Cortland County Soil and Water Conservation District
100 Grange Place, Room 202, Cortland, NY 13045
Phone: (607) 756-5991 • Fax: (607) 756-0029

SWCD...established to promote the conservation and wise use of our county's natural resources

September 15, 2010

Brian Jankauskas
Environmental Engineer II
Remedial Bureau A
Div. of Environmental Remediation
625 Broadway, 11th floor
Albany, NY 12233-7015

Dear Mr. Jankauskas:

Enclosed is a report summarizing groundwater monitoring activities at the Towslee Landfill in Cortland County. The report covers data collected in Quarters 1 and 2 of 2010. Cortland County Soil and Water Conservation District prepared this report for Don Chambers, Superintendent of Cortland County Highway Department.

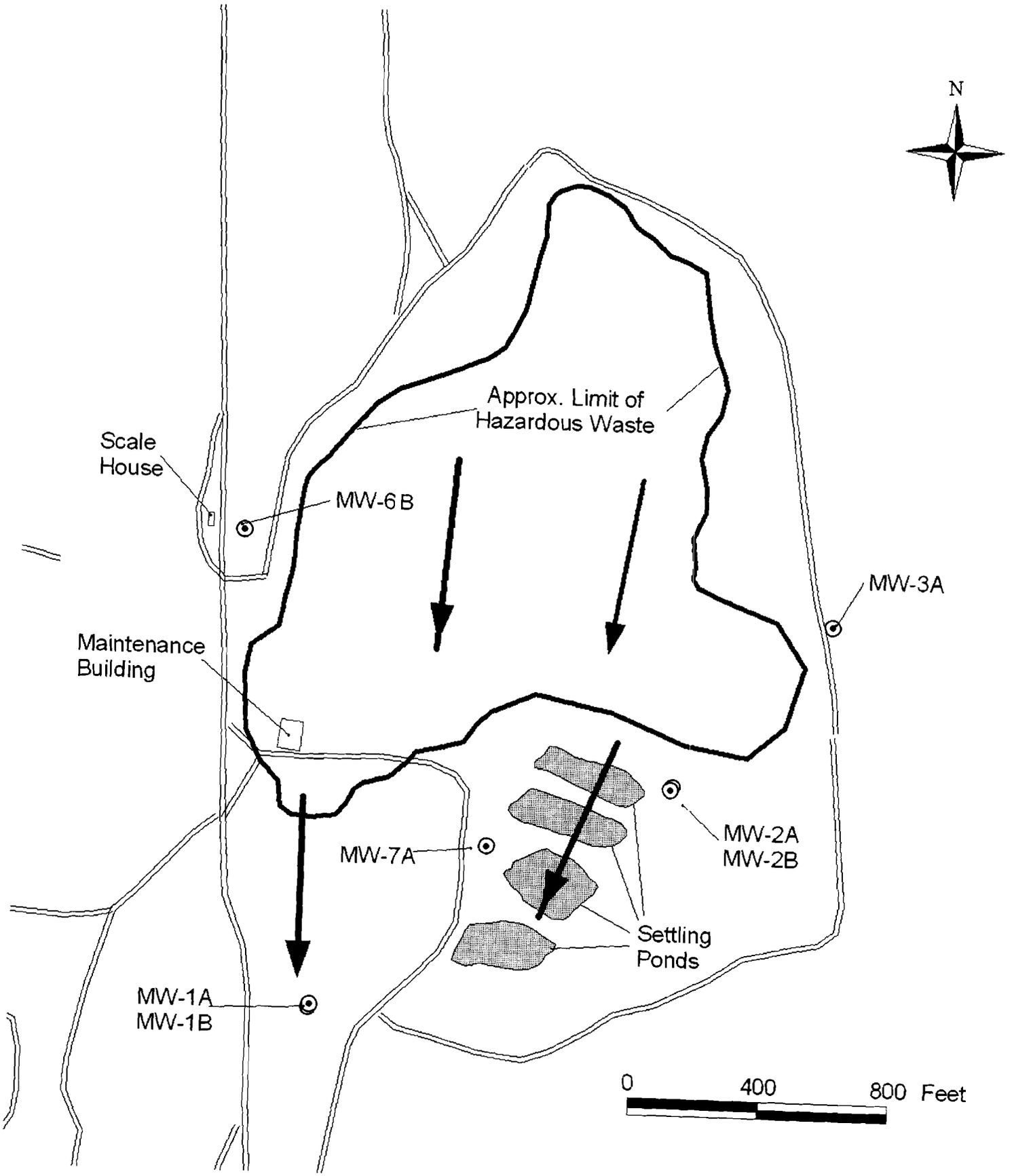
Please note that we are conducting quarterly monitoring, but reporting twice a year (once after the first two quarters, and again after the last two quarters). The semi-annual reporting has occurred since monitoring resumed at Towslee in 2006. Attached is correspondence with Joe Yavonditte describing the monitoring locations currently used at Towslee Landfill.

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

Sincerely,

Patrick Reidy
Water Quality Specialist

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



Approx. Goundwater
Flow Direction

Figure 1.
Monitoring Well Locations
Towslee Landfill

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SWCD...established to promote the conservation and wise use of our county's natural resources

February 17, 2006

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

Dear Mr. Yavonditte:

Cortland County Soil and Water Conservation District (SWCD) will be overseeing monitoring of the old county landfill for Cortland County. SWCD will begin monitoring seven (7) downgradient groundwater monitoring wells, as described in your November 7, 2005 letter to Don Chambers. This monitoring will be an interim measure until the monitoring plan for the old county landfill is finalized.

As we discussed over the phone, SWCD has identified three (3) overburden wells and four (4) bedrock wells to serve as the locations for monitoring. These locations were selected to best represent downgradient conditions based on a review of groundwater flow patterns described in the Remedial Investigation Report prepared by Barton & Loguidice in 1998.

We propose to monitor overburden wells MW-1A, MW-2A, and MW-7A. We propose to monitor bedrock wells MW-1B, MW-2B, MW-3A, and MW-6B. The attached map shows the locations of these wells.

Monitoring will begin in the first quarter of 2006. Let us know if you have any questions or concerns with the selection of wells.

Sincerely,

Patrick Reidy
Water Quality Specialist

cc: Don Chambers, Cortland County Highway Department
Paul Dudden, Barton & Loguidice
Amanda Barber, SWCD/files

Environmental Monitoring Report
2010 Quarters 1 and 2

Cortland County Towslee Landfill

Town Line Road
Cortland County, New York

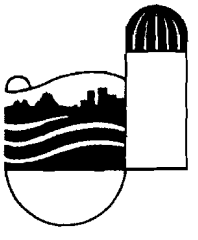
NYSDEC Region 7

Prepared for:

Cortland County Highway Department
Traction Drive
Cortland, NY 13045

Prepared by:

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



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1.0 Introduction

Cortland County is the current owner of the inactive Towslee Landfill located at the county's solid waste disposal site in the Towns of Cortlandville and Solon, near the center of the county. The Towslee Landfill has previously been called the Old County Landfill, and the Town Line Landfill. It is referred to as the Towslee Landfill in this report. This report summarizes groundwater quality monitoring activities at the Towslee Landfill for Quarters 1 and 2 of 2010.

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 1 and 2. Water quality analyses were conducted in accordance with 1998 Part 360 regulations. SWCD performed data management and analysis, and prepared this report.

2.0 Site History

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

Based on landfill records, hazardous wastes were believed to have been deposited at the site. The wastes were believed to have been generated by one or more local industries. B&L delineated the limits of hazardous waste associated with the site. Figure 1 shows well locations monitored for this program, and approximate limits of hazardous waste. The B&L Remedial Investigation concluded that in 1997 there was mild landfill leachate contamination of groundwater in the vicinity of Wells

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

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

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

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

3.0 Monitoring Schedule and Locations

3.1 Schedule

Quarter	Analyses	Date Sampled
First Quarter:	Routine	January 28, 2010
Second Quarter:	Routine	April 27, 2010
Third Quarter:	Baseline	Not yet completed
Fourth Quarter:	Routine	Not yet completed

3.2 Groundwater Monitoring Locations

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

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

Note that samples were not obtained for MW-1A and MW-1B in Quarter 1 due to frozen conditions.

4.0 Assessment of Monitoring Results

This section provides an evaluation of groundwater monitoring results for all Quarter 1 and Quarter 2 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 1 laboratory analytical report.
- Appendix B contains the Quarter 2 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.

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 and 4 summarize water quality results for Quarter 2.

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

Results for most parameters in Quarter 1 and Quarter 2 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 Conventionals and Field Parameters

pH - The acceptable range for pH is between 6.5 and 8.5. No pH contraventions were observed in Quarter 1. 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).

Turbidity – Turbidity exceeded the NYS standard of 5 NTU for most or all sampled wells in both Quarter 1 and 2:

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.

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 the first two quarters of 2010.

	MW-2B	MW-7A
Quarter 1	820	520
Quarter 2	860	730

Ammonia - The ammonia standard of 2 mg/l was exceeded at MW-2A for Quarters 1 and 2 in 2010:

Quarter 1 - 8.45 mg/l
Quarter 2 - 8.06 mg/l

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

Total Phenol - The phenol standard of 0.001 mg/l was exceeded at three wells in Quarter 2. Wells MW-2A, MW-2B and MW-3A each recorded a total phenols level of 0.006 mg/l.

4.1.2 Metals

Total Iron - The NYS standard for iron is 0.3 mg/l. The standard was exceeded for most wells in Quarters 1 and 2, as it has in past monitoring at Towslee. A summary of Quarter 1 and 2 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.

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.

Total Manganese - The NYS standard for manganese is 0.3 mg/l. The manganese standard was frequently exceeded in Quarters 1 and 2, 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.

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:

	MW-2B	MW-7A	All values in mg/l
Quarter 1:	48.9	112	
Quarter 2:	53.1	109	

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 not conducted in either Quarter 1 or Quarter 2 of 2010.

4.2 Trends

Groundwater monitoring at Towslee Landfill occurred twice in 1997, and 18 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 contaminants of concern (COCs). Appendix D contains summary tables of historical results for each COC, up to and including 2010 results. The tables present results for all seven monitoring wells to assist in evaluating trends.

Previous reporting described a significant improvement in groundwater quality downgradient of the Towslee landfill between 1997 and 2006. 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 4-5 years.

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

4.2.1 Trends for Conventionals

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

- Alkalinity continues to be generally lower than 1997 levels, and fairly stable over the past 4-5 years.

- Chloride levels continue to be significantly lower than 1997 levels.

- Hardness levels continue to be much lower than in 1997, and fairly stable over the past 4-5 years.

- Ammonia - Five of seven wells have decreased over time to the point that no ammonia has been detected in the past 13 sampling events. Well MW-2A continues to have elevated ammonia levels, but continues to show an overall, slowly decreasing trend over time. MW-2B is the only other well at which ammonia was detected in the past several years. Ammonia levels at MW-2B have been fairly stable over time, and below the water quality standard of 2 mg/l.

- TKN levels in general show an overall decreasing trend over time. Results for three of seven wells have been below, or near, the detection limit for the past 11 sampling events. 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 4-5 years, and below the water quality standard. TKN at MW-3A fluctuates more than at other wells, with no clear trend either up or down, but results are below the water quality standard for the past 3-4 years.

- COD continues to show an overall decrease compared to 1997 levels, with many results below the detection limit in recent years. COD at MW-3A fluctuates over time, with no clear trend up or down.

- Total Organic Carbon (TOC) - TOC has been below the detection limit at MW-1A, MW-1B and MW-6B for the past 16 sampling events. TOC at MW-2A, MW-2B and MW-7A has decreased compared to 1997 levels, and has been relatively stable in the past 2-3 years. TOC at MW-3A fluctuates over time, with no clear trend up or down.

- 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	

Quarters 1 and 2 underwent Routine monitoring, and the only "COC" metals analyzed were calcium, iron, lead, magnesium, manganese, potassium, and sodium.

- Calcium levels continue to show an overall decrease through 2010, compared to 1997 levels, and have been relatively stable over the past 4-5 years.

- Iron continues to show an overall decrease compared to 1997 levels. Variability in total iron

levels over the past 4-5 years is likely due to varying amounts of particulate in samples.

- Lead levels are generally below the detection limit, and where detected, continue to show an overall decrease through 2010, compared to 1997.
- Magnesium levels continue to show an overall decrease compared to 1997 observations, and have been fairly stable over the past few years.
- Manganese continues to show an overall decrease compared to 1997 levels.
- Potassium levels continue to show an overall decrease through 2010, compared to 1997.
- Sodium levels have continued to show a general decrease through 2010, or have remained fairly stable.

4.2.3 Trends for Organics

VOCs were not analyzed in Quarters 1 and 2, but will be analyzed in Quarter 3. An assessment of VOCs will be provided in the annual summary report.

5.0 Quality Control

Quality control samples and data validation are discussed below. Based on a review of this information, we believe the Quarter 1 and 2 data are adequate to characterize groundwater quality downgradient of the Towslee landfill.

5.1 Quality Control Samples

Duplicate samples were collected for MW-6B in both Quarter 1 and 2. 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

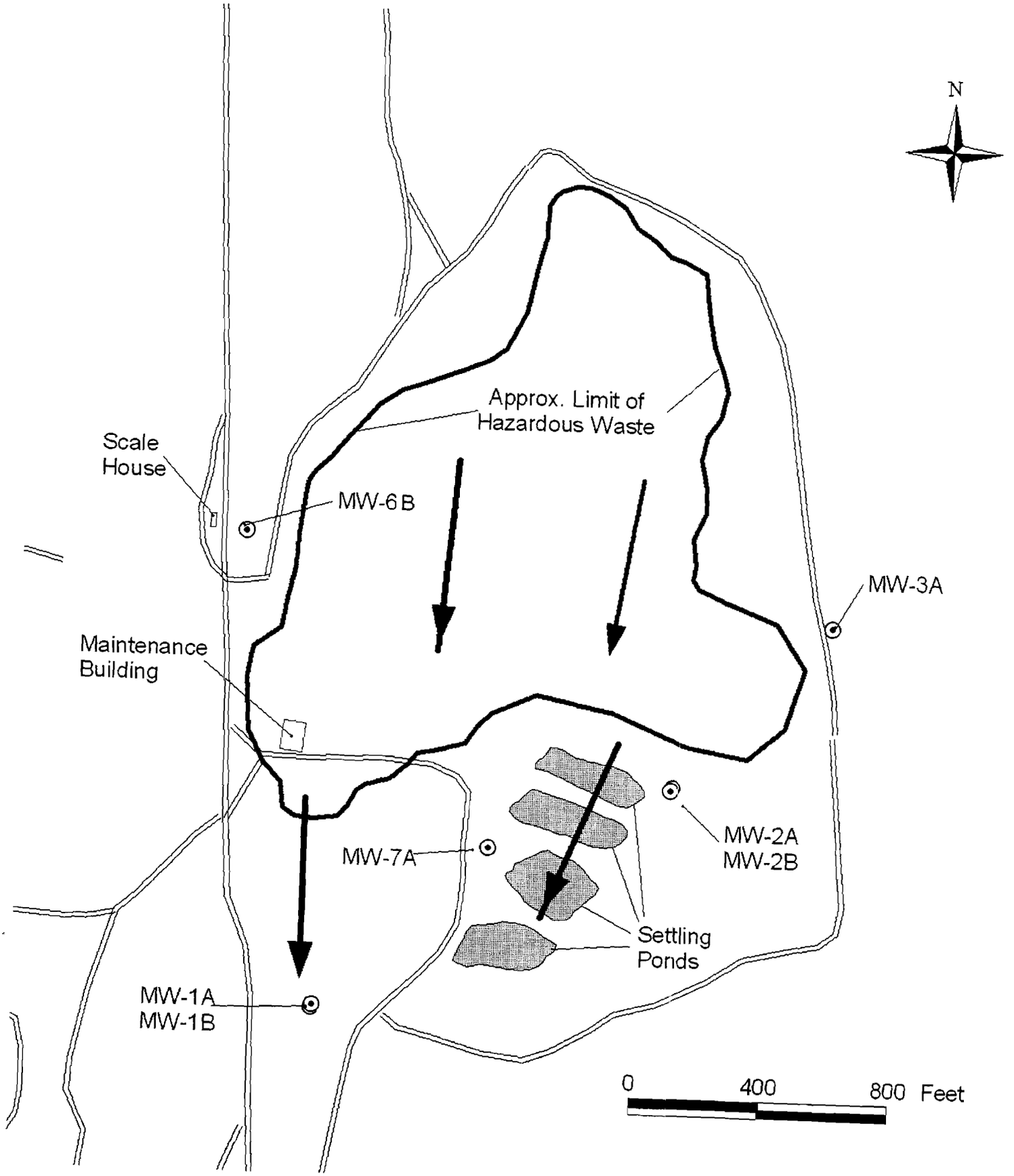
- Most RPDs were below 20%, and more than half were below 10%.
- The RPDs for alkalinity and chloride were above 20 percent. The reason for this is unclear.

