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

February 11, 2013

Brian Jankauskas
NYS DEC
Div. of Environmental Remediation
625 Broadway, 11th Floor
Albany, NY 12233-7015

Dear Mr. Jankauskas:

Enclosed is a report summarizing monitoring activities for Quarter 3 of 2012 at the Towslee Landfill in Cortland County. Cortland County Soil and Water Conservation District prepared this report for Don Chambers, Superintendent of Cortland County Highway Department.

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

Sincerely,

Patrick Reidy
Water Quality Specialist

cc: Don Chambers w/ report
James Gruppe, NYSDEC Region 7 w/ report
Amanda Barber, SWCD/files

# Environmental Monitoring Report
# 2012 Quarter 3

## 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 monitoring activities at the Towslee Landfill for Quarter 3 of 2012.

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 implement 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.

Towslee Landfill monitoring follows the sampling and analysis plan prepared by B&L in 2006. Upstate Laboratories, Inc. (herein referred to as Upstate Labs) conducted all sample collection activities, and performed all laboratory analyses for Quarter 3 of 2012. 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 the approximate limits of hazardous waste. Figure 1 also shows the surface water sampling locations that are tested as part of the monitoring of the active West Side Landfill, located adjacent to Towslee Landfill.

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 | March 19-21, 2012 |
| Second Quarter: | Routine | May 22-23, 2012 |
| Third Quarter: | Routine | August 29-30, 2012 |
| Fourth Quarter: | Baseline | to be completed |

## 3.2 Groundwater Monitoring Locations

Monitoring wells for the Towslee monitoring program are listed below, and shown on Figure 1.

| | Bedrock | Overburden |
|---|---|---|
| Upgradient | CD-1RA | CD-1 |
| Downgradient | MW-1B | MW-1A |
| | MW-2B | MW-2A |
| | MW-3A | MW-6A |
| | MW-3B | MW-7A |
| | MW-4A | |
| | MW-5A (a) | |
| | MW-6B | |

(a) MW-5A could not be sampled because of a blockage above the water table.

# 4.0 Groundwater Monitoring Results

This section provides an evaluation of groundwater monitoring results for Quarter 3 of 2012. Groundwater quality data are compared to NYS water quality standards to assess current conditions. Recent data are also compared to past data to evaluate trends.

- Appendix A contains the Quarter 3 laboratory analytical report.
- Appendix B contains tables of historical water quality data for each monitoring well.

## 4.1 Contraventions of Groundwater Quality Standards

This subsection compares 2012 groundwater quality data to NYS water quality standards. Tables 1 and 2 summarize groundwater quality results for Quarter 3 for the Towslee wells. Available NYS water quality standards are included in these tables, and contraventions of standards are highlighted.

Results for most parameters in Quarter 3 of 2012 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 for the Towslee monitoring wells.

### 4.1.1 Conventionals and Field Parameters

pH - The acceptable range for pH is between 6.5 and 8.5. In Quarter 3, pH was slightly above this range for MW-1B (8.51).

Turbidity – Turbidity exceeded the NYS standard of 5 NTU for the two upgradient wells and 9 downgradient wells in Quarter 3, with results ranging from about 5 to 72 NTU. Based on separate monitoring conducted at the closed Pine Tree Landfill, and the active West Side Landfill, natural groundwater in this area appears to have elevated turbidity.

Total Dissolved Solids (TDS) - The TDS standard of 500 mg/l has been consistently exceeded for the same two wells, and this trend continued in Quarter 3. TDS was 940 mg/l at MW-2B, and 750 mg/l at MW-7A. The TDS standard was also slightly exceeded for MW-4A (520 mg/l).

Ammonia - The ammonia standard of 2 mg/l was exceeded at MW-2A (8.45 mg/l) in Quarter 3, and was exceeded in all previous monitoring events at this well, with a generally decreasing trend in concentration over time.

### 4.1.2 Metals

Total Iron - The NYS standard for iron is 0.3 mg/l. The standard was exceeded for 6 downgradient wells in Quarter 3, ranging from about 0.32 to 7.4 mg/l. Iron has frequently exceeded the standard in past monitoring at Towslee. The elevated iron levels are believed to be due at least in part to particulate in the unfiltered samples.

Total Manganese - The NYS standard for manganese is 0.3 mg/l. The manganese standard was exceeded for 6 downgradient wells in Quarter 3, ranging from about 0.4 to 10.3 mg/l. As with iron, the manganese standard has frequently been exceeded in past monitoring, and may be due in part to particulate in unfiltered samples.

Sodium – Of the several NYS sodium standards, the lowest is 20 mg/l, and applies to people on severely restricted sodium diets. Contraventions in Quarter 3 were observed at MW-2B (50.8 mg/l) and MW-7A (81.6 mg/l). These results are consistent with past monitoring. Elevated sodium may be at least partially related to deicing activities on the road network within the landfill.

### 4.1.3 Volatile Organic Compounds (VOCs)

VOC analyses was not required in Quarter 3.

There were no other contraventions of NYS water quality standards in Quarter 3 of 2012.

## 4.2 Groundwater Quality Trends

Groundwater monitoring at Towslee Landfill occurred twice in 1997, and quarterly monitoring was resumed for seven wells in 2006. Monitoring was resumed for an additional six wells in Quarter 3 of 2012 (Note: sampling has not been conducted at MW-5A because of a blockage, but efforts were made to rehabilitate the well, and sample will be collected for Quarter 4 of 2012.)

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). The main focus of the trends assessment is on COCs.

Appendix B contains historical tables of the results for all parameters. Appendix C contains historical summary tables of results for the COCs for conventionals and total metals.

### 4.2.1 Upgradient Wells

Wells CD-1 and CD-1RA are upgradient of the landfill. The 2012 Quarter 3 testing continues to show that water quality in upgradient well CD-1RA has not changed significantly over time. The water quality for CD-1 is generally similar to CD-1RA.

## 4.2.2 Trend for Downgradient Wells

***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 for wells with elevated alkalinity in 1997. Otherwise, alkalinity has been fairly stable over the past 6 years.

- Chloride levels continue to be significantly lower than 1997 levels, especially for wells with the highest initial chloride levels. Otherwise, chloride has been relatively stable over the past few years.

- Hardness is significantly lower in 2012 for the wells with elevated levels in 1997. Hardness in general has been fairly stable for the past 6 years.

- Ammonia – For most wells, ammonia has consistently been below the detection level in recent years. Well MW-2A continues to have elevated ammonia levels, and shows fluctuations over time, but continues to show an overall decreasing trend. MW-2B is the only other well at which ammonia was detected in the past several years.

- TKN at most wells has been relatively stable over time. Several wells have been consistently below the detection limit in recent years. TKN results for MW-2A are elevated, but show an overall decreasing trend.

- COD continues to show an overall decrease compared to 1997 levels. Results for most wells have been below the detection limit in recent quarters. Results for MW-7A have been relatively stable.

- Total Organic Carbon (TOC) - TOC levels are generally lower than those measured in 1997, and have been relatively stable in recent years. TOC for 7 downgradient wells has been below the detection limit for the past 2 quarters of monitoring.

- For all other conventionals, the results for 2012 are lower than or similar to past results.

***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 * | |

Of these, metals noted with an asterisk (*) were analyzed during the Routine monitoring conducted in Quarter 3.

- Calcium for all wells with elevated levels in 1997 is significantly lower in 2012, and has been relatively stable for all wells in recent monitoring.

- Iron continues to show an overall decrease compared to 1997 levels. Fluctuations in total iron levels in recent years is likely due to varying amounts of particulate in samples.

- Magnesium for all wells with elevated levels in 1997 is significantly lower in 2012, and have been fairly stable for all wells over the past few years.

- Manganese continues to show an overall decrease compared to 1997 levels, and has been fairly stable over the past few years.

- Potassium levels continue to show an overall decrease through Quarter 3 of 2012, compared to 1997, and are below the detection limit at all wells except MW-2A in recent years.

- Sodium levels have continued to show a general decrease through Quarter 3 of 2012, or have remained fairly stable.

***Trends for Organics***

Analysis of VOCs was not required in Quarter 3 of 2012.

# 5.0 Surface Water Monitoring

There is no surface water monitoring conducted specifically for the Towslee Landfill, but there are three surface water locations (SW-1, SW-2, and SW-3) that are sampled as part of monitoring of the active West Side Landfill. These locations are downgradient of the Towslee Landfill and shown on Figure 1.

Tables 3 and 4 summarize the surface water quality results. The stream was dry at location SW-1, and no sample was collected. Available NYS water quality standards are included in these tables, and contraventions of standards are highlighted.

The only surface water contraventions in Quarter 3 were for iron and manganese. The iron standard of 0.3 mg/l was exceeded at SW-2 (2.19 mg/l), and SW-3 (1.19 mg/l). The manganese standard of 0.3 mg/l was exceeded at SW-3 (1.26 mg/l). Particulate in the samples may have contributed to the contraventions.

# 6.0 Landfill Gas Testing

Landfill gas measurements were taken at 12 of 13 monitoring wells. A measurement was not taken from Well MW-5A.

Landfill gas results are shown in Table 5. The lower explosive limit (LEL) of methane is 5 percent in air by volume. All measurements are expressed as a percentage of the LEL. No gas was detected at any of the wells.

# 7.0 Quality Control

Quality control samples and data validation are discussed below. Based on a review of this information, we believe the Quarter 3 data are adequate to characterize groundwater quality in the vicinity of the Towslee Landfill.

## 7.1 Quality Control Samples

A duplicate sample was collected for MW-1B in Quarter 3 of 2012. Relative Percent Differences (RPDs) were calculated if results for both the sample and the duplicate were above the detection limit.

RPDs should be less than 20 if the sample result exceeds five times the Practical Quantitation Limit (PQL). Of the seven RPDs that fell into this category, two were above 20: total iron (24), and chloride (27). Varying amounts of particulate in the unfiltered split sample may have contributed to the elevated RPD for iron. The reason for the slightly elevated RPD for chloride is unknown.

If the result is less than five times the PQL, the duplicate result should not differ by more than the PQL from the initial result. Four results fell into this category, and none of the duplicate results varied from the initial result by more than the criteria.

## 7.2 Data Validation

Independent data validation was not required for the Quarter 3 monitoring in 2012. Internal validation was conducted by Upstate Labs, and indicates that the results generally meet acceptance criteria. A summary of the internal validation is included in Appendix B.

# 8.0 Inspection

An inspection of Towslee Landfill was conducted on 10/12/2012. In general, the landfill is in good condition, with no significant deficiencies noted. A summary of this inspection is presented below.

## 8.1 Cap System

- The landfill was mowed in 2012, and the conditions for the inspection were good.
- No evidence of cracking of the cover soils of the cap was observed.
- No settlement of the cap was observed.
- No evidence of erosion or loss of vegetation in the cover soils was observed. The vegetation cover appears to be well-established and healthy.
- One gopher hole was observed on the east slope at approximately mid height of the landfill. The county was made aware of this and will remedy the situation.

## 8.2 Drainage System

- There was no erosion of the ground surface observed in the area of the toe of slope where water discharges from the soil drainage layer. No other erosion was observed.

- All swales, down-chutes and culverts were in good shape and functioning properly.

## 8.3 Gas Venting System

- Five vents are damaged, and will be repaired. Otherwise, no damage or plugging of vents was observed.

- No cap settlement adjacent to vents was observed.

## 8.4 Vectors

No evidence of vectors was observed, apart from the gopher hole described above. Gulls are present at other locations of the County's landfill facility, but not at the Towslee Landfill.

## 8.5 Access Roads

Access roads are in good condition, with no evidence of significant erosion or excessive wear.

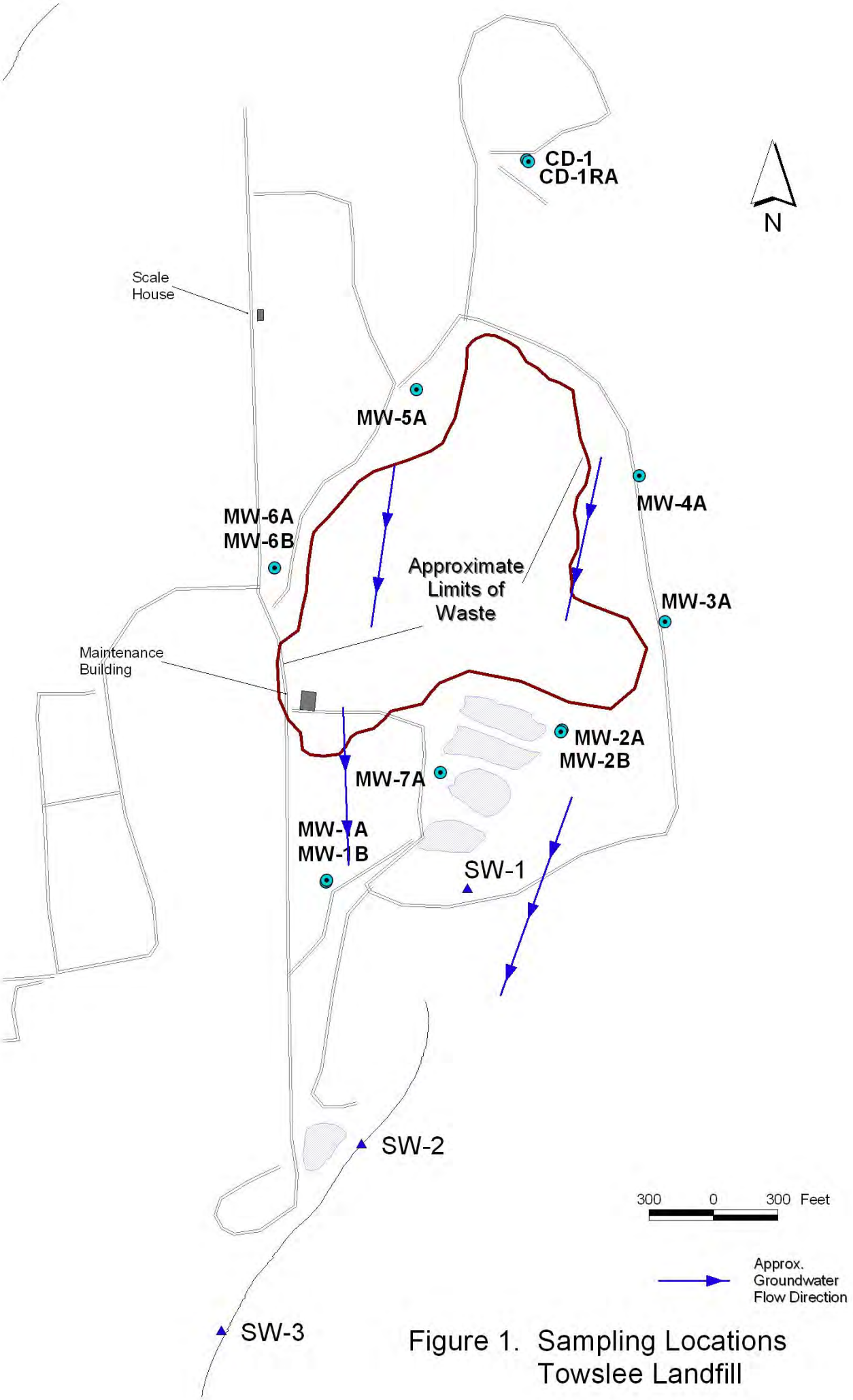



Figure 1. Sampling Locations
Towslee Landfill

# Table1. Contraventions of NYS Water Quality Standards for Field and Inorganic Parameters

Towslee Landfill - Quarter 3 2012

| Parameter | Units | NYS Water Quality Standard | | Upgradient | | Downgradient | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | OB | BR | OB | BR | OB | BR | BR | BR | BR | BR | OB | BR | OB |
| | | | | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
| Temperature | (deg. C) | -- | | 19.8 | 20.5 | 19.9 | 20.3 | 20.2 | 19.5 | 18.8 | 16.5 | 17 | NS | 18.4 | 18.7 | 19.5 |
| Eh | (mV) | -- | | 129 | 131 | 147 | 138 | 147 | 110 | 133 | 141 | 153 | NS | 118 | 119 | 170 |
| pH | log | 6.5 - 8.5 | a | 7.75 | 7.66 | 7.97 | **8.51** | 7.14 | 6.54 | 7.63 | 7.44 | 7.05 | NS | 6.67 | 6.72 | 6.97 |
| Specific Conduct. | (uS/cm) | -- | | 263 | 353 | 368 | 249 | 674 | 1390 | 368 | 458 | 818 | NS | 491 | 377 | 1134 |
| Color | (Units) | 15 | a, b | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- |
| Turbidity | (NTU) | 5 | a | **12.6** | **6.25** | **17.2** | **12** | **40.2** | **5.13** | **13.4** | **7.38** | **15.8** | NS | **71.9** | 4.95 | **40.9** |
| Alkalinity (as CaCO3) | (mg/l) | -- | | 130 | 130 | 120 | 100 | 340 | 670 | 160 | 200 | 450 | NS | 180 | 140 | 490 |
| Hardness (as CaCO3) | (mg/l) | -- | | 119 | 135 | 148 | 107 | 268 | 664 | 159 | 223 | 421 | NS | 185 | 151 | 431 |
| Total Diss. Solids | (mg/l) | 500 | a | 200 | 220 | 270 | 180 | 420 | **940** | 240 | 310 | **520** | NS | 390 | 270 | **750** |
| Chloride | (mg/l) | 250 | a, b | 1.45 | 1.77 | 33.5 | 6.77 | 17.6 | 118 | 7.33 | 23.4 | 19.4 | NS | 23.8 | 23.3 | 103 |
| Sulfate | (mg/l) | 250 | a, b | 10.9 | 13.7 | 13.2 | 5.74 | <5 | <5 | 9.49 | <5 | 6.99 | NS | 11.4 | 16.7 | 17.8 |
| Bromide | (mg/l) | 2 | a | <8 | <0.8 | <8 | <8 | <80 | <8 | <8 | <8 | <8 | NS | <80 | <8 | <80 |
| Nitrate (As N) | (mg/l) | 10 | a, b | 0.072 | <0.05 | 1.09 | <0.05 | 0.109 | <0.05 | <0.05 | <0.05 | 0.085 | NS | <0.05 | <0.05 | <0.05 |
| Ammonia (As N) | (mg/l) | 2 | a | <0.5 | <0.5 | <0.5 | <0.5 | **8.45** | 0.899 | <0.5 | <0.5 | <0.5 | NS | <0.5 | <0.5 | <0.5 |
| TKN | (mg/l) | -- | | <0.5 | <0.5 | <0.5 | <0.5 | 8.58 | 1.38 | <0.5 | <0.5 | <0.5 | NS | 2.38 | <0.5 | 0.627 |
| COD | (mg/l) | -- | | <20 | <20 | <20 | <20 | 24 | 21 | <20 | <20 | <20 | NS | 27 | <20 | 21 |
| BOD | (mg/l) | -- | | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | NS | <4 | <4 | <4 |
| TOC | (mg/l) | -- | | <3 | <3 | <3 | <3 | 6.9 | 6.6 | <3 | <3 | <3 | NS | <3 | <3 | 6.7 |
| Phenolics, Total | (mg/l) | 0.001 | a | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | NS | <0.005 | <0.005 | <0.005 |
| Cyanide | (mg/l) | 0.2 | a, b | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- |

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

E - estimated value

OB = overburden well

BR = Bedrock well

# Table 2. Contraventions of NYS Water Quality Standards for Metals (units are mg/l)

Towslee Landfill - Quarter 3 2012

| Parameter | NYS Water Quality Standard | | Total Metals: Upgradient OB CD-1 | Total Metals: Upgradient BR CD-1RA | Total Metals: Downgradient OB MW-1A | BR MW-1B | OB MW-2A | BR MW-2B | BR MW-3A | BR MW-3B | BR MW-4A | BR MW-5A | OB MW-6A | BR MW-6B | OB MW-7A | Diss. Metals Dwngrd OB MW-6A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | -- | | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Antimony | 0.003 | a | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Arsenic | 0.025 | a | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Barium | 1 | a | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Beryllium | 0.004 | b | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Boron | 1 | a | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Cadmium | 0.005 | a, b | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | NS | <0.005 | <0.005 | <0.005 | <0.005 |
| Calcium | -- | | 34.7 | 38.5 | 42.8 | 30.4 | 78.8 | 196 | 47.5 | 59.1 | 123 | NS | 57.5 | 42.9 | 123 | 52 |
| Chromium | 0.05 | a | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Chrom, Hex | 0.05 | a | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Cobalt | -- | | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Copper | 0.2 | a | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Iron | 0.3 | a, b | 0.15 | 0.15 | **0.702** | **0.39** | **7.39** | **0.319** | 0.238 | 0.142 | 0.209 | NS | **6.38** | <0.06 | **0.869** | **2.14** |
| Lead | 0.015 | b | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | NS | <0.015 | <0.003 | <0.003 | -- |
| Magnesium | -- | | 7.92 | 9.47 | 9.95 | 7.48 | 17.4 | 42.2 | 9.93 | 18.4 | 27.8 | NS | 10.2 | 10.6 | 30.1 | 9.23 |
| Manganese | 0.3 | a, b | 0.0614 | 0.139 | 0.0453 | 0.148 | **10.3** | **6.38** | **0.371** | 0.092 | **2.05** | NS | **2.84** | 0.0693 | **2.91** | **1.36** |
| Mercury | 0.0007 | a | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Nickel | 0.1 | a | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Potassium | -- | | <5 | <5 | <5 | <5 | 10.9 | <5 | <5 | <5 | <5 | NS | <5 | <5 | <5 | <5 |
| Sodium | 20 | a, b | <5 | <5 | 10.4 | 7.34 | 14.7 | **50.8** | 5.41 | 8.61 | 14.7 | NS | 16.5 | 17.3 | **81.6** | 15.6 |
| Selenium | 0.01 | a | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Silver | 0.05 | a | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Thallium | 0.002 | b | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Vanadium | -- | | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |
| Zinc | 5 | b | -- | -- | -- | -- | -- | -- | -- | -- | -- | NS | -- | -- | -- | -- |

a - Part 703 Water Quality Standard (assumes Class GA)
b - Part 5 Drinking Water MCL

-- not analyzed
NS - not sampled

OB = overburden well
BR = Bedrock well

**1.23** indicates contravention of standard.

# Table 3
# Contraventions of Surface Water Quality Standards
# Field/ Inorganic Parameters - Quarter 3 2012

*(No Contraventions)*

| Parameter | Units | NYS Water Quality Standard | | Surface Water Sample Locations SW-1 | SW-2 | SW-3 |
|---|---|---|---|---|---|---|
| Temperature | (deg. C) | -- | | dry | 23 | 21.7 |
| EH | (mV) | -- | | dry | 158 | 165 |
| pH | (Std Units) | 6.5 - 8.5 | a | dry | 7.5 | 7.33 |
| Specific Conductance | (uS/cm) | -- | | dry | 321 | 495 |
| Oxygen, Dissolved | mg/l | 5 | a | dry | 8.82 | 8.83 |
| Color | (Units) | 15 | b | dry | -- | -- |
| Turbidity | (NTU) | -- | | dry | 67.4 | 11.7 |
| Alkalinity (as CaCO3) | (mg/l) | -- | | dry | 100 | 240 |
| Hardness (as CaCO3) | (mg/l) | -- | | dry | 122 | 257 |
| Total Dissolved Solids | (mg/l) | 500 | a | dry | 240 | 400 |
| Chloride | (mg/l) | 250 | a, b | dry | 15.4 | 1.79 |
| Sulfate | (mg/l) | 250 | a, b | dry | <5 | 27.2 |
| Bromide | (mg/l) | -- | | dry | <80 | <80 |
| Boron, tot | (mg/l) | 10 | a | dry | -- | -- |
| Nitrate (As N) | (mg/l) | 10 | a, b | dry | 0.076 | 0.057 |
| Ammonia (As N) | (mg/l) | 2 | a | dry | <0.5 | <0.5 |
| TKN (as N) | (mg/l) | -- | | dry | 0.644 | <0.5 |
| COD | (mg/l) | -- | | dry | 23 | 23 |
| BOD | (mg/l) | -- | | dry | <4 | <4 |
| TOC | (mg/l) | -- | | dry | 7.8 | 3.3 |
| Phenolics, Total | (mg/l) | 0.001 | a | dry | <0.005 | <0.005 |
| Cyanide | (mg/l) | 0.0052 | a | dry | -- | -- |

-- not analyzed\
a - Part 703 Water Quality Standard (assumes Class A waters)
b - Part 5 Drinking Water MCL
**1.23** indicates value exceeded standard

# Table 4
# Contraventions of Surface Water Quality Standards
# Metals - Quarter 3 2012

| Parameter | Units | NYS Water Quality Standard | | Surface Water Sample Locations SW-1 | SW-2 | SW-3 |
|---|---|---|---|---|---|---|
| Al | (mg/l) | 0.1 | a | dry | -- | -- |
| Sb | (mg/l) | 0.003 | a | dry | -- | -- |
| As | (mg/l) | 0.05 | a, b | dry | -- | -- |
| Ba | (mg/l) | 1 | a | dry | -- | -- |
| Be * | (mg/l) | 0.004 | a | dry | -- | -- |
| Cd * | (mg/l) | 0.0021 | a | dry | <0.005 | <0.005 |
| Ca | (mg/l) | -- | | dry | 37.6 | 85.3 |
| Cr * | (mg/l) | 0.05 | a, b | dry | -- | -- |
| Cr+6 | (mg/l) | 0.011 | a | dry | -- | -- |
| Co | (mg/l) | 0.005 | a | dry | -- | -- |
| Cu * | (mg/l) | 0.009 | a | dry | -- | -- |
| Fe | (mg/l) | 0.3 | | dry | **2.19** | **1.19** |
| Pb * | (mg/l) | 0.004 | a | dry | <0.003 | <0.003 |
| Mg | (mg/l) | 35 | a | dry | 6.85 | 10.7 |
| Mn | (mg/l) | 0.3 | | dry | 0.125 | **1.26** |
| Hg | (mg/l) | 0.0007 | a | dry | -- | -- |
| Ni * | (mg/l) | 0.052 | a | dry | -- | -- |
| K | (mg/l) | -- | | dry | <5 | <5 |
| Na | (mg/l) | 20 | b | dry | 10.1 | <5 |
| Se | (mg/l) | 0.0046 | a | dry | -- | -- |
| Ag | (mg/l) | 0.0001 | a | dry | -- | -- |
| Tl | (mg/l) | 0.002 | b | dry | -- | -- |
| V | (mg/l) | 0.014 | a | dry | -- | -- |
| Zn * | (mg/l) | 0.083 | a | dry | -- | -- |

-- not analyzed
a - Part 703 Water Quality Standard (assumes Class A waters)
b - Part 5 Drinking Water MCL
* assumes hardness = 100 mg/l
**1.23** indicates value exceeded standard

# Table 5. Landfill Gas Results - Q3 2012

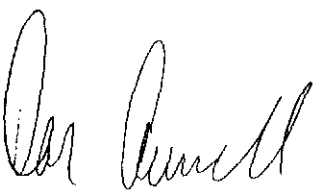
Cortland County West Side and Towslee

GAS MONITORING

Date: 8/31/2012

| LOCATION | %O2 | LEL (ppm) |
|---|---|---|
| AA-1 | 21.5 | 0 |
| AA-2 | 20.8 | 0 |
| AA-3 | 21.5 | 0 |
| AA-4 | 21.4 | 0 |
| AA-5 | 21.4 | 0 |
| AA-6A | 21.1 | 0 |
| AA-7A | 21.4 | 0 |
| AA-8 | 20.4 | 0 |
| AA-9 | 21.1 | 0 |
| AA-10 | 21.6 | 0 |
| AA-11 | 21.6 | 0 |
| AA-12 | 21.5 | 0 |
| AA-13 | 20.7 | 0 |
| AA-14 | 20.2 | 0 |
| AA-15 | 20.5 | 0 |
| AA-16 | 21.4 | 0 |
| AA-17 | 21.5 | 0 |
| AA-6B | 21.1 | 0 |
| AA-7B | 21.4 | 0 |
| GW-1 | 20.8 | 0 |
| GFD-1 | 20.8 | 0 |
| GFD-2 | 20.9 | 0 |
| GFLD-1 | 20.9 | 0 |
| GFLD-2 | 20.8 | 0 |
| GFLD-3 | 20.9 | 0 |
| MW-6A | 19.9 | 0 |
| MW-6B | 19.9 | 0 |
| CD-1RA | 19.9 | 0 |
| CD-1 | 19.9 | 0 |
| MW-4A | 20.2 | 0 |
| MW-3A | 20.2 | 0 |
| MW-3B | 20.2 | 0 |
| MW-2A | 20.3 | 0 |
| MW-2B | 20.3 | 0 |
| MW-1A | 20.7 | 0 |
| MW-1B | 20.7 | 0 |
| MW-7A | 20.8 | 0 |

Meter: VRAE Multi Gas Meter
Measured by: Dan Aumell



# Appendix A

# Analytical Laboratory Results

Cortland County Towslee Landfill

# *Upstate Laboratories, Inc.*

**Shipping: 6034 Corporate Dr. * E. Syracuse, NY 13057-1017 * (315) 437-0255 * Fax (315) 437-1209**
**Mailing: Box 169 * Syracuse, NY 13206**
Albany (518) 459-3134 * Binghamton (607) 239-4413 * 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
(607) 756-5991

Thursday, October 04, 2012

RE: Analytical Report:
Towslee Landfill

Order No.: U1208739

Dear Mr. Patrick Reidy:

Upstate Laboratories, Inc. received 13 sample(s) on 8/30/2012 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. The NYS DOH requires that all samples received by the laboratory must have a Collection Date and Time, and a Relinquished By signature. 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:
Encls: (ASP-A, rept, f.data on disk), invoice

## *Upstate Laboratories, Inc.*

### *Sample Receipt Checklist*

Client Name ***CORTLAND CO.*** Date and Time Receive ***8/29/2012 3:45:00 PM***

Work Order Numbe ***U1208739*** Received by TC

Checklist completed by RMarsh (Signature) 8/29/12 (Date) Reviewed by PH (Initials) 9/4/12 (Date)

Matrix: Carrier name ULI-Dan A.

| | | | | |
|---|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Presen ☐ | |
| Custody seals intact on shippping container/cooler? | Yes ☐ | No ☐ | Not Presen ☑ | |
| Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Presen ☑ | |
| Chain of custody present? | Yes ☑ | No ☐ | | |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | | |
| Sample containers intact? | Yes ☑ | No ☐ | | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | | |
| All samples received within holding time? | Yes ☑ | No ☐ | | |
| Container/Temp Blank temperature in compliance? 5 | Yes ☑ | No ☐ | | |
| Ice present in cooler | Yes ☑ | No ☐ | Ice Melted ☐ | N/A or Unknown ☐ |
| Water - VOA vials have zero headspace? | No VOA vials submitted ☑ | Yes ☐ | No ☐ | |
| Water - pH acceptable upon receipt? | Yes ☐ | No ☑ | | |

Adjusted? Checked b

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

## *Upstate Laboratories, Inc.*

### *Sample Receipt Checklist*

Client Name ***CORTLAND CO.*** Date and Time Receive ***8/30/2012 4:10:00 PM***

Work Order Numbe ***U1208739*** Received by BLM

Checklist completed by BMeush 8/30/12 (Signature / Date) Reviewed by PH 9/4/12 (Initials / Date)

Matrix: Carrier name ULI-Dan A.

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Presen ☐ |
| Custody seals intact on shippping container/cooler? | Yes ☐ | No ☐ | Not Presen ☑ |
| Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Presen ☑ |
| Chain of custody present? | Yes ☑ | No ☐ | |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature in compliance? 2.7 | Yes ☑ | No ☐ | |
| Ice present in cooler | Yes ☑ | No ☐ | Ice Melted ☐ N/A or Unknown ☐ |
| Water - VOA vials have zero headspace? | No VOA vials submitted ☑ | Yes ☐ | No ☐ |
| Water - pH acceptable upon receipt? | Yes ☑ | No ☐ | |
| | Adjusted? | Checked b | |

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

# 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) 239-4413 * Buffalo (716) 972-0371
Rochester (866) 437-0255 * New Jersey (908) 581-4285


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

October 5, 2012

RE: Towslee Landfill, Cortlandville, New York,
Samples Collected August 29 and 30, 2012
Case Narrative for ULI SDG Number COR66, Workorder #U1208739

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

**Internal Validation**

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

***Trace Metals (Total and Dissolved)***

| Test | Batch | Anomaly |
|---|---|---|
| Ca,Cd,Fe,Mg,Mn,K,Na | R75752 | The LCS recovery for Calcium was slightly below QC acceptance limits for LCS-34974. The CCV1 recovery for Potassium was slightly below QC acceptance limits. The CCV2, CCV6 and CCV8 recoveries for Potassium and Sodium were below QC acceptance limits. The CCV3, CCV4 and CCV7 recoveries for several analytes were below QC acceptance limits. The CCV5 recoveries for Cadmium, Calcium and Sodium were slightly below QC acceptance limits. The CCV8 recovery for Calcium was slightly below QC acceptance limits. All other criteria were satisfied. |
| Pb | R75720 | Criteria were satisfied. |

***Wet Chemistry***

| Test | Batch | Anomaly |
|---|---|---|
| BOD | R75117 | Criteria were satisfied. |
| | R75187 | Criteria were satisfied. |

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

***Wet Chemistry***

| Test | Batch | Anomaly |
|---|---|---|
| TDS | R75172 | Criteria were satisfied. |
| | R75245 | Criteria were satisfied. |
| COD | R75145 | The MS recovery for COD was below QC acceptance limits for the MS performed on sample location MW-7A. All other criteria were satisfied. |
| Nitrate-Nitrogen | R75019 | Criteria were satisfied. |
| | R75080 | Criteria were satisfied. |
| TKN | R75522 | The LCS recovery for TKN was below QC acceptance limits for LCS-34907. The LCS spike was inadvertently missed by the analyst. All other criteria were satisfied. |
| | R75770 | Criteria were satisfied. |
| Alkalinity, Total | R75147 | Criteria were satisfied. |
| | R75294 | Criteria were satisfied. |
| Chloride | R75146 | Criteria were satisfied. |
| Ammonia-Nitrogen | R75522 | Criteria were satisfied. |
| | R75724 | The MS/MSD recoveries for Ammonia were below QC acceptance limits for the MS/MSD performed on sample location MW-7A. All other criteria were satisfied. |
| Phenols, Total | R75081 | The CCV4 and CCV5 recoveries for Total Phenols were slightly below QC acceptance limits. All other criteria were satisfied. |
| | R75158 | The MS/MSD %RPD and recoveries for Total Phenols were outside QC acceptance limits for the MS/MSD performed on sample location MW-7A. All other criteria were satisfied. |
| Sulfate | R75123 | Criteria were satisfied. |
| TOC | R75219 | Criteria were satisfied. |

***Wet Chemistry***

| Test | Batch | Anomaly |
|---|---|---|
| Bromide | R75550 | The ICV recovery for Bromide was below QC acceptance limits. All other criteria were satisfied. |
| | R75740 | The CRI3 recovery for Bromide was below QC acceptance limits. All other criteria were satisfied. |
| | R75822 | 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

COR66A.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 | SM 5210B | (1) |
| Nitrate-Nitrogen | 10-107-04-1C | (1) |
| Alkalinity, Total | 310.2 | (1) |
| Chloride | 10-117-07-1A | (1) |
| COD | 410.4 | (1) |
| Ammonia-Nitrogen | 10-107-06-1B | (1) |
| Sulfate | D516-90 | (1) |
| TDS | SM 2540C | (1) |
| TKN | 10-107-06-2 | (1) |
| TOC | SM 5310B | (1) |
| Phenols | 10-210-00-1A | (1) |
| Bromide | SM 4110B | (1) |

