Cortland County Soil and Water Conservation District
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SWCD...established to promote the conservation and wise use of our county's natural resources

May 20, 2010

Joe Yavonditte
Chief, Remedial Section B
Remedial Bureau A
Div. of Environmental Remediation
625 Broadway
Albany, NY 12233-7015

Dear Mr. Yavonditte:

Enclosed is a report summarizing groundwater monitoring activities at the Towslee Landfill in Cortland County. The report covers data collected in Quarters 3 and 4 of 2009, and serves as the annual summary of all four quarters of monitoring in 2009. Cortland County Soil and Water Conservation District prepared this report for Don Chambers, Superintendent of Cortland County Highway Department.

Please contact our office at (607) 756-5991, or Don Chambers at (607) 753-9377, if you have any questions.

Sincerely,

Patrick Reidy
Water Quality Specialist

cc: Don Chambers w/ report
Tim DiGiulio, NYSDEC Region 7 w/ report
Amanda Barber, SWCD/files w/out report

Environmental Monitoring Report
2009 Quarters 3 and 4
and Annual Summary

Cortland County Towslee Landfill

Town Line Road
Cortland County, New York

NYSDEC Region 7

Prepared for:

Cortland County Highway Department
Traction Drive
Cortland, NY 13045

Prepared by:

Cortland County Soil and Water Conservation District
100 Grange Place
Cortland, NY 13045

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1.0 Introduction

Cortland County is the current owner of the inactive Towslee Landfill located at the county's solid waste disposal site in the Towns of Cortlandville and Solon, near the center of the county. The Towslee Landfill has previously been called the Old County Landfill, and the Town Line Landfill. It is referred to as the Towslee Landfill in this report. This report summarizes groundwater quality monitoring activities at the Towslee Landfill for Quarters 3 and 4 of 2009, and serves as an annual report for the Towslee Landfill.

The Towslee Landfill is designated by New York State Department of Environmental Conservation (NYSDEC) as a Class 2 inactive hazardous waste disposal site, and has been listed in the Registry of Inactive Hazardous Waste Disposal Sites (#7-12-001). NYSDEC issued an Order of Consent (#B7-0486-12-95), effective May 31, 1996, making it the responsibility of Cortland County to develop and enact a remedial investigation plan towards the closure and cleanup of the facility.

Barton & Loguidice (B&L) completed a remedial investigation report in March 1998 that included the results of a hydrogeologic investigation and a "limits of waste" investigation, among other things. Groundwater monitoring wells were installed and tested as part of this investigation.

In a letter dated November 7, 2005, NYSDEC outlined minimum sampling requirements for the Towslee landfill. As a result, Cortland County initiated quarterly monitoring in 2006 at seven groundwater monitoring wells. Proposed monitoring locations were identified by Cortland County Soil and Water Conservation District, and submitted to NYSDEC for review in a letter dated February 17, 2006.

Upstate Laboratories, Inc. (herein referred to as Upstate Labs) conducted all sample collection activities, and performed all laboratory analyses for Quarters 3 and 4. Water quality analyses were conducted in accordance with 1998 Part 360 regulations. SWCD performed data management and analysis, and prepared this report.

2.0 Site History

The site was a private disposal facility starting in the 1940s. The City of Cortland leased the site for municipal disposal in the mid-1960s in the portion of the site now referred to as the Abandoned City of Cortland Landfill. Cortland County purchased the site in 1972. In April 1972 the County began landfill operations north of the Abandoned City operation. The County stopped disposing of municipal solid waste at this site in 1987, but continued to dispose of construction debris until early 1992.

Based on landfill records, hazardous wastes were believed to have been deposited at the site. The wastes were believed to have been generated by one or more local industries. B&L delineated the limits of hazardous waste associated with the site. Figure 1 shows well locations monitored for this program, and approximate limits of hazardous waste. The B&L Remedial Investigation concluded

that in 1997 there was mild landfill leachate contamination of groundwater in the vicinity of Wells MW-2A/B and MW-7A. Very mild impacts from leachate contamination occurred in the vicinity of Well MW-1A. Groundwater contamination occurred primarily in the overburden, and extended downgradient of the site for a distance of about 450 feet.

Based on 1997 monitoring, B&L identified the following parameters that were indicative of mild leachate impacts to groundwater:

Conventionals - chloride, COD, ammonia, alkalinity, TKN, TOC, and hardness

Metals - aluminum, arsenic, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, potassium, sodium, vanadium, and zinc

3.0 Monitoring Schedule and Locations

3.1 Schedule

Quarter	Analyses	Date Sampled
First Quarter:	Baseline	March 12, 2009
Second Quarter:	Routine	June 17, 2009
Third Quarter:	Routine	September 30, 2009
Fourth Quarter:	Routine	December 1, 2009

3.2 Groundwater Monitoring Locations

Seven downgradient wells were sampled as part of the Towslee monitoring program. Well locations are shown on Figure 1. Four of the wells are finished in bedrock, and three are finished in overburden, as described below:

Bedrock	Overburden
MW-1B	MW-1A
MW-2B	MW-2A
MW-3A	MW-7A
MW-6B	

4.0 Assessment of Monitoring Results

This section provides an evaluation of groundwater monitoring results for all four Quarters of 2009. Groundwater quality data are compared to NYS water quality standards to assess current conditions. Recent data are also compared to past data to evaluate trends.

- Appendix A contains the Quarter 3 laboratory analytical report.
- Appendix B contains the Quarter 4 laboratory analytical report.
- Appendix C contains tables of historical water quality data for each monitoring well.
- Appendix D contains summary tables of historical data for each of the parameters identified by B&L as indicative of mild leachate contamination.

Note that Quarter 1 and Quarter 2 laboratory reports were presented in a previous report.

4.1 Contraventions of Water Quality Standards

This subsection compares 2009 groundwater quality data to NYS water quality standards.

Tables 1 and 2 summarize water quality results for Quarter 1.
Tables 3, 4 and 5 summarize water quality results for Quarter 2.
Tables 6 and 7 summarize water quality results for Quarter 3.
Tables 8 and 9 summarize water quality results for Quarter 4.

Available NYS water quality standards are included in these tables, and contraventions of standards are highlighted.

Concentrations for most parameters in all four quarters of 2009 were below available water quality standards at all wells, although there continues to be evidence of mild landfill leachate contamination. Contraventions of standards are described below.

4.1.1 Conventionals and Field Parameters

pH - The acceptable range for pH is between 6.5 and 8.5. No pH contraventions were observed in Quarter 1 and 4. In Quarter 2, pH was slightly below this range for MW-2A (6.44) and MW-2B (6.43). In Quarter 3, pH was slightly below this range for MW-2B (6.47).

Color – The color standard is 15 standard units (SU). Color was only measured for the Baseline round of Quarter 2. The color standard was exceeded for three wells: (MW-1A at 18 SU, MW-2A at 65 SU, and MW-7A at 80 SU).

Turbidity – Turbidity exceeded the NYS standard of 5 NTU for most or all wells in the four quarters of 2009:

Quarter 1 - contraventions in 6 of 7 wells ranging from about 6 to 41 NTU.
Quarter 2 - contraventions in 4 of 7 wells ranging from about 8 to 375 NTU.
Quarter 3 - contraventions in 7 of 7 wells ranging from about 5 to 34 NTU.
Quarter 4 - contraventions in 7 of 7 wells ranging from about 13 to 47 NTU.

Based on separate monitoring conducted at the closed Pine Tree Landfill, and the active West Side Landfill, natural groundwater in this area appears to have elevated turbidity.

Total Dissolved Solids (TDS) - The TDS standard of 500 mg/l has been consistently exceeded for the same two wells, and this trend continued in 2009.

	MW-2B	MW-7A
Quarter 1	872	748
Quarter 2	870	720
Quarter 3	860	620
Quarter 4	680	640

Ammonia - The ammonia standard of 2 mg/l was exceeded at MW-2A for all four Quarters in 2009:

Quarter 1 - 8.43 mg/l
Quarter 2 - 11.8 mg/l
Quarter 3 - 10.3 mg/l
Quarter 4 - 8.75 mg/l

Ammonia at MW-2A also exceeded the standard for all previous monitoring events.

4.1.2 Metals

Total Barium – The barium water quality standard of 1 mg/l was exceeded for a single well in Quarter 2 (MW-2B at 1.43 mg/l), as it has in all previous monitoring events for which it was analyzed.

Total Iron - The NYS standard for iron is 0.3 mg/l. The standard was frequently exceeded in all quarters of 2009, as it has in past monitoring at Towslee. A summary of 2009 contraventions for total (unfiltered) iron is as follows:

Quarter 1 - contraventions in 6 of 7 wells ranging from about 0.32 to 7.8 mg/l.
Quarter 2 - contraventions in 5 of 7 wells ranging from about 0.46 to 10.1 mg/l.
Quarter 3 - contraventions in 3 of 7 wells ranging from about 0.35 to 5.2 mg/l.
Quarter 4 - contraventions in 6 of 7 wells ranging from about 0.42 to 6.7 mg/l.

Note that in Quarter 2, dissolved metals were analyzed for Well MW-7A because turbidity

exceeded 50 NTU. Total iron for this well was 10.1 mg/l, while dissolved iron was below the detection limit of 0.06 mg/l.

Total Manganese - The NYS standard for manganese is 0.3 mg/l. The manganese standard was frequently exceeded in 2009, as has been the case in past monitoring. A summary of 2009 contraventions for total (unfiltered) manganese is as follows:

Quarter 1 - contraventions in 3 of 7 wells ranging from about 4.3 to 10.7 mg/l.
Quarter 2 - contraventions in 3 of 7 wells ranging from about 4.3 to 9.3 mg/l.
Quarter 3 - contraventions in 4 of 7 wells ranging from about 0.33 to 11.4 mg/l.
Quarter 4 - contraventions in 4 of 7 wells ranging from about 0.6 to 9.3 mg/l.

In Quarter 2, total manganese for MW-7A was 4.21 mg/l, while dissolved manganese was 3.78 mg/l.

Sodium – The NYS sodium standard is 20 mg/l, and is relevant for people on severely restricted sodium diets. Contraventions in 2009 were as follows:

	MW-2A	MW-2B	MW-7A
Quarter 1:	--	49.3	97
Quarter 2:	23.8	55.4	103
Quarter 3:	21.1	58.6	110
Quarter 4:	--	49.0	105

All values in mg/l

These results are consistent with past monitoring. Elevated sodium may be at least partially related to deicing activities on the road network within the landfill.

4.1.3 Volatile Organics (VOCs)

VOC testing was conducted during the Baseline round of Quarter 2.

Vinyl chloride was detected in two wells in Quarter 2: MW-2B at 12 ug/l and MW-7A at 5.7 ug/l. These results are above the drinking water MCL of 2 ug/l for vinyl chloride.

Chloroethane was detected in Well MW-2B at 5.9 ug/l. This result is slightly above the drinking water MCL of 5 ug/l.

cis-1,2-dichloroethene was detected in Wells MW-2B (19 ug/l) and MW-7A (5.4 ug/l). Each of these results are above the drinking water MCL of 5 ug/l for cis-1,2-dichloroethene.

Toluene was detected in MW-3A at 82 ug/l. This is above the drinking water MCL of 5 ug/l.

There were no other contraventions of NYS water quality standards in 2009.

4.2 Trends

The seven wells that are sampled as part of the current Towslee monitoring program were previously sampled twice in 1997, and four times each in 2006 through 2009. The entire historical record is tabulated in Appendix C, with results organized by monitoring well.

As described in Section 2, B&L identified a subset of parameters that suggested mild leachate impacts to groundwater, based on 1997 monitoring. For this report, these parameters are described as contaminants of concern (COCs). Appendix D contains summary tables of historical results for each COC, up to and including 2009 results. The tables present results for all seven monitoring wells to assist in evaluating trends.

Previous reporting described a significant improvement in groundwater quality downgradient of the Towslee landfill between 1997 and 2006, which continued through 2007-08.

The 2009 results indicate that overall groundwater quality remains improved compared to 1997 results. Groundwater quality is generally improving, or has remained stable over the past 3-4 years.

The following sections describe trends for the COCs and for VOCs.

4.2.1 Trends for Conventionals

B&L identified the following conventionals as suggestive of mild landfill leachate contamination: alkalinity, chloride; hardness; ammonia; TKN; COD; and TOC.

- Alkalinity continues to be generally lower than 1997 levels, and fairly stable over the past 3-4 years.
- Chloride levels continue to be significantly lower than 1997 levels.
- Hardness levels continue to be much lower than in 1997, and fairly stable over the past 3-4 years.
- Well MW-2A continues to have elevated ammonia levels, but continues to show an overall slowly decreasing trend over time. MW-2B is the only other well at which ammonia was detected in the past several years. Ammonia levels at MW-2B have been fairly stable over time, and below the water quality standard of 2 mg/l.
- TKN levels in general show an overall decreasing trend over time. TKN results for MW-2A are elevated, but show an overall decreasing trend. TKN at MW-3A fluctuates more than at other wells, with no clear trend either up or down.
- COD continues to show an overall decrease compared to 1997 levels, with many results below the detection limit in recent years. COD at MW-3A fluctuates over time, with no clear trend up or down.

- Total Organic Carbon (TOC) - TOC has been below the detection limit at MW-1A, MW-1B and MW-6B for the past several years. TOC at MW-2A, MW-2B and MW-7A has decreased compared to 1997 levels, and has been relatively stable in the past 3-4 years. TOC at MW-3A fluctuates over time, with no clear trend up or down.

- For all other conventionals, the results for 2009 are lower than or similar to past results.

4.2.2 Trends for Total Metals

B&L identified the following metals as suggestive of mild landfill leachate contamination:

aluminum	cobalt	magnesium	vanadium
arsenic	copper	manganese	zinc
calcium	iron	potassium	
chromium	lead	sodium	

All of these metals were analyzed under the Baseline round of Quarter 2 in 2009. For the Routine events (Quarters 1, 3 and 4), the only metals analyzed were calcium, iron, lead, magnesium, manganese, potassium, and sodium.

- Aluminum levels continue to show a significant decrease through 2009, compared to 1997. A high total aluminum level was observed at MW-7A in Quarter 2, but the dissolved aluminum level was below the detection limit.

- Arsenic levels have decreased over time, and were below the detection limit for all seven wells in 2009.

- Calcium levels continue to show an overall decrease through 2009, compared to 1997 levels, and have been relatively stable over the past 3-4 years.

- Chromium levels have decreased over time, and all were below the detection limit in 2009.

- Cobalt has been below the detection limit for all wells since sampling resumed in 2006.

- Copper has been below the detection limit for all wells sampled for the past 3 years.

- Iron continues to show an overall decrease compared to 1997 levels. Variability in total iron levels over the past 3-4 years is likely due to varying amounts of particulate in samples.

- Lead levels are generally below the detection limit, and where detected, continue to show an overall decrease through 2009, compared to 1997.

- Magnesium levels continue to show an overall decrease compared to 1997 observations, and have been fairly stable over the past few years.

- Manganese continues to show an overall decrease compared to 1997 levels, except for an elevated observation in Quarter 4 of 2009 at MW-1B. The cause of the high reading at MW-1B is unknown.

- Potassium levels continue to show an overall decrease through 2009, compared to 1997, except for an elevated result at MW-1B in Quarter 4. The reason for the elevated reading at MW-1B is unknown.

- Sodium levels have continued to show a general decrease through 2009, or have remained fairly stable.

- Vanadium levels have been below the detection limit at all wells since sampling resumed in 2006.

- Zinc levels have generally decreased over time, compared to 1997 levels. Zinc was below the detection limit at 6 of 7 wells in 2009.

4.2.3 Trends for Organics

There are 13 different VOCs from the current EPA 8260 Method that have been detected in one or more of the seven monitoring wells. Evaluation of trends focuses on these 13 VOCs. The historical database in Appendix C presents results for these VOCs from 1997 to the present.

VOCs were analyzed in Q2 of 2009, and measured a total of seven times since 1997.

Since 1997, four wells have had no VOC contamination, or had sporadic low level detections. For the other three wells, a few VOCs have been detected at low concentrations fairly consistently since 1997. Below is a summary of VOC trends for each well.

MW-1A –VOCs were not detected in any well in 2009, nor in any previous monitoring.

MW-1B –VOCs were not detected in any well in 2009. The only previous VOC detected at this well is a suspected artifact of laboratory contamination in 2008.

MW-2A – Chlorobenzene was reported at 3 ug/l in 2009, but is "estimated" because it was below the detection limit. VOCs in general have decreased at this well since several were detected at low levels in 1997.

MW-2B – Vinyl chloride (12 ug/l), chloroethane (5.9 ug/l) and cis-1,2-dichloroethene (19 ug/l) were detected in 2009. Low level VOC contamination persists at this well.

MW-3A – In 2009, acetone, a common laboratory contaminant, was detected at 24 ug/l, and toluene was detected at 82 ug/l. Toluene had not been detected at this well in the past. One or

two VOCs have been detected at this well in three of six monitoring events since 1997. There is no apparent pattern to the results.

MW-6B - no VOCs were detected in any well in 2009. The only previous VOC detected at this well is a suspected artifact of laboratory contamination in 2008.

MW-7A – Low levels of vinyl chloride, cis-1,2-dichloroethene, and 1,1-dichloroethane persist at this well. There is no significant trend, either up or down.

5.0 Quality Control

Quality control samples and data validation are discussed below.

5.1 Quality Control Samples

Duplicate samples were collected for Quarters 1 through 4. Relative Percent Differences (RPDs) were generally less than 20%.

- The RPD for total iron in Quarter 1 was above 20 percent, and may be due to different amounts of particulate in split samples.
- The RPDs for total aluminum, iron, manganese and zinc in Quarter 2 were above 20 percent. These results may be due to differences in the amount of particulate in split samples.
- The sulfate RPD in Quarter 3 was 55%. The reason for this elevated RPD is unknown.
- The sulfate RPD in Quarter 4 was 102%. The reason for the elevated RPD is unknown. The RPD for total iron in Quarter 4 was above 20 percent, and may be due to different amounts of particulate in split samples. The RPD for TDS was above 20% in Quarter 4. The cause is unknown.

A trip blank and holding blank associated with VOC testing were analyzed for Quarter 2. All results were below the detection limit.

5.2 Data Validation

Upstate Labs performed internal data validation for the four Quarters of monitoring in 2009. The results generally met acceptance criteria. Summaries of Upstate Labs internal validation for Quarters 3 and 4 are included in the laboratory reports of Appendix A and B. Summaries of Quarter 1 and 2 were included in a previous monitoring report. We believe the 2009 data are adequate to characterize groundwater quality downgradient of the Towslee landfill.

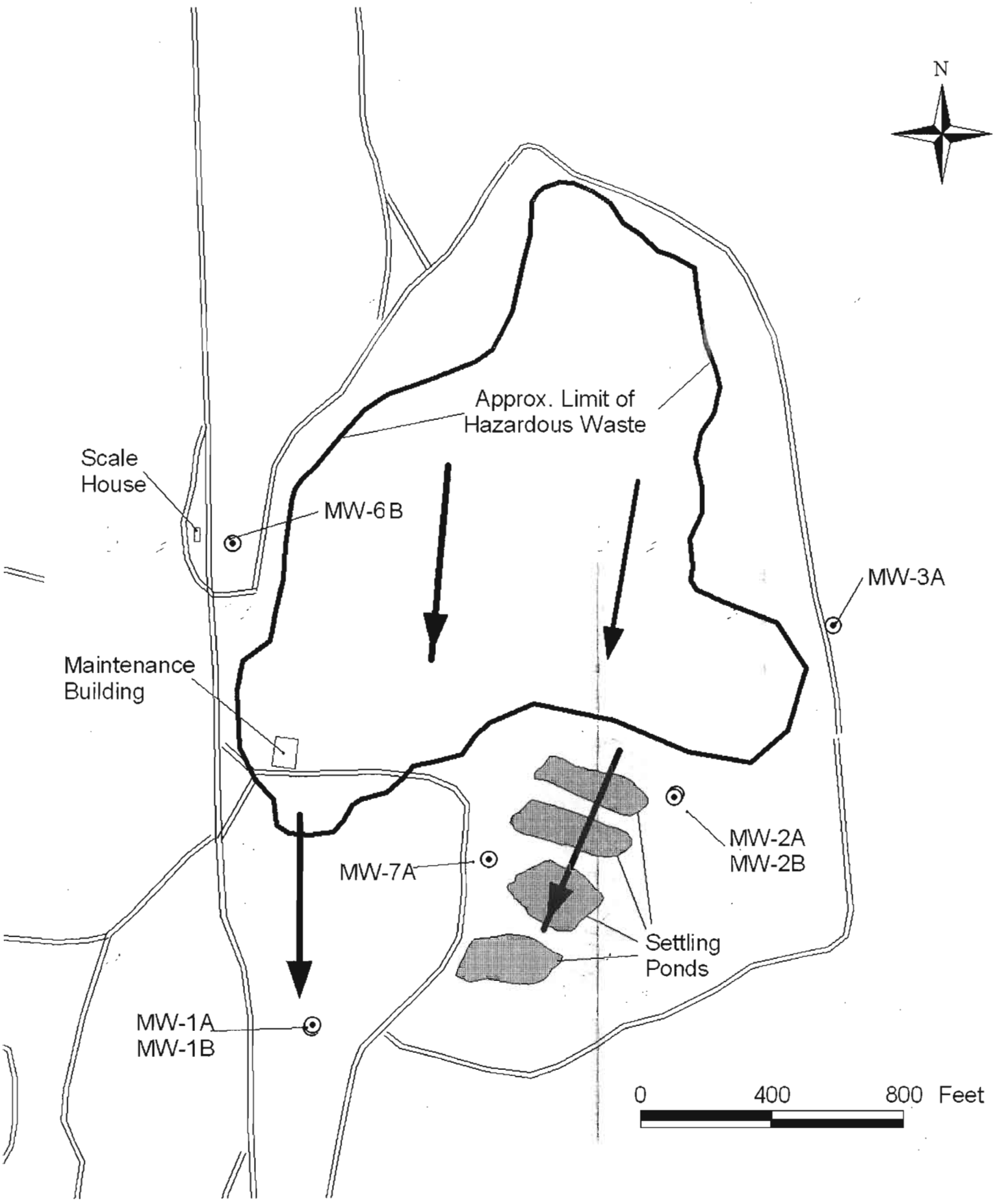


Figure 1.
Monitoring Well Locations
Towslee Landfill

Table 1
Contraventions of NYS Water Quality Standards for Field and Inorganic Parameters
Towslee Landfill - Quarter 1 2009

Parameter	Units	NYS Water Quality Standard		Monitoring Well						
				Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
				MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Temperature	(deg. C)	--		3.6	2.7	3.1	4.9	4.2	6.5	4.2
Eh	(mV)	--		-21	-44	-34	-22	-26	-38	-19
pH	(Std Units)	6.5 - 8.5	a	7.4	7.8	7.63	7.42	7.49	7.7	7.35
Specific Conductance	(uS/cm)	--		344	205	601	1135	1069	327	1014
Color	(Units)	15	a, b	--	--	--	--	--	--	--
Turbidity	(NTU)	5	a	**16.7**	2.47	**5.6**	**11**	**10.9**	**9.56**	**40.9**
Alkalinity, Total (As CaCO3)	(mg/l)	--		130	92 H	320	650	18	120	500
Hardness (As CaCO3)	(mg/l)	--		161	97.1	229	678	38.1	142	496
Total Dissolved Solids	(mg/l)	500	a	256	160	316	**872**	88	188	**748**
Chloride	(mg/l)	250	a, b	30.4	2.86 H	13.7	118	1.85	13.3	114
Sulfate	(mg/l)	250	a, b	14	6.37	<5	<5	7.53	13.2	21
Bromide	(mg/l)	2	a	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2
Nitrogen, Nitrate (As N)	(mg/l)	10	a, b	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nitrogen, Ammonia (As N)	(mg/l)	2 *	a	<0.5	<0.5	**8.43**	0.642	<0.5	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--		<0.5	<0.5	10.3	1.22	<0.5	<0.5	1.92
Chemical Oxygen Demand	(mg/l)	--		<20	<20	<20	<20	<20	<20	<20
Biochemical Oxygen Demand	(mg/l)	--		<4	<4	<4	<4	<4	<4	<4
Organic Carbon, Total	(mg/l)	--		<3	<3	4.8	4.5	<3	<3	5.1
Phenolics, Total Recoverable	(mg/l)	0.001	a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	0.2	a, b	--	--	--	--	--	--	--

a - Part 703 Water Quality Standard (assumes Class GA waters)
b - Part 5 Drinking Water MCL
* Standard is for NH4+ and NH3 combined, as is the laboratory analysis
1.23 indicates contravention of standard.
H - Exceeded hold time
-- not analyzed

Table 2
Contraventions of NYS Water Quality Standards for Metals
Towslee Landfill - Quarter 1 2009

Parameter	NYS Water Quality Standard		Total Metals						
			Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Aluminum	--		--	--	--	--	--	--	--
Antimony	0.003	a	--	--	--	--	--	--	--
Arsenic	0.025	a	--	--	--	--	--	--	--
Barium	1	a	--	--	--	--	--	--	--
Beryllium	0.004	b	--	--	--	--	--	--	--
Boron	1	a	--	--	--	--	--	--	--
Cadmium	0.005	a, b	<0.005	**0.0054**	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--		47.2	27.7	66.7	201	12.3	39.6	140
Chromium	0.05	a	--	--	--	--	--	--	--
Chrom, Hex	0.05	a	--	--	--	--	--	--	--
Cobalt	--		--	--	--	--	--	--	--
Copper	0.2	a	--	--	--	--	--	--	--
Iron	0.3	a, b	**0.818**	**2.92**	**7.77**	**0.466**	**0.6**	0.268	**0.322**
Lead	0.015	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--		10.6	6.76	15.1	42.9	1.82	10.5	35.8
Manganese	0.3	a, b	0.0917	0.223	**10.7**	**6.5**	0.294	0.0257	**4.31**
Mercury	0.0007	a	--	--	--	--	--	--	--
Nickel	0.1	a	--	--	--	--	--	--	--
Potassium	--		1.52	<1	7.48	2.44	<1	1.01	1.62
Sodium	20	a, b	13.4	6.37	17.8	**49.3**	<1	13.1	**97**
Selenium	0.01	a	--	--	--	--	--	--	--
Silver	0.05	a	--	--	--	--	--	--	--
Thallium	0.002	b	--	--	--	--	--	--	--
Vanadium	--		--	--	--	--	--	--	--
Zinc	5	b	--	--	--	--	--	--	--

all units are mg/l

a - Part 703 Water Quality Standard (assumes Class GA waters)

b - Part 5 Drinking Water MCL

1.23 indicates contravention of standard.

