

**2000 FOURTH QUARTER MONITORING EVENT &
2000 ANNUAL SUMMARY REPORT**

**ORANGE COUNTY LANDFILL
ENVIRONMENTAL
MONITORING
PROGRAM**

*ORANGE COUNTY DEPARTMENT OF
ENVIRONMENTAL FACILITIES & SERVICES
GOSHEN, NEW YORK*

MAY 2001

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TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1. INTRODUCTION.....	1
2. METHODOLOGY.....	2
2.1 Sample Collection and Analysis.....	2
2.2 Data Evaluation.....	3
2.2.1 Comparative Analysis.....	4
2.2.2 Trend Analysis.....	5
3. 2000 FOURTH QUARTER ENVIRONMENTAL MONITORING RESULTS	6
3.1 Orange County Landfill	6
3.1.1 Groundwater Elevations.....	6
3.1.2 Groundwater Monitoring Analytical Results	6
3.1.3 NYSDEC Groundwater Quality Standard Exceedences	6
3.1.4 Historical Groundwater Analytical Data	8
3.1.5 Comparison of Upgradient/Downgradient Groundwater Quality	8
3.1.6 Historical Groundwater Quality Trends	11
3.2 Site Surface Waters	13
3.2.1 Surface Water Monitoring Analytical Results.....	13
3.2.2 NYSDEC Surface Water Quality Standard Exceedences.....	13
3.2.3 Historical Surface Water Analytical Data.....	13
3.2.4 Comparison of Upstream/Downstream Surface Water Quality	14
3.3 Leachate Manhole Analytical Results	14
3.4 QA/QC Analytical Results	14
4.0 INTERPRETATIONS AND ASSESSMENT.....	15
4.1 Groundwater Quality Interpretation and Assessment	15
5.0 2000 ANNUAL SUMMARY SECTION.....	20
 List of Tables	 <i>i</i>
List of Figures and Appendices.....	<i>ii</i>

LIST OF TABLES

Table 1	Monitoring Well Construction Data
Table 2	Monitoring Well Water Elevations
Table 3	Groundwater Analytical Data - Inorganic and Metal Parameters
Table 4	Historical Groundwater Analytical Data - Water Quality Parameters (Existing Landfill)
Table 5	Historical Groundwater Analytical Data - Metals Parameters (Existing Landfill)
Table 6	Upgradient Groundwater Quality (Shallow Wells)
Table 7	Parameters Above Background Concentrations - Shallow Wells
Table 8	Upgradient Groundwater Quality (Bedrock Wells)
Table 9	Parameters Above Background Concentrations - Deep Wells
Table 10	Historical Groundwater Analytical Data - Water Quality Parameters (Landfill Expansion Area)
Table 11	Historical Groundwater Analytical Data - Metals Parameters (Landfill Expansion Area)
Table 12	Surface Water Analytical Data – Inorganic, Metal, & Organic Parameters
Table 13	Historical Surface Water Analytical Data - Water Quality Parameters
Table 14	Historical Surface Water Analytical Data - Metals Parameters
Table 15	Upstream/Downstream Surface Water Quality - Statistical Analysis Results and Comparison
Table 16	Manhole Analytical Results
Table 17	Method Detection Limits (MDLs)
Table 18	Statistical Trend Analysis Summary

LIST OF FIGURES

- Figure 1 Orange County Landfill - Environmental Monitoring Location Plan
- Figure 2 Areas of Apparent Leachate Influence on shallow groundwater

LIST OF APPENDICES

- Appendix A 2000 Fourth Quarter Monitoring Event - Field Sampling Logs and Chain of Custody Documentation
- Appendix B.1 2000 Fourth Quarter Monitoring Event - Orange County Landfill Analytical Data - Groundwater Monitoring Wells
- Appendix B.2 2000 Fourth Quarter Monitoring Event - Orange County Landfill Analytical Data: Surface Water and Leachate Monitoring Locations

1.0 INTRODUCTION

In accordance with 6 NYCRR Part 360 Solid Waste Management Facility regulations, environmental monitoring is completed on a quarterly basis at the Orange County Landfill. The Orange County Landfill is located off Route 17 in the Town of Goshen, Orange County, New York. Consistent with the recent capping and closure of the Orange County Landfill, in April 2000, Orange County and the New York State Department of Environmental Conservation (NYSDEC) agreed upon the commencement of a Long Term Post-Closure Monitoring Program for the site. As part of the Long Term Post-Closure Monitoring Program, the number of groundwater and surface water monitoring locations has been significantly reduced from the scope of monitoring historically performed, as discussed within the following sections.

This Report was prepared for the Orange County Department of Public Works by C&S Engineers, Inc. and documents the activities and results of the 2000 Fourth Quarter monitoring event for the Orange County Landfill. The report is based upon the analytical results of groundwater, surface water, and leachate samples collected at the Orange County Landfill during the week of December 27, 2000. Friend Laboratories, Inc. (FLI), under contract to C&S, performed the actual collection and analysis of site groundwater, surface water, and leachate samples. Interpretation and discussion of the analytical results relating to groundwater and surface water quality are presented in Sections 3 and 4. The Annual Monitoring Summary for 2000, which includes a summary of the results and interpretations of the 2000 Quarterly monitoring events, is presented in Section 5.

2.0 METHODOLOGY

As part of the 2000 Fourth Quarter monitoring event, groundwater samples were collected from monitoring wells and piezometers installed proximate to the Orange County Landfill. Surface water samples were also collected from the Cheechunk Canal of the Wallkill River. As part of the new Post-Closure Monitoring Program, leachate samples were collected from sampling locations MH-7 and MH-15 (see Figure 1).

2.1 SAMPLE COLLECTION AND ANALYSIS

The Long Term Post-Closure Environmental Monitoring Program for the Orange County Landfill incorporates the collection and analysis of groundwater, surface water, and leachate samples in accordance with 6 NYCRR Part 360-2.11(c)(6), Water Quality Analysis Routine and Baseline Parameters (NYSDEC, 1990b). As part of the 2000 Fourth Quarter monitoring event, the groundwater, surface water, and leachate samples were collected and analyzed for routine list parameters by Friend Laboratories, Inc., (FLI), a NYSDOH certified lab (NYSDOH ELAP-11246). Samples were collected and handled in accordance with New York State Department of Environmental Conservation (NYSDEC), New York State Department of Health (NYSDOH), or other applicable protocols. In an effort to better characterize potential leachate impacts to the local groundwaters, the Orange County Department of Environmental Facilities and Services previously authorized the collection of groundwater samples for soluble metals analysis in addition to total metal analysis. During the 2000 Fourth Quarter monitoring event, FLI collected additional groundwater samples from each monitoring well for subsequent filtering (immediately upon sample delivery) and soluble metals analysis at the laboratory.

Prior to commencing well evacuation activities, the exterior of each well was visually inspected for signs of damage, tampering, or other unusual conditions. After inspection, the well caps were opened and the static water level elevations were determined to the nearest 1/100th of a foot using an electronic water level indicator. A sample of the groundwater within each monitoring well was then analyzed in the field for pH, temperature, Eh, and conductivity. A volume of water equal to approximately three well volumes was subsequently purged from each well in order to replace the stagnant monitoring well water with fresh formation water.

After evacuation, each well was allowed to recharge, the field parameters were then rechecked, and the appropriate sample volume was collected within 24 hours of well purging. Unfiltered samples were collected in appropriate containers, preserved according to method protocol, and placed in coolers for transport to the laboratory. Appropriate chain-of-custody for each sample was maintained throughout the sample handling and analysis period.

Groundwater samples were collected from 22 groundwater monitoring wells and 3 piezometer installations located proximate to the Orange County Landfill. As outlined in the Orange County Landfill April 14, 2000 Long Term Monitoring Plan, the following monitoring wells and piezometers were sampled as part of the 2000 Fourth Quarter monitoring event:

PZ-1A	MW-223S/D
PZ-4	MW-303S/D
PZ-11	MW-304D/S/VS
MW-3B	MW-232S
MW-207SA/D	MW-233S
MW-220	MW-234S/D
MW-221S/D	MW-235S/D
MW-222	MW-245S/D

Surface water samples were collected from four locations designated as SW-3 and SW-13 (upstream Cheechunk Canal monitoring locations) and SW-5 and SW-8 (downstream Cheechunk Canal monitoring locations), as shown in Figure 1.

2.2 DATA EVALUATION

The analytical data generated from the analysis of the groundwater and surface water samples collected during the 2000 Fourth Quarter monitoring event were compared to applicable NYSDEC Class GA Groundwater Quality Standards and Guidance Values and Class C Surface Water Quality Standards, respectively. To assist in the interpretation of quarterly groundwater and surface water quality data, two statistical analysis programs have been incorporated into the environmental monitoring and reporting program.

The first analysis compares background conditions (upgradient) to on-site conditions (downgradient) by examining changes in water quality between upgradient, upstream and downgradient, downstream locations. The second analysis uses a computer program to identify possible trends in water quality over time at each of the specific sampling locations.

2.2.1 Comparative Analysis

The upgradient groundwater monitoring locations used in the background water quality statistical analysis were previously selected based upon the general west-to-east shallow groundwater flow pattern as indicated within previous reports (Wehran, 1987). Groundwater monitoring wells were previously segregated with respect to monitoring depth including those which are screened within the sand/gravel unit (shallow) and those monitoring wells which are screened within the bedrock (deep).

As part of the Orange County Landfill Environmental Monitoring Program, historical monitoring data previously obtained from shallow (MW-231S, MW-230S, MW-203DA, and MW-208SA) and deep (MW-230D, MW-203VD, and MW-208VD) groundwater monitoring wells is used to assess upgradient vs downgradient groundwater quality conditions. The upstream monitoring points of the Cheechunk Canal are designated as SW-3 and SW-13, while the downstream monitoring point is designated as SW-8.

A statistical analysis of each set of upgradient conditions (shallow groundwater monitoring wells and bedrock groundwater monitoring wells) was performed on the historical analytical data for select parameters. The parameters used for the statistical analysis were selected on the basis of data useability, frequency of sampling, the ability to indicate representative concentrations, and the ability to indicate the presence of landfill leachate. More specifically, the parameters used for this statistical analysis include alkalinity, chloride, hardness, conductance, phenols, TDS, sulfate, TOC, calcium, iron, magnesium, manganese, potassium, and sodium, which are analyzed on a quarterly basis.

Due to extremely large data sets, the data from each upgradient (shallow/bedrock) monitoring well was individually (statistically) analyzed using the t-Test for the determination of the mean of a normal population using a small sample set (Devore, 1986). The separate analyses were completed using a 99% confidence interval which produced a range of data values which would be considered comparable with upgradient conditions. An average of the individual upgradient monitoring well t-Tests was then calculated and used for the identification of on-site (downgradient, downstream) data values which are above background (upgradient, upstream) conditions.

2.2.2 Trend Analysis

A comparison of the 2000 Fourth Quarter monitoring event water quality data with the historical water quality data was completed as a means to identify possible trends in the water quality at each sampling location. This analysis was performed as a two phased approach. The first phase of the trend analysis involved a review of the historical data for visually identifiable possible trends in the reported data values for all parameters. The second phase involved statistical analysis of the Phase 1 identified data for trends in water quality using the computer package WQStat II (Phillips, 1988). The statistical test used in this trend analysis was the Kendall-Tau test which incorporates de-seasonalized data. The identification of statistically significant trends in water quality of the tested parameters was assessed using a 95% confidence level.

The analysis of the trends in water quality parameter concentrations assists in the assessment of potential site groundwater and surface water contamination. In general, an identified increasing trend in parameter concentration(s) may be indicative of worsening water quality while an identified decreasing trend in parameter concentration(s) may be indicative of improving water quality. It should be noted that these identified trends are not, in themselves, conclusive evidence of improving or worsening water quality, but rather, should be used with other available information to form conclusions pertaining to the water quality proximate to the site.

3.0 2000 FOURTH QUARTER ENVIRONMENTAL MONITORING RESULTS

3.1 ORANGE COUNTY LANDFILL

The Post-Closure groundwater monitoring network for the Orange County Landfill consists primarily of a series of groundwater monitoring wells installed proximate to the perimeter of the landfill mound, outside the limits of previous waste deposition. These monitoring wells were installed at various depths and are screened in either the sand/gravel unconsolidated deposits or the underlying bedrock. A brief description of the monitoring well construction data is presented in Table 1.

3.1.1 Groundwater Elevations

Groundwater elevation measurements were obtained from the monitoring wells installed proximate to the Orange County Landfill prior to well evacuation and sampling activities. The groundwater elevations were determined by subtracting the depth to water measured from the top of the PVC riser, from the surveyed elevation of the top of PVC riser without cap. The calculated groundwater elevations are presented in Table 2. It should be noted that many of the surveyed well elevations are not based upon the top of PVC riser pipe and, as such, direct comparisons between monitoring wells is not accurate without the correct survey data. The groundwater elevation data is useful, however, for the assessment of well specific groundwater elevation trends, as compared to the respective groundwater quality.

3.1.2 Groundwater Monitoring Analytical Results

The groundwater analytical data results for the Orange County Landfill groundwater monitoring well samples are summarized in Table 3. The sample chain-of-custody documentation is presented within Appendix A, and the well specific field data sheets for the Orange County Landfill are presented within Appendix B.1.

3.1.3 NYSDEC Groundwater Quality Standard Exceedences

The groundwater analytical data generated from the 2000 Fourth Quarter Groundwater Monitoring Event was compared to applicable NYSDEC Class GA groundwater standards and guidance values (as given in NYSDEC TOGS 1.1.1, June 1998). Parameters that were detected at concentrations above standards or guidance values are shown in Table 3 with a shaded box around the value and are summarized below.

Exceedences of Class GA Groundwater Quality Standards or Guidance Values

Monitoring Well	TDS	Fe	Sol Fe	NH3	Phenol	Mn	Sol Mn	Mg	Sol Mg	Na	Sol Na
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Class GA Std./Guid. Val.	500	0.3	0.3	2.0	0.001	0.3	0.3	35	35	20	20
Shallow Monitoring Wells											
PZ-1A						0.485	0.557				20.3
PZ-4	711	1.31				0.482			38.6	38.7	20.8
PZ-11	653	2.44	1.93			1.33	1.48				
MW-3B	831	1.14	1.15			1.04	1.1	35.9	37.6	61.7	66.7
MW-207SA	675	22.8	25.1			1.27	1.45		38.4		
MW-220	1250	6.93				1.29	0.773	72.7	73.2		
MW-221S	679	4.99				0.953	0.847				
MW-222	1060	50.2	42.4	20.5		0.65	0.623	78.4	83.8	47.2	60.5
MW-223S	891	24.6	26.2			3.85	4.08	47.6	49.8		
MW-303S	659	24	25	4.69	0.0042	2.94	3.1	35.4	36.8		
MW-304S	697	16.7	16			3.59	3.7	38.5	39.4		21.2
MW-304VS	1120	4.31				3.1				176	274
MW-232S	535	3.05	2.33			1.34	1.24				
MW-233S	599					0.744	0.71	35.5			
MW-234S		0.312				0.56	0.526				
MW-235S	719	14.8	17.2			1.25	1.21	41.3	41.7		
MW-245S	711	1.54				1.94	0.948				22
Deep Monitoring Wells											
MW-207D	679	3.27	2.36			1.98	2.13	35.6	38.5		
MW-223D	920	4.4	4.53			1.89	1.94	51.4	52.2		
MW-303D	651	1.33	0.369		0.0063					155	178
MW-304D	609	0.922	0.669		0.0077					40.3	46.2
MW-234D		0.499	0.462			0.369	0.348				
MW-235D		0.375	0.374			30.7					38.8
MW-245D	574	3.98	3.36	7.01						78.5	83

In general, as shown in the previous report table, concurrent soluble metal analysis of the collected groundwater samples revealed that where significantly elevated total iron and/or total manganese concentrations were identified, elevated concentrations of soluble iron and/or soluble manganese were also often identified. In addition to the previously listed exceedences, the following specific and typically less frequent Class GA groundwater quality standard exceedences were identified:

<i>Less Frequent Exceedences of Class GA Groundwater Quality Standards or Guidance Values</i>	
Monitoring Well	Exceedences
PZ-1A	Dissolved Cadmium (0.006 mg/l)
MW-3B	Dissolved Cadmium (0.006 mg/l)
MW-220	Sulfate (600 mg/l)

3.1.4 Historical Groundwater Analytical Data

Tables 4 and 5 summarize the historical inorganic and metal parameter analytical data for the groundwater samples historically collected from the monitoring wells proximate to the Existing Landfill. Tables 10 and 11 summarize the historical inorganic and metal parameter analytical data for the groundwater samples collected from monitoring wells proximate to the previously planned Landfill Expansion Areas.

3.1.5 Comparison of Upgradient/Downgradient Groundwater Quality

The historical water quality data of groundwater samples collected from monitoring wells MW-231S, MW-230S, MW-203DA, and MW-208SA was statistically analyzed individually to characterize the on-site upgradient shallow (background) groundwater quality. The results of the analysis of upgradient (background) sand/gravel groundwater quality are presented in Table 6. The historical water quality data of groundwater samples collected from monitoring wells MW-230D, MW-203VD, and MW-208VD were statistically analyzed individually to determine the on-site, upgradient (background) bedrock groundwater quality. The results of the analysis of upgradient (background) bedrock groundwater quality are presented in Table 8.

The water quality data generated from the analysis of groundwater samples collected from monitoring wells installed proximate to the Orange County Landfill, and within both the unconsolidated sand/gravel and bedrock, was compared to the statistically determined upgradient conditions to identify whether the quality of downgradient groundwaters may have been adversely impacted by the Orange County Landfill. Results of the background vs. downgradient statistical water quality comparisons are shown in Tables 7 and 9. Tables 7 and 9 also include normalized values for easier result comparison. As shown in Table 7 and summarized in the following report table, a number of the groundwater samples collected from shallow, downgradient groundwater monitoring wells exhibited concentrations of alkalinity, hardness, conductance, TDS, and calcium which significantly (greater than 2 times) exceeded upgradient conditions.

<i>Shallow Monitoring Wells Exhibiting Background Exceedences</i>	
Monitoring Well	Parameter
PZ-1A	Sulfate (3x)
PZ-4	Conductance (3x), Sodium (3x)
PZ-11	Sulfate (4x)
MW-3B	Alkalinity (4x), TDS (3x), Chloride (5x), Hardness (3x), Conductance (3x), Calcium (3x), Sodium (5x)
MW-207SA	Alkalinity (4x), Conductance (3x), Calcium (3x)
MW-220	Hardness (4x), Conductance (4x), Sulfate (10x), TDS (5x), Calcium (4x), Magnesium (4x), Alkalinity (3x)
MW-221S	Alkalinity (4x), Hardness (3x), Conductance (3x), Calcium (3x)
MW-222	Alkalinity (5x), Hardness (4x), Conductance (5x), TDS (4x), Potassium (6x), Magnesium (5x), Chloride (5x), Calcium (3x)
MW-223S	Alkalinity (4x), Conductance (3x), TDS (3x), Magnesium (3x), Hardness (3x), Calcium (3x), Manganese (5x)
MW-303S	Alkalinity (4x), Hardness (3x), Conductance (3x), Calcium (3x), Manganese (4x)
MW-304S	Alkalinity (4x), TDS (3x), Manganese (4x), Hardness (3x), Conductance (3x), Calcium (3x)
MW-304VS	TDS (4x), Manganese (4x), Sodium (16x), Chloride (3x), Conductance (5x)
MW-230S	Alkalinity (3x)
MW-235S	Alkalinity (4x), Calcium (3x), Hardness (3x), Conductance (3x), TDS (3x)
MW-245S	Sulfate (4x), TDS (3x)

In general, the most numerous and significant exceedences of background water quality were identified for shallow groundwater monitoring well samples MW-3B, MW-220, MW-222, MW-223S, MW-235S, MW-303S, MW-304S, and MW-304VS. The majority of the samples collected from these wells also exhibited the most numerous and/or significant exceedences of NYSDEC Class GA Groundwater Quality Standards or Guidance Values.

As shown in Table 9 and as summarized in the following report table, a number of groundwater samples collected from the downgradient bedrock wells exhibited concentrations of chloride, TDS, hardness, calcium, and conductance which significantly (greater than 2 times) exceeded the statistically determined upgradient conditions.

Deep Monitoring Wells Exhibiting Background Exceedences

Monitoring Well	Parameter
MW-207D	Alkalinity (4x), Hardness (6x), Conductance (4x), TDS (4x), Calcium (7x), Magnesium (4x), Manganese(14x)
MW-221D	Chloride (9x)
MW-223D	Alkalinity (5x), Hardness (7x), Conductance (5x), TDS (5x), Calcium (8x), Iron (3x), Magnesium (6x), Manganese (13x), Chloride (4x), Sulfate (4x)
MW-303D	Chloride (24x), Conductance (4x), TDS (4x), Sodium (10x), Sulfate (3x), Potassium (5x)
MW-304D	Chloride (8x), Conductance (3x), TDS (3x), Sodium (3x)
MW-234D	Chloride (4x), Calcium (3x), Hardness (3x), Manganese (3x)
MW-235D	Chloride (3x)
MW-245D	Chloride (3x), Hardness (3x), Conductance (4x), TDS (3x), Sulfate (6x), Calcium (3x), Potassium (3x), Magnesium (3x), Sodium (5x)

3.1.6 Historical Groundwater Quality Trends

The Orange County Landfill monitoring well historical water quality data was reviewed and analyzed in order to determine increasing or decreasing trends in parameter concentrations which may indicate improving or worsening water quality, respectively, at each of the monitoring points. Those parameters identified in the Phase 2 (WQSTAT) trend analysis as exhibiting a statistically significant increasing or decreasing trend in water quality are listed in Table 18, and summarized in the following report tables.

Increasing Trends Identified

<i>Well Installation</i>	<i>Parameter</i>
PZ-1A	Alkalinity, Calcium, Magnesium, Potassium, Sodium, Hardness
PZ-4	Alkalinity, Chloride, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium
PZ-11	Alkalinity, TDS, Calcium, Manganese, Magnesium, Potassium, Sodium, Hardness
MW-3B	Alkalinity, Chloride, Calcium, Potassium, Sodium, Magnesium
MW-207SA	Hardness
MW-207D	Alkalinity, Hardness, TDS, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium
MW-220	Alkalinity, Calcium, Potassium, Sodium, Magnesium, Manganese, Hardness
MW-221S	Magnesium, Potassium, Calcium
MW-221D	Calcium, Magnesium, Potassium, Sodium
MW-222	Chloride, Magnesium, Alkalinity, Potassium, Iron, Sodium
MW-223D	Iron, Potassium, Sodium
MW-223S	Chloride, Calcium, Potassium, Sodium, Iron, Manganese
MW-303D	Alkalinity, Hardness, Calcium, Iron, Magnesium
MW-232S	Alkalinity, Hardness, TDS, Calcium, Magnesium, Manganese
MW-234S	Alkalinity, TDS, Calcium, Magnesium, Potassium, Hardness, Manganese, Sulfate
MW-234D	Iron, Potassium, Alkalinity, Magnesium, Calcium
MW-245S	Manganese, Potassium, Sodium
MW-245D	Chloride, Hardness, TDS, Sulfate, Calcium

Decreasing Trends Identified

<i>Well Installation</i>	<i>Parameter</i>
PZ-4	Sulfate, TDS
MW-220	Chloride
MW-3B	Sulfate
MW-221S	Chloride
MW-222	Sulfate
MW-207SA	Alkalinity, TDS, Sulfate, Chloride, Manganese
MW-207D	Sulfate
MW-223S	Sulfate, TDS
MW-223D	Alkalinity, Sulfate, Hardness
MW-303S	Sulfate, TDS, Alkalinity, Sodium
MW-303D	Sulfate, Potassium
MW-304D	Alkalinity, Hardness, TDS, Chloride, Calcium, Sulfate
MW-304S	Alkalinity, TDS, Sulfate, Sodium
MW-304VS	Alkalinity, Sulfate
MW-234D	Sulfate
MW-245S	Chloride, Sulfate, TDS

As shown in the previous report tables, the most consistent increasing trends were identified for parameters including alkalinity, hardness, calcium, magnesium, potassium and sodium, while the most consistent decreasing trend was identified for sulfate. Consistent with the results of previous monitoring, it would appear that the majority of the previously listed parameter concentration trends are likely related to seasonal groundwater elevation fluctuations.

3.2 SITE SURFACE WATERS

As previously mentioned, during the 2000 Fourth Quarter monitoring event, the surface waters of the Cheechunk Canal were sampled as part of the Post-Closure environmental monitoring program for the Orange County Landfill. These waters are monitored to assess potential impacts on the surface water quality from the adjacent landfill. Surface water monitoring was accomplished by sampling the waters of the adjacent surface water bodies, upstream and downstream of the facility.

3.2.1 Surface Water Monitoring Analytical Results

A summary of analytical data for the surface water samples collected are presented in Table 12. The sample chain-of-custody documentation are presented within Appendix A, and the field data sheets are presented within Appendix B.2.

3.2.2 NYSDEC Surface Water Quality Standard Exceedences

The analytical data results for the site surface waters, as presented in Table 12 were compared to NYSDEC Class C Surface Water Quality Standards and Guidance Values. Those parameter values which exceeded standards or guidance values are indicated as such by a shaded box surrounding the data value. As summarized in Table 12, the surface water samples collected from surface water monitoring locations SW-3, SW-5, SW-8, and SW-13 exceeded the 0.3 mg/l Class C surface water standard for total iron (0.921 mg/l, 9.17 mg/l, 3.13 mg/l, 1.09 mg/l, respectively). In addition, the surface water samples collected from surface water monitoring locations SW-3 and SW-5 exceeded the 0.005 mg/l Class C surface water standard for phenol (0.0066 mg/l, 0.0072 mg/l, respectively).

3.2.3 Historical Surface Water Analytical Data

Tables 13 and 14 summarize the historical inorganic and metals analytical data for the surface water samples collected at upstream and downstream locations with respect to the landfill site. Since surface water monitoring points SW-3 and SW-13 are located in close proximity to historical surface water monitoring locations SW-5 and SW-3, respectively, the surface water quality data recently obtained for Post-Closure surface water monitoring points SW-3 and SW-13 may be compared with the historical data previously obtained for historical surface water monitoring locations SW-5 and SW-3, respectively.

3.2.4 Comparison of Upstream/Downstream Surface Water Quality

The historical water quality sample data from surface water monitoring location SW-13 was statistically analyzed to identify the relative background water quality of the upstream surface water. The results of the analysis of upstream (background) surface water quality are presented in Table 15. The downstream surface water samples collected from sampling points SW-5 and SW-8 exceeded background conditions for parameters including, ammonia, nitrate, calcium, iron, and manganese. In addition, SW-5 exceeded background conditions for parameters including hardness, phenol, sulfate, magnesium, and potassium.

3.3 LEACHATE MANHOLE ANALYTICAL RESULTS

During the 2000 Fourth Quarter monitoring event, leachate samples were collected from manhole 7 (MH-7) and manhole 15 (MH-15) and analyzed for routine parameters. As shown in Table 16, the leachate samples were generally characterized by low-level concentrations of cadmium, lead, sulfate and nitrate and elevated concentrations of conductance, TOC, alkalinity, ammonia, BOD, chloride, COD, hardness, TKN, phenol, TDS, calcium, iron, magnesium, manganese, potassium, sodium, dissolved calcium, dissolved iron, dissolved magnesium, dissolved manganese, dissolved potassium, and dissolved sodium. Parameters including bromide, dissolved lead, and dissolved cadmium were not detected above method detection limits in the samples collected from manhole 7 and manhole 15.

3.4 QA/QC ANALYTICAL RESULTS

The contracted analytical laboratory periodically performs a method detection limit (MDL) study as per standard laboratory practices. The MDLs pertinent to routine and baseline list specific parameter analyses are presented in Table 17.

4.0 INTERPRETATION AND ASSESSMENT

4.1 GROUNDWATER QUALITY INTERPRETATION AND ASSESSMENT

Consistent with the results of historical monitoring, the results of the 2000 Fourth Quarter monitoring event indicate that the groundwater proximate to the Orange County Landfill is characterized by moderately to significantly elevated concentrations of alkalinity, hardness, calcium, TDS, iron, magnesium, and manganese which typically exceeded the respective NYSDEC Class GA Standards and/or statistically calculated background conditions. The elevated presence of alkalinity, hardness, and calcium concentrations within the majority of groundwater proximate to the site appears to be partially related to the calcium carbonate dominated hydrogeochemistry of the local groundwater, while the presence of elevated iron and manganese concentrations appear to be partially related to the coincidental presence of suspended solids with which the iron and manganese are associated.

Although the elevated presence of specific inorganic parameters, including total iron, total manganese, and total sulfate, appears to be native to the local groundwaters, the relative number and degree of NYSDEC Class GA Standard and background condition exceedences, as well as elevated concentrations of soluble iron and/or soluble manganese, which were exhibited during the 2000 Fourth Quarter monitoring event appear to indicate that the groundwater proximate to a number of specific monitoring locations (shown in Figure 2) may be influenced by leachate migrating from the Orange County Landfill. The following section includes a well specific assessment of groundwater conditions proximate to a number of monitoring well locations which appear to be influenced by leachate originating from the Orange County Landfill.

The respective assessment and discussion is based upon a comparison of the analytical data generated during the 2000 Fourth Quarter monitoring event, with Class GA Groundwater Quality Standards and Guidance Values, statistically calculated on-site background conditions, and the historical database.

Based on comparisons of the analytical data generated as part of the 2000 Fourth Quarter monitoring event with Class GA groundwater standards and guidance values, statistical background conditions, and the statistical trend analysis, it appears that the groundwaters proximate to the following Orange County Landfill groundwater monitoring wells may be influenced by leachate originating from the Orange County Landfill.

MW-207SA

Groundwater monitoring well MW-207SA is located directly north of the Orange County Landfill. The groundwater samples collected from this well during the 2000 Fourth Quarter Monitoring Event exhibited concentrations of phenol, TDS, total iron, total manganese, dissolved iron, dissolved magnesium, and dissolved manganese which significantly exceeded Class GA groundwater standards or guidance values. In addition, parameters including alkalinity, calcium, and conductance were identified as significantly exceeding the statistically determined background conditions. A statistically significant increasing trend was identified for hardness. Consistent with the results of previous monitoring events, the location of this well proximate to the Orange County Landfill mound, and the elevated presence of the previously mentioned parameter concentrations, it appears that the groundwater proximate to this well is influenced by leachate migrating from the landfill.

MW-222

Groundwater monitoring well MW-222 is located directly southeast of the Orange County Landfill mound. During the 2000 Fourth Quarter Monitoring Event, the groundwater samples collected from this well exhibited concentrations of ammonia, TDS, total iron, total magnesium, total manganese, total sodium, dissolved iron, dissolved magnesium, dissolved manganese, and dissolved sodium which exceeded Class GA groundwater quality standards or guidance values. In addition, parameters including alkalinity, chloride, hardness, conductance, TDS, magnesium, potassium, and calcium were identified as significantly exceeding the statistically determined background conditions. Statistically determined increasing trends were identified for parameters including chloride, alkalinity, iron, magnesium, sodium, and potassium. Consistent with the results of previous monitoring events, the location of this well proximate to the Orange County Landfill mound, and the elevated presence of the previously mentioned parameters, it appears that the groundwater proximate to this well may be influenced by leachate originating from the Landfill.

MW-223S

Groundwater monitoring well MW-223S is located northwest of the Orange County Landfill. The groundwater samples collected from this well during the 2000 Fourth Quarter Monitoring Event exhibited concentrations of TDS, total iron, total magnesium, total manganese, dissolved iron, dissolved magnesium, and dissolved manganese which significantly exceeded Class GA groundwater standards or guidance values. In addition, parameters including alkalinity, hardness, conductance, TDS, calcium, magnesium, and manganese were identified as significantly exceeding the statistically determined background conditions. Statistically significant increasing trends were identified for chloride, calcium, iron, manganese, potassium, and sodium. Consistent with the results of previous monitoring events, the location of this well proximate to the Orange County Landfill mound, and the elevated presence of the previously mentioned parameter concentrations, it appears that the groundwater proximate to this well may be influenced by leachate originating from the Landfill.

MW-303S

Groundwater monitoring well MW-303S is located immediately adjacent to the northeastern perimeter of the Orange County Landfill. The groundwater samples recently collected from this well exhibited elevated concentrations of ammonia, phenols, TDS, total iron, total magnesium, total manganese, dissolved iron, and dissolved manganese which exceeded Class GA groundwater standards or guidance values. In addition, parameters including alkalinity, hardness, conductance, calcium, and manganese significantly exceeded the statistically determined background conditions. Consistent with the results of previous monitoring events, the location of this well proximate to the Orange County Landfill mound, and the elevated presence of the previously mentioned parameters, it appears that the groundwater proximate to this well, although somewhat improved, continues to be influenced by leachate originating from the Landfill.

MW-304S

Groundwater monitoring well MW-304S is located immediately adjacent to the northeastern perimeter of the Orange County Landfill. During the 2000 Fourth Quarter Monitoring Event, the groundwater samples collected from this well exhibited concentrations of TDS, total iron, total magnesium, total manganese, dissolved iron, dissolved magnesium, dissolved manganese, and dissolved sodium which exceeded Class GA groundwater standards or guidance values. In addition, parameters including alkalinity, hardness, conductance, TDS, calcium, and manganese significantly exceeded the statistically determined background conditions. Consistent with the results of previous monitoring events, the location of this well proximate to the Orange County Landfill mound, and the elevated presence of the previously mentioned parameters, it appears that the groundwater proximate to this well may be influenced by leachate originating from the Landfill.

MW-304VS

Groundwater monitoring well MW-304VS is located immediately adjacent to the northeastern perimeter of the Orange County Landfill. During the 2000 Fourth Quarter Monitoring Event, the groundwater samples collected from this well exhibited concentrations of TDS, total iron, total manganese, total sodium, and dissolved sodium which exceeded Class GA groundwater standards or guidance values. In addition, parameters including chloride, conductance, TDS, manganese, and sodium significantly exceeded the statistically determined background conditions. Consistent with the results of previous monitoring events, the location of this well proximate to the Orange County Landfill mound, and the elevated presence of the previously mentioned parameters, it appears that the groundwater proximate to this well, although somewhat improved, may be slightly influenced by leachate originating from the Landfill.

MW-235S

Groundwater monitoring well MW-235S is located directly north of the Orange County Landfill mound. During the 2000 Fourth Quarter Monitoring Event, the groundwater samples collected from this well exhibited concentrations of TDS, total iron, total magnesium, total manganese, dissolved iron, dissolved magnesium, and dissolved manganese which exceeded Class GA groundwater quality standards or guidance values. In addition, parameters including alkalinity, hardness, conductance, calcium, and TDS were identified as significantly exceeding the statistically determined background conditions. Consistent with the results of previous monitoring events, the location of this well proximate to the Orange County Landfill mound, and the elevated presence of the previously mentioned parameters, it appears that the groundwater proximate to this well may be influenced by leachate originating from the Landfill.

In general, the water quality data for the recently collected upstream and downstream surface water samples did not reveal obvious or significant differences in the parameter concentrations detected. More specifically, consistent with the results of previous monitoring events, since elevated total and dissolved iron concentrations were identified in both the upstream and downstream surface water samples collected, it appears that the elevated presence of iron is native to the Cheechunk Canal and is likely attributed to above average surface water turbidity characteristics. Overall, it appears that many of the differences identified for the upstream and downstream analytical data appear to be attributed to seasonal water quality fluctuation and/or the presence of suspended solids within the collected samples. In general, the results of the 2000 Fourth Quarter monitoring event, and other data comparisons do not appear to indicate that the water quality of the local surface waters are significantly influenced by the Orange County Landfill.

5.0 2000 ANNUAL SUMMARY SECTION

5.1 ORANGE COUNTY LANDFILL

In accordance with 6 NYCRR Part 360 Solid Waste Management Facility regulations, environmental monitoring was completed on a quarterly basis at the Orange County Landfill during 2000. In general, the Long Term Post-Closure Environmental Monitoring Program for the Orange County Landfill incorporates the collection and analysis of groundwater, surface water, and leachate samples in accordance with 6 NYCRR Part 360-2.11(c)(6), Water Quality Analysis Routine and Baseline Parameters (NYSDEC, 1990b).

As part of the 2000 Quarterly monitoring events, groundwater samples were collected from monitoring wells and piezometers installed proximate to the Orange County Landfill. Surface water samples were also collected as part of the 2000 Quarterly monitoring events from the Cheechunk Canal of the Wallkill River. As part of the new Post-Closure Monitoring Program, leachate samples were collected from sampling locations MH-7 and MH-15. Friend Laboratories, Inc. (FLI), under contract to C&S, performed the actual collection and analysis of site groundwater, surface water, and leachate samples during each of the 2000 Quarterly Monitoring Events. In an effort to better characterize potential leachate impacts to the local groundwaters, the Orange County Department of Environmental Facilities and Services previously authorized the collection of groundwater samples for soluble metals analysis in addition to total metal analysis.

During each of the 2000 Quarterly monitoring events, FLI collected additional groundwater samples from each monitoring well for subsequent filtering (immediately upon sample delivery) and soluble metals analysis at the laboratory.

As outlined in the Orange County Landfill April 2000 Long Term Monitoring Plan, the following monitoring wells and piezometers were sampled as part of the 2000 First, Second, Third, and Fourth Quarter monitoring events:

PZ-1A	MW-303S/D
PZ-4	MW-304D/S/VS
PZ-11	MW-230S/D (2000 First Only)
MW-3B	MW-232S (2000 Second, Third, & Fourth only)
MW-207SA/D	MW-233S (2000 Second, Third, & Fourth only)
MW-220	MW-234S/D
MW-221S/D	MW-235S/D (2000 Second, Third, & Fourth only)
MW-222	MW-245S
MW-223S/D	

During the 2000 Quarterly monitoring events, surface water samples were collected from four locations designated as SW-3 and SW-13 (upstream – Cheechunk Canal monitoring locations) and SW-5 and SW-8 (downstream Cheechunk Canal monitoring locations), as shown in Figure 1.

5.2 GROUNDWATER ELEVATIONS

During each of the 2000 quarterly monitoring events, groundwater elevation measurements were obtained from the monitoring wells installed proximate to the Orange County Landfill prior to well evacuation and sampling activities. The groundwater elevations were determined by subtracting the depth to water measured from the top of the PVC riser, from the surveyed elevation of the top of PVC riser without cap. It should be noted that many of the surveyed well elevations are not based upon the top of PVC riser pipe and, as such, direct comparisons between monitoring wells is not accurate without the correct survey data. The groundwater elevation data is useful, however, for the assessment of well specific groundwater elevation trends, as compared to the respective groundwater quality.

5.3 GROUNDWATER MONITORING ANALYTICAL RESULTS

The groundwater analytical data generated from the 2000 Quarterly Monitoring Events were compared to NYSDEC Class GA groundwater quality standards and guidance values (as listed in NYSDEC TOGS 1.1.1, June 1998). It should be noted that historically, the groundwater samples collected from many of the groundwater monitoring wells located proximate to the Orange County Landfill have exhibited elevated turbidities which may inherently cause elevated concentrations of metal parameters, particularly iron and manganese. It should also be noted, as reported within applicable published literature (Frimpter, 1970), that relatively elevated concentrations of naturally occurring iron and manganese exist within the soils, unconsolidated deposits, and groundwater of Orange and Ulster Counties.

The majority of the groundwater samples collected during the 2000 Quarterly monitoring events, significantly exceeded respective Class GA groundwater standards for TDS, iron, magnesium, and manganese. The occurrence of elevated concentrations of total iron and total manganese appears to be partially related to the natural presence of suspended solids within the collected samples as well as the native geologic conditions of the area. In general, concurrent soluble metal analysis of the collected groundwater samples revealed that where significantly elevated total iron and/or total manganese concentrations were identified, elevated concentrations of soluble iron and/or soluble manganese were also often identified.

The presence of numerous volatile organic compounds was previously detected within the groundwater samples collected from well MW-303S since the 1996 First Quarter monitoring event. During the 2000 First Quarter monitoring event, volatile organic compounds were not identified above Class GA standards within any of the samples collected from groundwater monitoring wells with the exception of the sample collected from monitoring well MW-222 where a vinyl chloride concentration of 3 ug/l was identified, slightly above the Class GA Standard of 2 ug/l, and an acetone concentration of 71 ug/l was identified slightly above the Class GA Guidance Value of 50 ug/l.

5.4 COMPARISON OF UPGRADIENT/DOWNGRADIENT GROUNDWATER QUALITY

The historical water quality data of groundwater samples collected from monitoring wells MW-231S, MW-230S, MW-203DA, and MW-208SA was statistically analyzed individually to characterize the on-site upgradient shallow (background) groundwater quality. The historical water quality data of groundwater samples collected from monitoring wells MW-230D, MW-203VD, and MW-208VD were statistically analyzed individually to determine the on-site, upgradient (background) bedrock groundwater quality.

The water quality data generated from the analysis of groundwater samples collected from monitoring wells installed proximate to the Orange County Landfill, and within both the unconsolidated sand/gravel and bedrock, was compared to the statistically determined upgradient conditions to identify whether the quality of downgradient groundwaters may have been adversely impacted by the Orange County Landfill.

During the 2000 First, Second, Third, and Fourth Quarter monitoring events, a number of the groundwater samples collected from shallow, downgradient groundwater monitoring wells generally exhibited concentrations of alkalinity, hardness, TDS, calcium, magnesium, manganese and sulfate which significantly (greater than 2 times) exceeded upgradient conditions, while a number of groundwater samples collected from the downgradient bedrock wells exhibited concentrations of chloride, TDS, hardness, calcium, sulfate and conductance which significantly (greater than 2 times) exceeded the statistically determined upgradient conditions.

5.5 HISTORICAL GROUNDWATER QUALITY TRENDS

During the 2000 First, Second, Third, and Fourth Quarter monitoring events, the Orange County Landfill monitoring well historical water quality data was reviewed and analyzed in order to determine increasing or decreasing trends in parameter concentrations which may indicate improving or worsening water quality, respectively, at each of the monitoring points.

In general, during the 2000 Quarterly monitoring events, the most consistent increasing trends were identified for parameters including alkalinity, hardness, calcium, iron, manganese, magnesium, potassium and sodium, while the most consistent decreasing trends were identified for parameters including chloride and sulfate. Consistent with the results of previous monitoring, it would appear that the majority of the previously listed parameter concentration trends are likely related to seasonal groundwater elevation fluctuations.

5.6 SURFACE WATER MONITORING ANALYTICAL RESULTS

During the 2000 Quarterly monitoring events, the surface waters of the Cheechunk Canal were sampled as part of the Post-Closure environmental monitoring program for the Orange County Landfill. These waters are monitored to assess potential impacts on the surface water quality from the adjacent landfill. Surface water monitoring was accomplished by sampling the waters of the adjacent surface water bodies, upstream and downstream of the facility.

The analytical data results for the site surface waters were compared to NYSDEC Class C Surface Water Quality Standards and Guidance Values. During the 2000 Quarterly monitoring events, the surface water samples collected from surface water monitoring locations SW-3, SW-5, SW-8, and SW-13 exceeded respective Class C surface water standards for total iron. During the 2000 First Quarter monitoring event, all of the surface water samples collected from surface water monitoring locations SW-3, SW-5, SW-8, and SW-13 exceeded respective Class C surface water standards for total aluminum. In addition, During the 2000 Fourth Quarter monitoring event, the surface water samples collected from surface water monitoring locations SW-3 and SW-5 exceeded the Class C surface water standard for phenol.

5.7 LEACHATE MANHOLE ANALYTICAL RESULTS

During the 2000 First Quarter monitoring event, two leachate samples were collected from manhole 7 (MH-7) and manhole 15 (MH-15) and analyzed for baseline parameters. The leachate samples were generally characterized by low-level concentrations of nitrate, sulfate, bromide, aluminum, arsenic, barium, chromium, cobalt, lead, nickel, vanadium, and zinc and elevated concentrations of TOC, alkalinity, ammonia, BOD, chloride, COD, color, TKN, phenolics, TDS, boron, calcium, iron, magnesium, manganese, potassium, sodium, benzene, and ethylbenzene.

During the 2000 Second, Third, and Fourth Quarter monitoring events, two leachate samples were collected from manhole 7 (MH-7) and manhole 15 (MH-15) and analyzed for routine parameters. The leachate samples were generally characterized by low-level concentrations of sulfate, nitrate, and lead and elevated concentrations of TOC, alkalinity, ammonia, BOD, chloride, COD, hardness, TKN, phenol, TDS, calcium, iron, magnesium, manganese, potassium, and sodium.

5.8 SUMMARY AND CONCLUSIONS

Overall, a number of significant Class GA Groundwater Quality exceedences were identified for the groundwater samples collected from the previously listed monitoring wells. However, in general, the concentrations of soluble iron, soluble manganese and heavy metals including lead and cadmium recently appear to have stabilized or decreased as compared to the results of previous monitoring events in 1997, 1998, and 1999. Based on the information presented herein, it would appear that capping the landfill waste mass has served to reduce the generation and migration of leachate from the landfill within the local shallow groundwater regime.

TABLE 1 - MONITORING WELL CONSTRUCTION DATA

Monitoring Well	Installation Date	Well Depth	Screen Length	Ground Elevation	Top of Casing	Top of PVC Riser	Unit Screened
Existing Landfill							
PZ-1A	n/a	n/a	n/a	n/a	n/a	n/a	n/a
PZ-4	7/15/83	60	10	n/a	387.36	386.22 *	Sand/Gravel
PZ-11	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-3B	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-207 SA	n/a	n/a	n/a	n/a	389.49	389.13 *	Sand/Gravel
MW-207 D	8/21/87	59	10	n/a	385.45	390.44 *	Sand/Gravel
MW-220	8/6/87	30	10	n/a	378.90	378.16 *	Sand/Gravel
MW-221 S	7/10/87	25	10	378.03	381.11	380.74 *	Sand/Gravel
MW-221 D	8/4/87	54	10	378.25	380.87	380.47 *	Bedrock
MW-222	8/31/87	32	10	n/a	382.29	381.73 *	Sand/Gravel
MW-223S	9/3/87	66.2	2	n/a	388.95	388.75*	Sand/Gravel
MW-223D	8/19/87	88.5	7	n/a	389.15	389.02*	Sand/Gravel

Former Landfill Expansion Area							
MW-230 S	8/16/89	68.6	5	382.91	385.33	385.19	Sand/Gravel
MW-230 D	8/30/89	139.5	5	383.07	385.35	385.10	Bedrock
MW-232S	8/31/89	25.5	10	385.81	388.43	388.25	Sand/Gravel
MW-233S	10/18/90	19	10	387.34	389.15	388.94	Sand/Gravel
MW-234 S	8/29/89	41.8	8	387.32	390.64	390.37	Sand/Gravel
MW-234 D	8/3/89	86	5	387.87	390.04	389.89	Bedrock
MW-235S	9/11/89	44.5	10	385.54	388.00	387.86	Sand/Gravel
MW-235D	9/1/89	83.6	5	385.4	387.37	387.17	Bedrock
MW-245 S	10/26/89	47	10	388.16	390.95	390.74	Sand/Gravel
MW-245 D	10/25/89	81	5	388.08	390.99	390.76	Bedrock

* - Estimated values

NOTE: Contains information obtained from previous reports prepared by Wehran-New York, Inc.