Reference

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

# Upstate Laboratories, Inc.

## Analytical Report

**Date:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | CD-1 |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/29/2012 9:46:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-001 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | Lab Code: **FIELD** | | | Analyst: |
| Conductivity | 263 | 1.0 | | umhos/cm | | 8/29/2012 9:46:00 AM |
| Eh | 129 | -300 | | mV | | 8/29/2012 9:46:00 AM |
| pH (#) | 7.75 | 2-12.5 | | SU | | 8/29/2012 9:46:00 AM |
| Temperature | 19.8 | | | °C | | 8/29/2012 9:46:00 AM |
| Turbidity | 12.6 | 5.0 | | NTU | | 8/29/2012 9:46:00 AM |
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 8.0 | | mg/L | 10 | 9/16/2012 |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 12:28:32 PM |
| Calcium | 34700 | 5000 | | µg/L | 1 | 9/26/2012 12:28:32 PM |
| Iron | 150 | 60.0 | | µg/L | 1 | 9/26/2012 12:28:32 PM |
| Magnesium | 7920 | 5000 | | µg/L | 1 | 9/26/2012 12:28:32 PM |
| Manganese | 61.4 | 10.0 | | µg/L | 1 | 9/26/2012 12:28:32 PM |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 12:28:32 PM |
| Sodium | ND | 5000 | | µg/L | 1 | 9/26/2012 12:28:32 PM |
| Hardness, Total(CaCO3) | 119000 | 7000 | | µg/L | 1 | 9/26/2012 12:28:32 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 3.00 | | µg/L | 1 | 9/25/2012 2:12:39 PM |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 130 | 10 | | mg/L | 1 | 9/4/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **DEB** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/30/2012 7:57:00 AM |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | CD-1 |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/29/2012 9:46:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-001 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 1.45 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | ND | 20 | | mg/L | 1 | 9/4/2012 |
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **GWL** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B | Prep Code: NH3_WPR | | Prep Date: 9/17/2012 3:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Ammonia (As N) | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | 0.072 | 0.050 | | mg/L | 1 | 8/29/2012 4:06:00 PM |
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters | Prep Code: PHENOL_WPR | | Prep Date: 8/31/2012 | Prep By: KLS] | | |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 8/31/2012 10:43:00 AM |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | 10.9 | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 200 | 25 | | mg/L | 1 | 8/31/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E | Prep Code: TKN_WPR | | Prep Date: 9/17/2012 3:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Kjeldahl, Total | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | ND | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | CD-1RA |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/29/2012 9:43:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-002 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | Lab Code: **FIELD** | | | Analyst: |
| Conductivity | 353 | 1.0 | | umhos/cm | | 8/29/2012 9:43:00 AM |
| Eh | 131 | -300 | | mV | | 8/29/2012 9:43:00 AM |
| pH (#) | 7.66 | 2-12.5 | | SU | | 8/29/2012 9:43:00 AM |
| Temperature | 20.5 | | | °C | | 8/29/2012 9:43:00 AM |
| Turbidity | 6.25 | 5.0 | | NTU | | 8/29/2012 9:43:00 AM |
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 0.8 | | mg/L | 1 | 9/16/2012 |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 12:38:16 PM |
| Calcium | 38500 | 5000 | | µg/L | 1 | 9/26/2012 12:38:16 PM |
| Iron | 150 | 60.0 | | µg/L | 1 | 9/26/2012 12:38:16 PM |
| Magnesium | 9470 | 5000 | | µg/L | 1 | 9/26/2012 12:38:16 PM |
| Manganese | 139 | 10.0 | | µg/L | 1 | 9/26/2012 12:38:16 PM |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 12:38:16 PM |
| Sodium | ND | 5000 | | µg/L | 1 | 9/26/2012 12:38:16 PM |
| Hardness, Total(CaCO3) | 135000 | 7000 | | µg/L | 1 | 9/26/2012 12:38:16 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 3.00 | | µg/L | 1 | 9/25/2012 2:12:39 PM |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 130 | 10 | | mg/L | 1 | 9/4/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **DEB** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/30/2012 7:57:00 AM |
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | CD-1RA |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/29/2012 9:43:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-002 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 1.77 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | ND | 20 | | mg/L | 1 | 9/4/2012 |
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **GWL** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B | Prep Code: NH3_WPR | | Prep Date: 9/17/2012 3:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Ammonia (As N) | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | ND | 0.050 | | mg/L | 1 | 8/29/2012 4:06:00 PM |
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters | Prep Code: PHENOL_WPR | | Prep Date: 8/31/2012 | Prep By: KLS] | | |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 8/31/2012 10:43:00 AM |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | 13.7 | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 220 | 25 | | mg/L | 1 | 8/31/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E | Prep Code: TKN_WPR | | Prep Date: 9/17/2012 3:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Kjeldahl, Total | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | ND | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-3A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/29/2012 10:17:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-003 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | Lab Code: **FIELD** | | | Analyst: |
| Conductivity | 368 | 1.0 | | umhos/cm | | 8/29/2012 10:17:00 AM |
| Eh | 133 | -300 | | mV | | 8/29/2012 10:17:00 AM |
| pH (#) | 7.63 | 2-12.5 | | SU | | 8/29/2012 10:17:00 AM |
| Temperature | 18.8 | | | °C | | 8/29/2012 10:17:00 AM |
| Turbidity | 13.4 | 5.0 | | NTU | | 8/29/2012 10:17:00 AM |
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 8.0 | | mg/L | 10 | 9/23/2012 |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 12:47:53 PM |
| Calcium | 47500 | 5000 | | µg/L | 1 | 9/26/2012 12:47:53 PM |
| Iron | 238 | 60.0 | | µg/L | 1 | 9/26/2012 12:47:53 PM |
| Magnesium | 9930 | 5000 | | µg/L | 1 | 9/26/2012 12:47:53 PM |
| Manganese | 371 | 10.0 | | µg/L | 1 | 9/26/2012 12:47:53 PM |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 12:47:53 PM |
| Sodium | 5410 | 5000 | | µg/L | 1 | 9/26/2012 12:47:53 PM |
| Hardness, Total(CaCO3) | 159000 | 7000 | | µg/L | 1 | 9/26/2012 12:47:53 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 3.00 | | µg/L | 1 | 9/25/2012 2:12:39 PM |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 160 | 10 | | mg/L | 1 | 9/4/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **DEB** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/30/2012 7:57:00 AM |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-3A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/29/2012 10:17:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-003 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 7.33 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | ND | 20 | | mg/L | 1 | 9/4/2012 |
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **GWL** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B | Prep Code: NH3_WPR | | Prep Date: 9/17/2012 3:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Ammonia (As N) | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | ND | 0.050 | | mg/L | 1 | 8/29/2012 4:06:00 PM |
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters | Prep Code: PHENOL_WPR | | Prep Date: 9/4/2012 | Prep By: KLS] | | |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 9/5/2012 10:44:00 AM |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | 9.49 | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 240 | 25 | | mg/L | 1 | 8/31/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E | Prep Code: TKN_WPR | | Prep Date: 9/17/2012 3:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Kjeldahl, Total | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | ND | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-3B |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/29/2012 10:20:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-004 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | Lab Code: **FIELD** | | | Analyst: |
| Conductivity | 458 | 1.0 | | umhos/cm | | 8/29/2012 10:20:00 AM |
| Eh | 141 | -300 | | mV | | 8/29/2012 10:20:00 AM |
| pH (#) | 7.44 | 2-12.5 | | SU | | 8/29/2012 10:20:00 AM |
| Temperature | 16.5 | | | °C | | 8/29/2012 10:20:00 AM |
| Turbidity | 7.38 | 5.0 | | NTU | | 8/29/2012 10:20:00 AM |
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 8.0 | | mg/L | 10 | 9/23/2012 |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 12:57:29 PM |
| Calcium | 59100 | 5000 | | µg/L | 1 | 9/26/2012 12:57:29 PM |
| Iron | 142 | 60.0 | | µg/L | 1 | 9/26/2012 12:57:29 PM |
| Magnesium | 18400 | 5000 | | µg/L | 1 | 9/26/2012 12:57:29 PM |
| Manganese | 92.0 | 10.0 | | µg/L | 1 | 9/26/2012 12:57:29 PM |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 12:57:29 PM |
| Sodium | 8610 | 5000 | | µg/L | 1 | 9/26/2012 12:57:29 PM |
| Hardness, Total(CaCO3) | 223000 | 7000 | | µg/L | 1 | 9/26/2012 12:57:29 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 3.00 | | µg/L | 1 | 9/25/2012 2:12:39 PM |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 200 | 10 | | mg/L | 1 | 9/4/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **DEB** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/30/2012 7:57:00 AM |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-3B |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/29/2012 10:20:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-004 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 23.4 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | ND | 20 | | mg/L | 1 | 9/4/2012 |
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **GWL** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B | Prep Code: NH3_WPR | | Prep Date: 9/17/2012 3:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Ammonia (As N) | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | ND | 0.050 | | mg/L | 1 | 8/29/2012 4:06:00 PM |
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters | Prep Code: PHENOL_WPR | | Prep Date: 8/31/2012 | Prep By: KLS] | | |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 8/31/2012 10:43:00 AM |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | ND | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 310 | 25 | | mg/L | 1 | 8/31/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E | Prep Code: TKN_WPR | | Prep Date: 9/17/2012 3:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Kjeldahl, Total | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | ND | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-4A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/29/2012 10:09:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-005 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | Lab Code: **FIELD** | | | Analyst: |
| Conductivity | 818 | 1.0 | | umhos/cm | | 8/29/2012 10:09:00 AM |
| Eh | 153 | -300 | | mV | | 8/29/2012 10:09:00 AM |
| pH (#) | 7.05 | 2-12.5 | | SU | | 8/29/2012 10:09:00 AM |
| Temperature | 17 | | | °C | | 8/29/2012 10:09:00 AM |
| Turbidity | 15.8 | 5.0 | | NTU | | 8/29/2012 10:09:00 AM |
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 8.0 | | mg/L | 10 | 9/16/2012 |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 1:07:12 PM |
| Calcium | 123000 | 5000 | | µg/L | 1 | 9/26/2012 1:07:12 PM |
| Iron | 209 | 60.0 | | µg/L | 1 | 9/26/2012 1:07:12 PM |
| Magnesium | 27800 | 5000 | | µg/L | 1 | 9/26/2012 1:07:12 PM |
| Manganese | 2050 | 10.0 | | µg/L | 1 | 9/26/2012 1:07:12 PM |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 1:07:12 PM |
| Sodium | 14700 | 5000 | | µg/L | 1 | 9/26/2012 1:07:12 PM |
| Hardness, Total(CaCO3) | 421000 | 7000 | | µg/L | 1 | 9/26/2012 1:07:12 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 3.00 | | µg/L | 1 | 9/25/2012 2:12:39 PM |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 450 | 10 | | mg/L | 1 | 9/4/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **DEB** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/30/2012 7:57:00 AM |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-4A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/29/2012 10:09:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-005 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 19.4 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | ND | 20 | | mg/L | 1 | 9/4/2012 |
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **GWL** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B | Prep Code: NH3_WPR | | Prep Date: 9/17/2012 3:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Ammonia (As N) | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | 0.085 | 0.050 | | mg/L | 1 | 8/29/2012 4:06:00 PM |
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters | Prep Code: PHENOL_WPR | | Prep Date: 8/31/2012 | Prep By: KLS] | | |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 8/31/2012 10:43:00 AM |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | 6.99 | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 520 | 25 | | mg/L | 1 | 8/31/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E | Prep Code: TKN_WPR | | Prep Date: 9/17/2012 3:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Kjeldahl, Total | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | ND | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-1A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 9:31:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-006 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | Lab Code: **FIELD** | | | Analyst: |
| Conductivity | 368 | 1.0 | | umhos/cm | | 8/30/2012 9:31:00 AM |
| Eh | 147 | -300 | | mV | | 8/30/2012 9:31:00 AM |
| pH (#) | 7.97 | 2-12.5 | | SU | | 8/30/2012 9:31:00 AM |
| Temperature | 19.9 | | | °C | | 8/30/2012 9:31:00 AM |
| Turbidity | 17.2 | 5.0 | | NTU | | 8/30/2012 9:31:00 AM |
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 8.0 | | mg/L | 10 | 9/23/2012 |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 1:16:34 PM |
| Calcium | 42800 | 5000 | | µg/L | 1 | 9/26/2012 1:16:34 PM |
| Iron | 702 | 60.0 | | µg/L | 1 | 9/26/2012 1:16:34 PM |
| Magnesium | 9950 | 5000 | | µg/L | 1 | 9/26/2012 1:16:34 PM |
| Manganese | 45.3 | 10.0 | | µg/L | 1 | 9/26/2012 1:16:34 PM |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 1:16:34 PM |
| Sodium | 10400 | 5000 | | µg/L | 1 | 9/26/2012 1:16:34 PM |
| Hardness, Total(CaCO3) | 148000 | 7000 | | µg/L | 1 | 9/26/2012 1:16:34 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 3.00 | | µg/L | 1 | 9/25/2012 2:12:39 PM |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 120 | 10 | | mg/L | 1 | 9/4/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **JTT** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/31/2012 8:00:00 AM |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-1A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 9:31:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-006 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 33.5 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | ND | 20 | | mg/L | 1 | 9/4/2012 |
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **GWL** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B | Prep Code: NH3_WPR | | Prep Date: 9/18/2012 12:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Ammonia (As N) | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | 1.09 | 0.050 | | mg/L | 1 | 8/31/2012 9:16:00 AM |
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters | Prep Code: PHENOL_WPR | | Prep Date: 9/4/2012 | Prep By: KLS] | | |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 9/5/2012 10:44:00 AM |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | 13.2 | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 270 | 25 | | mg/L | 1 | 9/4/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E | Prep Code: TKN_WPR | | Prep Date: 9/18/2012 12:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Kjeldahl, Total | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | ND | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-1B |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 9:28:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-007 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | Lab Code: **FIELD** | | | Analyst: |
| Conductivity | 249 | 1.0 | | umhos/cm | | 8/30/2012 9:28:00 AM |
| Eh | 138 | -300 | | mV | | 8/30/2012 9:28:00 AM |
| pH (#) | 8.51 | 2-12.5 | | SU | | 8/30/2012 9:28:00 AM |
| Temperature | 20.3 | | | °C | | 8/30/2012 9:28:00 AM |
| Turbidity | 12 | 5.0 | | NTU | | 8/30/2012 9:28:00 AM |
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 8.0 | | mg/L | 10 | 9/23/2012 |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 1:44:05 PM |
| Calcium | 30400 | 5000 | | µg/L | 1 | 9/26/2012 1:44:05 PM |
| Iron | 390 | 60.0 | | µg/L | 1 | 9/26/2012 1:44:05 PM |
| Magnesium | 7480 | 5000 | | µg/L | 1 | 9/26/2012 1:44:05 PM |
| Manganese | 148 | 10.0 | | µg/L | 1 | 9/26/2012 1:44:05 PM |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 1:44:05 PM |
| Sodium | 7340 | 5000 | | µg/L | 1 | 9/26/2012 1:44:05 PM |
| Hardness, Total(CaCO3) | 107000 | 7000 | | µg/L | 1 | 9/26/2012 1:44:05 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 3.00 | | µg/L | 1 | 9/25/2012 2:12:39 PM |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 100 | 10 | | mg/L | 1 | 9/4/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **JTT** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/31/2012 8:00:00 AM |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-1B |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 9:28:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-007 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 6.77 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | ND | 20 | | mg/L | 1 | 9/4/2012 |
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **GWL** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B | Prep Code: NH3_WPR | | Prep Date: 9/18/2012 12:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Ammonia (As N) | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | ND | 0.050 | | mg/L | 1 | 8/31/2012 9:16:00 AM |
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters | Prep Code: PHENOL_WPR | | Prep Date: 9/4/2012 | Prep By: KLS] | | |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 9/5/2012 10:44:00 AM |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | 5.74 | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 180 | 25 | | mg/L | 1 | 9/4/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E | Prep Code: TKN_WPR | | Prep Date: 9/18/2012 12:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Kjeldahl, Total | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | ND | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** DH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-2A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 10:40:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-008 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | Lab Code: **FIELD** | | | Analyst: |
| Conductivity | 674 | 1.0 | | umhos/cm | | 8/30/2012 10:40:00 AM |
| Eh | 147 | -300 | | mV | | 8/30/2012 10:40:00 AM |
| pH (#) | 7.14 | 2-12.5 | | SU | | 8/30/2012 10:40:00 AM |
| Temperature | 20.2 | | | °C | | 8/30/2012 10:40:00 AM |
| Turbidity | 40.2 | 5.0 | | NTU | | 8/30/2012 10:40:00 AM |
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 80 | | mg/L | 100 | 9/23/2012 |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 1:53:42 PM |
| Calcium | 78800 | 5000 | | µg/L | 1 | 9/26/2012 1:53:42 PM |
| Iron | 7390 | 60.0 | | µg/L | 1 | 9/26/2012 1:53:42 PM |
| Magnesium | 17400 | 5000 | | µg/L | 1 | 9/26/2012 1:53:42 PM |
| Manganese | 10300 | 10.0 | | µg/L | 1 | 9/26/2012 1:53:42 PM |
| Potassium | 10900 | 5000 | | µg/L | 1 | 9/26/2012 1:53:42 PM |
| Sodium | 14700 | 5000 | | µg/L | 1 | 9/26/2012 1:53:42 PM |
| Hardness, Total(CaCO3) | 268000 | 7000 | | µg/L | 1 | 9/26/2012 1:53:42 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 3.00 | | µg/L | 1 | 9/25/2012 2:12:39 PM |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 340 | 10 | | mg/L | 1 | 9/4/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **JTT** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/31/2012 8:00:00 AM |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-2A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 10:40:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-008 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 17.6 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | 24 | 20 | | mg/L | 1 | 9/4/2012 |
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **TNT** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B | Prep Code: NH3_WPR | | Prep Date: 9/24/2012 12:30:00 PM | | | Prep By: TNT] |
| Nitrogen, Ammonia (As N) | 8.45 | 0.500 | | mg/L | 1 | 9/24/2012 4:28:00 PM |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | 0.109 | 0.050 | | mg/L | 1 | 8/31/2012 9:16:00 AM |
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters | Prep Code: PHENOL_WPR | | Prep Date: 9/4/2012 | Prep By: KLS] | | |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 9/5/2012 10:44:00 AM |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | ND | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 420 | 25 | | mg/L | 1 | 9/4/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E | Prep Code: TKN_WPR | | Prep Date: 9/18/2012 12:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Kjeldahl, Total | 8.58 | 0.500 | | mg/L | 1 | 9/18/2012 |
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | 6.9 | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-2B |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 10:44:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-009 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | Lab Code: **FIELD** | | | Analyst: |
| Conductivity | 1390 | 1.0 | | umhos/cm | | 8/30/2012 10:44:00 AM |
| Eh | 110 | -300 | | mV | | 8/30/2012 10:44:00 AM |
| pH (#) | 6.54 | 2-12.5 | | SU | | 8/30/2012 10:44:00 AM |
| Temperature | 19.5 | | | °C | | 8/30/2012 10:44:00 AM |
| Turbidity | 5.13 | 5.0 | | NTU | | 8/30/2012 10:44:00 AM |
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 8.0 | | mg/L | 10 | 9/23/2012 |
| **NOTES:** | | | | | | |
| The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 2:08:24 PM |
| Calcium | 196000 | 5000 | | µg/L | 1 | 9/26/2012 2:08:24 PM |
| Iron | 319 | 60.0 | | µg/L | 1 | 9/26/2012 2:08:24 PM |
| Magnesium | 42200 | 5000 | | µg/L | 1 | 9/26/2012 2:08:24 PM |
| Manganese | 6380 | 10.0 | | µg/L | 1 | 9/26/2012 2:08:24 PM |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 2:08:24 PM |
| Sodium | 50800 | 5000 | | µg/L | 1 | 9/26/2012 2:08:24 PM |
| Hardness, Total(CaCO3) | 664000 | 7000 | | µg/L | 1 | 9/26/2012 2:08:24 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 3.00 | | µg/L | 1 | 9/25/2012 2:12:39 PM |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 670 | 100 | | mg/L | 10 | 9/7/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **JTT** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/31/2012 8:00:00 AM |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-2B |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 10:44:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-009 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 118 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | 21 | 20 | | mg/L | 1 | 9/4/2012 |
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **TNT** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B | Prep Code: NH3_WPR | | Prep Date: 9/24/2012 12:30:00 PM | | | Prep By: TNT] |
| Nitrogen, Ammonia (As N) | 0.899 | 0.500 | | mg/L | 1 | 9/24/2012 4:28:00 PM |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | ND | 0.050 | | mg/L | 1 | 8/31/2012 9:16:00 AM |
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters | Prep Code: PHENOL_WPR | | Prep Date: 9/4/2012 | | | Prep By: KLS] |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 9/5/2012 10:44:00 AM |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | ND | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 940 | 25 | | mg/L | 1 | 9/4/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E | Prep Code: TKN_WPR | | Prep Date: 9/18/2012 12:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Kjeldahl, Total | 1.38 | 0.500 | | mg/L | 1 | 9/18/2012 |
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | 6.6 | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** PH **Date:** 10-4-12



**Qualifiers:**

| | | | |
|---|---|---|---|
| # | Accreditation not offered by NYS DOH for this parameter | * | Low Level |
| ** | Value exceeds Maximum Contaminant Value | B | Analyte deteeted 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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-6A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 10:59:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-010 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | Lab Code: **FIELD** | | | Analyst: |
| Conductivity | 491 | 1.0 | | umhos/cm | | 8/30/2012 10:59:00 AM |
| Eh | 118 | -300 | | mV | | 8/30/2012 10:59:00 AM |
| pH (#) | 6.67 | 2-12.5 | | SU | | 8/30/2012 10:59:00 AM |
| Temperature | 18.4 | | | °C | | 8/30/2012 10:59:00 AM |
| Turbidity | 71.9 | 5.0 | | NTU | | 8/30/2012 10:59:00 AM |
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 80 | | mg/L | 100 | 9/23/2012 |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 2:17:45 PM |
| Calcium | 57500 | 5000 | | µg/L | 1 | 9/26/2012 2:17:45 PM |
| Iron | 6380 | 60.0 | | µg/L | 1 | 9/26/2012 2:17:45 PM |
| Magnesium | 10200 | 5000 | | µg/L | 1 | 9/26/2012 2:17:45 PM |
| Manganese | 2840 | 10.0 | | µg/L | 1 | 9/26/2012 2:17:45 PM |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 2:17:45 PM |
| Sodium | 16500 | 5000 | | µg/L | 1 | 9/26/2012 2:17:45 PM |
| Hardness, Total(CaCO3) | 185000 | 7000 | | µg/L | 1 | 9/26/2012 2:17:45 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 15.0 | | µg/L | 5 | 9/25/2012 2:12:39 PM |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, DISSOLVED BY NYSDEC ASP 2005** | | | Lab Code: **200.7WDASP** | | | Analyst: **LET** |
| [AqPrep Dissolved Metals- EPA 3005A Prep Code: 200.7DPRASP Prep Date: 9/21/2012 10:12:35 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 10:01:03 AM |
| Calcium | 52000 | 5000 | | µg/L | 1 | 9/26/2012 10:01:03 AM |
| Iron | 2140 | 60.0 | | µg/L | 1 | 9/26/2012 10:01:03 AM |
| Magnesium | 9230 | 5000 | | µg/L | 1 | 9/26/2012 10:01:03 AM |
| Manganese | 1360 | 10.0 | | µg/L | 1 | 9/26/2012 10:01:03 AM |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-6A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 10:59:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-010 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **ICP METALS, DISSOLVED BY NYSDEC ASP 2005** | | | Lab Code: **200.7WDASP** | | | Analyst: **LET** |
| [AqPrep Dissolved Metals- EPA 3005A Prep Code: 200.7DPRASP Prep Date: 9/21/2012 10:12:35 AM Prep By: ARO] | | | | | | |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 10:01:03 AM |
| Sodium | 15600 | 5000 | | µg/L | 1 | 9/26/2012 10:01:03 AM |
| **NOTES:** Dissolved Metals filtered in Laboratory on 9/20/12 at 11:45am. | | | | | | |
| **ICPMS METALS, DISSOLVED BY NYSDEC ASP 2005** | | | Lab Code: **200.8_D_ASP** | | | Analyst: **LET** |
| [AqPrep ASP Dissolved Metals: - EPA 3005A Prep Code: 200.8DPRASP Prep Date: 9/21/2012 10:12:46 AM Prep By: ARO] | | | | | | |
| Lead | ND | 15.0 | | µg/L | 5 | 9/25/2012 2:12:39 PM |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 180 | 10 | | mg/L | 1 | 9/4/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **JTT** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/31/2012 8:00:00 AM |
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 23.8 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | 27 | 20 | | mg/L | 1 | 9/4/2012 |
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **TNT** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B Prep Code: NH3_WPR Prep Date: 9/24/2012 12:30:00 PM Prep By: TNT] | | | | | | |
| Nitrogen, Ammonia (As N) | ND | 0.500 | | mg/L | 1 | 9/24/2012 4:28:00 PM |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | ND | 0.050 | | mg/L | 1 | 8/31/2012 9:16:00 AM |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-6A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 10:59:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-010 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters Prep Code: PHENOL_WPR Prep Date: 9/4/2012 Prep By: KLS] | | | | | | |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 9/5/2012 10:44:00 AM |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | 11.4 | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 390 | 25 | | mg/L | 1 | 9/4/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E Prep Code: TKN_WPR Prep Date: 9/18/2012 12:00:00 PM Prep By: GWL] | | | | | | |
| Nitrogen, Kjeldahl, Total | 2.38 | 0.500 | | mg/L | 1 | 9/18/2012 |
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | ND | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-6B |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 11:02:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-011 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | Lab Code: **FIELD** | | | Analyst: |
| Conductivity | 377 | 1.0 | | umhos/cm | | 8/30/2012 11:02:00 AM |
| Eh | 119 | -300 | | mV | | 8/30/2012 11:02:00 AM |
| pH (#) | 6.72 | 2-12.5 | | SU | | 8/30/2012 11:02:00 AM |
| Temperature | 18.7 | | | °C | | 8/30/2012 11:02:00 AM |
| Turbidity | 4.95 | 5.0 | | NTU | | 8/30/2012 11:02:00 AM |
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 8.0 | | mg/L | 10 | 9/23/2012 |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 2:27:10 PM |
| Calcium | 42900 | 5000 | | µg/L | 1 | 9/26/2012 2:27:10 PM |
| Iron | ND | 60.0 | | µg/L | 1 | 9/26/2012 2:27:10 PM |
| Magnesium | 10600 | 5000 | | µg/L | 1 | 9/26/2012 2:27:10 PM |
| Manganese | 69.3 | 10.0 | | µg/L | 1 | 9/26/2012 2:27:10 PM |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 2:27:10 PM |
| Sodium | 17300 | 5000 | | µg/L | 1 | 9/26/2012 2:27:10 PM |
| Hardness, Total(CaCO3) | 151000 | 7000 | | µg/L | 1 | 9/26/2012 2:27:10 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 3.00 | | µg/L | 1 | 9/25/2012 2:12:39 PM |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 140 | 10 | | mg/L | 1 | 9/4/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **JTT** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/31/2012 8:00:00 AM |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-6B |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 11:02:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-011 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 23.3 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | ND | 20 | | mg/L | 1 | 9/4/2012 |
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **GWL** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B | Prep Code: NH3_WPR | | Prep Date: 9/18/2012 12:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Ammonia (As N) | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | ND | 0.050 | | mg/L | 1 | 8/31/2012 9:16:00 AM |
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters | Prep Code: PHENOL_WPR | | Prep Date: 9/4/2012 | Prep By: KLS] | | |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 9/5/2012 10:44:00 AM |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | 16.7 | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 270 | 25 | | mg/L | 1 | 9/4/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E | Prep Code: TKN_WPR | | Prep Date: 9/18/2012 12:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Kjeldahl, Total | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | ND | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-7A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 9:48:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-012 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | Lab Code: **FIELD** | | | Analyst: |
| Conductivity | 1134 | 1.0 | | umhos/cm | | 8/30/2012 9:48:00 AM |
| Eh | 170 | -300 | | mV | | 8/30/2012 9:48:00 AM |
| pH (#) | 6.97 | 2-12.5 | | SU | | 8/30/2012 9:48:00 AM |
| Temperature | 19.5 | | | °C | | 8/30/2012 9:48:00 AM |
| Turbidity | 40.9 | 5.0 | | NTU | | 8/30/2012 9:48:00 AM |
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 80 | | mg/L | 100 | 9/23/2012 |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 2:36:48 PM |
| Calcium | 123000 | 5000 | | µg/L | 1 | 9/26/2012 2:36:48 PM |
| Iron | 869 | 60.0 | | µg/L | 1 | 9/26/2012 2:36:48 PM |
| Magnesium | 30100 | 5000 | | µg/L | 1 | 9/26/2012 2:36:48 PM |
| Manganese | 2910 | 10.0 | | µg/L | 1 | 9/26/2012 2:36:48 PM |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 2:36:48 PM |
| Sodium | 81600 | 5000 | | µg/L | 1 | 9/26/2012 2:36:48 PM |
| Hardness, Total(CaCO3) | 431000 | 7000 | | µg/L | 1 | 9/26/2012 2:36:48 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 3.00 | | µg/L | 1 | 9/25/2012 2:12:39 PM |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 490 | 10 | | mg/L | 1 | 9/4/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **JTT** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/31/2012 8:00:00 AM |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-7A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 9:48:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-012 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 103 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | 21 | 20 | | mg/L | 1 | 9/4/2012 |
| **NOTES:** Spike recovery abnormally low due to matrix interference. | | | | | | |
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **TNT** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B | Prep Code: NH3_WPR | | Prep Date: 9/24/2012 12:30:00 PM | | | Prep By: TNT] |
| Nitrogen, Ammonia (As N) | ND | 0.500 | | mg/L | 1 | 9/24/2012 4:28:00 PM |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | ND | 0.050 | | mg/L | 1 | 8/31/2012 9:16:00 AM |
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters | Prep Code: PHENOL_WPR | | Prep Date: 9/4/2012 | Prep By: KLS] | | |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 9/5/2012 10:44:00 AM |
| **NOTES:** Spike recovery abnormally low due to matrix interference. | | | | | | |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | 17.8 | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 750 | 25 | | mg/L | 1 | 9/4/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E | Prep Code: TKN_WPR | | Prep Date: 9/26/2012 2:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Kjeldahl, Total | 0.627 | 0.500 | | mg/L | 1 | 9/27/2012 |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | MW-7A |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 9:48:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-012 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | 6.7 | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | Dupe MW-1B |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 9:28:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-013 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **BROMIDE BY SM 18-21 4110B (00)** | | | Lab Code: **BROMIDE_W** | | | Analyst: **GWL** |
| Bromide | ND | 8.0 | | mg/L | 10 | 9/26/2012 |
| **NOTES:** The reporting limits were raised due to matrix interference. | | | | | | |
| **ICP METALS, TOTAL BY NYSDEC ASP 2005** | | | Lab Code: **200.7WTASP** | | | Analyst: **LET** |
| [AqPrep Total Metals- EPA 3005A Prep Code: 200.7TPRASP Prep Date: 9/20/2012 11:41:17 AM Prep By: ARO] | | | | | | |
| Cadmium | ND | 5.00 | | µg/L | 1 | 9/26/2012 3:04:38 PM |
| Calcium | 28300 | 5000 | | µg/L | 1 | 9/26/2012 3:04:38 PM |
| Iron | 495 | 60.0 | | µg/L | 1 | 9/26/2012 3:04:38 PM |
| Magnesium | 6970 | 5000 | | µg/L | 1 | 9/26/2012 3:04:38 PM |
| Manganese | 135 | 10.0 | | µg/L | 1 | 9/26/2012 3:04:38 PM |
| Potassium | ND | 5000 | | µg/L | 1 | 9/26/2012 3:04:38 PM |
| Sodium | 6780 | 5000 | | µg/L | 1 | 9/26/2012 3:04:38 PM |
| Hardness, Total(CaCO3) | 99300 | 7000 | | µg/L | 1 | 9/26/2012 3:04:38 PM |
| **ASP TOTAL METALS BY ICP-MS BY EPA 200.8** | | | Lab Code: **200.8ASP** | | | Analyst: **LET** |
| [AqPrep ASP Total Metals: - EPA 3005A Prep Code: 200.8TPRASP Prep Date: 9/20/2012 11:41:23 AM Prep By: ARO] | | | | | | |
| Lead | ND | 3.00 | | µg/L | 1 | 9/25/2012 2:12:39 PM |
| **ALKALINITY BY EPA 310.2** | | | Lab Code: **ALK_W_AUTO** | | | Analyst: **CAS** |
| Alkalinity, Total (As CaCO3) | 95 | 10 | | mg/L | 1 | 9/4/2012 |
| **BOD, 5 DAY BY SM 18-20 5210B (01)** | | | Lab Code: **BOD** | | | Analyst: **JTT** |
| Biochemical Oxygen Demand | ND | 4.0 | | mg/L | 1 | 8/31/2012 8:00:00 AM |
| **CHLORIDE WATERS BY LACHAT 10-117-07-1 A** | | | Lab Code: **CL_W_AUTO** | | | Analyst: **CAS** |
| Chloride | 5.18 | 1.00 | | mg/L | 1 | 9/4/2012 |
| **COD BY EPA 410.4 REV. 2.0** | | | Lab Code: **COD** | | | Analyst: **KLS** |
| Chemical Oxygen Demand | ND | 20 | | mg/L | 1 | 9/4/2012 |

**Approved By:** PH **Date:** 10-4-12



**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:** *04-Oct-12*

| | | | |
|---|---|---|---|
| **CLIENT:** | Cortland Co. Soil and Water Cons. Dist. | **Client Sample ID:** | Dupe MW-1B |
| **Lab Order:** | U1208739 | **Collection Date:** | 8/30/2012 9:28:00 AM |
| **Project:** | Towslee Landfill | | |
| **Lab ID:** | U1208739-013 | **Matrix:** | WATER |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **NH3 BY LACHAT 10-107-06-1-J** | | | Lab Code: **NH3_W_AUTO** | | | Analyst: **GWL** |
| [NH3 Prep for Waters by SM 18 4500-NH3 B | Prep Code: NH3_WPR | | Prep Date: 9/18/2012 12:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Ammonia (As N) | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C** | | | Lab Code: **NO3_W** | | | Analyst: **KLS** |
| Nitrogen, Nitrate (as N) | 0.059 | 0.050 | | mg/L | 1 | 8/31/2012 9:16:00 AM |
| **PHENOLICS, TOTAL BY LACHAT 10-210-00-1A** | | | Lab Code: **PHENOL_W** | | | Analyst: **KLS** |
| [Prep for Phenol in Waters | Prep Code: PHENOL_WPR | | Prep Date: 9/4/2012 | Prep By: KLS] | | |
| Phenolics, Total Recoverable | ND | 0.005 | | mg/L | 1 | 9/5/2012 10:44:00 AM |
| **SULFATE BY ASTM D516-90, 02 & 07** | | | Lab Code: **SULFATE_W** | | | Analyst: **SAB** |
| Sulfate | 5.80 | 5.00 | | mg/L | 1 | 9/4/2012 |
| **TDS BY SM 18-21 2540C (97)** | | | Lab Code: **TDS** | | | Analyst: **TNT** |
| Residue, Dissolved (TDS) | 210 | 25 | | mg/L | 1 | 9/4/2012 |
| **TKN BY LACHAT 10-107-06-2** | | | Lab Code: **TKN_W_AUTO** | | | Analyst: **GWL** |
| [TKN Prep for Waters by SM 18 4500-NH3 E | Prep Code: TKN_WPR | | Prep Date: 9/18/2012 12:00:00 PM | | | Prep By: GWL] |
| Nitrogen, Kjeldahl, Total | ND | 0.500 | | mg/L | 1 | 9/18/2012 |
| **TOC BY SM 18-21 5310B (00)** | | | Lab Code: **TOC_W** | | | Analyst: **DEB** |
| Organic Carbon, Total | ND | 3.0 | | mg/L | 1 | 9/6/2012 |

**Approved By:** PH **Date:** 10-4-12



**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**

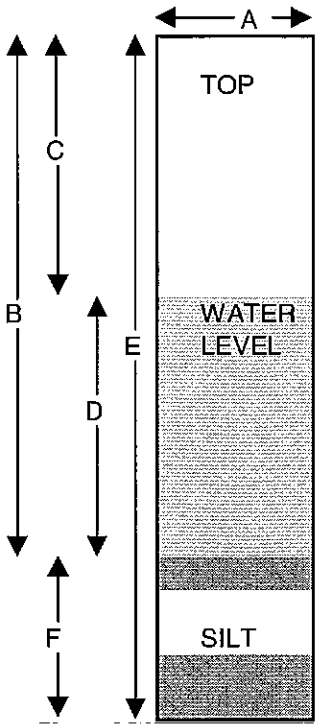
Project: **Towslee Landfill** ULI ID No. (enter by lab)

Well ID.: **CD-1**

Condition of Well: Good Locked: yes

Method of Evacuation: Dedicated Bailer Lock ID: 2440

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 24.70 | feet |
| C. | Depth to Water | 11.45 | feet |
| D. | Length of Water Column (calculated) | 13.25 | feet |
| | Conversion Factor | X.16 | ------ |
| | Well Volume (calculated) | 2.12 | gallons |
| | No. of Volumes to be Evacuated | X3 | ------ |
| | Total Volume to be Evacuated | 6.36 | gallons |
| | Actual Volume Evacuated | 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 | 8/28/2012 | 8/29/2012 |
| Time | 1:04pm | 9:46am |
| EH | 102 | 129 |
| Temperature | 18.3 | 19.8 |
| pH | 8.28 | 7.75 |
| Specific Cond. | 114 | 263 |
| Turbidity | 36.5 | 12.6 |
| Dissolved Oxygen | N/A | N/A |
| Appearance | cloudy | sl. Cloudy |

% Recharge:

Initial Depth to Water 11.45 feet

Recharge Depth to Water 11.58 feet

2nd water column height 98.88 %

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: 75F partly cloudy 66F sun

Observations:

Sampler: Dan Agnell

Signature: Dan Agnell

# Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

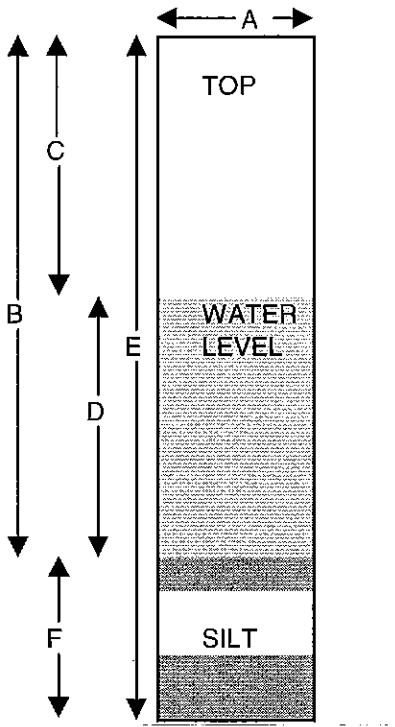
Project: **Towslee Landfill** ULI ID No. (enter by lab)

Well ID.: **CD-1RA**

Condition of Well: Good Locked: yes

Method of Evacuation: Dedicated Bailer Lock ID: 2440

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 50.60 | feet |
| C. | Depth to Water | 8.47 | feet |
| D. | Length of Water Column (calculated) | 42.13 | feet |
| | Conversion Factor | X.16 | ------ |
| | Well Volume (calculated) | 6.74 | gallons |
| | No. of Volumes to be Evacuated | X3 | ------ |
| | Total Volume to be Evacuated | 20.22 | gallons |
| | Actual Volume Evacuated | 14 | 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 | 8/28/2012 | 8/29/2012 |
| Time | 12:59pm | 9:43am |
| EH | 101 | 131 |
| Temperature | 19.3 | 20.5 |
| pH | 8.25 | 7.66 |
| Specific Cond. | 231 | 353 |
| Turbidity | 26.9 | 6.25 |
| Dissolved Oxygen | N/A | N/A |
| Appearance | cloudy | clear |

% Recharge:

Initial Depth to Water 8.47 feet

Recharge Depth to Water 10.43 feet

2nd water column height 81.21 %

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: 75F partly cloudy 66F sun

Observations:

Sampler: Don Aumell

Signature: Don Aumell

# Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

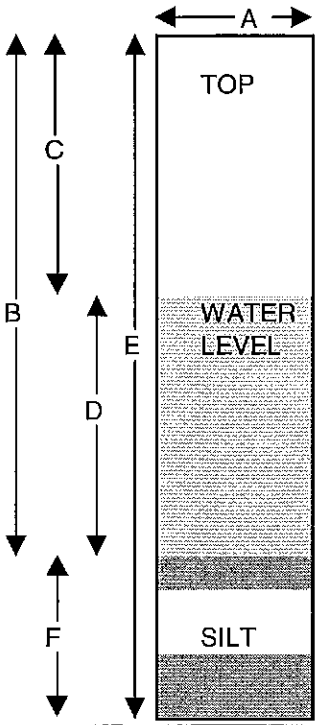
Project: **Towslee Landfill** ULI ID No. (enter by lab)

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

Condition of Well: Good Locked: yes

Method of Evacuation: Dedicated Bailer Lock ID: 2440

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 22.40 | feet |
| C. | Depth to Water | 9.55 | feet |
| D. | Length of Water Column (calculated) | 12.85 | feet |
| | Conversion Factor | X.16 | ------ |
| | Well Volume (calculated) | 2.06 | gallons |
| | No. of Volumes to be Evacuated | X3 | ------ |
| | Total Volume to be Evacuated | 6.17 | 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 | 8/28/2012 | 8/29/2012 |
| Time | 1:54pm | 10:17am |
| EH | 82 | 133 |
| Temperature | 17.9 | 18.8 |
| pH | 7.29 | 7.63 |
| Specific Cond. | 371 | 368 |
| Turbidity | 4.6 | 13.4 |
| Dissolved Oxygen | N/A | N/A |
| Appearance | Clear | Sl. Cloudy |

% Recharge:

Initial Depth to Water 9.55 feet

Recharge Depth to Water 9.28 feet

2nd water column height 102.91 %

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

Weather: 77F Partly Cloudy 72F Sun

Observations:

Sampler: Don Aumell

Signature: Don Aumell

# 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-3B**

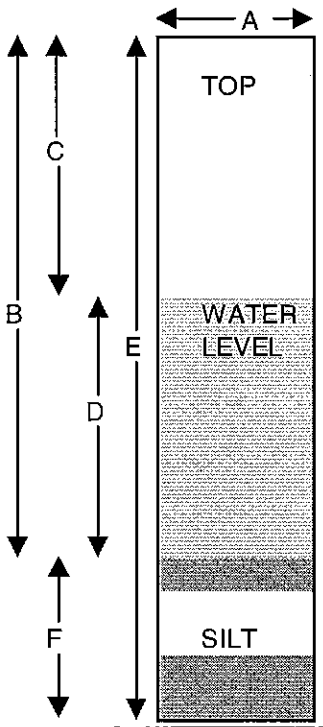
Condition of Well: Good

Locked: yes

Method of Evacuation: Dedicated Bailer

Lock ID: 2440

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 44.4 | feet |
| C. | Depth to Water | 15.9 | feet |
| D. | Length of Water Column (calculated) | 28.5 | feet |
| | Conversion Factor | X.16 | ------ |
| | Well Volume (calculated) | 4.56 | gallons |
| | No. of Volumes to be Evacuated | X3 | ------ |
| | Total Volume to be Evacuated | 13.68 | gallons |
| | Actual Volume Evacuated | 14 | 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 | 8/28/2012 | 8/29/2012 |
| Time | 1:51pm | 10:20am |
| EH | 73 | 141 |
| Temperature | 17.9 | 16.5 |
| pH | 7.14 | 7.44 |
| Specific Cond. | 452 | 458 |
| Turbidity | 3.78 | 7.38 |
| Dissolved Oxygen | N/A | N/A |
| Appearance | Clear | Clear |

% Recharge:

Initial Depth to Water 15.9 feet

Recharge Depth to Water 15.42 feet

2nd water column height 103.11 %

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: 77F Partly Cloudy 72F Sun

Observations:

Sampler: Dan Aumell

Signature: Dan Aumell

# Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

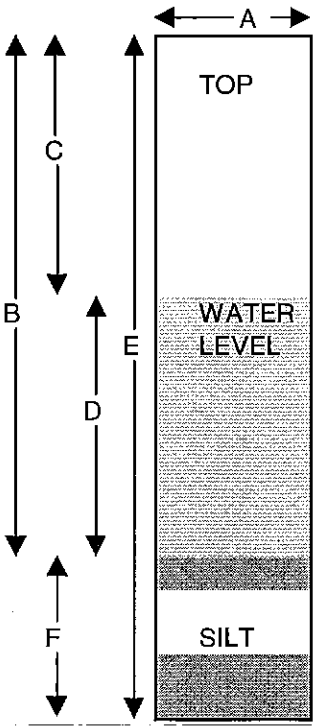
Project: **Towslee Landfill** ULI ID No. (enter by lab)

Well ID.: **MW-4A**

Condition of Well: Good | Locked: yes

Method of Evacuation: Dedicated Bailer | Lock ID: 2440

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 32.40 | feet |
| C. | Depth to Water | 9.41 | feet |
| D. | Length of Water Column (calculated) | 22.99 | feet |
| | Conversion Factor | X.16 | ------ |
| | Well Volume (calculated) | 3.68 | gallons |
| | No. of Volumes to be Evacuated | X3 | ------ |
| | Total Volume to be Evacuated | 11.04 | gallons |
| | Actual Volume Evacuated | 4.5 | 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 | 8/28/2012 | 8/29/2012 |
| Time | 1:38pm | 10:09am |
| EH | 146 | 153 |
| Temperature | 16.8 | 17 |
| pH | 7.01 | 7.05 |
| Specific Cond. | 884 | 818 |
| Turbidity | 8.87 | 15.8 |
| Dissolved Oxygen | N/A | N/A |
| Appearance | clear | sl. Cloudy |

% Recharge:

Initial Depth to Water 9.41 feet

Recharge Depth to Water 9.31 feet

2nd water column height 101.07 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

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

Weather: 76F partly cloudy | 66F sun

Observations:

Sampler: Dan Aumell

Signature: Dan Aumell

# Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

Project: **Towslee Landfill** ULI ID No. (enter by lab)

Well ID.: **MW-5A**

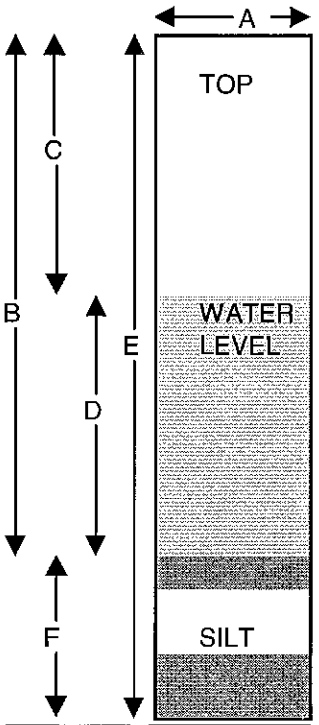
Condition of Well: Good

Locked: no lock

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 32.30 | feet |
| C. | Depth to Water | 10.02 | 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 | 8/28/2012 | |
| Time | 12:47pm | |
| 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: 75F partly cloudy

Observations: Can't be sampled, well pipe bent.

