

November 11, 2009  
Project 124246

John A. Carrigan  
Massachusetts Department of Environmental Protection  
Northeast Regional Office  
Wilmington, MA 01887

**Re: Crow Lane Landfill**

Dear Mr. Carrigan:

Below is a site activity summary report, which summarizes recent air, groundwater, surface water, leachate, and sediment sampling activities.

**AIR MONITORING**

**August 17, 2009 Sampling Event**

On August 17, 2009, air samples were collected at the Crow Lane Landfill. The air sampling included: Ambient air samples, and landfill gas air samples. A total of nine air samples were collected, four ambient air and five from the landfill gas collection system.

Ambient Air

A total of four ambient air samples were collected (S-1, S-2, Wilson, and Compost). Two of the ambient air samples (S-1 and S-2) were collected over the surface of the landfill. The remaining two samples were collected from the surrounding area one upgradient (Wilson) and one near the city compost facility (Compost).

Each sample area was first screened with a Jerome 631-X hydrogen sulfide (H<sub>2</sub>S) meter. The Jerome meter screening results are included below.

Location	Hydrogen Sulfide Result (ppm)
S-1	0.30
S-2	Not Recorded
Wilson	0.005
Compost	0.001

Air was collected as grab samples using 6L Summa Canisters (under a vacuum), 5 liter Tedlar bags, and sorbent tubes. The ambient air samples collected were analyzed for Volatile Organic Compounds (VOCs) via EPA method TO-15 using GC/MS, sulfur compounds via EPA method TO-15 using GC/FID, H<sub>2</sub>S, sulfides, mercaptans, thiols, sulfur dioxide (OSHA ID-200), arsine (NIOSH 6001), and mercury vapor (NIOSH 6009), with the exception of sample Compost, which was only analyzed for sulfur dioxide and did not include mercury or arsine. Summary tables of the analytical results are included in Appendix A. The complete laboratory analytical data packages are included in Appendix B.

#### Landfill Gas System

A total of five landfill gas system samples were collected (EW-1, EW-10, EW-13, Inlet Flare, and Inlet Tank). The landfill gas system air samples collected were analyzed for VOCs via EPA Method TO-15 using GC/MS, sulfur compounds via EPA method TO-15 using GC/FID, H<sub>2</sub>S, sulfides, mercaptans, thiols, sulfur dioxide (OSHA ID-200), arsine (NIOSH 6001), and mercury vapor (NIOSH 6009), with the exception of samples EW-1, EW-10, and EW-13, which were only analyzed for sulfur dioxide and did not include mercury or arsine. The analytical results are included in Appendix A. The complete laboratory analytical data packages are included in Appendix B.

Prior to collecting the landfill gas system air samples each location was monitored with a GEM 2000 Plus multi-gas landfill meter and the H<sub>2</sub>S concentrations monitored with Gastec detector tubes. All five locations were monitored prior to collecting a sample. The monitoring results are included below.

Location	Methane (%)	Carbon dioxide (%)	Oxygen (%)	Carbon monoxide (ppm)	Hydrogen Sulfide (ppm)
EW-1	23.9	46.6	00.9	17	>500
EW-10	49.0	44.5	00.0	0.0005	>500
EW-13	46.7	49.6	00.1	11	>500
Inlet Flare	15.6	21.7	7.8	4	800
Inlet Tank	21.8	30.9	3.1	2	8,000

The air samples were collected using a variety of methods: The summa canister samples were collected as a grab sample. The air samples analyzed for H<sub>2</sub>S, sulfides, mercaptans, thiols, and sulfur dioxide were collected utilizing 5 liter Tedlar bags filled by a Mini Rae 2000 photo-ionization detector (PID) with a flow rate of approximately 1 liter per minute. The air samples analyzed for arsine, mercury, and sulfur dioxide were collected using sorbent tubes SKC catalog numbers 226-01, 226-17, and 226-80, respectively. Each sample was

collected using a dedicated Gilian air sampling pumps. Each pump and tube arrangement was calibrated to specific flow requirements for the analysis being performed using a BIOS Defender 510 medium flow primary flow meter.

Note that the results for the sulfur compound analysis for the ambient air samples designated Wilson and Compost, appear to be higher than would be expected based on where these samples were collected. These locations are outside the landfill and the Jerome meter results for H<sub>2</sub>S were 0.005 ppm and 0.001 ppm. The higher than expected sulfur compound concentrations in the laboratory results are believed to be the result of the sample collection method, where the sample was pulled through the PID and then pumped into the Tedlar bags. The samples from the landfill locations had been collected first, thus carryover from the high-level sampling locations to the low-level ambient air sampling locations appears to have occurred. To confirm that carryover had occurred with these samples, additional H<sub>2</sub>S samples were collected on October 15, 2009 and analyzed for H<sub>2</sub>S (see sampling event October 15, 2009 below). The results below confirm that there were no detectable levels of H<sub>2</sub>S in the laboratory results for samples collected outside the landfill.

#### **August 26, 2009 Sampling Event**

On August 26, 2009, air samples were collected at the Crow Lane Landfill. The air sampling included: Ambient air samples.

#### Ambient Air

One ambient air sample was collected in a neighborhood location (Location 4, Low Street at Brisette Street). The sample area was first screened with a Jerome 631-X hydrogen sulfide (H<sub>2</sub>S) meter. The Jerome meter screening results are included below.

Location	Hydrogen Sulfide Result (ppm)
Location 4	0.004 to 0.006

Air was collected as grab samples using a 5 liter Tedlar bag and sorbent tubes. The ambient air samples collected were analyzed for sulfur compounds via EPA method TO-15 using GC/FID, H<sub>2</sub>S, sulfides, mercaptans, thiols, sulfur dioxide (OSHA ID-200), arsine (NIOSH 6001), and mercury vapor (NIOSH 6009). Summary tables of the analytical results are included in Appendix A. The complete laboratory analytical data packages are included in Appendix B.

### **October 15, 2009 Sampling Event**

On October 15, 2009, air samples were collected at the Crow Lane Landfill. The air sampling included: Ambient air samples.

#### Ambient Air

A total of four ambient air samples were collected (Perimeter Road Location #10, 20 Wildwood, Woodman Farm Stand, and Compost Area). One ambient air sample (Perimeter Road Location #10) was collected on the landfill. The remaining three samples were collected from the surrounding area and included one upwind (Woodman Farm Stand) and two downwind of the landfill (Compost Area and 20 Wildwood). The sample area was first screened with a Jerome 631-X hydrogen sulfide (H<sub>2</sub>S) meter. The Jerome meter screening results are included below.

Location	Hydrogen Sulfide Result (ppm)
Perimeter Road #10	0.028
20 Wildwood	0.002
Woodman Farm Stand	0.002
Compost Area	0.002

Air was collected as grab samples in 5 liter Tedlar bags. The ambient air samples collected were analyzed for sulfur compounds via EPA method TO-15 using GC/FID, H<sub>2</sub>S, sulfides, mercaptans, and thiols. Summary tables of the analytical results are included in Appendix A. The complete laboratory analytical data packages are included in Appendix B.

### **October 22, 2009 and November 4, 2009 Sampling Events**

On October 22, 2009 and November 4, 2009, landfill gas samples were collected at the Crow Lane Landfill. The air sampling included: Landfill gas air samples.

#### Landfill Gas System

Samples were collected to determine if sulfur particulate matter is interfering with the landfill gas sulfur dioxide analysis. Recent testing with both a hand-held instrument (VRAE) and sulfur dioxide detector tubes have indicated that the landfill gas entering the flare system is at a very low level (0.5 ppm or less). It is known that sulfur particulate matter can interfere with

the sulfur dioxide analysis. Samples were collected with and without a pre-filter to remove sulfur particulate matter.

Two landfill gas system samples were collected at the inlet to the flare and two landfill gas system samples were collected at the inlet to the pre-treatment system for sulfur dioxide testing. Two samples of sulfur dioxide calibration gas (5 ppm) were also collected for comparison to the analytical test method. The landfill gas system air samples collected were analyzed for sulfur dioxide (OSHA ID-200). These samples were collected with and without a pre-filter to remove sulfur particulates, which may interfere with the analysis for sulfur dioxide. The pre-filters were analyzed for particulate sulfur compounds (NIOSH 7903). The analytical results are included in Appendix A. The complete laboratory analytical data packages are included in Appendix B. (Note that the results for the November 4, 2009 sampling event were not available at the time that this report was prepared.)

