sample ID(s): S54872.01-S54872.05
Project: Coldwater Rd Landfill Annual Sampling
Collected Date: 12/06/2012
Submitted Date/Time: 12/07/2012 14:15
Sampled by: Kevin Schneider
P.O. #: 124782

Report Notes

Results relate only to items tested as 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).
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..

Laboratory Certifications:

Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director



Analytical Laboratory Report

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S54872.01	B-2D	Groundwater	12/06/2012 12:40
S54872.02	B-19Ar	Groundwater	12/06/2012 13:45
S54872.03	B-9	Groundwater	12/06/2012 13:55
S54872.04	B-24r	Groundwater	12/06/2012 15:20
S54872.05	EB-1	Groundwater	12/06/2012 15:30



Analytical Laboratory Report

Lab Sample ID: S54872.01
 Sample Tag: B-2D
 Collected Date/Time: 12/06/2012 12:40
 Matrix: Groundwater
 COC Reference: 82403

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	714	umhos/cm		120.1	12/12/12 15:30	JKB		
TOC	2.6	mg/L	1	SM 5310C	12/10/12 19:11	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 18:00	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	12/12/12 18:00	SLS	7440-50-8	
Nickel, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 18:00	SLS	7440-02-0	
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 18:00	SLS	7440-66-6	
Organics								
TOX	Not detected	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



Analytical Laboratory Report

Lab Sample ID: S54872.02
 Sample Tag: B-19Ar
 Collected Date/Time: 12/06/2012 13:45
 Matrix: Groundwater
 COC Reference: 82403

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	1,129	umhos/cm		120.1	12/12/12 15:32	JKB		
TOC	1.8	mg/L	1	SM 5310C	12/10/12 19:31	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 18:02	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	12/12/12 18:02	SLS	7440-50-8	
Nickel, Dissolved	0.005	mg/L	0.005	E200.8	12/12/12 18:02	SLS	7440-02-0	
Zinc, Dissolved	0.006	mg/L	0.005	E200.8	12/12/12 18:02	SLS	7440-66-6	
Organics								
TOX	Not detected	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



Analytical Laboratory Report

Lab Sample ID: S54872.03
 Sample Tag: B-9
 Collected Date/Time: 12/06/2012 13:55
 Matrix: Groundwater
 COC Reference: 82403

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	3,210	umhos/cm		120.1	12/12/12 15:34	JKB		
TOC	2.3	mg/L	1	SM 5310C	12/10/12 19:51	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 18:04	SLS	7440-47-3	
Copper, Dissolved	0.008	mg/L	0.004	E200.8	12/12/12 18:04	SLS	7440-50-8	
Nickel, Dissolved	0.017	mg/L	0.005	E200.8	12/12/12 18:04	SLS	7440-02-0	
Zinc, Dissolved	0.023	mg/L	0.005	E200.8	12/12/12 18:04	SLS	7440-66-6	
Organics								
TOX	19	ug/L	40.0	9020A	12/18/12 08:10	Tes		O1

O-Analysis performed by outside laboratory. See attached report. 1-* Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value



Analytical Laboratory Report

Lab Sample ID: S54872.04
 Sample Tag: B-24r
 Collected Date/Time: 12/06/2012 15:20
 Matrix: Groundwater
 COC Reference: 82403

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	1,204	umhos/cm		120.1	12/12/12 15:36	JKB		
TOC	4.2	mg/L	1	SM 5310C	12/10/12 20:10	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 18:07	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	12/12/12 18:07	SLS	7440-50-8	
Nickel, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 18:07	SLS	7440-02-0	
Zinc, Dissolved	0.006	mg/L	0.005	E200.8	12/12/12 18:07	SLS	7440-66-6	
Organics								
TOX	48	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



Analytical Laboratory Report

Lab Sample ID: S54872.05
 Sample Tag: EB-1
 Collected Date/Time: 12/06/2012 15:30
 Matrix: Groundwater
 COC Reference: 82403

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	4.7	IR
2	40ml Glass	H2SO4	Yes	4.7	IR
1	125ml Plastic	HNO3	Yes	4.7	IR
1	125ml Amber	H2SO4	Yes	4.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/12/12 01:00	SLR		
Inorganics								
Conductivity	17	umhos/cm		120.1	12/12/12 15:38	JKB		
TOC	Not detected	mg/L	1	SM 5310C	12/10/12 20:30	JKB		
Metals								
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 18:09	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	12/12/12 18:09	SLS	7440-50-8	
Nickel, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 18:09	SLS	7440-02-0	
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	12/12/12 18:09	SLS	7440-66-6	
Organics								
TOX	Not detected	ug/L	40.0	9020A	12/18/12 08:10	Tes		O

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



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 www.meritlabs.com

C.O.C. PAGE # 1 OF 1

82403

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Cliff Yantz
 COMPANY O'Brien & Gere
 ADDRESS 3700 Grand River St 260
 CITY Farmington Hills STATE MI ZIP CODE 48335
 PHONE NO. 248-477-5701 FAX NO. _____ P.O. NO. 124782
 E-MAIL ADDRESS clifford.yantz@obg.com QUOTE NO. _____

CONTACT NAME Dave Favero SAME
 COMPANY RACER Trust
 ADDRESS 2930 Ecorse Rd
 CITY Ypsilanti STATE MI ZIP CODE 48198
 PHONE NO. 217-741-0235 E-MAIL ADDRESS _____

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME caldwater Rd Landfill Annual Sampling SITE 103 Task 1 SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider KSK
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

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

Containers & Preservatives

MERIT LAB NO. FOR LAB USE ONLY	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives							TOC	specific conductivity	Dissolved Metals (Cu, Cr, Ni, Zn)	TOX	
	DATE	TIME				NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER					
54272.01	12/6/12	1240	B-2D	GW	5	1		1	3					X	X	X	X
.02	↓	1345	B-19Ar	GW	5	1		1	3					X	X	X	X
.03	↓	1355	B-9	GW	5	1		1	3					X	X	X	X
.04	↓	1520	B-24r	GW	5	1		1	3					X	X	X	X
.05	↓	1530	EB-1	QC	5	1		1	3					X	X	X	X

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

METALS ARE: CU, CR, NI, ZN

Equipment Blank

RELINQUISHED BY: [Signature] OBG Sampler DATE 12/6/12 TIME 1755
 RECEIVED BY: [Signature] DATE 12-6-12 TIME 1753
 RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: _____ DATE _____ TIME _____

RELINQUISHED BY: [Signature] DATE 12-7-12 TIME 1715
 RECEIVED BY: [Signature] DATE _____ TIME _____
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____
 NOTES: TEMP. ON ARRIVAL 570

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-18637-1
Client Project/Site: 54872

For:
Merit Laboratories
2680 E Lansing Drive
East Lansing, Michigan 48823

Attn: Mr. Andy Ball



Authorized for release by:
12/19/2012 12:59:24 PM

Denise Heckler
Project Manager II
denise.heckler@testamericainc.com



LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Job ID: 240-18637-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative
240-18637-1

Comments

No additional comments.

Receipt

The samples were received on 12/11/2012 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

General Chemistry

Method(s) 9020B: Breakthrough exceeded 10% for the following sample(s): 54872.01 (240-18637-1), 54872.02 (240-18637-2), 54872.03 (240-18637-3), 54872.04 (240-18637-4), 54872.05 (240-18637-5). Re-analysis was performed with concurring results. The data has been reported.

No other analytical or quality issues were noted.

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Method Summary

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Method	Method Description	Protocol	Laboratory
9020B	Organic Halides, Total (TOX)	SW846	TAL SAV

Protocol References:

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

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Sample Summary

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-18637-1	54872.01	Water	12/06/12 12:40	12/11/12 10:15
240-18637-2	54872.02	Water	12/06/12 13:45	12/11/12 10:15
240-18637-3	54872.03	Water	12/06/12 13:55	12/11/12 10:15
240-18637-4	54872.04	Water	12/06/12 15:20	12/11/12 10:15
240-18637-5	54872.05	Water	12/06/12 15:30	12/11/12 10:15

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Detection Summary

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Client Sample ID: 54872.01

Lab Sample ID: 240-18637-1

No Detections

Client Sample ID: 54872.02

Lab Sample ID: 240-18637-2

No Detections

Client Sample ID: 54872.03

Lab Sample ID: 240-18637-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Halogens, Total Organic	0.019	J	0.040	0.014	mg/L	4		9020B	Total/NA

Client Sample ID: 54872.04

Lab Sample ID: 240-18637-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Halogens, Total Organic	0.048		0.040	0.014	mg/L	4		9020B	Total/NA

Client Sample ID: 54872.05

Lab Sample ID: 240-18637-5

No Detections

Client Sample Results

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Client Sample ID: 54872.01

Lab Sample ID: 240-18637-1

Date Collected: 12/06/12 12:40

Matrix: Water

Date Received: 12/11/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.040	U	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

Client Sample Results

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Client Sample ID: 54872.02

Lab Sample ID: 240-18637-2

Date Collected: 12/06/12 13:45

Matrix: Water

Date Received: 12/11/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.040	U	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

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Client Sample Results

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Client Sample ID: 54872.03

Lab Sample ID: 240-18637-3

Date Collected: 12/06/12 13:55

Matrix: Water

Date Received: 12/11/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.019	J	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

- 1
- 2
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Client Sample Results

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Client Sample ID: 54872.04

Lab Sample ID: 240-18637-4

Date Collected: 12/06/12 15:20

Matrix: Water

Date Received: 12/11/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.048		0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

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- 2
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Client Sample Results

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Client Sample ID: 54872.05

Lab Sample ID: 240-18637-5

Date Collected: 12/06/12 15:30

Matrix: Water

Date Received: 12/11/12 10:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.040	U	0.040	0.014	mg/L		12/18/12 08:10	12/18/12 08:10	4

QC Sample Results

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 680-260342/1-A
Matrix: Water
Analysis Batch: 260351

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	0.010	U	0.010	0.0035	mg/L		12/18/12 08:10	12/18/12 08:10	1

Lab Sample ID: LCS 680-260342/2-A
Matrix: Water
Analysis Batch: 260351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOX Result 1	0.0984	0.107		mg/L		109	60 - 140
TOX Result 2	0.0984	0.107		mg/L		109	60 - 140



QC Association Summary

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

General Chemistry

Prep Batch: 260342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18637-1	54872.01	Total/NA	Water	Carbon Trap	
240-18637-2	54872.02	Total/NA	Water	Carbon Trap	
240-18637-3	54872.03	Total/NA	Water	Carbon Trap	
240-18637-4	54872.04	Total/NA	Water	Carbon Trap	
240-18637-5	54872.05	Total/NA	Water	Carbon Trap	
LCS 680-260342/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	
MB 680-260342/1-A	Method Blank	Total/NA	Water	Carbon Trap	

Analysis Batch: 260351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-18637-1	54872.01	Total/NA	Water	9020B	260342
240-18637-2	54872.02	Total/NA	Water	9020B	260342
240-18637-3	54872.03	Total/NA	Water	9020B	260342
240-18637-4	54872.04	Total/NA	Water	9020B	260342
240-18637-5	54872.05	Total/NA	Water	9020B	260342
LCS 680-260342/2-A	Lab Control Sample	Total/NA	Water	9020B	260342
MB 680-260342/1-A	Method Blank	Total/NA	Water	9020B	260342

Lab Chronicle

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Client Sample ID: 54872.01

Date Collected: 12/06/12 12:40

Date Received: 12/11/12 10:15

Lab Sample ID: 240-18637-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260351	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260342	12/18/12 08:10	DL	TAL SAV

Client Sample ID: 54872.02

Date Collected: 12/06/12 13:45

Date Received: 12/11/12 10:15

Lab Sample ID: 240-18637-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260351	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260342	12/18/12 08:10	DL	TAL SAV

Client Sample ID: 54872.03

Date Collected: 12/06/12 13:55

Date Received: 12/11/12 10:15

Lab Sample ID: 240-18637-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260351	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260342	12/18/12 08:10	DL	TAL SAV

Client Sample ID: 54872.04

Date Collected: 12/06/12 15:20

Date Received: 12/11/12 10:15

Lab Sample ID: 240-18637-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260351	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260342	12/18/12 08:10	DL	TAL SAV

Client Sample ID: 54872.05

Date Collected: 12/06/12 15:30

Date Received: 12/11/12 10:15

Lab Sample ID: 240-18637-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9020B		4	260351	12/18/12 08:10	DL	TAL SAV
Total/NA	Prep	Carbon Trap			260342	12/18/12 08:10	DL	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Certification Summary

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAC	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAC	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAC	5	200004	07-31-13
Kansas	NELAC	7	E-10336	01-31-13
Kentucky	State Program	4	58	06-30-13
L-A-B	DoD ELAP		L2315	02-28-13
Minnesota	NELAC	5	039-999-348	12-31-12
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAC	2	OH001	06-30-13
New York	NELAC	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAC	3	68-00340	08-31-13
Texas	NELAC	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAC	3	460175	09-14-13
Washington	State Program	10	C971	01-12-13
West Virginia DEP	State Program	3	210	12-31-12
Wisconsin	State Program	5	999518190	08-31-13

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		0399-01	02-28-13
A2LA	ISO/IEC 17025		399.01	02-28-13
Alabama	State Program	4	41450	06-30-13
Alaska (UST)	State Program	10	UST-104	06-19-13
Arkansas DEQ	State Program	6	88-0692	02-01-13
California	NELAC	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-12
Connecticut	State Program	1	PH-0161	03-31-13
Florida	NELAC	4	E87052	06-30-13
GA Dept. of Agriculture	State Program	4	N/A	12-31-12
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Guam	State Program	9	09-005r	04-17-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAC	5	200022	11-30-12
Indiana	State Program	5	N/A	06-30-13
Iowa	State Program	7	353	07-01-13
Kentucky	State Program	4	90084	12-31-12
Kentucky (UST)	State Program	4	18	02-28-13
Louisiana	NELAC	6	30690	06-30-13
Louisiana	NELAC	6	LA100015	12-31-12
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-12
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	12-31-12

TestAmerica Canton

Certification Summary

Client: Merit Laboratories
Project/Site: 54872

TestAmerica Job ID: 240-18637-1

Laboratory: TestAmerica Savannah (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13
New Jersey	NELAC	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAC	2	10842	04-01-13
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAC	3	68-00474	06-30-13
Puerto Rico	State Program	2	GA00006	01-01-13
Rhode Island	State Program	1	LAO00244	12-30-12
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAC	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAC	3	460161	06-14-13
Washington	State Program	10	C1794	06-10-13
West Virginia	State Program	3	9950C	12-31-12
West Virginia DEP	State Program	3	94	06-30-13
Wisconsin	State Program	5	999819810	08-31-13
Wyoming	State Program	8	8TMS-Q	06-30-13

TestAmerica Canton Sample Receipt Form/Narrative

Login #: 18637

Client Medi Lab Inc.

Site Name 554872

By: [Signature]
(Signature)

Cooler Received on 12-14-12

Opened on 12-14-12

FedEx: 1st Grd Exp UPS FAS Stetson

Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____

Foam Box Client Cooler Box Other _____

Packing material used Bubble Wrap Foam Plastic Bag None Other _____

Foam Dry Ice Water None

COOLANT: Wet Ice Blue Ice

1. Cooler temperature upon receipt

IR GUN# 1 (CF -2 °C) Observed Sample Temp. _____ °C

Corrected Sample Temp. _____ °C

IR GUN# 4G (CF 0 °C) Observed Sample Temp. 2.8 °C

Corrected Sample Temp. 2.8 °C

IR GUN# 5G (CF 0 °C) Observed Sample Temp. _____ °C

Corrected Sample Temp. _____ °C

IR GUN# 8 (CF 0 °C) Observed Sample Temp. _____ °C

Corrected Sample Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)?

If Yes Quantity 0 Yes No

Multiple on Back

-Were custody seals on the outside of the cooler(s) signed & dated?

Yes No NA

-Were custody seals on the bottle(s)?

Yes No

3. Shippers' packing slip attached to the cooler(s)?

Yes No

4. Did custody papers accompany the sample(s)?

Yes No

5. Were the custody papers relinquished & signed in the appropriate place?

Yes No

6. Did all bottles arrive in good condition (Unbroken)?

Yes No

7. Could all bottle labels be reconciled with the COC?

Yes No

8. Were correct bottle(s) used for the test(s) indicated?

Yes No

9. Sufficient quantity received to perform indicated analyses?

Yes No NA

10. Were sample(s) at the correct pH upon receipt?

Yes No

11. Were VOAs on the COC?

Yes No NA

12. Were air bubbles >6 mm in any VOA vials?

Yes No

13. Was a trip blank present in the cooler(s)?

Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Multiple horizontal lines for recording chain of custody and discrepancies.

15. SAMPLE CONDITION

Sample(s) _____

_____ were received after the recommended holding time had expired.

Sample(s) _____

_____ were received in a broken container.

Sample(s) _____

_____ were received with bubble >6 mm in diameter. (Notify PM)

SOP: NC-SC-0005, Sample Receiving

Login Sample Receipt Checklist

Client: Merit Laboratories

Job Number: 240-18637-1

Login Number: 18637

List Number: 1

Creator: Barnett, Eddie T

List Source: TestAmerica Savannah

List Creation: 12/12/12 04:37 PM

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

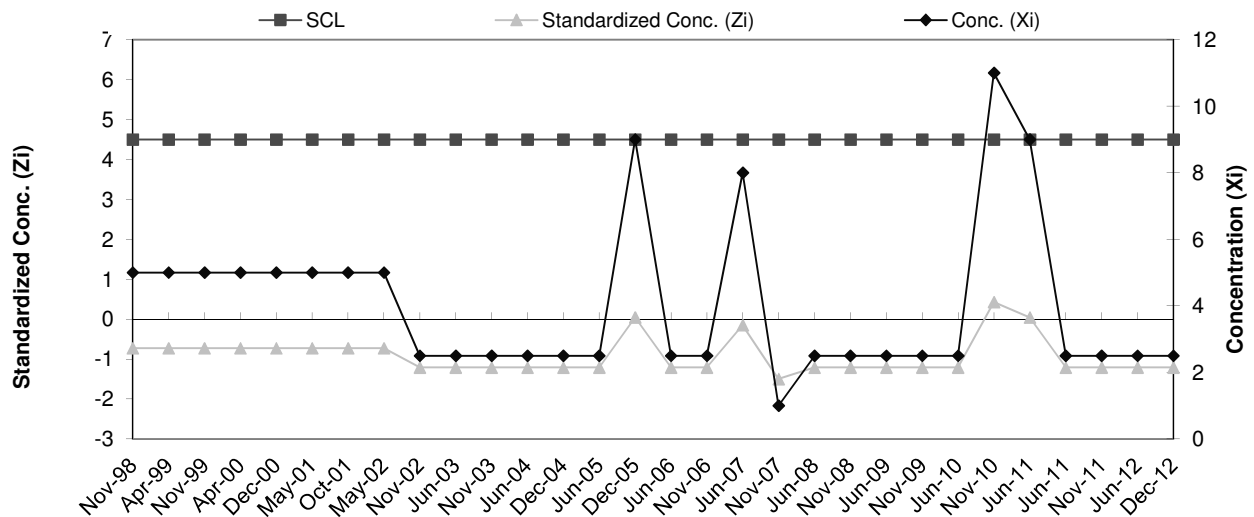


APPENDIX D
Monitoring Well
Control Charts

COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2d 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		

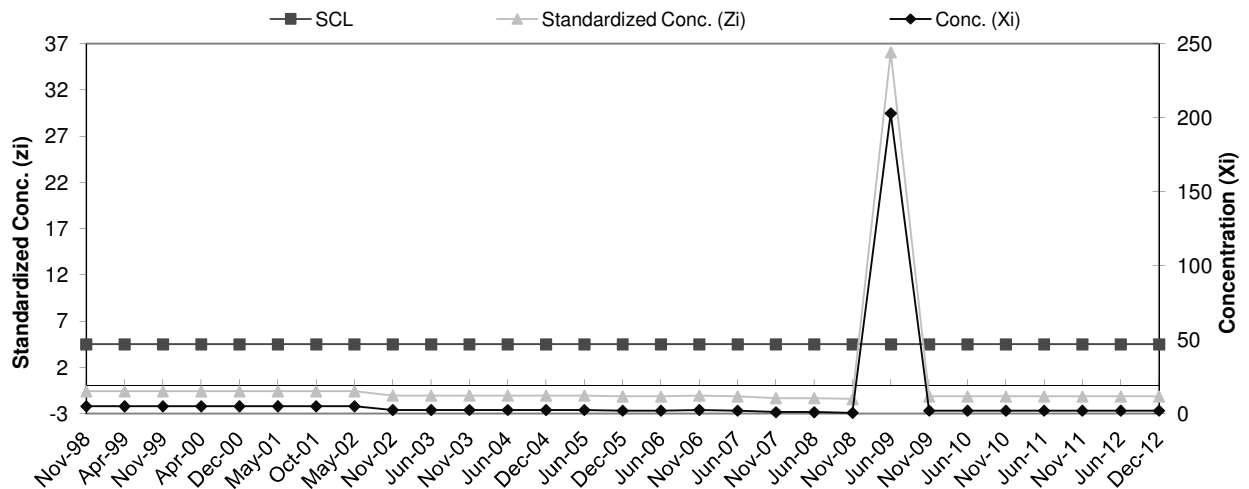
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	5	-0.73
10	Apr-99	4.5	5	-0.73
11	Nov-99	4.5	5	-0.73
12	Apr-00	4.5	5	-0.73
13	Dec-00	4.5	5	-0.73
14	May-01	4.5	5	-0.73
15	Oct-01	4.5	5	-0.73
16	May-02	4.5	5	-0.73
17	Nov-02	4.5	2.5	-1.21
18	Jun-03	4.5	2.5	-1.21
19	Nov-03	4.5	2.5	-1.21
20	Jun-04	4.5	2.5	-1.21
21	Dec-04	4.5	2.5	-1.21
22	Jun-05	4.5	2.5	-1.21
23	Dec-05	4.5	9	0.04
24	Jun-06	4.5	2.5	-1.21
25	Nov-06	4.5	2.5	-1.21
26	Jun-07	4.5	8	-0.15
27	Nov-07	4.5	1	-1.50
28	Jun-08	4.5	2.5	-1.21
29	Nov-08	4.5	2.5	-1.21
30	Jun-09	4.5	2.5	-1.21
31	Nov-09	4.5	2.5	-1.21
32	Jun-10	4.5	2.5	-1.21
33	Nov-10	4.5	11	0.43
34	Jun-11	4.5	9	0.04
35	Jun-11	4.5	2.5	-1.21
36	Nov-11	4.5	2.5	-1.21
37	Jun-12	4.5	2.5	-1.21
38	Dec-12	4.5	2.5	-1.21



