

Environmental Monitoring Report 2010 Quarters 3 and 4 & Annual Report

Cortland County Towslee Landfill

Town Line Road
Cortland County, New York

NYSDEC Region 7

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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 2010, 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

<u>Quarter</u>	<u>Analyses</u>	<u>Date Sampled</u>
First Quarter:	Baseline	January 28, 2010
Second Quarter:	Routine	April 27, 2010
Third Quarter:	Routine	July 20, 2010
Fourth Quarter:	Routine	October 26, 2010 *

* Sample for MW-2A collected on November 12, 2010

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:

<u>Bedrock</u>	<u>Overburden</u>
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 2010. 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 2010 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 2010 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 Conventional and Field Parameters

pH - The acceptable range for pH is between 6.5 and 8.5. No pH contraventions were observed in Quarter 1. In Quarter 2, pH was below this range for MW-2A (5.94), MW-2B (6.03), MW-3A (5.83) and MW-7A (6.13). No contraventions of the pH standard were observed in Quarters 3 and 4.

Color – The color standard is 15 standard units (SU). Color was only measured for the Baseline round of Quarter 3. The color standard was exceeded for four wells: [MW-1A (35 SU), MW-2A (55 SU), MW-3A (35 SU) and MW-6B (35 SU)].

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

Quarter 1 - contraventions in 5 of 5 sampled wells ranging from 11 to 492 NTU.

Quarter 2 - contraventions in 4 of 7 wells ranging from about 11 to 44 NTU.

Quarter 3 - contraventions in 6 of 7 wells ranging from about 8 to 20 NTU.

Quarter 4 - contraventions in 7 of 7 wells ranging from about 8 to 40 NTU, except MW-7A had a turbidity reading of 338 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 through 2010.

	<u>MW-2B</u>	<u>MW-7A</u>
Quarter 1	820	520
Quarter 2	860	730
Quarter 3	790	690
Quarter 4	860	710

Ammonia - The ammonia standard of 2 mg/l was exceeded at MW-2A for all Quarters in 2010:

Quarter 1 - 8.45 mg/l

Quarter 2 - 8.06 mg/l

Quarter 3 - 10.1 mg/l

Quarter 4 - 6.9 mg/l

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

4.1.2 Metals

Total Barium - The NYS standard for barium is 1 mg/l. Barium at MW-2B (1.37 mg/l) in Quarter 3 was the only contravention in 2010.

Total Iron - The NYS standard for iron is 0.3 mg/l. The standard was exceeded for most wells in all four Quarters of 2010, as it has in past monitoring at Towslee. A summary of contraventions for total (unfiltered) iron is as follows:

Quarter 1 - contraventions in 5 of 5 sampled wells ranging from about 0.37 to 64 mg/l.

Quarter 2 - contraventions in 5 of 7 wells ranging from about 0.33 to 6.1 mg/l.

Quarter 3 - contraventions in 3 of 7 wells ranging from about 1.7 to 13 mg/l.

Quarter 4 - contraventions in 6 of 7 wells ranging from about 0.33 to 10 mg/l.

Total Lead - NYS standard for lead is 0.015 mg/l. Total lead for MW-2A in Quarter 1 was 0.0187 mg/l, slightly above the standard. This concentration likely reflects immobile lead attached to particulate in the sample. No other contraventions of the lead standard were observed in 2010.

Total Manganese - The NYS standard for manganese is 0.3 mg/l. The manganese standard was frequently exceeded in all four Quarters of 2010, as has been the case in past monitoring. A summary of 2010 contraventions for total (unfiltered) manganese is as follows:

- Quarter 1 - contraventions in 4 of 5 sampled wells ranging from about 0.6 to 12 mg/l.
- Quarter 2 - contraventions in 3 of 7 wells ranging from about 4 to 10 mg/l.
- Quarter 3 - contraventions in 3 of 7 wells ranging from about 4 to 12 mg/l.
- Quarter 4 - contraventions in 5 of 7 wells ranging from about 0.33 to 11 mg/l.

Sodium – The NYS sodium standard is 20 mg/l, and is relevant for people on severely restricted sodium diets. Contraventions in Quarters 1 and 2 of 2010 were as follows:

	<u>MW-2A</u>	<u>MW-2B</u>	<u>MW-7A</u>	All values in mg/l
Quarter 1:	--	48.9	112	
Quarter 2:	--	53.1	109	
Quarter 3:	21.9	56.9	110	
Quarter 4:		65.4	127	

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 3 of 2010.

Seven different VOCs were detected in Quarter 3. For three wells (MW-1A, MW-1B and MW-6B) no VOCs were detected. For the remaining wells, four or fewer VOCs were detected. Of the nine total VOC detections, four did not contravene available water quality standards. A summary of VOC contraventions is presented below.

Vinyl chloride was above the drinking water standard of 2 ug/l at MW-2B (13 ug/l) and MW-7A (4 ug/l). The result for MW-7A is below the method detection limit (MDL), and is therefore estimated.

Chloroethane was detected in Well MW-2B at 7 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 at 19 ug/l. This result is above the drinking water MCL of 5 ug/l for cis-1,2-dichloroethene.

Toluene was detected in MW-3A at 77 ug/l. This is above the drinking water MCL of 5 ug/l. Note that the recovery for toluene in the matrix spike was 340%, far exceeding acceptance criteria. It is possible that the reported result is an anomaly.

There were no other contraventions of NYS water quality standards in 2010.

4.2 Trends

Groundwater monitoring at Towslee Landfill occurred twice in 1997, and 20 times since monitoring resumed in 2006. 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 constituents of concern (COCs). Appendix D contains summary tables of historical results for each COC, up to and including 2010 results.

Previous reporting described a significant improvement in groundwater quality downgradient of the Towslee landfill between 1997 and 2006. Monitoring since 2006 indicates that overall groundwater quality remains improved compared to 1997 results, and that groundwater quality is generally improving, or has remained stable over the past 5 years.

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

4.2.1 Trends for Conventional

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

- o Alkalinity continues to be generally lower than 1997 levels, and fairly stable over the past 5 years. There is a slight downward trend over the past few years for the wells with the highest alkalinity levels.
- o Chloride levels continue to be significantly lower than 1997 levels. There is a slight downward trend over the past few years for the wells with the highest chloride levels.
- o Hardness levels continue to be much lower than in 1997, and fairly stable over the past 4-5 years.
- o Ammonia - Five of seven wells have decreased over time to the point that no ammonia has been detected in the past 15 sampling events. Well MW-2A continues to have elevated

ammonia levels, but continues to show an overall 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.

- o TKN levels in general show an overall decreasing trend over time. TKN results for MW-2A are elevated, but show an overall decreasing trend. Results for MW-2B are somewhat elevated, but have remained stable for the past 5 years. TKN results for at MW-3A and MW-7A are also somewhat elevated, and fluctuate more than at other wells, with no clear trend either up or down. Through Quarter 3 of 2010, results for the remaining three wells have for years remained below, or near, the detection limit. In Quarter 4, these three wells showed a modest increase. Laboratory control sample (LCS) recoveries for TKN were above acceptance criteria in Quarter 4, which may explain the increase.
- o COD continues to show an overall decrease compared to 1997 levels. Results for MW-1A, MW-1B and MW-6B have generally remained below the detection limit in recent years. Results for the other wells fluctuate over time, with some results below the detection limit, and with no clear trend up or down.
- o Total Organic Carbon (TOC) - TOC has been below the detection limit at MW-1A, MW-1B and MW-6B in recent years. TOC at MW-2A, MW-2B and MW-7A has decreased compared to 1997 levels, and has been relatively stable in the past few years. TOC at MW-3A fluctuates over time, with no clear trend up or down, and with about half the results below the detection limit.
- o For all other conventionals, the results for 2010 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 3 in 2010. For the Routine events (Quarters 1, 2 and 4), the only metals analyzed were calcium, iron, lead, magnesium, manganese, potassium, and sodium.

- o Aluminum levels continue to show a significant decrease through 2010, compared to 1997. Total aluminum for MW-2A and MW-3A in Quarter 3 increased compared to recent years. The cause is unknown, but may be related to increased particulate in the samples.
- o Arsenic levels have decreased over time, and were below the detection limit for all seven wells in 2010.

- o Calcium levels continue to show an overall decrease through 2010, compared to 1997 levels, and have been relatively stable over the past 5 years.
- o Chromium levels have decreased over time, and all results were below the detection limit in 2010.
- o Cobalt has been below the detection limit for all wells since sampling resumed in 2006.
- o Copper has been below the detection limit for all sampled wells for the past 4 years.
- o Iron continues to show an overall decrease compared to 1997 levels. Variability in total iron levels over the past 5 years is likely due to varying amounts of particulate in samples.
- o Lead levels have generally been below the detection limit for the past 5 years.
- o Magnesium levels continue to show an overall decrease compared to 1997 observations, and have been fairly stable over the past few years.
- o Manganese continues to show an overall decrease compared to 1997 levels. The relatively large fluctuations in manganese in recent years may be related to varying amounts of particulate in the unfiltered samples.
- o Potassium levels continue to show an overall decrease through 2010, compared to 1997, and have been relatively stable in the past few years.
- o Sodium levels have continued to show a general decrease through 2010, or have remained fairly stable.
- o Vanadium levels have been below the detection limit at all wells since sampling resumed in 2006.
- o Zinc levels have generally decreased over time, compared to 1997 levels. Zinc was below the detection limit at 5 of 7 wells in 2010.

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 Q3 of 2010, and measured a total of eight 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 2010, nor in any previous monitoring.

MW-1B –VOCs were not detected in any well in 2010. The only previous VOC (methylene chloride) detected at this well is a suspected artifact of laboratory contamination, detected in 2008.

MW-2A – Chlorobenzene was reported at 3 ug/l in 2010, 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 (13 ug/l), chloroethane (7 ug/l) and cis-1,2-dichloroethene (19 ug/l) were detected in 2010. Low level VOC contamination persists at this well.

MW-3A – Acetone and methylene chloride have been detected sporadically at this well at relatively low levels. These are common laboratory contaminants. Toluene was detected in each of the past two years. While toluene may be present, the reported concentrations are suspect based on laboratory QA/QC results.

MW-6B - no VOCs were detected in any well in 2010. 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. Acetone, a common laboratory contaminant, was detected at low level for the first time in 2010. It is unclear if this result represents actual water quality.

5.0 Quality Control

Quality control samples and data validation are discussed below.

5.1 Quality Control Samples

Duplicate samples were collected for MW-6B in Quarters 1 and 2. Duplicates for MW-1B were collected for Quarters 3 and 4. Relative Percent Differences (RPDs) were calculated when results were above the detection limit for the both sample and the duplicate. An estimated RPD was calculated when only one result was above the detection limit by setting the “non-detect” value to the detection limit.

Quarter 1, 2010

- Most RPDs were below 20%, and more than half were below 10%.
- The RPDs for alkalinity and chloride were above 20 percent. The reason for this is unclear.

Quarter 2, 2010

- More than half the RPDs were below 10%.
- The sulfate RPD was at least 41%. The reason for this elevated RPD is unknown.
- The RPD for total iron, total manganese and TDS were above 20 percent, and may be due to different amounts of particulate in duplicate samples.

Quarter 3, 2010

- 10 of 13 RPDs were below 20.
- The RPD for total iron and total manganese were above 20, and may be due to different amounts of particulate in duplicate samples.
- The RPD for chloride was 21. Chloride levels were less than five times the MDL, and did not differ by more than the MDL, and so were not qualified.
- All organics results for MW-1B and the duplicate were below the MDL.
- A trip blank and holding blank associated with VOC testing were analyzed for Quarter 3. All results were below the detection limit.

Quarter 4, 2010

- 6 of 10 RPDs were 20 or below.
- The RPD for total iron, total manganese and TDS were above 20, and may be due to different amounts of particulate in duplicate samples.
- The RPD for chloride was above 20. The reason for this elevated RPD is unknown.

5.2 Data Validation

Upstate Labs performed internal data validation for the four Quarters of monitoring in 2010. The results generally met acceptance criteria. Summaries of Quarter 1 and 2 were included in a previous monitoring report. Summaries of Upstate Labs internal validation for Quarters 3 and 4 are included in the laboratory reports of Appendix A and B. The Baseline round of Quarter 3 was not validated by an independent third party, but a data package suitable for independent data validation was prepared by Upstate Labs, in the event validation is warranted.

We believe the 2010 data are adequate to characterize groundwater quality downgradient of the Towslee landfill.

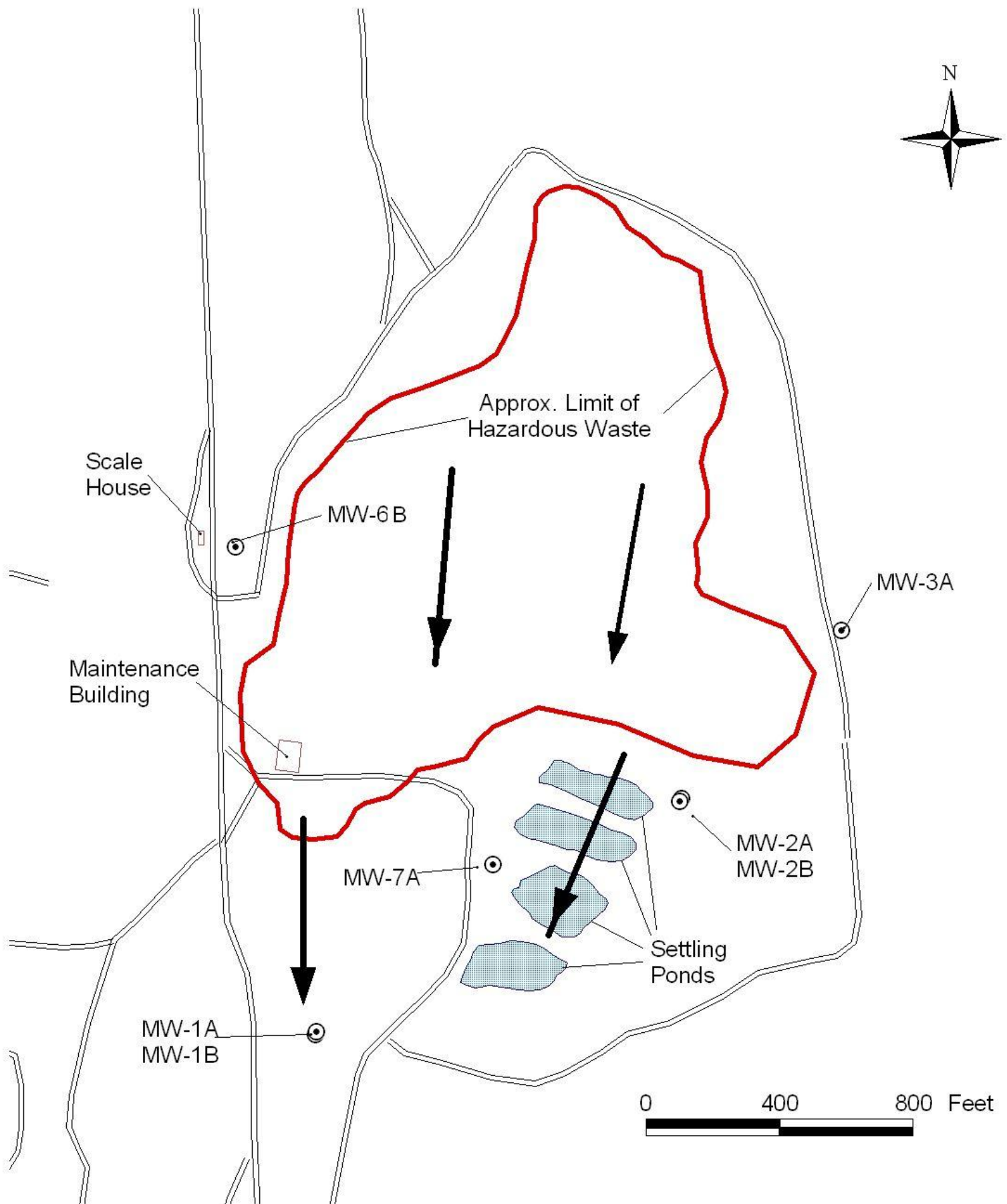


Figure 1.
Monitoring Well Locations
Towslee Landfill

Table 1
Contraventions of NYS Water Quality Standards
for Field and Inorganic Parameters
Towslee Landfill - Quarter 1 2010

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)	--	ns	ns	4.4	3.7	6.1	4.7	5.2
Eh	(mV)	--	ns	ns	148	184	101	102	192
pH	(Std Units)	6.5 - 8.5 a	ns	ns	7.53	6.9	8.41	8.35	6.73
Specific Conductance	(uS/cm)	--	ns	ns	1474	1880	646	922	260
Color	(Units)	15 a, b	ns	ns	--	--	--	--	--
Turbidity	(NTU)	5 a	ns	ns	492	12.7	11	12.5	23.6
Alkalinity, Total (As CaCO3)	(mg/l)	--	ns	ns	310	600	180	150	600
Hardness (As CaCO3)	(mg/l)	--	ns	ns	291	609	93.2	163	508
Total Dissolved Solids	(mg/l)	500 a	ns	ns	360	820	160	240	520
Chloride	(mg/l)	250 a, b	ns	ns	12.4	112	14.8	13.2	104
Sulfate	(mg/l)	250 a, b	ns	ns	<5	7.9	<5	13.4	19.2
Bromide	(mg/l)	2 a	ns	ns	<2	<0.2	<0.2	<2	<2
Nitrogen, Nitrate (As N)	(mg/l)	10 a, b	ns	ns	<0.2	<0.2	<0.2	<0.2	<0.2
Nitrogen, Ammonia (As N)	(mg/l)	2 * a	ns	ns	8.45	0.69	<0.5	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--	ns	ns	11.6	1.28	<0.5	<0.5	1.02
Chemical Oxygen Demand	(mg/l)	--	ns	ns	41	22	<20	<20	33
Biochemical Oxygen Demand	(mg/l)	--	ns	ns	8	<4	<4	<4	<4
Organic Carbon, Total	(mg/l)	--	ns	ns	5.2	3.5	<3	<3	4.9
Phenolics, Total Recoverable	(mg/l)	0.001 a	ns	ns	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	0.2 a, b	ns	ns	--	--	--	--	--

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

ns not sampled, frozen

Table 2
Contraventions of NYS Water Quality Standards
for Metals
Towslee Landfill - Quarter 1 2010

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	--	ns	ns	--	--	--	--	--
Antimony	0.003 a	ns	ns	--	--	--	--	--
Arsenic	0.025 a	ns	ns	--	--	--	--	--
Barium	1 a	ns	ns	--	--	--	--	--
Beryllium	0.004 b	ns	ns	--	--	--	--	--
Boron	1 a	ns	ns	--	--	--	--	--
Cadmium	0.005 a, b	ns	ns	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--	ns	ns	71.1	177	28.8	45	139
Chromium	0.05 a	ns	ns	--	--	--	--	--
Chrom, Hex	0.05 a	ns	ns	--	--	--	--	--
Cobalt	--	ns	ns	--	--	--	--	--
Copper	0.2 a	ns	ns	--	--	--	--	--
Iron	0.3 a, b	ns	ns	64.2	0.451	0.366	0.448	3.95
Lead	0.015 b	ns	ns	0.0187	<0.003	<0.003	<0.003	<0.003
Magnesium	--	ns	ns	27.6	40.4	5.17	12.3	38.8
Manganese	0.3 a, b	ns	ns	11.6	5.48	0.568	0.0606	3.87
Mercury	0.0007 a	ns	ns	--	--	--	--	--
Nickel	0.1 a	ns	ns	--	--	--	--	--
Potassium	--	ns	ns	12.8	<5	<5	<5	<5
Sodium	20 a, b	ns	ns	15.5	48.9	<5	16.8	112
Selenium	0.01 a	ns	ns	--	--	--	--	--
Silver	0.05 a	ns	ns	--	--	--	--	--
Thallium	0.002 b	ns	ns	--	--	--	--	--
Vanadium	--	ns	ns	--	--	--	--	--
Zinc	5 b	ns	ns	--	--	--	--	--

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

ns not sampled, frozen

Table 3
Contraventions of NYS Water Quality Standards
for Field and Inorganic Parameters
Towslee Landfill - Quarter 2 2010

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)	--	8.2	7.9	6.6	6.9	7.4	8.1	7.3
Eh	(mV)	--	180	173	256	249	263	222	246
pH	(Std Units)	6.5 - 8.5 a	7.28	7.4	5.94	6.03	5.83	6.54	6.13
Specific Conductance	(uS/cm)	--	1580	975	294	567	706	1673	483
Color	(Units)	15 a, b	--	--	--	--	--	--	--
Turbidity	(NTU)	5 a	22.7	10.8	41.5	12	11.8	43.6	31.4
Alkalinity, Total (As CaCO3)	(mg/l)	--	140	100	300	610	93	150	500
Hardness (As CaCO3)	(mg/l)	--	161	92.9	235	681	58	147	435
Total Dissolved Solids	(mg/l)	500 a	270	170	350	860	75	220	730
Chloride	(mg/l)	250 a, b	31.7	3.54	14.5	130	1.31	12	89.1
Sulfate	(mg/l)	250 a, b	9.43	<5	<5	<5	<5	7.57	22.5
Bromide	(mg/l)	2 a	<0.8	<0.4	<2	<0.4	<0.8	<1	<1
Nitrogen, Nitrate (As N)	(mg/l)	10 a, b	0.0721	0.0512	0.0809	<0.05	<0.05	0.0804	<0.05
Nitrogen, Ammonia (As N)	(mg/l)	2 * a	<0.5	<0.5	8.06	1.18	<0.5	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--	<0.5	<0.5	11.9	1.55	1.14	0.522	1.4
Chemical Oxygen Demand	(mg/l)	--	<20	<20	23	<20	30	<20	28
Biochemical Oxygen Demand	(mg/l)	--	<4	<4	<4	<4	10	<4	<4
Organic Carbon, Total	(mg/l)	--	<3	<3	6.7	5.8	9	<3	6.7
Phenolics, Total Recoverable	(mg/l)	0.001 a	<0.005	<0.005	0.006	0.006	0.006	<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 4
Contraventions of NYS Water Quality Standards
for Metals
Towslee Landfill - Quarter 2 2010

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	--	47	26.5	68.7	202	23.2	40.6	122
Chromium	0.05 a	--	--	--	--	--	--	--
Chrom, Hex	0.05 a	--	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--
Copper	0.2 a	--	--	--	--	--	--	--
Iron	0.3 a, b	0.484	0.423	6.1	0.329	0.291	0.226	0.469
Lead	0.015 b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--	10.5	6.49	15.4	43.1	<5	11	31.4
Manganese	0.3 a, b	0.118	0.13	9.79	6.2	0.218	0.027	3.85
Mercury	0.0007 a	--	--	--	--	--	--	--
Nickel	0.1 a	--	--	--	--	--	--	--
Potassium	--	<5	<5	9.42	<5	<5	<5	<5
Sodium	20 a, b	12.8	6.29	16.3	53.1	<5	14.2	109
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 5
Contraventions of NYS Water Quality Standards
for Field and Inorganic Parameters
Towslee Landfill - Quarter 3 2010

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)	--	18.9	18.2	18.8	19.0	17.9	18.2	19.0
Eh	(mV)	--	151	167	162	117	173	144	149
pH	(Std Units)	6.5 - 8.5 a	7.73	7.99	7.77	7.52	7.8	7.66	7.89
Specific Conductance	(uS/cm)	--	263	1221	329	391	943	249	412
Color	(Units)	15 a, b	35	15	55	11	35	35	8
Turbidity	(NTU)	5 a	18.6	17	8.18	17.3	13.9	4.71	20.1
Alkalinity, Total (As CaCO3)	(mg/l)	--	120	91	360	630	160	140	510
Hardness (As CaCO3)	(mg/l)	--	167	106	313	730	194	144	520
Total Dissolved Solids	(mg/l)	500 a	320	130	370	790	230	200	690
Chloride	(mg/l)	250 a, b	33	3.63	22.5	139	7.44	14	128
Sulfate	(mg/l)	250 a, b	17.9	7.05	<5	<5	12.6	11	25.2
Bromide	(mg/l)	2 a	<1.6	<0.8	<4	<4	<4	<0.8	<4
Nitrogen, Nitrate (As N)	(mg/l)	10 a, b	0.066	0.063	0.139	0.071	0.053	0.092	0.059
Nitrogen, Ammonia (As N)	(mg/l)	2 * a	<0.5	<0.5	10.1	0.812	<0.5	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--	<0.5	<0.5	16.5	1.37	1.26	<0.5	1.27
Chemical Oxygen Demand	(mg/l)	--	<20	<20	50	<20	27	<20	31
Biochemical Oxygen Demand	(mg/l)	--	<4	<4	7	<4	<4	<4	<4
Organic Carbon, Total	(mg/l)	--	<3	<3	7.8	5.7	<3	<3	6
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.

-- not analyzed

Table 6
Contraventions of NYS Water Quality Standards
for Metals

Towslee Landfill - Quarter 3 2010

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	--		0.142	<0.1	3.37	<0.1	5.32	<0.1	1.52	<0.1
Antimony	0.003	a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Arsenic	0.025	a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Barium	1	a	0.0757	0.204	0.545	1.37	0.627	0.348	0.556	0.477
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	--		48.9	30.3	91.2	216	57.3	39.9	147	129
Chromium	0.05	a	<0.01	<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	0.219	0.159	13	0.149	6.97	<0.06	1.71	<0.06
Lead	0.015	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--		10.8	7.27	20.6	46.2	12.5	10.7	36.9	31.6
Manganese	0.3	a, b	0.156	0.188	12.2	6.35	0.282	0.087	3.82	2.57
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	--		<5	<5	14.3	<5	<5	<5	<5	<5
Sodium	20	a, b	13.2	7.12	21.9	56.9	6.53	15	110	91.6
Selenium	0.01	a	<0.003	<0.003	<0.003	0.004	<0.003	<0.003	<0.003	<0.003
Silver	0.05	a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	0.002	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Vanadium	--		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Zinc	5	b	<0.01	<0.01	0.0269	<0.01	0.0285	<0.01	<0.01	0.0102

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 7
Contraventions of NYS Water Quality Standards
for Organics
Towslee Landfill - Quarter 3 2010

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	13	<5	<5	4 J
Chloroethane	5 b	<5	<5	<5	7	<5	<5	<5
Acetone	50 b	<10	<10	<10	<10	<10	<10	11
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 J
1,1-Dichloroethane	5 b	<5	<5	<5	<5	<5	<5	4 J
Benzene	1 a	<5	<5	<5	<5	<5	<5	<5
Toluene	5 b	<5	<5	<5	<5	77 S	<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. Detected values are in BOLD.

J - Estimated, below detection limit

S - Recovery in matrix spike exceeded acceptance criteria.