Sampler: Dan Aumell

Signature: Dan Aumell

# Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

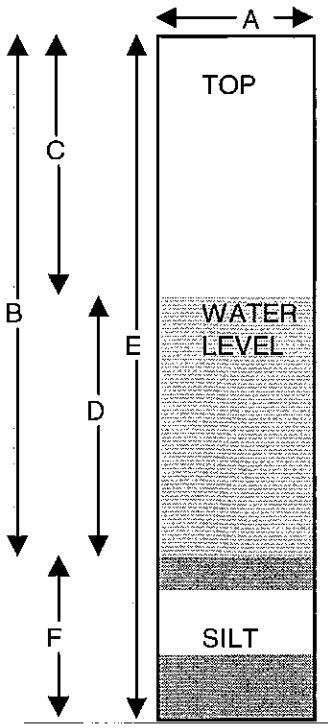
Project: **Towslee Landfill** ULI ID No. (enter by lab)

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

Condition of Well: Good Locked: yes

Method of Evacuation: Dedicated Bailer Lock ID: 2440

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 33.7 | feet |
| C. | Depth to Water | 0.22 | feet |
| D. | Length of Water Column (calculated) | 33.48 | feet |
| | Conversion Factor | X.16 | ------ |
| | Well Volume (calculated) | 5.36 | gallons |
| | No. of Volumes to be Evacuated | X3 | ------ |
| | Total Volume to be Evacuated | 16.07 | 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 | 8/29/2012 | 8/30/2012 |
| Time | 10:45am | 9:31am |
| EH | 139 | 147 |
| Temperature | 17.5 | 19.9 |
| pH | 7.41 | 7.97 |
| Specific Cond. | 362 | 368 |
| Turbidity | 34.7 | 17.2 |
| Dissolved Oxygen | N/A | N/A |
| Appearance | cloudy | sl. Cloudy |

% Recharge:

| | | |
|---|---|---|
| Initial Depth to Water | 0.22 | feet |
| Recharge Depth to Water | 0.22 | feet |
| 2nd water column height | 100 | % |
| 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: 74F Sunny 62F sunny

Observations:

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**

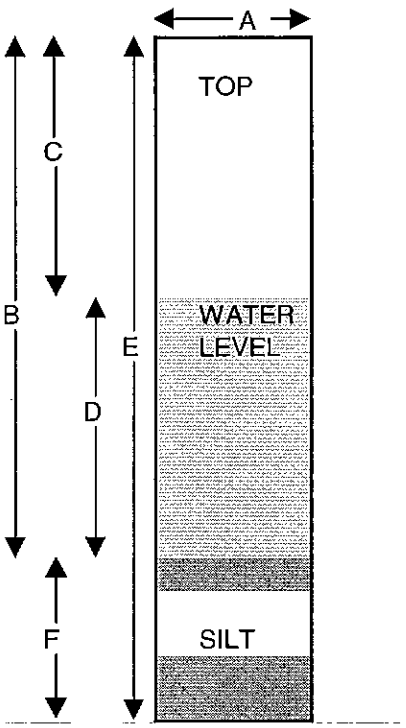
Condition of Well: Good

Locked: Yes

Method of Evacuation: Dedicated Bailer

Lock ID: 2440

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 55.5 | feet |
| C. | Depth to Water | 0.41 | feet |
| D. | Length of Water Column (calculated) | 55.09 | feet |
| | Conversion Factor | X.16 | ------ |
| | Well Volume (calculated) | 8.81 | gallons |
| | No. of Volumes to be Evacuated | X3 | ------- |
| | Total Volume to be Evacuated | 26.44 | 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 | 8/29/2012 | 8/30/2012 |
| Time | 10:42am | 9:28am |
| EH | 129 | 138 |
| Temperature | 19.5 | 20.3 |
| pH | 7.61 | 8.51 |
| Specific Cond. | 209 | 249 |
| Turbidity | 5.3 | 12 |
| Dissolved Oxygen | N/A | N/A |
| Appearance | clear | sl. Cloudy |

% Recharge:

| | | |
|---|---|---|
| Initial Depth to Water | 0.41 | feet |
| Recharge Depth to Water | 0.42 | feet |
| 2nd water column height | 97.62 | % |
| 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: 74 F sunny 62 F sunny

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**

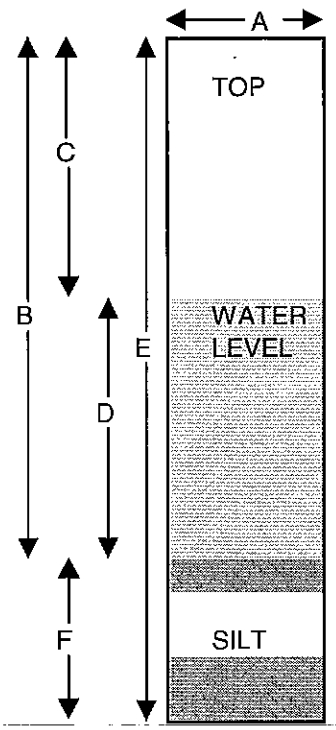
Project: **Towslee Landfill** ULI ID No. (enter by lab)

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

Condition of Well: Good Locked: yes

Method of Evacuation: Dedicated Bailer Lock ID: 2440

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 12.8 | feet |
| C. | Depth to Water | 6.81 | feet |
| D. | Length of Water Column (calculated) | 5.99 | feet |
| | Conversion Factor | X.16 | ------ |
| | Well Volume (calculated) | 0.96 | gallons |
| | No. of Volumes to be Evacuated | X3 | ------ |
| | Total Volume to be Evacuated | 2.88 | gallons |
| | Actual Volume Evacuated | 2 | 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 | 8/29/2012 | 8/30/2012 |
| Time | 12:31pm | 10:40am |
| EH | 116 | 147 |
| Temperature | 21.9 | 20.2 |
| pH | 6.92 | 7.14 |
| Specific Cond. | 561 | 674 |
| Turbidity | 39.6 | 40.2 |
| Dissolved Oxygen | N/A | N/A |
| Appearance | cloudy | cloudy |

% Recharge:

Initial Depth to Water 6.81 feet

Recharge Depth to Water 6.89 feet

2nd water column height 98.84 %

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: 71F Sun 66F Sun

Observations:

Sampler: Dan Aumell

Signature: Dan Aumell

# Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

Project: **Towslee Landfill** ULI ID No. (enter by lab)

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

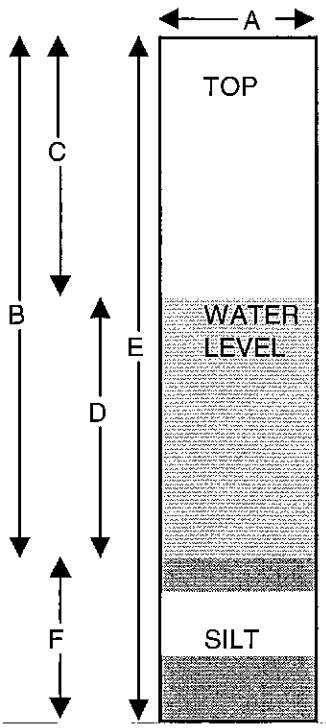
Condition of Well: Good

Locked: yes (well lid broken)

Method of Evacuation: Dedicated Bailer

Lock ID: 2440

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 33.5 | feet |
| C. | Depth to Water | 7.53 | feet |
| D. | Length of Water Column (calculated) | 25.97 | feet |
| | Conversion Factor | X.16 | ------ |
| | Well Volume (calculated) | 4.16 | gallons |
| | No. of Volumes to be Evacuated | X3 | ------ |
| | Total Volume to be Evacuated | 12.47 | gallons |
| | Actual Volume Evacuated | 6 | 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 | 8/29/2012 | 8/30/2012 |
| Time | 12:34pm | 10:44am |
| EH | 70 | 110 |
| Temperature | 20.7 | 19.5 |
| pH | 6.54 | 6.54 |
| Specific Cond. | 1335 | 1390 |
| Turbidity | 4.27 | 5.13 |
| Dissolved Oxygen | N/A | N/A |
| Appearance | clear | clear |

% Recharge:

Initial Depth to Water 7.53 feet

Recharge Depth to Water 7.58 feet

2nd water column height 99.34 %

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: 71F Sun 66F Sun

Observations:

Sampler: Don Aumell

Signature: Don Aumell

# Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

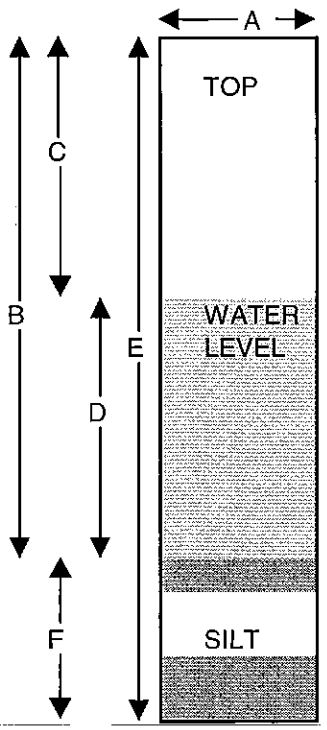
Project: **Towslee Landfill** ULI ID No. (enter by lab)

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

Condition of Well: Good Locked: yes

Method of Evacuation: Dedicated Bailer Lock ID: 2440

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 19.10 | feet |
| C. | Depth to Water | 15.3 | feet |
| D. | Length of Water Column (calculated) | 3.8 | feet |
| | Conversion Factor | X.16 | ------ |
| | Well Volume (calculated) | 0.61 | gallons |
| | No. of Volumes to be Evacuated | X3 | ------ |
| | Total Volume to be Evacuated | 1.82 | gallons |
| | Actual Volume Evacuated | 2.5 | 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 | 8/29/2012 | 8/30/2012 |
| Time | 1:00pm | 10:59am |
| EH | 97 | 118 |
| Temperature | 20.8 | 18.4 |
| pH | 6.92 | 6.67 |
| Specific Cond. | 471 | 491 |
| Turbidity | 71000 | 71.9 |
| Dissolved Oxygen | N/A | N/A |
| Appearance | Extremely cloudy, gray | very cloudy |

% Recharge:

| | | |
|---|---|---|
| Initial Depth to Water | 15.3 | feet |
| Recharge Depth to Water | 15.38 | feet |
| 2nd water column height | 99.48 | % |
| 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: 71F Sun 69F Sun

Observations: D-metals taken

Sampler:

Signature: Dan Aumell

# Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

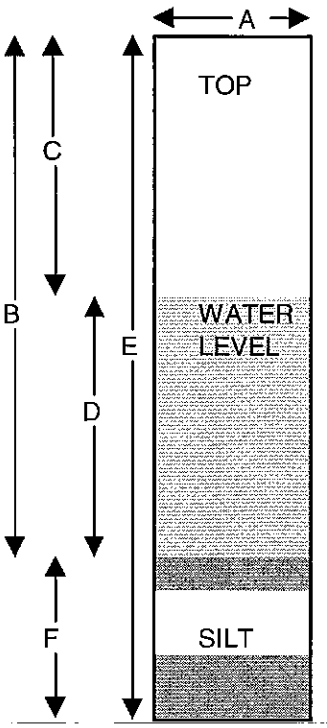
Project: **Towslee Landfill** ULI ID No. (enter by lab)

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

Condition of Well: Good Locked: yes

Method of Evacuation: Dedicated Bailer Lock ID: 2440

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 40.75 | feet |
| C. | Depth to Water | 15.46 | feet |
| D. | Length of Water Column (calculated) | 25.29 | feet |
| | Conversion Factor | X.16 | ------ |
| | Well Volume (calculated) | 4.05 | gallons |
| | No. of Volumes to be Evacuated | X3 | ------ |
| | Total Volume to be Evacuated | 12.14 | gallons |
| | Actual Volume Evacuated | 6.5 | 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 | 8/29/2012 | 8/30/2012 |
| Time | 1:04pm | 11:02am |
| EH | 97 | 119 |
| Temperature | 17.3 | 18.7 |
| pH | 7.07 | 6.72 |
| Specific Cond. | 315 | 377 |
| Turbidity | 73.3 | 4.95 |
| Dissolved Oxygen | N/A | N/A |
| Appearance | very cloudy | clear |

% Recharge:

Initial Depth to Water 15.5 feet

Recharge Depth to Water 15.52 feet

2nd water column height 99.61 %

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: 71F Sun 69F Sun

Observations:

Sampler: Dan Axwell

Signature: Dan Axwell

# Upstate Laboratories, Inc. Ground water Field Log

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

Client: **Cortland County**

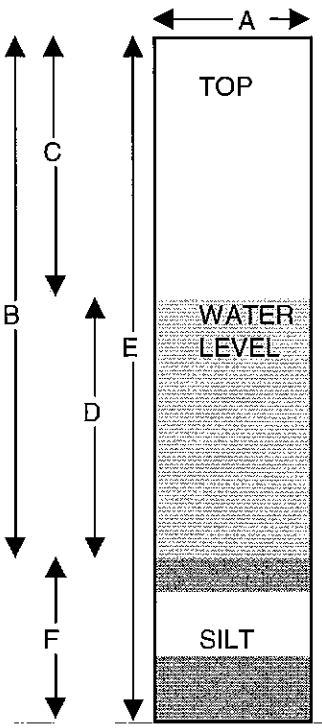
Project: **Towslee Landfill** ULI ID No. (enter by lab)

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

Condition of Well: Good Locked: yes

Method of Evacuation: Dedicated Bailer Lock ID: 2440

Method of Sampling: Dedicated Bailer




| | | | |
|---|---|---|---|
| A. | Diameter of Well | 2" | inches |
| B. | Well Depth Measured | 22.20 | feet |
| C. | Depth to Water | 4.3 | feet |
| D. | Length of Water Column (calculated) | 17.90 | feet |
| | Conversion Factor | X.16 | ------ |
| | Well Volume (calculated) | 2.86 | gallons |
| | No. of Volumes to be Evacuated | X3 | ------ |
| | Total Volume to be Evacuated | 8.59 | 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 | 8/29/2012 | 8/30/2012 |
| Time | 11:16am | 9:48am |
| EH | 158 | 170 |
| Temperature | 19.4 | 19.5 |
| pH | 6.61 | 6.97 |
| Specific Cond. | 868 | 1134 |
| Turbidity | 17.8 | 40.9 |
| Dissolved Oxygen | N/A | N/A |
| Appearance | sl. Cloudy | cloudy |

% Recharge:

Initial Depth to Water 4.3 feet

Recharge Depth to Water 4.36 feet

2nd water column height 98.62 %

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: 71F Sunny 62F Sunny

Observations:

Sampler: Don Aumell

Signature: Don Aumell

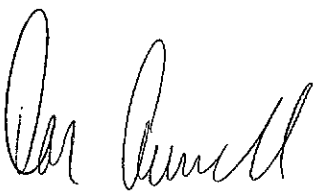
Cortland County West Side and Towslee

GAS MONITORING

Date: 8/31/2012

| LOCATION | %O2 | LEL (ppm) |
|---|---|---|
| AA-1 | 21.5 | 0 |
| AA-2 | 20.8 | 0 |
| AA-3 | 21.5 | 0 |
| AA-4 | 21.4 | 0 |
| AA-5 | 21.4 | 0 |
| AA-6A | 21.1 | 0 |
| AA-7A | 21.4 | 0 |
| AA-8 | 20.4 | 0 |
| AA-9 | 21.1 | 0 |
| AA-10 | 21.6 | 0 |
| AA-11 | 21.6 | 0 |
| AA-12 | 21.5 | 0 |
| AA-13 | 20.7 | 0 |
| AA-14 | 20.2 | 0 |
| AA-15 | 20.5 | 0 |
| AA-16 | 21.4 | 0 |
| AA-17 | 21.5 | 0 |
| AA-6B | 21.1 | 0 |
| AA-7B | 21.4 | 0 |
| GW-1 | 20.8 | 0 |
| GFD-1 | 20.8 | 0 |
| GFD-2 | 20.9 | 0 |
| GFLD-1 | 20.9 | 0 |
| GFLD-2 | 20.8 | 0 |
| GFLD-3 | 20.9 | 0 |
| MW-6A | 19.9 | 0 |
| MW-6B | 19.9 | 0 |
| CD-1RA | 19.9 | 0 |
| CD-1 | 19.9 | 0 |
| MW-4A | 20.2 | 0 |
| MW-3A | 20.2 | 0 |
| MW-3B | 20.2 | 0 |
| MW-2A | 20.3 | 0 |
| MW-2B | 20.3 | 0 |
| MW-1A | 20.7 | 0 |
| MW-1B | 20.7 | 0 |
| MW-7A | 20.8 | 0 |

Meter: VRAE Multi Gas Meter
Measured by: 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

| Sample ID | Date | Time | Matrix | Grab or Comp | ULI Internal Use Only ULI08739 | Number of Containers | ULI Computer Input Form 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Remarks: 1993 PART 360 ROUTINE ASP-A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 | 8/29/12 | 9:46am | WATER | GRAB | 1 | 6 | X | X | X | X | X | X | X | | | | |
| CD-1RA | 8/29/12 | 9:43am | WATER | GRAB | 2 | 6 | X | X | X | X | X | X | X | | | | |
| MW-1A | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | |
| MW-1B | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | |
| MW-2A | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | |
| MW-2B | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | |
| MW-3A | 8/29/12 | 10:17am | WATER | GRAB | 3 | ~~6~~ (5) | X | X | X | X | X | X | X | | | | |
| MW-3B | 8/29/12 | 10:20am | WATER | GRAB | 4 | 6 | X | X | X | X | X | X | X | | | | |
| MW-4A | 8/29/12 | 10:09am | WATER | GRAB | 5 | 6 | X | X | X | X | X | X | X | | | | |
| MW-5A | 8/28/12 | 12:47pm | WATER | GRAB | | ~~6~~ | X | X | X | X | X | X | X | | | | Can't be Sampled |
| MW-6A | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | |
| MW-6B | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | |
| MW-7A | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | |
| DUPE | | | WATER | GRAB | | 6 | | X | X | X | X | X | X | | | | |
| MS/MSD | | | | | | | | | | | | | | | | | |
| SCALE HOUSE | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | (BCM 8/30/12) |

| | 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 | 250 ML | 1:1 HCL |
| 5 | ALKALINITY | PLASTIC | 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 Aumell

Company: ULI a AES

Name of Courier:

| Relinquished by:(sign) | Date | Time | Received by: (sign) |
|---|---|---|---|
| | | | |
| Relinquished by:(sign) | Date | Time | Received by: (sign) |
| | | | |
| Relinquished by:(sign) Dan Aumell | Date 8/29/12 | Time 3:45 pm | Rec'd for Lab by: BMcNish |

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

2nd shrip

# 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

| Sample ID | Date | Time | Matrix | Grab or Comp | ULI Internal Use Only | Number of Containers | ULI Computer Input Form 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 | | | WATER | GRAB | U1208739 | 6 | X | X | X | X | X | X | X | | | | 1993 PART 360 ROUTINE ASP-A |
| CD-1RA | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | |
| MW-1A | 8/30/12 | 9:31 am | WATER | GRAB | 6 | 6 | X | X | X | X | X | X | X | | | | |
| MW-1B | 8/30/12 | 9:28 am | WATER | GRAB | 7 | 6 | X | X | X | X | X | X | X | | | | |
| MW-2A | 8/30/12 | 10:40 am | WATER | GRAB | 8 | 6 | X | X | X | X | X | X | X | | | | |
| MW-2B | 8/30/12 | 10:44 am | WATER | GRAB | 9 | 6 | X | X | X | X | X | X | X | | | | |
| MW-3A | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | |
| MW-3B | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | |
| MW-4A | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | |
| MW-5A | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | (D-Metals filtered in lab) |
| MW-6A | 8/30/12 | 10:59 am | WATER | GRAB | 10 | ~~6~~ 7 | X | X | X | X | X | X | X | X | | | by 10/4/12 |
| MW-6B | 8/30/12 | 11:02 am | WATER | GRAB | 11 | ~~6~~ (7) | X | X | X | X | X | X | X | | | | |
| MW-7A | 8/30/12 | 9:48 am | WATER | GRAB | 12 | ~~8~~ (7) | X | X | X | X | X | X | X | | | | (MS/MSD) BLM 8/31/12 |
| DUPE MW-1B | 8/30/12 | 9:28 am | WATER | GRAB | 13 | 6 | | X | X | X | X | X | X | | | | |
| MS/MSD | | | | | | | | | | | | | | | | | |
| SCALE HOUSE | | | WATER | GRAB | | 6 | X | X | X | X | X | X | X | | | | |

| | 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 | 250 ML | 1:1 HCL |
| 5 | ALKALINITY | PLASTIC | 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): Don Aumell

Company: ULI & AES

Name of Courier:

| Relinquished by:(sign) | Date | Time | Received by: (sign) |
|---|---|---|---|
| | | | |
| Relinquished by:(sign) | Date | Time | Received by: (sign) |
| | | | |
| Relinquished by:(sign) Don Aumell | Date 8/30/12 | Time 4:10 pm | Rec'd for Lab by: BMeans |

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Put labels

# Appendix B

# Historical Analytical Data

Cortland County Towslee Landfill

# Historical Data Page Index
# Cortland County Towslee Landfill

| Well | Field/ Inorganic Parameters | Total Metals | Dissolved Metals | Organics |
|---|---|---|---|---|
| CD-1 | 2 | 15 | 28 | 41 |
| CD-1RA | 3 | 16 | 29 | 42 |
| MW-1A | 4 | 17 | 30 | 43 |
| MW-1B | 5 | 18 | 31 | 44 |
| MW-2A | 6 | 19 | 32 | 45 |
| MW-2B | 7 | 20 | 33 | 46 |
| MW-3A | 8 | 21 | 34 | 47 |
| MW-3A | 9 | 22 | 35 | 48 |
| MW-4A | 10 | 23 | 36 | 49 |
| MW-5A | 11 | 24 | 37 | 50 |
| MW-6A | 12 | 25 | 38 | 51 |
| MW-6B | 13 | 26 | 39 | 52 |
| MW-7A | 14 | 27 | 40 | 53 |

# Historical Water Quality Database - Towslee Landfill
## Field and Inorganic Parameters
## Well CD-1 - Bedrock

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/ cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 * | -- | -- | -- | -- | 0.001 | 0.2 |
| 9/20/11 | 19.1 | 152 | 8.2 | 303 | -- | 9.58 | 130 | 150 | 220 | 1.41 | 10.8 | <8 | 0.054 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 12/13/11 | 7.7 | 164 | 7.91 | 282 | 6 | 10.2 | 140 J | 145 | 210 | 6.88 J | 16.9 | <0.8 | 0.068 | <0.5 J | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 J |
| 3/20/12 | 18.2 | 179 | 7.89 | 274 | 6 | 46.2 | 130 J | 144 | 180 | <1 J | 15.6 | <0.8 J | 0.055 | <0.5 | <0.5 J | <20 | <6 J | <3 | <0.005 J | <0.01 |
| 5/22/12 | 19 | 137 | 7.53 | 257 | -- | 40.9 | 120 | 146 | 380 | 1.2 | 12.2 | <8 | 0.068 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 8/29/12 | 19.8 | 129 | 7.75 | 263 | -- | 12.6 | 130 | 119 | 200 | 1.45 | 10.9 | <8 | 0.072 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |

# Historical Water Quality Database - Towslee Landfill
## Field and Inorganic Parameters
## Well CD-1RA - Bedrock

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/ cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 * | -- | -- | -- | -- | 0.001 | 0.2 |
| 8/1/97 | -- | -- | -- | -- | <5 | -- | 134 | 160 | 163 | <2 | 10.8 | 1 | <0.1 | 0.04 | 0.2 | <15 | <2 | 2.1 | <1 | -- |
| 10/1/97 | -- | -- | -- | -- | 20 | -- | 132 | 160 | 150 | 2.5 | 15.3 | 1.2 | <0.1 | 0.11 | 0.21 | <15 | <2 | <1 | <1 | -- |
| 9/20/11 | 20.3 | 146 | 8.29 | 343 | -- | 53 | 120 | 135 | 180 | 2.2 | 17.3 | <8 | 0.054 | <0.5 | <0.5 | <20 | 5 | <3 | <0.005 | -- |
| 12/13/11 | 9.6 | 164 | 7.79 | 312 | 6 | 25.3 | 150 J | 155 | 170 | 3.67 J | 18.4 | <0.8 | 0.058 | <0.5 J | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 J |
| 3/20/12 | 17.7 | 180 | 7.98 | 299 | <5 | 20.3 | 140 J | 164 | 150 | 1.43 J | 15.8 | <0.8 J | 0.079 | <0.5 | <0.5 J | <20 | <4 J | <3 | <0.005 J | <0.01 |
| 5/22/12 | 185 | 142 | 7.45 | 295 | -- | 8.26 | 140 | 155 | 310 | 1.46 | 15.9 | <0.8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 8/29/12 | 20.5 | 131 | 7.66 | 353 | -- | 6.25 | 130 | 135 | 220 | 1.77 | 13.7 | <0.8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |

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

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/ cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 | -- | -- | -- | -- | 0.001 | 0.2 |
| 8/1/97 | -- | -- | -- | -- | 5 | -- | 160 | 4000 | 494 | 152 | 20.6 | 1.2 | <0.1 | 6 | 18 | 305 | 5 | 4.2 | 0.003 | <0.01 |
| 10/1/97 | -- | -- | -- | -- | 20 | -- | 145 | 240 | 214 | 46 | 14.6 | 0.8 | <0.1 | 2.6 | 3.8 | 64 | <2 | 1.6 | 0.0015 | <0.01 |
| 3/22/06 | 8.5 | 700 | 7.8 | 306 | -- | 660 | 127 | 167 | 340 | 21.3 | 27.3 | < 0.1 | < 0.1 | 0.276 | 23.3 | < 10 | < 3 | 4.76 | < 0.005 | -- |
| 5/31/06 | 12.8 | 105 | 7.7 | 355 | -- | 73 | 139 | 140 | 213 | 22.2 | 12.3 | <0.1 | 0.217 | <0.02 | 0.529 H | <10 | <3 | 2.61 | <0.005 | -- |
| 8/9/06 | 19.5 | 190 | 7.52 | 353 | <5 | 131 | 122 | 148 | 236 | 34.2 | 16.5 | <0.1 | <0.1 | 0.161 | 0.366 | <10 | <3 | <2 | <0.005 | <0.01 |
| 10/10/06 | 15.9 | 170 | 7.69 | 369 | -- | 29 | 132 | 148 | 229 | 26.7 | 14.9 | 0.117 | <0.1 | <0.1 | <0.2 | <10 | <3 | <2 | <0.005 | -- |
| 3/20/07 | 9.3 | 59 | 8.29 | 204 | -- | 55.6 | 140 | 134 | 127 | 28.7 | 8.79 | <0.2 | <0.2 | <0.5 | 2.2 | <20 | <4 | <3 | <0.005 | -- |
| 4/26/07 | 6.7 | -107 | 7.93 | 221 | -- | 34.8 | 120 | 153 | 208 | 27 | 14.2 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | 0.005 | -- |
| 7/31/07 | 21.6 | -111 | 7.83 | 241 | -- | 24.3 | 120 | 148 | 250 | 27 | 48.6 | <0.2 | <0.2 | <0.5 | 5.66 | <20 | <4 | <3 | <0.005 | -- |
| 10/10/07 | 16 | -68 | 8.01 | 658 | 30 | 28.1 | 130 | 146 | 204 | 27.9 | 11.2 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 |
| 4/16/08 | 11.2 | -57 | 7.85 | 351 | -- | 16 | 120 | 151 | 195 | 28 | 16.3 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | 9 | <3 | <0.005 | -- |
| 7/23/08 | 21.7 | -62 | 8.07 | 344 | -- | 11.6 | 120 | 159 | 116 | 25.9 | <5 | <2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 10/24/08 | 10.6 | -69 | 8.23 | 334 | -- | 24.6 | 120 | 165 | 188 H | 29.7 | 11.6 | <2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 3/12/09 | 3.6 | -21 | 7.4 | 344 | -- | 16.7 | 130 | 161 | 256 | 30.4 | 14 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 6/17/09 | 19.6 | 143 | 8.09 | 199 | 18 | 23.4 | 100 H | 163 | 180 | 30.7 | 14.3 | <2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | < 0.01 |
| 9/30/09 | 12.6 | 162 | 7.67 | 201 | -- | 30.6 | 120 H | 158 | 210 | 29.5 | 12.7 | <2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 12/1/09 | 6.6 | 107 | 8.35 | 862 | -- | 47.4 | 120 | 161 | 190 | 30 | 6.3 | <2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 4/27/10 | 8.2 | 180 | 7.28 | 1580 | -- | 22.7 | 140 | 161 | 270 | 31.7 | 9.43 | <0.8 | 0.0721 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 7/20/10 | 18.9 | 151 | 7.73 | 263 | 35 | 18.6 | 120 | 167 | 320 | 33 | 17.9 | <1.6 | 0.066 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 |
| 10/26/10 | 15.6 | 110 | 7.95 | 345 | -- | 37.7 | 120 | 169 | 170 | 31.4 | 14.8 | <0.8 | 0.102 | <0.5 | 0.897 | <20 | <4 | <3 | <0.005 | -- |
| 3/22/11 | 9.8 | 228 | 7.52 | 347 | -- | 24.2 | 130 | 159 | 150 | 32 | 13.6 | <8 | 0.102 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 5/24/11 | 19.2 | 109 | 8.26 | 364 | -- | 45.2 | 120 | 164 | 460 | 30.5 | 10.2 | <0.8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 9/20/11 | 17.9 | 160 | 7.96 | 372 | -- | 20.89 | 130 | 172 | 220 | 32.1 | 14.1 | <8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 12/14/11 | 6.6 | 147 | 8.62 | 375 | 80 | 24 | 150 J | 177 | 210 R | 28.5 J | 15.8 | <0.8 | 0.075 | <0.5 J | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 J |
| 3/21/12 | 19.8 | 116 | 7.91 | 401 | 6 | 572 | 130 J | 225 | 190 | 33.9 J | 11.4 | <8 J | <0.05 | <0.5 J | 0.994 J | <20 | <4 R | <3 | <0.005 J | <0.01 |
| 5/22/12 | 20.3 | 163 | 6.94 | 376 | -- | 26.5 | 140 | 175 | 450 | 33.1 | 12.2 | <8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 8/30/12 | 19.9 | 147 | 7.97 | 368 | -- | 17.2 | 120 | 148 | 270 | 33.5 | 13.2 | <8 | 1.09 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |

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

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 * | -- | -- | -- | -- | 0.001 | 0.2 |
| 8/1/97 | -- | -- | -- | -- | <5 | -- | 94.8 | 88 | 143 | <2 | 5.2 | <0.5 | 0.2 | <0.02 | <0.2 | <15 | <2 | 9.3 | <0.001 | -- |
| 10/1/97 | -- | -- | -- | -- | <5 | -- | 93.6 | 140 | 86 | <2 | <5 | <0.5 | <0.1 | 0.04 | <0.2 | <15 | <2 | <1 | <0.001 | -- |
| 3/22/06 | 5 | 385 | 7.7 | 157 | -- | 187 | 92 | 97.6 | 120 | 2.55 | 4.72 | < 0.1 | < 0.1 | 0.0938 | 0.54 | < 10 | < 3 | 5.41 | < 0.005 | -- |
| 5/31/06 | 11.4 | 45 | 7.8 | 257 | -- | 45 | 94 | 81.9 | 111 | 2.28 | 5.51 | <0.1 | <0.1 | <0.02 | 0.755 H | <10 | <3 | 2.34 | <0.005 | -- |
| 8/9/06 | 16.4 | 155 | 7.69 | 244 | <5 | 70 | 91 | 89 | 142 | 3.47 | 5.33 | <0.1 | <0.1 | <0.02 | 0.497 | <10 | <3 | <2 | <0.005 | <0.01 |
| 10/10/06 | 15.8 | 115 | 7.9 | 200 | -- | 15.6 | 89 | 82 | 120 | 0.611 | 3.76 | <0.1 | <0.1 | <0.1 | <0.2 | <10 | <3 | <2 | <0.005 | -- |
| 3/20/07 | 9.6 | 84 | 8.47 | 156 | -- | 67.4 | 99 | 83.6 | 62 | 3.24 | 7.09 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 4/26/07 | 7.2 | -122 | 8.24 | 141 | -- | 9.62 | 96 | 105 | 162 | 4.45 | 6.31 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | 0.006 | -- |
| 7/31/07 | 21.5 | -143 | 8.03 | 1241 | -- | 10.2 | 100 | 104 | 130 | 3.16 | 28.8 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 10/10/07 | 16.3 | -80 | 8.28 | 943 | 30 | 22.8 | 100 | 90.8 | 104 | 6.44 | 5.26 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 |
| 2/1/08 | 1.7 | 196 | 8.66 | 1075 | 7 | 35.8 | 100 | 89.3 | 152 | 3.15 | <5 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | <10 |
| 4/16/08 | 10.2 | -78 | 8.34 | 245 | -- | 14.6 | 100 | 103 | 130 | 5.95 | 9.42 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 7/23/08 | 20.9 | -78 | 8.33 | 223 | -- | 12.3 | 100 | 107 | 80 | 5.61 | <5 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 10/24/08 | 11.8 | -78 | 8.38 | 229 | -- | 6.33 | 99 | 105 | 140 | 6.03 | <5 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 3/12/09 | 2.7 | -44 | 7.8 | 205 | -- | 2.47 | 92 H | 97.1 | 160 | 2.86 H | 6.37 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 6/17/09 | 18.7 | 139 | 8.13 | 124 | 9 | 8.2 | 100 | 111 | 110 | 4.74 | 5.19 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | < 0.01 |
| 9/30/09 | 12.1 | 155 | 7.76 | 1145 | -- | 12.2 | 98 | 108 | 88 | 6.86 | 10.4 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 12/1/09 | 7.5 | 114 | 8.23 | 681 | -- | 16.4 | 86 | 206 | 110 | 4.71 | 18.3 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 4/27/10 | 7.9 | 173 | 7.4 | 975 | -- | 10.8 | 100 | 92.9 | 170 | 3.54 | <5 | <0.4 | 0.0512 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 7/20/10 | 18.2 | 167 | 7.99 | 1221 | 15 | 17 | 91 | 106 | 130 | 3.63 | 7.05 | <0.8 | 0.063 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 |
| 10/26/10 | 15.2 | 104 | 8.11 | 228 | -- | 8.46 | 90 | 104 | 200 | 6.11 | <5 | <0.8 | <0.05 | <0.5 | 0.924 | <20 | <4 | <3 | <0.005 | -- |
| 3/22/11 | 7.6 | 225 | 7.87 | 234 | -- | 14.1 | 100 | 108 | 80 | 4.07 | <5 | <0.8 | 0.095 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 5/24/11 | 19.7 | 100 | 8.3 | 206 | -- | 1.08 | 93 | 87.4 | 180 | 1.7 | 5.6 | <0.8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 9/20/11 | 17.7 | 157 | 8.13 | 215 | -- | 5.69 | 100 | 115 | 140 | 3.4 | <5 | <0.8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.05 | -- |
| 12/14/11 | 9.1 | 136 | 8.56 | 232 | 11 | 22.73 | 120 J | 108 | 130 | 1.69 J | 7.9 | <0.8 | 0.054 | <0.5 J | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 J |
| 3/21/12 | 22.8 | 115 | 7.93 | 279 | <5 | 9.46 | 110 J | 124 | 170 | 6.68 J | 5.8 | <0.8 J | <0.05 | <0.5 | <0.5 J | <20 | <4 J | <3 | <0.005 J | <0.01 |
| 5/22/12 | 21.2 | 155 | 7.19 | 243 | -- | 16.1 | 100 | 111 | 340 | 2.47 | <5 | <0.8 | 0.075 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 8/30/12 | 20.3 | 138 | 8.51 | 249 | -- | 12 | 100 | 107 | 180 | 6.77 | 5.74 | <8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |

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

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/ cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 * | -- | -- | -- | -- | 0.001 | 0.2 |
| 8/1/97 | -- | -- | -- | -- | 30 | -- | 702 | 1300 | 1180 | 156 | <5 | 0.8 | <0.1 | 23 | 31.5 | 127 | 6 | 42.5 | 0.0071 | <0.01 |
| 10/1/97 | -- | -- | -- | -- | 60 | -- | 784 | 720 | 986 | 149 | <5 | <0.5 | 0.14 | 9.1 | 21.2 | 136 | 3 | 24.1 | 0.0066 | <0.01 |
| 3/22/06 | 4.4 | 140 | 6.4 | 621 | -- | 18.6 | 330 | 241 | 381 | 23.3 | 4.22 | 0.189 | 0.228 | 10.6 | 10.6 | < 10 | 16 | 10.1 | < 0.005 | -- |
| 5/31/06 | 11.6 | -5 | 6.4 | 767 | -- | 18.3 | 355 | 260 | 397 | 25.7 | 5.5 | 0.18 | <0.1 | 18.4 | 14 H | 13.8 | 4.5 | 7.18 | 0.008 | -- |
| 8/9/06 | 17.2 | 120 | 6.15 | 784 | 33 | 195 | 384 | 265 | 491 | 23.5 | 3.43 | 0.237 | <0.1 | 16 | 16.5 | 27 | 3.4 | 5.67 | <0.005 | <0.01 |
| 10/10/06 | 14.2 | 90 | 6.41 | 1100 | -- | 27 | 423 | 301 | 487 | 25.7 | 3.18 | 0.261 | <0.1 | 15.1 | 15 | 15.6 | <3 | 5.68 | <0.005 | -- |
| 3/20/07 | 9.2 | 136 | 7.31 | 364 | -- | 48.9 | 380 | 225 | 262 | 21.2 | <5 | <0.2 | <0.2 | 10.2 | 132 | <20 | 6 | 6.7 | <0.005 | -- |
| 4/26/07 | 7.7 | -62 | 7.14 | 450 | -- | 30.7 | 320 | 262 | 355 | 14.7 | <5 | <0.2 | <0.2 | 9.89 | 12.5 | <20 | 7 | 4.8 | 0.01 | -- |
| 7/31/07 | 18 | -81 | 7.41 | 395 | -- | 15 | 420 | 275 | 395 | 24.4 | <10 | <2 | <0.2 | 14.1 | 16.1 | 46 | 7 | 7.3 | <0.005 | -- |
| 10/10/07 | 14.6 | -25 | 7.12 | 574 | 210 | 5.07 | 290 | 165 | 284 | 10.6 | 9.93 | <2 | <0.2 | 13.5 | 12.6 | 22 | <4 | 6.3 | <0.005 | <0.01 |
| 2/1/08 | 3.1 | 42 | 7.94 | 617 | 40 | 7.83 | 360 | 246 | 410 | 21 | <10 | <2 | <0.2 | 8.78 | 10.7 | 23 | <4 | 21.8 | <0.005 | <10 |
| 4/16/08 | 11.1 | -48 | 7.81 | 424 | -- | 26.8 | 290 | 203 | 357 | 13.5 | <5 | <200 | <0.2 | 8.2 | 11.2 | 21 | 5 | 5.2 | <0.005 | -- |
| 7/23/08 | 19.1 | -31 | 7.58 | 402 | -- | 49.2 | 380 | 303 | 320 | 20.2 | <20 | <20 | <0.2 | 11.9 | 12.9 | 36 | 7 | 6.3 | <0.005 | -- |
| 10/24/08 | 12 | -34 | 7.63 | 695 | -- | 8.52 | 360 | 343 | 356 | 15.5 | <10 | <20 | <0.2 | 10.8 | 11.6 | 32 | <4 | 6 | <0.005 | -- |
| 3/12/09 | 3.1 | -34 | 7.63 | 601 | -- | 5.6 | 320 | 229 | 316 | 13.7 | <5 | <2 | <0.2 | 8.43 | 10.3 | <20 | <4 | 4.8 | <0.005 | -- |
| 6/17/09 | 16.5 | 239 | 6.44 | 413 | 65 | 40.9 | 360 | 295 | 220 | 20.5 | <5 | <2 | <0.2 | 11.8 | 13.5 | 31 | 12 | 7.2 | <0.005 | < 0.01 |
| 9/30/09 | 13 | 227 | 6.52 | 382 | -- | 17.8 | 340 | 265 | 310 | 17.7 | 7.79 | <2 | <0.2 | 10.3 | 13.1 | 32 | <4 | 5.9 | <0.005 | -- |
| 12/1/09 | 6.4 | 143 | 7.78 | 1406 | -- | 19.6 | 280 | 95 | 230 | 12.5 | 10.2 | <2 | <0.2 | 8.75 | 12.5 | 26 | <4 | 6.5 | <0.005 | -- |
| 1/28/10 | 4.4 | 148 | 7.53 | 1474 | -- | 492 | 310 | 291 | 360 | 12.4 | <5 | <2 | <0.2 | 8.45 | 11.6 | 41 | 8 | 5.2 | <0.005 | -- |
| 4/27/10 | 6.6 | 256 | 5.94 | 294 | -- | 41.5 | 300 | 235 | 350 | 14.5 | <5 | <2 | 0.0809 | 8.06 | 11.9 | 23 | <4 | 6.7 | 0.006 | -- |
| 7/20/10 | 18.8 | 162 | 7.77 | 329 | 55 | 8.18 | 360 | 313 | 370 | 22.5 | <5 | <4 | 0.139 | 10.1 | 16.5 | 50 | 7 | 7.8 | <0.005 | <0.01 |
| 11/12/10 | 14 | 17 | 7.06 | 613 | -- | 38.1 | 310 | 260 | 300 | 17.1 | <5 | <20 | 0.08 | 6.9 | 9.84 | 20 | <4 | 6 | <0.005 | -- |
| 3/22/11 | 9.8 | 6 | 6.94 | 519 | -- | 9.77 | 260 | 190 | 200 | 11.2 | <5 | <80 | 0.117 | 5.38 | 7.95 | <20 | <4 | 4.4 | <0.005 | -- |
| 5/24/11 | 17.9 | -43 | 7.31 | 482 | -- | 20.7 | 250 | 167 | 240 | 8.33 | <5 | <8 | 0.073 | 7.03 | 8.21 | 24 | <4 | <3 | <0.005 | -- |
| 9/20/11 | 18.4 | -47 | 7.04 | 653 | -- | 40.12 | 300 | 253 | 340 | 16.2 | <5 | <8 | 0.065 | 5.16 | 9.52 | <20 | 9 | 5.1 | <0.005 | -- |
| 12/14/11 | 8.2 | 25 | 7.62 | 501 | 70 | 24.16 | 270 J | 199 | 260 | 10.2 J | <5 | <8 | 0.074 | 5.24 J | 6.86 | <20 | <4 | 3.4 | <0.005 | <0.01 J |
| 3/21/12 | 21.3 | 72 | 6.84 | 448 | <5 | 25.9 | 260 J | 170 | 250 | 8.96 J | <5 | <8 J | <0.05 | 5.32 J | 4.95 J | <20 | <6 J | 7.4 | <0.005 J | <0.01 |
| 5/23/12 | 18.9 | 133 | 6.72 | 515 | -- | 27.5 | 250 | 207 | 290 | 11.6 | 8.79 | <80 | 0.076 | 5.9 | 6.56 | 36 | <4 | 5.5 | <0.005 | -- |
| 8/30/12 | 20.2 | 147 | 7.14 | 674 | -- | 40.2 | 340 | 268 | 420 | 17.6 | <5 | <80 | 0.109 | 8.45 | 8.58 | 24 | <4 | 6.9 | <0.005 | -- |

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

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/ cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 * | -- | -- | -- | -- | 0.001 | 0.2 |
| 8/1/97 | -- | -- | -- | -- | 5 | -- | 577 | 960 | 1640 | 267 | <5 | 1.1 | <0.1 | 0.95 | 2.6 | 58 | 2 | 12.3 | 0.0044 | -- |
| 10/1/97 | -- | -- | -- | -- | 10 | -- | 673 | 900 | 1230 | 238 | <5 | 0.9 | <0.1 | 1.3 | 2 | 61 | 2 | 11.9 | 0.0039 | -- |
| 3/22/06 | 4.5 | 175 | 6.4 | 1350 | -- | 17.3 | 652 | 697 | 982 | 145 | 1.18 | 0.878 | < 0.1 | 0.389 | 1.31 | < 10 | 9.3 | < 2 | < 0.005 | -- |
| 5/31/06 | 10.5 | 110 | 6.4 | 1560 | -- | 19.8 | 670 | 726 | 1020 | 154 | 2.96 | 1.01 | 0.216 | 0.824 | 1.78 H | 17.2 | 5.1 | 7.76 | <0.005 | -- |
| 8/9/06 | 15.9 | 125 | 6.35 | 1420 | <5 | 18.7 | 612 | 686 | 1040 | 122 | <1 | 0.902 | <0.1 | 0.786 | 1.64 | 24.6 | 3.7 | 4.82 | <0.005 | 0.024 |
| 10/10/06 | 14.5 | 115 | 6.52 | 1540 | -- | 28 | 646 | 675 | 980 | 121 | <1 | 0.912 | <0.1 | 0.282 | 1.9 | 27 | 13 | 7.49 | 0.1 | -- |
| 3/20/07 | 9.1 | 136 | 7.14 | 701 | -- | 14.2 | 650 | 723 | 825 | 167 | <5 | 0.95 | <0.2 | 0.921 | 1.84 | 21 | <4 | 6.4 | <0.005 | -- |
| 4/26/07 | 8.3 | -73 | 7.35 | 682 | -- | 11 | 480 | 575 | 823 | 131 | <5 | <2 | <0.2 | 0.844 | 1.62 | <20 | 4 | 3 | 0.006 | -- |
| 7/31/07 | 16.5 | -77 | 7.37 | 500 | -- | 9.48 | 600 | 716 | 935 | 163 | 10 | <2 | <0.2 | 1.31 | 1.67 | <20 | <4 | 5.7 | <0.005 | -- |
| 10/10/07 | 15.8 | -34 | 7.35 | 329 | 15 | 37 | 640 | 652 | 868 | 161 | <5 | 0.92 | <0.2 | 1.22 | 1.53 | <20 | <4 | 17.2 | <0.005 | <0.01 |
| 2/1/08 | 3.2 | 40 | 8.34 | 339 | 7 | 41.5 | 640 | 678 | 840 | 160 | <5 | <2 | <0.2 | 0.785 | 1.33 | 24 | <4 | 82.6 | <0.005 | <10 |
| 4/16/08 | 10.3 | -46 | 7.77 | 1205 | -- | 13.5 | 620 | 654 | 808 | 132 | <5 | <20 | <0.2 | 0.572 | 1.55 | <20 | 5 | 23.2 | <0.005 | -- |
| 7/23/08 | 18.3 | -38 | 7.73 | 1132 | -- | 15.4 | 640 | 728 | 720 | 148 | 7.62 | <2 | <0.2 | 1.01 | 1.03 | <20 | <4 | 4.7 | <0.005 | -- |
| 10/24/08 | 12.9 | -33 | 7.59 | 1137 | -- | 3.14 | 680 | 788 | 864 | 162 | <5 | <0.2 | <0.2 | 0.504 | 1.13 | <20 | <4 | 6.8 | <0.005 | -- |
| 3/12/09 | 4.9 | -22 | 7.42 | 1135 | -- | 11 | 650 | 678 | 872 | 118 | <5 | <0.2 | <0.2 | 0.642 | 1.22 | <20 | <4 | 4.5 | <0.005 | -- |
| 6/17/09 | 15.5 | 237 | 6.43 | 739 | 8 | 4.17 | 580 | 782 | 870 | 159 | <5 | <0.2 | <0.2 | 0.665 | 1.19 | 23 | <4 | 5.5 | <0.005 | < 0.01 |
| 9/30/09 | 13.2 | 229 | 6.47 | 670 | -- | 5.88 | 650 | 755 | 860 | 150 | <5 | <0.2 | <0.2 | 0.73 | 1.07 | 26 | <4 | 4.6 | <0.005 | -- |
| 12/1/09 | 8.3 | 174 | 7.19 | 1978 | -- | 14 | 610 | 608 | 680 | 140 | <5 | <0.2 | <0.2 | 0.696 | 1.12 | <20 | <4 | 4.6 | <0.005 | -- |
| 1/28/10 | 3.7 | 184 | 6.9 | 1880 | -- | 12.7 | 600 | 609 | 820 | 112 | 7.9 | <0.2 | <0.2 | 0.69 | 1.28 | 22 | <4 | 3.5 | <0.005 | -- |
| 4/27/10 | 6.9 | 249 | 6.03 | 567 | -- | 12 | 610 | 681 | 860 | 130 | <5 | <0.4 | <0.05 | 1.18 | 1.55 | <20 | <4 | 5.8 | 0.006 | -- |
| 7/20/10 | 19 | 117 | 7.52 | 391 | 11 | 17.3 | 630 | 730 | 790 | 139 | <5 | <4 | 0.071 | 0.812 | 1.37 | <20 | <4 | 5.7 | <0.005 | <0.01 |
| 10/26/10 | 15.1 | 153 | 6.75 | 1228 | -- | 14.1 | 600 | 693 | 860 | 127 | <5 | <0.8 | <0.05 | <0.5 | 2.45 | 25 | <4 | 5.4 | <0.005 | -- |
| 3/22/11 | 9.8 | 6 | 6.94 | 519 | -- | 9.77 | 260 | 190 | 200 | 11.2 | <5 | <80 | 0.117 | 5.38 | 7.95 | <20 | <4 | 4.4 | <0.005 | -- |
| 5/24/11 | 17.9 | -43 | 7.31 | 482 | -- | 20.7 | 250 | 167 | 240 | 8.33 | <5 | <8 | 0.073 | 7.03 | 8.21 | 24 | <4 | <3 | <0.005 | -- |
| 9/20/11 | 18 | -2 | 6.93 | 1428 | -- | 8.77 | 630 | 773 | 890 | 108 | <5 | <8 | <0.05 | <0.5 | 1.95 | <20 | <4 | 5.4 | <0.005 | -- |
| 12/14/11 | 7.9 | 27 | 7.14 | 1363 | 12 | 18.6 | 570 J | 713 | 770 | 102 J | <5 R | <0.8 R | 0.064 | <0.5 J | 1.46 | 25 | <4 | 3.4 | <0.005 | <0.01 J |
| 3/21/12 | 18 | 88 | 6.6 | 1377 | <5 | 17.6 | 490 J | 712 | 830 | 123 J | <5 | <0.8 J | 0.053 | <0.5 | <0.5 J | <20 | <4 J | 20.7 | <0.005 R | <0.01 |
| 5/23/12 | 18.2 | 161 | 6.12 | 1378 | -- | 5.44 | 790 | 643 | 890 | 124 | <5 | <8 | <0.05 | 0.76 | 0.811 | <20 | <4 | 14.4 | <0.005 | -- |
| 8/30/12 | 19.5 | 110 | 6.54 | 1390 | -- | 5.13 | 670 | 664 | 940 | 118 | <5 | <8 | <0.05 | 0.899 | 1.38 | 21 | <4 | 6.6 | <0.005 | -- |

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

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/ cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 * | -- | -- | -- | -- | 0.001 | 0.2 |
| 8/1/97 | -- | -- | -- | -- | <5 | -- | 145 | 1250 | 320 | 31.4 | 16 | 0.5 | <0.1 | <0.02 | 0.4 | 19 | <2 | 4.5 | 0.0027 | -- |
| 10/1/97 | -- | -- | -- | -- | <5 | -- | 146 | 200 | 269 | 28.7 | 13 | <0.5 | 0.19 | 0.09 | 0.24 | <15 | <2 | 1.9 | <0.001 | -- |
| 3/22/06 | 6.4 | 215 | 7.2 | 286 | -- | 58 | 162 | 153 | 215 | 14 | 9.14 | < 0.1 | < 0.1 | 0.0969 | 0.455 | < 10 | < 3 | 5.58 | < 0.005 | -- |
| 5/31/06 | 11.7 | 45 | 6.9 | 299 | -- | 11.9 | 170 | 179 | 208 | 12.7 | 11 | <0.1 | <0.1 | <0.02 | 1.09 H | <10 | <3 | <2 | <0.005 | -- |
| 8/9/06 | 15.3 | 115 | 7.01 | 342 | <5 | 5.2 | 140 | 191 | 207 | 13.5 | 9.98 | 0.152 | <0.1 | <0.02 | 0.239 | 13 | <3 | <2 | <0.005 | <0.01 |
| 10/10/06 | 15.7 | 220 | 6.84 | 397 | -- | 7.2 | 152 | 158 | 207 | 12.7 | 8.01 | 0.143 | <0.1 | <0.1 | 0.266 | <10 | <3 | <2 | <0.005 | -- |
| 3/20/07 | 9.3 | -50 | 7.82 | 143 | -- | 10.6 | 82 | 74 | 38 | 3.37 | <5 | 1.2 | <0.2 | 1.45 | 4.26 | 47 | <4 | <3 | <0.005 | -- |
| 4/26/07 | 5.6 | -94 | 7.64 | 898 | -- | 19.6 | 59 | 58.1 | 168 | 1.8 | <5 | <2 | <0.2 | <0.5 | 1.47 | <20 | 8 | <3 | <0.005 | -- |
| 7/31/07 | 17.9 | -115 | 7.84 | 1757 | -- | 16.4 | 170 | 150 | 210 | 12 | 20.5 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 10/10/07 | 14.6 | -76 | 8.25 | 939 | 115 | 13.7 | 130 | 86.2 | 144 | 5.73 | <5 | <2 | <0.2 | <0.5 | <0.5 | <20 | <4 | 3.7 | <0.005 | <0.01 |
| 2/1/08 | 3.4 | 174 | 8.06 | 1074 | 15 | 17 | 110 | 97.7 | 115 | 2.43 | <5 | <2 | 0.338 | <0.5 | <0.5 | 23 | <4 | <3 | <0.005 | <10 |
| 4/16/08 | 12.1 | -34 | 7.62 | 261 | -- | 17.7 | 170 | 123 | 188 | 10.5 | 7.74 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | 7 | <3 | <0.005 | -- |
| 7/23/08 | 20.6 | -39 | 7.66 | 1759 | -- | 17.9 | 91 | 76.7 | 60 | 1.1 | 19.9 | <20 | <0.2 | <0.5 | 0.718 | 34 | 9 | 7.3 | <0.005 | -- |
| 10/24/08 | 13.5 | -41 | 7.72 | 204 | -- | 6.67 | 97 | 97.9 | 112 | 1.75 | <5 | <2 | 1.14 | <0.5 | <0.5 | <20 | <4 | 3.6 | <0.005 | -- |
| 3/12/09 | 4.2 | -26 | 7.49 | 1069 | -- | 10.9 | 18 | 38.1 | 88 | 1.85 | 7.53 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 6/17/09 | 14.8 | 359 | 8.16 | 187 | 7 | 4.55 | 160 | 196 | 120 | 9.25 | 11.2 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | < 0.01 |
| 9/30/09 | 14.2 | 219 | 6.69 | 658 | -- | 20.2 | 50 | 37.8 | 100 | <1 | <5 | <2 | <0.2 | <0.5 | 0.786 | 40 | 8 | 9.2 | <0.005 | -- |
| 12/1/09 | 9.9 | 172 | 7.32 | 673 | -- | 22.4 | 79 | 65.4 | 120 | <1 | <5 | <2 | <0.2 | <0.5 | 1.36 | 35 | 6 | 5.7 | <0.005 | -- |
| 1/28/10 | 6.1 | 101 | 8.41 | 646 | -- | 11 | 180 | 93.2 | 160 | 14.8 | <5 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 4/27/10 | 7.4 | 263 | 5.83 | 706 | -- | 11.8 | 93 | 58 | 75 | 1.31 | <5 | <0.8 | <0.05 | <0.5 | 1.14 | 30 | 10 | 9 | 0.006 | -- |
| 7/20/10 | 17.9 | 173 | 7.8 | 943 | 35 | 13.9 | 160 | 194 | 230 | 7.44 | 12.6 | <4 | 0.053 | <0.5 | 1.26 | 27 | <4 | <3 | <0.005 | <0.01 |
| 10/26/10 | 15.6 | 74 | 6.9 | 1806 | -- | 7.61 | 130 | 66.9 | 98 | 3.3 | <5 | <4 | 0.054 | <0.5 | 1.83 | 29 | 7 | 6.6 | <0.005 | -- |
| 3/22/11 | 8.7 | 282 | 6.2 | 128 | -- | 11.6 | 75 | 45.7 | 60 | 2.69 | <5 | <8 | 0.103 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 5/24/11 | 16.7 | 9 | 7.15 | 308 | -- | 4.3 | 150 | 137 | 320 | 2.28 | <5 | <0.8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 9/20/11 | 17.4 | 159 | 7.38 | 361 | -- | 4.39 | 180 | 187 | 260 | 4.03 | <5 | <8 | <0.05 | <0.5 | 0.508 | <20 | <4 | 3.1 | <0.005 | -- |
| 12/13/11 | 7 | 171 | 7.71 | 257 | 6 | 10.69 | 140 J | 122 | 160 | 3.44 J | 6.3 | <0.8 | <0.05 | <0.5 J | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 J |
| 3/20/12 | 17.7 | 194 | 7.27 | 284 | 11 | 29.9 | 130 J | 147 | 140 | 1.88 J | <5 | <0.8 J | <0.05 | <0.5 | <0.5 J | <20 | 5 J | 4.4 | <0.005 J | <0.01 |
| 5/22/12 | 20 | 153 | 7.07 | 340 | -- | 41.7 | 160 | 146 | 240 | 1.59 | <5 | <8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 8/29/12 | 18.8 | 133 | 7.63 | 368 | -- | 13.4 | 160 | 159 | 240 | 7.33 | 9.49 | <8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |

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

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/ cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 * | -- | -- | -- | -- | 0.001 | 0.2 |
| 8/1/97 | -- | -- | -- | -- | <5 | -- | 235 | 280 | 349 | 32 | 13.8 | <0.5 | <0.1 | <0.02 | 0.3 | 22 | <2 | 7.9 | 2.3 | -- |
| 10/1/97 | -- | -- | -- | -- | <5 | -- | 190 | 300 | 332 | 33.6 | 12.4 | <0.5 | <0.1 | 0.04 | <0.2 | <15 | <2 | 3.7 | 1.1 | -- |
| 9/20/11 | 17.1 | 158 | 7.68 | 494 | -- | 25 | 240 | 274 | 310 | 23.7 | 7.9 | <0.8 | <0.05 | <0.5 | <0.5 | <20 | 6 | <3 | <0.005 | -- |
| 12/13/11 | 9.9 | 174 | 7.6 | 522 | <5 | 7.59 | 240 J | 264 | 260 | 27.7 J | 11.5 | <0.8 | 0.07 | <0.5 J | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 J |
| 3/20/12 | 15.8 | 203 | 7.04 | 482 | <5 | 13.2 | 260 J | 262 | 250 | 23.8 J | 8.7 | <0.8 J | <0.05 | <0.5 | <0.5 J | <20 | <4 J | 4.5 | <0.005 J | <0.01 |
| 5/22/12 | 18.3 | 170 | 6.61 | 479 | -- | 2.51 | 210 | 259 | 300 | 23.4 | 7.7 | <0.8 | 0.07 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 8/29/12 | 16.5 | 141 | 7.44 | 458 | -- | 7.38 | 200 | 223 | 310 | 23.4 | <5 | <8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |

# Historical Water Quality Database - Towslee Landfill
## Field and Inorganic Parameters
## Well MW-4A - Bedrock

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/ cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 * | -- | -- | -- | -- | 0.001 | 0.2 |
| 8/1/97 | -- | -- | -- | -- | <5 | -- | 253 | 308 | 550 | 79.1 | 9.8 | <0.5 | <0.1 | <0.02 | 0.5 | 37 | <2 | 7.7 | 1.8 | -- |
| 10/1/97 | -- | -- | -- | -- | <5 | -- | 355 | 464 | 493 | 74.6 | 11.5 | <0.5 | <0.1 | 0.2 | 0.4 | 22 | <2 | 5.6 | <1.0 | -- |
| 9/20/11 | 17.5 | 174 | 7.36 | 789 | -- | 5.86 | 410 | 496 | 490 | 23.6 | 10.5 | <0.8 | <0.05 | <0.5 | <0.5 | <20 | 5 | 4 | <0.005 | -- |
| 12/13/11 | 8.6 | 174 | 7.48 | 734 | 6 | 10.34 | 400 J | 430 | 430 | 25.5 J | 11.1 | <0.8 | <0.05 | <0.5 J | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 J |
| 3/20/12 | 14.6 | 193 | 7.1 | 762 | <5 | 35 | 460 J | 444 | 460 | 21.5 J | 7 | <0.8 J | <0.05 | <0.5 | <0.5 J | <20 | <4 J | 8.4 | <0.005 J | <0.01 |
| 5/22/12 | 15.8 | 160 | 6.83 | 714 | -- | 7.45 | 350 | 384 | 490 | 22.3 | 6.5 | <8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 8/29/12 | 17 | 153 | 7.05 | 818 | -- | 15.8 | 450 | 421 | 520 | 19.4 | 6.99 | <8 | 0.085 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |

# Historical Water Quality Database - Towslee Landfill
## Field and Inorganic Parameters
## Well MW-5A - Bedrock

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/ cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 * | -- | -- | -- | -- | 0.001 | 0.2 |
| 8/1/97 | -- | -- | -- | -- | 20 | -- | 130 | 250 | 116 | 44.5 | 22 | <0.5 | 0.8 | <0.02 | 0.4 | 16 | <2 | 2.7 | 1.1 | -- |
| 10/1/97 | -- | -- | -- | -- | <5 | -- | 115 | 140 | 156 | 10.1 | 11.5 | <0.5 | <0.1 | 0.18 | 0.24 | <15 | <2 | <1.0 | <1.0 | -- |

# Historical Water Quality Database - Towslee Landfill
## Field and Inorganic Parameters
## Well MW-6A - Overburden

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/ cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 * | -- | -- | -- | -- | 0.001 | 0.2 |
| 8/1/97 | -- | -- | -- | -- | 60 | -- | 357 | 650 | 595 | 79.1 | 13.8 | 0.9 | <0.1 | 1.6 | 1.5 | 94 | 3 | 14 | 3 | <10 |
| 10/1/97 | -- | -- | -- | -- | 80 | -- | 325 | 550 | 472 | 71.8 | 30.6 | 1 | <0.1 | 0.02 | <0.2 | 82 | 6 | 10.6 | 1.8 | <10 |
| 9/20/11 | 17.8 | 125 | 7.04 | 446 | -- | 33.14 | 200 | 208 | 270 | 21.4 | 10.6 | <0.8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 12/13/11 | 9.8 | 156 | 7.87 | 425 | 200 | 8.52 | 210 J | 194 | 280 | 13.9 J | 16.1 | <0.8 | <0.05 | <0.5 J | 1.12 | <20 | <4 | <3 | <0.005 | <0.01 J |
| 3/20/12 | 23.8 | 193 | 7.38 | 415 | <5 | 922 | 200 J | 197 | 230 | 8.86 J | 13.8 | <8 J | 0.094 | <0.5 J | 1.16 J | <20 | <6 R | 5.6 | <0.005 J | <0.01 |
| 5/22/12 | 18.9 | 133 | 7.35 | 408 | -- | 241 | 130 | 169 | 310 | 20 | 13.6 | <8 | 0.09 | <0.5 | 1.89 | <20 | <4 | <3 | <0.005 | -- |
| 8/30/12 | 18.4 | 118 | 6.67 | 491 | -- | 71.9 | 180 | 185 | 390 | 23.8 | 11.4 | <80 | <0.05 | <0.5 | 2.38 | 27 | <4 | <3 | <0.005 | -- |

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

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/ cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 * | -- | -- | -- | -- | 0.001 | 0.2 |
| 8/1/97 | -- | -- | -- | -- | <5 | -- | 240 | 300 | 98 | 38.2 | 27.1 | <0.5 | 0.6 | 0.09 | 0.6 | 40 | <2 | 6 | 0.0032 | -- |
| 10/1/97 | -- | -- | -- | -- | 20 | -- | 224 | 240 | 280 | 35 | 22.2 | <0.5 | <0.1 | 2.5 | 3.3 | 19 | 2 | 5.8 | <0.001 | -- |
| 3/22/06 | 7.9 | 250 | 6.7 | 347 | -- | 40 | 131 | 135 | 209 | 21.1 | 13.8 | < 0.1 | < 0.1 | 0.0549 | 0.392 | < 10 | < 3 | 5.22 | < 0.005 | -- |
| 5/31/06 | 10.5 | 85 | 7.4 | 287 | -- | 19.9 | 148 | 144 | 175 | 2.33 | 3.95 | <0.1 | <0.1 | <0.02 | 0.904 H | <10 | 5.1 | 3.14 | <0.005 | -- |
| 8/9/06 | 12.2 | 225 | 7.52 | 304 | <5 | 15.8 | 154 | 131 | 190 | 2.32 | 3.28 | 0.122 | <0.1 | 0.096 | 0.214 | 11.6 | 3.2 | <2 | <0.005 | <0.01 |
| 10/10/06 | 14.3 | 180 | 7.11 | 329 | -- | 14.2 | 153 | 133 | 187 | 3.39 | 6.14 | <0.1 | <0.1 | <0.1 | 0.279 | <10 | <3 | <2 | <0.005 | -- |
| 3/20/07 | 9.7 | 82 | 8.04 | 220 | -- | 68.9 | 180 | 156 | 127 | 11.6 | 8.54 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 4/26/07 | 7.4 | -92 | 7.73 | 249 | -- | 8.1 | 160 | 139 | 105 | 6.99 | 6.79 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 7/31/07 | 15.6 | -105 | 7.85 | 236 | -- | 9.48 | 150 | 138 | 220 | 13.8 | 17.3 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 10/10/07 | 14.8 | -57 | 7.82 | 810 | 6 | 12.5 | 140 | 124 | 208 | 25.9 | 12.7 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 |
| 2/1/08 | 3.7 | 121 | 8.55 | 199 | 7 | 13.6 | 140 | 136 | 198 | 16.7 | 18.1 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | <10 |
| 4/16/08 | 10.4 | -71 | 8.25 | 360 | -- | 11.6 | 140 | 142 | 225 | 16.9 | 16.5 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 7/23/08 | 16.1 | -81 | 8.21 | 343 | -- | 2.19 | 110 | 137 | 116 | 31.1 | 26.8 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 10/24/08 | 12.6 | -54 | 7.96 | 355 | -- | 5.24 | 120 | 134 | 168 | 28.6 | 17.2 | <2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 3/12/09 | 6.5 | -38 | 7.7 | 327 | -- | 9.56 | 120 | 142 | 188 | 13.3 | 13.2 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 6/17/09 | 14.1 | 186 | 7.32 | 187 | 11 | 3.62 | 140 | 154 | 190 H | 19.4 | 14.2 | <2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | < 0.01 |
| 9/30/09 | 12.7 | 190 | 7.2 | 1999 | -- | 5.13 | 140 | 148 | 170 | 19.7 | 10.3 | <0.2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 12/1/09 | 9 | 180 | 7.09 | 1108 | -- | 13.3 | 140 | 138 | 130 | 14.7 | 13.5 | <2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 1/28/10 | 4.7 | 102 | 8.35 | 922 | -- | 12.5 | 150 | 163 | 240 | 13.2 | 13.4 | <2 | <0.2 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 4/27/10 | 8.1 | 222 | 6.54 | 1673 | -- | 43.6 | 150 | 147 | 220 | 12 | 7.57 | <1 | 0.0804 | <0.5 | 0.522 | <20 | <4 | <3 | <0.005 | -- |
| 7/20/10 | 18.2 | 144 | 7.66 | 249 | 35 | 4.71 | 140 | 144 | 200 | 14 | 11 | <0.8 | 0.092 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | <0.01 |
| 10/26/10 | 14.6 | 132 | 7.39 | 342 | -- | 16 | 160 | 147 | 190 | 16 | 11.2 | <1.6 | 0.051 | <0.5 | 0.799 | <20 | <4 | <3 | <0.005 | -- |
| 3/22/11 | 9.8 | 102 | 7.41 | 372 | -- | 10.8 | 130 | 145 | 160 | 11.9 | 15 | <0.8 | 0.47 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 5/24/11 | 15.7 | 88 | 7.75 | 399 | -- | 7.65 | 150 | 153 | 250 | 16.4 | 19.2 | <0.8 | 0.058 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 9/20/11 | 16.7 | 133 | 7.34 | 355 | -- | 6.94 | 160 | 172 | 230 | 12.7 | 18.7 | <0.8 | 0.056 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 12/13/11 | 10.6 | 153 | 8.25 | 387 | 5 | 4.1 | 180 J | 166 | 200 | 19.4 J | 18.6 | <0.8 | 0.087 | <0.5 J | 0.546 | <20 | <4 | <3 | <0.005 | <0.01 J |
| 3/20/12 | 18.5 | 190 | 7.3 | 344 | <5 | 6.83 | 140 J | 146 | 170 | 16.2 J | 21.5 | <0.8 J | 0.073 | <0.5 | <0.5 J | <20 | <4 J | <3 | <0.005 J | <0.01 |
| 5/22/12 | 17.7 | 139 | 7.29 | 363 | -- | 17.1 | 190 | 150 | 240 | 10.1 | 17.9 | <80 | 0.081 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |
| 8/30/12 | 18.7 | 119 | 6.72 | 377 | -- | 4.95 | 140 | 151 | 270 | 23.3 | 16.7 | <8 | <0.05 | <0.5 | <0.5 | <20 | <4 | <3 | <0.005 | -- |

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

| Analyte | Temp | Eh | pH | Sp. Conduct | Color | Turbidity | ALK as CaCO3 | HARD as CaCO3 | TDS | Chloride | Sulfate | Bromide | NO3 (As N) | NH4 (As N) | TKN (as N) | COD | BOD | TOC | Phenolics, Tot | Cyanide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | (oC) | (mV) | SU | (uS/ cm) | (SU) | (NTU) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) | (mg/l) |
| Water Quality Standard | -- | -- | 6.5 to 8.5 | -- | 15 | 5 | -- | -- | 500 | 250 | 250 | 2 | 10 | 2 * | -- | -- | -- | -- | 0.001 | 0.2 |
| 8/1/97 | -- | -- | -- | -- | 20 | -- | 569 | 1010 | 1220 | 300 | 27.4 | 0.6 | <0.1 | 0.93 | 1.1 | 43 | <2 | 10.1 | 0.0051 | <0.01 |
| 10/1/97 | -- | -- | -- | -- | 5 | -- | 660 | 1150 | 1240 | 276 | 20.2 | <0.5 | 0.2 | 0.89 | 1.4 | 112 | 2 | 12.6 | 0.0027 | <0.01 |
| 3/22/06 | 4.5 | 215 | 6.5 | 1360 | -- | 214 | 648 | 627 | 981 | 144 | 20.6 | 0.753 | < 0.1 | 0.34 | 1.5 | 21.2 | < 3 | 12.8 | < 0.005 | -- |
| 5/31/06 | 11.6 | 120 | 6.4 | 1520 | -- | 18 | 675 | 599 | 967 | 143 | 22.5 | 0.633 | <0.1 | <0.02 | 1.68 H | 16.5 | <3 | 8.19 | 0.007 | -- |
| 8/9/06 | 17.4 | 245 | 6.34 | 1440 | <5 | 13.6 | 595 | 531 | 963 | 119 | 19.7 | 0.822 | <0.1 | <0.02 | 0.75 | 26.4 | <3 | 6.12 | <0.005 | <0.01 |
| 10/10/06 | 13.9 | 190 | 6.62 | 1480 | -- | 42 | 635 | 526 | 949 | 85 | 14.1 | 0.483 | <0.1 | <0.1 | 1.11 | 20.5 | <3 | 7.46 | <0.005 | -- |
| 3/20/07 | 9.3 | 77 | 7.04 | 893 | -- | 45.3 | 640 | 529 | 753 | 145 | 16.5 | 0.6 | <0.2 | <0.5 | 1.47 | 27 | <4 | 8.1 | <0.005 | -- |
| 4/26/07 | 7.8 | -64 | 7.12 | 765 | -- | 54.3 | 510 | 499 | 865 | 131 | 23.2 | <0.2 | <0.2 | <0.5 | 3.6 | <20 | <4 | 6 | 0.006 | -- |
| 7/31/07 | 18.8 | -69 | 7.2 | 514 | -- | 40.9 | 530 | 481 | 3000 | 145 | 22.7 | <2 | <0.2 | <0.5 | 0.784 | <20 | <4 | 7.2 | 0.007 | -- |
| 10/10/07 | 15.2 | -24 | 7.11 | 972 | 85 | 48.1 | 540 | 459 | 752 | 141 | 17.8 | <2 | <0.2 | <0.5 | 0.591 | <20 | <4 | 11.5 | <0.005 | <0.01 |
| 2/1/08 | 2 | 245 | 7.77 | 561 | 7 | 39.3 | 570 | 528 | 800 | 141 | 12.2 | <2 | <0.2 | <0.5 | 0.522 | <20 | <4 | 69.9 | <0.005 | <10 |
| 4/16/08 | 9.8 | -37 | 7.63 | 1174 | -- | 44.4 | 560 | 506 | 1560 | 1260 | <20 | <200 | 0.25 | <0.5 | 0.949 | 36 | <4 | 17.8 | <0.005 | -- |
| 7/23/08 | 18.6 | -42 | 7.73 | 618 | -- | 41.6 | 600 | 538 | 668 | 136 | 21 | <20 | <0.2 | <0.5 | <0.5 | 22 | <4 | 5.2 | <0.005 | -- |
| 10/24/08 | 11.1 | -41 | 8.09 | 214 | -- | 42.7 | 670 | 569 | 728 | 135 | 16.1 | <20 | <0.2 | <0.5 | <0.5 | 29 | <4 | 6.1 | <0.005 | -- |
| 3/12/09 | 4.2 | -19 | 7.35 | 1014 | -- | 40.9 | 500 | 496 | 748 | 114 | 21 | <0.2 | <0.2 | <0.5 | 1.92 | <20 | <4 | 5.1 | <0.005 | -- |
| 6/17/09 | 16 | 219 | 6.77 | 622 | 80 | 375 | 500 | 534 | 720 | 128 | 22.3 | <0.2 | <0.2 | <0.5 | 0.851 | 38 | <4 | 5.7 | <0.005 | < 0.01 |
| 9/30/09 | 12.6 | 194 | 7.12 | 644 | -- | 33.5 | 480 | 499 | 620 | 120 | 19.5 | <2 | <0.2 | <0.5 | 0.927 | 37 | <4 | 5 | <0.005 | -- |
| 12/1/09 | 8.1 | 141 | 7.86 | 217 | -- | 40.1 | 520 | 473 | 640 | 117 | 23.1 | <2 | <0.2 | <0.5 | 0.599 | 21 | <4 | 5.2 | <0.005 | -- |
| 1/28/10 | 5.2 | 192 | 6.73 | 260 | -- | 23.6 | 600 | 508 | 520 | 104 | 19.2 | <2 | <0.2 | <0.5 | 1.02 | 33 | <4 | 4.9 | <0.005 | -- |
| 4/27/10 | 7.3 | 246 | 6.13 | 483 | -- | 31.4 | 500 | 435 | 730 | 89.1 | 22.5 | <1 | <0.05 | <0.5 | 1.4 | 28 | <4 | 6.7 | <0.005 | -- |
| 7/20/10 | 19 | 149 | 7.89 | 412 | 8 | 20.1 | 510 | 520 | 690 | 128 | 25.2 | <4 | 0.059 | <0.5 | 1.27 | 31 | <4 | 6 | <0.005 | <0.01 |
| 10/26/10 | 14.5 | 155 | 6.87 | 1133 | -- | 328 | 520 | 507 | 710 | 115 | 23.9 | <8 | <0.05 | <0.5 | 2.15 | 40 | <4 | 6.1 | <0.005 | -- |
| 3/22/11 | 9 | 260 | 6.78 | 1184 | -- | 20.7 | 600 | 484 | 660 | 95.7 | 21.7 | <80 | 0.103 | <0.5 | 0.639 | 28 | <4 | 5.1 | <0.005 | -- |
| 5/24/11 | 18.3 | 135 | 7.02 | 1179 | -- | 69.2 | 510 | 465 | 710 | 99 | 18.7 | <8 | <0.05 | <0.5 | <0.5 | 33 | <4 | 4.8 | <0.005 | -- |
| 9/20/11 | 18 | 166 | 6.92 | 1236 | -- | 169 | 560 | 585 | 750 | 100 | 18.8 | <8 | 0.081 | <0.5 | 1.03 | 29 | <4 | 6.1 | <0.005 | -- |
| 12/13/11 | 8.6 | 185 | 7.26 | 1127 | 7 | 36.38 | 550 J | 505 | 620 | 108 J | 21.6 | <8 | 0.063 | <0.5 J | 2.19 | 40 | <4 | 4.1 | <0.005 | <0.01 J |
| 3/21/12 | 18 | 172 | 6.74 | 1172 | 6 | 24.6 | 500 J | 524 | 1000 | 99.4 J | 21.9 | <80 J | <0.05 | <0.5 | <0.5 J | 22 | <4 J | 15.1 | <0.005 J | <0.01 |
| 5/22/12 | 15.8 | 184 | 6.36 | 1085 | -- | >1000 E | 520 | 449 | 630 | 99.5 | 20 | <80 | <0.05 | <0.5 | <0.5 | 22 | <4 | 7.3 | <0.005 | -- |
| 8/30/12 | 19.5 | 170 | 6.97 | 1134 | -- | 40.9 | 490 | 431 | 750 | 103 | 17.8 | <80 | <0.05 | <0.5 | 0.627 | 21 | <4 | 6.7 | <0.005 | -- |