**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2d 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		

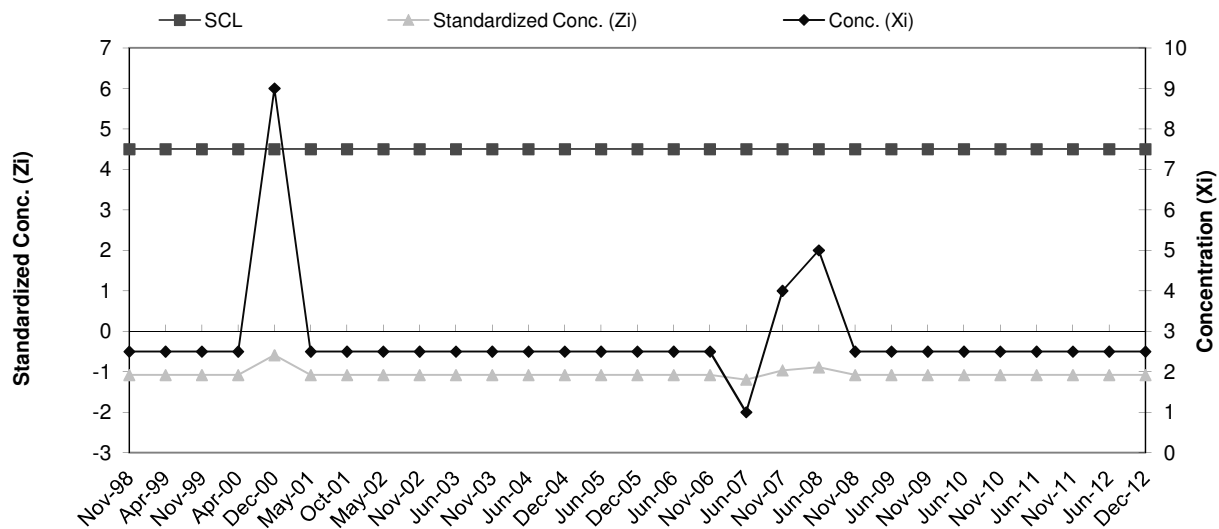
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	5	-0.58
10	Apr-99	4.5	5	-0.58
11	Nov-99	4.5	5	-0.58
12	Apr-00	4.5	5	-0.58
13	Dec-00	4.5	5	-0.58
14	May-01	4.5	5	-0.58
15	Oct-01	4.5	5	-0.58
16	May-02	4.5	5	-0.58
17	Nov-02	4.5	2.5	-1.04
18	Jun-03	4.5	2.5	-1.04
19	Nov-03	4.5	2.5	-1.04
20	Jun-04	4.5	2.5	-1.04
21	Dec-04	4.5	2.5	-1.04
22	Jun-05	4.5	2.5	-1.04
23	Dec-05	4.5	2	-1.14
24	Jun-06	4.5	2	-1.14
25	Nov-06	4.5	2.5	-1.04
26	Jun-07	4.5	2	-1.14
27	Nov-07	4.5	1	-1.32
28	Jun-08	4.5	1	-1.32
29	Nov-08	4.5	0.5	-1.41
30	Jun-09	4.5	203	36.09
31	Nov-09	4.5	2	-1.14
32	Jun-10	4.5	2	-1.14
33	Nov-10	4.5	2	-1.14
34	Jun-11	4.5	2	-1.14
35	Nov-11	4.5	2	-1.14
36	Jun-12	4.5	2	-1.14
37	Dec-12	4.5	2	-1.14



**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2d 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		

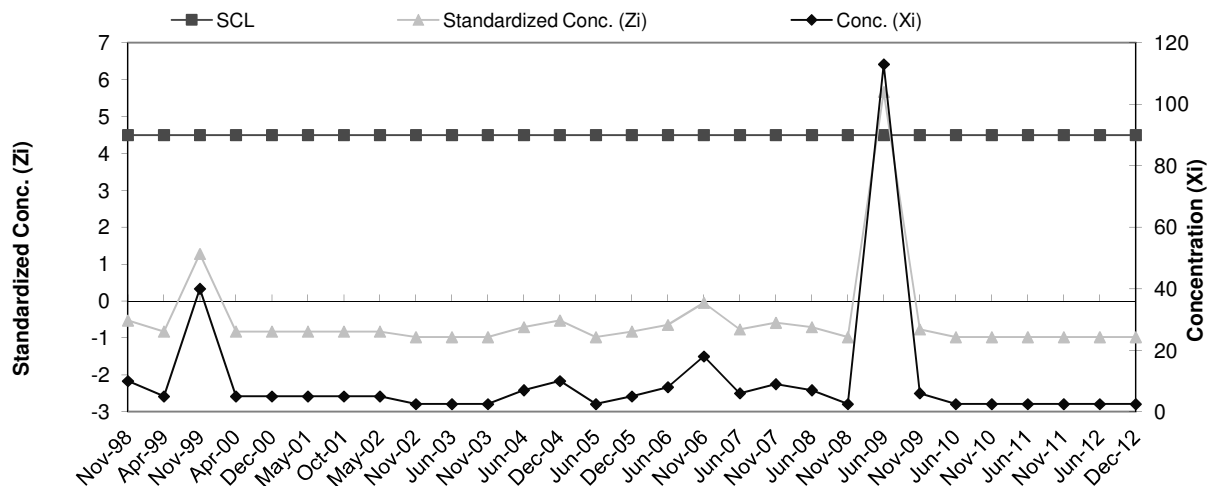
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	2.5	-1.08
10	Apr-99	4.5	2.5	-1.08
11	Nov-99	4.5	2.5	-1.08
12	Apr-00	4.5	2.5	-1.08
13	Dec-00	4.5	9	-0.59
14	May-01	4.5	2.5	-1.08
15	Oct-01	4.5	2.5	-1.08
16	May-02	4.5	2.5	-1.08
17	Nov-02	4.5	2.5	-1.08
18	Jun-03	4.5	2.5	-1.08
19	Nov-03	4.5	2.5	-1.08
20	Jun-04	4.5	2.5	-1.08
21	Dec-04	4.5	2.5	-1.08
22	Jun-05	4.5	2.5	-1.08
23	Dec-05	4.5	2.5	-1.08
24	Jun-06	4.5	2.5	-1.08
25	Nov-06	4.5	2.5	-1.08
26	Jun-07	4.5	1	-1.19
27	Nov-07	4.5	4	-0.97
28	Jun-08	4.5	5	-0.89
29	Nov-08	4.5	2.5	-1.08
30	Jun-09	4.5	2.5	-1.08
31	Nov-09	4.5	2.5	-1.08
32	Jun-10	4.5	2.5	-1.08
33	Nov-10	4.5	2.5	-1.08
34	Jun-11	4.5	2.5	-1.08
35	Nov-11	4.5	2.5	-1.08
36	Jun-12	4.5	2.5	-1.08
37	Dec-12	4.5	2.5	-1.08



**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2d 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		

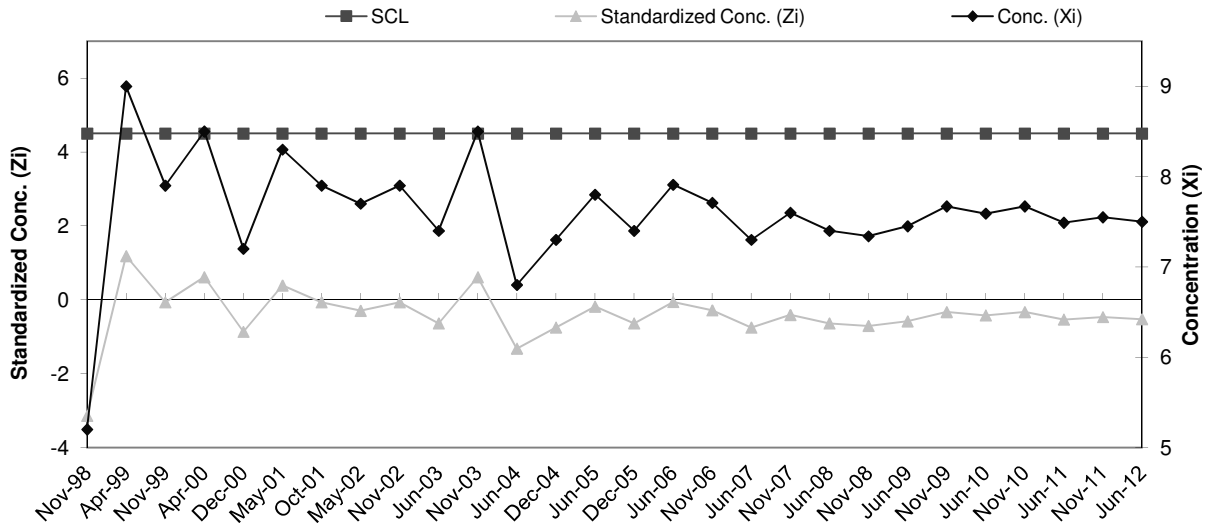
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	10	-0.53
10	Apr-99	4.5	5	-0.83
11	Nov-99	4.5	40	1.28
12	Apr-00	4.5	5	-0.83
13	Dec-00	4.5	5	-0.83
14	May-01	4.5	5	-0.83
15	Oct-01	4.5	5	-0.83
16	May-02	4.5	5	-0.83
17	Nov-02	4.5	2.5	-0.98
18	Jun-03	4.5	2.5	-0.98
19	Nov-03	4.5	2.5	-0.98
20	Jun-04	4.5	7	-0.71
21	Dec-04	4.5	10	-0.53
22	Jun-05	4.5	2.5	-0.98
23	Dec-05	4.5	5	-0.83
24	Jun-06	4.5	8	-0.65
25	Nov-06	4.5	18	-0.05
26	Jun-07	4.5	6	-0.77
27	Nov-07	4.5	9	-0.59
28	Jun-08	4.5	7	-0.71
29	Nov-08	4.5	2.5	-0.98
30	Jun-09	4.5	113	5.67
31	Nov-09	4.5	6	-0.77
32	Jun-10	4.5	2.5	-0.98
33	Nov-10	4.5	2.5	-0.98
34	Jun-11	4.5	2.5	-0.98
35	Nov-11	4.5	2.5	-0.98
36	Jun-12	4.5	2.5	-0.98
37	Dec-12	4.5	2.5	-0.98



**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2d 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		

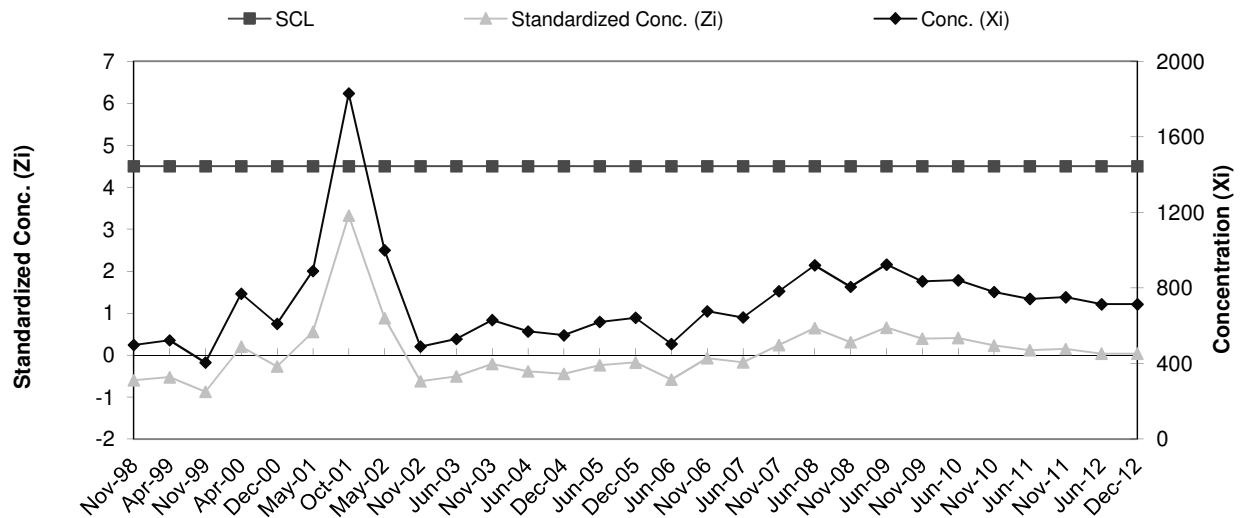
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	4.7	-3.15
10	Apr-99	4.5	8.5	1.18
11	Nov-99	4.5	7.4	-0.07
12	Apr-00	4.5	8.0	0.61
13	Dec-00	4.5	6.7	-0.87
14	May-01	4.5	7.8	0.38
15	Oct-01	4.5	7.4	-0.07
16	May-02	4.5	7.2	-0.30
17	Nov-02	4.5	7.4	-0.07
18	Jun-03	4.5	6.9	-0.64
19	Nov-03	4.5	8.0	0.61
20	Jun-04	4.5	6.3	-1.32
21	Dec-04	4.5	6.8	-0.75
22	Jun-05	4.5	7.3	-0.19
23	Dec-05	4.5	6.9	-0.64
24	Jun-06	4.5	7.4	-0.06
25	Nov-06	4.5	7.2	-0.29
26	Jun-07	4.5	6.8	-0.75
27	Nov-07	4.5	7.1	-0.41
28	Jun-08	4.5	6.9	-0.64
29	Nov-08	4.5	6.8	-0.71
30	Jun-09	4.5	7.0	-0.58
31	Nov-09	4.5	7.2	-0.33
32	Jun-10	4.5	7.1	-0.42
33	Nov-10	4.5	7.2	-0.33
34	Jun-11	4.5	7.0	-0.54
35	Nov-11	4.5	7.1	-0.47
36	Jun-12	4.5	7.0	-0.53
37	Dec-12	4.5	7.5	0.01



COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-2d 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		

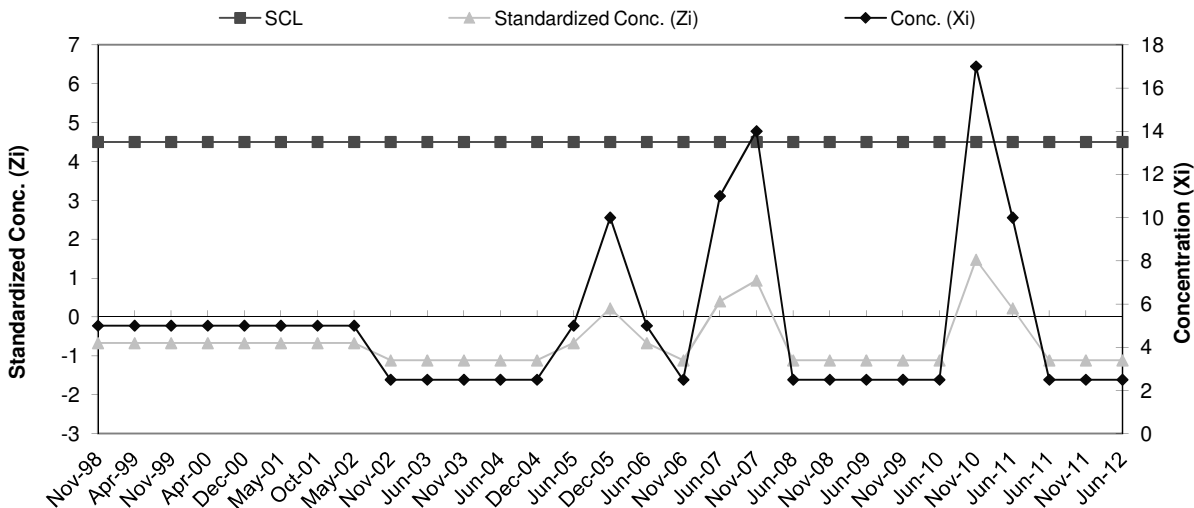
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	498.0	-0.60
10	Apr-99	4.5	523.0	-0.53
11	Nov-99	4.5	405.0	-0.87
12	Apr-00	4.5	770.0	0.20
13	Dec-00	4.5	610.0	-0.27
14	May-01	4.5	890.0	0.56
15	Oct-01	4.5	1830.0	3.32
16	May-02	4.5	1000.0	0.88
17	Nov-02	4.5	490.0	-0.62
18	Jun-03	4.5	530.0	-0.51
19	Nov-03	4.5	630.0	-0.21
20	Jun-04	4.5	570.0	-0.39
21	Dec-04	4.5	550.0	-0.45
22	Jun-05	4.5	620.0	-0.24
23	Dec-05	4.5	642.0	-0.18
24	Jun-06	4.5	504.1	-0.58
25	Nov-06	4.5	677.0	-0.07
26	Jun-07	4.5	644.0	-0.17
27	Nov-07	4.5	783.0	0.24
28	Jun-08	4.5	920.0	0.64
29	Nov-08	4.5	806.0	0.31
30	Jun-09	4.5	924.0	0.66
31	Nov-09	4.5	835.0	0.39
32	Jun-10	4.5	841.0	0.41
33	Nov-10	4.5	779.0	0.23
34	Jun-11	4.5	742.0	0.12
35	Nov-11	4.5	751.0	0.15
36	Jun-12	4.5	714.0	0.04
37	Dec-12	4.5	714.0	0.04



**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		

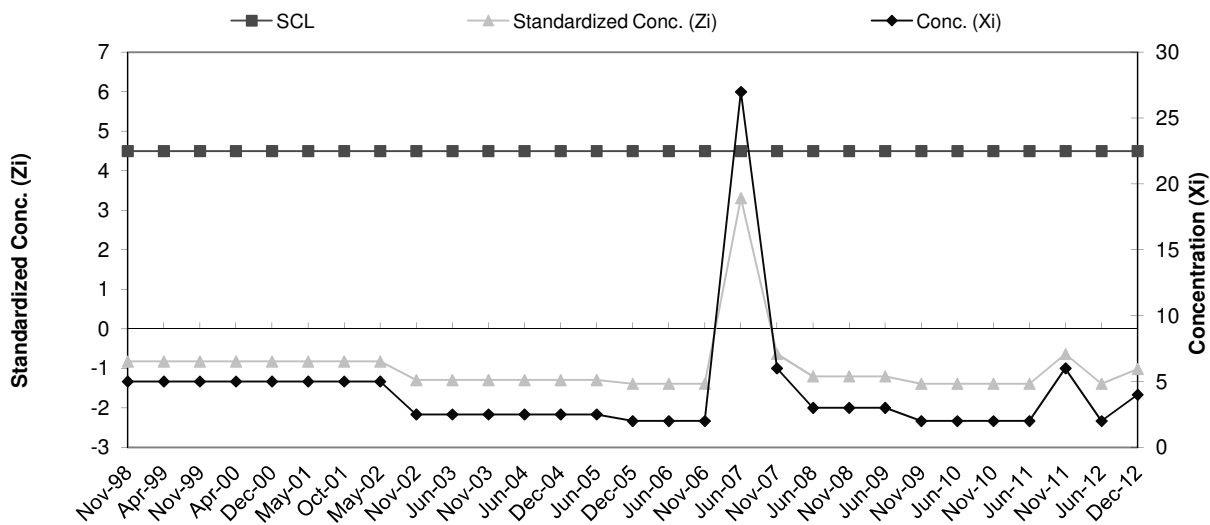
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	5	-0.67
10	Apr-99	4.5	5	-0.67
11	Nov-99	4.5	5	-0.67
12	Apr-00	4.5	5	-0.67
13	Dec-00	4.5	5	-0.67
14	May-01	4.5	5	-0.67
15	Oct-01	4.5	5	-0.67
16	May-02	4.5	5	-0.67
17	Nov-02	4.5	2.5	-1.12
18	Jun-03	4.5	2.5	-1.12
19	Nov-03	4.5	2.5	-1.12
20	Jun-04	4.5	2.5	-1.12
21	Dec-04	4.5	2.5	-1.12
22	Jun-05	4.5	5	-0.67
23	Dec-05	4.5	10	0.22
24	Jun-06	4.5	5	-0.67
25	Nov-06	4.5	2.5	-1.12
26	Jun-07	4.5	11	0.40
27	Nov-07	4.5	14	0.94
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	17	1.47
34	Jun-11	4.5	10	0.22
35	Jun-11	4.5	2.5	-1.12
36	Nov-11	4.5	2.5	-1.12
37	Jun-12	4.5	2.5	-1.12
38	Dec-12	4.5	2.5	-1.12



**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		

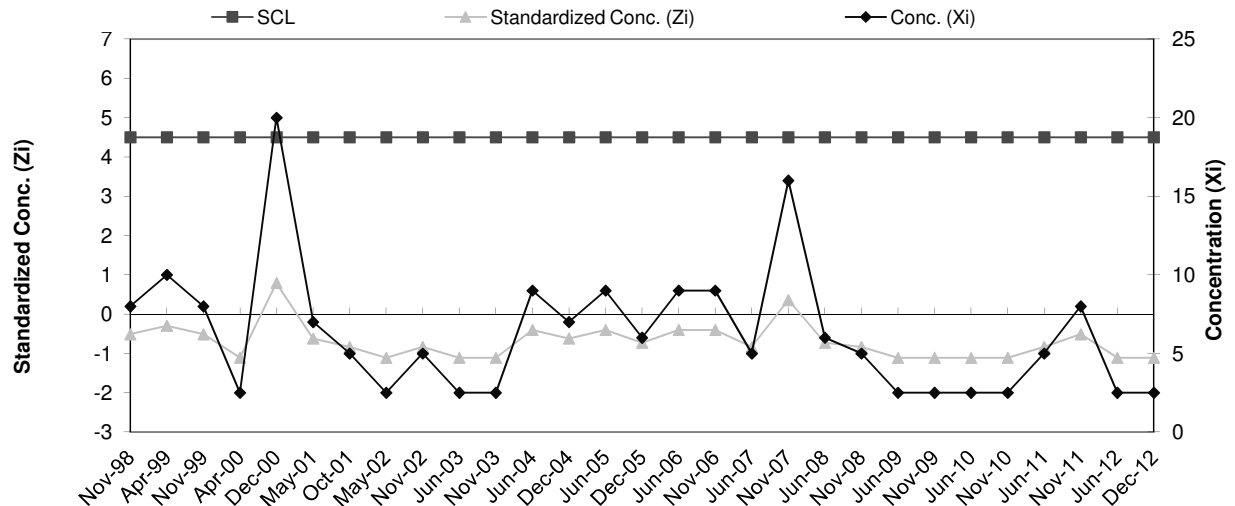
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	5	-0.83
10	Apr-99	4.5	5	-0.83
11	Nov-99	4.5	5	-0.83
12	Apr-00	4.5	5	-0.83
13	Dec-00	4.5	5	-0.83
14	May-01	4.5	5	-0.83
15	Oct-01	4.5	5	-0.83
16	May-02	4.5	5	-0.83
17	Nov-02	4.5	2.5	-1.30
18	Jun-03	4.5	2.5	-1.30
19	Nov-03	4.5	2.5	-1.30
20	Jun-04	4.5	2.5	-1.30
21	Dec-04	4.5	2.5	-1.30
22	Jun-05	4.5	2.5	-1.30
23	Dec-05	4.5	2	-1.39
24	Jun-06	4.5	2	-1.39
25	Nov-06	4.5	2	-1.39
26	Jun-07	4.5	27	3.31
27	Nov-07	4.5	6	-0.64
28	Jun-08	4.5	3	-1.20
29	Nov-08	4.5	3	-1.20
30	Jun-09	4.5	3	-1.20
31	Nov-09	4.5	2	-1.39
32	Jun-10	4.5	2	-1.39
33	Nov-10	4.5	2	-1.39
34	Jun-11	4.5	2	-1.39
35	Nov-11	4.5	6	-0.64
36	Jun-12	4.5	2	-1.39
37	Dec-12	4.5	4	-1.02