Table 8
 Contraventions of NYS Water Quality Standards
 for Field and Inorganic Parameters
 Towslee Landfill - Quarter 4 2010

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)	--	15.6	15.2	14.0	15.1	15.6	14.6	14.5
Eh	(mV)	--	110	104	17	153	74	132	155
pH	(Std Units)	6.5 - 8.5 a	7.95	8.11	7.06	6.75	6.9	7.39	6.87
Specific Conductance	(uS/cm)	--	345	228	613	1228	1806	342	1133
Color	(Units)	15 a, b	--	--	--	--	--	--	--
Turbidity	(NTU)	5 a	37.7	8.46	38.1	14.1	7.61	16	328
Alkalinity, Total (As CaCO3)	(mg/l)	--	120	90	310	600	130	160	520
Hardness (As CaCO3)	(mg/l)	--	169	104	260	693	66.9	147	507
Total Dissolved Solids	(mg/l)	500 a	170	200	300	860	98	190	710
Chloride	(mg/l)	250 a, b	31.4	6.11	17.1	127	3.3	16	115
Sulfate	(mg/l)	250 a, b	14.8	<5	<5	<5	<5	11.2	23.9
Bromide	(mg/l)	2 a	<0.8	<0.8	<20	<0.8	<4	<1.6	<8
Nitrogen, Nitrate (As N)	(mg/l)	10 a, b	0.102	<0.05	0.08	<0.05	0.054	0.051	<0.05
Nitrogen, Ammonia (As N)	(mg/l)	2 * a	<0.5	<0.5	6.9	<0.5	<0.5	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--	0.897	0.924	9.84	2.45	1.83	0.799	2.15
Chemical Oxygen Demand	(mg/l)	--	<20	<20	20	25	29	<20	40
Biochemical Oxygen Demand	(mg/l)	--	<4	<4	<4	<4	7	<4	<4
Organic Carbon, Total	(mg/l)	--	<3	<3	6	5.4	6.6	<3	6.1
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.

-- not analyzed

Table 9
Contraventions of NYS Water Quality Standards
for Metals

Towslee Landfill - Quarter 4 2010

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	--		--	--	--	--	--	--	--	--
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	<0.005
Calcium	--		49	29.7	74.6	207	26.8	40.9	143	120
Chromium	0.05	a	--	--	--	--	--	--	--	--
Chrom, Hex	0.05	a	--	--	--	--	--	--	--	--
Cobalt	--		--	--	--	--	--	--	--	--
Copper	0.2	a	--	--	--	--	--	--	--	--
Iron	0.3	a, b	1.99	1.02	9.73	0.273	2.42	0.337	3.06	0.0978
Lead	0.015	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--		11.3	7.29	17.9	43	<5	10.9	36.4	31.5
Manganese	0.3	a, b	0.329	0.153	11.1	6.82	0.471	0.242	4.5	3.26
Mercury	0.0007	a	--	--	--	--	--	--	--	--
Nickel	0.1	a	--	--	--	--	--	--	--	--
Potassium	--		<5	<5	11.9	<5	<5	<5	<5	<5
Sodium	20	a, b	15.3	8.95	19	65.4	<5	17.8	127	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 2010

Cortland County Towslee Landfill

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

Tuesday, August 31, 2010

RE: Analytical Report:
Towslee Landfill

Order No.: U1007358

Dear Mr. Patrick Reidy:

Upstate Laboratories, Inc. received 18 sample(s) on 7/21/2010 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 regarding these tests, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.


Anthony J. Scala
President/CEO

CC:

Encls (disk): ASP-B Pkg, rept, f.data, inv, EDD

J. Baldwin, Dataval Inc: ASP-B Pkg

Confidentiality Statement: This report is meant for the use of the intended recipient. It may contain confidential information, which is legally privileged or otherwise protected by law. If you have received this report in error, you are strictly prohibited from reviewing, using, disseminating, distributing or copying the information.

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-1A

Lab Order: U1007358

Collection Date: 7/19/2010 9:59:00 AM

Project: Towslee Landfill

Lab ID: U1007358-001

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Vinyl chloride	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Bromomethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Chloroethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Acetone	ND	10		µg/L	1	7/28/2010 4:32:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Iodomethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Carbon disulfide	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Methylene chloride	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Acrylonitrile	ND	100		µg/L	1	7/28/2010 4:32:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Vinyl acetate	ND	50		µg/L	1	7/28/2010 4:32:00 AM
2-Butanone	ND	10		µg/L	1	7/28/2010 4:32:00 AM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Chloroform	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Bromochloromethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Benzene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Trichloroethene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Dibromomethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2010 4:32:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Toluene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
2-Hexanone	ND	10		µg/L	1	7/28/2010 4:32:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Chlorobenzene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
m,p-Xylene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM

Approved By: PH

Date: 8-31-10

Page 1 of 37

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-1A

Lab Order: U1007358

Collection Date: 7/19/2010 9:59:00 AM

Project: Towslee Landfill

Lab ID: U1007358-001

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Styrene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
Bromoform	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	7/28/2010 4:32:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 4:32:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	7/28/2010 4:32:00 AM

NOTES:

TICS: No compounds were detected.

Approved By: *PH*

Date: *8-31-10*

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-1B

Lab Order: U1007358

Collection Date: 7/19/2010 10:31:00 AM

Project: Towslee Landfill

Lab ID: U1007358-002

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Vinyl chloride	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Bromomethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Chloroethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Acetone	ND	10		µg/L	1	7/28/2010 5:11:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Iodomethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Carbon disulfide	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Methylene chloride	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Acrylonitrile	ND	100		µg/L	1	7/28/2010 5:11:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Vinyl acetate	ND	50		µg/L	1	7/28/2010 5:11:00 AM
2-Butanone	ND	10		µg/L	1	7/28/2010 5:11:00 AM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Chloroform	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Bromochloromethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Benzene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Trichloroethene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Dibromomethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2010 5:11:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Toluene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
2-Hexanone	ND	10		µg/L	1	7/28/2010 5:11:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Chlorobenzene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
m,p-Xylene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM

Approved By: *PH*

Date: *8-31-10*

Page 3 of 37

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-1B

Lab Order: U1007358

Collection Date: 7/19/2010 10:31:00 AM

Project: Towslee Landfill

Lab ID: U1007358-002

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Styrene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
Bromoform	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	7/28/2010 5:11:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 5:11:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	7/28/2010 5:11:00 AM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 8-31-10

Page 4 of 37

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-2A

Lab Order: U1007358

Collection Date: 7/19/2010 11:44:00 AM

Project: Towslee Landfill

Lab ID: U1007358-003

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Vinyl chloride	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Bromomethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Chloroethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Acetone	ND	10		µg/L	1	7/28/2010 5:50:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Iodomethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Carbon disulfide	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Methylene chloride	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Acrylonitrile	ND	100		µg/L	1	7/28/2010 5:50:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Vinyl acetate	ND	50		µg/L	1	7/28/2010 5:50:00 AM
2-Butanone	ND	10		µg/L	1	7/28/2010 5:50:00 AM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Chloroform	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Bromochloromethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Benzene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Trichloroethene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Dibromomethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2010 5:50:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Toluene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
2-Hexanone	ND	10		µg/L	1	7/28/2010 5:50:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Chlorobenzene	3	5.0	J	µg/L	1	7/28/2010 5:50:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
m,p-Xylene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM

Approved By: *PH*

Date: *8-31-10*

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-2A

Lab Order: U1007358

Collection Date: 7/19/2010 11:44:00 AM

Project: Towslee Landfill

Lab ID: U1007358-003

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Styrene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
Bromoform	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	7/28/2010 5:50:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 5:50:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	7/28/2010 5:50:00 AM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 8-31-10

Page 6 of 37

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-2B

Lab Order: U1007358

Collection Date: 7/19/2010 11:58:00 AM

Project: Towslee Landfill

Lab ID: U1007358-004

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Vinyl chloride	13	5.0		µg/L	1	7/28/2010 6:29:00 AM
Bromomethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Chloroethane	7.0	5.0		µg/L	1	7/28/2010 6:29:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Acetone	ND	10		µg/L	1	7/28/2010 6:29:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Iodomethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Carbon disulfide	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Methylene chloride	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Acrylonitrile	ND	100		µg/L	1	7/28/2010 6:29:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Vinyl acetate	ND	50		µg/L	1	7/28/2010 6:29:00 AM
2-Butanone	ND	10		µg/L	1	7/28/2010 6:29:00 AM
cis-1,2-Dichloroethene	19	5.0		µg/L	1	7/28/2010 6:29:00 AM
Chloroform	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Bromochloromethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Benzene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Trichloroethene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Dibromomethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2010 6:29:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Toluene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
2-Hexanone	ND	10		µg/L	1	7/28/2010 6:29:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Chlorobenzene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
m,p-Xylene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM

Approved By: PH

Date: 8-31-10

Page 7 of 37

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-2B

Lab Order: U1007358

Collection Date: 7/19/2010 11:58:00 AM

Project: Towslee Landfill

Lab ID: U1007358-004

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Styrene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
Bromoform	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	7/28/2010 6:29:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 6:29:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	7/28/2010 6:29:00 AM
TIC: Ethyl ether	8.4	0		µg/L	1	7/28/2010 6:29:00 AM

Approved By: PH

Date: 8-31-10

Page 8 of 37

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-3A

Lab Order: U1007358

Collection Date: 7/19/2000 9:44:00 AM

Project: Towslee Landfill

Lab ID: U1007358-005

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Vinyl chloride	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Bromomethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Chloroethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Acetone	ND	10		µg/L	1	7/28/2010 7:08:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Iodomethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Carbon disulfide	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Methylene chloride	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Acrylonitrile	ND	100		µg/L	1	7/28/2010 7:08:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Vinyl acetate	ND	50		µg/L	1	7/28/2010 7:08:00 AM
2-Butanone	ND	10		µg/L	1	7/28/2010 7:08:00 AM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Chloroform	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Bromochloromethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Benzene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Trichloroethene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Dibromomethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2010 7:08:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Toluene	77	5.0		µg/L	1	7/28/2010 7:08:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
2-Hexanone	ND	10		µg/L	1	7/28/2010 7:08:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Chlorobenzene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
m,p-Xylene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM

Approved By: *PH*

Date: *8-31-10*

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-3A

Lab Order: U1007358

Collection Date: 7/19/2000 9:44:00 AM

Project: Towslee Landfill

Lab ID: U1007358-005

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Styrene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
Bromoform	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	7/28/2010 7:08:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 7:08:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	7/28/2010 7:08:00 AM
TIC: 5-Undecene, (E)-	6.8	0		µg/L	1	7/28/2010 7:08:00 AM

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-6B

Lab Order: U1007358

Collection Date: 7/19/2010 12:25:00 PM

Project: Towslee Landfill

Lab ID: U1007358-006

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Vinyl chloride	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Bromomethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Chloroethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Acetone	ND	10		µg/L	1	7/28/2010 1:43:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Iodomethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Carbon disulfide	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Methylene chloride	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Acrylonitrile	ND	100		µg/L	1	7/28/2010 1:43:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Vinyl acetate	ND	50		µg/L	1	7/28/2010 1:43:00 PM
2-Butanone	ND	10		µg/L	1	7/28/2010 1:43:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Chloroform	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Bromochloromethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Benzene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Dibromomethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2010 1:43:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Toluene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
2-Hexanone	ND	10		µg/L	1	7/28/2010 1:43:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Chlorobenzene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
m,p-Xylene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-6B

Lab Order: U1007358

Collection Date: 7/19/2010 12:25:00 PM

Project: Towslee Landfill

Lab ID: U1007358-006

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Styrene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
Bromoform	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	7/28/2010 1:43:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 1:43:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	7/28/2010 1:43:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-7A

Lab Order: U1007358

Collection Date: 7/19/2010 11:25:00 AM

Project: Towslee Landfill

Lab ID: U1007358-007

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B				8260ASP_A1_W	Analyst: LEF	
Chloromethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Vinyl chloride	4	5.0	J	µg/L	1	7/28/2010 2:21:00 PM
Bromomethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Chloroethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Acetone	11	10		µg/L	1	7/28/2010 2:21:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Iodomethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Carbon disulfide	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Methylene chloride	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Acrylonitrile	ND	100		µg/L	1	7/28/2010 2:21:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
1,1-Dichloroethane	4	5.0	J	µg/L	1	7/28/2010 2:21:00 PM
Vinyl acetate	ND	50		µg/L	1	7/28/2010 2:21:00 PM
2-Butanone	ND	10		µg/L	1	7/28/2010 2:21:00 PM
cis-1,2-Dichloroethene	5	5.0	J	µg/L	1	7/28/2010 2:21:00 PM
Chloroform	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Bromochloromethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Benzene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Dibromomethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2010 2:21:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Toluene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
2-Hexanone	ND	10		µg/L	1	7/28/2010 2:21:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Chlorobenzene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
m,p-Xylene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-7A

Lab Order: U1007358

Collection Date: 7/19/2010 11:25:00 AM

Project: Towslee Landfill

Lab ID: U1007358-007

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Styrene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
Bromoform	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	7/28/2010 2:21:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 2:21:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	7/28/2010 2:21:00 PM
TIC: Methyl propyl ether	9.1	0		µg/L	1	7/28/2010 2:21:00 PM

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1007358
Project: Towslee Landfill
Lab ID: U1007358-008

Client Sample ID: ULI Trip Blank

Collection Date: 7/19/2010

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Vinyl chloride	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Bromomethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Chloroethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Acetone	ND	10		µg/L	1	7/28/2010 3:00:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Iodomethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Carbon disulfide	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Methylene chloride	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Acrylonitrile	ND	100		µg/L	1	7/28/2010 3:00:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Vinyl acetate	ND	50		µg/L	1	7/28/2010 3:00:00 PM
2-Butanone	ND	10		µg/L	1	7/28/2010 3:00:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Chloroform	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Bromochloromethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Benzene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Dibromomethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2010 3:00:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Toluene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
2-Hexanone	ND	10		µg/L	1	7/28/2010 3:00:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Chlorobenzene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
m,p-Xylene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: ULI Trip Blank

Lab Order: U1007358

Collection Date: 7/19/2010

Project: Towslee Landfill

Lab ID: U1007358-008

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Styrene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
Bromoform	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	7/28/2010 3:00:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 3:00:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	7/28/2010 3:00:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: Dupe MW-1B

Lab Order: U1007358

Collection Date: 7/19/2010 10:31:00 AM

Project: Towslee Landfill

Lab ID: U1007358-009

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Vinyl chloride	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Bromomethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Chloroethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Acetone	ND	10		µg/L	1	7/28/2010 3:39:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Iodomethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Carbon disulfide	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Methylene chloride	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Acrylonitrile	ND	100		µg/L	1	7/28/2010 3:39:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Vinyl acetate	ND	50		µg/L	1	7/28/2010 3:39:00 PM
2-Butanone	ND	10		µg/L	1	7/28/2010 3:39:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Chloroform	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Bromochloromethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Benzene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Dibromomethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2010 3:39:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Toluene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
2-Hexanone	ND	10		µg/L	1	7/28/2010 3:39:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Chlorobenzene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
m,p-Xylene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: Dupe MW-1B

Lab Order: U1007358

Collection Date: 7/19/2010 10:31:00 AM

Project: Towslee Landfill

Lab ID: U1007358-009

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Styrene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
Bromoform	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	7/28/2010 3:39:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 3:39:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	7/28/2010 3:39:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: Holding Blank

Lab Order: U1007358

Collection Date: 7/20/2010 1:40:00 PM

Project: Towslee Landfill

Lab ID: U1007358-010

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Vinyl chloride	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Bromomethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Chloroethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Acetone	ND	10		µg/L	1	7/28/2010 4:17:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Iodomethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Carbon disulfide	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Methylene chloride	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Acrylonitrile	ND	100		µg/L	1	7/28/2010 4:17:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Vinyl acetate	ND	50		µg/L	1	7/28/2010 4:17:00 PM
2-Butanone	ND	10		µg/L	1	7/28/2010 4:17:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Chloroform	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Bromochloromethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Benzene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Dibromomethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2010 4:17:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Toluene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
2-Hexanone	ND	10		µg/L	1	7/28/2010 4:17:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Chlorobenzene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
m,p-Xylene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: Holding Blank

Lab Order: U1007358

Collection Date: 7/20/2010 1:40:00 PM

Project: Towslee Landfill

Lab ID: U1007358-010

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Styrene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
Bromoform	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	7/28/2010 4:17:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2010 4:17:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	7/28/2010 4:17:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: *DH*

Date: *8-31-10*

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
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* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-1A

Lab Order: U1007358

Collection Date: 7/20/2010 9:27:00 AM

Project: Towslee Landfill

Lab ID: U1007358-011

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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FIELD PARAMETERS

FIELD

Analyst:

Conductivity	263	1.0		umhos/cm		7/20/2010 9:27:00 AM
Eh	151	-300		mV		7/20/2010 9:27:00 AM
pH	7.73	2-12.5		SU		7/20/2010 9:27:00 AM
SWL	4.26			ft		7/20/2010 9:27:00 AM
Temperature	18.9			degC		7/20/2010 9:27:00 AM
Turbidity	18.6	5.0		NTU		7/20/2010 9:27:00 AM

BROMIDE BY SM 18-21 4110B (00)

BROMIDE_W

Analyst: BY

Bromide	ND	1.6		mg/L	2	8/3/2010
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NOTES:

The reporting limits were raised due to matrix interference.

ICP METALS, TOTAL BY NYSDEC ASP 2005

200.7WTASP

(E200.7)

Analyst: LJ

Aluminum	142	100		µg/L	1	8/24/2010 12:56:53 AM
Barium	75.7	50.0		µg/L	1	8/25/2010 7:52:14 PM
Beryllium	ND	3.00		µg/L	1	8/24/2010 12:56:53 AM
Boron	ND	500		µg/L	1	8/25/2010 5:33:20 PM
Cadmium	ND	5.00		µg/L	1	8/24/2010 12:56:53 AM
Calcium	48900	5000		µg/L	1	8/24/2010 12:56:53 AM
Chromium	ND	10.0		µg/L	1	8/24/2010 12:56:53 AM
Cobalt	ND	20.0		µg/L	1	8/24/2010 12:56:53 AM
Copper	ND	10.0		µg/L	1	8/24/2010 12:56:53 AM
Iron	219	60.0		µg/L	1	8/24/2010 12:56:53 AM
Magnesium	10800	5000		µg/L	1	8/24/2010 12:56:53 AM
Manganese	156	10.0		µg/L	1	8/24/2010 12:56:53 AM
Nickel	ND	30.0		µg/L	1	8/24/2010 12:56:53 AM
Potassium	ND	5000		µg/L	1	8/24/2010 12:56:53 AM
Silver	ND	10.0		µg/L	1	8/24/2010 12:56:53 AM
Sodium	13200	5000		µg/L	1	8/24/2010 12:56:53 AM
Vanadium	ND	30.0		µg/L	1	8/24/2010 12:56:53 AM
Zinc	ND	10.0		µg/L	1	8/24/2010 12:56:53 AM
Hardness, Total(CaCO3)	167000	7000		µg/L	1	8/24/2010 12:56:53 AM

ASP TOTAL METALS BY ICP-MS

200.8ASP

(E200.8)

Analyst: DEY

Antimony	ND	5.0		µg/L	1	8/25/2010 1:35:00 PM
Arsenic	ND	5.0		µg/L	1	8/25/2010 1:35:00 PM
Lead	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM
Selenium	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM
Thallium	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM

TOTAL MERCURY WATERS ASP

245.2WTASP

(E245.2)

Analyst: ALW

Approved By: *DH*

Date: *8-31-10*

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1007358
Project: Towslee Landfill
Lab ID: U1007358-011

Client Sample ID: MW-1A
Collection Date: 7/20/2010 9:27:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL MERCURY WATERS ASP				245.2WTASP	(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	8/6/2010 11:27:00 AM
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: BY
Alkalinity, Total (As CaCO3)	120	10		mg/L	1	7/24/2010
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: GWL
Biochemical Oxygen Demand	ND	4.0		mg/L	1	7/21/2010 8:45:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: BY
Chloride	33.0	1.00		mg/L	1	7/24/2010
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: BS
Cyanide	ND	10.0		µg/L	1	8/3/2010
COD BY EPA 410.4 REV. 2.0				COD		Analyst: TCB
Chemical Oxygen Demand	ND	20		mg/L	1	7/28/2010
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: NKA
Color	35.0	25.0		UNITS	5	7/21/2010 8:30:00 AM
HEXAVALENT CHROMIUM BY NYSDEC ASP 2005				CR6_W		Analyst: GWL
Chromium, Hexavalent	ND	0.010		mg/L	1	7/21/2010 2:15:00 PM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: KAB
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	7/28/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: BY
Nitrogen, Nitrate (as N)	0.066	0.050		mg/L	1	7/21/2010 2:05:00 PM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	8/6/2010
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: KAB
Sulfate	17.9	5.00		mg/L	1	8/8/2010
TDS BY SM 18-21 2540C (97)				TDS		Analyst: NKA
Residue, Dissolved (TDS)	320	25		mg/L	1	7/23/2010
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E335.4)	Analyst: KAB
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	7/28/2010
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BS
Organic Carbon, Total	ND	3.0		mg/L	1	7/27/2010

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1007358
Project: Towslee Landfill
Lab ID: U1007358-012

Client Sample ID: MW-1B
Collection Date: 7/20/2010 9:43:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
				FIELD		Analyst:
Conductivity	1221	1.0		umhos/cm		7/20/2010 9:43:00 AM
Eh	167	-300		mV		7/20/2010 9:43:00 AM
pH	7.99	2-12.5		SU		7/20/2010 9:43:00 AM
SWL	4.61			ft		7/20/2010 9:43:00 AM
Temperature	18.2			degC		7/20/2010 9:43:00 AM
Turbidity	17.0	5.0		NTU		7/20/2010 9:43:00 AM
BROMIDE BY SM 18-21 4110B (00)						
				BROMIDE_W		Analyst: BY
Bromide	ND	0.8		mg/L	1	8/3/2010
ICP METALS, TOTAL BY NYSDEC ASP 2005						
				200.7WTASP	(E200.7)	Analyst: LJ
Aluminum	ND	100		µg/L	1	8/24/2010 1:02:38 AM
Barium	204	50.0		µg/L	1	8/25/2010 7:56:18 PM
Beryllium	ND	3.00		µg/L	1	8/24/2010 1:02:38 AM
Boron	ND	500		µg/L	1	8/25/2010 5:37:23 PM
Cadmium	ND	5.00		µg/L	1	8/24/2010 1:02:38 AM
Calcium	30300	5000		µg/L	1	8/24/2010 1:02:38 AM
Chromium	ND	10.0		µg/L	1	8/24/2010 1:02:38 AM
Cobalt	ND	20.0		µg/L	1	8/24/2010 1:02:38 AM
Copper	ND	10.0		µg/L	1	8/24/2010 1:02:38 AM
Iron	159	60.0		µg/L	1	8/24/2010 1:02:38 AM
Magnesium	7270	5000		µg/L	1	8/24/2010 1:02:38 AM
Manganese	188	10.0		µg/L	1	8/24/2010 1:02:38 AM
Nickel	ND	30.0		µg/L	1	8/24/2010 1:02:38 AM
Potassium	ND	5000		µg/L	1	8/24/2010 1:02:38 AM
Silver	ND	10.0		µg/L	1	8/24/2010 1:02:38 AM
Sodium	7120	5000		µg/L	1	8/24/2010 1:02:38 AM
Vanadium	ND	30.0		µg/L	1	8/24/2010 1:02:38 AM
Zinc	ND	10.0		µg/L	1	8/24/2010 1:02:38 AM
Hardness, Total(CaCO3)	106000	7000		µg/L	1	8/24/2010 1:02:38 AM
ASP TOTAL METALS BY ICP-MS						
				200.8ASP	(E200.8)	Analyst: DEY
Antimony	ND	5.0		µg/L	1	8/25/2010 1:35:00 PM
Arsenic	ND	5.0		µg/L	1	8/25/2010 1:35:00 PM
Lead	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM
Selenium	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM
Thallium	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM
TOTAL MERCURY WATERS ASP						
				245.2WTASP	(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	8/6/2010 11:27:00 AM

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1007358
Project: Towslee Landfill
Lab ID: U1007358-012

Client Sample ID: MW-1B
Collection Date: 7/20/2010 9:43:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: BY
Alkalinity, Total (As CaCO3)	91	10		mg/L	1	7/24/2010
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: GWL
Biochemical Oxygen Demand	ND	4.0		mg/L	1	7/21/2010 8:45:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: BY
Chloride	3.63	1.00		mg/L	1	7/24/2010
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: BS
Cyanide	ND	10.0		µg/L	1	8/3/2010
COD BY EPA 410.4 REV. 2.0				COD		Analyst: TCB
Chemical Oxygen Demand	ND	20		mg/L	1	7/28/2010
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: NKA
Color	15.0	5.00		UNITS	1	7/21/2010 8:30:00 AM
HEXAVALENT CHROMIUM BY NYSDEC ASP 2005				CR6_W		Analyst: GWL
Chromium, Hexavalent	ND	0.010		mg/L	1	7/21/2010 2:15:00 PM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: KAB
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	7/28/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: BY
Nitrogen, Nitrate (as N)	0.063	0.050		mg/L	1	7/21/2010 2:05:00 PM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	8/6/2010
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: KAB
Sulfate	7.05	5.00		mg/L	1	8/8/2010
TDS BY SM 18-21 2540C (97)				TDS		Analyst: NKA
Residue, Dissolved (TDS)	130	25		mg/L	1	7/23/2010
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E335.4)	Analyst: KAB
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	7/28/2010
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BS
Organic Carbon, Total	ND	3.0		mg/L	1	7/27/2010

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-2B

Lab Order: U1007358

Collection Date: 7/20/2010 10:19:00 AM

Project: Towslee Landfill

Lab ID: U1007358-013

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			FIELD			Analyst:
Conductivity	391	1.0		umhos/cm		7/20/2010 10:19:00 AM
Eh	117	-300		mV		7/20/2010 10:19:00 AM
pH	7.52	2-12.5		SU		7/20/2010 10:19:00 AM
SWL	6.79			ft		7/20/2010 10:19:00 AM
Temperature	19.0			degC		7/20/2010 10:19:00 AM
Turbidity	17.3	5.0		NTU		7/20/2010 10:19:00 AM

BROMIDE BY SM 18-21 4110B (00)

Bromide	ND	4.0		mg/L	5	8/10/2010
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NOTES:

The reporting limits were raised due to matrix interference.