-- not analyzed

Table 3
Contraventions of NYS Water Quality Standards for Field and Inorganic Parameters
Towslee Landfill - Quarter 2 2009

Parameter	Units	NYS Water Quality Standard		Monitoring Well						
				Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
				MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Temperature	(deg. C)	--		19.6	18.7	16.5	15.5	14.8	14.1	16.0
Eh	(mV)	--		143	139	239	237	359	186	219
pH	(Std Units)	6.5 - 8.5	a	8.09	8.13	**6.44**	**6.43**	8.16	7.32	6.77
Specific Conductance	(uS/cm)	--		199	124	413	739	187	187	622
Color	(Units)	15	a, b	**18**	9	**65**	8	7	11	**80**
Turbidity	(NTU)	5	a	**23.4**	**8.2**	**40.9**	4.17	4.55	3.62	**375**
Alkalinity, Total (As CaCO3)	(mg/l)	--		100 H	100	360	580	160	140	500
Hardness (As CaCO3)	(mg/l)	--		163	111	295	782	196	154	534
Total Dissolved Solids	(mg/l)	500	a	180	110	220	**870**	120	190 H	**720**
Chloride	(mg/l)	250	a, b	30.7	4.74	20.5	159	9.25	19.4	128
Sulfate	(mg/l)	250	a, b	14.3	5.19	<5	<5	11.2	14.2	22.3
Bromide	(mg/l)	2	a	<2	<0.2	<2	<0.2	<0.2	<2	<0.2
Nitrogen, Nitrate (As N)	(mg/l)	10	a, b	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nitrogen, Ammonia (As N)	(mg/l)	2 *	a	<0.5	<0.5	**11.8**	0.665	<0.5	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--		<0.5	<0.5	13.5	1.19	<0.5	<0.5	0.851
Chemical Oxygen Demand	(mg/l)	--		<20	<20	31	23	<20	<20	38
Biochemical Oxygen Demand	(mg/l)	--		<4	<4	12	<4	<4	<4	<4
Organic Carbon, Total	(mg/l)	--		<3	<3	7.2	5.5	<3	<3	5.7
Phenolics, Total Recoverable	(mg/l)	0.001	a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	0.2	a, b	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

a - Part 703 Water Quality Standard (assumes Class GA waters)
b - Part 5 Drinking Water MCL
* Standard is for NH4+ and NH3 combined, as is the laboratory analysis
1.23 indicates contravention of standard.
H - Exceeded hold time
-- not analyzed

Table 4
Contraventions of NYS Water Quality Standards for Metals
Towslee Landfill - Quarter 2 2009

Parameter	NYS Water Quality Standard		Total Metals							Dissolved Metals
			Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden	Over-burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A	MW-7A
Aluminum	--		1.57	0.255	<0.1	0.235	<0.1	<0.1	9.56	<0.1
Antimony	0.003	a	<0.015	<0.03	<0.03	<0.03	<0.015	<0.03	<0.03	<0.03
Arsenic	0.025	a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Barium	1	a	0.0732	0.232	0.471	**1.43**	0.458	0.404	0.714	0.599
Beryllium	0.004	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Boron	1	a	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
Cadmium	0.005	a, b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--		47	31.4	87.1	237	59.5	42.9	150	140
Chromium	0.05	a	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chrom, Hex	0.05	a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
Cobalt	--		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	0.2	a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	0.3	a, b	**1.65**	**0.523**	**8.28**	**0.464**	0.155	0.104	**10.1**	<0.06
Lead	0.015	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--		11.1	7.83	18.8	45.9	11.6	11.4	38.7	34.1
Manganese	0.3	a, b	0.169	0.25	**12.8**	**6.63**	0.164	0.0585	**4.21**	**3.78**
Mercury	0.0007	a	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	0.1	a	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Potassium	--		1.78	<1	12.4	2.71	<1	1.03	3.58	1.82
Sodium	20	a, b	13.9	8.15	**23.8**	**55.4**	6.81	17.9	**103**	**97.2**
Selenium	0.01	a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver	0.05	a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	0.002	b	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium	--		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Zinc	5	b	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0297	0.0228

all units are mg/l

a - Part 703 Water Quality Standard (assumes Class GA waters)

b - Part 5 Drinking Water MCL

1.23 indicates contravention of standard.

-- not analyzed

Table 5
Contraventions of NYS Water Quality Standards for Organics
Towslee Landfill - Quarter 2 2009

Parameter *	NYS Water Quality Standard		Organics						
			Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Vinyl chloride	2	b	< 5	< 5	< 5	**12**	< 5	< 5	**5.7**
Chloroethane	5	b	< 5	< 5	< 5	**5.9**	< 5	< 5	< 5
Acetone	50	b	< 10	< 10	< 10	< 10	24	< 10	< 10
Methylene chloride	5	b	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	5	b	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	5	b	< 5	< 5	< 5	**19**	< 5	< 5	**5.4**
1,1-Dichloroethane	5	b	< 5	< 5	< 5	< 5	< 5	< 5	5 J
Benzene	1	a	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5	b	< 5	< 5	< 5	< 5	**82**	< 5	< 5
Chlorobenzene	5	b	< 5	< 5	3 J	< 5	< 5	< 5	< 5
Ethylbenzene	5	b	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes, Total	5	b	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,4-Dichlorobenzene	5	b	< 5	< 5	< 5	< 5	< 5	< 5	< 5

all units are ug/l

* List contains only compounds detected in current or past monitoring events

a - Part 703 Water Quality Standard (assumes Class GA waters)

b - Part 5 Drinking Water MCL

1.23 indicates contravention of standard.

J - Estimated, below detection limit

Table 6
Contraventions of NYS Water Quality Standards for Field and Inorganic Parameters
Towslee Landfill - Quarter 3 2009

Parameter	Units	NYS Water Quality Standard		Monitoring Well						
				Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
				MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Temperature	(deg. C)	--		12.6	12.1	13.0	13.2	14.2	12.7	12.6
Eh	(mV)	--		162	155	227	229	219	190	194
pH	(Std Units)	6.5 - 8.5	a	7.67	7.76	6.52	**6.47**	6.69	7.2	7.12
Specific Conductance	(uS/cm)	--		201	1145	382	670	658	1999	644
Color	(Units)	15	a, b	--	--	--	--	--	--	--
Turbidity	(NTU)	5	a	**30.6**	**12.2**	**17.8**	**5.88**	**20.2**	**5.13**	**33.5**
Alkalinity, Total (As CaCO3)	(mg/l)	--		120 H	98	340	650	50	140	480
Hardness (As CaCO3)	(mg/l)	--		158	108	265	755	37.8	148	499
Total Dissolved Solids	(mg/l)	500	a	210	88	310	**860**	100	170	**620**
Chloride	(mg/l)	250	a, b	29.5	6.86	17.7	150	<1	19.7	120
Sulfate	(mg/l)	250	a, b	12.7	10.4	7.79	<5	<5	10.3	19.5
Bromide	(mg/l)	2	a	<2	<0.2	<2	<0.2	<2	<0.2	<2
Nitrogen, Nitrate (As N)	(mg/l)	10	a, b	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nitrogen, Ammonia (As N)	(mg/l)	2 *	a	<0.5	<0.5	**10.3**	0.73	<0.5	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--		<0.5	<0.5	13.1	1.07	0.786	<0.5	0.927
Chemical Oxygen Demand	(mg/l)	--		<20	<20	32	26	40	<20	37
Biochemical Oxygen Demand	(mg/l)	--		<4	<4	<4	<4	8	<4	<4
Organic Carbon, Total	(mg/l)	--		<3	<3	5.9	4.6	9.2	<3	5
Phenolics, Total Recoverable	(mg/l)	0.001	a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	0.2	a, b	--	--	--	--	--	--	--

a - Part 703 Water Quality Standard (assumes Class GA waters)
b - Part 5 Drinking Water MCL
* Standard is for NH4+ and NH3 combined, as is the laboratory analysis
1.23 indicates contravention of standard.
H - Exceeded hold time
-- not analyzed

Table 7
Contraventions of NYS Water Quality Standards for Metals
Towslee Landfill - Quarter 3 2009

Parameter	NYS Water Quality Standard		Total Metals						
			Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Aluminum	--		--	--	--	--	--	--	--
Antimony	0.003	a	--	--	--	--	--	--	--
Arsenic	0.025	a	--	--	--	--	--	--	--
Barium	1	a	--	--	--	--	--	--	--
Beryllium	0.004	b	--	--	--	--	--	--	--
Boron	1	a	--	--	--	--	--	--	--
Cadmium	0.005	a, b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--		46.5	31.1	78.6	227	15.2	42	144
Chromium	0.05	a	--	--	--	--	--	--	--
Chrom, Hex	0.05	a	--	--	--	--	--	--	--
Cobalt	--		--	--	--	--	--	--	--
Copper	0.2	a	--	--	--	--	--	--	--
Iron	0.3	a, b	**0.348**	0.115	**5.21**	0.222	**0.534**	0.0703	0.108
Lead	0.015	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--		10	7.34	16.8	45.6	<1	10.4	34
Manganese	0.3	a, b	0.155	0.149	**11.4**	**6.31**	**0.331**	0.255	**3.8**
Mercury	0.0007	a	--	--	--	--	--	--	--
Nickel	0.1	a	--	--	--	--	--	--	--
Potassium	--		<1	<1	13.6	<1	<1	<1	<1
Sodium	20	a, b	12.5	7.32	21.1	**58.6**	<1	18.5	**110**
Selenium	0.01	a	--	--	--	--	--	--	--
Silver	0.05	a	--	--	--	--	--	--	--
Thallium	0.002	b	--	--	--	--	--	--	--
Vanadium	--		--	--	--	--	--	--	--
Zinc	5	b	--	--	--	--	--	--	--

all units are mg/l

a - Part 703 Water Quality Standard (assumes Class GA waters)

b - Part 5 Drinking Water MCL

1.23 indicates contravention of standard.

-- not analyzed

Table 8
Contraventions of NYS Water Quality Standards for Field and Inorganic Parameters
Towslee Landfill - Quarter 4 2009

Parameter	Units	NYS Water Quality Standard		Monitoring Well						
				Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
				MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Temperature	(deg. C)	--		6.6	7.5	6.4	8.3	9.9	9.0	8.1
Eh	(mV)	--		107	114	143	174	172	180	141
pH	(Std Units)	6.5 - 8.5	a	8.35	8.23	7.78	7.19	7.32	7.09	7.86
Specific Conductance	(uS/cm)	--		862	681	1406	1978	673	1108	217
Color	(Units)	15	a, b	--	--	--	--	--	--	--
Turbidity	(NTU)	5	a	**47.4**	**16.4**	**19.6**	**14**	**22.4**	**13.3**	**40.1**
Alkalinity, Total (As CaCO3)	(mg/l)	--		120	86	280	610	79	140	520
Hardness (As CaCO3)	(mg/l)	--		161	206	95	608	65.4	138	473
Total Dissolved Solids	(mg/l)	500	a	190	110	230	**680**	120	130	**640**
Chloride	(mg/l)	250	a, b	30	4.71	12.5	140	<1	14.7	117
Sulfate	(mg/l)	250	a, b	6.3	18.3	10.2	<5	<5	13.5	23.1
Bromide	(mg/l)	2	a	<2	<0.2	<2	<0.2	<2	<2	<2
Nitrogen, Nitrate (As N)	(mg/l)	10	a, b	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nitrogen, Ammonia (As N)	(mg/l)	2 *	a	<0.5	<0.5	**8.75**	0.696	<0.5	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--		<0.5	<0.5	12.5	1.12	1.36	<0.5	0.599
Chemical Oxygen Demand	(mg/l)	--		<20	<20	26	<20	35	<20	21
Biochemical Oxygen Demand	(mg/l)	--		<4	<4	<4	<4	6	<4	<4
Organic Carbon, Total	(mg/l)	--		<3	<3	6.5	4.6	5.7	<3	5.2
Phenolics, Total Recoverable	(mg/l)	0.001	a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	0.2	a, b	--	--	--	--	--	--	--

a - Part 703 Water Quality Standard (assumes Class GA waters)
b - Part 5 Drinking Water MCL
* Standard is for NH4+ and NH3 combined, as is the laboratory analysis
1.23 indicates contravention of standard.
-- not analyzed

Table 9
Contraventions of NYS Water Quality Standards for Metals
Towslee Landfill - Quarter 4 2009

Parameter	NYS Water Quality Standard		Total Metals						
			Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Aluminum	--		--	--	--	--	--	--	--
Antimony	0.003	a	--	--	--	--	--	--	--
Arsenic	0.025	a	--	--	--	--	--	--	--
Barium	1	a	--	--	--	--	--	--	--
Beryllium	0.004	b	--	--	--	--	--	--	--
Boron	1	a	--	--	--	--	--	--	--
Cadmium	0.005	a, b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--		45	58.7	26.5	178	26.2	38.2	131
Chromium	0.05	a	--	--	--	--	--	--	--
Chrom, Hex	0.05	a	--	--	--	--	--	--	--
Cobalt	--		--	--	--	--	--	--	--
Copper	0.2	a	--	--	--	--	--	--	--
Iron	0.3	a, b	**6.19**	**6.72**	**0.827**	0.235	**1.44**	**0.417**	**1.19**
Lead	0.015	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--		11.9	14.4	7.01	39.7	<5	10.4	35.3
Manganese	0.3	a, b	0.251	**9.34**	0.144	**5.63**	**0.597**	0.167	**3.68**
Mercury	0.0007	a	--	--	--	--	--	--	--
Nickel	0.1	a	--	--	--	--	--	--	--
Potassium	--		<5	8.56	<5	<5	<5	<5	<5
Sodium	20	a, b	12.6	14.9	6.59	**49**	<5	15.8	**105**
Selenium	0.01	a	--	--	--	--	--	--	--
Silver	0.05	a	--	--	--	--	--	--	--
Thallium	0.002	b	--	--	--	--	--	--	--
Vanadium	--		--	--	--	--	--	--	--
Zinc	5	b	--	--	--	--	--	--	--

all units are mg/l

a - Part 703 Water Quality Standard (assumes Class GA waters)

b - Part 5 Drinking Water MCL

1.23 indicates contravention of standard.

-- not analyzed

Appendix A

Analytical Laboratory Results and Internal Quality Control Summary

Quarter 3 2009

Cortland County Towslee Landfill

TOWSLEE Q3 2009

Upstate Laboratories, Inc.

Shipping: 6034 Corporate Dr. * E. Syracuse, NY 13057-1017 * (315) 437-0255 * Fax (315) 437-1209
Mailing: Box 169 * Syracuse, NY 13206
Albany (518) 459-3134 * Binghamton (607) 724-0478 * Buffalo (716) 972-0371
Rochester (866) 437-0255 * New Jersey (908) 581-4285

Mr. Patrick Reidy
Cortland Co. Soil and Water Cons. Dist.
100 Grange Place
Room 202
Cortland, NY 13045

October 19, 2009

RE: Analytical Report:
Towslee Landfill

Order No.: U0910037

Dear Mr. Reidy:

Upstate Laboratories, Inc. received 8 samples on 10/01/09 for the analyses presented in the following report.

All analytical results relate to the samples as received by the laboratory.

All analytical data conforms with standard approved methodologies and quality control. Our quality control narrative will be included should any anomalies occur.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your samples. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,
UPSTATE LABORATORIES, INC.

Anthony J. Scala
Anthony J. Scala
President/CEO

Enclosures: ASP-A Narrative, report, field data, invoice

Upstate Laboratories, Inc.

Shipping: 6034 Corporate Dr. * E. Syracuse, NY 13057-1017 * (315) 437-0255 * Fax (315) 437-1209
Mailing: Box 169 * Syracuse, NY 13206
Albany (518) 459-3134 * Binghamton (607) 724-0478 * Buffalo (716) 972-0371
Rochester (866) 437-0255 * New Jersey (908) 581-4285

Mr. Patrick Reidy
Cortland Co. Soil and Water Cons. Dist.
100 Grange Place
Room 202
Cortland, New York 13045

October 20, 2009

RE: Towslee Landfill, Cortlandville, New York, Samples Collected September 30, 2009
Case Narrative for ULI SDG Number COR27, Workorder #U0910037

The following is a New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP) Category A case narrative for the above referenced project. The test results were subject to an internal validation as described below:

Internal Validation

For each test, the chemist sorted the samples into batches of twenty samples or less and added quality control (QC) samples. The batches were analyzed by USEPA and NYSDEC approved test procedures (Table 1). During the course of the analyses the chemist compared the quality control test results to performance criteria and (if necessary) took corrective actions. At the end of the analysis, the data was assembled into data packages and submitted to the section supervisor for review and approval. On the cover of each data package the analyst described any anomaly that may have occurred and, if it did occur, why the data was still found acceptable. A summary of the comments on the cover sheet of each test from each laboratory follows:

Trace Metals

Test	Batch	Anomaly
Ca,Cd,Pb,Mg,Mn,K,Na	R46236	Criteria were satisfied.
Fe,Pb	R46269	Criteria were satisfied.

Wet Chemistry

Test	Batch	Anomaly
BOD	R46011	Criteria were satisfied.
Nitrate-Nitrogen	R45874	Criteria were satisfied.
COD	R45967	Criteria were satisfied.
TKN	R46010	Criteria were satisfied.
Bromide	R45948	Sample location MW-6B DUPE was reanalyzed for Bromide in analytical sequence R46132. All other criteria were satisfied.
	R46132	Sample location MW-6B DUPE was reanalyzed for Bromide within ASP holding time due to an inconsistent sample result when compared with past data. All other criteria were satisfied.

The total number of pages in this Data Package is : 4.

Wet Chemistry (continued)

Test	Batch	Anomaly
TDS	R45938	The Duplicate %RPD for TDS was outside QC acceptance limits for the Duplicate performed on sample location MW-1B. The concentration of TDS in sample location MW-1B was less than 5X the PQL; therefore, the data should be considered valid. All other criteria were satisfied.
Sulfate	R45940	Criteria were satisfied.
Alkalinity, Total	R45903	Sample location MW-1B was reanalyzed for Total Alkalinity in analytical sequence R46331. All other criteria were satisfied.
	R46331	Sample location MW-1B was reanalyzed for Total Alkalinity over ASP holding time; however, the original analysis was performed within ASP holding time. All other criteria were satisfied.
Chloride	R45902	Criteria were satisfied.
Phenols, Total	R45908	Sample locations MW-2A and MW-2B were reanalyzed for Total Phenols in analytical sequence R46111. All other criteria were satisfied.
	R46111	Sample locations MW-2A and MW-2B were reanalyzed for Total Phenols within ASP holding time due to inconsistent sample results when compared with past data. All other criteria were satisfied.
Ammonia-Nitrogen	R46010	Criteria were satisfied.
	R46045	Criteria were satisfied.
	R46047	The CCV2 recovery for Ammonia was below QC acceptance limits. All other criteria were satisfied.
TOC	R45906	Criteria were satisfied.

Should questions arise please do not hesitate to call the Environmental Project Coordinator (EPC) assigned to your job or myself.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and/or in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Sincerely,
UPSTATE LABORATORIES, INC.

Anthony J. Scala

Anthony J. Scala
Director

COR27A

Table 1
Methodologies

The analyses were performed using test methods developed by the USEPA and reorganized by the NYSDEC in the Analytical Services Protocol (ASP). The specific method numbers are:

Parameter	Method	Reference
Cadmium	200.7	(1)
Calcium	200.7	(1)
Iron	200.7	(1)
Lead	200.7	(1)
Magnesium	200.7	(1)
Manganese	200.7	(1)
Potassium	200.7	(1)
Sodium	200.7	(1)
BOD	405.1	(1)
Nitrate-Nitrogen	353.2	(1)
Alkalinity, Total	310.2	(1)
Chloride	325.2	(1)
COD	410.4	(1)
Ammonia-Nitrogen	350.1	(1)
Sulfate	375.4	(1)
TDS	160.1	(1)
TKN	351.2	(1)
TOC	415.1	(1)
Phenols	420.4	(1)
Bromide	300.1	(1)

Reference
1) New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP), 7/05 Revision

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1A
Lab Order:	U0910037	**Collection Date:**	9/30/2009 10:19:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	201	1.0		umhos/cm		9/30/2009 10:19:00 AM
Eh	162	-300		mV		9/30/2009 10:19:00 AM
pH	7.67	6.5-8.5		SU		9/30/2009 10:19:00 AM
Temperature	12.6			degC		9/30/2009 10:19:00 AM
Turbidity	30.6	5.0		NTU		9/30/2009 10:19:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **NJS**
Bromide	ND	2.0		mg/L	10	10/5/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP				**200.7WTASP (E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	10/14/2009 8:40:12 PM
Calcium	46500	1000		µg/L	1	10/14/2009 8:40:12 PM
Iron	348	60.0		µg/L	1	10/15/2009 12:46:09 AM
Lead	ND	3.00		µg/L	1	10/14/2009 8:40:12 PM
Magnesium	10000	1000		µg/L	1	10/14/2009 8:40:12 PM
Manganese	155	10.0		µg/L	1	10/14/2009 8:40:12 PM
Potassium	ND	1000		µg/L	1	10/14/2009 8:40:12 PM
Sodium	12500	1000		µg/L	1	10/14/2009 8:40:12 PM
Hardness, Total(CaCO3)	158000	7000		µg/L	1	10/14/2009 8:40:12 PM
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **TCB**
Residue, Dissolved (TDS)	210	25		mg/L	1	10/1/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **BY**
Alkalinity, Total (As CaCO3)	120	10	H	mg/LCaCO3	1	10/16/2009
NOTES: Sample reanalyzed over holding time. Original analysis within holding time.						
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	29.5	1.00		mg/L	1	10/4/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/7/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/7/2009
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **VAW**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	10/2/2009 10:11:00 AM
SULFATE				**375.4_W**		Analyst: **KEL**

Approved By: PH **Date:** 10-19-09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1A
Lab Order:	U0910037	**Collection Date:**	9/30/2009 10:19:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE			**375.4_W**			Analyst: **KEL**
Sulfate	12.7	5.00		mg/L	1	10/5/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	10/2/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)			**410.4**			Analyst: **KAM**
Chemical Oxygen Demand	ND	20		mg/L	1	10/6/2009
TOTAL ORGANIC CARBON (TOC)			**415.1**			Analyst: **VAW**
Organic Carbon, Total	ND	3.0		mg/L	1	10/4/2009
PHENOLICS, TOTAL REC. FOR WATERS			**420.4**		**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/3/2009

Approved By: PH **Date:** 10-19-09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Client Sample ID: MW-1B
Lab Order: U0910037
Collection Date: 9/30/2009 10:28:00 AM
Project: Towslee Landfill
Lab ID: U0910037-002
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	1145	1.0		umhos/cm		9/30/2009 10:28:00 AM
Eh	155	-300		mV		9/30/2009 10:28:00 AM
pH	7.76	6.5-8.5		SU		9/30/2009 10:28:00 AM
Temperature	12.1			degC		9/30/2009 10:28:00 AM
Turbidity	12.2	5.0		NTU		9/30/2009 10:28:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **NJS**
Bromide	ND	0.20		mg/L	1	10/5/2009
ICP METALS, TOTAL ASP				**200.7WTASP**	**(E200.7)**	Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	10/14/2009 8:43:46 PM
Calcium	31100	1000		µg/L	1	10/14/2009 8:43:46 PM
Iron	115	60.0		µg/L	1	10/15/2009 12:50:37 AM
Lead	ND	3.00		µg/L	1	10/14/2009 8:43:46 PM
Magnesium	7340	1000		µg/L	1	10/14/2009 8:43:46 PM
Manganese	149	10.0		µg/L	1	10/14/2009 8:43:46 PM
Potassium	ND	1000		µg/L	1	10/14/2009 8:43:46 PM
Sodium	7320	1000		µg/L	1	10/14/2009 8:43:46 PM
Hardness, Total(CaCO3)	108000	7000		µg/L	1	10/14/2009 8:43:46 PM
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **TCB**
Residue, Dissolved (TDS)	88	25		mg/L	1	10/1/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **VAW**
Alkalinity, Total (As CaCO3)	98	10		mg/LCaCO3	1	10/4/2009
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	6.86	1.00		mg/L	1	10/4/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/7/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/7/2009
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **VAW**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	10/2/2009 10:11:00 AM
SULFATE				**375.4_W**		Analyst: **KEL**
Sulfate	10.4	5.00		mg/L	1	10/5/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	10/2/2009 8:00:00 AM