**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		

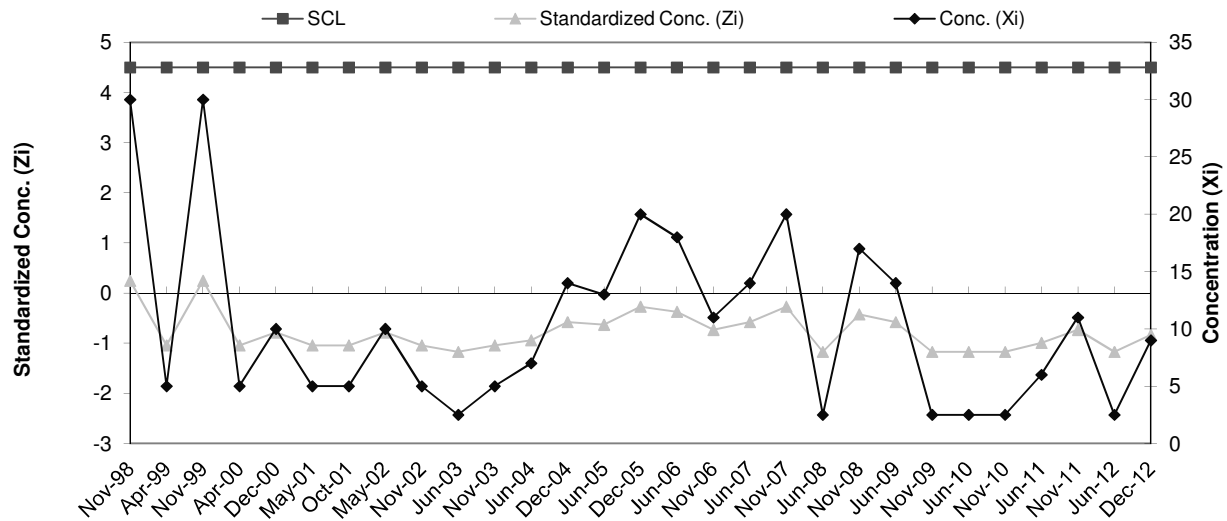
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	8	-0.51
10	Apr-99	4.5	10	-0.29
11	Nov-99	4.5	8	-0.51
12	Apr-00	4.5	2.5	-1.11
13	Dec-00	4.5	20	0.79
14	May-01	4.5	7	-0.62
15	Oct-01	4.5	5	-0.84
16	May-02	4.5	2.5	-1.11
17	Nov-02	4.5	5	-0.84
18	Jun-03	4.5	2.5	-1.11
19	Nov-03	4.5	2.5	-1.11
20	Jun-04	4.5	9	-0.40
21	Dec-04	4.5	7	-0.62
22	Jun-05	4.5	9	-0.40
23	Dec-05	4.5	6	-0.73
24	Jun-06	4.5	9	-0.40
25	Nov-06	4.5	9	-0.40
26	Jun-07	4.5	5	-0.84
27	Nov-07	4.5	16	0.36
28	Jun-08	4.5	6	-0.73
29	Nov-08	4.5	5	-0.84
30	Jun-09	4.5	2.5	-1.11
31	Nov-09	4.5	2.5	-1.11
32	Jun-10	4.5	2.5	-1.11
33	Nov-10	4.5	2.5	-1.11
34	Jun-11	4.5	5	-0.84
35	Nov-11	4.5	8	-0.51
36	Jun-12	4.5	2.5	-1.11
37	Dec-12	4.5	2.5	-1.11



**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		

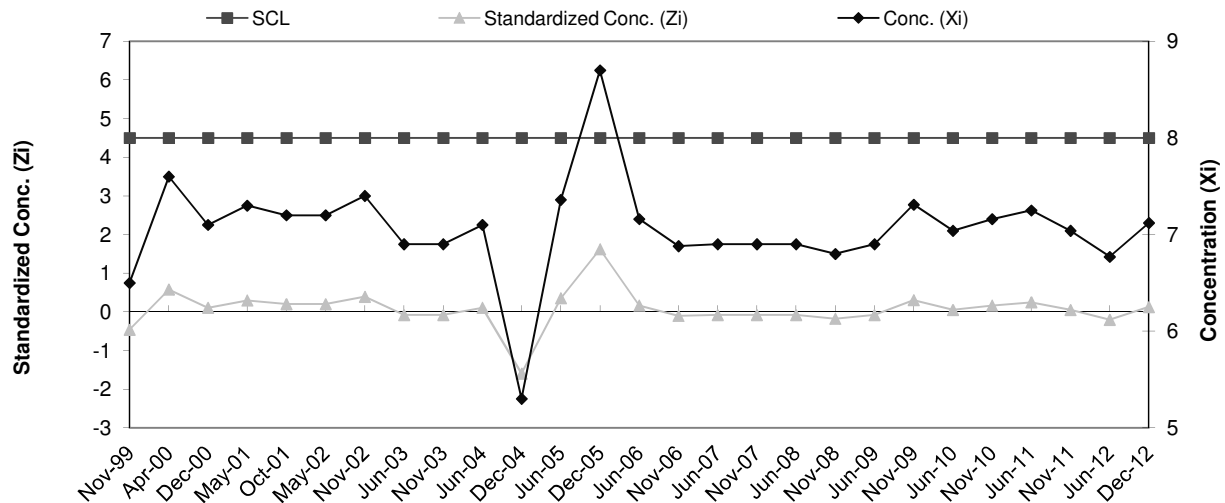
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	30	0.24
10	Apr-99	4.5	5	-1.04
11	Nov-99	4.5	30	0.24
12	Apr-00	4.5	5	-1.04
13	Dec-00	4.5	10	-0.79
14	May-01	4.5	5	-1.04
15	Oct-01	4.5	5	-1.04
16	May-02	4.5	10	-0.79
17	Nov-02	4.5	5	-1.04
18	Jun-03	4.5	2.5	-1.17
19	Nov-03	4.5	5	-1.04
20	Jun-04	4.5	7	-0.94
21	Dec-04	4.5	14	-0.58
22	Jun-05	4.5	13	-0.63
23	Dec-05	4.5	20	-0.27
24	Jun-06	4.5	18	-0.37
25	Nov-06	4.5	11	-0.73
26	Jun-07	4.5	14	-0.58
27	Nov-07	4.5	20	-0.27
28	Jun-08	4.5	2.5	-1.17
29	Nov-08	4.5	17	-0.43
30	Jun-09	4.5	14	-0.58
31	Nov-09	4.5	2.5	-1.17
32	Jun-10	4.5	2.5	-1.17
33	Nov-10	4.5	2.5	-1.17
34	Jun-11	4.5	6	-0.99
35	Nov-11	4.5	11	-0.73
36	Jun-12	4.5	2.5	-1.17
37	Dec-12	4.5	9	-0.84



**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		

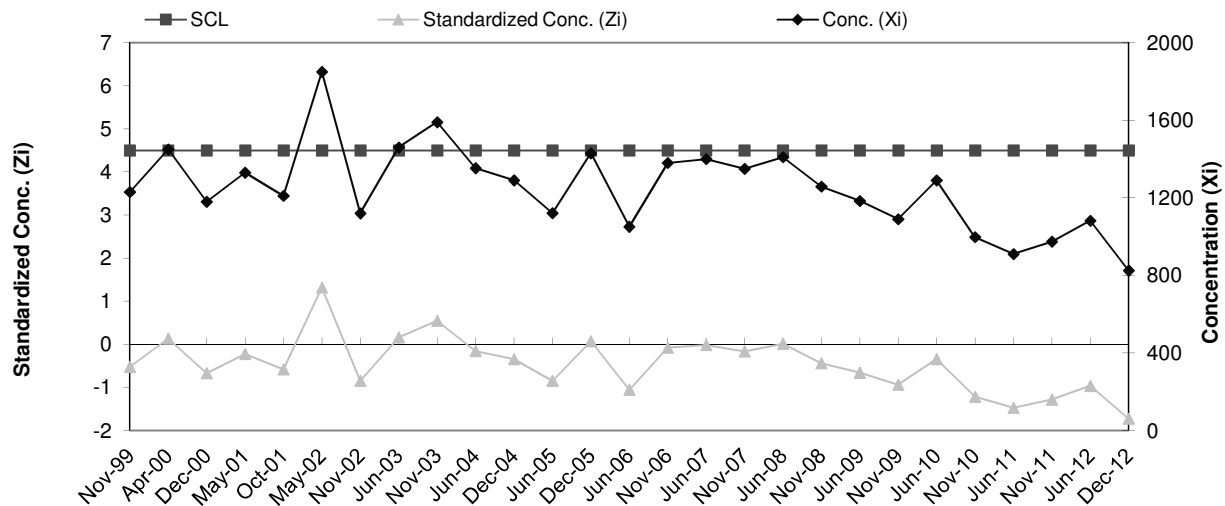
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-99	4.5	6.5	-0.46
10	Apr-00	4.5	7.6	0.58
11	Dec-00	4.5	7.1	0.11
12	May-01	4.5	7.3	0.30
13	Oct-01	4.5	7.2	0.20
14	May-02	4.5	7.2	0.20
15	Nov-02	4.5	7.4	0.39
16	Jun-03	4.5	6.9	-0.08
17	Nov-03	4.5	6.9	-0.08
18	Jun-04	4.5	7.1	0.11
19	Dec-04	4.5	5.3	-1.60
20	Jun-05	4.5	7.4	0.35
21	Dec-05	4.5	8.7	1.62
22	Jun-06	4.5	7.2	0.16
23	Nov-06	4.5	6.9	-0.10
24	Jun-07	4.5	6.9	-0.08
25	Nov-07	4.5	6.9	-0.08
26	Jun-08	4.5	6.9	-0.08
27	Nov-08	4.5	6.8	-0.18
28	Jun-09	4.5	6.9	-0.08
29	Nov-09	4.5	7.3	0.30
30	Jun-10	4.5	7.0	0.05
31	Nov-10	4.5	7.2	0.16
32	Jun-11	4.5	7.3	0.25
33	Nov-11	4.5	7.0	0.05
34	Jun-12	4.5	6.8	-0.21
35	Dec-12	4.5	7.1	0.13



**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		

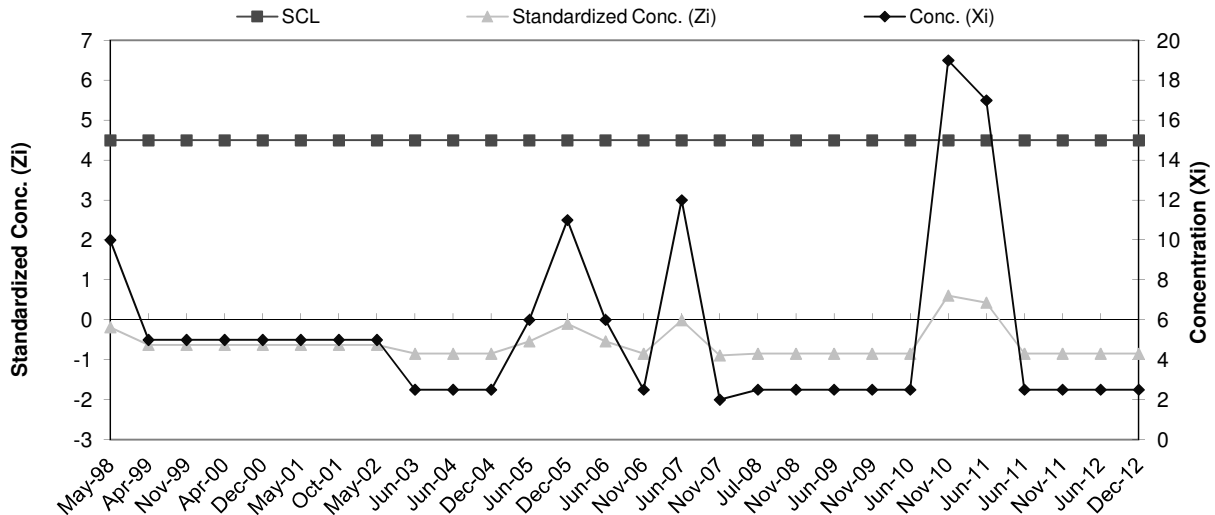
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-99	4.5	1230.0	-0.52
10	Apr-00	4.5	1450.0	0.13
11	Dec-00	4.5	1180.0	-0.67
12	May-01	4.5	1330.0	-0.23
13	Oct-01	4.5	1210.0	-0.58
14	May-02	4.5	1850.0	1.32
15	Nov-02	4.5	1120.0	-0.85
16	Jun-03	4.5	1460.0	0.16
17	Nov-03	4.5	1590.0	0.55
18	Jun-04	4.5	1353.0	-0.16
19	Dec-04	4.5	1290.0	-0.34
20	Jun-05	4.5	1121.0	-0.85
21	Dec-05	4.5	1430.0	0.07
22	Jun-06	4.5	1051.0	-1.06
23	Nov-06	4.5	1380.0	-0.08
24	Jun-07	4.5	1400.0	-0.02
25	Nov-07	4.5	1350.0	-0.17
26	Jun-08	4.5	1410.0	0.01
27	Nov-08	4.5	1258.0	-0.44
28	Jun-09	4.5	1184.0	-0.66
29	Nov-09	4.5	1090.0	-0.94
30	Jun-10	4.5	1290.0	-0.34
31	Nov-10	4.5	997.0	-1.22
32	Jun-11	4.5	910.0	-1.47
33	Nov-11	4.5	974.0	-1.28
34	Jun-12	4.5	1082.0	-0.96
35	Dec-12	4.5	825.0	-1.73



**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		

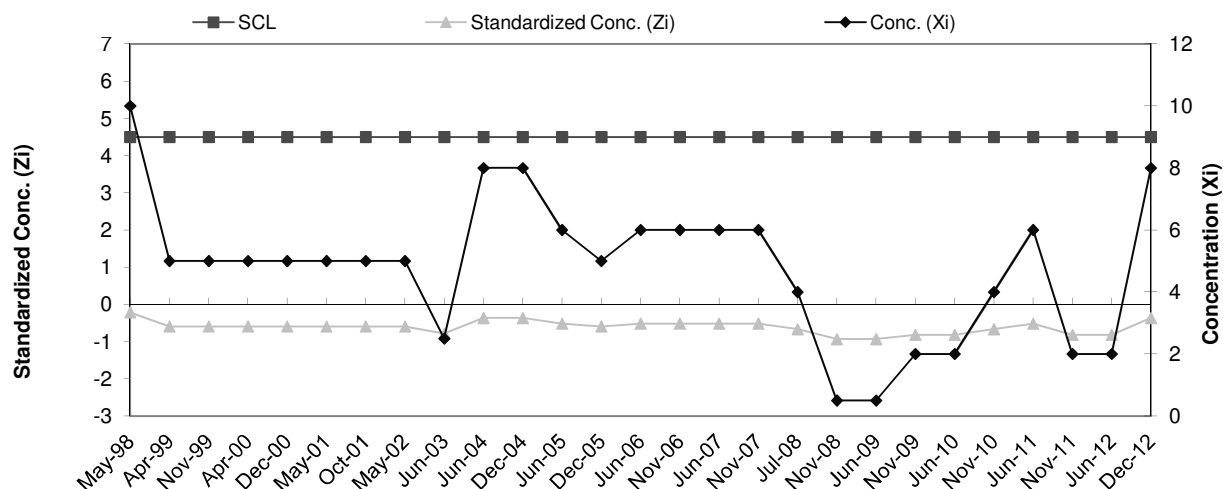
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	10	-0.19
10	Apr-99	4.5	5	-0.63
11	Nov-99	4.5	5	-0.63
12	Apr-00	4.5	5	-0.63
13	Dec-00	4.5	5	-0.63
14	May-01	4.5	5	-0.63
15	Oct-01	4.5	5	-0.63
16	May-02	4.5	5	-0.63
17	Jun-03	4.5	2.5	-0.85
18	Jun-04	4.5	2.5	-0.85
19	Dec-04	4.5	2.5	-0.85
20	Jun-05	4.5	6	-0.54
21	Dec-05	4.5	11	-0.10
22	Jun-06	4.5	6	-0.54
23	Nov-06	4.5	2.5	-0.85
24	Jun-07	4.5	12	-0.01
25	Nov-07	4.5	2	-0.89
26	Jul-08	4.5	2.5	-0.85
27	Nov-08	4.5	2.5	-0.85
28	Jun-09	4.5	2.5	-0.85
29	Nov-09	4.5	2.5	-0.85
30	Jun-10	4.5	2.5	-0.85
31	Nov-10	4.5	19	0.61
32	Jun-11	4.5	17	0.43
33	Jun-11	4.5	2.5	-0.85
34	Nov-11	4.5	2.5	-0.85
35	Jun-12	4.5	2.5	-0.85
36	Dec-12	4.5	2.5	-0.85



**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		

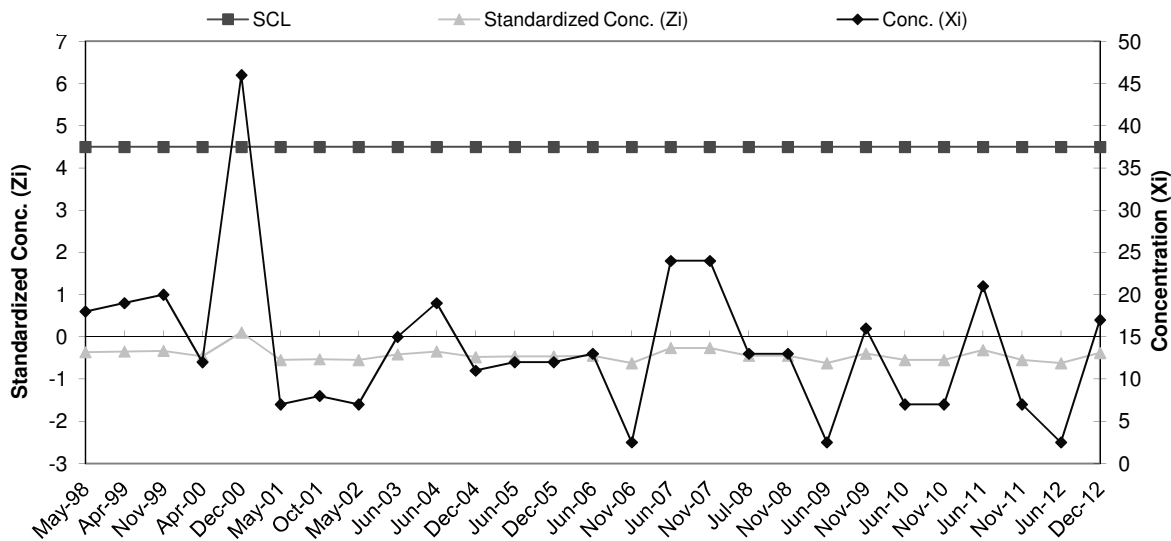
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	10	-0.22
10	Apr-99	4.5	5	-0.59
11	Nov-99	4.5	5	-0.59
12	Apr-00	4.5	5	-0.59
13	Dec-00	4.5	5	-0.59
14	May-01	4.5	5	-0.59
15	Oct-01	4.5	5	-0.59
16	May-02	4.5	5	-0.59
17	Jun-03	4.5	2.5	-0.78
18	Jun-04	4.5	8	-0.37
19	Dec-04	4.5	8	-0.37
20	Jun-05	4.5	6	-0.52
21	Dec-05	4.5	5	-0.59
22	Jun-06	4.5	6	-0.52
23	Nov-06	4.5	6	-0.52
24	Jun-07	4.5	6	-0.52
25	Nov-07	4.5	6	-0.52
26	Jul-08	4.5	4	-0.67
27	Nov-08	4.5	0.5	-0.93
28	Jun-09	4.5	0.5	-0.93
29	Nov-09	4.5	2	-0.82
30	Jun-10	4.5	2	-0.82
31	Nov-10	4.5	4	-0.67
32	Jun-11	4.5	6	-0.52
33	Nov-11	4.5	2	-0.82
34	Jun-12	4.5	2	-0.82
35	Dec-12	4.5	8	-0.37