ICP METALS, TOTAL BY NYSDEC ASP 2005

			200.7WTASP	(E200.7)	Analyst: LJ
Aluminum	ND	100	µg/L	1	8/24/2010 1:07:54 AM
Barium	1370	50.0	µg/L	1	8/25/2010 8:00:18 PM
Beryllium	ND	3.00	µg/L	1	8/24/2010 1:07:54 AM
Boron	ND	500	µg/L	1	8/25/2010 5:41:23 PM
Cadmium	ND	5.00	µg/L	1	8/24/2010 1:07:54 AM
Calcium	216000	5000	µg/L	1	8/24/2010 1:07:54 AM
Chromium	ND	10.0	µg/L	1	8/24/2010 1:07:54 AM
Cobalt	ND	20.0	µg/L	1	8/24/2010 1:07:54 AM
Copper	ND	10.0	µg/L	1	8/24/2010 1:07:54 AM
Iron	149	60.0	µg/L	1	8/24/2010 1:07:54 AM
Magnesium	46200	5000	µg/L	1	8/24/2010 1:07:54 AM
Manganese	6350	10.0	µg/L	1	8/24/2010 1:07:54 AM
Nickel	ND	30.0	µg/L	1	8/24/2010 1:07:54 AM
Potassium	ND	5000	µg/L	1	8/24/2010 1:07:54 AM
Silver	ND	10.0	µg/L	1	8/24/2010 1:07:54 AM
Sodium	56900	5000	µg/L	1	8/24/2010 1:07:54 AM
Vanadium	ND	30.0	µg/L	1	8/24/2010 1:07:54 AM
Zinc	ND	10.0	µg/L	1	8/24/2010 1:07:54 AM
Hardness, Total(CaCO3)	730000	7000	µg/L	1	8/24/2010 1:07:54 AM

ASP TOTAL METALS BY ICP-MS

			200.8ASP	(E200.8)	Analyst: DEY
Antimony	ND	5.0	µg/L	1	8/25/2010 1:35:00 PM
Arsenic	ND	5.0	µg/L	1	8/25/2010 1:35:00 PM
Lead	ND	3.0	µg/L	1	8/25/2010 1:35:00 PM
Selenium	4.0	3.0	µg/L	1	8/30/2010
Thallium	ND	3.0	µg/L	1	8/25/2010 1:35:00 PM

TOTAL MERCURY WATERS ASP

245.2WTASP	(E245.2)	Analyst: ALW
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Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1007358
Project: Towslee Landfill
Lab ID: U1007358-013

Client Sample ID: MW-2B
Collection Date: 7/20/2010 10:19:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL MERCURY WATERS ASP				245.2WTASP	(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	8/6/2010 11:27:00 AM
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: BY
Alkalinity, Total (As CaCO3)	630	100		mg/L	10	7/25/2010
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: GWL
Biochemical Oxygen Demand	ND	4.0		mg/L	1	7/21/2010 8:45:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: BY
Chloride	139	1.00		mg/L	1	7/24/2010
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: BS
Cyanide	ND	10.0		µg/L	1	8/3/2010
COD BY EPA 410.4 REV. 2.0				COD		Analyst: TCB
Chemical Oxygen Demand	ND	20		mg/L	1	7/28/2010
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: NKA
Color	11.0	5.00		UNITS	1	7/21/2010 8:30:00 AM
HEXAVALENT CHROMIUM BY NYSDEC ASP 2005				CR6_W		Analyst: GWL
Chromium, Hexavalent	ND	0.010		mg/L	1	7/21/2010 2:15:00 PM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: BY
Nitrogen, Ammonia (As N)	0.812	0.500		mg/L	1	7/30/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: BY
Nitrogen, Nitrate (as N)	0.071	0.050		mg/L	1	7/21/2010 2:05:00 PM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	8/6/2010
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: KAB
Sulfate	ND	5.00		mg/L	1	8/8/2010
TDS BY SM 18-21 2540C (97)				TDS		Analyst: NKA
Residue, Dissolved (TDS)	790	25		mg/L	1	7/23/2010
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E335.4)	Analyst: KAB
Nitrogen, Kjeldahl, Total	1.37	0.500		mg/L	1	7/28/2010
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BS
Organic Carbon, Total	5.7	3.0		mg/L	1	7/27/2010

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-2A

Lab Order: U1007358

Collection Date: 7/20/2010 10:37:00 AM

Project: Towslee Landfill

Lab ID: U1007358-014

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
				FIELD		Analyst:
Conductivity	329	1.0		umhos/cm		7/20/2010 10:37:00 AM
Eh	162	-300		mV		7/20/2010 10:37:00 AM
pH	7.77	2-12.5		SU		7/20/2010 10:37:00 AM
SWL	7.73			ft		7/20/2010 10:37:00 AM
Temperature	18.8			degC		7/20/2010 10:37:00 AM
Turbidity	8.18	5.0		NTU		7/20/2010 10:37:00 AM

BROMIDE BY SM 18-21 4110B (00)

BROMIDE_W

Analyst: BY

Bromide	ND	4.0	mg/L	5	8/3/2010
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NOTES:

The reporting limits were raised due to matrix interference.

ICP METALS, TOTAL BY NYSDEC ASP 2005

200.7WTASP

(E200.7)

Analyst: LJ

Aluminum	3370	100	µg/L	1	8/24/2010 1:13:38 AM
Barium	545	50.0	µg/L	1	8/25/2010 8:04:25 PM
Beryllium	ND	3.00	µg/L	1	8/24/2010 1:13:38 AM
Boron	ND	500	µg/L	1	8/25/2010 5:45:28 PM
Cadmium	ND	5.00	µg/L	1	8/25/2010 8:04:25 PM
Calcium	91200	5000	µg/L	1	8/24/2010 1:13:38 AM
Chromium	ND	10.0	µg/L	1	8/25/2010 8:04:25 PM
Cobalt	ND	20.0	µg/L	1	8/24/2010 1:13:38 AM
Copper	ND	10.0	µg/L	1	8/24/2010 1:13:38 AM
Iron	13000	60.0	µg/L	1	8/24/2010 1:13:38 AM
Magnesium	20600	5000	µg/L	1	8/24/2010 1:13:38 AM
Manganese	12200	10.0	µg/L	1	8/24/2010 1:13:38 AM
Nickel	ND	30.0	µg/L	1	8/24/2010 1:13:38 AM
Potassium	14300	5000	µg/L	1	8/24/2010 1:13:38 AM
Silver	ND	10.0	µg/L	1	8/24/2010 1:13:38 AM
Sodium	21900	5000	µg/L	1	8/24/2010 1:13:38 AM
Vanadium	ND	30.0	µg/L	1	8/24/2010 1:13:38 AM
Zinc	26.9	10.0	µg/L	1	8/24/2010 1:13:38 AM
Hardness, Total(CaCO3)	313000	7000	µg/L	1	8/24/2010 1:13:38 AM

ASP TOTAL METALS BY ICP-MS

200.8ASP

(E200.8)

Analyst: DEY

Antimony	ND	5.0	µg/L	1	8/25/2010 1:35:00 PM
Arsenic	ND	5.0	µg/L	1	8/30/2010
Lead	ND	3.0	µg/L	1	8/30/2010
Selenium	ND	3.0	µg/L	1	8/25/2010 1:35:00 PM
Thallium	ND	3.0	µg/L	1	8/25/2010 1:35:00 PM

TOTAL MERCURY WATERS ASP

245.2WTASP

(E245.2)

Analyst: ALW

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-2A

Lab Order: U1007358

Collection Date: 7/20/2010 10:37:00 AM

Project: Towslee Landfill

Lab ID: U1007358-014

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL MERCURY WATERS ASP				245.2WTASP	(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	8/6/2010 11:27:00 AM
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: BY
Alkalinity, Total (As CaCO ₃)	360	10		mg/L	1	7/24/2010
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: GWL
Biochemical Oxygen Demand	7.0	4.0		mg/L	1	7/21/2010 8:45:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: BY
Chloride	22.5	1.00		mg/L	1	7/24/2010
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: BS
Cyanide	ND	10.0		µg/L	1	8/3/2010
COD BY EPA 410.4 REV. 2.0				COD		Analyst: TCB
Chemical Oxygen Demand	50	20		mg/L	1	7/28/2010
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: NKA
Color	55.0	25.0		UNITS	5	7/21/2010 8:30:00 AM
HEXAVALENT CHROMIUM BY NYSDEC ASP 2005				CR6_W		Analyst: GWL
Chromium, Hexavalent	ND	0.010		mg/L	1	7/21/2010 2:15:00 PM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: BY
Nitrogen, Ammonia (As N)	10.1	0.500		mg/L	1	7/30/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: BY
Nitrogen, Nitrate (as N)	0.139	0.050		mg/L	1	7/21/2010 2:05:00 PM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	8/6/2010
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: KAB
Sulfate	ND	5.00		mg/L	1	8/8/2010
TDS BY SM 18-21 2540C (97)				TDS		Analyst: NKA
Residue, Dissolved (TDS)	370	25		mg/L	1	7/23/2010
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E335.4)	Analyst: KAB
Nitrogen, Kjeldahl, Total	16.5	0.500		mg/L	1	7/28/2010
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BS
Organic Carbon, Total	7.8	3.0		mg/L	1	7/27/2010

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1007358
Project: Towslee Landfill
Lab ID: U1007358-015

Client Sample ID: MW-3A
Collection Date: 7/20/2010 9:12:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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FIELD PARAMETERS

FIELD

Analyst:

Conductivity	943	1.0		umhos/cm		7/20/2010 9:12:00 AM
Eh	173	-300		mV		7/20/2010 9:12:00 AM
pH	7.80	2-12.5		SU		7/20/2010 9:12:00 AM
SWL	8.91			ft		7/20/2010 9:12:00 AM
Temperature	17.9			degC		7/20/2010 9:12:00 AM
Turbidity	13.9	5.0		NTU		7/20/2010 9:12:00 AM

BROMIDE BY SM 18-21 4110B (00)

BROMIDE_W

Analyst: BY

Bromide	ND	4.0		mg/L	5	8/3/2010
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NOTES:

The reporting limits were raised due to matrix interference.

ICP METALS, TOTAL BY NYSDEC ASP 2005

200.7WTASP

(E200.7)

Analyst: LJ

Aluminum	5320	100		µg/L	1	8/24/2010 1:19:35 AM
Barium	627	50.0		µg/L	1	8/25/2010 8:08:42 PM
Beryllium	ND	3.00		µg/L	1	8/24/2010 1:19:35 AM
Boron	ND	500		µg/L	1	8/25/2010 5:49:23 PM
Cadmium	ND	5.00		µg/L	1	8/24/2010 1:19:35 AM
Calcium	57300	5000		µg/L	1	8/24/2010 1:19:35 AM
Chromium	ND	10.0		µg/L	1	8/24/2010 1:19:35 AM
Cobalt	ND	20.0		µg/L	1	8/24/2010 1:19:35 AM
Copper	ND	10.0		µg/L	1	8/30/2010 12:00:26 PM
Iron	6970	60.0		µg/L	1	8/24/2010 1:19:35 AM
Magnesium	12500	5000		µg/L	1	8/24/2010 1:19:35 AM
Manganese	282	10.0		µg/L	1	8/24/2010 1:19:35 AM
Nickel	ND	30.0		µg/L	1	8/24/2010 1:19:35 AM
Potassium	ND	5000		µg/L	1	8/24/2010 1:19:35 AM
Silver	ND	10.0		µg/L	1	8/24/2010 1:19:35 AM
Sodium	6530	5000		µg/L	1	8/24/2010 1:19:35 AM
Vanadium	ND	30.0		µg/L	1	8/24/2010 1:19:35 AM
Zinc	28.5	10.0		µg/L	1	8/24/2010 1:19:35 AM
Hardness, Total(CaCO3)	194000	7000		µg/L	1	8/24/2010 1:19:35 AM

ASP TOTAL METALS BY ICP-MS

200.8ASP

(E200.8)

Analyst: DEY

Antimony	ND	5.0		µg/L	1	8/25/2010 1:35:00 PM
Arsenic	ND	5.0		µg/L	1	8/25/2010 1:35:00 PM
Lead	ND	3.0		µg/L	1	8/30/2010
Selenium	ND	3.0		µg/L	1	8/30/2010
Thallium	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM

TOTAL MERCURY WATERS ASP

245.2WTASP

(E245.2)

Analyst: ALW

Approved By: *PH*

Date: *8-31-10*

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-3A

Lab Order: U1007358

Collection Date: 7/20/2010 9:12:00 AM

Project: Towslee Landfill

Lab ID: U1007358-015

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL MERCURY WATERS ASP				245.2WTASP	(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	8/6/2010 11:27:00 AM
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: BY
Alkalinity, Total (As CaCO ₃)	160	10		mg/L	1	7/24/2010
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: GWL
Biochemical Oxygen Demand	ND	4.0		mg/L	1	7/21/2010 8:45:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: BY
Chloride	7.44	1.00		mg/L	1	7/24/2010
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: BS
Cyanide	ND	10.0		µg/L	1	8/3/2010
COD BY EPA 410.4 REV. 2.0				COD		Analyst: TCB
Chemical Oxygen Demand	27	20		mg/L	1	7/28/2010
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: NKA
Color	35.0	25.0		UNITS	5	7/21/2010 8:30:00 AM
HEXAVALENT CHROMIUM BY NYSDEC ASP 2005				CR6_W		Analyst: GWL
Chromium, Hexavalent	ND	0.010		mg/L	1	7/21/2010 2:15:00 PM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: BY
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	7/30/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: BY
Nitrogen, Nitrate (as N)	0.053	0.050		mg/L	1	7/21/2010 2:05:00 PM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	8/12/2010
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: KAB
Sulfate	12.6	5.00		mg/L	1	8/8/2010
TDS BY SM 18-21 2540C (97)				TDS		Analyst: NKA
Residue, Dissolved (TDS)	230	25		mg/L	1	7/23/2010
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E335.4)	Analyst: KAB
Nitrogen, Kjeldahl, Total	1.26	0.500		mg/L	1	7/28/2010
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BS
Organic Carbon, Total	ND	3.0		mg/L	1	7/27/2010

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-6B

Lab Order: U1007358

Collection Date: 7/20/2010 10:57:00 AM

Project: Towslee Landfill

Lab ID: U1007358-016

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	249	1.0		umhos/cm		Analyst: 7/20/2010 10:57:00 AM
Eh	144	-300		mV		7/20/2010 10:57:00 AM
pH	7.66	2-12.5		SU		7/20/2010 10:57:00 AM
SWL	15.08			ft		7/20/2010 10:57:00 AM
Temperature	18.2			degC		7/20/2010 10:57:00 AM
Turbidity	4.71	5.0		NTU		7/20/2010 10:57:00 AM
BROMIDE BY SM 18-21 4110B (00)						
Bromide	ND	0.8		mg/L	1	Analyst: BY 8/3/2010
ICP METALS, TOTAL BY NYSDEC ASP 2005						
				200.7WTASP	(E200.7)	Analyst: LJ
Aluminum	ND	100		µg/L	1	8/24/2010 1:47:09 AM
Barium	348	50.0		µg/L	1	8/25/2010 8:29:27 PM
Beryllium	ND	3.00		µg/L	1	8/24/2010 1:47:09 AM
Boron	ND	500		µg/L	1	8/25/2010 6:03:15 PM
Cadmium	ND	5.00		µg/L	1	8/24/2010 1:47:09 AM
Calcium	39900	5000		µg/L	1	8/24/2010 1:47:09 AM
Chromium	ND	10.0		µg/L	1	8/24/2010 1:47:09 AM
Cobalt	ND	20.0		µg/L	1	8/24/2010 1:47:09 AM
Copper	ND	10.0		µg/L	1	8/24/2010 1:47:09 AM
Iron	ND	60.0		µg/L	1	8/24/2010 1:47:09 AM
Magnesium	10700	5000		µg/L	1	8/24/2010 1:47:09 AM
Manganese	87.0	10.0		µg/L	1	8/24/2010 1:47:09 AM
Nickel	ND	30.0		µg/L	1	8/24/2010 1:47:09 AM
Potassium	ND	5000		µg/L	1	8/24/2010 1:47:09 AM
Silver	ND	10.0		µg/L	1	8/24/2010 1:47:09 AM
Sodium	15000	5000		µg/L	1	8/24/2010 1:47:09 AM
Vanadium	ND	30.0		µg/L	1	8/24/2010 1:47:09 AM
Zinc	ND	10.0		µg/L	1	8/24/2010 1:47:09 AM
Hardness, Total(CaCO3)	144000	7000		µg/L	1	8/24/2010 1:47:09 AM
ASP TOTAL METALS BY ICP-MS						
				200.8ASP	(E200.8)	Analyst: DEY
Antimony	ND	5.0		µg/L	1	8/25/2010 1:35:00 PM
Arsenic	ND	5.0		µg/L	1	8/25/2010 1:35:00 PM
Lead	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM
Selenium	ND	3.0		µg/L	1	8/30/2010
Thallium	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM
TOTAL MERCURY WATERS ASP						
				245.2WTASP	(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	8/6/2010 11:27:00 AM

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1007358
Project: Towslee Landfill
Lab ID: U1007358-016

Client Sample ID: MW-6B
Collection Date: 7/20/2010 10:57:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: BY
Alkalinity, Total (As CaCO ₃)	140	10		mg/L	1	7/24/2010
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: GWL
Biochemical Oxygen Demand	ND	4.0		mg/L	1	7/21/2010 8:45:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: BY
Chloride	14.0	1.00		mg/L	1	7/24/2010
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: BS
Cyanide	ND	10.0		µg/L	1	8/3/2010
COD BY EPA 410.4 REV. 2.0				COD		Analyst: TCB
Chemical Oxygen Demand	ND	20		mg/L	1	7/28/2010
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: NKA
Color	35.0	25.0		UNITS	5	7/21/2010 8:30:00 AM
HEXAVALENT CHROMIUM BY NYSDEC ASP 2005				CR6_W		Analyst: GWL
Chromium, Hexavalent	ND	0.010		mg/L	1	7/21/2010 2:15:00 PM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: KAB
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	7/28/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: BY
Nitrogen, Nitrate (as N)	0.092	0.050		mg/L	1	7/21/2010 2:05:00 PM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	8/6/2010
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: KAB
Sulfate	11.0	5.00		mg/L	1	8/8/2010
TDS BY SM 18-21 2540C (97)				TDS		Analyst: NKA
Residue, Dissolved (TDS)	200	25		mg/L	1	7/23/2010
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E335.4)	Analyst: KAB
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	7/28/2010
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BS
Organic Carbon, Total	ND	3.0		mg/L	1	7/27/2010

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-7A

Lab Order: U1007358

Collection Date: 7/20/2010 9:59:00 AM

Project: Towslee Landfill

Lab ID: U1007358-017

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			FIELD		Analyst:	
Conductivity	412	1.0		umhos/cm		7/20/2010 9:59:00 AM
Eh	149	-300		mV		7/20/2010 9:59:00 AM
pH	7.89	2-12.5		SU		7/20/2010 9:59:00 AM
SWL	3.78			ft		7/20/2010 9:59:00 AM
Temperature	19.0			degC		7/20/2010 9:59:00 AM
Turbidity	20.1	5.0		NTU		7/20/2010 9:59:00 AM

BROMIDE BY SM 18-21 4110B (00)

BROMIDE_W

Analyst: BY

Bromide	ND	4.0	mg/L	5	8/3/2010
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NOTES:

The reporting limits were raised due to matrix interference.

ICP METALS, TOTAL BY NYSDEC ASP 2005

200.7WTASP

(E200.7)

Analyst: LJ

Aluminum	1520	100	µg/L	1	8/24/2010 1:52:52 AM
Barium	556	50.0	µg/L	1	8/25/2010 8:33:32 PM
Beryllium	ND	3.00	µg/L	1	8/24/2010 1:52:52 AM
Boron	ND	500	µg/L	1	8/25/2010 6:07:11 PM
Cadmium	ND	5.00	µg/L	1	8/24/2010 1:52:52 AM
Calcium	147000	5000	µg/L	1	8/24/2010 1:52:52 AM
Chromium	ND	10.0	µg/L	1	8/24/2010 1:52:52 AM
Cobalt	ND	20.0	µg/L	1	8/24/2010 1:52:52 AM
Copper	ND	10.0	µg/L	1	8/24/2010 1:52:52 AM
Iron	1710	60.0	µg/L	1	8/24/2010 1:52:52 AM
Magnesium	36900	5000	µg/L	1	8/24/2010 1:52:52 AM
Manganese	3820	10.0	µg/L	1	8/24/2010 1:52:52 AM
Nickel	ND	30.0	µg/L	1	8/24/2010 1:52:52 AM
Potassium	ND	5000	µg/L	1	8/24/2010 1:52:52 AM
Silver	ND	10.0	µg/L	1	8/24/2010 1:52:52 AM
Sodium	110000	5000	µg/L	1	8/24/2010 1:52:52 AM
Vanadium	ND	30.0	µg/L	1	8/24/2010 1:52:52 AM
Zinc	ND	10.0	µg/L	1	8/24/2010 1:52:52 AM
Hardness, Total(CaCO3)	520000	7000	µg/L	1	8/24/2010 1:52:52 AM

ASP TOTAL METALS BY ICP-MS

200.8ASP

(E200.8)

Analyst: DEY

Antimony	ND	5.0	µg/L	1	8/25/2010 1:35:00 PM
Arsenic	ND	5.0	µg/L	1	8/25/2010 1:35:00 PM
Lead	ND	3.0	µg/L	1	8/25/2010 1:35:00 PM
Selenium	ND	3.0	µg/L	1	8/30/2010
Thallium	ND	3.0	µg/L	1	8/25/2010 1:35:00 PM

TOTAL MERCURY WATERS ASP

245.2WTASP

(E245.2)

Analyst: ALW

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-7A

Lab Order: U1007358

Collection Date: 7/20/2010 9:59:00 AM

Project: Towslee Landfill

Lab ID: U1007358-017

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL MERCURY WATERS ASP						
Mercury	ND	0.200		µg/L	1	Analyst: ALW 8/6/2010 11:27:00 AM
ICP METALS, DISSOLVED BY NYSDEC ASP 2005						
				200.7WDASP	(E200.7)	Analyst: LJ
Aluminum	ND	100		µg/L	1	8/24/2010 12:28:46 AM
Barium	477	50.0		µg/L	1	8/25/2010 7:31:08 PM
Beryllium	ND	3.00		µg/L	1	8/24/2010 12:28:46 AM
Cadmium	ND	5.00		µg/L	1	8/24/2010 12:28:46 AM
Calcium	129000	5000		µg/L	1	8/24/2010 12:28:46 AM
Chromium	ND	10.0		µg/L	1	8/24/2010 12:28:46 AM
Cobalt	ND	20.0		µg/L	1	8/24/2010 12:28:46 AM
Copper	ND	10.0		µg/L	1	8/24/2010 12:28:46 AM
Iron	ND	60.0		µg/L	1	8/24/2010 12:28:46 AM
Magnesium	31600	5000		µg/L	1	8/24/2010 12:28:46 AM
Manganese	2570	10.0		µg/L	1	8/24/2010 12:28:46 AM
Nickel	ND	30.0		µg/L	1	8/24/2010 12:28:46 AM
Potassium	ND	5000		µg/L	1	8/24/2010 12:28:46 AM
Silver	ND	10.0		µg/L	1	8/24/2010 12:28:46 AM
Sodium	91600	5000		µg/L	1	8/24/2010 12:28:46 AM
Vanadium	ND	30.0		µg/L	1	8/24/2010 12:28:46 AM
Zinc	10.2	10.0		µg/L	1	8/24/2010 12:28:46 AM
NOTES:						
Dissolved value may be higher than total, however, the values are within experimental error.						
ICPMS METALS, DISSOLVED BY NYSDEC ASP 2005						
				200.8_D_ASP	(E200.8)	Analyst: DEY
Antimony	ND	5.0		µg/L	1	8/25/2010 1:35:00 PM
Arsenic	ND	5.0		µg/L	1	8/25/2010 1:35:00 PM
Lead	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM
Selenium	ND	3.0		µg/L	1	8/30/2010
Thallium	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM
NOTES:						
D-Metals filtered @ lab on 8/4/2010 at 10:00 am.						
DISSOLVED MERCURY WATERS ASP						
Mercury	ND	0.200		µg/L	1	Analyst: ALW 8/6/2010 11:27:00 AM
ALKALINITY BY EPA 310.2						
				ALK_W_AUTO		Analyst: BY
Alkalinity, Total (As CaCO3)	510	10		mg/L	1	7/24/2010
BOD, 5 DAY BY SM 18-20 5210B (01)						
				BOD		Analyst: GWL
Biochemical Oxygen Demand	ND	4.0		mg/L	1	7/21/2010 8:45:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A						
				CL_W_AUTO		Analyst: BY

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
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 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1007358
Project: Towslee Landfill
Lab ID: U1007358-017

Client Sample ID: MW-7A
Collection Date: 7/20/2010 9:59:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHLORIDE WATERS BY LACHAT 10-117-07-1 A Chloride	128	1.00		CL_W_AUTO mg/L	1	Analyst: BY 7/24/2010
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005 Cyanide	ND	10.0		CN_W_ASP µg/L	(E335.4) 1	Analyst: BS 8/3/2010
COD BY EPA 410.4 REV. 2.0 Chemical Oxygen Demand	31	20		COD mg/L	1	Analyst: TCB 7/28/2010
COLOR BY SM 18-21 2120B (01) Color	8.00	5.00		COLOR UNITS	1	Analyst: NKA 7/21/2010 8:30:00 AM
HEXAVALENT CHROMIUM BY NYSDEC ASP 2005 Chromium, Hexavalent	ND	0.010		CR6_W mg/L	1	Analyst: GWL 7/21/2010 2:15:00 PM
NH3 BY LACHAT 10-107-06-1-B Nitrogen, Ammonia (As N)	ND	0.500		NH3_W_AUTO mg/L	1	Analyst: BY 7/30/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C Nitrogen, Nitrate (as N)	0.059	0.050		NO3_W mg/L	1	Analyst: BY 7/21/2010 2:05:00 PM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A Phenolics, Total Recoverable	ND	0.005		PHENOL_W mg/L	(E420.4) 1	Analyst: TCB 8/12/2010
SULFATE BY ASTM D516-90, 02 & 07 Sulfate	25.2	5.00		SULFATE_W mg/L	1	Analyst: KAB 8/8/2010
TDS BY SM 18-21 2540C (97) Residue, Dissolved (TDS)	690	25		TDS mg/L	1	Analyst: NKA 7/23/2010
TKN BY LACHAT 10-107-06-2 Nitrogen, Kjeldahl, Total	1.27	0.500		TKN_W_AUTO mg/L	(E335.4) 1	Analyst: KAB 7/28/2010
TOC BY SM 18-21 5310B (00) Organic Carbon, Total	6.0	3.0		TOC_W mg/L	1	Analyst: BS 7/27/2010

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1007358
Project: Towslee Landfill
Lab ID: U1007358-018