Existing Landfill (New Installations)							
MW-303D	n/a	74.54	n/a	n/a	n/a	n/a	n/a
MW-303S	n/a	27.2	n/a	n/a	n/a	n/a	n/a
MW-304D	n/a	62.32	n/a	n/a	n/a	n/a	n/a
MW-304S	n/a	32.59	n/a	n/a	n/a	n/a	n/a
MW304VS	n/a	10.16	n/a	n/a	n/a	n/a	n/a

TABLE 2 - MONITORING WELL ELEVATIONS

	Units	PZ 1A	PZ 4	PZ 11	MW 207SA	MW 207D	MW 303S	MW 303D	MW 304VS	MW 304S
<i>Top of PVC</i>	<i>Feet</i>	<i>n/a*</i>	<i>386.22</i>	<i>n/a*</i>	<i>389.13</i>	<i>390.44</i>	<i>n/a*</i>	<i>n/a*</i>	<i>n/a*</i>	<i>n/a*</i>
Nov 1990	Feet	n/a*	368.36	n/a*	370.50	370.68				
Feb 1991	Feet	n/a*	368.03	n/a*	371.68	371.84				
May 1991	Feet	n/a*	367.88	n/a*	372.10	372.29				
Aug 1991	Feet	n/a*	365.16	n/a*	369.92	370.13				
Nov 1991	Feet	n/a*	365.23	n/a*	368.87	368.94				
Feb 1992	Feet	n/a*	366.38	n/a*	369.49	369.71				
May 1992	Feet	n/a*	367.31	n/a*	370.92	371.15				
Aug 1992	Feet	n/a*	367.15	n/a*	370.51	370.75				
Dec 1992	Feet	n/a*	366.38	n/a*	369.10	369.48				
Feb 1993	Feet	n/a*	367.88	n/a*	370.78	371.02				
May 1993	Feet	n/a*	367.80	n/a*	372.52	372.69				
Sep 1993	Feet	n/a*	365.02	n/a*	369.16	369.32				
Dec 1993	Feet	n/a*	366.76	n/a*	368.79	369.24				
Feb 1994	Feet	n/a*	368.80	n/a*	369.99	370.21				
May 1994	Feet	n/a*	368.35	n/a*	372.83	372.97				
Aug-94	Feet	n/a*	367.29	n/a*	370.33	370.52				
Nov-94	Feet	n/a*	365.94	n/a*	369.58	369.71	n/a*	n/a*	n/a*	n/a*
March - 95	Feet	n/a*	368.42	n/a*	372.04	372.25	n/a*	n/a*	n/a*	n/a*
June-95	Feet	n/a*	366.11	n/a*	370.35	370.55	n/a*	n/a*	n/a*	n/a*
Sept. - 95	Feet	n/a*	369.24	n/a*	368.31	368.38	n/a*	n/a*	n/a*	n/a*
Nov-95	Feet	n/a*	372.14	n/a*	370.81	371.04	n/a*	n/a*	n/a*	n/a*
April-96	Feet	n/a*	373.37	n/a*	372.98	373.19	n/a*	n/a*	n/a*	n/a*
June-96	Feet	n/a*	358.13	n/a*	372.78	372.97	n/a*	n/a*	n/a*	n/a*
Sept-96	Feet	n/a*	371.42	n/a*	371.88	372.10	n/a*	n/a*	n/a*	n/a*
Dec-96	Feet	n/a*	373.20	n/a*	372.37	372.58	n/a*	n/a*	n/a*	n/a*
May-97	Feet	n/a*	373.17	n/a*	372.44	372.65	n/a*	n/a*	n/a*	n/a*
June-97	Feet	n/a*	371.37	n/a*	371.28	371.49	n/a*	n/a*	n/a*	n/a*
Sept-97	Feet	n/a*	371.20	n/a*	370.24	370.44	n/a*	n/a*	n/a*	n/a*
Dec-97	Feet	n/a*	371.35	n/a*	369.21	370.43	n/a*	n/a*	n/a*	n/a*
Mar-98	Feet	n/a*	374.47	n/a*	373.04	373.23	n/a*	n/a*	n/a*	n/a*
June-98	Feet	n/a*	376.04	n/a*	373.80	373.96	n/a*	n/a*	n/a*	n/a*
Sept.-98	Feet	n/a*	370.18	n/a*	370.11	370.29	n/a*	n/a*	n/a*	n/a*
Dec-98	Feet	n/a*	369.23	n/a*	369.53	368.69	n/a*	n/a*	n/a*	n/a*
Apr-99	Feet	n/a*	372.74	n/a*	372.13	372.31	n/a*	n/a*	n/a*	n/a*
June-99	Feet	n/a*	379.59	n/a*	370.62	370.73	n/a*	n/a*	n/a*	n/a*
Sept-99	Feet	n/a*	372.31	n/a*	369.67	369.84	n/a*	n/a*	n/a*	n/a*
Dec-99	Feet	n/a*	371.16	n/a*	369.99	370.18	n/a*	n/a*	n/a*	n/a*
Apr-00	Feet	n/a*	372.82	n/a*	373.21	373.44	n/a*	n/a*	n/a*	n/a*
Jun-00	Feet	n/a*	373.31	n/a*	372.56	372.74	n/a*	n/a*	n/a*	n/a*
Sep-00	Feet	n/a*	371.96	n/a*	371.33	371.50	n/a*	n/a*	n/a*	n/a*
Dec-00	Feet	n/a*	372.52	n/a*	371.03	371.19	n/a*	n/a*	n/a*	n/a*

TABLE 2 - MONITORING WELL ELEVATIONS

	Units	MW 304D	MW 220	MW 221S	MW 221D	MW 222	MW 223S	MW 223D	MW 230S	MW 230D
<i>Top of PVC</i>	<i>Feet</i>	<i>n/a*</i>	<i>378.16</i>	<i>380.74</i>	<i>380.47</i>	<i>381.73</i>	<i>388.75</i>	<i>389.02</i>	<i>385.19</i>	<i>385.10</i>
Nov 1990	Feet		360.71	363.58	365.44	362.38	371.05	371.09	372.34	372.63
Feb 1991	Feet		360.04	364.53	365.76	363.34	372.13	372.23	373.81	374.01
May 1991	Feet		359.14	364.94	365.57	363.55	372.69	372.77	374.27	374.54
Aug 1991	Feet		357.23	362.74	363.00	360.85	369.81	369.93	370.90	371.22
Nov 1991	Feet		357.35	361.62	362.83	360.41	369.10	368.59	370.20	370.42
Feb 1992	Feet		358.36	362.77	364.00	361.48	369.86	370.21	371.54	371.77
May 1992	Feet		359.19	364.02	364.93	362.64	371.33	371.56	373.18	373.62
Aug 1992	Feet		359.55	364.01	364.39	362.52	370.96	371.12	372.41	372.71
Dec 1992	Feet		359.56	362.76	364.20	361.47	369.66	369.81	370.90	371.12
Feb 1993	Feet		359.86	364.33	365.57	363.20	371.19	371.42	372.88	373.27
May 1993	Feet		359.14	366.35	365.93	365.03	372.98	373.06	374.53	374.75
Sep 1993	Feet		356.85	362.11	362.66	360.93	369.45	369.61	370.35	370.52
Dec 1993	Feet		360.29	362.32	363.88	361.22	369.58	369.64	370.75	370.82
Feb 1994	Feet		362.22	363.64	365.45	362.41	370.75	370.81	372.25	372.51
May 1994	Feet		359.95	366.86	366.66	365.22	373.37	373.39	374.84	375.20
Aug-94	Feet		358.11	363.39	364.09	362.13	370.74	370.88	371.72	371.84
Nov-94	Feet	n/a*	358.03	362.78	363.62	361.60	369.95	370.05	371.22	371.38
March - 95	Feet	n/a*	360.89	365.46	366.32	365.10	375.52	372.62	374.28	374.81
June-95	Feet	n/a*	357.76	363.33	362.77	362.62	370.81	370.90	372.18	372.35
Sept. - 95	Feet	n/a*	356.81	361.38	362.01	360.45	368.55	368.67	369.41	369.33
Nov-95	Feet	n/a*	360.59	364.52	365.18	363.06	371.32	371.42	372.94	373.27
April-96	Feet	n/a*	361.57	366.94	364.96	365.17	373.59	373.68	375.28	374.84
June-96	Feet	n/a*	347.21	366.24	363.46	355.43	373.11	373.23	374.57	372.20
Sept-96	Feet	n/a*	360.60	364.97	363.25	363.14	372.35	372.41	373.92	374.67
Dec-96	Feet	n/a*	360.29	365.97	366.47	364.03	372.73	372.85	374.38	374.64
May-97	Feet	n/a*	360.16	365.74	366.22	364.06	372.80	372.92	374.51	374.95
June-97	Feet	n/a*	357.82	364.49	364.79	363.10	375.54	372.00	372.97	373.15
Sept-97	Feet	n/a*	357.04	363.04	363.12	361.52	373.73	370.77	371.91	372.21
Dec-97	Feet	n/a*	358.97	363.31	364.22	361.73	370.70	370.80	372.14	372.44
Mar-98	Feet	n/a*	362.68	366.87	367.54	364.62	373.48	373.59	375.20	375.85
June-98	Feet	n/a*	362.73	368.37	368.47	365.76	374.15	374.28	375.88	376.56
Sept-98	Feet	n/a*	357.15	363.19	363.57	362.05	370.46	370.58	371.39	371.45
Dec-98	Feet	n/a*	357.04	361.60	362.46	360.50	368.91	369.03	369.79	369.85
Apr-99	Feet	n/a*	360.35	365.18	365.79	363.32	372.54	372.67	NS	NS
June-99	Feet	n/a*	350.96	363.46	363.73	362.12	370.88	371.05	NS	NS
Sept-99	Feet	n/a*	359.54	362.71	362.18	361.04	370.25	370.29	NS	NS
Dec-99	Feet	n/a*	358.25	362.71	363.68	361.31	370.43	370.55	371.86	372.21
Apr-00	Feet	n/a*	363.18	366.54	367.31	364.25	373.72	373.80	375.34	376.12
Jun-00	Feet	n/a*	360.32	366.18	366.03	364.52	372.87	373.02	NS	NS
Sep-00	Feet	n/a*	358.80	364.80	364.97	363.30	371.85	371.85	NS	NS
Dec-00	Feet	n/a*	360.96	365.52	363.75	362.35	371.48	371.59	NS	NS

TABLE 2 - MONITORING WELL ELEVATIONS

	Units	MW 232S	MW 233S	MW 234S	MW 234D	MW 235S	MW 235D	MW 245S	MW 245D	MW 3B
<i>Top of PVC</i>	<i>Feet</i>	<i>388.25</i>	<i>388.94</i>	<i>390.37</i>	<i>389.89</i>	<i>387.86</i>	<i>387.17</i>	<i>390.74</i>	<i>390.76</i>	<i>n/a*</i>
Nov 1990	Feet	374.39	377.21	370.74	370.89	369.99	370.72	361.10	359.97	n/a*
Feb 1991	Feet	370.85	377.22	371.82	371.59	371.21	372.01	360.72	360.61	n/a*
May 1991	Feet	374.92	377.45	372.22	372.39	371.61	372.87	359.66	360.52	n/a*
Aug 1991	Feet	373.49	377.02	370.30	370.41	371.27	369.18	358.11	357.92	n/a*
Nov 1991	Feet	372.90	375.86	369.18	369.20	368.45	368.90	358.16	357.35	n/a*
Feb 1992	Feet	372.96	376.41	369.76	369.98	369.20	369.60	359.53	359.30	n/a*
May 1992	Feet	373.92	377.17	371.23	371.33	370.45	370.84	360.02	360.39	n/a*
Aug 1992	Feet	373.96	376.82	371.10	371.07	370.44	370.72	359.53	359.78	n/a*
Dec 1992	Feet	372.90	376.11	369.50	369.65	368.84	369.14	360.27	359.85	n/a*
Feb 1993	Feet	374.26	377.32	367.09	371.23	370.38	370.64	360.70	360.28	n/a*
May 1993	Feet	376.37	379.28	373.02	372.88	372.08	372.45	359.83	360.25	n/a*
Sep 1993	Feet	373.97	376.92	369.56	369.48	368.65	368.99	357.47	357.72	n/a*
Dec 1993	Feet	372.92	376.30	369.23	369.26	368.52	368.89	360.77	359.67	n/a*
Feb 1994	Feet	373.10	376.35	369.97	370.27	369.70	370.02	362.66	362.73	n/a*
May 1994	Feet	375.64	376.43	373.81	373.27	372.60	372.80	360.55	360.85	n/a*
Aug-94	Feet	374.15	376.93	370.80	370.66	369.88	370.16	358.90	358.26	n/a*
Nov-94	Feet	373.45	376.24	370.23	370.04	369.23	369.47	358.72	358.71	n/a*
March - 95	Feet	374.58	378.68	374.10	372.58	371.80	372.03	361.51	361.95	n/a*
June-95	Feet	374.15	376.81	370.93	370.69	369.96	370.23	358.41	358.60	n/a*
Sept. - 95	Feet	372.80	375.35	368.63	368.54	367.90	368.07	357.50	357.55	n/a*
Nov-95	Feet	373.71	378.27	372.72	371.28	370.59	370.80	360.77	360.98	n/a*
April-96	Feet	376.36	379.39	374.96	373.50	372.81	370.64	362.27	359.90	n/a*
June-96	Feet	376.10	378.84	373.42	373.12	372.25	368.97	364.64	362.72	n/a*
Sept-96	Feet	375.23	379.25	374.46	372.67	372.08	372.17	361.31	359.36	n/a*
Dec-96	Feet	375.67	378.46	374.19	372.78	372.05	372.38	361.00	361.02	n/a*
May-97	Feet	375.52	377.94	374.23	372.85	372.10	372.48	360.86	366.01	n/a*
June-97	Feet		377.46	371.97	371.69	370.91	371.15	358.57	358.59	n/a*
Sept-97	Feet	373.90	378.33	371.47	370.71	370.04	370.37	358.63	358.86	n/a*
Dec-97	Feet	373.46	376.33	371.59	370.62	369.88	370.25	359.64	359.54	n/a*
Mar-98	Feet	375.09	378.06	375.40	373.69	376.98	373.33	363.43	362.69	n/a*
June-98	Feet	376.60	380.20	376.55	374.56	376.19	374.32	363.46	361.05	n/a*
Sept-98	Feet	374.46	377.03	370.73	370.47	369.72	370.13	357.85	357.90	n/a*
Dec-98	Feet	372.96	375.54	368.95	368.86	368.11	368.39	357.73	357.58	n/a*
Apr-99	Feet	NS	372.73	373.34	372.48	NS	NS	361.01	NS	n/a*
June-99	Feet	NS	NS	371.06	370.91	NS	NS	358.10	356.86	n/a*
Sep-99	Feet	NS	NS	370.08	370.04	NS	NS	360.00	358.48	n/a*
Dec-99	Feet	NS	NS	370.29	370.33	NS	NS	358.93	358.72	n/a*
Apr-00	Feet	NS	NS	374.97	373.79	NS	NS	364.34	361.50	n/a*
Jun-00	Feet	374.83	377.30	373.79	372.95	372.34	372.54	360.84	360.73	n/a*
Sep-00	Feet	374.35	376.94	372.25	371.82	371.10	371.35	359.86	359.44	n/a*
Dec-00	Feet	373.55	374.24	372.44	371.44	370.66	370.99	361.49	360.50	n/a*

NS - Not Sampled

* No Survey Data Available For Correlation.

TABLE 3 - GROUNDWATER MONITORING WELL ANALYTICAL DATA

	UNITS	Class GA Standard	Class GA Guidance	PZ-1A	PZ-4	PZ-11	MW-3B	Dupe MW-3B	MW-207SA	MW-207D
Date Sampled				12/27/00	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00
Specific Conductivity	UmHos/cm			762	1077	997	1387		1139	1106
Depth to Groundwater	feet			13.18	13.7	18.22	26.17		18.1	19.25
Eh	MV			90	81	50	82		21	26
Field pH	SU	6.5-8.5		7.58	6.56	7.28	7.07		6.83	7.07
Temperature	deg C			10.1	10.2	9.7	10		9.3	9.1
Turbidity	NTU			5.81	5.7	12.6	2.5		19	32
TOC	mg/l			<1	3.3	3.8	4	3.94	<1	1.8
Alkalinity as CaCo3	mg/l			203	198	322	561		617	585
Ammonia as N	mg/l	2		<0.1	0.146	0.114	0.12	0.108	0.1	<0.1
Biological Oxygen Demand	mg/l			<3	<3	<3	<3		<3	<3
Chloride	mg/l	250		17.9	20.8	21.2	122	123	30.7	13.9
Chemical Oxygen Demand	mg/l			<10	<10	20.3	18.5	18.9	<10	<10
Nitrate as N	mg/l	10		<0.05	0.274	0.326	<0.05	<0.05	<0.05	<0.05
Total Hardness as CaCo3	mg/l			376	325	517	612	598	589	611
Kjeldahl Nitrogen as N	mg/l			1.67	<1	1.17	1.51	1.67	7.53	1
Phenolics, Total	mg/l	0.001		<0.004	<0.004	<0.004	<0.004	<0.004	0.0098	<0.004
Solids, Dissolved	mg/l	500		479	711	653	831	821	675	679
Sulfate as SO4	mg/l	250		170	140	240	55	56	33	78
Bromide	mg/l		2	<1	<1	<1	<1	<1	<1	<1
Cadmium	mg/l	0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l			112	83.5	162	186	181	180	186
Iron	mg/l	0.3		0.176	1.31	2.44	1.14	1.13	22.8	3.27
Lead	mg/l	0.025		0.002	0.002	0.002	0.001	0.001	0.002	0.001
Magnesium	mg/l		35	23.4	28.3	27.4	35.9	35.5	34	35.6
Manganese	mg/l	0.3		0.485	0.482	1.33	1.04	1.02	1.27	1.98
Potassium	mg/l			1.71	4.41	2.12	1.77	1.81	2.67	1.4
Sodium	mg/l	20		16	38.7	10.2	61.7	60.6	9.53	11.7
Cadmium, dissolved	mg/l	0.005		0.006	<0.005	<0.005	0.006	<0.005	<0.005	<0.005
Calcium, dissolved	mg/l			120	169	166	190	170	197	192
Iron, dissolved	mg/l	0.3		0.08	<0.040	1.93	1.15	1.17	25.1	2.36
Lead, dissolved	mg/l	0.025		<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
Magnesium, dissolved	mg/l		35	23.2	38.6	27.2	37.6	34.2	38.4	38.5
Manganese, dissolved	mg/l	0.3		0.557	0.036	1.48	1.1	0.968	1.45	2.13
Potassium, dissolved	mg/l			1.88	2.78	2.13	2.03	1.76	3.09	1.64
Sodium, dissolved	mg/l	20		20.3	20.8	12.2	66.7	68.3	12.8	14.8

TABLE 3 - GROUNDWATER MONITORING WELL ANALYTICAL DATA

	UNITS	Class GA Standard	Class GA Guidance	MW-220	MW-221S	MW-221D	MW-222	MW-223S	MW-223D	MW-232S
Date Sampled				12/27/00	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00
Specific Conductivity	UmHos/cm			1635	1119	453	1960	1370	1345	855
Depth to Groundwater	feet			17.2	15.22	16.72	19.38	17.27	17.43	14.7
Eh	MV			82	100	85	-28	10	37	33
Field pH	SU	6.5-8.5		7.18	7.06	7.77	6.87	6.8	7.01	7.18
Temperature	deg C			9.8	10.5	10.9	11.4	9.4	9.6	10.4
Turbidity	NTU			33	27	6.7	15	5.5	9.1	6.7
TOC	mg/l			1.6	5	<1	9.9	3.6	2.6	2.8
Alkalinity as CaCo3	mg/l			492	592	124	757	659	696	437
Ammonia as N	mg/l	2		<0.1	<0.1	<0.1	20.5	<0.1	<0.1	<0.1
Biological Oxygen Demand	mg/l			<3	<3	<3	9	<3	<3	<3
Chloride	mg/l	250		13.6	8.76	54.5	130	24.6	24.8	3.17
Chemical Oxygen Demand	mg/l			<10	<10	<10	29.2	17.2	17.2	<10
Nitrate as N	mg/l	10		0.054	0.291	0.08	<0.05	<0.05	<0.05	<0.05
Total Hardness as CaCo3	mg/l			924	645	178	892	783	781	481
Kjeldahl Nitrogen as N	mg/l			<1	1.84	<1	29.3	2.18	2.18	<1
Phenolics, Total	mg/l	0.001		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Solids, Dissolved	mg/l	500		1250	679	207	1060	891	920	535
Sulfate as SO4	mg/l	250		600	99	18	66	120	140	69
Bromide	mg/l		2	<1	<1	<1	<1	<1	<1	<1
Cadmium	mg/l	0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l			250	214	42.9	228	235	228	151
Iron	mg/l	0.3		6.93	4.99	0.049	50.2	24.6	4.4	3.05
Lead	mg/l	0.025		0.005	0.006	0.002	0.002	<0.001	0.001	0.001
Magnesium	mg/l		35	72.7	26.8	17.3	78.4	47.6	51.4	25.3
Manganese	mg/l	0.3		1.29	0.953	<0.005	0.65	3.85	1.89	1.34
Potassium	mg/l			3.38	3.42	2.39	15.9	1.24	1.11	1.74
Sodium	mg/l	20		12.4	9.8	14.3	47.2	15.7	11.9	2.83
Cadmium, dissolved	mg/l	0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, dissolved	mg/l			250	224	43.7	227	234	223	138
Iron, dissolved	mg/l	0.3		0.088	<0.040	<0.040	42.4	26.2	4.53	2.33
Lead, dissolved	mg/l	0.025		<0.001	<0.001	0.001	<0.001	<0.001	0.006	<0.001
Magnesium, dissolved	mg/l		35	73.2	28.1	18.3	83.8	49.8	52.2	24.2
Manganese, dissolved	mg/l	0.3		0.773	0.847	<0.005	0.623	4.08	1.94	1.24
Potassium, dissolved	mg/l			3.19	3.26	2.69	18.7	1.57	1.37	1.95
Sodium, dissolved	mg/l	20		16.6	12.6	17.5	60.5	19.1	14.4	4.15

TABLE 3 - GROUNDWATER MONITORING WELL ANALYTICAL DATA

	UNITS	Class GA Standard	Class GA Guidance	MW-233S	MW-234S	MW-234D	MW-235S	MW-235D	MW-245S
<i>Date Sampled</i>				12/27/00	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00
Specific Conductivity	UmHos/cm			895	631	624	1142	539	995
Depth to Groundwater	feet			14.7	17.93	18.45	17.2	16.18	29.25
Eh	MV			95	95	48	-39	8	84
Field pH	SU	6.5-8.5		7.29	7.67	7.66	7.39	7.72	7.46
Temperature	deg C			9.2	9.2	9.2	8.4	8.6	9
Turbidity	NTU			1.6	6.3	5.3	11	4.1	16
TOC	mg/l			5.6	1.7	<1	<1	<1	<1
Alkalinity as CaCo3	mg/l			376	232	229	578	183	366
Ammonia as N	mg/l	2		<0.1	<0.1	<0.1	<0.1	0.134	0.11
Biological Oxygen Demand	mg/l			<3	<3	<3	<3	<3	<3
Chloride	mg/l	250		1.28	3.11	26.2	25.5	17.1	27.6
Chemical Oxygen Demand	mg/l			10.9	<10	<10	19.2	<10	<10
Nitrate as N	mg/l	10		5.97	<0.05	0.115	<0.05	<0.05	<0.05
Total Hardness as CaCo3	mg/l			483	337	310	637	201	519
Kjeldahl Nitrogen as N	mg/l			<1	<1	<1	<1	<1	<1
Phenolics, Total	mg/l	0.001		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Solids, Dissolved	mg/l	500		599	435	425	719	326	711
Sulfate as SO4	mg/l	250		110	120	70	61	79	210
Bromide	mg/l		2	<1	<1	<1	<1	<1	<1
Cadmium	mg/l	0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l			135	105	96.3	187	58.1	154
Iron	mg/l	0.3		0.124	0.312	0.499	14.8	0.375	1.54
Lead	mg/l	0.025		<0.001	<0.001	0.001	0.001	<0.001	0.003
Magnesium	mg/l		35	35.5	18.1	16.8	41.3	13.7	32.6
Manganese	mg/l	0.3		0.744	0.56	0.369	1.25	0.299	1.94
Potassium	mg/l			1.76	0.662	1.33	1.44	1.7	1.43
Sodium	mg/l	20		2.4	3.41	11.2	7.53	30.7	18.2
Cadmium, dissolved	mg/l	0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, dissolved	mg/l			137	98	87.7	179	56.7	130
Iron, dissolved	mg/l	0.3		0.097	0.102	0.462	17.2	0.374	0.151
Lead, dissolved	mg/l	0.025		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, dissolved	mg/l		35	34.6	17.4	15.7	41.7	13.9	28.9
Manganese, dissolved	mg/l	0.3		0.71	0.526	0.348	1.21	0.298	0.948
Potassium, dissolved	mg/l			2.11	0.844	1.87	1.85	1.96	1.45
Sodium, dissolved	mg/l	20		3.87	4.68	14.2	10.4	38.8	22

TABLE 3 - GROUNDWATER MONITORING WELL ANALYTICAL DATA

	UNITS	Class GA Standard	Class GA Guidance	MW-245D	MW-303S	MW-303D	MW-304S	MW304VS	MW-304D
<i>Date Sampled</i>				12/27/00	12/27/00	12/27/00	12/27/00	12/27/00	12/27/00
Specific Conductivity	UmHos/cm			954	1206	1187	1215	2050	697
Depth to Groundwater	feet			30.26	18.35	18.51	25.5	5.64	24.13
Eh	MV			-45	-12	-20	-10	71	-29
Field pH	SU	6.5-8.5		7.59	7	7.54	7	7.52	7.62
Temperature	deg C			9	10.4	9.9	10.6	6	10.1
Turbidity	NTU			13	3.8	13	35	3.7	5.9
TOC	mg/l			< 1	< 1	1.9	< 1	8.2	1.2
Alkalinity as CaCo3	mg/l			295	637	257	671	376	233
Ammonia as N	mg/l	2		7.01	4.69	0.625	0.639	0.3	0.331
Biological Oxygen Demand	mg/l			< 3	< 3	< 3	< 3	< 3	< 3
Chloride	mg/l	250		21.9	18.4	152	24.6	82.8	48.9
Chemical Oxygen Demand	mg/l			< 10	< 10	< 10	< 10	< 10	< 10
Nitrate as N	mg/l	10		< 0.05	< 0.05	0.121	< 0.05	< 0.05	< 0.05
Total Hardness as CaCo3	mg/l			298	625	221	653	535	241
Kjeldahl Nitrogen as N	mg/l			8.37	4.69	1	< 1	< 1	1.17
Phenolics, Total	mg/l	0.001		< 0.004	0.0042	0.0063	< 0.004	< 0.004	0.0077
Solids, Dissolved	mg/l	500		574	659	651	697	1120	609
Sulfate as SO4	mg/l	250		200	23	110	11	61	43
Bromide	mg/l		2	< 1	< 1	< 1	< 1	< 1	< 1
Cadmium	mg/l	0.005		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Calcium	mg/l			79.3	192	53.9	198	166	64.3
Iron	mg/l	0.3		3.98	24	1.33	16.7	4.31	0.922
Lead	mg/l	0.025		0.002	0.008	0.002	0.003	0.004	< 0.001
Magnesium	mg/l		35	24.2	35.4	21	38.5	29.3	19.6
Manganese	mg/l	0.3		0.128	2.94	0.056	3.59	3.1	0.041
Potassium	mg/l			3.21	5.58	6.51	3.23	2.9	2.51
Sodium	mg/l	20		78.5	14.2	155	17.3	176	40.3
Cadmium, dissolved	mg/l	0.005		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Calcium, dissolved	mg/l			73	190	50.7	196	160	60.4
Iron, dissolved	mg/l	0.3		3.36	25	0.369	16	< 0.040	0.669
Lead, dissolved	mg/l	0.025		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Magnesium, dissolved	mg/l		35	23.6	36.8	21.1	39.4	29.8	19
Manganese, dissolved	mg/l	0.3		0.122	3.1	0.044	3.7	< 0.005	0.034
Potassium, dissolved	mg/l			3.34	6.3	7.22	3.41	3.9	2.79
Sodium, dissolved	mg/l	20		83	18.3	178	21.2	274	46.2