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 split samples.

5.2 Data Validation

Upstate Labs performed internal data validation for the Quarter 1 and Quarter 2 monitoring of Towslee Landfill. The results generally met acceptance criteria. Summaries of Upstate Labs internal validation for Quarters 1 and 2 are included in the laboratory reports of Appendix A and B.



Approx. Goundwater
Flow Direction

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

Appendix A

Analytical Laboratory Results and Internal Quality Control Summary

Quarter 1 2010

Cortland County Towslee Landfill

TOWSLEE Q1 2010

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

February 26, 2010

RE: Analytical Report:
Towslee Landfill

Order No.: U1001488

Dear Mr. Reidy:

Upstate Laboratories, Inc. received 6 samples on 1/29/10 for the analyses presented in the following report.

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

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

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

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

Thank you for your patronage.

Sincerely,
UPSTATE LABORATORIES, INC.

Anthony J. Scala
President/CEO

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

Upstate Laboratories, Inc.

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

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

March 2, 2010

RE: Towslee Landfill, Cortlandville, New York, Samples Collected January 28, 2010
Case Narrative for ULI SDG Number COR33, Workorder #U1001488

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

Internal Validation

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

Trace Metals

Test	Batch	Anomaly
Ca,Fe,Mg,Mn,Na	R49328	The MS recoveries for Iron and Manganese were outside QC acceptance limits for sample location MW-7A. The concentrations of Iron and Manganese in sample location MW-7A were greater than 4X the SPK value; therefore, the data should be considered valid. All other criteria were satisfied.
K	R49331	The ICV recovery for Potassium was below QC acceptance limits. All other criteria were satisfied.
Cd,Pb	R49498	All associated sample locations were analyzed according to 200.8 method criteria. The initial and final CRDL Standard recoveries for Lead were above QC acceptance limits. The initial and final ICSAB spikes for Cadmium were not required for 200.8 method requirements.

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

Wet Chemistry

Test	Batch	Anomaly
BOD	R49065	Criteria were satisfied.
Nitrate-Nitrogen	R48907	Criteria were satisfied.
COD	R48955	Criteria were satisfied.
TKN	R48970	Criteria were satisfied.
Bromide	R48965	Sample locations MW-6B and DUPE were reanalyzed for Bromide in analytical sequence R49193. All other criteria were satisfied.
	R49193	The ICV recovery for Bromide was above QC acceptance limits. Sample locations MW-6B and DUPE were reanalyzed for Bromide within ASP holding time due to inconsistent sample results when compared with each other. All other criteria were satisfied.
TDS	R49015	Criteria were satisfied.
Sulfate	R49173	Criteria were satisfied.
Alkalinity, Total	R48929	Criteria were satisfied.
Chloride	R48928	Criteria were satisfied.
Phenols, Total	R49003	Sample location MW-2A was reanalyzed for Total Phenols in analytical sequence R49175. All other criteria were satisfied.
	R49175	Sample location MW-2A was reanalyzed for Total Phenols within ASP holding time due to an inconsistent sample result when compared with past data. All other criteria were satisfied.
Ammonia-Nitrogen	R48970	Criteria were satisfied.
	R49048	Criteria were satisfied.
TOC	R48932	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

COR33A

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	200.8	(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	405.1	(1)
Nitrate-Nitrogen	353.2	(1)
Alkalinity, Total	310.2	(1)
Chloride	325.2	(1)
COD	410.4	(1)
Ammonia-Nitrogen	350.1	(1)
Sulfate	375.4	(1)
TDS	160.1	(1)
TKN	351.2	(1)
TOC	415.1	(1)
Phenols	420.4	(1)
Bromide	300.1	(1)

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

Upstate Laboratories, Inc.

Analytical Report

Date: *26-Feb-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2A
Lab Order:	U1001488	**Collection Date:**	1/28/2010 11:13:00 AM
Project:	Towslee Landfill		
Lab ID:	U1001488-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	1474	1.0		umhos/cm		1/28/2010 11:13:00 AM
Eh	148	-300		mV		1/28/2010 11:13:00 AM
pH	7.53	2-12.5		SU		1/28/2010 11:13:00 AM
Temperature	4.4			degC		1/28/2010 11:13:00 AM
Turbidity	492.0	5.0		NTU		1/28/2010 11:13:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **NJS**
Bromide	ND	2.0		mg/L	10	2/1/2010
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP				**200.7WTASP**	**(E200.7)**	Analyst: **DEY**
Cadmium	ND	5.00		µg/L	1	2/24/2010
Calcium	71100	5000		µg/L	1	2/15/2010 12:29:39 PM
Iron	64200	60.0		µg/L	1	2/15/2010 12:29:39 PM
Lead	18.7	3.00		µg/L	1	2/24/2010
Magnesium	27600	5000		µg/L	1	2/15/2010 12:29:39 PM
Manganese	11600	10.0		µg/L	1	2/15/2010 12:29:39 PM
Potassium	12800	5000		µg/L	1	2/17/2010 8:50:28 PM
Sodium	15500	5000		µg/L	1	2/15/2010 12:29:39 PM
Hardness, Total(CaCO3)	291000	7000		µg/L	1	2/15/2010 12:29:39 PM
NOTES: Sample was ran by 200.8ASP method for Cd and Pb.						
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **TCB**
Residue, Dissolved (TDS)	360	25		mg/L	1	2/2/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **KAM**
Alkalinity, Total (As CaCO3)	310	10		mg/LCaCO3	1	1/31/2010
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **KAM**
Chloride	12.4	1.00		mg/L	1	1/31/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **BY**
Nitrogen, Ammonia (As NH3)	8.45	0.500		mg/L	1	2/4/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	11.6	0.500		mg/L	1	2/2/2010
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	1/29/2010 1:15:00 PM
SULFATE				**375.4_W**		Analyst: **TCB**

Approved By: PH **Date:** 2-26-10

Qualifiers:

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

Upstate Laboratories, Inc.

Analytical Report

Date: *26-Feb-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2A
Lab Order:	U1001488	**Collection Date:**	1/28/2010 11:13:00 AM
Project:	Towslee Landfill		
Lab ID:	U1001488-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE				**375.4_W**		Analyst: **TCB**
Sulfate	ND	5.00		mg/L	1	2/9/2010
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**
Biochemical Oxygen Demand	8.00	8.00		mg/L	1	1/29/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	41	20		mg/L	1	2/1/2010
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **BS**
Organic Carbon, Total	5.2	3.0		mg/L	1	1/31/2010
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	2/9/2010

Approved By: PH **Date:** 2-26-10

Qualifiers:

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

Upstate Laboratories, Inc.

Analytical Report

Date: *26-Feb-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2B
Lab Order:	U1001488	**Collection Date:**	1/28/2010 11:29:00 AM
Project:	Towslee Landfill		
Lab ID:	U1001488-002	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			**FIELD**			Analyst:
Conductivity	1880	1.0		umhos/cm		1/28/2010 11:29:00 AM
Eh	184	-300		mV		1/28/2010 11:29:00 AM
pH	6.90	2-12.5		SU		1/28/2010 11:29:00 AM
Temperature	3.7			degC		1/28/2010 11:29:00 AM
Turbidity	12.7	5.0		NTU		1/28/2010 11:29:00 AM
INORGANIC ANIONS BY IC FOR WATERS			**300_IC**			Analyst: **NJS**
Bromide	ND	0.20		mg/L	1	2/1/2010
ICP METALS, TOTAL ASP			**200.7WTASP**		**(E200.7)**	Analyst: **DEY**
Cadmium	ND	5.00		µg/L	1	2/24/2010
Calcium	177000	5000		µg/L	1	2/15/2010 12:35:35 PM
Iron	451	60.0		µg/L	1	2/15/2010 12:35:35 PM
Lead	ND	3.00		µg/L	1	2/24/2010
Magnesium	40400	5000		µg/L	1	2/15/2010 12:35:35 PM
Manganese	5480	10.0		µg/L	1	2/15/2010 12:35:35 PM
Potassium	ND	5000		µg/L	1	2/17/2010 8:55:43 PM
Sodium	48900	5000		µg/L	1	2/15/2010 12:35:35 PM
Hardness, Total(CaCO3)	609000	7000		µg/L	1	2/15/2010 12:35:35 PM
NOTES: Sample was ran by 200.8ASP method for Cd and Pb.						
RESIDUE, DISSOLVED (TDS)			**160.1**			Analyst: **TCB**
Residue, Dissolved (TDS)	820	25		mg/L	1	2/2/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT			**310.2W**			Analyst: **KAM**
Alkalinity, Total (As CaCO3)	600	50		mg/LCaCO3	5	1/31/2010
CHLORIDE WATERS BY LACHAT			**325.2_W**			Analyst: **KAM**
Chloride	112	1.00		mg/L	1	1/31/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)			**350.1_W**			Analyst: **BY**
Nitrogen, Ammonia (As NH3)	0.690	0.500		mg/L	1	2/4/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT			**351.2_W**			Analyst: **KAM**
Nitrogen, Kjeldahl, Total	1.28	0.500		mg/L	1	2/2/2010
NITROGEN, NITRATE (AS N)			**353.2_WNO3**			Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	1/29/2010 1:15:00 PM
SULFATE			**375.4_W**			Analyst: **TCB**
Sulfate	7.90	5.00		mg/L	1	2/9/2010
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **TCB**

Approved By: PH **Date:** 2-26-10

Qualifiers:

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

Upstate Laboratories, Inc.

Analytical Report

Date: *26-Feb-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2B
Lab Order:	U1001488	**Collection Date:**	1/28/2010 11:29:00 AM
Project:	Towslee Landfill		
Lab ID:	U1001488-002	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	1/29/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	22	20		mg/L	1	2/1/2010
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **BS**
Organic Carbon, Total	3.5	3.0		mg/L	1	1/31/2010
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	2/3/2010

Approved By: PH **Date:** 2-26-10

Qualifiers:

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

Upstate Laboratories, Inc.

Analytical Report

Date: *26-Feb-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-3A
Lab Order:	U1001488	**Collection Date:**	1/28/2010 10:10:00 AM
Project:	Towslee Landfill		
Lab ID:	U1001488-003	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	646	1.0		umhos/cm		1/28/2010 10:10:00 AM
Eh	101	-300		mV		1/28/2010 10:10:00 AM
pH	8.41	2-12.5		SU		1/28/2010 10:10:00 AM
Temperature	6.1			degC		1/28/2010 10:10:00 AM
Turbidity	11.0	5.0		NTU		1/28/2010 10:10:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **NJS**
Bromide	ND	0.20		mg/L	1	2/1/2010
ICP METALS, TOTAL ASP				**200.7WTASP**	**(E200.7)**	Analyst: **DEY**
Cadmium	ND	5.00		µg/L	1	2/24/2010
Calcium	28800	5000		µg/L	1	2/15/2010 12:41:21 PM
Iron	366	60.0		µg/L	1	2/15/2010 12:41:21 PM
Lead	ND	3.00		µg/L	1	2/24/2010
Magnesium	5170	5000		µg/L	1	2/15/2010 12:41:21 PM
Manganese	568	10.0		µg/L	1	2/15/2010 12:41:21 PM
Potassium	ND	5000		µg/L	1	2/17/2010 9:00:46 PM
Sodium	ND	5000		µg/L	1	2/15/2010 12:41:21 PM
Hardness, Total(CaCO3)	93200	7000		µg/L	1	2/15/2010 12:41:21 PM
NOTES: Sample was ran by 200.8ASP method for Cd and Pb.						
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **TCB**
Residue, Dissolved (TDS)	160	25		mg/L	1	2/2/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **KAM**
Alkalinity, Total (As CaCO3)	180	10		mg/LCaCO3	1	1/31/2010
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **KAM**
Chloride	14.8	1.00		mg/L	1	1/31/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	2/2/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	2/2/2010
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	1/29/2010 1:15:00 PM
SULFATE				**375.4_W**		Analyst: **TCB**
Sulfate	ND	5.00		mg/L	1	2/9/2010
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**

Approved By: PH **Date:** 2-26-10

Qualifiers:

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

Upstate Laboratories, Inc.

Analytical Report

Date: *26-Feb-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-3A
Lab Order:	U1001488	**Collection Date:**	1/28/2010 10:10:00 AM
Project:	Towslee Landfill		
Lab ID:	U1001488-003	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	1/29/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KAM**
Chemical Oxygen Demand	ND	20		mg/L	1	2/1/2010
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **BS**
Organic Carbon, Total	ND	3.0		mg/L	1	1/31/2010
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	2/3/2010

Approved By: PH **Date:** 2-26-10

Qualifiers:

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

Upstate Laboratories, Inc.

Analytical Report

Date: *26-Feb-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-6B
Lab Order:	U1001488	**Collection Date:**	1/28/2010 11:47:00 AM
Project:	Towslee Landfill		
Lab ID:	U1001488-004	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	922	1.0		umhos/cm		1/28/2010 11:47:00 AM
Eh	102	-300		mV		1/28/2010 11:47:00 AM
pH	8.35	2-12.5		SU		1/28/2010 11:47:00 AM
Temperature	4.7			degC		1/28/2010 11:47:00 AM
Turbidity	12.5	5.0		NTU		1/28/2010 11:47:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **BY**
Bromide	ND	2.0		mg/L	10	2/10/2010
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP				**200.7WTASP**	**(E200.7)**	Analyst: **DEY**
Cadmium	ND	5.00		µg/L	1	2/24/2010
Calcium	45000	5000		µg/L	1	2/15/2010 12:46:51 PM
Iron	448	60.0		µg/L	1	2/15/2010 12:46:51 PM
Lead	ND	3.00		µg/L	1	2/24/2010
Magnesium	12300	5000		µg/L	1	2/15/2010 12:46:51 PM
Manganese	60.6	10.0		µg/L	1	2/15/2010 12:46:51 PM
Potassium	ND	5000		µg/L	1	2/17/2010 9:05:34 PM
Sodium	16800	5000		µg/L	1	2/15/2010 12:46:51 PM
Hardness, Total(CaCO3)	163000	7000		µg/L	1	2/15/2010 12:46:51 PM
NOTES: Sample was ran by 200.8ASP method for Cd and Pb.						
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **TCB**
Residue, Dissolved (TDS)	240	25		mg/L	1	2/2/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **KAM**
Alkalinity, Total (As CaCO3)	150	10		mg/LCaCO3	1	1/31/2010
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **KAM**
Chloride	13.2	1.00		mg/L	1	1/31/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	2/2/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	2/2/2010
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	1/29/2010 1:15:00 PM
SULFATE				**375.4_W**		Analyst: **TCB**

Approved By: PH **Date:** 2-26-10

Qualifiers:

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

Upstate Laboratories, Inc.

Analytical Report

Date: *26-Feb-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-6B
Lab Order:	U1001488	**Collection Date:**	1/28/2010 11:47:00 AM
Project:	Towslee Landfill		
Lab ID:	U1001488-004	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE			**375.4_W**			Analyst: **TCB**
Sulfate	13.4	5.00		mg/L	1	2/9/2010
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	1/29/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)			**410.4**			Analyst: **KAM**
Chemical Oxygen Demand	ND	20		mg/L	1	2/1/2010
TOTAL ORGANIC CARBON (TOC)			**415.1**			Analyst: **BS**
Organic Carbon, Total	ND	3.0		mg/L	1	1/31/2010
PHENOLICS, TOTAL REC. FOR WATERS			**420.4**		**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	2/3/2010

Approved By: PH **Date:** 2-26-10

Qualifiers:

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

Upstate Laboratories, Inc.