Historical Water Quality Data - Towslee Landfill

CD-1 Total Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 9/20/11 | -- | -- | -- | -- | -- | -- | <0.005 | 45.2 | -- | -- | -- | -- | 0.126 | <0.003 | 9.04 | 0.18 | -- | -- | <5 | <5 | -- | -- | -- | -- | -- |
| 12/13/11 | 0.383 | <0.005 J | <0.005 J | 0.077 | <0.003 | <0.5 | <0.005 | 41.6 | <0.01 | <0.01 | <0.02 | <0.01 | 0.688 | <0.003 J | 10.1 | 0.256 | <0.0002 | <0.03 | <5 | <5 | <0.003 J | <0.01 | <0.003 J | <0.03 | <0.01 |
| 3/20/12 | 1.32 | <0.005 | <0.005 | 0.106 | <0.003 | <0.5 | <0.005 | 40.7 | <0.01 | <0.01 | <0.02 | <0.01 | 2.04 J | <0.003 | 10.3 | 1.62 | <0.0002 | <0.03 | <5 | <5 | <0.003 | <0.01 J | <0.003 | <0.03 | 0.0119 |
| 5/22/12 | -- | -- | -- | -- | -- | -- | <0.005 | 41.2 | -- | -- | -- | -- | 2.34 | <0.003 | 10.5 | 1.3 | -- | -- | <5 | <5 | -- | -- | -- | -- | - |
| 8/29/12 | -- | -- | -- | -- | -- | -- | <0.005 | 34.7 | -- | -- | -- | -- | 0.15 | <0.003 | 7.92 | 0.0614 | -- | -- | <5 | <5 | -- | -- | -- | -- | - |

Historical Water Quality Data - Towslee Landfill

CD-1RA Total Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 0.587 | 0.0035 B | 0.0032 B | 0.168 B | <0.0001 | 0.0227 B | <0.0003 | 41.5 | 0.0042 B | NA | <0.0011 | 0.004 B | 1.01 | 0.0017 B | 9.5 | 0.19 | NA | <0.0013 | 1.01 B | 5.41 | NA | NA | <0.0026 | <0.0012 | 0.024 |
| 10/1/97 | 5.24 | 0.0031 B | 0.004 B | 0.229 | 0.0011 B | 0.0253 B | 0.0011 B | 45.7 | 0.0089 B | NA | 0.0053 B | 0.0085 B | 10.3 | 0.0049 | 10.4 | 0.352 | NA | 0.0104 B | 1.91 B | 4.76 B | NA | NA | <0.0026 | 0.0086 B | 0.0366 |
| 9/20/11 | -- | -- | -- | -- | -- | -- | <0.005 | 41 | -- | -- | -- | -- | 0.662 | <0.003 | 7.95 | 0.119 | -- | -- | <5 | <5 | -- | -- | -- | -- | -- |
| 12/13/11 | 1.7 | <0.005 J | <0.005 J | 0.2 | <0.003 | <0.5 | <0.005 | 44.1 | <0.01 | <0.01 | <0.02 | <0.01 | 2.75 | <0.003 J | 10.8 | 0.211 | <0.0002 | <0.03 | <5 | 6.69 | <0.003 J | <0.01 | <0.003 J | <0.03 | 0.0146 |
| 3/20/12 | 0.145 | <0.005 | <0.005 | 0.243 | <0.003 | <0.5 | <0.005 | 47.1 | <0.01 | <0.01 | <0.02 | <0.01 | 0.248 J | <0.003 | 11.4 | 0.188 | <0.0002 | <0.03 | <5 | 6.24 | <0.003 | <0.01 J | <0.003 | <0.03 | <0.01 |
| 5/22/12 | -- | -- | -- | -- | -- | -- | <0.005 | 43.1 | -- | -- | -- | -- | 0.509 | <0.003 | 11.5 | 0.23 | -- | -- | <5 | 5.26 | -- | -- | -- | -- | -- |
| 8/29/12 | -- | -- | -- | -- | -- | -- | <0.005 | 38.5 | -- | -- | -- | -- | 0.15 | <0.003 | 9.47 | 0.139 | -- | -- | <5 | <5 | -- | -- | -- | -- | -- |

Historical Water Quality Data - Towslee Landfill

MW-1A Total Metals ( all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 724 | <0.003 | 0.353 | 8.11 | 0.0287 | 0.0873 B | <0.0003 | 430 | 1.04 | -- | 0.59 | 0.996 | 1550 | 0.454 | 309 | 24.6 | 0.0014 | 1.33 | 77.5 | 37.3 | <0.028 | <0.009 | <0.026 | 0.856 | 3.36 |
| 10/1/97 | 16.9 | <0.003 | 0.0134 | 0.258 | 0.00083 B | 0.0665 B | <0.0003 | 48.6 | 0.0265 | -- | 0.0168 B | 0.0254 | 35.7 | 0.0123 | 15.6 | 0.783 | <0.0001 | 0.0364 B | 6.97 | 26 | <0.0028 | <0.0009 | <0.0026 | 0.0243 B | 0.0874 |
| 3/22/06 | -- | -- | -- | -- | -- | -- | <0.005 | 46.2 | -- | -- | -- | -- | 19.4 | 0.00716 | 12.6 | 0.534 | -- | -- | 2.72 | 17.1 | -- | -- | -- | -- | -- |
| 5/31/06 | -- | -- | -- | -- | -- | -- | <0.005 | 41.8 | -- | -- | -- | -- | 2.99 | 0.007 | 8.67 | 0.194 | -- | -- | 1.6 | 13 | -- | -- | -- | -- | -- |
| 8/9/06 | 2.96 | <0.05 | <0.025 | 0.104 | <0.005 | 0.073 | <0.005 | 43.2 | <0.005 | <0.02 | <0.015 | 0.022 | 6.03 | <0.005 | 9.7 | 0.38 | <0.0004 | <0.01 | 1.7 | 13.6 | <0.02 | <0.015 | <0.03 | <0.015 | 0.106 |
| 10/10/06 | -- | -- | -- | -- | -- | -- | <0.005 | 43.9 | -- | -- | -- | -- | 2.11 | <0.005 | 9.43 | 0.306 | -- | -- | 1.62 | 13.5 | -- | -- | -- | -- | -- |
| 3/20/07 | -- | -- | -- | -- | -- | -- | <0.005 | 39.2 | -- | -- | -- | -- | 1.67 | <0.003 | 8.87 | 0.19 | -- | -- | 1.74 | 12.2 | -- | -- | -- | -- | -- |
| 4/26/07 | -- | -- | -- | -- | -- | -- | <0.005 | 44.5 | -- | -- | -- | -- | 2.14 | <0.003 | 10.2 | 0.193 | -- | -- | 2.31 | 12.5 | -- | -- | -- | -- | -- |
| 7/31/07 | -- | -- | -- | -- | -- | -- | <0.005 | 43.5 | -- | -- | -- | -- | 1.21 | <0.003 | 9.67 | 0.206 | -- | -- | 1.59 | 13 | -- | -- | -- | -- | -- |
| 10/10/07 | 2.07 | <0.015 | <0.01 | 0.0917 | <0.003 | <0.5 | <0.005 | 42.2 | <0.005 | <0.01 | <0.02 | <0.01 | 3.49 | <0.003 | 9.8 | 0.203 | <0.0002 | <0.03 | 2.06 | 11.8 | <0.005 | <0.01 | <0.01 | <0.03 | 0.0235 |
| 4/16/08 | -- | -- | -- | -- | -- | -- | <0.005 | 43.2 | -- | -- | -- | -- | 1.17 | <0.003 | 10.6 | 0.157 | -- | -- | 1.65 | 12.5 | -- | -- | -- | -- | -- |
| 7/23/08 | -- | -- | -- | -- | -- | -- | <0.005 | 46.2 | -- | -- | -- | -- | 0.217 | <0.003 | 10.7 | 0.135 | -- | -- | 1.51 | 13.8 | -- | -- | -- | -- | -- |
| 10/24/08 | -- | -- | -- | -- | -- | -- | <0.005 | 48.3 | -- | -- | -- | -- | 0.429 | <0.003 | 10.8 | 0.151 | -- | -- | 1.69 | 13.2 | -- | -- | -- | -- | -- |
| 3/12/09 | -- | -- | -- | -- | -- | -- | <0.005 | 47.2 | -- | -- | -- | -- | 0.818 | <0.003 | 10.6 | 0.0917 | -- | -- | 1.52 | 13.4 | -- | -- | -- | -- | -- |
| 6/17/09 | 1.57 | <0.015 | <0.01 | 0.0732 | <0.003 | <0.5 | <0.005 | 47 | <0.005 | <0.01 | <0.02 | <0.01 | 1.65 | <0.003 | 11.1 | 0.169 | <0.0002 | <0.03 | 1.78 | 13.9 | <0.005 | <0.01 | <0.01 | <0.03 | <0.01 |
| 9/30/09 | -- | -- | -- | -- | -- | -- | <0.005 | 46.5 | -- | -- | -- | -- | 0.348 | <0.003 | 10 | 0.155 | -- | -- | <1 | 12.5 | -- | -- | -- | -- | -- |
| 12/1/09 | -- | -- | -- | -- | -- | -- | <0.005 | 45 | -- | -- | -- | -- | 6.19 | <0.003 | 11.9 | 0.251 | -- | -- | <5 | 12.6 | -- | -- | -- | -- | -- |
| 4/27/10 | -- | -- | -- | -- | -- | -- | <0.005 | 47 | -- | -- | -- | -- | 0.484 | <0.003 | 10.5 | 0.118 | -- | -- | <5 | 12.8 | -- | -- | -- | -- | -- |
| 7/20/10 | 0.142 | <0.005 | <0.005 | 0.0757 | <0.003 | <0.5 | <0.005 | 48.9 | <0.01 | <0.01 | <0.02 | <0.01 | 0.219 | <0.003 | 10.8 | 0.156 | <0.0002 | <0.03 | <5 | 13.2 | <0.003 | <0.01 | <0.003 | <0.03 | <0.01 |
| 10/26/10 | -- | -- | -- | -- | -- | -- | <0.005 | 49 | -- | -- | -- | -- | 1.99 | <0.003 | 11.3 | 0.329 | -- | -- | <5 | 15.3 | -- | -- | -- | -- | -- |
| 3/22/11 | -- | -- | -- | -- | -- | -- | <0.005 | 45.6 | -- | -- | -- | -- | 1.47 | <0.003 | 11 | 0.236 | -- | -- | <5 | 13.6 | -- | -- | -- | -- | -- |
| 5/24/11 | -- | -- | -- | -- | -- | -- | <0.005 | 46.9 | -- | -- | -- | -- | 3.13 | <0.003 | 11.5 | 0.215 | -- | -- | <5 | 13.1 | -- | -- | -- | -- | -- |
| 9/20/11 | -- | -- | -- | -- | -- | -- | <0.005 | 51.5 | -- | -- | -- | -- | 0.872 | <0.003 | 10.5 | 0.139 | -- | -- | <5 | 13.2 | -- | -- | -- | -- | -- |
| 12/14/11 | 0.711 | <0.005 J | <0.005 J | 0.0774 | <0.003 | <0.5 | <0.005 | 51 | <0.01 | <0.01 | <0.02 | <0.01 | 0.987 | <0.003 J | 12 | 0.119 | <0.0002 | <0.03 | <5 | 14.9 | <0.003 J | <0.01 | <0.003 J | <0.03 | <0.01 |
| 3/21/12 | 19.1 | <0.005 | 0.0115 J | 0.273 | <0.003 | <0.5 | <0.005 | 58.2 | 0.0267 | <0.01 | <0.02 | 0.0218 | 33.7 J | 0.0108 | 19.3 | 0.691 | <0.0002 | 0.0409 | <5 | 15.6 | <0.003 | <0.01 J | <0.003 | <0.03 | 0.0792 |
| 5/22/12 | -- | -- | -- | -- | -- | -- | <0.005 | 49.4 | -- | -- | -- | -- | 1.65 | <0.003 | 12.6 | 0.121 | -- | -- | <5 | 12.6 | -- | -- | -- | -- | -- |
| 8/30/12 | -- | -- | -- | -- | -- | -- | <0.005 | 42.8 | -- | -- | -- | -- | 0.702 | <0.003 | 9.95 | 0.0453 | -- | -- | <5 | 10.4 | -- | -- | -- | -- | -- |

Historical Water Quality Data - Towslee Landfill

MW-1B Total Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 0.662 | <0.003 | <0.0024 | 0.168 B | 0.0001 B | 0.0197 B | <0.0003 | 26.7 | 0.002 B | -- | <0.0011 | 0.004 B | 1.33 | <0.001 | 6.47 | 0.195 | -- | <0.0013 | 1.56 B | 7.38 | -- | -- | <0.0026 | <0.0012 | 0.0351 |
| 10/1/97 | 0.134 B | <0.003 | <0.0024 | 0.154 B | <0.0001 | 0.0247 B | <0.0003 | 24.7 | <0.0004 | -- | <0.0011 | 0.0025 B | 0.226 | <0.001 | 5.84 | 0.146 | -- | <0.0013 | 0.529 B | 6.18 | -- | -- | <0.0026 | <0.0012 | 0.0163 B |
| 3/22/06 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 26.8 | -- | -- | -- | -- | 9.42 | <0.005 | 7.46 | 2.28 | -- | -- | 0.973 | 6.31 | -- | -- | -- | -- | -- |
| 5/31/06 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 23.9 | -- | -- | -- | -- | 1.48 | <0.005 | 5.39 | 0.191 | -- | -- | 0.468 | 5.22 | -- | -- | -- | -- | -- |
| 8/9/06 | 1.09 | <0.05 | <0.025 | 0.194 | <0.005 | <0.05 | <0.005 | 25.8 | <0.005 | <0.02 | <0.015 | 0.017 | 1.84 | <0.005 | 6.05 | 0.251 | <0.0004 | <0.01 | 0.523 | 6.35 | <0.02 | <0.015 | <0.03 | <0.015 | 0.052 |
| 10/10/06 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 24.1 | -- | -- | -- | -- | 0.273 | <0.005 | 5.31 | 0.126 | -- | -- | 0.374 | 5.92 | -- | -- | -- | -- | -- |
| 3/20/07 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 23.7 | -- | -- | -- | -- | 2.39 | 0.00431 | 5.94 | 0.521 | -- | -- | <1 | 5.22 | -- | -- | -- | -- | -- |
| 4/26/07 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 30 | -- | -- | -- | -- | 0.508 | <0.003 | 7.4 | 0.169 | -- | -- | <1 | 6.82 | -- | -- | -- | -- | -- |
| 7/31/07 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 29.9 | -- | -- | -- | -- | 0.465 | <0.003 | 7.12 | 0.19 | -- | -- | <1 | 7.1 | -- | -- | -- | -- | -- |
| 10/10/07 | 0.537 | <0.015 | <0.01 | 0.172 | <0.003 | <0.5 | <0.005 | 26 | <0.005 | <0.01 | <0.02 | <0.01 | 0.73 | <0.003 | 6.28 | 0.176 | <0.0002 | <0.03 | <1 | 5.84 | <0.005 | <0.01 | <0.01 | <0.03 | 0.0168 |
| 2/1/08 | 0.518 | <0.015 | <0.01 | 0.199 | <0.003 | <0.5 | <0.005 | 25.1 | <0.005 | <0.01 | <0.02 | <0.01 | 1 | <0.003 | 6.44 | 0.26 | <0.0002 | <0.03 | <1 | 5.66 | <0.005 | <0.01 | <0.01 | <0.03 | 0.0112 |
| 4/16/08 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 28.6 | -- | -- | -- | -- | 1.38 | <0.003 | 7.58 | 0.198 | -- | -- | <1 | 6.73 | -- | -- | -- | -- | -- |
| 7/23/08 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 30.2 | -- | -- | -- | -- | 0.185 | <0.003 | 7.74 | 0.169 | -- | -- | <1 | 7.29 | -- | -- | -- | -- | -- |
| 10/24/08 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 30 | -- | -- | -- | -- | 0.174 | <0.003 | 7.28 | 0.153 | -- | -- | <1 | 6.81 | -- | -- | -- | -- | -- |
| 3/12/09 | -- | -- | -- | -- | -- | -- | 0.00542 | 27.7 | -- | -- | -- | -- | -- | 2.92 | <0.003 | 6.76 | 0.223 | -- | -- | <1 | 6.37 | -- | -- | -- | -- | -- |
| 6/17/09 | 0.255 | <0.03 | <0.01 | 0.232 | <0.003 | <0.5 | <0.005 | 31.4 | <0.01 | <0.01 | <0.02 | <0.01 | 0.523 | <0.003 | 7.83 | 0.25 | <0.0002 | <0.03 | <1 | 8.15 | <0.005 | <0.01 | <0.01 | <0.03 | <0.01 |
| 9/30/09 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 31.1 | -- | -- | -- | -- | 0.115 | <0.003 | 7.34 | 0.149 | -- | -- | <1 | 7.32 | -- | -- | -- | -- | -- |
| 12/1/09 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 58.7 | -- | -- | -- | -- | 6.72 | <0.003 | 14.4 | 9.34 | -- | -- | 8.56 | 14.9 | -- | -- | -- | -- | -- |
| 4/27/10 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 26.5 | -- | -- | -- | -- | 0.423 | <0.003 | 6.49 | 0.13 | -- | -- | <5 | 6.29 | -- | -- | -- | -- | -- |
| 7/20/10 | <0.1 | <0.005 | <0.005 | 0.204 | <0.003 | <0.5 | <0.005 | 30.3 | <0.01 | <0.01 | <0.02 | <0.01 | 0.159 | <0.003 | 7.27 | 0.188 | <0.0002 | <0.03 | <5 | 7.12 | <0.003 | <0.01 | <0.003 | <0.03 | <0.01 |
| 10/26/10 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 29.7 | -- | -- | -- | -- | 1.02 | <0.003 | 7.29 | 0.153 | -- | -- | <5 | 8.95 | -- | -- | -- | -- | -- |
| 3/22/11 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 30.5 | -- | -- | -- | -- | 1.19 | <0.003 | 7.75 | 0.269 | -- | -- | <5 | 7.99 | -- | -- | -- | -- | -- |
| 5/24/11 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 24.9 | -- | -- | -- | -- | <0.06 | <0.003 | 6.14 | 0.24 | -- | -- | <5 | 6.48 | -- | -- | -- | -- | -- |
| 9/20/11 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 34.3 | -- | -- | -- | -- | 0.121 | <0.003 | 7.05 | 0.275 | -- | -- | <5 | 27 | -- | -- | -- | -- | -- |
| 12/14/11 | 0.305 | <0.005 J | <0.005 J | 0.185 | <0.003 | <0.5 | <0.005 | 30.8 | <0.01 | <0.01 | <0.02 | <0.01 | 0.341 | <0.003 J | 7.66 | 0.0807 | <0.0002 | <0.03 | <5 | 8.23 | <0.003 J | <0.01 | <0.003 J | <0.03 | <0.01 |
| 3/21/12 | 0.141 | <0.005 | <0.005 | 0.222 | <0.003 | <0.5 | <0.005 | 35 | <0.01 | <0.01 | <0.02 | <0.01 | 0.238 J | <0.003 | 8.85 | 0.223 | <0.0002 | <0.03 | <5 | 9.91 | <0.003 | <0.01 J | <0.003 | <0.03 | <0.01 |
| 5/22/12 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 30.4 | -- | -- | -- | -- | 3.2 | 0.00423 | 8.66 | 0.232 | -- | -- | <5 | 7.92 | -- | -- | -- | -- | -- |
| 8/30/12 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 30.4 | -- | -- | -- | -- | 0.39 | <0.003 | 7.48 | 0.148 | -- | -- | <5 | 7.34 | -- | -- | -- | -- | -- |

Historical Water Quality Data - Towslee Landfill

MW-2A Total Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 79.3 | 0.0049 B | 0.0631 | 1.75 | 0.0037 B | 1.21 | <0.0003 | 186 | 0.112 | -- | 0.0719 | 0.104 | 154 | 0.0561 | 61.6 | 35.7 | <0.0001 | 0.151 | 23.4 | 119 | <0.0028 | 0.0024 B | 0.004 B | 0.102 | 0.4 |
| 10/1/97 | 59.1 | <0.003 | 0.0537 | 1.49 | 0.0025 B | 0.961 | 0.0016 B | 172 | 0.0967 | -- | 0.0628 | 0.0779 | 131 | 0.0436 | 53.6 | 31.6 | <0.0001 | 0.132 | 17 | 102 | <0.0028 | 0.0014 B | <0.0026 | 0.0866 | 0.278 |
| 3/22/06 | -- | -- | -- | -- | -- | -- | <0.005 | 69.1 | -- | -- | -- | -- | 8.29 | <0.005 | 16.6 | 12.2 | -- | -- | 9.29 | 26.3 | -- | -- | -- | -- | -- |
| 5/31/06 | -- | -- | -- | -- | -- | -- | <0.005 | 74.1 | -- | -- | -- | -- | 24 | 0.019 | 18.3 | 11.5 | -- | -- | 11.2 | 25.2 | -- | -- | -- | -- | -- |
| 8/9/06 | 0.43 | <0.05 | <0.025 | 0.502 | <0.005 | 0.584 | <0.005 | 77.3 | <0.005 | <0.02 | <0.015 | 0.012 | 6.5 | <0.005 | 17.5 | 12 | <0.0004 | <0.01 | 12.3 | 31.4 | <0.02 | <0.015 | <0.03 | <0.015 | <0.01 |
| 10/10/06 | -- | -- | -- | -- | -- | -- | <0.005 | 88.5 | -- | -- | -- | -- | 10.1 | 0.006 | 19.4 | 13.6 | -- | -- | 12.7 | 31.4 | -- | -- | -- | -- | -- |
| 3/20/07 | -- | -- | -- | -- | -- | -- | <0.005 | 64.2 | -- | -- | -- | -- | 10.8 | 0.00524 | 15.7 | 9.93 | -- | -- | 9.02 | 19.5 | -- | -- | -- | -- | -- |
| 4/26/07 | -- | -- | -- | -- | -- | -- | <0.005 | 75.3 | -- | -- | -- | -- | 6.86 | <0.003 | 17.9 | 11.7 | -- | -- | 10.8 | 22.9 | -- | -- | -- | -- | -- |
| 7/31/07 | -- | -- | -- | -- | -- | -- | <0.005 | 80.4 | -- | -- | -- | -- | 7.67 | <0.003 | 18 | 12.7 | -- | -- | 13.3 | 26.1 | -- | -- | -- | -- | -- |
| 10/10/07 | 0.444 | <0.015 | <0.01 | 0.265 | <0.003 | <0.5 | <0.005 | 47.9 | <0.005 | <0.02 | <0.02 | <0.01 | 4.95 | <0.003 | 11 | 7.05 | <0.0002 | <0.03 | 2.14 | 13.8 | <0.005 | <0.01 | <0.01 | <0.03 | <0.01 |
| 2/1/08 | 1.98 | <0.015 | 0.0145 | 0.377 | <0.003 | <0.5 | <0.005 | 70.3 | 0.0177 | <0.05 | <0.02 | <0.01 | 9.77 | <0.003 | 17.1 | 11.2 | <0.0002 | <0.03 | 8.56 | 19.2 | <0.005 | <0.01 | <0.01 | <0.03 | 0.0101 |
| 4/16/08 | -- | -- | -- | -- | -- | -- | <0.005 | 57.5 | -- | -- | -- | -- | 4.1 | <0.003 | 14.3 | 9.3 | -- | -- | 7.56 | 16.5 | -- | -- | -- | -- | -- |
| 7/23/08 | -- | -- | -- | -- | -- | -- | <0.005 | 87.8 | -- | -- | -- | -- | 10.6 | 0.0039 | 20.3 | 13.8 | -- | -- | 12.3 | 25.6 | -- | -- | -- | -- | -- |
| 10/24/08 | -- | -- | -- | -- | -- | -- | <0.005 | 99 | -- | -- | -- | -- | 9.51 | <0.003 | 23.1 | 15.1 | -- | -- | 15.1 | 25.9 | -- | -- | -- | -- | -- |
| 3/12/09 | -- | -- | -- | -- | -- | -- | <0.005 | 66.7 | -- | -- | -- | -- | 7.77 | <0.003 | 15.1 | 10.7 | -- | -- | 7.48 | 17.8 | -- | -- | -- | -- | -- |
| 6/17/09 | <0.1 | <0.03 | <0.01 | 0.471 | <0.003 | <0.5 | <0.005 | 87.1 | <0.01 | <0.01 | <0.02 | <0.01 | 8.28 | <0.003 | 18.8 | 12.8 | <0.0002 | <0.03 | 12.4 | 23.8 | <0.005 | <0.01 | <0.01 | <0.03 | <0.01 |
| 9/30/09 | -- | -- | -- | -- | -- | -- | <0.005 | 78.6 | -- | -- | -- | -- | 5.21 | <0.003 | 16.8 | 11.4 | -- | -- | 13.6 | 21.1 | -- | -- | -- | -- | -- |
| 12/1/09 | -- | -- | -- | -- | -- | -- | <0.005 | 26.5 | -- | -- | -- | -- | 0.827 | <0.003 | 7.01 | 0.144 | -- | -- | <5 | 6.59 | -- | -- | -- | -- | -- |
| 1/28/10 | -- | -- | -- | -- | -- | -- | <0.005 | 71.1 | -- | -- | -- | -- | 64.2 | 0.0187 | 27.6 | 11.6 | -- | -- | 12.8 | 15.5 | -- | -- | -- | -- | -- |
| 4/27/10 | -- | -- | -- | -- | -- | -- | <0.005 | 68.7 | -- | -- | -- | -- | 6.1 | <0.003 | 15.4 | 9.79 | -- | -- | 9.42 | 16.3 | -- | -- | -- | -- | -- |
| 7/20/10 | 3.37 | <0.005 | <0.005 | 0.545 | <0.003 | <0.5 | <0.005 | 91.2 | <0.01 | <0.01 | <0.02 | <0.01 | 13 | <0.003 | 20.6 | 12.2 | <0.0002 | <0.03 | 14.3 | 21.9 | <0.003 | <0.01 | <0.003 | <0.03 | 0.0269 |
| 11/12/10 | -- | -- | -- | -- | -- | -- | <0.005 | 74.6 | -- | -- | -- | -- | 9.73 | <0.003 | 17.9 | 11.1 | -- | -- | 11.9 | 19 | -- | -- | -- | -- | -- |
| 3/22/11 | -- | -- | -- | -- | -- | -- | <0.005 | 54.9 | -- | -- | -- | -- | 4.73 | <0.003 | 12.9 | 8.18 | -- | -- | 7.2 | 13.5 | -- | -- | -- | -- | -- |
| 5/24/11 | -- | -- | -- | -- | -- | -- | <0.005 | 48.7 | -- | -- | -- | -- | 4.27 | <0.003 | 11 | 7.05 | -- | -- | 7.47 | 12.5 | -- | -- | -- | -- | -- |
| 3/22/11 | -- | -- | -- | -- | -- | -- | <0.005 | 54.9 | -- | -- | -- | -- | 4.73 | <0.003 | 12.9 | 8.18 | -- | -- | 7.2 | 13.5 | -- | -- | -- | -- | -- |
| 5/24/11 | -- | -- | -- | -- | -- | -- | <0.005 | 48.7 | -- | -- | -- | -- | 4.27 | <0.003 | 11 | 7.05 | -- | -- | 7.47 | 12.5 | -- | -- | -- | -- | -- |
| 9/20/11 | -- | -- | -- | -- | -- | -- | <0.005 | 76.9 | -- | -- | -- | -- | 5.34 | <0.003 | 14.8 | 9.08 | -- | -- | 11.4 | 22.1 | -- | -- | -- | -- | -- |
| 12/14/11 | 0.317 | <0.005 J | <0.005 J | 0.269 | <0.003 | <0.5 | <0.005 | 58.1 | <0.01 | <0.01 | <0.02 | <0.01 | 5.42 | <0.003 J | 13.1 | 7.78 | <0.0002 | <0.03 | 7.62 | 13.6 | <0.003 J | <0.01 | <0.003 J | <0.03 | <0.01 |
| 3/21/12 | 0.323 | <0.005 | 0.00679 BJ | 0.259 | <0.003 | <0.5 | <0.005 | 49.6 | <0.01 | <0.01 | <0.02 | <0.01 | 2.9 J | <0.003 | 11.2 | 6.81 | <0.0002 | <0.03 | 6.33 | 11 | <0.003 | <0.01 J | <0.003 | <0.03 | <0.01 |
| 5/23/12 | -- | -- | -- | -- | -- | -- | <0.005 | 59.2 | -- | -- | -- | -- | 3.15 | <0.003 | 14.4 | 8.49 | -- | -- | 8.15 | 11.9 | -- | -- | -- | -- | -- |
| 8/30/12 | -- | -- | -- | -- | -- | -- | <0.005 | 78.8 | -- | -- | -- | -- | 7.39 | <0.003 | 17.4 | 10.3 | -- | -- | 10.9 | 14.7 | -- | -- | -- | -- | -- |

Historical Water Quality Data - Towslee Landfill

MW-2B Total Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 2.03 | <0.003 | 0.007 B | 1.59 | 0.00023 B | 0.355 | 0.0003 B | 288 | 0.004 B | -- | 0.0091 B | 0.0069 B | 4.3 | 0.0044 | 61.7 | 8.24 | -- | 0.0129 B | 3 B | 64.1 | -- | -- | 0.0037 B | 0.0029 B | 0.103 |
| 10/1/97 | 5.31 | <0.003 | 0.0083 B | 1.36 | 0.00037 B | 0.292 | <0.0003 | 245 | 0.0086 B | -- | 0.0141 B | 0.0118 B | 10.7 | 0.0058 | 49.9 | 7.43 | -- | 0.0188 B | 2.9 B | 53.9 | -- | -- | <0.0026 | 0.0075 B | 0.0484 |
| 3/22/06 | -- | -- | -- | -- | -- | -- | <0.005 | 203 | -- | -- | -- | -- | 0.913 | <0.005 | 46.1 | 6.98 | -- | -- | 2.42 | 53.8 | -- | -- | -- | -- | -- |
| 5/31/06 | -- | -- | -- | -- | -- | -- | <0.005 | 216 E | -- | -- | -- | -- | 0.836 | 0.009 | 45.3 | 6.8 | -- | -- | 2.25 | 49.7 | -- | -- | -- | -- | -- |
| 8/9/06 | 0.18 | <0.05 | <0.025 | 1.22 | <0.005 | 0.256 | <0.005 | 203 E | <0.005 | <0.02 | <0.015 | 0.017 | 1.2 | <0.005 | 43.5 | 6.63 | <0.0004 | <0.01 | 2.28 | 51.1 | <0.02 | <0.015 | <0.03 | <0.015 | <0.01 |
| 10/10/06 | -- | -- | -- | -- | -- | -- | <0.005 | 200 | -- | -- | -- | -- | 1.07 | <0.005 | 42.7 | 6.46 | -- | -- | 2.38 | 51 | -- | -- | -- | -- | -- |
| 3/20/07 | -- | -- | -- | -- | -- | -- | <0.005 | 216 | -- | -- | -- | -- | 0.637 | <0.003 | 44.8 | 6.42 | -- | -- | 2.74 | 50.9 | -- | -- | -- | -- | -- |
| 4/26/07 | -- | -- | -- | -- | -- | -- | <0.005 | 170 | -- | -- | -- | -- | 0.469 | <0.003 | 36.3 | 4.93 | -- | -- | 2.14 | 40.8 | -- | -- | -- | -- | -- |
| 7/31/07 | -- | -- | -- | -- | -- | -- | <0.005 | 214 | -- | -- | -- | -- | 0.468 | <0.003 | 44.1 | 6.6 | -- | -- | 2.44 | 52.3 | -- | -- | -- | -- | -- |
| 10/10/07 | <0.1 | <0.015 | <0.01 | 1.09 | <0.003 | <0.5 | <0.005 | 195 | <0.005 | <0.01 | <0.02 | <0.01 | 0.323 | <0.003 | 39.9 | 5.7 | <0.0002 | <0.03 | <1 | 48.2 | <0.005 | <0.01 | <0.01 | <0.03 | 0.0469 |
| 2/1/08 | 0.168 | <0.015 | <0.01 | 1.18 | <0.003 | <0.5 | <0.005 | 201 | 0.00816 | <0.01 | <0.02 | <0.01 | 0.439 | <0.003 | 42.8 | 6.21 | <0.0002 | <0.03 | 2.44 | 50.6 | <0.005 | <0.01 | <0.01 | <0.03 | <0.01 |
| 4/16/08 | -- | -- | -- | -- | -- | -- | <0.005 | 192 | -- | -- | -- | -- | 0.56 | <0.003 | 42.4 | 5.96 | -- | -- | 2.2 | 47.4 | -- | -- | -- | -- | -- |
| 7/23/08 | -- | -- | -- | -- | -- | -- | <0.005 | 214 | -- | -- | -- | -- | 0.236 | <0.003 | 47.1 | 6.49 | -- | -- | 2.23 | 51.4 | -- | -- | -- | -- | -- |
| 10/24/08 | -- | -- | -- | -- | -- | -- | <0.005 | 235 | -- | -- | -- | -- | 0.28 | <0.003 | 49.1 | 6.84 | -- | -- | 3.13 | 58.2 | -- | -- | -- | -- | -- |
| 3/12/09 | -- | -- | -- | -- | -- | -- | <0.005 | 201 | -- | -- | -- | -- | 0.466 | <0.003 | 42.9 | 6.5 | -- | -- | 2.44 | 49.3 | -- | -- | -- | -- | -- |
| 6/17/09 | 0.235 | <0.03 | <0.01 | 1.43 | <0.003 | <0.5 | <0.005 | 237 | <0.01 | <0.01 | <0.02 | <0.01 | 0.464 | <0.003 | 45.9 | 6.63 | <0.0002 | <0.03 | 2.71 | 55.4 | <0.005 | <0.01 | <0.01 | <0.03 | <0.01 |
| 9/30/09 | -- | -- | -- | -- | -- | -- | <0.005 | 227 | -- | -- | -- | -- | 0.222 | <0.003 | 45.6 | 6.31 | -- | -- | <1 | 58.6 | -- | -- | -- | -- | -- |
| 12/1/09 | -- | -- | -- | -- | -- | -- | <0.005 | 178 | -- | -- | -- | -- | 0.235 | <0.003 | 39.7 | 5.63 | -- | -- | <5 | 49 | -- | -- | -- | -- | -- |
| 1/28/10 | -- | -- | -- | -- | -- | -- | <0.005 | 177 | -- | -- | -- | -- | 0.451 | <0.003 | 40.4 | 5.48 | -- | -- | <5 | 48.9 | -- | -- | -- | -- | -- |
| 4/27/10 | -- | -- | -- | -- | -- | -- | <0.005 | 202 | -- | -- | -- | -- | 0.329 | <0.003 | 43.1 | 6.2 | -- | -- | <5 | 53.1 | -- | -- | -- | -- | -- |
| 7/20/10 | <0.1 | <0.005 | <0.005 | 1.37 | <0.003 | <0.5 | <0.005 | 216 | <0.01 | <0.01 | <0.02 | <0.01 | 0.149 | <0.003 | 46.2 | 6.35 | <0.0002 | <0.03 | <5 | 56.9 | 0.004 | <0.01 | <0.003 | <0.03 | <0.01 |
| 10/26/10 | -- | -- | -- | -- | -- | -- | <0.005 | 207 | -- | -- | -- | -- | 0.273 | <0.003 | 43 | 6.82 | -- | -- | <5 | 65.4 | -- | -- | -- | -- | -- |
| 3/22/11 | -- | -- | -- | -- | -- | -- | <0.005 | 200 | -- | -- | -- | -- | 0.345 | <0.003 | 42.8 | 6.23 | -- | -- | <5 | 56.7 | -- | -- | -- | -- | -- |
| 5/24/11 | -- | -- | -- | -- | -- | -- | <0.005 | 172 | -- | -- | -- | -- | 0.312 | <0.003 | 38.8 | 5.23 | -- | -- | <5 | 51 | -- | -- | -- | -- | -- |
| 3/22/11 | -- | -- | -- | -- | -- | -- | <0.005 | 200 | -- | -- | -- | -- | 0.345 | <0.003 | 42.8 | 6.23 | -- | -- | <5 | 56.7 | -- | -- | -- | -- | -- |
| 5/24/11 | -- | -- | -- | -- | -- | -- | <0.005 | 172 | -- | -- | -- | -- | 0.312 | <0.003 | 38.8 | 5.23 | -- | -- | <5 | 51 | -- | -- | -- | -- | -- |
| 9/20/11 | -- | -- | -- | -- | -- | -- | <0.005 | 237 | -- | -- | -- | -- | 0.276 | <0.003 | 43.9 | 5.99 | -- | -- | <5 | 55.3 | -- | -- | -- | -- | -- |
| 12/14/11 | 0.175 | <0.005 J | <0.005 J | 1.31 | <0.003 | <0.5 | <0.005 | 212 | <0.01 | <0.01 | <0.02 | <0.01 | 0.333 | <0.003 J | 44.7 | 5.93 | <0.0002 | <0.03 | <5 | 57.7 | <0.003 J | <0.01 | <0.003 J | <0.03 | 0.0118 |
| 3/21/12 | 0.536 | <0.005 | <0.005 | 1.4 | <0.003 | <0.5 | <0.005 | 208 | <0.01 | <0.01 | <0.02 | <0.01 | 1.11 J | <0.003 | 46.6 | 6.23 | <0.0002 | <0.03 | <5 | 58.5 | <0.003 | <0.01 J | <0.003 | <0.03 | 0.0177 |
| 5/23/12 | -- | -- | -- | -- | -- | -- | <0.005 | 184 | -- | -- | -- | -- | 0.337 | <0.003 | 44.9 | 6.4 | -- | -- | <5 | 47.4 | -- | -- | -- | -- | -- |
| 8/30/12 | -- | -- | -- | -- | -- | -- | <0.005 | 196 | -- | -- | -- | -- | 0.319 | <0.003 | 42.2 | 6.38 | -- | -- | <5 | 50.8 | -- | -- | -- | -- | -- |