**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		

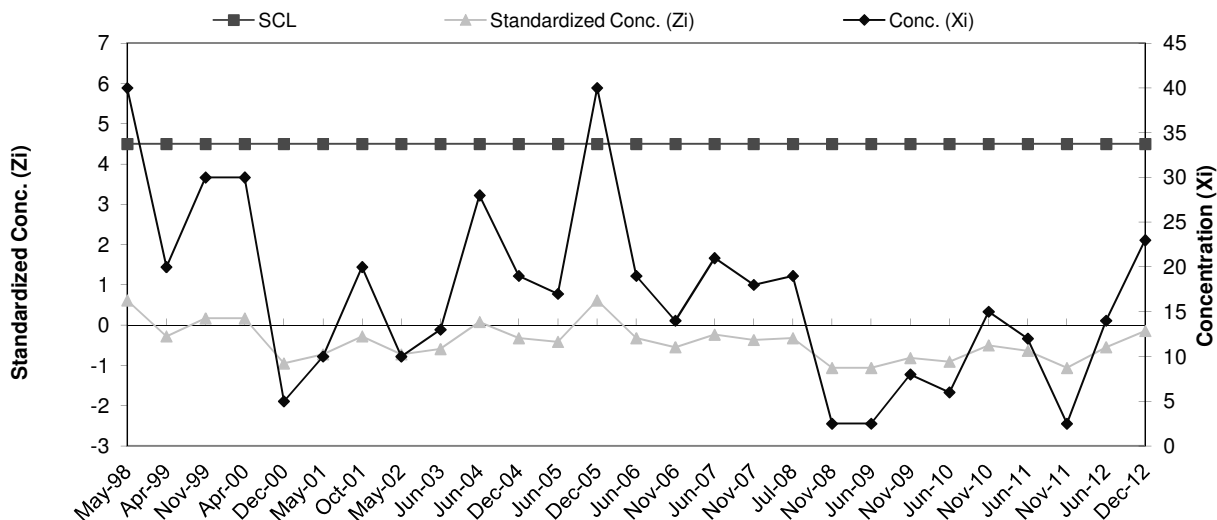
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	18	-0.36
10	Apr-99	4.5	19	-0.35
11	Nov-99	4.5	20	-0.33
12	Apr-00	4.5	12	-0.46
13	Dec-00	4.5	46	0.10
14	May-01	4.5	7	-0.55
15	Oct-01	4.5	8	-0.53
16	May-02	4.5	7	-0.55
17	Jun-03	4.5	15	-0.41
18	Jun-04	4.5	19	-0.35
19	Dec-04	4.5	11	-0.48
20	Jun-05	4.5	12	-0.46
21	Dec-05	4.5	12	-0.46
22	Jun-06	4.5	13	-0.45
23	Nov-06	4.5	2.5	-0.62
24	Jun-07	4.5	24	-0.26
25	Nov-07	4.5	24	-0.26
26	Jul-08	4.5	13	-0.45
27	Nov-08	4.5	13	-0.45
28	Jun-09	4.5	2.5	-0.62
29	Nov-09	4.5	16	-0.40
30	Jun-10	4.5	7	-0.55
31	Nov-10	4.5	7	-0.55
32	Jun-11	4.5	21	-0.31
33	Nov-11	4.5	7	-0.55
34	Jun-12	4.5	2.5	-0.62
35	Dec-12	4.5	17	-0.38



**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		

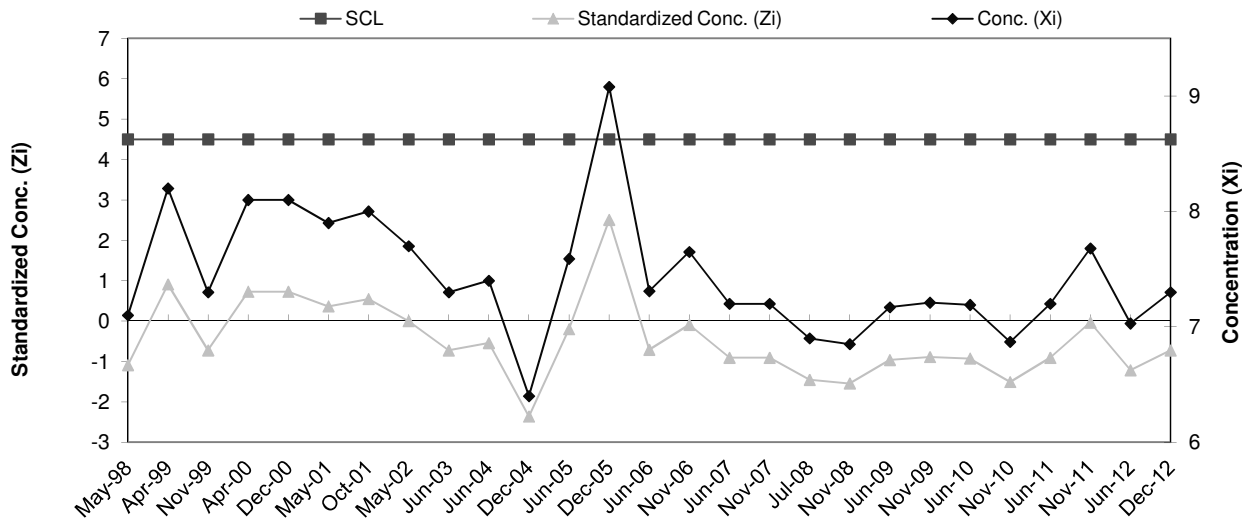
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	40	0.62
10	Apr-99	4.5	20	-0.28
11	Nov-99	4.5	30	0.17
12	Apr-00	4.5	30	0.17
13	Dec-00	4.5	5	-0.95
14	May-01	4.5	10	-0.73
15	Oct-01	4.5	20	-0.28
16	May-02	4.5	10	-0.73
17	Jun-03	4.5	13	-0.59
18	Jun-04	4.5	28	0.08
19	Dec-04	4.5	19	-0.32
20	Jun-05	4.5	17	-0.41
21	Dec-05	4.5	40	0.62
22	Jun-06	4.5	19	-0.32
23	Nov-06	4.5	14	-0.55
24	Jun-07	4.5	21	-0.23
25	Nov-07	4.5	18	-0.37
26	Jul-08	4.5	19	-0.32
27	Nov-08	4.5	2.5	-1.06
28	Jun-09	4.5	2.5	-1.06
29	Nov-09	4.5	8	-0.82
30	Jun-10	4.5	6	-0.90
31	Nov-10	4.5	15	-0.50
32	Jun-11	4.5	12	-0.64
33	Nov-11	4.5	2.5	-1.06
34	Jun-12	4.5	14	-0.55
35	Dec-12	4.5	23	-0.14



**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		

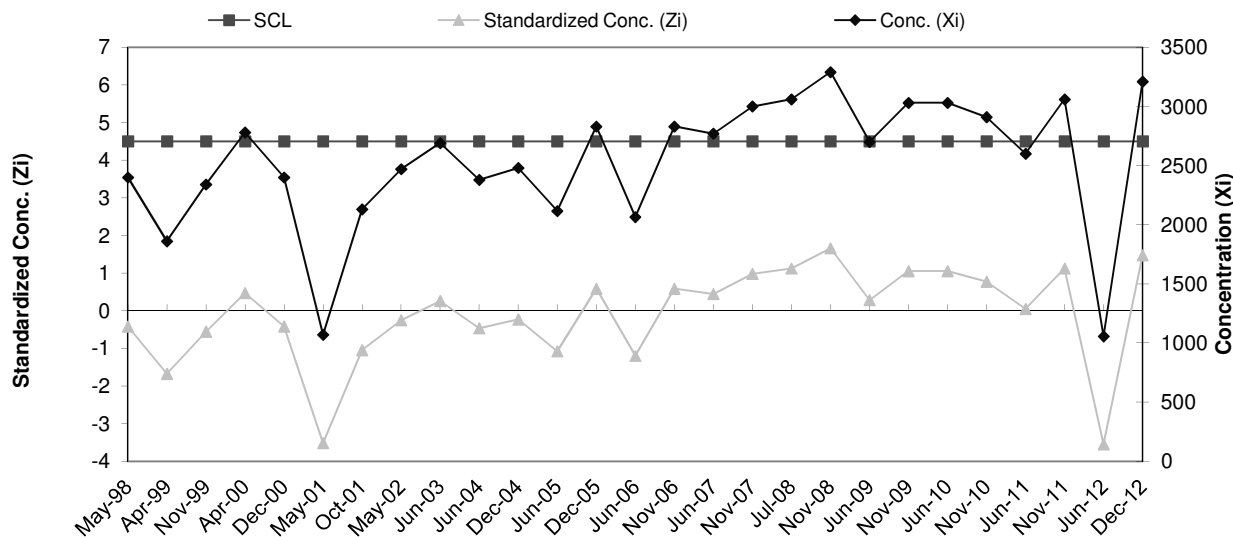
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.6	-1.09
10	Apr-99	4.5	7.7	0.91
11	Nov-99	4.5	6.8	-0.73
12	Apr-00	4.5	7.6	0.73
13	Dec-00	4.5	7.6	0.73
14	May-01	4.5	7.4	0.36
15	Oct-01	4.5	7.5	0.55
16	May-02	4.5	7.2	0.00
17	Jun-03	4.5	6.8	-0.73
18	Jun-04	4.5	6.9	-0.55
19	Dec-04	4.5	5.9	-2.36
20	Jun-05	4.5	7.1	-0.20
21	Dec-05	4.5	8.6	2.51
22	Jun-06	4.5	6.8	-0.71
23	Nov-06	4.5	7.2	-0.09
24	Jun-07	4.5	6.7	-0.91
25	Nov-07	4.5	6.7	-0.91
26	Jul-08	4.5	6.4	-1.45
27	Nov-08	4.5	6.4	-1.54
28	Jun-09	4.5	6.7	-0.96
29	Nov-09	4.5	6.7	-0.89
30	Jun-10	4.5	6.7	-0.93
31	Nov-10	4.5	6.4	-1.51
32	Jun-11	4.5	6.7	-0.91
33	Nov-11	4.5	7.2	-0.04
34	Jun-12	4.5	6.5	-1.22
35	Dec-12	4.5	6.8	-0.73



**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		

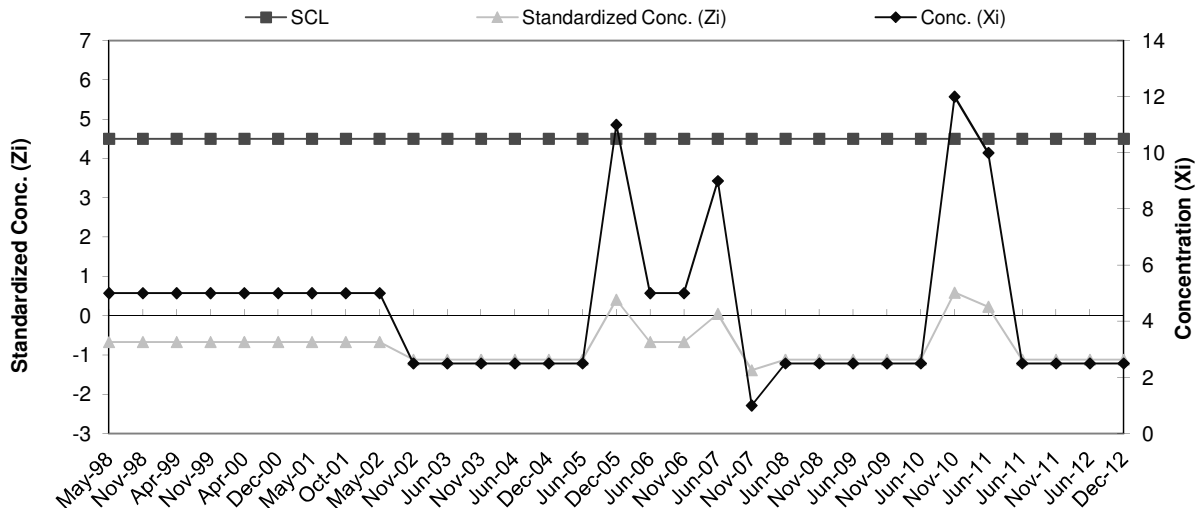
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2400	-0.42
10	Apr-99	4.5	1860	-1.68
11	Nov-99	4.5	2340	-0.56
12	Apr-00	4.5	2780	0.47
13	Dec-00	4.5	2400	-0.42
14	May-01	4.5	1070	-3.52
15	Oct-01	4.5	2130	-1.05
16	May-02	4.5	2470	-0.25
17	Jun-03	4.5	2690	0.26
18	Jun-04	4.5	2379	-0.47
19	Dec-04	4.5	2480	-0.23
20	Jun-05	4.5	2116	-1.08
21	Dec-05	4.5	2830	0.59
22	Jun-06	4.5	2065	-1.20
23	Nov-06	4.5	2830	0.59
24	Jun-07	4.5	2770	0.45
25	Nov-07	4.5	3000	0.98
26	Jul-08	4.5	3060	1.12
27	Nov-08	4.5	3290	1.66
28	Jun-09	4.5	2700	0.28
29	Nov-09	4.5	3030	1.05
30	Jun-10	4.5	3030	1.05
31	Nov-10	4.5	2910	0.77
32	Jun-11	4.5	2600	0.05
33	Nov-11	4.5	3060	1.12
34	Jun-12	4.5	1057	-3.55
35	Dec-12	4.5	3210	1.47



**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		

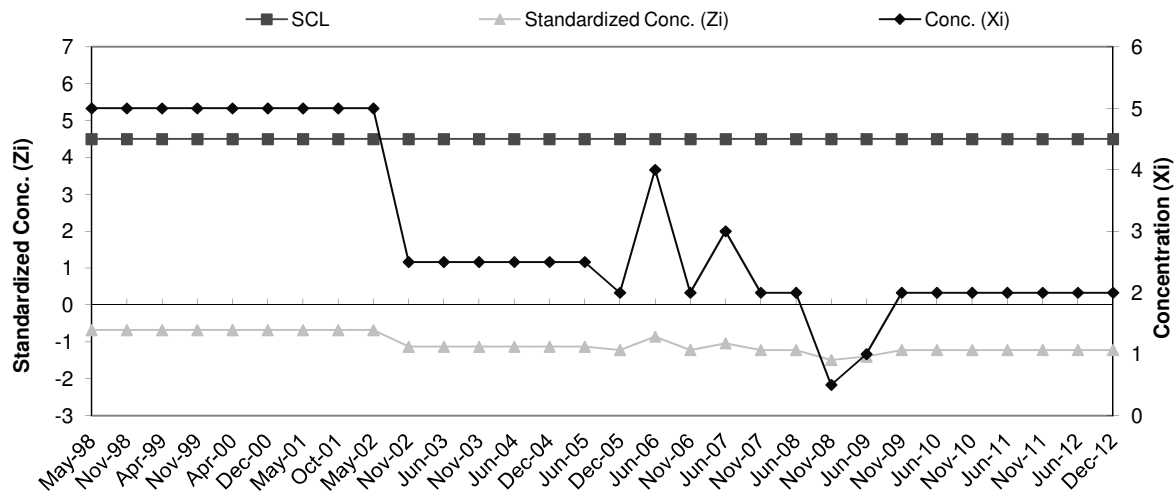
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.67
10	Nov-98	4.5	5	-0.67
11	Apr-99	4.5	5	-0.67
12	Nov-99	4.5	5	-0.67
13	Apr-00	4.5	5	-0.67
14	Dec-00	4.5	5	-0.67
15	May-01	4.5	5	-0.67
16	Oct-01	4.5	5	-0.67
17	May-02	4.5	5	-0.67
18	Nov-02	4.5	2.5	-1.12
19	Jun-03	4.5	2.5	-1.12
20	Nov-03	4.5	2.5	-1.12
21	Jun-04	4.5	2.5	-1.12
22	Dec-04	4.5	2.5	-1.12
23	Jun-05	4.5	2.5	-1.12
24	Dec-05	4.5	11	0.41
25	Jun-06	4.5	5	-0.67
26	Nov-06	4.5	5	-0.67
27	Jun-07	4.5	9	0.05
28	Nov-07	4.5	1	-1.39
29	Jun-08	4.5	2.5	-1.12
30	Nov-08	4.5	2.5	-1.12
31	Jun-09	4.5	2.5	-1.12
32	Nov-09	4.5	2.5	-1.12
33	Jun-10	4.5	2.5	-1.12
34	Nov-10	4.5	12	0.59
35	Jun-11	4.5	10	0.23
36	Jun-11	4.5	2.5	-1.12
37	Nov-11	4.5	2.5	-1.12
38	Jun-12	4.5	2.5	-1.12
39	Dec-12	4.5	2.5	-1.12



**COLDWATER ROAD LANDFILL FACILITY
RCRA GROUND WATER DETECTION MONITORING SYSTEM
SHEWART CONTROL CHART
B-18a Cu**

Baseline Data				
Ti	Date	Conc.	Mean	Std. Dev
1	Jun-95	10	8.78	5.56
2	Aug-95	10		
3	Feb-96	10		
4	Jun-96	10		
5	Aug-96	10		
6	Nov-96	10		
7	May-97	5		
8	Nov-97	5		

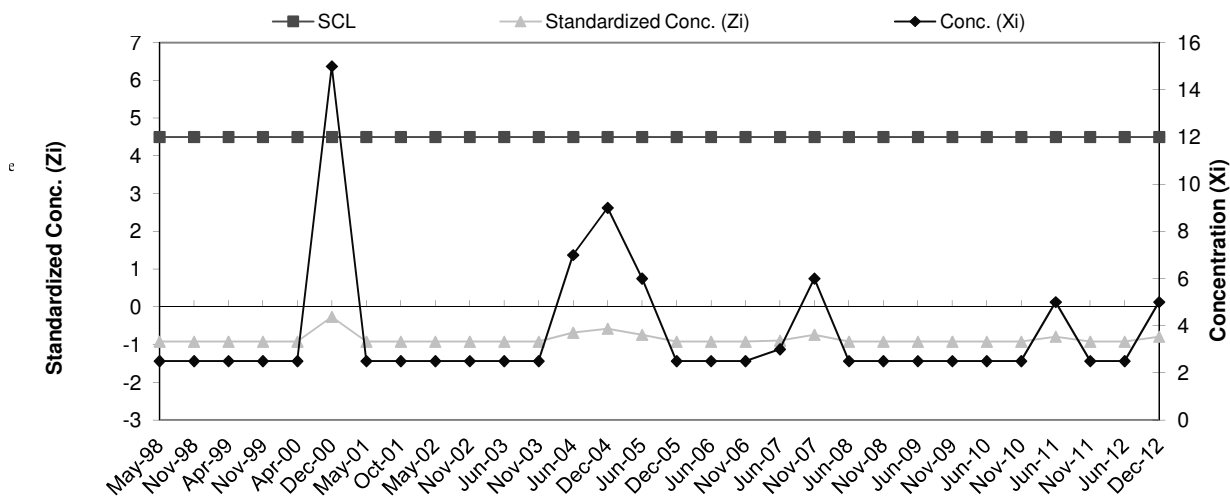
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.68
10	Nov-98	4.5	5	-0.68
11	Apr-99	4.5	5	-0.68
12	Nov-99	4.5	5	-0.68
13	Apr-00	4.5	5	-0.68
14	Dec-00	4.5	5	-0.68
15	May-01	4.5	5	-0.68
16	Oct-01	4.5	5	-0.68
17	May-02	4.5	5	-0.68
18	Nov-02	4.5	2.5	-1.13
19	Jun-03	4.5	2.5	-1.13
20	Nov-03	4.5	2.5	-1.13
21	Jun-04	4.5	2.5	-1.13
22	Dec-04	4.5	2.5	-1.13
23	Jun-05	4.5	2.5	-1.13
24	Dec-05	4.5	2	-1.22
25	Jun-06	4.5	4	-0.86
26	Nov-06	4.5	2	-1.22
27	Jun-07	4.5	3	-1.04
28	Nov-07	4.5	2	-1.22
29	Jun-08	4.5	2	-1.22
30	Nov-08	4.5	0.5	-1.49
31	Jun-09	4.5	1	-1.40
32	Nov-09	4.5	2	-1.22
33	Jun-10	4.5	2	-1.22
34	Nov-10	4.5	2	-1.22
35	Jun-11	4.5	2	-1.22
36	Nov-11	4.5	2	-1.22
37	Jun-12	4.5	2	-1.22
38	Dec-12	4.5	2	-1.22



**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		

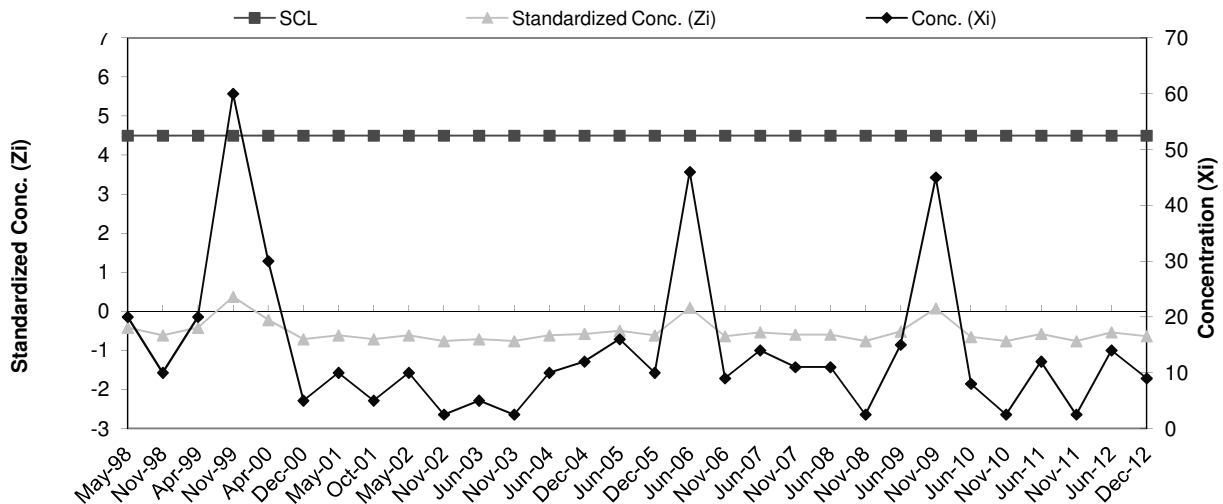
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-0.92
10	Nov-98	4.5	2.5	-0.92
11	Apr-99	4.5	2.5	-0.92
12	Nov-99	4.5	2.5	-0.92
13	Apr-00	4.5	2.5	-0.92
14	Dec-00	4.5	15	-0.26
15	May-01	4.5	2.5	-0.92
16	Oct-01	4.5	2.5	-0.92
17	May-02	4.5	2.5	-0.92
18	Nov-02	4.5	2.5	-0.92
19	Jun-03	4.5	2.5	-0.92
20	Nov-03	4.5	2.5	-0.92
21	Jun-04	4.5	7	-0.69
22	Dec-04	4.5	9	-0.58
23	Jun-05	4.5	6	-0.74
24	Dec-05	4.5	2.5	-0.92
25	Jun-06	4.5	2.5	-0.92
26	Nov-06	4.5	2.5	-0.92
27	Jun-07	4.5	3	-0.90
28	Nov-07	4.5	6	-0.74
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	2.5	-0.92
35	Jun-11	4.5	5	-0.79
36	Nov-11	4.5	2.5	-0.92
37	Jun-12	4.5	2.5	-0.92
38	Dec-12	4.5	5	-0.79