Analytical Report

Date: *26-Feb-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-7A
Lab Order:	U1001488	**Collection Date:**	1/28/2010 10:51:00 AM
Project:	Towslee Landfill		
Lab ID:	U1001488-005	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	260	1.0		umhos/cm		1/28/2010 10:51:00 AM
Eh	192	-300		mV		1/28/2010 10:51:00 AM
pH	6.73	2-12.5		SU		1/28/2010 10:51:00 AM
Temperature	5.2			degC		1/28/2010 10:51:00 AM
Turbidity	23.6	5.0		NTU		1/28/2010 10:51:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **NJS**
Bromide	ND	2.0		mg/L	10	2/1/2010
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP				**200.7WTASP**	**(E200.7)**	Analyst: **DEY**
Cadmium	ND	5.00		µg/L	1	2/24/2010
Calcium	139000	5000		µg/L	1	2/15/2010 12:52:25 PM
Iron	3950	60.0		µg/L	1	2/15/2010 12:52:25 PM
Lead	ND	3.00		µg/L	1	2/24/2010
Magnesium	38800	5000		µg/L	1	2/15/2010 12:52:25 PM
Manganese	3870	10.0		µg/L	1	2/15/2010 12:52:25 PM
Potassium	ND	5000		µg/L	1	2/17/2010 9:10:25 PM
Sodium	112000	5000		µg/L	1	2/15/2010 12:52:25 PM
Hardness, Total(CaCO3)	508000	7000		µg/L	1	2/15/2010 12:52:25 PM
NOTES: Sample was ran by 200.8ASP method for Cd and Pb.						
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **TCB**
Residue, Dissolved (TDS)	520	25		mg/L	1	2/2/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **KAM**
Alkalinity, Total (As CaCO3)	600	50		mg/LCaCO3	5	1/31/2010
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **KAM**
Chloride	104	1.00		mg/L	1	1/31/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **BY**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	2/4/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	1.02	0.500		mg/L	1	2/2/2010
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	1/29/2010 1:15:00 PM
SULFATE				**375.4_W**		Analyst: **TCB**

Approved By: PH **Date:** 2-26-10

Qualifiers:

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

Upstate Laboratories, Inc.

Analytical Report

Date: *26-Feb-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-7A
Lab Order:	U1001488	**Collection Date:**	1/28/2010 10:51:00 AM
Project:	Towslee Landfill		
Lab ID:	UI001488-005	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE			**375.4_W**			Analyst: **TCB**
Sulfate	19.2	5.00		mg/L	1	2/9/2010
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	1/29/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)			**410.4**			Analyst: **KAM**
Chemical Oxygen Demand	33	20		mg/L	1	2/1/2010
TOTAL ORGANIC CARBON (TOC)			**415.1**			Analyst: **BS**
Organic Carbon, Total	4.9	3.0		mg/L	1	1/31/2010
PHENOLICS, TOTAL REC. FOR WATERS			**420.4**		**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	2/3/2010

Approved By: PH **Date:** 2-26-10

Qualifiers:

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

Upstate Laboratories, Inc.

Analytical Report

Date: *26-Feb-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	Dupe
Lab Order:	U1001488	**Collection Date:**	1/28/2010 11:47:00 AM
Project:	Towslee Landfill		
Lab ID:	U1001488-006	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS			**300_IC**			Analyst: **BY**
Bromide	ND	2.0		mg/L	10	2/10/2010
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP			**200.7WTASP**	**(E200.7)**		Analyst: **DEY**
Cadmium	ND	5.00		µg/L	1	2/24/2010
Calcium	42500	5000		µg/L	1	2/15/2010 1:09:02 PM
Iron	380	60.0		µg/L	1	2/15/2010 1:09:02 PM
Lead	ND	3.00		µg/L	1	2/24/2010
Magnesium	11600	5000		µg/L	1	2/15/2010 1:09:02 PM
Manganese	51.0	10.0		µg/L	1	2/15/2010 1:09:02 PM
Potassium	ND	5000		µg/L	1	2/17/2010 9:25:26 PM
Sodium	16100	5000		µg/L	1	2/15/2010 1:09:02 PM
Hardness, Total(CaCO3)	154000	7000		µg/L	1	2/15/2010 1:09:02 PM
NOTES: Sample was ran by 200.8ASP method for Cd and Pb.						
RESIDUE, DISSOLVED (TDS)			**160.1**			Analyst: **TCB**
Residue, Dissolved (TDS)	220	25		mg/L	1	2/2/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT			**310.2W**			Analyst: **KAM**
Alkalinity, Total (As CaCO3)	210	10		mg/LCaCO3	1	1/31/2010
CHLORIDE WATERS BY LACHAT			**325.2_W**			Analyst: **KAM**
Chloride	27.1	1.00		mg/L	1	1/31/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)			**350.1_W**			Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	2/2/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT			**351.2_W**			Analyst: **KAM**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	2/2/2010
NITROGEN, NITRATE (AS N)			**353.2_WNO3**			Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	1/29/2010 1:15:00 PM
SULFATE			**375.4_W**			Analyst: **TCB**
Sulfate	14.1	5.00		mg/L	1	2/9/2010
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **TCB**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	1/29/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)			**410.4**			Analyst: **KAM**
Chemical Oxygen Demand	ND	20		mg/L	1	2/1/2010

Approved By: PH **Date:** 2-26-10

Qualifiers:

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

Upstate Laboratories, Inc.

Analytical Report

Date: *26-Feb-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	Dupe
Lab Order:	U1001488	**Collection Date:**	1/28/2010 11:47:00 AM
Project:	Towslee Landfill		
Lab ID:	U1001488-006	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON (TOC)			**415.1**			Analyst: **BS**
Organic Carbon, Total	ND	3.0		mg/L	1	1/31/2010
PHENOLICS, TOTAL REC. FOR WATERS			**420.4**		**(E420.4)**	Analyst: **BY**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	2/3/2010

Approved By: PH **Date:** 2-26-10

Qualifiers:

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

Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

Project: **Towslee Landfill**

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

ULI ID No. (enter by lab)

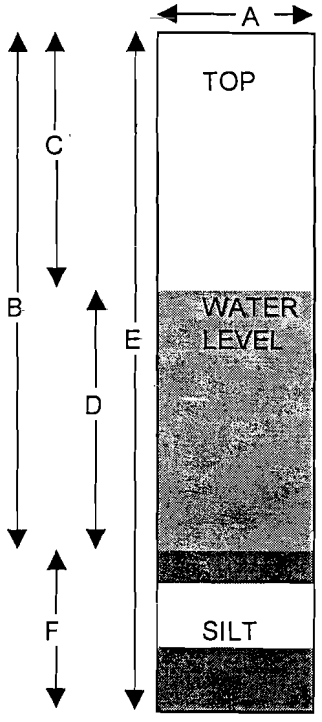
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.7	feet
C.	Depth to Water	Frozen 0.35	feet
D.	Length of Water Column (calculated)	—	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	—	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	—	gallons
	Actual Volume Evacuated	—	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	1/27/10	
Time	11:01 am	
EH	—	
Temperature	—	
pH	—	
Specific Cond.	—	
Turbidity	—	
Dissolved Oxygen	N/A	N/A
Appearance	—	

% Recharge:

Initial Depth to Water — feet

Recharge Depth to Water — feet

2nd water column height — %

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: 24° Cloudy

Observations: Well frozen unable to purge or sample.

Sampler: Dan Aurell

Signature: Dan Aurell

Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

Project: **Towslee Landfill**

ULI ID No. (enter by lab)

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

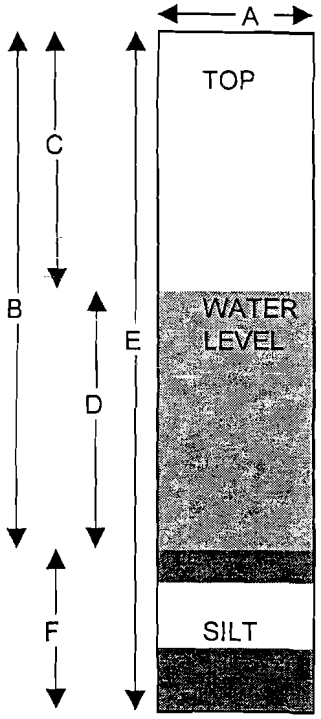
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	55.5	feet
C.	Depth to Water	0.57	feet
D.	Length of Water Column (calculated)	54.93	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	8.7888	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	26.3664	gallons
	Actual Volume Evacuated	26.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	1/27/10	1/28/10
Time	11:05 am	10:32 am
EH	182	
Temperature	8.7°C	
pH	6.98	Frozen N/A
Specific Cond.	687	
Turbidity	5.16	
Dissolved Oxygen	N/A	N/A
Appearance	Clear	

% Recharge:

Initial Depth to Water 0.57 feet

Recharge Depth to Water Frozen feet

2nd water column height — %

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: 24° Cloudy 26° Cloudy

Observations: Well frozen on day 2. Purging completed but unable to sample.

Sampler: Don Aurell

Signature: Don Aurell

Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

Project: **Towslee Landfill**

ULI ID No. (enter by lab)

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

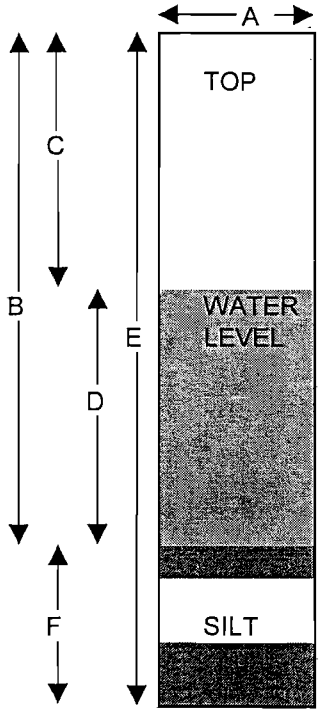
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	12.8	feet
C.	Depth to Water	5.64	feet
D.	Length of Water Column (calculated)	7.16	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	1.1456	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	3.4368	gallons
	Actual Volume Evacuated	3.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	1/27/10	1/28/10
Time	12:01 pm	11:13 am
EH	197	148
Temperature	4.6°c	4.4°c
pH	6.68	7.53
Specific Cond.	1559	1474
Turbidity	32.4	492.0
Dissolved Oxygen	N/A	N/A
Appearance	Cloudy	Very Cloudy Gray

Weather: 26° Cloudy 26° Cloudy

Observations:

% Recharge:

Initial Depth to Water 5.64 feet

Recharge Depth to Water 5.82 feet

2nd water column height 96.91 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

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

Sampler: Dan Aurell

Signature: Dan Aurell

Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

Project: **Towslee Landfill**

ULI ID No. (enter by lab)

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

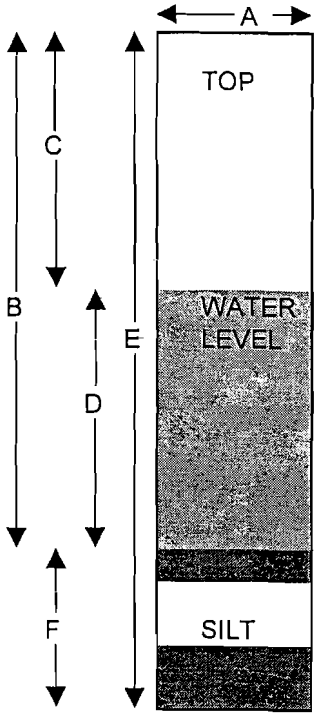
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.5	feet
C.	Depth to Water	6.54	feet
D.	Length of Water Column (calculated)	26.96	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	4.3136	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	12.9408	gallons
	Actual Volume Evacuated	13	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	1/27/10	1/28/10
Time	12:06 pm	11:29 am
EH	227	184
Temperature	8.8°C	3.7°C
pH	6.20	6.90
Specific Cond.	1917	1880
Turbidity	12.5	12.7
Dissolved Oxygen	N/A	N/A
Appearance	sl Cloudy	sl Cloudy
Weather: Observations:	28° Cloudy	26° Cloudy

% Recharge:

Initial Depth to Water 6.54 feet

Recharge Depth to Water 6.57 feet

2nd water column height 99.54 %

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 Averill

Signature: Dan Averill

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)

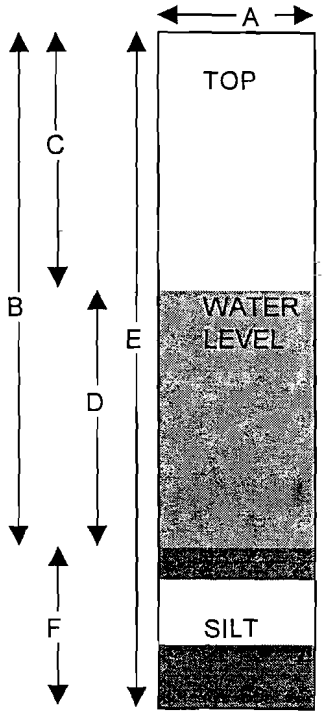
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	22.40	feet
C.	Depth to Water	6.41	feet
D.	Length of Water Column (calculated)	15.99	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	2.5584	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	7.6752	gallons
	Actual Volume Evacuated	8	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	11/27/10	11/28/10
Time	10:45 am	10:10 am
EH	133	101
Temperature	8.9°C	6.1°C
pH	8.24	8.41
Specific Cond.	545	646
Turbidity	22.0	11.0
Dissolved Oxygen	N/A	N/A
Appearance	Cloudy	Sl Cloudy
Weather:	24° Cloudy	26° Cloudy
Observations:		

% Recharge:

Initial Depth to Water 6.41 feet

Recharge Depth to Water 6.51 feet

2nd water column height 98.46 %

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 Ammell

Signature: Dan Ammell

Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

Project: **Towslee Landfill**

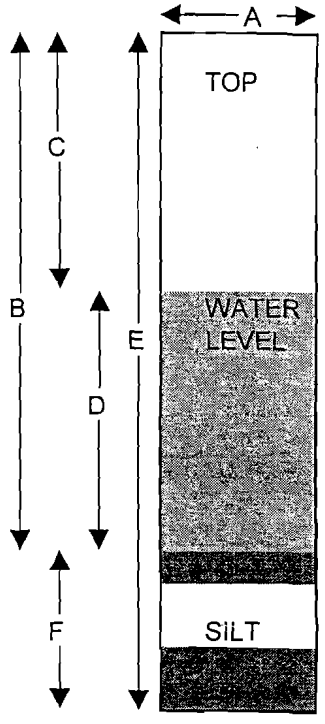
ULI ID No. (enter by lab)

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

Condition of Well: Good Locked: Yes

Method of Evacuation: Dedicated Bailer Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	40.75	feet
C.	Depth to Water	12.77	feet
D.	Length of Water Column (calculated)	27.98	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	4.47608	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	13.4304	gallons
	Actual Volume Evacuated	13.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	1/27/10	1/28/10
Time	12:50 pm	11:47 am
EH	205	102
Temperature	8.60°C	4.7°C
pH	6.59	8.35
Specific Cond.	793	922
Turbidity	4.59	12.5
Dissolved Oxygen	N/A	N/A
Appearance	Clear	SL Cloudy

% Recharge:

Initial Depth to Water 12.77 feet

Recharge Depth to Water 12.59 feet

2nd water column height 101.43 %

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: 28° Cloudy 26° Snow

Observations: Dupe

Sampler: Dan Averell

Signature: Dan Averell

Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

Project: **Towslee Landfill**

ULI ID No. (enter by lab)

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

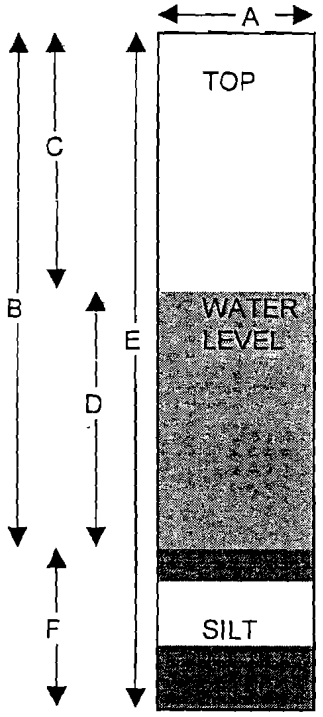
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	22.20	feet
C.	Depth to Water	3.23	feet
D.	Length of Water Column (calculated)	18.97	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	3.0352	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	9.1056	gallons
	Actual Volume Evacuated	9.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	1/27/10	1/28/10
Time	11:39 am	10:51 am
EH	178	192
Temperature	8.5°C	5.2°C
pH	8.16	6.73
Specific Cond.	242	260
Turbidity	13.1	23.6
Dissolved Oxygen	N/A	N/A
Appearance	SI Cloudy	Cloudy

% Recharge:

Initial Depth to Water 3.23 feet

Recharge Depth to Water 3.58 feet

2nd water column height 90.22%

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: 26° Cloudy / 26° Cloudy

Observations: MSD

Sampler: Dan Averell

Signature: Dan Averell

Upstate Laboratories, Inc. — Chain of Custody Record

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

Client: CORTLAND COUNTY

Project # Project Name: TOWSLEE LANDFILL

Client Contact: PATRICK REIDY

Phone #: 607-753-0851

Location (city/state) Address: CORTLANDVILLE, NY

ULI Computer Input Form

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	Number of Containers	1	2	3	4	5	6	7	8	9	10	Remarks: 93 REGS ASP-A
	1/27/10				U1001488												
MW-1A	[illegible]	11:01 am	WATER	GRAB		0											Frozen 1st day
MW-1B	1/28/10	10:32 am	WATER	GRAB		0	X										Frozen 2nd day
MW-2A	1/28/10	11:13 am	WATER	GRAB	1	6	X	X	X	X	X	X	X				
MW-2B	1/28/10	11:29 am	WATER	GRAB	2	6	X	X	X	X	X	X	X				
MW-3A	1/28/10	10:10 am	WATER	GRAB	3	6	X	X	X	X	X	X	X				
MW-6B	1/28/10	11:47 am	WATER	GRAB	4	6	X	X	X	X	X	X	X				
MW-7A	1/28/10	10:51 am	WATER	GRAB	5	6	X	X	X	X	X	X	X				MSD
DUPE	1/28/10	11:47 am	WATER	GRAB	6	6	X	X	X	X	X	X	X				
MS/MSD																	

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

Sampled by (Print): Dan Aurell

Company: ULI

Name of Courier:

Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign) Dan Aurell	Date 1/28/10	Time 3:00 pm	Rec'd for Lab by: K Crump 1/29/10 0800

Syracuse | Rochester | Buffalo | Albany | Binghamton | Fair Lawn (NJ)

Appendix B

Analytical Laboratory Results and Internal Quality Control Summary
Quarter 2 2010

Cortland County Towslee Landfill

TOWSLEE 5 2 2010

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, May 28, 2010

RE: Analytical Report: Towslee Landfill

Order No.: U1004530

Dear Mr. Patrick Reidy:

Upstate Laboratories, Inc. received 8 sample(s) on 4/28/2010 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
Anthony J. Scala
President/CEO

CC:
Enclosures: ASP-A Narr., report, f.data, invoice

Upstate Laboratories, Inc.