Historical Water Quality Data - Towslee Landfill

MW-3A Total Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 21.7 | <0.003 | 0.0127 | 0.567 | 0.001 B | <0.0709 | <0.0003 | 57.8 | 0.0249 | -- | 0.0121 B | 0.0315 | 26.6 | 0.0077 | 17 | 0.732 | -- | 0.0248 B | 7.43 | 10.4 | -- | -- | <0.0026 | 0.0296 B | 0.112 |
| 10/1/97 | 2.39 | 0.0034 B | <0.0024 | 0.343 | 0.00013 B | 0.0286 B | <0.0003 | 53.7 | 0.0022 B | -- | 0.0019 B | 0.0076 B | 3.58 | <0.001 | 11 | 0.174 | -- | 0.0038 B | 1.87 B | 6.54 | -- | -- | <0.0026 | 0.0039 B | 0.0265 |
| 3/22/06 | -- | -- | -- | -- | -- | -- | <0.005 | 46.3 | -- | -- | -- | -- | 1.88 | <0.005 | 9.13 | 0.208 | -- | -- | 0.938 | 5.66 | -- | -- | -- | -- | -- |
| 5/31/06 | -- | -- | -- | -- | -- | -- | <0.005 | 55.3 | -- | -- | -- | -- | 0.626 | 0.005 | 10 | 0.175 | -- | -- | 0.829 | 6.4 | -- | -- | -- | -- | -- |
| 8/9/06 | 0.078 | <0.05 | <0.025 | 0.41 | <0.005 | 0.063 | <0.005 | 57.9 | <0.005 | <0.02 | <0.015 | 0.023 | 0.104 | 0.005 | 11.2 | 0.416 | <0.0004 | <0.01 | 1.09 | 8.92 | <0.02 | <0.015 | <0.03 | <0.015 | 0.025 |
| 10/10/06 | -- | -- | -- | -- | -- | -- | <0.005 | 48.3 | -- | -- | -- | -- | 0.283 | <0.005 | 9.2 | 0.176 | -- | -- | 0.937 | 6.03 | -- | -- | -- | -- | -- |
| 3/20/07 | -- | -- | -- | -- | -- | -- | <0.005 | 23 | -- | -- | -- | -- | 1.18 | <0.003 | 4.04 | 0.415 | -- | -- | <1 | 2.11 | -- | -- | -- | -- | -- |
| 4/26/07 | -- | -- | -- | -- | -- | -- | <0.005 | 18.1 | -- | -- | -- | -- | 0.599 | <0.003 | 3.1 | 0.501 | -- | -- | <1 | 1.14 | -- | -- | -- | -- | -- |
| 7/31/07 | -- | -- | -- | -- | -- | -- | <0.005 | 45.1 | -- | -- | -- | -- | 0.231 | <0.003 | 9.15 | 0.116 | -- | -- | <1 | 5.1 | -- | -- | -- | -- | -- |
| 10/10/07 | 0.33 | <0.015 | <0.01 | 0.332 | <0.003 | <0.5 | <0.005 | 27.5 | <0.005 | <0.01 | <0.02 | <0.01 | 0.537 | <0.003 | 4.26 | 0.287 | <0.0002 | <0.03 | <1 | 2.64 | <0.005 | <0.01 | <0.01 | <0.03 | 0.0106 |
| 2/1/08 | 0.23 | <0.015 | <0.01 | 0.441 | <0.003 | <0.5 | <0.005 | 30.2 | <0.005 | <0.01 | <0.02 | <0.01 | 0.451 | <0.003 | 5.42 | 0.0373 | <0.0002 | <0.03 | <1 | 2.9 | <0.005 | <0.01 | <0.01 | <0.03 | <0.01 |
| 4/16/08 | -- | -- | -- | -- | -- | -- | <0.005 | 37.6 | -- | -- | -- | -- | 0.574 | <0.003 | 7.04 | 0.141 | -- | -- | <1 | 3.52 | -- | -- | -- | -- | -- |
| 7/23/08 | -- | -- | -- | -- | -- | -- | <0.005 | 24.4 | -- | -- | -- | -- | 0.508 | <0.003 | 3.83 | 0.618 | -- | -- | 1.06 | 2.77 | -- | -- | -- | -- | -- |
| 10/24/08 | -- | -- | -- | -- | -- | -- | <0.005 | 31.3 | -- | -- | -- | -- | 0.177 | <0.003 | 4.8 | 0.0424 | -- | -- | <1 | 2.69 | -- | -- | -- | -- | -- |
| 3/12/09 | -- | -- | -- | -- | -- | -- | <0.005 | 12.3 | -- | -- | -- | -- | 0.6 | <0.003 | 1.82 | 0.294 | -- | -- | <1 | <1 | -- | -- | -- | -- | -- |
| 6/17/09 | <0.1 | <0.015 | <0.01 | 0.458 | <0.003 | <0.5 | <0.005 | 59.5 | <0.01 | <0.01 | <0.02 | <0.01 | 0.155 | <0.003 | 11.6 | 0.164 | <0.0002 | <0.03 | <1 | 6.81 | <0.005 | <0.01 | <0.01 | <0.03 | <0.01 |
| 9/30/09 | -- | -- | -- | -- | -- | -- | <0.005 | 15.2 | -- | -- | -- | -- | 0.534 | <0.003 | <1 | 0.331 | -- | -- | <1 | <1 | -- | -- | -- | -- | -- |
| 12/1/09 | -- | -- | -- | -- | -- | -- | <0.005 | 26.2 | -- | -- | -- | -- | 1.44 | <0.003 | <5 | 0.597 | -- | -- | <5 | <5 | -- | -- | -- | -- | -- |
| 1/28/10 | -- | -- | -- | -- | -- | -- | <0.005 | 28.8 | -- | -- | -- | -- | 0.366 | <0.003 | 5.17 | 0.568 | -- | -- | <5 | <5 | -- | -- | -- | -- | -- |
| 4/27/10 | -- | -- | -- | -- | -- | -- | <0.005 | 23.2 | -- | -- | -- | -- | 0.291 | <0.003 | <5 | 0.218 | -- | -- | <5 | <5 | -- | -- | -- | -- | -- |
| 7/20/10 | 5.32 | <0.005 | <0.005 | 0.627 | <0.003 | <0.5 | <0.005 | 57.3 | <0.01 | <0.01 | <0.02 | <0.01 | 6.97 | <0.003 | 12.5 | 0.282 | <0.0002 | <0.03 | <5 | 6.53 | <0.003 | <0.01 | <0.003 | <0.03 | 0.0285 |
| 10/26/10 | -- | -- | -- | -- | -- | -- | <0.005 | 26.8 | -- | -- | -- | -- | 2.42 | <0.003 | <5 | 0.471 | -- | -- | <5 | <5 | -- | -- | -- | -- | -- |
| 3/22/11 | -- | -- | -- | -- | -- | -- | <0.005 | 18.3 | -- | -- | -- | -- | 0.232 | <0.003 | <5 | 0.575 | -- | -- | <5 | <5 | -- | -- | -- | -- | -- |
| 5/24/11 | -- | -- | -- | -- | -- | -- | <0.005 | 42.9 | -- | -- | -- | -- | 0.121 | <0.003 | 7.25 | 0.704 | -- | -- | <5 | <5 | -- | -- | -- | -- | -- |
| 9/20/11 | -- | -- | -- | -- | -- | -- | <0.005 | 58.9 | -- | -- | -- | -- | 0.121 | <0.003 | 9.72 | 0.635 | -- | -- | <5 | 5.9 | -- | -- | -- | -- | -- |
| 12/13/11 | 0.107 | <0.005 J | <0.005 J | 0.498 | <0.003 | <0.5 | <0.005 | 38.6 | <0.01 | <0.01 | <0.02 | <0.01 | 0.345 | <0.003 J | 6.31 | 0.726 | <0.0002 | <0.03 | <5 | <5 | <0.003 J | <0.01 | <0.003 J | <0.03 | <0.01 |
| 3/20/12 | 1.33 | <0.005 | <0.005 | 0.627 | <0.003 | <0.5 | <0.005 | 44.9 | <0.01 | <0.01 | <0.02 | <0.01 | 1.77 J | <0.003 | 8.39 | 0.802 | <0.0002 | <0.03 | <5 | <5 | <0.003 | <0.01 J | <0.003 | <0.03 | 0.0106 |
| 5/22/12 | -- | -- | -- | -- | -- | -- | <0.005 | 43.6 | -- | -- | -- | -- | 0.451 | <0.003 | 9.02 | 0.926 | -- | -- | <5 | <5 | -- | -- | -- | -- | -- |
| 8/29/12 | -- | -- | -- | -- | -- | -- | <0.005 | 47.5 | -- | -- | -- | -- | 0.238 | <0.003 | 9.93 | 0.371 | -- | -- | <5 | 5.41 | -- | -- | -- | -- | -- |

Historical Water Quality Data - Towslee Landfill

MW-3B Total Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 2.01 | <0.003 | <0.0024 | 0.402 | 0.0001 B | 0.0662 B | <0.0003 | 73.8 | 0.0032 B | NA | 0.002 B | 0.0051 B | 3.04 | 0.0013 B | 22.8 | 0.12 | NA | 0.0036 B | 2.05 B | 11.2 | NA | NA | <0.0026 | 0.003 B | 0.0621 |
| 10/1/97 | 0.184 | <0.003 | <0.0024 | 0.291 | 0.00013 B | 0.0626 B | <0.0003 | 74.4 | <0.0004 | NA | 0.0014 B | 0.0018 B | 0.372 | <0.001 | 21.5 | 0.0697 | NA | 0.0018 B | 1.2 B | 9.78 | NA | NA | <0.0026 | <0.0012 | 0.0155 B |
| 9/20/11 | -- | -- | -- | -- | -- | -- | <0.005 | 75.8 | -- | -- | -- | -- | 0.578 | <0.003 | 20.5 | 0.184 | -- | -- | <5 | 11.1 | -- | -- | -- | -- | -- |
| 12/13/11 | 0.253 | <0.005 J | <0.005 J | 0.294 | <0.003 | <0.5 | <0.005 | 70 | <0.01 | <0.01 | <0.02 | <0.01 | 0.344 | <0.003 J | 21.6 | 0.125 | <0.0002 | <0.03 | <5 | 12.5 | <0.003 J | <0.01 | <0.003 J | <0.03 | 0.0114 |
| 3/20/12 | 0.148 | <0.005 | <0.005 | 0.339 | <0.003 | <0.5 | <0.005 | 69 | <0.01 | <0.01 | <0.02 | <0.01 | 0.386 J | <0.003 | 21.6 | 0.102 | <0.0002 | <0.03 | <5 | 11.9 | <0.003 | <0.01 J | <0.003 | <0.03 | 0.017 |
| 5/22/12 | -- | -- | -- | -- | -- | -- | <0.005 | 66.6 | -- | -- | -- | -- | 0.0945 | <0.003 | 22.4 | 0.1 | -- | -- | <5 | 10.4 | -- | -- | -- | -- | -- |
| 8/29/12 | -- | -- | -- | -- | -- | -- | <0.005 | 59.1 | -- | -- | -- | -- | 0.142 | <0.003 | 18.4 | 0.092 | -- | -- | <5 | 8.61 | -- | -- | -- | -- | -- |

Historical Water Quality Data - Towslee Landfill

MW-4A Total Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 1.61 | <0.003 | <0.0024 | 0.803 | 0.0001 B | 0.0765 B | <0.0003 | 110 | 0.0015 B | NA | 0.0036 B | 0.0066 B | 2.2 | 0.0031 | 24.3 | 1.14 | NA | 0.0044 B | 2.01 B | 13.3 | NA | NA | <0.0026 | 0.0016 B | 0.0501 |
| 10/1/97 | 1.32 | <0.003 | <0.0024 | 1.26 | 0.00013 B | 0.124 | 0.0004 B | 127 | 0.00093 B | NA | 0.0035 B | 0.0076 B | 1.99 | 0.0024 B | 26 | 2.15 | NA | 0.0063 B | 2.02 B | 15.7 | NA | NA | <0.0026 | 0.0019 B | 0.0238 |
| 9/20/11 | -- | -- | -- | -- | -- | -- | <0.005 | 153 | -- | -- | -- | -- | 0.261 | <0.003 | 27.3 | 1.91 | -- | -- | <5 | 16.7 | -- | -- | -- | -- | -- |
| 12/13/11 | 0.153 | <0.005 J | <0.005 J | 1.16 | <0.003 | <0.5 | <0.005 | 128 | <0.01 | <0.01 | <0.02 | <0.01 | 0.174 | <0.003 J | 26.8 | 1.73 | <0.0002 | <0.03 | <5 | 17.8 | <0.003 J | <0.01 | <0.003 J | <0.03 | 0.013 |
| 3/20/12 | 0.39 | <0.005 | <0.005 | 1.3 | <0.003 | <0.5 | <0.005 | 131 | <0.01 | <0.01 | <0.02 | 0.0224 | 0.427 J | <0.003 | 28.3 | 1.75 | <0.0002 | <0.03 | <5 | 17.7 | <0.003 | <0.01 J | <0.003 | <0.03 | 0.0154 |
| 5/22/12 | -- | -- | -- | -- | -- | -- | <0.005 | 110 | -- | -- | -- | -- | 0.146 | <0.003 | 26.5 | 1.44 | -- | -- | <5 | 14.2 | -- | -- | -- | -- | -- |
| 8/29/12 | -- | -- | -- | -- | -- | -- | <0.005 | 123 | -- | -- | -- | -- | 0.209 | <0.003 | 27.8 | 2.05 | -- | -- | <5 | 14.7 | -- | -- | -- | -- | -- |

Historical Water Quality Data - Towslee Landfill

MW-5A Total Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 10.1 | 0.0045 B | 0.0061 B | 1.58 | 0.00063 B | 0.0348 B | 0.0042 B | 45.8 | 0.0092 | NA | 0.0105 B | 0.0181 B | 11.5 | 0.0114 | 14.8 | 0.485 | NA | 0.011 B | 3.03 B | 31.6 | NA | NA | <0.0026 | 0.0102 B | 0.105 |
| 10/1/97 | 0.228 | <0.003 | <0.0024 | 0.502 | <0.0001 | 0.021 B | <0.0003 | 32.1 | <0.0004 | NA | <0.0011 | 0.0037 B | 0.46 | <0.001 | 9.45 | 0.0661 | NA | <0.0013 | 0.897 B | 9.53 | NA | NA | <0.0026 | 0.0012 B | 0.0212 |

Historical Water Quality Data - Towslee Landfill

MW-6A Total Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 59.1 | 0.0036 B | 0.0476 | 1.79 | 0.0023 B | 0.282 | <0.0003 | 99.1 | 0.0859 | NA | 0.056 | 0.0973 | 111 | 0.0168 | 37.6 | 14.5 | <0.0001 | 0.112 | 14.4 | 53.3 | <0.0028 | 0.0013 B | <0.0026 | 0.0726 | 0.271 |
| 10/1/97 | 38.6 | NA | 0.0404 | 1.63 | 0.0017 B | 0.32 | 0.0011 B | 82.2 | 0.0705 | NA | 0.0463 B | 0.0689 | 85.5 | 0.0113 | 28.8 | 12.7 | <0.0001 | 0.0963 | 10.1 | 46.8 | <0.0028 | <0.0009 | <0.0026 | 0.053 | 0.177 |
| 9/20/11 | -- | -- | -- | -- | -- | -- | <0.005 | 66.6 | -- | -- | -- | -- | 0.835 | <0.003 | 10.2 | 1.33 | -- | -- | <5 | 19.5 | -- | -- | -- | -- | -- |
| 12/13/11 | 0.683 | <0.005 J | <0.005 J | 0.327 | <0.003 | <0.5 | <0.005 | 59.7 | <0.01 | <0.01 | <0.02 | <0.01 | 1.32 | <0.003 J | 10.8 | 1.78 | <0.0002 | <0.03 | <5 | 19.8 | <0.003 J | <0.01 | <0.003 J | <0.03 | <0.01 |
| 3/20/12 | 3.91 | <0.005 | 0.00689 BJ | 0.343 | <0.003 | <0.5 | <0.005 | 58.8 | <0.01 | <0.01 | <0.02 | <0.01 | 7.22 J | <0.003 | 12.2 | 1.63 | <0.0002 | <0.03 | <5 | 19 | <0.003 | <0.01 J | <0.003 | <0.03 | 0.0235 |
| 5/22/12 | -- | -- | -- | -- | -- | -- | <0.005 | 50.9 | -- | -- | -- | -- | 0.98 | <0.003 | 10.3 | 2.16 | -- | -- | <5 | 14.8 | -- | -- | -- | -- | -- |
| 8/30/12 | -- | -- | -- | -- | -- | -- | <0.005 | 57.5 | -- | -- | -- | -- | 6.38 | <0.015 | 10.2 | 2.84 | -- | -- | <5 | 16.5 | -- | -- | -- | -- | -- |

Historical Water Quality Data - Towslee Landfill

MW-6B Total Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 8.59 | <0.003 | 0.009 B | 0.521 | 0.0004 B | 0.145 | <0.0003 | 70.5 | 0.0092 B | -- | 0.0112 B | 0.0116 B | 10.6 | 0.0044 | 19 | 3.43 | -- | 0.0144 B | 4.08 B | 38 | -- | -- | <0.0026 | 0.0083 B | 0.0894 |
| 10/1/97 | 0.642 | <0.003 | 0.0084 B | 0.48 | 0.0001 B | 0.145 | <0.0003 | 55.6 | 0.0017 B | -- | 0.0056 B | 0.0051 B | 3 | <0.001 | 12.7 | 4.17 | -- | 0.0059 B | 2.72 B | 31.4 | -- | -- | <0.0026 | 0.0012 B | 0.0248 |
| 3/22/06 | -- | -- | -- | -- | -- | -- | <0.005 | 39.3 | -- | -- | -- | -- | 1.09 | <0.005 | 8.94 | 0.559 | -- | -- | 1.15 | 14.9 | -- | -- | -- | -- | -- |
| 5/31/06 | -- | -- | -- | -- | -- | -- | <0.005 | 39.6 | -- | -- | -- | -- | 0.511 | <0.005 | 10.9 | 0.12 | -- | -- | 0.825 | 9.93 | -- | -- | -- | -- | -- |
| 8/9/06 | 0.115 | <0.05 | <0.025 | 0.313 | <0.005 | <0.05 | <0.005 | 36.1 | <0.005 | <0.02 | <0.015 | 0.016 | 0.306 | <0.005 | 9.86 | 0.297 | <0.0004 | <0.01 | 0.634 | 10.1 | <0.02 | <0.015 | <0.03 | <0.015 | 0.014 |
| 10/10/06 | -- | -- | -- | -- | -- | -- | <0.005 | 37.4 | -- | -- | -- | -- | 0.195 | <0.005 | 9.71 | 0.185 | -- | -- | 0.69 | 10.7 | -- | -- | -- | -- | -- |
| 3/20/07 | -- | -- | -- | -- | -- | -- | <0.005 | 45.6 | -- | -- | -- | -- | 1.87 | <0.003 | 10.2 | 0.331 | -- | -- | 1.05 | 11.2 | -- | -- | -- | -- | -- |
| 4/26/07 | -- | -- | -- | -- | -- | -- | <0.005 | 39.9 | -- | -- | -- | -- | 0.486 | <0.003 | 9.68 | 0.0908 | -- | -- | <1 | 10.2 | -- | -- | -- | -- | -- |
| 7/31/07 | -- | -- | -- | -- | -- | -- | <0.005 | 40.2 | -- | -- | -- | -- | 0.163 | <0.003 | 9.12 | 0.671 | -- | -- | <1 | 15 | -- | -- | -- | -- | -- |
| 10/10/07 | 0.102 | <0.015 | <0.01 | 0.301 | <0.003 | <0.5 | <0.005 | 36.7 | <0.005 | <0.01 | <0.02 | <0.01 | 0.216 | <0.003 | 7.81 | 0.712 | <0.0002 | <0.03 | <1 | 14.7 | <0.005 | <0.01 | <0.01 | <0.03 | 0.0213 |
| 2/1/08 | 0.134 | <0.015 | <0.01 | 0.337 | <0.003 | <0.5 | <0.005 | 39.2 | <0.005 | <0.01 | <0.02 | <0.01 | 0.229 | <0.003 | 9.37 | 0.327 | <0.0002 | <0.03 | <1 | 13.8 | <0.005 | <0.01 | <0.01 | <0.03 | 0.0103 |
| 4/16/08 | -- | -- | -- | -- | -- | -- | <0.005 | 39.5 | -- | -- | -- | -- | 0.33 | <0.003 | 10.4 | 0.102 | -- | -- | <1 | 12.7 | -- | -- | -- | -- | -- |
| 7/23/08 | -- | -- | -- | -- | -- | -- | <0.005 | 39 | -- | -- | -- | -- | <0.06 | <0.003 | 9.61 | 0.666 | -- | -- | <1 | 18.1 | -- | -- | -- | -- | -- |
| 10/24/08 | -- | -- | -- | -- | -- | -- | <0.005 | 38.7 | -- | -- | -- | -- | <0.06 | <0.003 | 9.13 | 0.619 | -- | -- | 1.4 | 17.6 | -- | -- | -- | -- | -- |
| 3/12/09 | -- | -- | -- | -- | -- | -- | <0.005 | 39.6 | -- | -- | -- | -- | 0.268 | <0.003 | 10.5 | 0.0257 | -- | -- | 1.01 | 13.1 | -- | -- | -- | -- | -- |
| 6/17/09 | <0.1 | <0.03 | <0.01 | 0.404 | <0.003 | <0.5 | <0.005 | 42.9 | <0.01 | <0.01 | <0.02 | <0.01 | 0.104 | <0.003 | 11.4 | 0.0585 | <0.0002 | <0.03 | 1.03 | 17.9 | <0.005 | <0.01 | <0.01 | <0.03 | <0.01 |
| 9/30/09 | -- | -- | -- | -- | -- | -- | <0.005 | 42 | -- | -- | -- | -- | 0.0703 | <0.003 | 10.4 | 0.255 | -- | -- | <1 | 18.5 | -- | -- | -- | -- | -- |
| 12/1/09 | -- | -- | -- | -- | -- | -- | <0.005 | 38.2 | -- | -- | -- | -- | 0.417 | <0.003 | 10.4 | 0.167 | -- | -- | <5 | 15.8 | -- | -- | -- | -- | -- |
| 1/28/10 | -- | -- | -- | -- | -- | -- | <0.005 | 45 | -- | -- | -- | -- | 0.448 | <0.003 | 12.3 | 0.0606 | -- | -- | <5 | 16.8 | -- | -- | -- | -- | -- |
| 4/27/10 | -- | -- | -- | -- | -- | -- | <0.005 | 40.6 | -- | -- | -- | -- | 0.226 | <0.003 | 11 | 0.027 | -- | -- | <5 | 14.2 | -- | -- | -- | -- | -- |
| 7/20/10 | <0.1 | <0.005 | <0.005 | 0.348 | <0.003 | <0.5 | <0.005 | 39.9 | <0.01 | <0.01 | <0.02 | <0.01 | <0.06 | <0.003 | 10.7 | 0.087 | <0.0002 | <0.03 | <5 | 15 | <0.003 | <0.01 | <0.003 | <0.03 | <0.01 |
| 10/26/10 | -- | -- | -- | -- | -- | -- | <0.005 | 40.9 | -- | -- | -- | -- | 0.337 | <0.003 | 10.9 | 0.242 | -- | -- | <5 | 17.8 | -- | -- | -- | -- | -- |
| 3/22/11 | -- | -- | -- | -- | -- | -- | <0.005 | 40.1 | -- | -- | -- | -- | 0.114 | <0.003 | 10.8 | 0.0452 | -- | -- | <5 | 14.1 | -- | -- | -- | -- | -- |
| 5/24/11 | -- | -- | -- | -- | -- | -- | <0.005 | 43.3 | -- | -- | -- | -- | 0.235 | <0.003 | 10.8 | 0.0213 | -- | -- | <5 | 17 | -- | -- | -- | -- | -- |
| 9/20/11 | -- | -- | -- | -- | -- | -- | <0.005 | 49.7 | -- | -- | -- | -- | 0.835 | <0.003 | 11.7 | 0.166 | -- | -- | <5 | 18.3 | -- | -- | -- | -- | -- |
| 12/13/11 | <0.1 | <0.005 J | <0.005 J | 0.414 | <0.003 | <0.5 | <0.005 | 48.1 | <0.01 | <0.01 | <0.02 | <0.01 | 0.0989 | <0.003 J | 11.3 | 0.231 | <0.0002 | <0.03 | <5 | 21.7 | <0.003 J | <0.01 | <0.003 J | <0.03 | 0.0159 |
| 3/20/12 | <0.1 | <0.005 | <0.005 | 0.354 | <0.003 | <0.5 | <0.005 | 40.8 | <0.01 | <0.01 | <0.02 | <0.01 | 1.05 J | <0.003 | 10.8 | 0.0335 | <0.0002 | <0.03 | <5 | 16.5 | <0.003 | <0.01 J | <0.003 | <0.03 | <0.01 |
| 5/22/12 | -- | -- | -- | -- | -- | -- | <0.005 | 39.8 | -- | -- | -- | -- | 7.38 | <0.015 | 12.4 | 0.781 | -- | -- | <5 | 14.6 | -- | -- | -- | -- | -- |
| 8/30/12 | -- | -- | -- | -- | -- | -- | <0.005 | 42.9 | -- | -- | -- | -- | <0.06 | <0.003 | 10.6 | 0.0693 | -- | -- | <5 | 17.3 | -- | -- | -- | -- | -- |

Historical Water Quality Data - Towslee Landfill

MW-7A Total Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 40 | <0.003 | 0.0176 | 1.36 | 0.0015 B | 0.332 | 0.00047 B | 234 | 0.0556 | -- | 0.0311 | 0.0637 | 65.9 | 0.0251 | 67 | 5.87 | <0.0001 | 0.0783 | 10.4 | 118 | 0.0041 B | <0.0009 | <0.0026 | 0.0487 B | 0.2 |
| 10/1/97 | 88.4 | <0.003 | 0.0459 | 1.99 | 0.0037 B | 0.41 | 0.002 B | 271 | 0.146 | -- | 0.0791 | 0.129 | 174 | 0.0585 | 88.3 | 9.55 | <0.0001 | 0.192 | 13.5 | 113 | 0.0047 B | <0.0009 | <0.0026 | 0.127 | 0.408 |
| 3/22/06 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 171 | -- | -- | -- | 14.5 | 0.0175 | 48.6 | 6.08 | -- | -- | 3.06 | 134 | -- | -- | -- | -- | -- |
| 5/31/06 | -- | -- | -- | -- | -- | -- | -- | <0.005 | 165 | -- | -- | -- | 1.33 | 0.009 | 45.5 | 5.69 | -- | -- | 1.91 | 129 | -- | -- | -- | -- | -- |
| 8/9/06 | 0.415 | <0.05 | <0.025 | 0.684 | <0.005 | 0.55 | <0.005 | 150 | <0.005 | <0.02 | <0.015 | 0.013 | 0.722 | 0.006 | 38 | 4.4 | <0.0004 | 0.013 | 1.81 | 124 | <0.02 | <0.015 | <0.03 | <0.015 | <0.01 |
| 10/10/06 | -- | -- | -- | -- | -- | -- | <0.005 | 148 | -- | -- | -- | -- | 2.78 | <0.005 | 38 | 4.85 | -- | -- | 2.03 | 128 | -- | -- | -- | -- | -- |
| 3/20/07 | -- | -- | -- | -- | -- | -- | <0.005 | 149 | -- | -- | -- | -- | 1.68 | <0.003 | 38.4 | 4.51 | -- | -- | 2.03 | 112 | -- | -- | -- | -- | -- |
| 4/26/07 | -- | -- | -- | -- | -- | -- | <0.005 | 140 | -- | -- | -- | -- | 1.52 | <0.003 | 36.4 | 4.18 | -- | -- | 1.95 | 104 | -- | -- | -- | -- | -- |
| 7/31/07 | -- | -- | -- | -- | -- | -- | <0.005 | 135 | -- | -- | -- | -- | 9.97 | 0.00656 | 35 | 3.98 | -- | -- | 2.87 | 95.8 | -- | -- | -- | -- | -- |
| 10/10/07 | 2.43 | <0.015 | <0.01 | 0.576 | <0.003 | 0.65 | <0.005 | 131 | <0.005 | <0.01 | <0.02 | <0.01 | 3.65 | <0.003 | 32.1 | 3.47 | <0.0002 | <0.03 | <1 | 95.2 | <0.005 | <0.01 | <0.01 | <0.03 | 0.0263 |
| 2/1/08 | 0.919 | <0.015 | <0.01 | 0.68 | <0.003 | 0.588 | <0.005 | 148 | 0.00667 | <0.05 | <0.02 | <0.01 | 1.68 | <0.003 | 38.4 | 4.17 | <0.0002 | <0.03 | 1.85 | 104 | <0.005 | <0.01 | <0.01 | <0.03 | 0.0102 |
| 4/16/08 | -- | -- | -- | -- | -- | -- | <0.005 | 139 | -- | -- | -- | -- | 1.99 | <0.003 | 38.5 | 4.34 | -- | -- | 1.98 | 99.6 | -- | -- | -- | -- | -- |
| 7/23/08 | -- | -- | -- | -- | -- | -- | <0.005 | 150 | -- | -- | -- | -- | 0.342 | <0.003 | 39.5 | 4.82 | -- | -- | 1.82 | 113 | -- | -- | -- | -- | -- |
| 10/24/08 | -- | -- | -- | -- | -- | -- | <0.005 | 162 | -- | -- | -- | -- | 1.16 | <0.003 | 39.8 | 4.57 | -- | -- | 2.41 | 116 | -- | -- | -- | -- | -- |
| 3/12/09 | -- | -- | -- | -- | -- | -- | <0.005 | 140 | -- | -- | -- | -- | 0.322 | <0.003 | 35.8 | 4.31 | -- | -- | 1.62 | 97 | -- | -- | -- | -- | -- |
| 6/17/09 | 9.56 | <0.03 | <0.01 | 0.714 | <0.003 | <0.5 | <0.005 | 150 | <0.01 | <0.01 | <0.02 | <0.01 | 10.1 | <0.003 | 38.7 | 4.21 | <0.0002 | <0.03 | 3.58 | 103 | <0.005 | <0.01 | <0.01 | <0.03 | 0.0297 |
| 9/30/09 | -- | -- | -- | -- | -- | -- | <0.005 | 144 | -- | -- | -- | -- | 0.108 | <0.003 | 34 | 3.8 | -- | -- | <1 | 110 | -- | -- | -- | -- | -- |
| 12/1/09 | -- | -- | -- | -- | -- | -- | <0.005 | 131 | -- | -- | -- | -- | 1.19 | <0.003 | 35.3 | 3.68 | -- | -- | <5 | 105 | -- | -- | -- | -- | -- |
| 1/28/10 | -- | -- | -- | -- | -- | -- | <0.005 | 139 | -- | -- | -- | -- | 3.95 | <0.003 | 38.8 | 3.87 | -- | -- | <5 | 112 | -- | -- | -- | -- | -- |
| 4/27/10 | -- | -- | -- | -- | -- | -- | <0.005 | 122 | -- | -- | -- | -- | 0.469 | <0.003 | 31.4 | 3.85 | -- | -- | <5 | 109 | -- | -- | -- | -- | -- |
| 7/20/10 | 1.52 | <0.005 | <0.005 | 0.556 | <0.003 | <0.5 | <0.005 | 147 | <0.01 | <0.01 | <0.02 | <0.01 | 1.71 | <0.003 | 36.9 | 3.82 | <0.0002 | <0.03 | <5 | 110 | <0.003 | <0.01 | <0.003 | <0.03 | <0.01 |
| 10/26/10 | -- | -- | -- | -- | -- | -- | <0.005 | 143 | -- | -- | -- | -- | 3.06 | <0.003 | 36.4 | 4.5 | -- | -- | <5 | 127 | -- | -- | -- | -- | -- |
| 3/22/11 | -- | -- | -- | -- | -- | -- | <0.005 | 136 | -- | -- | -- | -- | 0.162 | <0.003 | 35 | 4.33 | -- | -- | <5 | 110 | -- | -- | -- | -- | -- |
| 5/24/11 | -- | -- | -- | -- | -- | -- | <0.005 | 130 | -- | -- | -- | -- | 0.418 | <0.003 | 34.4 | 3.8 | -- | -- | <5 | 114 | -- | -- | -- | -- | -- |
| 9/20/11 | -- | -- | -- | -- | -- | -- | 0.258 | 173 | -- | -- | -- | -- | 4.66 | 0.00321 | 37.2 | 4.86 | -- | -- | <5 | 114 | -- | -- | -- | -- | -- |
| 12/13/11 | 2.12 | <0.005 J | <0.005 J | 0.601 | <0.003 | 0.53 | <0.005 | 146 | <0.01 | <0.01 | <0.02 | <0.01 | 3.03 | <0.003 J | 33.9 | 3.57 | <0.0002 | <0.03 | <5 | 104 | <0.003 J | <0.01 | <0.003 J | <0.03 | 0.0156 |
| 3/21/12 | 0.709 | <0.005 | 0.00582 BJ | 0.59 | <0.003 | <0.5 | <0.005 | 149 | <0.01 | <0.01 | <0.02 | <0.01 | 0.931 J | <0.003 | 36.8 | 1.62 | <0.0002 | <0.03 | <5 | 108 | <0.003 | <0.01 J | <0.003 | <0.03 | <0.01 |
| 5/22/12 | -- | -- | -- | -- | -- | -- | <0.005 | 123 | -- | -- | -- | -- | 2.9 | 0.00328 | 34.8 | 3.27 | -- | -- | <5 | 91 | -- | -- | -- | -- | -- |
| 8/30/12 | -- | -- | -- | -- | -- | -- | <0.005 | 123 | -- | -- | -- | -- | 0.869 | <0.003 | 30.1 | 2.91 | -- | -- | <5 | 81.6 | -- | -- | -- | -- | -- |

Historical Water Quality Database - Towslee Landfill

CD-1 - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| No dissolved metals to date | | | | | | | | | | | | | | | | | | | | | | | | | |

Historical Water Quality Database - Towslee Landfill

CD-1RA - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 0.0198B | <0.003 | <0.0024 | 0.163B | <0.0001 | 0.0199B | <0.0003 | 40.7 | <0.0004 | -- | <0.0011 | 0.0026B | 0.0238B | -- | 9.65 | 0.168 | -- | <0.0013 | 0.911B | 5.5 | -- | -- | -- | -- | 0.0825 |
| 10/1/97 | 0.0442B | <0.003 | <0.0024 | 0.173B | 0.00067B | 0.0285B | 0.00063B | 39.5 | <0.0012 | -- | <0.0011 | 0.0012B | 0.0394B | -- | 8.3 | 0.148 | -- | <0.0013 | 0.951B | 5.29 | -- | -- | -- | -- | 0.0148B |
| 9/20/11 | -- | -- | -- | -- | -- | -- | <0.005 | 41 | -- | -- | -- | -- | 0.0795 | <0.003 | 7.56 | 0.0636 | -- | -- | <5 | 5.23 | -- | -- | -- | -- | -- |

Historical Water Quality Database - Towslee Landfill

MW-1A - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 0.0163B | -- | <0.0024 | 0.137B | <0.0001 | 0.0631B | <0.0003 | 67.6 | <0.0004 | -- | <0.0011 | 0.0008B | 0.0348B | 0.0052 | 15.4 | 0.22 | 0.0014 | <0.0013 | 10.6 | 59.3 | -- | -- | <0.0026 | <0.0012 | 0.12 |
| 10/1/97 | 0.0407B | -- | <0.0024 | 0.068B | <0.0001 | 0.0561B | <0.0003 | 40.3 | <0.0004 | -- | <0.0011 | <0.0007 | 0.0471B | <0.001 | 8.69 | 0.174 | <0.0001 | <0.0013 | 4.92B | 27.1 | -- | -- | <0.0026 | <0.0012 | 0.0161B |
| 3/22/06 | -- | -- | -- | -- | -- | -- | <0.005 | 40.7 | -- | -- | -- | -- | 13.5 | <0.005 | 10.4 | 0.238 | -- | -- | 2.52 | 14.7 | -- | -- | -- | -- | -- |
| 5/31/06 | -- | -- | -- | -- | -- | -- | <0.005 | 38.9 | -- | -- | -- | -- | 0.315 | 0.005 | 8.12 | 0.127 | -- | -- | 1.38 | 12.3 | -- | -- | -- | -- | -- |
| 8/9/06 | 0.066 | <0.05 | <0.025 | 0.066 | <0.005 | <0.07 | <0.005 | 38.6 | <0.005 | -- | <0.015 | 0.013 | 0.125 | <0.005 | 8.18 | 0.248 | <0.0004 | <0.01 | 1.31 | 13 | <0.02 | <0.015 | <0.03 | <0.015 | 0.033 |
| 3/20/07 | -- | -- | -- | -- | -- | -- | <0.005 | 40.3 | -- | -- | -- | -- | <0.06 | <0.003 | 8.83 | <0.01 | -- | -- | 1.72 | 12.3 | -- | -- | -- | -- | -- |
| 3/21/12 | <0.1 | <0.005 | <0.005 | 0.0742 | <0.003 | -- | <0.005 | 47.8 | <0.01 | -- | <0.02 | <0.01 | 0.102 J | <0.003 | 11.3 | 0.0327 | <0.0002 | <0.03 | <5 | 14.3 | <0.003 | <0.01 J | <0.003 | <0.03 | 0.0107 |

Historical Water Quality Database - Towslee Landfill

MW-1B - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 0.0146B | <0.003 | <0.0024 | 0.151B | <0.0001 | 0.0195B | <0.0003 | 24.8 | 0.0008B | -- | <0.0011 | <0.0007 | 0.0172B | -- | 6.62 | 0.141 | -- | <0.0013 | 1.63B | 7.53 | -- | -- | -- | -- | 0.0396 |
| 10/1/97 | 0.0209B | <0.003 | <0.0024 | 0.155B | <0.0001 | 0.0162B | <0.0003 | 24.5 | 0.00073B | -- | <0.0011 | <0.0007 | 0.0141B | -- | 5.88 | 0.134 | -- | <0.0013 | 0.514B | 6.59 | -- | -- | -- | -- | 0.0152B |
| 3/22/06 | -- | -- | -- | -- | -- | -- | <0.005 | 22.8 | -- | -- | -- | -- | 0.339 | <0.005 | 5.15 | 0.0136 | -- | -- | 0.487 | 4.75 | -- | -- | -- | -- | -- |
| 8/9/06 | 0.195 | <0.05 | <0.025 | 0.162 | <0.005 | <0.07 | <0.005 | 24.4 | <0.005 | -- | <0.015 | 0.013 | 0.339 | <0.005 | 5.54 | 0.135 | <0.0004 | <0.01 | 0.403 | 5.31 | <0.02 | <0.015 | <0.03 | <0.015 | 0.029 |
| 3/20/07 | -- | -- | -- | -- | -- | -- | <0.005 | 24.5 | -- | -- | -- | -- | <0.06 | <0.003 | 5.88 | <0.01 | -- | -- | <1 | 5.73 | -- | -- | -- | -- | -- |

Historical Water Quality Database - Towslee Landfill

MW-2A - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | <0.0083 | -- | 0.0123 | 0.787 | 0.00017B | 1.21 | 0.00053B | 183 | 0.0035B | -- | 0.0107B | 0.0162B | 5.4 | <0.001 | 41 | 30.4 | <0.0001 | 0.0179B | 17.5 | 121 | -- | -- | 0.003B | <0.0012 | 0.117 |
| 10/1/97 | 0.0482B | -- | 0.0139 | 0.786 | 0.0001B | 0.992 | <0.0003 | 183 | 0.0057B | -- | 0.0095B | <0.0007 | 11.5 | 0.0011B | 38.5 | 30.9 | <0.0001 | 0.0162B | 14.2 | 115 | -- | -- | <0.0026 | <0.0012 | 0.0207 |
| 8/9/06 | 0.044 | <0.05 | <0.025 | 0.427 | <0.005 | 0.562 | <0.005 | 77.6 | <0.005 | -- | <0.015 | 0.015 | 0.204 | <0.005 | 17.1 | 12.1 | <0.0004 | <0.01 | 12.5 | 29.6 | <0.02 | <0.015 | <0.03 | <0.015 | 0.013 |

Historical Water Quality Database - Towslee Landfill

MW-2B - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 0.0179B | <0.003 | 0.0036B | 1.55 | <0.0001 | 0.334 | <0.0003 | 281 | 0.0009B | -- | 0.0067B | 0.0022B | 0.582 | -- | 61.7 | 8.07 | -- | 0.0093B | 2.8B | 62.5 | -- | -- | -- | -- | 0.0635 |
| 10/1/97 | 0.0154B | <0.003 | <0.0024 | 1.45 | <0.0001 | 0.321 | <0.0003 | 274 | 0.0014B | -- | 0.0061B | <0.0007 | 0.595 | -- | 55 | 8 | -- | 0.0097B | 2.34B | 62.8 | -- | -- | -- | -- | 0.023 |

Historical Water Quality Database - Towslee Landfill

MW-3A - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | <0.0083 | 0.0038B | <0.0024 | 0.242 | <0.0001 | 0.0324B | <0.0003 | 57.9 | <0.0004 | -- | <0.0011 | 0.0024B | 0.0061B | -- | 12.9 | 0.123 | -- | <0.0013 | 2.75B | 10.2 | -- | -- | -- | -- | 0.0249 |
| 10/1/97 | 0.0158 | <0.003 | <0.0024 | 0.276 | <0.0001 | 0.0275B | <0.0003 | 54.6 | <0.0004 | -- | <0.0011 | 0.00083B | 0.0114B | -- | 10.9 | 0.0941 | -- | 0.0017B | 1.42B | 7.98 | -- | -- | -- | -- | 0.0387 |
| 3/22/06 | -- | -- | -- | -- | -- | -- | <0.005 | 44.3 | -- | -- | -- | -- | 0.168 | <0.005 | 8.7 | 0.0963 | -- | -- | 0.803 | 4.83 | -- | -- | -- | -- | -- |