## **SURFACE WATER**

On August 21, 2009 Shaw collected surface water from five locations (Vernal Pool, S-1, S-4, S-6, and B-SW). The samples were collected from downstream to upstream only in locations of sufficient water. The samples were either collected using a dedicated disposable bailer or directly into the laboratory provided glassware. The sampling locations ranged from dry (S-3 and S-5) to approximately 18 inches of water (Vernal Pool).

The samples collected were analyzed for VOCs by method 8260B, Volatile Petroleum Hydrocarbons (VPH) by MassDEP method, Polychlorinated Biphenyls (PCBs) method 8082, EPH MassDEP method, metals by method 6010B, and mercury by method 7470A. Analysis also included general chemistry, alkalinity, sulfate, nitrate as nitrogen, chemical oxygen demand, total cyanide, total dissolved solids, and chloride. The sample Vernal Pool sample was also analyzed for total suspended solids, and biological oxygen demand. The samples were packed, stored on ice in a shipping cooler, and accompanied by a completed chain-of-custody from the time of collection until laboratory delivery.

The surface water analytical results are summarized in Appendix A. The complete laboratory analytical data packages are included in Appendix B.

## **SEDIMENT SAMPLING**

On August 21, 2009 Shaw collected sediment from six locations (Vernal Pool, S-1, S-3, S-4, S-5, and S-6). The samples were collected from downstream to upstream. The samples were collected using a stainless steel spoon and placed directly into the laboratory provided glassware.

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The samples collected were analyzed for, VPH by MassDEP method, PCBs by method 8082, EPH by MassDEP method, metals method 6010B, and mercury method 7470A. Analysis also included general chemistry, total cyanide, soluble sulfate, percent moisture, and percent solids. The samples were packed, stored on ice in a shipping cooler, and accompanied by a completed chain-of-custody from the time of collection until laboratory delivery.

The surface water analytical results are summarized in Appendix A. The complete laboratory analytical data packages are included in Appendix B.

## **GROUNDWATER SAMPLING**

On August 24, 2009 groundwater was collected from six wells (MW-1, MW-2, MW-3S, MW-3D, MW-4S, and MW-4D).

Prior to sampling, the water level and well depth in each of the monitoring wells were measured to the nearest 0.01 foot using a decontaminated electronic sensing probe. The groundwater level measurements were used to determine the volume of water present in the well. The electronic water sensing probe was decontaminated with a distilled water and methanol rinse between uses to prevent cross-contamination.

All samples were collected using low flow methodology. The intake of the tubing was placed at the midpoint of the saturated portion of the well screen to obtain a representative groundwater sample. The tubing was secured so that it remained at the appropriate depth, and the water level was measured with the pump and tubing in the well. Periodic measurements of pH, specific conductance, oxidation reduction potential, dissolved oxygen, and temperature were measured promptly in the field at each location and the values recorded in the field notebook. To assure representative formation water was being sampled, the monitoring wells were purged until the pH, specific conductance, and temperature values of the discharge stabilized to less than 10 percent variation, or the well ran dry and pumping ceased and the well was allowed to recharge and sample was collected. The monitoring wells were purged with clean, dedicated, low density polyethylene (LDPE) tubing and a peristaltic pump.

All groundwater samples were transferred from the tubing into appropriate sample containers, which were provided by the laboratory. All groundwater samples were analyzed for VOCs by method 8260B, VPH by MassDEP method, PCBs by method 8082, EPH by MassDEP method, metals by method 6010B, and mercury by method 7470A. Analysis also included general chemistry, alkalinity, sulfate, nitrate as nitrogen, chemical oxygen demand, total cyanide, total dissolved solids, and chloride.

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Given that the samples were collected with either dedicated or disposable tubing, no field blank sample was collected for analyses. The samples were packed, stored on ice in a shipping cooler, and accompanied by a completed chain-of-custody from the time of collection until laboratory delivery.

The analytical results for the groundwater sampling are summarized in Appendix A. The complete laboratory analytical data packages are included in Appendix B.

### **LEACHATE TANK SAMPLING**

On August 24, 2009 leachate was collected from four leachate storage tanks (Tank-2, Tank-3, Tank-4, and Tank-5) each leachate sample was collected as a grab sample with a dedicated disposable bailer. Leachate water was transferred directly into the laboratory provided glassware. The samples were packed, stored on ice in a shipping cooler, and accompanied by a completed chain-of-custody from the time of collection until laboratory delivery.

All leachate tank samples were analyzed for the same parameters as the groundwater samples. The analytical results for the leachate sampling are summarized in Appendix A. The complete laboratory analytical data packages are included in Appendix B.