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

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

May 28, 2010

RE: Towslee Landfill, Cortlandville, New York, Samples Collected April 27, 2010
Case Narrative for ULI SDG Number COR34, Workorder #U1004530

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

Internal Validation

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

Trace Metals

Test	Batch	Anomaly
Cd,Ca,Fe,Mg,Mn,K,Na	R51801	Iron was detected at a concentration above the PQL but below the CRDL in CCB1. All other criteria were satisfied.
Pb	R51794	Criteria were satisfied.

Wet Chemistry

Test	Batch	Anomaly
BOD	R51278	Criteria were satisfied.
Nitrate-Nitrogen	R51257	Criteria were satisfied.
COD	R51369	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.

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

Wet Chemistry

Test	Batch	Anomaly
TKN	R51370	Criteria were satisfied.
Bromide	R51396	Sample location MW-3A was reanalyzed for Bromide in analytical sequence R51452. All other criteria were satisfied.
	R51452	Sample location MW-3A was reanalyzed for Bromide within ASP holding time due to an inconsistent sample result when compared with past data. All other criteria were satisfied.
TDS	R51662	Sample location MW-3A was reanalyzed for TDS in analytical sequence R51742. All other criteria were satisfied.
	R51742	Sample location MW-3A was reanalyzed for TDS within ASP holding time due to an inconsistent sample result when compared with past data. All other criteria were satisfied.
Sulfate	R51322	Criteria were satisfied.
	R51356	Criteria were satisfied.
Alkalinity, Total	R51419	Sample location MW-2B was reanalyzed for Total Alkalinity in analytical sequence R51537. All other criteria were satisfied.
	R51537	Sample location MW-2B was reanalyzed for Total Alkalinity within ASP holding time due to an inconsistent sample result when compared with past data. All other criteria were satisfied.
Chloride	R51349	Criteria were satisfied.
Phenols, Total	R51440	Criteria were satisfied.
	R51584	Criteria were satisfied.
Ammonia-Nitrogen	R51370	Criteria were satisfied.
	R51379	Criteria were satisfied.
TOC	R51267	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

COR34A.doc

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	405.1	(1)
Nitrate-Nitrogen	353.2	(1)
Alkalinity, Total	310.2	(1)
Chloride	325.2	(1)
COD	410.4	(1)
Ammonia-Nitrogen	350.1	(1)
Sulfate	375.4	(1)
TDS	160.1	(1)
TKN	351.2	(1)
TOC	415.1	(1)
Phenols	420.4	(1)
Bromide	300.1	(1)

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

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1A
Lab Order:	U1004530	**Collection Date:**	4/27/2010 9:28:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	1580	1.0		umhos/cm		4/27/2010 9:28:00 AM
Eh	180	-300		mV		4/27/2010 9:28:00 AM
pH	7.28	2-12.5		SU		4/27/2010 9:28:00 AM
Temperature	8.2			degC		4/27/2010 9:28:00 AM
Turbidity	22.7	5.0		NTU		4/27/2010 9:28:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **BY**
Bromide	ND	0.80		mg/L	2	4/29/2010
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	5/19/2010 8:56:04 PM
Calcium	47000	5000		µg/L	1	5/19/2010 8:56:04 PM
Iron	484	60.0		µg/L	1	5/19/2010 8:56:04 PM
Magnesium	10500	5000		µg/L	1	5/19/2010 8:56:04 PM
Manganese	118	10.0		µg/L	1	5/19/2010 8:56:04 PM
Potassium	ND	5000		µg/L	1	5/19/2010 8:56:04 PM
Sodium	12800	5000		µg/L	1	5/19/2010 8:56:04 PM
Hardness, Total(CaCO3)	161000	7000		µg/L	1	5/19/2010 8:56:04 PM
ASP TOTAL METALS BY ICP-MS				**200.8ASP**	**(E200.8)**	Analyst: **LJ**
Lead	ND	3.00		µg/L	1	5/19/2010
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **KEL**
Residue, Dissolved (TDS)	270	25		mg/L	1	4/30/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **VAW**
Alkalinity, Total (As CaCO3)	140	10		mg/LCaCO3	1	5/5/2010
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	31.7	1.00		mg/L	1	5/3/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	5/4/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	5/4/2010
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **BY**
Nitrogen, Nitrate (as N)	0.0721	0.0500		mg/L	1	4/29/2010 7:56:00 AM
SULFATE				**375.4_W**		Analyst: **TCB**
Sulfate	9.43	5.00		mg/L	1	5/2/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1A
Lab Order:	U1004530	**Collection Date:**	4/27/2010 9:28:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **VAW**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	4/28/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KEL**
Chemical Oxygen Demand	ND	20		mg/L	1	5/4/2010
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **VAW**
Organic Carbon, Total	ND	3.0		mg/L	1	4/29/2010
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **TCB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	5/6/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Client Sample ID: MW-1B
Lab Order: U1004530
Collection Date: 4/27/2010 9:37:00 AM
Project: Towslee Landfill
Lab ID: U1004530-002
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	975	1.0		umhos/cm		4/27/2010 9:37:00 AM
Eh	173	-300		mV		4/27/2010 9:37:00 AM
pH	7.4	2-12.5		SU		4/27/2010 9:37:00 AM
Temperature	7.9			degC		4/27/2010 9:37:00 AM
Turbidity	10.8	5.0		NTU		4/27/2010 9:37:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **BY**
Bromide	ND	0.40		mg/L	1	4/29/2010
ICP METALS, TOTAL BY NYSDEC ASP 2005				**200.7WTASP**	**(E200.7)**	Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	5/19/2010 9:01:43 PM
Calcium	26500	5000		µg/L	1	5/19/2010 9:01:43 PM
Iron	423	60.0		µg/L	1	5/19/2010 9:01:43 PM
Magnesium	6490	5000		µg/L	1	5/19/2010 9:01:43 PM
Manganese	130	10.0		µg/L	1	5/19/2010 9:01:43 PM
Potassium	ND	5000		µg/L	1	5/19/2010 9:01:43 PM
Sodium	6290	5000		µg/L	1	5/19/2010 9:01:43 PM
Hardness, Total(CaCO3)	92900	7000		µg/L	1	5/19/2010 9:01:43 PM
ASP TOTAL METALS BY ICP-MS				**200.8ASP**	**(E200.8)**	Analyst: **LJ**
Lead	ND	3.00		µg/L	1	5/19/2010
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **KEL**
Residue, Dissolved (TDS)	170	25		mg/L	1	4/30/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **VAW**
Alkalinity, Total (As CaCO3)	100	10		mg/LCaCO3	1	5/5/2010
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	3.54	1.00		mg/L	1	5/3/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	5/4/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	5/4/2010
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **BY**
Nitrogen, Nitrate (as N)	0.0512	0.0500		mg/L	1	4/29/2010 7:56:00 AM
SULFATE				**375.4_W**		Analyst: **TCB**
Sulfate	ND	5.00		mg/L	1	5/2/2010
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **VAW**

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1B
Lab Order:	U1004530	**Collection Date:**	4/27/2010 9:37:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-002	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **VAW**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	4/28/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)			**410.4**			Analyst: **KEL**
Chemical Oxygen Demand	ND	20		mg/L	1	5/4/2010
TOTAL ORGANIC CARBON (TOC)			**415.1**			Analyst: **VAW**
Organic Carbon, Total	ND	3.0		mg/L	1	4/29/2010
PHENOLICS, TOTAL REC. FOR WATERS			**420.4**	**(E420.4)**		Analyst: **TCB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	5/6/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Client Sample ID: MW-2A
Lab Order: U1004530
Collection Date: 4/27/2010 10:12:00 AM
Project: Towslee Landfill
Lab ID: U1004530-003
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	294	1.0		umhos/cm		4/27/2010 10:12:00 AM
Eh	256	-300		mV		4/27/2010 10:12:00 AM
pH	5.94	2-12.5		SU		4/27/2010 10:12:00 AM
Temperature	6.6			degC		4/27/2010 10:12:00 AM
Turbidity	41.5	5.0		NTU		4/27/2010 10:12:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **BY**
Bromide	ND	2.0		mg/L	5	4/29/2010
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	5/19/2010 9:07:20 PM
Calcium	68700	5000		µg/L	1	5/19/2010 9:07:20 PM
Iron	6100	60.0		µg/L	1	5/19/2010 9:07:20 PM
Magnesium	15400	5000		µg/L	1	5/19/2010 9:07:20 PM
Manganese	9790	10.0		µg/L	1	5/19/2010 9:07:20 PM
Potassium	9420	5000		µg/L	1	5/19/2010 9:07:20 PM
Sodium	16300	5000		µg/L	1	5/19/2010 9:07:20 PM
Hardness, Total(CaCO3)	235000	7000		µg/L	1	5/19/2010 9:07:20 PM
ASP TOTAL METALS BY ICP-MS				**200.8ASP**	**(E200.8)**	Analyst: **LJ**
Lead	ND	3.00		µg/L	1	5/19/2010
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **KEL**
Residue, Dissolved (TDS)	350	25		mg/L	1	4/30/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **VAW**
Alkalinity, Total (As CaCO3)	300	10		mg/LCaCO3	1	5/5/2010
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	14.5	1.00		mg/L	1	5/3/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	8.06	0.500		mg/L	1	5/5/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	11.9	0.500		mg/L	1	5/4/2010
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **BY**
Nitrogen, Nitrate (as N)	0.0809	0.0500		mg/L	1	4/29/2010 7:56:00 AM
SULFATE				**375.4_W**		Analyst: **TCB**
Sulfate	ND	5.00		mg/L	1	5/2/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2A
Lab Order:	U1004530	**Collection Date:**	4/27/2010 10:12:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-003	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **VAW**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	4/28/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KEL**
Chemical Oxygen Demand	23	20		mg/L	1	5/4/2010
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **VAW**
Organic Carbon, Total	6.7	3.0		mg/L	1	4/29/2010
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **TCB**
Phenolics, Total Recoverable	0.006	0.005		mg/L	1	5/6/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2B
Lab Order:	U1004530	**Collection Date:**	4/27/2010 10:26:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-004	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			**FIELD**			Analyst:
Conductivity	567	1.0		umhos/cm		4/27/2010 10:26:00 AM
Eh	249	-300		mV		4/27/2010 10:26:00 AM
pH	6.03	2-12.5		SU		4/27/2010 10:26:00 AM
Temperature	6.9			degC		4/27/2010 10:26:00 AM
Turbidity	12	5.0		NTU		4/27/2010 10:26:00 AM
INORGANIC ANIONS BY IC FOR WATERS			**300_IC**			Analyst: **BY**
Bromide	ND	0.40		mg/L	1	4/29/2010
ICP METALS, TOTAL BY NYSDEC ASP 2005			**200.7WTASP**		**(E200.7)**	Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	5/19/2010 9:13:25 PM
Calcium	202000	5000		µg/L	1	5/19/2010 9:13:25 PM
Iron	329	60.0		µg/L	1	5/19/2010 9:13:25 PM
Magnesium	43100	5000		µg/L	1	5/19/2010 9:13:25 PM
Manganese	6200	10.0		µg/L	1	5/19/2010 9:13:25 PM
Potassium	ND	5000		µg/L	1	5/19/2010 9:13:25 PM
Sodium	53100	5000		µg/L	1	5/19/2010 9:13:25 PM
Hardness, Total(CaCO3)	681000	7000		µg/L	1	5/19/2010 9:13:25 PM
ASP TOTAL METALS BY ICP-MS			**200.8ASP**		**(E200.8)**	Analyst: **LJ**
Lead	ND	3.00		µg/L	1	5/19/2010
RESIDUE, DISSOLVED (TDS)			**160.1**			Analyst: **KEL**
Residue, Dissolved (TDS)	860	25		mg/L	1	4/30/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT			**310.2W**			Analyst: **VAW**
Alkalinity, Total (As CaCO3)	610	100		mg/LCaCO3	10	5/10/2010
CHLORIDE WATERS BY LACHAT			**325.2_W**			Analyst: **VAW**
Chloride	130	1.00		mg/L	1	5/3/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)			**350.1_W**			Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	1.18	0.500		mg/L	1	5/5/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT			**351.2_W**			Analyst: **KAM**
Nitrogen, Kjeldahl, Total	1.55	0.500		mg/L	1	5/4/2010
NITROGEN, NITRATE (AS N)			**353.2_WNO3**			Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.0500		mg/L	1	4/29/2010 7:56:00 AM
SULFATE			**375.4_W**			Analyst: **TCB**
Sulfate	ND	5.00		mg/L	1	5/2/2010
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **VAW**