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
PZ-01	Sep-87	12	170	1.5	18.2	590	370	2.9	7.6		<0.005		165	185	441	0.18	0.37	2	<5		<0.01	0.35	
PZ-01	May-88	18	190		17.4	504	240	2	7.25		0.025		154	37	477	0.12		11	<5			<.2	
PZ-01	Aug-88	13.5	162		18	608	270	6.2	7.97		<0.005		176	25	214	0.43		42	<5			0.7	
PZ-01	Nov-88	11	169		18.4	569	308	3.9	7.06		0.031		165	12	302	0.16		16	<5			0.57	
PZ-01	Feb-89	9	164	10	21	754	314	1.5	7.32		<0.005	151.5	174	18	404	0.04	<.10	6	<5		<0.01	0.2	
PZ-01-A	Feb-90	10.5	171	<10	22	650	329	3.67	7.78		<0.005	-44.5	209	295	474	0.15	0.1	2	10	<0.005	<0.01		
PZ-01-A	Apr-90	11.3	184		37.8	551	352	8.41	7.17		<0.005	-17.3	164	4.2	486	0.04		25	5			0.27	
PZ-1A	Nov-90	11	194	10	20.5	540	360	7.6	7.6	7.04	<0.05	85.1	175	22	528	<0.1	<0.1	3.7	<5	<0.004	0.009	<0.5	
PZ-1A	Feb-91	11	184	<0.5	22.8	760	360	<3	7.5	7.8	<0.010	-16.7	186	18	512	0.05	<0.04						
PZ-1A	May-91	11	176	6.4	19.1	550	352	<3.0	7.7	7.31	<0.010	188.7	192	11	521	0.1	0.21						
PZ-1A	Aug-91	13	178	3.7	21.9	830	340	<3.0	7.6	7.36	<0.010	250.4	148	50	603	0.07	0.06						
PZ-1A	Nov-91	12	176	4.5	19	771	316	4		7.58	<0.010	158	153	6.7	540	0.12	0.12						
PZ-1A	Feb-92	10	152	5.3	20.8	795	348	<1.0	7.42		<0.010	289.9	177	27	504	0.23	0.31	1.6	<5	<0.010	<0.004	<0.5	
PZ-1A	May-92	12	186	<1.0	24	741	320	<1.0		7.2	<0.010	127.1	195	25	612	0.1	<0.02	2.6	15	0.016	<0.004	0.05	
PZ-1A	Aug-92	12	198	2	21.5	726	298	10		7.08	<0.010	139	196	40	592	<0.04	<0.02						
PZ-1A	Dec-92	11	192	<1.0	15.5	811	308	<1.0		7.21	<0.010	182	188	36.5	564	0.08	0.07						
PZ-1A	Feb-93	10	178	11.4	16.5	412	254	11		7.59	<0.010	138	207	41	532	0.05	0.12						
PZ-1A	May-93	11.5	184	<1.0	16.5	470	323	7	7.46		<0.010	203.5	217	16	540	0.07	0.13	0.4	<4	<0.004	<0.004	<0.5	
PZ-1A	Aug-93	15	180	18.5	17	581	358	<1.0		7.19	<0.010	131.3	208	13	524	<0.02	0.03						
PZ-1A	Dec-93	10.5	176	12.7	16	710	355	6		7.1	<0.010	176.4	220	49	548	<0.02	0.06						
PZ-1A	Feb-94	10.5	188	<1.0	16	767	328	14		7.06	<0.010	126.3	214	58	460	<0.02	0.09	<2.0				<0.5	0.87
PZ-1A	May-94	12.5	180	<1.0	14.5	594	331	15		7.56	<0.010	84.1	216	21	473	0.05	0.04	<2.0				<0.50	0.84
PZ-1A	Aug-94	13	184	<5.0	16	720	445	5		7.14	<0.010	116.8	230	28	564	0.14	0.51	<2.0	15	<0.004	0.01	<0.5	1.66
PZ-1A	Nov-94	11.5	190	<5.0	16	583	246	25		7.72	<0.010	130.4	209	5.4	552	0.1	0.08	<2.0				<0.5	3.05
PZ-1A	March-95	10.5	182	<5.0	16	494	328	37		7.21	<0.010	117	224	21	512	0.3	0.14	<2				<0.5	<0.2
PZ-1A	June-95	12.5	182	9.3	16	478	318	1		7.2	<0.010	25.7	179	24	540	0.3	0.09	<2				2.4	<2
PZ-1A	Sept - 95	12	181	16.7	17	420	333	24		7.41	<0.010	70.2	207	27	568	0.15	<0.05	<2				<0.5	<2
PZ-1A	Nov-95	9	180	20.4	16	435	288	<1		7.52	<0.010	1	197	28	540	<0.02	<0.05	<2	<5	<0.004	<0.004	<0.5	0.3
PZ-1A	April-96	9.8	200	14	8.6	750	420	1.1		7.9	<0.002	190	56	220	520	0.05	0.1	<4	50	<0.01	<0.01	0.33	3.1
PZ-1A	June-96	11.6	210	30	11	720	390	<1		7.7	<0.002	625	180	66	550	<0.03	0.063	<4				0.91	<2
PZ-1A	Sept-96	12.7	170	1	10	700	330	1.6		7.5	<0.002	157	340	58	560	0.033	0.022	<4				0.37	<2
PZ-1A	Nov-96	12	180	13	15	659	290	1.1		7.58	0.0047	195	340	21	260	<0.03	0.047	<4				0.22	<2
PZ-1A	March-97	9.8	170	6.4	15	718	310	1		7.5	<0.002	160	180	125	500	<0.03	0.086	<4	10	<0.01	<0.01	0.18	<2
PZ-1A	June-97	11.2	210	<2	16	681	350	1.8		7.59	0.004	180	190	<1	550	<0.03	0.08	<4				0.38	<2
PZ-1A	Sept-97	12.2	260	<1	16	690	330	1.2		7.9	<0.002	180	170	20	590	<0.03	0.2	10				0.53	<2
PZ-1A	Dec-97	11.2	190	14	14	774	310	1.2		7.95	<0.002	140	280	41	420	<0.03	0.19	<4				0.14	<2
PZ-1A	Mar-98	10.5	300	<1	15	750	330	1.3		8.37	<0.002	355	200	352	530	<0.03	0.13	<4				0.21	<2
PZ-1A	June-98	12.3	220	<3	14	757	330	1.2		7.85	<0.002	45	200	83	500	0.065	0.061	<4	3	<0.01	<0.01	0.6	<1
PZ-1A	Sept-98	Location Not Sampled																					
PZ-1A	Dec-98	11.4	210	5.9	23	734	530	1.3		7.6	<0.002	3.2	170	57	510	<0.03	0.15	9.5				0.73	<1
PZ-1A	Apr-99	11.4	190	9.5	18	774	370	<1		7.84	<0.002	195	190	93	540	<0.03	0.12	<4				0.74	<0.1
PZ-1A	June-99	11.5	190	56	17	770	450	1.3		7.3	<0.002	235	180	203	500	0.13	0.082	<4				0.72	<0.1
PZ-1A	Sept-99	13.9	200	3.9	18	776	400	1.4		7.45	<0.002	190	180	164	520	<0.03	<0.02	4.4				0.32	0.19
PZ-1A	Dec-99	11	200	9.9	18	782	390	<1		8.35	<0.002	155	180	155	520	0.032	0.021	<4	<1	<0.01	<0.03	0.36	0.13
PZ-1A	Apr-00	9	205	12.5	18.8	750	371	<1		7.71	0.007	-33	140	15	512	0.126	0.087	<3	10	<0.01	<0.01	<1	<1
PZ-1A	Jun-00	13.3	200	<10	18.4	590	356	<1		7.76	<0.004	-196	160	3.89	501	<0.1	<0.05	<3				<1	<1
PZ-1A	Sep-00	12.1	199	<10	18.8	774	386	<1		7.81	<0.004	57	250	2.2	478	<0.1	<0.05	<3				1.41	<1
PZ-1A	Dec-00	10.1	203	<10	17.9	762	376	<1		7.58	<0.004	90	170	5.81	479	<0.1	<0.05	<3				1.67	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
PZ-04	Sep-87	13	380	5	9.98	1225	740	2.7	7.21		0.007		450	210	996	0.25	0.17	9	<5		<0.01	0.32	
PZ-04	May-88	15	300		12.2	853	690	2.6	7.34		0.033		370	35	841	0.3		11	<5			0.37	
PZ-04	Aug-88	13	351		7.8	1211	712	1.35	7.26		<0.005		448	26	424	0.19		10	<5			0.5	
PZ-04	Nov-88	9.5	347		10.4	1028	756	6.34	7.03		0.028		419	26	506	0.25		38	<5			0.57	
PZ-04	Feb-89	9	337	16.7	9	1293	708	3.05	7.68		<0.005	101	438	40	834	0.24	<.1	3	<5		<0.01	0.58	
PZ-04	Apr-89	13.5	256		10	929.5	614	2.96	7.36		<0.005	13	432	18	426	0.1		18	10			0.54	
PZ-04	Jun-89	14	289		7.1	954.5	631	8.12	7.49		0.009		517	44	1120	0.1		39	15			0.5	
PZ-04	Feb-90	10	327	10	8.5	832	729	1.62	6.98		<0.005	-1.15	440	151	982	0.18	<0.1	3	<5	<0.005	<0.01		
PZ-04	Feb-90	11.3	216		8.3	957	570	13	6.29		<0.005	30	78.6	15	935	0.25		69	10			0.65	
PZ-04	Nov-90	10	357	21	7.8	840	740	14	7.4	6.91	<0.05	43.2	340	130	999	0.11	<0.1	4.4	<5	<0.004	0.017	<0.5	
PZ-04	Feb-91	13	336	<1.0	11.9	1100	730	15.5	7.2	7.46	<0.010	65.3	395	200	958	0.16	<0.04						
PZ-04	May-91	11	336	10.4	5.3	740	690	<3.0	7.3	6.9	<0.010	199.1	401	1200	518	0.21	0.08						
PZ-04	Aug-91	14	320	13	43.1	1385	640	4.7	7.2	6.98	<0.010		360	350	1014	0.18	<0.04						
PZ-4	Nov-91	12	340	5.6	7	1262	615	2		7.21	<0.010	179.3	365	38	1136	0.24	0.04						
PZ-4	Feb-92	11	336	4.9	8.9	1261	706	3	6.75		<0.010	212.3	355	63	908	0.27	0.22	0.6	<5	<0.010	<0.004	<0.5	
PZ-4	May-92	12	322	8.6	10	1146	629	<1.0		7.06	<0.010	235.4	354	81	980	0.12	<0.02						
PZ-4	Aug-92	12	322	16	11	1078	573	<1.0		6.83	<0.010	148.9	389	65	996	0.25	0.11						
PZ-4	Dec-92	10.5	346	3	7	1261	558	<1.0		6.65	<0.010	194.7	376	82	932	0.17	<0.02						
PZ-4	Feb-93	9.5	342	54	8.5	1016	569	38		7.22	<0.010	166.8	392	168	908	0.16	<0.02						
PZ-4	May-93	12.5	342	<1.0	7	565	585	2	7.07		<0.010	109.7	355	63	900	0.16	<0.02	0.2	<5	<0.004	<0.004	<0.5	
PZ-4	Aug-93	14.5	342	10.7	10	797	626	<1.0		7.01	<0.010	80	145	83	896	0.07	<0.02						
PZ-4	Dec-93	10.5	344	7.8	10	1051	642	6		6.94	<0.010	152.6	376	57	888	0.13	<0.05					<0.5	0.8
PZ-4	34366	11	334	<1.0	10	1220	625	38		7.07	<0.010	161.6	330	63	776	0.09	<0.05	<2.0				<0.5	0.92
PZ-4	Jun-94	13.5	324	<1.0	8	843	598	<1		6.93	<0.010	262.7	355	68	888	0.058	0.02	<2.0				<0.5	1.84
PZ-4	Aug-94	13.5	344	8.9	10.5	1082	638	4		6.79	<0.010	130.6	426	38	888	0.25	0.4	<2.0	5	<0.004	0.004	<0.5	3.28
PZ-4	Nov-94	11.5	400	<5.0	12	809	502	15		7.26	<0.010	127.8	303	71	940	0.21	0.31	<2.0				<0.5	<0.2
PZ-4	March-95	10.5	343	5	12	595	607	17		7.08	<0.010	130.6	386	27	896	0.74	0.26	<2				<0.5	0.5
PZ-4	June-95	12.5	335	<5.0	13	584	580	<1		7.05	<0.010	19.6	307	65	892	0.54	<0.05	<2				<0.5	0.5
PZ-4	Sept.-95	11.5	342	<5.0	11	506	591	6		7.1	<0.010	-2.7	357	42	944	0.31	0.14	<2				<0.5	<0.2
PZ-4	Nov-95	9.5	340	<5.0	11	456	596	<1		7.36	<0.010	15.5	304	61	888	0.04	0.07	<2	5	<0.004	<0.004	<0.5	<0.2
PZ-4	April-96	9.4	300	32	9.5	1230	810	3.6		7.9	<0.002	190	330	>900	740	0.11	0.056	4	500	<0.01	<0.01	0.72	3
PZ-4	June-96	12.3	320	280	<5	1120	390	<1		7.4	<0.002	290	510	>900	810	0.11	<0.02	<4				4.6	<2
PZ-4	Sept-96	12.2	350	30	6	1200	610	3.7		7	<0.002	126	650	74	850	0.099	<0.02	<4				0.39	<2
PZ-4	Nov-96	10.7	360	<1	10	1180	450	1.4		7.43	<0.002	145	550	120	760	0.073	0.043	<4				0.82	<2
PZ-4	March-97	10.3	370	26	12	1200	610	<1		7.2	<0.002	125	480	643	780	0.076	<0.02	<4	10	<0.01	<0.01	0.59	<2
PZ-4	June-97	11.6	1100	15	12	1110	690	1		7.31	0.014	215	370	>999	870	0.089	<0.02	<4				0.55	<2
PZ-4	Sept-97	12.8	410	30	16	1100	630	1.2		7.4	<0.002	160	250	780	930	0.12	0.052	<4				0.58	<2
PZ-4	Dec-97	10.9	710	11	12	1170	590	1.5		7.69	<0.002	85	360	>999	860	0.71	<0.02	13				0.39	<2
PZ-4	Mar-98	10.3	440	19	15	1110	2600	1.7		7.78	<0.002	340	320	224	6800	0.26	<0.02	<4				5.4	3
PZ-4	June-98	13.1	410	9.9	16	1070	900	1.3		7.32	<0.002	20	270	>999	770	0.085	0.027	<4	5	<0.01	<0.01	0.55	<1
PZ-4	Sept-98	13	370	3.4	13	1040	590	1.4		6.9	<0.002	40	270	444	790	0.09	<0.02	<4				0.35	<1
PZ-4	Dec-98	10.9	380	6.4	19	1030	900	1.2		7.08	<0.002	150	230	71	760	0.065	<0.02	9.8				0.29	<1
PZ-4	Apr-99	11.9	340	35	13	1060	2000	1.5		7.4	<0.002	185	270	545	760	0.18	<0.02	<4				1.1	<0.1
PZ-4	June-99	12	350	6.6	12	1070	2000	1.2		7.05	<0.002	180	260	449	760	<0.03	<0.02	<4				0.45	<0.1
PZ-4	Sept-99	12.7	370	6	20	1110	600	1.3		7.27	<0.002	155	240	420	790	<0.03	<0.02	<4				0.42	0.2
PZ-4	Dec-99	10.7	370	27	20	1160	660	<1		8.87	<0.002	240	240	571	760	0.065	<0.02	<4	1	<0.01	<0.03	0.51	0.16
PZ-4	Apr-00	9.1	336	<10	16.6	1040	579	1.2		7.46	0.005	-28	220	19	761	<0.1	0.191	<3	20	<0.01	<0.01	<1	<1
PZ-4	Jun-00	13.8	348	<10	21.6	850	618	1		7.64	<0.004	-73	240	14.8	767	0.118	<0.05	<3				<1	<1
PZ-4	Sep-00	12.7	374	<10	34.1	1145	647	1.4		7.31	0.0065		170	18	776	0.386	0.069	<3				<1	<1
PZ-4	Dec-00	10.2	198	<10	20.8	1077	325	3.3		6.56	<0.004	81	140	5.7	711	0.146	0.274	<3				<1	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
PZ-11	Sep-87	12	390	5	14.1	900	550	18.5	7.11		0.008		220	15	652	0.1	<.1	2	<5		<0.01	0.24	
PZ-11	May-88	14	265		14.8	554	380	7.6	7.04		0.016		127	350	495	0.16		25	<5			0.5	
PZ-11	Aug-88	13	335		17.7	782	422	<0.1	7.12		<0.005		156	340	262	0.2		66	<5			2.9	
PZ-11	Nov-88	8	295		20.8	629	450	5.14	7.22		0.025		206	10	352	0.13		27	<5			0.71	
PZ-11	Feb-89	9	258	108	25	545	453	5.15	6.85		<0.005	-19	144	265	433	0.13	<.1	6	<5		<0.01	1.54	
PZ-11	Apr-89	133	200		19.8	513	358	9.92	7.5		0.006	-472.5	153	200	293	0.09		25	15			0.4	
PZ-11	Jan-89	12	210		20	569	362	9.14	7.45		0.028		214	120	657	0.09		42	35			0.45	
PZ-11	Nov-89	13.5	264		19.8	552	435	7.25	7.34		0.014		142	58	543	0.12		21	<5			0.42	
PZ-11	Feb-90	19.8	249	34.7	20.7	715	411	15.1	7.32		<0.005	-21.65	181	98	507	0.18	0.32	15	10	<0.005	<0.01		
PZ-11	Apr-90	12.05	226		15.9	562	360	4.15	7.02		<0.005	-23.6	151	52	517	0.06		5	10			0.67	
PZ-11	Nov-90	12	347	21	17.9	770	480	24	7.3	7.21	<0.010	9.8	173	19	645	<1.0	<0.2	2.9	5	<0.004	<0.004	0.5	
PZ-11	Feb-91	10	252	25.2	16.9	810	400	46	6.9	7.74	<0.010	142.3	165	180	486	0.22	<0.04						
PZ-11	May-91	11	264	16.6	15.7	510	350	9.3	6.9	6.69	<0.010	200.2	103	815	464	0.14	0.28						
PZ-11	Aug-91	13	196	32.2	18.3	655	300	12.8	7.4	7.73	<0.010	96.3	134	570	544	0.12	0.43						
PZ-11	Nov-91	11	276	23.5	15	796	364	4		7.29	<0.010	126.6	85	160	436	0.23	0.06						
PZ-11	Feb-92	11	242	14.7	14.9	766	343	2	7.08		<0.010	100.5	137	52	428	0.21	<0.02	0.9	<5	<0.010	<0.004	<0.5	
PZ-11	May-92	12	173	15	11	642	306	<1.0		7.13	<0.010	205.1	14.3	64	392	0.08	0.02						
PZ-11	Aug-92	12	312	5	13.5	430	316	<1.0		6.9	<0.010	263.2	114	32.5	620	0.23	0.02						
PZ-11	Dec-92	10	294	8.9	12.5	892	354	<1.0		7.14	<0.010	181	159	58	556	0.13	0.1						
PZ-11	Feb-93	10	232	16.7	19	702	247	24		7.25	<0.010	120.6	101	120	412	0.1	<0.02						
PZ-11	May-93	11.5	256	<1.0	18	452	330	4	7.21		<0.010	175.7	94.4	30	528	0.11	<0.02	0.2	<5	<0.004	<0.004	<0.5	
PZ-11	Aug-93	14	340	22.4	18	653	463	<1.0		6.81	<0.010	35.2	105	19.5	660	0.06	<0.02						
PZ-11	Dec-93	9.5	328	15.7	19	809	461	8		7.08	<0.010	158.6	167	25	660	0.13	<0.05						
PZ-11	34366	10.5	224	9.6	19	725	319	28		7.09	<0.010	109.1	101	45	404	<0.02	<0.05	<2.0				<0.5	0.73
PZ-11	May-94	13	288	5.4	12	637	390	26		7.15	<0.010	83.2	152	15	520	0.14	0.02	2				<0.50	0.94
PZ-11	Aug-94	13.5	352	13.3	19	921	513	5		6.77	<0.010	103.3	170	10.6	664	0.2	0.76	2.8	25	<0.004	0.02	<0.5	2.16
PZ-11	Nov-94	11	343	28.6	17	660	353	38		7.14	<0.010	115.5	166	20	600	0.15	0.43	<2.0				<0.5	3.42
PZ-11	March-95	10.5	295	10	15	512	436	7		7.09	<0.010	132.9	162	7.2	600	0.56	0.67	<2				<0.5	<0.2
PZ-11	June-95	12	339	18.6	17	510	437	<1		7.01	<0.010	-2.5	148	14.8	644	0.47	0.06	<2				0.73	<0.2
PZ-11	Sept. - 95	10.5	272	12.5	15	425	420	<1		7.11	<0.010	-28.3	167	20	628	0.18	<0.05	<2				<0.5	<0.2
PZ-11	Nov-95	8.5	356	16.3	18	431	428	<1		7.29	<0.010	-30.5	165	17	632	<0.02	<0.05	<2	10	<0.004	<0.004	<0.5	0.3
PZ-11	April-96	10	280	21	14	758	560	3		7.5	<0.002	165	130	40	560	0.063	<0.02	<4	25	<0.01	<0.01	0.45	3.6
PZ-11	June-96	11	230	12	11	1020	530	2.4		8.5	<0.002	150	140	<1	700	<0.03	<0.02	<4				8.1	<2
PZ-11	Sept-96	10.8	420	10	9	1100	500	1.9		7	<0.002	148	560	65	760	0.047	<0.02	<4				0.53	<2
PZ-11	Nov-96	11.3	380	<1	15	970	360	4.1		7.12	<0.002	125	530	15	640	<0.03	0.048	8.5				0.65	<2
PZ-11	March-97	9.9	430	13	15	1080	480	3		7.1	0.0056	65	160	41	660	<0.03	<0.02	<4	10	<0.01	<0.01	0.76	<2
PZ-11	June-97	11.8	480	<1	15	1060	580	3.6		6.94	<0.002	115	130	<1	750	<0.03	<0.02	<4				0.64	<2
PZ-11	Sept-97	11.8	480	7	16	900	480	3.4		7.2	<0.002	125	140	32	760	0.064	0.05	<4				0.63	<2
PZ-11	Dec-97	10.6	320	11	14	910	390	3.5		7.52	<0.002	115	170	56	500	0.073	<0.02	<4				0.4	<2
PZ-11	Mar-98	10.9	370	4.3	17	1000	500	2.7		7.67	<0.002	230	180	61	660	<0.03	<0.02	<4				0.48	3.6
PZ-11	June-98	13.1	550	7.4	14	1090	560	3.5		7.21	<0.002	-35	170	52	700	0.086	<0.02	<4	20	<0.01	<0.01	0.4	<1
PZ-11	Sept-98	12.8	490	18	13	1140	640	3.2		6.67	<0.002	-85	220	71	840	<0.03	<0.02	9.1				0.46	<1
PZ-11	Dec-98	10.9	400	15	6.3	940	790	3.3		7.29	<0.002	80	120	97	720	<0.03	<0.02	9.6				0.29	<1
PZ-11	Apr-99	11.6	450	19	18	1070	580	5.2		8.09	<0.002	30	150	91	750	<0.03	<0.02	<4				1	<0.1
PZ-11	June-99	11.4	300	10	15	960	600	3.1		7.65	<0.002	100	190	119	640	0.046	<0.02	<4				0.59	<0.1
PZ-11	Sept-99	12.8	360	12	15	921	520	4		7.36	0.0022	165	160	921	650	<0.03	<0.02	14				0.44	0.13
PZ-11	Dec-99	11.2	280	14	18	829	460	2.9		8.28	<0.002	165	140	71	520	<0.03	0.025	<4	5	<0.01	<0.03	0.5	0.11
PZ-11	Apr-00	10	355	16.9	23.6	975	514	4.1		7.36	0.007	-78	150	9.6	686	0.164	0.203	<3	75	<0.01	<0.01	<1	<1
PZ-11	Jun-00	11.4	367	<10	23.7	860	619	3.3		7.31	<0.004	-84	220	10.77	795	0.106	<0.05	<3				<1	<1
PZ-11	Sep-00	12.5	311	27.7	23.4	1038	547	3.5		7.34	<0.004	-17	190	9.9	839	0.109	0.051	<3				<1	<1
PZ-11	Dec-00	9.7	322	20.3	21.2	997	517	3.8		7.28	<0.004	50	240	12.6	653	0.114	0.326	<3				1.17	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		
MW-3B	Nov-89	12.6	339	10	28.6	773.5	567	2.68	7.26		0.008	-24.2	199	105	677	0.11	<0.10	7	<5	<0.005	<0.01		
MW-3B	Feb-90		299		19		513	8.4			<0.005		287	18.7	640	0.17		8	<5			25	
MW-3B	Apr-90	11.95	218		26.9	368	343	4.81	6.21		<0.005	33.25	143	8	659	<0.04		5	10			0.25	
MW-3B	Nov-90	10	420	96	34.2	830	600	20	7.3	6.98	<0.05	81.2	158	60	735	0.11	<0.04	8.4		0.004	0.004	<0.5	
MW-3B	Feb-91	10	258	<1.0	17.9	950	400	6.6	7.3	7.48	<0.010	-11.8	125	25	524	0.09	<0.04						
MW-3B	May-91	12	222	5.1	13.8	640	326	<3.0	7.4	7.11	<0.010	133.9	135	63	488	0.11	0.58						
MW-3B	Aug-91	13	228	6.2	17.2	865	64	2.2	7.4	7	<0.010	273	122	38	542	0.07	<0.04						
MW-3B	Nov-91	13	244	5.6	16	906	331	4		7.25	<0.010	100.7	100	8.5	516	0.14	<0.04						
MW-3B	Feb-92	11	324	26.4	24.8	1120	439	4	6.64		<0.010	112.7	151	46	560	0.16	0.17	1	<5	<0.010	<0.004	<0.5	
MW-3B	May-92	13	250	14.4	22	1049	528	<1.0		7.02	<0.010	198.2	126	33	488	<0.04	<0.02						
MW-3B	Aug-92	12	330	15	36	844	328	<1.0		6.79	<0.010	181.4	141	10.6	688	<0.04	0.17						
MW-3B	Dec-92	9.5	308	4	23	1032	379	<1.0		6.75	<0.010	160	155	48.5	600	0.07	<0.02						
MW-3B	Feb-93	10	300	2.6	26.5	931	326	21		7.11	<0.010	146.8	164	35	564	0.04	<0.02						
MW-3B	Jun-93	12.5	256	<1.0	25	458	335	7	7.07		<0.010	105.8	136	8.9	520	0.1	<0.02	1.2	<5	0.006	<0.004	<0.5	
MW-3B	Aug-93	14.5	368	<1.0	43	759	280	<1.0		6.89	<0.010	26.5	131	26.5	668	0.08	<0.02						
MW-3B	Dec-93	10.5	352	2.9	40	902	446	10		6.98	<0.010	137.8	158	16	700	0.07	<0.05					<0.5	0.94
MW-3B	34366	10.5	504	6.7	67	1270	576	61		7.03	<0.010	168.4	128	39	732	0.03	<0.05	<2.0				<0.5	0.95
MW-3B	Jun-94	14	260	<1.0	26	621	510	<1		7.07	<0.010	290.4	102	2.3	520	<0.02	0.02	<2.0				<0.50	
MW-3B	Aug-94	13	368	13.3	43	1075	582	5		6.83	<0.010	136.1	163	19.4	752	0.12	0.15	<2.0	10	<0.004	0.007	<0.5	1.64
MW-3B	Nov-94	11.5	307	9.5	34	623	2300	16		7.3	<0.010	123.4	119	8.2	568	0.16	0.07	<2.0				<0.5	3.6
MW-3B	March-95	10.5	299	10	42	531	405	36		7.06	<0.010	144.8	122	9.5	652	0.27	0.16	<2				<0.5	<0.2
MW-3B	June-95	11.5	258	9.3	30	565	336	7		7.02	<0.010	-30.6	104	7.4	504	0.32	<0.05	<2				<0.5	<0.2
MW-3B	Sept. - 95	11.5	278	12.5	34	521	379	6		6.93	<0.010	-31.7	122	5.9	580	0.28	<0.05	<2				<0.5	0.8
MW-3B	Nov-95	9	360	16.3	46	470	432	<1		7.22	<0.010	-25	139	23	688	<0.02	<0.05	<2	5	<0.004	<0.004	<0.5	0.5
MW-3B	April-96	9.9	170	26	19	490	280	1.9		8.3	<0.002	135	53	72	260	<0.03	0.37	<4	50	<0.01	<0.01	0.28	3
MW-3B	June-96	12.3	330	14	30	795	440	1.5		7.7	<0.002	195	92	23	570	<0.03	<0.02	<4				1.3	<2
MW-3B	Sept-96	11.2	420	2.8	34	1400	400	4.3		7	<0.002	104	300	54	660	<0.03	<0.02	<4				0.24	<2
MW-3B	Nov-96	10.7	300	<1	36	739	270	2.4		7.26	<0.002	110	340	21	560	<0.03	0.036	<4				0.63	<2
MW-3B	March-97	10.5	330	15	36	920	320	2.8		7.4	<0.002	20	110	38	530	<0.03	<0.02	<4	10	<0.01	<0.01	0.29	<2
MW-3B	June-97	13	380	15	43	970	360	2.5		7.17	0.0028	215	98	<1	630	<0.03	<0.02	<4				0.95	<2
MW-3B	Sept-97	12.8	280	1	38	730	340	2.4		7.2	0.0029	110	75	19	570	0.035	0.033	<4				0.55	<2
MW-3B	Dec-97	10.5	600	<1	49	960	360	2.7		7.8	<0.002	40	120	40	570	0.11	<0.02	<4				0.27	<2
MW-3B	Mar-98	10.8	490	2.2	74	1290	450	3.5		7.68	<0.002	200	130	45	690	<0.03	<0.02	<4				0.3	<2
MW-3B	June-98	Sample Location Inaccessible																					
MW-3B	Sept-98	Location Not Sampled																					
MW-3B	Dec-98	10.9	310	27	55	808	570	2.7		7.9	<0.002	140	51	63	520	<0.03	<0.02	9.1				0.4	<1
MW-3B	Apr-99	11.9	330	12	68	980	440	3		7.84	<0.002	120	96	60	620	<0.03	<0.02	<4				0.88	0.55
MW-3B	June-99	Location Not Sampled																					
MW-3B	Sept-99	Location Not Sampled																					
MW-3B	Dec-99	11.2	400	13	77	1070	520	3.6		8.83	<0.002	255	85	60	560	<0.03	<0.02	<4	<1	<0.01	<0.03	0.81	0.55
MW-3B	Apr-00	10.4	383	<10	72	1075	346	4.2		7.3	0.008	-36	87	9.8	671	0.152	0.403	<3	15	<0.01	<0.01	<1	<1
MW-3B	Jun-00	14.1	536	<10	123	1050	599	5.1		7.23	0.011	-193	77	2.08	842	<0.1	<0.05	<3				2.09	<1
MW-3B	Sep-00	13.2	527	<10	121	1356	598	5.7		7.05	0.0042	-2	59	0.95	830	<0.1	<0.05	<3				3.14	<1
MW-3B	Dec-00	10	561	18.5	122	1387	612	4		7.07	<0.004	82	55	2.5	831	0.12	<0.05	<3				1.51	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
MW-207SA	Nov-90	12	832	320	36.2	930	730	17	6.7	6.9	<0.010	79.6	130	7500	830	0.25	<0.1	11	40	<0.004	0.055	6.3	
MW-207SA	Feb-91	11	722	46.2	22.8	1200	720	22	6.6	6.73	0.023	68.7	130	8800	896	0.12	<0.04						
MW-207SA	May-91	12	674	54.8	26.6	960	800	8	6.6	6.23	0.02	179.9	125.5	6000	908	0.08	0.09						
MW-207SA	Aug-91	12	764	61.4	41.7	1570	720	<30	6.6	6.4	<0.010	297	118	4800	1100	0.09	<0.04						
MW-207SA	Nov-91	12	744	40	16	1441	1038	32		6.35	<0.010	92.5	9.15	3520	792	<0.02	0.08						
MW-207SA	Feb-92	12	734	115	20	1285	573	11	6.62		<0.010	61.8	98.2	2900	860	0.1	0.82	3.4	<5	<0.010	<0.004	3.47	
MW-207SA	May-92	12	682	26	17	1201	652	<1.0		6.68	<0.010	39.8	14	2000	888	<0.04	0.19	2.8	15	0.016	<0.004	0.12	
MW-207SA	Aug-92	13	690	36.7	22.5	1108	1207	<1.0		6.46	<0.010	58.9	143	1180	908	<0.04	0.18						
MW-207SA	Dec-92	11	704	93.6	10	1325	590	<1.0		6.87	<0.010	50.3	157	1960	856	<0.02	<0.02						
MW-207SA	Feb-93	10	1090	94.5	10	1101	922	59		6.52	<0.010	65.1	146	4400	4372	0.09	<0.02						
MW-207SA	May-93	11.5	628	<1	10	600	653	6	6.56		<0.010	27.7	122	560	944	<0.02	<0.02	1.6	<5	<0.004	<0.004	<0.5	
MW-207SA	Aug-93	14.5	716	78.8	30	949	1072	<1.0		6.58	<0.010	112.3	182	4700	864	0.05	<0.02						
MW-207SA	Dec-93	11.5	932	110	20	1164	1060	28		6.54	<0.010	-1.6	146	2000	816	<0.02	<0.05					<0.5	0.93
MW-207SA	34366	11	668	35.5	16	1304	839	104		6.8	<0.010	144	132	3300	772	<0.02	<0.05	2.1				<0.5	1.12
MW-207SA	May-94	12.5	688	10.8	17	915	720	72		6.57	<0.010	66.9	140	750	766	<0.02	0.12	4.2				<0.50	0.93
MW-207SA	Aug-94	13	604	75.6	16	1303	700	2		6.49	<0.010	25.7	162	860	860	<0.02	0.21	3.6	10	<0.004	<0.004	<0.5	2.36
MW-207SA	Nov-94	11.5	840	14.3	16	862	590	25		6.56	<0.010	100.9	143	1880	876	<0.02	0.12	<2.0				<0.5	3.42
MW-207SA	March-95	10.5	731	5	23	629	666	22		6.48	<0.010	68.5	129	630	872	0.09	0.09	<2				<0.5	<0.2
MW-207SA	June-95	10.5	751	14	22	604	855	5		6.56	<0.010	-73.6	120	680	920	0.68	0.11	<2				<0.5	<0.2
MW-207SA	Sept. - 95	11.5	790	45.8	10	498	834	4		6.57	<0.010	-75.5	130	1960	992	0.11	<0.05	<2				1.73	<0.2
MW-207SA	Nov-95	10	816	12.2	15	493	833	<1		6.62	<0.010	-86.7	124	1300	864	<0.02	0.07	5	25	<0.004	<0.004	<0.5	<0.2
MW-207S	April-96	10.8	640	59	19	1510	840	1.7		5.8	<0.002	-20	100	>900	830	0.073	<0.02	6.6	600	<0.01	<0.01	1.4	4.4
MW-207S	June-96	11.1	620	110	<20	1370	820	1.7		6.6	<0.002	33	130	>900	860	<0.03	<0.02	6.6				8.8	<2
MW-207S	Sept-96	11.7	1000	140	<10	1400	930	1.3		6.5	<0.002	-40	120	17	880	0.059	0.029	6.1				0.91	<2
MW-207S	Nov-96	11.2	610	130	19	1260	710	2.1		6.68	<0.002	-35	<20	200	740	0.048	<0.02	<4				0.55	<2
MW-207S	March-97	10.5	980	53	24	1430	920	2.6		6.2	<0.002	-10	86	>999	780	<0.03	<0.02	4.2	20	<0.01	<0.01	0.69	<2
MW-207S	June-97	11.6	860	30	16	1360	1000	2.5		6.72	<0.002	125	74	>999	810	0.17	<0.02	7				0.66	<2
MW-207S	Sept-97	12	850	120	15	1000	100	2.8		6.8	<0.002	-5	58	1300	870	0.15	<0.02	9.0				0.99	<2
MW-207S	Dec-97	10.9	730	40	16	1260	960	2.8		7.11	<0.002	-50	61	>999	680	0.21	<0.02	12				0.71	<2
MW-207S	Mar-98	10.8	680	32	18	1190	990	2.4		7.45	<0.002	50	83	246	730	0.043	<0.02	<4				0.81	<2
MW-207S	June-98	17.2	810	9.3	8.7	1210	870	2.7		6.82	<0.002	-95	55	296	660	0.077	<0.02	4.1	70	<0.01	<0.01	0.52	<1
MW-207S	Sept-98	12	650	100	14	1140	1200	2.9		6.73	<0.002	0	58	>999	750	<0.03	<0.02	<4				0.56	<1
MW-207S	Dec-98	11	730	59	22	1170	1300	2.9		6.84	<0.002	-35	46	>999	730	0.05	<0.02	5.4				0.24	<1
MW-207S	Apr-99	11.6	600	45	14	1240	1100	2.3		7.38	<0.002	0	52	>999	710	0.063	<0.02	<4				0.9	<0.1
MW-207S	June-99	11.5	600	25	13	1180	1400	2.3		6.49	<0.002	-10	51	>999	670	0.045	<0.02	4.2				0.52	<0.1
MW-207S	Sept-99	12.7	590	17	13	1150	1100	2.2		6.51	<0.002	-20	38	>999	680	<0.03	<0.02	4.4				0.32	0.16
MW-207S	Dec-99	11.3	710	24	13	1170	1300	1.7		8.1	<0.002	40	31	<999	640	<0.03	<0.02	4.1	40	<0.01	<0.01	0.33	<0.1
MW-207S	Apr-00	10.9	595	16.5	12.4	1100	790	2.4		6.84	<0.004	-78	41	4.3	660	0.192	<0.05	<3	750	<0.01	<0.01	2.61	<1
MW-207S	Jun-00	13.9	588	<10	13.4	875	684	2		6.51	0.006	-66	42	12	683	0.168	<0.05	<3				<1	<1
MW-207SA	Sep-00	11.5	614	<10	13.5	1203	649	2.3		6.75	0.0045	-42	31	23	708	0.255	<0.05	<3				<1	<1
MW-207SA	Dec-00	9.3	617	<10	30.7	1139	589	<1		6.83	0.0098	21	33	19	675	0.1	<0.05	<3				7.53	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
MW-207D	Sep-87	12.5	210	24.7	14.1	510	320	2.8	7.12		0.029		100	25	384	0.29	<0.10	20	<5.0		<0.01	0.29	
MW-207D	May-88	12.5	340		20.1	818	280	2.6	7.56		0.023		136	6	594	0.07	<1.0	<5.0				0.34	
MW-207D	Aug-88	13	296		22.4	767	310	15.5	7.6		0.007		147	150	289	0.09		11	5			0.56	
MW-207D	Nov-88	13	318		19	835	264	19.7	7.76		0.058		123	20	371	0.5		30	<5.0			1.05	
MW-207D	Feb-89	10	307	12.1	18.5	910	428	4.75	8.06		< .003	-185.5	153	41	551	0.07	< .10	12	<5.0		0.04	0.32	
MW-207D	Apr-89	9.5	288		7	713	413	4.11	7.32		0.007		220	139	17	343	0.13		11	10		0.37	
MW-207D	Jun-89	15	250		16.5	662	369	8.71	7.58		0.022	-1192.5	245	16	773	0.11		15	10			0.31	
MW-207D	Nov-89	17	283		16.9	633	385	32.8	8.06		0.008		159	27	444	0.08		48	10			0.37	
MW-207D	Feb-90	10.5	307	<10	14.6	810	459	2.36	8.14		0.011		167	549	555	0.05	<0.1	10	5	<0.005	<0.01		
MW-207D	Apr-90	9.15	290		15.8	704.5	400	8.33	6.91		< .005	4.75	162	12	624	0.04		18	10			0.24	
MW-207D	Nov-90	10	311	<1.0	14.7	580	445	11	7.4	7	<0.010	89.3	156	165	591	0.21	<0.1	4.5	25	<0.004	0.042	<0.5	
MW-207D	Feb-91	11	320	1.6	16.4	800	470	<3.0	7.2	7.1	0.019	73.3	172	150	618	0.09	<0.04						
MW-207D	May-91	11	288	<1.0	11.7	680	480	<3	7.2	6.75	<0.010	150.8	152	74	612	0.04	0.16						
MW-207D	Aug-91	14	272	7.9	11.4	940	450	<3.0	7.3	7.23	<0.010	281.5	153	70	702	0.05	0.04						
MW-207D	Nov-91	13	298	5.8	10	875	397	<1		6.99	<0.010	125.1	158	40	581	0.03	0.06						
MW-207D	Feb-92	11	350	4.6	13.9	871	416	4	7.17		<0.010	90.2	156	38	592	0.06	<0.02	<0.5	<5	<0.010	<0.004	<0.5	
MW-207D	May-92	12	314	<1.0	15	846	430	<1.0		7.03	<0.010	108.5	14.9	45	612	<0.04	0.06	1.8	10	<0.010	<0.004	0.06	
MW-207D	Aug-92	12	326	29	13	796	538	<1.0		6.85	<0.010	102.6	162	14.8	680	<0.04	0.38						
MW-207D	Dec-92	10.5	352	<1.0	10	949	396	<1.0		7.04	<0.010	78.7	174	83	652	<0.02	<0.02						
MW-207D	Feb-93	10	392	16.7	11.5	856	423	24		7.01	<0.010	75.4	163	500	632	<0.02	<0.02						
MW-207D	May-93	12	368	<1.0	12	506	277	7	7.16		<0.010	109.3	153	98	632	<0.02	<0.02	<0.5	<5	<0.004	<0.004	0.54	
MW-207D	Aug-93	13	388	<1.0	14	709	487	<1.0		6.98	<0.010	125.4	161	128	692	0.06	<0.02						
MW-207D	Dec-93	11	376	6.9	15	824	481	16		6.69	<0.010	-17.4	145	59	638	<0.02	0.05						
MW-207D	34366	10.5	392	1	15	990	466	60		6.93	<0.010	49	151	105	612	<0.02	<0.05	<2.0				<0.5	0.94
MW-207D	May-94	12	410	16.1	15	750	530	40		7.09	<0.010	25.8	151	47	666	<0.02	0.07	<2.0				<0.50	1.05
MW-207D	Aug-94	13	388	<5.0	15.5	956	533	<1		6.92	<0.010	-2.9	160	37	720	0.05	0.27	2.6	90	<0.004	0.008	<0.5	2.04
MW-207D	Nov-94	11	408	<5.0	17	725	436	8		7.03	<0.010	79.2	146	21	752	0.02	0.35	<2.0				<0.5	3.42
MW-207D	March-95	11.5	436	20	19	563	529	15		6.79	<0.010	53.6	146	54	712	0.71	0.2	<2				<0.5	<0.2
MW-207D	June-95	11.5	481	9.3	20	548	515	6		6.73	<0.010	-23.2	134	34	792	<0.02	0.13	<2				<0.5	<0.2
MW-207D	Sept. - 95	11.5	456	16.7	19	465	557	21		6.69	<0.010	-53.3	148	32.5	768	0.11	<0.05	<2				<0.5	<0.2
MW-207D	Nov-95	10	488	<5.0	18	456	538	<1		6.94	<0.010	-74.8	130	55	776	<0.02	<0.05	<2	15	<0.004	<0.004	<0.5	<0.2
MW-207D	April-96	11.3	250	23	3.8	1210	360	6.4		6.6	0.003	40	83	33	390	<0.03	0.18	12	50	<0.01	<0.01	1.5	3.1
MW-207D	June-96	11.3	500	16	13	1130	620	1.1		7	<0.002	98	130	86	740	<0.03	<0.02	<4				5.4	<2
MW-207D	Sept-96	11.6	860	2.8	10	1300	580	1.8		6.9	<0.002	60	380	7.8	770	<0.03	<0.02	<4				0.4	<2
MW-207D	Nov-96	11	530	20	17	1070	450	2.2		7.1	<0.002	80	120	55	710	<0.03	<0.02	<4				1.4	<2
MW-207D	March-97	9.6	420	13	4.5	1000	390	4.8		6.5	<0.002	115	90	178	550	<0.03	0.61	<4	20	<0.01	<0.01	0.69	<2
MW-207D	June-97	11.9	600	84	6.8	769	450	4.1		7.3	<0.002	163	66	123	580	0.053	0.45	<4				0.33	<2
MW-207D	Sept-97	12	440	15	8.2	810	480	5		7.2	0.0022	100	120	75	3400	<0.03	0.6	12				0.65	<2
MW-207D	Dec-97	11	750	9.2	17	1100	530	3.1		7.28	<0.002	75	96	168	660	0.082	0.026	<4				0.3	<2
MW-207D	Mar-98	10.8	630	17	15	1090	630	2.5		7.43	<0.002	205	77	738	710	<0.03	<0.02	<4				0.8	<2
MW-207D	June-98	16	450	3.4	4.9	754	500	2.5		7.06	<0.002	-20	57	105	480	0.062	0.3	<4	5	<0.01	<0.01	0.41	<1
MW-207D	Sept-98	12	600	30	17	1110	660	2.2		6.74	<0.002	5	84	404	750	<0.03	<0.02	<4				0.34	<1
MW-207D	Dec-98	11.3	520	15	38	1050	690	2		6.56	<0.002	25	82	284	730	<0.03	0.034	<4				0.22	<1
MW-207D	Apr-99	11	470	29	35	1080	570	2		7.86	<0.002	-30	100	185	680	<0.03	<0.02	<4				0.42	<0.1
MW-207D	June-99	11.3	460	10	35	1050	710	1.8		6.77	<0.002	60	97	285	670	<0.03	0.17	<4				0.53	<0.1
MW-207D	Sept-99	12.7	530	11	16	1050	590	1.9		7.69	<0.002	105	95	251	690	<0.03	<0.02	<4				0.35	0.15
MW-207D	Dec-99	11.4	490	12	18	1060	630	1.8		8.31	< .002	55	110	360	680	<0.03	0.067	<4	1	<0.01	<.03	0.31	0.13
MW-207D	Apr-00	10.4	294	19.6	57.1	890	452	6.5		7.49	<0.004	-81	80	30	597	0.16	0.446	<3	75	<0.01	<0.01	<1	<1
MW-207D	Jun-00	13.3	577	<10	15.4	800	577	1.6		7.59	<0.004	-112	58	4.76	681	<0.1	0.059	<3				<1	<1
MW-207D	Sep-00	11.3	545	<10	15.6	1095	621	1.7		7.15	<0.004	-2	86	40	686	<0.1	0.058	<3				<1	<1
MW-207D	Dec-00	9.1	585	<10	13.9	1106	611	1.8		7.07	<0.004	26	78	32	679	<0.1	<0.05	<3				1	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
MW-220	May-88	12	460		18.8	1655	370	4.8	6.88		0.006		617	300	1390	0.09		14	<5.0			0.2	
MW-220	Aug-88	13	218		32.8	1383	852	<0.1	6.76		<0.005		518	200	483	0.14		5	<5.0			0.34	
MW-220	Nov-88	11	396		30.3	1333	868	3.8	6.99		0.026		600	18	682	0.12		42				0.73	
MW-220	Feb-89	9.3	428	45.5	24	1741	1300	3.6	7.46		0.028	66	741	170	1440	0.12	<0.10	4	5		0.06	1.14	
MW-220	Apr-89	13	378		32.5	1133	892	2.49	6.97		<0.005	-1	514	260	489	0.08		8	25			2.02	
MW-220	Jun-89	13.75	459		26.8	1447	1210	9.76	7.08		0.006		841	550	1720	0.05		48	480			1.53	
MW-220	Feb-90	11.7	383	29.7	41.6	1118	912	3.86	7.15		<0.005	-10.4	503	298	1170	0.07	0.1	5	10	<0.005	<0.01		
MW-220	Apr-90	11.6	455		39.7	1951	310	3.07	6.78		<0.005	12.65	515	175	1290	0.04		6	25			0.82	
MW-220	Nov-90	12	485	14	37.2	1700	880	25	7.1	6.92	<0.05	144.7	3.3	180	1230	<0.1	<0.04	1.7		0.008	0.004	<0.5	
MW-220	Feb-91	12	474	<1.0	50.6	1300	850	14.4	6.9	7.06	<0.010	24.6	420	290	554	0.07	<0.04						
MW-220	May-91	12	448	17.6	43.6	1200	810	10.5	7.1	6.54	<0.010	132	369	445	1192	0.06	0.18						
MW-220	Aug-91	13	444	10.4	54.2	1555	700	<30	7	6.9	<0.010	234.6	290	460	1086	0.06	<0.04						
MW-220	Nov-91	14	460	25	37	1393	700	7		6.79	<0.010	204.8	243	150	1076	0.1	<0.04						
MW-220	Feb-92	10	508	21.1	33.7	1460	839	8	7.03		<0.010	205.1	307	170	1060	0.11	0.03	<0.5	<5	<0.010	<0.004	<0.5	
MW-220	May-92	13	506	6	15	1403	810	<1.0		6.38	<0.010	147.3	32.4	250	1176	<0.04	0.11	1.95	10	<0.010	<0.004	0.13	
MW-220	Aug-92	13	444	22.4	39.5	1221	673	27		6.47	<0.010	132.2	331	134	1188	<0.04	0.2				<0.004		
MW-220	Dec-92	12.5	712	3	54	1367	610	<1.0		6.77	<0.010	109.5	280	1120	880	0.03	<0.02				<0.004		
MW-220	Feb-93	10.5	612	23.8	25.5	1202	697	45		6.93	<0.010	19.7	388	1000	1112	<0.02	<0.02				<0.004		
MW-220	Jun-93	11.5	498	5.1	23	511	788	1	6.94		<0.010	179.8	479	180	1136	0.07	<0.02	0.8	<5	<0.004	<0.004	<0.5	
MW-220	Aug-93	12.5	460	<1.0	24	847	784	<1.0		6.63	<0.010	42.9	112	180	1108	<0.02	<0.02						
MW-220	Dec-93	12	432	8.3	21	1183	699	12		6.87	<0.010	127.2	338	118	1060	<0.02	0.06						
MW-220	34394	12	404	<1.0	25	1197	694	68		7.02	<0.010	231.1	310	75	808	<0.02	0.16	<2.0				<0.5	0.83
MW-220	Jun-94	13	512	8.6	17	1096	890	3		6.71	<0.010	77.5	450	260	1268	<0.02	0.03	<2.0				<0.50	1.18
MW-220	Aug-94	11.5	408	<5.0	18.5	1192	676	4		6.78	<0.010	57.9	354	11.5	948	0.04	0.18	<2.0	50	<0.004	<0.004	<0.5	2.24
MW-220	Nov-94	12	521	14.3	21	883	580	18		6.98	<0.010	94.9	310	156	1024	0.04	0.13	<2.0				0.81	3.75
MW-220	March-95	10.5	537	<5.0	36	636	756	36		6.84	<0.010	60.1	499	200	1204	0.13	0.13	<2				<0.5	<0.2
MW-220	June-95	11.5	553	18.6	26	624	607	8		6.9	<0.010	-0.6	319	190	1200	0.66	<0.05	<2				<0.5	<0.2
MW-220	Sept. - 95	12.5	512	25	34	525	680	<1		7.03	<0.010	-41.5	290	200	1224	0.22	<0.05	<2				<0.5	0.4
MW-220	Nov-95	10.5	536	12.2	30	506	929	<1		7.06	<0.010	-22.3	614	280	1504	<0.02	<0.05	<2	10	<0.004	<0.004	<0.5	0.6
MW-220	April-96	11.5	500	75	26	1800	1100	16		6.8	<0.002	175	560	703	1600	0.17	<0.02	<4	200	<0.01	<0.01	1.3	0.93
MW-220	June-96	11.7	450	37	16	1680	960	1.1		7.1	0.049	5.65	650	550	1300	<0.03	<0.02	<4				1	<2
MW-220	Sept-96	12	430	18	12	1500	770	6.5		6.9	<0.002	140	490	710	1200	<0.03	<0.02	<4				0.33	<2
MW-220	Nov-96	11.9	480	60	17	1750	800	1.6		6.84	<0.002	125	1000	250	1700	<0.03	<0.02	<4				0.52	<2
MW-220	March-97	10.6	550	57	27	1590	690	2.4		7	<0.002	155	400	>999	1000	<0.03	<0.02	<4	10	<0.01	<0.01	0.49	<2
MW-220	June-97	11.9	560	40	30	1320	800	2.4		6.89	0.0028	180	430	452	1000	0.089	<0.02	<4				0.65	<2
MW-220	Sept-97	13.2	560	9.1	27	1300	810	3.2		7	0.0041	180	300	850	1000	0.048	<0.02	<4				0.42	<2
MW-220	Dec-97	11.5	520	<1	23	1360	810	3.2		7.23	<0.002	160	330	>999	800	0.074	<0.02	<4				0.39	<2
MW-220	Mar-98	10.7	420	8.6	17	1460	860	2.5		7.41	<0.002	280	510	>999	1100	0.073	<0.02	<4				0.77	<2
MW-220	June-98	12.5	570	<3	10	1590	1100	2.2		7.2	<0.002	30	640	625	1400	<0.03	<0.02	<4	10	<0.01	<0.01	0.65	<1
MW-220	Sept-98	13.6	540	18	23	1200	1300	3.5		6.34	<0.002	60	230	>999	860	0.061	<0.02	<4				<0.04	<1
MW-220	Dec-98	12	610	18	18	1210	1500	3.3		6.65	<0.002	95	270	>999	880	0.062	<0.02	8.2				0.98	<1
MW-220	Apr-99	11.2	470	18	24	1560	1200	2.5		6.86	<0.002	140	460	627	1200	<0.03	<0.02	<4				1.1	<0.1
MW-220	June-99	11.8	460	12	18	1420	1000	2.5		6.44	<0.002	275	330	298	1000	<0.03	<0.02	<4				0.62	<0.1
MW-220	Sept-99	13.8	510	15	18	2060	1500	2.3		6.51	<0.002	245	820	537	1700	<0.03	<0.02	<4				0.27	<0.1
MW-220	Dec-99	12	150	33	19	1520	910	2.3		7.9	<0.002	280	410	>999	1100	<0.03	<0.02	<4	10	<0.01	<0.03	0.77	0.11
MW-220	Apr-00	10.3	537	12.8	19	1500	806	2.1		7.02	<0.004	-29	190	6	1130	0.165	<0.05	<3	15	<0.01	<0.01	<1	<1
MW-220	Jun-00	13.4	481	<10	12.5	1600	1360	1.3		7.24	<0.004	-87	700	10.7	1890	<0.1	<0.05	<3				<1	<1
MW-220	Sep-00	12.4	454	<10	13.3	1303	803	2.3		7.17	<0.004	4	370	12	928	<0.1	<0.05	<3				<1	<1
MW-220	Dec-00	9.8	492	<10	13.6	1635	924	1.6		7.18	<0.004	82	600	33	1250	<0.1	0.054	<3				<1	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
MW-221S	Sep-87	14	630	10	83.9	1400	820	4.6	6.37		0.018		180	298	1010	0.16	<0.10	7	<5.0		<0.01	1.56	
MW-221S	May-88	12.5	540		75.9	1302	720	1.3	6.82		<0.005		131	200	927	0.05		10	<5.0			0.2	
MW-221S	Aug-88	13	808		99.7	1410	790	<0.1	6.48		<0.005		192	76	465	0.16		54	<5.0			0.76	
MW-221S	Nov-88	11.5	610		68.5	1250	752	2.19	6.42		<0.005		54.7	73	591	<0.04		36	<5.0			1.13	
MW-221S	Feb-89	9.5	591	492	80	1854	825	3.55	7.29		0.02	342.5	210	140	712	0.31	<0.10	5	5		0.03	8.87	
MW-221S	Apr-89	13	561		77.1	1079	782	5.69	6.66		<0.005	-18	179	640	500	<0.04		44	20			1.87	
MW-221S	Jun-89	13.5	452		58.2	394	180	25	6.2		0.01		43.6	38	500	<0.04		19	20			0.36	
MW-221S	Nov-89	14.7	660		174	1534	892	13.5	6.52		0.009	14	246	248	254	0.24		45	<5.0			1.42	
MW-221S	Feb-90	12.5	641	43.3	122	1551	827	16.8	6.71		<0.005	15.3	149	249	1050	0.08	0.68	8	10	<0.005	<0.01		
MW-221S	Apr-90	15	654		144	1505	740	19.7	6.53		<0.005	25.3	136	110	1180	<0.04		18	15			0.82	
MW-221S	Nov-90	15	677	37	107	1600	770	52	6.8	6.98	<0.05	132.3	110	240	1046	<0.1	<0.04	6.1	<5.0	0.008	<0.004	<0.5	
MW-221S	Feb-91	14	662	11.8	122	1600	830	11.4	6.6	6.78	<0.010	136.1	126	250	1091	0.1	<0.04		<5.0				
MW-221S	May-91	15	592	22.6	186.1	1700	780	18	6.7	6.45	<0.010	170.9	195	256	1224	0.24	0.09		<5.0				
MW-221S	Aug-91	19	636	18	167	1980	860	7	6.6	6.62	<0.010	226.1	145	470	1286	<0.03	<0.04		<5.0				
MW-221S	Nov-91	15	708	23.5	140	1825	816	14		6.58	<0.010	54.6	91	270	1252	<0.02	<0.04						
MW-221S	Feb-92	11	770	32.6	117	1597	767	10	6.5		<0.010	38.1	56.6	240	956	0.05	0.06	1.4	<5	<0.010	<0.004	<0.5	
MW-221S	May-92	13	600	58	185	1865	869	<1.0		6.52	<0.010	160.9	20.4	150	1456	<0.04	0.1	2.6	10	0.016	<0.004	0.15	
MW-221S	Aug-92	14	722	14.3	180	940	826	<1.0		6.5	<0.010	113.9	215	86	360	<0.04							
MW-221S	Dec-92	12	1094	16.8	88	1733	686	<1.0		6.9	<0.010	132.2	144	480	1080	<0.02	<0.02						
MW-221S	Feb-93	10.5	702	38.7	87.5	1363	673	95		6.11	<0.010	122.1	302	330	1320	<0.02	<0.02						
MW-221S	Jun-93	12	814	10.3	100	548	813	<1.0	6.46		<0.010	94	142	84	1160	0.13	<0.02	1.6	5	<0.004	<0.004	<0.5	
MW-221S	Aug-93	15.5	808	22.4	133	1141	967	<1.0		6.16	<0.010	34.5	148	220	1224	<0.02	<0.02						
MW-221S	Dec-93	12.5	760	34	77	1456	815	10		6.67	<0.010	11.6	87.4	350	1008	<0.02	0.03						
MW-221S	34366	11.5	776	22.1	108	1661	762	128		6.93	<0.010	72.7	36.1	190	248	<0.02	<0.05	<2.0				<0.5	0.72
MW-221S	Jun-94	13.5	756	10.8	68	1156	834	4		6.33	<0.010	54.7	117	61	1124	0.178	0.04	3				<0.50	0.89
MW-221S	Aug-94	12.5	820	17.8	78	1501	802	<1		6.43	<0.010	26.6	100	84	1008	0.07	0.08	<2.0	100	<0.004	<0.004	<0.5	2.76
MW-221S	Nov-94	13.5	844	14.3	51	997	665	28		6.53	<0.010	54.1	122	19	1124	0.03	0.06	<2.0				<0.5	4.2
MW-221S	March-95	10.5	763	20	56	663	755	<1		6.64	<0.010	36.4	140	83	1068	1.67	0.13	<2				1.23	0.3
MW-221S	June-95	11.5	800	14	105	712	891	<1		6.58	<0.010	-21.7	104	72	1156	0.61	0.09	<2				2.6	<0.2
MW-221S	Sept. - 95	14	575	<5.0	54	502	624	<1		6.76	<0.010	-30.6	86.2	60	928	0.1	<0.05	<2				<0.5	0.5
MW-221S	Dec-95	12.5	648	8.3	75	502	598	<1		6.78	<0.010	12.6	103	3120	968	1.24	<0.05	<2	10	<0.004	<0.004	<0.5	<0.2
MW-221S	April-96	6.7	780	160	51	1600	580	11		6.8	<0.002	190	170	600	1000	0.89	<0.02	60	750	<0.01	<0.01	20	3.4
MW-221S	June-96	11.7	700	250	37	1540	880	4.4		6.7	<0.002	245	200	790	1000	0.24	0.043	6.4				10	<2
MW-221S	Sept-96	14.7	130	5.3	51	1600	160	1.1		6.5	<0.002	-10	6.3	>999	250	<0.03	0.077	<4				0.47	<2
MW-221S	Nov-96	13	130	<1	46	1700	590	3.7		6.58	<0.002	25	390	470	1100	0.24	<0.02	<4				0.88	<2
MW-221S	March-97	7.6	800	160	68	1700	760	5		6.6	<0.002	120	200	>999	1100	0.25	<0.02	<4	10	<0.01	<0.01	1.4	<2
MW-221S	June-97	11.9	920	51	56	1500	810	3.9		6.41	0.011	95	67	>999	940	0.063	<0.02	4				1.2	<2
MW-221S	Sept-97	15.5	930	44	50	1600	960	5.7		6.8	0.0065	145	120	1000	1000	0.28	0.022	<4				1.2	<2
MW-221S	Dec-97	12.6	670	9.2	11	1590	1100	4.7		6.75	<0.002	125	330	>999	1100	0.28	0.4	5				0.87	<2
MW-221S	Mar-98	8.8	640	15	18	1510	960	3.1		7.29	<0.002	330	410	74	1100	0.13	0.068	11				5.9	<2
MW-221S	June-98	14.8	650	5.1	9.9	1270	770	2.8		6.34	<0.002	400	270	>999	890	<0.03	0.079	<4	7	<0.01	<0.01	1.1	3.4
MW-221S	Sept-98	15.5	810	21	56	1530	1200	4.9		6.09	<0.002	85	89	>999	1000	0.05	<0.02	<4				1.1	<1
MW-221S	Dec-98	12.7	800	20	62	1530	1300	4.4		7	<0.002	55	120	>999	1000	0.044	<0.02	9.9				0.95	<1
MW-221S	Apr-99	9.3	500	18	24	1590	1000	3.2		7.52	<0.002	175	300	852	1100	<0.03	3.8	<4				0.45	<0.1
MW-221S	Jun-99	10.9	600	16	33	1500	1300	3.2		7.04	<0.002	290	240	99	1100	<0.03	<0.02	<4				1.2	<0.1
MW-221S	Sept-99	15.6	650	12	32	1470	900	3.4		6.48	<0.002	310	190	159	990	<0.03	0.13	<4				0.43	0.28
MW-221S	Dec-99	12.1	510	39	7.3	1210	740	2.3		8.21	<0.002	215	89	144	830	0.03	0.99	<4	5	<0.01	<0.03	0.97	<0.1
MW-221S	Apr-00	8.3	521	12.8	9.82	1200	723	1.6		7.07	<0.004	-6	200	950	835	<0.1	2.16	<3	500	<0.01	<0.01	<1	<1
MW-221S	Jun-00	16.1	542	<10	13.9	950	709	2		7.31	<0.004	-40	180	16.1	873	<0.1	0.752	<3				2.52	<1
MW-221S	Sep-00	14	570	<10	11.5	1146	646	2.2		6.99	<0.004	26	130	3	706	<0.1	0.061	<3				<1	<1
MW-221S	Dec-00	10.5	592	<10	8.76	1119	645	5		7.06	<0.004	100	99	27	679	<0.1	0.291	<3				1.84	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
MW-221D	Sep-87	12.5	180	21.9	51.3	410	185	2.8	7.72		0.009		20.2	50	274	0.1	0.1	10	<5.0		<0.01	0.15	
MW-221D	May-88	12.5	140		42.7	426	190	3.4	7.41		0.02		23.4	23	353	0.07		24	<5.0			<0.20	
MW-221D	Aug-88	13	125		59.7	486	178	<0.1	7.6		<0.005		20.6	4	122	0.14		4	<5.0			0.46	
MW-221D	Nov-88	11.3	127		60.5	380	182	2.43	7.9		0.038		4.86	20	197	0.06		21	<5.0			0.34	
MW-221D	Feb-89	10	124	10.2	66	548	205	2.35	8.73		0.012	362	35.2	31	499	0.07	<0.10	2	<5.0		<0.01	0.33	
MW-221D	Apr-89	13	122		58.7	352	204	10.1	7.61		<0.005	-1.5	35.1	16	212	0.07		22	10			1.43	
MW-221D	Jun-89	15	637		157	1627	900	17	6.94		0.034		330	85	2240	0.04		11	35			1.09	
MW-221D	Nov-89	13.5	121		56.6	365	183	0.77	7.9		0.009	-61.1	11.3	23	252	0.06		8	<5.0			0.16	
MW-221D	Feb-90	11.3	132	28.5	61.6	455	184	31.1	7.86		<0.005	-46.8	32.1	225	281	0.16	0.14	10	10	0.005	<0.01		
MW-221D	Apr-90	13.25	141		61.4	380	185	28.5	6.55		<0.005	14.85	11.7	52	253	0.04		13	15		0.008	0.005	0.46
MW-221D	Nov-90	12	125	7.2	59.7	530	190	7	7.8	7.55	<0.05	104.1	17.3	8	269	<0.1	<0.04	3.5				<0.5	
MW-221D	Feb-91	12	122	<1.0	62.5	510	180	<3.0	7.9	7.71	<0.010	-13.2	24.4	6	289	0.05	<0.04						
MW-221D	May-91	13	118	4.2	58.5	320	184	<3.0	8	7.37	<0.010	99	21	9.5	259	0.04	0.18						
MW-221D	Aug-91	14	118	<0.5	58.3	500	180	<3.0	7.8	7.61	<0.010	201.8	17.8	6.1	342	0.05	<0.04						
MW-221D	Nov-91	14	126	2.8	58.5	469	161	1		7.55	<0.010	35.7	13.3	2.5	248	0.08	<0.04						
MW-221D	Feb-92	10	130	12.3	57.4	458	174	1	7.21		<0.010	77.8	18.7	2.5	252	0.11	<0.02	0.8	<5	<0.010	<0.004	<0.5	
MW-221D	May-92	13	122	<1.0	65	456	179	<1.0		7.41	<0.010	121.7	10	1.7	374	<0.04	0.09						
MW-221D	Aug-92	14	408	<1.0	62	340	147	<1.0		7.33	<0.010	89.4	26.8	2.9	352	<0.04	0.02						
MW-221D	Dec-92	12	106	7.5	65	506	146	<1.0		7.43	<0.010	108	51.7	1.5	272	<0.02	<0.02						
MW-221D	Feb-93	11	120	2.7	55	446	133	9		7	<0.010	97.7	34.5	18	248	0.04	0.02						
MW-221D	Jun-93	13	116	7.7	60	304	146	6	7.52		<0.010	66.5	69.3	2.7	296	0.05	<0.02	1	<5	<0.004	<0.004	<0.5	
MW-221D	Aug-93	15	124	<1.0	61	379	163	<1.0		7.1	<0.010	65.4	50.5	0.8	265	<0.02	<0.02						
MW-221D	Dec-93	12	106	5.5	59	402	177	2		7.1	<0.010	-37.3	31.5	4	316	<0.02	0.04						
MW-221D	34366	11.5	116	<1.0	60	453	164	8		7.49	<0.010	64.7	29.6	8.2	224	<0.02	<0.05	<2.0				<0.5	0.98
MW-221D	Jun-94	13.5	118	<1.0	58	395	169	<1		7.57	<0.010	-1.4	27.1	1.7	273	<0.02	<0.02	<2.0				<0.50	0.98
MW-221D	Aug-94	12.5	116	8.9	58.5	439	167	4		7.24	<0.010	-2	46.3	3.2	260	0.06	0.19	<2.0	15	<0.004	<0.004	<0.5	2.22
MW-221D	Nov-94	12.5	129	9.5	59	385	144	1		7.72	<0.010	40.5	29.8	3.9	280	<0.02	0.18	<2.0				0.73	3.12
MW-221D	March-95	11.5	755	5	62	362	173	5		7.14	<0.010	-7.3	38.5	1.7	268	0.08	0.14	<2				<0.5	0.8
MW-221D	June-95	12.5	123	<5.0	59	355	158	<1		7.27	<0.010	72.9	19.7	3.1	296	0.09	0.07	<2				<0.5	0.4
MW-221D	Sept. - 95	12.5	116	8.3	60	319	168	<1		7.18	<0.010	-78.3	21.8	5.1	300	0.1	<0.05	<2				<0.5	1.1
MW-221D	Dec-95	11	120	<5.0	58	312	146	<1		7.35	<0.010	-29.4	26.6	5.5	276	0.06	<0.05	<2	<5	<0.004	<0.004	<0.5	0.7
MW-221D	April-96	8.3	140	1	57	450	280	<1		8.3	<0.002	535	19	28	310	<0.03	0.043	13	5	<0.01	<0.01	0.46	3.1
MW-221D	June-96	11.6	120	1	51	447	180	<1		8.2	<0.002	315	44	200	290	<0.03	0.027	<4				2.1	<2
MW-221D	Sept-96	13.7	830	5.7	32	450	790	22		8	<0.002	140	440	13	1100	0.061	<0.02	<4				3.2	<2
MW-221D	Nov-96	11.4	120	<1	52	425	140	<1		8	<0.002	45	20	3.4	290	<0.03	<0.02	<4				0.62	<2
MW-221D	March-97	9.1	140	11	58	454	150	<1		8	<0.002	180	34	130	230	<0.03	0.037	<4	10	<0.01	<0.01	0.4	<2
MW-221D	June-97	12.1	140	8.6	55	425	170	1.1		7.95	<0.002	195	16	<1	260	<0.03	<0.02	<4				0.85	<2
MW-221D	Sept-97	15.8	120	<1	59	440	150	<1		7.6	0.0024	450	28	3	250	<0.03	0.06	<4				0.25	<2
MW-221D	Dec-97	11.7	140	33	48	489	160	1.6		8.03	<0.002	120	27	34	270	<0.03	0.021	<4				0.17	<2
MW-221D	Mar-98	10.7	120	<1	54	478	170	<1		7.9	<0.002	325	43	23	240	<0.03	0.051	<4				0.14	<2
MW-221D	June-98	12.4	150	6.6	63	473	170	<1		7.3	<0.002	285	14	21	230	<0.03	0.047	<4	4	<0.01	<0.01	0.4	<1
MW-221D	Sept-98	14.6	130	2.1	61	450	170	<1		7.05	<0.002	85	15	49	270	<0.03	0.023	<4				0.23	<1
MW-221D	Dec-98	12.4	120	<1	63	433	240	<1		7.53	<0.002	110	25	15	220	<0.03	0.035	8.4				0.12	<1
MW-221D	Apr-99	11.6	110	6.3	61	492	170	<1		7.76	<0.002	80	18	36	290	<0.03	0.029	<4				0.77	0.71
MW-221D	Jun-99	11.9	120	2.9	57	460	210	<1		6.95	0.0021	240	17	95	280	<0.03	0.04	<4				0.24	0.56
MW-221D	Sept-99	14.2	120	3.9	56	456	180	<1		7.69	<0.002	300	17	45	230	<0.03	0.037	<4				0.14	0.62
MW-221D	Dec-99	12.3	120	12	56	474	180	<1		8.66	<0.002	340	17	18	230		0.044	<4	5		<0.03	0.28	0.58
MW-221D	Apr-00	10.3	125	<10	57.1	450	167	1.5		7.91	<0.004	-12	23	4.5	238	<0.1	<0.05	<3	5	<0.01	<0.01	<1	<1
MW-221D	Jun-00	14.3	121	<10	57	360	177	<1		7.93	0.005	-94	16	4.34	235	<0.1	<0.05	<3				<1	<1
MW-221D	Sep-00	13	119	<10	55.9	462	185	<1		8.14	<0.004	-101	18	3.4	216	<0.1	0.073	<3				<1	<1
MW-221D	Dec-00	10.9	124	<10	54.5	453	178	<1		7.77	<0.004	85	18	6.7	207	<0.1	0.08	<3				<1	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eb (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
MW-222	Sep-87	13	685		48.5	1583	920	2.2	6.3		0.012		250	260	1128	0.15	0.61	10	<5.0		<0.01	0.67	
MW-222	May-88	13	875		41.3	1681	1100	4.5	6.71		0.041		197	775	686	0.24		12	<5.0			1.07	
MW-222	Aug-88	13	675		46.2	1481	808	2.6	6.44		<0.005		210	190	439	0.28		13	5			1.22	
MW-222	Nov-88	12	707		54.4	1462	982	2.5	6.5		0.031		202	15	683	0.39		12	10			2.51	
MW-222	Feb-89	10.8	739		88	1645	1140	4.25	7.03		0.032	-18.7	173	150	1080	0.19	<0.10	15	25		<0.01	1.53	
MW-222	Apr-89	11.5	488		80.5	1269	821	33.7	6.24		0.012	69	255	530	527	0.15		12	50			1.53	
MW-222	Jun-89	14	510		30.4	1002	541	12.2	6.64		0.011	-156.3	343	340	1010	0.08		9	165			0.9	
MW-222	Nov-89	17	449		46.2	819	502	15.8	6.83		0.008		65	105	1600	0.72		17	80			1.24	
MW-222	Feb-90	12.2	465	12.4	51.7	978	698	8.54	6.92		<0.005	4.8	248	120	895	0.41	<0.10	21	15	<0.005	<0.01		
MW-222	Apr-90	10.4	257		40	684.5	320	3.12	6.49		<0.005	25.5	382	48	495	0.15		11	70			0.65	
MW-222	Nov-90	11	666	20	53.8	890	710	32	6.9	6.56	<0.05	-11.5	87.5	90	922	0.29	<0.1	14	5	<0.004	0.032	0.67	
MW-222	Feb-91	13	691	7.8	61	1450	810	17	6.6	6.71	0.105	-13.9	116	150	1022	0.39	<0.04						
MW-222	May-91	11	548	21.9	63.8	1300	760	10.5	6.6	6.29	<0.010	71.8	205	190	1066	0.18	<0.02						
MW-222	Aug-91	14	660	19	48.5	1880	800	5.3	6.4	6.67	<0.010	232.4	192	300	1252	0.8	<0.04						
MW-222	Nov-91	14	892	140	115	1996	1036	94		6.48	<0.010	9.3	18	270	1484	1.7	<0.04						
MW-222	Feb-92	10	846	51.9	92.1	2170	1035	27	6.22		<0.010	13	90	380	1256	0.3	<0.02	15.3	<5	<0.010	<0.004	0.6	
MW-222	May-92	13	750	27	195	1903	1075	<1.0		6.32	<0.010	10.3	13.9	210	1568	0.53	0.15	9.3	10	0.011	<0.004	1.2	
MW-222	Aug-92	13	434	26.5	135	1449	707	<1.0		6.11	<0.010	7.7	79.8	110	1248	0.86	0.12						
MW-222	Dec-92	11.5	908	22.8	130	1941	844	<1.0		6.53	<0.010	5.7	96.8	300	1260	1.09	<0.02						
MW-222	Feb-93	11	47.2	39.6	135	1423	715	106		6.55	<0.010	-63.8	84.9	1000	1180	0.8	<0.02						
MW-222	Jun-93	13.5	812	9.4	51	526	761	<1.0	6.55		<0.010	-10.1	90.6	220	840	0.98	<0.02	5.5	3000	<0.004	<0.004	2	
MW-222	Aug-93	15.5	780	33	105	1101	808	<1.0		6.33	<0.010	-29.9	124	580	1064	14.4	<0.02						
MW-222	Dec-93	13.5	908	41.2	205	2060	1020	32		6.41	<0.010	-60.1	88.7	240	1468	7.78	<0.05						
MW-222	34366	12	828	35.5	182	2360	1097	148		6.61	<0.010	50.9	282	260	1408	4.66	<0.05	5.1				6.95	0.52
MW-222	Jun-94	13.5	788	15.1	50	1059	798	8		6.22	<0.010	-44.8	61.6	150	907	1.22	0.1	7.8				2.51	0.33
MW-222	Aug-94	13	856	26.7	73	1702	949	12		6.4	<0.010	13.1	118	180	1200	6.03	0.17	6.7	80	<0.004	<0.004	9.77	1
MW-222	Nov-94	12	848	14.3	92	1113	753	18		6.49	<0.010	0.3	148	70	1124	1.51	<0.05	4.2				4.93	1.28
MW-222	March-95	11	888	30	42	724	849	20		6.5	<0.010	56.5	202	410	1264	2.71	0.11	5				2.6	0.3
MW-222	June-95	11.5	759	55.8	290	894	780	18		6.65	<0.010	-79.9	99.6	320	1476	1.55	<0.05	6				3.9	1.9
MW-222	Sept. - 95	11.5	948	112.5	322	812	730	5		6.79	<0.010	-80.0	78.5	225	1736	2.6	<0.05	4.4				3.1	2.4
MW-222	Nov-95	12	592	36.7	38	529	573	<1		6.82	<0.010	-89.1	151	380	908	0.56	<0.05	11	25	<0.004	<0.004	1.27	1
MW-222	April-96	9.7	820	59	77	1890	800	16		6.7	<0.002	85	120	1000	1200	1.5	<0.02	28	750	<0.01	<0.01	6.4	2.1
MW-222	June-96	11.7	730	73	75	1710	800	8.6		6.6	<0.002	140	62	490	1200	0.95	<0.02	16				4	<2
MW-222	Sept-96	13.7	1000	110	41	2000	890	15		6.3	<0.002	78	<10	480	1300	1.1	<0.02	11				2.3	<2
MW-222	Nov-96	11.5	860	140	88	1950	680	5.8		6.47	<0.002	0	110	440	1200	0.6	<0.02	21				2.3	<2
MW-222	March-97	10.1	370	74	150	2030	790	9.6		6.5	<0.002	10	46	160	1100	1	<0.02	11	25	<0.01	<0.01	2	<2
MW-222	June-97	12	990	53	180	2060	900	11		6.43	0.0093	130	430	925	1300	1	<0.02	24				3.2	<2
MW-222	Sept-97	13	960	180	280	2600	1000	36		6.4	0.0019	50	150	600	1900	5.6	<0.02	16				7.3	<2
MW-222	Dec-97	12	2100	170	310	3150	810	43		6.59	<0.002	-10	150	>999	1800	34	<0.02	<4				34	2.4
MW-222	Mar-98	11.5	1200	32	170	2200	720	12		6.86	<0.002	20	78	58	1200	16	<0.02	13				16	2.8
MW-222	June-98	13.8	980	24	50	1620	700	7.5		6.66	<0.002	-90	38	374	920	12	<0.02	14	130	<0.01	<0.01	15	<1
MW-222	Sept-98	13.7	970	21	49	1800	1000	6.9		5.94	<0.002	<-95	130	>999	1100	9.5	<0.02	25				10	<1
MW-222	Dec-98	12.7	1100	56	260	2260	1200	18		6.37	<0.002	-25	61	>999	1300	62	<0.02	37				63	<1
MW-222	Apr-99	12.4	970	54	190	2620	1100	18		6.99	<0.002	-60	170	135	1600	28	<0.02	17				30	2.1
MW-222	June-99	11.9	860	54	100	1800	780	10		6.65	<0.002	30	47	35	980	31	<0.02	13				640	0.84
MW-222	Sept-99	15.1	950	51	140	2230	740	15		7.04	<0.002	65	100	40	1100	72	<0.02	19				81	1.5
MW-222	Dec-99	12.5	930	54	160	1880	620	12		9	<0.002	145	54	16	960	91	0.021	19	40	<0.01	<0.03	95	1.7
MW-222	Apr-00	10.7	841	33.6	105	1850	683	8.1		6.92	0.015	-75	40	34	935	40.2	<0.05	10	350	<0.01	<0.01	41.9	<1
MW-222	Jun-00	14.3	773	25.6	121	1300	778	7.9		6.91	0.0056	-152	28	25.9	921	14.4	<0.05	16				14.9	<1
MW-222	Sep-00	12.5	1640	26.7	114	1710	824	6.6		6.7	0.0044	6.7	14	16	953	7.78	<0.05	16				9.8	<1
MW-222	Dec-00	11.4	757	29.2	130	1960	892	9.9		6.87	<0.004	-28	66	15	1060	20.5	<0.05	9				29.3	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
MW-223S	Sep-87	11.5	626	10.1	18.5	1492	900	73	7.01		<0.005		255	40	1010	0.1	0.3	4	<5.0		<0.01	0.26	
MW-223S	May-88	12.5	730		10.5	1346	890	4.3	7.89		<0.005		223	17	984	0.28		12	<5.0			0.59	
MW-223S	Aug-88	12	737		10.9	1508	650	9.4	6.85		<0.005		258	30	473	0.11		10	<5.0			0.81	
MW-223S	Nov-88	10	662		11.4	1223	898	19.3	6.93		0.05		404	5	631	0.15		69	<5.0			0.35	
MW-223S	Feb-89	8	593	17.4	11	1522	804	6.5	7.45		<0.005	97.5	269	85	960	0.14	<0.1	13	10		<0.01	0.66	
MW-223S	Apr-89	14	376		2.5	1458	474	11.93	6.02		0.01	-290	137	12	615	0.48		15	<5.0			1.02	
MW-223S	Jun-89	13.5	730		10.5	1352	972	12.4	6.96		<0.005		549	88	2040	0.06		11	22			0.22	
MW-223S	Nov-89	11.3	764		14	1193	991	5.64	6.82		0.009	-1.2	229	36	1060	0.11		8	<5.0			0.36	
MW-223S	Feb-90	11.5	744	11.2	11	1475	961	16.3	6.94		<0.005	-2.15	228	124	1060	0.14	<0.1	6	10	<0.005	<0.01		
MW-223S	Apr-90	11.7	693		10.2	1107.5	891	15.2	8.03		<0.005	-61.3	121	180	901	0.14		82	5			0.56	
MW-223S	Nov-90	10	819	11	11.7	970	920	5.8	7	7.1	<0.010	205.1	170	54	1069	0.16	<0.1	9.5	<5	<0.004	0.027	<0.5	
MW-223S	Feb-91	11	738	<0.5	12.9	1300	910	78	6.8	6.97	<0.010	66.9	165	110	1064	0.2	<0.04						
MW-223S	May-91	11	720	5.5	11.7	1100	940	<3	6.7	6.66	<0.010	202.8	152	47	1022	0.12	<0.04						
MW-223S	Aug-91	11	718	4.5	10.4	1540	880	19.4	6.9	7.17	<0.010	223.3	155	60	1080	0.06	<0.04						
MW-223S	Nov-91	10	664	3.8	11	1592	879	52		6.58	<0.010	100.8	182	100	1016	0.12	<0.04						
MW-223S	Feb-92	11	694	14.7	12.9	1499	853	3	6.85		<0.010	79.7	203	67	924	0.16	0.03	6.6	<5	<0.010	<0.004	<0.5	
MW-223S	May-92	12	622	96	10	1406	822	<1.0		6.69	<0.010	75.4	168	66	956	0.48	0.08	2.7	5	0.016	<0.004	0.31	
MW-223S	Aug-92	13	702	7	12	1256	725	7		6.81	<0.010	38.2	182	120	1036	0.09	0.02						
MW-223S	Dec-92	10	662	3	6	1603	746	<1.0		6.8	<0.010	39.5	162	82	1030	0.02	0.04						
MW-223S	Feb-93	10	740	<1.0	10	1241	614	58		6.9	<0.010	25.4	166	105	972	0.11	0.07						
MW-223S	May-93	12.5	742	15.4	9	571	779	14	6.79		<0.010	75.1	142	90	996	0.03	<0.02	0.8	<5	0.004	<0.004	<0.5	
MW-223S	Aug-93	14	772	2	11	976	864	<1.0		6.53	<0.010	1.2	147	140	1028	0.15	<0.02						
MW-223S	Dec-93	10	688	5.9	10	1305	923	30		6.75	<0.010	96.1	166	112	972	<0.02	<0.05						
MW-223S	34366	10.5	700	<1.0	11	1456	765	224		6.8	<0.010	81.6	160	210	880	<0.02	<0.05	<2.0				<0.5	0.82
MW-223S	May-94	12.5	740	14	10.5	991	810	52		6.76	<0.010	67.1	171	150	556	0.05	0.04	3				<0.50	1.22
MW-223S	Aug-94	12.5	768	8.9	13	1378	853	5		6.69	<0.010	53.6	173	39	980	0.09	0.33	2	10	<0.004	0.007	<0.5	2.44
MW-223S	Nov-94	11	828	9.5	13	943	686	29		6.72	<0.010	67.5	150	80	1032	0.07	0.17	<6.0				<0.5	3.75
MW-223S	March-95	9.5	795	5	16	665	657	<1		6.69	<0.010	121.1	167	32	1060	1.48	0.29	<2				<0.5	<0.2
MW-223S	June-95	11.5	808	9.3	20	640	3570	<1		6.57	<0.010	-68.7	169	47	1160	0.33	<0.05	<2				<0.5	<0.2
MW-223S	Sept. - 95	11	718	12.5	15	512	837	10		6.86	<0.010	-77.9	148	47	1120	0.1	<0.05	<2				<0.5	<0.2
MW-223S	Nov-95	9	732	12.2	16	519	862	<1		6.92	<0.010	-75.3	159	86	1012	<0.02	<0.05	<2	200	<0.004	<0.004	<0.5	0.7
MW-223S	April-96	10.1	730	3.3	21	1700	440	26		5.8	<0.002	55	120	150	1100	0.051	0.12	4.2	300	<0.01	<0.01	0.92	3
MW-223S	June-96	11.4	720	22	7.5	1530	800	1.2		6.5	<0.002	57	54	120	930	0.11	<0.02	<4				7.3	<2
MW-223S	Sept-96	11.8	870	10	<10	1500	680	1		6.5	<0.002	10	390	31	920	0.14	<0.02	<4				0.48	<2
MW-223S	Nov-96	11.5	710	7.8	15	1310	600	3.2		7.09	<0.002	65	560	7.9	870	0.11	<0.02	<4				1.3	<2
MW-223S	March-97	9.9	720	13	18	1730	620	2.2		6.1	<0.002	-10	100	337	860	0.096	<0.02	<4	50	<0.01	<0.01	0.58	<2
MW-223S	June-97	11.7	550	59	23	1430	780	1.8		6.45	<0.002	335	100	260	970	0.032	<0.02	<4				0.46	<2
MW-223S	Sept-97	11.8	540	59	18	1100	690	3.4		6.8	<0.002	25	89	80	880	0.28	0.031	4				0.95	
MW-223S	Dec-97	10.6	760	27	20	1450	710	2		7.15	<0.002	-20	120	195	770	0.075	<0.02	<4				0.34	<2
MW-223S	Mar-98	9.6	450	6.5	23	1330	500	1.9		7.34	<0.002	10	140	127	660	0.16	0.02	<4				0.56	<2
MW-223S	June-98	13.6	830	8.3	29	1500	820	2.4		7.02	<0.002	-85	150	380	920	0.094	<0.02	<4	170	<0.01	<0.01	0.32	<1
MW-223S	Sept-98	12.1	600	20	22	1120	760	2.8		6.75	<0.002	-90	130	180	780	0.11	<0.02	<4				0.58	<1
MW-223S	Dec-98	10.8	310	14	29	635	960	2.7		7.45	<0.002	25	62	142	540	0.33	0.033	9				0.82	<1
MW-223S	Apr-99	11.4	650	16	28	1390	750	2.2		7.24	<0.002	-80	110	113	890	0.049	<0.02	<4				0.9	<0.1
MW-223S	June-99	11.3	570	3.9	21	1390	880	1.8		6.15	<0.002	20	110	82	790	0.11	<0.02	<4				0.56	<0.1
MW-223S	Sept-99	12.8	720	12	30	1410	800	2.5		7.01	<0.002	35	120	167	940	0.044	<0.02	<4				0.37	<0.1
MW-223S	Dec-99	11	680	27	24	1360	780	1.8		8.35	<0.002	95	110	312	860	0.044	<0.02	<4	30	<0.01	<0.03	0.44	0.11
MW-223S	Apr-00	10.2	701	10.5	28	1415	775	2.4		6.93	0.056	-72	100	7.9	948	0.211	<0.05	<3	225	<0.01	<0.01	<1	<1
MW-223S	Jun-00	12.8	644	<10	30.5	1090	784	2.7		6.99	<0.004	-98	130	15.7	959	0.105	<0.05	<3				1.36	<1
MW-223S	Sep-00	11.5	688	<10	27.9	1451	814	2		6.79	0.0079	-43	140	11	927	<0.1	<0.05	<3				<1	<1
MW-223S	Dec-00	9.4	659	17.2	24.6	1370	783	3.6	6.8		<0.004	10	120	5.5	891	<0.1	<0.05	<3				2.18	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
MW-223D	Sep-87	11.5	690	22.3	11.3	1380	760	2.4	6.6		0.027		220	25	917	0.08	<0.10	20	<5.0		<0.01	0.16	
MW-223D	May-88	12.5	680		13	1268	740	4.2	6.83		<0.005		186	54	908	0.13		18	<5.0			<0.20	
MW-223D	Aug-88	13	941		17.7	1383	860	9.6	6.89		<0.005		211	7	494	0.18		7	<5.0			0.4	
MW-223D	Nov-88	10.3	395		13.9	621	410	2.18	8		0.03		639	5	396	0.13		21	5			0.38	
MW-223D	Feb-89	8	676	12.6	36	1458	868	5.3	7.37		<0.005	105	152	58	350	0.14	<0.10	10	<5.0		0.03	0.47	
MW-223D	Apr-89	12.5	488		16.5	720	525	19.3	7.66		0.007	-210	143	27	300	0.13		48	10			0.67	
MW-223D	Jun-89	12	752		42.9	1313	925	11.4	6.86		0.008		472	96	2020	0.04		16	25			0.27	
MW-223D	Nov-89	11.3	257		15.8	667	342	18.2	7.36		0.013	-35.45	133	30	489	0.23		36	<5.0			0.79	
MW-223D	Feb-90	11	834	<10	47.2	1563	987	44.1	6.99		<0.005	3.5	133	98	1070	0.08	<0.10	7	10	<0.005	<0.01		
MW-223D	Apr-90	10.45	669		30.3	830	862	441.4	7.03		<0.005	-8.9	119	19	712	0.04		94	10			0.38	
MW-223D	Nov-90	10	830		39.1	1000	880	8.6	7	7	<0.010	229.4	129	225	1072	0.16	<0.1	11	25	<0.004	0.024	<0.5	
MW-223D	Feb-91	10	846	<0.5	38.7	1400	980	97	6.7	6.8	<0.010	82.3	157	240	1152	0.17	<0.04						
MW-223D	May-91	11	758	12.1	29.8	1100	990	4.9	6.8	6.61	<0.010	198.6	146.5	56	1107	0.07	<0.04						
MW-223D	Aug-91	10	724	7.3	22.9	1760	810	22.9	6.8	7	<0.010	222.7	176	140	1220	<0.03	<0.04						
MW-223D	Nov-91	11	760	6.7	22	1860	1171	26		6.52	<0.010	121.3	247	65	1144	0.26	<0.04						
MW-223D	Feb-92	11	800	7.4	25.7	1556	916	3	6.68		<0.010	59.5	173	43	968	0.05	0.05	3.4	<5	<0.010	<0.004	<0.5	
MW-223D	May-92	12	682	<1.0	32	1484	803	<1.0		6.57	<0.010	93.3	16.5	34	860	<0.04	0.11						
MW-223D	Aug-92	13	734	6	25	1338	758	1		6.8	<0.010	49.4	173	87	1164	<0.04	<0.02						
MW-223D	Dec-92	10	662	6.9	20.5	1680	796	<1.0		6.93	<0.010	52.3	212	86	1080	<0.02	<0.02						
MW-223D	Feb-93	10	722	<1.0	22.5	1251	662	58		6.86	<0.010	56.8	192	56	1028	<0.02	0.07						
MW-223D	May-93	12	678	<1.0	21	565	785	12	6.84		<0.010	94.7	127	44	956	<0.02	<0.02	2	<5	0.004	<0.004	<0.5	
MW-223D	Aug-93	14	654	1	23	845	643	<1.0		6.73	<0.010	9.6	251	66	952	0.69	<0.02						
MW-223D	Dec-93	10	616	8.8	21	1201	775	22		6.71	<0.010	94.3	141	71	920	<0.02	<0.05						
MW-223D	34366	10.5	616	<1.0	20	1296	668	84		6.84	<0.010	60.7	148	50	798	<0.02	<0.05	<2.0				<0.5	1.04
MW-223D	May-94	11.5	628	15.1	21.5	899	648	42		6.85	<0.010	26.7	135	280	780	<0.02	0.12	2				<0.50	1.1
MW-223D	Aug-94	13	604	<5.0	21	1114	710	<1		6.78	<0.010	50.8	139	56	788	<0.02	0.22	<2.0	10	<0.004	<0.004	<0.5	2.28
MW-223D	Nov-94	11.5	719	14.3	21	889	605	25		6.89	<0.010	63.1	155	14	1008	0.03	0.21	<2.0				0.55	3.92
MW-223D	March-95	11	622	5	22	632	603	36		6.81	<0.010	115.5	144	41	980	0.16	0.23	<2				<0.5	<0.2
MW-223D	June-95	11.5	674	<5.0	23	614	700	<1		6.72	<0.010	-46.6	132	21	904	0.37	0.09	<2				<0.5	<0.2
MW-223D	Sept. - 95	11.5	702	12.5	22	488	756	<1		6.84	<0.010	-50.3	129	15.5	1016	0.08	<0.05	<2				<0.5	0.3
MW-223D	Nov-95	9	604	<5.0	20	489	604	<1		6.98	<0.010	-53.5	152	66	884	<0.02	0.08	<2	10	<0.004	<0.004	<0.5	<0.2
MW-223D	April-96	10	440	10	22	760	720	1.6		6.8	<0.002	130	110	290	660	0.11	0.024	<4	100	<0.01	<0.01	1.1	3.5
MW-223D	June-96	11.7	340	5.1	10	1110	480	1.6		7	<0.002	100	52	20	350	0.036	0.07	<4				5.6	<2
MW-223D	Sept-96	11.7	700	5.3	<10	1300	560	1		6.7	<0.002	50	170	28	820	0.052	<0.02	<4				0.66	<2
MW-223D	Nov-96	11.1	440	1	20	1050	460	2.7		7.19	<0.002	25	390	24	640	<0.03	<0.02	<4				0.65	<2
MW-223D	March-97	9.3	320	8.6	18	1340	370	2.2		6.6	<0.002	0	92	20	520	0.12	<0.02	<4	15	<0.01	<0.01	0.88	<2
MW-223D	June-97	12.1	730	<2	21	1180	630	1.9		6.76	0.0037	40	100	<1	850	<0.03	<0.02	<4				0.54	<2
MW-223D	Sept-97	12	470	9.1	23	950	540	3.2		7.1	<0.002	40	94	135	750	0.048	0.049	4.6				0.49	<2
MW-223D	Dec-97	10.8	570	27	19	1290	610	2.1		7.18	<0.002	30	110	147	710	<0.03	<0.02	<4				0.34	<2
MW-223D	Mar-98	10	370	4.3	17	884	430	1.9		7.64	<0.002	20	82	285	470	0.16	<0.02	<4				0.56	<2
MW-223D	June-98	13	690	7.3	16	1180	650	2.1		6.91	<0.002	65	98	399	730	0.039	0.021	<4	15	<0.01	<0.01	0.27	<1
MW-223D	Sept-98	12.3	500	23	22	1000	580	2.9		6.81	<0.002	<-95	94	430	670	<0.03	<0.02	4.2				0.74	<1
MW-223D	Dec-98	11.2	530	1.4	6.4	990	880	2.7		7.02	<0.002	20	64	370	710	0.2	<0.02	9.3				0.42	<1
MW-223D	Apr-99	10.9	600	13	26	1320	720	2.4		7.21	<0.002	-50	120	113	840	<0.03	<0.02	<4				0.83	<0.1
MW-223D	Jun-99	11	470	6.4	17	1040	700	1.9		6.46	<0.002	150	110	194	660	<0.03	<0.02	<4				0.57	<0.1
MW-223D	Sept-99	12.7	630	19	22	1250	700	2.6		6.96	<0.002	75	100	544	790	<0.03	<0.02	<4				0.33	0.14
MW-223D	Dec-99	11.1	430	20	17	980	550	1.7		8.33	<0.002	85	120	550	650	<0.03	<0.02	<4	30	<0.01	<.03	0.36	<0.1
MW-223D	Apr-00	9.8	593	<10	24.1	1190	661	2.1		7.3	0.008	-76	98	8.2	788	0.134	<0.05	<3	75	<0.01	<0.01	<1	<1
MW-223D	Jun-00	13.8	618	<10	25	950	696	2.1		7.31	<0.004	-115	110	25.8	826	<0.1	<0.05	<3				<1	<1
MW-223D	Sep-00	11.4	607	<10	25	1325	742	2.2		6.98	<0.004	-22	150	15	842	<0.1	<0.05	<3				<1	<1
MW-223D	Dec-00	9.6	696	17.2	24.8	1345	781	2.6		7.01	<0.004	37	140	9.1	920	<0.1	<0.05	<3				2.18	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
MW - 303D	Nov-94	11.5	206	21.7	230	1073	214	8		9.58	<0.010	-29.5	156	12	772	0.48	0.36	<2.0				1.3	4.5
MW - 303D	March-95	11	174	5	250	789	157	2		7.63	<0.010	50	144	5.2	748	0.5	0.07	<2				0.2	2.5
MW - 303D	June-95	12	166	9.3	215	789	146	3		7.56	<0.010	-137.5	130	14	732	0.2	0.26	<2				<0.5	2.3
MW-303D	Sept. - 95	12	196	20.8	195	656	165	24		7.05	<0.010	-117.3	130	12	788	0.37	<0.05	<2				<0.5	2.1
MW-303D	Nov-95	10	128	8.2	212	612	164	<1		7.11	<0.010	-70.2	135	19	740	0.1	<0.05	<2	5	<0.004	<0.004	<0.5	2.1
MW-303D	April-96	10.6	190	1	11	1410	180	1.2		7	<0.002	55	130	360	700	0.086	0.021	<4	30	<0.01	<0.01	1.3	3.7
MW-303D	June-96	12	190	14	200	1350	250	<1		7.6	<0.002	84	120	33	730	0.1	<0.02	<4				7.4	2.1
MW-303D	Sept-96	11.7	370	15	190	1400	160	<1		7.7	<0.002	30	130	15	760	0.11	<0.02	<4				0.74	<2
MW-303D	Nov-96	11.3	200	<1	210	1320	160	1.6		7.9	<0.002	-45	160	14	720	0.21	<0.02	<4				0.74	<2
MW-303D	March-97	9.5	220	11	27	1450	170	1.3		6.6	<0.002	180	74	30	740	0.078	0.057	<4	10	<0.01	<0.01	7	2.1
MW-303D	June-97	12.5	240	<2	220	1290	150	1.4		7.96	<0.002	555	120	<1	750	<0.03	0.03	<4				0.95	2.1
MW-303D	Sept-97	14	260	28	190	1200	170	2		7.1	<0.002	195	120	19	4800	0.28	0.11	<4				0.74	<2
MW-303D	Dec-97	11.3	310	7	190	1320	170	1.5		7.63	<0.002	-60	120	80	690	0.5	0.02	<4				0.61	<2
MW-303D	Mar-98	10.7	260	1	210	1280	190	1.1		7.84	<0.002	-20	120	435	770	0.22	0.029	<4				0.6	3.6
MW-303D	June-98	16	240	<3	230	1180	180	1.3		6.72	<0.002	<-100	120	45	650	0.2	0.054	18	6	<0.01	<0.01	0.76	<1
MW-303D	Sept-98	12.7	240	8.8	220	1220	210	1.8		7.09	<0.002	-65	110	106	750	0.21	<0.02	<4				0.84	<1
MW-303D	Dec-98	11.1	220	<1	240	1150	230	1.6		6.95	<0.002	-60	140	119	670	0.25	0.064	<4				0.64	<1
MW-303D	Apr-99	10.4	210	<1	200	1320	180	1.4		7.92	<0.002	20	110	82	730	0.19	0.031	<4				0.74	2.2
MW-303D	Jun-99	11.8	220	4.1	190	1240	260	1.2		7.6	0.0023	10	110	212	710	0.35	0.042	<4				0.9	1.9
MW-303D	Sept-99	14.4	280	11	140	1170	270	1.8		7.2	<0.002	245	98	206	680	0.47	0.028	<4				1	1.5
MW-303D	Dec-99	10.9	260	6.7	150	1180	230	1.6		8.58	<0.002	40	110	247	660	0.43	0.23	<4	3	<0.01	<.03	0.87	1.6
MW-303D	Apr-00	10.2	257	<10	174	1160	203	1.6		7.66	<0.004	-102	97	5.9	670	0.679	<0.05	3	20	<0.01	<0.01	1.64	2.09
MW-303D	Jun-00	14.5	246	<10	180	910	198	1.5		7.68	<0.004	-113	92	18.8	682	0.552	0.058	4				2.3	<1
MW-303D	Sep-00	11.8	243	<10	180	1226	207	1.5		8.03	<0.004	-83	110	10	676	0.578	<0.05	3				<1	1.17
MW-303D	Dec-00	9.9	257	<10	152	1187	221	1.9		7.54	0.0063	-20	110	13	651	0.625	0.121	<3				1	<1
MW - 303S	Nov-94	13.5	743	39.1	45	907	1030	30		6.58	0.02	74.1	118	460	936	2.59	0.31	<2.0				2.05	2.85
MW - 303S	March-95	10.5	682	20	37	664	874	<1		6.5	<0.010	125	120	265	892	1.04	0.2	<2				1.17	0.3
MW - 303S	June-95	11.5	590	60.5	55	625	647	<1		6.44	<0.010	-63.3	148	465	900	2.09	0.14	<2				3.3	0.2
MW-303S	Sept. - 95	13.5	869	29.2	56	530	684	40		6.63	<0.010	-60.4	119	2600	952	4.47	<0.05	4				3.15	0.5
MW-303S	Nov-95	11	684	32.6	33	493	632	<1		6.52	<0.010	-39.3	130	300	900	0.97	<0.05	8	15	<0.004	<0.004	1.26	<0.2
MW-303S	April-96	8.7	690	30	38	1770	920	4.2		6.5	<0.002	90	130	>900	900	0.81	0.03	23	500	<0.01	<0.01	1.6	2.2
MW-303S	June-96	11.4	650	43	5	1440	680	2.6		6.3	<0.002	36	120	>900	880	2	<0.02	10				9.7	<2
MW-303S	Sept-96	13.1	1000	7.8	13	1600	730	21		6.3	<0.002	-15	130	24	900	2.2	<0.02	8.5				6.7	<2
MW-303S	Nov-96	11.6	650	58	23	1470	660	4.3		6.45	<0.002	5	62	280	810	7.6	<0.02	11				9	<2
MW-303S	March-97	9	710	17	27	1650	660	3.8		5.8	<0.002	40	96	>999	790	5.7	<0.02	16	25	<0.01	<0.01	8.9	<2
MW-303S	June-97	12	280	57	28	1400	870	3.9		6.51	<0.002	150	87	>999	860	4.6	<0.02	<4				7.6	<2
MW-303S	Sept-97	14	700	21	32	1300	820	4.7		6.3	0.0044	70	76	1200	810	12	0.026	9.8				10	<2
MW-303S	Dec-97	11	1200	47	27	1460	950	4.9		6.52	<0.002	-35	96	>999	820	11	<0.02	13				13	<2
MW-303S	Mar-98	10.2	860	15	22	1370	840	4.2		7.05	<0.002	85	100	>999	820	5.9	<0.02	9.8				8	3.6
MW-303S	June-98	15.8	640	<3	12	1120	650	3.9		6.14	<0.002	-75	51	819	610	5.7	0.024	11	50	<0.01	<0.01	8.3	<1
MW-303S	Sept-98	13.2	730	30	16	1260	980	4.8		6.36	<0.002	35	45	>999	780	7.1	<0.02	8.9				8	<1
MW-303S	Dec-98	9.6	620	160	20	1240	1400	4.9		6.8	<0.002	-45	27	942	710	8.1	<0.02	7.8				7.5	<1
MW-303S	Apr-99	10.5	630	13	30	1380	920	4.1		7.48	<0.002	-75	81	>999	780	5.4	<0.02	20				5.8	<0.1
MW-303S	Jun-99	12.6	620	23	28	1280	1100	4.1		7.02	0.0021	-35	67	>999	740	6.6	<0.02					8.1	<0.1
MW-303S	Sept-99	14.6	660	20	24	1320	1200	4.2		6.19	<0.002	65	98	>999	830	6.8	<0.02	15				8.9	0.21
MW-303S	Dec-99	12	1000	25	26	1410	1100	3.8		8.02	<0.002	45	94	>999	760	7.4	<0.02	12	20	<0.01	<.09	9	0.23
MW-303S	Apr-00	9.7	636	<10	19.2	1240	653	3.2		6.81	<0.002	-29	89	60	773	4.36	<0.05	4	750	<0.01	<0.01	5.46	<1
MW-303S	Jun-00	14.7	566	13.5	22	875	611	3.6		6.93	0.006	-84	30	121	650	4.31	<0.05	6				4.55	<1
MW-303S	Sep-00	13.2	586	17.5	16.7	1136	543	3.6		6.77	<0.004	-43	12	29	616	3.9	<0.05	<3				3.96	<1
MW-303S	Dec-00	10.4	637	<10	18.4	1206	625	<1		7	0.0042	-12	23	3.8	659	4.69	<0.05	<3				4.69	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
MW - 304D	Nov-94	11.5	598	8.7	70	835	379	22		6.89	0.013	54.3	61.7	26	804	1.38	0.18	<2.0				1.02	3.6
MW - 304D	March-95	11	569	10	66	512	722	5		6.88	<0.010	99.6	58.8	33	752	2.41	0.22	<2				1.17	0.8
MW - 304D	June-95	13	537	14	50	574	528	<1		6.79	<0.010	-74.2	63.4	62	844	1.73	0.24	<2				1.68	1.1
MW-304D	Sept. - 95	12	552	12.5	66	495	568	17		6.85	<0.010	-87.8	58.4	45	816	2.13	<0.05	<2				1.28	0.8
MW-304D	Nov-95	10.5	572	8.2	64	512	581	<1		6.81	<0.010	-54.5	51.6	64	760	1.15	<0.05	<2	25	<0.004	<0.004	1.21	0.4
MW-304D	April-96	10	570	7.8	69	1380	770	2.9		7.1	<0.002	55	65	72	730	1.1	0.022	<4	100	<0.01	<0.01	2.2	1.9
MW-304D	June-96	11.7	540	26	52	1260	570	2.1		6.8	0.0038	34	52	61	730	1.7	<0.02	<4				3.4	<2
MW-304D	Sept-96	12.2	530	2.8	50	1200	430	2.3		6.7	<0.002	400	67	29	740	1.1	<0.02	<4				2.2	<2
MW-304D	Nov-96	10.1	250	<1	68	691	320	2.3		7.46	<0.002	25	100	22	500	0.61	<0.02	<4				1.2	<2
MW-304D	March-97	8.9	590	19	58	1320	460	4		7	<0.002	10	66	127	690	0.85	<0.02	<4	15	<0.01	<0.01	1.8	<2
MW-304D	June-97	12.7	670	<1	50	1160	490	3.2		6.88	<0.002	125	74	<1	710	1.3	<0.02	<4				2.2	<2
MW-304D	Sept-97	12.8	590	<1	56	1100	460	3.4		7.2	0.0022	25	47	47	750	1.2	0.24	<4				0.71	<2
MW-304D	Dec-97	10.9	530	<1	52	1110	480	3.1		7.21	<0.002	-5	63	48	700	1.2	<0.02	<4				1.4	<2
MW-304D	Mar-98	11	490	2.2	58	1040	430	2.7		7.41	<0.002	55	61	113	650	1.2	<0.02	<4				1.9	<2
MW-304D	June-98	15.4	540	3.6	47	1070	460	3.4		6.5	<0.002	-85	51	40	670	0.91	0.039	<4	35	<0.01	<0.01	2.2	<1
MW-304D	Sept-98	11.9	370	16	53	853	430	2.8		6.95	<0.002	230	45	110	550	0.61	<0.02	<4				1.2	<1
MW-304D	Dec-98	11.1	190	<1	89	620	290	1.3		7.18	<0.002	110	66	122	360	0.092	0.06	4.2				0.38	<1
MW-304D	Apr-99	11.3	410	<1	62	1100	380	3		7.03	<0.002	-95	55	149	620	1.5	<0.02	<4				1.6	0.54
MW-304D	Jun-99	11.9	470	7.6	54	1070	580	2.7		7.02	0.0021	-5	52	133	620	1.3	<0.02	<4				2	0.42
MW-304D	Sept-99	12.7	520	12	52	1090	530	3.1		6.75	<0.002	10	46	124	650	0.93	<0.02	<4				1.8	0.5
MW-304D	Dec-99	10.8	420	6.6	58	1010	460	2.3		8.57	<0.002	45	51	215	560	0.92	<0.02	<4	25	<0.01	<.03	1.3	0.52
MW-304D	Apr-00	10.6	444	13.2	55.2	960	454	3.1		7.07	<0.004	-69	55	33	570	1.56	<0.05	<3	100	<0.01	<0.01	1.56	<1
MW-304D	Jun-00	13.8	358	<10	53.6	725	308	2.5		7.29	<0.004	-97	34	28.2	567	1.33	0.745	<3				1.64	<1
MW-304D	Sep-00	11.2	402	<10	50.3	904	365	1.6		7.07	<0.004	-71	34	12	473	1.04	<0.05	<3				<1	<1
MW-304D	Dec-00	10.1	233	<10	48.9	697	241	1.2		7.62	0.0077	-29	43	5.9	609	0.331	<0.05	<3				1.17	<1
MW - 304S	Nov-94	12	852	30.4	29	893	494	33		6.75	0.013	69.1	77	660	884	0.49	0.37	<2.0				1.53	4.9
MW - 304S	March-95	10.5	824	20	25	657	966	3		6.73	<0.010	101.7	82.5	530	904	0.33	0.31	<2				0.56	<0.2
MW - 304S	June-95	12.5	606	18.6	430	585	718	<1		6.57	<0.010	-77.7	89.4	380	844	0.37	0.25	<2				0.69	<0.2
MW-304S	Sept. - 95	11.5	806	45.8	30	497	846	<1		6.84	<0.010	-80.1	89.4	1500	920	0.4	0.06	<2				1.09	0.5
MW-304S	Nov-95	10	772	12.2	28	516	669	<1		6.85	<0.010	-41.7	87.3	550	916	0.1	0.08	<2	15	<0.004	<0.004	<0.5	0.3
MW-304S	April-96	10.1	800	75	30	1500	550	3.7		6.8	<0.002	45	83	220	870	0.24	<0.02	<4	500	<0.01	<0.01	3.1	3
MW-304S	June-96	11.6	700	16	14	1480	890	2.8		6.7	0.0041	70	52	>900	900	0.14	<0.02	<4				5.1	<2
MW-304S	Sept-96	12.1	590	130	28	1400	730	2.8		6.5	<0.002	402	45	24	860	0.31	<0.02	<4				0.83	<2
MW-304S	Nov-96	10.4	710	60	23	1440	900	5.3		6.74	<0.002	-10	560	220	840	0.25	<0.02	<4				0.77	<2
MW-304S	March-97	10	750	21	45	1450	730	7		6.7	<0.002	-5	90	171	860	0.086	<0.02	<4	15	<0.01	<0.01	0.59	<2
MW-304S	June-97	12.5	770	<1	29	1340	1100	4		6.6	<0.002	45	130	>999	840	0.12	<0.02	<4				1.1	<2
MW-304S	Sept-97	12.8	780	40	25	1200	990	4		6.9	<0.002	25	45	140	1700	0.29	<0.02	<4				0.78	<2
MW-304S	Dec-97	11.3	740	<1	24	1340	920	5.3		6.95	<0.002	-30	71	>999	870	0.24	<0.02	5				0.56	<2
MW-304S	Mar-98	10.3	750	19	26	1300	910	3.8		7.2	<0.002	110	52	>999	800	0.26	<0.02	<4				0.91	<2
MW-304S	June-98	14.8	830	14	20	1260	770	3.8		6.38	<0.002	-75	40	>999	790	0.23	<0.02	<4	40	<0.01	<0.01	0.68	<1
MW-304S	Sept-98	12.3	730	130	20	1240	1400	4.7		6.43	<0.002	-65	28	>999	830	0.26	<0.02	<4				0.61	<1
MW-304S	Dec-98	10.9	650	110	13	1210	1300	4.2		6.46	<0.002	-50	20	>999	730	0.21	<0.02	4.2				0.51	<1
MW-304S	Apr-99	11.7	590	34	26	1340	1300	4.6		7.27	<0.002	-80	37	>999	770	0.39	<0.02	<4				0.95	<0.1
MW-304S	Jun-99	11.5	680	31	24	1270	1300	3.9		6.74	0.002	-10	29	>999	750	0.33	<0.02	<4				0.99	<0.1
MW-304S	Sept-99	12.7	720	34	25	1220	1200	4		6.51	<0.002	15	29	>999	770	0.27	<0.02	<4				0.94	0.22
MW-304S	Dec-99	10.9	780	29	25	1260	1300	4		8.17	<0.002	75	24	>999	750	0.28	<0.02	<4	25	<0.01	<.3	0.96	0.17
MW-304S	Apr-00	10.6	688	12.5	27.6	1210	830	3.7		6.94	<0.004	-81	26	19	750	0.583	<0.05	<3	1500	<0.01	<0.01	<1	<1
MW-304S	Jun-00	13.8	668	<10	25.8	925	675	3		7.12	<0.004	-97	14	13.3	730	0.51	<0.05	<3				<1	<1
MW-304S	Sep-00	10.7	659	<10	25	1258	713	3.9		6.93	0.0062	-51	9	190	729	0.492	<0.05	<3				1.63	<1
MW-304S	Dec-00	10.6	671	<10	24.6	1215	653	<1		7	<0.004	-10	11	35	697	0.639	<0.05	<3				<1	<1