Sincerely,  
**SHAW ENVIROMENTAL, INC.**



Edward P. Van Doren, P.E., LSP  
SARSS Program Manager

**Attachments:**

Appendix A– Data Tables

Appendix B – Laboratory Analytical Reports

**APPENDIX A**  
**DATA TABLES**

**Summa Canister Air Results**  
**TestAmerica Laboratory**  
**TO15**  
**Positive Detections Only**  
**August 2009**

**Crow Lane Landfill**

Reported in ug/m <sup>3</sup>										
Sample Type		Landfill Gas					Ambient Air			
CONSTITUENT	UNITS	EW-01 8/17/2009	EW-10 8/17/2009	EW-13 8/17/2009	INLET FLARE 8/17/2009	INLET TANK 8/17/2009	S-01 8/17/2009	S-02 8/17/2009	WILSON 8/17/2009	COMPOST 8/17/2009
1,1-Dichloroethane	(ug/m <sup>3</sup> )	<11	85	<120	<16	<49	<0.81	<0.81	<0.81	<0.81
1,2,4-Trimethylbenzene	(ug/m <sup>3</sup> )	320	540	390	230	1400	<0.98	2	3.2	11
1,2-Dichloroethene (total)	(ug/m <sup>3</sup> )	67	1000	440	95	400	<0.79	<0.79	<0.79	<0.79
1,3,5-Trimethylbenzene	(ug/m <sup>3</sup> )	130	310	240	170	640	<0.98	1.3	<0.98	2.8
1,3-Dichlorobenzene	(ug/m <sup>3</sup> )	38	<110	<180	<24	<72	<1.2	<1.2	2.5	11
1,4-Dichlorobenzene	(ug/m <sup>3</sup> )	32	<110	<180	<24	190	<1.2	<1.2	<1.2	<1.2
2,2,4-Trimethylpentane	(ug/m <sup>3</sup> )	140	430	340	140	610	<0.93	<0.93	<0.93	<0.93
2-Butanone	(ug/m <sup>3</sup> )	130	<130	2400	130	120	4.7	4.4	1.7	2.1
4-Isopropyltoluene	(ug/m <sup>3</sup> )	400	1700	470	540	1600	<1.1	<1.1	<1.1	2.9
4-Methyl-2-pentanone	(ug/m <sup>3</sup> )	<27	<180	490	<41	<130	<2.0	<2.0	<2.0	<2.0
Acetone	(ug/m <sup>3</sup> )	900	<1100	<1800	1100	<740	15	26	13	15
Benzene	(ug/m <sup>3</sup> )	140	1100	580	200	830	<0.64	0.73	<0.64	0.77
Benzidine	(ug/m <sup>3</sup> )	<200	2200	<2300	<300	<940	<15	<15	<15	<15
Carbonylsulfide	(ug/m <sup>3</sup> )	1300	590	2200	1800	1300	3.1	3.4	<1.6	<1.6
Chlorobenzene	(ug/m <sup>3</sup> )	78	<83	<140	87	640	<0.92	<0.92	<0.92	<0.92
Chlorodi-fluoromethane	(ug/m <sup>3</sup> )	600	460	2700	1000	1700	19	9.9	<1.8	<1.8
Chloroethane	(ug/m <sup>3</sup> )	37	<120	320	53	130	<1.3	<1.3	<1.3	<1.3
Chloromethane	(ug/m <sup>3</sup> )	<13	<93	<160	<21	<64	1.1	1.3	1	1.1
cis-1,2-Dichloroethene	(ug/m <sup>3</sup> )	67	1000	440	95	400	<0.79	<0.79	<0.79	<0.79
Cyclohexane	(ug/m <sup>3</sup> )	380	1400	2300	550	1600	<0.69	0.69	<0.69	<0.69
Dichlorodifluoromethane	(ug/m <sup>3</sup> )	230	<220	410	410	460	3.6	4.2	2.5	2.6
Dichloromethane	(ug/m <sup>3</sup> )	<23	<160	<260	49	110	<1.7	<1.7	<1.7	<1.7
Ethylbenzene	(ug/m <sup>3</sup> )	960	1700	1400	1100	4300	<0.87	1.9	1	4.8
Freon 113	(ug/m <sup>3</sup> )	32	<140	<230	36	<92	<1.5	<1.5	<1.5	<1.5
Freon 114	(ug/m <sup>3</sup> )	62	<130	<210	440	910	<1.4	<1.4	<1.4	<1.4
Heptane	(ug/m <sup>3</sup> )	940	3200	4100	340	3600	0.9	1.1	<0.82	0.98
Isopropanol	(ug/m <sup>3</sup> )	340	<1100	<1900	<250	<760	<12	<12	<12	<12
Isopropylbenzene	(ug/m <sup>3</sup> )	110	<88	<150	150	690	<0.98	<0.98	<0.98	<0.98
m/p-xylene	(ug/m <sup>3</sup> )	1400	4100	3900	1700	6900	<2.2	5.6	3	20
Naphthalene	(ug/m <sup>3</sup> )	73	730	<400	<52	400	<2.6	<2.6	<2.6	6.8
n-Butane	(ug/m <sup>3</sup> )	950	3800	6200	1300	3300	1.5	1.7	<1.2	<1.2
n-Butylbenzene	(ug/m <sup>3</sup> )	14	<99	<160	<22	77	<1.1	<1.1	<1.1	<1.1
n-Hexane	(ug/m <sup>3</sup> )	920	2400	4600	390	3900	<1.8	<1.8	<1.8	<1.8
n-Propylbenzene	(ug/m <sup>3</sup> )	<13	<88	<150	98	470	<0.98	<0.98	<0.98	1.6
o-Xylene	(ug/m <sup>3</sup> )	410	1200	1200	560	2100	<0.87	2.2	1.3	9.1
p-Ethyltoluene	(ug/m <sup>3</sup> )	74	140	<150	93	410	<0.98	<0.98	<0.98	2
sec-Butylbenzene	(ug/m <sup>3</sup> )	<14	<99	<160	<22	120	<1.1	<1.1	<1.1	<1.1
Tetrachloroethene	(ug/m <sup>3</sup> )	61	<120	<200	58	240	<1.4	<1.4	<1.4	<1.4
Tetrahydrofuran	(ug/m <sup>3</sup> )	<190	<1300	6200	<290	<910	<15	<15	<15	<15
Toluene	(ug/m <sup>3</sup> )	1600	11000	12000	2400	8300	5.3	4.9	2.1	6.8
Trichloroethene	(ug/m <sup>3</sup> )	75	1600	970	110	590	<1.1	<1.1	<1.1	<1.1
Trichlorofluoromethane	(ug/m <sup>3</sup> )	470	290	670	350	1000	7.3	79	1.7	1.9
Vinyl chloride	(ug/m <sup>3</sup> )	130	1000	3600	310	690	<0.51	<0.51	<0.51	<0.51
Xylene (total)	(ug/m <sup>3</sup> )	1800	5200	5200	2300	9100	<0.87	7.8	4.3	29

**Notes:**  
ug/m<sup>3</sup> = micrograms per cubic meter

**Summa Canister Air Results**  
**TestAmerica Laboratory**  
**TO15 and TICS**  
**Positive Detections Only**  
**August 2009**

**Crow Lane Landfill**

Results reported in ppbv										
Sample Type		Landfill Gas					Ambient Air			
CONSTITUENT	UNITS	EW-01	EW-10	EW-13	INLET FLARE	INLET TANK	S-01	S-02	WILSON	COMPOST
		8/17/2009	8/17/2009	8/17/2009	8/17/2009	8/17/2009	8/17/2009	8/17/2009	8/17/2009	8/17/2009
1,1-Dichloroethane	(ppbv)	<2.6	21	<30	<4.0	<12	<0.20	<0.20	<0.20	<0.20
1,2,4-Trimethylbenzene	(ppbv)	65	110	79	47	290	<0.20	0.41	0.66	2.3
1,2-Dichloroethene (total)	(ppbv)	17	260	110	24	100	<0.20	<0.20	<0.20	<0.20
1,3,5-Trimethylbenzene	(ppbv)	26	64	49	35	130	<0.20	0.27	<0.20	0.56
1,3-Dichlorobenzene	(ppbv)	6.4	<18	<30	<4.0	<12	<0.20	<0.20	0.42	1.9
1,4-Dichlorobenzene	(ppbv)	5.4	<18	<30	<4.0	31	<0.20	<0.20	<0.20	<0.20
2,2,4-Trimethylpentane	(ppbv)	30	92	72	31	130	<0.20	<0.20	<0.20	<0.20
2-Butanone	(ppbv)	44	<45	810	45	41	1.6	1.5	0.59	0.71
4-Isopropyltoluene	(ppbv)	72	310	85	98	290	<0.20	<0.20	<0.20	0.52
4-Methyl-2-pentanone	(ppbv)	<6.5	<45	120	<10	<31	<0.50	<0.50	<0.50	<0.50
Acetone	(ppbv)	380	<450	<760	480	<310	6.3	11	5.6	6.2
Benzene	(ppbv)	44	340	180	63	260	<0.20	0.23	<0.20	0.24
Benzidine	(ppbv)	<65	720	<760	<100	<310	<5.0	<5.0	<5.0	<5.0
Carbonylsulfide	(ppbv)	410	190	710	580	430	1	1.1	<0.50	<0.50
Chlorobenzene	(ppbv)	17	<18	<30	19	140	<0.20	<0.20	<0.20	<0.20
Chlorodi-fluoromethane	(ppbv)	170	130	760	290	480	5.3	2.8	<0.50	<0.50
Chloroethane	(ppbv)	14	<45	120	20	48	<0.50	<0.50	<0.50	<0.50
Chloromethane	(ppbv)	<6.5	<45	<76	<10	<31	0.55	0.61	0.5	0.55
cis-1,2-Dichloroethene	(ppbv)	17	260	110	24	100	<0.20	<0.20	<0.20	<0.20
Cyclohexane	(ppbv)	110	400	680	160	470	<0.20	0.2	<0.20	<0.20
Dichlorodifluoromethane	(ppbv)	46	<45	82	83	93	0.72	0.85	0.5	0.52
Dichloromethane	(ppbv)	<6.5	<45	<76	14	33	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	(ppbv)	220	380	320	250	1000	<0.20	0.44	0.24	1.1
Freon 113	(ppbv)	4.2	<18	<30	4.7	<12	<0.20	<0.20	<0.20	<0.20
Freon 114	(ppbv)	8.8	<18	<30	63	130	<0.20	<0.20	<0.20	<0.20
Heptane	(ppbv)	230	770	1000	83	880	0.22	0.27	<0.20	0.24
Isopropanol	(ppbv)	140	<450	<760	<100	<310	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	(ppbv)	23	<18	<30	30	140	<0.20	<0.20	<0.20	<0.20
m/p-xylene	(ppbv)	330	940	890	390	1600	<0.50	1.3	0.7	4.5
Naphthalene	(ppbv)	14	140	<76	<10	77	<0.50	<0.50	<0.50	1.3
n-Butane	(ppbv)	400	1600	2600	550	1400	0.64	0.72	<0.50	<0.50
n-Butylbenzene	(ppbv)	2.6	<18	<30	<4.0	14	<0.20	<0.20	<0.20	<0.20
n-Hexane	(ppbv)	260	670	1300	110	1100	<0.50	<0.50	<0.50	<0.50
n-Propylbenzene	(ppbv)	<2.6	<18	<30	20	96	<0.20	<0.20	<0.20	0.33
o-Xylene	(ppbv)	94	270	280	130	480	<0.20	0.51	0.31	2.1
p-Ethyltoluene	(ppbv)	15	28	<30	19	84	<0.20	<0.20	<0.20	0.41
sec-Butylbenzene	(ppbv)	<2.6	<18	<30	<4.0	21	<0.20	<0.20	<0.20	<0.20
Tetrachloroethene	(ppbv)	9	<18	<30	8.6	35	<0.20	<0.20	<0.20	<0.20
Tetrahydrofuran	(ppbv)	<65	<450	2100	<100	<310	<5.0	<5.0	<5.0	<5.0
Toluene	(ppbv)	430	2900	3100	630	2200	1.4	1.3	0.56	1.8
Trichloroethene	(ppbv)	14	290	180	21	110	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	(ppbv)	83	52	120	62	180	1.3	14	0.31	0.33
Vinyl chloride	(ppbv)	50	390	1400	120	270	<0.20	<0.20	<0.20	<0.20
Xylene (total)	(ppbv)	420	1200	1200	520	2100	<0.20	1.8	1	6.6
<b>Tentatively Identified Compounds</b>										
.alpha.-Pinene	(ppbv)	---	3700NJ	870NJ	270NJ	2400NJ	---	---	1.1NJ	2.4NJ
.beta.-Pinene	(ppbv)	---	---	---	---	420NJ	---	---	---	---
Bicyclo [3.1.1] Heptane, 6,6-D	(ppbv)	---	310NJ	---	---	---	---	---	---	---
Benzeneacetic acid, trimethyl	(ppbv)	---	---	---	---	---	---	---	---	6.4NJ
1,3-Butadiene, 2-methyl-	(ppbv)	---	---	---	---	---	---	---	1.2NJ	2.0NJ
1,4-Cyclohexadiene, 1-methyl-	(ppbv)	---	220NJ	---	---	---	---	---	---	---
1-Hexene	(ppbv)	---	---	240NJ	---	---	---	---	---	---
Benzene, 1-ethyl-2-methyl	(ppbv)	---	190NJ	---	---	---	---	---	---	1.3NJ
Benzene, 1-ethyl-3-methyl-	(ppbv)	73NJ	---	---	130NJ	410NJ	---	---	---	---
2-Methylpentane	(ppbv)	110NJ	---	---	---	---	---	---	---	---
4-Hepten-3-one, 5-methyl-	(ppbv)	---	---	---	---	240NJ	---	---	---	---
Bicyclo[3.1.1]hept-2-ene, 3,6	(ppbv)	370NJ	---	---	---	---	---	1.6NJ	---	---
Butane, 2-methyl-	(ppbv)	200NJ	---	---	220NJ	---	1.4NJ	1.2NJ	---	---
Camphene	(ppbv)	57NJ	500NJ	---	270NJ	380NJ	---	---	---	---
Cyclohexane, 1,3-dimethyl-, c	(ppbv)	---	330NJ	250NJ	---	---	---	---	---	---
Cyclohexene, 4-methyl-1-(1-me	(ppbv)	46NJ	550NJ	260NJ	130NJ	600NJ	---	---	---	---
Cyclopentane	(ppbv)	240NJ	---	---	290NJ	800NJ	---	---	---	---
Ethane, 1-chloro-1-fluoro-	(ppbv)	340NJ	570NJ	2900NJ	320NJ	810NJ	---	---	---	---