**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		

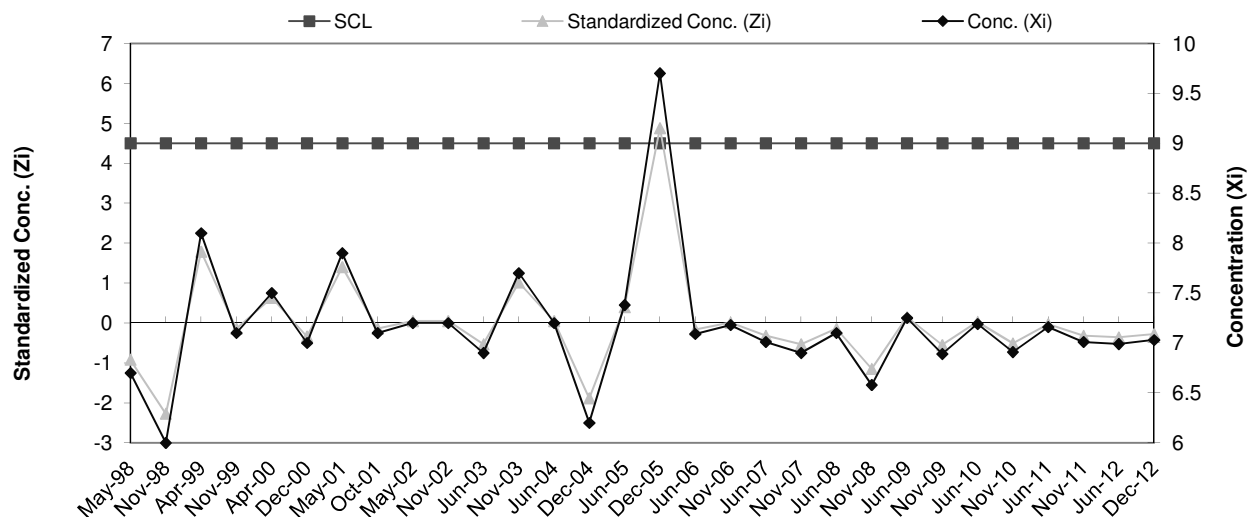
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	20	-0.42
10	Nov-98	4.5	10	-0.62
11	Apr-99	4.5	20	-0.42
12	Nov-99	4.5	60	0.37
13	Apr-00	4.5	30	-0.22
14	Dec-00	4.5	5	-0.72
15	May-01	4.5	10	-0.62
16	Oct-01	4.5	5	-0.72
17	May-02	4.5	10	-0.62
18	Nov-02	4.5	2.5	-0.76
19	Jun-03	4.5	5	-0.72
20	Nov-03	4.5	2.5	-0.76
21	Jun-04	4.5	10	-0.62
22	Dec-04	4.5	12	-0.58
23	Jun-05	4.5	16	-0.50
24	Dec-05	4.5	10	-0.62
25	Jun-06	4.5	46	0.09
26	Nov-06	4.5	9	-0.64
27	Jun-07	4.5	14	-0.54
28	Nov-07	4.5	11	-0.60
29	Jun-08	4.5	11	-0.60
30	Nov-08	4.5	2.5	-0.76
31	Jun-09	4.5	15	-0.52
32	Nov-09	4.5	45	0.07
33	Jun-10	4.5	8	-0.66
34	Nov-10	4.5	2.5	-0.76
35	Jun-11	4.5	12	-0.58
36	Nov-11	4.5	2.5	-0.76
37	Jun-12	4.5	14	-0.54
38	Dec-12	4.5	9	-0.64



**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		

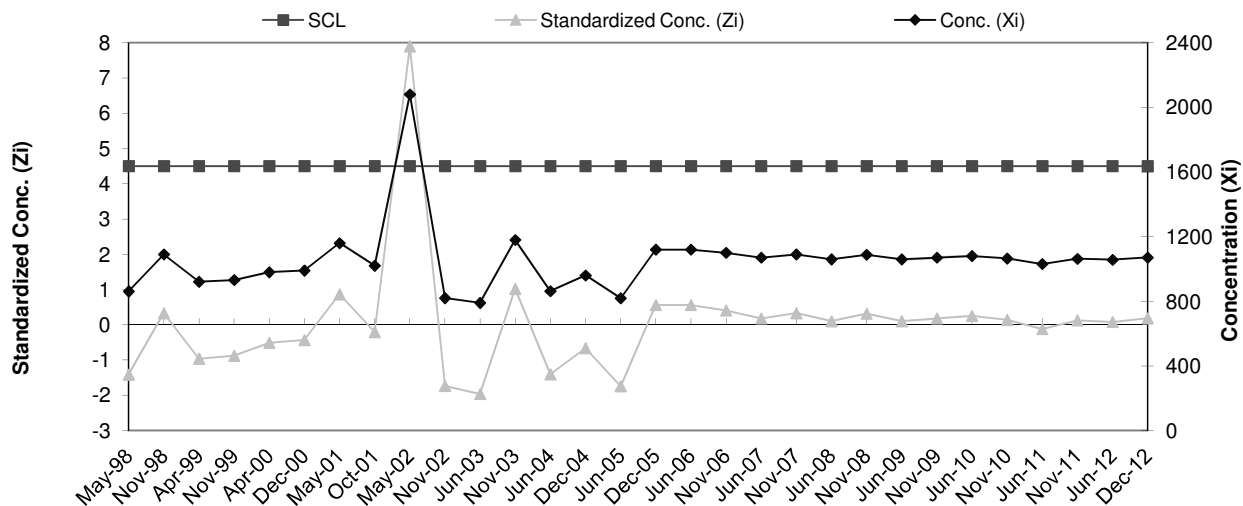
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.7	-0.92
10	Nov-98	4.5	6.0	-2.27
11	Apr-99	4.5	8.1	1.79
12	Nov-99	4.5	7.1	-0.14
13	Apr-00	4.5	7.5	0.63
14	Dec-00	4.5	7.0	-0.34
15	May-01	4.5	7.9	1.40
16	Oct-01	4.5	7.1	-0.14
17	May-02	4.5	7.2	0.05
18	Nov-02	4.5	7.2	0.05
19	Jun-03	4.5	6.9	-0.53
20	Nov-03	4.5	7.7	1.01
21	Jun-04	4.5	7.2	0.05
22	Dec-04	4.5	6.2	-1.88
23	Jun-05	4.5	7.4	0.40
24	Dec-05	4.5	9.7	4.88
25	Jun-06	4.5	7.1	-0.16
26	Nov-06	4.5	7.2	0.01
27	Jun-07	4.5	7.0	-0.32
28	Nov-07	4.5	6.9	-0.53
29	Jun-08	4.5	7.1	-0.14
30	Nov-08	4.5	6.6	-1.15
31	Jun-09	4.5	7.3	0.14
32	Nov-09	4.5	6.9	-0.55
33	Jun-10	4.5	7.2	0.03
34	Nov-10	4.5	6.9	-0.51
35	Jun-11	4.5	7.2	-0.03
36	Nov-11	4.5	7.0	-0.32
37	Jun-12	4.5	7.0	-0.36
38	Dec-12	4.5	7.0	-0.28



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		

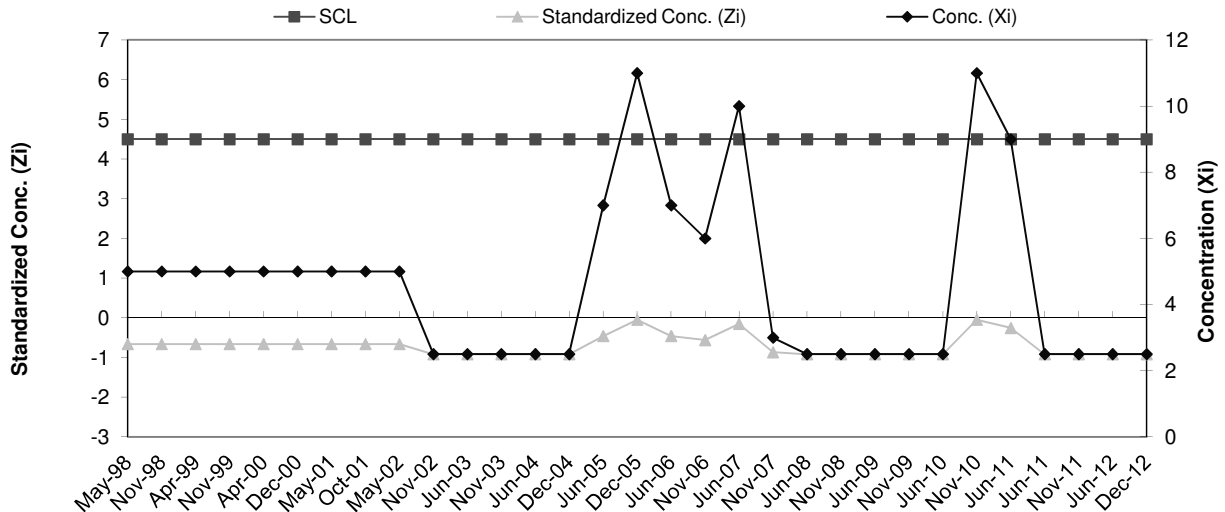
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	862	-1.41
10	Nov-98	4.5	1090.0	0.33
11	Apr-99	4.5	921	-0.96
12	Nov-99	4.5	932	-0.88
13	Apr-00	4.5	980	-0.51
14	Dec-00	4.5	990.0	-0.43
15	May-01	4.5	1160	0.87
16	Oct-01	4.5	1020	-0.20
17	May-02	4.5	2080	7.90
18	Nov-02	4.5	820	-1.73
19	Jun-03	4.5	790	-1.96
20	Nov-03	4.5	1180	1.02
21	Jun-04	4.5	863	-1.40
22	Dec-04	4.5	960	-0.66
23	Jun-05	4.5	819	-1.74
24	Dec-05	4.5	1120	0.56
25	Jun-06	4.5	1120	0.56
26	Nov-06	4.5	1100	0.41
27	Jun-07	4.5	1070	0.18
28	Nov-07	4.5	1090	0.33
29	Jun-08	4.5	1060	0.10
30	Nov-08	4.5	1088	0.32
31	Jun-09	4.5	1060	0.10
32	Nov-09	4.5	1070	0.18
33	Jun-10	4.5	1080	0.25
34	Nov-10	4.5	1065	0.14
35	Jun-11	4.5	1031	-0.12
36	Nov-11	4.5	1063	0.12
37	Jun-12	4.5	1057	0.08
38	Dec-12	4.5	1071	0.19



**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		

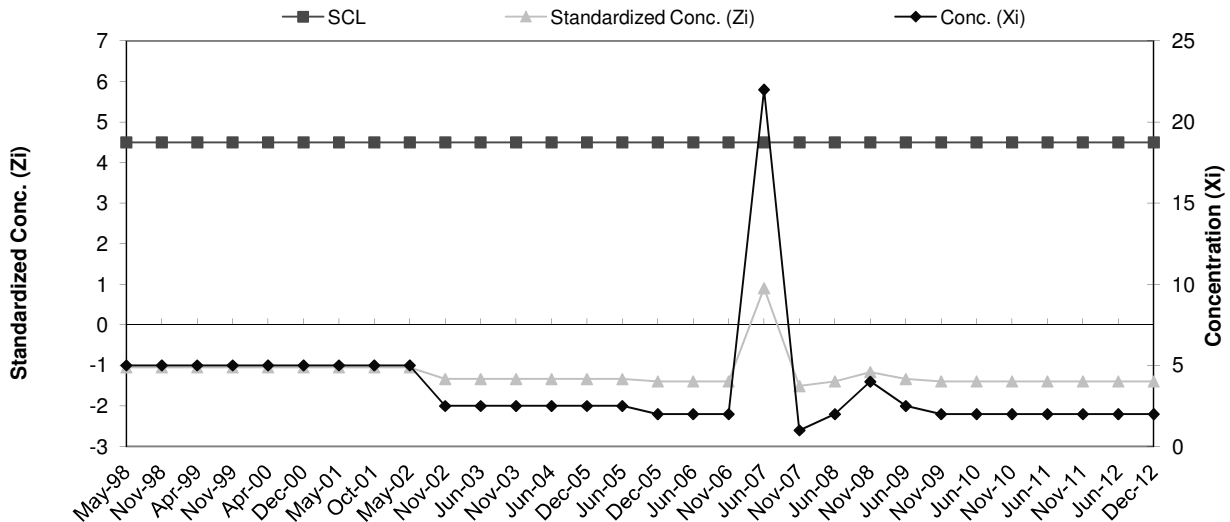
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.66
10	Nov-98	4.5	5	-0.66
11	Apr-99	4.5	5	-0.66
12	Nov-99	4.5	5	-0.66
13	Apr-00	4.5	5	-0.66
14	Dec-00	4.5	5	-0.66
15	May-01	4.5	5	-0.66
16	Oct-01	4.5	5	-0.66
17	May-02	4.5	5	-0.66
18	Nov-02	4.5	2.5	-0.92
19	Jun-03	4.5	2.5	-0.92
20	Nov-03	4.5	2.5	-0.92
21	Jun-04	4.5	2.5	-0.92
22	Dec-04	4.5	2.5	-0.92
23	Jun-05	4.5	7	-0.46
24	Dec-05	4.5	11	-0.05
25	Jun-06	4.5	7	-0.46
26	Nov-06	4.5	6	-0.56
27	Jun-07	4.5	10	-0.15
28	Nov-07	4.5	3	-0.87
29	Jun-08	4.5	2.5	-0.92
30	Nov-08	4.5	2.5	-0.92
31	Jun-09	4.5	2.5	-0.92
32	Nov-09	4.5	2.5	-0.92
33	Jun-10	4.5	2.5	-0.92
34	Nov-10	4.5	11	-0.05
35	Jun-11	4.5	9	-0.26
36	Jun-11	4.5	2.5	-0.92
37	Nov-11	4.5	2.5	-0.92
38	Jun-12	4.5	2.5	-0.92
39	Dec-12	4.5	2.5	-0.92



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		

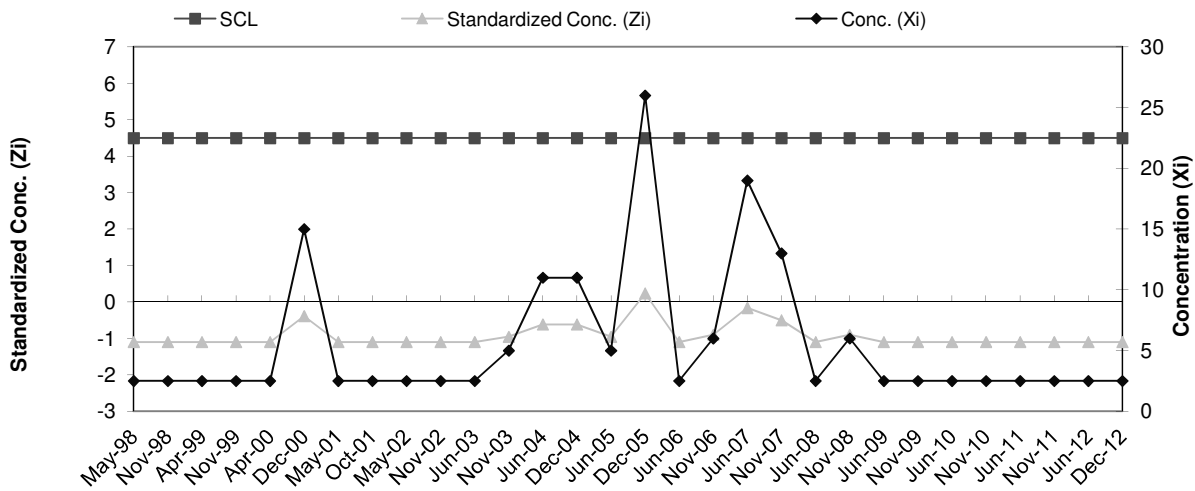
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-1.05
10	Nov-98	4.5	5	-1.05
11	Apr-99	4.5	5	-1.05
12	Nov-99	4.5	5	-1.05
13	Apr-00	4.5	5	-1.05
14	Dec-00	4.5	5	-1.05
15	May-01	4.5	5	-1.05
16	Oct-01	4.5	5	-1.05
17	May-02	4.5	5	-1.05
18	Nov-02	4.5	2.5	-1.34
19	Jun-03	4.5	2.5	-1.34
20	Nov-03	4.5	2.5	-1.34
21	Jun-04	4.5	2.5	-1.34
22	Dec-05	4.5	2.5	-1.34
23	Jun-05	4.5	2.5	-1.34
24	Dec-05	4.5	2	-1.39
25	Jun-06	4.5	2	-1.39
26	Nov-06	4.5	2	-1.39
27	Jun-07	4.5	22	0.90
28	Nov-07	4.5	1	-1.51
29	Jun-08	4.5	2	-1.39
30	Nov-08	4.5	4	-1.16
31	Jun-09	4.5	2.5	-1.34
32	Nov-09	4.5	2	-1.39
33	Jun-10	4.5	2	-1.39
34	Nov-10	4.5	2	-1.39
35	Jun-11	4.5	2	-1.39
36	Nov-11	4.5	2	-1.39
37	Jun-12	4.5	2	-1.39
38	Dec-12	4.5	2	-1.39



**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		

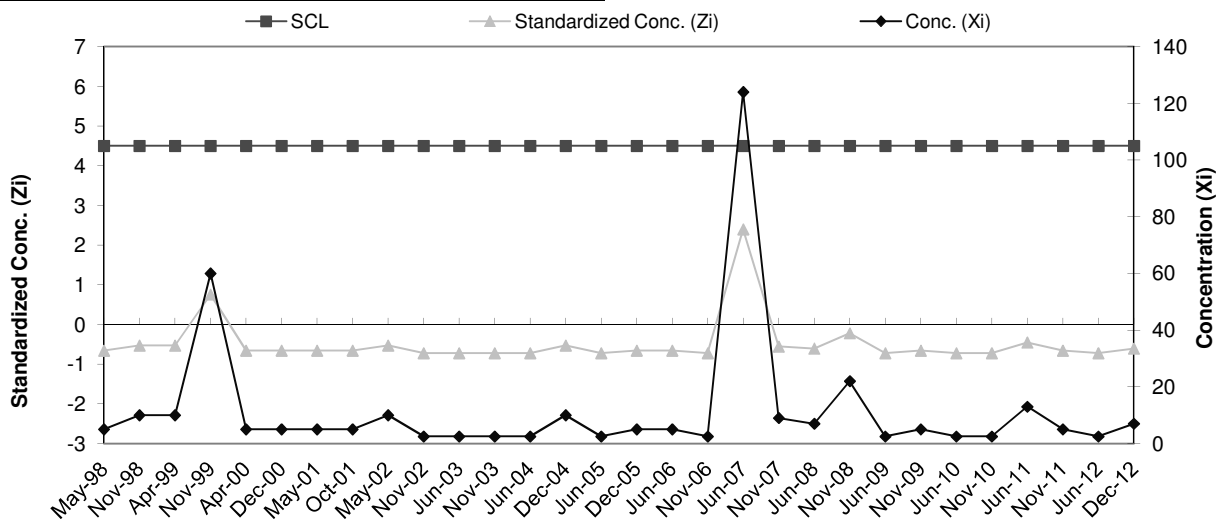
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-1.10
10	Nov-98	4.5	2.5	-1.10
11	Apr-99	4.5	2.5	-1.10
12	Nov-99	4.5	2.5	-1.10
13	Apr-00	4.5	2.5	-1.10
14	Dec-00	4.5	15	-0.39
15	May-01	4.5	2.5	-1.10
16	Oct-01	4.5	2.5	-1.10
17	May-02	4.5	2.5	-1.10
18	Nov-02	4.5	2.5	-1.10
19	Jun-03	4.5	2.5	-1.10
20	Nov-03	4.5	5	-0.96
21	Jun-04	4.5	11	-0.62
22	Dec-04	4.5	11	-0.62
23	Jun-05	4.5	5	-0.96
24	Dec-05	4.5	26	0.23
25	Jun-06	4.5	2.5	-1.10
26	Nov-06	4.5	6	-0.90
27	Jun-07	4.5	19	-0.16
28	Nov-07	4.5	13	-0.50
29	Jun-08	4.5	2.5	-1.10
30	Nov-08	4.5	6	-0.90
31	Jun-09	4.5	2.5	-1.10
32	Nov-09	4.5	2.5	-1.10
33	Jun-10	4.5	2.5	-1.10
34	Nov-10	4.5	2.5	-1.10
35	Jun-11	4.5	2.5	-1.10
36	Nov-11	4.5	2.5	-1.10
37	Jun-12	4.5	2.5	-1.10
38	Dec-12	4.5	2.5	-1.10