TABLE 4. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (S.U.)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Bromide (mg/l)
Class GA Groundwater Quality					250					6.5-8.5	0.001		250		500	2	10			0.2	0.05		2
Standards and Guidance Values																							
MW - 304VS	Nov-94	12.5	658	34.8	400	1176	983	24		6.81	<0.010	188.1	85.2	1800	1564	0.25	0.09	6.2				0.69	4.35
MW - 304VS	March-95	9	828	45	840	921	1600	5		6.71	<0.010	124.7	85.8	860	2640	0.31	0.24	5				0.84	<0.2
MW - 304VS	June-95	15	448	46.5	740	895	478	<1		6.64	<0.010	7.4	66.3	540	2392	0.2	0.26	<2				1.09	<0.2
MW-304VS	Sept. - 95	17.5	567	33.3	465	822	719	<1		6.57	<0.010	62.2	65.4	1300	1420	0.21	0.07	<2				0.69	1.3
MW-304VS	Nov-95	8.5	568	32.6	355	721	545	<1		6.79	<0.010	113.5	72	770	1160	0.03	<0.05	<2	10	<0.004	<0.004	<0.5	<0.2
MW-304VS	April-96	5.1	590	120	11	1720	600	6.4		7.4	<0.002	135	61	>900	930	0.17	0.022	5.4	750	<0.01	<0.01	2.6	3.1
MW-304VS	June-96	14.7	440	150	220	1580	500	5		7	0.0058	170	79	>900	880	0.094	<0.02	4				6.9	<2
MW-304VS	Sept-96	16.8	550	100	180	2200	670	4.8		6.8	<0.002	388	<200	24	920	0.18	<0.02	<4				0.72	<2
MW-304VS	Nov-96	9.6	480	63	190	1780	630	5.8		6.97	<0.002	165	11	290	870	0.12	<0.02	<4				1.7	<2
MW-304VS	March-97	4.7	400	55	600	2780	670	3.9		7.1	<0.002	70	61	50	1700	0.14	<0.02	<4	10	<0.01	<0.01	0.71	<2
MW-304VS	June-97	14.8	480	<1	830	3390	1400	4.6		6.77	0.0031	190	120	>999	2800	0.076	0.27	4				1.4	<2
MW-304VS	Sept-97	16.5	740	21	480	2500	1200	5.2		7	<0.002	200	41	840	720	0.19	0.098	<4				0.83	<2
MW-304VS	Dec-97	9.1	450	<1	280	2230	1100	5.9		7.05	<0.002	25	42	>999	1200	0.13	<0.02	4				1	<2
MW-304VS	Mar-98	5.2	490	13	340	1920	670	4.7		7.75	<0.002	345	45	134	1000	0.11	0.025	<4				1.4	<2
MW-304VS	June-98	16.8	550	17	250	1490	580	4.9		6.65	<0.002	-15	28	>999	860	0.2	0.052	<4	12	<0.01	<0.01	1	<1
MW-304VS	Sept-98	Location Not Sampled																					
MW-304VS	Dec-98	10.2	430	93	270	1300	840	5		7.01	<0.002	25	23	>999	800	0.049	0.1	<4				0.63	<1
MW-304VS	Apr-99	8	410	9.1	140	1340	540	4.5		6.87	<0.002	180	45	933	740	0.032	<0.02	<4				0.58	<0.1
MW-304VS	Jun-99	13.1	460	18	110	1220	680	4.7		7.33	<0.002	140	43	390	660	0.22	0.03	<4				1.3	<0.1
MW-304VS	Sept-99	17.7	440	15	250	1330	530	4.7		6.39	<0.002	5.45	42	>999	940	0.22	0.048	<4				0.78	<0.1
MW-304VS	Dec-99	9.1	400	19	180	1390	760	4.2		8.75	<0.002	340	39	>999	860	0.076	0.036	<4	1	<0.01	<.05	0.99	<0.1
MW-304VS	Apr-00	7.8	365	70.8	748	275	890	4.9		7.03	<0.004	-33	64	15	1820	0.344	0.057	6	750	<0.01	<0.01	1.1	<1
MW-304VS	Jun-00	16.7	326	<10	753	2300	962	4		7.3	<0.004	-68	43	13.4	2110	0.403	<0.05	<3				<1	<1
MW-304VS	Sep-00	15.6	383	30.1	560	2450	630	9.1		7.03	<0.004	28	45	19	1400	0.347	<0.05	3				2.26	<1
MW-304VS	Dec-00	6	376	<10	82.8	2050	535	8.2		7.52	<0.004	71	61	3.7	1120	0.3	<0.05	<3				<1	<1

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20		0.025	0.003		1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
PZ-01	Sep-87																								
PZ-01	May-88																								
PZ-01	Aug-88																								
PZ-01	Nov-88																								
PZ-01	Feb-89																								
PZ-1A	Feb-90																								
PZ-1A	Apr-90																								
PZ-1A	Nov-90																								
PZ-1A	Feb-91																								
PZ-1A	May-91																								
PZ-1A	Aug-91																								
PZ-1A	Nov-91																								
PZ-1A	Feb-92																								
PZ-1A	May-92																								
PZ-1A	Aug-92																								
PZ-1A	Dec-92																								
PZ-1A	Feb-93																								
PZ-1A	May-93																								
PZ-1A	Aug-93																								
PZ-1A	Dec-93																								
PZ-1A	34366																								
PZ-1A	May-94																								
PZ-1A	Aug-94																								
PZ-1A	Nov-94																								
PZ-1A	March-95																								
PZ-1A	June-95																								
PZ-1A	Sept. - 95																								
PZ-1A	Nov-95																								
PZ-1A	April-96																								
PZ-1A	June-96																								
PZ-1A	Sept-96																								
PZ-1A	Nov-96																								
PZ-1A	March-97																								
PZ-1A	June-97																								
PZ-1A	Sept-97																								
PZ-1A	Dec-97		< 0.01	81	< 0.05	< 0.01	18	0.036	2	17															
PZ-1A	Mar-98		< 0.01	95	0.12	< 0.01	21	0.054	2.1	16															
PZ-1A	June-98	< 1	< 0.01	88	0.39	< 0.01	23	0.42	2	15	0.19	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	0.019	< 0.05	< 0.01	< 0.03	0.15	< 0.01	< 0.03	< 0.0002
PZ-1A	Sept-98	Location Not Sampled																							
PZ-1A	Dec-98		< 0.01	85	< 0.05	< 0.01	18	0.28	2.2	12															
PZ-1A	Apr-99		< 0.01	100	< 0.05	< 0.01	22	0.048	1.8	19															
PZ-1A	Jun-99		< 0.01	120	< 0.05	< 0.01	26	0.029	2.2	19															
PZ-1A	Sept-99		< 0.01	120	< 0.05	< 0.01	24	0.34	2.4	19															
PZ-1A	Dec-99	< 0.5	< 0.01	110	< 0.05	< 0.01	24	0.3	2.2	17	< 0.1	< 0.01	< 0.01	< 0.01	< 0.2	< 0.01	< 0.01	< 0.01	0.036	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0002
PZ-1A	Apr-00	0.061	< 0.0050	106	< 0.040	< 0.001	23.4	0.159	1.82	17	< 0.075	< 0.050	< 0.002	< 0.002	0.046	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
PZ-1A	Jun-00		< 0.0050	108	0.108	0.002	23.6	0.463	1.89	17.6															
PZ-1A	Sep-00		< 0.005	110	0.061	< 0.001	23.9	0.471	2.16	17.3															
PZ-1A	Dec-00		0.006	120	0.08	< 0.001	23.2	0.557	1.88	20.3															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
PZ-04	Sep-87																								
PZ-04	May-88																								
PZ-04	Aug-88																								
PZ-04	Nov-88																								
PZ-04	Feb-89																								
PZ-04	Apr-89																								
PZ-04	Jul-89																								
PZ-04	Feb-90																								
PZ-04	Apr-90																								
PZ-4	Nov-90																								
PZ-4	Feb-91																								
PZ-4	May-91																								
PZ-4	Aug-91																								
PZ-4	Nov-91																								
PZ-4	Feb-92																								
PZ-4	May-92																								
PZ-4	Aug-92																								
PZ-4	Dec-92																								
PZ-4	Feb-93																								
PZ-4	May-93																								
PZ-4	Aug-93																								
PZ-4	Dec-93																								
PZ-4	34366																								
PZ-4	Jun-94																								
PZ-4	Aug-94																								
PZ-4	Nov-94																								
PZ-4	March-95																								
PZ-4	June-95																								
PZ-4	Sept. - 95																								
PZ-4	Nov-95																								
PZ-4	April-96																								
PZ-4	June-96																								
PZ-4	Sept-96																								
PZ-4	Nov-96																								
PZ-4	March-97																								
PZ-4	June-97																								
PZ-4	Sept-97																								
PZ-4	Dec-97		< 0.01	140	< 0.05	< 0.01	31	0.66	2.5	15															
PZ-4	Mar-98		< 0.01	150	< 0.05	< 0.01	38	0.71	2.7	14															
PZ-4	June-98	< 1	< 0.01	150	0.073	< 0.01	42	0.94	2.5	14	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	0.01	< 0.05	< 0.01	< 0.03	0.062	< 0.01	< 0.03	< 0.0002
PZ-4	Sept-98		< 0.01	180	0.15	0.013	40	0.85	3.1	14															
PZ-4	Dec-98		< 0.01	130	< 0.05	< 0.01	31	0.68	2.5	10															
PZ-4	Apr-99		< 0.01	170	0.077	< 0.01	38	0.84	2.4	18															
PZ-4	Jun-99		< 0.01	190	0.33	< 0.01	44	1	2.6	16															
PZ-4	Sept-99		< 0.01	180	< 0.05	< 0.01	40	0.88	2.7	16															
PZ-4	Dec-99	< 0.05	< 0.01	170	< 0.05	< 0.01	40	0.88	2.8	14	< 0.1	< 0.01	0.044	< 0.01	< 0.2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.021	< 0.01	< 0.01	< 0.0002
PZ-4	Apr-00	0.134	< 0.0050	157	< 0.040	0.003	35	0.024	2.06	18.3	< 0.075	< 0.050	0.004	< 0.002	0.027	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
PZ-4	Jun-00		< 0.0050	174	0.073	0.004	41.9	0.602	2.49	15.1															
PZ-4	Sep-00		< 0.005	176	0.198	< 0.001	42.2	0.782	2.95	15.7															
PZ-4	Dec-00		< 0.005	169	< 0.040	< 0.001	38.6	0.036	2.78	20.8															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
PZ-11	Sep-87																								
PZ-11	May-88																								
PZ-11	Aug-88																								
PZ-11	Nov-88																								
PZ-11	Feb-89																								
PZ-11	Apr-89																								
PZ-11	Jul-89																								
PZ-11	Nov-89																								
PZ-11	Feb-90																								
PZ-11	Apr-90																								
PZ-11	Nov-90																								
PZ-11	Feb-91																								
PZ-11	May-91																								
PZ-11	Aug-91																								
PZ-11	Nov-91																								
PZ-11	Feb-92																								
PZ-11	May-92																								
PZ-11	Aug-92																								
PZ-11	Dec-92																								
PZ-11	Feb-93																								
PZ-11	May-93																								
PZ-11	Aug-93																								
PZ-11	Dec-93																								
PZ-11	34366																								
PZ-11	May-94																								
PZ-11	Aug-94																								
PZ-11	Nov-94																								
PZ-11	March-95																								
PZ-11	June-95																								
PZ-11	Sept. - 95																								
PZ-11	Nov-95																								
PZ-11	April-96																								
PZ-11	June-96																								
PZ-11	Sept-96																								
PZ-11	Nov-96																								
PZ-11	March-97																								
PZ-11	June-97																								
PZ-11	Sept-97																								
PZ-11	Dec-97		< 0.01	120	< 0.05	< 0.01	23	1.2	2.3	10															
PZ-11	Mar-98		< 0.01	130	0.08	< 0.01	27	1.2	2.6	11															
PZ-11	June-98	< 1	< 0.01	150	0.06	0.011	37	2.2	2.6	9.9	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	0.025	< 0.05	< 0.01	< 0.03	0.13	< 0.01	< 0.03	< 0.0002
PZ-11	Sept-98		< 0.01		0.62	0.023	40	2.7	3.8	9.7	190														
PZ-11	Dec-98		< 0.01	120	0.19	< 0.01	23	1.5	2.5	6.6															
PZ-11	Apr-99		< 0.01	170	3	< 0.01	35	2.4	2.5	12															
PZ-11	Jun-99		< 0.01	170	1.7	< 0.01	33	1.9	2.6	13															
PZ-11	Sept-99		< 0.01	170	2.1	< 0.01	31	2	2.7	13															
PZ-11	Dec-99	< 0.5	< 0.01	130	0.81	< 0.01	24	1.3	2.4	11	< 0.1	< 0.01	0.017	< 0.01	< 0.2	< 0.01	< 0.01	< 0.01	0.037	< 0.01	< 0.01	0.017	< 0.01	< 0.01	< 0.0002
PZ-11	Apr-00	< 0.048	< 0.0050	154	0.88	0.002	29.9	1.69	2.24	10.4	< 0.075	< 0.030	0.003	< 0.002	0.058	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	0.038	< 0.010	< 0.010	< 0.0002
PZ-11	Jun-00		< 0.0050	190	0.99	0.005	34.9	2.06	2.45	10.7															
PZ-11	Sep-00		< 0.005	170	1.78	0.012	29.7	1.4	2.08	9.73															
PZ-11	Dec-00		< 0.005	166	1.93	< 0.001	27.2	1.48	2.13	12.2															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

[illegible]

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-Ar (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20		0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2				0.002
MW-207SA	Nov-90																								
MW-207SA	Feb-91																								
MW-207SA	May-91																								
MW-207SA	Aug-91																								
MW-207SA	Nov-91																								
MW-207SA	Feb-92																								
MW-207SA	May-92																								
MW-207SA	Aug-92																								
MW-207SA	Dec-92																								
MW-207SA	Feb-93																								
MW-207SA	May-93																								
MW-207SA	Aug-93																								
MW-207SA	Dec-93																								
MW-207SA	34366																								
MW-207SA	May-94																								
MW-207SA	Aug-94																								
MW-207SA	Nov-94																								
MW-207SA	March-95																								
MW-207SA	June-95																								
MW-207SA	Sept. - 95																								
MW-207SA	Nov-95																								
MW-207S	April-96																								
MW-207S	June-96																								
MW-207S	Sept-96																								
MW-207S	Nov-96																								
MW-207S	March-97																								
MW-207S	June-97																								
MW-207S	Sept-97																								
MW-207S	Dec-97		< 0.01	160	4.6	< 0.01	28	1.5	2.2	11															
MW-207S	Mar-98		< 0.01	170	15	0.088	34	1.8	3.5	12															
MW-207S	June-98	< 1	< 0.01	< 1	3.8	< 0.01	32	1.8	< 1	< 0.2	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	0.012	< 0.05	< 0.01	< 0.03	0.055	< 0.01	< 0.03	< 0.0002
MW-207S	Sept-98		< 0.01	300	35	0.056	44	4.3	3.4	11															
MW-207S	Dec-98		< 0.01	150	17	< 0.01	29	1.4	2.9	7.4															
MW-207S	Apr-99		< 0.01	180	29	< 0.01	35	1.7	2.2	12															
MW-207S	Jun-99		< 0.01	200	34	< 0.01	40	2	2.4	11															
MW-207S	Sept-99		< 0.01	190	30	< 0.01	35	1.6	2.4	12															
MW-207S	Dec-99	< .5	< 0.01	180	24	< 0.01	36	1.6	2.6	11	< .1	< 0.01	0.09	< 0.01	< .2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.00024
MW-207S	Apr-00	< 0.048	< 0.0050	176	27.1	0.001	34.4	1.33	2.74	10.1	< 0.075	< 0.050	0.033	< 0.002	0.142	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	0.021	< 0.010	< 0.010	< 0.0002
MW-207S	Jun-00		< 0.0050	176	26.7	0.012	34.4	1.31	2.76																
MW-207SA	Sep-00		< 0.005	193	26.3	< 0.001	37.7	1.79	2.65	10.4															
MW-207SA	Dec-00		< 0.005	197	25.1	< 0.001	38.4	1.45	3.09	12.8															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-207D	Sep-87																								
MW-207D	Feb-89																								
MW-207D	Apr-89																								
MW-207D	Jun-89																								
MW-207D	Nov-89																								
MW-207D	Feb-90																								
MW-207D	Apr-90																								
MW-207D	Nov-90																								
MW-207D	Feb-91																								
MW-207D	May-91																								
MW-207D	Aug-91																								
MW-207D	Nov-91																								
MW-207D	Feb-92																								
MW-207D	May-92																								
MW-207D	Aug-92																								
MW-207D	Dec-92																								
MW-207D	Feb-93																								
MW-207D	May-93																								
MW-207D	Aug-93																								
MW-207D	Dec-93																								
MW-207D	34366																								
MW-207D	May-94																								
MW-207D	Aug-94																								
MW-207D	Nov-94																								
MW-207D	March-95																								
MW-207D	June-95																								
MW-207D	Sept. - 95																								
MW-207D	Nov-95																								
MW-207D	April-96																								
MW-207D	June-96																								
MW-207D	Sept-96																								
MW-207D	Nov-96																								
MW-207D	March-97																								
MW-207D	June-97																								
MW-207D	Sept-97																								
MW-207D	Dec-97		< 0.01	150	< 0.05	< 0.01	26	1.6	1.6	13															
MW-207D	Mar-98		< 0.01	160	0.25	< 0.01	29	1.7	1.4	12															
MW-207D	June-98	< 1	< 0.01	120	< 0.05	< 0.01	24	0.72	2.5	7.5	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	0.013	< 0.05	< 0.01	< 0.03	0.092	< 0.01	< 0.03	< 0.0002
MW-207D	Sept-98		< 0.01	190	0.016	< 0.01	37	2.1	2	12															
MW-207D	Dec-98		< 0.01	150	0.22	< 0.01	29	1.7	1.7	9.1															
MW-207D	Apr-99		< 0.01	160	1.08	< 0.01	32	2.2	1.6	15															
MW-207D	Jun-99		< 0.01	190	0.68	< 0.01	37	2.8	2	16															
MW-207D	Sept-99		< 0.01	180	1	< 0.01	33	2	1.9	14															
MW-207D	Dec-99	< .5	< 0.01	190	0.65	< 0.01	38	2	2.3	13	< .1	< 0.01	0.004	< 0.01	< .2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< .0002
MW-207D	Apr-00	< 0.048	< 0.0050	129	0.042	0.002	28.4	0.096	5.54	17	< 0.075	< 0.050	0.002	< 0.002	0.031	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	0.027	< 0.010	< 0.010	< 0.0002
MW-207D	Jun-00		< 0.0050	181	2.12	0.002	35.9	1.89	1.33	13.2															
MW-207D	Sep-00		< 0.005	184	2.12	< 0.001	35.8	1.9	1.5	12.3															
MW-207D	Dec-00		< 0.005	192	2.36	< 0.001	38.5	2.13	1.64	14.8															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class CA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20		0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2				0.002
MW-220	Sep-87																								
MW-220	May-88																								
MW-220	Aug-88																								
MW-220	Nov-88																								
MW-220	Feb-89																								
MW-220	Apr-89																								
MW-220	Jun-89																								
MW-220	Feb-90																								
MW-220	Apr-90																								
MW-220	Nov-90																								
MW-220	Feb-91																								
MW-220	May-91																								
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MW-220	Aug-92																								
MW-220	Dec-92																								
MW-220	Feb-93																								
MW-220	Jun-93																								
MW-220	Aug-93																								
MW-220	Dec-93																								
MW-220	34394																								
MW-220	Jun-94																								
MW-220	Aug-94																								
MW-220	Nov-94																								
MW-220	March-95																								
MW-220	June-95																								
MW-220	Sept. - 95																								
MW-220	Nov-95																								
MW-220	April-96																								
MW-220	June-96																								
MW-220	Sept-96																								
MW-220	Nov-96																								
MW-220	March-97																								
MW-220	June-97																								
MW-220	Sept-97																								
MW-220	Dec-97		< 0.01	160	0.26	< 0.01	43	0.97	2.3	18															
MW-220	Mar-98		< 0.01	210	0.33	< 0.01	52	1.1	2.9	16															
MW-220	June-98	< 1	< 0.01	250	0.065	0.011	82	1.4	7.1	16	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	0.016	< 0.05	< 0.01	< 0.03	0.1	< 0.01	< 0.03	< 0.0002
MW-220	Sept-98		< 0.01	190	0.11	< 0.01	50	1	3.8	15															
MW-220	Dec-98		< 0.01	160	< 0.05	< 0.01	47	1.1	3.2	15															
MW-220	Apr-99		< 0.01	240	0.38	< 0.01	63	1.6	2.9	54															
MW-220	Jun-99		< 0.01	240	0.32	0.019	82	1.5	3.3	17															
MW-220	Sept-99		< 0.01	380	0.73	< 0.01	110	2.1	5.8	19															
MW-220	Dec-99	< 0.5	< 0.01	240	0.17	< 0.01	62	1.6	3.6	19	< 0.1	< 0.01	0.006	< 0.01	< 0.2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0002
MW-220	Apr-00	0.078	0.005	231	0.286	< 0.001	58.3	1.49	6.05	18.7	< 0.075	< 0.050	< 0.002	< 0.002	0.053	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
MW-220	Jun-00		< 0.0050	271	0.131	0.003	77.1	1.25	3.06	13.4															
MW-220	Sept-00		< 0.005	190	0.232	< 0.001	49.1	1.15	2.53	11.8															
MW-220	Dec-00		< 0.005	250	0.088	< 0.001	73.2	0.773	3.19	16.6															