Client Sample ID: Dupe MW-1B
Collection Date: 7/20/2010 9:43:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BROMIDE BY SM 18-21 4110B (00)						
Bromide	ND	0.8		mg/L	1	8/3/2010
ICP METALS, TOTAL BY NYSDEC ASP 2005						
				200.7WTASP	(E200.7)	Analyst: LJ
Aluminum	607	100		µg/L	1	8/24/2010 2:04:16 AM
Barium	210	50.0		µg/L	1	8/25/2010 8:41:55 PM
Beryllium	ND	3.00		µg/L	1	8/24/2010 2:04:16 AM
Boron	ND	500		µg/L	1	8/25/2010 6:24:34 PM
Cadmium	ND	5.00		µg/L	1	8/24/2010 2:04:16 AM
Calcium	29700	5000		µg/L	1	8/24/2010 2:04:16 AM
Chromium	ND	10.0		µg/L	1	8/24/2010 2:04:16 AM
Cobalt	ND	20.0		µg/L	1	8/24/2010 2:04:16 AM
Copper	ND	10.0		µg/L	1	8/24/2010 2:04:16 AM
Iron	950	60.0		µg/L	1	8/24/2010 2:04:16 AM
Magnesium	7350	5000		µg/L	1	8/24/2010 2:04:16 AM
Manganese	257	10.0		µg/L	1	8/24/2010 2:04:16 AM
Nickel	ND	30.0		µg/L	1	8/24/2010 2:04:16 AM
Potassium	ND	5000		µg/L	1	8/24/2010 2:04:16 AM
Silver	ND	10.0		µg/L	1	8/24/2010 2:04:16 AM
Sodium	7190	5000		µg/L	1	8/24/2010 2:04:16 AM
Vanadium	ND	30.0		µg/L	1	8/24/2010 2:04:16 AM
Zinc	ND	10.0		µg/L	1	8/24/2010 2:04:16 AM
Hardness, Total(CaCO3)	104000	7000		µg/L	1	8/24/2010 2:04:16 AM
ASP TOTAL METALS BY ICP-MS						
				200.8ASP	(E200.8)	Analyst: DEY
Antimony	ND	5.0		µg/L	1	8/25/2010 1:35:00 PM
Arsenic	ND	5.0		µg/L	1	8/25/2010 1:35:00 PM
Lead	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM
Selenium	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM
Thallium	ND	3.0		µg/L	1	8/25/2010 1:35:00 PM
TOTAL MERCURY WATERS ASP						
				245.2WTASP	(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	8/6/2010 11:27:00 AM
ALKALINITY BY EPA 310.2						
				ALK_W_AUTO		Analyst: BY
Alkalinity, Total (As CaCO3)	89	10		mg/L	1	7/24/2010
BOD, 5 DAY BY SM 18-20 5210B (01)						
				BOD		Analyst: GWL
Biochemical Oxygen Demand	ND	4.0		mg/L	1	7/21/2010 8:45:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A						
				CL_W_AUTO		Analyst: BY
Chloride	2.95	1.00		mg/L	1	7/24/2010

Approved By: PH

Date: 8-31-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 31-Aug-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1007358
Project: Towslee Landfill
Lab ID: U1007358-018

Client Sample ID: Dupe MW-1B
Collection Date: 7/20/2010 9:43:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: BS
Cyanide	ND	10.0		µg/L	1	8/3/2010
COD BY EPA 410.4 REV. 2.0				COD		Analyst: TCB
Chemical Oxygen Demand	ND	20		mg/L	1	7/28/2010
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: NKA
Color	15.0	5.00		UNITS	1	7/21/2010 8:30:00 AM
HEXAVALENT CHROMIUM BY NYSDEC ASP 2005				CR6_W		Analyst: GWL
Chromium, Hexavalent	ND	0.010		mg/L	1	7/21/2010 2:15:00 PM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: KAB
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	7/28/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: BY
Nitrogen, Nitrate (as N)	0.069	0.050		mg/L	1	7/21/2010 2:05:00 PM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	8/6/2010
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: KAB
Sulfate	6.33	5.00		mg/L	1	8/8/2010
TDS BY SM 18-21 2540C (97)				TDS		Analyst: NKA
Residue, Dissolved (TDS)	150	25		mg/L	1	7/23/2010
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E335.4)	Analyst: KAB
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	7/28/2010
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BS
Organic Carbon, Total	ND	3.0		mg/L	1	7/27/2010

Approved By: PH

Date: 8-31-10

Page 37 of 37

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
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

ULI ID No. (enter by lab)

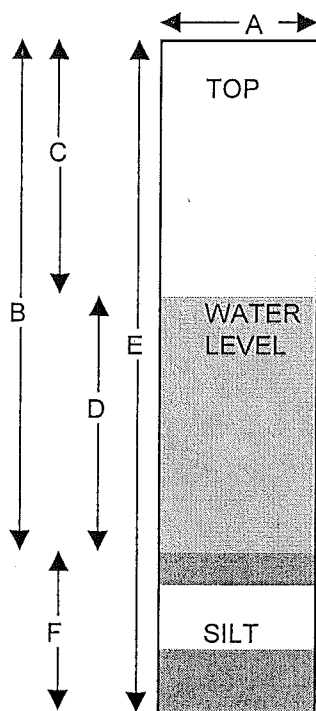
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>33.7</u>	feet
C.	Depth to Water	<u>4.26</u>	feet
D.	Length of Water Column (calculated)	<u>29.44</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4.7104</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>14.1312</u>	gallons
	Actual Volume Evacuated	<u>14.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>7/19/10</u>	<u>7/20/10</u>
Time	<u>9:54 am</u>	<u>9:27 am</u>
EH	<u>142</u>	<u>151</u>
Temperature	<u>18.7°C</u>	<u>18.9°C</u>
pH	<u>7.81</u>	<u>7.73</u>
Specific Cond.	<u>249</u>	<u>263</u>
Turbidity	<u>26.1</u>	<u>18.6</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Cloudy</u>	<u>61 Cloudy</u>

% Recharge:

Initial Depth to Water 4.26 feet

Recharge Depth to Water 4.30 feet

2nd water column height 99.07 %

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: 81° Sun

Observations: 79° Sun

Sampler: Don Acnell

Signature: Don Acnell

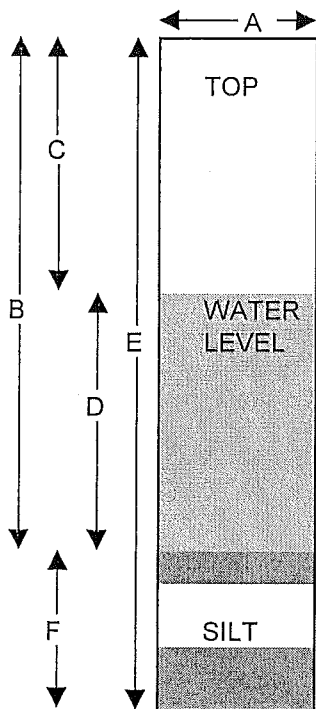
Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

Client: Cortland CountyProject: Towslee LandfillWell ID.: MW-1B

ULI ID No. (enter by lab)

Condition of Well: GoodLocked: NoMethod of Evacuation: Dedicated BailerLock ID: 3900Method of Sampling: Dedicated Bailer

A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>55.5</u>	feet
C.	Depth to Water	<u>4.61</u>	feet
D.	Length of Water Column (calculated)	<u>50.89</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>8.1424</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>24.4272</u>	gallons
	Actual Volume Evacuated	<u>24.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements

Initial Evacuation

Final Sampling

Date	<u>7/19/10</u>
Time	<u>10:31 am</u>
EH	<u>181</u>
Temperature	<u>18.4°C</u>
pH	<u>8.40</u>
Specific Cond.	<u>1119</u>
Turbidity	<u>24.6</u>
Dissolved Oxygen	<u>N/A</u>
Appearance	<u>Cloudy</u>

Date	<u>7/20/10</u>
Time	<u>9:43 am</u>
EH	<u>167</u>
Temperature	<u>18.2°C</u>
pH	<u>7.99</u>
Specific Cond.	<u>1221</u>
Turbidity	<u>17.0</u>
Dissolved Oxygen	<u>N/A</u>
Appearance	<u>Sl Cloudy</u>

% Recharge:

Initial Depth to Water 4.61 feetRecharge Depth to Water 4.70 feet2nd water column height 98.09 %

1st water column height

Elevation (Top of Casing) N/A feetG.W. Elevation = N/A feet

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

Weather:	<u>81° Sun</u>	<u>79° Sun</u>
Observations:	<u>Dupe</u>	

Sampler: Dan AmellSignature: Dan Amell

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

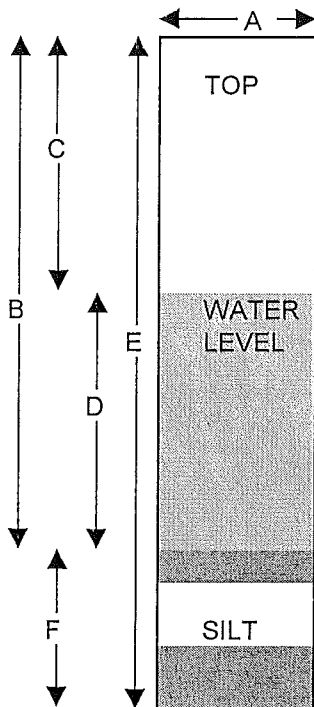
Revised: 2/10/2001

Client: Cortland County
 Project: Towslee Landfill
 Well ID.: MW-2A (MW-2B)

ULI ID No. (enter by lab)

Condition of Well: Good
 Method of Evacuation: Dedicated Bailer
 Method of Sampling: Dedicated Bailer

Locked: No
 Lock ID: 3900



A. Diameter of Well 2" inches
 B. Well Depth Measured 12.8 feet
 C. Depth to Water 6.779 feet
 D. Length of Water Column (calculated) 6.01 feet
 Conversion Factor X.16 -----
 Well Volume (calculated) 0.9616 gallons
 No. of Volumes to be Evacuated X3 -----
 Total Volume to be Evacuated 2.8848 gallons
 Actual Volume Evacuated 3 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	<u>7/19/10</u>	<u>7/20/10</u>
Time	<u>11:44 am</u>	<u>10:19 am</u>
EH	<u>109</u>	<u>117</u>
Temperature	<u>19.2°C</u>	<u>19.0°C</u>
pH	<u>7.60</u>	<u>7.52</u>
Specific Cond.	<u>363</u>	<u>391</u>
Turbidity	<u>40.2</u>	<u>17.3</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Cloudy</u>	<u>51 Cloudy</u>

Weather: 82° Sun 79° Sun
 Observations:

% Recharge:

Initial Depth to Water 6.779 feet
 Recharge Depth to Water 6.81 feet
 2nd water column height 99.71 %
 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: Dan Aurrell
 Signature: Dan Aurrell

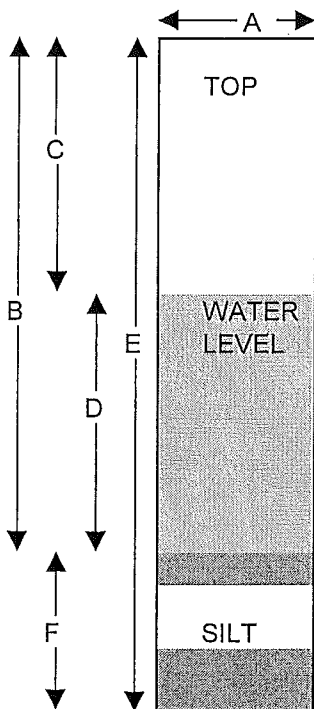
Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

Client: Cortland County
 Project: Towslee Landfill
 Well ID.: ~~MW-2B~~ (MW-2A)

ULI ID No. (enter by lab)

Condition of Well: GoodLocked: NoMethod of Evacuation: Dedicated BailerLock ID: 3900Method of Sampling: Dedicated Bailer

A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>33.5</u>	feet
C.	Depth to Water	<u>7.73</u>	feet
D.	Length of Water Column (calculated)	<u>25.77</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4.1232</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>12.3696</u>	gallons
	Actual Volume Evacuated	<u>12.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>7/19/10</u>	<u>7/20/10</u>
Time	<u>11:58 am</u>	<u>10:37 am</u>
EH	<u>170</u>	<u>162</u>
Temperature	<u>18.5°C</u>	<u>18.8°C</u>
pH	<u>7.81</u>	<u>7.77</u>
Specific Cond.	<u>306</u>	<u>329</u>
Turbidity	<u>12.1</u>	<u>8.18</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>SL Cloudy</u>	<u>Clear</u>

Weather: 82° Sun 79° Sun
 Observations: _____

% Recharge:

Initial Depth to Water 7.73 feetRecharge Depth to Water 7.81 feet2nd water column height 98.98 %

1st water column height

Elevation (Top of Casing) N/A feetG.W. Elevation = N/A feet

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

Sampler: Dan AnsellSignature: Dan Ansell

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

ULI ID No. (enter by lab)

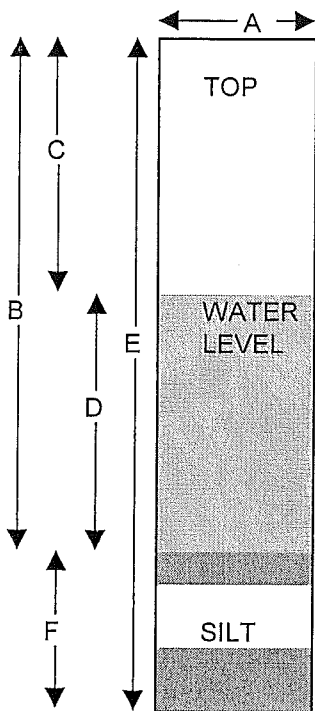
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>22.40</u>	feet
C.	Depth to Water	<u>8.91</u>	feet
D.	Length of Water Column (calculated)	<u>13.49</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>2.1584</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>6.4752</u>	gallons
	Actual Volume Evacuated	<u>6.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>7/19/10</u>	<u>7/20/10</u>
Time	<u>9:44 am</u>	<u>9:12 am</u>
EH	<u>168</u>	<u>173</u>
Temperature	<u>17.2°C</u>	<u>17.9°C</u>
pH	<u>8.03</u>	<u>7.80</u>
Specific Cond.	<u>987</u>	<u>943</u>
Turbidity	<u>8.61</u>	<u>13.9</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Sl. Cloudy</u>

% Recharge:

Initial Depth to Water 8.91 feet

Recharge Depth to Water 8.96 feet

2nd water column height 99.44 %

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: 81° Sun 79° Sun
 Observations: MSD

Sampler: Don Ansell

Signature: Don Ansell

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

ULI ID No. (enter by lab)

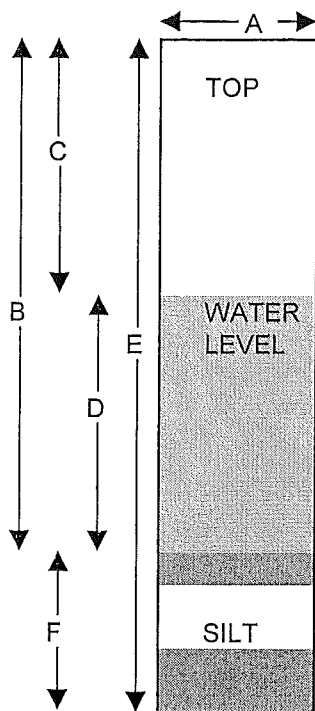
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>40.75</u>	feet
C.	Depth to Water	<u>15.08</u>	feet
D.	Length of Water Column (calculated)	<u>25.67</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4.1072</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>12.3216</u>	gallons
	Actual Volume Evacuated	<u>12.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>7/19/10</u>	<u>7/20/10</u>
Time	<u>12:25 pm</u>	<u>10:57 am</u>
EH	<u>132</u>	<u>144</u>
Temperature	<u>17.8°C</u>	<u>18.2°C</u>
pH	<u>7.81</u>	<u>7.66</u>
Specific Cond.	<u>365</u>	<u>249</u>
Turbidity	<u>3.21</u>	<u>4.71</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Clear</u>

% Recharge:

Initial Depth to Water 15.08 feet

Recharge Depth to Water 15.12 feet

2nd water column height 99.74 %

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: 82° Sun 79° Sun

Observations: _____

Sampler:

Signature:

Don Aumell
Don Aumell

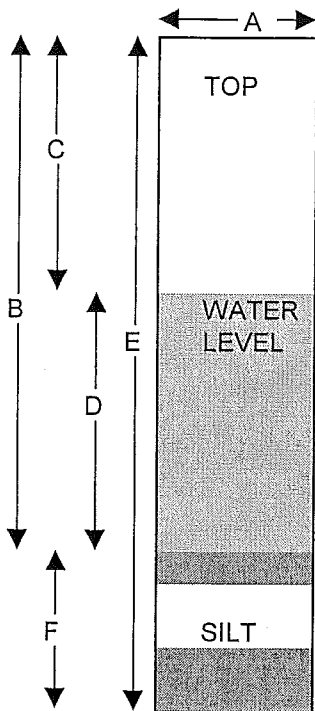
Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

Client: Cortland CountyProject: Towslee LandfillWell ID.: MW-7A

ULI ID No. (enter by lab)

Condition of Well: GoodLocked: YesMethod of Evacuation: Dedicated BailerLock ID: 3900Method of Sampling: Dedicated Bailer

A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>22.20</u>	feet
C.	Depth to Water	<u>3.78</u>	feet
D.	Length of Water Column (calculated)	<u>18.42</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>2.9472</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>8.8416</u>	gallons
	Actual Volume Evacuated	<u>9</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>7/19/10</u>	<u>7/20/10</u>
Time	<u>11:25 am</u>	<u>9:59 am</u>
EH	<u>132</u>	<u>149</u>
Temperature	<u>18.3°C</u>	<u>19.0°C</u>
pH	<u>8.08</u>	<u>7.89</u>
Specific Cond.	<u>383</u>	<u>412</u>
Turbidity	<u>25.3</u>	<u>20.1</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Cloudy</u>	<u>Cloudy</u>

Weather: 82° Sun 79° Sun
Observations: _____

% Recharge:

Initial Depth to Water 3.78 feetRecharge Depth to Water 3.84 feet2nd water column height 98.44 %

1st water column height

Elevation (Top of Casing) N/A feetG.W. Elevation = N/A feet

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

Sampler: Don AmellSignature: Don Amell

Chain of Custody Record

Eggs (315) 437 4200

Project #/Project Name

TOWSLEE LANDFILL

Location (city/state)	Address

CORTLANDVILLE, NY

Grab on
Comp

UCI Internal Use Only
M100735

Number of Containers	
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1
13	1
14	1
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98	1
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Remarks	
ASP-B	

Computer Input Form

CORTLAND COUNTY			TOWSLEE LANDFILL			CORTLANDVILLE, NY										ULI Computer Input Form												
Client Contact:			Phone #			Location (city/state) Address			Number of Containers										Remarks									
PATRICK REIDY			607-753-0851																ASP-B									
Sample ID			Date			Time			Matrix			Grab or Comp			ULI Internal Use Only													
MW-1A			7/19/10			9:59am			WATER			GRAB			1			2 X										
MW-1B			7/19/10			10:31am			WATER			GRAB			2			2 X										
MW-2A			7/19/10			11:44am			WATER			GRAB			3			2 X										
MW-2B			7/19/10			11:58am			WATER			GRAB			4			2 X										
MW-3A			7/19/10			9:44am			WATER			GRAB			5			2 X										
MW-6B			7/19/10			12:35pm			WATER			GRAB			6			2 X										
MW-7A			7/19/10			11:35am			WATER			GRAB			7			2 X										
ULI TRIP BLANK			7/19/10						WATER			GRAB			8			1 X										
Type MW-1B			7/19/10			10:31am			Water			Grab			9			2 X										
(Holding Blank)			7-20-10			(1340)			(Water)			(gms)			10			1 (X)										
K9/2010																												
Parameter and Method			Sample bottle:			Type			Size			Preservative			Sampled by (Print) Dan Arwell													
1) EPA 8260 BASELINE LIST						GLASS			40 ML			1:1 HCL			Company: UTE													
2)															Relinquished by: (sign) Date Time Received by: (sign)													
3)															Relinquished by: (sign) Date Time Received by: (sign)													
4)															Relinquished by: (sign) Date Time Received by: (sign)													
5)															Relinquished by: (sign) Date Time Received by: (sign)													
6)															Relinquished by: (sign) Date Time Received by: (sign)													
7)															Relinquished by: (sign) Date Time Received by: (sign)													
8)															Relinquished by: (sign) Date Time Received by: (sign)													
9)															Relinquished by: (sign) Date Time Received by: (sign)													
10)															Relinquished by: (sign) Date Time Received by: (sign)													
Syracuse			Rochester			Buffalo			Albany			Binghamton			Fair Lawn (NJ)			Rec'd for Lab by: Kump										

Upstate Laboratories, Inc.

Chain of Custody Record

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

Client:		Project #/Project Name		Location (city/state) Address		No. of Containers		ULL Computer Input		Remarks	
Client Contact		Phone #		Location (city/state) Address		No. of Containers		ULL Computer Input		Remarks	
CORTLAND COUNTY		607-753-0851		CORTLANDVILLE, NY							
PATRICK REIDY		607-753-0851		CORTLANDVILLE, NY							
Sample ID	Date	Time	Matrix	Grab or Comp	ULL Internal Use Only	No. of Containers					
MMW-1A	7/20/10	9:07 am	WATER	GRAB	ULL007358	1	2	3	4	5	6
MMW-1B	7/20/10	9:43 am	WATER	GRAB		7	8	9	10	93 REGS ASP-B	
MMW-2A (MMW-2B)	7/20/10	10:19 am	WATER	GRAB		13	14	15	16	17	18
MMW-2B (MMW-2A)	7/20/10	10:37 am	WATER	GRAB		14	15	16	17	18	19
MMW-3A	7/20/10	9:12 am	WATER	GRAB		15	16	17	18	19	20
MMW-6B	7/20/10	10:57 am	WATER	GRAB		16	17	18	19	20	21
MMW-7A	7/20/10	9:59 am	WATER	GRAB		17	18	19	20	21	22
Dele Mr 1B	7/20/10	9:43 am	Water	Grab		18	19	20	21	22	23
Parameter and Method Sample bottle: Type Size Preservative Sampled by (Print) Name of Courier											
1) FIELD PH,TEMP,EH,SPEC COND,TURB,SWL	N/A					Company: ULI		Date		Time	
2) BOD5,COLOR,CR+6,NO3,TDS,S04,CL,BROMIDE	PLASTIC 2000ml					Relinquished by: (sign)		Date		Time	
3) TKN,NH3,COD	PLASTIC 500ml					Relinquished by: (sign)		Date		Time	
4) ALKALINITY	GLASS 8oz					Relinquished by: (sign)		Date		Time	
5) T-CN	PLASTIC 500ML					Relinquished by: (sign)		Date		Time	
6) T-PHENOLS	AMBER 32oz					Relinquished by: (sign)		Date		Time	
7) TOC	PLASTIC 120ml					Relinquished by: (sign)		Date		Time	
8) T-AL,SB*,AS*,BA,BE,CD,CA,CR,CO,CU,FE,PB*,MG,B,MN,HG,NA,Ni,K,SE*,AG,TL*,V,ZN + HARDNESS	PLASTIC 500ml					Relinquished by: (sign)		Date		Time	
9) D-AL,SB*,AS*,BA,BE,CD,CA,CR,CO,CU,FE,PB*,MG,MN,HG,NA,Ni,K,SE*,AG,TL*,V,ZN	PLASTIC 500ml					Relinquished by: (sign)		Date		Time	
10)						Relinquished by: (sign)		Date		Time	

Syracuse

Rochester

Buffalo

Albany

Binghamton

Fair Lawn (NJ)

7/21/10 0822

Appendix B

Analytical Laboratory Results and Internal Quality Control Summary Quarter 4 2010

Cortland County Towslee Landfill

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

Friday, December 10, 2010

RE: Analytical Report:
Towslee Landfill

Order No.: U1010505

Dear Mr. Patrick Reidy:

Upstate Laboratories, Inc. received 8 sample(s) on 11/12/2010 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 regarding these tests, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.


Anthony J. Scala
President/CEO

CC:

Encls: (ASP-A, rept, f.data on disk), invoice

Confidentiality Statement: This report is meant for the use of the intended recipient. It may contain confidential information, which is legally privileged or otherwise protected by law. If you have received this report in error, you are strictly prohibited from reviewing, using, disseminating, distributing or copying the information.

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

December 10, 2010

Cortland Co. Soil and Water Cons. Dist.

100 Grange Place

Room 202

Cortland, New York 13045

RE: Towslee Landfill, Cortlandville, New York, Samples Collected October 26 and November 12, 2010

Case Narrative for ULI SDG Number COR43, Workorder #U1010505

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 (Total and Dissolved)

<u>Test</u>	<u>Batch</u>	<u>Anomaly</u>
Cd,Ca,Fe,Mg,Mn,K,Na	R56794	Iron was detected at a concentration above the CRDL in CCB1 and at a concentration above the PQL but below the CRDL in CCB4. The CCV4 recoveries for Calcium and Sodium were above QC acceptance limits. All other criteria were satisfied.
Cd,Ca,Fe,Mg,Mn,K,Na	R56895	Criteria were satisfied.
Pb	R56789	Criteria were satisfied.
Pb	R56924	Criteria were satisfied.

Wet Chemistry

<u>Test</u>	<u>Batch</u>	<u>Anomaly</u>
BOD	R56368	Criteria were satisfied.
	R56888	Criteria were satisfied.
Nitrate-Nitrogen	R56225	Criteria were satisfied.
	R56792	Criteria were satisfied.

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

Wet Chemistry

<u>Test</u>	<u>Batch</u>	<u>Anomaly</u>
COD	R56439	The Duplicate %RPD for COD was outside QC acceptance limits for the Duplicate performed on sample location MW-3A. The concentration of COD in sample location MW-3A was less than 5X the PQL; therefore, the data should be considered valid. All other criteria were satisfied.
	R56941	Criteria were satisfied.
TKN	R56619	The LCS recovery for TKN was above QC acceptance limits for LCS-24460. The CCV recovery for TKN was slightly above QC acceptance limits. All other criteria were satisfied.
	R57326	The LCS recovery for TKN was above QC acceptance limits for LCS-24808. All other criteria were satisfied.
Bromide	R56497	Criteria were satisfied.
	R57016	Criteria were satisfied.
TDS	R56341	Criteria were satisfied.
	R56942	Sample location MW-2 was analyzed for TDS one day over ASP holding time; however, the analysis was performed within method holding time. All other criteria were satisfied.
Sulfate	R56570	Criteria were satisfied.
	R57096	Criteria were satisfied.
Alkalinity, Total	R56326	The ICV recovery for Total Alkalinity was below QC acceptance limits. All other criteria were satisfied.
	R57059	Criteria were satisfied.
Chloride	R56327	Criteria were satisfied.
	R57063	Criteria were satisfied.
TOC	R56760	Criteria were satisfied.
	R56910	Criteria were satisfied.