Approved By: PH **Date:** 10-19-09

Qualifiers:

- * Low Level
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1B
Lab Order:	U0910037	**Collection Date:**	9/30/2009 10:28:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-002	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	ND	20		mg/L	1	10/6/2009
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **VAW**
Organic Carbon, Total	ND	3.0		mg/L	1	10/4/2009
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/3/2009

Approved By: PH **Date:** 10-19-09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2A
Lab Order:	U0910037	**Collection Date:**	9/30/2009 11:06:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-003	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	382	1.0		umhos/cm		9/30/2009 11:06:00 AM
Eh	227	-300		mV		9/30/2009 11:06:00 AM
pH	6.52	6.5-8.5		SU		9/30/2009 11:06:00 AM
Temperature	13.0			degC		9/30/2009 11:06:00 AM
Turbidity	17.8	5.0		NTU		9/30/2009 11:06:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **NJS**
Bromide	ND	2.0		mg/L	10	10/5/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP				**200.7WTASP**	**(E200.7)**	Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	10/14/2009 8:53:42 PM
Calcium	78600	1000		µg/L	1	10/14/2009 8:53:42 PM
Iron	5210	60.0		µg/L	1	10/15/2009 1:04:13 AM
Lead	ND	3.00		µg/L	1	10/15/2009 1:04:13 AM
Magnesium	16800	1000		µg/L	1	10/14/2009 8:53:42 PM
Manganese	11400	10.0		µg/L	1	10/14/2009 8:53:42 PM
Potassium	13600	1000		µg/L	1	10/14/2009 8:53:42 PM
Sodium	21100	1000		µg/L	1	10/14/2009 8:53:42 PM
Hardness, Total(CaCO3)	265000	7000		µg/L	1	10/14/2009 8:53:42 PM
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **TCB**
Residue, Dissolved (TDS)	310	25		mg/L	1	10/1/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **VAW**
Alkalinity, Total (As CaCO3)	340	10		mg/LCaCO3	1	10/4/2009
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	17.7	1.00		mg/L	1	10/4/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **BY**
Nitrogen, Ammonia (As NH3)	10.3	0.500		mg/L	1	10/8/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	13.1	0.500		mg/L	1	10/7/2009
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **VAW**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	10/2/2009 10:11:00 AM
SULFATE				**375.4_W**		Analyst: **KEL**
Sulfate	7.79	5.00		mg/L	1	10/5/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**

Approved By: PH **Date:** 10-19-09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2A
Lab Order:	U0910037	**Collection Date:**	9/30/2009 11:06:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-003	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	10/2/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)			**410.4**			Analyst: **KAM**
Chemical Oxygen Demand	32	20		mg/L	1	10/6/2009
TOTAL ORGANIC CARBON (TOC)			**415.1**			Analyst: **VAW**
Organic Carbon, Total	5.9	3.0		mg/L	1	10/4/2009
PHENOLICS, TOTAL REC. FOR WATERS			**420.4**		**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/9/2009

Approved By: PH **Date:** 10-19-09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2B
Lab Order:	U0910037	**Collection Date:**	9/30/2009 11:14:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-004	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	670	1.0		umhos/cm		9/30/2009 11:14:00 AM
Eh	229	-300		mV		9/30/2009 11:14:00 AM
pH	6.47	6.5-8.5		SU		9/30/2009 11:14:00 AM
Temperature	13.2			degC		9/30/2009 11:14:00 AM
Turbidity	5.88	5.0		NTU		9/30/2009 11:14:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **NJS**
Bromide	ND	0.20		mg/L	1	10/5/2009
ICP METALS, TOTAL ASP				**200.7WTASP**	**(E200.7)**	Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	10/14/2009 9:04:08 PM
Calcium	227000	1000		µg/L	1	10/14/2009 9:04:08 PM
Iron	222	60.0		µg/L	1	10/15/2009 1:18:24 AM
Lead	ND	3.00		µg/L	1	10/14/2009 9:04:08 PM
Magnesium	45600	1000		µg/L	1	10/14/2009 9:04:08 PM
Manganese	6310	10.0		µg/L	1	10/14/2009 9:04:08 PM
Potassium	ND	1000		µg/L	1	10/14/2009 9:04:08 PM
Sodium	58600	1000		µg/L	1	10/14/2009 9:04:08 PM
Hardness, Total(CaCO3)	755000	7000		µg/L	1	10/14/2009 9:04:08 PM
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **TCB**
Residue, Dissolved (TDS)	860	25		mg/L	1	10/1/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **VAW**
Alkalinity, Total (As CaCO3)	650	100		mg/LCaCO3	10	10/4/2009
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	150	1.00		mg/L	1	10/4/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **BY**
Nitrogen, Ammonia (As NH3)	0.730	0.500		mg/L	1	10/8/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	1.07	0.500		mg/L	1	10/7/2009
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **VAW**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	10/2/2009 10:11:00 AM
SULFATE				**375.4_W**		Analyst: **KEL**
Sulfate	ND	5.00		mg/L	1	10/5/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	10/2/2009 8:00:00 AM

Approved By: PH **Date:** 10-19-09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2B
Lab Order:	U0910037	**Collection Date:**	9/30/2009 11:14:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-004	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	26	20		mg/L	1	10/6/2009
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **VAW**
Organic Carbon, Total	4.6	3.0		mg/L	1	10/4/2009
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/9/2009

Approved By: PH **Date:** 10-19-09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-3A
Lab Order:	U0910037	**Collection Date:**	9/30/2009 10:02:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-005	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			**FIELD**			Analyst:
Conductivity	658	1.0		umhos/cm		9/30/2009 10:02:00 AM
Eh	219	-300		mV		9/30/2009 10:02:00 AM
pH	6.69	6.5-8.5		SU		9/30/2009 10:02:00 AM
Temperature	14.2			degC		9/30/2009 10:02:00 AM
Turbidity	20.2	5.0		NTU		9/30/2009 10:02:00 AM
INORGANIC ANIONS BY IC FOR WATERS			**300_IC**			Analyst: **NJS**
Bromide	ND	2.0		mg/L	10	10/5/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP			**200.7WTASP**		**(E200.7)**	Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	10/14/2009 9:07:52 PM
Calcium	15200	1000		µg/L	1	10/14/2009 9:07:52 PM
Iron	534	60.0		µg/L	1	10/15/2009 1:23:10 AM
Lead	ND	3.00		µg/L	1	10/14/2009 9:07:52 PM
Magnesium	ND	1000		µg/L	1	10/14/2009 9:07:52 PM
Manganese	331	10.0		µg/L	1	10/14/2009 9:07:52 PM
Potassium	ND	1000		µg/L	1	10/14/2009 9:07:52 PM
Sodium	ND	1000		µg/L	1	10/14/2009 9:07:52 PM
Hardness, Total(CaCO3)	37800	7000		µg/L	1	10/14/2009 9:07:52 PM
RESIDUE, DISSOLVED (TDS)			**160.1**			Analyst: **TCB**
Residue, Dissolved (TDS)	100	25		mg/L	1	10/1/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT			**310.2W**			Analyst: **VAW**
Alkalinity, Total (As CaCO3)	50	10		mg/LCaCO3	1	10/4/2009
CHLORIDE WATERS BY LACHAT			**325.2_W**			Analyst: **VAW**
Chloride	ND	1.00		mg/L	1	10/4/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)			**350.1_W**			Analyst: **BY**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/8/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT			**351.2_W**			Analyst: **KAM**
Nitrogen, Kjeldahl, Total	0.786	0.500		mg/L	1	10/7/2009
NITROGEN, NITRATE (AS N)			**353.2_WNO3**			Analyst: **VAW**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	10/2/2009 10:11:00 AM
SULFATE			**375.4_W**			Analyst: **KEL**
Sulfate	ND	5.00		mg/L	1	10/5/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **TCB**

Approved By: PH **Date:** 10-19-09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-3A
Lab Order:	U0910037	**Collection Date:**	9/30/2009 10:02:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-005	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **TCB**
Biochemical Oxygen Demand	8.00	4.00		mg/L	1	10/2/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)			**410.4**			Analyst: **KAM**
Chemical Oxygen Demand	40	20		mg/L	1	10/6/2009
TOTAL ORGANIC CARBON (TOC)			**415.1**			Analyst: **VAW**
Organic Carbon, Total	9.2	3.0		mg/L	1	10/4/2009
PHENOLICS, TOTAL REC. FOR WATERS			**420.4**		**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/3/2009

Approved By: PH **Date:** 10-19-09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Client Sample ID: MW-6B
Lab Order: U0910037
Collection Date: 9/30/2009 11:32:00 AM
Project: Towslee Landfill
Lab ID: U0910037-006
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	1999	1.0		umhos/cm		9/30/2009 11:32:00 AM
Eh	190	-300		mV		9/30/2009 11:32:00 AM
pH	7.20	6.5-8.5		SU		9/30/2009 11:32:00 AM
Temperature	12.7			degC		9/30/2009 11:32:00 AM
Turbidity	5.13	5.0		NTU		9/30/2009 11:32:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **NJS**
Bromide	ND	0.20		mg/L	1	10/5/2009
ICP METALS, TOTAL ASP				**200.7WTASP**	**(E200.7)**	Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	10/14/2009 9:11:21 PM
Calcium	42000	1000		µg/L	1	10/14/2009 9:11:21 PM
Iron	70.3	60.0		µg/L	1	10/15/2009 1:27:43 AM
Lead	ND	3.00		µg/L	1	10/14/2009 9:11:21 PM
Magnesium	10400	1000		µg/L	1	10/14/2009 9:11:21 PM
Manganese	255	10.0		µg/L	1	10/14/2009 9:11:21 PM
Potassium	ND	1000		µg/L	1	10/14/2009 9:11:21 PM
Sodium	18500	1000		µg/L	1	10/14/2009 9:11:21 PM
Hardness, Total(CaCO3)	148000	7000		µg/L	1	10/14/2009 9:11:21 PM
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **TCB**
Residue, Dissolved (TDS)	170	25		mg/L	1	10/1/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **VAW**
Alkalinity, Total (As CaCO3)	140	10		mg/LCaCO3	1	10/4/2009
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	19.7	1.00		mg/L	1	10/4/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/7/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/7/2009
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **VAW**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	10/2/2009 10:11:00 AM
SULFATE				**375.4_W**		Analyst: **KEL**
Sulfate	10.3	5.00		mg/L	1	10/5/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	10/2/2009 8:00:00 AM

Approved By: PH **Date:** 10-19-09

Qualifiers:

- * Low Level
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-6B
Lab Order:	U0910037	**Collection Date:**	9/30/2009 11:32:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-006	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	ND	20		mg/L	1	10/6/2009
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **VAW**
Organic Carbon, Total	ND	3.0		mg/L	1	10/4/2009
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/3/2009

Approved By: PH **Date:** 10/19/09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-7A
Lab Order:	U0910037	**Collection Date:**	9/30/2009 10:45:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-007	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	644	1.0		umhos/cm		9/30/2009 10:45:00 AM
Eh	194	-300		mV		9/30/2009 10:45:00 AM
pH	7.12	6.5-8.5		SU		9/30/2009 10:45:00 AM
Temperature	12.6			degC		9/30/2009 10:45:00 AM
Turbidity	33.5	5.0		NTU		9/30/2009 10:45:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **NJS**
Bromide	ND	2.0		mg/L	10	10/5/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP				**200.7WTASP**	**(E200.7)**	Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	10/14/2009 9:14:50 PM
Calcium	144000	1000		µg/L	1	10/14/2009 9:14:50 PM
Iron	108	60.0		µg/L	1	10/15/2009 1:32:17 AM
Lead	ND	3.00		µg/L	1	10/14/2009 9:14:50 PM
Magnesium	34000	1000		µg/L	1	10/14/2009 9:14:50 PM
Manganese	3800	10.0		µg/L	1	10/14/2009 9:14:50 PM
Potassium	ND	1000		µg/L	1	10/14/2009 9:14:50 PM
Sodium	110000	1000		µg/L	1	10/14/2009 9:14:50 PM
Hardness, Total(CaCO3)	499000	7000		µg/L	1	10/14/2009 9:14:50 PM
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **TCB**
Residue, Dissolved (TDS)	620	25		mg/L	1	10/1/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **VAW**
Alkalinity, Total (As CaCO3)	480	10		mg/LCaCO3	1	10/4/2009
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	120	1.00		mg/L	1	10/4/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **BY**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/8/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	0.927	0.500		mg/L	1	10/7/2009
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **VAW**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	10/2/2009 10:11:00 AM
SULFATE				**375.4_W**		Analyst: **KEL**
Sulfate	19.5	5.00		mg/L	1	10/5/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**

Approved By: PH **Date:** 10-19-09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-7A
Lab Order:	U0910037	**Collection Date:**	9/30/2009 10:45:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-007	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	10/2/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	37	20		mg/L	1	10/6/2009
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **VAW**
Organic Carbon, Total	5.0	3.0		mg/L	1	10/4/2009
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/3/2009

Approved By: PH **Date:** 10-19-09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-6B Dupe
Lab Order:	U0910037	**Collection Date:**	9/30/2009 11:32:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-008	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS			**300_IC**			Analyst: **NJS**
Bromide	ND	2.0		mg/L	10	10/11/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP			**200.7WTASP**		**(E200.7)**	Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	10/14/2009 9:18:31 PM
Calcium	41600	1000		µg/L	1	10/14/2009 9:18:31 PM
Iron	ND	60.0		µg/L	1	10/15/2009 1:37:04 AM
Lead	ND	3.00		µg/L	1	10/14/2009 9:18:31 PM
Magnesium	10200	1000		µg/L	1	10/14/2009 9:18:31 PM
Manganese	269	10.0		µg/L	1	10/14/2009 9:18:31 PM
Potassium	ND	1000		µg/L	1	10/14/2009 9:18:31 PM
Sodium	18100	1000		µg/L	1	10/14/2009 9:18:31 PM
Hardness, Total(CaCO3)	146000	7000		µg/L	1	10/14/2009 9:18:31 PM
RESIDUE, DISSOLVED (TDS)			**160.1**			Analyst: **TCB**
Residue, Dissolved (TDS)	180	25		mg/L	1	10/1/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT			**310.2W**			Analyst: **VAW**
Alkalinity, Total (As CaCO3)	150	10		mg/LCaCO3	1	10/4/2009
CHLORIDE WATERS BY LACHAT			**325.2_W**			Analyst: **VAW**
Chloride	18.5	1.00		mg/L	1	10/4/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)			**350.1_W**			Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	10/7/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT			**351.2_W**			Analyst: **KAM**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	10/7/2009
NITROGEN, NITRATE (AS N)			**353.2_WNO3**			Analyst: **VAW**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	10/2/2009 10:11:00 AM
SULFATE			**375.4_W**			Analyst: **KEL**
Sulfate	18.2	5.00		mg/L	1	10/5/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	10/2/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)			**410.4**			Analyst: **KAM**
Chemical Oxygen Demand	ND	20		mg/L	1	10/6/2009
TOTAL ORGANIC CARBON (TOC)			**415.1**			Analyst: **VAW**
Organic Carbon, Total	ND	3.0		mg/L	1	10/4/2009

Approved By: PH **Date:** 10/19-09

Qualifiers:

- * Low Level
- ** Value exceeds Maximum Contaminant Value
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Oct-09*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-6B Dupe
Lab Order:	U0910037	**Collection Date:**	9/30/2009 11:32:00 AM
Project:	Towslee Landfill		
Lab ID:	U0910037-008	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	10/9/2009

Approved By: PH **Date:** 10-19-09

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-1A**

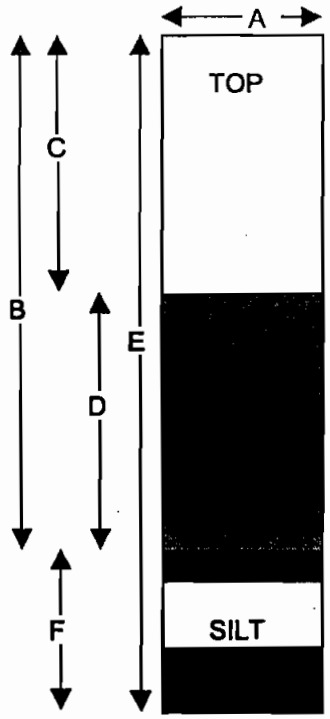
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.7	feet
C.	Depth to Water	.02	feet
D.	Length of Water Column (calculated)	33.68	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	5.3888	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	16.1664	gallons
	Actual Volume Evacuated	16.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	9/29/09	9/30/09
Time	1:25 pm	10:19 am
EH	158	162
Temperature	13.8°c	12.6°c
pH	7.71	7.67
Specific Cond.	1929	201
Turbidity	12.0	30.6
Dissolved Oxygen	N/A	N/A
Appearance	Sl. Cloudy	Sl. Cloudy

% Recharge:

Initial Depth to Water .02 feet

Recharge Depth to Water .47 feet

2nd water column height 4.25 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 50° rain/cloudy 41° cloudy/light rain

Observations:

Sampler: Justin Gibson

Signature: Justin Gibson

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-1B**

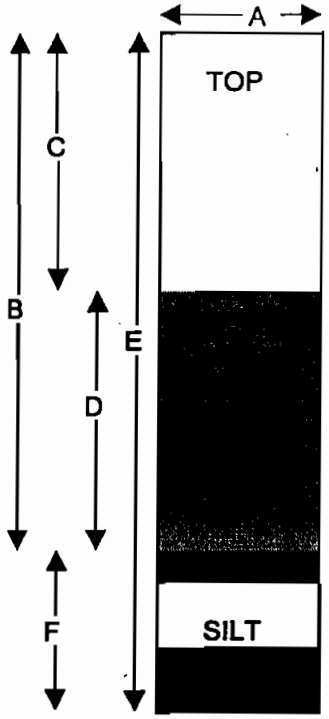
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	55.5	feet
C.	Depth to Water	.22	feet
D.	Length of Water Column (calculated)	55.28	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	8.8448	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	26.5344	gallons
	Actual Volume Evacuated	26.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	9/29/09	9/30/09
Time	1:28pm	10:28am
EH	159	155
Temperature	13.2°c	12.1°c
pH	7.67	7.76
Specific Cond.	998	1145
Turbidity	2.90	12.2
Dissolved Oxygen	N/A	N/A
Appearance	clear	sl. cloudy

% Recharge:

Initial Depth to Water .22 feet

Recharge Depth to Water .82 feet

2nd water column height 26.82 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 50° rain/cloudy 41° cloudy/light rain

Observations: MSD

Sampler: Justin Gibson

Signature: Justin Gibson

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-2A**

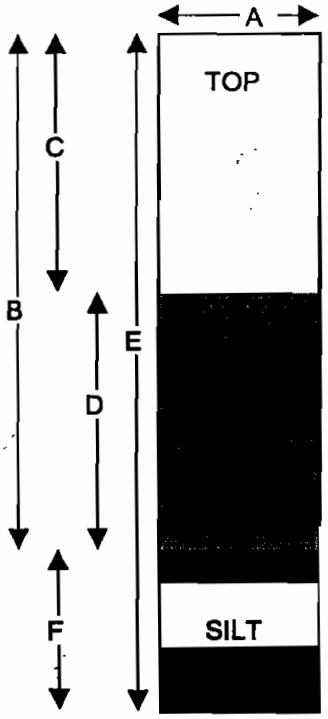
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3960

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	12.8	feet
C.	Depth to Water	5.34	feet
D.	Length of Water Column (calculated)	7.46	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	1.1936	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	3.5808	gallons
	Actual Volume Evacuated	Dry @ 2 gal	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	9/29/09	9/30/09
Time	2:09 pm	11:06 am
EH	240	227
Temperature	14.6°c	13.8°c
pH	6.33	6.52
Specific Cond.	~~8~~ 379	382
Turbidity	17.7	17.8
Dissolved Oxygen	N/A	N/A
Appearance	Sl. cloudy	Sl. cloudy
Weather: Observations:	50 cloudy	43° cloudy

% Recharge:

Initial Depth to Water 5.34 feet

Recharge Depth to Water 5.25 feet

2nd water column height 101.71 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Sampler: Justin Gibson

Signature: Justin Gibson

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-2B**

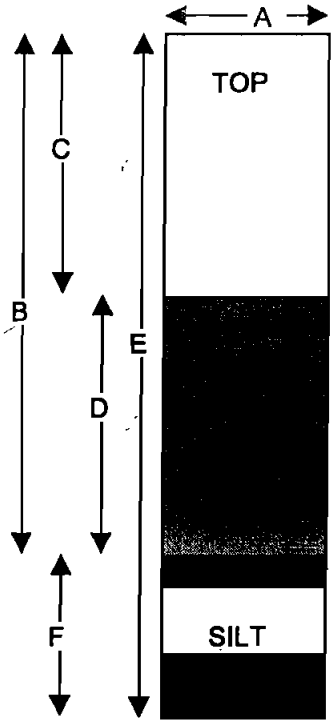
Condition of Well: Good

Locked: Yes - lid broken at hinge

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.5	feet
C.	Depth to Water	6.42	feet
D.	Length of Water Column (calculated)	27.08	feet
	Conversion Factor	X.16	——
	Well Volume (calculated)	4.3328	gallons
	No. of Volumes to be Evacuated	X3	——
	Total Volume to be Evacuated	12.9984	gallons
	Actual Volume Evacuated	13	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	9/29/09	9/30/09
Time	2:10 pm	11:14 am
EH	234	229
Temperature	11.7°c	13.2°c
pH	6.37	6.47
Specific Cond.	597	670
Turbidity	4.71	5.88
Dissolved Oxygen	N/A	N/A
Appearance	clear	clear

% Recharge:

Initial Depth to Water 6.42 feet

Recharge Depth to Water 6.29 feet

2nd water column height 102.06 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 50° cloudy / 43° cloudy

Observations:

Sampler: Justin Gibson

Signature: Justin Gibson

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-3A**

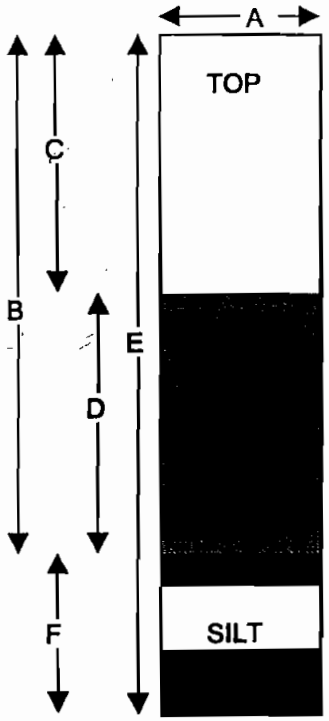
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	22.40	feet
C.	Depth to Water	6.32	feet
D.	Length of Water Column (calculated)	16.08	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	2.5728	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	7.7184	gallons
	Actual Volume Evacuated	8	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	9/29/09	9/30/09
Time	1:05 pm	10:02 am
EH	262	219
Temperature	14.1°C	14.2°C
pH	6.08	6.69
Specific Cond.	204	658
Turbidity	2.04	20.2
Dissolved Oxygen	N/A	N/A
Appearance	Clear	SL Cloudy

Weather: 50°F Cloudy / Rain

Observations: 41° cloudy / light rain

% Recharge:

Initial Depth to Water 6.32 feet

Recharge Depth to Water 6.30 feet

2nd water column height 100.31 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Sampler: Justin Gibson

Signature: Justin Gibson

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

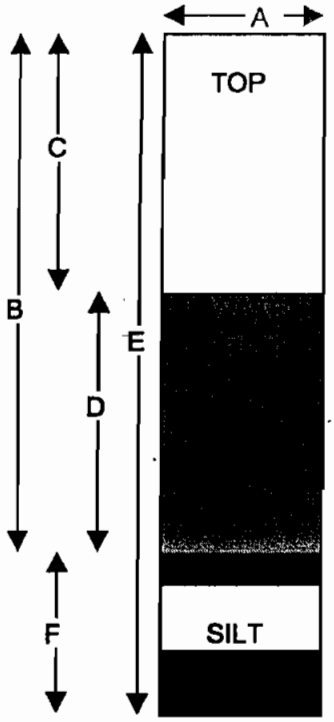
Project: **Towslee Landfill**

Well ID.: **MW-6B**

Condition of Well: Good Locked: No

Method of Evacuation: Dedicated Bailer Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	40.75	feet
C.	Depth to Water	14.24	feet
D.	Length of Water Column (calculated)	26.51	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	4.2416	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	12.7248	gallons
	Actual Volume Evacuated	13	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	9/29/09	9/30/09
Time	2:29 pm	11:32 am
EH	142	190
Temperature	14.1°C	12.7°C
pH	8.00	7.20
Specific Cond.	1426	1999
Turbidity	6.66	5.13
Dissolved Oxygen	N/A	N/A
Appearance	Clear	clear

% Recharge:

Initial Depth to Water 14.24 feet

Recharge Depth to Water 13.00 feet

2nd water column height 109.53 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: Sunny Cloudy 43° cloudy