Summa Canister Air Results  
TestAmerica Laboratory  
TO15 and TICS  
Positive Detections Only  
August 2009

Crow Lane Landfill

Results reported in ppbv										
Sample Type		Landfill Gas					Ambient Air			
CONSTITUENT	UNITS	EW-01 8/17/2009	EW-10 8/17/2009	EW-13 8/17/2009	INLET FLARE 8/17/2009	INLET TANK 8/17/2009	S-01 8/17/2009	S-02 8/17/2009	WILSON 8/17/2009	COMPOST 8/17/2009
Hexane, 2-methyl-	(ppbv)	96NJ	360NJ	580NJ	---	---	---	---	---	---
Hexane, 3-methyl-	(ppbv)	130NJ	490NJ	740NJ	---	580NJ	---	---	---	---
2-Propanethiol	(ppbv)	---	---	1400NJ	---	1300NJ	---	---	---	---
Methane, chlorofluoro-	(ppbv)	200NJ	---	---	320NJ	---	---	---	---	---
Methylcyclohexane	(ppbv)	98NJ	---	370NJ	---	480NJ	---	---	---	---
Methanethiol	(ppbv)	130NJ	---	---	---	---	---	---	---	---
n-Decane	(ppbv)	69NJ	---	---	120NJ	420NJ	---	---	---	---
Dodecane	(ppbv)	---	---	---	---	---	---	---	---	1.8NJ
D-Limonene	(ppbv)	---	---	---	---	---	---	---	1.2NJ	4.5NJ
Nonane, 3-methyl-	(ppbv)	---	---	---	86NJ	240NJ	---	---	---	---
Undecane	(ppbv)	---	---	---	---	---	---	---	---	2.3NJ
Octane, 2,6-dimethyl-	(ppbv)	---	150NJ	---	---	320NJ	---	---	---	---
Pentane	(ppbv)	310NJ	---	---	220NJ	1000NJ	---	---	---	---
Pentane, 3-methyl-	(ppbv)	100NJ	---	---	---	---	---	---	---	---
Propylene	(ppbv)	---	---	600NJ	190NJ	---	---	---	---	---
Unknown Alkane(1)	(ppbv)	43J	140J	---	300J	350J	---	---	---	1.3J
Unknown Alkane(2)	(ppbv)	---	170J	---	66J	300J	---	---	---	1.5J
Unknown Alkane(3)	(ppbv)	---	---	---	90J	---	---	---	---	1.1J
Unknown Alkane(4)	(ppbv)	---	---	---	82J	---	---	---	---	---
Unknown Alkane(5)	(ppbv)	---	---	---	66J	---	---	---	---	---
Unknown Alkane(6)	(ppbv)	---	---	---	91J	---	---	---	---	---
Unknown Cycloalkane(1)	(ppbv)	---	360J	---	---	---	---	---	---	---
Unknown Cycloalkane(2)	(ppbv)	---	330J	---	---	---	---	---	---	---
Unknown Cycloalkane(3)	(ppbv)	---	140J	---	---	---	---	---	---	---
Unknown Cycloalkane(4)	(ppbv)	---	140J	1000J	---	---	---	---	---	---
Unknown Cycloalkane(5)	(ppbv)	---	160J	---	---	---	---	---	---	---
Unknown(1)	(ppbv)	140J	450J	610J	100J	290J	---	2.7J	1.5J	2.1J
Unknown(2)	(ppbv)	110J	130J	300J	---	320J	---	---	1.7J	5.4J
Unknown(3)	(ppbv)	---	---	430J	---	---	---	---	---	---
Unknown(4)	(ppbv)	---	---	1000J	---	---	---	---	---	---
Unknown(5)	(ppbv)	---	---	410J	---	---	---	---	---	---

**Notes:**

ppbv = parts per billion volume  
J = Estimated value.  
--- = Constituent not sampled for.  
N = Indicates presumptive evidence of a compound (based on mass spectral library search).