Mr. Patrick Reidy
December 10, 2010
Page 3

Wet Chemistry

<u>Test</u>	<u>Batch</u>	<u>Anomaly</u>
Phenols, Total	R56502	The MS/MSD recoveries for Total Phenols were below QC acceptance limits for the MS/MSD performed on sample location MW-3A. All other criteria were satisfied.
	R57339	Criteria were satisfied.
	R57475	The CCV4 recovery for Total Phenols was above QC acceptance limits. All other criteria were satisfied.
Ammonia-Nitrogen	R56696	The MS/MSD recoveries for Ammonia were below QC acceptance limits for the MS/MSD performed on sample location MW-3A. All other criteria were satisfied.
	R57246	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	200.8	(1)
Magnesium	200.7	(1)
Manganese	200.7	(1)
Potassium	200.7	(1)
Sodium	200.7	(1)
BOD	SM 5210B	(1)
Nitrate-Nitrogen	10-107-04-1C	(1)
Alkalinity, Total	310.2	(1)
Chloride	10-117-07-1A	(1)
COD	410.4	(1)
Ammonia-Nitrogen	10-107-06-1B	(1)
Sulfate	D516-90	(1)
TDS	SM 2540C	(1)
TKN	10-107-06-2	(1)
TOC	SM 5310B	(1)
Phenols	10-210-00-1A	(1)
Bromide	SM 4110B	(1)

Reference

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

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1010505
Project: Towslee Landfill
Lab ID: U1010505-001

Client Sample ID: MW-1A
Collection Date: 10/26/2010 10:03:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			FIELD			Analyst:
Conductivity	345	1.0		umhos/cm		10/26/2010 10:03:00 AM
Eh	110	-300		mV		10/26/2010 10:03:00 AM
pH	7.95	2-12.5		SU		10/26/2010 10:03:00 AM
Temperature	15.6			degC		10/26/2010 10:03:00 AM
Turbidity	37.7	5.0		NTU		10/26/2010 10:03:00 AM
BROMIDE BY SM 18-21 4110B (00)			BROMIDE_W			Analyst: BY
Bromide	ND	0.8		mg/L	1	11/4/2010
ICP METALS, TOTAL BY NYSDEC ASP 2005			200.7WTASP (E200.7)			Analyst: LJ
Cadmium	ND	5.00		µg/L	1	11/16/2010 8:41:10 PM
Calcium	49000	5000		µg/L	1	11/16/2010 8:41:10 PM
Iron	1990	60.0		µg/L	1	11/16/2010 8:41:10 PM
Magnesium	11300	5000		µg/L	1	11/16/2010 8:41:10 PM
Manganese	329	10.0		µg/L	1	11/16/2010 8:41:10 PM
Potassium	ND	5000		µg/L	1	11/16/2010 8:41:10 PM
Sodium	15300	5000		µg/L	1	11/16/2010 8:41:10 PM
Hardness, Total(CaCO3)	169000	7000		µg/L	1	11/16/2010 8:41:10 PM
ASP TOTAL METALS BY ICP-MS			200.8ASP (E200.8)			Analyst: LJ
Lead	ND	3.0		µg/L	1	11/15/2010 8:21:00 PM
ALKALINITY BY EPA 310.2			ALK_W_AUTO			Analyst: KAB
Alkalinity, Total (As CaCO3)	120	10		mg/L	1	10/31/2010
BOD, 5 DAY BY SM 18-20 5210B (01)			BOD			Analyst: SAB
Biochemical Oxygen Demand	ND	4.0		mg/L	1	10/27/2010 7:56:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A			CL_W_AUTO			Analyst: KAB
Chloride	31.4	1.00		mg/L	1	10/31/2010
COD BY EPA 410.4 REV. 2.0			COD			Analyst: GWL
Chemical Oxygen Demand	ND	20		mg/L	1	11/3/2010
NH3 BY LACHAT 10-107-06-1-B			NH3_W_AUTO			Analyst: TCB
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	11/11/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C			NO3_W			Analyst: KAB
Nitrogen, Nitrate (as N)	0.102	0.050		mg/L	1	10/27/2010 9:05:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A			PHENOL_W (E420.4)			Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	11/6/2010 12:46:44 PM
SULFATE BY ASTM D516-90, 02 & 07			SULFATE_W			Analyst: CAC

Approved By: PH

Date: 12-10-10

Page 1 of 16

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-1A

Lab Order: U1010505

Collection Date: 10/26/2010 10:03:00 AM

Project: Towslee Landfill

Lab ID: U1010505-001

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: CAC
Sulfate	14.8	5.00		mg/L	1	11/9/2010
TDS BY SM 18-21 2540C (97)				TDS		Analyst: SAB
Residue, Dissolved (TDS)	170	25		mg/L	1	10/28/2010
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: TCB
Nitrogen, Kjeldahl, Total	0.897	0.500		mg/L	1	11/10/2010 4:39:14 PM
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BS
Organic Carbon, Total	ND	3.0		mg/L	1	11/16/2010

Approved By: PH

Date: 12-10-10

Page 2 of 16

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
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E Value above quantitation range
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Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1010505
Project: Towslee Landfill
Lab ID: U1010505-002

Client Sample ID: MW-1B
Collection Date: 10/26/2010 10:19:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	228	1.0		umhos/cm		Analyst: 10/26/2010 10:19:00 AM
Eh	104	-300		mV		10/26/2010 10:19:00 AM
pH	8.11	2-12.5		SU		10/26/2010 10:19:00 AM
Temperature	15.2			degC		10/26/2010 10:19:00 AM
Turbidity	8.46	5.0		NTU		10/26/2010 10:19:00 AM
BROMIDE BY SM 18-21 4110B (00)						
Bromide	ND	0.8		mg/L	1	Analyst: BY 11/4/2010
ICP METALS, TOTAL BY NYSDEC ASP 2005						
				200.7WTASP	(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	11/16/2010 8:45:09 PM
Calcium	29700	5000		µg/L	1	11/16/2010 8:45:09 PM
Iron	1020	60.0		µg/L	1	11/16/2010 8:45:09 PM
Magnesium	7290	5000		µg/L	1	11/16/2010 8:45:09 PM
Manganese	153	10.0		µg/L	1	11/16/2010 8:45:09 PM
Potassium	ND	5000		µg/L	1	11/16/2010 8:45:09 PM
Sodium	8950	5000		µg/L	1	11/16/2010 8:45:09 PM
Hardness, Total(CaCO3)	104000	7000		µg/L	1	11/16/2010 8:45:09 PM
ASP TOTAL METALS BY ICP-MS						
				200.8ASP	(E200.8)	Analyst: LJ
Lead	ND	3.0		µg/L	1	11/15/2010 8:21:00 PM
ALKALINITY BY EPA 310.2						
				ALK_W_AUTO		Analyst: KAB
Alkalinity, Total (As CaCO3)	90	10		mg/L	1	10/31/2010
BOD, 5 DAY BY SM 18-20 5210B (01)						
				BOD		Analyst: SAB
Biochemical Oxygen Demand	ND	4.0		mg/L	1	10/27/2010 7:56:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A						
				CL_W_AUTO		Analyst: KAB
Chloride	6.11	1.00		mg/L	1	10/31/2010
COD BY EPA 410.4 REV. 2.0						
				COD		Analyst: GWL
Chemical Oxygen Demand	ND	20		mg/L	1	11/3/2010
NH3 BY LACHAT 10-107-06-1-B						
				NH3_W_AUTO		Analyst: TCB
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	11/11/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C						
				NO3_W		Analyst: KAB
Nitrogen, Nitrate (as N)	ND	0.050		mg/L	1	10/27/2010 9:05:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A						
				PHENOL_W	(E420.4)	Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	11/6/2010 12:47:51 PM
SULFATE BY ASTM D516-90, 02 & 07						
				SULFATE_W		Analyst: CAC

Approved By: PH

Date: 12-10-10

Page 3 of 16

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-1B

Lab Order: U1010505

Collection Date: 10/26/2010 10:19:00 AM

Project: Towslee Landfill

Lab ID: U1010505-002

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE BY ASTM D516-90, 02 & 07						
Sulfate	ND	5.00		mg/L	1	11/9/2010
						Analyst: CAC
TDS BY SM 18-21 2540C (97)						
Residue, Dissolved (TDS)	200	25		mg/L	1	10/28/2010
						Analyst: SAB
TKN BY LACHAT 10-107-06-2						
Nitrogen, Kjeldahl, Total	0.924	0.500		mg/L	1	11/10/2010 4:40:32 PM
						Analyst: TCB
TOC BY SM 18-21 5310B (00)						
Organic Carbon, Total	ND	3.0		mg/L	1	11/16/2010
						Analyst: BS

Approved By: PH

Date: 12-10-10

Page 4 of 16

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1010505
Project: Towslee Landfill
Lab ID: U1010505-003

Client Sample ID: MW-2B
Collection Date: 10/26/2010 10:57:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
				FIELD		Analyst:
Conductivity	1228	1.0		umhos/cm		10/26/2010 10:57:00 AM
Eh	153	-300		mV		10/26/2010 10:57:00 AM
pH	6.75	2-12.5		SU		10/26/2010 10:57:00 AM
Temperature	15.1			degC		10/26/2010 10:57:00 AM
Turbidity	14.1	5.0		NTU		10/26/2010 10:57:00 AM
BROMIDE BY SM 18-21 4110B (00)						
				BROMIDE_W		Analyst: BY
Bromide	ND	0.8		mg/L	1	11/4/2010
ICP METALS, TOTAL BY NYSDEC ASP 2005						
				200.7WTASP	(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	11/16/2010 8:49:11 PM
Calcium	207000	5000		µg/L	1	11/16/2010 8:49:11 PM
Iron	273	60.0		µg/L	1	11/16/2010 8:49:11 PM
Magnesium	43000	5000		µg/L	1	11/16/2010 8:49:11 PM
Manganese	6820	10.0		µg/L	1	11/16/2010 8:49:11 PM
Potassium	ND	5000		µg/L	1	11/16/2010 8:49:11 PM
Sodium	65400	5000		µg/L	1	11/16/2010 8:49:11 PM
Hardness, Total(CaCO3)	693000	7000		µg/L	1	11/16/2010 8:49:11 PM
ASP TOTAL METALS BY ICP-MS						
				200.8ASP	(E200.8)	Analyst: LJ
Lead	ND	3.0		µg/L	1	11/15/2010 8:21:00 PM
ALKALINITY BY EPA 310.2						
				ALK_W_AUTO		Analyst: KAB
Alkalinity, Total (As CaCO3)	600	100		mg/L	10	10/31/2010
BOD, 5 DAY BY SM 18-20 5210B (01)						
				BOD		Analyst: SAB
Biochemical Oxygen Demand	ND	4.0		mg/L	1	10/27/2010 7:56:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A						
				CL_W_AUTO		Analyst: KAB
Chloride	127	1.00		mg/L	1	10/31/2010
COD BY EPA 410.4 REV. 2.0						
				COD		Analyst: GWL
Chemical Oxygen Demand	25	20		mg/L	1	11/3/2010
NH3 BY LACHAT 10-107-06-1-B						
				NH3_W_AUTO		Analyst: TCB
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	11/11/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C						
				NO3_W		Analyst: KAB
Nitrogen, Nitrate (as N)	ND	0.050		mg/L	1	10/27/2010 9:05:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A						
				PHENOL_W	(E420.4)	Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	11/6/2010 12:48:58 PM
SULFATE BY ASTM D516-90, 02 & 07						
				SULFATE_W		Analyst: CAC

Approved By: PH

Date: 12-10-10

Page 5 of 16

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-2B

Lab Order: U1010505

Collection Date: 10/26/2010 10:57:00 AM

Project: Towslee Landfill

Lab ID: U1010505-003

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE BY ASTM D516-90, 02 & 07						
Sulfate	ND	5.00		mg/L	1	Analyst: CAC 11/9/2010
TDS BY SM 18-21 2540C (97)						
Residue, Dissolved (TDS)	860	25		mg/L	1	Analyst: SAB 10/28/2010
TKN BY LACHAT 10-107-06-2						
Nitrogen, Kjeldahl, Total	2.45	0.500		mg/L	1	Analyst: TCB 11/10/2010 4:41:49 PM
TOC BY SM 18-21 5310B (00)						
Organic Carbon, Total	5.4	3.0		mg/L	1	Analyst: BS 11/16/2010

Approved By: PH

Date: 12-10-10

Page 6 of 16

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1010505
Project: Towslee Landfill
Lab ID: U1010505-004

Client Sample ID: MW-3A
Collection Date: 10/26/2010 9:48:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
				FIELD		Analyst:
Conductivity	1806	1.0		umhos/cm		10/26/2010 9:48:00 AM
Eh	74	-300		mV		10/26/2010 9:48:00 AM
pH	6.90	2-12.5		SU		10/26/2010 9:48:00 AM
Temperature	15.6			degC		10/26/2010 9:48:00 AM
Turbidity	7.61	5.0		NTU		10/26/2010 9:48:00 AM
BROMIDE BY SM 18-21 4110B (00)						
				BROMIDE_W		Analyst: BY
Bromide	ND	4.0		mg/L	5	11/4/2010
NOTES:						
The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL BY NYSDEC ASP 2005						
				200.7WTASP	(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	11/16/2010 8:53:25 PM
Calcium	26800	5000		µg/L	1	11/16/2010 8:53:25 PM
Iron	2420	60.0		µg/L	1	11/16/2010 8:53:25 PM
Magnesium	ND	5000		µg/L	1	11/16/2010 8:53:25 PM
Manganese	471	10.0		µg/L	1	11/16/2010 8:53:25 PM
Potassium	ND	5000		µg/L	1	11/16/2010 8:53:25 PM
Sodium	ND	5000		µg/L	1	11/16/2010 8:53:25 PM
Hardness, Total(CaCO3)	66900	7000		µg/L	1	11/16/2010 8:53:25 PM
ASP TOTAL METALS BY ICP-MS						
				200.8ASP	(E200.8)	Analyst: LJ
Lead	ND	3.0		µg/L	1	11/15/2010 8:21:00 PM
ALKALINITY BY EPA 310.2						
				ALK_W_AUTO		Analyst: KAB
Alkalinity, Total (As CaCO3)	130	10		mg/L	1	10/31/2010
BOD, 5 DAY BY SM 18-20 5210B (01)						
				BOD		Analyst: SAB
Biochemical Oxygen Demand	7.0	4.0		mg/L	1	10/27/2010 7:56:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A						
				CL_W_AUTO		Analyst: KAB
Chloride	3.30	1.00		mg/L	1	10/31/2010
COD BY EPA 410.4 REV. 2.0						
				COD		Analyst: GWL
Chemical Oxygen Demand	29	20		mg/L	1	11/3/2010
NH3 BY LACHAT 10-107-06-1-B						
				NH3_W_AUTO		Analyst: TCB
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	11/11/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C						
				NO3_W		Analyst: KAB
Nitrogen, Nitrate (as N)	0.054	0.050		mg/L	1	10/27/2010 9:05:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A						
				PHENOL_W	(E420.4)	Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	11/6/2010 12:50:05 PM

Approved By: PH

Date: 12-10-10

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-3A

Lab Order: U1010505

Collection Date: 10/26/2010 9:48:00 AM

Project: Towslee Landfill

Lab ID: U1010505-004

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE BY ASTM D516-90, 02 & 07						
Sulfate	ND	5.00		mg/L	1	11/9/2010
						Analyst: CAC
TDS BY SM 18-21 2540C (97)						
Residue, Dissolved (TDS)	98	25		mg/L	1	10/28/2010
						Analyst: SAB
TKN BY LACHAT 10-107-06-2						
Nitrogen, Kjeldahl, Total	1.83	0.500		mg/L	1	11/10/2010 4:43:06 PM
						Analyst: TCB
TOC BY SM 18-21 5310B (00)						
Organic Carbon, Total	6.6	3.0		mg/L	1	11/16/2010
						Analyst: BS

Approved By: PH

Date: 12-10-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1010505
Project: Towslee Landfill
Lab ID: U1010505-005

Client Sample ID: MW-6B
Collection Date: 10/26/2010 11:19:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
			FIELD			Analyst:
Conductivity	342	1.0		umhos/cm		10/26/2010 11:19:00 AM
Eh	132	-300		mV		10/26/2010 11:19:00 AM
pH	7.39	2-12.5		SU		10/26/2010 11:19:00 AM
Temperature	14.6			degC		10/26/2010 11:19:00 AM
Turbidity	16.0	5.0		NTU		10/26/2010 11:19:00 AM
BROMIDE BY SM 18-21 4110B (00)						
			BROMIDE_W			Analyst: BY
Bromide	ND	1.6		mg/L	2	11/4/2010
NOTES:						
The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL BY NYSDEC ASP 2005						
			200.7WTASP		(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	11/16/2010 9:13:39 PM
Calcium	40900	5000		µg/L	1	11/16/2010 9:13:39 PM
Iron	337	60.0		µg/L	1	11/16/2010 9:13:39 PM
Magnesium	10900	5000		µg/L	1	11/16/2010 9:13:39 PM
Manganese	242	10.0		µg/L	1	11/16/2010 9:13:39 PM
Potassium	ND	5000		µg/L	1	11/16/2010 9:13:39 PM
Sodium	17800	5000		µg/L	1	11/16/2010 9:13:39 PM
Hardness, Total(CaCO3)	147000	7000		µg/L	1	11/16/2010 9:13:39 PM
ASP TOTAL METALS BY ICP-MS						
			200.8ASP		(E200.8)	Analyst: LJ
Lead	ND	3.0		µg/L	1	11/15/2010 8:21:00 PM
ALKALINITY BY EPA 310.2						
			ALK_W_AUTO			Analyst: KAB
Alkalinity, Total (As CaCO3)	160	10		mg/L	1	10/31/2010
BOD, 5 DAY BY SM 18-20 5210B (01)						
			BOD			Analyst: SAB
Biochemical Oxygen Demand	ND	4.0		mg/L	1	10/27/2010 7:56:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A						
			CL_W_AUTO			Analyst: KAB
Chloride	16.0	1.00		mg/L	1	10/31/2010
COD BY EPA 410.4 REV. 2.0						
			COD			Analyst: GWL
Chemical Oxygen Demand	ND	20		mg/L	1	11/3/2010
NH3 BY LACHAT 10-107-06-1-B						
			NH3_W_AUTO			Analyst: TCB
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	11/11/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C						
			NO3_W			Analyst: KAB
Nitrogen, Nitrate (as N)	0.051	0.050		mg/L	1	10/27/2010 9:05:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A						
			PHENOL_W		(E420.4)	Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	11/6/2010 12:53:25 PM

Approved By: PH

Date: 12-10-10

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1010505
Project: Towslee Landfill
Lab ID: U1010505-005

Client Sample ID: MW-6B
Collection Date: 10/26/2010 11:19:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: CAC
Sulfate	11.2	5.00		mg/L	1	11/9/2010
TDS BY SM 18-21 2540C (97)				TDS		Analyst: SAB
Residue, Dissolved (TDS)	190	25		mg/L	1	10/28/2010
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: TCB
Nitrogen, Kjeldahl, Total	0.799	0.500		mg/L	1	11/10/2010 4:51:10 PM
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BS
Organic Carbon, Total	ND	3.0		mg/L	1	11/16/2010

Approved By: PH

Date: 12-10-10

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1010505
Project: Towslee Landfill
Lab ID: U1010505-006

Client Sample ID: MW-7A
Collection Date: 10/26/2010 10:38:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
				FIELD		Analyst:
Conductivity	1133	1.0		umhos/cm		10/26/2010 10:38:00 AM
Eh	155	-300		mV		10/26/2010 10:38:00 AM
pH	6.87	2-12.5		SU		10/26/2010 10:38:00 AM
Temperature	14.5			degC		10/26/2010 10:38:00 AM
Turbidity	328.0	5.0		NTU		10/26/2010 10:38:00 AM
BROMIDE BY SM 18-21 4110B (00)						
				BROMIDE_W		Analyst: BY
Bromide	ND	8.0		mg/L	10	11/4/2010
NOTES:						
The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL BY NYSDEC ASP 2005						
				200.7WTASP	(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	11/16/2010 9:17:42 PM
Calcium	143000	5000		µg/L	1	11/16/2010 9:17:42 PM
Iron	3060	60.0		µg/L	1	11/16/2010 9:17:42 PM
Magnesium	36400	5000		µg/L	1	11/16/2010 9:17:42 PM
Manganese	4500	10.0		µg/L	1	11/16/2010 9:17:42 PM
Potassium	ND	5000		µg/L	1	11/16/2010 9:17:42 PM
Sodium	127000	5000		µg/L	1	11/16/2010 9:17:42 PM
Hardness, Total(CaCO3)	507000	7000		µg/L	1	11/16/2010 9:17:42 PM
ASP TOTAL METALS BY ICP-MS						
				200.8ASP	(E200.8)	Analyst: LJ
Lead	ND	3.0		µg/L	1	11/15/2010 8:21:00 PM
ICP METALS, DISSOLVED BY NYSDEC ASP 2005						
				200.7WDASP	(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	11/16/2010 8:25:01 PM
Calcium	120000	5000		µg/L	1	11/16/2010 8:25:01 PM
Iron	97.8	60.0		µg/L	1	11/16/2010 8:25:01 PM
Magnesium	31500	5000		µg/L	1	11/16/2010 8:25:01 PM
Manganese	3260	10.0		µg/L	1	11/16/2010 8:25:01 PM
Potassium	ND	5000		µg/L	1	11/16/2010 8:25:01 PM
Sodium	105000	5000		µg/L	1	11/16/2010 8:25:01 PM
NOTES:						
Dissolved Metals filtered in Laboratory. 11/8/10 9AM						
ICPMS METALS, DISSOLVED BY NYSDEC ASP 2005						
				200.8_D_ASP	(E200.8)	Analyst: LJ
Lead	ND	3.0		µg/L	1	11/15/2010 8:21:00 PM
ALKALINITY BY EPA 310.2						
				ALK_W_AUTO		Analyst: KAB
Alkalinity, Total (As CaCO3)	520	10		mg/L	1	10/31/2010
BOD, 5 DAY BY SM 18-20 5210B (01)						
				BOD		Analyst: SAB

Approved By: PH

Date: 12-10-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1010505
Project: Towslee Landfill
Lab ID: U1010505-006

Client Sample ID: MW-7A
Collection Date: 10/26/2010 10:38:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BOD, 5 DAY BY SM 18-20 5210B (01) Biochemical Oxygen Demand	ND	4.0		BOD mg/L	1	Analyst: SAB 10/27/2010 7:56:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A Chloride	115	1.00		CL_W_AUTO mg/L	1	Analyst: KAB 10/31/2010
COD BY EPA 410.4 REV. 2.0 Chemical Oxygen Demand	40	20		COD mg/L	1	Analyst: GWL 11/3/2010
NH3 BY LACHAT 10-107-06-1-B Nitrogen, Ammonia (As N)	ND	0.500		NH3_W_AUTO mg/L	1	Analyst: TCB 11/11/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C Nitrogen, Nitrate (as N)	ND	0.050		NO3_W mg/L	1	Analyst: KAB 10/27/2010 9:05:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A Phenolics, Total Recoverable	ND	0.005		PHENOL_W mg/L	(E420.4) 1	Analyst: TCB 11/6/2010 12:56:50 PM
SULFATE BY ASTM D516-90, 02 & 07 Sulfate	23.9	5.00		SULFATE_W mg/L	1	Analyst: CAC 11/9/2010
TDS BY SM 18-21 2540C (97) Residue, Dissolved (TDS)	710	25		TDS mg/L	1	Analyst: SAB 10/28/2010
TKN BY LACHAT 10-107-06-2 Nitrogen, Kjeldahl, Total	2.15	0.500		TKN_W_AUTO mg/L	(E351.2) 1	Analyst: TCB 11/10/2010 4:52:27 PM
TOC BY SM 18-21 5310B (00) Organic Carbon, Total	6.1	3.0		TOC_W mg/L	1	Analyst: BS 11/16/2010

Approved By: PH

Date: 12-10-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1010505
Project: Towslee Landfill
Lab ID: U1010505-007

Client Sample ID: MW-1B Dupe
Collection Date: 10/26/2010 10:19:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BROMIDE BY SM 18-21 4110B (00)						
Bromide	ND	0.8		mg/L	1	Analyst: BY 11/4/2010
ICP METALS, TOTAL BY NYSDEC ASP 2005						
			200.7	WTASP	(E200.7)	Analyst: LJ
Cadmium	ND	5.00		µg/L	1	11/16/2010 9:25:56 PM
Calcium	29200	5000		µg/L	1	11/16/2010 9:25:56 PM
Iron	323	60.0		µg/L	1	11/16/2010 9:25:56 PM
Magnesium	6960	5000		µg/L	1	11/16/2010 9:25:56 PM
Manganese	109	10.0		µg/L	1	11/16/2010 9:25:56 PM
Potassium	ND	5000		µg/L	1	11/16/2010 9:25:56 PM
Sodium	8550	5000		µg/L	1	11/16/2010 9:25:56 PM
Hardness, Total(CaCO3)	102000	7000		µg/L	1	11/16/2010 9:25:56 PM
ASP TOTAL METALS BY ICP-MS						
			200.8	ASP	(E200.8)	Analyst: LJ
Lead	ND	3.0		µg/L	1	11/15/2010 8:21:00 PM
ALKALINITY BY EPA 310.2						
			ALK_W	AUTO		Analyst: KAB
Alkalinity, Total (As CaCO3)	110	10		mg/L	1	10/31/2010
BOD, 5 DAY BY SM 18-20 5210B (01)						
			BOD			Analyst: SAB
Biochemical Oxygen Demand	ND	6.0		mg/L	1	10/27/2010 7:56:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A						
			CL_W	AUTO		Analyst: KAB
Chloride	9.91	1.00		mg/L	1	10/31/2010
COD BY EPA 410.4 REV. 2.0						
			COD			Analyst: GWL
Chemical Oxygen Demand	ND	20		mg/L	1	11/3/2010
NH3 BY LACHAT 10-107-06-1-B						
			NH3_W	AUTO		Analyst: TCB
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	11/11/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C						
			NO3_W			Analyst: KAB
Nitrogen, Nitrate (as N)	ND	0.050		mg/L	1	10/27/2010 9:05:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A						
			PHENOL_W		(E420.4)	Analyst: TCB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	11/6/2010 12:57:58 PM
SULFATE BY ASTM D516-90, 02 & 07						
			SULFATE_W			Analyst: CAC
Sulfate	ND	5.00		mg/L	1	11/9/2010
TDS BY SM 18-21 2540C (97)						
			TDS			Analyst: SAB
Residue, Dissolved (TDS)	120	25		mg/L	1	10/28/2010
TKN BY LACHAT 10-107-06-2						
			TKN_W	AUTO	(E351.2)	Analyst: TCB
Nitrogen, Kjeldahl, Total	1.03	0.500		mg/L	1	11/10/2010 4:53:44 PM

Approved By: PH

Date: 12-10-10

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-1B Dupe

Lab Order: U1010505

Collection Date: 10/26/2010 10:19:00 AM

Project: Towslee Landfill

Lab ID: U1010505-007

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BS
Organic Carbon, Total	ND	3.0		mg/L	1	11/16/2010

Approved By: PH

Date: 12-10-10

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1010505
Project: Towslee Landfill
Lab ID: U1010505-008

Client Sample ID: MW-2A
Collection Date: 11/12/2010 12:48:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
			FIELD			Analyst:
Conductivity	613	1.0		umhos/cm		11/12/2010 12:48:00 PM
Eh	17	-300		mV		11/12/2010 12:48:00 PM
pH	7.06	2-12.5		SU		11/12/2010 12:48:00 PM
Temperature	14.0			degC		11/12/2010 12:48:00 PM
Turbidity	38.1	5.0		NTU		11/12/2010 12:48:00 PM
BROMIDE BY SM 18-21 4110B (00)						
			BROMIDE_W			Analyst: BY
Bromide	ND	20		mg/L	25	11/19/2010
NOTES:						
The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL BY NYSDEC ASP 2005						
			200.7WTASP		(E200.7)	Analyst: DEY
Cadmium	ND	5.00		µg/L	1	11/18/2010 4:31:31 PM
Calcium	74600	5000		µg/L	1	11/18/2010 4:31:31 PM
Iron	9730	60.0		µg/L	1	11/18/2010 4:31:31 PM
Magnesium	17900	5000		µg/L	1	11/18/2010 4:31:31 PM
Manganese	11100	10.0		µg/L	1	11/18/2010 4:31:31 PM
Potassium	11900	5000		µg/L	1	11/18/2010 4:31:31 PM
Sodium	19000	5000		µg/L	1	11/18/2010 4:31:31 PM
Hardness, Total(CaCO3)	260000	7000		µg/L	1	11/18/2010 4:31:31 PM
ASP TOTAL METALS BY ICP-MS						
			200.8ASP		(E200.8)	Analyst: DEY
Lead	ND	3.0		µg/L	1	11/18/2010 5:20:00 PM
ALKALINITY BY EPA 310.2						
			ALK_W_AUTO			Analyst: BY
Alkalinity, Total (As CaCO3)	310	10		mg/L	1	11/20/2010
BOD, 5 DAY BY SM 18-20 5210B (01)						
			BOD			Analyst: SAB
Biochemical Oxygen Demand	ND	4.0		mg/L	1	11/12/2010 4:00:00 PM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A						
			CL_W_AUTO			Analyst: BY
Chloride	17.1	1.00		mg/L	1	11/20/2010
COD BY EPA 410.4 REV. 2.0						
			COD			Analyst: GWL
Chemical Oxygen Demand	20	20		mg/L	1	11/21/2010
NH3 BY LACHAT 10-107-06-1-B						
			NH3_W_AUTO			Analyst: GWL
Nitrogen, Ammonia (As N)	6.90	0.500		mg/L	1	12/1/2010
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C						
			NO3_W			Analyst: BY
Nitrogen, Nitrate (as N)	0.080	0.050		mg/L	1	11/13/2010 9:49:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A						
			PHENOL_W		(E420.4)	Analyst: BY
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/8/2010