Observations: DUPE

Sampler: Justin Gibson

Signature: Justin Gibson

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-7A**

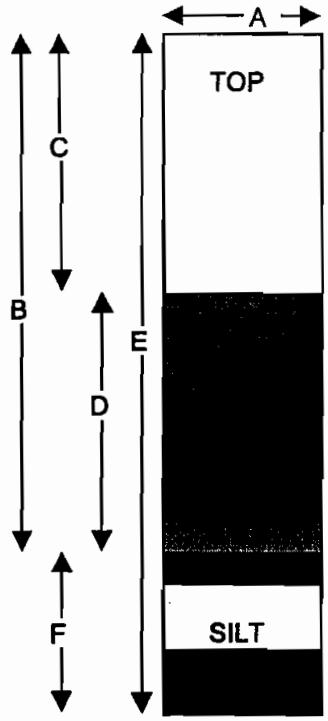
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	22.20	feet
C.	Depth to Water	3.13	feet
D.	Length of Water Column (calculated)	19.07	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	3.0512	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	9.1536	gallons
	Actual Volume Evacuated	9.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	9/29/04	9/30/04
Time	1:52 pm	10:45 am
EH	209	194
Temperature	12.2°C	12.6°C
pH	6.83	7.12
Specific Cond.	626	644
Turbidity	5.06	33.5
Dissolved Oxygen	N/A	N/A
Appearance	Clear	Cloudy
Weather:	50's Cloudy/Rain	42° cloudy/light rain
Observations:		

% Recharge:

Initial Depth to Water 3.13 feet

Recharge Depth to Water 3.57 feet

2nd water column height 87.67 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Sampler: Justin Gibson

Signature: Justin Gibson

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
Phone (315) 437 0255 Fax (315) 437 1209

Chain of Custody Record

ULI Computer Input Form

Client	Project # / Project Name
CORTLAND COUNTY	TOWSLEE LANDFILL
Client Contact / **Phone #**	**Location (city/state) Address**
PATRICK REIDY / 607-753-0851	CORTLANDVILLE, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	Number of Containers	1	2	3	4	5	6	7	8	9	10	Remarks: 93 REGS ASP-A
MW-1A	9/30/09	10:19am	WATER	GRAB	1	6	X	X	X	X	X	X	X				
MW-1B	9/30/09	10:28am	WATER	GRAB	2	6	X	X	X	X	X	X	X				MSD
MW-2A	9/30/09	11:06am	WATER	GRAB	3	6	X	X	X	X	X	X	X				
MW-2B	9/30/09	11:14am	WATER	GRAB	4	6	X	X	X	X	X	X	X				
MW-3A	9/30/09	10:02am	WATER	GRAB	5	6	X	X	X	X	X	X	X				
MW-6B	9/30/09	11:32am	WATER	GRAB	6	6	X	X	X	X	X	X	X				
MW-7A	9/30/09	10:45am	WATER	GRAB	7	6	X	X	X	X	X	X	X				
MW-6B DUPE	9/30/09	11:32am	WATER	GRAB	8	6		X	X	X	X	X	X				
MS/MSD																	

	Parameter and Method	Sample bottle: Type	Size	Preservative
1	FIELD PH,TEMP,EH,SPEC.COND.,TURBIDITY	N/A		
2	BOD5,NO3,TDS,SO4,CL-,BROMIDE	PLASTIC	2000ML	NONE
3	TKN,NH3,COD	PLASTIC	500 ML	H2SO4
4	TOC	PLASTIC	120 ML	1:1 HCL
5	ALKALINITY	GLASS	250 ML	NONE
6	T-PHENOLS	AMBER	LITER	H2SO4
7	T-CD,CA,FE,PB*,MG,MN,K,NA,+CALC. HARDNESS	PLASTIC	500 ML	HNO3
8	D-CD,CA,FE,PB*,MG,MN,K,NA,+CALC. HARDNESS	PLASTIC	500 ML	HNO3
9				
10				

Sampled by (Print): Justin Gibson
Company: ULI

Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign) Justin Gibson	Date 10/1/09	Time 8:00am	Rec'd for Lab by: RC Trump

Name of Courier:

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Appendix B

Analytical Laboratory Results and Internal Quality Control Summary

Quarter 4 2009

Cortland County Towslee Landfill

TOWSLEE Q4 2009

Upstate Laboratories, Inc.

Shipping: 6034 Corporate Dr. * E. Syracuse, NY 13057-1017 * (315) 437-0255 * Fax (315) 437-1209
Mailing: Box 169 * Syracuse, NY 13206
Albany (518) 459-3134 * Binghamton (607) 724-0478 * Buffalo (716) 972-0371
Rochester (866) 437-0255 * New Jersey (908) 581-4285

Mr. Patrick Reidy
Cortland Co. Soil and Water Cons. Dist.
100 Grange Place
Room 202
Cortland, NY 13045

January 19, 2010

RE: Analytical Report:
Towslee Landfill

Order No.: U0912026

Dear Mr. Reidy:

Upstate Laboratories, Inc. received 8 samples on 12/02/09 for the analyses presented in the following report.

All analytical results relate to the samples as received by the laboratory.

All analytical data conforms with standard approved methodologies and quality control. Our quality control narrative will be included should any anomalies occur.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your samples. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,
UPSTATE LABORATORIES, INC.

Anthony J. Scala
Anthony J. Scala
President/CEO

Enclosures: ASP-A Narrative, report, field data, invoice

Upstate Laboratories, Inc.

Shipping: 6034 Corporate Dr. * E. Syracuse, NY 13057-1017 * (315) 437-0255 * Fax (315) 437-1209
Mailing: Box 169 * Syracuse, NY 13206
Albany (518) 459-3134 * Binghamton (607) 724-0478 * Buffalo (716) 972-0371
Rochester (866) 437-0255 * New Jersey (908) 581-4285

Mr. Patrick Reidy
Cortland Co. Soil and Water Cons. Dist.
100 Grange Place
Room 202
Cortland, New York 13045

January 22, 2010

RE: Towslee Landfill, Cortlandville, New York, Samples Collected December 1, 2009
Case Narrative for ULI SDG Number COR28, Workorder #U0912026

The following is a New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP) Category A case narrative for the above referenced project. The test results were subject to an internal validation as described below:

Internal Validation

For each test, the chemist sorted the samples into batches of twenty samples or less and added quality control (QC) samples. The batches were analyzed by USEPA and NYSDEC approved test procedures (Table 1). During the course of the analyses the chemist compared the quality control test results to performance criteria and (if necessary) took corrective actions. At the end of the analysis, the data was assembled into data packages and submitted to the section supervisor for review and approval. On the cover of each data package the analyst described any anomaly that may have occurred and, if it did occur, why the data was still found acceptable. A summary of the comments on the cover sheet of each test from each laboratory follows:

Trace Metals

Test	Batch	Anomaly
Ca,Cd,Fe,Pb,Mg,Mn,K,Na	R48559	The Duplicate %RPD for Iron was outside QC acceptance limits for the Duplicate performed on sample location MW-6B. All other criteria were satisfied.

Wet Chemistry

Test	Batch	Anomaly
BOD	R47636	Criteria were satisfied.
Nitrate-Nitrogen	R47566	Criteria were satisfied.
COD	R47618	Criteria were satisfied.
TKN	R47681	Criteria were satisfied.
Bromide	R47783	Criteria were satisfied.
TDS	R47862	Criteria were satisfied.
	R47863	Criteria were satisfied.
Sulfate	R48016	Criteria were satisfied.

The total number of pages in this Data Package is: 3.

Wet Chemistry (continued)

Test	Batch	Anomaly
Alkalinity, Total	R47545	Sample locations MW-2B and MW-7A were reanalyzed for Total Alkalinity in analytical sequence R47550. The CCV4, CCV10 and CCV13 recoveries for Total Alkalinity were outside QC acceptance limits. All other criteria were satisfied.
	R47550	Sample locations MW-2B and MW-7A were reanalyzed for Bromide within ASP holding time due to an inconsistent sample result when compared with past data. All other criteria were satisfied.
Chloride	R47544	The CCV4 recovery for Chloride was below QC acceptance limits. All other criteria were satisfied.
Phenols, Total	R45908	Total Phenols was detected at a concentration above the CRDL in CCB9. All other criteria were satisfied.
Ammonia-Nitrogen	R47681	Criteria were satisfied.
	R47721	Criteria were satisfied.
TOC	R47977	Criteria were satisfied.

Should questions arise please do not hesitate to call the Environmental Project Coordinator (EPC) assigned to your job or myself.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and/or in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Sincerely,
UPSTATE LABORATORIES, INC.

Anthony J. Scala
Director

Table 1
Methodologies

The analyses were performed using test methods developed by the USEPA and reorganized by the NYSDEC in the Analytical Services Protocol (ASP). The specific method numbers are:

Parameter	Method	Reference
Cadmium	200.7	(1)
Calcium	200.7	(1)
Iron	200.7	(1)
Lead	200.7	(1)
Magnesium	200.7	(1)
Manganese	200.7	(1)
Potassium	200.7	(1)
Sodium	200.7	(1)
BOD	405.1	(1)
Nitrate-Nitrogen	353.2	(1)
Alkalinity, Total	310.2	(1)
Chloride	325.2	(1)
COD	410.4	(1)
Ammonia-Nitrogen	350.1	(1)
Sulfate	375.4	(1)
TDS	160.1	(1)
TKN	351.2	(1)
TOC	415.1	(1)
Phenols	420.4	(1)
Bromide	300.1	(1)

Reference
1) New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP), 7/05 Revision

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1A
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:18:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				FIELD		Analyst:
Conductivity	862	1.0		umhos/cm		12/1/2009 10:18:00 AM
Eh	107	-300		mV		12/1/2009 10:18:00 AM
pH	8.35	6.5-8.5		SU		12/1/2009 10:18:00 AM
Temperature	6.6			degC		12/1/2009 10:18:00 AM
Turbidity	47.4	5.0		NTU		12/1/2009 10:18:00 AM
INORGANIC ANIONS BY IC FOR WATERS				300_IC		Analyst: BY
Bromide	ND	2.0		mg/L	10	12/11/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP				200.7WTASP	(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	1/12/2010 8:43:42 PM
Calcium	45000	5000		µg/L	1	1/12/2010 8:43:42 PM
Iron	6190	60.0		µg/L	1	1/12/2010 8:43:42 PM
Lead	ND	3.00		µg/L	1	1/12/2010 8:43:42 PM
Magnesium	11900	5000		µg/L	1	1/12/2010 8:43:42 PM
Manganese	251	10.0		µg/L	1	1/12/2010 8:43:42 PM
Potassium	ND	5000		µg/L	1	1/12/2010 8:43:42 PM
Sodium	12600	5000		µg/L	1	1/12/2010 8:43:42 PM
Hardness, Total(CaCO3)	161000	7000		µg/L	1	1/12/2010 8:43:42 PM
RESIDUE, DISSOLVED (TDS)				160.1		Analyst: TCB
Residue, Dissolved (TDS)	190	25		mg/L	1	12/7/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				310.2W		Analyst: VAW
Alkalinity, Total (As CaCO3)	120	10		mg/LCaCO3	1	12/2/2009
CHLORIDE WATERS BY LACHAT				325.2_W		Analyst: VAW
Chloride	30.0	1.00		mg/L	1	12/2/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				350.1_W		Analyst: KAM
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	12/8/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				351.2_W		Analyst: KAM
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	12/8/2009
NITROGEN, NITRATE (AS N)				353.2_WNO3		Analyst: VAW
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	12/3/2009 7:47:00 AM
SULFATE				375.4_W		Analyst: KEL
Sulfate	6.30	5.00		mg/L	1	12/19/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				405.1		Analyst: TCB

Approved By: PH **Date:** 1-19-10

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1A
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:18:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		**Analyst: TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	12/2/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		**Analyst: KAM**
Chemical Oxygen Demand	ND	20		mg/L	1	12/6/2009
TOTAL ORGANIC CARBON (TOC)				**415.1**		**Analyst: BS**
Organic Carbon, Total	ND	3.0		mg/L	1	12/20/2009
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	**Analyst: BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/12/2009

Approved By: PH **Date:** 1-19-10

Qualifiers:

*	Low Level
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
**	Value exceeds Maximum Contaminant Value
E	Value above quantitation range
J	Analyte detected below quantitation limits
S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1B
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:27:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-002	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				FIELD		Analyst:
Conductivity	681	1.0		umhos/cm		12/1/2009 10:27:00 AM
Eh	114	-300		mV		12/1/2009 10:27:00 AM
pH	8.23	6.5-8.5		SU		12/1/2009 10:27:00 AM
Temperature	7.5			degC		12/1/2009 10:27:00 AM
Turbidity	16.4	5.0		NTU		12/1/2009 10:27:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **BY**
Bromide	ND	0.20		mg/L	1	12/11/2009
ICP METALS, TOTAL ASP				**200.7WTASP**	**(E200.7)**	Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	1/12/2010 8:48:16 PM
Calcium	58700	5000		µg/L	1	1/12/2010 8:48:16 PM
Iron	6720	60.0		µg/L	1	1/12/2010 8:48:16 PM
Lead	ND	3.00		µg/L	1	1/12/2010 8:48:16 PM
Magnesium	14400	5000		µg/L	1	1/12/2010 8:48:16 PM
Manganese	9340	10.0		µg/L	1	1/12/2010 8:48:16 PM
Potassium	8560	5000		µg/L	1	1/12/2010 8:48:16 PM
Sodium	14900	5000		µg/L	1	1/12/2010 8:48:16 PM
Hardness, Total(CaCO3)	206000	7000		µg/L	1	1/12/2010 8:48:16 PM
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **TCB**
Residue, Dissolved (TDS)	110	25		mg/L	1	12/7/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **VAW**
Alkalinity, Total (As CaCO3)	86	10		mg/LCaCO3	1	12/2/2009
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	4.71	1.00		mg/L	1	12/2/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	12/8/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	12/8/2009
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **VAW**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	12/3/2009 7:47:00 AM
SULFATE				**375.4_W**		Analyst: **KEL**
Sulfate	18.3	5.00		mg/L	1	12/19/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	12/2/2009 8:00:00 AM

Approved By: PH **Date:** 1-19-10

Qualifiers:

- * Low Level
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1B
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:27:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-002	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	ND	20		mg/L	1	12/6/2009
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **BS**
Organic Carbon, Total	ND	3.0		mg/L	1	12/20/2009
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	(E420.4)	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/12/2009

Approved By: PH **Date:** 1-19-10

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2A
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:55:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-003	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				FIELD		Analyst:
Conductivity	1406	1.0		umhos/cm		12/1/2009 10:55:00 AM
Eh	143	-300		mV		12/1/2009 10:55:00 AM
pH	7.78	6.5-8.5		SU		12/1/2009 10:55:00 AM
Temperature	6.4			degC		12/1/2009 10:55:00 AM
Turbidity	19.6	5.0		NTU		12/1/2009 10:55:00 AM
INORGANIC ANIONS BY IC FOR WATERS				300_IC		Analyst: BY
Bromide	ND	2.0		mg/L	10	12/11/2009
NOTES:						
The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP				200.7WTASP	(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	1/12/2010 8:53:16 PM
Calcium	26500	5000		µg/L	1	1/12/2010 8:53:16 PM
Iron	827	60.0		µg/L	1	1/12/2010 8:53:16 PM
Lead	ND	3.00		µg/L	1	1/12/2010 8:53:16 PM
Magnesium	7010	5000		µg/L	1	1/12/2010 8:53:16 PM
Manganese	144	10.0		µg/L	1	1/12/2010 8:53:16 PM
Potassium	ND	5000		µg/L	1	1/12/2010 8:53:16 PM
Sodium	6590	5000		µg/L	1	1/12/2010 8:53:16 PM
Hardness, Total(CaCO3)	95000	7000		µg/L	1	1/12/2010 8:53:16 PM
RESIDUE, DISSOLVED (TDS)				160.1		Analyst: TCB
Residue, Dissolved (TDS)	230	25		mg/L	1	12/7/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				310.2W		Analyst: VAW
Alkalinity, Total (As CaCO3)	280	10		mg/LCaCO3	1	12/2/2009
CHLORIDE WATERS BY LACHAT				325.2_W		Analyst: VAW
Chloride	12.5	1.00		mg/L	1	12/2/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				350.1_W		Analyst: BY
Nitrogen, Ammonia (As NH3)	8.75	0.500		mg/L	1	12/9/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				351.2_W		Analyst: KAM
Nitrogen, Kjeldahl, Total	12.5	0.500		mg/L	1	12/8/2009
NITROGEN, NITRATE (AS N)				353.2_WNO3		Analyst: VAW
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	12/3/2009 7:47:00 AM
SULFATE				375.4_W		Analyst: KEL
Sulfate	10.2	5.00		mg/L	1	12/19/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				405.1		Analyst: TCB

Approved By: PH **Date:** 1-19-10

Qualifiers:

- * Low Level
- ** Value exceeds Maximum Contaminant Value
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2A
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:55:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-003	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	12/2/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	26	20		mg/L	1	12/6/2009
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **BS**
Organic Carbon, Total	6.5	3.0		mg/L	1	12/20/2009
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/12/2009

Approved By: PH **Date:** 1-19-10

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2B
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:59:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-004	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				FIELD		Analyst:
Conductivity	1978	1.0		umhos/cm		12/1/2009 10:59:00 AM
Eh	174	-300		mV		12/1/2009 10:59:00 AM
pH	7.19	6.5-8.5		SU		12/1/2009 10:59:00 AM
Temperature	8.3			degC		12/1/2009 10:59:00 AM
Turbidity	14.0	5.0		NTU		12/1/2009 10:59:00 AM
INORGANIC ANIONS BY IC FOR WATERS				300_IC		Analyst: BY
Bromide	ND	0.20		mg/L	1	12/11/2009
ICP METALS, TOTAL ASP				200.7WTASP	(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	1/12/2010 8:57:53 PM
Calcium	178000	5000		µg/L	1	1/12/2010 8:57:53 PM
Iron	235	60.0		µg/L	1	1/12/2010 8:57:53 PM
Lead	ND	3.00		µg/L	1	1/12/2010 8:57:53 PM
Magnesium	39700	5000		µg/L	1	1/12/2010 8:57:53 PM
Manganese	5630	10.0		µg/L	1	1/12/2010 8:57:53 PM
Potassium	ND	5000		µg/L	1	1/12/2010 8:57:53 PM
Sodium	49000	5000		µg/L	1	1/12/2010 8:57:53 PM
Hardness, Total(CaCO3)	608000	7000		µg/L	1	1/12/2010 8:57:53 PM
RESIDUE, DISSOLVED (TDS)				160.1		Analyst: TCB
Residue, Dissolved (TDS)	680	25		mg/L	1	12/7/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				310.2W		Analyst: VAW
Alkalinity, Total (As CaCO3)	610	250		mg/LCaCO3	25	12/3/2009
CHLORIDE WATERS BY LACHAT				325.2_W		Analyst: VAW
Chloride	140	1.00		mg/L	1	12/2/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				350.1_W		Analyst: BY
Nitrogen, Ammonia (As NH3)	0.696	0.500		mg/L	1	12/9/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				351.2_W		Analyst: KAM
Nitrogen, Kjeldahl, Total	1.12	0.500		mg/L	1	12/8/2009
NITROGEN, NITRATE (AS N)				353.2_WNO3		Analyst: VAW
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	12/3/2009 7:47:00 AM
SULFATE				375.4_W		Analyst: KEL
Sulfate	ND	5.00		mg/L	1	12/19/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				405.1		Analyst: TCB
Biochemical Oxygen Demand	ND	4.00		mg/L	1	12/2/2009 8:00:00 AM

Approved By: PH **Date:** 1-19-10

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2B
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:59:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-004	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	ND	20		mg/L	1	12/6/2009
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **BS**
Organic Carbon, Total	4.6	3.0		mg/L	1	12/20/2009
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/12/2009

Approved By: PH **Date:** 1-19-10

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-3A
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:02:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-005	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				FIELD		Analyst:
Conductivity	673	1.0		umhos/cm		12/1/2009 10:02:00 AM
Eh	172	-300		mV		12/1/2009 10:02:00 AM
pH	7.32	6.5-8.5		SU		12/1/2009 10:02:00 AM
Temperature	9.9			degC		12/1/2009 10:02:00 AM
Turbidity	22.4	5.0		NTU		12/1/2009 10:02:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		**Analyst: BY**
Bromide	ND	2.0		mg/L	10	12/11/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP				**200.7WTASP (E200.7)**		**Analyst: LJ**
Cadmium	ND	5.00		µg/L	1	1/12/2010 9:02:43 PM
Calcium	26200	5000		µg/L	1	1/12/2010 9:02:43 PM
Iron	1440	60.0		µg/L	1	1/12/2010 9:02:43 PM
Lead	ND	3.00		µg/L	1	1/12/2010 9:02:43 PM
Magnesium	ND	5000		µg/L	1	1/12/2010 9:02:43 PM
Manganese	597	10.0		µg/L	1	1/12/2010 9:02:43 PM
Potassium	ND	5000		µg/L	1	1/12/2010 9:02:43 PM
Sodium	ND	5000		µg/L	1	1/12/2010 9:02:43 PM
Hardness, Total(CaCO3)	65400	7000		µg/L	1	1/12/2010 9:02:43 PM
RESIDUE, DISSOLVED (TDS)				**160.1**		**Analyst: TCB**
Residue, Dissolved (TDS)	120	25		mg/L	1	12/7/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		**Analyst: VAW**
Alkalinity, Total (As CaCO3)	79	10		mg/LCaCO3	1	12/2/2009
CHLORIDE WATERS BY LACHAT				**325.2_W**		**Analyst: VAW**
Chloride	ND	1.00		mg/L	1	12/2/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		**Analyst: BY**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	12/9/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		**Analyst: KAM**
Nitrogen, Kjeldahl, Total	1.36	0.500		mg/L	1	12/8/2009
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		**Analyst: VAW**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	12/3/2009 7:47:00 AM
SULFATE				**375.4_W**		**Analyst: KEL**
Sulfate	ND	5.00		mg/L	1	12/19/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		**Analyst: TCB**

Approved By: PH **Date:** 1-19-10

Qualifiers:

- * Low Level
- ** Value exceeds Maximum Contaminant Value
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-3A
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:02:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-005	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**
Biochemical Oxygen Demand	6.00	4.00		mg/L	1	12/2/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	35	20		mg/L	1	12/6/2009
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **BS**
Organic Carbon, Total	5.7	3.0		mg/L	1	12/20/2009
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/12/2009

Approved By: PH **Date:** 1-19-10

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-6B
Lab Order:	U0912026	**Collection Date:**	12/1/2009 11:16:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-006	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				FIELD		Analyst:
Conductivity	1108	1.0		umhos/cm		12/1/2009 11:16:00 AM
Eh	180	-300		mV		12/1/2009 11:16:00 AM
pH	7.09	6.5-8.5		SU		12/1/2009 11:16:00 AM
Temperature	9.0			degC		12/1/2009 11:16:00 AM
Turbidity	13.3	5.0		NTU		12/1/2009 11:16:00 AM
INORGANIC ANIONS BY IC FOR WATERS				300_IC		Analyst: BY
Bromide	ND	2.0		mg/L	10	12/11/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP				200.7WTASP	(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	1/12/2010 9:07:21 PM
Calcium	38200	5000		µg/L	1	1/12/2010 9:07:21 PM
Iron	417	60.0		µg/L	1	1/12/2010 9:07:21 PM
Lead	ND	3.00		µg/L	1	1/12/2010 9:07:21 PM
Magnesium	10400	5000		µg/L	1	1/12/2010 9:07:21 PM
Manganese	167	10.0		µg/L	1	1/12/2010 9:07:21 PM
Potassium	ND	5000		µg/L	1	1/12/2010 9:07:21 PM
Sodium	15800	5000		µg/L	1	1/12/2010 9:07:21 PM
Hardness, Total(CaCO3)	138000	7000		µg/L	1	1/12/2010 9:07:21 PM
RESIDUE, DISSOLVED (TDS)				160.1		Analyst: TCB
Residue, Dissolved (TDS)	130	25		mg/L	1	12/7/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				310.2W		Analyst: VAW
Alkalinity, Total (As CaCO3)	140	10		mg/LCaCO3	1	12/2/2009
CHLORIDE WATERS BY LACHAT				325.2_W		Analyst: VAW
Chloride	14.7	1.00		mg/L	1	12/2/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				350.1_W		Analyst: KAM
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	12/8/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				351.2_W		Analyst: KAM
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	12/8/2009
NITROGEN, NITRATE (AS N)				353.2_WNO3		Analyst: VAW
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	12/3/2009 7:47:00 AM
SULFATE				375.4_W		Analyst: KEL
Sulfate	13.5	5.00		mg/L	1	12/19/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				405.1		Analyst: TCB

Approved By: PH **Date:** 1-19-10

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-6B
Lab Order:	U0912026	**Collection Date:**	12/1/2009 11:16:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-006	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	12/2/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	ND	20		mg/L	1	12/6/2009
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **BS**
Organic Carbon, Total	ND	3.0		mg/L	1	12/20/2009
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/12/2009