TABLE 8. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-221S	Sep-87																								
MW-221S	May-88																								
MW-221S	Aug-88																								
MW-221S	Nov-88																								
MW-221S	Feb-89																								
MW-221S	Apr-89																								
MW-221S	Jul-89																								
MW-221S	Nov-89																								
MW-221S	Feb-90																								
MW-221S	Apr-90																								
MW-221S	Nov-90																								
MW-221S	Feb-91																								
MW-221S	May-91																								
MW-221S	Aug-91																								
MW-221S	Nov-91																								
MW-221S	Feb-92																								
MW-221S	May-92																								
MW-221S	Aug-92																								
MW-221S	Dec-92																								
MW-221S	Feb-93																								
MW-221S	Jun-93																								
MW-221S	Aug-93																								
MW-221S	Dec-93																								
MW-221S	34366																								
MW-221S	Jun-94																								
MW-221S	Aug-94																								
MW-221S	Nov-94																								
MW-221S	March-95																								
MW-221S	June-95																								
MW-221S	Sept. - 95																								
MW-221S	Dec-95																								
MW-221S	April-96																								
MW-221S	June-96																								
MW-221S	Sept-96																								
MW-221S	Nov-96																								
MW-221S	March-97																								
MW-221S	June-97																								
MW-221S	Sept-97																								
MW-221S	Dec-97		< 0.01	230	0.064	< 0.01	47	3	4.6	24															
MW-221S	Mar-98		< 0.01	250	0.3	< 0.01	34	0.23	3.2	15															
MW-221S	June-98	< 1	< 0.01	190	0.05	< 0.01	38	1.3	3.5	19	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	0.031	< 0.05	< 0.01	< 0.03	0.097	< 0.01	< 0.03	< 0.0002
MW-221S	Sept-98		< 0.01	250	0.12	0.018	46	4.6	5.7	35															
MW-221S	Dec-98		< 0.01	180	0.24	< 0.01	44	2.9	4.7	37															
MW-221S	Apr-99		< 0.01	270	0.11	< 0.01	44	0.47	3.1	21															
MW-221S	Jun-99		< 0.01	270	< 0.05	< 0.01	48	1.4	3.9	16															
MW-221S	Sept-99		< 0.01	270	< 0.05	< 0.01	34	1.4	3.4	17															
MW-221S	Dec-99	< 0.5	< 0.01	190	< 0.05	< 0.01	31	1.3	5	11	< 0.1	< 0.01	0.046	< 0.01	< 0.2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0002	
MW-221S	Apr-00	0.077	< 0.0050	212	0.068	< 0.001	26.5	0.04	2.41	10.6	< 0.075	< 0.050	< 0.002	< 0.002	0.102	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
MW-221S	Jun-00		< 0.0050	224	< 0.040	0.002	32.5	0.128	3.12	15.3															
MW-221S	Sep-00		< 0.005	199	< 0.040	< 0.001	31	1.2	3.52	15.8															
MW-221S	Dec-00		< 0.005	224	< 0.040	< 0.001	28.1	0.847	3.26	12.6															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Chase GA Groundwater Quality Parameters and Guidelines Values		1	0.005		0.3	0.025	35	0.3		20		0.025	0.003		1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-221D	Sep-87																								
MW-221D	May-88																								
MW-221D	Aug-88																								
MW-221D	Nov-88																								
MW-221D	Feb-89																								
MW-221D	Apr-89																								
MW-221D	Jul-89																								
MW-221D	Nov-89																								
MW-221D	Feb-90																								
MW-221D	Apr-90																								
MW-221D	Nov-90																								
MW-221D	Feb-91																								
MW-221D	May-91																								
MW-221D	Aug-91																								
MW-221D	Nov-91																								
MW-221D	Feb-92																								
MW-221D	May-92																								
MW-221D	Aug-92																								
MW-221D	Dec-92																								
MW-221D	Feb-93																								
MW-221D	Jun-93																								
MW-221D	Aug-93																								
MW-221D	Dec-93																								
MW-221D	34366																								
MW-221D	Jun-94																								
MW-221D	Aug-94																								
MW-221D	Nov-94																								
MW-221D	March-95																								
MW-221D	June-95																								
MW-221D	Sept. - 95																								
MW-221D	Dec-95																								
MW-221D	April-96																								
MW-221D	June-96																								
MW-221D	Sept-96																								
MW-221D	Nov-96																								
MW-221D	March-97																								
MW-221D	June-97																								
MW-221D	Sept-97																								
MW-221D	Dec-97		< 0.01	34	< 0.05	< 0.01	15	< 0.01	2.7	14															
MW-221D	Mar-98		< 0.01	37	0.11	< 0.01	15	< 0.01	2.3	14															
MW-221D	June-98	< 1	< 0.01	38	< 0.05	< 0.01	19	< 0.01	3.2	15	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.079	< 0.01	< 0.03	< 0.0002
MW-221D	Sept-98		< 0.01	39	0.11	0.017	18	< 0.01	4.7	14															
MW-221D	Dec-98		< 0.01	30	< 0.05	< 0.01	12	0.014	2.6	9.8															
MW-221D	Apr-99		< 0.01	39	0.078	< 0.01	16	0.015	2.8	17															
MW-221D	Jun-99		< 0.01	45	< 0.05	< 0.01	19	0.012	3	18															
MW-221D	Sept-99		< 0.01	46	< 0.05	< 0.01	1.8	< 0.01	0.27	1.4															
MW-221D	Dec-99	< 0.5	< 0.01	40	< 0.05	< 0.01	17	< 0.01	3.1	13	< 0.1	< 0.01	< 0.01	< 0.01	< 0.2	< 0.01	< 0.01	< 0.01	0.039	< 0.01	0.017	0.022	< 0.01	< 0.01	< 0.0002
MW-221D	Apr-00	< 0.048	< 0.0050	38.7	0.042	< 0.001	16.6	< 0.005	2.27	14.3	< 0.075	< 0.050	< 0.002	< 0.002	0.05	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
MW-221D	Jun-00		< 0.0050	40.3	< 0.040	0.003	17.2	< 0.005	2.25	15.2															
MW-221D	Sept-00		< 0.005	41.9	< 0.040	< 0.001	17.6	< 0.005	2.75	15															
MW-221D	Dec-00		< 0.005	43.7	< 0.040	0.001	18.3	< 0.005	2.69	17.5															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Tb (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidelines Values		1	0.005		0.3	0.025	35	0.3		20		0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2				0.002
MW-222	Sep-87																								
MW-222	May-88																								
MW-222	Aug-88																								
MW-222	Nov-88																								
MW-222	Feb-89																								
MW-222	Apr-89																								
MW-222	Jul-89																								
MW-222	Nov-89																								
MW-222	Feb-90																								
MW-222	Apr-90																								
MW-222	Nov-90																								
MW-222	Feb-91																								
MW-222	May-91																								
MW-222	Aug-91																								
MW-222	Nov-91																								
MW-222	Feb-92																								
MW-222	May-92																								
MW-222	Aug-92																								
MW-222	Dec-92																								
MW-222	Feb-93																								
MW-222	Jun-93																								
MW-222	Aug-93																								
MW-222	Dec-93																								
MW-222	34366																								
MW-222	Jun-94																								
MW-222	Aug-94																								
MW-222	Nov-94																								
MW-222	March-95																								
MW-222	June-95																								
MW-222	Sept. - 95																								
MW-222	Nov-95																								
MW-222	April-96																								
MW-222	June-96																								
MW-222	Sept-96																								
MW-222	Nov-96																								
MW-222	March-97																								
MW-222	June-97																								
MW-222	Sept-97																								
MW-222	Dec-97		< 0.01	200	1.9	< 0.01	54	0.63	20	230															
MW-222	Mar-98		< 0.01	170	6.3	< 0.01	48	1.1	14	110															
MW-222	June-98	< 1	< 0.01	180	10	0.011	49	1.2	9.5	56	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	0.04	< 0.05	< 0.01	< 0.03	0.091	< 0.01	< 0.03	< 0.0002
MW-222	Sept-98		< 0.01	270	5.6	< 0.01	64	1.2	15	41															
MW-222	Dec-98		< 0.01	140	8	< 0.01	59	0.38	29	140															
MW-222	Apr-99		< 0.01	260	26	< 0.01	86	1.9	20	210															
MW-222	Jun-99		< 0.01	180	24	< 0.01	64	0.82	21	130															
MW-222	Sept-99		< 0.01	180	19	< 0.01	65	0.62	30	110															
MW-222	Dec-99	< 0.5	< 0.01	160	16	< 0.01	54	0.57	52	120	< 0.1	< 0.01	0.033	< 0.01	< 0.2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0002
MW-222	Apr-00	0.24	< 0.0050	163	22.4	0.001	61	0.741	22.7	58.3	< 0.075	< 0.050	0.025	< 0.002	0.373	< 0.010	< 0.017	0.016	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
MW-222	Jun-00		< 0.0050	190	33.3	0.002	64	1.06	10.6	26.6															
MW-222	Sep-00		< 0.005	207	49.1	< 0.001	65.4	0.866	7.14	37.4															
MW-222	Dec-00		< 0.005	227	42.4	< 0.001	83.8	0.623	18.7	60.5															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-223S	Sep-87																								
MW-223S	May-88																								
MW-223S	Aug-88																								
MW-223S	Nov-88																								
MW-223S	Feb-89																								
MW-223S	Apr-89																								
MW-223S	Jul-89																								
MW-223S	Nov-89																								
MW-223S	Feb-90																								
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MW-223S	Aug-94																								
MW-223S	Nov-94																								
MW-223S	March-95																								
MW-223S	June-95																								
MW-223S	Sept. - 95																								
MW-223S	Nov-95																								
MW-223S	April-96																								
MW-223S	June-96																								
MW-223S	Sept-96																								
MW-223S	Nov-96																								
MW-223S	March-97																								
MW-223S	June-97																								
MW-223S	Sept-97																								
MW-223S	Dec-97		< 0.01	190	0.4	< 0.01	43	2.5	1.4	8.6															
MW-223S	Mar-98		< 0.01	100	0.064	< 0.01	28	0.42	1.8	9.4															
MW-223S	June-98	< 1	< 0.01	210	0.39	< 0.01	62	3.4	1.7	11	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.1	< 0.01	< 0.03	0.00086
MW-223S	Sept-98		< 0.01	220	0.97	< 0.01	46	1.8	2.3	11															
MW-223S	Dec-98		< 0.01	100	0.53	0.04	29	0.62	1.8	8.3															
MW-223S	Apr-99		< 0.01	210	21	0.011	50	3.3	1.4	12															
MW-223S	Jun-99		< 0.01	210	0.41	< 0.01	48	1.4	1.8	14															
MW-223S	Sept-99		< 0.01	240	22	< 0.01	50	3.8	1.7	16															
MW-223S	Dec-99	< 0.5	< 0.01	220	17	< 0.01	46	3.6	1.7	12	< 0.01	< 0.01	0.063	< 0.01	< 0.2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0002
MW-223S	Apr-00	< 0.048	< 0.0050	189	3.24	< 0.001	45.7	1.62	1.3	11.6	< 0.075	< 0.050	0.013	< 0.002	0.055	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
MW-223S	Jun-00		< 0.0050	229	25.3	0.002	48.3	3.96	1.47	16.6															
MW-223S	Sept-00		< 0.005	224	24.5	< 0.001	46.7	3.8	1.61	16.7															
MW-223S	Dec-00		< 0.005	234	26.2	< 0.001	49.8	4.08	1.57	19.1															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20		0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2				0.001
MW-223D	Sep-87																								
MW-223D	May-88																								
MW-223D	Aug-88																								
MW-223D	Nov-88																								
MW-223D	Feb-89																								
MW-223D	Apr-89																								
MW-223D	Jul-89																								
MW-223D	Nov-89																								
MW-223D	Feb-90																								
MW-223D	Apr-90																								
MW-223D	Nov-90																								
MW-223D	Feb-91																								
MW-223D	May-91																								
MW-223D	Aug-91																								
MW-223D	Nov-91																								
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MW-223D	May-92																								
MW-223D	Aug-92																								
MW-223D	Dec-92																								
MW-223D	Feb-93																								
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MW-223D	Sept. - 95																								
MW-223D	Nov-95																								
MW-223D	April-96																								
MW-223D	June-96																								
MW-223D	Sept-96																								
MW-223D	Nov-96																								
MW-223D	March-97																								
MW-223D	June-97																								
MW-223D	Sept-97																								
MW-223D	Dec-97		< 0.01	160	0.1	< 0.01	37	1.3	1.1	10															
MW-223D	Mar-98		< 0.01	100	0.067	< 0.01	26	0.52	3.3	13															
MW-223D	June-98	< 1	< 0.01	160	< 0.05	< 0.01	45	1.5	1.4	10	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.035	< 0.01	< 0.03	< 0.0002
MW-223D	Sept-98		< 0.01	160	0.37	0.018	37	0.95	3.2	11															
MW-223D	Dec-98		< 0.01	100	0.50	< 0.01	28	0.79	1.7	6.8															
MW-223D	Apr-99		< 0.01	200	3.8	< 0.01	47	1.7	1.4	13															
MW-223D	Jun-99		< 0.01	180	0.17	0.033	41	1.1	1.8	16															
MW-223D	Sept-99		< 0.01	220	2.7	< 0.01	49	1.8	1.7	13															
MW-223D	Dec-99	< 0.5	< 0.01	150	2	< 0.01	35	0.95	1.3	11	< .1	< 0.01	0.01	< 0.01	< .2	< 0.01	< 0.01	< 0.01	0.032	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0002
MW-223D	Apr-00	0.053	< 0.0050	219	21.8	< 0.001	48.7	3.81	1.46	11.9	< 0.075	< 0.050	0.02	< 0.002	0.087	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
MW-223D	Jun-00		< 0.0050	206	4.06	0.003	48.6	1.74	1.36	12.3															
MW-223D	Sep-00		< 0.005	202	3.68	< 0.001	47.4	1.73	1.36	11.7															
MW-223D	Dec-00		< 0.005	223	4.53	0.006	52.2	1.94	1.37	14.4															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20		0.025	0.003		1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW - 303D	Nov-94																								
MW - 303D	March-95																								
MW - 303D	June-95																								
MW-303D	Sept. - 95																								
MW-303D	Nov-95																								
MW-303D	April-96																								
MW-303D	June-96																								
MW-303D	Sept-96																								
MW-303D	Nov-96																								
MW-303D	March-97																								
MW-303D	June-97																								
MW-303D	Sept-97																								
MW-303D	Dec-97		< 0.01	38	< 0.05	< 0.01	15	0.014	6.3	150															
MW-303D	Mar-98		< 0.01	37	0.077	< 0.01	15	0.015	4.4	150															
MW-303D	June-98	< 1	< 0.01	38	0.067	< 0.01	15	0.026	8.1	180	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.1	< 0.01	< 0.03	< 0.0002
MW-303D	Sept-98		< 0.01	49	0.07	0.016	20	0.018	8.6	180															
MW-303D	Dec-98		< 0.01	40	0.19	< 0.01	17	0.033	7.7	180															
MW-303D	Apr-99		< 0.01	44	0.26	< 0.01	18	0.036	4.9	210															
MW-303D	Jun-99		< 0.01	54	0.062	< 0.01	22	0.041	5	220															
MW-303D	Sept-99		< 0.01	55	0.086	< 0.01	21	< 0.01	6.8	210															
MW-303D	Dec-99	< .5	< 0.01	49	< .05	< 0.01	20	0.031	9.5	170	< .1	< 0.01	< 0.01	< 0.01	< .2	< 0.01	< 0.01	< 0.01	0.037	< 0.01	0.03	0.014	< 0.01	< 0.01	< .0002
MW-303D	Apr-00	0.365	< 0.0050	44.4	0.091	< 0.001	18.9	0.021	5.64	158	< 0.075	< 0.050	0.004	< 0.002	0.032	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
MW-303D	Jun-00		< 0.0050	45.1	0.079	0.002	19.4	0.047	6.69	169															
MW-303D	Sep-00		< 0.005	47.2	0.589	< 0.001	19.5	0.048	6.32	155															
MW-303D	Dec-00		< 0.005	50.7	0.369	< 0.001	21.1	0.044	7.22	178															
MW - 303S	Nov-94																								
MW - 303S	March-95																								
MW - 303S	June-95																								
MW-303S	Sept. - 95																								
MW-303S	Nov-95																								
MW-303S	April-96																								
MW-303S	June-96																								
MW-303S	Sept-96																								
MW-303S	Nov-96																								
MW-303S	March-97																								
MW-303S	June-97																								
MW-303S	Sept-97																								
MW-303S	Dec-97		< 0.01	150	6.7	< 0.01	32	2.4	9.5	23															
MW-303S	Mar-98		< 0.01	170	14	< 0.01	34	2.9	6.6	22															
MW-303S	June-98	< 1	< 0.01	150	1.5	< 0.01	32	2.8	7.5	18	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.041	< 0.01	< 0.03	< 0.0002
MW-303S	Sept-98		< 0.01	190	7.7	0.014	39	2.9	10	16															
MW-303S	Dec-98		< 0.01	130	11	< 0.01	28	2.2	7.3	12															
MW-303S	Apr-99		< 0.01	190	35	< 0.01	40	3.4	7.1	25															
MW-303S	Jun-99		< 0.01	200	35	< 0.01	45	3.1	8	27															
MW-303S	Sept-99		< 0.01	210	15	< 0.01	42	3.2	9.7	23															
MW-303S	Dec-99	< .5	< 0.01	200	18	< 0.01	44	3.1	9.8	19	< .1	< 0.01	0.007	< 0.01	0.24	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.00026
MW-303S	Apr-00	0.065	< 0.005	190	3.54	< 0.001	32.5	3.58	4.71	14.5	< 0.075	< 0.050	0.003	< 0.002	0.077	< 0.010	< 0.017	0.016	< 0.002	< 0.010	< 0.001	0.031	0.013	< 0.010	< 0.0002
MW-303S	Jun-00		< 0.0050	181	9.26	< 0.001	32.7	3.75	5.43	16.3															
MW-303S	Sep-00		< 0.005	167	14	0.002	30.6	3.05	5.72	14.5															
MW-303S	Dec-00		< 0.005	190	25	< 0.001	36.8	3.1	6.3	18.3															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20		0.003	0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW - 304D	Nov-94																								
MW - 304D	March-95																								
MW - 304D	June-95																								
MW-304D	Sept. - 95																								
MW-304D	Nov-95																								
MW-304D	April-96																								
MW-304D	June-96																								
MW-304D	Sept-96																								
MW-304D	Nov-96																								
MW-304D	March-97																								
MW-304D	June-97																								
MW-304D	Sept-97																								
MW-304D	Dec-97		< 0.01	130	0.53	< 0.01	29	0.65	4	41															
MW-304D	Mar-98		< 0.01	110	0.53	< 0.01	25	0.61	3.4	37															
MW-304D	June-98	< 1	< 0.01	130	0.17	< 0.01	32	0.89	5.1	43	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.092	< 0.01	< 0.03	< 0.0002
MW-304D	Sept-98		< 0.01	120	0.17	< 0.01	29	0.49	4.9	39															
MW-304D	Dec-98		< 0.01	48	0.074	< 0.01	13	0.1	< 1	30															
MW-304D	Apr-99		< 0.01	130	5.7	< 0.01	31	0.77	4.1	44															
MW-304D	Jun-99		< 0.01	160	7.6	< 0.01	36	0.94	4.8	45															
MW-304D	Sept-99		< 0.01	150	6.8	< 0.01	35	0.83	5	44															
MW-304D	Dec-99	< .5	< 0.01	120	4.2	< 0.01	30	0.63	4.4	35	< .1	< 0.01	< 0.01	< 0.01	< .2	< 0.01	< 0.01	< 0.01	0.055	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< .0002
MW-304D	Apr-00	0.099	< 0.0050	129	6.18	< 0.001	30.7	0.896	3.84	34.5	< 0.075	< 0.050	0.004	< 0.002	0.207	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
MW-304D	Jun-00		< 0.0050	71.4	1.19	0.005	23.5	0.838	3.96	39.1															
MW-304D	Sept-00		< 0.005	93.7	4.29	< 0.001	25.3	0.393	3.5	36.5															
MW-304D	Dec-00		< 0.005	60.4	0.669	< 0.001	19	0.034	2.79	46.2															
MW - 304S	Nov-94																								
MW - 304S	March-95																								
MW - 304S	June-95																								
MW-304S	Sept. - 95																								
MW-304S	Nov-95																								
MW-304S	April-96																								
MW-304S	June-96																								
MW-304S	Sept-96																								
MW-304S	Nov-96																								
MW-304S	March-97																								
MW-304S	June-97																								
MW-304S	Sept-97																								
MW-304S	Dec-97		< 0.01	190	4	< 0.01	36	3	3.4	23															
MW-304S	Mar-98		< 0.01	180	5.6	< 0.01	33	2.9	2.9	20															
MW-304S	June-98	< 1	< 0.01	190	2.3	< 0.01	35	4	3.3	21	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	0.013	< 0.05	< 0.01	< 0.03	0.08	0.025	< 0.03	< 0.0002
MW-304S	Sept-98		< 0.01	200	2	< 0.01	40	3.2	4.1	19															
MW-304S	Dec-98		< 0.01	140	3.9	< 0.01	28	2.5	1.4	13															
MW-304S	Apr-99		< 0.01	190	15	< 0.01	38	3.7	3.1	22															
MW-304S	Jun-99		< 0.01	220	16	< 0.01	44	4.1	3.5	21															
MW-304S	Sept-99		< 0.01	210	13	< 0.01	40	3.8	3.8	25															
MW-304S	Dec-99	< .5	< 0.01	200	10	< 0.01	40	3.7	3.8	18	< .1	< 0.01	0.038	< 0.01	0.32	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.017	< 0.01	0.00023
MW-304S	Apr-00	0.088	< 0.0050	197	15.1	< 0.001	38.8	3.71	2.94	18.1	< 0.075	< 0.050	< 0.002	< 0.002	0.316	< 0.010	< 0.017	0.018	< 0.002	< 0.010	< 0.001	< 0.020	0.012	< 0.010	< 0.0002
MW-304S	Jun-00		< 0.0050	129	9.06	< 0.001	25.9	2.48	2.36	14															
MW-304S	Sept-00		< 0.005	182	14	0.001	36.2	3.42	3.42	17.5															
MW-304S	Dec-00		< 0.005	196	16	< 0.001	39.4	3.7	3.41	21.2															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Tk (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20		0.003	0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW - 304VS	Nov-94																								
MW - 304VS	March-95																								
MW - 304VS	June-95																								
MW-304VS	Sept. - 95																								
MW-304VS	Nov-95																								
MW-304VS	April-96																								
MW-304VS	June-96																								
MW-304VS	Sept-96																								
MW-304VS	Nov-96																								
MW-304VS	March-97																								
MW-304VS	June-97																								
MW-304VS	Sept-97																								
MW-304VS	Dec-97		0.019	120	5.3	0.023	30	1.4	4.9	180															
MW-304VS	Mar-98		<0.01	93	0.63	<0.01	21	0.93	2.8	170															
MW-304VS	June-98	<1	<0.01	93	<0.05	<0.01	20	0.63	3.7	190	<0.1	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	0.012	<0.05	<0.01	<0.03	0.063	0.011	<0.03	<0.002
MW-304VS	Sept-98	Location Not Sampled																							
MW-304VS	Dec-98		<0.01	93	0.33	<0.01	21	0.19	3.2	170															
MW-304VS	Apr-99		<0.01	100	0.34	<0.01	23	1.3	3	190															
MW-304VS	Jun-99		<0.01	87	0.087	<0.01	18	0.91	3.3	220															
MW-304VS	Sept-99		<0.01	120	0.17	<0.01	24	0.96	4.9	240															
MW-304VS	Dec-99	<.5	<0.01	110	<.05	<.01	25	1.6	3.5	170	<0.01	<0.01	<0.01	<0.01	<.2	<0.01	<0.01	<0.01	0.029	<0.01	<0.01	<0.01	<0.01	<0.01	0.0002
MW-304VS	Apr-00	<0.048	<0.0050	236	0.05	<0.001	46.4	4.01	2.98	173	<0.075	<0.050	<0.002	<0.002	0.124	<0.010	<0.017	0.018	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
MW-304VS	June-00		<0.0050	227	<0.040	0.002	44	3.34	3.16	171															
MW-304VS	Sep-00		<0.005	187	<0.040	0.001	32.1	2.81	3.64	184															
MW-304VS	Dec-00		<0.005	160	<0.040	<0.001	29.8	<0.005	3.9	274															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025		0.3		20		0.003	0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.0005	2			0.002
PZ-01	Sep-87	< 0.05	< 0.010	122	1.72	< 0.005		1.47		7.01	0.29	0.078	< 0.010	< 0.005	< 0.2	< 0.010	< 0.025	< 0.040	< 0.005	< 0.010	< 0.010	< 0.020			< 0.0002
PZ-01	May-88																								
PZ-01	Aug-88																								
PZ-01	Nov-88																								
PZ-01	Feb-89	< 0.25	< 0.010	98	3.06	< 0.005		0.481		18.4	1.69	< 0.06	< 0.010	< 0.005	< 0.2	< 0.010	< 0.025	< 0.040	< 0.005	< 0.010	< 0.010	0.0459			< 0.0002
PZ-1A	Feb-90	< 1.0	< 0.010	100	1.01	< 0.003		0.376		20.7	0	< 0.06	< 0.010	< 0.005	< 0.2	< 0.010	< 0.025	< 0.040	< 0.005	< 0.010	< 0.010	0.0588			< 0.0002
PZ-1A	Apr-90		< 0.010		0.304	< 0.003		0.519					< 0.010												
PZ-1A	Nov-90	< 0.05	< 0.01	106	0.78	< 0.020	22	0.47	1.8	18	0.32	< 0.060	< 0.020	< 0.01	0.06	< 0.03	< 0.02	< 0.04	< 0.005	< 0.02	< 0.010	0.04			< 0.001
PZ-1A	Feb-91		< 0.010	108	0.956	< 0.020	22.6	0.481	1.83	17.8															
PZ-1A	May-91		< 0.010	98	0.484	< 0.020	21.1	0.449	1.74	16.7															
PZ-1A	Aug-91		< 0.010	110	2.08	< 0.020	23.1	0.498	2.39	17.5															
PZ-1A	Nov-91		< 0.010	96.2	0.527	< 0.020	18.4	0.422	1.24	16.7															
PZ-1A	Feb-92	< 0.25	< 0.010	100	7.55	< 0.020	23.9	0.638	3.07	17.2	5.52	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	0.057			< 0.001
PZ-1A	May-92	< 0.25	< 0.010	96.2	1.95	< 0.020	19.4	0.431	1.72	14	1.35	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	0.023			< 0.001
PZ-1A	Aug-92		< 0.010	87.9	1.77	< 0.020	19.1	0.376	2.52	12.6															
PZ-1A	Dec-92		< 0.010	93.3	1.55	< 0.020	18.3	0.319	2.09	17.8															
PZ-1A	Feb-93		< 0.010	75.8	2.43	< 0.020	15.7	0.463	2.24	18.6															
PZ-1A	May-93	< 0.25	< 0.010	97.3	1.13	< 0.005	19.5	0.399	1.85	18.1	0.81	< 0.060	< 0.020	< 0.010	< 0.010	< 0.020	< 0.020	< 0.040	0.006	< 0.020	< 0.010	< 0.020			< 0.001
PZ-1A	Aug-93		< 0.010	99.8	1.35	0.006	26.6	0.376	1.95	16.4															
PZ-1A	Dec-93		< 0.010	101	3.37	0.005	25	0.357	2.35	17.7															
PZ-1A	34366		< 0.010	94.9	3.7	< 0.005	22	0.316	2.32	18.5															
PZ-1A	May-94		< 0.010	97.8	1.09	< 0.005	21.1	0.4	1.44	18.5															
PZ-1A	Aug-94	< 0.050	< 0.010	104	2.51	< 0.005	45.1	0.59	3.76	14.3	2.06	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	0.043	0.049	< 0.005	< 0.020	< 0.005	0.14			< 0.001
PZ-1A	Nov-94		< 0.010	68.5	0.42	< 0.005	18.2	0.42	1.7	18.2															
PZ-1A	March-95		< 0.010	94.5	2.02	< 0.005	22.5	0.48	1.94	17.5															
PZ-1A	June-95		< 0.010	93	0.54	< 0.005	20.8	0.5	1.64	14															
PZ-1A	Sept. - 95		< 0.010	97.6	1.41	< 0.005	21.8	0.48	2.22	17.4															
PZ-1A	Nov-95		< 0.010	81.6	1.48	< 0.005	20.6	0.43	2.21	18.1	0.82	< 0.060	< 0.020	< 0.010	0.18	< 0.020	0.047	< 0.040	< 0.005	< 0.020	< 0.005	0.11			< 0.001
PZ-1A	April-96	< 1	< 0.002	100	4.6	< 0.01	18	0.52	2.4	18	2.1	< 0.1	< 0.01	< 0.003	< 0.2	< 0.01	< 0.02	< 0.01	< 0.1	< 0.01	< 0.03	0.15			< 0.0002
PZ-1A	June-96		< 0.01	100	3.2	< 0.01	19	0.51	2.4	17															
PZ-1A	Sept-96		< 0.01	99	2.6	0.023	20	0.5	2.5	19															
PZ-1A	Nov-96		< 0.01	88	1	< 0.01	17	0.23	1.8	15															
PZ-1A	March-97	< 1	< 0.01	95	1.7	< 0.01	18	0.39	2.3	11	0.76	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.17			< 0.0004
PZ-1A	June-97		< 0.01	110	3.4	< 0.01	21	0.43	2.4	13															
PZ-1A	Sept-97		< 0.01	96	1.1	< 0.01	21	0.26	2.1	18															
PZ-1A	Dec-97		< 0.01	92	1.2	< 0.01	20	0.16	2.4	18															
PZ-1A	Mar-98		< 0.01	96	1.9	< 0.01	22	0.19	2.6	18															
PZ-1A	June-98	< 1	< 0.01	93	1.7	< 0.01	23	0.44	2.5	18	0.93	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.13	< 0.01	< 0.03	< 0.0002
PZ-1A	Sept-98	Location Not Sampled																							
PZ-1A	Dec-98		< 0.01	170	3	< 0.01	24	0.54	2.9	20															
PZ-1A	Apr-99		< 0.01	110	2.1	< 0.01	24	0.48	2.1	18															
PZ-1A	Jun-99		< 0.01	130	3.1	< 0.01	29	0.76	2.5	24.2															
PZ-1A	Sept-99		< 0.01	110	2.4	< 0.01	24	0.53	2.8	19															
PZ-1A	Dec-99	< 0.5	< 0.01	110	3.1	< 0.01	26	0.62	2.5	17	1.4	< 0.01	< 0.01	< 0.01	< 0.2	< 0.01	< 0.01	< 0.01	0.043	< 0.01	< 0.01	0.02	< 0.01	< 0.01	< 0.0002
PZ-1A	Apr-00	< 0.048	< 0.0050	109	1.11	0.002	24	0.229	2.09	17	0.698	< 0.050	0.002	< 0.002	0.051	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
PZ-1A	Jun-00		< 0.0050	105	0.187	0.004	22.9	0.454	1.69	16.9															
PZ-1A	Sep-00		< 0.005	114	0.139	0.007	24.5	0.449	1.73	17															
PZ-1A	Dec-00		< 0.005	112	0.176	0.002	23.4	0.485	1.71	16															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Tb (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20		0.003	0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.0005	2			0.002
PZ-04	Sep-87	0.075	<0.010	242	11.3	0.012		1.96		15.8	4.3	<0.06	<0.010	<0.005	<0.2	<0.010	<0.025	<0.040	<0.005	<0.010	<0.010	0.067			<0.0002
PZ-04	May-88		<0.010			<0.005																			
PZ-04	Aug-88		<0.010			<0.005																			
PZ-04	Nov-88		<0.010			<0.005																			
PZ-04	Feb-89	<0.25	<0.010	208	1.04	<0.005		0.935		15.2	0.412	<0.06	<0.010	<0.005	<0.2	<0.010	<0.025	<0.040	<0.005	<0.010	<0.010	0.0273			<0.0002
PZ-04	Apr-89		<0.010		1.74	<0.005		0.66																	
PZ-04	Jul-89		<0.010		1.54	<0.005		0.311																	
PZ-04	Feb-90	<1.0	<0.010	216	3.39	<0.003		1.06		15.6	1.66	<0.06	<0.010	<0.005	<0.2	<0.010	<0.025	<0.040	<0.005	<0.010	<0.010	0.024			0.00024
PZ-04	Apr-90		<0.010		0.317	<0.003		0.384																	
PZ-4	Nov-90	0.09	<0.01	213	6.8	<0.020	51	1.2	2.9	14	3.5	<0.060	<0.020	<0.01	0.05	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	0.05			<0.001
PZ-4	Feb-91		<0.010	210	11.7	<0.020	49.9	1.3	3.38	14.2															
PZ-4	May-91		<0.010	438	218	0.146	127	8.79	12.6	16															
PZ-4	Aug-91		<0.010	117	8.34	<0.020	26.3	0.77	1.87	7.51															
PZ-4	Nov-91		<0.010	185	1.42	<0.020	37.2	0.919	1.6	13.9															
PZ-4	Feb-92	<0.25	<0.010	204	2.22	<0.020	47.7	1.02	2.17	13.2	1	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	<0.020			<0.001
PZ-4	May-92		<0.010	187	1.2	<0.020	39.4	0.836	1.73	13.6															
PZ-4	Aug-92		<0.010	168	4.02	<0.020	37.4	0.797	3.19	12.3															
PZ-4	Dec-92		<0.010	161	4.61	<0.020	37.8	0.666	2.88	14.3															
PZ-4	Feb-93		<0.010	161	26	<0.020	40.6	1.65	5.08	14.5															
PZ-4	May-93	<0.25	<0.010	174	1.83	<0.005	36.6	0.837	2.11	14.7	1.22	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	<0.020			<0.001
PZ-4	Aug-93		<0.010	170	11.9	0.008	49.1	0.92	3.04	11.8															
PZ-4	Dec-93		<0.010	181	1.15	<0.005	46.1	0.947	2.32	13.8															
PZ-4	34366		<0.010	178	15	0.008	44	1.27	3.88	13															
PZ-4	Jun-94		<0.010	176	1.94	<0.010	38.5	0.87	1.8	17.7															
PZ-4	Aug-94	<0.05	<0.010	187	3.14	<0.005	41.6	1.06	2.91	11.7	1.68	<0.060	<0.020	<0.010	<0.10	<0.020	0.057	0.065	<0.005	<0.020	<0.005	0.068			<0.001
PZ-4	Nov-94		<0.010	137	0.41	<0.005	38.8	0.8	1.88	14.4															
PZ-4	March-95		<0.010	174	2.13	<0.005	42	0.93	2.3	14.3															
PZ-4	June-95		<0.010	166	2.68	<0.005	40.1	1.04	2.32	12.9															
PZ-4	Sept. - 95		<0.010	173	1.44	<0.005	38.6	0.88	2.36	13.6															
PZ-4	Nov-95		<0.010	156	8.92	<0.005	50.2	0.98	3.66	22.7	4.38	<0.060	<0.020	<0.010	0.31	<0.020	0.044	<0.040	<0.005	<0.020	<0.005	0.044			<0.001
PZ-4	April-96	<1	<0.002	190	25	0.017	24	1.4	4.1	21	10	<0.1	<0.01	<0.003	<0.2	0.014	0.035	0.023	<0.1	<0.01	<0.03	0.32			<0.0002
PZ-4	June-96		<0.01	490	220	0.19	37	10	16	25															
PZ-4	Sept-96		<0.01	190	11	<0.01	33	1.2	3.4	15															
PZ-4	Nov-96		<0.01	140	4.5	<0.01	26	0.83	2.6	13															
PZ-4	March-97	<1	<0.01	200	22	0.021	28	1.4	4.5	11	9.1	<0.06	<0.01	<0.01	<0.2	0.016	0.032	0.026	<0.05	<0.01	<0.03	0.16			<0.0004
PZ-4	June-97		<0.01	200	32	0.027	46	1.8	4.9	12															
PZ-4	Sept-97		<0.01	180	11	0.015	42	1.2	3.9	17															
PZ-4	Dec-97		<0.01	170	17	0.015	39	1.2	5	17															
PZ-4	Mar-98		<0.01	750	260	0.25	190	14	26	20															
PZ-4	June-98	<1	<0.01	250	61	0.05	68	3.5	9	17	24	<0.06	0.002	<0.01	<0.2	0.045	0.1	0.067	<0.05	<0.01	<0.03	0.31	0.029	0.037	<0.002
PZ-4	Sept-98		<0.01	170	6.9	<0.01	40	0.96	4	12															
PZ-4	Dec-98		<0.01	280	9	<0.01	45	1.3	3.9	18															
PZ-4	Apr-99		<0.01	550	420	0.18	150	12	16	17															
PZ-4	Jun-99		<0.01	570	490	0.2	150	12	14	19															
PZ-4	Sept-99		<0.01	170	13	<0.01	41	1.1	4.2	15															
PZ-4	Dec-99	<0.5	<0.01	190	10	<0.01	46	1.3	3.7	15	4.4	<0.01	0.022	<0.01	<0.2	<0.01	0.022	<0.019	0.014	<0.01	<0.01	0.058	<0.01	<0.01	<0.0002
PZ-4	Apr-00	0.092	<0.0050	169	5.33	0.004	38.1	2.75	2.81	19.2	2.53	<0.050	0.007	<0.002	0.044	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	0.037	<0.010	<0.010	<0.0002
PZ-4	Jun-00		<0.0050	177	4.28	0.003	42.7	1.04	2.85	14.4															
PZ-4	Sept-00		<0.005	187	1.62	0.006	43.7	1.05	2.74	17.7															
PZ-4	Dec-00		<0.005	83.5	1.31	0.002	28.3	0.482	4.41	38.7															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Cu (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Tb (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20		0.003	0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.0005	2			0.002
PZ-11	Sep-87	< 0.05	< 0.010	120	6.24	0.0094		1.13		22.6	1.68	< 0.06	< 0.010	< 0.003	< 0.2	0.015	< 0.025	< 0.040	< 0.005	< 0.010	< 0.010	0.083			< 0.0002
PZ-11	May-88																								
PZ-11	Aug-88																								
PZ-11	Nov-88																								
PZ-11	Feb-89	< 0.25	< 0.010	13.5	16.8	0.0129		1.52		7.7	9.6	0.06	< 0.010	< 0.005	< 0.2	0.0113	0.0506	< 0.040	< 0.005	< 0.010	< 0.010	0.156			< 0.0002
PZ-11	Apr-89		< 0.010		8.51	0.0056		1.09					< 0.010												
PZ-11	Jul-89		< 0.010		5.24	< 0.005		0.998					< 0.010												
PZ-11	Nov-89		< 0.010		1.35	< 0.003		1.04					< 0.010												
PZ-11	Feb-90	< 1.0	< 0.010	106	3.71	< 0.003		1.03		11.3	1.81	< 0.06	< 0.010	< 0.005	< 0.2	< 0.010	< 0.025	< 0.040	< 0.005	< 0.010	< 0.010	0.162			< 0.0002
PZ-11	Apr-90		< 0.010		1.81	0.0047		0.938					< 0.010												
PZ-11	Nov-90	< 0.05	< 0.01	133	2.1	< 0.020	42	1.3	2.5	10	0.67	< 0.060	< 0.020	< 0.01	0.06	< 0.03	< 0.02	< 0.04	< 0.005	< 0.02	< 0.010	0.09			< 0.001
PZ-11	Feb-91		< 0.010	107	3.42	< 0.020	30.9	1	2.27	8.59															
PZ-11	May-91		< 0.010	93.1	2.66	0.027	27.4	0.927	2.63	7.76															
PZ-11	Aug-91		< 0.010	89.7	8.81	0.028	22.2	0.859	4.15	9.12															
PZ-11	Nov-91		< 0.010	102	7.88	< 0.020	26.5	1.04	2.05	8.03															
PZ-11	Feb-92	< 0.25	< 0.010	92.3	3.2	< 0.020	27.2	0.903	2.28	8.48	3.73	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	0.13			< 0.001
PZ-11	May-92		< 0.010	86.7	2.25	< 0.020	21.7	0.755	1.55	7.03															
PZ-11	Aug-92		< 0.010	90.1	1.6	< 0.020	22.2	0.752	2.47	6.86															
PZ-11	Dec-92		< 0.010	102	2.12	< 0.020	24.2	0.642	2.32	9.37															
PZ-11	Feb-93		< 0.010	70.1	6.07	< 0.020	17.5	0.86	2.61	8.38															
PZ-11	May-93	< 0.025	< 0.010	94	1.78	0.007	23	0.904	1.78	9.36	1.24	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	0.065			< 0.001
PZ-11	Aug-93		< 0.010	128	2.71	0.005	34.8	0.911	2.17	11.1															
PZ-11	Dec-93		< 0.010	129	3.8	< 0.005	33.8	1.14	2.21	10.8															
PZ-11	34366			89.8	3.64	< 0.005	23	0.859	2.22	9.13															
PZ-11	May-94		< 0.010	111	2.28	0.005	27.4	0.89	1.77	18.8															
PZ-11	Aug-94	< 0.050	< 0.010	152	1.35	< 0.005	32.4	1.48	3.88	7.23	0.76	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	0.023	0.063	< 0.005	< 0.020	< 0.005	0.19			< 0.001
PZ-11	Nov-94		< 0.010	99	2.04	< 0.005	25.7	1.04	3.18	9.09															
PZ-11	March-95		< 0.010	127	1.29	< 0.005	29	1.2	3.26	8															
PZ-11	June-95		< 0.010	128	0.96	< 0.005	28.6	1.58	2.04	7.15															
PZ-11	Sept. - 95		< 0.010	123	2.12	< 0.005	27.4	1.37	2.28	9.5															
PZ-11	Nov-95		< 0.010	122	1.64	0.031	30.1	1.34	2.43	13	0.62	< 0.060	< 0.020	< 0.010	0.31	< 0.020	0.034	< 0.040	< 0.005	< 0.020	< 0.005	0.2			< 0.001
PZ-11	April-96	< 1	< 0.002	120	2.4	0.027	20	1.1	2.4	9.6	1.1	< 0.1	< 0.01	< 0.003	< 0.2	< 0.01	< 0.02	< 0.01	< 0.1	< 0.01	< 0.03	0.11			< 0.0002
PZ-11	June-96		< 0.01	150	1.6	< 0.01	25	1.6	2.6	10															
PZ-11	Sept-96		< 0.01	160	3.9	0.016	28	1.7	3.2	11															
PZ-11	Nov-96		< 0.01	110	1.9	< 0.01	21	1.3	2.3	8.8															
PZ-11	March-97	< 1	< 0.01	150	2.8	< 0.01	24	1.6	2.5	6.6	0.92	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.13			< 0.0004
PZ-11	June-97		< 0.01	180	3.2	0.013	34	1.9	3.1	10															
PZ-11	Sept-97		< 0.01	140	3.3	< 0.01	31	1.7	2.7	9.6															
PZ-11	Dec-97		< 0.01	110	2.1	< 0.01	25	1.3	2.7	11															
PZ-11	Mar-98		< 0.01	150	2.9	< 0.01	29	1.4	3.3	13															
PZ-11	June-98	< 1	< 0.01	160	3.4	< 0.01	38	2.4	3.2	12	0.6	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.23	< 0.01	< 0.03	< 0.0002
PZ-11	Sept-98		< 0.01	190	6	< 0.01	40	2.6	4.2	9.3															
PZ-11	Dec-98		< 0.01	260	6.2	< 0.01	35	2.6	3.6	12															
PZ-11	Apr-99		< 0.01	170	5.9	< 0.01	37	2.5	2.8	10															
PZ-11	Jun-99		< 0.01	180	4.9	< 0.01	33	2	2.6	13															
PZ-11	Sept-99		< 0.01	160	4.5	< 0.01	29	1.8	3	12															
PZ-11	Dec-99	< 0.5	< 0.01	140	3.8	< 0.01	27	1.5	2.7	12	1.1	< 0.01	< 0.01	< 0.01	< 0.2	< 0.01	< 0.01	0.016	0.034	< 0.01	< 0.01	0.066	< 0.01	< 0.01	< 0.0002
PZ-11	Apr-00	< 0.048	< 0.0050	156	1.38	0.001	30.3	1.74	2.3	10.5	< 0.075	< 0.050	0.006	< 0.002	0.061	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	0.049	< 0.010	< 0.010	< 0.0002
PZ-11	Jun-00		< 0.0050	190	1.76	0.003	35	2.09	2.38	10.6															
PZ-11	Sept-00		< 0.005	170	2.7	0.012	29.7	1.61	2.08	9.73															
PZ-11	Dec-00		< 0.005	162	2.44	0.002	27.4	1.33	2.12	10.2															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Tb (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025		0.3		20		0.003	0.025	0.003	1	0.05	0.3	0.1	0.01	0.05	0.0005	2			0.002
MW-3B	Nov-89	<0.05	<0.01	180	5.05	<0.003		0.961		13.2	2.57	<0.060	0.0184	<0.005	<0.2	<0.01	<0.025	<0.04	<0.005	<0.01	<0.01	0.0573			<0.0002
MW-3B	Feb-90		<0.01		0.475	<0.003		0.783					0.0172												
MW-3B	Apr-90		<0.01		1.91	0.0036		0.612					0.0204												
MW-3B	Nov-90	<0.05	<0.01	184	2.2	<0.020	32	1	1.5	15	1.1	<0.060	<0.020	<0.01	0.05	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	0.06			<0.001
MW-3B	Feb-91		<0.010	122	0.72	<0.020	19.7	0.637	0.995	12															
MW-3B	May-91		<0.010	107	1.73	<0.020	17.2	0.816	1.14	12.4															
MW-3B	Aug-91		<0.010	113	1.5	<0.020	17.5	0.566	1.18	13.5															
MW-3B	Nov-91		<0.010	107	1.07	<0.020	15.5	0.541	0.79	12.6															
MW-3B	Feb-92	<0.25	<0.010	138	1.63	<0.020	22.9	0.747	1.47	10.6	1.19	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	<0.020			<0.001
MW-3B	May-92		<0.010	167	1.24	<0.020	26.9	0.817	1.06	12.8															
MW-3B	Aug-92		<0.010	103	0.88	<0.020	17.2	0.49	1.56	9.27															
MW-3B	Dec-92		<0.010	120	2.3	<0.020	19.2	0.45	1.52	11.6															
MW-3B	Feb-93		<0.010	101	2.2	<0.020	18	0.724	1.44	11.5															
MW-3B	Jun-93	<0.25	<0.010	108	0.632	<0.005	15.7	0.513	1.11	14.8	0.38	<0.060	<0.020	<0.010	<0.010	<0.020	<0.020	<0.040	0.008	<0.020	<0.010	<0.020			<0.001
MW-3B	Aug-93		<0.010	138	2.17	0.01	34	0.688	1.23	15.9															
MW-3B	Dec-93		<0.010	135	1.54	<0.005	26.6	0.764	1.21	10															
MW-3B	34366		<0.010	178	1.82	<0.005	32	1.13	1.56	12.3															
MW-3B	June-94		<0.010	110	0.38	<0.005	17.2	0.57	0.79	15															
MW-3B	Aug-94	<0.05	<0.010	182	1.38	<0.005	31	1.06	1.79	19.8	0.67	<0.060	0.03	<0.010	<0.10	<0.020	0.044	0.094	<0.005	<0.020	<0.005	0.033			<0.001
MW-3B	Nov-94		<0.010	892	0.27	<0.005	19.1	0.6	1.05	13.4															
MW-3B	March-95		<0.010	126	1.1	<0.005	22	0.72	1.2	14.8															
MW-3B	June-95		<0.010	104	0.31	0.005	18.6	0.66	0.89	12.4															
MW-3B	Sept. - 95		<0.010	119	0.44	<0.005	19.8	0.64	1.13	14.3															
MW-3B	Nov-95		<0.010	130	0.89	<0.005	26	0.78	1.42	18.6	0.48	<0.060	0.025	<0.010	0.33	<0.020	0.026	<0.040	<0.005	<0.020	<0.005	0.044			<0.001
MW-3B	April-96	<1	<0.002	62	3.6	0.012	10	0.34	1.5	8.1	1.9	<0.1	0.015	<0.003	<0.2	<0.01	<0.02	<0.01	<0.1	<0.01	<0.03	0.13			<0.0002
MW-3B	June-96		<0.01	100	1.7	<0.01	16	0.61	1.3	16															
MW-3B	Sept-96		<0.01	130	3.2	<0.01	20	0.78	1.8	17															
MW-3B	Nov-96		<0.01	84	0.7	<0.01	16	0.46	1.2	17															
MW-3B	March-97	<1	<0.01	100	2.4	0.014	16	0.61	1.7	14	1.2	<0.06	0.016	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.13			<0.0004
MW-3B	June-97		<0.01	110	5	<0.01	19	1.1	2	17															
MW-3B	Sept-97		<0.01	110	1.1	<0.01	18	0.5	1.3	20															
MW-3B	Dec-97		<0.01	110	1.1	<0.01	19	0.57	1.6	23															
MW-3B	Mar-98		<0.01	130	2	<0.01	27	0.74	2.3	32															
MW-3B	June-98	Sample Location Inaccessible																							
MW-3B	Sept-98	Location Not Sampled																							
MW-3B	Dec-98		<0.01	190	2.6	<0.01	22	1.1	1.9	30															
MW-3B	Apr-99		<0.01	130	1.8	<0.01	24	0.99	1.5	28															
MW-3B	Jun-99	Location Not Sampled																							
MW-3B	Sept-99	Location Not Sampled																							
MW-3B	Dec-99	<0.5	<0.01	160	2.3	<0.01	30	1	2	35	0.85	<0.01	0.038	<0.01	<0.2	<0.01	0.024	0.019	0.03	<0.01	<0.01	0.023	<0.01	<0.01	<0.0002
MW-3B	Apr-00																								
MW-3B	Jun-00		<0.0050	181	1.05	0.002	35.7	1.02	1.71	59.9															
MW-3B	Sep-00		<0.005	181	1.05	0.002	35.4	1.02	1.67	65															
MW-3B	Dec-00		<0.005	186	1.14	0.001	35.9	1.04	1.77	61.7															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025		0.3		20			0.025	0.003	1	0.05	0.3	0.1	0.01	0.05	0.0005	2			0.002
MW-207SA	Nov-90	0.09	< 0.01	350	270	0.197	100	12	13	13	120	< 0.060	0.081	< 0.01	1.5	0.14	0.52	0.27	< 0.005	< 0.02	< 0.010	0.87			< 0.001
MW-207SA	Feb-91		< 0.010	310	196	0.128	92.5	10.5	12.1	92.3															
MW-207SA	May-91		< 0.010	273	128	0.071	78.7	8.43	13	12.3															
MW-207SA	Aug-91		< 0.010	344	288	0.062	120	11.3	17.3	10.6															
MW-207SA	Nov-91		0.019	272	207	0.087	87.2	9.38	30.1	13.8															
MW-207SA	Feb-92	< 0.25	< 0.010	165	12	< 0.020	39	5.38	2.55	8.53	3.28	< 0.060	< 0.020	< 0.010	0.19	< 0.020	< 0.020	< 0.040	< 0.005	0.032	< 0.010	0.053			< 0.001
MW-207SA	May-92	< 0.25	< 0.010	193	9.78	< 0.020	41.2	4.09	1.26	9.84	0.36	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	0.022			< 0.001
MW-207SA	Aug-92		< 0.010	277	330	0.203	125	10.9	20	9.48															
MW-207SA	Dec-92		< 0.010	173	8.59	< 0.020	38.4	2.61	2.44	11.2															
MW-207SA	Feb-93		< 0.010	221	231	0.12	90	10.7	19.5	12.7															
MW-207SA	May-93	< 0.25	< 0.010	192	15.7	< 0.005	42.4	3.79	1.7	11.2	0.7	< 0.060	0.021	< 0.010	0.21	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	< 0.020			< 0.001
MW-207SA	Aug-93		< 0.010	184	376	0.208	149	9.25	15.2	16.8															
MW-207SA	Dec-93		< 0.010	233	260	0.061	116	11.4	22.1	13.9															
MW-207SA	34366		< 0.010	196	185	0.012	85	7.22	27.6	11.5															
MW-207SA	May-94		< 0.010	210	31.8	0.022	47.3	4.08	1.54	11.1															
MW-207SA	Aug-94	< 0.05	0.017	206	19.2	< 0.005	45.2	4.95	2.22	8.13	1.76	< 0.060	0.031	< 0.010	< 0.1	< 0.020	0.022	0.11	< 0.005	< 0.020	< 0.005	0.07			< 0.001
MW-207SA	Nov-94		< 0.010	165	22	< 0.005	43.3	3.7	1.7	10.9															
MW-207SA	March-95		< 0.010	194	26	< 0.005	44	3.24	1.49	10.8															
MW-207SA	June-95		< 0.010	252	37.4	0.021	54.8	6.1	3.72	9.22															
MW-207SA	Sept. - 95		< 0.010	166	191	0.074	102	8.5	10.2	12.4															
MW-207SA	Nov-95		< 0.010	194	166	0.074	84.8	7.56	12.2	15.4	53.4	< 0.060	0.063	< 0.010	1.39	0.076	0.32	0.18	< 0.005	< 0.020	< 0.005	0.5			< 0.001
MW-207S	April-96	< 1	0.0039	290	120	0.08	28	5.3	11	14	50	0.3	< 0.01	0.0031	0.66	0.068	0.25	0.11	0.21	< 0.01	< 0.03	0.42			0.0012
MW-207S	June-96		< 0.01	340	150	< 0.01	35	7.3	10	14															
MW-207S	Sept-96		< 0.01	300	160	0.13	44	7.1	10	11															
MW-207S	Nov-96		< 0.01	220	150	0.1	38	5.7	11	12															
MW-207S	March-97	< 1	< 0.01	320	170	0.14	33	6.9	16	12	73	0.21	< 0.01	< 0.01	1.3	0.1	0.42	0.16	< 0.05	< 0.01	< 0.03	0.73			< 0.0004
MW-207S	June-97		< 0.01	290	120	0.088	67	5.3	10	9.6															
MW-207S	Sept-97		< 0.01	290	150	0.11	74	5.7	14	14															
MW-207S	Dec-97		< 0.01	270	150	0.13	70	5.7	15	14															
MW-207S	Mar-98		< 0.01	270	140	0.19	80	4.8	21	15															
MW-207S	June-98	< 1	< 0.01	230	130	0.098	66	4.5	15	14	52	< 0.06	0.15	< 0.01	0.64	0.085	0.27	0.12	< 0.05	< 0.01	< 0.03	0.49	0.061	0.082	0.00021
MW-207S	Sept-98		< 0.01	330	210	0.099	87	6.1	23	12															
MW-207S	Dec-98		< 0.01	380	300	0.14	92	9.2	4.8	12															
MW-207S	Apr-99		< 0.01	310	260	0.11	91	5.7	12	11															
MW-207S	Jun-99		< 0.01	410	310	0.11	95	7.2	9.3	14															
MW-207S	Sept-99		0.013	380	330	0.11	90	7.5	12	11															
MW-207S	Dec-99	< 5	0.012	400	200	0.12	82	7.2	8.9	11	63	< 0.01	0.29	< 0.01	1.1	0.092	0.45	0.17	< 0.01	< 0.01	< 0.01	0.55	0.091	0.096	0.00063
MW-207S	Apr-00	0.073	0.007	219	130	0.034	59	3.63	10.9	10.9	48.5	< 0.050	0.62	0.004	0.699	0.055	0.348	0.109	0.002	< 0.010	< 0.001	0.387	0.048	0.082	0.0004
MW-207S	Jun-00		< 0.0050	209	36.1	0.017	39.3	2.24	3.47	10.5															
MW-207SA	Sep-00		< 0.005	196	29.3	0.007	38.7	1.84	2.87	10.6															
MW-207SA	Dec-00		< 0.005	180	22.8	0.002	34	1.27	2.67	9.53															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Tb (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.0005	2			0.002
MW-207D	Sep-87	<0.050	<0.010	81	0.92	<0.005		0.648		11.3	0.7	<0.06	<0.010	<0.005	<0.2	<0.010	<0.025	<0.040	<0.005	<0.010	<0.010	<0.020			<0.0002
MW-207D	Feb-89	<0.25	<0.010	124	0.783	<0.005		0.981		15.5	0.24	<0.06	<0.010	<0.005	<0.2	<0.010	0.0673	<0.040	<0.005	<0.010	<0.010	0.103			<0.0002
MW-207D	Apr-89		<0.010		1.45	<0.005		0.961					0.0131												
MW-207D	Jun-89		<0.010		0.968	<0.005		0.921					0.0204												
MW-207D	Nov-89		<0.010		1.89	<0.003		0.896					0.0154												
MW-207D	Feb-90	<1.0	<0.010	140	2.54	<0.003		1.31		12.6	1.79	<0.06	0.0204	<0.005	<0.2	<0.010	<0.025	<0.040	<0.005	<0.010	<0.010	<0.020			<0.0002
MW-207D	Apr-90		<0.010		1.32	0.0049		1.42					0.0213												
MW-207D	Nov-90	<0.05	<0.01	140	8.2	<0.020	27	1.8	3.3		4.3	<0.060	0.022	<0.01	0.15	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	0.1			<0.001
MW-207D	Feb-91		<0.010	140	5.08	<0.020	26.6	1.47	2.61	11.5															
MW-207D	May-91		<0.010	138	3.64	<0.020	25.2	1.48	2.26	11.5															
MW-207D	Aug-91		<0.010	143	4.22	<0.020	26.7	1.52	2.94	12.1															
MW-207D	Nov-91		<0.010	124	3.05	<0.020	21.2	1.2	1.8	11.4															
MW-207D	Feb-92	<0.25	<0.010	124	4.75	<0.020	25.7	1.42	2.53	11.8	4.8	<0.060	<0.020	<0.010	0.18	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.073			<0.001
MW-207D	May-92	<0.25	<0.010	134	1.29	<0.020	23.1	1.24	0.92	9.74	0.66	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.027			<0.001
MW-207D	Aug-92		<0.010	148	1.71	<0.020	40.8	1.09	1.72	9.05															
MW-207D	Dec-92		<0.010	119	6.34	<0.020	24	0.961	2.93	11.6															
MW-207D	Feb-93		<0.010	115	49.2	0.028	33	2.6	6.9	11.4															
MW-207D	May-93	<0.25	<0.010	69.3	6.23	0.006	25.4	1.49	2.31	12.5	4.63	<0.060	<0.020	<0.010	0.29	<0.020	0.052	<0.040	<0.005	<0.020	<0.010	0.029			<0.001
MW-207D	Aug-93		<0.010	138	8.5	0.013	34.5	1.3	1.57	14.2															
MW-207D	Dec-93		<0.010	143	3.77	<0.005	30.2	1.57	2.03	12															
MW-207D	34366		<0.010	139	5.28	<0.005	29	1.91	1.87	10															
MW-207D	May-94		<0.010	164	2.03	<0.005	29.3	1.69	1.24	9.92															
MW-207D	Aug-94	<0.05	0.013	164	2.4	<0.005	30	1.77	3.61	9.78	1.9	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	0.11	<0.005	<0.020	<0.005	0.086			<0.001
MW-207D	Nov-94		<0.010	127	0.7		28.9	1.38	1.14	10.9															
MW-207D	March-95		<0.010	159	4.39	<0.005	32	1.73	2.09	11.7															
MW-207D	June-95		<0.010	154	0.92	<0.005	31.7	1.63	1.31	9.6															
MW-207D	Sept. - 95		<0.010	171	2.39	<0.005	31.6	1.82	1.68	11.1															
MW-207D	Nov-95		<0.010	160	4.52	<0.005	33.7	1.73	2.19	14.2	1.97	<0.060	0.03	<0.010	0.46	<0.020	0.021	<0.040	<0.005	<0.020	<0.005	0.08			<0.001
MW-207D	April-96	<1	<0.002	82	2.7	<0.01	19	0.43	7.3	8.8	0.82	<0.1	<0.01	<0.003	<0.2	<0.01	0.028	<0.01	<0.1	<0.01	<0.03	0.19			<0.0002
MW-207D	June-96		<0.01	170	3.2	<0.01	25	1.7	1.7	14															
MW-207D	Sept-96		<0.01	180	4.2	<0.01	28	1.7	2.7	13															
MW-207D	Nov-96		<0.01	140	2.2	<0.01	24	1.6	1.4	13															
MW-207D	March-97	<1	<0.01	120	12	0.012	22	1.8	4.6	4.2	0.73	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.17			<0.0004
MW-207D	June-97		<0.01	130	17	0.014	28	1.7	3.9	5.1															
MW-207D	Sept-97		<0.01	140	7.4	<0.01	30	0.94	7.1	9.4															
MW-207D	Dec-97		<0.01	160	6.7	<0.01	30	2	3	14															
MW-207D	Mar-98		<0.01	190	32	0.021	39	2.8	5.8	13															
MW-207D	June-98	<1	<0.01	150	7.9	<0.01	31	1.3	3.2	9.4	2.2	<0.06	0.037	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.15	<0.01	<0.03	<0.0002
MW-207D	Sept-98		<0.01	200	3.9	0.01	40	2.2	2.8	13															
MW-207D	Dec-98		<0.01	210	9.6	<0.01	39	2.4	<1	12															
MW-207D	Apr-99		<0.01	170	10	<0.01	35	2.4	2.4	12															
MW-207D	Jun-99		<0.01	220	22	<0.01	41	3.4	2.9	17															
MW-207D	Sept-99		<0.01	180	9.2	<0.01	34	2.1	2.7	13															
MW-207D	Dec-99	<.5	<0.01	190	8.1	<0.01	40	2.1	3	16	2.4	<0.01	0.028	<0.01	<.2	<0.01	0.014	<0.01	0.017	<0.01	<0.01	0.051	<0.01	<0.01	<.0002
MW-207D	Apr-00	<0.048	<0.0050	133	4.94	0.003	29.1	0.584	5.8	17.4	0.785	<0.050	0.011	<0.002	0.04	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	0.052	<0.010	<0.010	<0.0002
MW-207D	Jun-00		<0.0050	174	3.19	0.001	34.5	1.82	1.31	12.5															
MW-207D	Sep-00		<0.005	188	3.23	0.01	36.7	1.96	1.4	12.7															
MW-207D	Dec-00		<0.005	186	3.27	0.001	35.6	1.98	1.4	11.7															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.0005	2			0.002
MW-220	Sep-87	< 0.05	< 0.010	277	16.7	0.014		1.85		21.9	8.64	< 0.06	< 0.010	< 0.005	< 0.2	0.023	< 0.025	< 0.040	< 0.005	< 0.010	< 0.010	0.065			< 0.0002
MW-220	May-88																								
MW-220	Aug-88																								
MW-220	Nov-88		< 0.010																						
MW-220	Feb-89	< 0.25	< 0.010	375	80.1	0.0338		3.3		10.2	40.4	0.0637	0.027	< 0.005	0.335	0.0022	0.133	0.09	< 0.005	< 0.010	< 0.010	0.348			< 0.0002
MW-220	Apr-89		< 0.010		16.7	0.015		1.74					0.0194												
MW-220	Jun-89		< 0.010		249	0.147		9.78					0.0533												
MW-220	Feb-90	< 1.0	< 0.010	249	2.39	< 0.003		1.27		12.3	0.724	< 0.06	< 0.010	< 0.005	< 0.2	< 0.010	< 0.025	< 0.040	< 0.005	< 0.010	< 0.010	0.0442			0.00031
MW-220	Apr-90		< 0.010		22.9	0.0097		1.49					0.0419												
MW-220	Nov-90	< 0.05	< 0.01	260	7.8	< 0.020	75	1.3	3.4	14	4	< 0.060	< 0.020	< 0.01	0.08	< 0.03	< 0.02	< 0.04	< 0.005	< 0.02	< 0.010	0.08			< 0.001
MW-220	Feb-91		< 0.010	241	14.2	< 0.020	70	1.45	3.94	14.9															
MW-220	May-91		< 0.010	242	16.6	0.02	69.2	1.5	4.09	14.6															
MW-220	Aug-91		< 0.010	239	22	< 0.020	66.4	1.58	4.61	18.2															
MW-220	Nov-91		< 0.010	196	23.8	< 0.020	51.2	1.51	4.16	16.7															
MW-220	Feb-92	< 0.25	< 0.010	221	18.2	< 0.020	69.8	1.1	4.48	14.7	11.5	< 0.060	< 0.020	< 0.010	0.22	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	0.085			< 0.001
MW-220	May-92	< 0.25	< 0.010	231	2.08	< 0.020	56.6	1.04	2.05	14.9	1.01	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	< 0.020			< 0.001
MW-220	Aug-92		< 0.010	184	15	< 0.020	32	1.14	4.69	12.4															
MW-220	Dec-92		< 0.010	173	1.15	< 0.020	43.3	0.64	2.77	17.6															
MW-220	Feb-93		< 0.010	183	41.6	0.022	58.3	2.27	6.65	14.3															
MW-220	Jun-93	< 0.25	< 0.010	222	15.7	0.011	56.9	1.21	4.53	13.8	9.33	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	0.034			< 0.001
MW-220	Aug-93		< 0.010	199	22	0.016	69.8	1.1	3.79	16.6															
MW-220	Dec-93		< 0.010	186	6.6	0.006	57.1	0.939	3.57	16.4															
MW-220	34394		< 0.010	158	1.7	< 0.005	73	0.882	2.27	16.3															
MW-220	Jun-94		< 0.010	254	7.87	0.007	62.2	1.17	2.21	13.4															
MW-220	Aug-94	0.07	< 0.010	188	0.18	< 0.005	50.2	0.73	4.61	8.5	0.24	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	0.028	0.092	< 0.005	< 0.020	< 0.005	0.058			< 0.001
MW-220	Nov-94		< 0.010	149	0.26	< 0.005	50.6	0.8	2.31	14.1															
MW-220	March-95		< 0.010	199	22.6	0.017	63	1.5	4.83	19.5															
MW-220	June-95		< 0.010	198	2.65	< 0.005	27.4	1.32	2.26	12.1															
MW-220	Sept. - 95		< 0.010	170	16	0.008	62.1	1.54	4.24	21.4															
MW-220	Nov-95		< 0.010	241	13.2	0.006	79.6	1.66	4.89	26.7	7.68	< 0.060	< 0.020	< 0.010	0.42	< 0.020	0.047	< 0.040	< 0.005	< 0.020	< 0.005	0.11			< 0.001
MW-220	April-96	< 1	< 0.002	350	21	0.022	29	2.1	7.4	22	11	< 0.1	< 0.01	< 0.003	< 0.2	0.017	< 0.02	0.024	< 0.1	< 0.01	< 0.03	0.11			< 0.0002
MW-220	June-96		< 0.01	260	19	< 0.01	34	1.8	5.6	14															
MW-220	Sept-96		< 0.01	240	13	0.014	41	1.6	4.7	16															
MW-220	Nov-96		< 0.01	250	14	0.012	43	2.2	5.3	13															
MW-220	March-97	< 1	< 0.01	220	13	0.016	37	1.5	5.4	9.4	6.2	0.072	< 0.01	< 0.01	< 0.2	< 0.01	0.021	0.013	< 0.05	< 0.01	< 0.03	0.13			< 0.0004
MW-220	June-97		< 0.01	220	19	0.016	59	1.7	4.9	13															
MW-220	Sept-97		< 0.01	220	53	0.037	62	2.6	7	22															
MW-220	Dec-97		< 0.01	220	41	0.04	63	2.2	7.3	21															
MW-220	Mar-98		< 0.01	230	44	0.036	70	2.4	7.9	19															
MW-220	June-98	< 1	< 0.01	270	17	0.014	92	2.1	10	16	7.9	< 0.06	0.017	< 0.01	< 0.2	0.017	< 0.02	0.022	< 0.05	< 0.01	< 0.03	0.11	< 0.01	< 0.03	0.00035
MW-220	Sept-98		< 0.01	340	160	0.76	110	5.6	26	16															
MW-220	Dec-98		< 0.01	410	180	0.065	110	6.2	14	23															
MW-220	Apr-99		< 0.01	330	41	0.027	89	2.7	6.2	19															
MW-220	Jun-99		< 0.01	300	42	0.018	73	2.6	5.4	18															
MW-220	Sept-99		< 0.01	400	26	< 0.01	110	2.3	8.1	17															
MW-220	Dec-99	< 0.5	< 0.01	250	35	0.029	69	2.5	6	17	16	< 0.01	0.11	< 0.01	< 0.2	0.024	0.056	0.042	< 0.01	< 0.01	< 0.01	0.078	0.016	0.02	< 0.0002
MW-220	Apr-00	0.079	< 0.0050	228	1.1	0.001	57.5	1.5	4.82	18.2	0.378	< 0.050	< 0.002	< 0.002	0.056	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
MW-220	Jun-00		< 0.0050	364	2.58	0.004	109	2.63	3.37	13															
MW-220	Sept-00		0.005	225	16.1	0.013	58.3	1.9	4.18	12.1															
MW-220	Dec-00		< 0.005	250	6.93	0.005	72.7	1.29	3.38	12.4															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.0005	2			0.002
MW-221S	Sep-87	< 0.05	< 0.010	276	65	0.093		3.2		30.4	21.7	< 0.06	0.036	< 0.005	0.31	0.033	0.154	0.067	< 0.005	< 0.010	< 0.010	0.249			0.0003
MW-221S	May-88																								
MW-221S	Aug-88																								
MW-221S	Nov-88		< 0.010																						
MW-221S	Feb-89	< 0.25	< 0.010	484	382	0.237		9.39		29.5	173	0.04	0.011	0.001	1.04	0.345	0.709	0.321	< 0.005	< 0.010	< 0.010	1.05			< 0.0002
MW-221S	Apr-89		< 0.010		78	0.0513		2.9					0.0221												
MW-221S	Jul-89		< 0.010		0.453	< 0.005		0.0251					< 0.010												
MW-221S	Nov-89		< 0.010		42.3	< 0.003		1.25					0.0168												
MW-221S	Feb-90	< 1.0	< 0.010	258	38.1	0.0371		1.65		51.3	17.4	< 0.06	0.0161	< 0.005	< 0.2	0.0244	0.0637	< 0.040	< 0.005	< 0.010	< 0.010	0.168			< 0.0002
MW-221S	Apr-90		< 0.010		7.97	0.0795		0.911					0.0221												
MW-221S	Nov-90	0.08	< 0.01	250	10	0.029	53	2	5.1	55	4.6	< 0.060	< 0.020	< 0.01	0.09	< 0.03	0.03	< 0.04	< 0.005	< 0.02	< 0.010	0.09			< 0.001
MW-221S	Feb-91		< 0.010	248	6.56	< 0.020	56.1	6.04	4.86	46.1															
MW-221S	May-91		< 0.010	254	10.6	< 0.020	55.3	9.3	6.02	68.1															
MW-221S	Aug-91		< 0.010	302	35	0.025	66.5	2.5	8.31	70.6															
MW-221S	Nov-91		0.012	249	17.3	< 0.020	47.2	1.54	4.33	55															
MW-221S	Feb-92	< 0.25	< 0.010	215	7.25	< 0.020	56	1.82	3.99	42	1.57	< 0.060	< 0.020	< 0.010	0.2	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	0.03			< 0.001
MW-221S	May-92	< 0.25	< 0.010	259	2.39	< 0.020	53.9	4.34	3.19	64.5	0.6	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	< 0.020			< 0.001
MW-221S	Aug-92		< 0.010	234	11.7	< 0.020	58.8	4.31	6.4	53															
MW-221S	Dec-92		< 0.010	194	21.5	0.021	49	1.43	6.53	60.3															
MW-221S	Feb-93		< 0.010	199	20.1	< 0.020	42.8	12.6	6.23	51.2															
MW-221S	Jun-93	< 0.25	< 0.010	248	6.45	0.009	47.1	17.5	5.38	47.9	3.36	< 0.060	< 0.020	< 0.010	0.27	< 0.020	0.044	< 0.040	0.02	< 0.020	< 0.010	0.049			< 0.001
MW-221S	Aug-93		< 0.010	262	24.5	0.024	76	3.71	8.06	49.1															
MW-221S	Dec-93		< 0.010	216	34.7	0.028	67	3.67	6.58	45.4															
MW-221S	34366		< 0.010	211	19.8	0.016	57	2.24	4.44	81.5															
MW-221S	Jun-94		0.018	251	4.77	0.007	50.4	20.2	4.48	41															
MW-221S	Aug-94	0.17	< 0.010	240	3.6	0.006	49.2	8.27	8.93	35	0.34	< 0.06	0.026	< 0.010	< 0.10	< 0.020	0.064	0.013	< 0.005	< 0.020	< 0.005	0.063			< 0.001
MW-221S	Nov-94		< 0.010	182	2	< 0.005	51.1	3.43	4.73	41.1															
MW-221S	March-95		< 0.010	210	12.5	0.012	56	18	4.98	31.5															
MW-221S	June-95		< 0.010	260	6.7	< 0.005	60	3.55	3.82	37.2															
MW-221S	Sept. - 95		< 0.010	186	11.2	0.005	38.8	4.66	4.44	22.2															
MW-221S	Dec-95		< 0.010	185	2.31	< 0.005	33	5.83	4.09	30.6	1.32	< 0.060	< 0.020	< 0.010	0.74	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.005	< 0.020			< 0.001
MW-221S	April-96	< 1	0.0047	280	210	0.29	29	20	19	47	140	0.35	< 0.01	0.008	1.1	0.17	0.4	0.28	0.45	0.012	< 0.03	0.95			0.00083
MW-221S	June-96		< 0.01	280	180	0.26	36	23	20	42															
MW-221S	Sept-96		< 0.01	38	0.17	< 0.01	15	< 0.01	2.5	14															
MW-221S	Nov-96		< 0.01	190	2.5	< 0.01	31	11	4.4	27															
MW-221S	March-97	< 1	< 0.01	250	91	0.11	33	10	15	30	59	0.2	< 0.01	< 0.01	0.4	0.075	0.2	0.13	< 0.05	< 0.01	< 0.03	0.55			< 0.0004
MW-221S	June-97		< 0.01	240	40	0.041	33	7.9	7.9	36															
MW-221S	Sept-97		< 0.01	260	110	0.11	75	10	20	54															
MW-221S	Dec-97		< 0.01	290	120	0.15	86	9.6	18	37															
MW-221S	Mar-98		< 0.01	290	88	0.11	60	4.6	13	17															
MW-221S	June-98	< 1	< 0.01	220	50	0.064	52	3.9	11	22	30	< 0.06	0.061	< 0.01	0.23	0.048	0.092	0.08	< 0.05	< 0.01	< 0.03	0.34	0.026	0.04	< 0.0002
MW-221S	Sept-98		< 0.01	320	150	0.085	95	12	26	35															
MW-221S	Dec-98		< 0.01	380	120	0.056	87	10	15	57															
MW-221S	Apr-99		< 0.01	320	52	0.048	55	2.4	7.5	16															
MW-221S	Jun-99		< 0.01	380	130	0.074	78	6.3	7.9	26															
MW-221S	Sept-99		< 0.01	300	16	< 0.01	37	2.2	7.9	41															
MW-221S	Dec-99	< 0.5	< 0.01	220	33	0.042	47	3.6	7.3	20	16	< 0.01	0.072	< 0.01	0.23	0.022	0.078	0.05	< 0.01	< 0.01	< 0.01	0.14	0.02	0.02	< 0.0002
MW-221S	Apr-00	< 0.048	< 0.0050	235	18.4	0.024	33	1.45	4.6	11.2	10.1	< 0.050	0.009	< 0.002	0.174	0.021	0.048	0.015	< 0.002	< 0.010	< 0.001	0.096	< 0.010	0.021	< 0.0002
MW-221S	Jun-00		< 0.0050	229	0.824	0.009	33.2	0.654	3.18	15.2															
MW-221S	Sep-00		< 0.005	205	3.75	0.009	32.5	1.3	3.88	15.5															
MW-221S	Dec-00		< 0.005	214	4.99	0.006	26.8	0.953	3.42	9.8															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Cu (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Tb (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class I-A Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025		0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.0005	2			0.002
MW-221D	Sep-87	<0.05	<0.010	47	0.83	<0.005		0.072		14.7	<0.20	<0.06	0.04	<0.005	<0.2	0.014	<0.025	<0.040	<0.005	<0.010	<0.010	<0.020			<0.0002
MW-221D	May-88																								
MW-221D	Aug-88																								
MW-221D	Nov-88		<0.010																						
MW-221D	Feb-89	<0.25	<0.010	58.6	1.18	<0.005		0.0388		15.6	0.593	<0.06	<0.010	<0.005	<0.2	<0.010	<0.025	<0.040	<0.005	<0.010	<0.010	0.0535			<0.0002
MW-221D	Apr-89		<0.010		0.527	<0.005		0.0178					<0.010												
MW-221D	Jul-89		<0.010		10.5	0.0119		0.226					<0.010												
MW-221D	Nov-89		<0.010		<0.1	<0.003		<0.015					<0.010												
MW-221D	Feb-90	<1.0	<0.010	52.3	1.01	0.0036		0.0214		16.8	0.714	<0.06	<0.010	<0.005	<0.2	<0.010	<0.025	<0.040	<0.005	<0.010	<0.010	0.0484			<0.0002
MW-221D	Apr-90		<0.010		1.46	0.0033		0.0379					<0.010												
MW-221D	Nov-90	<0.05	<0.01	42	0.21	<0.020	17	0.02	2.3	15	<0.20	<0.060	<0.020	<0.01	0.03	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	0.05			<0.001
MW-221D	Feb-91		<0.010	43.6	0.208	<0.020	17.7	0.017	2.54	15.2															
MW-221D	May-91		<0.010	41.7	0.137	<0.020	17.4	<0.015	2.72	15															
MW-221D	Aug-91		<0.010	44.5	0.33	<0.020	17.7	0.013	2.87	15.2															
MW-221D	Nov-91		<0.010	40.6	0.44	<0.020	14.5	0.025	1.59	15.9															
MW-221D	Feb-92	<0.25	<0.010	40.2	0.713	<0.020	17.9	0.029	2.08	13.5	0.45	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	<0.020			<0.001
MW-221D	May-92		<0.010	44.5	0.254	<0.020	16.4	<0.020	1.67	12.5															
MW-221D	Aug-92		<0.010	34.4	0.09	<0.020	14.8	0.02	2.88	11.5															
MW-221D	Dec-92		<0.010	35.2	0.125	<0.020	14.1	<0.020	2.3	15.5															
MW-221D	Feb-93		<0.010	32.5	0.068	<0.020	12.6	<0.020	2.22	14.6															
MW-221D	Jun-93	<0.25	<0.010	34.3	0.116	<0.005	14.6	<0.020	2.24	17	0.23	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	0.007	<0.020	<0.010	<0.020			<0.001
MW-221D	Aug-93		<0.010	34.3	0.214	<0.005	18.9	<0.020	2.13	16.6															
MW-221D	Dec-93		<0.010	40	0.184	0.013	18.7	<0.020	2.46	16.4															
MW-221D	34366		<0.010	37.5	0.568	0.007	17	<0.020	2.04	15.7															
MW-221D	Jun-94		<0.010	39.8	0.08	<0.005	16.9	0.046	2.02	17.9															
MW-221D	Aug-94	0.06	<0.010	40.1	0.25	<0.005	16.2	0.094	3.08	11.5	0.49	<0.060	<0.020	<0.010	<0.10	<0.020	0.11	0.069	<0.005	<0.020	<0.005	0.083			<0.001
MW-221D	Nov-94		<0.010	30.8	0.073	<0.005	16.4	<0.020	2.24	14.7															
MW-221D	March-95		<0.010	39.5	0.09	<0.005	18	<0.020	2.96	15.5															
MW-221D	June-95		<0.010	35.5	<0.030	<0.005	16.8	<0.020	1.92	11															
MW-221D	Sept. - 95		<0.010	39.5	0.15	<0.005	16.9	<0.020	2.32	14.8															
MW-221D	Dec-95		<0.010	31.8	0.25	<0.005	16.2	0.025	2.6	18.6	0.26	<0.060	<0.020	<0.010	0.18	<0.020	0.021	<0.040	<0.005	<0.020	<0.005	0.04			<0.001
MW-221D	April-96	<1	<0.002	40	0.25	<0.01	15	0.031	2.5	16	0.19	<0.1	<0.01	<0.003	<0.2	<0.01	<0.02	<0.01	<0.1	<0.01	<0.03	0.052			<0.0002
MW-221D	June-96		<0.01	41	0.26	<0.01	16	<0.01	3	15															
MW-221D	Sept-96		<0.01	240	0.18	<0.01	43	<0.01	13	40															
MW-221D	Nov-96		<0.01	31	0.13	<0.01	14	0.013	1.8	13															
MW-221D	March-97	<1	<0.01	37	0.19	<0.01	14	<0.01	2.1	9.8	<0.01	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	0.012	<0.05	<0.01	<0.03	0.056			<0.0004
MW-221D	June-97		<0.01	40	0.64	<0.01	16	0.024	2.5	13															
MW-221D	Sept-97		<0.01	36	0.31	<0.01	14	<0.01	2	14															
MW-221D	Dec-97		<0.01	37	0.16	<0.01	16	<0.01	3.3	15															
MW-221D	Mar-98		<0.01	41	0.24	0.01	16	0.025	3	15															
MW-221D	June-98	<1	<0.01	38	0.23	<0.01	18	<0.01	4.1	16	0.11	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	0.014	<0.05	<0.01	<0.03	0.11	<0.01	<0.03	<0.0002
MW-221D	Sept-98		<0.01	39	0.13	<0.01	17	<0.01	4.2	12															
MW-221D	Dec-98		<0.01	67	0.31	<0.01	17	0.016	3.2	16															
MW-221D	Apr-99		<0.01	40	0.29	0.01	17	0.014	2.6	15															
MW-221D	Jun-99		<0.01	51	0.33	<0.01	21	0.01	3	20															
MW-221D	Sept-99		<0.01	44	0.19	<0.01	18	<0.01	3.5	16															
MW-221D	Dec-99	<0.5	<0.01	43	0.19	<0.01	18	<0.01	2.9	15	<0.1	<0.01	<0.01	<0.01	<0.2	<0.01	<0.01	<0.01	0.001	<0.01	0.023	0.028	<0.01	<0.01	<0.0002
MW-221D	Apr-00	0.073	<0.0050	39.2	0.041	0.002	16.7	<0.005	2.24	14.5	<0.075	<0.050	<0.002	<0.002	0.05	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
MW-221D	Jun-00		<0.0050	41.7	0.276	0.002	17.7	0.006	2.13	15.4															
MW-221D	Sep-00		<0.005	44	0.054	0.006	18.2	<0.005	2.12	15.3															
MW-221D	Dec-00		<0.005	42.9	0.049	0.002	17.3	<0.005	2.39	14.3															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025		0.3		20			0.025	0.003	1	0.05	0.3	0.1	0.01	0.05	0.0005	2			0.002
MW-222	Sep-87	<0.05	<0.010	262	45.6	0.024		1.56		13.3	5.97	<0.06	0.026	<0.005	0.25	0.02	0.033	<0.040	<0.005	<0.010	<0.010	0.071			<0.0002
MW-222	May-88																								
MW-222	Aug-88																								
MW-222	Nov-88		<0.010																						
MW-222	Feb-89	<0.25	<0.010	319	51.7	0.0408		1.93		11.3	26.1	0.06	0.0297	<0.005	0.353	0.0341	0.126	0.0497	<0.005	<0.010	<0.010	0.208			<0.0002
MW-222	Apr-89		<0.010		65.6	0.0359		2.55					0.0900												
MW-222	Jul-89		<0.010		52.3	0.0382		2.23					0.0375												
MW-222	Nov-89		<0.010		17.2	<0.003		1.28					<0.010												
MW-222	Feb-90	<1.0	<0.010	214	34.2	0.0074		1.4		27.3	3.7	0.0184	<0.010	<0.005	<0.2	<0.010	<0.025	<0.040	<0.005	<0.010	<0.010	0.0367			0.00039
MW-222	Apr-90		<0.010		9.57	0.0037		1.12					0.0144												
MW-222	Nov-90	0.11	<0.01	260	24	<0.020	21	1.8	3.1	37	3.1	<0.060	<0.020	<0.01	0.14	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	0.02			<0.001
MW-222	Feb-91		<0.010	286	26.4	<0.020	23	2.14	2.66	32.3															
MW-222	May-91		<0.010	275	28.5	<0.020	21.4	2.21	2.92	40.6															
MW-222	Aug-91		<0.010	343	39.1	<0.020	28.8	1.93	3.89	30.1															
MW-222	Nov-91		<0.01	359	36.9	<0.020	34.1	1.47	2.6	33.1															
MW-222	Feb-92	<0.25	<0.010	341	32.3	<0.020	44.6	2.34	3.43	28.3	1.99	<0.060	<0.020	<0.010	0.64	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.026			<0.001
MW-222	May-92	<0.25	<0.010	371	24.1	<0.020	36.1	3.19	2.35	23.1	0.56	<0.060	0.078	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	<0.020			<0.001
MW-222	Aug-92		<0.010	229	25.7	<0.020	32.8	1.32	3.88	27.7															
MW-222	Dec-92		<0.010	263	1.98	<0.020	45.6	0.842	3.52	44.3															
MW-222	Feb-93		<0.010	219	59.1	0.044	40.9	2.96	6.86	44															
MW-222	Jun-93	<0.25	<0.010	241	46.4	0.012	38.6	2.07	4.65	22.5	7.27	<0.060	<0.020	<0.010	0.39	<0.020	0.044	<0.040	0.012	<0.020	<0.010	0.053			<0.001
MW-222	Aug-93		<0.010	219	50.9	0.017	63.4	1.01	8.05	16.8															
MW-222	Dec-93		<0.010	283	46.3	0.01	75.1	1.45	9.04	92.4															
MW-222	34366		<0.010	332	55.7	0.015	65	3.38	6.38	65															
MW-222	Jun-94		0.013	244	29.4	0.007	45.8	2.68	2.5	15.1															
MW-222	Aug-94	<0.05	0.013	280	28.7	<0.005	60.8	1.76	6.33	18.7	0.88	<0.060	0.028	<0.010	<0.10	<0.020	0.032	0.12	<0.005	<0.020	<0.005	0.51			<0.001
MW-222	Nov-94		<0.010	199	26	<0.005	62.2	1.36	7.27	21.4															
MW-222	March-95		<0.010	236	50	0.019	63	2.86	5.64	23.6															
MW-222	June-95		<0.010	233	26.2	0.009	48.2	1.92	2.91	206															
MW-222	Sept. - 95		<0.010	214	28.8	0.007	47.5	1.14	6.87	276															
MW-222	Nov-95		<0.010	163	29.2	<0.005	40.3	2.35	6.15	46.8	11.2	<0.060	0.038	<0.010	0.48	<0.020	0.051	0.05	<0.005	<0.020	<0.005	0.092			<0.001
MW-222	April-96	<1	<0.002	240	67	0.067	26	2.1	12	170	31	<0.1	<0.01	<0.003	0.4	0.04	0.092	0.058	<0.1	<0.01	<0.03	0.24			<0.0002
MW-222	June-96		<0.01	270	36	<0.01	30	2.6	5.2	41															
MW-222	Sept-96		<0.01	300	46	0.014	31	2.2	5.5	37															
MW-222	Nov-96		<0.01	230	37	0.019	28	1	5.4	42															
MW-222	March-97	<1	<0.01	270	41	0.036	26	2.4	6.4	42	11	<0.06	<0.01	<0.01	0.28	0.015	0.054	0.031	<0.05	<0.01	<0.03	0.19			<0.0004
MW-222	June-97		<0.01	290	44	0.022	43	1.8	6.5	60															
MW-222	Sept-97		<0.01	290	66	0.044	64	1.7	11	200															
MW-222	Dec-97		<0.01	220	45	0.03	66	1	28	270															
MW-222	Mar-98		<0.01	190	33	0.015	56	1.1	17	130															
MW-222	June-98	<1	<0.01	190	34	0.018	53	1.4	12	67	4.7	<0.06	0.028	<0.01	0.27	0.011	0.026	0.021	<0.05	<0.01	<0.03	0.092	<0.01	<0.03	<0.0002
MW-222	Sept-98		<0.01	290	71	0.03	75	2	16	38															
MW-222	Dec-98		<0.01	340	84	0.019	99	1.5	40	170															
MW-222	Apr-99		<0.01	270	42	0.017	95	1.9	22	190															
MW-222	Jun-99		<0.01	200	45	0.02	68	1.2	22	160															
MW-222	Sept-99		<0.01	180	34	<0.01	68	0.9	49	110															
MW-222	Dec-99	<0.5	<0.01	160	30	0.018	55	0.82	48	120	3.8	<0.01	0.031	<0.01	0.82	<0.01	0.031	0.042	0.028	<0.01	<0.01	0.072	0.012	<0.01	<0.0002
MW-222	Apr-00	0.25	<0.0050	169	28.2	0.006	63.4	0.803	24.2	59.3	2.17	<0.050	0.025	<0.002	0.423	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	0.034	<0.010	0.011	<0.0002
MW-222	Jun-00		<0.0050	202	35.7	0.001	66.4	1.26	9.94	25.3															
MW-222	Sep-00		<0.005	218	57	0.007	67.8	0.877	7.54	40.8															
MW-222	Dec-00		<0.005	228	50.2	0.002	78.4	0.65	15.9	47.2															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Tb (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20		0.003	0.025	0.003	1	0.05	0.3	0.1	0.01	0.05	0.0005	2			0.002
MW-223S	Sep-87	< 0.05	< 0.010	226	1.13	< 0.005		2.83		7.25	0.87	< 0.06	< 0.010	< 0.005	< 0.2	< 0.010	0.052	< 0.040	< 0.005	< 0.010	0.01	< 0.020			< 0.0002
MW-223S	May-88																								
MW-223S	Aug-88																								
MW-223S	Nov-88		< 0.010																						
MW-223S	Feb-89	< 0.25	< 0.010	188	0.823	< 0.005		1.34		9.09	0.2	< 0.06	< 0.010	< 0.005	< 0.2	< 0.010	< 0.025	< 0.040	< 0.005	< 0.010	< 0.010	0.115			< 0.0002
MW-223S	Apr-89		< 0.010		0.528	< 0.005		1.1					< 0.010												
MW-223S	Jul-89		< 0.010		5.71	< 0.005		2.24					< 0.010												
MW-223S	Nov-89		< 0.010		1.94	< 0.003		2.32					< 0.010												
MW-223S	Feb-90	< 1.0	< 0.010	270	5.53	< 0.003		2.31		6.47	2.07	< 0.06	< 0.010	< 0.005	< 0.2	< 0.010	< 0.025	< 0.040	< 0.005	< 0.010	< 0.010	0.0664			< 0.0002
MW-223S	Apr-90		< 0.010		1.1	< 0.003		2.08					< 0.010												
MW-223S	Nov-90	< 0.05	< 0.01	240	2.1	< 0.020	76	2.2	1.8	5.9	1.2	< 0.060	< 0.020	< 0.01	0.09	< 0.03	< 0.02	< 0.04	< 0.005	< 0.02	< 0.010	0.04			< 0.001
MW-223S	Feb-91		< 0.010	252	5.24	< 0.020	70.9	2.54	2.63	5.75															
MW-223S	May-91		< 0.010	236	2.11	< 0.020	68.4	2.41	1.77	6.27															
MW-223S	Aug-91		< 0.010	247	2.29	< 0.020	69.6	2.75	6.5																
MW-223S	Nov-91		0.012	251	4.57	< 0.020	61.2	2.62	1.6	6.74															
MW-223S	Feb-92	< 0.25	< 0.010	235	4.75	< 0.020	64.6	3.47	2.07	6.02	3.18	< 0.060	< 0.020	< 0.010	0.17	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	0.037			< 0.001
MW-223S	May-92	< 0.25	< 0.010	224	21.8	< 0.020	63.8	3.14	3.47	7.26	11.2	< 0.060	0.029	< 0.010	< 0.10	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	0.066			< 0.001
MW-223S	Aug-92		< 0.010	194	8.68	< 0.020	58.6	2.76	2.62	5.66															
MW-223S	Dec-92		< 0.010	205	6.34	< 0.020	56.8	1.99	1.88	7.49															
MW-223S	Feb-93		< 0.010	163	8.5	< 0.020	50.2	3.05	1.8	6.57															
MW-223S	May-93	< 0.25	< 0.010	219	10.3	< 0.005	56.3	2.88	1.55	7.19	1.16	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	< 0.020			< 0.001
MW-223S	Aug-93		< 0.010	226	14.5	0.011	73	2.49	1.5	10.7															
MW-223S	Dec-93		< 0.010	251	13	0.013	71.9	3.35	2.38	8.65															
MW-223S	34366		< 0.010	206	29.8	0.01	61	3.4	4.51	8.4															
MW-223S	May-94		< 0.010	229	14.6	< 0.005	57.8	2.86	1.05	7.74															
MW-223S	Aug-94	< 0.05	0.014	240	12.9	< 0.005	61.6	3.96	4.08	6.78	3.21	< 0.060	0.022	< 0.010	< 0.10	< 0.020	0.02	0.09	< 0.005	< 0.020	< 0.005	0.16			< 0.001
MW-223S	Nov-94		< 0.010	181	10.7	< 0.005	56.8	2.69	1.38	7.91															
MW-223S	March-95		< 0.010	212	13.5	< 0.005	31	3.24	1.75	4.3															
MW-223S	June-95		< 0.010	972	25.6	< 0.005	277	3.5	1.31	13.4															
MW-223S	Sept. - 95		< 0.010	221	17.7	< 0.005	69.4	3.44	1.86	8.9															
MW-223S	Nov-95		< 0.010	229	15.6	< 0.005	70.6	3.24	1.87	16.6	0.97	< 0.060	< 0.020	< 0.010	0.4	< 0.020	0.028	< 0.040	< 0.005	< 0.020	< 0.005	0.089			< 0.001
MW-223S	April-96	< 1	< 0.002	290	20	< 0.01	27	3.5	2.5	11	1.8	< 0.1	< 0.01	< 0.003	< 0.2	< 0.01	< 0.02	< 0.01	< 0.1	< 0.01	< 0.03	0.061			< 0.0002
MW-223S	June-96		< 0.01	240	21	< 0.01	31	3.4	2.3	8.6															
MW-223S	Sept-96		< 0.01	210	23	< 0.01	34	3.2	2.7	8.8															
MW-223S	Nov-96		< 0.01	200	5.5	< 0.01	27	1.9	1.9	9.5															
MW-223S	March-97	< 1	< 0.01	200	11	< 0.01	29	2.4	1.9	6.9	0.34	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.3	0.07			< 0.0004
MW-223S	June-97		< 0.01	240	18	< 0.01	45	2.9	2.7	6.6															
MW-223S	Sept-97		< 0.01	210	5.2	< 0.01	38	0.86	2	10															
MW-223S	Dec-97		< 0.01	210	18	< 0.01	46	2.9	2.1	9.6															
MW-223S	Mar-98		< 0.01	140	8.2	< 0.01	32	0.83	5	15															
MW-223S	June-98	< 1	< 0.01	230	22	0.011	60	3.6	3.4	12	3.5	< 0.06	0.02	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.18	< 0.01	< 0.03	< 0.0002
MW-223S	Sept-98		< 0.01	230	5.8	< 0.01	44	1.7	2.9	10															
MW-223S	Dec-98		< 0.01	320	8.3	< 0.01	41	1.4	2.3	15															
MW-223S	Apr-99		< 0.01	220	25	< 0.01	52	3.6	2	11															
MW-223S	Jun-99		< 0.01	270	9.2	0.012	52	2	2.1	15															
MW-223S	Sept-99		< 0.01	240	28	< 0.01	52	3.8	2.6	16															
MW-223S	Dec-99	< 0.5	< 0.01	230	26	< 0.01	51	3.9	2.3	14	1.8	< 0.01	0.081	< 0.01	< 0.2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0002
MW-223S	Apr-00	0.064	< 0.0050	227	24	0.002	50.6	3.95	1.84	12.1	1.38	< 0.050	0.021	< 0.002	0.101	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	0.029	< 0.010	< 0.010	< 0.0002
MW-223S	Jun-00		< 0.0050	233	26.3	0.002	49	4.03	1.4	16.5															
MW-223S	Sep-00		< 0.005	243	26.2	0.008	50.3	4.06	1.35	18															
MW-223S	Dec-00		< 0.005	235	24.6	< 0.001	47.6	3.85	1.24	15.7															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025		0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.0005	2			0.002
							35					0.003													
MW-223D	Sep-87	< 0.05	< 0.010	256	1.57	< 0.005		2.35		8.9	0.81	< 0.06	< 0.010	< 0.005	< 0.2	< 0.010	< 0.025	< 0.040	< 0.005	< 0.010	0.01	< 0.020			< 0.0002
MW-223D	May-88																								
MW-223D	Aug-88																								
MW-223D	Nov-88		< 0.010																						
MW-223D	Feb-89	< 0.25	< 0.010	214	0.611	< 0.005		1.34		13.9	0.26	< 0.06	< 0.010	< 0.005	< 0.2	< 0.010	< 0.025	< 0.040	< 0.005	< 0.010	< 0.010	0.0491			< 0.0002
MW-223D	Apr-89		< 0.010		0.414	< 0.005		0.389					< 0.010												
MW-223D	Jul-89		< 0.010		6.83	< 0.005		2.05					< 0.010												
MW-223D	Nov-89		< 0.010		0.911	< 0.003		0.755					< 0.010												
MW-223D	Feb-90	< 1.0	< 0.010	295	3.313	0.0042		2.12		11.7	1.613	< 0.06	< 0.010	< 0.005	0	< 0.010	< 0.025	< 0.040	< 0.005	< 0.010	< 0.010	0.0803			< 0.0002
MW-223D	Apr-90		< 0.010		1.03	0.0034		0.351					< 0.010												
MW-223D	Nov-90	< 0.05	< 0.01	300	35	0.041	68	2.8	6.3	14	22	< 0.060	< 0.020	< 0.01	0.2	< 0.03	0.06	< 0.04	< 0.005	< 0.02	< 0.010	0.14			< 0.001
MW-223D	Feb-91		< 0.010	296	8.65	< 0.020	65.2	3.32	3.01	15.8			< 0.020	< 0.01	0.2	< 0.03	0.06	< 0.04	< 0.005	< 0.02	< 0.010	0.14			< 0.001
MW-223D	May-91		< 0.010	271	4.77	< 0.020	59.3	2.08	2.18	15.2			< 0.010												
MW-223D	Aug-91		< 0.010	277	2.71	< 0.020	60.9	2.1	2.08	13.5			< 0.010												
MW-223D	Nov-91		< 0.010	353	2.96	< 0.020	70.4	1.88	1.51	12.7			< 0.010												
MW-223D	Feb-92	< 0.25	< 0.010	274	2.73	< 0.020	56.4	2.28	2.17	10.8	2.21	< 0.060	< 0.020	< 0.010	0.13	< 0.020	0.027	< 0.040	< 0.005	< 0.020	< 0.010	0.029			< 0.001
MW-223D	May-92		< 0.010	240	3.5	< 0.020	49.4	1.58	1.46	10.5			< 0.010												
MW-223D	Aug-92		< 0.010	216	5.05	< 0.020	53.2	1.89	2.79	9.95			< 0.010												
MW-223D	Dec-92		< 0.010	234	3.63	< 0.020	51.5	1.46	2.18	12.3			< 0.010												
MW-223D	Feb-93		< 0.010	192	3.1	< 0.020	44.4	1.96	2.02	10.9			< 0.010												
MW-223D	May-93	< 0.25	< 0.010	223	3.88	< 0.005	49.3	1.77	1.76	11	2.14	< 0.060	< 0.020	< 0.010	< 0.10	< 0.020	< 0.020	< 0.040	< 0.005	< 0.020	< 0.010	< 0.020			< 0.001
MW-223D	Aug-93		< 0.010	212	5.66	0.01	27.6	1.57	1.17	14.9			< 0.010												
MW-223D	Dec-93		< 0.010	219	4.65	< 0.005	55.4	2.2	2.13	12.4			< 0.010												
MW-223D	Feb-94		< 0.010	192	5.66	< 0.005	46	1.61	2.01	11.5			< 0.010												
MW-223D	May-94		< 0.010	190	3.02	< 0.005	42.1	1.64	0.96	9.74			< 0.010												
MW-223D	Aug-94	< 0.05	< 0.010	208	9.6	< 0.005	46.4	2.08	4.26	8.17	5.87	< 0.060	0.02	< 0.010	< 0.10	< 0.020	0.07	0.078	< 0.005	< 0.020	< 0.005	0.13			< 0.001
MW-223D	Nov-94		< 0.010	164	2.26	< 0.005	47.4	1.77	1.47	10.6			< 0.010												
MW-223D	March-95		< 0.010	202	6.28	< 0.005	24	1.54	1.89	9.8			< 0.010												
MW-223D	June-95		< 0.010	200	2.7	< 0.005	48.8	1.89	1.64	7.43			< 0.010												
MW-223D	Sept. - 95		< 0.010	221	3.76	< 0.005	49.7	1.92	1.53	8.98			< 0.010												
MW-223D	Nov-95		< 0.010	164	6.06	< 0.005	47.2	1.86	2.45	11.1	2.62	< 0.060	< 0.020	< 0.010	0.44	< 0.020	0.027	< 0.040	< 0.005	< 0.020	< 0.005	0.072			< 0.001
MW-223D	April-96	< 1	< 0.002	150	5.2	< 0.01	23	0.82	3.5	13	2.5	< 0.1	< 0.01	< 0.003	< 0.2	< 0.01	< 0.02	< 0.01	< 0.1	< 0.01	< 0.03	0.097			< 0.0002
MW-223D	June-96		< 0.01	130	2.5	< 0.01	24	0.5	4	12			< 0.010												
MW-223D	Sept-96		< 0.01	170	5.7	< 0.01	30	1.6	2	9.8			< 0.010												
MW-223D	Nov-96		< 0.01	140	2.5	< 0.01	25	0.89	1.8	11			< 0.010												
MW-223D	March-97	< 1	< 0.01	110	2.2	0.029	22	0.65	2.6	7.9	0.39	< 0.06	0.02	0.015	< 0.2	0.025	0.028	0.023	< 0.05	< 0.01	< 0.03	0.12			< 0.0004
MW-223D	June-97		< 0.01	190	2.7	< 0.01	38	1.5	1.5	6.7			< 0.010												
MW-223D	Sept-97		< 0.01	160	5.7	< 0.01	34	1	2.1	12			< 0.010												
MW-223D	Dec-97		< 0.01	180	5.6	< 0.01	40	1.4	1.9	11			< 0.010												
MW-223D	Mar-98		< 0.01	120	5.8	< 0.01	30	0.67	4.5	14			< 0.010												
MW-223D	June-98	< 1	< 0.01	180	7.1	< 0.01	48	1.7	2.6	12	2.5	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.07	< 0.01	< 0.03	< 0.0002
MW-223D	Sept-98		< 0.01	170	7.1	< 0.01	39	1.1	3.8	9.8			< 0.010												
MW-223D	Dec-98		< 0.01	280	6.6	< 0.01	42	1.5	2.4	14			< 0.010												
MW-223D	Apr-99		< 0.01	210	3.6	< 0.01	49	1.7	1.5	12			< 0.010												
MW-223D	Jun-99		< 0.01	210	8.9	0.012	44	1.2	2.1	18			< 0.010												
MW-223D	Sept-99		< 0.01	200	8.8	< 0.01	47	1.7	2.4	12			< 0.010												
MW-223D	Dec-99	< .5	< 0.01	160	7.3	< .01	38	1.1	1.7	13	1.4	< 0.01	0.024	< 0.01	< .2	< 0.01	0.012	< 0.01	0.009	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0002
MW-223D	Apr-00	0.064	< 0.0050	189	3.92	< 0.001	45.8	1.63	1.5	11.6	0.486	< 0.050	0.011	< 0.002	0.058	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	0.029	< 0.010	< 0.010	< 0.0002
MW-223D	Jun-00		< 0.0050	201	4.19	0.003	47.3	1.72	1.3	11.9			< 0.010												
MW-223D	Sep-00		< 0.005	215	4.66	0.003	49.8	1.83	1.14	11.8			< 0.010												
MW-223D	Dec-00		< 0.005	228	4.4	0.001	51.4	1.89	1.11	11.9			< 0.010												