Sorbent Tube Air Results  
TestAmerica Laboratory  
Arsine, Sulfur Dioxide, Mercury, and Sulfur Particulate

August 2009  
and  
October 2009

Crow Lane Landfill

Sample Type	SITE_ID	DATE	Arsine Total (ug/sp)	Arsine Total (ug/m <sup>3</sup> )	Arsine Total (ppbv)	Sulfur dioxide Total (ug/sp)	Sulfur dioxide Total (mg/m <sup>3</sup> )	Sulfur dioxide Total (ppmv)	Mercury Total (ug/tb)	Mercury Total (ug/m <sup>3</sup> )	Mercury Total (ppbv)	Sulfur Particulate as Sulfuric Acid (ug/sp)	Sulfur Particulate as Sulfuric Acid (mg/m <sup>3</sup> )
Landfill Gas	EW-01	8/17/2009	---	---	---	490	5000	1900	---	---	---	---	---
	EW-10	8/17/2009	---	---	---	520	5300	2000	---	---	---	---	---
	EW-13	8/17/2009	---	---	---	930J	9500	3600	---	---	---	---	---
	INLET FLARE	8/17/2009	<0.0060	<30	<9.4	<3.0	<30	<12	<0.025	<100	<12	---	---
	INLET TANK	8/17/2009	<0.0060	<30	<9.4	380	3900	1500	<0.025	<100	<12	---	---
	SO <sub>2</sub> Cal Gas	10/22/2009	---	---	---	16	11	4.3	---	---	---	---	---
	SO <sub>2</sub> Cal Gas w/Pre-Filter	10/22/2009	---	---	---	16	11	4.3	---	---	---	<10	<7.1
	Inlet to Flare	10/22/2009	---	---	---	<3	<21	<8.2	---	---	---	---	---
Inlet to Flare w/Pre-Filter	10/22/2009	---	---	---	<3	<21	<8.2	---	---	---	<10	<71	
Ambient Air	COMPOST	8/17/2009	---	---	---	<3.0	<2.0	<0.78	---	---	---	---	---
	S-01	8/17/2009	<0.0060	<2	<0.63	<3.0	<1.9	<0.73	<0.025	<6.7	<0.82	---	---
	S-02	8/17/2009	<0.0060	<1.1	<0.35	<3.0	<1.1	<0.43	<0.025	<3.7	<0.45	---	---
	WILSON	8/17/2009	<0.0060	<2	<0.63	<3.0	<2.0	<0.78	<0.025	<6.7	<0.82	---	---
	Location 4	8/26/2009	<0.0060	<1.0	<0.32	<3.0	<0.98	<0.37	<0.050	<6.6	<0.81	---	---

**Notes:**

- = not sampled
- < = not detected above the method detection limit
- ug/sp = micrograms per sample
- ug/tb = micrograms per tube
- mg/m<sup>3</sup> = milligrams per cubic meter
- ppmv = parts per million volume
- ug/m<sup>3</sup> = micrograms per cubic meter
- ppbv = parts per billion volume
- J = Estimated value (breakthrough of 27%, value may be suspect)

Tedlar Bag Air Results  
Alpha Analytical Laboratory  
TO-15  
Positive Detections Only  
August 2009  
and  
October 2009

Crow Lane Landfill

Results reported in ug/m <sup>3</sup>																
Sample Type		Landfill Gas						Ambient Air								
CONSTITUENT	UNITS	EW-01 8/17/2009	EW-10 8/17/2009	EW-13 8/17/2009	INLET FLARE 8/17/2009	INLET TANK 8/17/2009	LOCATION 4 8/26/2009	S-01 8/17/2009	S-02 8/17/2009	WILSON 8/17/2009	Location #4 8/26/2009	COMPOST 8/17/2009	Perimeter Rd #10 10/15/2009	20 Wildwood 10/15/2009	Woodman 10/15/2009	Compost Area 10/15/2009
2-Propanethiol	(ug/m <sup>3</sup> )	<77800	<77800	<38900	<77.8	8650	<7.78	7.96	<7.78	<7.78	<7.78	12.6	<7.78	<7.78	<7.78	<7.78
Carbondisulfide	(ug/m <sup>3</sup> )	52500	34100	30600	481	2100	5.14	15.4	6.66	37.8	5.14	153	2.28	2.33	2.6	1.83
Carbonylsulfide	(ug/m <sup>3</sup> )	95200	50700	24800	593	1410	11.9	153	24.4	22.6	11.9	38.3	3.4	3.28	3.45	3.46
Ethyl mercaptan	(ug/m <sup>3</sup> )	<128000	<128000	<64100	<128	894	<12.8	<12.8	<12.8	<12.8	<12.8	<12.8	<12.8	<12.8	<12.8	<12.8
Hydrogensulfide	(ug/m <sup>3</sup> )	34600000D	42600000D	63300000D	6890	12600000D	<6.94	19500D	1770D	407	<6.94	497	25	<6.94	<6.94	<6.94
Methanethiol	(ug/m <sup>3</sup> )	<98000	<98000	<49000	<98	6210	<9.8	121	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8
Dimethylsulfide	(ug/m <sup>3</sup> )	<25600	<25600	<12800	<25.6	513	<2.56	25.3	2.74	<2.56	<2.56	<2.56	<2.56	<2.56	<2.56	<2.56
Dimethyl disulfide	(ug/m <sup>3</sup> )	<19200	<19200	<9620	<19.2	<19.2	<1.92	15.2	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92
Results reported in ppbv																
Sample Type		Landfill Gas						Ambient Air								
CONSTITUENT	UNITS	EW-01 8/17/2009	EW-10 8/17/2009	EW-13 8/17/2009	INLET FLARE 8/17/2009	INLET TANK 8/17/2009	LOCATION 4 8/26/2009	S-01 8/17/2009	S-02 8/17/2009	WILSON 8/17/2009	Location #4 8/26/2009	COMPOST 8/17/2009	Perimeter Rd #10 10/15/2009	20 Wildwood 10/15/2009	Woodman 10/15/2009	Compost Area 10/15/2009
2-Propanethiol	(ppbv)	<25000	<25000	<12500	<25	2780	<2.5	2.56	<2.5	<2.5	<2.5	4.03	<2.5	<2.5	<2.5	<2.5
Carbondisulfide	(ppbv)	16900	11000	9840	155	676	1.65	4.94	2.14	12.2	1.65	49.3	0.734	0.749	0.834	0.587
Carbonylsulfide	(ppbv)	39000	20800	10200	243	579	4.88	62.7	10	9.27	4.88	15.7	1.39	1.34	1.41	1.42
Ethyl mercaptan	(ppbv)	<50000	<50000	<25000	<50	349	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Hydrogensulfide	(ppbv)	24900000D	30600000D	45600000D	4960	9060000D	<5	14100D	1270D	293	18	358	18	<5	<5	<5
Methanethiol	(ppbv)	<50000	<50000	<25000	<50	3160	<5	61.9	<5	<5	<5	<5	<5	<5	<5	<5
Methyl sulfide	(ppbv)	<10000	<10000	<5000	<10	200	<1	9.85	1.07	<1	<1	<1	<1	<1	<1	<1
Methyl disulfide	(ppbv)	<5000	<5000	<2500	<5	<5	<0.5	3.96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

ug/m<sup>3</sup> = micrograms per cubic meter

ppbv = parts per billion volume

D = Result reported from a diluted sample.