Approved By: PH **Date:** 1-19-10

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-7A
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:40:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-007	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				FIELD		Analyst:
Conductivity	217	1.0		umhos/cm		12/1/2009 10:40:00 AM
Eh	141	-300		mV		12/1/2009 10:40:00 AM
pH	7.86	6.5-8.5		SU		12/1/2009 10:40:00 AM
Temperature	8.1			degC		12/1/2009 10:40:00 AM
Turbidity	40.1	5.0		NTU		12/1/2009 10:40:00 AM
INORGANIC ANIONS BY IC FOR WATERS				300_IC		Analyst: BY
Bromide	ND	2.0		mg/L	10	12/11/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP				200.7WTASP	(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	1/12/2010 9:21:11 PM
Calcium	131000	5000		µg/L	1	1/12/2010 9:21:11 PM
Iron	1190	60.0		µg/L	1	1/12/2010 9:21:11 PM
Lead	ND	3.00		µg/L	1	1/12/2010 9:21:11 PM
Magnesium	35300	5000		µg/L	1	1/12/2010 9:21:11 PM
Manganese	3680	10.0		µg/L	1	1/12/2010 9:21:11 PM
Potassium	ND	5000		µg/L	1	1/12/2010 9:21:11 PM
Sodium	105000	5000		µg/L	1	1/12/2010 9:21:11 PM
Hardness, Total(CaCO3)	473000	7000		µg/L	1	1/12/2010 9:21:11 PM
RESIDUE, DISSOLVED (TDS)				160.1		Analyst: TCB
Residue, Dissolved (TDS)	640	25		mg/L	1	12/7/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				310.2W		Analyst: VAW
Alkalinity, Total (As CaCO3)	520	250		mg/LCaCO3	25	12/3/2009
CHLORIDE WATERS BY LACHAT				325.2_W		Analyst: VAW
Chloride	117	1.00		mg/L	1	12/2/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				350.1_W		Analyst: BY
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	12/9/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				351.2_W		Analyst: KAM
Nitrogen, Kjeldahl, Total	0.599	0.500		mg/L	1	12/8/2009
NITROGEN, NITRATE (AS N)				353.2_WNO3		Analyst: VAW
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	12/3/2009 7:47:00 AM
SULFATE				375.4_W		Analyst: KEL
Sulfate	23.1	5.00		mg/L	1	12/19/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				405.1		Analyst: TCB

Approved By: PH **Date:** 1-19-10

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-7A
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:40:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-007	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	12/2/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	21	20		mg/L	1	12/6/2009
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **BS**
Organic Carbon, Total	5.2	3.0		mg/L	1	12/20/2009
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/12/2009

Approved By: PH **Date:** 1-19-10

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1A Dupe
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:18:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-008	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS				300_IC		Analyst: BY
Bromide	ND	2.0		mg/L	10	12/11/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP				200.7WTASP	(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	1/12/2010 9:25:44 PM
Calcium	43300	5000		µg/L	1	1/12/2010 9:25:44 PM
Iron	4450	60.0		µg/L	1	1/12/2010 9:25:44 PM
Lead	ND	3.00		µg/L	1	1/12/2010 9:25:44 PM
Magnesium	11100	5000		µg/L	1	1/12/2010 9:25:44 PM
Manganese	230	10.0		µg/L	1	1/12/2010 9:25:44 PM
Potassium	ND	5000		µg/L	1	1/12/2010 9:25:44 PM
Sodium	12300	5000		µg/L	1	1/12/2010 9:25:44 PM
Hardness, Total(CaCO3)	154000	7000		µg/L	1	1/12/2010 9:25:44 PM
RESIDUE, DISSOLVED (TDS)				160.1		Analyst: TCB
Residue, Dissolved (TDS)	270	25		mg/L	1	12/7/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				310.2W		Analyst: VAW
Alkalinity, Total (As CaCO3)	120	10		mg/LCaCO3	1	12/2/2009
CHLORIDE WATERS BY LACHAT				325.2_W		Analyst: VAW
Chloride	29.5	1.00		mg/L	1	12/2/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				350.1_W		Analyst: KAM
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	12/8/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				351.2_W		Analyst: KAM
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	12/8/2009
NITROGEN, NITRATE (AS N)				353.2_WNO3		Analyst: VAW
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	12/3/2009 7:47:00 AM
SULFATE				375.4_W		Analyst: KEL
Sulfate	19.3	5.00		mg/L	1	12/19/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				405.1		Analyst: TCB
Biochemical Oxygen Demand	ND	4.00		mg/L	1	12/2/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				410.4		Analyst: KAM
Chemical Oxygen Demand	ND	20		mg/L	1	12/6/2009
TOTAL ORGANIC CARBON (TOC)				415.1		Analyst: BS
Organic Carbon, Total	ND	3.0		mg/L	1	12/20/2009

Approved By: PH **Date:** 1-19-10

Qualifiers:

- * Low Level
- ** Value exceeds Maximum Contaminant Value
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *19-Jan-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1A Dupe
Lab Order:	U0912026	**Collection Date:**	12/1/2009 10:18:00 AM
Project:	Towslee Landfill		
Lab ID:	U0912026-008	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/12/2009

Approved By: PH **Date:** 1-19-10

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-1A**

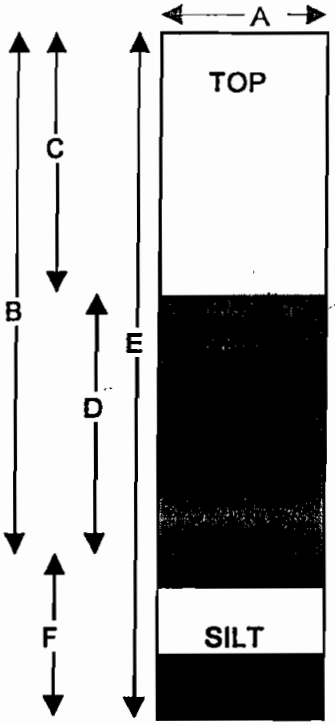
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.7	feet
C.	Depth to Water	0.06	feet
D.	Length of Water Column (calculated)	33.64	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	5.3824	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	16.1472	gallons
	Actual Volume Evacuated	16.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	11/30/09	12/1/09
Time	10:46	10:18
EH	128	107
Temperature	8.9°C	6.6°C
pH	8.06	8.35
Specific Cond.	770	862
Turbidity	51.4	47.4
Dissolved Oxygen	N/A	N/A
Appearance	Cloudy	Cloudy

Weather: 38° Rain 34° Cloudy

Observations: Dupe

% Recharge:

Initial Depth to Water 0.06 feet

Recharge Depth to Water 0.29 feet

2nd water column height 20.69%

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Sampler: Dan Arnold

Signature: Dan Arnold

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-1B**

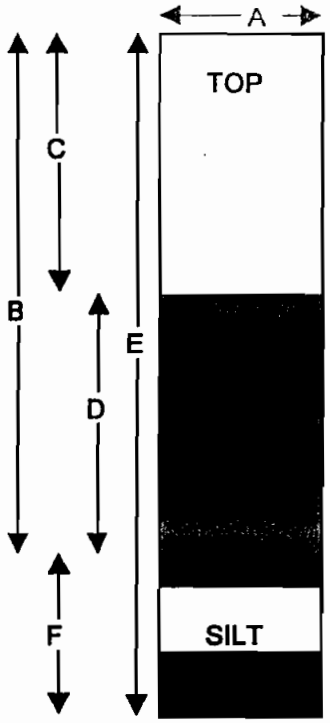
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	55.5	feet
C.	Depth to Water	0.92	feet
D.	Length of Water Column (calculated)	54.58	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	8.7328	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	26.1984	gallons
	Actual Volume Evacuated	26.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	11/30/09	12/1/09
Time	10:50 am	10:27 am
EH	119	114
Temperature	6.8°C	7.5°C
pH	8.15	8.23
Specific Cond.	699	681
Turbidity	7.47	16.4
Dissolved Oxygen	N/A	N/A
Appearance	Clear	Sl Cloudy

% Recharge:

Initial Depth to Water 0.92 feet

Recharge Depth to Water 0.93 feet

2nd water column height 98.92 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 38° Rain / 34° Cloudy

Observations:

Sampler: Dan Aumell

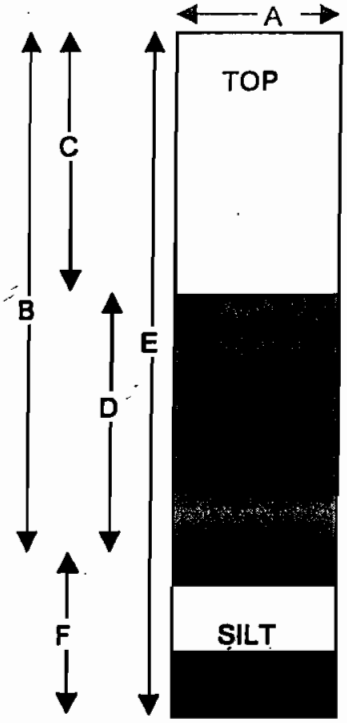
Signature: Dan Aumell

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**
Project: **Towslee Landfill**
Well ID.: **MW-2A**

Condition of Well: Good
Locked: ~~No~~ Yes
Method of Evacuation: Dedicated Bailer
Lock ID: 3900
Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	12.8	feet
C.	Depth to Water	5.45	feet
D.	Length of Water Column (calculated)	7.35	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	1.176	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	3.528	gallons
	Actual Volume Evacuated	3.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	11/30/09	12/1/09
Time	11:52 am	10:55 am
EH	172	143
Temperature	7.9°C	6.4°C
pH	7.25	7.78
Specific Cond.	1265	1406
Turbidity	268.0	19.6
Dissolved Oxygen	N/A	N/A
Appearance	Very Cloudy	Sl Cloudy
Weather:	38° Cloudy	34° Cloudy
Observations:		

% Recharge:

Initial Depth to Water 5.45 feet

Recharge Depth to Water 4.84 feet

2nd water column height 112.60 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Sampler: Dan Aurell

Signature: Dan Aurell

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-2B**

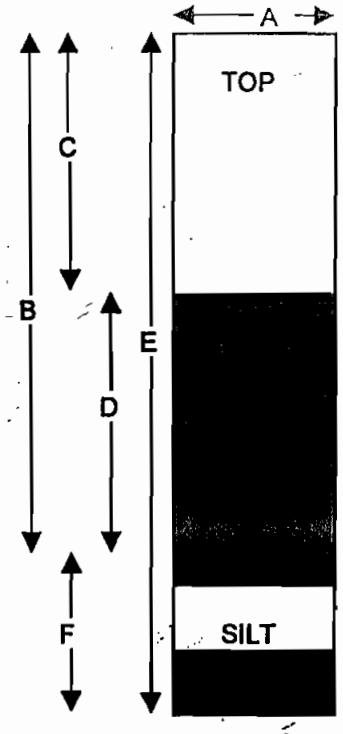
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.5	feet
C.	Depth to Water	6.42	feet
D.	Length of Water Column (calculated)	27.08	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	4.3328	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	12.9984	gallons
	Actual Volume Evacuated	13	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	11/30/09	12/1/09
Time	11:57 am	10:59 am
EH	189	174
Temperature	8.7°c	8.3°c
pH	6.96	7.19
Specific Cond.	1508	1976
Turbidity	16.2	14.0
Dissolved Oxygen	N/A	N/A
Appearance	SI Cloudy	SI Cloudy
Weather:	38° Cloudy	34° Cloudy
Observations:		

% Recharge:

Initial Depth to Water 6.42 feet

Recharge Depth to Water 5.38 feet

2nd water column height 119.33 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Sampler: Dan Averell

Signature: Dan Averell

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-3A**

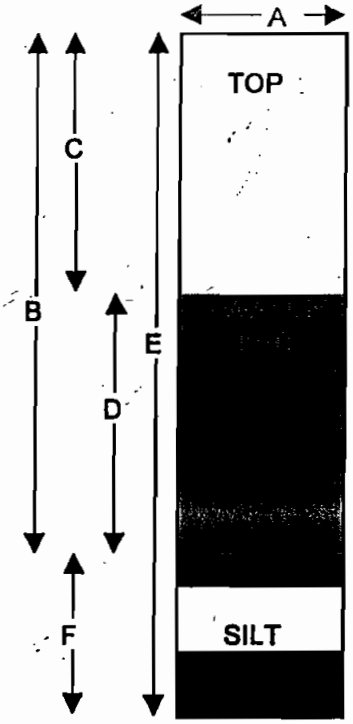
Condition of Well: Good

Locked: ~~Yes~~ No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	22.40	feet
C.	Depth to Water	6.26	feet
D.	Length of Water Column (calculated)	16.14	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	2.5824	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	7.7472	gallons
	Actual Volume Evacuated	8	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	11/30/09	12/1/09
Time	10:25 am	10:02 am
EH	185	172
Temperature	10.3°C	9.9°C
pH	7.11	7.32
Specific Cond.	266	673
Turbidity	11.4	22.4
Dissolved Oxygen	N/A	N/A
Appearance	Sl Cloudy	Sl Cloudy
Weather:	38° Rain	34° Cloudy
Observations:		

% Recharge:

Initial Depth to Water 6.26 feet

Recharge Depth to Water 5.63 feet

2nd water column height 111.19 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Sampler: Dan Arnold

Signature: Dan Arnold

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-6B**

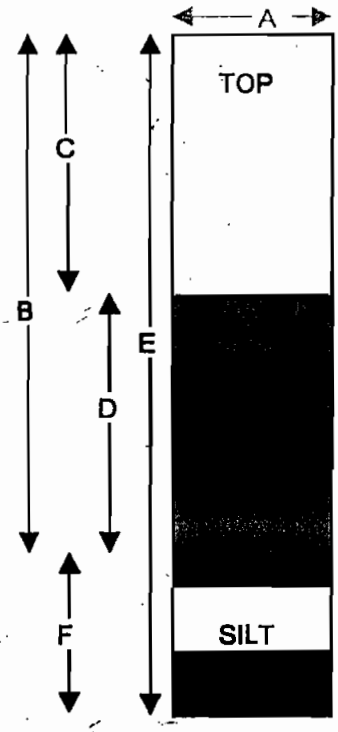
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	40.75	feet
C.	Depth to Water	13.12	feet
D.	Length of Water Column (calculated)	27.63	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	4.4208	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	13.2624	gallons
	Actual Volume Evacuated	13.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	11/30/09	12/1/09
Time	12:19 pm	11:16 am
EH	148	180
Temperature	9.8°c	9.0°c
pH	7.69	7.09
Specific Cond.	821	1108
Turbidity	9.89	13.3
Dissolved Oxygen	N/A	N/A
Appearance	Clear	Sl Cloudy

% Recharge:

Initial Depth to Water 13.12 feet

Recharge Depth to Water 13.19 feet

2nd water column height 99.47 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 38° Cloudy 34° Cloudy

Observations:

Sampler: Dan Axwell

Signature: Dan Axwell

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-7A**

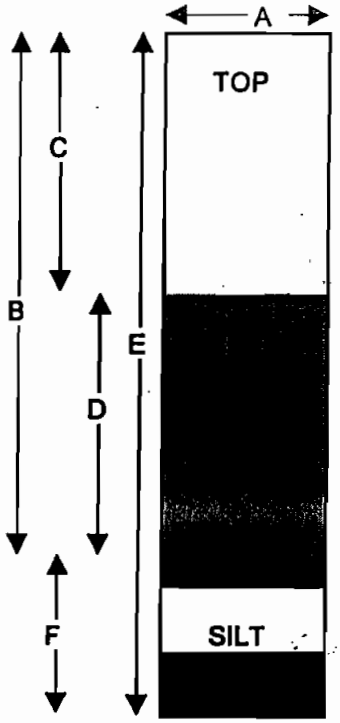
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	22.20	feet
C.	Depth to Water	2.69	feet
D.	Length of Water Column (calculated)	19.51	feet
	Conversion Factor	X.16	----
	Well Volume (calculated)	3.1216	gallons
	No. of Volumes to be Evacuated	X3	----
	Total Volume to be Evacuated	9.3648	gallons
	Actual Volume Evacuated	9.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	11/30/09	12/1/09
Time	11:33 am	10:40 am
EH	179	141
Temperature	9.3°C	8.1°C
pH	7.19	7.86
Specific Cond.	1710	217
Turbidity	>1000	40.1
Dissolved Oxygen	N/A	N/A
Appearance	Very Cloudy Brown	Cloudy

Weather: 38° Rain / 34° Cloudy

Observations:

% Recharge:

Initial Depth to Water 2.69 feet

Recharge Depth to Water 2.75 feet

2nd water column height 97.82 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Sampler: Dan Aumell

Signature: Dan Aumell

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057
Phone (315) 437 0255 Fax (315) 437 1209

Chain of Custody Record

ULI Computer Input Form

Client: CORTLAND COUNTY

Project # / Project Name: TOWSLEE LANDFILL

Client Contact: PATRICK REIDY

Phone #: 607-753-0851

Location (city/state) Address: CORTLANDVILLE, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	Number of Containers	1	2	3	4	5	6	7	8	9	10	Remarks
					U091203												93 REGS ASP-A
MW-1A	12/1/09	10:18 am	WATER	GRAB		6	X	X	X	X	X	X	X				
MW-1B	12/1/09	10:27am	WATER	GRAB		6	X	X	X	X	X	X	X				
MW-2A	12/1/09	10:55 am	WATER	GRAB		6	X	X	X	X	X	X	X				
MW-2B	12/1/09	10:59 am	WATER	GRAB		6	X	X	X	X	X	X	X				
MW-3A	12/1/09	10:02am	WATER	GRAB		6	X	X	X	X	X	X	X				
MW-6B	12/1/09	11:16am	WATER	GRAB		6	X	X	X	X	X	X	X				MSD
MW-7A	12/1/09	10:40am	WATER	GRAB		6	X	X	X	X	X	X	X				
MW-1A DUPE	12/1/09	10:18 am	WATER	GRAB		6	X	X	X	X	X	X	X				
MS/MSD MW-6B	12/1/09																

	Parameter and Method	Sample bottle: Type	Size	Preservative
1	FIELD PH,TEMP,EH,SPEC.COND.,TURBIDITY	N/A		
2	BOD5,NO3,TDS,SO4,CL-,BROMIDE	PLASTIC	2000ML	NONE
3	TKN,NH3,COD	PLASTIC	500 ML	H2SO4
4	TOC	PLASTIC	120 ML	1:1 HCL
5	ALKALINITY	GLASS	250 ML	NONE
6	T-PHENOLS	AMBER	LITER	H2SO4
7	T-CD,CA,FE,PB*,MG,MN,K,NA,+CALC. HARDNESS	PLASTIC	500 ML	HNO3
8	D-CD,CA,FE,PB*,MG,MN,K,NA,+CALC. HARDNESS	PLASTIC	500 ML	HNO3
9				
10				

Sampled by (Print): Dan Axtell

Company: DLI

Name of Courier

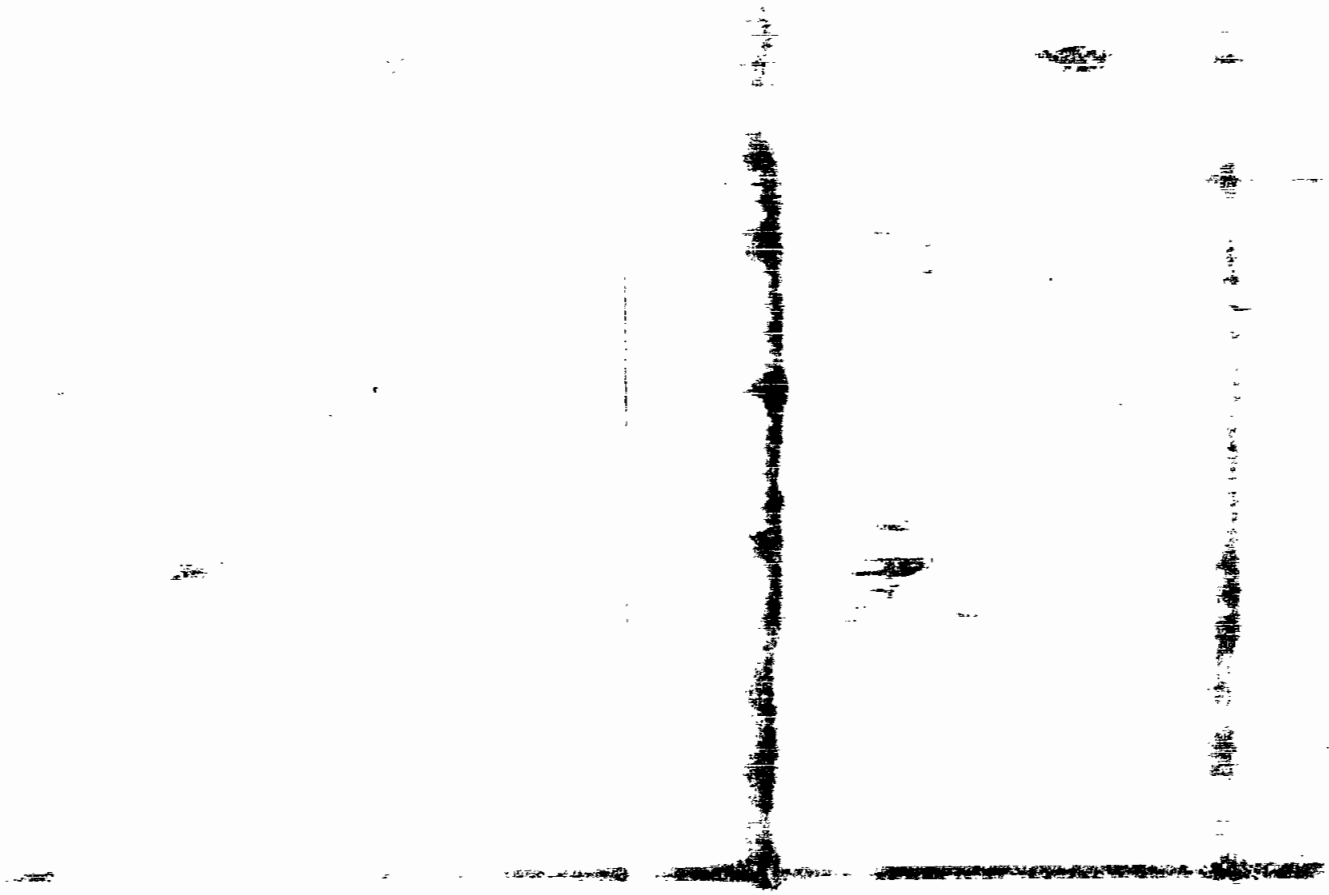
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign) Dan Axtell	Date 12/1/09	Time 3:30pm	Rec'd for Lab by: K Chamberlain 12/2/09 0800

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Appendix C

Historical Analytical Data

Cortland County Towslee Landfill



Historical Data Page Index
Cortland County Towslee Landfill

Well	Field/ Inorganic Parameters	Total Metals	Dissolved Metals	Organics
MW-1A	2	9	16	23
MW-1B	3	10	17	24
MW-2A	4	11	18	25
MW-2B	5	12	19	26
MW-3A	6	13	20	27
MW-6B	7	14	21	28
MW-7A	8	15	22	29

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-1A - Overburden

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Temp	(deg C)	--	--	8.5	12.8	19.5	15.9	9.3	6.7	21.6	16	11.2	21.7	10.6	3.6	19.6	12.6	6.6
Eh	(mV)	--	--	700	105	190	170	59	-107	-111	-68	-57	-62	-69	-21	143	162	107
pH	(Std Units)	--	--	7.8	7.7	7.52	7.69	8.29	7.93	7.83	8.01	7.85	8.07	8.23	7.4	8.09	7.67	8.35
Sp. Cond	(uS/cm)	--	--	306	355	353	369	204	221	241	658	351	344	334	344	199	201	862
Color	(Units)	5	20	--	--	<5	--	--	--	--	30	--	--	--	--	18	--	--
Turbidity	(NTU)	--	--	660	73	131	29	55.6	34.8	24.3	28.1	16	11.6	24.6	16.7	23.4	30.6	47.4
ALK as CaCO3	(mg/l)	160	145	127	139	122	132	140	120	120	130	120	120	120	130	100 H	120 H	120
HARD as CaCO3	(mg/l)	4000	240	167	140	148	148	134	153	148	146	151	159	165	161	163	158	161
TDS	(mg/l)	494	214	340	213	236	229	127	208	250	204	195	116	188 H	256	180	210	190
Chloride	(mg/l)	152	46	21.3	22.2	34.2	26.7	28.7	27	27	27.9	28	25.9	29.7	30.4	30.7	29.5	30
Sulfate	(mg/l)	20.6	14.6	27.3	12.3	16.5	14.9	8.79	14.2	48.6	11.2	16.3	<5	11.6	14	14.3	12.7	6.3
Bromide	(mg/l)	1.2	0.8	< 0.1	<0.1	<0.1	0.117	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<2	<0.2	<2	<2	<2
NO3 (As N)	(mg/l)	<0.1	<0.1	< 0.1	0.217	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NH4 (As N)	(mg/l)	6	2.6	0.276	<0.02	0.161	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TKN (as N)	(mg/l)	18	3.8	23.3	0.529 H	0.366	<0.2	2.2	<0.5	5.66	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
COD	(mg/l)	305	64	< 10	<10	<10	<10	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
BOD	(mg/l)	5	<2	< 3	<3	<3	<3	<4	<4	<4	<4	9	<4	<4	<4	<4	<4	<4
TOC	(mg/l)	4.2	1.6	4.76	2.61	<2	<2	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Phenolics, Tot	(mg/l)	0.003	0.0015	< 0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--	--	<0.01	--	--	--	--	< 0.01	--	--