TABLE 8. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025		0.3		20		0.003	0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.0005	2			0.002
MW - 303D	Nov-94		< 0.010	53.8	0.7	< 0.005	19.4	0.021	99.8	377															
MW - 303D	March-95		< 0.010	28.4	0.23	< 0.005	16	< 0.020	22.2	186															
MW - 303D	June-95		< 0.010	34	0.1	< 0.005	14.9	< 0.020	16.4	132															
MW-303D	Sept. - 95		< 0.010	37.2	0.32	< 0.005	17.5	< 0.020	14.5	166															
MW-303D	Nov-95		< 0.010	36	0.38	< 0.005	18.1	0.07	10	202	0.26	< 0.060	< 0.020	< 0.010	0.14	< 0.020	0.027	< 0.040	< 0.050	< 0.020	< 0.005	0.13			< 0.001
MW-303D	April-96	< 1	< 0.002	39	1.3	< 0.01	15	0.043	18	170	0.56	< 0.01	< 0.01	< 0.003	< 0.2	< 0.01	< 0.02	< 0.01	< 0.1	< 0.01	< 0.03	0.072			< 0.0002
MW-303D	June-96		< 0.01	42	0.59	< 0.01	16	0.036	9.6	150															
MW-303D	Sept-96		< 0.01	41	0.64	0.011	15	0.023	7	150															
MW-303D	Nov-96		< 0.01	41	0.73	< 0.01	14	0.03	7.9	140															
MW-303D	March-97	< 1	< 0.01	43	0.71	< 0.01	15	0.026	9	92	0.19	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	0.13	< 0.01	< 0.03	0.088			< 0.0004
MW-303D	June-97		< 0.01	34	0.47	< 0.01	16	0.024	5.9	68															
MW-303D	Sept-97		< 0.01	42	0.49	< 0.01	16	0.021	5.6	140															
MW-303D	Dec-97		< 0.01	42	0.51	< 0.01	16	0.019	6.7	160															
MW-303D	Mar-98		< 0.01	45	0.74	< 0.01	18	0.024	5	160															
MW-303D	June-98	< 1	< 0.01	44	0.97	< 0.01	18	0.044	8	180	0.28	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.066	< 0.01	< 0.03	< 0.0002
MW-303D	Sept-98		< 0.01	50	0.88	0.012	20	0.025	8.9	160															
MW-303D	Dec-98		< 0.01	58	2	< 0.01	21	0.042	< 1	120															
MW-303D	Apr-99		< 0.01	44	0.75	< 0.01	18	0.03	4.4	170															
MW-303D	Jun-99		< 0.01	62	1	< 0.01	24	0.05	5.4	270															
MW-303D	Sept-99		< 0.01	69	2.3	< 0.01	24	< 0.01	7.1	200															
MW-303D	Dec-99	< .5	< 0.01	54	1.6	< 0.01	23	0.044	9.8	190	0.32	< 0.01	< 0.01	< 0.01	< .2	< 0.01	< 0.01	0.05	0.049	< 0.01	0.018	0.037	< 0.01	< 0.01	< .0002
MW-303D	Apr-00	0.384	0.007	47.8	0.865	0.002	20.2	0.034	6.02	167	0.155	< 0.050	0.004	< 0.002	0.037	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	0.025	< 0.010	< 0.010	< 0.0002
MW-303D	Jun-00		< 0.0050	46.9	0.947	0.004	19.6	0.092	6.45	166															
MW-303D	Sept-00		< 0.005	49.8	1.07	0.006	20	0.055	6.42	156															
MW-303D	Dec-00		< 0.005	53.9	1.33	0.002	21	0.056	6.51	155															
MW - 303S	Nov-94		< 0.010	325	44.3	< 0.005	53.8	7.59	7.27	55.1															
MW - 303S	March-95		< 0.010	185	36.1	0.014	45	4.94	3.74	25															
MW - 303S	June-95		< 0.010	190	1.23	< 0.005	42	4.2	3.99	29															
MW-303S	Sept. - 95		< 0.010	187	33.4	0.007	52.8	3.62	6.84	29.1															
MW-303S	Nov-95		< 0.010	174	33.7	< 0.005	47.9	4.06	6.13	33.7	6.55	< 0.060	0.024	< 0.010	0.58	< 0.020	0.049	< 0.040	< 0.005	< 0.020	< 0.005	0.14			< 0.001
MW-303S	April-96	< 1	< 0.002	240	59	0.035	26	4.8	5.9	30	20	0.13	< 0.01	< 0.003	< 0.2	0.044	0.064	0.049	0.13	< 0.01	< 0.03	0.2			< 0.0002
MW-303S	June-96		< 0.01	240	61	0.022	31	4.4	7.3	30															
MW-303S	Sept-96		< 0.01	230	82	0.067	38	4.3	11	26															
MW-303S	Nov-96		< 0.01	220	80	0.064	29	4.1	12	25															
MW-303S	March-97	< 1	< 0.01	210	45	0.038	31	3.4	10	18	14	< 0.06	< 0.01	< 0.01	< 0.2	0.026	0.05	0.037	< 0.05	< 0.01	< 0.03	0.16			< 0.0004
MW-303S	June-97		< 0.01	250	83	0.07	58	4.3	13	17															
MW-303S	Sept-97		< 0.01	230	96	0.079	59	4.5	14	26															
MW-303S	Dec-97		< 0.01	250	150	0.15	78	5.8	21	29															
MW-303S	Mar-98		< 0.01	230	100	0.088	63	5.1	13	27															
MW-303S	June-98	< 1	< 0.01	180	68	0.052	49	3.7	12	19	25	< 0.06	0.034	< 0.01	0.26	0.061	0.086	0.064	< 0.05	< 0.01	< 0.03	0.2	0.037	0.037	< 0.0002
MW-303S	Sept-98		< 0.01	270	160	0.12	75	5.2	15	18															
MW-303S	Dec-98		< 0.01	390	350	0.2	110	10	6.8	22															
MW-303S	Apr-99		< 0.01	260	170	0.094	68	5.2	11	23															
MW-303S	Jun-99		< 0.01	320	210	0.085	78	5.6	11	28															
MW-303S	Sept-99		0.012	350	230	0.1	91	6.7	16	24															
MW-303S	Dec-99	< .5	0.017	320	120	0.11	74	5.3	13	22	40	< 0.01	0.17	< 0.01	0.69	0.091	0.22	0.11	< 0.01	< 0.01	< 0.01	0.34	0.06	0.062	0.00047
MW-303S	Apr-00	0.088	< 0.0050	200	17.6	0.008	37.4	3.79	5.89	15.6	6.97	< 0.050	0.007	< 0.002	0.135	0.011	0.047	0.029	< 0.002	< 0.010	< 0.001	0.1	0.013	0.015	< 0.0002
MW-303S	Jun-00		< 0.0050	188	12.8	0.008	34.4	3.82	5.8	16.2															
MW-303S	Sept-00		< 0.005	161	15.1	0.001	29.7	3.18	5.76	14.3															
MW-303S	Dec-00		< 0.005	192	24	0.008	35.4	2.94	5.58	14.2															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	8.3	20			0.003	0.025	0.003	1	0.05	0.3	0.1	0.01	0.05	0.0005	2			0.002
MW - 304D	Nov-94		< 0.010	123	5.45	< 0.005	17.4	0.6	3.07	40.8															
MW - 304D	March-95		< 0.010	152	6.04	< 0.005	38.3	0.77	3.14	41															
MW - 304D	June-95		< 0.010	152	7.15	< 0.005	36.2	0.71	4.53	32.8															
MW-304D	Sept. - 95		< 0.010	165	6.99	< 0.005	38	0.82	4.47	39.9															
MW-304D	Nov-95		< 0.010	154	8.42	< 0.005	47.7	0.76	4.97	58.6	0.36	< 0.060	< 0.020	< 0.010	0.59	< 0.020	0.031	< 0.040	< 0.005	< 0.020	< 0.005	0.14			< 0.001
MW-304D	April-96	< 1	0.0032	170	6.9	< 0.01	23	0.67	5.8	48	0.44	< 0.1	< 0.01	0.0032	0.22	< 0.01	< 0.02	< 0.01	< 0.1	< 0.01	< 0.03	0.12			< 0.0002
MW-304D	June-96		< 0.01	160	9.1	< 0.01	28	0.65	5.1	43															
MW-304D	Sept-96		< 0.01	130	6	< 0.01	26	0.66	4.4	41															
MW-304D	Nov-96		< 0.01	97	4.9	< 0.01	19	0.33	3.6	40															
MW-304D	March-97	< 1	< 0.01	140	6.1	< 0.01	25	0.69	4.8	29	0.2	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.22			< 0.0004
MW-304D	June-97		< 0.01	140	6.2	< 0.01	31	0.77	4.4	30															
MW-304D	Sept-97		< 0.01	130	6	0.022	30	0.68	3.8	39															
MW-304D	Dec-97		< 0.01	140	6.3	< 0.01	32	0.73	4.3	44															
MW-304D	Mar-98		< 0.01	120	5.8	< 0.01	29	0.68	3.9	42															
MW-304D	June-98	< 1	< 0.01	130	7	< 0.01	33	0.83	5.2	42	0.15	< 0.06	< 0.01	< 0.01	0.21	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.054	< 0.01	< 0.03	< 0.0002
MW-304D	Sept-98		< 0.01	120	6.8	< 0.01	31	0.54	5	39															
MW-304D	Dec-98		< 0.01	82	11	< 0.01	22	0.19	< 1	44															
MW-304D	Apr-99		< 0.01	110	6.8	< 0.01	27	0.61	3.3	28															
MW-304D	Jun-99		< 0.01	170	10	< 0.01	40	1	4.9	48															
MW-304D	Sept-99		< 0.01	130	8.8	< 0.01	36	0.84	5.3	41															
MW-304D	Dec-99	< .5	< 0.01	130	7.2	< 0.01	34	0.68	4.6	40	0.22	< 0.01	< 0.01	< 0.01	< .2	< 0.01	< 0.01	< 0.01	0.036	< 0.01	< 0.01	0.018	< 0.01	< 0.01	< .0002
MW-304D	Apr-00	0.101	< 0.0050	130	7.39	< 0.001	31.4	0.7	3.89	35.2	< 0.075	< 0.050	0.022	< 0.002	0.213	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	0.038	< 0.010	< 0.010	< 0.0002
MW-304D	Jun-00		< 0.0050	81.3	4.1	0.003	25.6	0.42	4.04	37.7															
MW-304D	Sept-00		< 0.005	103	6.11	0.002	26.1	0.456	3.61	35.7															
MW-304D	Dec-00		< 0.005	64.3	0.922	< 0.001	19.6	0.041	2.51	40.3															
MW - 304S	Nov-94		< 0.010	157	21.2	< 0.005	24.6	2.49	3	21.1															
MW - 304S	March-95		< 0.010	206	26.7	0.017	47.3	3.34	3.74	21															
MW - 304S	June-95		< 0.010	214	17.5	0.01	44.6	3.44	2.72	18.6															
MW-304S	Sept. - 95		< 0.010	218	80.4	0.042	73.2	5.4	8.36	26.1															
MW-304S	Nov-95		< 0.010	188	14.2	< 0.005	48.6	3.01	3.29	32	1.32	< 0.060	< 0.020	< 0.010	0.6	< 0.020	0.074	< 0.040	< 0.005	< 0.020	< 0.005	0.16			< 0.001
MW-304S	April-96	< 1	0.008	360	130	0.11	28	7.2	9	26	53	0.21	< 0.01	0.019	0.46	0.26	0.27	0.16	0.22	0.018	< 0.03	0.55			< 0.0002
MW-304S	June-96		< 0.01	320	140	< 0.01	35	7.7	14	23															
MW-304S	Sept-96		< 0.01	230	66	0.043	36	4.7	6.4	22															
MW-304S	Nov-96		< 0.01	310	160	0.3	31	9.3	13	22															
MW-304S	March-97	< 1	< 0.01	240	58	0.052	31	3	9.1	16	21	< 0.06	< 0.01	< 0.01	0.32	0.11	0.099	0.09	< 0.05	< 0.01	< 0.03	0.33			< 0.0004
MW-304S	June-97		< 0.01	310	130	0.11	78	7.6	13	19															
MW-304S	Sept-97		< 0.01	280	110	0.087	69	6.8	12	24															
MW-304S	Dec-97		< 0.01	240	130	0.12	78	7.7	15	31															
MW-304S	Mar-98		< 0.01	260	100	0.077	65	6.3	12	24															
MW-304S	June-98	< 1	< 0.01	220	59	0.047	53	5.1	8.1	22	20	< 0.06	0.028	< 0.01	0.34	0.11	0.11	0.068	< 0.05	< 0.01	< 0.03	0.18	0.1	0.032	< 0.0002
MW-304S	Sept-98		< 0.01	380	250	0.14	110	9.7	23	21															
MW-304S	Dec-98		< 0.01	350	220	0.12	100	11	3.9	21															
MW-304S	Apr-99		< 0.01	370	280	0.16	100	11	14	21															
MW-304S	Jun-99		< 0.01	370	180	< 0.01	82	8.4	8.5	25															
MW-304S	Sept-99		< 0.01	330	200	0.069	79	8.1	12	21															
MW-304S	Dec-99	< .5	0.01	400	150	0.12	86	10	9.6	23	51	< 0.01	0.10	< 0.01	0.79	0.3	0.24	0.3	< 0.01	< 0.01	< 0.01	0.59	0.3	0.083	0.00031
MW-304S	Apr-00	0.113	< 0.0050	237	80.9	0.019	57.8	5.83	9.3	18.2	33.7	< 0.050	0.008	< 0.002	0.519	0.15	0.143	0.11	< 0.002	< 0.010	< 0.001	0.233	0.105	0.055	< 0.0002
MW-304S	Jun-00		< 0.0050	204	15.1	0.007	40.2	3.99	3.2	18.9															
MW-304S	Sept-00		< 0.005	209	43.2	0.009	46.3	4.59	6.74	18.3															
MW-304S	Dec-00		< 0.005	198	16.7	0.003	38.5	3.59	3.23	17.3															