Historical Water Quality Database - Towslee Landfill

MW-3B - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 0.016B | <0.003 | <0.0024 | 0.257 | 0.0001B | 0.0531B | <0.0003 | 73.2 | <0.0004 | -- | <0.0011 | 0.0024B | 0.0091B | -- | 23 | 0.0617 | -- | <0.0013 | 1.62B | 11.1 | -- | -- | -- | -- | 0.0375 |
| 10/1/97 | 0.0273B | <0.003 | <0.0024 | 0.271 | <0.0001 | 0.0559B | <0.0003 | 71.9 | <0.0004 | -- | <0.0011 | 0.0007B | 0.0191B | -- | 20.9 | 0.0553 | -- | 0.0014B | 1.27B | 10.2 | -- | -- | -- | -- | 0.0155B |

Historical Water Quality Database - Towslee Landfill

MW-4A - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 0.0173B | <0.003 | <0.0024 | 0.686 | 0.0001B | 0.073B | <0.0003 | 112 | <0.0004 | -- | 0.0024B | 0.0069B | 0.005B | -- | 25.2 | 1.08 | -- | 0.0021B | 1.71B | 13.5 | -- | -- | -- | -- | 0.0393 |
| 10/1/97 | 0.0228B | <0.003 | <0.0024 | 1.06 | <0.0001 | 0.12 | <0.0003 | 129 | <0.0004 | -- | 0.0022B | 0.0011B | 0.0372B | -- | 26.1 | 2.08 | -- | 0.0051B | 1.93B | 16.1 | -- | -- | -- | -- | 0.0166B |

Historical Water Quality Database - Towslee Landfill

MW-5A - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | <0.0083 | 0.0059B | <0.0024 | 0.267 | <0.0001 | 0.028B | <0.0003 | 41.2 | <0.0004 | -- | 0.0014B | 0.0057B | 0.0081B | -- | 12.6 | 0.0951 | -- | <0.0013 | 1.19B | 31.9 | -- | -- | -- | -- | 0.0262 |
| 10/1/97 | 0.019B | <0.003 | <0.0024 | 0.396 | <0.0001 | 0.0218B | <0.0003 | 34.1 | 0.0004B | -- | <0.0011 | <0.0007 | 0.0117B | -- | 10.2 | 0.0433 | -- | <0.0013 | 0.84B | 10.3 | -- | -- | -- | -- | 0.0182B |

Historical Water Quality Database - Towslee Landfill

MW-6A - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | 0.0142B | -- | 0.0198 | 0.847 | 0.0001B | 0.284 | <0.0003 | 104 | 0.0019B | -- | 0.0063B | 0.0014B | 7.81 | <0.001 | 21 | 14.1 | -- | 0.0096B | 7.64 | 55.4 | -- | -- | <0.0026 | <0.0012 | 0.047 |
| 10/1/97 | 0.0382B | -- | 0.0189 | 0.88 | -- | 0.333 | <0.0003 | 88.7 | 0.0027B | -- | 0.006B | 0.00077B | 8.07 | <0.001 | 17.3 | 12.9 | -- | 0.0108B | 7.4 | 55 | -- | -- | <0.0026 | <0.0012 | 0.0219 |
| 3/20/12 | <0.1 | <0.005 | <0.005 | 0.246 | <0.003 | -- | <0.005 | 53.7 | <0.01 | -- | <0.02 | <0.01 | <0.06 J | <0.003 | 9.95 | 0.836 | <0.0002 | <0.03 | <5 | 18 | <0.003 | <0.01 J | <0.003 | <0.03 | 0.0132 |
| 5/22/12 | -- | -- | -- | -- | -- | -- | <0.005 | 45.4 | -- | -- | -- | -- | 0.149 | <0.003 | 9.33 | 0.213 | -- | -- | <5 | 14 | -- | -- | -- | -- | -- |
| 8/30/12 | -- | -- | -- | -- | -- | -- | <0.005 | 52 | -- | -- | -- | -- | 2.14 | -- | 9.23 | 1.36 | -- | -- | <5 | 15.6 | -- | -- | -- | -- | -- |

Historical Water Quality Database - Towslee Landfill

MW-6B - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | <0.0083 | <0.003 | 0.0048B | 0.396 | <0.0001 | 0.125 | <0.0003 | 67.7 | <0.0004 | -- | 0.0052B | 0.0011B | 0.346 | -- | 17.3 | 3.3 | -- | 0.0046B | 2.97B | 38.2 | -- | -- | -- | -- | 0.0651 |
| 10/1/97 | 0.0132B | <0.003 | 0.0073B | 0.478 | <0.0001 | 0.14 | <0.0003 | 56.3 | 0.00087B | -- | 0.0041B | <0.0007 | 1.42 | -- | 12.9 | 3.99 | -- | 0.0048B | 2.77B | 33.3 | -- | -- | -- | -- | 0.0207 |
| 3/20/07 | -- | -- | -- | -- | -- | -- | <0.005 | 45.6 | -- | -- | -- | -- | <0.06 | <0.003 | 10.6 | 0.137 | -- | -- | 1.19 | 12.1 | -- | -- | -- | -- | -- |

Historical Water Quality Database - Towslee Landfill

MW-7A - Dissolved Metals (all values in mg/l)

| | Aluminum | Antimony | Arsenic | Barium | Beryllium | Boron | Cadmium | Calcium | Chromium | Chromium, Hex | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Sodium | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Stand. | -- | 0.003 | 0.025 | 1 | 0.004 | 1 | 0.005 | -- | 0.05 | 0.05 | -- | 0.2 | 0.3 | 0.015 | -- | 0.3 | 0.0007 | 0.1 | -- | 20 | 0.01 | 0.05 | 0.002 | -- | 5 |
| 8/1/97 | <0.0083 | -- | <0.0024 | 0.822 | 0.0001B | 0.331 | 0.0003B | 220 | 0.0008B | -- | 0.0017B | 0.0086B | 0.009B | <0.001 | 56.2 | 4.53 | <0.0001 | 0.0129B | 5.28 | 120 | -- | -- | <0.0026 | <0.0012 | 0.0455 |
| 10/1/97 | 0.0755B | -- | <0.0024 | 0.887 | <0.0001 | 0.396 | <0.0003 | 255 | 0.0011B | -- | 0.0031B | <0.0007 | 0.753 | <0.001 | 59.9 | 7.12 | <0.0001 | 0.0196B | 3.98B | 129 | -- | -- | <0.0026 | <0.0012 | 0.0186 |
| 3/22/06 | -- | -- | -- | -- | -- | -- | <0.005 | 158 | -- | -- | -- | -- | 0.0637 | <0.005 | 43.6 | 5.35 | -- | -- | 1.9 | 126 | -- | -- | -- | -- | -- |
| 6/17/09 | <0.1 | <0.03 | <0.01 | 0.599 | <0.003 | -- | <0.005 | 140 | <0.01 | -- | <0.02 | <0.01 | <0.06 | <0.003 | 34.1 | 3.78 | <0.0002 | <0.03 | 1.82 | 97.2 | <0.005 | <0.01 | <0.01 | <0.03 | 0.0228 |
| 7/20/10 | <0.1 | <0.005 | <0.005 | 0.477 | <0.003 | -- | <0.005 | 129 | <0.01 | -- | <0.02 | <0.01 | <0.06 | <0.003 | 31.6 | 2.57 | <0.0002 | <0.03 | <5 | 91.6 | <0.003 | <0.01 | <0.003 | <0.03 | 0.0102 |
| 10/26/10 | -- | -- | -- | -- | -- | -- | <0.005 | 120 | -- | -- | -- | -- | 0.0978 | <0.003 | 31.5 | 3.26 | -- | -- | <5 | 105 | -- | -- | -- | -- | -- |
| 5/24/11 | -- | -- | -- | -- | -- | -- | <0.005 | 126 | -- | -- | -- | -- | <0.06 | <0.003 | 33.6 | 3.04 | -- | -- | <5 | 113 | -- | -- | -- | -- | -- |
| 9/20/11 | -- | -- | -- | -- | -- | -- | <0.005 | 172 | -- | -- | -- | -- | <0.06 | <0.003 | 34.3 | 4.39 | -- | -- | <5 | 104 | -- | -- | -- | -- | -- |
| 5/22/12 | -- | -- | -- | -- | -- | -- | <0.005 | 115 | -- | -- | -- | -- | <0.06 | <0.003 | 32.1 | 2.64 | -- | -- | <5 | 81.6 | -- | -- | -- | -- | -- |

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well CD-1 - Overburden

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | <10 | <10 | 10 | 2JB | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Oct-97 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| 12/12/11 | <5 | <5 | <10 J | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 3/19/12 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well CD-1RA - Bedrock

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | <10 | <10 | 10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Oct-97 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| 12/12/11 | <5 | <5 | <10 J | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 3/19/12 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

# Historical Water Quality Database - Towslee Landfill

## Organics (ug/l) (includes only detected compounds)

## Well MW-1A - Overburden

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | <10 | <10 | 10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Oct-97 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| 8/9/06 | <5 | <5 | <25 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <5 |
| 10/9/07 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 6/17/09 | < 5 | < 5 | < 10 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 |
| 7/20/10 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 12/13/11 | <5 | <5 | <10 J | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 3/21/12 | <5 J | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-1B - Bedrock

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Oct-97 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| 8/9/06 | <5 | <5 | <25 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <5 |
| 10/9/07 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 2/1/08 | <5 | <5 | <10 | 13 B | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 6/17/09 | < 5 | < 5 | < 10 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 |
| 7/20/10 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 12/13/11 | <5 | <5 | <10 J | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 3/21/12 | <5 J | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-2A - Overburden

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | <10 | **5 J** | <10 | **1 JB** | <10 | <10 | <10 | **5 J** | **1 J** | **5 J** | **2 J** | **5 J** | **1 J** |
| Oct-97 | <10 | **4 J** | <10 | <10 | <10 | <10 | <10 | **6 J** | <10 | <10 | <10 | <10 | **2 J** |
| 8/9/06 | <5 | <5 | <25 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <5 |
| 10/9/07 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | 4 J | <5 | <5 | <5 |
| 2/1/08 | <5 | <5 | <10 | 12 B | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 6/17/09 | < 5 | < 5 | < 10 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | 3 J | < 5 | < 5 | < 5 |
| 7/20/10 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | 3 J | <5 | <5 | <5 |
| 12/13/11 | <5 | <5 | <10 J | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 3/21/12 | <5 J | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-2B - Bedrock

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | <10 | **4 J** | <10 | **1 JB** | **1 J** | **1 J** | **1 J** | <10 | <10 | <10 | <10 | <10 | <10 |
| Oct-97 | <10 | **3 J** | <10 | <10 | <10 | <10 | **1 J** | **2 J** | <10 | **1 J** | <10 | <10 | <10 |
| 8/9/06 | <5 | <5 | <25 | <5 | <5 | **6.2** | <5 | <5 | <5 | <5 | <5 | <10 | <5 |
| 10/9/07 | 5.8 | 4 J | <10 | <5 | <5 | **9.2** | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 2/1/08 | <5 | <5 | <10 | 11 B | <5 | **9.4** | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 6/17/09 | 12 | 5.9 | < 10 | < 5 | < 5 | **19** | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 |
| 7/20/10 | 13 | 7 | <10 | <5 | <5 | **19** | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 12/13/11 | <5 | 3 J | <10 J | <5 | <5 | **16** | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 3/21/12 | 8 J | 4 J | <10 | <5 | <5 | **15** | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-3A - Bedrock

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | <10 | <10 | **2 J** | **5 JB** | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Oct-97 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| 8/9/06 | <5 | <5 | <25 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <5 |
| 10/9/07 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 2/1/08 | <5 | <5 | <10 | 11 B | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 6/17/09 | < 5 | < 5 | 24 | < 5 | < 5 | < 5 | < 5 | < 5 | 82 | < 5 | < 5 | < 5 | < 5 |
| 7/20/10 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | 77 J | <5 | <5 | <5 | <5 |
| 12/12/11 | <5 | <5 | <10 J | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 3/19/12 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-3B - Bedrock

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Oct-97 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| 12/12/11 | <5 | <5 | <10 J | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 3/19/12 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-4A - Bedrock

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | <10 | <10 | <10 | 6JB | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Oct-97 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| 12/12/11 | <5 | <5 | <10 J | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 3/19/12 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-5A - Bedrock

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | <10 | <10 | <10 | 7JB | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Oct-97 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-6A - Overburden

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | <10 | <10 | <10 | <10 | <10 | <10 | 1J | <10 | <10 | <10 | <10 | <10 | <10 |
| Oct-97 | <10 | 1J | <10 | <10 | <10 | <10 | 1J | <10 | <10 | <10 | <10 | <10 | <10 |
| 12/12/11 | <5 | <5 | <10 J | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 3/19/12 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-6B - Bedrock

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Oct-97 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| 8/9/06 | <5 | <5 | <25 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <5 |
| 10/9/07 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 2/1/08 | <5 | <5 | <10 | 12 B | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 6/17/09 | < 5 | < 5 | < 10 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 |
| 7/20/10 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 12/12/11 | <5 | <5 | <10 J | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 3/19/12 | <5 | <5 | <10 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-7A - Overburden

| | Vinyl Chloride | Chloroethane | Acetone | Methylene Chloride | trans-1,2-Dichloroethene | cis-1,2-Dichloroethene | 1,1-Dichloroethane | Benzene | Toluene | Chlorobenzene | Ethylbenzene | Xylenes(total) | 1,4-Dichlorobenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water Quality Standard | 2 | 5 | 50 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 |
| Aug-97 | **2 J** | <10 | <10 | **1 JB** | **1 J** | **1 J** | **3 J** | <10 | <10 | <10 | <10 | <10 | <10 |
| Oct-97 | **5 J** | **1 J** | <10 | <10 | **2 J** | **2 J** | **4 J** | <10 | <10 | <10 | <10 | <10 | <10 |
| 8/9/06 | <5 | <5 | <25 | <5 | <5 | **7.1** | **6.1** | <5 | <5 | <5 | <5 | <10 | <5 |
| 10/9/07 | 4 J | <5 | <10 | <5 | <5 | **6.1** | **5 J** | <5 | <5 | <5 | <5 | <5 | <5 |
| 2/1/08 | 8.2 | <5 | <10 | <5 | <5 | **9** | **7.9** | <5 | <5 | <5 | <5 | <5 | <5 |
| 6/17/09 | 5.7 | < 5 | < 10 | < 5 | < 5 | **5.4** | **5 J** | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 |
| 7/20/10 | 4 J | <5 | 11 | <5 | <5 | **5 J** | **4 J** | <5 | <5 | <5 | <5 | <5 | <5 |
| 12/12/11 | 4 J | <5 | <10 J | <5 | <5 | **5 J** | **4 J** | <5 | <5 | <5 | <5 | <5 | <5 |
| 3/20/12 | <5 | <5 | <10 | <5 | <5 | **3 J** | **3 J** | <5 | <5 | <5 | <5 | <5 | <5 |

# Appendix C

# 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

# Conventionals

(Note: Qualifiers are not included in these tables, except"<")

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity mg/L | 1997_Q3 | | 134 | 160 | 94.8 | 702 | 577 | 145 | 235 | 253 | 130 | 357 | 240 | 569 |
| | 1997_Q4 | | 132 | 145 | 93.6 | 784 | 673 | 146 | 190 | 355 | 115 | 325 | 224 | 660 |
| | 2006_Q1 | | | 127 | 92 | 330 | 652 | 162 | | | | | 131 | 648 |
| | 2006_Q2 | | | 139 | 94 | 355 | 670 | 170 | | | | | 148 | 675 |
| | 2006_Q3 | | | 122 | 91 | 384 | 612 | 140 | | | | | 154 | 595 |
| | 2006_Q4 | | | 132 | 89 | 423 | 646 | 152 | | | | | 153 | 635 |
| | 2007_Q1 | | | 140 | 99 | 380 | 650 | 82 | | | | | 180 | 640 |
| | 2007_Q2 | | | 120 | 96 | 320 | 480 | 59 | | | | | 160 | 510 |
| | 2007_Q3 | | | 120 | 100 | 420 | 600 | 170 | | | | | 150 | 530 |
| | 2007_Q4 | | | 130 | 100 | 290 | 640 | 130 | | | | | 140 | 540 |
| | 2008_Q1 | | | | 100 | 360 | 640 | 110 | | | | | 140 | 570 |
| | 2008_Q2 | | | 120 | 100 | 290 | 620 | 170 | | | | | 140 | 560 |
| | 2008_Q3 | | | 120 | 100 | 380 | 640 | 91 | | | | | 110 | 600 |
| | 2008_Q4 | | | 120 | 99 | 360 | 680 | 97 | | | | | 120 | 670 |
| | 2009_Q1 | | | 130 | 92 | 320 | 650 | 18 | | | | | 120 | 500 |
| | 2009_Q2 | | | 100 | 100 | 360 | 580 | 160 | | | | | 140 | 500 |
| | 2009_Q3 | | | 120 | 98 | 340 | 650 | 50 | | | | | 140 | 480 |
| | 2009_Q4 | | | 120 | 86 | 280 | 610 | 79 | | | | | 140 | 520 |
| | 2010_Q1 | | | | | 310 | 600 | 180 | | | | | 150 | 600 |
| | 2010_Q2 | | | 140 | 100 | 300 | 610 | 93 | | | | | 150 | 500 |
| | 2010_Q3 | | | 120 | 91 | 360 | 630 | 160 | | | | | 140 | 510 |
| | 2010_Q4 | | | 120 | 90 | 310 | 600 | 130 | | | | | 160 | 520 |
| | 2011_Q1 | | | 130 | 100 | 260 | 710 | 75 | | | | | 130 | 600 |
| | 2011_Q2 | | | 120 | 93 | 250 | 540 | 150 | | | | | 150 | 510 |
| | 2011_Q3 | 130 | 120 | 130 | 100 | 300 | 630 | 180 | 240 | 410 | | 200 | 160 | 560 |
| | 2011_Q4 | 140 | 150 | 150 | 120 | 270 | 570 | 140 | 240 | 400 | | 210 | 180 | 550 |
| | 2012_Q1 | 130 | 140 | 130 | 110 | 260 | 490 | 130 | 260 | 460 | | 200 | 140 | 500 |
| | 2012_Q2 | 120 | 140 | 140 | 100 | 250 | 790 | 160 | 210 | 350 | | 130 | 190 | 520 |
| | 2012_Q3 | 130 | 130 | 120 | 100 | 340 | 670 | 160 | 200 | 450 | | 180 | 140 | 490 |

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

# Conventionals

(Note: Qualifiers are not included in these tables, except"<")

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hardness mg/L | 1997_Q3 | | 160 | 4000 | 88 | 1300 | 960 | 1250 | 280 | 308 | 250 | 650 | 300 | 1010 |
| | 1997_Q4 | | 160 | 240 | 140 | 720 | 900 | 200 | 300 | 464 | 140 | 550 | 240 | 1150 |
| | 2006_Q1 | | | 167 | 97.6 | 241 | 697 | 153 | | | | | 135 | 627 |
| | 2006_Q2 | | | 140 | 81.9 | 260 | 726 | 179 | | | | | 144 | 599 |
| | 2006_Q3 | | | 148 | 89 | 265 | 686 | 191 | | | | | 131 | 531 |
| | 2006_Q4 | | | 148 | 82 | 301 | 675 | 158 | | | | | 133 | 526 |
| | 2007_Q1 | | | 134 | 83.6 | 225 | 723 | 74 | | | | | 156 | 529 |
| | 2007_Q2 | | | 153 | 105 | 262 | 575 | 58.1 | | | | | 139 | 499 |
| | 2007_Q3 | | | 148 | 104 | 275 | 716 | 150 | | | | | 138 | 481 |
| | 2007_Q4 | | | 146 | 90.8 | 165 | 652 | 86.2 | | | | | 124 | 459 |
| | 2008_Q1 | | | | 89.3 | 246 | 678 | 97.7 | | | | | 136 | 528 |
| | 2008_Q2 | | | 151 | 103 | 203 | 654 | 123 | | | | | 142 | 506 |
| | 2008_Q3 | | | 159 | 107 | 303 | 728 | 76.7 | | | | | 137 | 538 |
| | 2008_Q4 | | | 165 | 105 | 343 | 788 | 97.9 | | | | | 134 | 569 |
| | 2009_Q1 | | | 161 | 97.1 | 229 | 678 | 38.1 | | | | | 142 | 496 |
| | 2009_Q2 | | | 163 | 111 | 295 | 782 | 196 | | | | | 154 | 534 |
| | 2009_Q3 | | | 158 | 108 | 265 | 755 | 37.8 | | | | | 148 | 499 |
| | 2009_Q4 | | | 161 | 206 | 95 | 608 | 65.4 | | | | | 138 | 473 |
| | 2010_Q1 | | | | | 291 | 609 | 93.2 | | | | | 163 | 508 |
| | 2010_Q2 | | | 161 | 92.9 | 235 | 681 | 58 | | | | | 147 | 435 |
| | 2010_Q3 | | | 167 | 106 | 313 | 730 | 194 | | | | | 144 | 520 |
| | 2010_Q4 | | | 169 | 104 | 260 | 693 | 66.9 | | | | | 147 | 507 |
| | 2011_Q1 | | | 159 | 108 | 190 | 677 | 45.7 | | | | | 145 | 484 |
| | 2011_Q2 | | | 164 | 87.4 | 167 | 589 | 137 | | | | | 153 | 465 |
| | 2011_Q3 | 150 | 135 | 172 | 115 | 253 | 773 | 187 | 274 | 496 | | 208 | 172 | 585 |
| | 2011_Q4 | 145 | 155 | 177 | 108 | 199 | 713 | 122 | 264 | 430 | | 194 | 166 | 505 |
| | 2012_Q1 | 144 | 164 | 225 | 124 | 170 | 712 | 147 | 262 | 444 | | 197 | 146 | 524 |
| | 2012_Q2 | 146 | 155 | 175 | 111 | 207 | 643 | 146 | 259 | 384 | | 169 | 150 | 449 |
| | 2012_Q3 | 119 | 135 | 148 | 107 | 268 | 664 | 159 | 223 | 421 | | 185 | 151 | 431 |

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

# Conventionals

(Note: Qualifiers are not included in these tables, except"<")

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride mg/L | 1997_Q3 | | <2 | 152 | <2 | 156 | 267 | 31.4 | 32 | 79.1 | 44.5 | 79.1 | 38.2 | 300 |
| | 1997_Q4 | | 2.5 | 46 | <2 | 149 | 238 | 28.7 | 33.6 | 74.6 | 10.1 | 71.8 | 35 | 276 |
| | 2006_Q1 | | | 21.3 | 2.55 | 23.3 | 145 | 14 | | | | | 21.1 | 144 |
| | 2006_Q2 | | | 22.2 | 2.28 | 25.7 | 154 | 12.7 | | | | | 2.33 | 143 |
| | 2006_Q3 | | | 34.2 | 3.47 | 23.5 | 122 | 13.5 | | | | | 2.32 | 119 |
| | 2006_Q4 | | | 26.7 | 0.611 | 25.7 | 121 | 12.7 | | | | | 3.39 | 85 |
| | 2007_Q1 | | | 28.7 | 3.24 | 21.2 | 167 | 3.37 | | | | | 11.6 | 145 |
| | 2007_Q2 | | | 27 | 4.45 | 14.7 | 131 | 1.8 | | | | | 6.99 | 131 |
| | 2007_Q3 | | | 27 | 3.16 | 24.4 | 163 | 12 | | | | | 13.8 | 145 |
| | 2007_Q4 | | | 27.9 | 6.44 | 10.6 | 161 | 5.73 | | | | | 25.9 | 141 |
| | 2008_Q1 | | | | 3.15 | 21 | 160 | 2.43 | | | | | 16.7 | 141 |
| | 2008_Q2 | | | 28 | 5.95 | 13.5 | 132 | 10.5 | | | | | 16.9 | 1260 |
| | 2008_Q3 | | | 25.9 | 5.61 | 20.2 | 148 | 1.1 | | | | | 31.1 | 136 |
| | 2008_Q4 | | | 29.7 | 6.03 | 15.5 | 162 | 1.75 | | | | | 28.6 | 135 |
| | 2009_Q1 | | | 30.4 | 2.86 | 13.7 | 118 | 1.85 | | | | | 13.3 | 114 |
| | 2009_Q2 | | | 30.7 | 4.74 | 20.5 | 159 | 9.25 | | | | | 19.4 | 128 |
| | 2009_Q3 | | | 29.5 | 6.86 | 17.7 | 150 | <1 | | | | | 19.7 | 120 |
| | 2009_Q4 | | | 30 | 4.71 | 12.5 | 140 | <1 | | | | | 14.7 | 117 |
| | 2010_Q1 | | | | | 12.4 | 112 | 14.8 | | | | | 13.2 | 104 |
| | 2010_Q2 | | | 31.7 | 3.54 | 14.5 | 130 | 1.31 | | | | | 12 | 89.1 |
| | 2010_Q3 | | | 33 | 3.63 | 22.5 | 139 | 7.44 | | | | | 14 | 128 |
| | 2010_Q4 | | | 31.4 | 6.11 | 17.1 | 127 | 3.3 | | | | | 16 | 115 |
| | 2011_Q1 | | | 32 | 4.07 | 11.2 | 124 | 2.69 | | | | | 11.9 | 95.7 |
| | 2011_Q2 | | | 30.5 | 1.7 | 8.33 | 104 | 2.28 | | | | | 16.4 | 99 |
| | 2011_Q3 | 1.41 | 2.2 | 32.1 | 3.4 | 16.2 | 108 | 4.03 | 23.7 | 23.6 | | 21.4 | 12.7 | 100 |
| | 2011_Q4 | 6.88 | 3.67 | 28.5 | 1.69 | 10.2 | 102 | 3.44 | 27.7 | 25.5 | | 13.9 | 19.4 | 108 |
| | 2012_Q1 | <1 | 1.43 | 33.9 | 6.68 | 8.96 | 123 | 1.88 | 23.8 | 21.5 | | 8.86 | 16.2 | 99.4 |
| | 2012_Q2 | 1.2 | 1.46 | 33.1 | 2.47 | 11.6 | 124 | 1.59 | 23.4 | 22.3 | | 20 | 10.1 | 99.5 |
| | 2012_Q3 | 1.45 | 1.77 | 33.5 | 6.77 | 17.6 | 118 | 7.33 | 23.4 | 19.4 | | 23.8 | 23.3 | 103 |

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

# Conventionals

(Note: Qualifiers are not included in these tables, except"<")

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia mg/L | 1997_Q3 | | 0.04 | 6 | <0.02 | 23 | 0.95 | <0.02 | <0.02 | <0.02 | <0.02 | 1.6 | 0.09 | 0.93 |
| | 1997_Q4 | | 0.11 | 2.6 | 0.04 | 9.1 | 1.3 | 0.09 | 0.04 | 0.2 | 0.18 | 0.02 | 2.5 | 0.89 |
| | 2006_Q1 | | | 0.276 | 0.0938 | 10.6 | 0.389 | 0.0969 | | | | | 0.0549 | 0.34 |
| | 2006_Q2 | | | <0.02 | <0.02 | 18.4 | 0.824 | <0.02 | | | | | <0.02 | <0.02 |
| | 2006_Q3 | | | 0.161 | <0.02 | 16 | 0.786 | <0.02 | | | | | 0.096 | <0.02 |
| | 2006_Q4 | | | <0.1 | <0.1 | 15.1 | 0.282 | <0.1 | | | | | <0.1 | <0.1 |
| | 2007_Q1 | | | <0.5 | <0.5 | 10.2 | 0.921 | 1.45 | | | | | <0.5 | <0.5 |
| | 2007_Q2 | | | <0.5 | <0.5 | 9.89 | 0.844 | <0.5 | | | | | <0.5 | <0.5 |
| | 2007_Q3 | | | <0.5 | <0.5 | 14.1 | 1.31 | <0.5 | | | | | <0.5 | <0.5 |
| | 2007_Q4 | | | <0.5 | <0.5 | 13.5 | 1.22 | <0.5 | | | | | <0.5 | <0.5 |
| | 2008_Q1 | | | | <0.5 | 8.78 | 0.785 | <0.5 | | | | | <0.5 | <0.5 |
| | 2008_Q2 | | | <0.5 | <0.5 | 8.2 | 0.572 | <0.5 | | | | | <0.5 | <0.5 |
| | 2008_Q3 | | | <0.5 | <0.5 | 11.9 | 1.01 | <0.5 | | | | | <0.5 | <0.5 |
| | 2008_Q4 | | | <0.5 | <0.5 | 10.8 | 0.504 | <0.5 | | | | | <0.5 | <0.5 |
| | 2009_Q1 | | | <0.5 | <0.5 | 8.43 | 0.642 | <0.5 | | | | | <0.5 | <0.5 |
| | 2009_Q2 | | | <0.5 | <0.5 | 11.8 | 0.665 | <0.5 | | | | | <0.5 | <0.5 |
| | 2009_Q3 | | | <0.5 | <0.5 | 10.3 | 0.73 | <0.5 | | | | | <0.5 | <0.5 |
| | 2009_Q4 | | | <0.5 | <0.5 | 8.75 | 0.696 | <0.5 | | | | | <0.5 | <0.5 |
| | 2010_Q1 | | | | | 8.45 | 0.69 | <0.5 | | | | | <0.5 | <0.5 |
| | 2010_Q2 | | | <0.5 | <0.5 | 8.06 | 1.18 | <0.5 | | | | | <0.5 | <0.5 |
| | 2010_Q3 | | | <0.5 | <0.5 | 10.1 | 0.812 | <0.5 | | | | | <0.5 | <0.5 |
| | 2010_Q4 | | | <0.5 | <0.5 | 6.9 | <0.5 | <0.5 | | | | | <0.5 | <0.5 |
| | 2011_Q1 | | | <0.5 | <0.5 | 5.38 | 0.593 | <0.5 | | | | | <0.5 | <0.5 |
| | 2011_Q2 | | | <0.5 | <0.5 | 7.03 | 0.752 | <0.5 | | | | | <0.5 | <0.5 |
| | 2011_Q3 | <0.5 | <0.5 | <0.5 | <0.5 | 5.16 | <0.5 | <0.5 | <0.5 | <0.5 | | <0.5 | <0.5 | <0.5 |
| | 2011_Q4 | <0.5 | <0.5 | <0.5 | <0.5 | 5.24 | <0.5 | <0.5 | <0.5 | <0.5 | | <0.5 | <0.5 | <0.5 |
| | 2012_Q1 | <0.5 | <0.5 | <0.5 | <0.5 | 5.32 | <0.5 | <0.5 | <0.5 | <0.5 | | <0.5 | <0.5 | <0.5 |
| | 2012_Q2 | <0.5 | <0.5 | <0.5 | <0.5 | 5.9 | 0.76 | <0.5 | <0.5 | <0.5 | | <0.5 | <0.5 | <0.5 |
| | 2012_Q3 | <0.5 | <0.5 | <0.5 | <0.5 | 8.45 | 0.899 | <0.5 | <0.5 | <0.5 | | <0.5 | <0.5 | <0.5 |

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

# Conventionals

(Note: Qualifiers are not included in these tables, except"<")

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TKN | 1997_Q3 | | 0.2 | 18 | <0.2 | 31.5 | 2.6 | 0.4 | 0.3 | 0.5 | 0.4 | 1.5 | 0.6 | 1.1 |
| mg/L | 1997_Q4 | | 0.21 | 3.8 | <0.2 | 21.2 | 2 | 0.24 | <0.2 | 0.4 | 0.24 | <0.2 | 3.3 | 1.4 |
| | 2006_Q1 | | | 23.3 | 0.54 | 10.6 | 1.31 | 0.455 | | | | | 0.392 | 1.5 |
| | 2006_Q2 | | | 0.529 | 0.755 | 14 | 1.78 | 1.09 | | | | | 0.904 | 1.68 |
| | 2006_Q3 | | | 0.366 | 0.497 | 16.5 | 1.64 | 0.239 | | | | | 0.214 | 0.75 |
| | 2006_Q4 | | | <0.2 | <0.2 | 15 | 1.9 | 0.266 | | | | | 0.279 | 1.11 |
| | 2007_Q1 | | | 2.2 | <0.5 | 132 | 1.84 | 4.26 | | | | | <0.5 | 1.47 |
| | 2007_Q2 | | | <0.5 | <0.5 | 12.5 | 1.62 | 1.47 | | | | | <0.5 | 3.6 |
| | 2007_Q3 | | | 5.66 | <0.5 | 16.1 | 1.67 | <0.5 | | | | | <0.5 | 0.784 |
| | 2007_Q4 | | | <0.5 | <0.5 | 12.6 | 1.53 | <0.5 | | | | | <0.5 | 0.591 |
| | 2008_Q1 | | | | <0.5 | 10.7 | 1.33 | <0.5 | | | | | <0.5 | 0.522 |
| | 2008_Q2 | | | <0.5 | <0.5 | 11.2 | 1.55 | <0.5 | | | | | <0.5 | 0.949 |
| | 2008_Q3 | | | <0.5 | <0.5 | 12.9 | 1.03 | 0.718 | | | | | <0.5 | <0.5 |
| | 2008_Q4 | | | <0.5 | <0.5 | 11.6 | 1.13 | <0.5 | | | | | <0.5 | <0.5 |
| | 2009_Q1 | | | <0.5 | <0.5 | 10.3 | 1.22 | <0.5 | | | | | <0.5 | 1.92 |
| | 2009_Q2 | | | <0.5 | <0.5 | 13.5 | 1.19 | <0.5 | | | | | <0.5 | 0.851 |
| | 2009_Q3 | | | <0.5 | <0.5 | 13.1 | 1.07 | 0.786 | | | | | <0.5 | 0.927 |
| | 2009_Q4 | | | <0.5 | <0.5 | 12.5 | 1.12 | 1.36 | | | | | <0.5 | 0.599 |
| | 2010_Q1 | | | | | 11.6 | 1.28 | <0.5 | | | | | <0.5 | 1.02 |
| | 2010_Q2 | | | <0.5 | <0.5 | 11.9 | 1.55 | 1.14 | | | | | 0.522 | 1.4 |
| | 2010_Q3 | | | <0.5 | <0.5 | 16.5 | 1.37 | 1.26 | | | | | <0.5 | 1.27 |
| | 2010_Q4 | | | 0.897 | 0.924 | 9.84 | 2.45 | 1.83 | | | | | 0.799 | 2.15 |
| | 2011_Q1 | | | <0.5 | <0.5 | 7.95 | 1.14 | <0.5 | | | | | <0.5 | 0.639 |
| | 2011_Q2 | | | <0.5 | <0.5 | 8.21 | 0.948 | <0.5 | | | | | <0.5 | <0.5 |
| | 2011_Q3 | <0.5 | <0.5 | <0.5 | <0.5 | 9.52 | 1.95 | 0.508 | <0.5 | <0.5 | | <0.5 | <0.5 | 1.03 |
| | 2011_Q4 | <0.5 | <0.5 | <0.5 | <0.5 | 6.86 | 1.46 | <0.5 | <0.5 | <0.5 | | 1.12 | 0.546 | 2.19 |
| | 2012_Q1 | <0.5 | <0.5 | 0.994 | <0.5 | 4.95 | <0.5 | <0.5 | <0.5 | <0.5 | | 1.16 | <0.5 | <0.5 |
| | 2012_Q2 | <0.5 | <0.5 | <0.5 | <0.5 | 6.56 | 0.811 | <0.5 | <0.5 | <0.5 | | 1.89 | <0.5 | <0.5 |
| | 2012_Q3 | <0.5 | <0.5 | <0.5 | <0.5 | 8.58 | 1.38 | <0.5 | <0.5 | <0.5 | | 2.38 | <0.5 | 0.627 |

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

# Conventionals

(Note: Qualifiers are not included in these tables, except"<")

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COD | 1997_Q3 | | <15 | 305 | <15 | 127 | 58 | 19 | 22 | 37 | 16 | 94 | 40 | 43 |
| mg/L | 1997_Q4 | | <15 | 64 | <15 | 136 | 61 | <15 | <15 | 22 | <15 | 82 | 19 | 112 |
| | 2006_Q1 | | | <10 | <10 | <10 | <10 | <10 | | | | | <10 | 21.2 |
| | 2006_Q2 | | | <10 | <10 | 13.8 | 17.2 | <10 | | | | | <10 | 16.5 |
| | 2006_Q3 | | | <10 | <10 | 27 | 24.6 | 13 | | | | | 11.6 | 26.4 |
| | 2006_Q4 | | | <10 | <10 | 15.6 | 27 | <10 | | | | | <10 | 20.5 |
| | 2007_Q1 | | | <20 | <20 | <20 | 21 | 47 | | | | | <20 | 27 |
| | 2007_Q2 | | | <20 | <20 | <20 | <20 | <20 | | | | | <20 | <20 |
| | 2007_Q3 | | | <20 | <20 | 46 | <20 | <20 | | | | | <20 | <20 |
| | 2007_Q4 | | | <20 | <20 | 22 | <20 | <20 | | | | | <20 | <20 |
| | 2008_Q1 | | | | <20 | 23 | 24 | 23 | | | | | <20 | <20 |
| | 2008_Q2 | | | <20 | <20 | 21 | <20 | <20 | | | | | <20 | 36 |
| | 2008_Q3 | | | <20 | <20 | 36 | <20 | 34 | | | | | <20 | 22 |
| | 2008_Q4 | | | <20 | <20 | 32 | <20 | <20 | | | | | <20 | 29 |
| | 2009_Q1 | | | <20 | <20 | <20 | <20 | <20 | | | | | <20 | <20 |
| | 2009_Q2 | | | <20 | <20 | 31 | 23 | <20 | | | | | <20 | 38 |
| | 2009_Q3 | | | <20 | <20 | 32 | 26 | 40 | | | | | <20 | 37 |
| | 2009_Q4 | | | <20 | <20 | 26 | <20 | 35 | | | | | <20 | 21 |
| | 2010_Q1 | | | | | 41 | 22 | <20 | | | | | <20 | 33 |
| | 2010_Q2 | | | <20 | <20 | 23 | <20 | 30 | | | | | <20 | 28 |
| | 2010_Q3 | | | <20 | <20 | 50 | <20 | 27 | | | | | <20 | 31 |
| | 2010_Q4 | | | <20 | <20 | 20 | 25 | 29 | | | | | <20 | 40 |
| | 2011_Q1 | | | <20 | <20 | <20 | <20 | <20 | | | | | <20 | 28 |
| | 2011_Q2 | | | <20 | <20 | 24 | <20 | <20 | | | | | <20 | 33 |
| | 2011_Q3 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | | <20 | <20 | 29 |
| | 2011_Q4 | <20 | <20 | <20 | <20 | <20 | 25 | <20 | <20 | <20 | | <20 | <20 | 40 |
| | 2012_Q1 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | | <20 | <20 | 22 |
| | 2012_Q2 | <20 | <20 | <20 | <20 | 36 | <20 | <20 | <20 | <20 | | <20 | <20 | 22 |
| | 2012_Q3 | <20 | <20 | <20 | <20 | 24 | 21 | <20 | <20 | <20 | | 27 | <20 | 21 |

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

# Conventionals

(Note: Qualifiers are not included in these tables, except"<")