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	*Value exceeds Maximum Contaminant Value*	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2B
Lab Order:	U1004530	**Collection Date:**	4/27/2010 10:26:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-004	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **VAW**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	4/28/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)			**410.4**			Analyst: **KEL**
Chemical Oxygen Demand	ND	20		mg/L	1	5/4/2010
TOTAL ORGANIC CARBON (TOC)			**415.1**			Analyst: **VAW**
Organic Carbon, Total	5.8	3.0		mg/L	1	4/29/2010
PHENOLICS, TOTAL REC. FOR WATERS			**420.4**	**(E420.4)**		Analyst: **TCB**
Phenolics, Total Recoverable	0.006	0.005		mg/L	1	5/6/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-3A
Lab Order:	U1004530	**Collection Date:**	4/27/2010 9:10:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-005	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	706	1.0		umhos/cm		4/27/2010 9:10:00 AM
Eh	263	-300		mV		4/27/2010 9:10:00 AM
pH	5.83	2-12.5		SU		4/27/2010 9:10:00 AM
Temperature	7.4			degC		4/27/2010 9:10:00 AM
Turbidity	11.8	5.0		NTU		4/27/2010 9:10:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **BY**
Bromide	ND	0.80		mg/L	2	4/29/2010
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	5/19/2010 9:30:31 PM
Calcium	23200	5000		µg/L	1	5/19/2010 9:30:31 PM
Iron	291	60.0		µg/L	1	5/19/2010 9:30:31 PM
Magnesium	ND	5000		µg/L	1	5/19/2010 9:30:31 PM
Manganese	218	10.0		µg/L	1	5/19/2010 9:30:31 PM
Potassium	ND	5000		µg/L	1	5/19/2010 9:30:31 PM
Sodium	ND	5000		µg/L	1	5/19/2010 9:30:31 PM
Hardness, Total(CaCO3)	58000	7000		µg/L	1	5/19/2010 9:30:31 PM
ASP TOTAL METALS BY ICP-MS				**200.8ASP**	**(E200.8)**	Analyst: **LJ**
Lead	ND	3.00		µg/L	1	5/19/2010
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **KEL**
Residue, Dissolved (TDS)	75	25		mg/L	1	5/3/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **VAW**
Alkalinity, Total (As CaCO3)	93	10		mg/LCaCO3	1	5/5/2010
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	1.31	1.00		mg/L	1	5/3/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	5/5/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	1.14	0.500		mg/L	1	5/4/2010
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.0500		mg/L	1	4/29/2010 7:56:00 AM
SULFATE				**375.4_W**		Analyst: **TCB**
Sulfate	ND	5.00		mg/L	1	5/3/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-3A
Lab Order:	U1004530	**Collection Date:**	4/27/2010 9:10:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-005	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **VAW**
Biochemical Oxygen Demand	10.0	6.00		mg/L	1	4/28/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)			**410.4**			Analyst: **KEL**
Chemical Oxygen Demand	30	20		mg/L	1	5/4/2010
TOTAL ORGANIC CARBON (TOC)			**415.1**			Analyst: **VAW**
Organic Carbon, Total	9.0	3.0		mg/L	1	4/29/2010
PHENOLICS, TOTAL REC. FOR WATERS			**420.4**		**(E420.4)**	Analyst: **TCB**
Phenolics, Total Recoverable	0.006	0.005		mg/L	1	5/6/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-6B
Lab Order:	U1004530	**Collection Date:**	4/27/2010 10:43:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-006	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	1673	1.0		umhos/cm		4/27/2010 10:43:00 AM
Eh	222	-300		mV		4/27/2010 10:43:00 AM
pH	6.54	2-12.5		SU		4/27/2010 10:43:00 AM
Temperature	8.1			degC		4/27/2010 10:43:00 AM
Turbidity	43.6	5.0		NTU		4/27/2010 10:43:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **BY**
Bromide	ND	1.0		mg/L	5	5/6/2010
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	5/19/2010 9:47:06 PM
Calcium	40600	5000		µg/L	1	5/19/2010 9:47:06 PM
Iron	226	60.0		µg/L	1	5/19/2010 9:47:06 PM
Magnesium	11000	5000		µg/L	1	5/19/2010 9:47:06 PM
Manganese	27.0	10.0		µg/L	1	5/19/2010 9:47:06 PM
Potassium	ND	5000		µg/L	1	5/19/2010 9:47:06 PM
Sodium	14200	5000		µg/L	1	5/19/2010 9:47:06 PM
Hardness, Total(CaCO3)	147000	7000		µg/L	1	5/19/2010 9:47:06 PM
ASP TOTAL METALS BY ICP-MS				**200.8ASP**	**(E200.8)**	Analyst: **LJ**
Lead	ND	3.00		µg/L	1	5/19/2010
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **KEL**
Residue, Dissolved (TDS)	220	25		mg/L	1	4/30/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **VAW**
Alkalinity, Total (As CaCO3)	150	10		mg/LCaCO3	1	5/5/2010
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	12.0	1.00		mg/L	1	5/3/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	5/5/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	0.522	0.500		mg/L	1	5/4/2010
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **BY**
Nitrogen, Nitrate (as N)	0.0804	0.0500		mg/L	1	4/29/2010 7:56:00 AM
SULFATE				**375.4_W**		Analyst: **TCB**
Sulfate	7.57	5.00		mg/L	1	5/3/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-6B
Lab Order:	U1004530	**Collection Date:**	4/27/2010 10:43:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-006	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **VAW**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	4/28/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)			**410.4**			Analyst: **KEL**
Chemical Oxygen Demand	ND	20		mg/L	1	5/4/2010
TOTAL ORGANIC CARBON (TOC)			**415.1**			Analyst: **VAW**
Organic Carbon, Total	ND	3.0		mg/L	1	4/29/2010
PHENOLICS, TOTAL REC. FOR WATERS			**420.4**	**(E420.4)**		Analyst: **TCB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	5/6/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-7A
Lab Order:	U1004530	**Collection Date:**	4/27/2010 9:55:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-007	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS				**FIELD**		Analyst:
Conductivity	483	1.0		umhos/cm		4/27/2010 9:55:00 AM
Eh	246	-300		mV		4/27/2010 9:55:00 AM
pH	6.13	2-12.5		SU		4/27/2010 9:55:00 AM
Temperature	7.3			degC		4/27/2010 9:55:00 AM
Turbidity	31.4	5.0		NTU		4/27/2010 9:55:00 AM
INORGANIC ANIONS BY IC FOR WATERS				**300_IC**		Analyst: **BY**
Bromide	ND	1.0		mg/L	5	4/29/2010
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	5/19/2010 9:52:41 PM
Calcium	122000	5000		µg/L	1	5/19/2010 9:52:41 PM
Iron	469	60.0		µg/L	1	5/19/2010 9:52:41 PM
Magnesium	31400	5000		µg/L	1	5/19/2010 9:52:41 PM
Manganese	3850	10.0		µg/L	1	5/19/2010 9:52:41 PM
Potassium	ND	5000		µg/L	1	5/19/2010 9:52:41 PM
Sodium	109000	5000		µg/L	1	5/19/2010 9:52:41 PM
Hardness, Total(CaCO3)	435000	7000		µg/L	1	5/19/2010 9:52:41 PM
ASP TOTAL METALS BY ICP-MS				**200.8ASP**	**(E200.8)**	Analyst: **LJ**
Lead	ND	3.00		µg/L	1	5/19/2010
RESIDUE, DISSOLVED (TDS)				**160.1**		Analyst: **KEL**
Residue, Dissolved (TDS)	730	25		mg/L	1	4/30/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				**310.2W**		Analyst: **VAW**
Alkalinity, Total (As CaCO3)	500	100		mg/LCaCO3	10	5/5/2010
CHLORIDE WATERS BY LACHAT				**325.2_W**		Analyst: **VAW**
Chloride	89.1	1.00		mg/L	1	5/3/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				**350.1_W**		Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	5/5/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				**351.2_W**		Analyst: **KAM**
Nitrogen, Kjeldahl, Total	1.40	0.500		mg/L	1	5/4/2010
NITROGEN, NITRATE (AS N)				**353.2_WNO3**		Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.0500		mg/L	1	4/29/2010 7:56:00 AM
SULFATE				**375.4_W**		Analyst: **TCB**
Sulfate	22.5	5.00		mg/L	1	5/3/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-7A
Lab Order:	U1004530	**Collection Date:**	4/27/2010 9:55:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-007	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				**405.1**		Analyst: **VAW**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	4/28/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				**410.4**		Analyst: **KEL**
Chemical Oxygen Demand	28	20		mg/L	1	5/4/2010
TOTAL ORGANIC CARBON (TOC)				**415.1**		Analyst: **VAW**
Organic Carbon, Total	6.7	3.0		mg/L	1	4/29/2010
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **TCB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	5/12/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Client Sample ID: MW-6B Dupe
Lab Order: U1004530
Collection Date: 4/27/2010 10:43:00 AM
Project: Towslee Landfill
Lab ID: U1004530-008
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS			**300_IC**			Analyst: **BY**
Bromide	ND	0.20		mg/L	1	4/29/2010
ICP METALS, TOTAL BY NYSDEC ASP 2005			**200.7WTASP**		**(E200.7)**	Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	5/19/2010 9:58:30 PM
Calcium	41600	5000		µg/L	1	5/19/2010 9:58:30 PM
Iron	435	60.0		µg/L	1	5/19/2010 9:58:30 PM
Magnesium	11300	5000		µg/L	1	5/19/2010 9:58:30 PM
Manganese	51.3	10.0		µg/L	1	5/19/2010 9:58:30 PM
Potassium	ND	5000		µg/L	1	5/19/2010 9:58:30 PM
Sodium	14600	5000		µg/L	1	5/19/2010 9:58:30 PM
Hardness, Total(CaCO3)	151000	7000		µg/L	1	5/19/2010 9:58:30 PM
ASP TOTAL METALS BY ICP-MS			**200.8ASP**		**(E200.8)**	Analyst: **LJ**
Lead	ND	3.00		µg/L	1	5/19/2010
RESIDUE, DISSOLVED (TDS)			**160.1**			Analyst: **KEL**
Residue, Dissolved (TDS)	310	25		mg/L	1	4/30/2010
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT			**310.2W**			Analyst: **VAW**
Alkalinity, Total (As CaCO3)	150	10		mg/LCaCO3	1	5/5/2010
CHLORIDE WATERS BY LACHAT			**325.2_W**			Analyst: **VAW**
Chloride	13.6	1.00		mg/L	1	5/3/2010
NITROGEN, AMMONIA (AS NH3 BY LACHAT)			**350.1_W**			Analyst: **KAM**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	5/4/2010
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT			**351.2_W**			Analyst: **KAM**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	5/4/2010
NITROGEN, NITRATE (AS N)			**353.2_WNO3**			Analyst: **BY**
Nitrogen, Nitrate (as N)	0.0809	0.0500		mg/L	1	4/29/2010 7:56:00 AM
SULFATE			**375.4_W**			Analyst: **TCB**
Sulfate	ND	5.00		mg/L	1	5/3/2010
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			**405.1**			Analyst: **VAW**
Biochemical Oxygen Demand	ND	4.00		mg/L	1	4/28/2010 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)			**410.4**			Analyst: **KEL**
Chemical Oxygen Demand	ND	20		mg/L	1	5/4/2010
TOTAL ORGANIC CARBON (TOC)			**415.1**			Analyst: **VAW**
Organic Carbon, Total	ND	3.0		mg/L	1	4/29/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: *28-May-10*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-6B Dupe
Lab Order:	U1004530	**Collection Date:**	4/27/2010 10:43:00 AM
Project:	Towslee Landfill		
Lab ID:	U1004530-008	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PHENOLICS, TOTAL REC. FOR WATERS				**420.4**	**(E420.4)**	Analyst: **TCB**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	5/12/2010

Approved By: PH **Date:** 5-28-10

Qualifiers:

#	Accreditation not offered by NYS DOH for this parameter	*	Low Level
**	Value exceeds Maximum Contaminant Value	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this parameter	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)

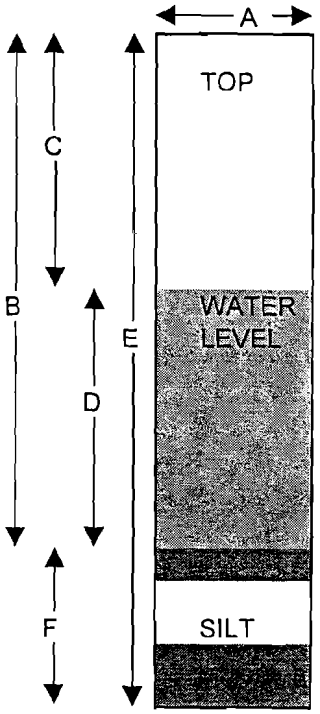
Condition of Well: Good

Locked: NO

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.7	feet
C.	Depth to Water	0.63	feet
D.	Length of Water Column (calculated)	33.07	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	5.29	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	15.87	gallons
	Actual Volume Evacuated	16	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	4/26/2010	4/27/2010
Time	9:46AM	9:28AM
EH	197	180
Temperature	9.8* C	8.2* C
pH	6.98	7.28
Specific Cond.	1596	1580
Turbidity	261	22.7
Dissolved Oxygen	N/A	N/A
Appearance	VERY CLOUDY	SL CLOUDY

% Recharge:

Initial Depth to Water 0.63 feet

Recharge Depth to Water 0.65 feet

2nd water column height 96.92 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

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

Weather: 46 F, RAIN 36 F, SNOW

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)

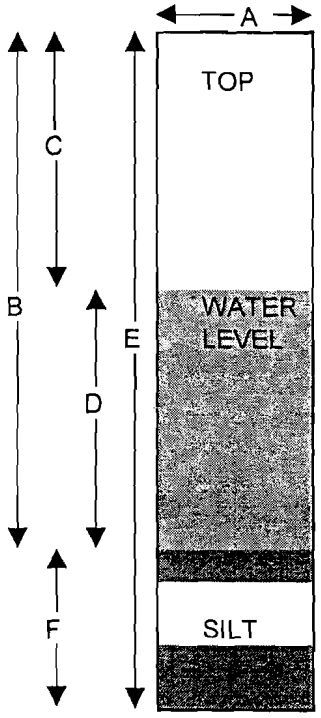
Condition of Well: Good

Locked: NO

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	55.5	feet
C.	Depth to Water	0.59	feet
D.	Length of Water Column (calculated)	54.91	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	8.79	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	26.36	gallons
	Actual Volume Evacuated	26.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	4/26/2010	4/27/2010
Time	9:52 AM	9:37 AM
EH	177	173
Temperature	10.1* C	7.9* C
pH	7.34	7.4
Specific Cond.	873	975
Turbidity	7.23	10.8
Dissolved Oxygen	N/A	N/A
Appearance	CLEAR	CLEAR

% Recharge:

Initial Depth to Water 0.59 feet

Recharge Depth to Water 1.1 feet

2nd water column height 53.64 %

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: 46 F, RAIN 36 F, RAIN

Observations:

Sampler: DAN AUMELL

Signature: Dan Aumell

Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

Project: **Towslee Landfill**

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

ULI ID No. (enter by lab)

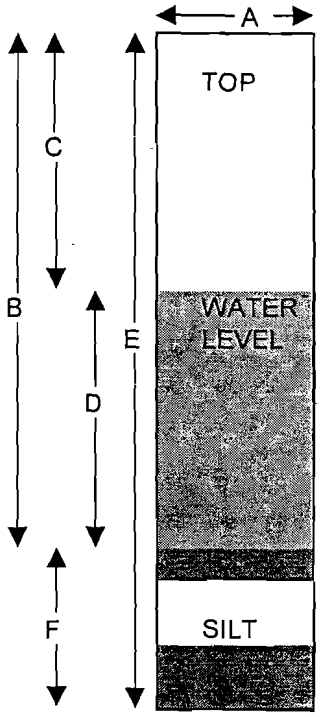
Condition of Well: Good

Locked: NO

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	12.8	feet
C.	Depth to Water	5.98	feet
D.	Length of Water Column (calculated)	6.82	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	1.09	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	3.27	gallons
	Actual Volume Evacuated	3.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	4/26/2010	4/27/2010
Time	11:01AM	~~10:19 AM~~ (10:12 am) 5/25/10
EH	256	256
Temperature	9.0* C	6.6* C
pH	6.02	5.94
Specific Cond.	275	294
Turbidity	117	41.5
Dissolved Oxygen	N/A	N/A
Appearance	VERY CLOUDY	CLOUDY

% Recharge:

Initial Depth to Water 5.98 feet

Recharge Depth to Water 5.42 feet

2nd water column height 110.33 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

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

Weather: 49 F, RAIN 36 F, SNOW

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-2B**

ULI ID No. (enter by lab)

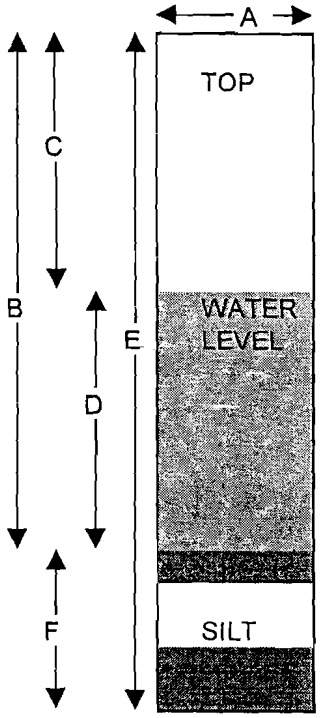
Condition of Well: Good

Locked: NO

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.5	feet
C.	Depth to Water	6.56	feet
D.	Length of Water Column (calculated)	26.94	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	4.31	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	12.93	gallons
	Actual Volume Evacuated	13	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	4/26/2010	4/27/2010
Time	11:07AM	10:26AM
EH	260	249
Temperature	9.0* C	6.9* C
pH	5.89	6.03
Specific Cond.	567	567
Turbidity	44.5	12
Dissolved Oxygen	N/A	N/A
Appearance	CLOUDY	CL COULDY

% Recharge:

Initial Depth to Water 6.56 feet

Recharge Depth to Water 6.37 feet

2nd water column height 102.98 %

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: 49 F, RAIN 36 F, SNOW

Observations:

Sampler: DAN AUMELL

Signature:

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)