**Sediment Analytical Results  
August 2009**

**Crow Lane Landfill**

Site ID Lab Sample ID		S-01 S-1 8/21/2009	S-03 S-3 8/21/2009	S-04 S-4 8/21/2009	S-05 S-5 8/21/2009	S-06 S-6 8/21/2009	VERNAL POOL Vernal Pool 8/21/2009
<b>CONSTITUENT</b>	<b>UNITS</b>						
<b>EPH</b>							
2-Methylnaphthalene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Acenaphthene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Acenaphthylene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Anthracene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Benzo(a)anthracene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Benzo(a)pyrene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Benzo(b)fluoranthene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Benzo(ghi)perylene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Benzo(k)fluoranthene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Chrysene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Fluoranthene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Fluorene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Indeno(1,2,3-cd)pyrene+Dibenz(a,h)anthracene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Naphthalene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Phenanthrene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
Pyrene	(mg/kg)	<0.91	<0.68	<0.48	<0.53	<0.44	<0.54
C9-C18 Aliphatics (FID)	(mg/kg)	<9.1	<6.8	<4.8	<5.3	<4.4	<5.4
C19-C36 Aliphatics (FID)	(mg/kg)	14	20	7.6	9.3	7.2	30
C11-C22 Aromatics	(mg/kg)	18	21	10	15	6.6	23
<b>VPH</b>							
Benzene	(mg/kg)	<0.21	<0.13	<0.071	<0.099	<0.055	<0.085
Ethylbenzene	(mg/kg)	<0.21	<0.13	<0.071	<0.099	<0.055	<0.085
m/p-xylene	(mg/kg)	<0.42	<0.26	<0.14	<0.2	<0.11	<0.17
Methyltert-butylether	(mg/kg)	<0.21	<0.13	<0.071	<0.099	<0.055	<0.085
Naphthalene	(mg/kg)	<1	<0.66	<0.36	<0.49	<0.27	<0.43
o-Xylene	(mg/kg)	<0.21	<0.13	<0.071	<0.099	<0.055	<0.085
Toluene	(mg/kg)	<0.21	<0.13	<0.071	<0.099	<0.055	<0.085
Xylene (total)	(mg/kg)	<0.42	<0.26	<0.14	<0.2	<0.11	<0.17
C5-C8 Aliphatics	(mg/kg)	<10	<6.6	<3.6	<4.9	<2.7	<4.3
C9-C12 Aliphatics	(mg/kg)	<10	<6.6	<3.6	<4.9	<2.7	<4.3
C9-C10 Aromatics	(mg/kg)	<10	<6.6	<3.6	<4.9	<2.7	<4.3
<b>PCBs</b>							
Aroclor 1016	(ug/kg)	<260	<210	<140	<160	<130	<150
Aroclor 1221	(ug/kg)	<260	<210	<140	<160	<130	<150
Aroclor 1232	(ug/kg)	<260	<210	<140	<160	<130	<150
Aroclor 1242	(ug/kg)	<260	<210	<140	<160	<130	<150
Aroclor 1248	(ug/kg)	<260	<210	<140	<160	<130	<150
Aroclor 1254	(ug/kg)	<260	<210	<140	<160	<130	<150
Aroclor 1260	(ug/kg)	<260	<210	<140	<160	<130	<150
Aroclor 1262	(ug/kg)	<260	<210	<140	<160	<130	<150
Aroclor 1268	(ug/kg)	<260	<210	<140	<160	<130	<150
PCB's	(ug/kg)	<260	<210	<140	<160	<130	<150
<b>Metals</b>							
Arsenic	(mg/kg)	12	7.1	15	28	6.3	14
Barium	(mg/kg)	64	62	79	78	11	99
Cadmium	(mg/kg)	<0.57	0.77	1.2	0.61	<0.28	<0.77
Chromium	(mg/kg)	24	29	31	33	8.2	50
Copper	(mg/kg)	8.3	17	17	22	3.1	45
Cyanide	(mg/kg)	<2	<1.7	<0.95	<1.1	<0.84	<1.3
Iron	(mg/kg)	15000	15000	17000	24000	8000	27000
Lead	(mg/kg)	29	58	55	29	10	180
Manganese	(mg/kg)	250	160	330	750	110	400
Mercury	(mg/kg)	<0.49	<0.34	<0.18	<0.22	<0.2	<0.21
Selenium	(mg/kg)	<1.4	<1.2	<0.88	<0.86	<0.7	<1.9
Silver	(mg/kg)	<1.4	<1.2	<0.88	<0.86	<0.7	<1.9
Sulfate	(mg/kg)	400	150	<59	410	<54	510
Zinc	(mg/kg)	51	64	150	70	26	160

**Notes:**

ug/kg = micrograms kilogram  
mg/kg = milligrams kilogram

**Surface Water Analytical Results  
August 2009**

**Crow Lane Landfill**

Site ID Lab Sample ID		B-SW 24242-10	S-01 24242-6	S-04 24242-2	S-06 24242-8	VERNAL POOL 24242-1
CONSTITUENT	UNITS	8/21/2009	8/21/2009	8/21/2009	8/21/2009	8/21/2009
<b>Method 8260</b>						
1,1,1,2-Tetrachloroethane	(ug/l)	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	(ug/l)	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<1	<1	<1	<1	<1
1,1-Dichloroethane	(ug/l)	<1	<1	<1	<1	<1
1,1-Dichloroethene	(ug/l)	<1	<1	<1	<1	<1
1,1-Dichloropropene	(ug/l)	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	(ug/l)	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	(ug/l)	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	(ug/l)	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	(ug/l)	<1	<1	<1	<1	<1
1,2-Dibromoethane (EDB)	(ug/l)	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	(ug/l)	<1	<1	<1	<1	<1
1,2-Dichloroethane	(ug/l)	<1	<1	<1	<1	<1
1,2-Dichloropropane	(ug/l)	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	(ug/l)	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	(ug/l)	<1	<1	<1	<1	<1
1,3-Dichloropropane	(ug/l)	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	(ug/l)	<1	<1	<1	<1	<1
1,4-Dioxane	(ug/l)	<50	<50	<50	<50	<50
2,2-Dichloropropane	(ug/l)	<1	<1	<1	<1	<1
2-Butanone	(ug/l)	<10	<10	<10	<10	<10
2-Hexanone	(ug/l)	<10	<10	<10	<10	<10
4-Isopropyltoluene	(ug/l)	<1	<1	<1	<1	<1
4-Methyl-2-pentanone	(ug/l)	<10	<10	<10	<10	<10
Acetone	(ug/l)	<50*	<50	<50	<50	<50
Benzene	(ug/l)	<1	<1	<1	<1	<1
Bromobenzene	(ug/l)	<1	<1	<1	<1	<1
Bromodichloromethane	(ug/l)	<1	<1	<1	<1	<1
Bromoform	(ug/l)	<1	<1	<1	<1	<1
Bromomethane	(ug/l)	<2*	<2*	<2*	<2*	<2*
Carbon tetrachloride	(ug/l)	<1	<1	<1	<1	<1
Carbendisulfide	(ug/l)	<10	<10	<10	<10	<10
Chlorobenzene	(ug/l)	<1	<1	<1	<1	<1
Chlorobromomethane	(ug/l)	<1	<1	<1	<1	<1
Chloroethane	(ug/l)	<2	<2	<2	<2	<2
Chloroform	(ug/l)	<1	<1	<1	<1	<1
Chloromethane	(ug/l)	<2	<2	<2	<2	<2
cis-1,2-Dichloroethene	(ug/l)	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	(ug/l)	<0.4	<0.4	<0.4	<0.4	<0.4
DBCP	(ug/l)	<5	<5	<5	<5	<5
Dibromochloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	(ug/l)	<1	<1	<1	<1	<1
Dichlorodifluoromethane	(ug/l)	<1*	<1*	<1*	<1*	<1*
Dichloromethane	(ug/l)	<2	<2	<2	<2	<2
Diethyl ether	(ug/l)	<10	<10	<10	<10	<10
Diisopropyl Ether	(ug/l)	<10	<10	<10	<10	<10
Ethylbenzene	(ug/l)	<1	<1	<1	<1	<1
Hexachlorobutadiene	(ug/l)	<0.4	<0.4	<0.4	<0.4	<0.4
Isopropylbenzene	(ug/l)	<1	<1	<1	<1	<1
m/p-xylene	(ug/l)	<2	<2	<2	<2	<2
Methyltert-butylether	(ug/l)	<1	<1	<1	<1	<1
Naphthalene	(ug/l)	<5	<5	<5	<5	<5
n-Butylbenzene	(ug/l)	<1	<1	<1	<1	<1
n-Propylbenzene	(ug/l)	<1	<1	<1	<1	<1
o-Chlorotoluene	(ug/l)	<1	<1	<1	<1	<1
o-Xylene	(ug/l)	<1	<1	<1	<1	<1
p-Chlorotoluene	(ug/l)	<1	<1	<1	<1	<1