H - exceeded hold time

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-1B - Bedrock

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Temp	(deg C)	--	--	5	11.4	16.4	15.8	9.6	7.2	21.5	16.3	1.7	10.2	20.9	11.8	2.7	18.7	12.1	7.5
Eh	(mV)	--	--	385	45	155	115	84	-122	-143	-80	196	-78	-78	-78	-44	139	155	114
pH	(Std Units)	--	--	7.7	7.8	7.69	7.9	8.47	8.24	8.03	8.28	8.66	8.34	8.33	8.38	7.8	8.13	7.76	8.23
Sp. Cond	(uS/cm)	--	--	157	257	244	200	156	141	1241	943	1075	245	223	229	205	124	1145	681
Color	(Units)	<5	<5	--	--	<5	--	--	--	--	30	7	--	--	--	--	9	--	--
Turbidity	(NTU)	--	--	187	45	70	15.6	67.4	9.62	10.2	22.8	35.8	14.6	12.3	6.33	2.47	8.2	12.2	16.4
ALK as CaCO3	(mg/l)	94.8	93.6	92	94	91	89	99	96	100	100	100	100	100	99	92 H	100	98	86
HARD as CaCO3	(mg/l)	88	140	97.6	81.9	89	82	83.6	105	104	90.8	89.3	103	107	105	97.1	111	108	206
TDS	(mg/l)	143	86	120	111	142	120	62	162	130	104	152	130	80	140	160	110	88	110
Chloride	(mg/l)	<2	<2	2.55	2.28	3.47	0.611	3.24	4.45	3.16	6.44	3.15	5.95	5.61	6.03	2.86 H	4.74	6.86	4.71
Sulfate	(mg/l)	5.2	<5	4.72	5.51	5.33	3.76	7.09	6.31	28.8	5.26	<5	9.42	<5	<5	6.37	5.19	10.4	18.3
Bromide	(mg/l)	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NO3 (As N)	(mg/l)	0.2	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NH4 (As N)	(mg/l)	<0.02	0.04	0.0938	<0.02	<0.02	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TKN (as N)	(mg/l)	<0.2	<0.2	0.54	0.755 H	0.497	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
COD	(mg/l)	<15	<15	< 10	<10	<10	<10	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
BOD	(mg/l)	<2	<2	< 3	<3	<3	<3	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
TOC	(mg/l)	9.3	<1	5.41	2.34	<2	<2	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Phenolics, Tot	(mg/l)	<0.001	<0.001	< 0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--

H - exceeded hold time

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-2A - Overburden

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Temp	(deg C)	--	--	4.4	11.6	17.2	14.2	9.2	7.7	18	14.6	3.1	11.1	19.1	12	3.1	16.5	13	6.4
Eh	(mV)	--	--	140	-5	120	90	136	-62	-81	-25	42	-48	-31	-34	-34	239	227	143
pH	(Std Units)	--	--	6.4	6.4	6.15	6.41	7.31	7.14	7.41	7.12	7.94	7.81	7.58	7.63	7.63	6.44	6.52	7.78
Sp. Cond	(uS/cm)	--	--	621	767	784	1100	364	450	395	574	617	424	402	695	601	413	382	1406
Color	(Units)	30	60	--	--	33	--	--	--	--	210	40	--	--	--	--	65	--	--
Turbidity	(NTU)	--	--	18.6	18.3	195	27	48.9	30.7	15	5.07	7.83	26.8	49.2	8.52	5.6	40.9	17.8	19.6
ALK as CaCO3	(mg/l)	702	784	330	355	384	423	380	320	420	290	360	290	380	360	320	360	340	280
HARD as CaCO3	(mg/l)	1300	720	241	260	265	301	225	262	275	165	246	203	303	343	229	295	265	95
TDS	(mg/l)	1180	986	381	397	491	487	262	355	395	284	410	357	320	356	316	220	310	230
Chloride	(mg/l)	156	149	23.3	25.7	23.5	25.7	21.2	14.7	24.4	10.6	21	13.5	20.2	15.5	13.7	20.5	17.7	12.5
Sulfate	(mg/l)	<5	<5	4.22	5.5	3.43	3.18	<5	<5	<10	9.93	<10	<5	<20	<10	<5	<5	7.79	10.2
Bromide	(mg/l)	0.8	<0.5	0.189	0.18	0.237	0.261	<0.2	<0.2	<2	<2	<2	<200	<20	<20	<2	<2	<2	<2
NO3 (As N)	(mg/l)	<0.1	0.14	0.228	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NH4 (As N)	(mg/l)	23	9.1	10.6	18.4	16	15.1	10.2	9.89	14.1	13.5	8.78	8.2	11.9	10.8	8.43	11.8	10.3	8.75
TKN (as N)	(mg/l)	31.5	21.2	10.6	14 H	16.5	15	132	12.5	16.1	12.6	10.7	11.2	12.9	11.6	10.3	13.5	13.1	12.5
COD	(mg/l)	127	136	< 10	13.8	27	15.6	<20	<20	46	22	23	21	36	32	<20	31	32	26
BOD	(mg/l)	6	3	16	4.5	3.4	<3	6	7	7	<4	<4	5	7	<4	<4	12	<4	<4
TOC	(mg/l)	42.5	24.1	10.1	7.18	5.67	5.68	6.7	4.8	7.3	6.3	21.8	5.2	6.3	6	4.8	7.2	5.9	6.5
Phenolics, Tot	(mg/l)	0.0071	0.0066	< 0.005	0.008	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--

H - exceeded hold time

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-2B - Bedrock

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Temp	(deg C)	--	--	4.5	10.5	15.9	14.5	9.1	8.3	16.5	15.8	3.2	10.3	18.3	12.9	4.9	15.5	13.2	8.3
Eh	(mV)	--	--	175	110	125	115	136	-73	-77	-34	40	-46	-38	-33	-22	237	229	174
pH	(Std Units)	--	--	6.4	6.4	6.35	6.52	7.14	7.35	7.37	7.35	8.34	7.77	7.73	7.59	7.42	6.43	6.47	7.19
Sp. Cond	(uS/cm)	--	--	1350	1560	1420	1540	701	682	500	329	339	1205	1132	1137	1135	739	670	1978
Color	(Units)	5	10	--	--	<5	--	--	--	--	15	7	--	--	--	--	8	--	--
Turbidity	(NTU)	--	--	17.3	19.8	18.7	28	14.2	11	9.48	37	41.5	13.5	15.4	3.14	11	4.17	5.88	14
ALK as CaCO3	(mg/l)	577	673	652	670	612	646	650	480	600	640	640	620	640	680	650	580	650	610
HARD as CaCO3	(mg/l)	960	900	697	726	686	675	723	575	716	652	678	654	728	788	678	782	755	608
TDS	(mg/l)	1640	1230	982	1020	1040	980	825	823	935	868	840	808	720	864	872	870	860	680
Chloride	(mg/l)	267	238	145	154	122	121	167	131	163	161	160	132	148	162	118	159	150	140
Sulfate	(mg/l)	<5	<5	1.18	2.96	<1	<1	<5	<5	10	<5	<5	<5	7.62	<5	<5	<5	<5	<5
Bromide	(mg/l)	1.1	0.9	0.878	1.01	0.902	0.912	0.95	<2	<2	0.92	<2	<20	<2	<0.2	<0.2	<0.2	<0.2	<0.2
NO3 (As N)	(mg/l)	<0.1	<0.1	< 0.1	0.216	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NH4 (As N)	(mg/l)	0.95	1.3	0.389	0.824	0.786	0.282	0.921	0.844	1.31	1.22	0.785	0.572	1.01	0.504	0.642	0.665	0.73	0.696
TKN (as N)	(mg/l)	2.6	2	1.31	1.78 H	1.64	1.9	1.84	1.62	1.67	1.53	1.33	1.55	1.03	1.13	1.22	1.19	1.07	1.12
COD	(mg/l)	58	61	< 10	17.2	24.6	27	21	<20	<20	<20	24	<20	<20	<20	<20	23	26	<20
BOD	(mg/l)	2	2	9.3	5.1	3.7	13	<4	4	<4	<4	<4	5	<4	<4	<4	<4	<4	<4
TOC	(mg/l)	12.3	11.9	< 2	7.76	4.82	7.49	6.4	3	5.7	17.2	82.6	23.2	4.7	6.8	4.5	5.5	4.6	4.6
Phenolics, Tot	(mg/l)	0.0044	0.0039	< 0.005	<0.005	<0.005	0.1	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	0.024	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--

H - exceeded hold time

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-3A - Bedrock

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Temp	(deg C)	--	--	6.4	11.7	15.3	15.7	9.3	5.6	17.9	14.6	3.4	12.1	20.6	13.5	4.2	14.8	14.2	9.9
Eh	(mV)	--	--	215	45	115	220	-50	-94	-115	-76	174	-34	-39	-41	-26	359	219	172
pH	(Std Units)	--	--	7.2	6.9	7.01	6.84	7.82	7.64	7.84	8.25	8.06	7.62	7.66	7.72	7.49	8.16	6.69	7.32
Sp. Cond	(uS/cm)	--	--	286	299	342	397	143	898	1757	939	1074	261	1759	204	1069	187	658	673
Color	(Units)	<5	<5	--	--	<5	--	--	--	--	115	15	--	--	--	--	7	--	--
Turbidity	(NTU)	--	--	58	11.9	5.2	7.2	10.6	19.6	16.4	13.7	17	17.7	17.9	6.67	10.9	4.55	20.2	22.4
ALK as CaCO3	(mg/l)	145	146	162	170	140	152	82	59	170	130	110	170	91	97	18	160	50	79
HARD as CaCO3	(mg/l)	1250	200	153	179	191	158	74	58.1	150	86.2	97.7	123	76.7	97.9	38.1	196	37.8	65.4
TDS	(mg/l)	320	269	215	208	207	207	38	168	210	144	115	188	60	112	88	120	100	120
Chloride	(mg/l)	31.4	28.7	14	12.7	13.5	12.7	3.37	1.8	12	5.73	2.43	10.5	1.1	1.75	1.85	9.25	<1	<1
Sulfate	(mg/l)	16	13	9.14	11	9.98	8.01	<5	<5	20.5	<5	<5	7.74	19.9	<5	7.53	11.2	<5	<5
Bromide	(mg/l)	0.5	<0.5	< 0.1	<0.1	0.152	0.143	1.2	<2	<0.2	<2	<2	<0.2	<20	<2	<0.2	<0.2	<2	<2
NO3 (As N)	(mg/l)	<0.1	0.19	< 0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	0.338	<0.2	<0.2	1.14	<0.2	<0.2	<0.2	<0.2
NH4 (As N)	(mg/l)	<0.02	0.09	0.0969	<0.02	<0.02	<0.1	1.45	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TKN (as N)	(mg/l)	0.4	0.24	0.455	1.09 H	0.239	0.266	4.26	1.47	<0.5	<0.5	<0.5	<0.5	0.718	<0.5	<0.5	<0.5	0.786	1.36
COD	(mg/l)	19	<15	< 10	<10	13	<10	47	<20	<20	<20	23	<20	34	<20	<20	<20	40	35
BOD	(mg/l)	<2	<2	< 3	<3	<3	<3	<4	8	<4	<4	<4	7	9	<4	<4	<4	8	6
TOC	(mg/l)	4.5	1.9	5.58	<2	<2	<2	<3	<3	<3	3.7	<3	<3	7.3	3.6	<3	<3	9.2	5.7
Phenolics, Tot	(mg/l)	0.0027	<0.001	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--

H - exceeded hold time

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-6B - Bedrock

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Temp	(deg C)	--	--	7.9	10.5	12.2	14.3	9.7	7.4	15.6	14.8	3.7	10.4	16.1	12.6	6.5	14.1	12.7	9
Eh	(mV)	--	--	250	85	225	180	82	-92	-105	-57	121	-71	-81	-54	-38	186	190	180
pH	(Std Units)	--	--	6.7	7.4	7.52	7.11	8.04	7.73	7.85	7.82	8.55	8.25	8.21	7.96	7.7	7.32	7.2	7.09
Sp. Cond	(uS/cm)	--	--	347	287	304	329	220	249	236	810	199	360	343	355	327	187	1999	1108
Color	(Units)	<5	20	--	--	<5	--	--	--	--	6	7	--	--	--	--	11	--	--
Turbidity	(NTU)	--	--	40	19.9	15.8	14.2	68.9	8.1	9.48	12.5	13.6	11.6	2.19	5.24	9.56	3.62	5.13	13.3
ALK as CaCO3	(mg/l)	240	224	131	148	154	153	180	160	150	140	140	140	110	120	120	140	140	140
HARD as CaCO3	(mg/l)	300	240	135	144	131	133	156	139	138	124	136	142	137	134	142	154	148	138
TDS	(mg/l)	98	280	209	175	190	187	127	105	220	208	198	225	116	168	188	190 H	170	130
Chloride	(mg/l)	38.2	35	21.1	2.33	2.32	3.39	11.6	6.99	13.8	25.9	16.7	16.9	31.1	28.6	13.3	19.4	19.7	14.7
Sulfate	(mg/l)	27.1	22.2	13.8	3.95	3.28	6.14	8.54	6.79	17.3	12.7	18.1	16.5	26.8	17.2	13.2	14.2	10.3	13.5
Bromide	(mg/l)	<0.5	<0.5	< 0.1	<0.1	0.122	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<2
NO3 (As N)	(mg/l)	0.6	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NH4 (As N)	(mg/l)	0.09	2.5	0.0549	<0.02	0.096	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TKN (as N)	(mg/l)	0.6	3.3	0.392	0.904 H	0.214	0.279	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
COD	(mg/l)	40	19	< 10	<10	11.6	<10	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
BOD	(mg/l)	<2	2	< 3	5.1	3.2	<3	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
TOC	(mg/l)	6	5.8	5.22	3.14	<2	<2	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Phenolics, Tot	(mg/l)	0.0032	<0.001	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--

H - exceeded hold time

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-7A - Overburden

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Temp	(deg C)	--	--	4.5	11.6	17.4	13.9	9.3	7.8	18.8	15.2	2	9.8	18.6	11.1	4.2	16	12.6	8.1
Eh	(mV)	--	--	215	120	245	190	77	-64	-69	-24	245	-37	-42	-41	-19	219	194	141
pH	(Std Units)	--	--	6.5	6.4	6.34	6.62	7.04	7.12	7.2	7.11	7.77	7.63	7.73	8.09	7.35	6.77	7.12	7.86
Sp. Cond	(uS/cm)	--	--	1360	1520	1440	1480	893	765	514	972	561	1174	618	214	1014	622	644	217
Color	(Units)	20	5	--	--	<5	--	--	--	--	85	7	--	--	--	--	80	--	--
Turbidity	(NTU)	--	--	214	18	13.6	42	45.3	54.3	40.9	48.1	39.3	44.4	41.6	42.7	40.9	375	33.5	40.1
ALK as CaCO3	(mg/l)	569	660	648	675	595	635	640	510	530	540	570	560	600	670	500	500	480	520
HARD as CaCO3	(mg/l)	1010	1150	627	599	531	526	529	499	481	459	528	506	538	569	496	534	499	473
TDS	(mg/l)	1220	1240	981	967	963	949	753	865	3000	752	800	1560	668	728	748	720	620	640
Chloride	(mg/l)	300	276	144	143	119	85	145	131	145	141	141	1260	136	135	114	128	120	117
Sulfate	(mg/l)	27.4	20.2	20.6	22.5	19.7	14.1	16.5	23.2	22.7	17.8	12.2	<20	21	16.1	21	22.3	19.5	23.1
Bromide	(mg/l)	0.6	<0.5	0.753	0.633	0.822	0.483	0.6	<0.2	<2	<2	<2	<200	<20	<20	<0.2	<0.2	<2	<2
NO3 (As N)	(mg/l)	<0.1	0.2	< 0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	0.25	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NH4 (As N)	(mg/l)	0.93	0.89	0.34	<0.02	<0.02	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TKN (as N)	(mg/l)	1.1	1.4	1.5	1.68 H	0.75	1.11	1.47	3.6	0.784	0.591	0.522	0.949	<0.5	<0.5	1.92	0.851	0.927	0.599
COD	(mg/l)	43	112	21.2	16.5	26.4	20.5	27	<20	<20	<20	<20	36	22	29	<20	38	37	21
BOD	(mg/l)	<2	2	< 3	<3	<3	<3	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
TOC	(mg/l)	10.1	12.6	12.8	8.19	6.12	7.46	8.1	6	7.2	11.5	69.9	17.8	5.2	6.1	5.1	5.7	5	5.2
Phenolics, Tot	(mg/l)	0.0051	0.0027	< 0.005	0.007	<0.005	<0.005	<0.005	0.006	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--

H - exceeded hold time

Historical Water Quality Data - Towslee Landfill

MW-1A Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Aluminum	724	16.9	--	--	2.96	--	--	--	--	2.07	--	--	--	--	1.57	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	--	--	--	--	<0.015	--	--
Arsenic	0.353	0.0134	--	--	<0.025	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--
Barium	8.11	0.258	--	--	0.104	--	--	--	--	0.0917	--	--	--	--	0.0732	--	--
Beryllium	0.0287	0.00083 B	--	--	<0.005	--	--	--	--	<0.003	--	--	--	--	<0.003	--	--
Boron	0.0873 B	0.0665 B	--	--	0.073	--	--	--	--	<0.5	--	--	--	--	<0.5	--	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	430	48.6	46.2	41.8	43.2	43.9	39.2	44.5	43.5	42.2	43.2	46.2	48.3	47.2	47	46.5	45
Chromium	1.04	0.0265	--	--	<0.005	--	--	--	--	<0.005	--	--	--	--	<0.005	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--
Cobalt	0.59	0.0168 B	--	--	<0.015	--	--	--	--	<0.02	--	--	--	--	<0.02	--	--
Copper	0.996	0.0254	--	--	0.022	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--
Iron	1550	35.7	19.4	2.99	6.03	2.11	1.67	2.14	1.21	3.49	1.17	0.217	0.429	0.818	1.65	0.348	6.19
Lead	0.454	0.0123	0.00716	0.007	<0.005	<0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	309	15.6	12.6	8.67	9.7	9.43	8.87	10.2	9.67	9.8	10.6	10.7	10.8	10.6	11.1	10	11.9
Manganese	24.6	0.783	0.534	0.194	0.38	0.306	0.19	0.193	0.206	0.203	0.157	0.135	0.151	0.0917	0.169	0.155	0.251
Mercury	0.0014	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	--	--	--	--	<0.0002	--	--
Nickel	1.33	0.0364 B	--	--	<0.01	--	--	--	--	<0.03	--	--	--	--	<0.03	--	--
Potassium	77.5	6.97	2.72	1.6	1.7	1.62	1.74	2.31	1.59	2.06	1.65	1.51	1.69	1.52	1.78	<1	<5
Sodium	37.3	26	17.1	13	13.6	13.5	12.2	12.5	13	11.8	12.5	13.8	13.2	13.4	13.9	12.5	12.6
Selenium	<0.028	<0.0028	--	--	<0.02	--	--	--	--	<0.005	--	--	--	--	<0.005	--	--
Silver	<0.009	<0.0009	--	--	<0.015	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--
Thallium	<0.026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--
Vanadium	0.856	0.0243 B	--	--	<0.015	--	--	--	--	<0.03	--	--	--	--	<0.03	--	--
Zinc	3.36	0.0874	--	--	0.106	--	--	--	--	0.0235	--	--	--	--	<0.01	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-1B Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Aluminum	0.662	0.134 B	--	--	1.09	--	--	--	--	0.537	0.518	--	--	--	--	0.255	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--
Arsenic	<0.0024	<0.0024	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Barium	0.168 B	0.154 B	--	--	0.194	--	--	--	--	0.172	0.199	--	--	--	--	0.232	--	--
Beryllium	0.0001 B	<0.0001	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--
Boron	0.0197 B	0.0247 B	--	--	<0.05	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5	--	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00542	<0.005	<0.005	<0.005
Calcium	26.7	24.7	26.8	23.9	25.8	24.1	23.7	30	29.9	26	25.1	28.6	30.2	30	27.7	31.4	31.1	58.7
Chromium	0.002 B	<0.0004	--	--	<0.005	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.01	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Cobalt	<0.0011	<0.0011	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--
Copper	0.004 B	0.0025 B	--	--	0.017	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Iron	1.33	0.226	9.42	1.48	1.84	0.273	2.39	0.508	0.465	0.73	1	1.38	0.185	0.174	2.92	0.523	0.115	6.72
Lead	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	0.00431	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	6.47	5.84	7.46	5.39	6.05	5.31	5.94	7.4	7.12	6.28	6.44	7.58	7.74	7.28	6.76	7.83	7.34	14.4
Manganese	0.195	0.146	2.28	0.191	0.251	0.126	0.521	0.169	0.19	0.176	0.26	0.198	0.169	0.153	0.223	0.25	0.149	9.34
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--
Nickel	<0.0013	<0.0013	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--
Potassium	1.56 B	0.529 B	0.973	0.468	0.523	0.374	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	8.56
Sodium	7.38	6.18	6.31	5.22	6.35	5.92	5.22	6.82	7.1	5.84	5.66	6.73	7.29	6.81	6.37	8.15	7.32	14.9
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Vanadium	<0.0012	<0.0012	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--
Zinc	0.0351	0.0163 B	--	--	0.052	--	--	--	--	0.0168	0.0112	--	--	--	--	<0.01	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill
MW-2A Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Aluminum	79.3	59.1	--	--	0.43	--	--	--	--	0.444	1.98	--	--	--	--	<0.1	--	--
Antimony	0.0049 B	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--
Arsenic	0.0631	0.0537	--	--	<0.025	--	--	--	--	<0.01	0.0145	--	--	--	--	<0.01	--	--
Barium	1.75	1.49	--	--	0.502	--	--	--	--	0.265	0.377	--	--	--	--	0.471	--	--
Beryllium	0.0037 B	0.0025 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--
Boron	1.21	0.961	--	--	0.584	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5	--	--
Cadmium	<0.0003	0.0016 B	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	186	172	69.1	74.1	77.3	88.5	64.2	75.3	80.4	47.9	70.3	57.5	87.8	99	66.7	87.1	78.6	26.5
Chromium	0.112	0.0967	--	--	<0.005	--	--	--	--	<0.005	0.0177	--	--	--	--	<0.01	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.02	<0.05	--	--	--	--	<0.01	--	--
Cobalt	0.0719	0.0628	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--
Copper	0.104	0.0779	--	--	0.012	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Iron	154	131	8.29	24	6.5	10.1	10.8	6.86	7.67	4.95	9.77	4.1	10.6	9.51	7.77	8.28	5.21	0.827
Lead	0.0561	0.0436	<0.005	0.019	<0.005	0.006	0.00524	<0.003	<0.003	<0.003	<0.003	<0.003	0.0039	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	61.6	53.6	16.6	18.3	17.5	19.4	15.7	17.9	18	11	17.1	14.3	20.3	23.1	15.1	18.8	16.8	7.01
Manganese	35.7	31.6	12.2	11.5	12	13.6	9.93	11.7	12.7	7.05	11.2	9.3	13.8	15.1	10.7	12.8	11.4	0.144
Mercury	<0.0001	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--
Nickel	0.151	0.132	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--
Potassium	23.4	17	9.29	11.2	12.3	12.7	9.02	10.8	13.3	2.14	8.56	7.56	12.3	15.1	7.48	12.4	13.6	<5
Sodium	119	102	26.3	25.2	31.4	31.4	19.5	22.9	26.1	13.8	19.2	16.5	25.6	25.9	17.8	23.8	21.1	6.59
Selenium	<0.0028	<0.0028	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--
Silver	0.0024 B	0.0014 B	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Thallium	0.004 B	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Vanadium	0.102	0.0866	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--
Zinc	0.4	0.278	--	--	<0.01	--	--	--	--	<0.01	0.0101	--	--	--	--	<0.01	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill
MW-2B Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Aluminum	2.03	5.31	--	--	0.18	--	--	--	--	<0.1	0.168	--	--	--	--	0.235	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--
Arsenic	0.007 B	0.0083 B	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Barium	1.59	1.36	--	--	1.22	--	--	--	--	1.09	1.18	--	--	--	--	1.43	--	--
Beryllium	0.00023 B	0.00037 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--
Boron	0.355	0.292	--	--	0.256	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5	--	--
Cadmium	0.0003 B	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	288	245	203	216 E	203 E	200	216	170	214	195	201	192	214	235	201	237	227	178
Chromium	0.004 B	0.0086 B	--	--	<0.005	--	--	--	--	<0.005	0.00816	--	--	--	--	<0.01	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Cobalt	0.0091 B	0.0141 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--
Copper	0.0069 B	0.0118 B	--	--	0.017	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Iron	4.3	10.7	0.913	0.836	1.2	1.07	0.637	0.469	0.468	0.323	0.439	0.56	0.236	0.28	0.466	0.464	0.222	0.235
Lead	0.0044	0.0058	<0.005	0.009	<0.005	<0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	61.7	49.9	46.1	45.3	43.5	42.7	44.8	36.3	44.1	39.9	42.8	42.4	47.1	49.1	42.9	45.9	45.6	39.7
Manganese	8.24	7.43	6.98	6.8	6.63	6.46	6.42	4.93	6.6	5.7	6.21	5.96	6.49	6.84	6.5	6.63	6.31	5.63
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--
Nickel	0.0129 B	0.0188 B	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--
Potassium	3 B	2.9 B	2.42	2.25	2.28	2.38	2.74	2.14	2.44	<1	2.44	2.2	2.23	3.13	2.44	2.71	<1	<5
Sodium	64.1	53.9	53.8	49.7	51.1	51	50.9	40.8	52.3	48.2	50.6	47.4	51.4	58.2	49.3	55.4	58.6	49
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Thallium	0.0037 B	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Vanadium	0.0029 B	0.0075 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--
Zinc	0.103	0.0484	--	--	<0.01	--	--	--	--	0.0469	<0.01	--	--	--	--	<0.01	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-3A Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Aluminum	21.7	2.39	--	--	0.078	--	--	--	--	0.33	0.23	--	--	--	--	<0.1	--	--
Antimony	<0.003	0.0034 B	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.015	--	--
Arsenic	0.0127	<0.0024	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Barium	0.567	0.343	--	--	0.41	--	--	--	--	0.332	0.441	--	--	--	--	0.458	--	--
Beryllium	0.001 B	0.00013 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--
Boron	<0.0709	0.0286 B	--	--	0.063	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5	--	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	57.8	53.7	46.3	55.3	57.9	48.3	23	18.1	45.1	27.5	30.2	37.6	24.4	31.3	12.3	59.5	15.2	26.2
Chromium	0.0249	0.0022 B	--	--	<0.005	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.01	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Cobalt	0.0121 B	0.0019 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--
Copper	0.0315	0.0076 B	--	--	0.023	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Iron	26.6	3.58	1.88	0.626	0.104	0.283	1.18	0.599	0.231	0.537	0.451	0.574	0.508	0.177	0.6	0.155	0.534	1.44
Lead	0.0077	<0.001	<0.005	0.005	0.005	<0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	17	11	9.13	10	11.2	9.2	4.04	3.1	9.15	4.26	5.42	7.04	3.83	4.8	1.82	11.6	<1	<5
Manganese	0.732	0.174	0.208	0.175	0.416	0.176	0.415	0.501	0.116	0.287	0.0373	0.141	0.618	0.0424	0.294	0.164	0.331	0.597
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--
Nickel	0.0248 B	0.0038 B	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--
Potassium	7.43	1.87 B	0.938	0.829	1.09	0.937	<1	<1	<1	<1	<1	<1	1.06	<1	<1	<1	<1	<5
Sodium	10.4	6.54	5.66	6.4	8.92	6.03	2.11	1.14	5.1	2.64	2.9	3.52	2.77	2.69	<1	6.81	<1	<5
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Vanadium	0.0296 B	0.0039 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--
Zinc	0.112	0.0265	--	--	0.025	--	--	--	--	0.0106	<0.01	--	--	--	--	<0.01	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-6B Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Aluminum	8.59	0.642	--	--	0.115	--	--	--	--	0.102	0.134	--	--	--	--	<0.1	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--
Arsenic	0.009 B	0.0084 B	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Barium	0.521	0.48	--	--	0.313	--	--	--	--	0.301	0.337	--	--	--	--	0.404	--	--
Beryllium	0.0004 B	0.0001 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--
Boron	0.145	0.145	--	--	<0.05	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5	--	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	70.5	55.6	39.3	39.6	36.1	37.4	45.6	39.9	40.2	36.7	39.2	39.5	39	38.7	39.6	42.9	42	38.2
Chromium	0.0092 B	0.0017 B	--	--	<0.005	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.01	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Cobalt	0.0112 B	0.0056 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--
Copper	0.0116 B	0.0051 B	--	--	0.016	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Iron	10.6	3	1.09	0.511	0.306	0.195	1.87	0.486	0.163	0.216	0.229	0.33	<0.06	<0.06	0.268	0.104	0.0703	0.417
Lead	0.0044	<0.001	<0.005	<0.005	<0.005	<0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	19	12.7	8.94	10.9	9.86	9.71	10.2	9.68	9.12	7.81	9.37	10.4	9.61	9.13	10.5	11.4	10.4	10.4
Manganese	3.43	4.17	0.559	0.12	0.297	0.185	0.331	0.0908	0.671	0.712	0.327	0.102	0.666	0.619	0.0257	0.0585	0.255	0.167
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--
Nickel	0.0144 B	0.0059 B	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--
Potassium	4.08 B	2.72 B	1.15	0.825	0.634	0.69	1.05	<1	<1	<1	<1	<1	<1	1.4	1.01	1.03	<1	<5
Sodium	38	31.4	14.9	9.93	10.1	10.7	11.2	10.2	15	14.7	13.8	12.7	18.1	17.6	13.1	17.9	18.5	15.8
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Vanadium	0.0083 B	0.0012 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--
Zinc	0.0894	0.0248	--	--	0.014	--	--	--	--	0.0213	0.0103	--	--	--	--	<0.01	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-7A Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09
Aluminum	40	88.4	--	--	0.415	--	--	--	--	2.43	0.919	--	--	--	--	9.56	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--
Arsenic	0.0176	0.0459	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Barium	1.36	1.99	--	--	0.684	--	--	--	--	0.576	0.68	--	--	--	--	0.714	--	--
Beryllium	0.0015 B	0.0037 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--
Boron	0.332	0.41	--	--	0.55	--	--	--	--	0.65	0.588	--	--	--	--	<0.5	--	--
Cadmium	0.00047 B	0.002 B	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	234	271	171	165	150	148	149	140	135	131	148	139	150	162	140	150	144	131
Chromium	0.0556	0.146	--	--	<0.005	--	--	--	--	<0.005	0.00667	--	--	--	--	<0.01	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.05	--	--	--	--	<0.01	--	--
Cobalt	0.0311	0.0791	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--
Copper	0.0637	0.129	--	--	0.013	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Iron	65.9	174	14.5	1.33	0.722	2.78	1.68	1.52	9.97	3.65	1.68	1.99	0.342	1.16	0.322	10.1	0.108	1.19
Lead	0.0251	0.0585	0.0175	0.009	0.006	<0.005	<0.003	<0.003	0.00656	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	67	88.3	48.6	45.5	38	38	38.4	36.4	35	32.1	38.4	38.5	39.5	39.8	35.8	38.7	34	35.3
Manganese	5.87	9.55	6.08	5.69	4.4	4.85	4.51	4.18	3.98	3.47	4.17	4.34	4.82	4.57	4.31	4.21	3.8	3.68
Mercury	<0.0001	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--
Nickel	0.0783	0.192	--	--	0.013	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--
Potassium	10.4	13.5	3.06	1.91	1.81	2.03	2.03	1.95	2.87	<1	1.85	1.98	1.82	2.41	1.62	3.58	<1	<5
Sodium	118	113	134	129	124	128	112	104	95.8	95.2	104	99.6	113	116	97	103	110	105
Selenium	0.0041 B	0.0047 B	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--
Silver	<0.0009	<0.0009	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--
Vanadium	0.0487 B	0.127	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--
Zinc	0.2	0.408	--	--	<0.01	--	--	--	--	0.0263	0.0102	--	--	--	--	0.0297	--	--