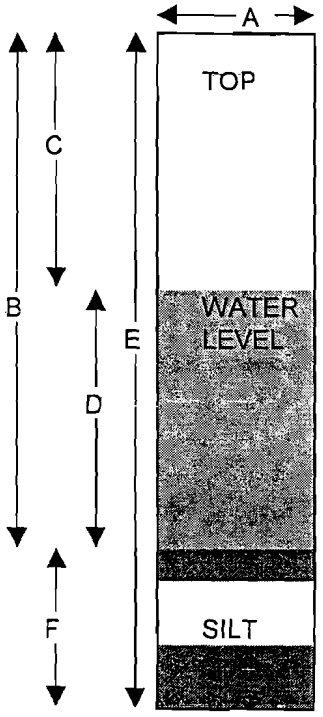
Condition of Well: Good

Locked: NO

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	22.40	feet
C.	Depth to Water	8.28	feet
D.	Length of Water Column (calculated)	14.12	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	2.26	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	6.78	gallons
	Actual Volume Evacuated	7	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	4/26/2010	4/27/2010
Time	9:32AM	9:10 AM
EH	244	263
Temperature	10.1* C	7.4* C
pH	6.17	5.83
Specific Cond.	1613	706
Turbidity	21.7	11.8
Dissolved Oxygen	N/A	N/A
Appearance	SL CLOUDY	CL CLOUDY

% Recharge:

Initial Depth to Water	8.28	feet
Recharge Depth to Water	6.59	feet
2nd water column height	125.64	%
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: 46 F, RAIN 36 F, SNOW

Observations: MSD

Sampler: DAN AUMELL

Signature:

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)

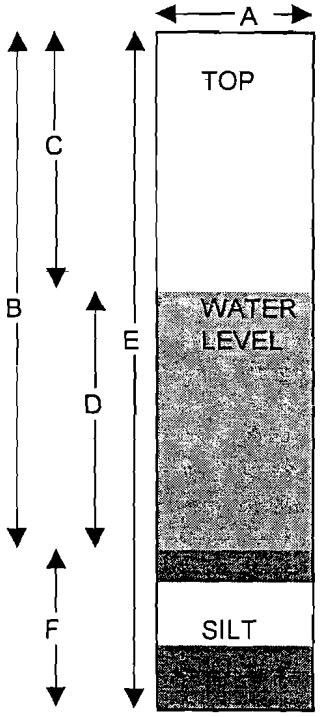
Condition of Well: Good

Locked: NO

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	40.75	feet
C.	Depth to Water	5.11	feet
D.	Length of Water Column (calculated)	35.64	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	5.70	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	17.11	gallons
	Actual Volume Evacuated	17.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	4/26/2010	4/27/2010
Time	11:34AM	10:43 AM
EH	210	222
Temperature	8.8* C	8.1* C
pH	6.74	6.54
Specific Cond.	1499	1673
Turbidity	68.9	43.6
Dissolved Oxygen	N/A	N/A
Appearance	CLOUDY	CLOUDY

% Recharge:

Initial Depth to Water 5.11 feet

Recharge Depth to Water 13.37 feet

2nd water column height 38.22 %

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: 49 F, RAIN 36 F, SNOW

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-7A**

ULI ID No. (enter by lab)

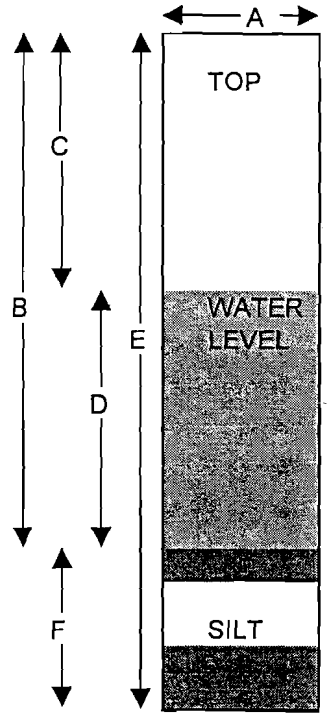
Condition of Well: Good

Locked: NO

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	22.20	feet
C.	Depth to Water	5.23	feet
D.	Length of Water Column (calculated)	16.97	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	2.72	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	8.15	gallons
	Actual Volume Evacuated	8.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	4/26/2010	4/27/2010
Time	10:44AM	9:55AM
EH	259	246
Temperature	8.8* C	7.3* C
pH	5.92	6.13
Specific Cond.	448	483
Turbidity	343	31.4
Dissolved Oxygen	N/A	N/A
Appearance	VERY CLOUDY	CLOUDY

% Recharge:

Initial Depth to Water 5.23 feet

Recharge Depth to Water 3.62 feet

2nd water column height 144.48 %

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: 46 F, RAIN 36 F, SNOW

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

Client: CORTLAND COUNTY

Project # / Project Name: TOWSLEE LANDFILL

Client Contact: PATRICK REIDY

Phone #: 607-753-0851

Location (city/state) Address: CORTLANDVILLE, NY

ULI Computer Input Form

Sample ID	Date	Time	Matrix	Grab or Comp	ULI Internal Use Only U1004530	Number of Containers	1	2	3	4	5	6	7	8	9	10	Remarks: 93 REGS ASP-A
MW-1A	4/27/10	9:28 am	WATER	GRAB	1	6	X	X	X	X	X	X	X				
MW-1B	4/27/10	9:37 am	WATER	GRAB	2	6	X	X	X	X	X	X	X				
MW-2A	4/27/10	10:12 am	WATER	GRAB	3	6	X	X	X	X	X	X	X				
MW-2B	4/27/10	10:26 am	WATER	GRAB	4	6	X	X	X	X	X	X	X				
MW-3A	4/27/10	9:10 am	WATER	GRAB	5	6	X	X	X	X	X	X	X				MSD
MW-6B	4/27/10	10:43 am	WATER	GRAB	6	6	X	X	X	X	X	X	X				
MW-7A	4/27/10	9:55 am	WATER	GRAB	7	6	X	X	X	X	X	X	X				
MW-6B DUPE	4/27/10	10:43 am	WATER	GRAB	8	6	X	X	X	X	X	X	X				
MS/MSD																	

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

Sampled by (Print): Dan Aunell — Name of Courier:

Company: ULI

Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Rec'd for Lab by:
Dan Aunell	4/27/10	4 pm	K Crump 4/28/10 0800

Syracuse | Rochester | Buffalo | Albany | Binghamton | Fair Lawn (NJ)

Appendix C

Historical Analytical Data

Cortland County Towslee Landfill

Historical Data Page Index
Cortland County Towslee Landfill

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

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

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	4/27/10
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
Eh	(mV)	--	--	700	105	190	170	59	-107	-111	-68	-57	-62	-69	-21	143	162	107	180
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
Sp. Cond	(uS/cm)	--	--	306	355	353	369	204	221	241	658	351	344	334	344	199	201	862	1580
Color	(Units)	5	20	--	--	<5	--	--	--	--	30	--	--	--	--	18	--	--	--
Turbidity	(NTU)	--	--	660	73	131	29	55.6	34.8	24.3	28.1	16	11.6	24.6	16.7	23.4	30.6	47.4	22.7
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
HARD as CaCO3	(mg/l)	4000	240	167	140	148	148	134	153	148	146	151	159	165	161	163	158	161	161
TDS	(mg/l)	494	214	340	213	236	229	127	208	250	204	195	116	188 H	256	180	210	190	270
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
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
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
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
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
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
COD	(mg/l)	305	64	< 10	<10	<10	<10	<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
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
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
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--	--	<0.01	--	--	--	--	< 0.01	--	--	--

H - exceeded hold time

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

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	4/27/10
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
Eh	(mV)	--	--	385	45	155	115	84	-122	-143	-80	196	-78	-78	-78	-44	139	155	114	173
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
Sp. Cond	(uS/cm)	--	--	157	257	244	200	156	141	1241	943	1075	245	223	229	205	124	1145	681	975
Color	(Units)	<5	<5	--	--	<5	--	--	--	--	30	7	--	--	--	--	9	--	--	--
Turbidity	(NTU)	--	--	187	45	70	15.6	67.4	9.62	10.2	22.8	35.8	14.6	12.3	6.33	2.47	8.2	12.2	16.4	10.8
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
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
TDS	(mg/l)	143	86	120	111	142	120	62	162	130	104	152	130	80	140	160	110	88	110	170
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
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
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
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
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
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
COD	(mg/l)	<15	<15	< 10	<10	<10	<10	<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
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
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
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--	--

H - exceeded hold time

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

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	1/28/10	4/27/10
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
Eh	(mV)	--	--	140	-5	120	90	136	-62	-81	-25	42	-48	-31	-34	-34	239	227	143	148	256
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
Sp. Cond	(uS/cm)	--	--	621	767	784	1100	364	450	395	574	617	424	402	695	601	413	382	1406	1474	294
Color	(Units)	30	60	--	--	33	--	--	--	--	210	40	--	--	--	--	65	--	--	--	--
Turbidity	(NTU)	--	--	18.6	18.3	195	27	48.9	30.7	15	5.07	7.83	26.8	49.2	8.52	5.6	40.9	17.8	19.6	492	41.5
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
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
TDS	(mg/l)	1180	986	381	397	491	487	262	355	395	284	410	357	320	356	316	220	310	230	360	350
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
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
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
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
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
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
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
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
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
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
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--	--	--

H - exceeded hold time

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

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	1/28/10	4/27/10
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
Eh	(mV)	--	--	175	110	125	115	136	-73	-77	-34	40	-46	-38	-33	-22	237	229	174	184	249
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
Sp. Cond	(uS/cm)	--	--	1350	1560	1420	1540	701	682	500	329	339	1205	1132	1137	1135	739	670	1978	1880	567
Color	(Units)	5	10	--	--	<5	--	--	--	--	15	7	--	--	--	--	8	--	--	--	--
Turbidity	(NTU)	--	--	17.3	19.8	18.7	28	14.2	11	9.48	37	41.5	13.5	15.4	3.14	11	4.17	5.88	14	12.7	12
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
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
TDS	(mg/l)	1640	1230	982	1020	1040	980	825	823	935	868	840	808	720	864	872	870	860	680	820	860
Chloride	(mg/l)	267	238	145	154	122	121	167	131	163	161	160	132	148	162	118	159	150	140	112	130
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
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
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
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
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
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
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
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
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
Cyanide	(mg/l)	--	--	--	--	0.024	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--	--	--

H - exceeded hold time

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

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	1/28/10	4/27/10
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
Eh	(mV)	--	--	215	45	115	220	-50	-94	-115	-76	174	-34	-39	-41	-26	359	219	172	101	263
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
Sp. Cond	(uS/cm)	--	--	286	299	342	397	143	898	1757	939	1074	261	1759	204	1069	187	658	673	646	706
Color	(Units)	<5	<5	--	--	<5	--	--	--	--	115	15	--	--	--	--	7	--	--	--	--
Turbidity	(NTU)	--	--	58	11.9	5.2	7.2	10.6	19.6	16.4	13.7	17	17.7	17.9	6.67	10.9	4.55	20.2	22.4	11	11.8
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
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
TDS	(mg/l)	320	269	215	208	207	207	38	168	210	144	115	188	60	112	88	120	100	120	160	75
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
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
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
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
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
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
COD	(mg/l)	19	<15	< 10	<10	13	<10	47	<20	<20	<20	23	<20	34	<20	<20	<20	40	35	<20	30
BOD	(mg/l)	<2	<2	< 3	<3	<3	<3	<4	8	<4	<4	<4	7	9	<4	<4	<4	8	6	<4	10
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
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
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--	--	--

H - exceeded hold time

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

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	1/28/10	4/27/10
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
Eh	(mV)	--	--	250	85	225	180	82	-92	-105	-57	121	-71	-81	-54	-38	186	190	180	102	222
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
Sp. Cond	(uS/cm)	--	--	347	287	304	329	220	249	236	810	199	360	343	355	327	187	1999	1108	922	1673
Color	(Units)	<5	20	--	--	<5	--	--	--	--	6	7	--	--	--	--	11	--	--	--	--
Turbidity	(NTU)	--	--	40	19.9	15.8	14.2	68.9	8.1	9.48	12.5	13.6	11.6	2.19	5.24	9.56	3.62	5.13	13.3	12.5	43.6
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
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
TDS	(mg/l)	98	280	209	175	190	187	127	105	220	208	198	225	116	168	188	190 H	170	130	240	220
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
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
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
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
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
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
COD	(mg/l)	40	19	< 10	<10	11.6	<10	<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
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
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
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--	--	--

H - exceeded hold time

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

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	1/28/10	4/27/10
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
Eh	(mV)	--	--	215	120	245	190	77	-64	-69	-24	245	-37	-42	-41	-19	219	194	141	192	246
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
Sp. Cond	(uS/cm)	--	--	1360	1520	1440	1480	893	765	514	972	561	1174	618	214	1014	622	644	217	260	483
Color	(Units)	20	5	--	--	<5	--	--	--	--	85	7	--	--	--	--	80	--	--	--	--
Turbidity	(NTU)	--	--	214	18	13.6	42	45.3	54.3	40.9	48.1	39.3	44.4	41.6	42.7	40.9	375	33.5	40.1	23.6	31.4
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
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
TDS	(mg/l)	1220	1240	981	967	963	949	753	865	3000	752	800	1560	668	728	748	720	620	640	520	730
Chloride	(mg/l)	300	276	144	143	119	85	145	131	145	141	141	1260	136	135	114	128	120	117	104	89.1
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
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
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
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
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
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
BOD	(mg/l)	<2	2	< 3	<3	<3	<3	<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
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
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 0.01	--	--	--	--

H - exceeded hold time

Historical Water Quality Data - Towslee Landfill
MW-1A Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	4/27/10
Aluminum	724	16.9	--	--	2.96	--	--	--	--	2.07	--	--	--	--	1.57	--	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	--	--	--	--	<0.015	--	--	--
Arsenic	0.353	0.0134	--	--	<0.025	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--	--
Barium	8.11	0.258	--	--	0.104	--	--	--	--	0.0917	--	--	--	--	0.0732	--	--	--
Beryllium	0.0287	0.00083 B	--	--	<0.005	--	--	--	--	<0.003	--	--	--	--	<0.003	--	--	--
Boron	0.0873 B	0.0665 B	--	--	0.073	--	--	--	--	<0.5	--	--	--	--	<0.5	--	--	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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
Chromium	1.04	0.0265	--	--	<0.005	--	--	--	--	<0.005	--	--	--	--	<0.005	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--	--
Cobalt	0.59	0.0168 B	--	--	<0.015	--	--	--	--	<0.02	--	--	--	--	<0.02	--	--	--
Copper	0.996	0.0254	--	--	0.022	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--	--
Iron	1550	35.7	19.4	2.99	6.03	2.11	1.67	2.14	1.21	3.49	1.17	0.217	0.429	0.818	1.65	0.348	6.19	0.484
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
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
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
Mercury	0.0014	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	--	--	--	--	<0.0002	--	--	--
Nickel	1.33	0.0364 B	--	--	<0.01	--	--	--	--	<0.03	--	--	--	--	<0.03	--	--	--
Potassium	77.5	6.97	2.72	1.6	1.7	1.62	1.74	2.31	1.59	2.06	1.65	1.51	1.69	1.52	1.78	<1	<5	<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
Selenium	<0.028	<0.0028	--	--	<0.02	--	--	--	--	<0.005	--	--	--	--	<0.005	--	--	--
Silver	<0.009	<0.0009	--	--	<0.015	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--	--
Thallium	<0.026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	--	--	--	--	<0.01	--	--	--
Vanadium	0.856	0.0243 B	--	--	<0.015	--	--	--	--	<0.03	--	--	--	--	<0.03	--	--	--
Zinc	3.36	0.0874	--	--	0.106	--	--	--	--	0.0235	--	--	--	--	<0.01	--	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-1B Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	4/27/10
Aluminum	0.662	0.134 B	--	--	1.09	--	--	--	--	0.537	0.518	--	--	--	--	0.255	--	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--	--
Arsenic	<0.0024	<0.0024	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--
Barium	0.168 B	0.154 B	--	--	0.194	--	--	--	--	0.172	0.199	--	--	--	--	0.232	--	--	--
Beryllium	0.0001 B	<0.0001	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--	--
Boron	0.0197 B	0.0247 B	--	--	<0.05	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5	--	--	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00542	<0.005	<0.005	<0.005	<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
Chromium	0.002 B	<0.0004	--	--	<0.005	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.01	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--
Cobalt	<0.0011	<0.0011	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--	--
Copper	0.004 B	0.0025 B	--	--	0.017	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--
Iron	1.33	0.226	9.42	1.48	1.84	0.273	2.39	0.508	0.465	0.73	1	1.38	0.185	0.174	2.92	0.523	0.115	6.72	0.423
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
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
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
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	--
Nickel	<0.0013	<0.0013	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--
Potassium	1.56 B	0.529 B	0.973	0.468	0.523	0.374	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	8.56	<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
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--
Vanadium	<0.0012	<0.0012	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--
Zinc	0.0351	0.0163 B	--	--	0.052	--	--	--	--	0.0168	0.0112	--	--	--	--	<0.01	--	--	--