TABLE 5. HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METAL PARAMETERS (EXISTING LANDFILL)

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025		0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.0005	2			0.002
MW - 304VS	Nov-94		< 0.010	290	30.4	< 0.005	62.7	4.1	8.69	159															
MW - 304VS	March-95		< 0.010	327	24.8	0.018	103	2.62	7.06	220															
MW - 304VS	June-95		< 0.010	133	3.74	0.011	35.3	1.31	3.2	89.1															
MW-304VS	Sept. - 95		< 0.010	180	39	0.018	65.6	0.11	9.32	242															
MW-304VS	Nov-95		< 0.010	129	43.8	< 0.005	54.1	1.5	8.58	219	23.8	< 0.060	< 0.020	< 0.010	0.55	0.026	0.096	< 0.040	< 0.005	< 0.020	< 0.005	0.26			< 0.001
MW-304VS	April-96	< 1	0.003	290	170	0.16	29	6.1	15	150	93	0.3	< 0.01	0.0062	0.5	0.13	0.28	0.3	0.31	0.014	< 0.03	0.69			0.00021
MW-304VS	June-96		< 0.01	230	100	0.095	34	4.4	13	130															
MW-304VS	Sept-96		< 0.01	200	110	0.098	40	3.8	13	150															
MW-304VS	Nov-96		< 0.01	200	120	0.11	29	4.8	13	140															
MW-304VS	March-97	< 1	< 0.01	220	47	0.052	32	2.9	11	100	24	0.12	< 0.01	< 0.01	0.24	0.036	0.074	0.054	< 0.05	< 0.01	< 0.03	0.24			< 0.0004
MW-304VS	June-97		< 0.01	370	160	0.15	100	6.4	22	140															
MW-304VS	Sept-97		< 0.01	310	150	0.15	96	6.8	27	210															
MW-304VS	Dec-97		0.013	280	160	0.16	98	7	20	200															
MW-304VS	Mar-98		< 0.01	170	110	0.091	58	4.3	16	190															
MW-304VS	June-98	< 1	< 0.01	150	92	0.089	51	3.6	17	190	51	< 0.06	0.073	< 0.01	0.32	0.083	0.2	0.12	< 0.05	< 0.01	< 0.03	0.44	0.059	0.087	< 0.0002
MW-304VS	Sept-98	Location Not Sampled																							
MW-304VS	Dec-98		0.013	210	160	0.11	77	6.6	5.2	140															
MW-304VS	Apr-99		< 0.01	140	83	0.057	46	4.1	7.5	160															
MW-304VS	Jun-99		0.011	180	130	0.094	35	4.3	8.4	230															
MW-304VS	Sept-99		< 0.01	140	76	0.021	42	3.3	11	200															
MW-304VS	Dec-99	< .5	< 0.01	210	77	0.076	39	5.7	9.4	220	36	< 0.01	0.06	< 0.01	< .2	0.053	0.21	0.11	< 0.01	< 0.01	< 0.01	0.25	0.057	0.051	0.00037
MW-304VS	Apr-00	< 0.048	< 0.0050	267	10.5	0.007	54.2	5.09	4.75	187	6.68	< 0.050	< 0.002	< 0.002	0.179	< 0.010	0.035	0.041	< 0.002	< 0.010	< 0.001	0.053	0.015	< 0.010	< 0.0002
MW-304VS	June-00		< 0.0050	297	0.615	0.008	53.4	4.6	4.34	224															
MW-304VS	Sep-00		< 0.005	197	2.44	0.007	33.5	3.21	4.28	203															
MW-304VS	Dec-00		< 0.005	166	4.31	0.004	29.3	3.1	2.9	176															

Table 6. Upgradient Groundwater Quality (Shallow Wells)

Monitoring Well	Sample Date	ALK (mg/l)	Cl- (mg/l)	Hard (mg/l)	Cond (umhos/cm)	Phenols (mg/l)	TDS (mg/l)	SO4= (mg/l)	TOC (mg/l)	Ca (mg/l)	Fe (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)
MW-231S	Nov-89	8.7	126	485	0.065	171	45.9	5.90	59.1	0.53			0.01		15.00
MW-231S	Feb-90	137	20.6	190	0.011	246	37.3	0.49		3.12			0.15		
MW-231S	Apr-90	164	17	120	0.003	232	38.9	6.46		0.41			0.11		
MW-231S	Nov-90	142	15.7	165	0.005	210	36.0	6.40	58.0	20.00	25.0	0.52	4.60		11.00
MW-231S	Feb-91	144	15.9	160	0.005	248	36.7	12.00	48.7	8.09	20.8	0.24	3.57		10.50
MW-231S	May-91	154	13.8	162	0.005	252	37.2	1.50	50.2	9.73	20.0	0.29	2.37		10.30
MW-231S	Aug-91	154	14.6	162	0.005	252	46.8	4.70	54.5	6.55	17.7	0.26	3.08		10.10
MW-231S	Nov-91	134	13	142	0.005	212	24.3	0.50	31.9	2.52	15.1	0.121	1.3		10.1
MW-231S	Feb-92	152	17.8	187	0.005	236	23.6	2.00	43.3	13.6	19.1	0.346	3.93		9.48
MW-231S	May-92	160	17	167	0.005	296	85.0	0.50	40.5	4.70	16.10	0.16	1.41		10.40
MW-231S	Aug-92	152	17.5	215	0.005	260	76.8	1.00	36.6	4.33	30.10	0.17	2.47		6.97
MW-231S	Dec-92	178	16	164	0.005	248	56.0	0.50	39.2	10.3	16.1	0.233	3.42		10.3
MW-231S	Feb-93	170	17.5	139	0.005	268	46	7.00	32.8	4.23	13.9	0.182	1.99		10.1
MW-231S	May-93	162	20.0	176	0.005	276	69.9	5.0	46.8	5.23	14.4	0.158	2.51		10.4
MW-231S	Aug-93	156	21.0	180	0.005	268	97.7	0.5	40.6	7.84	19.2	0.194	1.93		13.7
MW-231S	Dec-93	156	20.0	190	0.005	232	88.6	2.0	46.2	4.92	18.2	0.211	2.45		11.0
MW-231S	Feb-94	152	23.0	176	0.005	232	45.8	0.5	44.2	0.626	16.0	0.204	1.94		18.5
MW-231S	May-94	164	22.0	173	0.005	268	36.7	16	46.5	2.32	13.8	0.18	0.84		10.4
MW-231S	Aug-94	152	24.0	182	0.005	256	44.2	0.5	52	0.41	12.6	0.16	1.52		0.40
MW-231S	Nov-94	186	24	149	0.005	248	38.9	4	39.1	0.3	12.5	0.14	1.25		8.87
MW-231S	March-95	166	26	176	0.005	296	42.6	5	45.8	1.83	15	0.19	1.86		8.8
MW-231S	June-95	155	30	168	0.005	284	38.2	25	46.9	0.9	12.4	0.2	1.15		7.38
MW-231S	Sept. - 95	171	25	194	0.005	284	32.7	9	52.6	3.32	15.3	0.22	1.9		9.58
MW-231S	Nov-95	172	24	186	0.005	288	45.5	0.5	48.6	7.28	15.7	0.28	2.61		21.5
MW-231S	April-96	240	27	350	0.001	320	78	0.5	60	7.4	14	0.29	2.1		9.1
MW-231S	June-96	190	20	230	0.002	270	40	0.5	59	6.2	14	0.31	1.8		8.2
MW-231S	Sept-96	130	15	220	0.001	320	38	1.5	65	5.2	14	0.29	1.7		9
MW-231S	Nov-96	20	22	71	0.001	130	2	5.9	21	1.5	4.5	0.05	1.1		12
MW-231S	March-97	35	19	120	0.001	130	35	2.2	39	2.1	5.7	0.12	1.6		10
MW-231S	June-97	77	17	170	0.001	150	21	2	64	4.4	3.5	0.17	1.7		11
MW-231S	Sept-97	36	20	110	0.001	110	37	2.8	37	3.4	3.9	0.13	1.4		13
MW-231S	Dec-97	64	16	120	0.001	170	34	2.6	40	2.9	4.8	0.13	1.5		14
MW-231S	Mar-98	150	23	210	0.001	260	36	0.5	59	9.1	16	0.33	3.1		9.1
MW-231S	June-98	150	20	230	0.001	270	36	0.5	66	11	16	0.53	3.1		9.6
MW-231S	Sept-98	41	21	130	0.0038	160	33	2.8	40	6.5	6.7	0.21	3		13
MW-231S	Dec-98	50	20	180	0.001	130	33	2.4	60	6	6.5	0.21	0.5		11

t-Test Statistical Analysis

	35	36	36	34	36	35	36	36	34	36	33	36	33	34
n	137.60	19.54	171.94	345.74	0.01	235.63	44.29	3.92	47.47	5.24	14.20	0.21	2.14	10.70
SUM x	4816.00	703.60	6190.00	11755.00	0.20	8247.00	1594.30	141.15	1614.10	188.79	468.60	7.69	70.70	363.78
SUM (x)^2	7.5E+05	1.4E+04	1.1E+06	4.4E+06	4.9E-03	2.1E+06	8.4E+04	1.4E+03	8.0E+04	1.6E+03	7.8E+03	2.0E+00	1.8E+02	4.3E+03
S^2	2570.95	18.97	2139.88	8706.75	0.0001	3259.89	395.57	25.59	111.95	17.57	35.80	0.0113	0.87	11.72
S	50.70	4.36	46.26	93.31	0.0104	57.10	19.89	5.06	10.58	4.19	5.98	0.1065	0.93	3.42
Sx	8.57	0.73	7.71	16.00	0.0017	9.65	3.31	0.84	1.81	0.70	1.04	0.0178	0.16	0.59
+/- RANGE	23.89	2.02	21.43	44.76	0.00	26.90	9.21	2.34	5.08	1.94	2.92	0.05	0.46	1.64

Range of Data Values to be Considered Comparable with Background (Upgradient) Conditions.

(Based Upon a 99% Confidence Interval)

	161.49	21.56	193.37	390.49	0.010	262.53	53.50	6.26	52.55	7.19	17.12	0.26	2.60	12.34
U.C.I.	113.71	17.53	150.52	300.98	0.001	208.73	35.07	1.58	42.40	3.30	11.28	0.16	1.69	9.06

Table 6. Upgradient Groundwater Quality (Shallow Wells)

Monitoring Well	Sample Date	ALK (mg/l)	Cl- (mg/l)	Hard (mg/l)	Cond (umhos/cm)	Phenols (mg/l)	TDS (mg/l)	SO4= (mg/l)	TOC (mg/l)	Ca (mg/l)	Fe (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)
MW-230S	Nov-89	141	33.6	209	385	0.007	288	47.5	2.96		5.71		0.45		
MW-230S	Feb-90	146	36.4	210		0.011	281	49.3	8.48		3.55		0.29		
MW-230S	Apr-90	159	35.2	200	387	0.003	306	58.2	9.34						8.30
MW-230S	Nov-90	161	32.3	215	310	0.005	286	54.0	9.30	77.5	8.07	14.3	0.50	1.86	7.04
MW-230S	Feb-91	144	31.8	245	400	0.005	353	51.0	15.00	89.2	16.20	15.9	0.90	2.71	6.90
MW-230S	May-91	142	30.8	216	340	0.005	329	53.0	1.50	72.4	2.31	11.4	0.39	1.24	6.72
MW-230S	Aug-91	144	30.2	210	490	0.005	318	51.8	10.40	62.2	12.1	11.9	0.591	2.3	6.98
MW-230S	Nov-91	176	31	204	480	0.005	284	111.0	0.50	64.7	10.5	13.2	0.498	2.85	6.04
MW-230S	Feb-92	164	32.2	216	464	0.005	302		6.00		8.20	18.60	0.47	1.76	6.49
MW-230S	May-92	162	29.50		436	0.005	276	46.6	0.50						
MW-230S	Aug-92	140	31.0	184	408	0.005	316	72.8	0.50	54.9	8.68	11.3	0.43	2.36	4.74
MW-230S	Dec-92	150	27	183	469	0.005	308	63.2	0.50	55.1	7.96	11	0.324	2.18	7.14
MW-230S	Feb-93	182	30	233	495	0.005	340	48.5	19.00	63.1	27.6	18.1	1.37	4.13	7.30
MW-230S	May-93	168	28.0	197	332	0.005	276	73.8	6.0	61.4	10.6	10.6	0.380	2.79	6.91
MW-230S	Aug-93	176	30.0	195	383	0.005	320	71.3	0.5	48.3	20.9	17.9	0.574	2.07	9.75
MW-230S	Dec-93	150	29.0	225	391	0.005	328	47.9	2.0	61.5	14.4	17.3	0.683	3.07	7.94
MW-230S	Feb-94	160	29.0	263	461	0.005	240	51.1	0.5	77.2	19.7	17.0	0.720	3.46	7.36
MW-230S	May-94	164	28.0	244	356	0.005	272	49.1	13	62.0	6.04	21.6	0.44	0.69	9.65
MW-230S	Aug-94	140	29.0	187	423	0.005	280	57	0.5	53.7	1.19	12.8	0.12	1.30	6.43
MW-230S	Nov-94	145	30.0	159	365	0.005	152	52.9	4	47	0.5	10.1	0.18	0.97	7.37
MW-230S	March-95	165	32.0	215	356	0.005	272	49	8	66.2	1.83	12	0.38	1.48	6.5
MW-230S	June-95	143	34.0	299	357	0.005	308	44.5	0.5	67.6	2.64	31.6	0.46	0.99	6.72
MW-230S	Sept. - 95	151	3.0	202	317	0.005	312	45.2	25	61	6.77	12.1	0.44	2.14	7.4
MW-230S	Nov-95	144	30.0	166	315	0.005	284	47.7	0.5	48.8	2.43	10.7	0.024	1.51	10.4
MW-230S	April-96	140	28.0	520	520	0.001	310	110	0.5	78	12	13	0.55	1.80	7.6
MW-230S	June-96	270	27.0	200	417	0.001	270	32	0.5	65	9.2	11	0.47	1.70	6.5
MW-230S	Sept-96	160	24.0	230	410	0.001	240	42	1	70	9.1	12	0.44	1.70	7
MW-230S	Nov-96	70	25.0	110	329	0.001	180	2	1.3	31	2.9	8	0.081	1.80	8.1
MW-230S	March-97	42	24.0	130	409	0.001	140	48	1.9	42	4.2	6.5	0.19	2.60	6.2
MW-230S	June-97	62	26.0	140	246	0.001	160	30	1.9	43	5.2	8.1	0.24	2.30	6.4
MW-230S	Sept-97	32	23.0	130	240	0.001	190	42	2.5	40	7.6	8	0.27	3.10	11
MW-230S	Dec-97	130	17.0	160	256	0.001	200	41	1.8	46	14	10	0.49	3.90	12
MW-230S	Mar-98	190	30.0	250	375	0.001	240	38	0.5	73	20	16	0.86	4.10	9.7
MW-230S	June-98	75	30.0	190	288	0.001	210	37	1.4	52	14	14	0.55	3.00	9.1
MW-230S	Sept-98	150	30.0	250	320	0.001	240	32	1.6	77	16	15	0.61	4.10	8.8
MW-230S	Dec-98	130	42.0	230	373	0.001	230	30	1.4	73	9.1	11	0.37	0.50	7.2
MW-230S	Dec-99	150	33.0	280	455	0.001	240	37	0.5	86	18	17	0.78	2.00	7.1
MW-230S	Apr-00	109	28.6	195	400	0.005	222	45	1.1	59	8.82	11.5	0.396	2.77	8.94

t-Test Statistical Analysis

	38	38	37	37	38	38	37	38	33	36	34	36	34	35
n	142.82	28.96	213.30	382.65	0.00	265.87	50.34	4.27	61.48	9.67	13.54	0.47	2.27	7.71
SUM x	5427.00	1100.60	7892.00	14158.00	0.14	10103.00	1862.40	162.38	2028.80	348.00	460.50	16.91	77.23	269.72
SUM (x)^2	8.4E+05	3.3E+04	1.8E+06	5.6E+06	7.4E-04	2.8E+06	1.1E+05	1.9E+03	1.3E+05	4.8E+03	7.0E+03	1.0E+01	2.1E+02	2.2E+03
S^2	1794.15	35.79	4349.33	4952.40	0.0000	2948.06	381.76	33.44	189.57	41.09	22.25	0.06	0.94	2.39
S	42.36	5.98	65.95	70.37	0.0023	54.30	19.54	5.78	13.77	6.41	4.72	0.25	0.97	1.55
Sx	6.87	0.97	10.84	11.57	0.0004	8.81	3.21	0.94	2.40	1.07	0.81	0.04	0.17	0.26
+/- RANGE	19.10	2.70	30.22	32.24	0.0010	24.48	8.95	2.61	6.79	2.99	2.28	0.12	0.47	0.73

Range of Data Values to be Considered Comparable with Background (Upgradient) Conditions.

(Based Upon a 99% Confidence Interval)

U.C.I.	161.91	31.66	243.51	414.89	0.0048	290.35	59.29	6.88	68.26	12.65	15.82	0.59	2.74	8.44
L.C.I.	123.72	26.27	183.08	350.41	0.0027	241.39	41.38	1.67	54.69	6.68	11.26	0.35	1.80	6.97

Table 6. Upgradient Groundwater Quality (Shallow Wells)

Monitoring Well	Sample Date	ALK (mg/l)	Cl- (mg/l)	Hard (mg/l)	Cond (umhos/cm)	Phenols (mg/l)	TDS (mg/l)	SO4= (mg/l)	TOC (mg/l)	Ca (mg/l)	Fe (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)
MW-203DA	Nov-89	112	14	109	219	0.098	186	27.7	3.46		7.94		0.24		
MW-203DA	Feb-90		11	116		0.003	176	35.6	0.55		21.70		0.97		
MW-203DA	Apr-90	104	9.2	261	215	0.003	172	28.9	2.08	42.0	2.00	5.6	0.26	1.00	5.70
MW-203DA	Nov-90	111	8.8	125	200	0.005	176	33.0	6.30	45.8	3.83	6.6	0.30	1.45	5.37
MW-203DA	Feb-91	106	8.9	134	260	0.132	238	36.1	8.20	42.9	2.39	5.8	0.26	1.16	4.80
MW-203DA	May-91	100	5.3	138	220	0.005	188	29.6	3.00	44.7	2.70	6.3	0.33	1.45	5.46
MW-203DA	Aug-91	102	7.3	130	310	0.005	197	34.0	9.80	37.5	2.27	5.74	0.281	0.71	5.53
MW-203DA	Nov-91	102	8	117	302	0.005	188	28.0	2.00	28.3	21.0	9.14	0.607	5.6	4.97
MW-203DA	Feb-92	126	14	84	296	0.005	188		2.00	37.5	1.90	5.41	0.20	0.79	4.25
MW-203DA	May-92	106	5.50	116	308	0.005	180	27.0	1.00						
MW-203DA	Aug-92	96	7.5	109	264	0.005	184	48.2	0.50	34.7	2.27	5.34	0.224	1.34	3.83
MW-203DA	Dec-92	140	5.5	107	295	0.005	132	48.9	0.50	33.7	3.06	5.65	0.186	1.27	5.29
MW-203DA	Feb-93	110	6.5	90.9	312	0.005	240	48.5	6.00	26.6	7.14	5.96	0.361	2.11	4.53
MW-203DA	May-93	104	6.5	113	224	0.005	168	71.2	4.0	36.4	3.34	5.41	0.217	1.44	5.59
MW-203DA	Aug-93	110	7.0	42.0	286	0.005	184	85.1	0.5	33.9	3.15	6.00	0.210	0.58	7.56
MW-203DA	Dec-93	112	7.0	130	288	0.005	192	106	0.5	40.3	4.07	7.0	0.358	1.43	5.96
MW-203DA	Feb-94	108	7.5	118	303	0.005	164	46.5	0.5	37.0	3.17	6.1	0.260	1.08	5.03
MW-203DA	May-94	108	6.0	126	249	0.005	176	24.4	14	38.8	2.90	7.00	0.32	0.25	6.48
MW-203DA	Aug-94	100	7.5	125	279	0.005	216	32.7	1	40.6	1.42	5.66	0.22	1.13	4.50
MW-203DA	Nov-94	105	8	100	262	0.005	192	35.6	0.5	31.6	0.5	5.02	0.17	0.61	5.79
MW-203DA	March-95	107	12	118	261	0.021	192	36.9	41	37.2	1.71	6	0.25	1.24	5.00
MW-203DA	June-95	103	11	121	256	0.005	184	28.4	7	39.8	0.46	5.34	0.23	0.9	5.40
MW-203DA	Sept. - 95	115	8	124	243	0.005	204	26.6	3	40.2	1.63	5.86	0.27	0.97	5.70
MW-203DA	Nov-95	112	7	110	238	0.005	196	47.7	0.5	35.4	1.1	5.38	0.2	1.01	7.58
MW-203DA	April-96	110	7.6	290	286	0.001	210	57	1.9	52	4.2	7.1	0.4	1.1	5.10
MW-203DA	June-96	110	3.7	360	285	0.001	190	32	0.5	41	0.91	5.5	0.19	0.67	4.30
MW-203DA	Sept-96	130	2	190	280	0.001	200	74	0.5	56	22	12	0.85	2.4	5.00
MW-203DA	Nov-96	110	7.5	130	270	0.0056	170	73	0.5	40	4.5	6.6	0.25	1.2	4.70
MW-203DA	March-97	120	7.3	230	298	0.001	160	37	1.4	69	24	14	0.99	3.7	3.50
MW-203DA	June-97	130	6.7	210	264	0.001	190	38	0.5	63	17	12	0.77	2.1	4.10
MW-203DA	Sept-97	120	10	180	280	0.001	230	36	0.5	54	20	12	0.82	2.6	5.60
MW-203DA	Dec-97	150	8.4	250	293	0.001	240	48	1	74	34	17	1.3	3.6	5.80
MW-203DA	Mar-98	150	7.4	600	306	0.001	200	43	0.5	170	89	45	3.7	10	7.70
MW-203DA	June-98	170	6.5	510	246	0.001	210	29	1	140	94	39	3.5	9.3	7.70
MW-203DA	Sept-98	140	7.2	330	278	0.001	210	26	0.5	92	63	25	1.8	7.8	6.70
MW-203DA	Dec-98	130	10	1300	283	0.001	160	24	1	350	270	100	9.9	3	8.30

t-Test Statistical Analysis

	35	36	36	35	36	36	35	36	33	35	33	35	33	33
n	116.26	7.87	206.78	270.26	0.01	191.19	42.39	3.55	60.18	21.26	12.77	0.90	2.27	5.54
SUM x	4069.00	283.30	7443.90	9459.00	0.37	6883.00	1483.60	127.69	1985.90	744.26	421.47	31.41	74.99	182.82
SUM (x)^2	4.8E+05	2.4E+03	3.2E+06	2.6E+06	2.8E-02	1.3E+06	7.5E+04	2.2E+03	2.4E+05	9.8E+04	1.6E+04	1.3E+02	3.6E+02	1.1E+03
S^2	283.61	5.98	48858.95	906.73	6.93E-04	545.53	359.18	50.99	3625.48	2408.52	331.38	3.14	5.97	1.41
S	16.84	2.45	221.04	30.11	2.6E-02	23.36	18.95	7.14	60.21	49.08	18.20	1.77	2.44	1.19
Sx	2.85	0.41	36.84	5.09	4.4E-03	3.89	3.20	1.19	10.48	8.30	3.17	0.30	0.43	0.21
+/- RANGE	7.93	1.13	102.38	14.19	0.01	10.82	8.93	3.31	29.42	23.12	8.90	0.83	1.19	0.58

Range of Data Values to be Considered Comparable with Background (Upgradient) Conditions.

(Based Upon a 99% Confidence Interval)

	124.19	9.00	309.15	284.44	0.0224	202.01	51.32	6.85	89.60	44.38	21.67	1.73	3.47	6.12
U.C.I.	124.19	9.00	309.15	284.44	0.0224	202.01	51.32	6.85	89.60	44.38	21.67	1.73	3.47	6.12
L.C.I.	108.32	6.74	104.40	256.07	0.0000	180.38	33.46	0.24	30.76	0.00	3.88	0.06	1.08	4.96

Table 6. Upgradient Groundwater Quality (Shallow Wells)

Monitoring Well	Sample Date	ALK (mg/l)	Cl- (mg/l)	Hard (mg/l)	Cond (umhos/cm)	Phenols (mg/l)	TDS (mg/l)	SO4= (mg/l)	TOC (mg/l)	Ca (mg/l)	Fe (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)
MW-208SA	Mar-90	148	38.2	205	284	0.020	284	97.3	3.08	0.80	0.37				
MW-208SA	Apr-90	147	37.8	200	398	0.003	298	41.6	2.28	76.0	11.00	13.0	0.68	2.60	15.00
MW-208SA	Nov-90	161	38.2	215	330	0.005	304	54.0	4.70	78.5	7.89	12.6	0.61	2.12	16.00
MW-208SA	Feb-91	154	42.7	218	450		365	47.0	12.10	71.0	2.37	10.2	0.46	1.26	15.50
MW-208SA	May-91	150	42.5	224	440	0.005	347	44.8	0.50	78.2	3.21	11.5	0.63	1.46	15.60
MW-208SA	Aug-91	160	52.1	570	384	0.005	384	52.8	13.40	66.9	5.42	10.7	0.512	1.47	15.4
MW-208SA	Nov-91	156	42	186	545	0.005	316	41.4	0.50	0.696	6.6	0.132	0.82	10.3	
MW-208SA	Feb-92	156		101	528	0.005		22.8	3.00	67.7	1.97	10.10	0.38	0.85	14.8
MW-208SA	May-92	156	45.50	211	522	0.005	320	42.0	0.50						
MW-208SA	Aug-92	154	48	196	486	0.005	364	54.1	0.50	62.7	2.56	9.68	0.386	1.89	13.6
MW-208SA	Dec-92	186	46	190	586	0.005	360	61.1	0.50	59.6	3.9	9.95	0.261	1.89	16.4
MW-208SA	Feb-93	168	45	162	561	0.005	376	44.50	11.00	50.30	5.03	8.75	0.499	1.95	16.4
MW-208SA	May-93	162	47.0	198	364	0.005	272	75.1	7.0	63.2	5.13	9.79	0.393	2.45	19.0
MW-208SA	Aug-93	172	45.0	211	412	0.005	340	54.2	0.5	61.7	3.35	13.9	0.331	1.40	19.3
MW-208SA	Dec-93	172	44.0	229	511	0.005	348	83.3	10.0	72.0	3.82	11.8	0.381	1.72	18.4
MW-208SA	Feb-94	170	50.0	226	574	0.005	296	55.6	0.5	72.5	3.90	11.0	0.419	1.66	19.4
MW-208SA	May-94	172	49.0	205	432	0.005	340	47.2	19	64.7	2.76	10.5	0.46	0.81	18.1
MW-208SA	Aug-94	160	47.0	221	529	0.005	328	59.4	0.5	71.7	0.53	10.1	0.41	1.39	14.9
MW-208SA	Nov-94	186	51	179	445	0.005	352	42.2	0.5	55.8	0.34	9.54	0.32	1.14	19.1
MW-208SA	March-95	125	50	218	417	0.005	344	48.2	9	66.4	2.43	12.6	0.56	2.49	19.4
MW-208SA	June-95	170	51	233	421	0.005	392	44	6	75.4	3.81	10.8	0.63	1.52	16.6
MW-208SA	Sept. - 95	169	47	236	372	0.005	384	48.5	0.5	76.1	2.47	11.1	0.46	1.6	19.8
MW-208SA	Nov-95	168	44	226	389	0.005	372	74.2	6	66.8	9.46	14.3	0.62	2.05	26
MW-208SA	April-96	170	49	320	540	0.001	350	91	2.3	78	5.3	10	0.47	1.4	21
MW-208SA	June-96	210	28	100	528	0.001	340	49	7.8	67	16	11	0.58	2.1	17
MW-208SA	Sept-96	250	4	270	550	0.001	310	100	12	81	39	16	1.2	3.4	19
MW-208SA	Nov-96	200	23	200	513	0.001	320	100	21	51	36	11	0.74	2.4	14
MW-208SA	March-97	230	23	210	561	0.001	310	44	30	64	55	13	0.85	2.8	9.3
MW-208SA	June-97	210	36	230	464	0.001	330	38	9.4	72	18	12	0.53	1.7	13
MW-208SA	Sept-97	210	9.1	200	500	0.001	340	38	7.4	64	15	10	0.45	1.6	20
MW-208SA	Dec-97	240	9.2	190	436	0.001	260	37	23	55	48	13	0.78	2.9	13
MW-208SA	Mar-98	170	7.4	200	436	0.001	280	63	18	56	65	15	0.95	2.1	10
MW-208SA	June-98	180	7.5	160	374	0.001	260	39	24	46	29	12	0.7	1.8	10
MW-208SA	Sept-98	180	13	200	431	0.001	310	47	14	55	24	14	0.79	2.5	15
MW-208SA	Dec-98	180	24	200	441	0.001	270	61	28	60	30	11	0.61	0.5	15

t-Test Statistical Analysis

	35	34	34	34	34	34	35	35	32	34	33	34	33	33
n	175.77	36.36	205.00	472.24	0.00	328.41	55.49	8.81	65.82	13.62	11.41	0.55	1.81	16.22
MEAN	6152.00	1236.20	6970.00	16056.00	0.13	11166.00	1942.30	308.46	2106.20	463.15	376.51	18.56	59.74	535.30
SUM x	1.1E+06	5.3E+04	1.5E+06	7.7E+06	9.2E-04	3.7E+06	1.2E+05	5.3E+03	1.4E+05	1.6E+04	4.4E+03	1.2E+01	1.2E+02	9.1E+03
SUM (x)^2	739.71	234.22	1512.48	4946.73	1.17E-05	1353.95	368.42	74.79	83.29	293.46	3.73	0.04	0.43	12.84
S^2	27.20	15.30	38.89	70.33	3.4E-03	36.80	19.19	8.65	9.13	17.13	1.93	0.21	0.65	3.58
S	4.60	2.62	6.67	12.06	5.9E-04	6.31	3.24	1.46	1.61	2.94	0.34	0.04	0.11	0.62
Sx	12.81	7.34	18.66	33.74	0.0016	17.65	9.04	4.07	4.55	8.22	0.94	0.10	0.32	1.75
+/- RANGE														

Range of Data Values to be Considered Comparable with Background (Upgradient) Conditions.

(Based Upon a 99% Confidence Interval)

	188.58	43.70	223.66	505.97	0.0056	346.06	64.54	12.89	70.37	21.84	12.35	0.65	2.13	17.97
U.C.I.	162.96	29.02	186.34	438.50	0.0023	310.76	46.45	4.74	61.27	5.40	10.47	0.44	1.49	14.47
L.C.I.														

Average t-Test Statistical Analysis

	36	36	36	35	36	36	36	36	33	35	33	35	33	34
n	143.11	23.18	199.25	367.72	0.01	255.28	48.13	5.14	58.74	12.45	12.98	0.53	2.12	10.04
MEAN	5116.00	830.93	7123.98	12857.00	0.21	9099.75	1720.65	184.92	1933.75	436.05	431.77	18.64	70.67	337.91
SUM x	8.0E+05	2.6E+04	1.9E+06	5.1E+06	8.6E-03	2.5E+06	9.7E+04	2.7E+03	1.5E+05	3.0E+04	8.8E+03	4.0E+01	2.2E+02	4.1E+03
SUM (x)^2	1347.11	73.74	14215.16	4878.15	0.0002	2026.86	376.23	46.20	1002.57	690.16	98.29	0.81	2.05	7.09
S^2	34.28	7.02	93.03	66.03	0.0106	42.89	19.39	6.66	23.42	19.20	7.71	0.59	1.25	2.44
S	5.72	1.18	15.52	11.18	0.0018	7.17	3.24	1.11	4.08	3.25	1.34	0.10	0.22	0.42
Sx	15.93	3.30	43.17	31.23	0.0049	19.96	9.03	3.08	11.46	9.07	3.76	0.28	0.61	1.18
+/- RANGE														

Range of Data Values to be Considered Comparable with Background (Upgradient) Conditions.

(Based Upon a 99% Confidence Interval)

	159.04	26.48	242.42	398.95	0.011	275.24	57.16	8.22	70.20	21.52	16.74	0.81	2.73	11.22
U.C.I.	127.18	19.89	156.09	336.49	0.001	235.32	39.09	2.06	47.28	3.85	9.22	0.26	1.51	8.87
L.C.I.														

Table 7. Parameters Above Background Concentrations - Shallow Wells

Parameter	Units	Shallow Background	PZ 1A	PZ 4	PZ 11	MW 3B	MW 207SA	MW 220	MW 221S	MW 222	MW 223S
Alkalinity	mg/l CaCO ₃	159.04	203	198	322	561	617	492	592	757	659
Chloride	mg/l	26.48	17.9	20.8	21.2	122	30.7	13.6	8.76	130	24.6
Hardness	mg/l CaCO ₃	242.42	376	325	517	612	589	924	645	892	783
Conductance, field	umhos/cm	398.95	762	1077	997	1387	1139	1635	1119	1960	1370
Total Phenols	mg/l	0.011	<0.004	<0.004	<0.004	<0.004	0.0098	<0.004	<0.004	<0.004	<0.004
TDS	mg/l	275.24	500	0	479	711	675	1250	679	1060	891
Sulfate	mg/l	57.16	170	140	240	55	33	600	99	66	120
TOC	mg/l	8.22	<1	3.3	3.8	4	<1	1.6	5	9.9	3.6
Calcium, total	mg/l	70.2	112	83.5	162	186	180	250	214	228	235
Iron, total	mg/l	21.52	0.176	1.31	2.44	1.14	22.8	6.93	4.99	50.2	24.6
Magnesium, total	mg/l	16.74	23.4	28.3	27.4	35.9	34	72.7	26.8	78.4	47.6
Manganese, total	mg/l	0.81	0.485	0.482	1.33	1.04	1.27	1.29	0.953	0.65	3.85
Potassium, total	mg/l	2.73	1.71	4.41	2.12	1.77	2.67	3.38	3.42	15.9	1.24
Sodium, total	mg/l	11.22	16	38.7	10.2	61.7	9.53	12.4	9.8	12.4	9.8

Normalized Values

Parameter	Units	Shallow Background	PZ 1A	PZ 4	PZ 11	MW 3B	MW 207SA	MW 220	MW 221S	MW 222	MW 223S
Alkalinity	mg/l CaCO ₃	159.04	1	1	2	4	4	3	4	5	4
Chloride	mg/l	26.48	1	1	1	5	1	1	0	5	1
Hardness	mg/l CaCO ₃	242.42	2	1	2	3	2	4	3	4	3
Conductance, field	umhos/cm	398.95	2	3	2	3	3	4	3	5	3
Total Phenols	mg/l	0.011	0	0	0	0	1	0	0	0	0
TDS	mg/l	275.24	2	0	2	3	2	5	2	4	3
Sulfate	mg/l	57.16	3	2	4	1	1	10	2	1	2
TOC	mg/l	8.22	0	0	0	0	0	0	1	1	0
Calcium, total	mg/l	70.2	2	1	2	3	3	4	3	3	3
Iron, total	mg/l	21.52	0	0	0	0	1	0	0	2	1
Magnesium, total	mg/l	16.74	1	2	2	2	2	4	2	5	3
Manganese, total	mg/l	0.81	1	1	2	1	2	2	1	1	5
Potassium, total	mg/l	2.73	1	2	1	1	1	1	1	6	0
Sodium, total	mg/l	11.22	1	3	1	5	1	1	1	1	1

Table 7. Parameters Above Background Concentrations - Shallow Wells

Parameter	Units	Shallow Background	MW 303 S	MW 304 S	MW 304 VS	MW 232S	MW 233S	MW 234S	MW 235S	MW 245S
Alkalinity	mg/l CaCO ₃	159.04	637	671	376	437	376	232	578	366
Chloride	mg/l	26.48	18.4	24.6	82.8	3.17	1.28	3.11	25.5	27.6
Hardness	mg/l CaCO ₃	242.42	625	653	535	481	483	337	637	519
Conductance, field	umhos/cm	398.95	1206	1215	2050	855	895	631	1142	995
Total Phenols	mg/l	0.011	0.0042	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
TDS	mg/l	275.24	659	697	1120	535	599	435	719	719
Sulfate	mg/l	57.16	23	11	61	69	110	120	61	210
TOC	mg/l	8.22	<1	<1	8.2	2.8	5.6	1.7	<1	<1
Calcium, total	mg/l	70.2	192	198	166	151	135	105	187	154
Iron, total	mg/l	21.52	24	16.7	4.31	3.05	0.124	0.312	14.8	1.54
Magnesium, total	mg/l	16.74	35.4	38.5	29.3	25.3	35.5	18.1	41.3	32.6
Manganese, total	mg/l	0.81	2.94	3.59	3.1	1.34	0.744	0.56	1.25	1.94
Potassium, total	mg/l	2.73	5.58	3.23	2.9	1.74	1.76	0.662	1.44	1.43
Sodium, total	mg/l	11.22	14.2	17.3	176	2.83	2.4	3.41	7.53	18.2

Normalized Values

Parameter	Units	Shallow Background	MW 303 S	MW 304 S	MW 304 VS	MW 230S	MW 233S	MW 234S	MW 235S	MW 245S
Alkalinity	mg/l CaCO ₃	159.04	4	4	2	3	2	1	4	2
Chloride	mg/l	26.48	1	1	3	0	0	0	1	1
Hardness	mg/l CaCO ₃	242.42	3	3	2	2	2	1	3	2
Conductance, field	umhos/cm	398.95	3	3	5	2	2	2	3	2
Total Phenols	mg/l	0.011	0	0	0	0	0	0	0	0
TDS	mg/l	275.24	2	3	4	2	2	2	3	3
Sulfate	mg/l	57.16	0	0	1	1	2	2	1	4
TOC	mg/l	8.22	0	0	1	0	1	0	0	0
Calcium, total	mg/l	70.2	3	3	2	2	2	1	3	2
Iron, total	mg/l	21.52	1	1	0	0	0	0	1	0
Magnesium, total	mg/l	16.74	2	2	2	2	2	1	2	2
Manganese, total	mg/l	0.81	4	4	4	2	1	1	2	2
Potassium, total	mg/l	2.73	2	1	1	1	1	0	1	1
Sodium, total	mg/l	11.22	1	2	16	0	0	0	1	2

Table 8. Upgradient Groundwater Quality (Bedrock Wells)

Monitoring Well	Sample Date	ALK (mg/l)	Cl- (mg/l)	Hard (mg/l)	Cond (umhos/cm)	Phenols (mg/l)	TDS (mg/l)	SO4= (mg/l)	TOC (mg/l)	Ca (mg/l)	Fe (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)
MW-230D	Nov-89	113	1.5	79.60	136	0.01	135	5.00	9.22		0.29		0.11		
MW-230D	Feb-90	123	4.6	120.00		0.00	174	13.50	3.57		0.19		0.17		
MW-230D	Apr-90	124	1.5	90.00	226	0.00	184	14.10		28.0	1.60	6.6	0.16	1.20	22.00
MW-230D	Nov-90	130	4.9	130.00	190	0.01	156	16.00	9.10	27.5	0.39	6.3	0.13	0.91	22.60
MW-230D	Feb-91	126	5.0	98.00	250	0.01	184	13.20	8.60	27.5	0.10	6.0	0.12	0.92	22.10
MW-230D	May-91	124	1.1	94.00	180	0.01	155	13.00	1.50	25.7	0.23	5.8	0.12	1.01	21.60
MW-230D	Aug-91	122	2.1	96.00	300	0.01	170	13.90	4.40	23.60	0.26	5.30	0.14	0.66	22.60
MW-230D	Nov-91	134	3.0	80.70	290	0.01	157	13.00	0.50	26.10	0.96	5.88	0.14	1.10	17.70
MW-230D	Feb-92	126	5.9	89.40	280	0.01	160	12.80	3.00	24.50	0.28	5.49	0.11	0.62	19.90
MW-230D	May-92	122	2.5	83.80	272	0.01	172	17.80	0.50						
MW-230D	Aug-92	124	4.5	76.50	258	0.01	176	55.10	0.50	22.00	0.29	5.24	0.12	1.48	17.70
MW-230D	Dec-92	138	1.5	72.10	290	0.01	160	43.80	0.50	20.80	0.22	4.90	0.08	0.85	22.90
MW-230D	Feb-93	132	2.5	65.3	315	0.005	180	14.5	7	18.6	0.7	4.6	0.144	1.07	23.6
MW-230D	May-93	126	1.5	78.2	226	0.01	152	48	4	22.7	0.83	5.23	0.099	1.23	25
MW-230D	Aug-93	128.00	3.0	74.90	247.00	0.01	148.00	72.50	0.50	19.0	0.61	6.68	0.14	0.25	28.70
MW-230D	Dec-93	120.00	2.0	86.20	262.00	0.01	140.00	47.60	2.0	24.0	0.79	6.40	0.16	1.07	23.90
MW-230D	Feb-94	126.00	2.0	82.10	282.00	0.01	156.00	38.90	0.5	23.0	0.86	6.0	0.11	0.92	22.10
MW-230D	May-94	128.00	1.50	77.30	245.00	0.01	180.00	18.60	16.00	21.20	0.60	5.93	0.12	0.79	21.90
MW-230D	Aug-94	124.00	2.50	85.50	269.00	0.01	172.00	17.90	1.00	25.00	0.40	5.60	0.14	0.94	17.50
MW-230D	Nov-94	153.00	3.00	70.20	254.00	0.005	160.00	30.60	2.00	19.10	0.23	5.48	0.12	0.76	22.10
MW-230D	March-95	129.00	2.00	80.80	248.00	0.005	164.00	16.70	5.00	22.80	0.44	5.80	0.10	0.92	21.80
MW-230D	June-95	125.00	3.00	86.00	252.00	0.005	176.00	21.00	18.00	24.80	0.16	5.76	0.13	1.21	19.20
MW-230D	Sept. - 95	125.00	1.50	82.60	239.00	0.005	188.00	16.80	0.50	23.70	0.16	5.70	0.13	1.09	21.30
MW-230D	Nov-95	128.00	0.50	67.30	239.00	0.005	176.00	21.70	0.50	18.10	0.46	5.38	0.12	1.04	25.20
MW-230D	April-96	140.00	9.50	160.00	340.00	0.001	170.00	16.00	16.00	27.00	0.78	6.10	0.14	1.20	26.00
MW-230D	June-96	150.00	0.50	100.00	272.00	0.002	170.00	12.00	0.50	25.00	1.40	6.00	0.14	1.10	21.00
MW-230D	Sept-96	130.00	0.50	89.00	270.00	0.002	150.00	11.00	0.50	26.00	0.90	6.00	0.13	0.88	22.00
MW-230D	Nov-96	130.00	1.90	89.00	252.00	0.001	180.00	39.00	0.50	25.00	3.20	6.60	0.16	1.10	19.00
MW-230D	March-97	130.00	2.70	92.00	276.00	0.001	230.00	37.00	1.00	25.00	4.00	6.80	0.21	1.60	15.00
MW-230D	June-97	150.00	3.90	83.00	255.00	0.001	140.00	38.00	0.50	24.00	1.00	5.80	0.15	0.50	13.00
MW-230D	Sept-97	140.00	4.60	86.00	260.00	0.001	180.00	11.00	1.00	25.00	0.86	5.60	0.16	0.50	21.00
MW-230D	Dec-97	170.00	2.70	88.00	281.00	0.001	220.00	6.30	0.50	25.00	1.00	5.90	0.20	1.00	23.00
MW-230D	Mar-98	170.00	2.80	82.00	272.00	0.001	190.00	27.00	0.50	23.00	0.69	5.60	0.13	0.50	23.00
MW-230D	June-98	110.00	1.60	110.00	260.00	0.001	180.00	12.00	1.10	29.00	5.80	8.60	0.29	1.90	23.00
MW-230D	Sept-98	150.00	3.20	110.00	269.00	0.0033	210.00	14.00	1.10	30.00	6.10	8.60	0.43	2.50	21.00
MW-230D	Dec-98	130.00	0.50	91.00	263.00	0.0010	140.00	12.00	0.50	27.00	3.90	5.70	0.17	0.50	18.00
MW-230D	Dec-99	130.00	3.80	100.00	278.00	0.0010	190.00	13.00	0.50	29.00	1.80	6.80	0.19	0.50	20.00
MW-230D	Apr-00	133.00	2.83	89.90	275.00	0.0060	156.00	19.00	0.50	26.10	0.29	6.00	0.11	0.87	21.90

t-Test Statistical Analysis

	38	38	38	37	38	38	38	37	35	37	35	37	35	35
MEAN	131.92	2.74	89.91	258.73	0.00	170.55	22.72	3.33	24.39	1.16	6.01	0.15	0.99	21.38
SUM x	5.0E+03	1.0E+02	3.4E+03	9.6E+03	1.4E-01	6.5E+03	8.6E+02	1.2E+02	8.5E+02	4.3E+01	2.1E+02	5.5E+00	3.5E+01	7.5E+02
SUM (x)^2	6.7E+05	4.0E+02	3.2E+05	2.5E+06	7.1E-04	1.1E+06	2.8E+04	1.2E+03	2.1E+04	1.3E+02	1.3E+03	9.5E-01	4.1E+01	1.6E+04
S^2	170.78	3.10	315.95	1286.20	5.28E-06	440.20	231.72	22.76	8.89	2.25	0.67	0.0037	0.1804	9.11
S	13.07	1.76	17.78	35.86	0.0023	20.98	15.22	4.77	2.98	1.50	0.82	0.0607	0.4248	3.02
Sx	2.12	0.29	2.88	5.90	0.0004	3.40	2.47	0.78	0.50	0.25	0.14	0.0100	0.0718	0.51
+/- RANGE	5.89	0.79	8.01	16.43	0.0010	9.46	6.86	2.19	1.41	0.69	0.39	0.0278	0.2015	1.43

Range of Data Values to be Considered Comparable with Background (Upgradient) Conditions.