All units in mg/l

Historical Water Quality Database - Towslee Landfill

MW-1A Dissolved Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	3/20/07
Aluminum	0.0163 B	0.0407 B	--	--	0.066	--
Antimony	--	--	--	--	<0.05	--
Arsenic	<0.0024	<0.0024	--	--	<0.025	--
Barium	0.137 B	0.068 B	--	--	0.066	--
Beryllium	<0.0001	<0.0001	--	--	<0.005	--
Boron	0.0631 B	0.0561 B	--	--	<0.07	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005
Calcium	67.6	40.3	40.7	38.9	38.6	40.3
Chromium	<0.0004	<0.0004	--	--	<0.005	--
Chrom, Hex	--	--	--	--	--	--
Cobalt	<0.0011	<0.0011	--	--	<0.015	--
Copper	0.0008 B	<0.0007	--	--	0.013	--
Iron	0.0348 B	0.0471 B	13.5	0.315	0.125	<0.06
Lead	0.0052	<0.001	<0.005	0.005	<0.005	<0.003
Magnesium	15.4	8.69	10.4	8.12	8.18	8.83
Manganese	0.22	0.174	0.238	0.127	0.248	<0.01
Mercury	0.0014	<0.0001	--	--	<0.0004	--
Nickel	<0.0013	<0.0013	--	--	<0.01	--
Potassium	10.6	4.92 B	2.52	1.38	1.31	1.72
Sodium	59.3	27.1	14.7	12.3	13	12.3
Selenium	--	--	--	--	<0.02	--
Silver	--	--	--	--	<0.015	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--
Vanadium	<0.0012	<0.0012	--	--	<0.015	--
Zinc	0.12	0.0161 B	--	--	0.033	--

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-1B Dissolved Metals

Parameter	Aug-97	Oct-97	3/22/06	8/9/06	3/20/07
Aluminum	0.0146 B	0.0209 B	--	0.195	--
Antimony	<0.003	<0.003	--	<0.05	--
Arsenic	<0.0024	<0.0024	--	<0.025	--
Barium	0.151 B	0.155 B	--	0.162	--
Beryllium	<0.0001	<0.0001	--	<0.005	--
Boron	0.0195 B	0.0162 B	--	<0.07	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005
Calcium	24.8	24.5	22.8	24.4	24.5
Chromium	0.0008 B	0.00073 B	--	<0.005	--
Chrom, Hex	--	--	--	--	--
Cobalt	<0.0011	<0.0011	--	<0.015	--
Copper	<0.0007	<0.0007	--	0.013	--
Iron	0.0172 B	0.0141 B	0.339	0.339	<0.06
Lead	--	--	<0.005	<0.005	<0.003
Magnesium	6.62	5.88	5.15	5.54	5.88
Manganese	0.141	0.134	0.0136	0.135	<0.01
Mercury	--	--	--	<0.0004	--
Nickel	<0.0013	<0.0013	--	<0.01	--
Potassium	1.63 B	0.514 B	0.487	0.403	<1
Sodium	7.53	6.59	4.75	5.31	5.73
Selenium	--	--	--	<0.02	--
Silver	--	--	--	<0.015	--
Thallium	--	--	--	<0.03	--
Vanadium	--	--	--	<0.015	--
Zinc	0.0396	0.0152 B	--	0.029	--

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-2A Dissolved Metals

Parameter	Aug-97	Oct-97	8/9/06
Aluminum	<0.0083	0.0482 B	0.044
Antimony	--	--	<0.05
Arsenic	0.0123	0.0139	<0.025
Barium	0.787	0.786	0.427
Beryllium	0.00017 B	0.0001 B	<0.005
Boron	1.21	0.992	0.562
Cadmium	0.00053 B	<0.0003	<0.005
Calcium	183	183	77.6
Chromium	0.0035 B	0.0057 B	<0.005
Chrom, Hex	--	--	--
Cobalt	0.0107 B	0.0095 B	<0.015
Copper	0.0162 B	<0.0007	0.015
Iron	5.4	11.5	0.204
Lead	<0.001	0.0011 B	<0.005
Magnesium	41	38.5	17.1
Manganese	30.4	30.9	12.1
Mercury	<0.0001	<0.0001	<0.0004
Nickel	0.0179 B	0.0162 B	<0.01
Potassium	17.5	14.2	12.5
Sodium	121	115	29.6
Selenium	--	--	<0.02
Silver	--	--	<0.015
Thallium	0.003 B	<0.0026	<0.03
Vanadium	<0.0012	<0.0012	<0.015
Zinc	0.117	0.0207	0.013

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-2B Dissolved Metals

Parameter	Aug-97	Oct-97
Aluminum	0.0179 B	0.0154 B
Antimony	<0.003	<0.003
Arsenic	0.0036 B	<0.0024
Barium	1.55	1.45
Beryllium	<0.0001	<0.0001
Boron	0.334	0.321
Cadmium	<0.0003	<0.0003
Calcium	281	274
Chromium	0.0009 B	0.0014 B
Chrom, Hex	--	--
Cobalt	0.0067 B	0.0061 B
Copper	0.0022 B	<0.0007
Iron	0.582	0.595
Lead	--	--
Magnesium	61.7	55
Manganese	8.07	8
Mercury	--	--
Nickel	0.0093 B	0.0097 B
Potassium	2.8 B	2.34 B
Sodium	62.5	62.8
Selenium	--	--
Silver	--	--
Thallium	--	--
Vanadium	--	--
Zinc	0.0635	0.023

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-3A Dissolved Metals

Parameter	Aug-97	Oct-97	3/22/06
Aluminum	<0.0083	0.0158	--
Antimony	0.0038 B	<0.003	--
Arsenic	<0.0024	<0.0024	--
Barium	0.242	0.276	--
Beryllium	<0.0001	<0.0001	--
Boron	0.0324 B	0.0275 B	--
Cadmium	<0.0003	<0.0003	<0.005
Calcium	57.9	54.6	44.3
Chromium	<0.0004	<0.0004	--
Chrom, Hex	--	--	--
Cobalt	<0.0011	<0.0011	--
Copper	0.0024 B	0.00083 B	--
Iron	0.0061 B	0.0114 B	0.168
Lead	--	--	<0.005
Magnesium	12.9	10.9	8.7
Manganese	0.123	0.0941	0.0963
Mercury	--	--	--
Nickel	<0.0013	0.0017 B	--
Potassium	2.75 B	1.42 B	0.803
Sodium	10.2	7.98	4.83
Selenium	--	--	--
Silver	--	--	--
Thallium	--	--	--
Vanadium	--	--	--
Zinc	0.0249	0.0387	--

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-6B Dissolved Metals

Parameter	Aug-97	Oct-97	3/20/07
Aluminum	<0.0083	0.0132 B	--
Antimony	<0.003	<0.003	--
Arsenic	0.0048 B	0.0073 B	--
Barium	0.396	0.478	--
Beryllium	<0.0001	<0.0001	--
Boron	0.125	0.14	--
Cadmium	<0.0003	<0.0003	<0.005
Calcium	67.7	56.3	45.6
Chromium	<0.0004	0.00087 B	--
Chrom, Hex	--	--	--
Cobalt	0.0052 B	0.0041 B	--
Copper	0.0011 B	<0.0007	--
Iron	0.346	1.42	<0.06
Lead	--	--	<0.003
Magnesium	17.3	12.9	10.6
Manganese	3.3	3.99	0.137
Mercury	--	--	--
Nickel	0.0046 B	0.0048 B	--
Potassium	2.97 B	2.77 B	1.19
Sodium	38.2	33.3	12.1
Selenium	--	--	--
Silver	--	--	--
Thallium	--	--	--
Vanadium	--	--	--
Zinc	0.0651	0.0207	--

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-7A Dissolved Metals

Parameter	Aug-97	Oct-97	3/22/06	6/17/09
Aluminum	<0.0083	0.0755 B	--	<0.1
Antimony	--	--	--	<0.03
Arsenic	<0.0024	<0.0024	--	<0.01
Barium	0.822	0.887	--	0.599
Beryllium	0.0001 B	<0.0001	--	<0.003
Boron	0.331	0.396	--	--
Cadmium	0.0003 B	<0.0003	<0.005	<0.005
Calcium	220	255	158	140
Chromium	0.0008 B	0.0011 B	--	<0.01
Chrom, Hex	--	--	--	--
Cobalt	0.0017 B	0.0031 B	--	<0.02
Copper	0.0086 B	<0.0007	--	<0.01
Iron	0.009 B	0.753	0.0637	<0.06
Lead	<0.001	<0.001	<0.005	<0.003
Magnesium	56.2	59.9	43.6	34.1
Manganese	4.53	7.12	5.35	3.78
Mercury	<0.0001	<0.0001	--	<0.0002
Nickel	0.0129 B	0.0196 B	--	<0.03
Potassium	5.28	3.98 B	1.9	1.82
Sodium	120	129	126	97.2
Selenium	--	--	--	<0.005
Silver	--	--	--	<0.01
Thallium	<0.0026	<0.0026	--	<0.01
Vanadium	<0.0012	<0.0012	--	<0.03
Zinc	0.0455	0.0186	--	0.0228

All units are mg/l

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-1A - Overburden

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07	6/17/09
Vinyl Chloride	VOC	<10	<10	<5	<5	< 5
Chloroethane	VOC	<10	<10	<5	<5	< 5
Acetone	VOC	10	<10	<25	<10	< 10
Methylene Chloride	VOC	<10	<10	<5	<5	< 5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	< 5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	< 5
Benzene	VOC	<10	<10	<5	<5	< 5
Toluene	VOC	<10	<10	<5	<5	< 5
Chlorobenzene	VOC	<10	<10	<5	<5	< 5
Ethylbenzene	VOC	<10	<10	<5	<5	< 5
Xylenes(total)	VOC	<10	<10	<10	<5	< 5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	< 5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-1B - Bedrock

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07	2/1/08	6/17/09
Vinyl Chloride	VOC	<10	<10	<5	<5	<5	< 5
Chloroethane	VOC	<10	<10	<5	<5	<5	< 5
Acetone	VOC	<10	<10	<25	<10	<10	< 10
Methylene Chloride	VOC	<10	<10	<5	<5	13 B	< 5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	<5	< 5
Benzene	VOC	<10	<10	<5	<5	<5	< 5
Toluene	VOC	<10	<10	<5	<5	<5	< 5
Chlorobenzene	VOC	<10	<10	<5	<5	<5	< 5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	NA	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-2A - Overburden

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07	2/1/08	6/17/09
Vinyl Chloride	VOC	<10	<10	<5	<5	<5	< 5
Chloroethane	VOC	5 J	4 J	<5	<5	<5	< 5
Acetone	VOC	<10	<10	<25	<10	<10	< 10
Methylene Chloride	VOC	1 JB	<10	<5	<5	12 B	< 5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	<5	< 5
Benzene	VOC	5 J	6 J	<5	<5	<5	< 5
Toluene	VOC	1 J	<10	<5	<5	<5	< 5
Chlorobenzene	VOC	5 J	<10	<5	4 J	<5	3 J
Ethylbenzene	VOC	2 J	<10	<5	<5	<5	< 5
Xylenes(total)	VOC	5 J	<10	<10	<5	<5	< 5
1,4-Dichlorobenzene	SVOC	1 J	2 J	<5	<5	<5	< 5
Diethylphthalate	SVOC	<10	1 J	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	NA	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-2B - Bedrock

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07	2/1/08	6/17/09
Vinyl Chloride	VOC	<10	<10	<5	5.8	<5	12
Chloroethane	VOC	4 J	3 J	<5	4 J	<5	5.9
Acetone	VOC	<10	<10	<25	<10	<10	< 10
Methylene Chloride	VOC	1 JB	<10	<5	<5	11 B	< 5
trans-1,2-Dichloroethene (1)	VOC	1 J	<10	<5	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	1 J	<10	6.2	9.2	9.4	19
1,1-Dichloroethane	VOC	1 J	1 J	<5	<5	<5	< 5
Benzene	VOC	<10	2 J	<5	<5	<5	< 5
Toluene	VOC	<10	<10	<5	<5	<5	< 5
Chlorobenzene	VOC	<10	1 J	<5	<5	<5	< 5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	1 JB	NA	NA	NA	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-3A - Bedrock

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07	2/1/08	6/17/09
Vinyl Chloride	VOC	<10	<10	<5	<5	<5	< 5
Chloroethane	VOC	<10	<10	<5	<5	<5	< 5
Acetone	VOC	2 J	<10	<25	<10	<10	24
Methylene Chloride	VOC	5 JB	<10	<5	<5	11 B	< 5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	<5	< 5
Benzene	VOC	<10	<10	<5	<5	<5	< 5
Toluene	VOC	<10	<10	<5	<5	<5	82
Chlorobenzene	VOC	<10	<10	<5	<5	<5	< 5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	NA	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-6B - Bedrock

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07	2/1/08	6/17/09
Vinyl Chloride	VOC	<10	<10	<5	<5	<5	< 5
Chloroethane	VOC	<10	<10	<5	<5	<5	< 5
Acetone	VOC	<10	<10	<25	<10	<10	< 10
Methylene Chloride	VOC	<10	<10	<5	<5	12 B	< 5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	<5	< 5
Benzene	VOC	<10	<10	<5	<5	<5	< 5
Toluene	VOC	<10	<10	<5	<5	<5	< 5
Chlorobenzene	VOC	<10	<10	<5	<5	<5	< 5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	NA	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-7A - Overburden

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07	2/1/08	6/17/09
Vinyl Chloride	VOC	2 J	5 J	<5	4 J	8.2	5.7
Chloroethane	VOC	<10	1 J	<5	<5	<5	< 5
Acetone	VOC	<10	<10	<25	<10	<10	< 10
Methylene Chloride	VOC	1 JB	<10	<5	<5	<5	< 5
trans-1,2-Dichloroethene (1)	VOC	1 J	2 J	<5	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	1 J	2 J	7.1	6.1	9	5.4
1,1-Dichloroethane	VOC	3 J	4 J	6.1	5 J	7.9	5 J
Benzene	VOC	<10	<10	<5	<5	<5	< 5
Toluene	VOC	<10	<10	<5	<5	<5	< 5
Chlorobenzene	VOC	<10	<10	<5	<5	<5	< 5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	NA	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Appendix D

Historical Summary of Parameters Identified by B&L in 1997 that are Suggestive of Mild Leachate Contamination

Cortland County Towslee Landfill

Conventionals	Metals
Alkalinity	Aluminum
Hardness	Arsenic
Chloride	Calcium
Ammonia	Chromium
TKN	Cobalt
COD	Copper
TOC	Iron
	Lead
	Magnesium
	Manganese
	Potassium
	Sodium
	Vanadium
	Zinc

Historical Summary of Parameters Identified by B&L in 1997 that are Indicative of Mild Leachate Contamination

Conventionals

(Note: Qualifiers such as J, B and H are not included in these tables)

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Alkalinity(As CaCO3)	8/1/97	160	94.8	702	577	145	240	569
mg/l	10/1/97	145	93.6	784	673	146	224	660
	3/22/06	127	92	330	652	162	131	648
	5/31/06	139	94	355	670	170	148	675
	8/9/06	122	91	384	612	140	154	595
	10/10/06	132	89	423	646	152	153	635
	3/20/07	140	99	380	650	82	180	640
	4/26/07	120	96	320	480	59	160	510
	7/31/07	120	100	420	600	170	150	530
	10/10/07	130	100	290	640	130	140	540
	2/1/08	--	100	360	640	110	140	570
	4/16/08	120	100	290	620	170	140	560
	7/23/08	120	100	380	640	91	110	600
	10/24/08	120	99	360	680	97	120	670
	3/12/09	130	92	320	650	18	120	500
	6/17/09	100	100	360	580	160	140	500
	9/30/09	120	98	340	650	50	140	480
	12/1/09	120	86	280	610	79	140	520
Hardness (as CaCO3)	8/1/97	4000	88	1300	960	1250	300	1010
mg/l	10/1/97	240	140	720	900	200	240	1150
	3/22/06	167	97.6	241	697	153	135	627
	5/31/06	140	81.9	260	726	179	144	599
	8/9/06	148	89	265	686	191	131	531
	10/10/06	148	82	301	675	158	133	526
	3/20/07	134	83.6	225	723	74	156	529
	4/26/07	153	105	262	575	58.1	139	499
	7/31/07	148	104	275	716	150	138	481
	10/10/07	146	90.8	165	652	86.2	124	459
	2/1/08	--	89.3	246	678	97.7	136	528
	4/16/08	151	103	203	654	123	142	506
	7/23/08	159	107	303	728	76.7	137	538
	10/24/08	165	105	343	788	97.9	134	569
	3/12/09	161	97.1	229	678	38.1	142	496
	6/17/09	163	111	295	782	196	154	534
	9/30/09	158	108	265	755	37.8	148	499
	12/1/09	161	206	95	608	65.4	138	473

Historical Summary of Parameters Identified by B&L in 1997 that are Indicative of Mild Leachate Contamination

Conventionals

(Note: Qualifiers such as J, B and H are not included in these tables)

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Chloride	8/1/97	152	<2	156	267	31.4	38.2	300
mg/l	10/1/97	46	<2	149	238	28.7	35	276
	3/22/06	21.3	2.55	23.3	145	14	21.1	144
	5/31/06	22.2	2.28	25.7	154	12.7	2.33	143
	8/9/06	34.2	3.47	23.5	122	13.5	2.32	119
	10/10/06	26.7	0.611	25.7	121	12.7	3.39	85
	3/20/07	28.7	3.24	21.2	167	3.37	11.6	145
	4/26/07	27	4.45	14.7	131	1.8	6.99	131
	7/31/07	27	3.16	24.4	163	12	13.8	145
	10/10/07	27.9	6.44	10.6	161	5.73	25.9	141
	2/1/08	--	3.15	21	160	2.43	16.7	141
	4/16/08	28	5.95	13.5	132	10.5	16.9	1260
	7/23/08	25.9	5.61	20.2	148	1.1	31.1	136
	10/24/08	29.7	6.03	15.5	162	1.75	28.6	135
	3/12/09	30.4	2.86	13.7	118	1.85	13.3	114
	6/17/09	30.7	4.74	20.5	159	9.25	19.4	128
	9/30/09	29.5	6.86	17.7	150	<1	19.7	120
	12/1/09	30	4.71	12.5	140	<1	14.7	117
Ammonia (As NH3)	8/1/97	6	<0.02	23	0.95	<0.02	0.09	0.93
mg/l	10/1/97	2.6	0.04	9.1	1.3	0.09	2.5	0.89
	3/22/06	0.276	0.0938	10.6	0.389	0.0969	0.0549	0.34
	5/31/06	<0.02	<0.02	18.4	0.824	<0.02	<0.02	<0.02
	8/9/06	0.161	<0.02	16	0.786	<0.02	0.096	<0.02
	10/10/06	<0.1	<0.1	15.1	0.282	<0.1	<0.1	<0.1
	3/20/07	<0.5	<0.5	10.2	0.921	1.45	<0.5	<0.5
	4/26/07	<0.5	<0.5	9.89	0.844	<0.5	<0.5	<0.5
	7/31/07	<0.5	<0.5	14.1	1.31	<0.5	<0.5	<0.5
	10/10/07	<0.5	<0.5	13.5	1.22	<0.5	<0.5	<0.5
	2/1/08	--	<0.5	8.78	0.785	<0.5	<0.5	<0.5
	4/16/08	<0.5	<0.5	8.2	0.572	<0.5	<0.5	<0.5
	7/23/08	<0.5	<0.5	11.9	1.01	<0.5	<0.5	<0.5
	10/24/08	<0.5	<0.5	10.8	0.504	<0.5	<0.5	<0.5
	3/12/09	<0.5	<0.5	8.43	0.642	<0.5	<0.5	<0.5
	6/17/09	<0.5	<0.5	11.8	0.665	<0.5	<0.5	<0.5
	9/30/09	<0.5	<0.5	10.3	0.73	<0.5	<0.5	<0.5
	12/1/09	<0.5	<0.5	8.75	0.696	<0.5	<0.5	<0.5