Approved By: PH

Date: 12-10-10

Page 15 of 16

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Dec-10

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-2A

Lab Order: U1010505

Collection Date: 11/12/2010 12:48:00 PM

Project: Towslee Landfill

Lab ID: U1010505-008

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE BY ASTM D516-90, 02 & 07						
Sulfate	ND	5.00		mg/L	1	Analyst: CAC 11/24/2010
TDS BY SM 18-21 2540C (97)						
Residue, Dissolved (TDS)	300	25		mg/L	1	Analyst: SAB 11/18/2010
TKN BY LACHAT 10-107-06-2						
Nitrogen, Kjeldahl, Total	9.84	0.500		mg/L	1	Analyst: BS 12/2/2010
TOC BY SM 18-21 5310B (00)						
Organic Carbon, Total	6.0	3.0		mg/L	1	Analyst: BS 11/17/2010

Approved By: PH

Date: 12-10-10

Page 16 of 16

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
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

ULI ID No. (enter by lab)

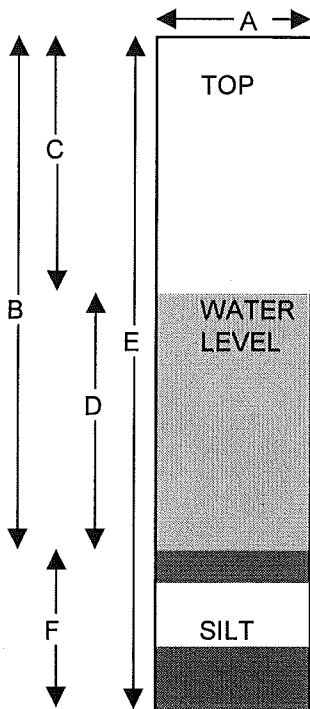
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>33.7</u>	feet
C.	Depth to Water	<u>1.41</u>	feet
D.	Length of Water Column (calculated)	<u>32.29</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>5.1664</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>15.4992</u>	gallons
	Actual Volume Evacuated	<u>15.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>10/25/2010</u>	<u>10/26/2010</u>
Time	<u>10:44 AM</u>	<u>10:03 AM</u>
EH	<u>128</u>	<u>110</u>
Temperature	<u>14.1 c</u>	<u>15.6 c</u>
pH	<u>8.05</u>	<u>7.95</u>
Specific Cond.	<u>354</u>	<u>345</u>
Turbidity	<u>28.2</u>	<u>37.7</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Cloudy</u>	<u>Cloudy</u>

% Recharge:

Initial Depth to Water	<u>1.41</u>	feet
Recharge Depth to Water	<u>1.16</u>	feet
2nd water column height	<u>121.55</u>	%
1st water column height		

Elevation (Top of Casing)	<u>N/A</u>	feet
G.W. Elevation =	<u>N/A</u>	feet
G.W. Elevation = Top of Case Elev - Total Depth		

Weather: 56, F Partly Cloudy 60, F Sun
 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-1B**

ULI ID No. (enter by lab)

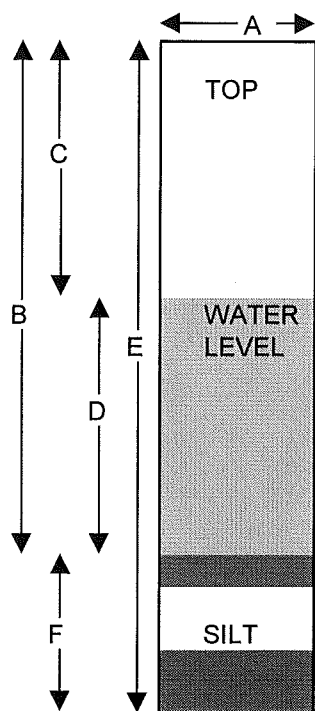
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>55.5</u>	feet
C.	Depth to Water	<u>0.45</u>	feet
D.	Length of Water Column (calculated)	<u>55.05</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>8.8080</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>26.4240</u>	gallons
	Actual Volume Evacuated	<u>26.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>10/25/2010</u>	<u>10/26/2010</u>
Time	<u>10:48 AM</u>	<u>10:19 AM</u>
EH	<u>127</u>	<u>104</u>
Temperature	<u>14.6 c</u>	<u>15.2 c</u>
pH	<u>8.44</u>	<u>8.11</u>
Specific Cond.	<u>1867</u>	<u>228</u>
Turbidity	<u>2.18</u>	<u>8.46</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Clear</u>

% Recharge:

Initial Depth to Water 0.45 feet

Recharge Depth to Water 0.43 feet

2nd water column height 104.65 %

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: 56, F Partly Cloudy 60, F Sun

Observations: Dupe

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-2B

ULI ID No. (enter by lab)

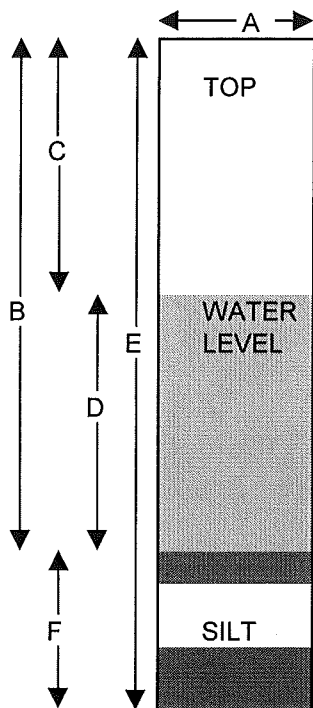
Condition of Well: Well lid broken at hinges

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>33.5</u>	feet
C.	Depth to Water	<u>8.09</u>	feet
D.	Length of Water Column (calculated)	<u>25.41</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4.0656</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>12.2</u>	gallons
	Actual Volume Evacuated	<u>12.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>10/25/2010</u>	<u>10/26/2010</u>
Time	<u>12:09 PM</u>	<u>10:57 AM</u>
EH	<u>50</u>	<u>153</u>
Temperature	<u>14.8 c</u>	<u>15.1 c</u>
pH	<u>6.85</u>	<u>6.75</u>
Specific Cond.	<u>1082</u>	<u>1228</u>
Turbidity	<u>2.92</u>	<u>14.1</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Sl Cloudy</u>

% Recharge:

Initial Depth to Water 8.09 feet

Recharge Depth to Water 6.45 feet

2nd water column height 125.43 %

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: 60, F Partly Cloudy 60, F Sun

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-3A**

ULI ID No. (enter by lab)

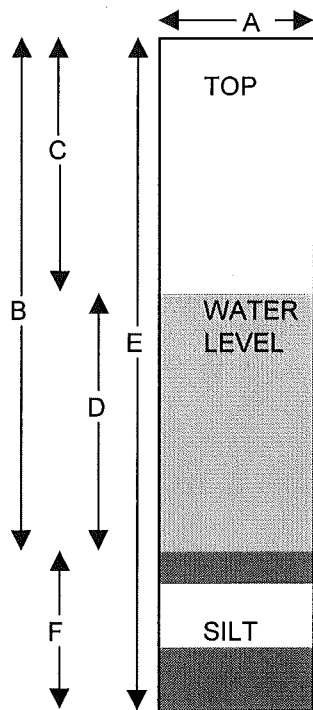
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>22.40</u>	feet
C.	Depth to Water	<u>6.65</u>	feet
D.	Length of Water Column (calculated)	<u>15.75</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>2.52</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>7.65</u>	gallons
	Actual Volume Evacuated	<u>7.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>10/25/2010</u>	<u>10/26/2010</u>
Time	<u>10:25 AM</u>	<u>9:48 AM</u>
EH	<u>106</u>	<u>74</u>
Temperature	<u>16.1 c</u>	<u>15.6 c</u>
pH	<u>7.37</u>	<u>6.90</u>
Specific Cond.	<u>1059</u>	<u>1806</u>
Turbidity	<u>19.7</u>	<u>7.61</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>SI Cloudy</u>	<u>Clear</u>

% Recharge:		
Initial Depth to Water	<u>6.65</u>	feet
Recharge Depth to Water	<u>6.34</u>	feet
2nd water column height	<u>104.89</u>	%
1st water column height		

Elevation(Top of Casing)	<u>N/A</u>	feet
G.W. Elevation=	<u>N/A</u>	feet
G.W.Elevation =Top of Case Elev-Total Depth		

Weather:	<u>56, F Partly Cloudy</u>	<u>60, F Sun</u>
Observations:	<u>MSD</u>	

Sampler:	
<u>Dan Aumell</u>	
Signature:	<u>Dan Aumell</u>

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**

ULI ID No. (enter by lab)

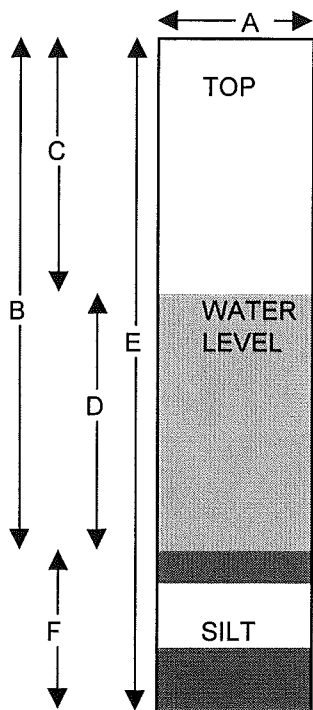
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>40.75</u>	feet
C.	Depth to Water	<u>14.01</u>	feet
D.	Length of Water Column (calculated)	<u>26.74</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4.2784</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>12.8352</u>	gallons
	Actual Volume Evacuated	<u>13</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>10/25/2010</u>	<u>10/26/2010</u>
Time	<u>12:43 PM</u>	<u>11:19 AM</u>
EH	<u>16</u>	<u>132</u>
Temperature	<u>14.5 c</u>	<u>14.6 c</u>
pH	<u>7.91</u>	<u>7.39</u>
Specific Cond.	<u>309</u>	<u>342</u>
Turbidity	<u>6.21</u>	<u>16.0</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>SI Cloudy</u>

% Recharge:

Initial Depth to Water 14.01 feet

Recharge Depth to Water 13.09 feet

2nd water column height 107.03 %

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: 60, F Partly Cloudy 60, F Sun

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-7A

ULI ID No. (enter by lab)

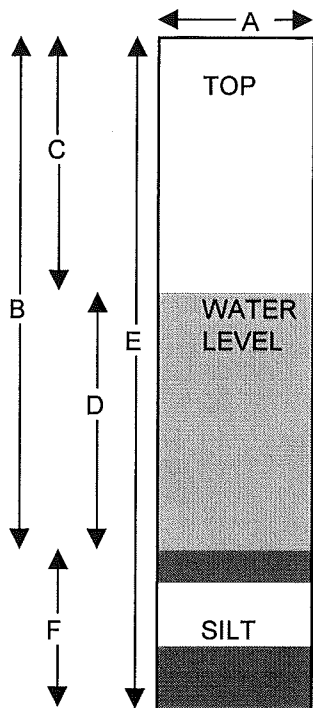
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>22.20</u>	feet
C.	Depth to Water	<u>4.38</u>	feet
D.	Length of Water Column (calculated)	<u>17.82</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>2.8512</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>8.5536</u>	gallons
	Actual Volume Evacuated	<u>8.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>10/25/2010</u>	<u>10/26/2010</u>
Time	<u>11:41 AM</u>	<u>10:38 AM</u>
EH	<u>167</u>	<u>155</u>
Temperature	<u>13.6 c</u>	<u>14.5 c</u>
pH	<u>6.81</u>	<u>6.87</u>
Specific Cond.	<u>1123</u>	<u>1133</u>
Turbidity	<u>31.0</u>	<u>328.0</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Cloudy</u>	<u>Very Cloudy</u>

% Recharge:

Initial Depth to Water 4.38 feet

Recharge Depth to Water 3.58 feet

2nd water column height 122.35 %

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: 58, F Partly Cloudy 60, F Sun

Observations: Dissolved metals sample taken. Filtered at lab.

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**

ULI ID No. (enter by lab)

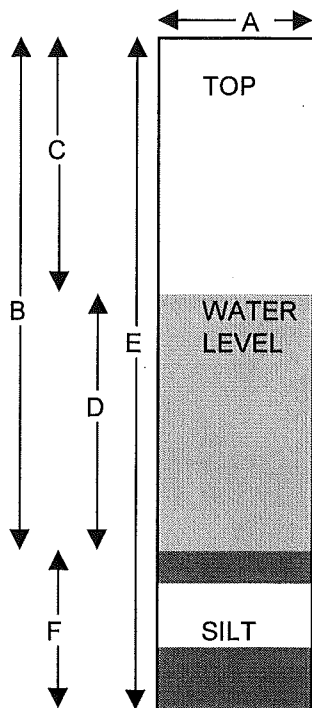
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>12.8</u>	feet
C.	Depth to Water	<u>4.73</u>	feet
D.	Length of Water Column (calculated)	<u>8.07</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>1.2912</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>3.8736</u>	gallons
	Actual Volume Evacuated	<u>4</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>11/12/2010</u>	<u>11/12/2010</u>
Time	<u>9:20 AM</u>	<u>12:48 PM</u>
EH	<u>10</u>	<u>17</u>
Temperature	<u>14.1 c</u>	<u>14.0 c</u>
pH	<u>7.09</u>	<u>7.06</u>
Specific Cond.	<u>567</u>	<u>613</u>
Turbidity	<u>33.4</u>	<u>38.1</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Cloudy</u>	<u>Cloudy</u>

% Recharge:

Initial Depth to Water 4.73 feet

Recharge Depth to Water 4.79 feet

2nd water column height 98.75 %

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: 59, F Sun

Observations:

Sampler:

Dan Aumell

Signature:

Dan Aumell

Upstate Laboratories, Inc.

Chain of Custody Record

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

Fax (315) 437 1209

ULL 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

ULL Internal Use Only

Number of Containers

1 2 3 4 5 6 7 8 9 10

Remarks

MMW-1A

10/26/10

10:03 am

WATER

GRAB

1

6 X X X X X X X

1993 PART 360 ROUTINE ASP-A

MMW-1B

10/26/10

10:19 am

WATER

GRAB

2

6 X X X X X X X

Butler stuck in bottom of well

MMW-2A

10/25/10

11:59 am

WATER

GRAB

3

6 X X X X X X X

MSD

MMW-2B

10/26/10

10:57 am

WATER

GRAB

4

6 X X X X X X X

MSD

MMW-3A

10/26/10

9:48 am

WATER

GRAB

5

6 X X X X X X X

MSD

MMW-6B

10/26/10

11:19 am

WATER

GRAB

6

6 X X X X X X X

MSD

MMW-7A

10/26/10

10:38 am

WATER

GRAB

7

6 X X X X X X X

MSD

MMW-15

10/26/10

10:19 am

WATER

GRAB

7

6 X X X X X X X

MSD

MS/MSD-

10/26/10

10:19 am

WATER

GRAB

7

6 X X X X X X X

MSD

MS/MSD-

10/26/10

10:19 am

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MSD

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10/26/10

10:19 am

WATER

GRAB

7

6 X X X X X X X

MSD

Syracuse

Rochester

Buffalo

Albany

Binghamton

Fair Lawn (NJ)

Relinquished by: (sign) *Don Ansell*

Date 10/26/10 Time 3pm

Rec'd for Lab by: *Laura Schneider*

10/26/10

Upstate Laboratories, Inc.

Chain of Custody Record

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

Fax (315) 437 1209

Client:

Project # Project Name

CORTLAND COUNTY

TOWSLEE LANDFILL

Client Contact:

Location (city/state) Address

PATRICK REIDY

Phone # 607-753-0851

CORTLANDVILLE, NY

Remarks

Sample ID

Date

Time

Matrix

Grab or Comp

ULI Internal Use Only

Number of Containers

1993 PART 360 ROUTINE ASP-A

MMW-1A

WATER

GRAB

6

1 2 3 4 5 6 7 8 9 10

MMW-1B

WATER

GRAB

6

MMW-2A

11/12/10

12:48 pm

WATER

GRAB

6

MMW-2B

WATER

GRAB

6

MMW-3A

WATER

GRAB

6

MMW-6B

WATER

GRAB

6

MMW-7A

WATER

GRAB

6

MS/MSD

WATER

GRAB

7

Parameter and Method

Sample bottle:

Type

Size

Preservative

Sampled by (Print) Dan Arnold

Name of Courier

1 FIELD PH,TEMP,EH,SPEC,COND,TURBIDITY

N/A

PLASTIC

2000ML

NONE

Company: ULI

2 BOD5,NO3,TDS,SO4,CL-,BROMIDE

PLASTIC

500 ML

H2SO4

3 TKN,NH3,COD

PLASTIC

120 ML

1:1 HCL

4 TOC

PLASTIC

250 ML

NONE

5 ALKALINITY

AMBER

LITER

H2SO4

6 T-PHENOLS

PLASTIC

500 ML

HNO3

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

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	4/27/10	7/20/10	10/26/10
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	8.2	18.9	15.6
Eh	(mV)	--	--	700	105	190	170	59	-107	-111	-68	-57	-62	-69	-21	143	162	107	180	151	110
pH	SU	--	--	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	7.28	7.73	7.95
Sp. Cond	(uS/cm)	--	--	306	355	353	369	204	221	241	658	351	344	334	344	199	201	862	1580	263	345
Color	(Units)	5	20	--	--	<5	--	--	--	--	30	--	--	--	--	18	--	--	--	35	--
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	22.7	18.6	37.7
ALK as CaCO3	(mg/l)	160	145	127	139	122	132	140	120	120	130	120	120	120	130	100 H	120 H	120	140	120	120
HARD as CaCO3	(mg/l)	4000	240	167	140	148	148	134	153	148	146	151	159	165	161	163	158	161	161	167	169
TDS	(mg/l)	494	214	340	213	236	229	127	208	250	204	195	116	188 H	256	180	210	190	270	320	170
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	31.7	33	31.4
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	9.43	17.9	14.8
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	<0.8	<1.6	<0.8
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	0.0721	0.066	0.102
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	<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	<0.5	<0.5	0.897
COD	(mg/l)	305	64	< 10	<10	<10	<10	<20	<20	<20	<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	<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	<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	<0.005	<0.005	<0.005
Cyanide	(mg/l)	<0.01	<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	4/27/10	7/20/10	10/26/10
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	7.9	18.2	15.2
Eh	(mV)	--	--	385	45	155	115	84	-122	-143	-80	196	-78	-78	-78	-44	139	155	114	173	167	104
pH	SU	--	--	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	7.4	7.99	8.11
Sp. Cond	(uS/cm)	--	--	157	257	244	200	156	141	1241	943	1075	245	223	229	205	124	1145	681	975	1221	228
Color	(Units)	<5	<5	--	--	<5	--	--	--	--	30	7	--	--	--	--	9	--	--	--	15	--
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	10.8	17	8.46
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	100	91	90
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	92.9	106	104
TDS	(mg/l)	143	86	120	111	142	120	62	162	130	104	152	130	80	140	160	110	88	110	170	130	200
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	3.54	3.63	6.11
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	<5	7.05	<5
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	<0.4	<0.8	<0.8
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	0.0512	0.063	<0.05
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	<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	<0.5	<0.5	0.924
COD	(mg/l)	<15	<15	< 10	<10	<10	<10	<20	<20	<20	<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	<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	<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	<0.005	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--	--	<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	1/28/10	4/27/10	7/20/10	11/12/10
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	4.4	6.6	18.8	14
Eh	(mV)	--	--	140	-5	120	90	136	-62	-81	-25	42	-48	-31	-34	-34	239	227	143	148	256	162	17
pH	SU	--	--	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	7.53	5.94	7.77	7.06
Sp. Cond	(uS/cm)	--	--	621	767	784	1100	364	450	395	574	617	424	402	695	601	413	382	1406	1474	294	329	613
Color	(Units)	30	60	--	--	33	--	--	--	--	210	40	--	--	--	--	65	--	--	--	--	55	--
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	492	41.5	8.18	38.1
ALK as CaCO3	(mg/l)	702	784	330	355	384	423	380	320	420	290	360	290	380	360	320	360	340	280	310	300	360	310
HARD as CaCO3	(mg/l)	1300	720	241	260	265	301	225	262	275	165	246	203	303	343	229	295	265	95	291	235	313	260
TDS	(mg/l)	1180	986	381	397	491	487	262	355	395	284	410	357	320	356	316	220	310	230	360	350	370	300
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	12.4	14.5	22.5	17.1
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	<5	<5	<5	<5
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	<2	<2	<4	<20
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	<0.2	0.0809	0.139	0.08
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	8.45	8.06	10.1	6.9
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	11.6	11.9	16.5	9.84
COD	(mg/l)	127	136	< 10	13.8	27	15.6	<20	<20	46	22	23	21	36	32	<20	31	32	26	41	23	50	20
BOD	(mg/l)	6	3	16	4.5	3.4	<3	6	7	7	<4	<4	5	7	<4	<4	12	<4	<4	8	<4	7	<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	5.2	6.7	7.8	6
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	<0.005	0.006	<0.005	<0.005
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--	--	--	<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	1/28/10	4/27/10	7/20/10	10/26/10
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	3.7	6.9	19	15.1
Eh	(mV)	--	--	175	110	125	115	136	-73	-77	-34	40	-46	-38	-33	-22	237	229	174	184	249	117	153
pH	SU	--	--	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	6.9	6.03	7.52	6.75
Sp. Cond	(uS/cm)	--	--	1350	1560	1420	1540	701	682	500	329	339	1205	1132	1137	1135	739	670	1978	1880	567	391	1228
Color	(Units)	5	10	--	--	<5	--	--	--	--	15	7	--	--	--	--	8	--	--	--	--	11	--
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	12.7	12	17.3	14.1
ALK as CaCO3	(mg/l)	577	673	652	670	612	646	650	480	600	640	640	620	640	680	650	580	650	610	600	610	630	600
HARD as CaCO3	(mg/l)	960	900	697	726	686	675	723	575	716	652	678	654	728	788	678	782	755	608	609	681	730	693
TDS	(mg/l)	1640	1230	982	1020	1040	980	825	823	935	868	840	808	720	864	872	870	860	680	820	860	790	860
Chloride	(mg/l)	267	238	145	154	122	121	167	131	163	161	160	132	148	162	118	159	150	140	112	130	139	127
Sulfate	(mg/l)	<5	<5	1.18	2.96	<1	<1	<5	<5	10	<5	<5	<5	7.62	<5	<5	<5	<5	<5	7.9	<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	<0.2	<0.4	<4	<0.8
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	<0.2	<0.05	0.071	<0.05
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	0.69	1.18	0.812	<0.5
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	1.28	1.55	1.37	2.45
COD	(mg/l)	58	61	< 10	17.2	24.6	27	21	<20	<20	<20	24	<20	<20	<20	<20	23	26	<20	22	<20	<20	25
BOD	(mg/l)	2	2	9.3	5.1	3.7	13	<4	4	<4	<4	<4	5	<4	<4	<4	<4	<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	3.5	5.8	5.7	5.4
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	<0.005	0.006	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	0.024	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--	--	--	<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	1/28/10	4/27/10	7/20/10	10/26/10
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	6.1	7.4	17.9	15.6
Eh	(mV)	--	--	215	45	115	220	-50	-94	-115	-76	174	-34	-39	-41	-26	359	219	172	101	263	173	74
pH	SU	--	--	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	8.41	5.83	7.8	6.9
Sp. Cond	(uS/cm)	--	--	286	299	342	397	143	898	1757	939	1074	261	1759	204	1069	187	658	673	646	706	943	1806
Color	(Units)	<5	<5	--	--	<5	--	--	--	--	115	15	--	--	--	--	7	--	--	--	--	35	--
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	11	11.8	13.9	7.61
ALK as CaCO3	(mg/l)	145	146	162	170	140	152	82	59	170	130	110	170	91	97	18	160	50	79	180	93	160	130
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	93.2	58	194	66.9
TDS	(mg/l)	320	269	215	208	207	207	38	168	210	144	115	188	60	112	88	120	100	120	160	75	230	98
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	14.8	1.31	7.44	3.3
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	<5	<5	12.6	<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	<0.2	<0.8	<4	<4
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	<0.2	<0.05	0.053	0.054
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	<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	<0.5	1.14	1.26	1.83
COD	(mg/l)	19	<15	< 10	<10	13	<10	47	<20	<20	<20	23	<20	34	<20	<20	<20	40	35	<20	30	27	29
BOD	(mg/l)	<2	<2	< 3	<3	<3	<3	<4	8	<4	<4	<4	7	9	<4	<4	<4	8	6	<4	10	<4	7
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	<3	9	<3	6.6
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	<0.005	0.006	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--	--	--	<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	1/28/10	4/27/10	7/20/10	10/26/10
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	4.7	8.1	18.2	14.6
Eh	(mV)	--	--	250	85	225	180	82	-92	-105	-57	121	-71	-81	-54	-38	186	190	180	102	222	144	132
pH	SU	--	--	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	8.35	6.54	7.66	7.39
Sp. Cond	(uS/cm)	--	--	347	287	304	329	220	249	236	810	199	360	343	355	327	187	1999	1108	922	1673	249	342
Color	(Units)	<5	20	--	--	<5	--	--	--	--	6	7	--	--	--	--	11	--	--	--	--	35	--
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	12.5	43.6	4.71	16
ALK as CaCO3	(mg/l)	240	224	131	148	154	153	180	160	150	140	140	140	110	120	120	140	140	140	150	150	140	160
HARD as CaCO3	(mg/l)	300	240	135	144	131	133	156	139	138	124	136	142	137	134	142	154	148	138	163	147	144	147
TDS	(mg/l)	98	280	209	175	190	187	127	105	220	208	198	225	116	168	188	190 H	170	130	240	220	200	190
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	13.2	12	14	16
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	13.4	7.57	11	11.2
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	<2	<1	<0.8	<1.6
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	<0.2	0.0804	0.092	0.051
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	<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	<0.5	0.522	<0.5	0.799
COD	(mg/l)	40	19	< 10	<10	11.6	<10	<20	<20	<20	<20	<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	<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	<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	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--	--	--	<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	1/28/10	4/27/10	7/20/10	10/26/10
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	5.2	7.3	19	14.5
Eh	(mV)	--	--	215	120	245	190	77	-64	-69	-24	245	-37	-42	-41	-19	219	194	141	192	246	149	155
pH	SU	--	--	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	6.73	6.13	7.89	6.87
Sp. Cond	(uS/cm)	--	--	1360	1520	1440	1480	893	765	514	972	561	1174	618	214	1014	622	644	217	260	483	412	1133
Color	(Units)	20	5	--	--	<5	--	--	--	--	85	7	--	--	--	--	80	--	--	--	--	8	--
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	23.6	31.4	20.1	328
ALK as CaCO3	(mg/l)	569	660	648	675	595	635	640	510	530	540	570	560	600	670	500	500	480	520	600	500	510	520
HARD as CaCO3	(mg/l)	1010	1150	627	599	531	526	529	499	481	459	528	506	538	569	496	534	499	473	508	435	520	507
TDS	(mg/l)	1220	1240	981	967	963	949	753	865	3000	752	800	1560	668	728	748	720	620	640	520	730	690	710
Chloride	(mg/l)	300	276	144	143	119	85	145	131	145	141	141	1260	136	135	114	128	120	117	104	89.1	128	115
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	19.2	22.5	25.2	23.9
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	<2	<1	<4	<8
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	<0.2	<0.05	0.059	<0.05
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	<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	1.02	1.4	1.27	2.15
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	33	28	31	40
BOD	(mg/l)	<2	2	< 3	<3	<3	<3	<4	<4	<4	<4	<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	4.9	6.7	6	6.1
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	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--	--	--	<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	4/27/10	7/20/10	10/26/10
Aluminum	724	16.9	--	--	2.96	--	--	--	--	2.07	--	--	--	--	1.57	--	--	--	0.142	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	--	--	--	--	<0.015	--	--	--	<0.005	--
Arsenic	0.353	0.0134	--	--	<0.025	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--	--	<0.005	--
Barium	8.11	0.258	--	--	0.104	--	--	--	--	0.0917	--	--	--	--	0.0732	--	--	--	0.0757	--
Beryllium	0.0287	0.00083 B	--	--	<0.005	--	--	--	--	<0.003	--	--	--	--	<0.003	--	--	--	<0.003	--
Boron	0.0873 B	0.0665 B	--	--	0.073	--	--	--	--	<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	<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	47	48.9	49
Chromium	1.04	0.0265	--	--	<0.005	--	--	--	--	<0.005	--	--	--	--	<0.005	--	--	--	<0.01	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--	--	<0.01	--
Cobalt	0.59	0.0168 B	--	--	<0.015	--	--	--	--	<0.02	--	--	--	--	<0.02	--	--	--	<0.02	--
Copper	0.996	0.0254	--	--	0.022	--	--	--	--	<0.01	--	--	--	--	<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	0.484	0.219	1.99
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	<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	10.5	10.8	11.3
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	0.118	0.156	0.329
Mercury	0.0014	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	--	--	--	--	<0.0002	--	--	--	<0.0002	--
Nickel	1.33	0.0364 B	--	--	<0.01	--	--	--	--	<0.03	--	--	--	--	<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	<5	<5	<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	12.8	13.2	15.3
Selenium	<0.028	<0.0028	--	--	<0.02	--	--	--	--	<0.005	--	--	--	--	<0.005	--	--	--	<0.003	--
Silver	<0.009	<0.0009	--	--	<0.015	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--	--	<0.01	--
Thallium	<0.026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--	--	<0.003	--
Vanadium	0.856	0.0243 B	--	--	<0.015	--	--	--	--	<0.03	--	--	--	--	<0.03	--	--	--	<0.03	--
Zinc	3.36	0.0874	--	--	0.106	--	--	--	--	0.0235	--	--	--	--	<0.01	--	--	--	<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	4/27/10	7/20/10	10/26/10
Aluminum	0.662	0.134 B	--	--	1.09	--	--	--	--	0.537	0.518	--	--	--	--	0.255	--	--	--	<0.1	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--	--	<0.005	--
Arsenic	<0.0024	<0.0024	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	<0.005	--
Barium	0.168 B	0.154 B	--	--	0.194	--	--	--	--	0.172	0.199	--	--	--	--	0.232	--	--	--	0.204	--
Beryllium	0.0001 B	<0.0001	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--	--	<0.003	--
Boron	0.0197 B	0.0247 B	--	--	<0.05	--	--	--	--	<0.5	<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	<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	26.5	30.3	29.7
Chromium	0.002 B	<0.0004	--	--	<0.005	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.01	--	--	--	<0.01	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	<0.01	--
Cobalt	<0.0011	<0.0011	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--	--	<0.02	--
Copper	0.004 B	0.0025 B	--	--	0.017	--	--	--	--	<0.01	<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	0.423	0.159	1.02
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	<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	6.49	7.27	7.29
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	0.13	0.188	0.153
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	--	<0.0002	--
Nickel	<0.0013	<0.0013	--	--	<0.01	--	--	--	--	<0.03	<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	<5	<5	<5
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	6.29	7.12	8.95
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--	--	<0.003	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	<0.01	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	<0.003	--
Vanadium	<0.0012	<0.0012	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	<0.03	--
Zinc	0.0351	0.0163 B	--	--	0.052	--	--	--	--	0.0168	0.0112	--	--	--	--	<0.01	--	--	--	<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	1/28/10	4/27/10	7/20/10	11/12/10
Aluminum	79.3	59.1	--	--	0.43	--	--	--	--	0.444	1.98	--	--	--	--	<0.1	--	--	--	--	3.37	--
Antimony	0.0049 B	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--	--	--	<0.005	--
Arsenic	0.0631	0.0537	--	--	<0.025	--	--	--	--	<0.01	0.0145	--	--	--	--	<0.01	--	--	--	--	<0.005	--
Barium	1.75	1.49	--	--	0.502	--	--	--	--	0.265	0.377	--	--	--	--	0.471	--	--	--	--	0.545	--
Beryllium	0.0037 B	0.0025 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--	--	--	<0.003	--
Boron	1.21	0.961	--	--	0.584	--	--	--	--	<0.5	<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	<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	71.1	68.7	91.2	74.6
Chromium	0.112	0.0967	--	--	<0.005	--	--	--	--	<0.005	0.0177	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.02	<0.05	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Cobalt	0.0719	0.0628	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--	--	--	<0.02	--
Copper	0.104	0.0779	--	--	0.012	--	--	--	--	<0.01	<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	64.2	6.1	13	9.73
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	0.0187	<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	27.6	15.4	20.6	17.9
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	11.6	9.79	12.2	11.1
Mercury	<0.0001	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	--	--	<0.0002	--
Nickel	0.151	0.132	--	--	<0.01	--	--	--	--	<0.03	<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	12.8	9.42	14.3	11.9
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	15.5	16.3	21.9	19
Selenium	<0.0028	<0.0028	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--	--	--	<0.003	--
Silver	0.0024 B	0.0014 B	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Thallium	0.004 B	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.003	--
Vanadium	0.102	0.0866	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--	<0.03	--
Zinc	0.4	0.278	--	--	<0.01	--	--	--	--	<0.01	0.0101	--	--	--	--	<0.01	--	--	--	--	0.0269	--