All units in mg/l

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

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	1/28/10	4/27/10
Aluminum	79.3	59.1	--	--	0.43	--	--	--	--	0.444	1.98	--	--	--	--	<0.1	--	--	--	--
Antimony	0.0049 B	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--	--	--
Arsenic	0.0631	0.0537	--	--	<0.025	--	--	--	--	<0.01	0.0145	--	--	--	--	<0.01	--	--	--	--
Barium	1.75	1.49	--	--	0.502	--	--	--	--	0.265	0.377	--	--	--	--	0.471	--	--	--	--
Beryllium	0.0037 B	0.0025 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--	--	--
Boron	1.21	0.961	--	--	0.584	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5	--	--	--	--
Cadmium	<0.0003	0.0016 B	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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
Chromium	0.112	0.0967	--	--	<0.005	--	--	--	--	<0.005	0.0177	--	--	--	--	<0.01	--	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.02	<0.05	--	--	--	--	<0.01	--	--	--	--
Cobalt	0.0719	0.0628	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--	--	--
Copper	0.104	0.0779	--	--	0.012	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Iron	154	131	8.29	24	6.5	10.1	10.8	6.86	7.67	4.95	9.77	4.1	10.6	9.51	7.77	8.28	5.21	0.827	64.2	6.1
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
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
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
Mercury	<0.0001	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	--	--
Nickel	0.151	0.132	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--
Potassium	23.4	17	9.29	11.2	12.3	12.7	9.02	10.8	13.3	2.14	8.56	7.56	12.3	15.1	7.48	12.4	13.6	<5	12.8	9.42
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
Selenium	<0.0028	<0.0028	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--	--	--
Silver	0.0024 B	0.0014 B	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Thallium	0.004 B	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Vanadium	0.102	0.0866	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--
Zinc	0.4	0.278	--	--	<0.01	--	--	--	--	<0.01	0.0101	--	--	--	--	<0.01	--	--	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-2B Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	1/28/10	4/27/10
Aluminum	2.03	5.31	--	--	0.18	--	--	--	--	<0.1	0.168	--	--	--	--	0.235	--	--	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--	--	--
Arsenic	0.007 B	0.0083 B	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Barium	1.59	1.36	--	--	1.22	--	--	--	--	1.09	1.18	--	--	--	--	1.43	--	--	--	--
Beryllium	0.00023 B	0.00037 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--	--	--
Boron	0.355	0.292	--	--	0.256	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5	--	--	--	--
Cadmium	0.0003 B	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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
Chromium	0.004 B	0.0086 B	--	--	<0.005	--	--	--	--	<0.005	0.00816	--	--	--	--	<0.01	--	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Cobalt	0.0091 B	0.0141 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--	--	--
Copper	0.0069 B	0.0118 B	--	--	0.017	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Iron	4.3	10.7	0.913	0.836	1.2	1.07	0.637	0.469	0.468	0.323	0.439	0.56	0.236	0.28	0.466	0.464	0.222	0.235	0.451	0.329
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
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
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
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	--	--
Nickel	0.0129 B	0.0188 B	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--
Potassium	3 B	2.9 B	2.42	2.25	2.28	2.38	2.74	2.14	2.44	<1	2.44	2.2	2.23	3.13	2.44	2.71	<1	<5	<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
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--	--	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Thallium	0.0037 B	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Vanadium	0.0029 B	0.0075 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--
Zinc	0.103	0.0484	--	--	<0.01	--	--	--	--	0.0469	<0.01	--	--	--	--	<0.01	--	--	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill
MW-3A Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	1/28/10	4/27/10
Aluminum	21.7	2.39	--	--	0.078	--	--	--	--	0.33	0.23	--	--	--	--	<0.1	--	--	--	--
Antimony	<0.003	0.0034 B	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.015	--	--	--	--
Arsenic	0.0127	<0.0024	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Barium	0.567	0.343	--	--	0.41	--	--	--	--	0.332	0.441	--	--	--	--	0.458	--	--	--	--
Beryllium	0.001 B	0.00013 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--	--	--
Boron	<0.0709	0.0286 B	--	--	0.063	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5	--	--	--	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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
Chromium	0.0249	0.0022 B	--	--	<0.005	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.01	--	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Cobalt	0.0121 B	0.0019 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--	--	--
Copper	0.0315	0.0076 B	--	--	0.023	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Iron	26.6	3.58	1.88	0.626	0.104	0.283	1.18	0.599	0.231	0.537	0.451	0.574	0.508	0.177	0.6	0.155	0.534	1.44	0.366	0.291
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
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
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
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	--	--
Nickel	0.0248 B	0.0038 B	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--
Potassium	7.43	1.87 B	0.938	0.829	1.09	0.937	<1	<1	<1	<1	<1	<1	1.06	<1	<1	<1	<1	<5	<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
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--	--	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Vanadium	0.0296 B	0.0039 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--
Zinc	0.112	0.0265	--	--	0.025	--	--	--	--	0.0106	<0.01	--	--	--	--	<0.01	--	--	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-6B Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	1/28/10	4/27/10
Aluminum	8.59	0.642	--	--	0.115	--	--	--	--	0.102	0.134	--	--	--	--	<0.1	--	--	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--	--	--
Arsenic	0.009 B	0.0084 B	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Barium	0.521	0.48	--	--	0.313	--	--	--	--	0.301	0.337	--	--	--	--	0.404	--	--	--	--
Beryllium	0.0004 B	0.0001 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--	--	--
Boron	0.145	0.145	--	--	<0.05	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5	--	--	--	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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
Chromium	0.0092 B	0.0017 B	--	--	<0.005	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.01	--	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Cobalt	0.0112 B	0.0056 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--	--	--
Copper	0.0116 B	0.0051 B	--	--	0.016	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Iron	10.6	3	1.09	0.511	0.306	0.195	1.87	0.486	0.163	0.216	0.229	0.33	<0.06	<0.06	0.268	0.104	0.0703	0.417	0.448	0.226
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
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
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
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	--	--
Nickel	0.0144 B	0.0059 B	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--
Potassium	4.08 B	2.72 B	1.15	0.825	0.634	0.69	1.05	<1	<1	<1	<1	<1	<1	1.4	1.01	1.03	<1	<5	<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
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--	--	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Vanadium	0.0083 B	0.0012 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--
Zinc	0.0894	0.0248	--	--	0.014	--	--	--	--	0.0213	0.0103	--	--	--	--	<0.01	--	--	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill
MW-7A Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09	9/30/09	12/1/09	1/28/10	4/27/10
Aluminum	40	88.4	--	--	0.415	--	--	--	--	2.43	0.919	--	--	--	--	9.56	--	--	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03	--	--	--	--
Arsenic	0.0176	0.0459	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Barium	1.36	1.99	--	--	0.684	--	--	--	--	0.576	0.68	--	--	--	--	0.714	--	--	--	--
Beryllium	0.0015 B	0.0037 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003	--	--	--	--
Boron	0.332	0.41	--	--	0.55	--	--	--	--	0.65	0.588	--	--	--	--	<0.5	--	--	--	--
Cadmium	0.00047 B	0.002 B	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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
Chromium	0.0556	0.146	--	--	<0.005	--	--	--	--	<0.005	0.00667	--	--	--	--	<0.01	--	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.05	--	--	--	--	<0.01	--	--	--	--
Cobalt	0.0311	0.0791	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02	--	--	--	--
Copper	0.0637	0.129	--	--	0.013	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Iron	65.9	174	14.5	1.33	0.722	2.78	1.68	1.52	9.97	3.65	1.68	1.99	0.342	1.16	0.322	10.1	0.108	1.19	3.95	0.469
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
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
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
Mercury	<0.0001	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	--	--
Nickel	0.0783	0.192	--	--	0.013	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--
Potassium	10.4	13.5	3.06	1.91	1.81	2.03	2.03	1.95	2.87	<1	1.85	1.98	1.82	2.41	1.62	3.58	<1	<5	<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
Selenium	0.0041 B	0.0047 B	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005	--	--	--	--
Silver	<0.0009	<0.0009	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01	--	--	--	--
Vanadium	0.0487 B	0.127	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03	--	--	--	--
Zinc	0.2	0.408	--	--	<0.01	--	--	--	--	0.0263	0.0102	--	--	--	--	0.0297	--	--	--	--

All units in mg/l

Historical Water Quality Database - Towslee Landfill

MW-1A Dissolved Metals

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

All units are mg/l

Historical Water Quality Database - Towslee Landfill
MW-1B Dissolved Metals

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

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-2A Dissolved Metals

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

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-2B Dissolved Metals

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

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-3A Dissolved Metals

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

All units are mg/l

Historical Water Quality Database - Towslee Landfill
MW-6B Dissolved Metals

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

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-7A Dissolved Metals

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

All units are mg/l

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Appendix D

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

Cortland County Towslee Landfill

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

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

Conventionals

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

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Alkalinity (As CaCO3)	8/1/97	160	94.8	702	577	145	240	569
mg/L	10/1/97	145	93.6	784	673	146	224	660
	3/22/06	127	92	330	652	162	131	648
	5/31/06	139	94	355	670	170	148	675
	8/9/06	122	91	384	612	140	154	595
	10/10/06	132	89	423	646	152	153	635
	3/20/07	140	99	380	650	82	180	640
	4/26/07	120	96	320	480	59	160	510
	7/31/07	120	100	420	600	170	150	530
	10/10/07	130	100	290	640	130	140	540
	2/1/08	--	100	360	640	110	140	570
	4/16/08	120	100	290	620	170	140	560
	7/23/08	120	100	380	640	91	110	600
	10/24/08	120	99	360	680	97	120	670
	3/12/09	130	92	320	650	18	120	500
	6/17/09	100	100	360	580	160	140	500
	9/30/09	120	98	340	650	50	140	480
	12/1/09	120	86	280	610	79	140	520
	1/28/10	--	--	310	600	180	150	600
	4/27/10	140	100	300	610	93	150	500
Hardness, Total(CaCO3)	8/1/97	4000	88	1300	960	1250	300	1010
mg/L	10/1/97	240	140	720	900	200	240	1150
	3/22/06	167	97.6	241	697	153	135	627
	5/31/06	140	81.9	260	726	179	144	599
	8/9/06	148	89	265	686	191	131	531
	10/10/06	148	82	301	675	158	133	526
	3/20/07	134	83.6	225	723	74	156	529
	4/26/07	153	105	262	575	58.1	139	499
	7/31/07	148	104	275	716	150	138	481
	10/10/07	146	90.8	165	652	86.2	124	459
	2/1/08	--	89.3	246	678	97.7	136	528
	4/16/08	151	103	203	654	123	142	506
	7/23/08	159	107	303	728	76.7	137	538
	10/24/08	165	105	343	788	97.9	134	569
	3/12/09	161	97.1	229	678	38.1	142	496
	6/17/09	163	111	295	782	196	154	534
	9/30/09	158	108	265	755	37.8	148	499
	12/1/09	161	206	95	608	65.4	138	473
	1/28/10	--	--	291	609	93.2	163	508
	4/27/10	161	92.9	235	681	58	147	435

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

Conventionals

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

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Chloride	8/1/97	152	<2	156	267	31.4	38.2	300
mg/L	10/1/97	46	<2	149	238	28.7	35	276
	3/22/06	21.3	2.55	23.3	145	14	21.1	144
	5/31/06	22.2	2.28	25.7	154	12.7	2.33	143
	8/9/06	34.2	3.47	23.5	122	13.5	2.32	119
	10/10/06	26.7	0.611	25.7	121	12.7	3.39	85
	3/20/07	28.7	3.24	21.2	167	3.37	11.6	145
	4/26/07	27	4.45	14.7	131	1.8	6.99	131
	7/31/07	27	3.16	24.4	163	12	13.8	145
	10/10/07	27.9	6.44	10.6	161	5.73	25.9	141
	2/1/08	--	3.15	21	160	2.43	16.7	141
	4/16/08	28	5.95	13.5	132	10.5	16.9	1260
	7/23/08	25.9	5.61	20.2	148	1.1	31.1	136
	10/24/08	29.7	6.03	15.5	162	1.75	28.6	135
	3/12/09	30.4	2.86	13.7	118	1.85	13.3	114
	6/17/09	30.7	4.74	20.5	159	9.25	19.4	128
	9/30/09	29.5	6.86	17.7	150	<1	19.7	120
	12/1/09	30	4.71	12.5	140	<1	14.7	117
	1/28/10	--	--	12.4	112	14.8	13.2	104
	4/27/10	31.7	3.54	14.5	130	1.31	12	89.1
Nitrogen, Ammonia	8/1/97	6	<0.02	23	0.95	<0.02	0.09	0.93
mg/L	10/1/97	2.6	0.04	9.1	1.3	0.09	2.5	0.89
	3/22/06	0.276	0.0938	10.6	0.389	0.0969	0.0549	0.34
	5/31/06	<0.02	<0.02	18.4	0.824	<0.02	<0.02	<0.02
	8/9/06	0.161	<0.02	16	0.786	<0.02	0.096	<0.02
	10/10/06	<0.1	<0.1	15.1	0.282	<0.1	<0.1	<0.1
	3/20/07	<0.5	<0.5	10.2	0.921	1.45	<0.5	<0.5
	4/26/07	<0.5	<0.5	9.89	0.844	<0.5	<0.5	<0.5
	7/31/07	<0.5	<0.5	14.1	1.31	<0.5	<0.5	<0.5
	10/10/07	<0.5	<0.5	13.5	1.22	<0.5	<0.5	<0.5
	2/1/08	--	<0.5	8.78	0.785	<0.5	<0.5	<0.5
	4/16/08	<0.5	<0.5	8.2	0.572	<0.5	<0.5	<0.5
	7/23/08	<0.5	<0.5	11.9	1.01	<0.5	<0.5	<0.5
	10/24/08	<0.5	<0.5	10.8	0.504	<0.5	<0.5	<0.5
	3/12/09	<0.5	<0.5	8.43	0.642	<0.5	<0.5	<0.5
	6/17/09	<0.5	<0.5	11.8	0.665	<0.5	<0.5	<0.5
	9/30/09	<0.5	<0.5	10.3	0.73	<0.5	<0.5	<0.5
	12/1/09	<0.5	<0.5	8.75	0.696	<0.5	<0.5	<0.5
	1/28/10	--	--	8.45	0.69	<0.5	<0.5	<0.5
	4/27/10	<0.5	<0.5	8.06	1.18	<0.5	<0.5	<0.5

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

Conventionals

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

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Nitrogen, Kjeldahl, Total	8/1/97	18	<0.2	31.5	2.6	0.4	0.6	1.1
mg/L	10/1/97	3.8	<0.2	21.2	2	0.24	3.3	1.4
	3/22/06	23.3	0.54	10.6	1.31	0.455	0.392	1.5
	5/31/06	0.529	0.755	14	1.78	1.09	0.904	1.68
	8/9/06	0.366	0.497	16.5	1.64	0.239	0.214	0.75
	10/10/06	<0.2	<0.2	15	1.9	0.266	0.279	1.11
	3/20/07	2.2	<0.5	132	1.84	4.26	<0.5	1.47
	4/26/07	<0.5	<0.5	12.5	1.62	1.47	<0.5	3.6
	7/31/07	5.66	<0.5	16.1	1.67	<0.5	<0.5	0.784
	10/10/07	<0.5	<0.5	12.6	1.53	<0.5	<0.5	0.591
	2/1/08	--	<0.5	10.7	1.33	<0.5	<0.5	0.522
	4/16/08	<0.5	<0.5	11.2	1.55	<0.5	<0.5	0.949
	7/23/08	<0.5	<0.5	12.9	1.03	0.718	<0.5	<0.5
	10/24/08	<0.5	<0.5	11.6	1.13	<0.5	<0.5	<0.5
	3/12/09	<0.5	<0.5	10.3	1.22	<0.5	<0.5	1.92
	6/17/09	<0.5	<0.5	13.5	1.19	<0.5	<0.5	0.851
	9/30/09	<0.5	<0.5	13.1	1.07	0.786	<0.5	0.927
	12/1/09	<0.5	<0.5	12.5	1.12	1.36	<0.5	0.599
	1/28/10	--	--	11.6	1.28	<0.5	<0.5	1.02
	4/27/10	<0.5	<0.5	11.9	1.55	1.14	0.522	1.4
Chemical Oxygen Demand	8/1/97	305	<15	127	58	19	40	43
mg/L	10/1/97	64	<15	136	61	<15	19	112
	3/22/06	<10	<10	<10	<10	<10	<10	21.2
	5/31/06	<10	<10	13.8	17.2	<10	<10	16.5
	8/9/06	<10	<10	27	24.6	13	11.6	26.4
	10/10/06	<10	<10	15.6	27	<10	<10	20.5
	3/20/07	<20	<20	<20	21	47	<20	27
	4/26/07	<20	<20	<20	<20	<20	<20	<20
	7/31/07	<20	<20	46	<20	<20	<20	<20
	10/10/07	<20	<20	22	<20	<20	<20	<20
	2/1/08	--	<20	23	24	23	<20	<20
	4/16/08	<20	<20	21	<20	<20	<20	36
	7/23/08	<20	<20	36	<20	34	<20	22
	10/24/08	<20	<20	32	<20	<20	<20	29
	3/12/09	<20	<20	<20	<20	<20	<20	<20
	6/17/09	<20	<20	31	23	<20	<20	38
	9/30/09	<20	<20	32	26	40	<20	37
	12/1/09	<20	<20	26	<20	35	<20	21
	1/28/10	--	--	41	22	<20	<20	33
	4/27/10	<20	<20	23	<20	30	<20	28