**Surface Water Analytical Results  
August 2009**

**Crow Lane Landfill**

Site ID Lab Sample ID		B-SW 24242-10	S-01 24242-6	S-04 24242-2	S-06 24242-8	VERNAL POOL 24242-1
CONSTITUENT	UNITS	8/21/2009	8/21/2009	8/21/2009	8/21/2009	8/21/2009
<b>Method 8260</b>						
sec-Butylbenzene	(ug/l)	<1	<1	<1	<1	<1
Styrene	(ug/l)	<1	<1	<1	<1	<1
tert-AmylMethyl Ether	(ug/l)	<5	<5	<5	<5	<5
tert-Butylbenzene	(ug/l)	<1	<1	<1	<1	<1
tert-ButylEthyl Ether	(ug/l)	<5	<5	<5	<5	<5
Tetrachloroethene	(ug/l)	<1	<1	<1	<1	<1
Tetrahydrofuran	(ug/l)	<10	<10	<10	<10	<10
Toluene	(ug/l)	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	(ug/l)	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	(ug/l)	<0.4	<0.4	<0.4	<0.4	<0.4
Trichloroethene	(ug/l)	<1	<1	<1	<1	<1
Trichlorofluoromethane	(ug/l)	<1	<1	<1	<1	<1
Vinyl chloride	(ug/l)	0.6	<0.5	<0.5	<0.5	<0.5
Xylene (total)	(ug/l)	<2	<2	<2	<2	<2
<b>EPH</b>						
2-Methylnaphthalene	(ug/l)	<10	<10	<10	<10	<11
Acenaphthene	(ug/l)	<10	<10	<10	<10	<11
Acenaphthylene	(ug/l)	<10	<10	<10	<10	<11
Anthracene	(ug/l)	<10	<10	<10	<10	<11
Benzo(a)anthracene	(ug/l)	<10	<10	<10	<10	<11
Benzo(a)pyrene	(ug/l)	<10	<10	<10	<10	<11
Benzo(b)fluoranthene	(ug/l)	<10	<10	<10	<10	<11
Benzo(ghi)perylene	(ug/l)	<10	<10	<10	<10	<11
Benzo(k)fluoranthene	(ug/l)	<10	<10	<10	<10	<11
Chrysene	(ug/l)	<10	<10	<10	<10	<11
Fluoranthene	(ug/l)	<10	<10	<10	<10	<11
Fluorene	(ug/l)	<10	<10	<10	<10	<11
Indeno(1,2,3-cd)pyrene+Dibenz(a,h)anthracene	(ug/l)	<10	<10	<10	<10	<11
Naphthalene	(ug/l)	<10	<10	<10	<10	<11
Phenanthrene	(ug/l)	<10	<10	<10	<10	<11
Pyrene	(ug/l)	<10	<10	<10	<10	<11
C9-C18 Aliphatics (FID)	(ug/l)	<100	<100	<100	<100	<110
C19-C36 Aliphatics (FID)	(ug/l)	<100	<100	<100	<100	<110
C11-C22 Aromatics	(ug/l)	<100	<100	<100	<100	<110
<b>VPH</b>						
Benzene	(ug/l)	<4	<1	<4	<1	<4
Ethylbenzene	(ug/l)	<4	<1	<4	<1	<4
m/p-xylene	(ug/l)	<8	<2	<8	<2	<8
Methyltert-butylether	(ug/l)	<4	<1	<4	<1	<4
Naphthalene	(ug/l)	<20	<5	<20	<5	<20
o-Xylene	(ug/l)	<4	<1	<4	<1	<4
Toluene	(ug/l)	<4	<1	<4	<1	<4
Xylene (total)	(ug/l)	<8	<2	<8	<2	<8
C5-C8 Aliphatics	(ug/l)	<200	<50	<200	<50	<200
C9-C12 Aliphatics	(ug/l)	<200	<50	<200	<50	<200
C9-C10 Aromatics	(ug/l)	220	<50	<200	<50	<200
<b>PCBs</b>						
Aroclor 1016	(ug/l)	<0.28	<0.29	<0.28	<0.29	<0.29
Aroclor 1221	(ug/l)	<0.28	<0.29	<0.28	<0.29	<0.29
Aroclor 1232	(ug/l)	<0.28	<0.29	<0.28	<0.29	<0.29
Aroclor 1242	(ug/l)	<0.28	<0.29	<0.28	<0.29	<0.29
Aroclor 1248	(ug/l)	<0.28	<0.29	<0.28	<0.29	<0.29
Aroclor 1254	(ug/l)	<0.28	<0.29	<0.28	<0.29	<0.29
Aroclor 1260	(ug/l)	<0.28	<0.29	<0.28	<0.29	<0.29
Aroclor 1262	(ug/l)	<0.28	<0.29	<0.28	<0.29	<0.29
Aroclor 1268	(ug/l)	<0.28	<0.29	<0.28	<0.29	<0.29
PCB's	(ug/l)	<0.28	<0.29	<0.28	<0.29	<0.29

**Surface Water Analytical Results  
August 2009**

**Crow Lane Landfill**

CONSTITUENT	Site ID	B-SW	S-01	S-04	S-06	VERNAL POOL
	Lab Sample ID	24242-10	24242-6	24242-2	24242-8	24242-1
	UNITS	8/21/2009	8/21/2009	8/21/2009	8/21/2009	8/21/2009
<b>Metals</b>						
Arsenic	(ug/l)	57	<10	11	<10	<10
Barium	(ug/l)	110	31	300	40	150
Cadmium	(ug/l)	<1	<1	<1	<1	<1
Chromium	(ug/l)	7.5	<5	7.4	<5	<5
Copper	(ug/l)	<10	<10	<10	<10	<10
Iron	(ug/l)	280	4900	1200	440	1500
Lead	(ug/l)	<5	<5	<5	<5	<5
Manganese	(ug/l)	110	1300	2200	160	7700
Mercury	(ug/l)	<0.2	<0.2	0.28	<0.2	<0.2
Selenium	(ug/l)	<10	<10	<10	<10	<10
Silver	(ug/l)	<5	<5	<5	<5	<5
Zinc	(ug/l)	<50	<50	<50	<50	<50
<b>Miscellaneous</b>						
Alkalinity (as CaCO3)	(mg/l)	710	34	620	73	490
BOD	(mg/l)	---	---	---	---	12
Chloride	(mg/l)	140	280	430	300	210
COD	(mg/l)	120	49	170	<20	210
Nitrate	(mg/l)	<0.05H	0.23H	1.2H	0.62H	<0.05H
Total dissolved solids (TDS)	(mg/l)	1800	730	1600	1000	1600
Total Suspended Solids	(mg/l)	---	---	---	---	24
Cyanide	(mg/l)	<0.01	<0.01	<0.01	<0.01	<0.01
Sulfate	(mg/l)	330	5.1	61	37	350
1,4-Dioxane	(ug/l)	<3	<3	9.1	<3	<3

**Notes:**

ug/l = micrograms per liter

mg/l = milligrams per liter

\* = LCS or LCSD exceeds the control limits.

H = Sample analyzed past method hold time.

--- = Constituent not sampled for.

Groundwater and Leachate Tank Analytical Results  
August 2009

Crow Lane Landfill

Sample Type	Site ID Lab Sample ID	Groundwater						Leachate Tank		Leachate Tank	
		MW-01 24256-5 8/24/2009	MW-02 24256-6 8/24/2009	MW-03D 24256-4 8/24/2009	MW-03S 24256-3 8/24/2009	MW-04D 24256-2 8/24/2009	MW-04S 24256-1 8/24/2009	TANK-02 24256-9 8/24/2009	TANK-03 24256-8 8/24/2009	TANK-04 24256-10 8/24/2009	TANK-05 24256-7 8/24/2009
CONSTITUENT	UNITS										
<b>Method 8260</b>											
1,1,1,2-Tetrachloroethane	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromoethane (EDB)	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.5
1,2-Dichloropropane	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dioxane	(ug/l)	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
2,2-Dichloropropane	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Isopropyltoluene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.1
4-Methyl-2-pentanone	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	(ug/l)	<50	<50	<50	<50	<50	<50	<50*	<50*	<50*	<50*
Benzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	2.1	<1
Bromobenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	(ug/l)	<2*	<2*	<2*	<2*	<2*	<2*	<2*	<2*	<2*	<2*
Carbon tetrachloride	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbondisulfide	(ug/l)	<10*	<10	<10*	<10*	<10*	<10*	<10	<10	<10	<10
Chlorobenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobromomethane	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	(ug/l)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Chloroform	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	(ug/l)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
cis-1,2-Dichloroethene	(ug/l)	<1	<1	<1	<1	10	11	<1	<1	<1	1.2
cis-1,3-Dichloropropene	(ug/l)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
DBCP	(ug/l)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	(ug/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	(ug/l)	<1*	<1	<1*	<1*	<1*	<1*	<1	<1	<1	<1
Dichloromethane	(ug/l)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Diethyl ether	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Diisopropyl Ether	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	(ug/l)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Isopropylbenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
m/p-xylene	(ug/l)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Methyltert-butylether	(ug/l)	<1	<1	1.2	<1	<1	<1	<1	<1	1.6	<1