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	1/28/10	4/27/10	7/20/10	10/26/10
Aluminum	2.03	5.31	--	--	0.18	--	--	--	--	<0.1	0.168	--	--	--	--	0.235	--	--	--	--	<0.1	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--	--	--	<0.005	--
Arsenic	0.007 B	0.0083 B	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.005	--
Barium	1.59	1.36	--	--	1.22	--	--	--	--	1.09	1.18	--	--	--	--	1.43	--	--	--	--	1.37	--
Beryllium	0.00023 B	0.00037 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--	--	--	<0.003	--
Boron	0.355	0.292	--	--	0.256	--	--	--	--	<0.5	<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	<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	177	202	216	207
Chromium	0.004 B	0.0086 B	--	--	<0.005	--	--	--	--	<0.005	0.00816	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Cobalt	0.0091 B	0.0141 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--	--	--	<0.02	--
Copper	0.0069 B	0.0118 B	--	--	0.017	--	--	--	--	<0.01	<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	0.451	0.329	0.149	0.273
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	<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	40.4	43.1	46.2	43
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	5.48	6.2	6.35	6.82
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	--	--	<0.0002	--
Nickel	0.0129 B	0.0188 B	--	--	<0.01	--	--	--	--	<0.03	<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	<5	<5	<5	<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	48.9	53.1	56.9	65.4
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--	--	--	0.004	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Thallium	0.0037 B	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.003	--
Vanadium	0.0029 B	0.0075 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--	<0.03	--
Zinc	0.103	0.0484	--	--	<0.01	--	--	--	--	0.0469	<0.01	--	--	--	--	<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	1/28/10	4/27/10	7/20/10	10/26/10
Aluminum	21.7	2.39	--	--	0.078	--	--	--	--	0.33	0.23	--	--	--	--	<0.1	--	--	--	--	5.32	--
Antimony	<0.003	0.0034 B	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.015	--	--	--	--	<0.005	--
Arsenic	0.0127	<0.0024	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.005	--
Barium	0.567	0.343	--	--	0.41	--	--	--	--	0.332	0.441	--	--	--	--	0.458	--	--	--	--	0.627	--
Beryllium	0.001 B	0.00013 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--	--	--	<0.003	--
Boron	<0.0709	0.0286 B	--	--	0.063	--	--	--	--	<0.5	<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	<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	28.8	23.2	57.3	26.8
Chromium	0.0249	0.0022 B	--	--	<0.005	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Cobalt	0.0121 B	0.0019 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--	--	--	<0.02	--
Copper	0.0315	0.0076 B	--	--	0.023	--	--	--	--	<0.01	<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	0.366	0.291	6.97	2.42
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	<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	5.17	<5	12.5	<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	0.568	0.218	0.282	0.471
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	--	--	<0.0002	--
Nickel	0.0248 B	0.0038 B	--	--	<0.01	--	--	--	--	<0.03	<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	<5	<5	<5	<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	<5	<5	6.53	<5
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--	--	--	<0.003	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.003	--
Vanadium	0.0296 B	0.0039 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--	<0.03	--
Zinc	0.112	0.0265	--	--	0.025	--	--	--	--	0.0106	<0.01	--	--	--	--	<0.01	--	--	--	--	0.0285	--

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	1/28/10	4/27/10	7/20/10	10/26/10
Aluminum	8.59	0.642	--	--	0.115	--	--	--	--	0.102	0.134	--	--	--	--	<0.1	--	--	--	--	<0.1	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--	--	--	<0.005	--
Arsenic	0.009 B	0.0084 B	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.005	--
Barium	0.521	0.48	--	--	0.313	--	--	--	--	0.301	0.337	--	--	--	--	0.404	--	--	--	--	0.348	--
Beryllium	0.0004 B	0.0001 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--	--	--	<0.003	--
Boron	0.145	0.145	--	--	<0.05	--	--	--	--	<0.5	<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	<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	45	40.6	39.9	40.9
Chromium	0.0092 B	0.0017 B	--	--	<0.005	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Cobalt	0.0112 B	0.0056 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--	--	--	<0.02	--
Copper	0.0116 B	0.0051 B	--	--	0.016	--	--	--	--	<0.01	<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	0.448	0.226	<0.06	0.337
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	<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	12.3	11	10.7	10.9
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	0.0606	0.027	0.087	0.242
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	--	--	<0.0002	--
Nickel	0.0144 B	0.0059 B	--	--	<0.01	--	--	--	--	<0.03	<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	<5	<5	<5	<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	16.8	14.2	15	17.8
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--	--	--	<0.003	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.003	--
Vanadium	0.0083 B	0.0012 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--	<0.03	--
Zinc	0.0894	0.0248	--	--	0.014	--	--	--	--	0.0213	0.0103	--	--	--	--	<0.01	--	--	--	--	<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	1/28/10	4/27/10	7/20/10	10/26/10
Aluminum	40	88.4	--	--	0.415	--	--	--	--	2.43	0.919	--	--	--	--	9.56	--	--	--	--	1.52	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--	--	--	<0.005	--
Arsenic	0.0176	0.0459	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.005	--
Barium	1.36	1.99	--	--	0.684	--	--	--	--	0.576	0.68	--	--	--	--	0.714	--	--	--	--	0.556	--
Beryllium	0.0015 B	0.0037 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--	--	--	<0.003	--
Boron	0.332	0.41	--	--	0.55	--	--	--	--	0.65	0.588	--	--	--	--	<0.5	--	--	--	--	<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	<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	139	122	147	143
Chromium	0.0556	0.146	--	--	<0.005	--	--	--	--	<0.005	0.00667	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.05	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Cobalt	0.0311	0.0791	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--	--	--	<0.02	--
Copper	0.0637	0.129	--	--	0.013	--	--	--	--	<0.01	<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	3.95	0.469	1.71	3.06
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	<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	38.8	31.4	36.9	36.4
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	3.87	3.85	3.82	4.5
Mercury	<0.0001	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	--	--	<0.0002	--
Nickel	0.0783	0.192	--	--	0.013	--	--	--	--	<0.03	<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	<5	<5	<5	<5
Sodium	118	113	134	129	124	128	112	104	95.8	95.2	104	99.6	113	116	97	103	110	105	112	109	110	127
Selenium	0.0041 B	0.0047 B	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--	--	--	<0.003	--
Silver	<0.0009	<0.0009	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.01	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--	<0.003	--
Vanadium	0.0487 B	0.127	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--	<0.03	--
Zinc	0.2	0.408	--	--	<0.01	--	--	--	--	0.0263	0.0102	--	--	--	--	0.0297	--	--	--	--	<0.01	--

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	7/20/10	10/26/10
Aluminum	<0.0083	0.0755 B	--	<0.1	<0.1	--
Antimony	--	--	--	<0.03	<0.005	--
Arsenic	<0.0024	<0.0024	--	<0.01	<0.005	--
Barium	0.822	0.887	--	0.599	0.477	--
Beryllium	0.0001 B	<0.0001	--	<0.003	<0.003	--
Boron	0.331	0.396	--	--	--	--
Cadmium	0.0003 B	<0.0003	<0.005	<0.005	<0.005	<0.005
Calcium	220	255	158	140	129	120
Chromium	0.0008 B	0.0011 B	--	<0.01	<0.01	--
Chrom, Hex	--	--	--	--	--	--
Cobalt	0.0017 B	0.0031 B	--	<0.02	<0.02	--
Copper	0.0086 B	<0.0007	--	<0.01	<0.01	--
Iron	0.009 B	0.753	0.0637	<0.06	<0.06	0.0978
Lead	<0.001	<0.001	<0.005	<0.003	<0.003	<0.003
Magnesium	56.2	59.9	43.6	34.1	31.6	31.5
Manganese	4.53	7.12	5.35	3.78	2.57	3.26
Mercury	<0.0001	<0.0001	--	<0.0002	<0.0002	--
Nickel	0.0129 B	0.0196 B	--	<0.03	<0.03	--
Potassium	5.28	3.98 B	1.9	1.82	<5	<5
Sodium	120	129	126	97.2	91.6	105
Selenium	--	--	--	<0.005	<0.003	--
Silver	--	--	--	<0.01	<0.01	--
Thallium	<0.0026	<0.0026	--	<0.01	<0.003	--
Vanadium	<0.0012	<0.0012	--	<0.03	<0.03	--
Zinc	0.0455	0.0186	--	0.0228	0.0102	--

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	7/20/10
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	< 5	<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-1B - Bedrock

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07	2/1/08	6/17/09	7/20/10
Vinyl Chloride	VOC	<10	<10	<5	<5	<5	< 5	<5
Chloroethane	VOC	<10	<10	<5	<5	<5	< 5	<5
Acetone	VOC	<10	<10	<25	<10	<10	< 10	<10
Methylene Chloride	VOC	<10	<10	<5	<5	13 B	< 5	<5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5	<5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5	<5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	<5	< 5	<5
Benzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Toluene	VOC	<10	<10	<5	<5	<5	< 5	<5
Chlorobenzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5	<5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5	<5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	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	7/20/10
Vinyl Chloride	VOC	<10	<10	<5	<5	<5	< 5	<5
Chloroethane	VOC	5 J	4 J	<5	<5	<5	< 5	<5
Acetone	VOC	<10	<10	<25	<10	<10	< 10	<10
Methylene Chloride	VOC	1 JB	<10	<5	<5	12 B	< 5	<5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5	<5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5	<5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	<5	< 5	<5
Benzene	VOC	5 J	6 J	<5	<5	<5	< 5	<5
Toluene	VOC	1 J	<10	<5	<5	<5	< 5	<5
Chlorobenzene	VOC	5 J	<10	<5	4 J	<5	3 J	3 J
Ethylbenzene	VOC	2 J	<10	<5	<5	<5	< 5	<5
Xylenes(total)	VOC	5 J	<10	<10	<5	<5	< 5	<5
1,4-Dichlorobenzene	SVOC	1 J	2 J	<5	<5	<5	< 5	<5
Diethylphthalate	SVOC	<10	1 J	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	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	7/20/10
Vinyl Chloride	VOC	<10	<10	<5	5.8	<5	12	13
Chloroethane	VOC	4 J	3 J	<5	4 J	<5	5.9	7
Acetone	VOC	<10	<10	<25	<10	<10	< 10	<10
Methylene Chloride	VOC	1 JB	<10	<5	<5	11 B	< 5	<5
trans-1,2-Dichloroethene (1)	VOC	1 J	<10	<5	<5	<5	< 5	<5
cis-1,2-Dichloroethene (1)	VOC	1 J	<10	6.2	9.2	9.4	19	19
1,1-Dichloroethane	VOC	1 J	1 J	<5	<5	<5	< 5	<5
Benzene	VOC	<10	2 J	<5	<5	<5	< 5	<5
Toluene	VOC	<10	<10	<5	<5	<5	< 5	<5
Chlorobenzene	VOC	<10	1 J	<5	<5	<5	< 5	<5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5	<5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5	<5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	1 JB	NA	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	7/20/10
Vinyl Chloride	VOC	<10	<10	<5	<5	<5	< 5	<5
Chloroethane	VOC	<10	<10	<5	<5	<5	< 5	<5
Acetone	VOC	2 J	<10	<25	<10	<10	24	<10
Methylene Chloride	VOC	5 JB	<10	<5	<5	11 B	< 5	<5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5	<5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5	<5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	<5	< 5	<5
Benzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Toluene	VOC	<10	<10	<5	<5	<5	82	77 S
Chlorobenzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5	<5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5	<5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	NA	NA	NA

All units are ug/l

J - estimated

B - analyte also detected in blank

S - Recovery in matrix spike exceeded acceptance criteria.

(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	7/20/10
Vinyl Chloride	VOC	<10	<10	<5	<5	<5	< 5	<5
Chloroethane	VOC	<10	<10	<5	<5	<5	< 5	<5
Acetone	VOC	<10	<10	<25	<10	<10	< 10	<10
Methylene Chloride	VOC	<10	<10	<5	<5	12 B	< 5	<5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5	<5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5	<5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	<5	< 5	<5
Benzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Toluene	VOC	<10	<10	<5	<5	<5	< 5	<5
Chlorobenzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5	<5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5	<5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	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	7/20/10
Vinyl Chloride	VOC	2 J	5 J	<5	4 J	8.2	5.7	4 J
Chloroethane	VOC	<10	1 J	<5	<5	<5	< 5	<5
Acetone	VOC	<10	<10	<25	<10	<10	< 10	11
Methylene Chloride	VOC	1 JB	<10	<5	<5	<5	< 5	<5
trans-1,2-Dichloroethene (1)	VOC	1 J	2 J	<5	<5	<5	< 5	<5
cis-1,2-Dichloroethene (1)	VOC	1 J	2 J	7.1	6.1	9	5.4	5 J
1,1-Dichloroethane	VOC	3 J	4 J	6.1	5 J	7.9	5 J	4 J
Benzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Toluene	VOC	<10	<10	<5	<5	<5	< 5	<5
Chlorobenzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5	<5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5	<5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5	<5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	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

Conventional

Alkalinity
Hardness
Chloride
Ammonia
TKN
COD
TOC

Metals

Aluminum
Arsenic
Calcium
Chromium
Cobalt
Copper
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	Year & Quarter	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Alkalinity, Total (As CaCO ₃) mg/L	1997_Q3	160	94.8	702	577	145	240	569
	1997_Q4	145	93.6	784	673	146	224	660
	2006_Q1	127	92	330	652	162	131	648
	2006_Q2	139	94	355	670	170	148	675
	2006_Q3	122	91	384	612	140	154	595
	2006_Q4	132	89	423	646	152	153	635
	2007_Q1	140	99	380	650	82	180	640
	2007_Q2	120	96	320	480	59	160	510
	2007_Q3	120	100	420	600	170	150	530
	2007_Q4	130	100	290	640	130	140	540
	2008_Q1	na	100	360	640	110	140	570
	2008_Q2	120	100	290	620	170	140	560
	2008_Q3	120	100	380	640	91	110	600
	2008_Q4	120	99	360	680	97	120	670
	2009_Q1	130	92	320	650	18	120	500
	2009_Q2	100	100	360	580	160	140	500
	2009_Q3	120	98	340	650	50	140	480
	2009_Q4	120	86	280	610	79	140	520
	2010_Q1	na	na	310	600	180	150	600
	2010_Q2	140	100	300	610	93	150	500
	2010_Q3	120	91	360	630	160	140	510
	2010_Q4	120	90	310	600	130	160	520
Hardness, Total(CaCO ₃) mg/L	1997_Q3	4000	88	1300	960	1250	300	1010
	1997_Q4	240	140	720	900	200	240	1150
	2006_Q1	167	97.6	241	697	153	135	627
	2006_Q2	140	81.9	260	726	179	144	599
	2006_Q3	148	89	265	686	191	131	531
	2006_Q4	148	82	301	675	158	133	526
	2007_Q1	134	83.6	225	723	74	156	529
	2007_Q2	153	105	262	575	58.1	139	499
	2007_Q3	148	104	275	716	150	138	481
	2007_Q4	146	90.8	165	652	86.2	124	459
	2008_Q1	na	89.3	246	678	97.7	136	528
	2008_Q2	151	103	203	654	123	142	506
	2008_Q3	159	107	303	728	76.7	137	538
	2008_Q4	165	105	343	788	97.9	134	569
	2009_Q1	161	97.1	229	678	38.1	142	496
	2009_Q2	163	111	295	782	196	154	534
	2009_Q3	158	108	265	755	37.8	148	499
	2009_Q4	161	206	95	608	65.4	138	473
	2010_Q1	na	na	291	609	93.2	163	508
	2010_Q2	161	92.9	235	681	58	147	435
	2010_Q3	167	106	313	730	194	144	520
	2010_Q4	169	104	260	693	66.9	147	507

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	Year & Quarter	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Chloride mg/L	1997_Q3	152	<2	156	267	31.4	38.2	300
	1997_Q4	46	<2	149	238	28.7	35	276
	2006_Q1	21.3	2.55	23.3	145	14	21.1	144
	2006_Q2	22.2	2.28	25.7	154	12.7	2.33	143
	2006_Q3	34.2	3.47	23.5	122	13.5	2.32	119
	2006_Q4	26.7	0.611	25.7	121	12.7	3.39	85
	2007_Q1	28.7	3.24	21.2	167	3.37	11.6	145
	2007_Q2	27	4.45	14.7	131	1.8	6.99	131
	2007_Q3	27	3.16	24.4	163	12	13.8	145
	2007_Q4	27.9	6.44	10.6	161	5.73	25.9	141
	2008_Q1	na	3.15	21	160	2.43	16.7	141
	2008_Q2	28	5.95	13.5	132	10.5	16.9	1260
	2008_Q3	25.9	5.61	20.2	148	1.1	31.1	136
	2008_Q4	29.7	6.03	15.5	162	1.75	28.6	135
	2009_Q1	30.4	2.86	13.7	118	1.85	13.3	114
	2009_Q2	30.7	4.74	20.5	159	9.25	19.4	128
	2009_Q3	29.5	6.86	17.7	150	<1	19.7	120
	2009_Q4	30	4.71	12.5	140	<1	14.7	117
	2010_Q1	na	na	12.4	112	14.8	13.2	104
	2010_Q2	31.7	3.54	14.5	130	1.31	12	89.1
	2010_Q3	33	3.63	22.5	139	7.44	14	128
	2010_Q4	31.4	6.11	17.1	127	3.3	16	115
Nitrogen, Ammonia (As N) mg/L	1997_Q3	6	<0.02	23	0.95	<0.02	0.09	0.93
	1997_Q4	2.6	0.04	9.1	1.3	0.09	2.5	0.89
	2006_Q1	0.276	0.0938	10.6	0.389	0.0969	0.0549	0.34
	2006_Q2	<0.02	<0.02	18.4	0.824	<0.02	<0.02	<0.02
	2006_Q3	0.161	<0.02	16	0.786	<0.02	0.096	<0.02
	2006_Q4	<0.1	<0.1	15.1	0.282	<0.1	<0.1	<0.1
	2007_Q1	<0.5	<0.5	10.2	0.921	1.45	<0.5	<0.5
	2007_Q2	<0.5	<0.5	9.89	0.844	<0.5	<0.5	<0.5
	2007_Q3	<0.5	<0.5	14.1	1.31	<0.5	<0.5	<0.5
	2007_Q4	<0.5	<0.5	13.5	1.22	<0.5	<0.5	<0.5
	2008_Q1	na	<0.5	8.78	0.785	<0.5	<0.5	<0.5
	2008_Q2	<0.5	<0.5	8.2	0.572	<0.5	<0.5	<0.5
	2008_Q3	<0.5	<0.5	11.9	1.01	<0.5	<0.5	<0.5
	2008_Q4	<0.5	<0.5	10.8	0.504	<0.5	<0.5	<0.5
	2009_Q1	<0.5	<0.5	8.43	0.642	<0.5	<0.5	<0.5
	2009_Q2	<0.5	<0.5	11.8	0.665	<0.5	<0.5	<0.5
	2009_Q3	<0.5	<0.5	10.3	0.73	<0.5	<0.5	<0.5
	2009_Q4	<0.5	<0.5	8.75	0.696	<0.5	<0.5	<0.5
	2010_Q1	na	na	8.45	0.69	<0.5	<0.5	<0.5
	2010_Q2	<0.5	<0.5	8.06	1.18	<0.5	<0.5	<0.5
	2010_Q3	<0.5	<0.5	10.1	0.812	<0.5	<0.5	<0.5
	2010_Q4	<0.5	<0.5	6.9	<0.5	<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	Year & Quarter	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Nitrogen, Kjeldahl, Total mg/L	1997_Q3	18	<0.2	31.5	2.6	0.4	0.6	1.1
	1997_Q4	3.8	<0.2	21.2	2	0.24	3.3	1.4
	2006_Q1	23.3	0.54	10.6	1.31	0.455	0.392	1.5
	2006_Q2	0.529	0.755	14	1.78	1.09	0.904	1.68
	2006_Q3	0.366	0.497	16.5	1.64	0.239	0.214	0.75
	2006_Q4	<0.2	<0.2	15	1.9	0.266	0.279	1.11
	2007_Q1	2.2	<0.5	132	1.84	4.26	<0.5	1.47
	2007_Q2	<0.5	<0.5	12.5	1.62	1.47	<0.5	3.6
	2007_Q3	5.66	<0.5	16.1	1.67	<0.5	<0.5	0.784
	2007_Q4	<0.5	<0.5	12.6	1.53	<0.5	<0.5	0.591
	2008_Q1	na	<0.5	10.7	1.33	<0.5	<0.5	0.522
	2008_Q2	<0.5	<0.5	11.2	1.55	<0.5	<0.5	0.949
	2008_Q3	<0.5	<0.5	12.9	1.03	0.718	<0.5	<0.5
	2008_Q4	<0.5	<0.5	11.6	1.13	<0.5	<0.5	<0.5
	2009_Q1	<0.5	<0.5	10.3	1.22	<0.5	<0.5	1.92
	2009_Q2	<0.5	<0.5	13.5	1.19	<0.5	<0.5	0.851
	2009_Q3	<0.5	<0.5	13.1	1.07	0.786	<0.5	0.927
	2009_Q4	<0.5	<0.5	12.5	1.12	1.36	<0.5	0.599
	2010_Q1	na	na	11.6	1.28	<0.5	<0.5	1.02
	2010_Q2	<0.5	<0.5	11.9	1.55	1.14	0.522	1.4
	2010_Q3	<0.5	<0.5	16.5	1.37	1.26	<0.5	1.27
	2010_Q4	0.897	0.924	9.84	2.45	1.83	0.799	2.15
Chemical Oxygen Demand mg/L	1997_Q3	305	<15	127	58	19	40	43
	1997_Q4	64	<15	136	61	<15	19	112
	2006_Q1	<10	<10	<10	<10	<10	<10	21.2
	2006_Q2	<10	<10	13.8	17.2	<10	<10	16.5
	2006_Q3	<10	<10	27	24.6	13	11.6	26.4
	2006_Q4	<10	<10	15.6	27	<10	<10	20.5
	2007_Q1	<20	<20	<20	21	47	<20	27
	2007_Q2	<20	<20	<20	<20	<20	<20	<20
	2007_Q3	<20	<20	46	<20	<20	<20	<20
	2007_Q4	<20	<20	22	<20	<20	<20	<20
	2008_Q1	na	<20	23	24	23	<20	<20
	2008_Q2	<20	<20	21	<20	<20	<20	36
	2008_Q3	<20	<20	36	<20	34	<20	22
	2008_Q4	<20	<20	32	<20	<20	<20	29
	2009_Q1	<20	<20	<20	<20	<20	<20	<20
	2009_Q2	<20	<20	31	23	<20	<20	38
	2009_Q3	<20	<20	32	26	40	<20	37
	2009_Q4	<20	<20	26	<20	35	<20	21
	2010_Q1	na	na	41	22	<20	<20	33
	2010_Q2	<20	<20	23	<20	30	<20	28
	2010_Q3	<20	<20	50	<20	27	<20	31
	2010_Q4	<20	<20	20	25	29	<20	40