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

Conventionals

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

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Organic Carbon, Total	8/1/97	4.2	9.3	42.5	12.3	4.5	6	10.1
mg/L	10/1/97	1.6	<1	24.1	11.9	1.9	5.8	12.6
	3/22/06	4.76	5.41	10.1	<2	5.58	5.22	12.8
	5/31/06	2.61	2.34	7.18	7.76	<2	3.14	8.19
	8/9/06	<2	<2	5.67	4.82	<2	<2	6.12
	10/10/06	<2	<2	5.68	7.49	<2	<2	7.46
	3/20/07	<3	<3	6.7	6.4	<3	<3	8.1
	4/26/07	<3	<3	4.8	3	<3	<3	6
	7/31/07	<3	<3	7.3	5.7	<3	<3	7.2
	10/10/07	<3	<3	6.3	17.2	3.7	<3	11.5
	2/1/08	--	<3	21.8	82.6	<3	<3	69.9
	4/16/08	<3	<3	5.2	23.2	<3	<3	17.8
	7/23/08	<3	<3	6.3	4.7	7.3	<3	5.2
	10/24/08	<3	<3	6	6.8	3.6	<3	6.1
	3/12/09	<3	<3	4.8	4.5	<3	<3	5.1
	6/17/09	<3	<3	7.2	5.5	<3	<3	5.7
	9/30/09	<3	<3	5.9	4.6	9.2	<3	5
	12/1/09	<3	<3	6.5	4.6	5.7	<3	5.2
	1/28/10	--	--	5.2	3.5	<3	<3	4.9
	4/27/10	<3	<3	6.7	5.8	9	<3	6.7

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

Total Metals (all values in mg/l)

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

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Aluminum_T	8/1/97	724	0.662	79.3	2.03	21.7	8.59	40
	10/1/97	16.9	0.134	59.1	5.31	2.39	0.642	88.4
	8/9/06	2.96	1.09	0.43	0.18	0.078	0.115	0.415
	10/10/07	2.07	0.537	0.444	<0.1	0.33	0.102	2.43
	2/1/08	--	0.518	1.98	0.168	0.23	0.134	0.919
	6/17/09	1.57	0.255	<0.1	0.235	<0.1	<0.1	9.56
Arsenic_T	8/1/97	0.353	<0.0024	0.0631	0.007	0.0127	0.009	0.0176
	10/1/97	0.0134	<0.0024	0.0537	0.0083	<0.0024	0.0084	0.0459
	8/9/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	10/10/07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	2/1/08	--	<0.01	0.0145	<0.01	<0.01	<0.01	<0.01
	6/17/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Calcium_T	8/1/97	430	26.7	186	288	57.8	70.5	234
	10/1/97	48.6	24.7	172	245	53.7	55.6	271
	3/22/06	46.2	26.8	69.1	203	46.3	39.3	171
	5/31/06	41.8	23.9	74.1	216	55.3	39.6	165
	8/9/06	43.2	25.8	77.3	203	57.9	36.1	150
	10/10/06	43.9	24.1	88.5	200	48.3	37.4	148
	3/20/07	39.2	23.7	64.2	216	23	45.6	149
	4/26/07	44.5	30	75.3	170	18.1	39.9	140
	7/31/07	43.5	29.9	80.4	214	45.1	40.2	135
	10/10/07	42.2	26	47.9	195	27.5	36.7	131
	2/1/08	--	25.1	70.3	201	30.2	39.2	148
	4/16/08	43.2	28.6	57.5	192	37.6	39.5	139
	7/23/08	46.2	30.2	87.8	214	24.4	39	150
	10/24/08	48.3	30	99	235	31.3	38.7	162
	3/12/09	47.2	27.7	66.7	201	12.3	39.6	140
	6/17/09	47	31.4	87.1	237	59.5	42.9	150
	9/30/09	46.5	31.1	78.6	227	15.2	42	144
	12/1/09	45	58.7	26.5	178	26.2	38.2	131
	1/28/10	--	--	71.1	177	28.8	45	139
	4/27/10	47	26.5	68.7	202	23.2	40.6	122
Chromium_T	8/1/97	1.04	0.002	0.112	0.004	0.0249	0.0092	0.0556
	10/1/97	0.0265	<0.0004	0.0967	0.0086	0.0022	0.0017	0.146
	8/9/06	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	10/10/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	2/1/08	--	<0.005	0.0177	0.00816	<0.005	<0.005	0.00667
	6/17/09	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

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

Total Metals (all values in mg/l)

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

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Cobalt_T	8/1/97	0.59	<0.0011	0.0719	0.0091	0.0121	0.0112	0.0311
	10/1/97	0.0168	<0.0011	0.0628	0.0141	0.0019	0.0056	0.0791
	8/9/06	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
	10/10/07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	2/1/08	--	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	6/17/09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper_T	8/1/97	0.996	0.004	0.104	0.0069	0.0315	0.0116	0.0637
	10/1/97	0.0254	0.0025	0.0779	0.0118	0.0076	0.0051	0.129
	8/9/06	0.022	0.017	0.012	0.017	0.023	0.016	0.013
	10/10/07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	2/1/08	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	6/17/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron_T	8/1/97	1550	1.33	154	4.3	26.6	10.6	65.9
	10/1/97	35.7	0.226	131	10.7	3.58	3	174
	3/22/06	19.4	9.42	8.29	0.913	1.88	1.09	14.5
	5/31/06	2.99	1.48	24	0.836	0.626	0.511	1.33
	8/9/06	6.03	1.84	6.5	1.2	0.104	0.306	0.722
	10/10/06	2.11	0.273	10.1	1.07	0.283	0.195	2.78
	3/20/07	1.67	2.39	10.8	0.637	1.18	1.87	1.68
	4/26/07	2.14	0.508	6.86	0.469	0.599	0.486	1.52
	7/31/07	1.21	0.465	7.67	0.468	0.231	0.163	9.97
	10/10/07	3.49	0.73	4.95	0.323	0.537	0.216	3.65
	2/1/08	--	1	9.77	0.439	0.451	0.229	1.68
	4/16/08	1.17	1.38	4.1	0.56	0.574	0.33	1.99
	7/23/08	0.217	0.185	10.6	0.236	0.508	<0.06	0.342
	10/24/08	0.429	0.174	9.51	0.28	0.177	<0.06	1.16
	3/12/09	0.818	2.92	7.77	0.466	0.6	0.268	0.322
	6/17/09	1.65	0.523	8.28	0.464	0.155	0.104	10.1
	9/30/09	0.348	0.115	5.21	0.222	0.534	0.0703	0.108
	12/1/09	6.19	6.72	0.827	0.235	1.44	0.417	1.19
	1/28/10	--	--	64.2	0.451	0.366	0.448	3.95
	4/27/10	0.484	0.423	6.1	0.329	0.291	0.226	0.469

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

Total Metals (all values in mg/l)

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

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Lead_T	8/1/97	0.454	<0.001	0.0561	0.0044	0.0077	0.0044	0.0251
	10/1/97	0.0123	<0.001	0.0436	0.0058	<0.001	<0.001	0.0585
	3/22/06	0.00716	<0.005	<0.005	<0.005	<0.005	<0.005	0.0175
	5/31/06	0.007	<0.005	0.019	0.009	0.005	<0.005	0.009
	8/9/06	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	0.006
	10/10/06	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005
	3/20/07	<0.003	0.00431	0.00524	<0.003	<0.003	<0.003	<0.003
	4/26/07	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	7/31/07	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.00656
	10/10/07	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	2/1/08	--	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	4/16/08	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	7/23/08	<0.003	<0.003	0.0039	<0.003	<0.003	<0.003	<0.003
	10/24/08	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	3/12/09	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	6/17/09	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	9/30/09	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	12/1/09	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
	1/28/10	--	--	0.0187	<0.003	<0.003	<0.003	<0.003
	4/27/10	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium_T	8/1/97	309	6.47	61.6	61.7	17	19	67
	10/1/97	15.6	5.84	53.6	49.9	11	12.7	88.3
	3/22/06	12.6	7.46	16.6	46.1	9.13	8.94	48.6
	5/31/06	8.67	5.39	18.3	45.3	10	10.9	45.5
	8/9/06	9.7	6.05	17.5	43.5	11.2	9.86	38
	10/10/06	9.43	5.31	19.4	42.7	9.2	9.71	38
	3/20/07	8.87	5.94	15.7	44.8	4.04	10.2	38.4
	4/26/07	10.2	7.4	17.9	36.3	3.1	9.68	36.4
	7/31/07	9.67	7.12	18	44.1	9.15	9.12	35
	10/10/07	9.8	6.28	11	39.9	4.26	7.81	32.1
	2/1/08	--	6.44	17.1	42.8	5.42	9.37	38.4
	4/16/08	10.6	7.58	14.3	42.4	7.04	10.4	38.5
	7/23/08	10.7	7.74	20.3	47.1	3.83	9.61	39.5
	10/24/08	10.8	7.28	23.1	49.1	4.8	9.13	39.8
	3/12/09	10.6	6.76	15.1	42.9	1.82	10.5	35.8
	6/17/09	11.1	7.83	18.8	45.9	11.6	11.4	38.7
	9/30/09	10	7.34	16.8	45.6	<1	10.4	34
	12/1/09	11.9	14.4	7.01	39.7	<5	10.4	35.3
	1/28/10	--	--	27.6	40.4	5.17	12.3	38.8
	4/27/10	10.5	6.49	15.4	43.1	<5	11	31.4

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	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Manganese_T	8/1/97	24.6	0.195	35.7	8.24	0.732	3.43	5.87
	10/1/97	0.783	0.146	31.6	7.43	0.174	4.17	9.55
	3/22/06	0.534	2.28	12.2	6.98	0.208	0.559	6.08
	5/31/06	0.194	0.191	11.5	6.8	0.175	0.12	5.69
	8/9/06	0.38	0.251	12	6.63	0.416	0.297	4.4
	10/10/06	0.306	0.126	13.6	6.46	0.176	0.185	4.85
	3/20/07	0.19	0.521	9.93	6.42	0.415	0.331	4.51
	4/26/07	0.193	0.169	11.7	4.93	0.501	0.0908	4.18
	7/31/07	0.206	0.19	12.7	6.6	0.116	0.671	3.98
	10/10/07	0.203	0.176	7.05	5.7	0.287	0.712	3.47
	2/1/08	--	0.26	11.2	6.21	0.0373	0.327	4.17
	4/16/08	0.157	0.198	9.3	5.96	0.141	0.102	4.34
	7/23/08	0.135	0.169	13.8	6.49	0.618	0.666	4.82
	10/24/08	0.151	0.153	15.1	6.84	0.0424	0.619	4.57
	3/12/09	0.0917	0.223	10.7	6.5	0.294	0.0257	4.31
	6/17/09	0.169	0.25	12.8	6.63	0.164	0.0585	4.21
	9/30/09	0.155	0.149	11.4	6.31	0.331	0.255	3.8
	12/1/09	0.251	9.34	0.144	5.63	0.597	0.167	3.68
	1/28/10	--	--	11.6	5.48	0.568	0.0606	3.87
	4/27/10	0.118	0.13	9.79	6.2	0.218	0.027	3.85
Potassium_T	8/1/97	77.5	1.56	23.4	3	7.43	4.08	10.4
	10/1/97	6.97	0.529	17	2.9	1.87	2.72	13.5
	3/22/06	2.72	0.973	9.29	2.42	0.938	1.15	3.06
	5/31/06	1.6	0.468	11.2	2.25	0.829	0.825	1.91
	8/9/06	1.7	0.523	12.3	2.28	1.09	0.634	1.81
	10/10/06	1.62	0.374	12.7	2.38	0.937	0.69	2.03
	3/20/07	1.74	<1	9.02	2.74	<1	1.05	2.03
	4/26/07	2.31	<1	10.8	2.14	<1	<1	1.95
	7/31/07	1.59	<1	13.3	2.44	<1	<1	2.87
	10/10/07	2.06	<1	2.14	<1	<1	<1	<1
	2/1/08	--	<1	8.56	2.44	<1	<1	1.85
	4/16/08	1.65	<1	7.56	2.2	<1	<1	1.98
	7/23/08	1.51	<1	12.3	2.23	1.06	<1	1.82
	10/24/08	1.69	<1	15.1	3.13	<1	1.4	2.41
	3/12/09	1.52	<1	7.48	2.44	<1	1.01	1.62
	6/17/09	1.78	<1	12.4	2.71	<1	1.03	3.58
	9/30/09	<1	<1	13.6	<1	<1	<1	<1
	12/1/09	<5	8.56	<5	<5	<5	<5	<5
	1/28/10	--	--	12.8	<5	<5	<5	<5
	4/27/10	<5	<5	9.42	<5	<5	<5	<5

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

Total Metals (all values in mg/l)

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

Analyte	Date	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Sodium_T	8/1/97	37.3	7.38	119	64.1	10.4	38	118
	10/1/97	26	6.18	102	53.9	6.54	31.4	113
	3/22/06	17.1	6.31	26.3	53.8	5.66	14.9	134
	5/31/06	13	5.22	25.2	49.7	6.4	9.93	129
	8/9/06	13.6	6.35	31.4	51.1	8.92	10.1	124
	10/10/06	13.5	5.92	31.4	51	6.03	10.7	128
	3/20/07	12.2	5.22	19.5	50.9	2.11	11.2	112
	4/26/07	12.5	6.82	22.9	40.8	1.14	10.2	104
	7/31/07	13	7.1	26.1	52.3	5.1	15	95.8
	10/10/07	11.8	5.84	13.8	48.2	2.64	14.7	95.2
	2/1/08	--	5.66	19.2	50.6	2.9	13.8	104
	4/16/08	12.5	6.73	16.5	47.4	3.52	12.7	99.6
	7/23/08	13.8	7.29	25.6	51.4	2.77	18.1	113
	10/24/08	13.2	6.81	25.9	58.2	2.69	17.6	116
	3/12/09	13.4	6.37	17.8	49.3	<1	13.1	97
	6/17/09	13.9	8.15	23.8	55.4	6.81	17.9	103
	9/30/09	12.5	7.32	21.1	58.6	<1	18.5	110
	12/1/09	12.6	14.9	6.59	49	<5	15.8	105
	1/28/10	--	--	15.5	48.9	<5	16.8	112
	4/27/10	12.8	6.29	16.3	53.1	<5	14.2	109
Vanadium_T	8/1/97	0.856	<0.0012	0.102	0.0029	0.0296	0.0083	0.0487
	10/1/97	0.0243	<0.0012	0.0866	0.0075	0.0039	0.0012	0.127
	8/9/06	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
	10/10/07	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
	2/1/08	--	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
	6/17/09	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Zinc_T	8/1/97	3.36	0.0351	0.4	0.103	0.112	0.0894	0.2
	10/1/97	0.0874	0.0163	0.278	0.0484	0.0265	0.0248	0.408
	8/9/06	0.106	0.052	<0.01	<0.01	0.025	0.014	<0.01
	10/10/07	0.0235	0.0168	<0.01	0.0469	0.0106	0.0213	0.0263
	2/1/08	--	0.0112	0.0101	<0.01	<0.01	0.0103	0.0102
	6/17/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0297

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

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

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

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

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

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