**Groundwater and Leachate Tank Analytical Results  
August 2009**

**Crow Lane Landfill**

Sample Type	Site ID Lab Sample ID	Groundwater						Leachate Tank		Leachate Tank	
		MW-01 24256-5 8/24/2009	MW-02 24256-6 8/24/2009	MW-03D 24256-4 8/24/2009	MW-03S 24256-3 8/24/2009	MW-04D 24256-2 8/24/2009	MW-04S 24256-1 8/24/2009	TANK-02 24256-9 8/24/2009	TANK-03 24256-8 8/24/2009	TANK-04 24256-10 8/24/2009	TANK-05 24256-7 8/24/2009
CONSTITUENT	UNITS										
Naphthalene	(ug/l)	<5	<5	<5	<5	<5	<5	<5	<5	14	7.7
n-Butylbenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-Chlorotoluene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
o-Xylene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.2
p-Chlorotoluene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Styrene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
tert-AmylMethyl Ether	(ug/l)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
tert-Butylbenzene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
tert-ButylEthyl Ether	(ug/l)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrahydrofuran	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	10
Toluene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	3.8
trans-1,2-Dichloroethene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	(ug/l)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Trichloroethene	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	(ug/l)	<1	<1*	<1	<1	<1	<1	<1*	<1*	<1*	<1*
Vinyl chloride	(ug/l)	<0.5	<0.5	<0.5	<0.5	0.9	2.9	0.82	1.6	7.1	9.4
Xylene (total)	(ug/l)	<2	<2	<2	<2	<2	<2	<2	<2	<2	[1.2]
<b>EPH</b>											
2-Methylnaphthalene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acenaphthene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	13	<10
Acenaphthylene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Anthracene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzo(a)anthracene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzo(a)pyrene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzo(b)fluoranthene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzo(ghi)perylene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzo(k)fluoranthene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chrysene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Fluoranthene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Fluorene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene+Dibenz(a,h)anthracene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Naphthalene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Phenanthrene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Pyrene	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
C9-C18 Aliphatics (FID)	(ug/l)	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C19-C36 Aliphatics (FID)	(ug/l)	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C11-C22 Aromatics	(ug/l)	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
<b>VPH</b>											
Benzene	(ug/l)	<1	<1	<1	<1	<1	<10	<5	<5	<10	<10
Ethylbenzene	(ug/l)	<1	<1	<1	<1	<1	<10	<5	<5	<10	<10
m/p-xylene	(ug/l)	<2	<2	<2	<2	<2	<20	<10	<10	<20	<20
Methyltert-butylether	(ug/l)	<1	<1	<1	<1	<1	<10	<5	<5	<10	<10
Naphthalene	(ug/l)	<5	<5	<5	<5	<5	<50	<25	<25	<50	<50
o-Xylene	(ug/l)	<1	<1	<1	<1	<1	<10	<5	<5	<10	<10
Toluene	(ug/l)	<1	<1	<1	<1	<1	<10	<5	<5	<10	<10
Xylene (total)	(ug/l)	<2	<2	<2	<2	<2	<20	<10	<10	<20	<20
C5-C8 Aliphatics	(ug/l)	<50	<50	<50	<50	<50	<500	<250	<250	<500	<500
C9-C12 Aliphatics	(ug/l)	<50	<50	<50	<50	<50	<500	<250	<250	<500	<500
C9-C10 Aromatics	(ug/l)	<50	<50	<50	<50	<50	<500	<250	<250	<500	<500
<b>PCBs</b>											

Groundwater and Leachate Tank Analytical Results  
August 2009

Crow Lane Landfill

Sample Type	Site ID Lab Sample ID	Groundwater						Leachate Tank		Leachate Tank	
		MW-01 24256-5 8/24/2009	MW-02 24256-6 8/24/2009	MW-03D 24256-4 8/24/2009	MW-03S 24256-3 8/24/2009	MW-04D 24256-2 8/24/2009	MW-04S 24256-1 8/24/2009	TANK-02 24256-9 8/24/2009	TANK-03 24256-8 8/24/2009	TANK-04 24256-10 8/24/2009	TANK-05 24256-7 8/24/2009
CONSTITUENT	UNITS										
Aroclor 1016	(ug/l)	<0.31	<0.32	<0.3	<0.3	<0.3	<0.3	<0.3	<0.31	<0.32	<0.3
Aroclor 1221	(ug/l)	<0.31	<0.32	<0.3	<0.3	<0.3	<0.3	<0.3	<0.31	<0.32	<0.3
Aroclor 1232	(ug/l)	<0.31	<0.32	<0.3	<0.3	<0.3	<0.3	<0.3	<0.31	<0.32	<0.3
Aroclor 1242	(ug/l)	<0.31	<0.32	<0.3	<0.3	<0.3	<0.3	<0.3	<0.31	<0.32	<0.3
Aroclor 1248	(ug/l)	<0.31	<0.32	<0.3	<0.3	<0.3	<0.3	<0.3	<0.31	<0.32	<0.3
Aroclor 1254	(ug/l)	<0.31	<0.32	<0.3	<0.3	<0.3	<0.3	<0.3	<0.31	<0.32	<0.3
Aroclor 1260	(ug/l)	<0.31	<0.32	<0.3	<0.3	<0.3	<0.3	<0.3	<0.31	<0.32	<0.3
Aroclor 1262	(ug/l)	<0.31	<0.32	<0.3	<0.3	<0.3	<0.3	<0.3	<0.31	<0.32	<0.3
Aroclor 1268	(ug/l)	<0.31	<0.32	<0.3	<0.3	<0.3	<0.3	<0.3	<0.31	<0.32	<0.3
PCB's	(ug/l)	<0.31	<0.32	<0.3	<0.3	<0.3	<0.3	<0.3	<0.31	<0.32	<0.3
<b>Metals</b>											
Arsenic	(ug/l)	<10	24	<10	<10	22	13	<10	<10	<10	28
Barium	(ug/l)	52	120	69	39	49	86	120	120	1800	170
Cadmium	(ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium	(ug/l)	78	28	<5	5.8	<5	<5	<5	<5	16	11
Copper	(ug/l)	52	21	<10	<10	<10	<10	<10	<10	<10	<10
Iron	(ug/l)	12000	29000	1700	4600	1900	7100	11000	1600	2900	1200
Lead	(ug/l)	<5	11	<5	<5	<5	<5	<5	<5	<5	<5
Manganese	(ug/l)	5800	940	2900	230	1300	1500	500	400	430	1700
Mercury	(ug/l)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Selenium	(ug/l)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Silver	(ug/l)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Zinc	(ug/l)	<50	61	<50	<50	<50	<50	<50	<50	<50	<50
<b>Miscellaneous</b>											
Alkalinity (as CaCO3)	(mg/l)	170	190	140	21	180	740	260	510	2100	1500
Chloride	(mg/l)	11	40	360	9.5	100	330	5	11	590	92
COD	(mg/l)	67	25	<20	<20	21	73	37	44	380	190
Cyanide	(mg/l)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.021
Nitrate	(mg/l)	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.78	<0.05
Total dissolved solids (TDS)	(mg/l)	320	310	970	84	360	1400	360	730	2300	2100
Sulfate	(mg/l)	73	35	33	9.7	32	130	32	130	36	300
1,4-Dioxane (SIM Method)	(ug/l)	<3	<3	<3	<3	5.7	9.4	<3	<3	30	4.7

**Notes:**

ug/l = micrograms per liter

mg/l = milligrams per liter

\* = LCS or LCSD exceeds the control limits.

**APPENDIX B**  
**LABORATORY ANALYTICAL REPORTS**