**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		

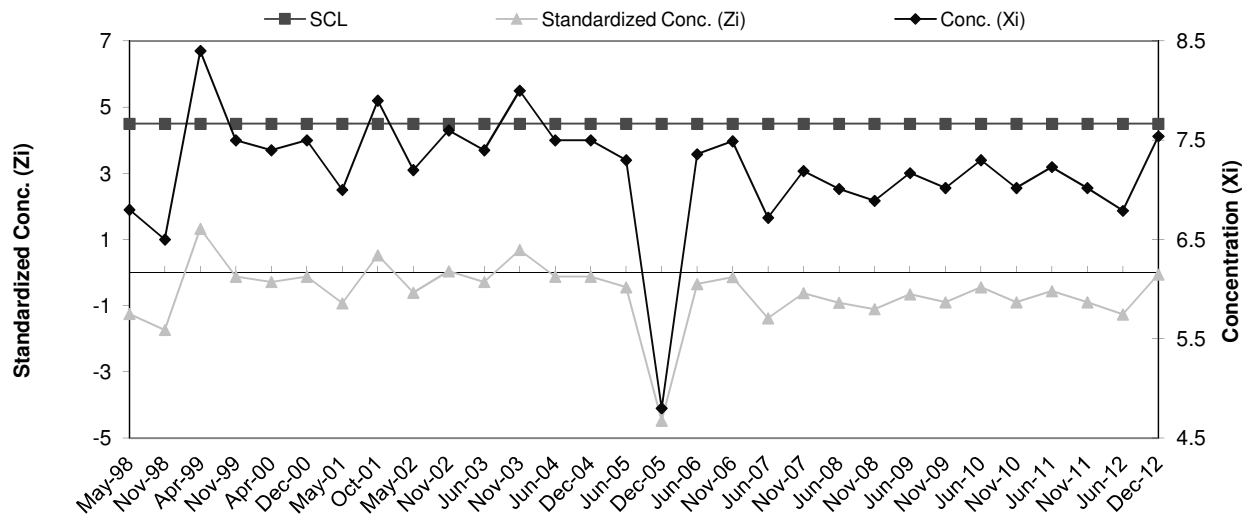
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.66
10	Nov-98	4.5	10	-0.53
11	Apr-99	4.5	10	-0.53
12	Nov-99	4.5	60	0.75
13	Apr-00	4.5	5	-0.66
14	Dec-00	4.5	5	-0.66
15	May-01	4.5	5	-0.66
16	Oct-01	4.5	5	-0.66
17	May-02	4.5	10	-0.53
18	Nov-02	4.5	2.5	-0.72
19	Jun-03	4.5	2.5	-0.72
20	Nov-03	4.5	2.5	-0.72
21	Jun-04	4.5	2.5	-0.72
22	Dec-04	4.5	10	-0.53
23	Jun-05	4.5	2.5	-0.72
24	Dec-05	4.5	5	-0.66
25	Jun-06	4.5	5	-0.66
26	Nov-06	4.5	2.5	-0.72
27	Jun-07	4.5	124	2.40
28	Nov-07	4.5	9	-0.56
29	Jun-08	4.5	7	-0.61
30	Nov-08	4.5	22	-0.22
31	Jun-09	4.5	2.5	-0.72
32	Nov-09	4.5	5	-0.66
33	Jun-10	4.5	2.5	-0.72
34	Nov-10	4.5	2.5	-0.72
35	Jun-11	4.5	13	-0.45
36	Nov-11	4.5	5	-0.66
37	Jun-12	4.5	2.5	-0.72
38	Dec-12	4.5	7	-0.61



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		

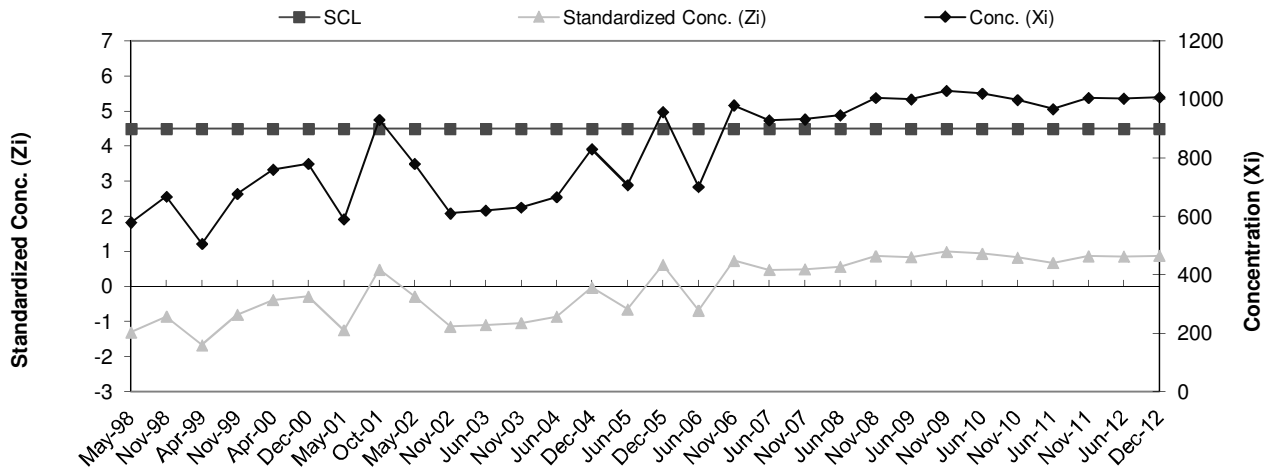
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.8	-1.25
10	Nov-98	4.5	6.5	-1.73
11	Apr-99	4.5	8.4	1.33
12	Nov-99	4.5	7.5	-0.12
13	Apr-00	4.5	7.4	-0.28
14	Dec-00	4.5	7.5	-0.12
15	May-01	4.5	7.0	-0.93
16	Oct-01	4.5	7.9	0.52
17	May-02	4.5	7.2	-0.60
18	Nov-02	4.5	7.6	0.04
19	Jun-03	4.5	7.4	-0.28
20	Nov-03	4.5	8.0	0.68
21	Jun-04	4.5	7.5	-0.12
22	Dec-04	4.5	7.5	-0.12
23	Jun-05	4.5	7.3	-0.44
24	Dec-05	4.5	4.8	-4.47
25	Jun-06	4.5	7.4	-0.35
26	Nov-06	4.5	7.5	-0.14
27	Jun-07	4.5	6.7	-1.38
28	Nov-07	4.5	7.2	-0.62
29	Jun-08	4.5	7.0	-0.91
30	Nov-08	4.5	6.9	-1.10
31	Jun-09	4.5	7.2	-0.65
32	Nov-09	4.5	7.0	-0.89
33	Jun-10	4.5	7.3	-0.44
34	Nov-10	4.5	7.0	-0.89
35	Jun-11	4.5	7.2	-0.56
36	Nov-11	4.5	7.0	-0.89
37	Jun-12	4.5	6.8	-1.27
38	Dec-12	4.5	7.5	-0.06



**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		

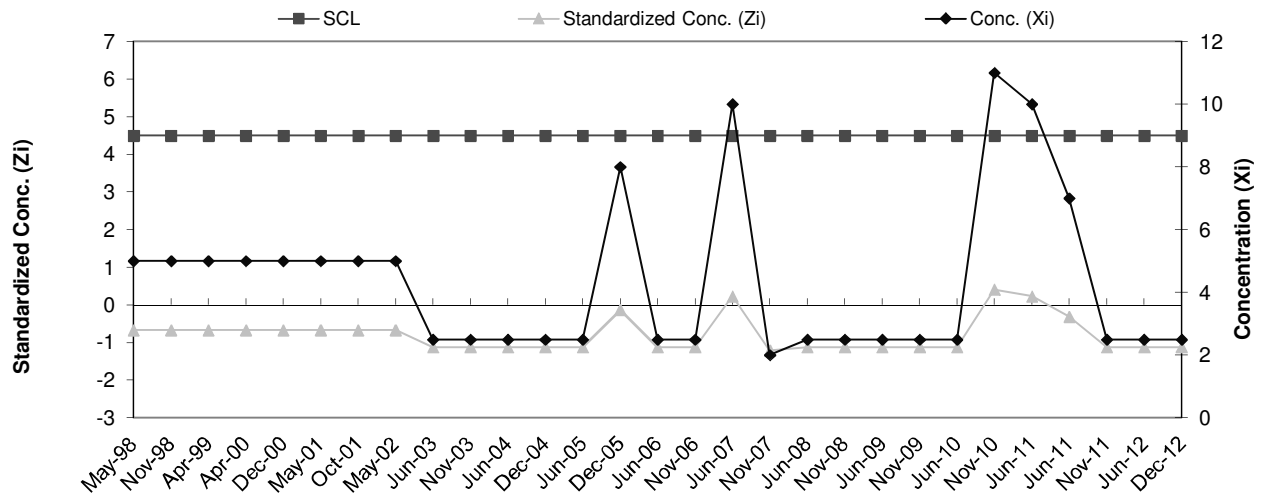
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	579	-1.31
10	Nov-98	4.5	667	-0.86
11	Apr-99	4.5	506	-1.68
12	Nov-99	4.5	677	-0.81
13	Apr-00	4.5	760	-0.39
14	Dec-00	4.5	780	-0.28
15	May-01	4.5	590	-1.25
16	Oct-01	4.5	930	0.48
17	May-02	4.5	780	-0.28
18	Nov-02	4.5	610	-1.15
19	Jun-03	4.5	620	-1.10
20	Nov-03	4.5	630	-1.05
21	Jun-04	4.5	666	-0.86
22	Dec-04	4.5	830	-0.03
23	Jun-05	4.5	707	-0.65
24	Dec-05	4.5	957	0.62
25	Jun-06	4.5	701	-0.69
26	Nov-06	4.5	980	0.73
27	Jun-07	4.5	929	0.47
28	Nov-07	4.5	932	0.49
29	Jun-08	4.5	946	0.56
30	Nov-08	4.5	1006	0.87
31	Jun-09	4.5	1000	0.84
32	Nov-09	4.5	1030	0.99
33	Jun-10	4.5	1020	0.94
34	Nov-10	4.5	998	0.83
35	Jun-11	4.5	967	0.67
36	Nov-11	4.5	1006	0.87
37	Jun-12	4.5	1003	0.85
38	Dec-12	4.5	1008	0.88



**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		

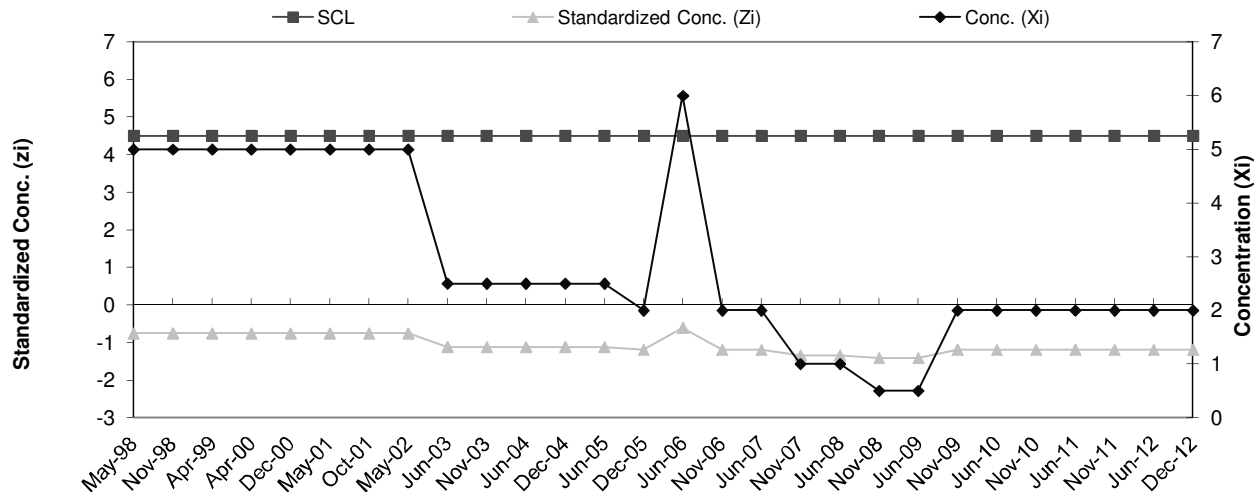
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.67
10	Nov-98	4.5	5	-0.67
11	Apr-99	4.5	5	-0.67
12	Apr-00	4.5	5	-0.67
13	Dec-00	4.5	5	-0.67
14	May-01	4.5	5	-0.67
15	Oct-01	4.5	5	-0.67
16	May-02	4.5	5	-0.67
18	Jun-03	4.5	2.5	-1.12
19	Nov-03	4.5	2.5	-1.12
20	Jun-04	4.5	2.5	-1.12
21	Dec-04	4.5	2.5	-1.12
22	Jun-05	4.5	2.5	-1.12
23	Dec-05	4.5	8	-0.13
24	Jun-06	4.5	2.5	-1.12
25	Nov-06	4.5	2.5	-1.12
26	Jun-07	4.5	10	0.23
27	Nov-07	4.5	2	-1.21
28	Jun-08	4.5	2.5	-1.12
29	Nov-08	4.5	2.5	-1.12
30	Jun-09	4.5	2.5	-1.12
31	Nov-09	4.5	2.5	-1.12
32	Jun-10	4.5	2.5	-1.12
33	Nov-10	4.5	11	0.41
34	Jun-11	4.5	10	0.23
35	Jun-11	4.5	7	-0.31
36	Nov-11	4.5	2.5	-1.12
37	Jun-12	4.5	2.5	-1.12
38	Dec-12	4.5	2.5	-1.12



**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		

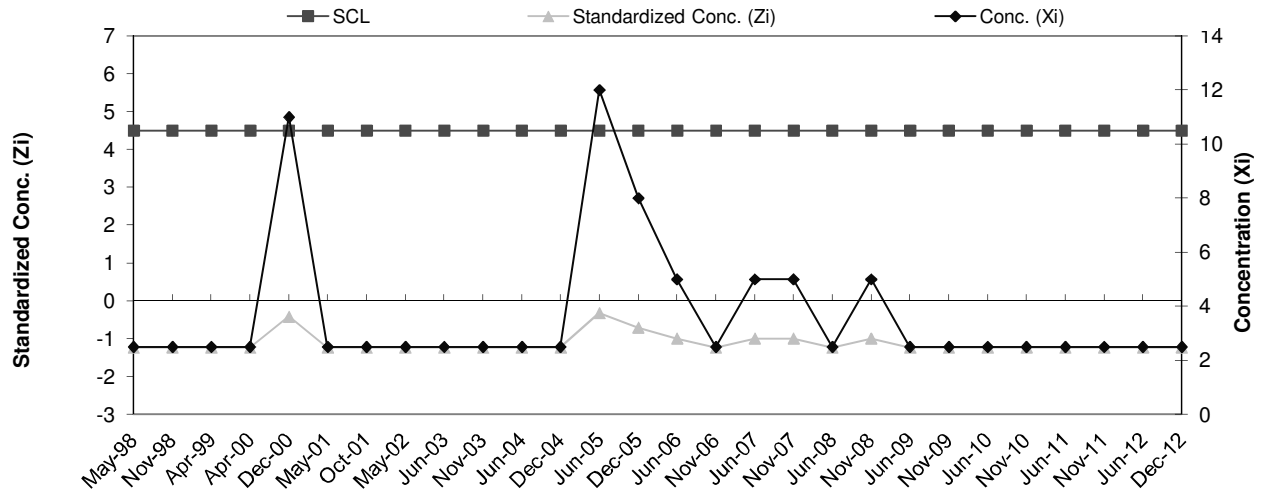
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.75
10	Nov-98	4.5	5	-0.75
11	Apr-99	4.5	5	-0.75
12	Apr-00	4.5	5	-0.75
13	Dec-00	4.5	5	-0.75
14	May-01	4.5	5	-0.75
15	Oct-01	4.5	5	-0.75
16	May-02	4.5	5	-0.75
18	Jun-03	4.5	2.5	-1.12
19	Nov-03	4.5	2.5	-1.12
20	Jun-04	4.5	2.5	-1.12
21	Dec-04	4.5	2.5	-1.12
22	Jun-05	4.5	2.5	-1.12
23	Dec-05	4.5	2	-1.19
24	Jun-06	4.5	6	-0.60
25	Nov-06	4.5	2	-1.19
26	Jun-07	4.5	2	-1.19
27	Nov-07	4.5	1	-1.34
28	Jun-08	4.5	1	-1.34
29	Nov-08	4.5	0.5	-1.41
30	Jun-09	4.5	0.5	-1.41
31	Nov-09	4.5	2	-1.19
32	Jun-10	4.5	2	-1.19
33	Nov-10	4.5	2	-1.19
34	Jun-11	4.5	2	-1.19
35	Nov-11	4.5	2	-1.19
36	Jun-12	4.5	2	-1.19
37	Dec-12	4.5	2	-1.19



**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		

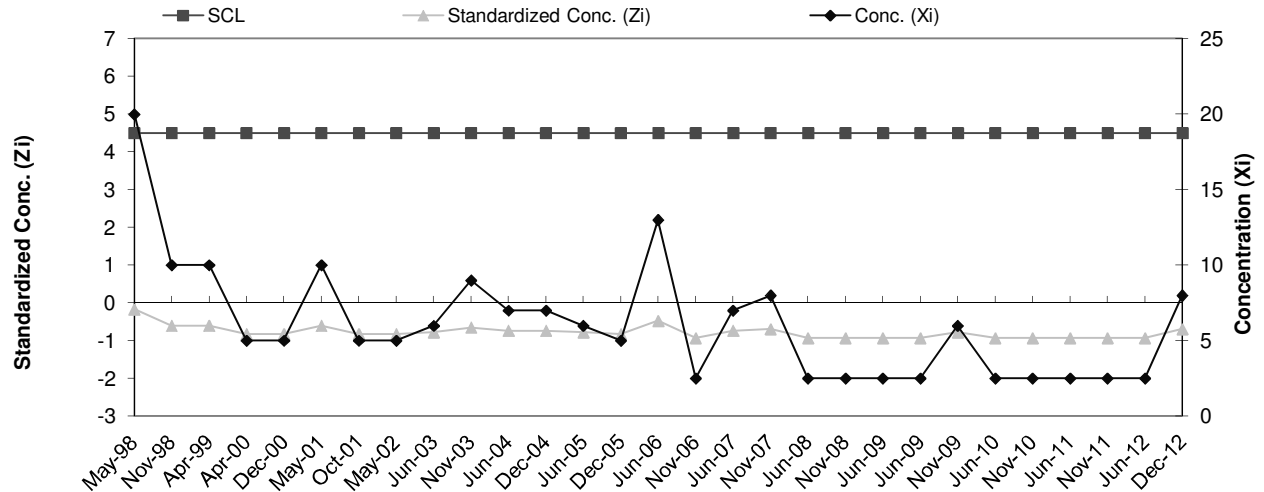
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-1.23
10	Nov-98	4.5	2.5	-1.23
11	Apr-99	4.5	2.5	-1.23
12	Apr-00	4.5	2.5	-1.23
13	Dec-00	4.5	11	-0.42
14	May-01	4.5	2.5	-1.23
15	Oct-01	4.5	2.5	-1.23
16	May-02	4.5	2.5	-1.23
18	Jun-03	4.5	2.5	-1.23
19	Nov-03	4.5	2.5	-1.23
20	Jun-04	4.5	2.5	-1.23
20	Dec-04	4.5	2.5	-1.23
21	Jun-05	4.5	12	-0.32
22	Dec-05	4.5	8	-0.71
23	Jun-06	4.5	5	-0.99
24	Nov-06	4.5	2.5	-1.23
25	Jun-07	4.5	5	-0.99
26	Nov-07	4.5	5	-0.99
27	Jun-08	4.5	2.5	-1.23
28	Nov-08	4.5	5	-0.99
30	Jun-09	4.5	2.5	-1.23
31	Nov-09	4.5	2.5	-1.23
32	Jun-10	4.5	2.5	-1.23
33	Nov-10	4.5	2.5	-1.23
34	Jun-11	4.5	2.5	-1.23
35	Nov-11	4.5	2.5	-1.23
36	Jun-12	4.5	2.5	-1.23
37	Dec-12	4.5	2.5	-1.23



**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		

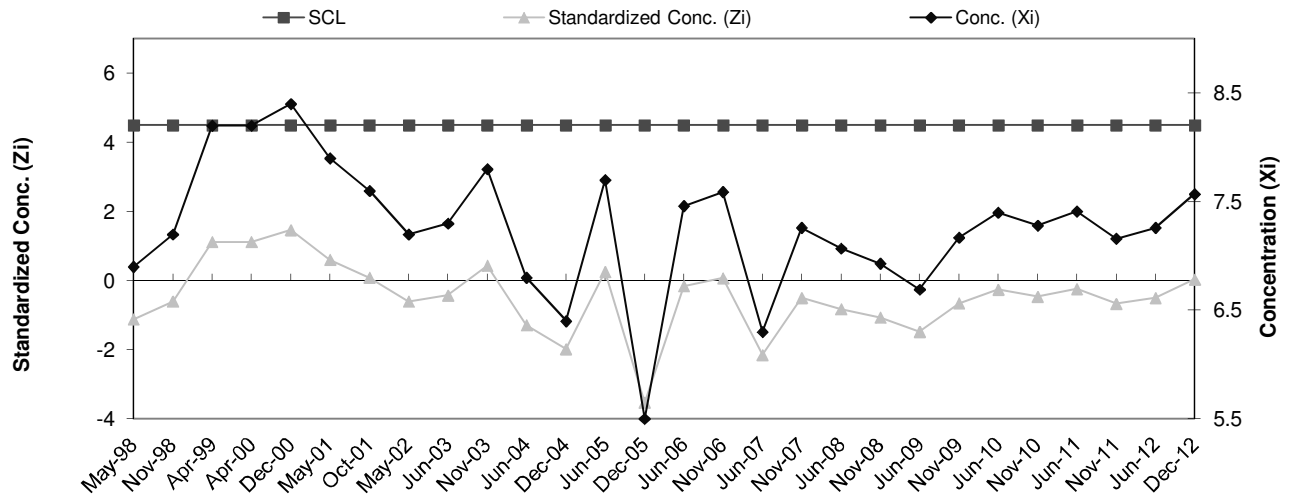
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	20	-0.17
10	Nov-98	4.5	10	-0.60
11	Apr-99	4.5	10	-0.60
12	Apr-00	4.5	5	-0.82
13	Dec-00	4.5	5	-0.82
14	May-01	4.5	10	-0.60
15	Oct-01	4.5	5	-0.82
16	May-02	4.5	5	-0.82
18	Jun-03	4.5	6	-0.78
19	Nov-03	4.5	9	-0.65
20	Jun-04	4.5	7	-0.73
21	Dec-04	4.5	7	-0.73
22	Jun-05	4.5	6	-0.78
23	Dec-05	4.5	5	-0.82
24	Jun-06	4.5	13	-0.47
25	Nov-06	4.5	2.5	-0.93
26	Jun-07	4.5	7	-0.73
27	Nov-07	4.5	8	-0.69
28	Jun-08	4.5	2.5	-0.93
29	Nov-08	4.5	2.5	-0.93
30	Jun-09	4.5	2.5	-0.93
31	Jun-09	4.5	2.5	-0.93
32	Nov-09	4.5	6	-0.78
33	Jun-10	4.5	2.5	-0.93
34	Nov-10	4.5	2.5	-0.93
35	Jun-11	4.5	2.5	-0.93
36	Nov-11	4.5	2.5	-0.93
37	Jun-12	4.5	2.5	-0.93
38	Dec-12	4.5	8	-0.69