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	Year & Quarter	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Organic Carbon, Total mg/L	1997_Q3	4.2	9.3	42.5	12.3	4.5	6	10.1
	1997_Q4	1.6	<1	24.1	11.9	1.9	5.8	12.6
	2006_Q1	4.76	5.41	10.1	<2	5.58	5.22	12.8
	2006_Q2	2.61	2.34	7.18	7.76	<2	3.14	8.19
	2006_Q3	<2	<2	5.67	4.82	<2	<2	6.12
	2006_Q4	<2	<2	5.68	7.49	<2	<2	7.46
	2007_Q1	<3	<3	6.7	6.4	<3	<3	8.1
	2007_Q2	<3	<3	4.8	3	<3	<3	6
	2007_Q3	<3	<3	7.3	5.7	<3	<3	7.2
	2007_Q4	<3	<3	6.3	17.2	3.7	<3	11.5
	2008_Q1	na	<3	21.8	82.6	<3	<3	69.9
	2008_Q2	<3	<3	5.2	23.2	<3	<3	17.8
	2008_Q3	<3	<3	6.3	4.7	7.3	<3	5.2
	2008_Q4	<3	<3	6	6.8	3.6	<3	6.1
	2009_Q1	<3	<3	4.8	4.5	<3	<3	5.1
	2009_Q2	<3	<3	7.2	5.5	<3	<3	5.7
	2009_Q3	<3	<3	5.9	4.6	9.2	<3	5
	2009_Q4	<3	<3	6.5	4.6	5.7	<3	5.2
	2010_Q1	na	na	5.2	3.5	<3	<3	4.9
	2010_Q2	<3	<3	6.7	5.8	9	<3	6.7
	2010_Q3	<3	<3	7.8	5.7	<3	<3	6
	2010_Q4	<3	<3	6	5.4	6.6	<3	6.1

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	Year & Quarter	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Aluminum_T	1997_Q3	724	0.662	79.3	2.03	21.7	8.59	40
	1997_Q4	16.9	0.134	59.1	5.31	2.39	0.642	88.4
	2006_Q3	2.96	1.09	0.43	0.18	0.078	0.115	0.415
	2007_Q4	2.07	0.537	0.444	<0.1	0.33	0.102	2.43
	2008_Q1	na	0.518	1.98	0.168	0.23	0.134	0.919
	2009_Q2	1.57	0.255	<0.1	0.235	<0.1	<0.1	9.56
	2010_Q3	0.142	<0.1	3.37	<0.1	5.32	<0.1	1.52
Arsenic_T	1997_Q3	0.353	<0.0024	0.0631	0.007	0.0127	0.009	0.0176
	1997_Q4	0.0134	<0.0024	0.0537	0.0083	<0.0024	0.0084	0.0459
	2006_Q3	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	2007_Q4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	2008_Q1	na	<0.01	0.0145	<0.01	<0.01	<0.01	<0.01
	2009_Q2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	2010_Q3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium_T	1997_Q3	430	26.7	186	288	57.8	70.5	234
	1997_Q4	48.6	24.7	172	245	53.7	55.6	271
	2006_Q1	46.2	26.8	69.1	203	46.3	39.3	171
	2006_Q2	41.8	23.9	74.1	216	55.3	39.6	165
	2006_Q3	43.2	25.8	77.3	203	57.9	36.1	150
	2006_Q4	43.9	24.1	88.5	200	48.3	37.4	148
	2007_Q1	39.2	23.7	64.2	216	23	45.6	149
	2007_Q2	44.5	30	75.3	170	18.1	39.9	140
	2007_Q3	43.5	29.9	80.4	214	45.1	40.2	135
	2007_Q4	42.2	26	47.9	195	27.5	36.7	131
	2008_Q1	na	25.1	70.3	201	30.2	39.2	148
	2008_Q2	43.2	28.6	57.5	192	37.6	39.5	139
	2008_Q3	46.2	30.2	87.8	214	24.4	39	150
	2008_Q4	48.3	30	99	235	31.3	38.7	162
	2009_Q1	47.2	27.7	66.7	201	12.3	39.6	140
	2009_Q2	47	31.4	87.1	237	59.5	42.9	150
	2009_Q3	46.5	31.1	78.6	227	15.2	42	144
	2009_Q4	45	58.7	26.5	178	26.2	38.2	131
	2010_Q1	na	na	71.1	177	28.8	45	139
	2010_Q2	47	26.5	68.7	202	23.2	40.6	122
	2010_Q3	48.9	30.3	91.2	216	57.3	39.9	147
	2010_Q4	49	29.7	74.6	207	26.8	40.9	143

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	Year & Quarter	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Chromium_T	1997_Q3	1.04	0.002	0.112	0.004	0.0249	0.0092	0.0556
	1997_Q4	0.0265	<0.0004	0.0967	0.0086	0.0022	0.0017	0.146
	2006_Q3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	2007_Q4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	2008_Q1	na	<0.005	0.0177	0.00816	<0.005	<0.005	0.00667
	2009_Q2	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	2010_Q3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt_T	1997_Q3	0.59	<0.0011	0.0719	0.0091	0.0121	0.0112	0.0311
	1997_Q4	0.0168	<0.0011	0.0628	0.0141	0.0019	0.0056	0.0791
	2006_Q3	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
	2007_Q4	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	2008_Q1	na	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	2009_Q2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	2010_Q3	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper_T	1997_Q3	0.996	0.004	0.104	0.0069	0.0315	0.0116	0.0637
	1997_Q4	0.0254	0.0025	0.0779	0.0118	0.0076	0.0051	0.129
	2006_Q3	0.022	0.017	0.012	0.017	0.023	0.016	0.013
	2007_Q4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	2008_Q1	na	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	2009_Q2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	2010_Q3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron_T	1997_Q3	1550	1.33	154	4.3	26.6	10.6	65.9
	1997_Q4	35.7	0.226	131	10.7	3.58	3	174
	2006_Q1	19.4	9.42	8.29	0.913	1.88	1.09	14.5
	2006_Q2	2.99	1.48	24	0.836	0.626	0.511	1.33
	2006_Q3	6.03	1.84	6.5	1.2	0.104	0.306	0.722
	2006_Q4	2.11	0.273	10.1	1.07	0.283	0.195	2.78
	2007_Q1	1.67	2.39	10.8	0.637	1.18	1.87	1.68
	2007_Q2	2.14	0.508	6.86	0.469	0.599	0.486	1.52
	2007_Q3	1.21	0.465	7.67	0.468	0.231	0.163	9.97
	2007_Q4	3.49	0.73	4.95	0.323	0.537	0.216	3.65
	2008_Q1	na	1	9.77	0.439	0.451	0.229	1.68
	2008_Q2	1.17	1.38	4.1	0.56	0.574	0.33	1.99
	2008_Q3	0.217	0.185	10.6	0.236	0.508	<0.06	0.342
	2008_Q4	0.429	0.174	9.51	0.28	0.177	<0.06	1.16
	2009_Q1	0.818	2.92	7.77	0.466	0.6	0.268	0.322
	2009_Q2	1.65	0.523	8.28	0.464	0.155	0.104	10.1
	2009_Q3	0.348	0.115	5.21	0.222	0.534	0.0703	0.108
	2009_Q4	6.19	6.72	0.827	0.235	1.44	0.417	1.19
	2010_Q1	na	na	64.2	0.451	0.366	0.448	3.95
	2010_Q2	0.484	0.423	6.1	0.329	0.291	0.226	0.469
	2010_Q3	0.219	0.159	13	0.149	6.97	<0.06	1.71
	2010_Q4	1.99	1.02	9.73	0.273	2.42	0.337	3.06

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	Year & Quarter	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Lead_T	1997_Q3	0.454	<0.001	0.0561	0.0044	0.0077	0.0044	0.0251
	1997_Q4	0.0123	<0.001	0.0436	0.0058	<0.001	<0.001	0.0585
	2006_Q1	0.00716	<0.005	<0.005	<0.005	<0.005	<0.005	0.0175
	2006_Q2	0.007	<0.005	0.019	0.009	0.005	<0.005	0.009
	2006_Q3	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	0.006
	2006_Q4	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005
	2007_Q1	<0.003	0.00431	0.00524	<0.003	<0.003	<0.003	<0.003
	2007_Q2	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2007_Q3	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.00656
	2007_Q4	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2008_Q1	na	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2008_Q2	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2008_Q3	<0.003	<0.003	0.0039	<0.003	<0.003	<0.003	<0.003
	2008_Q4	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2009_Q1	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2009_Q2	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2009_Q3	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2009_Q4	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2010_Q1	na	na	0.0187	<0.003	<0.003	<0.003	<0.003
	2010_Q2	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2010_Q3	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2010_Q4	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium_T	1997_Q3	309	6.47	61.6	61.7	17	19	67
	1997_Q4	15.6	5.84	53.6	49.9	11	12.7	88.3
	2006_Q1	12.6	7.46	16.6	46.1	9.13	8.94	48.6
	2006_Q2	8.67	5.39	18.3	45.3	10	10.9	45.5
	2006_Q3	9.7	6.05	17.5	43.5	11.2	9.86	38
	2006_Q4	9.43	5.31	19.4	42.7	9.2	9.71	38
	2007_Q1	8.87	5.94	15.7	44.8	4.04	10.2	38.4
	2007_Q2	10.2	7.4	17.9	36.3	3.1	9.68	36.4
	2007_Q3	9.67	7.12	18	44.1	9.15	9.12	35
	2007_Q4	9.8	6.28	11	39.9	4.26	7.81	32.1
	2008_Q1	na	6.44	17.1	42.8	5.42	9.37	38.4
	2008_Q2	10.6	7.58	14.3	42.4	7.04	10.4	38.5
	2008_Q3	10.7	7.74	20.3	47.1	3.83	9.61	39.5
	2008_Q4	10.8	7.28	23.1	49.1	4.8	9.13	39.8
	2009_Q1	10.6	6.76	15.1	42.9	1.82	10.5	35.8
	2009_Q2	11.1	7.83	18.8	45.9	11.6	11.4	38.7
	2009_Q3	10	7.34	16.8	45.6	<1	10.4	34
	2009_Q4	11.9	14.4	7.01	39.7	<5	10.4	35.3
	2010_Q1	na	na	27.6	40.4	5.17	12.3	38.8
	2010_Q2	10.5	6.49	15.4	43.1	<5	11	31.4
	2010_Q3	10.8	7.27	20.6	46.2	12.5	10.7	36.9
	2010_Q4	11.3	7.29	17.9	43	<5	10.9	36.4

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	Year & Quarter	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Manganese_T	1997_Q3	24.6	0.195	35.7	8.24	0.732	3.43	5.87
	1997_Q4	0.783	0.146	31.6	7.43	0.174	4.17	9.55
	2006_Q1	0.534	2.28	12.2	6.98	0.208	0.559	6.08
	2006_Q2	0.194	0.191	11.5	6.8	0.175	0.12	5.69
	2006_Q3	0.38	0.251	12	6.63	0.416	0.297	4.4
	2006_Q4	0.306	0.126	13.6	6.46	0.176	0.185	4.85
	2007_Q1	0.19	0.521	9.93	6.42	0.415	0.331	4.51
	2007_Q2	0.193	0.169	11.7	4.93	0.501	0.0908	4.18
	2007_Q3	0.206	0.19	12.7	6.6	0.116	0.671	3.98
	2007_Q4	0.203	0.176	7.05	5.7	0.287	0.712	3.47
	2008_Q1	na	0.26	11.2	6.21	0.0373	0.327	4.17
	2008_Q2	0.157	0.198	9.3	5.96	0.141	0.102	4.34
	2008_Q3	0.135	0.169	13.8	6.49	0.618	0.666	4.82
	2008_Q4	0.151	0.153	15.1	6.84	0.0424	0.619	4.57
	2009_Q1	0.0917	0.223	10.7	6.5	0.294	0.0257	4.31
	2009_Q2	0.169	0.25	12.8	6.63	0.164	0.0585	4.21
	2009_Q3	0.155	0.149	11.4	6.31	0.331	0.255	3.8
	2009_Q4	0.251	9.34	0.144	5.63	0.597	0.167	3.68
	2010_Q1	na	na	11.6	5.48	0.568	0.0606	3.87
	2010_Q2	0.118	0.13	9.79	6.2	0.218	0.027	3.85
	2010_Q3	0.156	0.188	12.2	6.35	0.282	0.087	3.82
	2010_Q4	0.329	0.153	11.1	6.82	0.471	0.242	4.5
Potassium_T	1997_Q3	77.5	1.56	23.4	3	7.43	4.08	10.4
	1997_Q4	6.97	0.529	17	2.9	1.87	2.72	13.5
	2006_Q1	2.72	0.973	9.29	2.42	0.938	1.15	3.06
	2006_Q2	1.6	0.468	11.2	2.25	0.829	0.825	1.91
	2006_Q3	1.7	0.523	12.3	2.28	1.09	0.634	1.81
	2006_Q4	1.62	0.374	12.7	2.38	0.937	0.69	2.03
	2007_Q1	1.74	<1	9.02	2.74	<1	1.05	2.03
	2007_Q2	2.31	<1	10.8	2.14	<1	<1	1.95
	2007_Q3	1.59	<1	13.3	2.44	<1	<1	2.87
	2007_Q4	2.06	<1	2.14	<1	<1	<1	<1
	2008_Q1	na	<1	8.56	2.44	<1	<1	1.85
	2008_Q2	1.65	<1	7.56	2.2	<1	<1	1.98
	2008_Q3	1.51	<1	12.3	2.23	1.06	<1	1.82
	2008_Q4	1.69	<1	15.1	3.13	<1	1.4	2.41
	2009_Q1	1.52	<1	7.48	2.44	<1	1.01	1.62
	2009_Q2	1.78	<1	12.4	2.71	<1	1.03	3.58
	2009_Q3	<1	<1	13.6	<1	<1	<1	<1
	2009_Q4	<5	8.56	<5	<5	<5	<5	<5
	2010_Q1	na	na	12.8	<5	<5	<5	<5
	2010_Q2	<5	<5	9.42	<5	<5	<5	<5
	2010_Q3	<5	<5	14.3	<5	<5	<5	<5
	2010_Q4	<5	<5	11.9	<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	Year & Quarter	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Sodium_T	1997_Q3	37.3	7.38	119	64.1	10.4	38	118
	1997_Q4	26	6.18	102	53.9	6.54	31.4	113
	2006_Q1	17.1	6.31	26.3	53.8	5.66	14.9	134
	2006_Q2	13	5.22	25.2	49.7	6.4	9.93	129
	2006_Q3	13.6	6.35	31.4	51.1	8.92	10.1	124
	2006_Q4	13.5	5.92	31.4	51	6.03	10.7	128
	2007_Q1	12.2	5.22	19.5	50.9	2.11	11.2	112
	2007_Q2	12.5	6.82	22.9	40.8	1.14	10.2	104
	2007_Q3	13	7.1	26.1	52.3	5.1	15	95.8
	2007_Q4	11.8	5.84	13.8	48.2	2.64	14.7	95.2
	2008_Q1	na	5.66	19.2	50.6	2.9	13.8	104
	2008_Q2	12.5	6.73	16.5	47.4	3.52	12.7	99.6
	2008_Q3	13.8	7.29	25.6	51.4	2.77	18.1	113
	2008_Q4	13.2	6.81	25.9	58.2	2.69	17.6	116
	2009_Q1	13.4	6.37	17.8	49.3	<1	13.1	97
	2009_Q2	13.9	8.15	23.8	55.4	6.81	17.9	103
	2009_Q3	12.5	7.32	21.1	58.6	<1	18.5	110
	2009_Q4	12.6	14.9	6.59	49	<5	15.8	105
	2010_Q1	na	na	15.5	48.9	<5	16.8	112
	2010_Q2	12.8	6.29	16.3	53.1	<5	14.2	109
	2010_Q3	13.2	7.12	21.9	56.9	6.53	15	110
	2010_Q4	15.3	8.95	19	65.4	<5	17.8	127
Vanadium_T	1997_Q3	0.856	<0.0012	0.102	0.0029	0.0296	0.0083	0.0487
	1997_Q4	0.0243	<0.0012	0.0866	0.0075	0.0039	0.0012	0.127
	2006_Q3	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
	2007_Q4	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
	2008_Q1	na	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
	2009_Q2	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
	2010_Q3	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Zinc_T	1997_Q3	3.36	0.0351	0.4	0.103	0.112	0.0894	0.2
	1997_Q4	0.0874	0.0163	0.278	0.0484	0.0265	0.0248	0.408
	2006_Q3	0.106	0.052	<0.01	<0.01	0.025	0.014	<0.01
	2007_Q4	0.0235	0.0168	<0.01	0.0469	0.0106	0.0213	0.0263
	2008_Q1	na	0.0112	0.0101	<0.01	<0.01	0.0103	0.0102
	2009_Q2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0297
	2010_Q3	<0.01	<0.01	0.0269	<0.01	0.0285	<0.01	<0.01

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	Year & Quarter	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Aluminum_D	1997_Q3	0.0163	0.0146	<0.0083	0.0179	<0.0083	<0.0083	<0.0083
	1997_Q4	0.0407	0.0209	0.0482	0.0154	0.0158	0.0132	0.0755
	2006_Q3	0.066	0.195	0.044	--	--	--	--
	2009_Q2	--	--	--	--	--	--	<0.1
	2010_Q3	--	--	--	--	--	--	<0.1
Arsenic_D	1997_Q3	<0.0024	<0.0024	0.0123	0.0036	<0.0024	0.0048	<0.0024
	1997_Q4	<0.0024	<0.0024	0.0139	<0.0024	<0.0024	0.0073	<0.0024
	2006_Q3	<0.025	<0.025	<0.025	--	--	--	--
	2009_Q2	--	--	--	--	--	--	<0.01
	2010_Q3	--	--	--	--	--	--	<0.005
Calcium_D	1997_Q3	67.6	24.8	183	281	57.9	67.7	220
	1997_Q4	40.3	24.5	183	274	54.6	56.3	255
	2006_Q1	40.7	22.8	--	--	44.3	--	158
	2006_Q2	38.9	--	--	--	--	--	--
	2006_Q3	38.6	24.4	77.6	--	--	--	--
	2007_Q1	40.3	24.5	--	--	--	45.6	--
	2009_Q2	--	--	--	--	--	--	140
	2010_Q3	--	--	--	--	--	--	129
	2010_Q4	--	--	--	--	--	--	120
Chromium_D	1997_Q3	<0.0004	0.0008	0.0035	0.0009	<0.0004	<0.0004	0.0008
	1997_Q4	<0.0004	0.00073	0.0057	0.0014	<0.0004	0.00087	0.0011
	2006_Q3	<0.005	<0.005	<0.005	--	--	--	--
	2009_Q2	--	--	--	--	--	--	<0.01
	2010_Q3	--	--	--	--	--	--	<0.01
Cobalt_D	1997_Q3	<0.0011	<0.0011	0.0107	0.0067	<0.0011	0.0052	0.0017
	1997_Q4	<0.0011	<0.0011	0.0095	0.0061	<0.0011	0.0041	0.0031
	2006_Q3	<0.015	<0.015	<0.015	--	--	--	--
	2009_Q2	--	--	--	--	--	--	<0.02
	2010_Q3	--	--	--	--	--	--	<0.02
Copper_D	1997_Q3	0.0008	<0.0007	0.0162	0.0022	0.0024	0.0011	0.0086
	1997_Q4	<0.0007	<0.0007	<0.0007	<0.0007	0.00083	<0.0007	<0.0007
	2006_Q3	0.013	0.013	0.015	--	--	--	--
	2009_Q2	--	--	--	--	--	--	<0.01
	2010_Q3	--	--	--	--	--	--	<0.01
Iron_D	1997_Q3	0.0348	0.0172	5.4	0.582	0.0061	0.346	0.009
	1997_Q4	0.0471	0.0141	11.5	0.595	0.0114	1.42	0.753
	2006_Q1	13.5	0.339	--	--	0.168	--	0.0637
	2006_Q2	0.315	--	--	--	--	--	--
	2006_Q3	0.125	0.339	0.204	--	--	--	--
	2007_Q1	<0.06	<0.06	--	--	--	<0.06	--
	2009_Q2	--	--	--	--	--	--	<0.06
	2010_Q3	--	--	--	--	--	--	<0.06
	2010_Q4	--	--	--	--	--	--	0.0978

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	Year & Quarter	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Lead_D	1997_Q3	0.0052	--	<0.001	--	--	--	<0.001
	1997_Q4	<0.001	--	0.0011	--	--	--	<0.001
	2006_Q1	<0.005	<0.005	--	--	<0.005	--	<0.005
	2006_Q2	0.005	--	--	--	--	--	--
	2006_Q3	<0.005	<0.005	<0.005	--	--	--	--
	2007_Q1	<0.003	<0.003	--	--	--	<0.003	--
	2009_Q2	--	--	--	--	--	--	<0.003
	2010_Q3	--	--	--	--	--	--	<0.003
	2010_Q4	--	--	--	--	--	--	<0.003
Magnesium_D	1997_Q3	15.4	6.62	41	61.7	12.9	17.3	56.2
	1997_Q4	8.69	5.88	38.5	55	10.9	12.9	59.9
	2006_Q1	10.4	5.15	--	--	8.7	--	43.6
	2006_Q2	8.12	--	--	--	--	--	--
	2006_Q3	8.18	5.54	17.1	--	--	--	--
	2007_Q1	8.83	5.88	--	--	--	10.6	--
	2009_Q2	--	--	--	--	--	--	34.1
	2010_Q3	--	--	--	--	--	--	31.6
	2010_Q4	--	--	--	--	--	--	31.5
Manganese_D	1997_Q3	0.22	0.141	30.4	8.07	0.123	3.3	4.53
	1997_Q4	0.174	0.134	30.9	8	0.0941	3.99	7.12
	2006_Q1	0.238	0.0136	--	--	0.0963	--	5.35
	2006_Q2	0.127	--	--	--	--	--	--
	2006_Q3	0.248	0.135	12.1	--	--	--	--
	2007_Q1	<0.01	<0.01	--	--	--	0.137	--
	2009_Q2	--	--	--	--	--	--	3.78
	2010_Q3	--	--	--	--	--	--	2.57
	2010_Q4	--	--	--	--	--	--	3.26
Potassium_D	1997_Q3	10.6	1.63	17.5	2.8	2.75	2.97	5.28
	1997_Q4	4.92	0.514	14.2	2.34	1.42	2.77	3.98
	2006_Q1	2.52	0.487	--	--	0.803	--	1.9
	2006_Q2	1.38	--	--	--	--	--	--
	2006_Q3	1.31	0.403	12.5	--	--	--	--
	2007_Q1	1.72	<1	--	--	--	1.19	--
	2009_Q2	--	--	--	--	--	--	1.82
	2010_Q3	--	--	--	--	--	--	<5
	2010_Q4	--	--	--	--	--	--	<5
Sodium_D	1997_Q3	59.3	7.53	121	62.5	10.2	38.2	120
	1997_Q4	27.1	6.59	115	62.8	7.98	33.3	129
	2006_Q1	14.7	4.75	--	--	4.83	--	126
	2006_Q2	12.3	--	--	--	--	--	--
	2006_Q3	13	5.31	29.6	--	--	--	--
	2007_Q1	12.3	5.73	--	--	--	12.1	--
	2009_Q2	--	--	--	--	--	--	97.2
	2010_Q3	--	--	--	--	--	--	91.6
	2010_Q4	--	--	--	--	--	--	105

**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	Year & Quarter	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Vanadium_D	1997_Q3	<0.0012	--	<0.0012	--	--	--	<0.0012
	1997_Q4	<0.0012	--	<0.0012	--	--	--	<0.0012
	2006_Q3	<0.015	<0.015	<0.015	--	--	--	--
	2009_Q2	--	--	--	--	--	--	<0.03
	2010_Q3	--	--	--	--	--	--	<0.03
Zinc_D	1997_Q3	0.12	0.0396	0.117	0.0635	0.0249	0.0651	0.0455
	1997_Q4	0.0161	0.0152	0.0207	0.023	0.0387	0.0207	0.0186
	2006_Q3	0.033	0.029	0.013	--	--	--	--
	2009_Q2	--	--	--	--	--	--	0.0228
	2010_Q3	--	--	--	--	--	--	0.0102