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOC | 1997_Q3 | | 2.1 | 4.2 | 9.3 | 42.5 | 12.3 | 4.5 | 7.9 | 7.7 | 2.7 | 14 | 6 | 10.1 |
| mg/L | 1997_Q4 | | <1 | 1.6 | <1 | 24.1 | 11.9 | 1.9 | 3.7 | 5.6 | <1 | 10.6 | 5.8 | 12.6 |
| | 2006_Q1 | | | 4.76 | 5.41 | 10.1 | <2 | 5.58 | | | | | 5.22 | 12.8 |
| | 2006_Q2 | | | 2.61 | 2.34 | 7.18 | 7.76 | <2 | | | | | 3.14 | 8.19 |
| | 2006_Q3 | | | <2 | <2 | 5.67 | 4.82 | <2 | | | | | <2 | 6.12 |
| | 2006_Q4 | | | <2 | <2 | 5.68 | 7.49 | <2 | | | | | <2 | 7.46 |
| | 2007_Q1 | | | <3 | <3 | 6.7 | 6.4 | <3 | | | | | <3 | 8.1 |
| | 2007_Q2 | | | <3 | <3 | 4.8 | 3 | <3 | | | | | <3 | 6 |
| | 2007_Q3 | | | <3 | <3 | 7.3 | 5.7 | <3 | | | | | <3 | 7.2 |
| | 2007_Q4 | | | <3 | <3 | 6.3 | 17.2 | 3.7 | | | | | <3 | 11.5 |
| | 2008_Q1 | | | | <3 | 21.8 | 82.6 | <3 | | | | | <3 | 69.9 |
| | 2008_Q2 | | | <3 | <3 | 5.2 | 23.2 | <3 | | | | | <3 | 17.8 |
| | 2008_Q3 | | | <3 | <3 | 6.3 | 4.7 | 7.3 | | | | | <3 | 5.2 |
| | 2008_Q4 | | | <3 | <3 | 6 | 6.8 | 3.6 | | | | | <3 | 6.1 |
| | 2009_Q1 | | | <3 | <3 | 4.8 | 4.5 | <3 | | | | | <3 | 5.1 |
| | 2009_Q2 | | | <3 | <3 | 7.2 | 5.5 | <3 | | | | | <3 | 5.7 |
| | 2009_Q3 | | | <3 | <3 | 5.9 | 4.6 | 9.2 | | | | | <3 | 5 |
| | 2009_Q4 | | | <3 | <3 | 6.5 | 4.6 | 5.7 | | | | | <3 | 5.2 |
| | 2010_Q1 | | | | | 5.2 | 3.5 | <3 | | | | | <3 | 4.9 |
| | 2010_Q2 | | | <3 | <3 | 6.7 | 5.8 | 9 | | | | | <3 | 6.7 |
| | 2010_Q3 | | | <3 | <3 | 7.8 | 5.7 | <3 | | | | | <3 | 6 |
| | 2010_Q4 | | | <3 | <3 | 6 | 5.4 | 6.6 | | | | | <3 | 6.1 |
| | 2011_Q1 | | | <3 | <3 | 4.4 | 4.2 | <3 | | | | | <3 | 5.1 |
| | 2011_Q2 | | | <3 | <3 | <3 | 3.6 | <3 | | | | | <3 | 4.8 |
| | 2011_Q3 | <3 | <3 | <3 | <3 | 5.1 | 5.4 | 3.1 | <3 | 4 | | <3 | <3 | 6.1 |
| | 2011_Q4 | <3 | <3 | <3 | <3 | 3.4 | 3.4 | <3 | <3 | <3 | | <3 | <3 | 4.1 |
| | 2012_Q1 | <3 | <3 | <3 | <3 | 7.4 | 20.7 | 4.4 | 4.5 | 8.4 | | 5.6 | <3 | 15.1 |
| | 2012_Q2 | <3 | <3 | <3 | <3 | 5.5 | 14.4 | <3 | <3 | <3 | | <3 | <3 | 7.3 |
| | 2012_Q3 | <3 | <3 | <3 | <3 | 6.9 | 6.6 | <3 | <3 | <3 | | <3 | <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 are not included in these tables)

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 1997_Q3 | | 0.587 | 724 | 0.662 | 79.3 | 2.03 | 21.7 | 2.01 | 1.61 | 10.1 | 59.1 | 8.59 | 40 |
| | 1997_Q4 | | 5.24 | 16.9 | 0.134 | 59.1 | 5.31 | 2.39 | 0.184 | 1.32 | 0.228 | 38.6 | 0.642 | 88.4 |
| | 2006_Q3 | | | 2.96 | 1.09 | 0.43 | 0.18 | 0.078 | | | | | 0.115 | 0.415 |
| | 2007_Q4 | | | 2.07 | 0.537 | 0.444 | <0.1 | 0.33 | | | | | 0.102 | 2.43 |
| | 2008_Q1 | | | | 0.518 | 1.98 | 0.168 | 0.23 | | | | | 0.134 | 0.919 |
| | 2009_Q2 | | | 1.57 | 0.255 | <0.1 | 0.235 | <0.1 | | | | | <0.1 | 9.56 |
| | 2010_Q3 | | | 0.142 | <0.1 | 3.37 | <0.1 | 5.32 | | | | | <0.1 | 1.52 |
| | 2011_Q4 | 0.383 | 1.7 | 0.711 | 0.305 | 0.317 | 0.175 | 0.107 | 0.253 | 0.153 | | 0.683 | <0.1 | 2.12 |
| | 2012_Q1 | 1.32 | 0.145 | 19.1 | 0.141 | 0.323 | 0.536 | 1.33 | 0.148 | 0.39 | | 3.91 | <0.1 | 0.709 |
| Arsenic | 1997_Q3 | | 0.0032 | 0.353 | <0.0024 | 0.0631 | 0.007 | 0.0127 | <0.0024 | <0.0024 | 0.0061 | 0.0476 | 0.009 | 0.0176 |
| | 1997_Q4 | | 0.004 | 0.0134 | <0.0024 | 0.0537 | 0.0083 | <0.0024 | <0.0024 | <0.0024 | <0.0024 | 0.0404 | 0.0084 | 0.0459 |
| | 2006_Q3 | | | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | | | | | <0.025 | <0.025 |
| | 2007_Q4 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | <0.01 | <0.01 |
| | 2008_Q1 | | | | <0.01 | 0.0145 | <0.01 | <0.01 | | | | | <0.01 | <0.01 |
| | 2009_Q2 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | <0.01 | <0.01 |
| | 2010_Q3 | | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | | | | | <0.005 | <0.005 |
| | 2011_Q4 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | | <0.005 | <0.005 | <0.005 |
| | 2012_Q1 | <0.005 | <0.005 | 0.0115 | <0.005 | 0.00679 | <0.005 | <0.005 | <0.005 | <0.005 | | 0.00689 | <0.005 | 0.00582 |

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 are not included in these tables)

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | 1997_Q3 | | 41.5 | 430 | 26.7 | 186 | 288 | 57.8 | 73.8 | 110 | 45.8 | 99.1 | 70.5 | 234 |
| | 1997_Q4 | | 45.7 | 48.6 | 24.7 | 172 | 245 | 53.7 | 74.4 | 127 | 32.1 | 82.2 | 55.6 | 271 |
| | 2006_Q1 | | | 46.2 | 26.8 | 69.1 | 203 | 46.3 | | | | | 39.3 | 171 |
| | 2006_Q2 | | | 41.8 | 23.9 | 74.1 | 216 | 55.3 | | | | | 39.6 | 165 |
| | 2006_Q3 | | | 43.2 | 25.8 | 77.3 | 203 | 57.9 | | | | | 36.1 | 150 |
| | 2006_Q4 | | | 43.9 | 24.1 | 88.5 | 200 | 48.3 | | | | | 37.4 | 148 |
| | 2007_Q1 | | | 39.2 | 23.7 | 64.2 | 216 | 23 | | | | | 45.6 | 149 |
| | 2007_Q2 | | | 44.5 | 30 | 75.3 | 170 | 18.1 | | | | | 39.9 | 140 |
| | 2007_Q3 | | | 43.5 | 29.9 | 80.4 | 214 | 45.1 | | | | | 40.2 | 135 |
| | 2007_Q4 | | | 42.2 | 26 | 47.9 | 195 | 27.5 | | | | | 36.7 | 131 |
| | 2008_Q1 | | | | 25.1 | 70.3 | 201 | 30.2 | | | | | 39.2 | 148 |
| | 2008_Q2 | | | 43.2 | 28.6 | 57.5 | 192 | 37.6 | | | | | 39.5 | 139 |
| | 2008_Q3 | | | 46.2 | 30.2 | 87.8 | 214 | 24.4 | | | | | 39 | 150 |
| | 2008_Q4 | | | 48.3 | 30 | 99 | 235 | 31.3 | | | | | 38.7 | 162 |
| | 2009_Q1 | | | 47.2 | 27.7 | 66.7 | 201 | 12.3 | | | | | 39.6 | 140 |
| | 2009_Q2 | | | 47 | 31.4 | 87.1 | 237 | 59.5 | | | | | 42.9 | 150 |
| | 2009_Q3 | | | 46.5 | 31.1 | 78.6 | 227 | 15.2 | | | | | 42 | 144 |
| | 2009_Q4 | | | 45 | 58.7 | 26.5 | 178 | 26.2 | | | | | 38.2 | 131 |
| | 2010_Q1 | | | | | 71.1 | 177 | 28.8 | | | | | 45 | 139 |
| | 2010_Q2 | | | 47 | 26.5 | 68.7 | 202 | 23.2 | | | | | 40.6 | 122 |
| | 2010_Q3 | | | 48.9 | 30.3 | 91.2 | 216 | 57.3 | | | | | 39.9 | 147 |
| | 2010_Q4 | | | 49 | 29.7 | 74.6 | 207 | 26.8 | | | | | 40.9 | 143 |
| | 2011_Q1 | | | 45.6 | 30.5 | 54.9 | 200 | 18.3 | | | | | 40.1 | 136 |
| | 2011_Q2 | | | 46.9 | 24.9 | 48.7 | 172 | 42.9 | | | | | 43.3 | 130 |
| | 2011_Q3 | 45.2 | 41 | 51.5 | 34.3 | 76.9 | 237 | 58.9 | 75.8 | 153 | | 66.6 | 49.7 | 173 |
| | 2011_Q4 | 41.6 | 44.1 | 51 | 30.8 | 58.1 | 212 | 38.6 | 70 | 128 | | 59.7 | 48.1 | 146 |
| | 2012_Q1 | 40.7 | 47.1 | 58.2 | 35 | 49.6 | 208 | 44.9 | 69 | 131 | | 58.8 | 40.8 | 149 |
| | 2012_Q2 | 41.2 | 43.1 | 49.4 | 30.4 | 59.2 | 184 | 43.6 | 66.6 | 110 | | 50.9 | 39.8 | 123 |
| | 2012_Q3 | 34.7 | 38.5 | 42.8 | 30.4 | 78.8 | 196 | 47.5 | 59.1 | 123 | | 57.5 | 42.9 | 123 |

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 are not included in these tables)

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 1997_Q3 | | 0.0042 | 1.04 | 0.002 | 0.112 | 0.004 | 0.0249 | 0.0032 | 0.0015 | 0.0092 | 0.0859 | 0.0092 | 0.0556 |
| | 1997_Q4 | | 0.0089 | 0.0265 | <0.0004 | 0.0967 | 0.0086 | 0.0022 | <0.0004 | 0.00093 | <0.0004 | 0.0705 | 0.0017 | 0.146 |
| | 2006_Q3 | | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | | | | | <0.005 | <0.005 |
| | 2007_Q4 | | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | | | | | <0.005 | <0.005 |
| | 2008_Q1 | | | | <0.005 | 0.0177 | 0.00816 | <0.005 | | | | | <0.005 | 0.00667 |
| | 2009_Q2 | | | <0.005 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | <0.01 | <0.01 |
| | 2010_Q3 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | <0.01 | <0.01 |
| | 2011_Q4 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | <0.01 |
| | 2012_Q1 | <0.01 | <0.01 | 0.0267 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | <0.01 |
| Cobalt | 1997_Q3 | | <0.0011 | 0.59 | <0.0011 | 0.0719 | 0.0091 | 0.0121 | 0.002 | 0.0036 | 0.0105 | 0.056 | 0.0112 | 0.0311 |
| | 1997_Q4 | | 0.0053 | 0.0168 | <0.0011 | 0.0628 | 0.0141 | 0.0019 | 0.0014 | 0.0035 | <0.0011 | 0.0463 | 0.0056 | 0.0791 |
| | 2006_Q3 | | | <0.015 | <0.015 | <0.015 | <0.015 | <0.015 | | | | | <0.015 | <0.015 |
| | 2007_Q4 | | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | | | | | <0.02 | <0.02 |
| | 2008_Q1 | | | | <0.02 | <0.02 | <0.02 | <0.02 | | | | | <0.02 | <0.02 |
| | 2009_Q2 | | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | | | | | <0.02 | <0.02 |
| | 2010_Q3 | | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | | | | | <0.02 | <0.02 |
| | 2011_Q4 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | | <0.02 | <0.02 | <0.02 |
| | 2012_Q1 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | | <0.02 | <0.02 | <0.02 |
| Copper | 1997_Q3 | | 0.004 | 0.996 | 0.004 | 0.104 | 0.0069 | 0.0315 | 0.0051 | 0.0066 | 0.0181 | 0.0973 | 0.0116 | 0.0637 |
| | 1997_Q4 | | 0.0085 | 0.0254 | 0.0025 | 0.0779 | 0.0118 | 0.0076 | 0.0018 | 0.0076 | 0.0037 | 0.0689 | 0.0051 | 0.129 |
| | 2006_Q3 | | | 0.022 | 0.017 | 0.012 | 0.017 | 0.023 | | | | | 0.016 | 0.013 |
| | 2007_Q4 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | <0.01 | <0.01 |
| | 2008_Q1 | | | | <0.01 | <0.01 | <0.01 | <0.01 | | | | | <0.01 | <0.01 |
| | 2009_Q2 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | <0.01 | <0.01 |
| | 2010_Q3 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | <0.01 | <0.01 |
| | 2011_Q4 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | <0.01 |
| | 2012_Q1 | <0.01 | <0.01 | 0.0218 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.0224 | | <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 are not included in these tables)

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Iron | 1997_Q3 | | 1.01 | 1550 | 1.33 | 154 | 4.3 | 26.6 | 3.04 | 2.2 | 11.5 | 111 | 10.6 | 65.9 |
| | 1997_Q4 | | 10.3 | 35.7 | 0.226 | 131 | 10.7 | 3.58 | 0.372 | 1.99 | 0.46 | 85.5 | 3 | 174 |
| | 2006_Q1 | | | 19.4 | 9.42 | 8.29 | 0.913 | 1.88 | | | | | 1.09 | 14.5 |
| | 2006_Q2 | | | 2.99 | 1.48 | 24 | 0.836 | 0.626 | | | | | 0.511 | 1.33 |
| | 2006_Q3 | | | 6.03 | 1.84 | 6.5 | 1.2 | 0.104 | | | | | 0.306 | 0.722 |
| | 2006_Q4 | | | 2.11 | 0.273 | 10.1 | 1.07 | 0.283 | | | | | 0.195 | 2.78 |
| | 2007_Q1 | | | 1.67 | 2.39 | 10.8 | 0.637 | 1.18 | | | | | 1.87 | 1.68 |
| | 2007_Q2 | | | 2.14 | 0.508 | 6.86 | 0.469 | 0.599 | | | | | 0.486 | 1.52 |
| | 2007_Q3 | | | 1.21 | 0.465 | 7.67 | 0.468 | 0.231 | | | | | 0.163 | 9.97 |
| | 2007_Q4 | | | 3.49 | 0.73 | 4.95 | 0.323 | 0.537 | | | | | 0.216 | 3.65 |
| | 2008_Q1 | | | | 1 | 9.77 | 0.439 | 0.451 | | | | | 0.229 | 1.68 |
| | 2008_Q2 | | | 1.17 | 1.38 | 4.1 | 0.56 | 0.574 | | | | | 0.33 | 1.99 |
| | 2008_Q3 | | | 0.217 | 0.185 | 10.6 | 0.236 | 0.508 | | | | | <0.06 | 0.342 |
| | 2008_Q4 | | | 0.429 | 0.174 | 9.51 | 0.28 | 0.177 | | | | | <0.06 | 1.16 |
| | 2009_Q1 | | | 0.818 | 2.92 | 7.77 | 0.466 | 0.6 | | | | | 0.268 | 0.322 |
| | 2009_Q2 | | | 1.65 | 0.523 | 8.28 | 0.464 | 0.155 | | | | | 0.104 | 10.1 |
| | 2009_Q3 | | | 0.348 | 0.115 | 5.21 | 0.222 | 0.534 | | | | | 0.0703 | 0.108 |
| | 2009_Q4 | | | 6.19 | 6.72 | 0.827 | 0.235 | 1.44 | | | | | 0.417 | 1.19 |
| | 2010_Q1 | | | | | 64.2 | 0.451 | 0.366 | | | | | 0.448 | 3.95 |
| | 2010_Q2 | | | 0.484 | 0.423 | 6.1 | 0.329 | 0.291 | | | | | 0.226 | 0.469 |
| | 2010_Q3 | | | 0.219 | 0.159 | 13 | 0.149 | 6.97 | | | | | <0.06 | 1.71 |
| | 2010_Q4 | | | 1.99 | 1.02 | 9.73 | 0.273 | 2.42 | | | | | 0.337 | 3.06 |
| | 2011_Q1 | | | 1.47 | 1.19 | 4.73 | 0.345 | 0.232 | | | | | 0.114 | 0.162 |
| | 2011_Q2 | | | 3.13 | <0.06 | 4.27 | 0.312 | 0.121 | | | | | 0.235 | 0.418 |
| | 2011_Q3 | 0.126 | 0.662 | 0.872 | 0.121 | 5.34 | 0.276 | 0.121 | 0.578 | 0.261 | | 0.835 | 0.835 | 4.66 |
| | 2011_Q4 | 0.688 | 2.75 | 0.987 | 0.341 | 5.42 | 0.333 | 0.345 | 0.344 | 0.174 | | 1.32 | 0.0989 | 3.03 |
| | 2012_Q1 | 2.04 | 0.248 | 33.7 | 0.238 | 2.9 | 1.11 | 1.77 | 0.386 | 0.427 | | 7.22 | 1.05 | 0.931 |
| | 2012_Q2 | 2.34 | 0.509 | 1.65 | 3.2 | 3.15 | 0.337 | 0.451 | 0.0945 | 0.146 | | 0.98 | 7.38 | 2.9 |

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 are not included in these tables)

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2012_Q3 | 0.15 | 0.15 | 0.702 | 0.39 | 7.39 | 0.319 | 0.238 | 0.142 | 0.209 | | 6.38 | <0.06 | 0.869 |
| Lead | 1997_Q3 | | 0.0017 | 0.454 | <0.001 | 0.0561 | 0.0044 | 0.0077 | 0.0013 | 0.0031 | 0.0114 | 0.0168 | 0.0044 | 0.0251 |
| | 1997_Q4 | | 0.0049 | 0.0123 | <0.001 | 0.0436 | 0.0058 | <0.001 | <0.001 | 0.0024 | <0.001 | 0.0113 | <0.001 | 0.0585 |
| | 2006_Q1 | | | 0.00716 | <0.005 | <0.005 | <0.005 | <0.005 | | | | | <0.005 | 0.0175 |
| | 2006_Q2 | | | 0.007 | <0.005 | 0.019 | 0.009 | 0.005 | | | | | <0.005 | 0.009 |
| | 2006_Q3 | | | <0.005 | <0.005 | <0.005 | <0.005 | 0.005 | | | | | <0.005 | 0.006 |
| | 2006_Q4 | | | <0.005 | <0.005 | 0.006 | <0.005 | <0.005 | | | | | <0.005 | <0.005 |
| | 2007_Q1 | | | <0.003 | 0.00431 | 0.00524 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2007_Q2 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2007_Q3 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | 0.00656 |
| | 2007_Q4 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2008_Q1 | | | | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2008_Q2 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2008_Q3 | | | <0.003 | <0.003 | 0.0039 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2008_Q4 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2009_Q1 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2009_Q2 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2009_Q3 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2009_Q4 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2010_Q1 | | | | | 0.0187 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2010_Q2 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2010_Q3 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2010_Q4 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2011_Q1 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2011_Q2 | | | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | | | | <0.003 | <0.003 |
| | 2011_Q3 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | <0.003 | <0.003 | 0.00321 |
| | 2011_Q4 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | <0.003 | <0.003 | <0.003 |
| | 2012_Q1 | <0.003 | <0.003 | 0.0108 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | <0.003 | <0.003 | <0.003 |
| | 2012_Q2 | <0.003 | <0.003 | <0.003 | 0.00423 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | <0.003 | <0.015 | 0.00328 |
| | 2012_Q3 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | <0.003 | | <0.015 | <0.003 | <0.003 |

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 are not included in these tables)

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Magnesium | 1997_Q3 | | 9.5 | 309 | 6.47 | 61.6 | 61.7 | 17 | 22.8 | 24.3 | 14.8 | 37.6 | 19 | 67 |
| | 1997_Q4 | | 10.4 | 15.6 | 5.84 | 53.6 | 49.9 | 11 | 21.5 | 26 | 9.45 | 28.8 | 12.7 | 88.3 |
| | 2006_Q1 | | | 12.6 | 7.46 | 16.6 | 46.1 | 9.13 | | | | | 8.94 | 48.6 |
| | 2006_Q2 | | | 8.67 | 5.39 | 18.3 | 45.3 | 10 | | | | | 10.9 | 45.5 |
| | 2006_Q3 | | | 9.7 | 6.05 | 17.5 | 43.5 | 11.2 | | | | | 9.86 | 38 |
| | 2006_Q4 | | | 9.43 | 5.31 | 19.4 | 42.7 | 9.2 | | | | | 9.71 | 38 |
| | 2007_Q1 | | | 8.87 | 5.94 | 15.7 | 44.8 | 4.04 | | | | | 10.2 | 38.4 |
| | 2007_Q2 | | | 10.2 | 7.4 | 17.9 | 36.3 | 3.1 | | | | | 9.68 | 36.4 |
| | 2007_Q3 | | | 9.67 | 7.12 | 18 | 44.1 | 9.15 | | | | | 9.12 | 35 |
| | 2007_Q4 | | | 9.8 | 6.28 | 11 | 39.9 | 4.26 | | | | | 7.81 | 32.1 |
| | 2008_Q1 | | | | 6.44 | 17.1 | 42.8 | 5.42 | | | | | 9.37 | 38.4 |
| | 2008_Q2 | | | 10.6 | 7.58 | 14.3 | 42.4 | 7.04 | | | | | 10.4 | 38.5 |
| | 2008_Q3 | | | 10.7 | 7.74 | 20.3 | 47.1 | 3.83 | | | | | 9.61 | 39.5 |
| | 2008_Q4 | | | 10.8 | 7.28 | 23.1 | 49.1 | 4.8 | | | | | 9.13 | 39.8 |
| | 2009_Q1 | | | 10.6 | 6.76 | 15.1 | 42.9 | 1.82 | | | | | 10.5 | 35.8 |
| | 2009_Q2 | | | 11.1 | 7.83 | 18.8 | 45.9 | 11.6 | | | | | 11.4 | 38.7 |
| | 2009_Q3 | | | 10 | 7.34 | 16.8 | 45.6 | <1 | | | | | 10.4 | 34 |
| | 2009_Q4 | | | 11.9 | 14.4 | 7.01 | 39.7 | <5 | | | | | 10.4 | 35.3 |
| | 2010_Q1 | | | | | 27.6 | 40.4 | 5.17 | | | | | 12.3 | 38.8 |
| | 2010_Q2 | | | 10.5 | 6.49 | 15.4 | 43.1 | <5 | | | | | 11 | 31.4 |
| | 2010_Q3 | | | 10.8 | 7.27 | 20.6 | 46.2 | 12.5 | | | | | 10.7 | 36.9 |
| | 2010_Q4 | | | 11.3 | 7.29 | 17.9 | 43 | <5 | | | | | 10.9 | 36.4 |
| | 2011_Q1 | | | 11 | 7.75 | 12.9 | 42.8 | <5 | | | | | 10.8 | 35 |
| | 2011_Q2 | | | 11.5 | 6.14 | 11 | 38.8 | 7.25 | | | | | 10.8 | 34.4 |
| | 2011_Q3 | 9.04 | 7.95 | 10.5 | 7.05 | 14.8 | 43.9 | 9.72 | 20.5 | 27.3 | | 10.2 | 11.7 | 37.2 |
| | 2011_Q4 | 10.1 | 10.8 | 12 | 7.66 | 13.1 | 44.7 | 6.31 | 21.6 | 26.8 | | 10.8 | 11.3 | 33.9 |
| | 2012_Q1 | 10.3 | 11.4 | 19.3 | 8.85 | 11.2 | 46.6 | 8.39 | 21.6 | 28.3 | | 12.2 | 10.8 | 36.8 |
| | 2012_Q2 | 10.5 | 11.5 | 12.6 | 8.66 | 14.4 | 44.9 | 9.02 | 22.4 | 26.5 | | 10.3 | 12.4 | 34.8 |
| | 2012_Q3 | 7.92 | 9.47 | 9.95 | 7.48 | 17.4 | 42.2 | 9.93 | 18.4 | 27.8 | | 10.2 | 10.6 | 30.1 |

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

## Total Metals (all values in mg/l)

(Note: Qualifiers are not included in these tables)

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Manganese | 1997_Q3 | | 0.19 | 24.6 | 0.195 | 35.7 | 8.24 | 0.732 | 0.12 | 1.14 | 0.485 | 14.5 | 3.43 | 5.87 |
| | 1997_Q4 | | 0.352 | 0.783 | 0.146 | 31.6 | 7.43 | 0.174 | 0.0697 | 2.15 | 0.0661 | 12.7 | 4.17 | 9.55 |
| | 2006_Q1 | | | 0.534 | 2.28 | 12.2 | 6.98 | 0.208 | | | | | 0.559 | 6.08 |
| | 2006_Q2 | | | 0.194 | 0.191 | 11.5 | 6.8 | 0.175 | | | | | 0.12 | 5.69 |
| | 2006_Q3 | | | 0.38 | 0.251 | 12 | 6.63 | 0.416 | | | | | 0.297 | 4.4 |
| | 2006_Q4 | | | 0.306 | 0.126 | 13.6 | 6.46 | 0.176 | | | | | 0.185 | 4.85 |
| | 2007_Q1 | | | 0.19 | 0.521 | 9.93 | 6.42 | 0.415 | | | | | 0.331 | 4.51 |
| | 2007_Q2 | | | 0.193 | 0.169 | 11.7 | 4.93 | 0.501 | | | | | 0.0908 | 4.18 |
| | 2007_Q3 | | | 0.206 | 0.19 | 12.7 | 6.6 | 0.116 | | | | | 0.671 | 3.98 |
| | 2007_Q4 | | | 0.203 | 0.176 | 7.05 | 5.7 | 0.287 | | | | | 0.712 | 3.47 |
| | 2008_Q1 | | | | 0.26 | 11.2 | 6.21 | 0.0373 | | | | | 0.327 | 4.17 |
| | 2008_Q2 | | | 0.157 | 0.198 | 9.3 | 5.96 | 0.141 | | | | | 0.102 | 4.34 |
| | 2008_Q3 | | | 0.135 | 0.169 | 13.8 | 6.49 | 0.618 | | | | | 0.666 | 4.82 |
| | 2008_Q4 | | | 0.151 | 0.153 | 15.1 | 6.84 | 0.0424 | | | | | 0.619 | 4.57 |
| | 2009_Q1 | | | 0.0917 | 0.223 | 10.7 | 6.5 | 0.294 | | | | | 0.0257 | 4.31 |
| | 2009_Q2 | | | 0.169 | 0.25 | 12.8 | 6.63 | 0.164 | | | | | 0.0585 | 4.21 |
| | 2009_Q3 | | | 0.155 | 0.149 | 11.4 | 6.31 | 0.331 | | | | | 0.255 | 3.8 |
| | 2009_Q4 | | | 0.251 | 9.34 | 0.144 | 5.63 | 0.597 | | | | | 0.167 | 3.68 |
| | 2010_Q1 | | | | | 11.6 | 5.48 | 0.568 | | | | | 0.0606 | 3.87 |
| | 2010_Q2 | | | 0.118 | 0.13 | 9.79 | 6.2 | 0.218 | | | | | 0.027 | 3.85 |
| | 2010_Q3 | | | 0.156 | 0.188 | 12.2 | 6.35 | 0.282 | | | | | 0.087 | 3.82 |
| | 2010_Q4 | | | 0.329 | 0.153 | 11.1 | 6.82 | 0.471 | | | | | 0.242 | 4.5 |
| | 2011_Q1 | | | 0.236 | 0.269 | 8.18 | 6.23 | 0.575 | | | | | 0.0452 | 4.33 |
| | 2011_Q2 | | | 0.215 | 0.24 | 7.05 | 5.23 | 0.704 | | | | | 0.0213 | 3.8 |
| | 2011_Q3 | 0.18 | 0.119 | 0.139 | 0.275 | 9.08 | 5.99 | 0.635 | 0.184 | 1.91 | | 1.33 | 0.166 | 4.86 |
| | 2011_Q4 | 0.256 | 0.211 | 0.119 | 0.0807 | 7.78 | 5.93 | 0.726 | 0.125 | 1.73 | | 1.78 | 0.231 | 3.57 |
| | 2012_Q1 | 1.62 | 0.188 | 0.691 | 0.223 | 6.81 | 6.23 | 0.802 | 0.102 | 1.75 | | 1.63 | 0.0335 | 1.62 |
| | 2012_Q2 | 1.3 | 0.23 | 0.121 | 0.232 | 8.49 | 6.4 | 0.926 | 0.1 | 1.44 | | 2.16 | 0.781 | 3.27 |
| | 2012_Q3 | 0.0614 | 0.139 | 0.0453 | 0.148 | 10.3 | 6.38 | 0.371 | 0.092 | 2.05 | | 2.84 | 0.0693 | 2.91 |

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 are not included in these tables)

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | 1997_Q3 | | 1.01 | 77.5 | 1.56 | 23.4 | 3 | 7.43 | 2.05 | 2.01 | 3.03 | 14.4 | 4.08 | 10.4 |
| | 1997_Q4 | | 1.91 | 6.97 | 0.529 | 17 | 2.9 | 1.87 | 1.2 | 2.02 | 0.897 | 10.1 | 2.72 | 13.5 |
| | 2006_Q1 | | | 2.72 | 0.973 | 9.29 | 2.42 | 0.938 | | | | | 1.15 | 3.06 |
| | 2006_Q2 | | | 1.6 | 0.468 | 11.2 | 2.25 | 0.829 | | | | | 0.825 | 1.91 |
| | 2006_Q3 | | | 1.7 | 0.523 | 12.3 | 2.28 | 1.09 | | | | | 0.634 | 1.81 |
| | 2006_Q4 | | | 1.62 | 0.374 | 12.7 | 2.38 | 0.937 | | | | | 0.69 | 2.03 |
| | 2007_Q1 | | | 1.74 | <1 | 9.02 | 2.74 | <1 | | | | | 1.05 | 2.03 |
| | 2007_Q2 | | | 2.31 | <1 | 10.8 | 2.14 | <1 | | | | | <1 | 1.95 |
| | 2007_Q3 | | | 1.59 | <1 | 13.3 | 2.44 | <1 | | | | | <1 | 2.87 |
| | 2007_Q4 | | | 2.06 | <1 | 2.14 | <1 | <1 | | | | | <1 | <1 |
| | 2008_Q1 | | | | <1 | 8.56 | 2.44 | <1 | | | | | <1 | 1.85 |
| | 2008_Q2 | | | 1.65 | <1 | 7.56 | 2.2 | <1 | | | | | <1 | 1.98 |
| | 2008_Q3 | | | 1.51 | <1 | 12.3 | 2.23 | 1.06 | | | | | <1 | 1.82 |
| | 2008_Q4 | | | 1.69 | <1 | 15.1 | 3.13 | <1 | | | | | 1.4 | 2.41 |
| | 2009_Q1 | | | 1.52 | <1 | 7.48 | 2.44 | <1 | | | | | 1.01 | 1.62 |
| | 2009_Q2 | | | 1.78 | <1 | 12.4 | 2.71 | <1 | | | | | 1.03 | 3.58 |
| | 2009_Q3 | | | <1 | <1 | 13.6 | <1 | <1 | | | | | <1 | <1 |
| | 2009_Q4 | | | <5 | 8.56 | <5 | <5 | <5 | | | | | <5 | <5 |
| | 2010_Q1 | | | | | 12.8 | <5 | <5 | | | | | <5 | <5 |
| | 2010_Q2 | | | <5 | <5 | 9.42 | <5 | <5 | | | | | <5 | <5 |
| | 2010_Q3 | | | <5 | <5 | 14.3 | <5 | <5 | | | | | <5 | <5 |
| | 2010_Q4 | | | <5 | <5 | 11.9 | <5 | <5 | | | | | <5 | <5 |
| | 2011_Q1 | | | <5 | <5 | 7.2 | <5 | <5 | | | | | <5 | <5 |
| | 2011_Q2 | | | <5 | <5 | 7.47 | <5 | <5 | | | | | <5 | <5 |
| | 2011_Q3 | <5 | <5 | <5 | <5 | 11.4 | <5 | <5 | <5 | <5 | | <5 | <5 | <5 |
| | 2011_Q4 | <5 | <5 | <5 | <5 | 7.62 | <5 | <5 | <5 | <5 | | <5 | <5 | <5 |
| | 2012_Q1 | <5 | <5 | <5 | <5 | 6.33 | <5 | <5 | <5 | <5 | | <5 | <5 | <5 |
| | 2012_Q2 | <5 | <5 | <5 | <5 | 8.15 | <5 | <5 | <5 | <5 | | <5 | <5 | <5 |
| | 2012_Q3 | <5 | <5 | <5 | <5 | 10.9 | <5 | <5 | <5 | <5 | | <5 | <5 | <5 |

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

## Total Metals (all values in mg/l)

(Note: Qualifiers are not included in these tables)

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sodium | 1997_Q3 | | 5.41 | 37.3 | 7.38 | 119 | 64.1 | 10.4 | 11.2 | 13.3 | 31.6 | 53.3 | 38 | 118 |
| | 1997_Q4 | | 4.76 | 26 | 6.18 | 102 | 53.9 | 6.54 | 9.78 | 15.7 | 9.53 | 46.8 | 31.4 | 113 |
| | 2006_Q1 | | | 17.1 | 6.31 | 26.3 | 53.8 | 5.66 | | | | | 14.9 | 134 |
| | 2006_Q2 | | | 13 | 5.22 | 25.2 | 49.7 | 6.4 | | | | | 9.93 | 129 |
| | 2006_Q3 | | | 13.6 | 6.35 | 31.4 | 51.1 | 8.92 | | | | | 10.1 | 124 |
| | 2006_Q4 | | | 13.5 | 5.92 | 31.4 | 51 | 6.03 | | | | | 10.7 | 128 |
| | 2007_Q1 | | | 12.2 | 5.22 | 19.5 | 50.9 | 2.11 | | | | | 11.2 | 112 |
| | 2007_Q2 | | | 12.5 | 6.82 | 22.9 | 40.8 | 1.14 | | | | | 10.2 | 104 |
| | 2007_Q3 | | | 13 | 7.1 | 26.1 | 52.3 | 5.1 | | | | | 15 | 95.8 |
| | 2007_Q4 | | | 11.8 | 5.84 | 13.8 | 48.2 | 2.64 | | | | | 14.7 | 95.2 |
| | 2008_Q1 | | | | 5.66 | 19.2 | 50.6 | 2.9 | | | | | 13.8 | 104 |
| | 2008_Q2 | | | 12.5 | 6.73 | 16.5 | 47.4 | 3.52 | | | | | 12.7 | 99.6 |
| | 2008_Q3 | | | 13.8 | 7.29 | 25.6 | 51.4 | 2.77 | | | | | 18.1 | 113 |
| | 2008_Q4 | | | 13.2 | 6.81 | 25.9 | 58.2 | 2.69 | | | | | 17.6 | 116 |
| | 2009_Q1 | | | 13.4 | 6.37 | 17.8 | 49.3 | <1 | | | | | 13.1 | 97 |
| | 2009_Q2 | | | 13.9 | 8.15 | 23.8 | 55.4 | 6.81 | | | | | 17.9 | 103 |
| | 2009_Q3 | | | 12.5 | 7.32 | 21.1 | 58.6 | <1 | | | | | 18.5 | 110 |
| | 2009_Q4 | | | 12.6 | 14.9 | 6.59 | 49 | <5 | | | | | 15.8 | 105 |
| | 2010_Q1 | | | | | 15.5 | 48.9 | <5 | | | | | 16.8 | 112 |
| | 2010_Q2 | | | 12.8 | 6.29 | 16.3 | 53.1 | <5 | | | | | 14.2 | 109 |
| | 2010_Q3 | | | 13.2 | 7.12 | 21.9 | 56.9 | 6.53 | | | | | 15 | 110 |
| | 2010_Q4 | | | 15.3 | 8.95 | 19 | 65.4 | <5 | | | | | 17.8 | 127 |
| | 2011_Q1 | | | 13.6 | 7.99 | 13.5 | 56.7 | <5 | | | | | 14.1 | 110 |
| | 2011_Q2 | | | 13.1 | 6.48 | 12.5 | 51 | <5 | | | | | 17 | 114 |
| | 2011_Q3 | <5 | <5 | 13.2 | 27 | 22.1 | 55.3 | 5.9 | 11.1 | 16.7 | | 19.5 | 18.3 | 114 |
| | 2011_Q4 | <5 | 6.69 | 14.9 | 8.23 | 13.6 | 57.7 | <5 | 12.5 | 17.8 | | 19.8 | 21.7 | 104 |
| | 2012_Q1 | <5 | 6.24 | 15.6 | 9.91 | 11 | 58.5 | <5 | 11.9 | 17.7 | | 19 | 16.5 | 108 |
| | 2012_Q2 | <5 | 5.26 | 12.6 | 7.92 | 11.9 | 47.4 | <5 | 10.4 | 14.2 | | 14.8 | 14.6 | 91 |
| | 2012_Q3 | <5 | <5 | 10.4 | 7.34 | 14.7 | 50.8 | 5.41 | 8.61 | 14.7 | | 16.5 | 17.3 | 81.6 |

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 are not included in these tables)

| Analyte | Year/ Quarter | CD-1 | CD-1RA | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | MW-4A | MW-5A | MW-6A | MW-6B | MW-7A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vanadium | 1997_Q3 | | <0.0012 | 0.856 | <0.0012 | 0.102 | 0.0029 | 0.0296 | 0.003 | 0.0016 | 0.0102 | 0.0726 | 0.0083 | 0.0487 |
| | 1997_Q4 | | 0.0086 | 0.0243 | <0.0012 | 0.0866 | 0.0075 | 0.0039 | <0.0012 | 0.0019 | 0.0012 | 0.053 | 0.0012 | 0.127 |
| | 2006_Q3 | | | <0.015 | <0.015 | <0.015 | <0.015 | <0.015 | | | | | <0.015 | <0.015 |
| | 2007_Q4 | | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | | | | | <0.03 | <0.03 |
| | 2008_Q1 | | | | <0.03 | <0.03 | <0.03 | <0.03 | | | | | <0.03 | <0.03 |
| | 2009_Q2 | | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | | | | | <0.03 | <0.03 |
| | 2010_Q3 | | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | | | | | <0.03 | <0.03 |
| | 2011_Q4 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | | <0.03 | <0.03 | <0.03 |
| | 2012_Q1 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | | <0.03 | <0.03 | <0.03 |
| Zinc | 1997_Q3 | | 0.024 | 3.36 | 0.0351 | 0.4 | 0.103 | 0.112 | 0.0621 | 0.0501 | 0.105 | 0.271 | 0.0894 | 0.2 |
| | 1997_Q4 | | 0.0366 | 0.0874 | 0.0163 | 0.278 | 0.0484 | 0.0265 | 0.0155 | 0.0238 | 0.0212 | 0.177 | 0.0248 | 0.408 |
| | 2006_Q3 | | | 0.106 | 0.052 | <0.01 | <0.01 | 0.025 | | | | | 0.014 | <0.01 |
| | 2007_Q4 | | | 0.0235 | 0.0168 | <0.01 | 0.0469 | 0.0106 | | | | | 0.0213 | 0.0263 |
| | 2008_Q1 | | | | 0.0112 | 0.0101 | <0.01 | <0.01 | | | | | 0.0103 | 0.0102 |
| | 2009_Q2 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | <0.01 | 0.0297 |
| | 2010_Q3 | | | <0.01 | <0.01 | 0.0269 | <0.01 | 0.0285 | | | | | <0.01 | <0.01 |
| | 2011_Q4 | <0.01 | 0.0146 | <0.01 | <0.01 | <0.01 | 0.0118 | <0.01 | 0.0114 | 0.013 | | <0.01 | 0.0159 | 0.0156 |
| | 2012_Q1 | 0.0119 | <0.01 | 0.0792 | <0.01 | <0.01 | 0.0177 | 0.0106 | 0.017 | 0.0154 | | 0.0235 | <0.01 | <0.01 |