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		

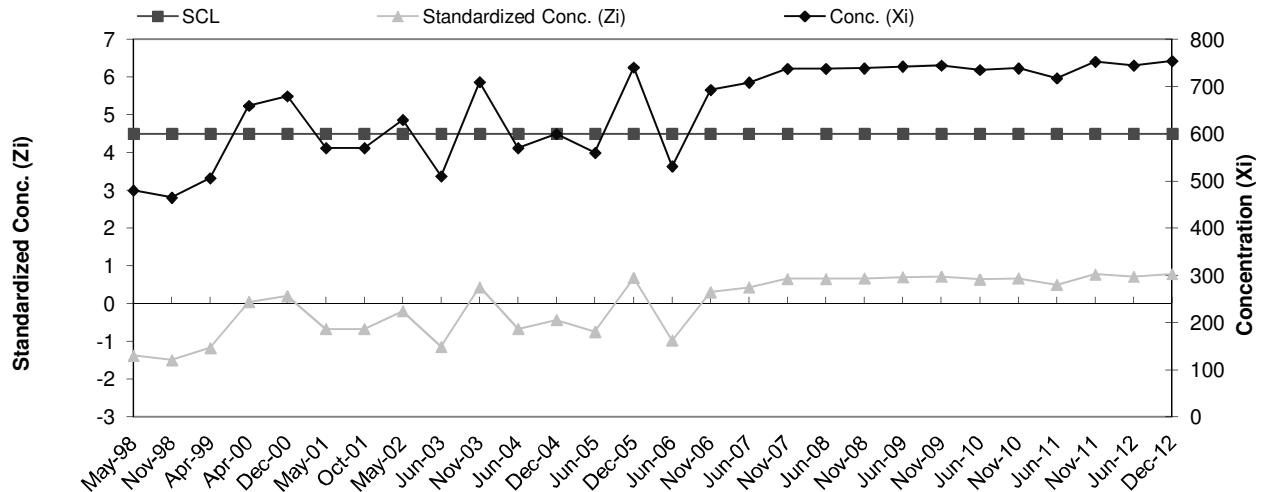
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.9	-1.12
10	Nov-98	4.5	7.2	-0.60
11	Apr-99	4.5	8.2	1.12
12	Apr-00	4.5	8.2	1.12
13	Dec-00	4.5	8.4	1.46
14	May-01	4.5	7.9	0.60
15	Oct-01	4.5	7.6	0.09
16	May-02	4.5	7.2	-0.60
18	Jun-03	4.5	7.3	-0.43
19	Nov-03	4.5	7.8	0.43
20	Jun-04	4.5	6.8	-1.29
21	Dec-04	4.5	6.4	-1.98
22	Jun-05	4.5	7.7	0.26
23	Dec-05	4.5	5.5	-3.53
24	Jun-06	4.5	7.5	-0.16
25	Nov-06	4.5	7.6	0.07
26	Jun-07	4.5	6.3	-2.15
27	Nov-07	4.5	7.3	-0.50
28	Jun-08	4.5	7.1	-0.83
29	Nov-08	4.5	6.9	-1.07
30	Jun-09	4.5	6.7	-1.48
31	Nov-09	4.5	7.2	-0.65
32	Jun-10	4.5	7.4	-0.26
33	Nov-10	4.5	7.3	-0.47
34	Jun-11	4.5	7.4	-0.24
35	Nov-11	4.5	7.2	-0.67
36	Jun-12	4.5	7.3	-0.50
37	Dec-12	4.5	7.6	0.03



**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		

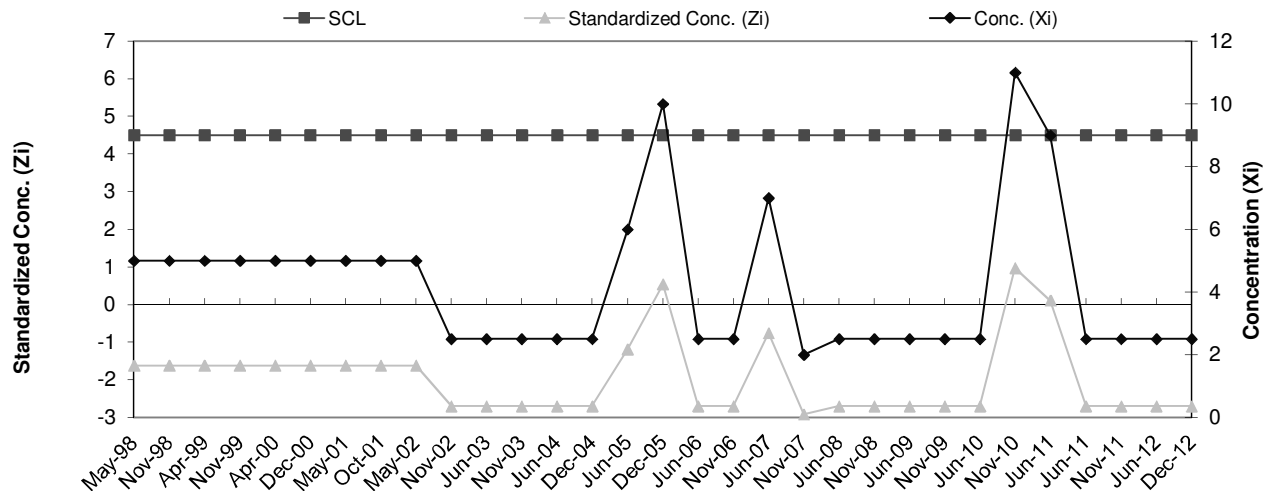
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	480	-1.37
10	Nov-98	4.5	465	-1.49
11	Apr-99	4.5	506	-1.17
12	Apr-00	4.5	660	0.05
13	Dec-00	4.5	680	0.20
14	May-01	4.5	570	-0.66
15	Oct-01	4.5	570	-0.66
16	May-02	4.5	630	-0.19
18	Jun-03	4.5	510	-1.14
19	Nov-03	4.5	710	0.44
20	Jun-04	4.5	570	-0.66
21	Dec-04	4.5	600	-0.43
22	Jun-05	4.5	560	-0.74
23	Dec-05	4.5	741	0.69
24	Jun-06	4.5	531.3	-0.97
25	Nov-06	4.5	693	0.31
26	Jun-07	4.5	709	0.43
27	Nov-07	4.5	738	0.66
28	Jun-08	4.5	738	0.66
29	Nov-08	4.5	739	0.67
30	Jun-09	4.5	743	0.70
31	Nov-09	4.5	745	0.72
32	Jun-10	4.5	736	0.65
33	Nov-10	4.5	739	0.67
34	Jun-11	4.5	718	0.50
35	Nov-11	4.5	753	0.78
36	Jun-12	4.5	745	0.72
37	Dec-12	4.5	754	0.79



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		

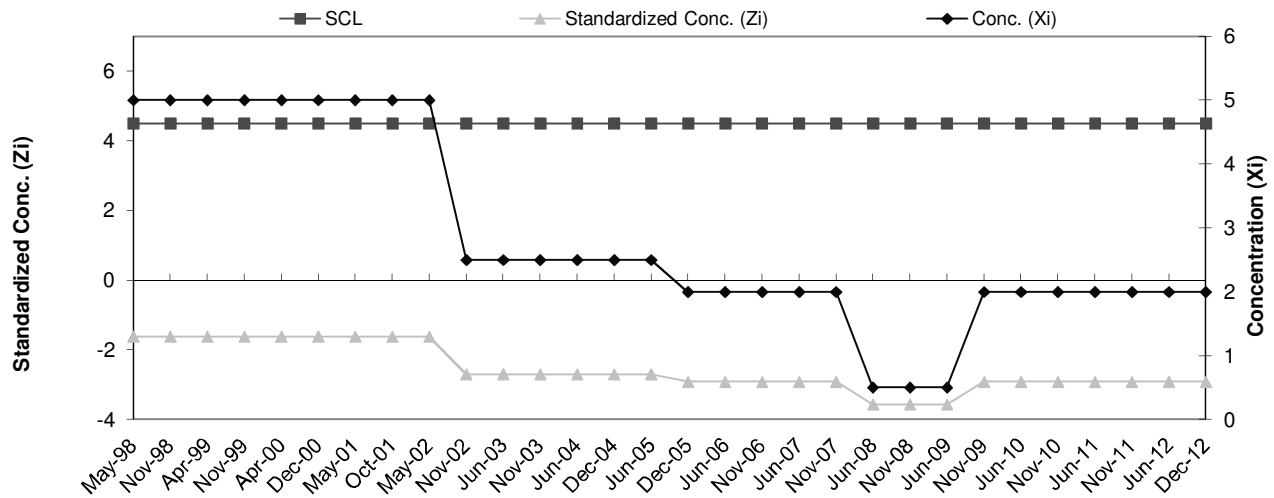
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-1.62
10	Nov-98	4.5	5	-1.62
11	Apr-99	4.5	5	-1.62
12	Nov-99	4.5	5	-1.62
13	Apr-00	4.5	5	-1.62
14	Dec-00	4.5	5	-1.62
15	May-01	4.5	5	-1.62
16	Oct-01	4.5	5	-1.62
17	May-02	4.5	5	-1.62
18	Nov-02	4.5	2.5	-2.70
19	Jun-03	4.5	2.5	-2.70
20	Nov-03	4.5	2.5	-2.70
21	Jun-04	4.5	2.5	-2.70
22	Dec-04	4.5	2.5	-2.70
23	Jun-05	4.5	6	-1.19
24	Dec-05	4.5	10	0.54
25	Jun-06	4.5	2.5	-2.70
26	Nov-06	4.5	2.5	-2.70
27	Jun-07	4.5	7	-0.76
28	Nov-07	4.5	2	-2.92
29	Jun-08	4.5	2.5	-2.70
30	Nov-08	4.5	2.5	-2.70
31	Jun-09	4.5	2.5	-2.70
32	Nov-09	4.5	2.5	-2.70
33	Jun-10	4.5	2.5	-2.70
34	Nov-10	4.5	11	0.97
35	Jun-11	4.5	9	0.11
36	Jun-11	4.5	2.5	-2.70
37	Nov-11	4.5	2.5	-2.70
38	Jun-12	4.5	2.5	-2.70
39	Dec-12	4.5	2.5	-2.70



**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		

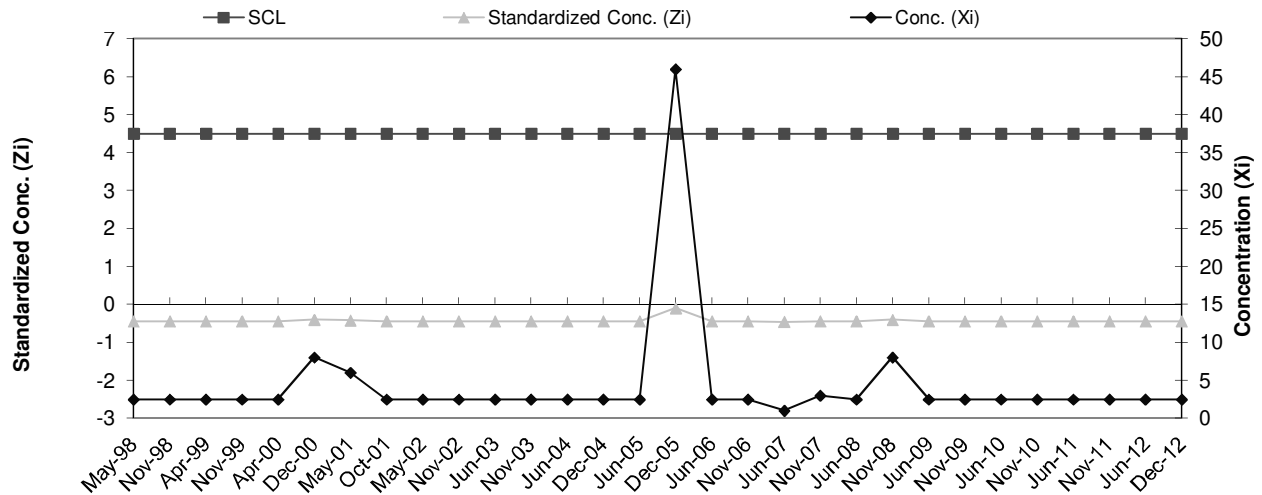
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-1.62
10	Nov-98	4.5	5	-1.62
11	Apr-99	4.5	5	-1.62
12	Nov-99	4.5	5	-1.62
13	Apr-00	4.5	5	-1.62
14	Dec-00	4.5	5	-1.62
15	May-01	4.5	5	-1.62
16	Oct-01	4.5	5	-1.62
17	May-02	4.5	5	-1.62
18	Nov-02	4.5	2.5	-2.70
19	Jun-03	4.5	2.5	-2.70
20	Nov-03	4.5	2.5	-2.70
21	Jun-04	4.5	2.5	-2.70
22	Dec-04	4.5	2.5	-2.70
23	Jun-05	4.5	2.5	-2.70
24	Dec-05	4.5	2	-2.92
25	Jun-06	4.5	2	-2.92
26	Nov-06	4.5	2	-2.92
27	Jun-07	4.5	2	-2.92
28	Nov-07	4.5	2	-2.92
29	Jun-08	4.5	0.5	-3.56
30	Nov-08	4.5	0.5	-3.56
31	Jun-09	4.5	0.5	-3.56
32	Nov-09	4.5	2	-2.92
33	Jun-10	4.5	2	-2.92
34	Nov-10	4.5	2	-2.92
35	Jun-11	4.5	2	-2.92
36	Nov-11	4.5	2	-2.92
37	Jun-12	4.5	2	-2.92
38	Dec-12	4.5	2	-2.92



**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		

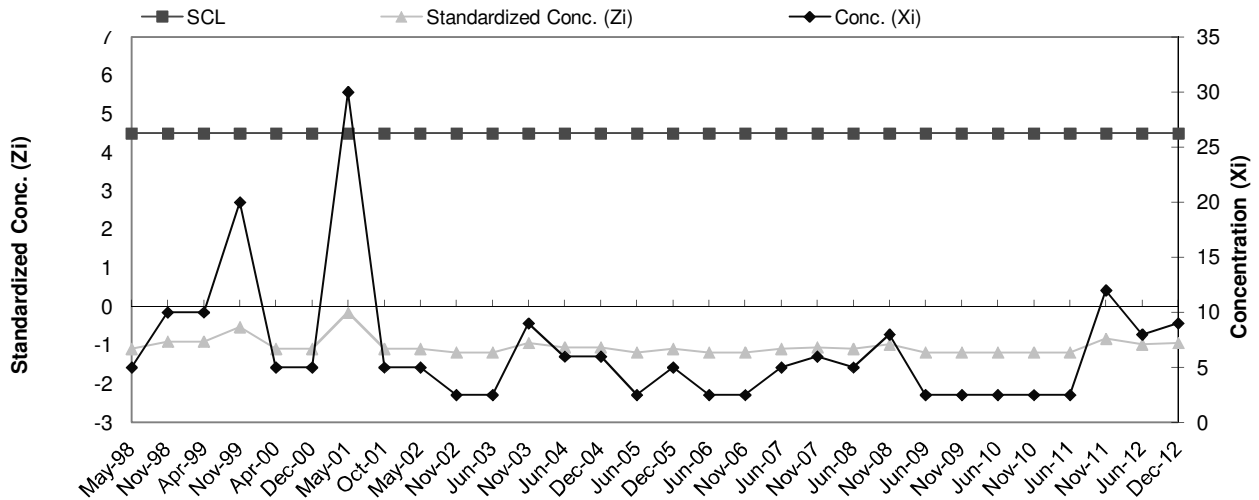
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-0.45
10	Nov-98	4.5	2.5	-0.45
11	Apr-99	4.5	2.5	-0.45
12	Nov-99	4.5	2.5	-0.45
13	Apr-00	4.5	2.5	-0.45
14	Dec-00	4.5	8	-0.40
15	May-01	4.5	6	-0.42
16	Oct-01	4.5	2.5	-0.45
17	May-02	4.5	2.5	-0.45
18	Nov-02	4.5	2.5	-0.45
19	Jun-03	4.5	2.5	-0.45
20	Nov-03	4.5	2.5	-0.45
21	Jun-04	4.5	2.5	-0.45
22	Dec-04	4.5	2.5	-0.45
23	Jun-05	4.5	2.5	-0.45
24	Dec-05	4.5	46	-0.10
25	Jun-06	4.5	2.5	-0.45
26	Nov-06	4.5	2.5	-0.45
27	Jun-07	4.5	1	-0.46
28	Nov-07	4.5	3	-0.44
29	Jun-08	4.5	2.5	-0.45
30	Nov-08	4.5	8	-0.40
31	Jun-09	4.5	2.5	-0.45
32	Nov-09	4.5	2.5	-0.45
33	Jun-10	4.5	2.5	-0.45
34	Nov-10	4.5	2.5	-0.45
35	Jun-11	4.5	2.5	-0.45
36	Nov-11	4.5	2.5	-0.45
37	Jun-12	4.5	2.5	-0.45
38	Dec-12	4.5	2.5	-0.45



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		

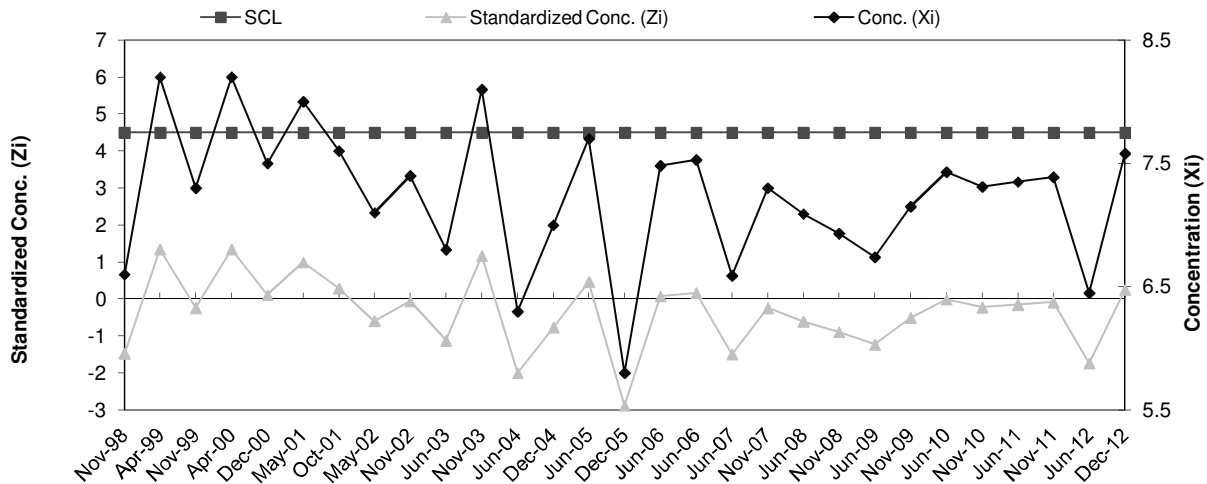
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-1.09
10	Nov-98	4.5	10	-0.90
11	Apr-99	4.5	10	-0.90
12	Nov-99	4.5	20	-0.52
13	Apr-00	4.5	5	-1.09
14	Dec-00	4.5	5	-1.09
15	May-01	4.5	30	-0.15
16	Oct-01	4.5	5	-1.09
17	May-02	4.5	5	-1.09
18	Nov-02	4.5	2.5	-1.18
19	Jun-03	4.5	2.5	-1.18
20	Nov-03	4.5	9	-0.94
21	Jun-04	4.5	6	-1.05
22	Dec-04	4.5	6	-1.05
23	Jun-05	4.5	2.5	-1.18
24	Dec-05	4.5	5	-1.09
25	Jun-06	4.5	2.5	-1.18
26	Nov-06	4.5	2.5	-1.18
27	Jun-07	4.5	5	-1.09
28	Nov-07	4.5	6	-1.05
29	Jun-08	4.5	5	-1.09
30	Nov-08	4.5	8	-0.97
31	Jun-09	4.5	2.5	-1.18
32	Nov-09	4.5	2.5	-1.18
33	Jun-10	4.5	2.5	-1.18
34	Nov-10	4.5	2.5	-1.18
35	Jun-11	4.5	2.5	-1.18
36	Nov-11	4.5	12	-0.82
37	Jun-12	4.5	8	-0.97
38	Dec-12	4.5	9	-0.94



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		

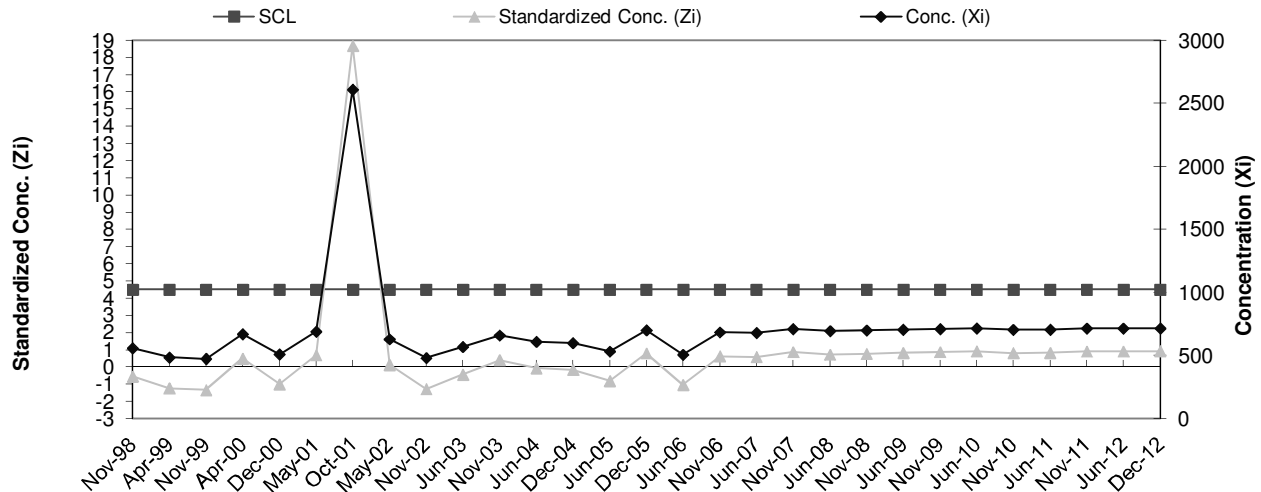
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	6.6	-1.47
10	Apr-99	4.5	8.2	1.34
11	Nov-99	4.5	7.3	-0.24
12	Apr-00	4.5	8.2	1.34
13	Dec-00	4.5	7.5	0.11
14	May-01	4.5	8	0.99
15	Oct-01	4.5	7.6	0.29
16	May-02	4.5	7.1	-0.59
17	Nov-02	4.5	7.4	-0.07
18	Jun-03	4.5	6.8	-1.12
19	Nov-03	4.5	8.1	1.17
20	Jun-04	4.5	6.3	-2.00
21	Dec-04	4.5	7	-0.77
22	Jun-05	4.5	7.7	0.46
23	Dec-05	4.5	5.8	-2.88
24	Jun-06	4.5	7.5	0.07
25	Jun-06	4.5	7.5	0.16
26	Jun-07	4.5	6.6	-1.49
27	Nov-07	4.5	7.3	-0.24
28	Jun-08	4.5	7.1	-0.61
29	Nov-08	4.5	6.9	-0.89
30	Jun-09	4.5	6.7	-1.23
31	Nov-09	4.5	7.2	-0.51
32	Jun-10	4.5	7.4	-0.01
33	Nov-10	4.5	7.3	-0.22
34	Jun-11	4.5	7.4	-0.15
35	Nov-11	4.5	7.4	-0.08
36	Jun-12	4.5	6.5	-1.74
37	Dec-12	4.5	7.6	0.25