Historical Summary of Parameters Identified by B&L in 1997 that are Indicative of Mild Leachate Contamination

Conventionals

(Note: Qualifiers such as J, B and H are not included in these tables)

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
TKN	8/1/97	18	<0.2	31.5	2.6	0.4	0.6	1.1
mg/l	10/1/97	3.8	<0.2	21.2	2	0.24	3.3	1.4
	3/22/06	23.3	0.54	10.6	1.31	0.455	0.392	1.5
	5/31/06	0.529	0.755	14	1.78	1.09	0.904	1.68
	8/9/06	0.366	0.497	16.5	1.64	0.239	0.214	0.75
	10/10/06	<0.2	<0.2	15	1.9	0.266	0.279	1.11
	3/20/07	2.2	<0.5	132	1.84	4.26	<0.5	1.47
	4/26/07	<0.5	<0.5	12.5	1.62	1.47	<0.5	3.6
	7/31/07	5.66	<0.5	16.1	1.67	<0.5	<0.5	0.784
	10/10/07	<0.5	<0.5	12.6	1.53	<0.5	<0.5	0.591
	2/1/08	--	<0.5	10.7	1.33	<0.5	<0.5	0.522
	4/16/08	<0.5	<0.5	11.2	1.55	<0.5	<0.5	0.949
	7/23/08	<0.5	<0.5	12.9	1.03	0.718	<0.5	<0.5
	10/24/08	<0.5	<0.5	11.6	1.13	<0.5	<0.5	<0.5
	3/12/09	<0.5	<0.5	10.3	1.22	<0.5	<0.5	1.92
	6/17/09	<0.5	<0.5	13.5	1.19	<0.5	<0.5	0.851
	9/30/09	<0.5	<0.5	13.1	1.07	0.786	<0.5	0.927
	12/1/09	<0.5	<0.5	12.5	1.12	1.36	<0.5	0.599
COD	8/1/97	305	<15	127	58	19	40	43
mg/l	10/1/97	64	<15	136	61	<15	19	112
	3/22/06	<10	<10	<10	<10	<10	<10	21.2
	5/31/06	<10	<10	13.8	17.2	<10	<10	16.5
	8/9/06	<10	<10	27	24.6	13	11.6	26.4
	10/10/06	<10	<10	15.6	27	<10	<10	20.5
	3/20/07	<20	<20	<20	21	47	<20	27
	4/26/07	<20	<20	<20	<20	<20	<20	<20
	7/31/07	<20	<20	46	<20	<20	<20	<20
	10/10/07	<20	<20	22	<20	<20	<20	<20
	2/1/08	--	<20	23	24	23	<20	<20
	4/16/08	<20	<20	21	<20	<20	<20	36
	7/23/08	<20	<20	36	<20	34	<20	22
	10/24/08	<20	<20	32	<20	<20	<20	29
	3/12/09	<20	<20	<20	<20	<20	<20	<20
	6/17/09	<20	<20	31	23	<20	<20	38
	9/30/09	<20	<20	32	26	40	<20	37
	12/1/09	<20	<20	26	<20	35	<20	21

Historical Summary of Parameters Identified by B&L in 1997 that are Indicative of Mild Leachate Contamination

Conventionals

(Note: Qualifiers such as J, B and H are not included in these tables)

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
TOC	8/1/97	4.2	9.3	42.5	12.3	4.5	6	10.1
mg/l	10/1/97	1.6	<1	24.1	11.9	1.9	5.8	12.6
	3/22/06	4.76	5.41	10.1	<2	5.58	5.22	12.8
	5/31/06	2.61	2.34	7.18	7.76	<2	3.14	8.19
	8/9/06	<2	<2	5.67	4.82	<2	<2	6.12
	10/10/06	<2	<2	5.68	7.49	<2	<2	7.46
	3/20/07	<3	<3	6.7	6.4	<3	<3	8.1
	4/26/07	<3	<3	4.8	3	<3	<3	6
	7/31/07	<3	<3	7.3	5.7	<3	<3	7.2
	10/10/07	<3	<3	6.3	17.2	3.7	<3	11.5
	2/1/08	--	<3	21.8	82.6	<3	<3	69.9
	4/16/08	<3	<3	5.2	23.2	<3	<3	17.8
	7/23/08	<3	<3	6.3	4.7	7.3	<3	5.2
	10/24/08	<3	<3	6	6.8	3.6	<3	6.1
	3/12/09	<3	<3	4.8	4.5	<3	<3	5.1
	6/17/09	<3	<3	7.2	5.5	<3	<3	5.7
	9/30/09	<3	<3	5.9	4.6	9.2	<3	5
	12/1/09	<3	<3	6.5	4.6	5.7	<3	5.2

Historical Summary of Parameters Identified by B&L in 1997 that are Indicative of Mild Leachate Contamination

Total Metals (all values in mg/l)

(Note: Qualifiers such as J, B and H are not included in these tables)

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Aluminum_T	8/1/97	724	0.662	79.3	2.03	21.7	8.59	40
	10/1/97	16.9	0.134	59.1	5.31	2.39	0.642	88.4
	8/9/06	2.96	1.09	0.43	0.18	0.078	0.115	0.415
	10/10/07	2.07	0.537	0.444	<0.1	0.33	0.102	2.43
	2/1/08	--	0.518	1.98	0.168	0.23	0.134	0.919
	6/17/09	1.57	0.255	<0.1	0.235	<0.1	<0.1	9.56
Arsenic_T	8/1/97	0.353	<0.0024	0.0631	0.007	0.0127	0.009	0.0176
	10/1/97	0.0134	<0.0024	0.0537	0.0083	<0.0024	0.0084	0.0459
	8/9/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	10/10/07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	2/1/08	--	<0.01	0.0145	<0.01	<0.01	<0.01	<0.01
	6/17/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Calcium_T	8/1/97	430	26.7	186	288	57.8	70.5	234
	10/1/97	48.6	24.7	172	245	53.7	55.6	271
	3/22/06	46.2	26.8	69.1	203	46.3	39.3	171
	5/31/06	41.8	23.9	74.1	216	55.3	39.6	165
	8/9/06	43.2	25.8	77.3	203	57.9	36.1	150
	10/10/06	43.9	24.1	88.5	200	48.3	37.4	148
	3/20/07	39.2	23.7	64.2	216	23	45.6	149
	4/26/07	44.5	30	75.3	170	18.1	39.9	140
	7/31/07	43.5	29.9	80.4	214	45.1	40.2	135
	10/10/07	42.2	26	47.9	195	27.5	36.7	131
	2/1/08	--	25.1	70.3	201	30.2	39.2	148
	4/16/08	43.2	28.6	57.5	192	37.6	39.5	139
	7/23/08	46.2	30.2	87.8	214	24.4	39	150
	10/24/08	48.3	30	99	235	31.3	38.7	162
	3/12/09	47.2	27.7	66.7	201	12.3	39.6	140
	6/17/09	47	31.4	87.1	237	59.5	42.9	150
	9/30/09	46.5	31.1	78.6	227	15.2	42	144
	12/1/09	45	58.7	26.5	178	26.2	38.2	131
Chromium_T	8/1/97	1.04	0.002	0.112	0.004	0.0249	0.0092	0.0556
	10/1/97	0.0265	<0.0004	0.0967	0.0086	0.0022	0.0017	0.146
	8/9/06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	10/10/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	2/1/08	--	<0.005	0.0177	0.00816	<0.005	<0.005	0.00667
	6/17/09	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Historical Summary of Parameters Identified by B&L in 1997 that are Indicative of Mild Leachate Contamination

Total Metals (all values in mg/l)

(Note: Qualifiers such as J, B and H are not included in these tables)

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Cobalt_T	8/1/97	0.59	<0.0011	0.0719	0.0091	0.0121	0.0112	0.0311
	10/1/97	0.0168	<0.0011	0.0628	0.0141	0.0019	0.0056	0.0791
	8/9/06	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
	10/10/07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	2/1/08	--	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	6/17/09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper_T	8/1/97	0.996	0.004	0.104	0.0069	0.0315	0.0116	0.0637
	10/1/97	0.0254	0.0025	0.0779	0.0118	0.0076	0.0051	0.129
	8/9/06	0.022	0.017	0.012	0.017	0.023	0.016	0.013
	10/10/07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	2/1/08	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	6/17/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron_T	8/1/97	1550	1.33	154	4.3	26.6	10.6	65.9
	10/1/97	35.7	0.226	131	10.7	3.58	3	174
	3/22/06	19.4	9.42	8.29	0.913	1.88	1.09	14.5
	5/31/06	2.99	1.48	24	0.836	0.626	0.511	1.33
	8/9/06	6.03	1.84	6.5	1.2	0.104	0.306	0.722
	10/10/06	2.11	0.273	10.1	1.07	0.283	0.195	2.78
	3/20/07	1.67	2.39	10.8	0.637	1.18	1.87	1.68
	4/26/07	2.14	0.508	6.86	0.469	0.599	0.486	1.52
	7/31/07	1.21	0.465	7.67	0.468	0.231	0.163	9.97
	10/10/07	3.49	0.73	4.95	0.323	0.537	0.216	3.65
	2/1/08	--	1	9.77	0.439	0.451	0.229	1.68
	4/16/08	1.17	1.38	4.1	0.56	0.574	0.33	1.99
	7/23/08	0.217	0.185	10.6	0.236	0.508	<0.06	0.342
	10/24/08	0.429	0.174	9.51	0.28	0.177	<0.06	1.16
	3/12/09	0.818	2.92	7.77	0.466	0.6	0.268	0.322
	6/17/09	1.65	0.523	8.28	0.464	0.155	0.104	10.1
	9/30/09	0.348	0.115	5.21	0.222	0.534	0.0703	0.108
	12/1/09	6.19	6.72	0.827	0.235	1.44	0.417	1.19

Historical Summary of Parameters Identified by B&L in 1997 that are Indicative of Mild Leachate Contamination

Total Metals (all values in mg/l)

(Note: Qualifiers such as J, B and H are not included in these tables)

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Lead_T	8/1/97	0.454	<0.001	0.0561	0.0044	0.0077	0.0044	0.0251
	10/1/97	0.0123	<0.001	0.0436	0.0058	<0.001	<0.001	0.0585
	3/22/06	0.00716	<0.005	<0.005	<0.005	<0.005	<0.005	0.0175
	5/31/06	0.007	<0.005	0.019	0.009	0.005	<0.005	0.009
	8/9/06	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	0.006
	10/10/06	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005
	3/20/07	<0.003	0.00431	0.00524	<0.003	<0.003	<0.003	<0.003
	4/26/07	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	7/31/07	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.00656
	10/10/07	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2/1/08	--	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	4/16/08	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	7/23/08	<0.003	<0.003	0.0039	<0.003	<0.003	<0.003	<0.003
	10/24/08	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	3/12/09	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	6/17/09	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	9/30/09	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	12/1/09	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium_T	8/1/97	309	6.47	61.6	61.7	17	19	67
	10/1/97	15.6	5.84	53.6	49.9	11	12.7	88.3
	3/22/06	12.6	7.46	16.6	46.1	9.13	8.94	48.6
	5/31/06	8.67	5.39	18.3	45.3	10	10.9	45.5
	8/9/06	9.7	6.05	17.5	43.5	11.2	9.86	38
	10/10/06	9.43	5.31	19.4	42.7	9.2	9.71	38
	3/20/07	8.87	5.94	15.7	44.8	4.04	10.2	38.4
	4/26/07	10.2	7.4	17.9	36.3	3.1	9.68	36.4
	7/31/07	9.67	7.12	18	44.1	9.15	9.12	35
	10/10/07	9.8	6.28	11	39.9	4.26	7.81	32.1
	2/1/08	--	6.44	17.1	42.8	5.42	9.37	38.4
	4/16/08	10.6	7.58	14.3	42.4	7.04	10.4	38.5
	7/23/08	10.7	7.74	20.3	47.1	3.83	9.61	39.5
	10/24/08	10.8	7.28	23.1	49.1	4.8	9.13	39.8
	3/12/09	10.6	6.76	15.1	42.9	1.82	10.5	35.8
	6/17/09	11.1	7.83	18.8	45.9	11.6	11.4	38.7
	9/30/09	10	7.34	16.8	45.6	<1	10.4	34
	12/1/09	11.9	14.4	7.01	39.7	<5	10.4	35.3

Historical Summary of Parameters Identified by B&L in 1997 that are Indicative of Mild Leachate Contamination

Total Metals (all values in mg/l)

(Note: Qualifiers such as J, B and H are not included in these tables)

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Manganese_T	8/1/97	24.6	0.195	35.7	8.24	0.732	3.43	5.87
	10/1/97	0.783	0.146	31.6	7.43	0.174	4.17	9.55
	3/22/06	0.534	2.28	12.2	6.98	0.208	0.559	6.08
	5/31/06	0.194	0.191	11.5	6.8	0.175	0.12	5.69
	8/9/06	0.38	0.251	12	6.63	0.416	0.297	4.4
	10/10/06	0.306	0.126	13.6	6.46	0.176	0.185	4.85
	3/20/07	0.19	0.521	9.93	6.42	0.415	0.331	4.51
	4/26/07	0.193	0.169	11.7	4.93	0.501	0.0908	4.18
	7/31/07	0.206	0.19	12.7	6.6	0.116	0.671	3.98
	10/10/07	0.203	0.176	7.05	5.7	0.287	0.712	3.47
	2/1/08	--	0.26	11.2	6.21	0.0373	0.327	4.17
	4/16/08	0.157	0.198	9.3	5.96	0.141	0.102	4.34
	7/23/08	0.135	0.169	13.8	6.49	0.618	0.666	4.82
	10/24/08	0.151	0.153	15.1	6.84	0.0424	0.619	4.57
	3/12/09	0.0917	0.223	10.7	6.5	0.294	0.0257	4.31
	6/17/09	0.169	0.25	12.8	6.63	0.164	0.0585	4.21
	9/30/09	0.155	0.149	11.4	6.31	0.331	0.255	3.8
	12/1/09	0.251	9.34	0.144	5.63	0.597	0.167	3.68
Potassium_T	8/1/97	77.5	1.56	23.4	3	7.43	4.08	10.4
	10/1/97	6.97	0.529	17	2.9	1.87	2.72	13.5
	3/22/06	2.72	0.973	9.29	2.42	0.938	1.15	3.06
	5/31/06	1.6	0.468	11.2	2.25	0.829	0.825	1.91
	8/9/06	1.7	0.523	12.3	2.28	1.09	0.634	1.81
	10/10/06	1.62	0.374	12.7	2.38	0.937	0.69	2.03
	3/20/07	1.74	<1	9.02	2.74	<1	1.05	2.03
	4/26/07	2.31	<1	10.8	2.14	<1	<1	1.95
	7/31/07	1.59	<1	13.3	2.44	<1	<1	2.87
	10/10/07	2.06	<1	2.14	<1	<1	<1	<1
	2/1/08	--	<1	8.56	2.44	<1	<1	1.85
	4/16/08	1.65	<1	7.56	2.2	<1	<1	1.98
	7/23/08	1.51	<1	12.3	2.23	1.06	<1	1.82
	10/24/08	1.69	<1	15.1	3.13	<1	1.4	2.41
	3/12/09	1.52	<1	7.48	2.44	<1	1.01	1.62
	6/17/09	1.78	<1	12.4	2.71	<1	1.03	3.58
	9/30/09	<1	<1	13.6	<1	<1	<1	<1
	12/1/09	<5	8.56	<5	<5	<5	<5	<5

Historical Summary of Parameters Identified by B&L in 1997 that are Indicative of Mild Leachate Contamination

Total Metals (all values in mg/l)

(Note: Qualifiers such as J, B and H are not included in these tables)

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Sodium_T	8/1/97	37.3	7.38	119	64.1	10.4	38	118
	10/1/97	26	6.18	102	53.9	6.54	31.4	113
	3/22/06	17.1	6.31	26.3	53.8	5.66	14.9	134
	5/31/06	13	5.22	25.2	49.7	6.4	9.93	129
	8/9/06	13.6	6.35	31.4	51.1	8.92	10.1	124
	10/10/06	13.5	5.92	31.4	51	6.03	10.7	128
	3/20/07	12.2	5.22	19.5	50.9	2.11	11.2	112
	4/26/07	12.5	6.82	22.9	40.8	1.14	10.2	104
	7/31/07	13	7.1	26.1	52.3	5.1	15	95.8
	10/10/07	11.8	5.84	13.8	48.2	2.64	14.7	95.2
	2/1/08	--	5.66	19.2	50.6	2.9	13.8	104
	4/16/08	12.5	6.73	16.5	47.4	3.52	12.7	99.6
	7/23/08	13.8	7.29	25.6	51.4	2.77	18.1	113
	10/24/08	13.2	6.81	25.9	58.2	2.69	17.6	116
	3/12/09	13.4	6.37	17.8	49.3	<1	13.1	97
	6/17/09	13.9	8.15	23.8	55.4	6.81	17.9	103
	9/30/09	12.5	7.32	21.1	58.6	<1	18.5	110
	12/1/09	12.6	14.9	6.59	49	<5	15.8	105
Vanadium_T	8/1/97	0.856	<0.0012	0.102	0.0029	0.0296	0.0083	0.0487
	10/1/97	0.0243	<0.0012	0.0866	0.0075	0.0039	0.0012	0.127
	8/9/06	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
	10/10/07	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
	2/1/08	--	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
	6/17/09	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Zinc_T	8/1/97	3.36	0.0351	0.4	0.103	0.112	0.0894	0.2
	10/1/97	0.0874	0.0163	0.278	0.0484	0.0265	0.0248	0.408
	8/9/06	0.106	0.052	<0.01	<0.01	0.025	0.014	<0.01
	10/10/07	0.0235	0.0168	<0.01	0.0469	0.0106	0.0213	0.0263
	2/1/08	--	0.0112	0.0101	<0.01	<0.01	0.0103	0.0102
	6/17/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0297

Historical Summary of Parameters Identified by B&L in 1997 that are Indicative of Mild Dissolved Metals (all values in mg/l)

(Note: Qualifiers such as J, B and H are not included in these tables)

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Aluminum_D	8/1/97	0.0163	0.0146	<0.0083	0.0179	<0.0083	<0.0083	<0.0083
	10/1/97	0.0407	0.0209	0.0482	0.0154	0.0158	0.0132	0.0755
	8/9/06	0.066	0.195	0.044	--	--	--	--
	6/17/09	--	--	--	--	--	--	<0.1
Arsenic_D	8/1/97	<0.0024	<0.0024	0.0123	0.0036	<0.0024	0.0048	<0.0024
	10/1/97	<0.0024	<0.0024	0.0139	<0.0024	<0.0024	0.0073	<0.0024
	8/9/06	<0.025	<0.025	<0.025	--	--	--	--
	6/17/09	--	--	--	--	--	--	<0.01
Calcium_D	8/1/97	67.6	24.8	183	281	57.9	67.7	220
	10/1/97	40.3	24.5	183	274	54.6	56.3	255
	3/22/06	40.7	22.8	--	--	44.3	--	158
	5/31/06	38.9	--	--	--	--	--	--
	8/9/06	38.6	24.4	77.6	--	--	--	--
	3/20/07	40.3	24.5	--	--	--	45.6	--
	6/17/09	--	--	--	--	--	--	140
Chromium_D	8/1/97	<0.0004	0.0008	0.0035	0.0009	<0.0004	<0.0004	0.0008
	10/1/97	<0.0004	0.00073	0.0057	0.0014	<0.0004	0.00087	0.0011
	8/9/06	<0.005	<0.005	<0.005	--	--	--	--
	6/17/09	--	--	--	--	--	--	<0.01
Cobalt_D	8/1/97	<0.0011	<0.0011	0.0107	0.0067	<0.0011	0.0052	0.0017
	10/1/97	<0.0011	<0.0011	0.0095	0.0061	<0.0011	0.0041	0.0031
	8/9/06	<0.015	<0.015	<0.015	--	--	--	--
	6/17/09	--	--	--	--	--	--	<0.02
Copper_D	8/1/97	0.0008	<0.0007	0.0162	0.0022	0.0024	0.0011	0.0086
	10/1/97	<0.0007	<0.0007	<0.0007	<0.0007	0.00083	<0.0007	<0.0007
	8/9/06	0.013	0.013	0.015	--	--	--	--
	6/17/09	--	--	--	--	--	--	<0.01
Iron_D	8/1/97	0.0348	0.0172	5.4	0.582	0.0061	0.346	0.009
	10/1/97	0.0471	0.0141	11.5	0.595	0.0114	1.42	0.753
	3/22/06	13.5	0.339	--	--	0.168	--	0.0637
	5/31/06	0.315	--	--	--	--	--	--
	8/9/06	0.125	0.339	0.204	--	--	--	--
	3/20/07	<0.06	<0.06	--	--	--	<0.06	--
	6/17/09	--	--	--	--	--	--	<0.06
Lead_D	8/1/97	0.0052	--	<0.001	--	--	--	<0.001
	10/1/97	<0.001	--	0.0011	--	--	--	<0.001
	3/22/06	<0.005	<0.005	--	--	<0.005	--	<0.005
	5/31/06	0.005	--	--	--	--	--	--
	8/9/06	<0.005	<0.005	<0.005	--	--	--	--
	3/20/07	<0.003	<0.003	--	--	--	<0.003	--
	6/17/09	--	--	--	--	--	--	<0.003

Historical Summary of Parameters Identified by B&L in 1997 that are Indicative of Mild Dissolved Metals (all values in mg/l)

(Note: Qualifiers such as J, B and H are not included in these tables)

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Magnesium_D	8/1/97	15.4	6.62	41	61.7	12.9	17.3	56.2
	10/1/97	8.69	5.88	38.5	55	10.9	12.9	59.9
	3/22/06	10.4	5.15	--	--	8.7	--	43.6
	5/31/06	8.12	--	--	--	--	--	--
	8/9/06	8.18	5.54	17.1	--	--	--	--
	3/20/07	8.83	5.88	--	--	--	10.6	--
	6/17/09	--	--	--	--	--	--	34.1
Manganese_D	8/1/97	0.22	0.141	30.4	8.07	0.123	3.3	4.53
	10/1/97	0.174	0.134	30.9	8	0.0941	3.99	7.12
	3/22/06	0.238	0.0136	--	--	0.0963	--	5.35
	5/31/06	0.127	--	--	--	--	--	--
	8/9/06	0.248	0.135	12.1	--	--	--	--
	3/20/07	<0.01	<0.01	--	--	--	0.137	--
	6/17/09	--	--	--	--	--	--	3.78
Potassium_D	8/1/97	10.6	1.63	17.5	2.8	2.75	2.97	5.28
	10/1/97	4.92	0.514	14.2	2.34	1.42	2.77	3.98
	3/22/06	2.52	0.487	--	--	0.803	--	1.9
	5/31/06	1.38	--	--	--	--	--	--
	8/9/06	1.31	0.403	12.5	--	--	--	--
	3/20/07	1.72	<1	--	--	--	1.19	--
	6/17/09	--	--	--	--	--	--	1.82
Sodium_D	8/1/97	59.3	7.53	121	62.5	10.2	38.2	120
	10/1/97	27.1	6.59	115	62.8	7.98	33.3	129
	3/22/06	14.7	4.75	--	--	4.83	--	126
	5/31/06	12.3	--	--	--	--	--	--
	8/9/06	13	5.31	29.6	--	--	--	--
	3/20/07	12.3	5.73	--	--	--	12.1	--
	6/17/09	--	--	--	--	--	--	97.2
Vanadium_D	8/1/97	<0.0012	--	<0.0012	--	--	--	<0.0012
	10/1/97	<0.0012	--	<0.0012	--	--	--	<0.0012
	8/9/06	<0.015	<0.015	<0.015	--	--	--	--
	6/17/09	--	--	--	--	--	--	<0.03
Zinc_D	8/1/97	0.12	0.0396	0.117	0.0635	0.0249	0.0651	0.0455
	10/1/97	0.0161	0.0152	0.0207	0.023	0.0387	0.0207	0.0186
	8/9/06	0.033	0.029	0.013	--	--	--	--
	6/17/09	--	--	--	--	--	--	0.0228