**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		

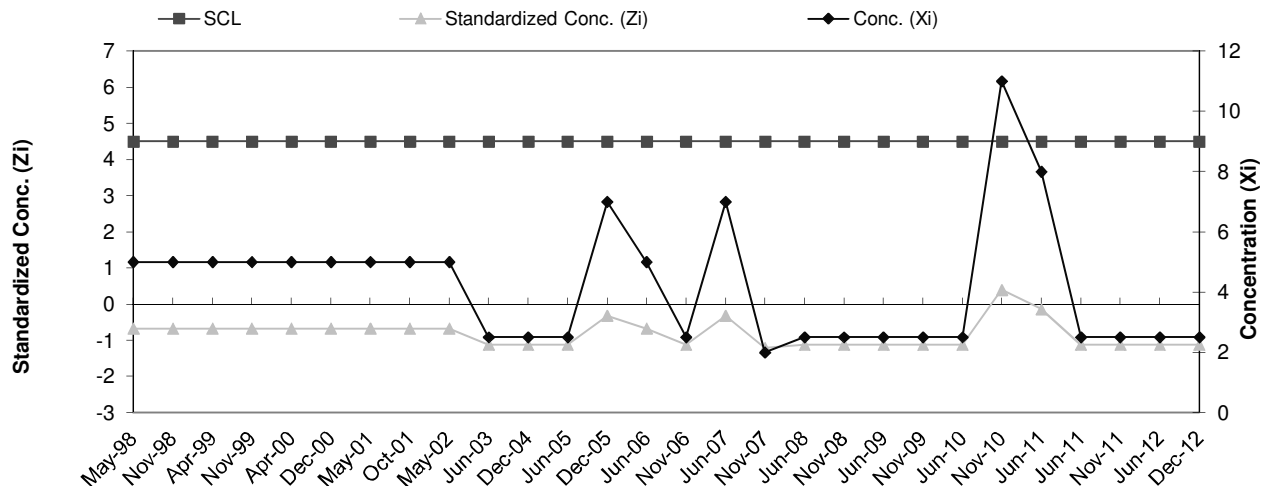
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	Nov-98	4.5	559	-0.55
10	Apr-99	4.5	485	-1.24
11	Nov-99	4.5	474	-1.34
12	Apr-00	4.5	670	0.49
13	Dec-00	4.5	510	-1.01
14	May-01	4.5	690	0.68
15	Oct-01	4.5	2610	18.68
16	May-02	4.5	630	0.12
17	Nov-02	4.5	480	-1.29
18	Jun-03	4.5	570	-0.44
19	Nov-03	4.5	660	0.40
20	Jun-04	4.5	610	-0.07
21	Dec-04	4.5	600	-0.16
22	Jun-05	4.5	531	-0.81
23	Dec-05	4.5	702	0.79
24	Jun-06	4.5	507	-1.04
25	Nov-06	4.5	684	0.63
26	Jun-07	4.5	680	0.59
27	Nov-07	4.5	710	0.87
28	Jun-08	4.5	694	0.72
29	Nov-08	4.5	699	0.77
30	Jun-09	4.5	705	0.82
31	Nov-09	4.5	710	0.87
32	Jun-10	4.5	715	0.92
33	Nov-10	4.5	704	0.81
34	Jun-11	4.5	705	0.82
35	Nov-11	4.5	714	0.91
36	Jun-12	4.5	714	0.91
37	Dec-12	4.5	716	0.93



**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		

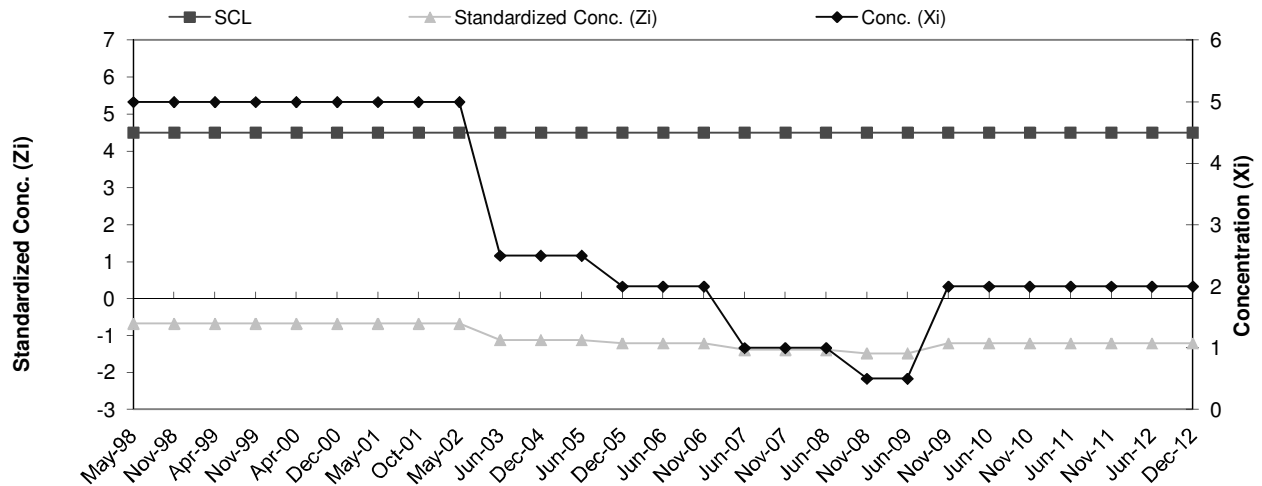
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.68
10	Nov-98	4.5	5	-0.68
11	Apr-99	4.5	5	-0.68
12	Nov-99	4.5	5	-0.68
13	Apr-00	4.5	5	-0.68
14	Dec-00	4.5	5	-0.68
15	May-01	4.5	5	-0.68
16	Oct-01	4.5	5	-0.68
17	May-02	4.5	5	-0.68
18	Jun-03	4.5	2.5	-1.12
19	Dec-04	4.5	2.5	-1.12
20	Jun-05	4.5	2.5	-1.12
21	Dec-05	4.5	7.0	-0.32
22	Jun-06	4.5	5.0	-0.68
23	Nov-06	4.5	2.5	-1.12
24	Jun-07	4.5	7	-0.32
25	Nov-07	4.5	2	-1.21
26	Jun-08	4.5	2.5	-1.12
27	Nov-08	4.5	2.5	-1.12
28	Jun-09	4.5	2.5	-1.12
29	Nov-09	4.5	2.5	-1.12
30	Jun-10	4.5	2.5	-1.12
31	Nov-10	4.5	11	0.39
32	Jun-11	4.5	8	-0.14
33	Jun-11	4.5	2.5	-1.12
34	Nov-11	4.5	2.5	-1.12
35	Jun-12	4.5	2.5	-1.12
36	Dec-12	4.5	2.5	-1.12



**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		

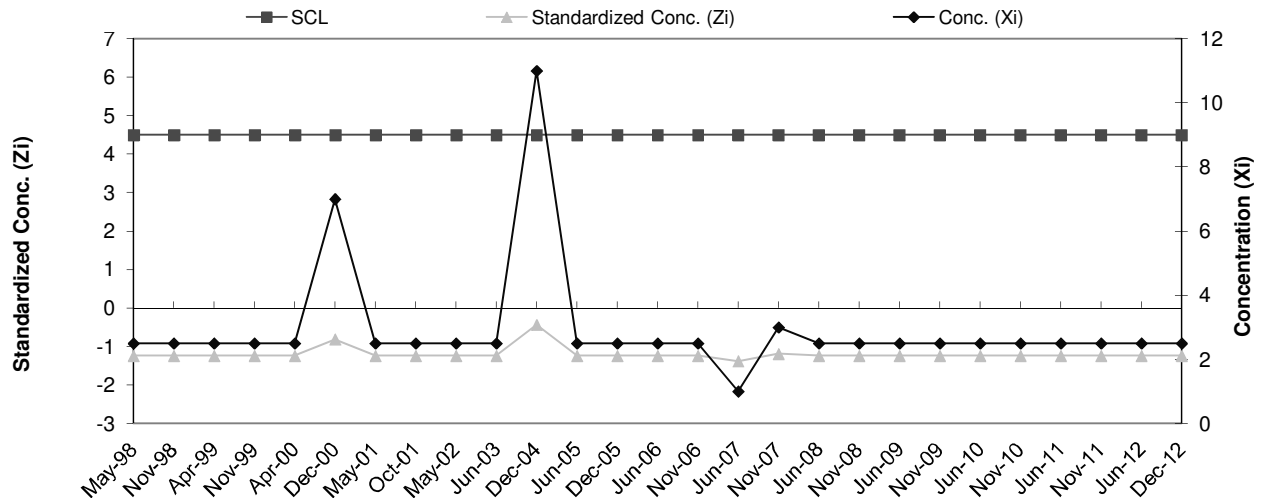
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5	-0.67
10	Nov-98	4.5	5	-0.67
11	Apr-99	4.5	5	-0.67
12	Nov-99	4.5	5	-0.67
13	Apr-00	4.5	5	-0.67
14	Dec-00	4.5	5	-0.67
15	May-01	4.5	5	-0.67
16	Oct-01	4.5	5	-0.67
17	May-02	4.5	5	-0.67
18	Jun-03	4.5	2.5	-1.12
19	Dec-04	4.5	2.5	-1.12
20	Jun-05	4.5	2.5	-1.12
21	Dec-05	4.5	2.0	-1.21
22	Jun-06	4.5	2.0	-1.21
23	Nov-06	4.5	2.0	-1.21
24	Jun-07	4.5	1	-1.39
25	Nov-07	4.5	1	-1.39
26	Jun-08	4.5	1	-1.39
27	Nov-08	4.5	0.5	-1.48
28	Jun-09	4.5	0.5	-1.48
29	Nov-09	4.5	2	-1.21
30	Jun-10	4.5	2	-1.21
31	Nov-10	4.5	2	-1.21
32	Jun-11	4.5	2	-1.21
33	Nov-11	4.5	2	-1.21
34	Jun-12	4.5	2	-1.21
35	Dec-12	4.5	2	-1.21



**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		

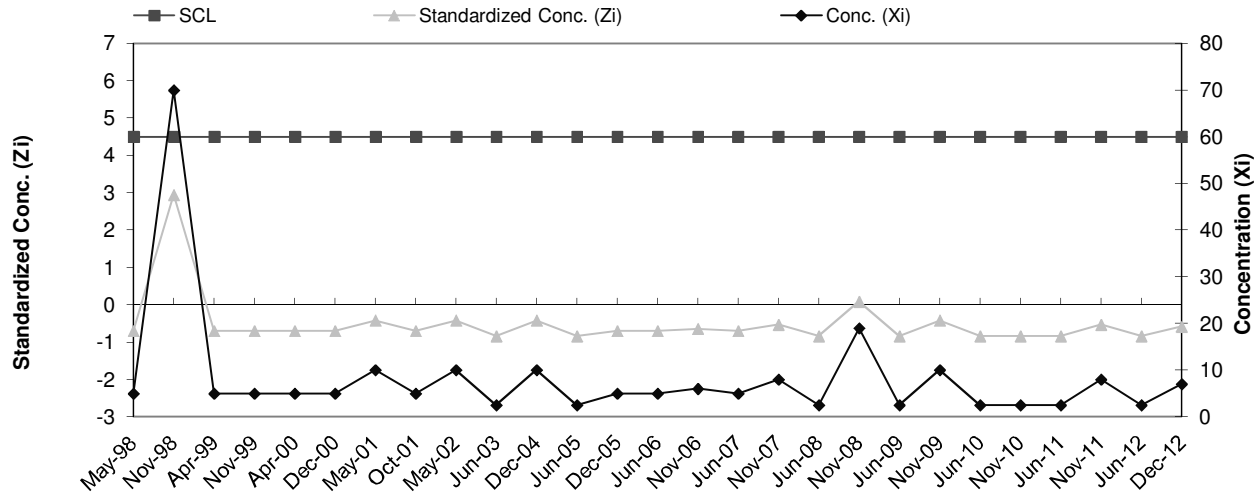
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	2.5	-1.24
10	Nov-98	4.5	2.5	-1.24
11	Apr-99	4.5	2.5	-1.24
12	Nov-99	4.5	2.5	-1.24
13	Apr-00	4.5	2.5	-1.24
14	Dec-00	4.5	7.0	-0.81
15	May-01	4.5	2.5	-1.24
16	Oct-01	4.5	2.5	-1.24
17	May-02	4.5	2.5	-1.24
18	Jun-03	4.5	2.5	-1.24
19	Dec-04	4.5	11.0	-0.44
20	Jun-05	4.5	2.5	-1.24
21	Dec-05	4.5	2.5	-1.24
22	Jun-06	4.5	2.5	-1.24
23	Nov-06	4.5	2.5	-1.24
24	Jun-07	4.5	1	-1.38
25	Nov-07	4.5	3	-1.19
26	Jun-08	4.5	2.5	-1.24
27	Nov-08	4.5	2.5	-1.24
28	Jun-09	4.5	2.5	-1.24
29	Nov-09	4.5	2.5	-1.24
30	Jun-10	4.5	2.5	-1.24
31	Nov-10	4.5	2.5	-1.24
32	Jun-11	4.5	2.5	-1.24
33	Nov-11	4.5	2.5	-1.24
34	Jun-12	4.5	2.5	-1.24
35	Dec-12	4.5	2.5	-1.24



**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		

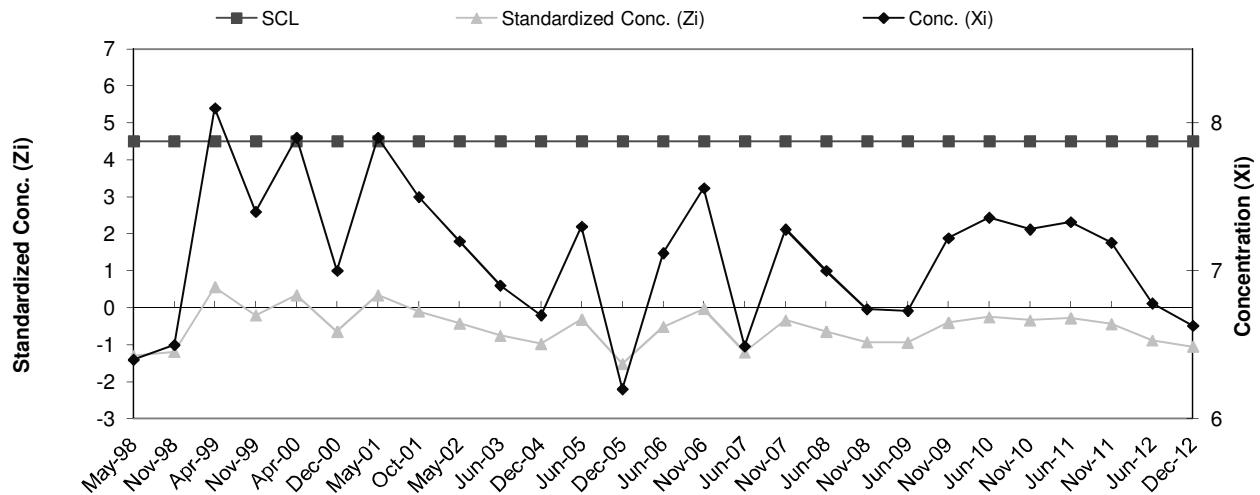
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	5.0	-0.70
10	Nov-98	4.5	70.0	2.94
11	Apr-99	4.5	5.0	-0.70
12	Nov-99	4.5	5.0	-0.70
13	Apr-00	4.5	5.0	-0.70
14	Dec-00	4.5	5.0	-0.70
15	May-01	4.5	10.0	-0.42
16	Oct-01	4.5	5.0	-0.70
17	May-02	4.5	10.0	-0.42
18	Jun-03	4.5	2.5	-0.84
19	Dec-04	4.5	10.0	-0.42
20	Jun-05	4.5	2.5	-0.84
21	Dec-05	4.5	5.0	-0.70
22	Jun-06	4.5	5.0	-0.70
23	Nov-06	4.5	6.0	-0.64
24	Jun-07	4.5	5	-0.70
25	Nov-07	4.5	8	-0.53
26	Jun-08	4.5	2.5	-0.84
27	Nov-08	4.5	19	0.08
28	Jun-09	4.5	2.5	-0.84
29	Nov-09	4.5	10	-0.42
30	Jun-10	4.5	2.5	-0.84
31	Nov-10	4.5	2.5	-0.84
32	Jun-11	4.5	2.5	-0.84
33	Nov-11	4.5	8	-0.53
34	Jun-12	4.5	2.5	-0.84
35	Dec-12	4.5	7	-0.59



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		

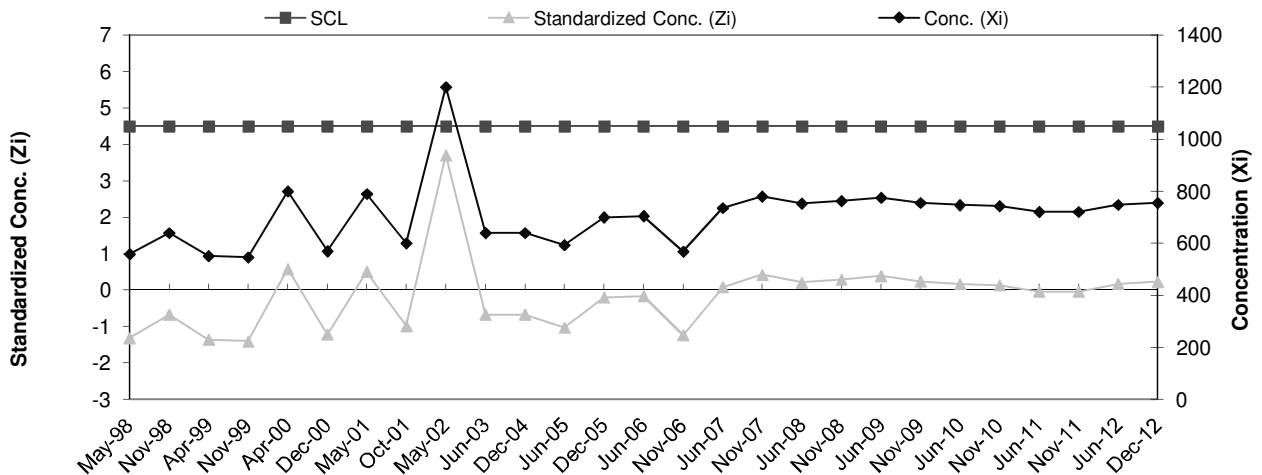
Ti	Date	SCL	Conc. (Xi)	Standardized Conc. (Zi)
9	May-98	4.5	6.4	-1.30
10	Nov-98	4.5	6.5	-1.19
11	Apr-99	4.5	8.1	0.56
12	Nov-99	4.5	7.4	-0.21
13	Apr-00	4.5	7.9	0.34
14	Dec-00	4.5	7.0	-0.64
15	May-01	4.5	7.9	0.34
16	Oct-01	4.5	7.5	-0.10
17	May-02	4.5	7.2	-0.42
18	Jun-03	4.5	6.9	-0.75
19	Dec-04	4.5	6.7	-0.97
20	Jun-05	4.5	7.3	-0.31
21	Dec-05	4.5	6.2	-1.52
22	Jun-06	4.5	7.1	-0.51
23	Nov-06	4.5	7.6	-0.03
24	Jun-07	4.5	6.5	-1.20
25	Nov-07	4.5	7.3	-0.34
26	Jun-08	4.5	7.0	-0.64
27	Nov-08	4.5	6.7	-0.93
28	Jun-09	4.5	6.7	-0.94
29	Nov-09	4.5	7.2	-0.40
30	Jun-10	4.5	7.4	-0.25
31	Nov-10	4.5	7.3	-0.34
32	Jun-11	4.5	7.3	-0.28
33	Nov-11	4.5	7.2	-0.43
34	Jun-12	4.5	6.8	-0.88
35	Dec-12	4.5	6.6	-1.05



**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)
9	May-98	4.5	558	-1.31
10	Nov-98	4.5	639	-0.68
11	Apr-99	4.5	552	-1.36
12	Nov-99	4.5	546	-1.40
13	Apr-00	4.5	800	0.58
14	Dec-00	4.5	570	-1.22
15	May-01	4.5	790	0.50
16	Oct-01	4.5	600	-0.98
17	May-02	4.5	1200	3.71
18	Jun-03	4.5	640	-0.67
19	Dec-04	4.5	640	-0.67
20	Jun-05	4.5	594	-1.03
21	Dec-05	4.5	700	-0.20
22	Jun-06	4.5	705	-0.16
23	Nov-06	4.5	568	-1.23
24	Jun-07	4.5	736	0.08
25	Nov-07	4.5	780	0.42
26	Jun-08	4.5	753	0.21
27	Nov-08	4.5	763	0.29
28	Jun-09	4.5	776	0.39
29	Nov-09	4.5	756	0.24
30	Jun-10	4.5	747	0.17
31	Nov-10	4.5	743	0.13
32	Jun-11	4.5	721	-0.04
33	Nov-11	4.5	721	-0.04
34	Jun-12	4.5	748	0.17
35	Dec-12	4.5	755	0.23



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