(Based Upon a 99% Confidence Interval)

U.C.I.	137.81	3.53	97.92	275.16	0.0047	180.01	29.58	5.51	25.81	1.84	6.39	0.18	1.19	22.81
L.C.I.	126.03	1.95	81.89	242.30	0.0027	161.09	15.86	1.14	22.98	0.47	5.62	0.12	0.79	19.95

Table 8. Upgradient Groundwater Quality (Bedrock Wells)

Monitoring Well	Sample Date	ALK (mg/l)	Cl- (mg/l)	Hard (mg/l)	Cond (umhos/cm)	Phenols (mg/l)	TDS (mg/l)	SO4= (mg/l)	TOC (mg/l)	Ca (mg/l)	Fe (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)
MW-203VD	Nov-89	132	1.5	115.00		0.01	165	5.00	1.30		5.11				
MW-203VD	Feb-90	103	11.3	130.00		0.00	166	28.40	0.54		0.35		0.02		
MW-203VD	Apr-90	130	1.5	108.00	210	0.00	151	5.00	2.88	29.0	0.92	12.0	0.04	1.00	11.00
MW-203VD	Nov-90	136	3.9	110.00	180	0.01	146	10.00	3.00	28.4	0.36	11.1	0.02	0.87	11.30
MW-203VD	Feb-91	132	2.0	118.00	240	0.02	185	11.50	10.00	29.4	0.13	10.6	0.02	0.92	10.90
MW-203VD	May-91	130	0.0	116.00	180	0.01	157	6.25	1.50	27.4	0.18	10.7	0.03	1.02	10.90
MW-203VD	Aug-91	128	0.5	116.00	290	0.01	167	9.00	4.50	24.80	0.93	10.60	0.04	0.75	11.20
MW-203VD	Nov-91	130	3.0	106.00	272	0.01	156	11.40	0.50	25.80	2.20	11.30	0.05	1.39	9.55
MW-203VD	Feb-92	148	3.0	111.00	268	0.01	164	7.10	3.00	25.70	0.70	10.90	0.02	0.69	9.94
MW-203VD	May-92	128	0.5	109.00	259	0.01	124	14.20	0.50						
MW-203VD	Aug-92	128	2.5	98.70	241	0.01	164	15.20	0.50	23.70	1.08	9.60	0.03	1.41	9.14
MW-203VD	Dec-92	122	0.5	108.00	268	0.01	196	45.80	0.50	24.80	1.77	11.30	0.04	1.23	11.40
MW-203VD	Feb-93	132	0.5	78.7	284	0.005	180	8.6	10	18.5	1.08	7.9	0.041	1.06	10.5
MW-203VD	May-93	130	1.5	95.3	209	0.01	140	49.3	15	23.2	0.56	9.09	0.033	1.02	12.1
MW-203VD	Aug-93	130.00	0.50	114.00	239.00	0.01	156.00	52.40	0.50	20.30	0.87	15.30	0.07	0.44	15.80
MW-203VD	Dec-93	126.00	0.5	113.00	233.00	0.01	140.00	66.20	8.0	25.10	1.60	12.2	0.05	1.19	12.70
MW-203VD	Feb-94	132.00	0.5	142.00	270.00	0.01	136.00	38.20	0.5	27.20	1.86	18.0	0.04	1.11	11.20
MW-203VD	May-94	136.00	0.50	96.70	230.00	0.005	146.00	18.60	12.00	21.90	0.37	10.20	0.04	0.61	11.40
MW-203VD	Aug-94	124.00	0.50	74.60	260.00	0.005	148.00	14.60	0.50	12.90	0.24	10.30	0.01	0.92	9.09
MW-203VD	Nov-94	145.00	1.00	83.80	238.00	0.005	260.00	31.40	9.00	18.40	0.22	9.20	0.03	1.26	10.80
MW-203VD	March-95	129.00	0.50	102.00	242.00	0.035	160.00	11.70	14.00	23.20	0.66	10.60	0.01	1.08	11.20
MW-203VD	June-95	129.00	2.00	108.00	239.00	0.005	148.00	4.30	7.00	25.00	0.11	11.00	0.02	1.00	9.65
MW-203VD	Sept. - 95	133.00	0.50	104.00	223.00	0.005	164.00	9.10	8.00	24.50	0.34	10.30	0.04	1.00	10.50
MW-203VD	Nov-95	136.00	0.50	99.20	235.00	0.005	168.00	24.50	18.00	22.90	1.04	10.20	0.06	1.32	13.50
MW-203VD	April-96	150.00	8.60	160.00	260.00	0.001	160.00	10.00	0.50	29.00	0.40	11.00	0.03	1.40	14.00
MW-203VD	June-96	160.00	0.50	220.00	265.00	0.001	160.00	6.50	0.50	23.00	0.13	9.30	0.02	0.93	10.00
MW-203VD	Sept-96	120.00	0.50	100.00	260.00	0.001	170.00	13.00	0.50	24.00	0.40	10.00	0.05	1.10	10.00
MW-203VD	Nov-96	130.00	0.50	110.00	241.00	0.001	150.00	2.50	0.50	26.00	0.36	10.00	0.02	0.50	9.90
MW-203VD	March-97	150.00	0.50	110.00	252.00	0.001	170.00	10.00	1.00	26.00	0.45	10.00	0.02	1.00	6.80
MW-203VD	June-97	150.00	0.50	120.00	236.00	0.001	140.00	6.90	0.50	28.00	0.80	11.00	0.03	1.00	8.40
MW-203VD	Sept-97	170.00	39.00	100.00	250.00	0.001	160.00	6.40	1.10	25.00	0.26	9.60	0.02	0.50	11.00
MW-203VD	Dec-97	150.00	1.90	110.00	272.00	0.001	150.00	28.00	0.50	27.00	0.25	10.00	0.03	0.50	10.00
MW-203VD	Mar-98	170.00	0.50	120.00	274.00	0.001	150.00	27.00	0.50	29.00	0.76	11.00	0.03	1.00	11.00
MW-203VD	June-98	350.00	0.25	120.00	273.00	0.001	180.00	5.80	0.50	28.00	1.40	12.00	0.05	1.10	11.00
MW-203VD	Sept-98	150.00	2.40	120.00	244.00	0.001	160.00	9.60	1.10	27.00	1.10	12.00	0.04	1.30	11.00
MW-203VD	Dec-98	140.00	1.60	98.00	242.00	0.001	120.00	8.60	0.50	26.00	1.10	8.00	0.04	0.50	8.30

t-Test Statistical Analysis

n	36	36	36	34	36	36	36	36	33	35	33	34	33	33
MEAN	142.19	2.67	112.36	246.43	0.00	159.92	17.56	3.86	24.85	0.86	10.80	0.03	0.97	10.76
SUM x	5.1E+03	9.6E+01	4.0E+03	8.4E+03	1.7E-01	5.8E+03	6.3E+02	1.4E+02	8.2E+02	3.0E+01	3.6E+02	1.1E+00	3.2E+01	3.6E+02
SUM (x)^2	7.8E+05	1.8E+03	4.7E+05	2.1E+06	2.1E-03	9.4E+05	2.0E+04	1.4E+03	2.1E+04	5.4E+01	4.0E+03	4.3E-02	3.4E+01	3.9E+03
S^2	1453.93	43.96	584.00	661.37	0.00004	540.48	243.34	24.83	12.52	0.84	3.43	0.0002	0.0784	2.80
S	38.13	6.63	24.17	25.72	0.0062	23.25	15.60	4.98	3.54	0.91	1.85	0.0126	0.2800	1.67
Sx	6.36	1.11	4.03	4.41	0.0010	3.87	2.60	0.83	0.62	0.15	0.32	0.0022	0.0487	0.29
+/- RANGE	17.66	3.07	11.19	12.34	0.0029	10.77	7.23	2.31	1.73	0.43	0.91	0.0060	0.1368	0.82

Range of Data Values to be Considered Comparable with Background (Upgradient) Conditions.
(Based Upon a 99% Confidence Interval)

U.C.I.	159.86	5.74	123.55	258.76	0.0075	170.68	24.78	6.17	26.58	1.29	11.70	0.04	1.11	11.58
L.C.I.	124.53	0.00	101.17	234.09	0.0018	149.15	10.33	1.55	23.12	0.43	9.89	0.03	0.84	9.94

Table 8. Upgradient Groundwater Quality (Bedrock Wells)

Monitoring Well	Sample Date	ALK (mg/l)	Cl- (mg/l)	Hard (mg/l)	Cond (umhos/cm)	Phenols (mg/l)	TDS (mg/l)	SO4= (mg/l)	TOC (mg/l)	Ca (mg/l)	Fe (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)
MW-208VD	Mar-90	102	8.0	94.40		0.02	172	36.90	7.41		0.78		0.13		
MW-208VD	Apr-90	103	4.7	98.60	207	0.00	158	25.10	2.48	32.0	2.40	7.6	0.17	1.30	16.00
MW-208VD	Nov-90	113	5.9	110.00	210	0.00	182			31.9	0.99	7.2	0.11	0.96	12.30
MW-208VD	Feb-91	102	6.0	114.00	250	0.01	225	28.80	7.60	31.2	0.18	6.8	0.11	0.93	11.60
MW-208VD	May-91	102	3.2	112.00	190	0.01	180	27.40	1.50	31.5	1.61	7.5	0.16	1.18	11.90
MW-208VD	Aug-91	102	5.2	108.00	300	0.01	169	30.00	10.00	28.30	1.14	6.70	0.15	0.75	11.20
MW-208VD	Nov-91	110	6.0	98.30	278	0.01	160	29.20	0.50		3.72	10.40	0.49	1.78	13.10
MW-208VD	Feb-92	178	46.5		282	0.01			3.00	21.20		11.30	0.42		12.70
MW-208VD	May-92	100	4.5	98.90	265	0.01	132	28.60	0.50						
MW-208VD	Aug-92	100	7.5	90.30	256	0.01	172	32.80	0.50	25.90	1.13	6.22	0.13	1.24	7.71
MW-208VD	Dec-92	114	4.0	89.00	277	0.01	204	56.00	0.50	22.50	6.99	7.95	0.15	2.65	11.90
MW-208VD	Feb-93	110	4.5	76.4	294	0.005	200	42	8	20.2	3.71	6.32	0.207	1.61	10.5
MW-208VD	May-93	102	4.0	96.6	225	0.01	160	62.2	4.0	28.9	1.04	5.93	0.110	0.99	11.3
MW-208VD	Aug-93	104	4.0	88.5	234	0.005	164	50.5	0.5	19.3	7.57	9.80	0.198	1.81	13.1
MW-208VD	Dec-93	100	5.0	106	256	0.005	168	80.7	0.5	30.4	0.277	7.20	0.141	0.79	12.2
MW-208VD	Feb-94	102	0.5	95.60	270.00	0.01	148.00	44.30	0.50	27.40	0.29	6.60	0.12	0.67	10.30
MW-208VD	May-94	104.00	3.0	96.0	236.00	0.005	168.00	22.40	9.00	27.30	1.41	6.68	0.13	0.56	10.70
MW-208VD	Aug-94	100.00	4.50	104.00	264.00	0.005	164.00	31.10	1.00	27.30	4.64	8.70	0.23	2.16	9.45
MW-208VD	Nov-94	121.00	5.00	84.50	246.00	0.005	184.00	37.20	0.50	22.90	0.26	6.64	0.13	0.78	14.10
MW-208VD	March-95	114.00	5.00	100.00	252.00	0.005	176.00	33.70	6.00	27.60	1.37	7.60	0.17	1.36	11.80
MW-208VD	June-95	102.00	6.00	96.00	248.00	0.005	172.00	28.40	16.00	28.10	0.08	6.42	0.15	1.30	8.42
MW-208VD	Sept. - 95	101.00	7.00	104.00	235.00	0.005	196.00	23.40	0.50	27.80	3.47	8.50	0.24	1.67	10.50
MW-208VD	Nov-95	100.00	5.00	95.30	235.00	0.005	192.00	40.50	0.50	27.30	0.17	6.60	0.14	0.87	12.10
MW-208VD	April-96	210.00	9.50	150.00	260.00	0.001	180.00	55.00	8.50	37.00	1.20	7.50	0.18	1.30	12.00
MW-208VD	June-96	130.00	1.90	100.00	271.00	0.003	170.00	23.00	1.00	30.00	0.70	6.60	0.14	0.82	9.90
MW-208VD	Sept-96	170.00	0.50	110.00	260.00	0.001	150.00	26.00	1.50	31.00	0.34	7.00	0.15	0.50	8.90
MW-208VD	Nov-96	110.00	3.70	93.00	257.00	0.001	200.00	30.00	0.50	26.00	0.38	6.60	0.14	0.50	8.60
MW-208VD	March-97	180.00	5.40	94.00	385.00	0.001	190.00	29.00	0.50	28.00	0.22	5.90	0.13	0.50	10.00
MW-208VD	June-97	140.00	5.30	110.00	263.00	0.001	180.00	22.00	0.50	33.00	0.57	6.90	0.13	0.81	8.90
MW-208VD	Sept-97	140.00	5.50	99.00	260.00	0.001	160.00	28.00	1.60	30.00	0.28	6.10	0.13	0.50	10.00
MW-208VD	Dec-97	120.00	4.60	100.00	299.00	0.001	160.00	38.00	0.50	31.00	0.44	6.10	0.15	0.50	10.00
MW-208VD	Mar-98	140.00	5.60	120.00	325.00	0.001	180.00	36.00	0.50	35.00	0.30	7.00	0.15	0.50	11.00
MW-208VD	June-98	110.00	5.80	110.00	261.00	0.001	160.00	26.00	1.40	32.00	0.31	6.70	0.14	0.50	10.00
MW-208VD	Sept-98	120.00	6.00	110.00	267.00	0.001	210.00	26.00	1.20	33.00	0.32	7.40	0.15	0.92	9.70
MW-208VD	Dec-98	110.00	7.00	110.00	296.00	0.001	150.00	23.00	0.50	34.00	1.10	5.70	0.15	0.50	8.40

t-Test Statistical Analysis

	35	35	34	34	35	34	33	34	32	33	34	32	33
n	119.03	6.17	101.84	262.16	0.00	174.59	34.95	2.92	28.72	1.50	7.21	1.04	10.92
MEAN	4.2E+03	2.2E+02	3.5E+03	8.9E+03	1.4E-01	5.9E+03	1.2E+03	9.9E+01	9.2E+02	4.9E+01	2.4E+02	3.3E+01	3.6E+02
SUM x	5.2E+05	3.1E+03	3.6E+05	2.4E+06	1.0E-03	1.0E+06	4.6E+04	7.7E+02	2.7E+04	1.9E+02	1.8E+03	4.4E+01	4.0E+03
SUM (x)*2	731.85	52.58	157.89	1248.98	1.36E-05	383.83	173.63	14.55	17.78	3.61	1.63	0.006	0.30
S*2	27.05	7.25	12.57	35.34	0.0037	19.59	13.18	3.81	4.22	1.90	1.28	0.079	0.54
S	4.57	1.23	2.15	6.06	0.0006	3.36	2.29	0.65	0.75	0.33	0.22	0.014	0.31
Sx	12.74	3.42	6.03	16.95	0.002	9.40	6.44	1.83	2.10	0.93	0.62	0.038	0.88
+/- RANGE													

Range of Data Values to be Considered Comparable with Background (Upgradient) Conditions.

(Based Upon a 99% Confidence Interval)

	U.C.I.	131.77	9.58	107.86	279.11	0.0057	183.99	41.38	4.75	30.82	2.42	7.84	0.21	1.31	11.80
	L.C.I.	106.28	2.75	95.81	245.21	0.0022	165.19	28.51	1.09	26.62	0.57	6.59	0.13	0.77	10.04

Average t-Test Statistical Analysis

	36	36	36	35	36	36	36	33	35	34	35	33	34
n	131.05	3.86	101.37	255.77	0.0041	168.35	25.07	3.37	25.99	1.17	8.01	0.12	1.00
MEAN	4.8E+03	1.4E+02	3.6E+03	9.0E+03	1.5E-01	6.1E+03	8.8E+02	1.2E+02	8.6E+02	4.1E+01	2.7E+02	4.1E+00	3.3E+01
SUM x	6.6E+05	1.8E+03	3.8E+05	2.3E+06	1.3E-03	1.0E+06	3.1E+04	1.1E+03	2.3E+04	1.2E+02	2.3E+03	7.2E-01	3.9E+01
SUM (x)*2	785.52	33.21	352.61	1065.52	0.0000	454.83	216.23	20.71	13.06	2.23	1.91	0.0034	0.18
S*2	26.08	5.21	18.17	32.31	0.0040	21.27	14.67	4.52	3.58	1.44	1.32	0.0507	0.42
S	15.64	12.78	14.06	15.49	12.0005	14.41	13.63	12.49	12.45	12.16	12.18	12.0052	12.05
Sx	12.10	2.43	8.41	15.24	0.0019	9.87	6.84	2.11	1.75	0.68	0.64	0.0239	0.20
+/- RANGE													

Range of Data Values to be Considered Comparable with Background (Upgradient) Conditions.

(Based Upon a 99% Confidence Interval)

	U.C.I.	143.15	6.28	109.78	271.01	0.0060	178.23	31.92	5.48	27.74	1.852	8.64	0.141	1.20	15.40
	L.C.I.	118.95	1.57	92.96	240.53	0.0022	158.48	18.23	1.26	24.24	0.489	7.37	0.093	0.80	13.31

Table 9. Parameters Above Background Concentrations - Deep Wells.

Parameter	Units	Deep Background	MW 207D	MW 221D	MW 223D	MW 303 D	MW 304 D	MW 234D	MW 235D	MW 245D
Alkalinity	mg/l CaCO ₃	143.15	585	124	696	257	233	229	183	295
Chloride	mg/l	6.28	13.9	54.5	24.8	152	48.9	26.2	17.1	21.9
Hardness	mg/l CaCO ₃	109.78	611	178	781	221	241	310	201	298
Conductance, field	umhos/cm	271.01	1106	453	1345	1187	697	624	539	954
Total Phenols	mg/l	0.006	<0.004	<0.004	<0.004	0.0063	0.0077	<0.004	<0.004	<0.004
TDS	mg/l	178.23	679	207	920	651	609	425	326	574
Sulfate	mg/l	31.92	78	18	140	110	43	70	79	200
TOC	mg/l	5.48	1.8	<1	2.6	1.9	1.2	<1	<1	<1
Calcium, total	mg/l	27.74	186	42.9	228	53.9	64.3	96.3	58.1	79.3
Iron, total	mg/l	1.852	3.27	0.049	4.4	1.33	0.922	0.499	0.375	3.98
Magnesium, total	mg/l	8.64	35.6	17.3	51.4	21	19.6	16.8	13.7	24.2
Manganese, total	mg/l	0.141	1.98	<0.005	1.89	0.056	0.041	0.369	0.299	0.128
Potassium, total	mg/l	1.2	1.4	2.39	1.11	6.51	2.51	1.33	1.7	3.21
Sodium, total	mg/l	15.4	11.7	14.3	11.9	155	40.3	11.2	30.7	78.5

Parameter	Units	Deep Background	MW 207D	MW 221D	MW 223D	MW 303 D	MW 304 D	MW 234D	MW 235D	MW 245D
Alkalinity	mg/l CaCO ₃	143.15	4	1	5	2	2	2	1	2
Chloride	mg/l	6.28	2	9	4	24	8	4	3	3
Hardness	mg/l CaCO ₃	109.78	6	2	7	2	2	3	2	3
Conductance, field	umhos/cm	271.01	4	2	5	4	3	2	2	4
Total Phenols	mg/l	0.006	0	0	0	1	1	0	0	0
TDS	mg/l	178.23	4	1	5	4	3	2	2	3
Sulfate	mg/l	31.92	2	1	4	3	1	2	2	6
TOC	mg/l	5.48	0	0	0	0	0	0	0	0
Calcium, total	mg/l	27.74	7	2	8	2	2	3	2	3
Iron, total	mg/l	1.852	2	0	2	1	0	0	0	2
Magnesium, total	mg/l	8.64	4	2	6	2	2	2	2	3
Manganese, total	mg/l	0.141	14	0	13	0	0	3	2	1
Potassium, total	mg/l	1.2	1	2	1	5	2	1	1	3
Sodium, total	mg/l	15.4	1	1	1	10	3	1	2	5

TABLE 10. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Br- (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250				6.5-8.5	0.001		250		500	2	10						2
MW-230S	Nov-89	13	141	10.6	33.6	385	209	2.96		0.007		47.5	90	288	0.13	<0.10	10	<5	<0.005	<0.01		
MW-230S	Feb-90		146		36.4		210	8.48		0.011		49.3	2.52	281	0.06		2	<5			100	
MW-230S	Apr-90	10.6	159		35.2	387	200	9.34		<0.005		58.2	57	306	<0.01		11	10			0.33	
MW-230S	Nov-90	10	161	56	32.3	310	215	9.3	7.3	<0.010	124.2	54	690	286	0.14	<0.1	4.5	10	<0.004	0.024	0.5	
MW-230S	Feb-91	10	144	8.6	31.8	400	245	15	8.32	<0.010	124.7	51	210	353	0.22	<0.04						
MW-230S	May-91	11	142	24.4	30.8	340	216	<3	7.74	<0.010	312.1	53	340	329	0.07	<0.04						
MW-230S	Aug-91	10	144	7.7	30.2	490	210	10.4	9.08	<0.010	198.1	51.8	120	318	<0.03	<0.04						
MW-230S	Nov-91	10	176	<1	31	480	204	<1.0	7.68	<0.010	239.3	111	250	284	0.06	<0.04						
MW-230S	Feb-92	10	164	12.9	32.2	464	216	6	7.83	<0.010	271.9	<2.0	240	302	0.18	0.05	1	<5	<0.010	<0.004	<0.5	
MW-230S	May-92	12	162	40.5	29.5	436	326	<1.0	7.66	<0.010	272.9	46.6	210	276	<0.04	0.08						
MW-230S	Aug-92	12	140	3	31	408	184	<1.0	7.86	<0.010	263.4	72.8	114	316	<0.04	0.02						
MW-230S	Dec-92	11	150	9.9	27	469	183	<1.0	7.76	<0.010	244.3	63.2	168	308	<0.02	<0.02						
MW-230S	Feb-93	9	182	55.8	30	495	233	19	7.81	<0.010	108.3	48.5	430	340	0.14	0.09						
MW-230S	May-93	13	168	16.3	28	332	197	6	7.53	<0.010	204.6	73.8	120	276	0.05	<0.02	0.8	<5	<0.004	<0.004	<0.5	
MW-230S	Aug-93	13.5	176	26.5	30	383	195	<1.0	6.91	<0.010	135	71.3	310	320	<0.02	<0.02						
MW-230S	Dec-93	10.5	150	29.4	29	391	225	2	7.17	<0.010	200.3	47.9	140	328	<0.02	0.04						
MW-230S	Feb-94	10.5	160	<1.0	29	461	263	<1.0	7.76	<0.010	78.5	51.1	215	240	<0.02	<0.05	<2.0				<0.5	0.83
MW-230S	34455	11.5	164	8.6	28	356	244	13	7.96	<0.010	33.6	49.1	170	272	0.03	0.08	<2.0				<0.5	0.73
MW-230S	Aug-94	12	140	9.5	29	423	187	<1	7.69	<0.010	39.5	57	34	280	0.06	0.12	<2.0	15	<0.004	<0.004	<0.5	2.16
MW-230S	Nov-94	11.5	145	9.5	30	365	159	4	8.12	<0.010	55.2	52.9	61	152	<0.02	0.25	<2.0				<0.5	3.35
MW-230S	March-95	11	165	20	32	356	215	8	7.28	<0.010	52	49	108	272	0.18	0.42	<2				<0.5	<0.2
MW-230S	June-95	13	143	27.9	34	357	299	<1	7.44	<0.010	37.3	44.5	2.5	308	0.26	0.23	<2				<0.5	<0.2
MW-230S	Sept.-95	11.5	151	16.7	3	317	202	25	7.48	<0.010	31.5	45.2	150	312	0.06	<0.05	<2				<0.5	<0.2
MW-230S	Nov-95	10	144	<5.0	30	315	166	<1	7.91	<0.010	38.8	47.7	54	284	0.11	<0.05	<2	<5	<0.004	<0.004	<0.5	<0.2
MW-230S	April-96	8.9	140	17	28	520	520	<1	8	<0.002	240	110	>900	310	0.071	0.036	<4	250	<0.01	<0.01	0.6	3
MW-230S	June-96	10.7	270	35	27	417	200	<1	7.7	<0.002	180	32	660	270	0.16	<0.02	<4				4.4	<2
MW-230S	Sept-96	12.4	160	18	24	410	230	1	8	<0.002	180	42	340	240	<0.03	0.022	<4				0.53	<2
MW-230S	Nov-96	10.1	70	15	25	329	110	1.3	8.16	<0.002	175	<4	170	180	0.19	0.11	<4				1.1	<2
MW-230S	March-97	10	42	13	24	409	130	1.9	8	<0.002	95	48	>999	140	0.4	0.077	<4	15	<0.01	<0.01	0.95	<2
MW-230S	June-97	12	62	21	26	246	140	1.9	8.35	<0.002	240	30	213	160	<0.03	0.64	<4				0.86	<2
MW-230S	Sept-97	12.2	32	<1	23	240	130	2.5	8.5	<0.002	420	42	87	190	0.67	0.33	<4				1.3	<2
MW-230S	Dec-97	10.6	130	<1	17	256	160	1.8	8.64	<0.002	110	41	687	200	0.41	0.2	11				0.75	<2
MW-230S	Mar-98	10.1	190	1	30	375	250	<1	8.34	<0.002	245	38	255	240	0.1	0.26	<4				0.37	<2
MW-230S	June-98	12.7	75	<3	30	288	190	1.4	8.3	<0.002	10	37	804	210	<0.03	0.53	<4	20	<0.01	<0.01	0.21	<1
MW-230S	Sept-98	13	150	23	30	320	250	1.6	8.09	<0.002	-75	32	>999	240	0.11	0.37	<4				0.43	<1
MW-230S	Dec-98	10.9	130	<1	42	373	230	1.4	7.38	<0.002	-20	30	384	230	<0.03	0.37	4				0.27	<1
MW-230S	Apr-99	Location Not Sampled																				
MW-230S	Jun-99	Location Not Sampled																				
MW-230S	Sept-99	Location Not Sampled																				
MW-230S	Dec-99	11.1	150	4.7	33	455	280	<1	8.6	<.0002	135	37	>999	240	<.03	0.089	<4	1	<0.01	<.03	0.25	<.1
MW-230S	Apr-00	9.7	109	<10	28.6	400	195	1.1	8.05	0.005	-94	45	550	222	0.104	0.393	<3	50	<0.01	<0.01	<1	<1
MW-230S	Jun-00	Location Not Sampled																				
MW-230S	Sep-00	Location Not Sampled																				
MW-230S	Dec-00	Location Not Sampled																				

TABLE 10. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Br- (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250				6.5-8.5	0.001		250		500	2	10						2
MW-230D	Nov-89	13.5	113	<10.0	<3.0	136	79.6	9.22		0.011		<10.0	34	135	0.12	<0.10	17	<5	<0.005	<0.01		
MW-230D	Feb-90		123		4.6		120	3.57		<0.005		13.5	4.4	174	0.07		4	10			0.5	
MW-230D	Apr-90	11.1	124		<3.0	226	90	34.1		<0.005		14.1	4.2	184	<0.04		60	5			0.25	
MW-230D	Nov-90	11	130	18	4.9	190	130	9.1	7.4	<0.010	109.1	16	37	156	0.08	<0.1	5.8	5	<0.004	0.034	<0.5	
MW-230D	Feb-91	11	126	<0.5	5	250	98	8.6	8.38	<0.010	91	13.2	13	184	0.13	<0.04						
MW-230D	May-91	11	124	<1.0	1.1	180	94	<3	8	<0.010	293.8	13	3	155	0.07	<0.04						
MW-230D	Aug-91	10	122	3.2	2.1	300	96	4.4	8.46	<0.010	195.5	13.9	7.1	170	<0.03	<0.04						
MW-230D	Nov-91	10	134	<1	3	290	80.7	<1	7.87	<0.010	261	13	10	157	0.09	<0.04						
MW-230D	Feb-92	11	126	14.7	5.9	280	89.4	3	8.05	<0.010	258.3	12.8	9.5	160	0.31	0.03	1.2	<5	<0.010	<0.004	<0.5	
MW-230D	May-92	12	122	2.8	2.5	272	83.8	<1	7.86	<0.010	274.1	17.8	3.2	172	1.79	<0.02						
MW-230D	Aug-92	12	124	<1.0	4.5	258	76.5	<1	7.95	<0.010	281.2	55.1	6.7	176	<0.04	<0.02	1.2					
MW-230D	Dec-92	10.5	138	1	1.5	290	72.1	<1	7.9	<0.010	244.2	43.8	1.5	160	<0.02	<0.02	1.2					
MW-230D	Feb-93	9.5	132	<1.0	2.5	315	65.3	7	7.89	<0.010	125.2	14.5	13.5	180	0.18	0.07	1.2					
MW-230D	May-93	14	126	<1.0	1.5	226	78.2	4	7.86	<0.010	227.5	48	12.5	152	0.11	<0.02	0.6	<5	<0.004	<0.004	<0.5	
MW-230D	Aug-93	14	128	<1.0	3	247	74.9	<1.0	7.28	<0.010	133.7	72.5	6	148	0.06	<0.02						
MW-230D	Dec-93	10	120	4.9	2	262	86.2	2	7.24	<0.010	99.2	47.6	16	140	0.12	0.05						
MW-230D	Feb-94	10	126	<1.0	2	282	82.1	<1.0	7.86	<0.010	91.1	38.9	15	156	<0.02	<0.05	<2.0				<0.5	0.89
MW-230D	34455	11.5	128	<1.0	1.5	245	77.3	16	7.92	<0.010	42.5	18.6	6.3	180	0.07	0.06	<2.0				<0.5	0.73
MW-230D	Aug-94	12	124	9.5	2.5	269	85.5	1	7.73	<0.01	50	17.9	7.7	172	0.06	0.49	<2.0	15	<0.004	0.006	<0.5	1.86
MW-230D	Nov-94	11.5	153	<5.0	3	254	70.2	2	8.22	<0.010	58.3	30.6	5.3	160	<0.02	0.11	<2.0				<0.5	3.42
MW-230D	March-95	11	129	<5.0	2	248	80.8	5	7.48	<0.010	59.1	16.7	5.2	164	0.24	0.26	<2				<0.5	0.3
MW-230D	June-95	12	125	<5.0	3	252	86	18	7.56	<0.010	35.6	21	4.9	176	0.27	0.27	125				<0.5	<0.2
MW-230D	Sept-95	11.5	125	<5.0	1.5	239	82.6	<1	7.53	<0.010	30.2	16.8	3.8	188	0.07	<0.05	<2				<0.5	<0.2
MW-230D	Nov-95	10	128	8.2	<1	239	67.3	<1	7.92	<0.010	10.9	21.7	7.6	176	0.04	<0.05	<2	5	<0.004	<0.004	<0.5	<0.2
MW-230D	April-96	10.1	140	28	9.5	340	160	16	8.4	<0.002	165	16	37	170	<0.03	0.024	<4	10	<0.01	<0.01	0.54	2.8
MW-230D	June-96	10.9	150	14	<1	272	100	<1	7.7	0.002	150	12	57	170	0.035	<0.02	<4				2.1	<2
MW-230D	Sept-96	12.9	130	2.8	<1	270	89	<1	8	0.0024	160	11	50	150	<0.03	0.034	<4				0.32	<2
MW-230D	Nov-96	11.2	130	48	1.9	252	89	<1	7.86	<0.002	175	39	98	180	0.064	<0.02	<4				0.58	<2
MW-230D	March-97	10	130	19	2.7	276	92	1	8.1	<0.002	90	37	432	230	0.037	<0.02	<4	15	<0.01	<0.01	0.33	<2
MW-230D	June-97	12.3	150	13	3.9	255	83	<1	7.83	<0.002	255	38	<1	140	<0.03	<0.02	<4				0.57	3.8
MW-230D	Sept-97	12	140	<1	4.6	260	86	1	8.4	<0.002	130	11	15	180	<0.03	0.035	<4				0.24	<2
MW-230D	Dec-97	10.5	170	<1	2.7	281	88	<1	8.66	<0.002	130	6.3	42	220	<0.03	0.049	14				0.32	<2
MW-230D	Mar-98	9.3	170	1	2.8	272	82	<1	8.32	<0.002	210	27	32	190	<0.03	0.042	<4				0.16	<2
MW-230D	June-98	13.5	110	<3	1.6	260	110	1.1	7.73	<0.002	15	12	154	180	0.04	0.028	4.5	10	<0.01	<0.01	0.26	<1
MW-230D	Sept-98	12.7	150	47	3.2	269	110	1.1	8.01	0.0033	525	14	353	210	<0.03	<0.02	<4				0.37	<1
MW-230D	Dec-98	10.1	130	<1	<1	263	91	<1	7.45	<0.002	5	12	260	140	<0.03	<0.02	<4				0.13	<1
MW-230D	Apr-99	Location Not Sampled																				
MW-230D	Jun-99	Location Not Sampled																				
MW-230D	Sept-99	Location Not Sampled																				
MW-230D	Dec-99	11.2	130	7.8	3.8	278	100	<1	8.87	<.002	210	13	125	190	<.03	0.054	<4	3	<.01	<.03	0.23	<.01
MW-230D	Apr-00	9.1	133	<10	2.83	275	89.9	<1	8.11	0.006	-91	19	19	156	0.114	<0.05	<3	10	<0.01	<0.01	<1	<1
MW-230D	June-00	Location Not Sampled																				
MW-230D	Sep-00	Location Not Sampled																				
MW-230D	Dec-00	Location Not Sampled																				

TABLE 10. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Br- (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250				6.5-8.5	0.001		250		500	2	10						2
MW-232S	Nov-89	15.3	120	<10.0	24.3	297	184	1.29		0.011		75.4	199	236	0.07	<0.01	12	<5	<0.005	<0.01		
MW-232S	Feb-90		124		3.13		156	0.58		<0.005		33.6	5.34	217	0.1		6	5			99	
MW-232S	Apr-90	11.1	113		<3	256	100	2.98		<0.005	-29.5	38.9	32	206	<0.04		6	10			0.2	
MW-232S	Nov-90	13	125	7.7	6.8	240	215	6.1	8.6	<0.010	218.4	72	120	232	0.06	<0.1	1.1	15	<0.004	0.02	<0.5	
MW-232S	Feb-91	12	136	1.9	5	520	240	3	8.19	<0.010	176.5	118	130	317	<0.04	<0.04						
MW-232S	May-91	12	140	4.3	1.1	290	204	<3	7.61	<0.010	240.5	57.6	162	260	<0.03	<0.04						
MW-232S	Aug-91	11	156	3.2	2.1	590	230	8.2	8.04	<0.010	207.1	74	145	360	<0.03	<0.04						
MW-232S	Nov-91	12	186	14.4	<1	589	311	<1.0	7.35	<0.010	179.6	52	600	276	<0.02	<0.04						
MW-232S	Feb-92	10	176	19.3	6.9	512	317	4	7.41	<0.010	178.5	85.9	360	380	<0.02	0.05	1.2	<5	<0.010	<0.004	<0.5	
MW-232S	May-92	11	214	7.7	4	541	286	<1.0	7.21	<0.010	336.6	105	61	416	<0.04	0.08	2.1	10	0.016	<0.004	0.04	
MW-232S	Aug-92	13	212	2.5	7	543	261	<1.0	7.43	<0.010	225.4	86.6	57	380	<0.04	<0.02						
MW-232S	Dec-92	11	268	4	2.5	644	312	<1.0	7.41	<0.010	88.3	86.6	144	404	<0.02	<0.02						
MW-232S	Feb-93	9	720	7	4	631	267	20	7.33	<0.010	111.2	90	220	524	<0.02	0.04						
MW-232S	May-93	11	352	<1.0	1.5	483	378	4	6.93	<0.010	142.9	90.5	45	476	<0.02	<0.02	1.6	<5	<0.004	<0.004	<0.5	
MW-232S	Aug-93	14.5	480	13.3	4	792	595	<1.0	6.67	<0.010	169.9	99	94	632	<0.02	<0.02						
MW-232S	Dec-93	11	436	52.9	2	803	513	22	7.02	<0.010	132.6	103	105	540	0.06	0.06						
MW-232S	Feb-93	10	345	<1.0	2.5	783	411	52	7.04	<0.010	236.7	89.5	60	460	<0.02	<0.05	<2.0				<0.5	0.92
MW-232S	34455	10	432	<1.0	2	649	418	49	6.83	<0.010	103.2	58.6	31	548	<0.02	0.03	2				<0.5	0.87
MW-232S	34547	13	520	10	4.5	907	501	<1	6.79	<0.010	74.5	47.5	12.4	572	<0.02	0.08	<2.0	20	<0.004	0.008	<0.5	2.5
MW-232S	Nov-94	12	517	<5.0	3	722	464	19	6.98	<0.010	119.3	64.5	19	644	<0.02	0.11	<2.0				<0.5	3.92
MW-232S	March-95	11	392	<5.0	4	520	428	29	7.08	<0.010	-38.8	81.3	32	544	0.21	0.34	<2				<0.5	0.4
MW-232S	June-95	11	504	<5.0	5	542	521	<1	6.91	<0.010	26.1	67.5	33	652	0.24	0.25	<2				<0.5	<0.2
MW-232S	Sept.-95	11.5	587	8.3	3	515	618	8	7.06	<0.010	21.6	88.4	50	744	0.12	0.05	<2				<0.5	<0.2
MW-232S	Nov-95	11	380	8.2	<1	464	404	1	6.86	<0.010	2.3	107	71	576	<0.02	<0.05	<2	10	<0.004	<0.004	<0.5	<0.2
MW-232S	April-96	10.6	630	1	6.7	1220	670	40	6.5	<0.002	180	64	59	780	0.035	0.025	11	100	<0.01	<0.01	1.1	3.1
MW-232S	June-96	11	600	24	<1	1160	510	1.4	6.7	0.0052	140	70	190	680	<0.03	<0.02	9.8				1.6	<2
MW-232S	Sept-96	13.1	530	10	<1	1100	530	1.1	6.6	<0.002	110	<5	7.6	660	<0.03	<0.02	9.1				0.35	<2
MW-232S	Nov-96	11.4	540	<1	6.5	910	450	2.8	6.79	<0.002	110	42	34	590	<0.03	<0.02	7.1				0.56	<2
MW-232S	March-97	10.2	530	13	9	1120	510	2.5	6.6	<0.002	145	56	>999	560	<0.03	<0.02	12	15	<0.01	<0.01	0.56	<2
MW-232S	June-97	11.5	680	82	10	813	570	2.5	6.72	0.0024	85	35	>999	610	<0.03	<0.02	16				0.43	<2
MW-232S	Sept-97	13.0	560	4.9	8.7	910	550	3.1	6.9	<0.002	80	54	1000	790	0.11	0.02	14				0.47	<2
MW-232S	Dec-97	11	520	<1	8.2	970	590	3.1	7.05	<0.002	110	55	>999	620	<0.03	0.027	11				0.38	<2
MW-232S	Mar-98	9.9	470	8.6	16	877	520	1.7	7.73	<0.002	140	140	84	560	<0.03	<0.02	<4				0.4	<2
MW-232S	June-98	12.1	550	5.1	5.8	930	670	3.1	6.99	<0.002	-15	58	942	560	0.041	0.022	7.5	1	<0.01	<0.01	0.54	<1
MW-232S	Sept-98	12.8	570	62	6.7	990	620	4.1	6.71	<0.002	500	51	842	640	<0.03	<0.02	11				0.44	<1
MW-232S	Dec-98	11.3	520	25	29	1000	900	4.2	7.62	<0.002	55	22	>999	660	<0.03	0.037	9.9				0.21	<1
MW-232S	Apr-99	Location Not Sampled																				
MW-232S	Jun-99	Location Not Sampled																				
MW-232S	Sept-99	Location Not Sampled																				
MW-232S	Dec-99	Location Not Sampled																				
MW-232S	Apr-00	Location Not Sampled																				
MW-232S	Jun-00	7.1	437	<10	3.99	850	495	2.7	7.4	<0.004	-94	45	30.4	516	<0.1	<0.05	4				<1	<1
MW-232S	Sep-00	12.3	434	24.6	3.4	875	507	2.8	7.07	<0.004	-44	67	0.65	513	<0.1	<0.05	<3				<1	<1
MW-232S	Dec-00	10.4	437	<10	3.17	855	481	2.8	7.18	<0.004	33	69	6.7	535	<0.1	<0.05	<3				<1	<1

TABLE 10. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Br- (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250				6.5-8.5	0.001		250		500	2	10						2
MW-232D	Nov-89	13	37.2	<10.0	210	747.5	100	1.77		0.009		89	16	522	0.12	<0.01	4	<5	<0.005	<0.01		
MW-232D	Feb-90		52.3		250		126	0.86		<0.005		87.4	14.5	629	0.08		21	5			40	
MW-232D	Apr-90	12.2	41.2		202	836	82	3.28		<0.005	-126.1	88.2	1.9	1450	<0.04		10	5			0.21	
MW-232D	Nov-90	11	56	17	225	630	130	4.9	8.7	<0.010	243.8	79	22	611	0.13	<0.1	6.3	<5	<0.004	0.024	<0.5	
MW-232D	Feb-91																					
MW-232D	May-91	11	54	11.7	202.1	480	124	5.1	8.92	<0.010	172.9	70	11.4	505	0.58	0.09						
MW-232D	Aug-91	12	52	<0.5	218.8	1500	136	4	8.44	<0.010	214.2	75.6	6.7	618	0.08	<0.04						
MW-232D	Nov-91	10	84	3.8	225	1380	132	<1	8.32	<0.010	122.3	79	10	596	0.04	<0.04						
MW-232D	Feb-92	10	60	25.8	226	1056	140	<1.0	8.48	<0.010	102.1	90	8.5	548	0.07	<0.02	1.8	<5	<0.010	<0.004	<0.5	
MW-232D	May-92	12	76	21	240	1102	370	<1.0	8.52	<0.010	128.4	94	3.4	664	0.1	0.26						
MW-232D	Aug-92	13	136	58.5	154	1179	186	16	7.74	<0.010	163.6	78.8	22.5	580	<0.04	<0.02						
MW-232D	Dec-92	11	122	16.9	225	1508	210	<1.0	7.38	<0.010	-0.6	81.5	20	624	<0.02	0.1						
MW-232D	Feb-93	10	78	7.2	202	1041	116	6	7.76	<0.010	149.3	81	3	596	0.06	0.02						
MW-232D	May-93	12	80	12.8	262	756	152	4	7.47	<0.010	36.6	102	4	576	0.07	<0.02	1.6	<5	<0.004	<0.004	<0.5	
MW-232D	Aug-93	14	88	18.4	284	1189	169	<1.0	7.22	<0.010	-108.9	125	4.2	668	<0.02	<0.02						
MW-232D	Dec-93	9.5	86	59.4	262	994	187	4	7.24	<0.010	125.7	112	5.8	656	0.11	0.08						
MW-232D	Feb-94	9.5	92	1	256	1272	163	6	6.98	<0.010	268	91.5	5.7	616	<0.02	<0.05	<2.0				<0.5	3.8
MW-232D	34455	12	84	45.2	250	804	148	8	7.99	<0.010	111	79.5	1.6	636	0.04	0.04	<2.0				<0.5	5
MW-232D	Aug-94	12.5	90	60	250	1579	295	1	7.46	<0.010	75.6	97.9	5.7	624	0.06	0.74	2.2	10	<0.004	0.01	<0.5	2.74
MW-232D	Nov-94	11.5	117	14.3	235	803	147	<1	8.08	<0.010	124.5	86.8	8	632	0.06	0.36	<2.0				<0.5	4.2
MW-232D	March-95	13	178	85	44	635	161	61	7.14	0.018	-53.3	44.2	6.8	332	3.39	0.4	8				3.37	<0.2
MW-232D	June-95	13	101	32.6	195	623	60	9	7.28	<0.010	20.6	78.4	6.2	580	1.06	0.24	<2				0.71	1.6
MW-232D	Sept.-95	12.5	119	33.3	224	594	176	9	7.12	<0.010	3.1	85.7	9.5	648	0.56	0.08	<2				<0.5	2.4
MW-232D	Nov-95	10.5	120	16.3	252	584	158	<1	7.35	0.025	4	84.2	9.2	668	0.22	<0.05	<2	15	<0.004	<0.004	<0.5	2.1
MW-232D	April-96	No Sample Taken																				
MW-232D	June-96	No Sample Taken																				
MW-232D	Sept-96	No Sample Taken																				
MW-232D	Nov-96	No Sample Taken																				
MW-232D	June-97	13.4	190	42	23	362	150	19	7.65	0.0098	120	16	<1	210	<0.03	0.24	<4				1.8	<2
MW-232D	Sept-97	No Sample Taken																				
MW-232D	Dec-97	No Sample Taken																				
MW-232D	Mar-98	No Sample Taken																				
MW-232D	June-98	No Sample Taken																				
MW-232D	Sept-98	11.9	150	58	4.3	311	140	19	7.43	<0.002	180	17	68	230	0.27	1.2	4				2.1	<1
MW-232D	Dec-98	10.4	150	35	50	505	170	11	7.47	<0.002	100	58	100	340	0.097	0.17	<4				1.1	<1
MW-232D	Apr-99	Location Not Sampled																				
MW-232D	Jun-99	Location Not Sampled																				
MW-232D	Sept-99	Location Not Sampled																				
MW-232D	Dec-99	Location Not Sampled																				
MW-232D	Apr-00	Location Not Sampled																				
MW-232D	Jun-00	Location Not Sampled																				
MW-232D	Sep-00	Location Not Sampled																				
MW-232D	Dec-00	Location Not Sampled																				
MW-233S	Dec-00	9.2	376	10.9	1.28	895	483	5.6	7.29	<0.004	95	110	1.6	599	<0.1	5.97	<3				<1	<1

TABLE 10. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Br- (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250				6.5-8.5	0.001		250		500	2	10						2
MW-234S	Nov-89	11.6	152	13.7	10.7	322	228	7.19		0.005	-50.4	81.1	188	264	0.09	<0.10	19	<5	<0.005	0.02		
MW-234S	Feb-90		162		4.4		230	3.87		<0.005		77.9	94	321	0.09		13	30			0.96	
MW-234S	Apr-90	10.2	174		<3	423	243	1.93		<0.005	-38.3	77.7	50	288	<0.04		3	10			0.07	
MW-234S	Nov-90	10	176	<1	4.9	340	260	5.1	7.3	<0.010	132.5	83	81	312	0.06	<0.1	6.5	<5	<0.004	0.024	<0.5	
MW-234S	Feb-91	9	167	<0.5	5	480	290	<3	7.97	<0.010	147.1	78	26	347	<0.04	<0.04						
MW-234S	May-91	11	164	1	1.1	340	248	3.1	7.36	<0.010	227	60.5	23	337	<0.03	0.13						
MW-234S	Aug-91	13	152	<0.5	<1.0	570	230	<3.0	7.68	<0.010	293.9	77.6	58	363	<0.03	<0.04						
MW-234S	Nov-91	11	222	3.8	<1	676	228	<1	7.41	<0.010	323.6	85.1	40	328	<0.02	<0.04						
MW-234S	Feb-92	11	172	13.8	5	517	312	<1.0	7.29	<0.010	78.5	83	42	396	0.07	<0.02	0.6	<5	<0.010	<0.004	<0.5	
MW-234S	May-92	12	178	6	<1.0	486	248	<1.0	7.74	<0.010	354.9	113	59	320	<0.04	0.02						
MW-234S	Aug-92	12	196	<1.0	5.5	487	215	<1	7.51	<0.010	329.9	110	39	384	<0.04	0.14						
MW-234S	Dec-92	10	196	<1.0	<1.0	516	221	<1	7.83	<0.010	294.1	86.6	95	328	<0.02	<0.02						
MW-234S	Feb-93	9	204	8.8	<1.0	635	186	18	7.3	<0.010	250.3	84	150	364	<0.02	0.02						
MW-234S	May-93	12	184	<1.0	1.5	424	218	4	7.5	<0.010	207.1	88.1	84	324	<0.02	0.06	<0.5	<5	<0.004	<0.004	<0.5	
MW-234S	Aug-93	13	184	<1.0	1.5	451	241	<1.0	7.32	<0.010	165.3	130	90	332	<0.02	<0.02						
MW-234S	Dec-93	9.5	188	5.9	2	469	259	6	7.09	<0.010	259.9	79.5	155	328	<0.02	0.09						
MW-234S	Feb-94	10	188	2.9	1	528	257	<1.0	7.88	<0.010	131.4	87.5	90	300	<0.02	<0.05	<2.0				<0.5	0.9
MW-234S	34455	10.5	196	2.2	<1.0	453	287	17	7.57	<0.010	210.8	95.7	67	360	0.02	0.14	<2.0				<0.50	0.84
MW-234S	Aug-94	12	308	<5.0	2	524	325	<1	7.26	<0.010	39.7	105	10.4	352	0.1	0.22	<2.0	5	<0.004	<0.004	<0.5	2.22
MW-234S	Nov-94	11.5	198	9.5	2	532	204	5	7.47	<0.010	110.6	81.8	53	328	0.03	0.25	<2.0				<0.5	3.28
MW-234S	March-95	11	224	10	1	439	301	6	7.24	<0.010	36.8	154	47	424	0.31	0.2	<2				<0.5	<0.2
MW-234S	June-95	11.5	222	<5.0	7	404	259	15	7.45	<0.010	1.8	84.2	62	400	0.41	0.24	<2				<0.5	<0.2
MW-234S	Sept.-95	11	179	<5.0	1	349	260	6	7.46	<0.010	48.9	97.2	42	380	0.07	0.06	<2				<0.5	<0.2
MW-234S	Nov-95	10	244	12.2	<1	463	245	<1	7.28	<0.010	50	174	76	488	<0.02	<0.05	<2	10	<0.004	<0.004	<0.5	0.6
MW-234S	April-96	10.4	210	7.8	18	1290	350	<1	6.7	<0.002	110	120	16	420	<0.03	0.086	<4	50	<0.01	<0.01	0.85	3.1
MW-234S	June-96	10.9	250	24	<1	721	400	<1	7.4	<0.002	92	22	300	330	<0.03	<0.02	<4				1.8	<2
MW-234S	Sept-96	10.9	250	25	<1	980	440	<1	7	0.0035	165	760	21	580	0.037	<0.02	<4				0.25	<2
MW-234S	Nov-96	10.4	260	<1	2.8	587	370	1	7.5	<0.002	175	210	10	530	<0.03	<0.02	<4				0.53	<2
MW-234S	March-97	10.2	280	6.4	4.5	1100	450	<1	6.9	<0.002	135	190	197	570	<0.03	<0.02	<4	15	<0.01	<0.01	0.39	<2
MW-234S	June-97	11	280	13	4.8	728	470	<1	7.5	<0.002	165	200	880	600	<0.03	<0.02	<4				0.33	
MW-234S	Sept-97	12	240	4.9	4.6	710	380	1.1	7.7	<0.002	160	200	140	530	<0.03	0.028	7				0.31	<2
MW-234S	Dec-97	10.2	540	9.2	2.7	823	430	1.7	7.65	<0.002	120	200	>999	450	0.074	<0.02	<4				0.21	<2
MW-234S	Mar-98	9.9	720	<1	3.7	857	540	<1	8.01	<0.002	170	130	>999	610	0.042	<0.02	<4				0.47	<2
MW-234S	June-98	12.2	310	<3	1.9	822	470	1.2	7.69	<0.002	45	200	337	530	0.055	0.026	<4	15	<0.01	<0.01	0.37	<1
MW-234S	Sept-98	11.4	270	46	2.7	703	440	1.3	7.28	<0.002	0.85	140	>999	520	<0.03	<0.02	<4				0.28	<1
MW-234S	Dec-98	10.4	230	21	1.8	638	430	1	7.38	<0.002	185	120	>999	380	<0.03	<0.02	6.9				0.34	<1
MW-234S	Apr-99	10.8	250	13	4.5	752	480	1.1	7.84	<0.002	130	150	>999	490	<0.03	<0.02	<4				0.86	<0.1
MW-234S	Jun-99	11.4	230	40	4.6	690	550	1.4	7.12	<0.002	215	140	>999	450	<0.03	0.02	<4				0.69	<0.1
MW-234S	Sept-99	12.1	230	6.5	4.5	641	400	1.1	7.1	<0.002	385	50	>999	430	<0.03	<0.02	<4				0.3	<0.1
MW-234S	Dec-99	10.1	240	9.2	4.5	656	460	1	8.15	<0.002	245	120	955	410	<.03	<.02	<4	1	<0.01	<.03	0.3	<.1
MW-234S	Apr-00	9.4	243	<10	3.75	650	352	1.1	7.82	<0.004	-85	120	7.8	456	0.108	<0.05	<3	<10	<0.01	<0.01	<1	<1
MW-234S	Jun-00	14.1	234	<10	3.34	525	378	1.1	7.59	<0.004	-178	150	27.1	1550	<0.1	<0.05	<3				<1	<1
MW-234S	Sep-00	11.4	228	<10	5.15	659	355	1.2	7.74	<0.004	-27	180	17	425	<0.1	<0.05	<3				6.22	<1
MW-234S	Dec-00	9.2	232	<10	3.11	631	337	1.7	7.67	<0.004	95	120	6.3	435	<0.1	<0.05	<3				<1	<1

TABLE 10. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Br- (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250				6.5-8.5	0.001		250		500	2	10						2
MW-234D	Nov-89	11.6	78.9	<10.0	16.1	281.5	62.4	2.51		0.006	-95.6	51.9	27	174	0.11	0.3	10	<5	<0.005	<0.01		
MW-234D	Feb-90		162		40.7		276	2.36		<0.005		103	22	546	0.07		2	10			0.3	
MW-234D	Apr-90	10.7	272		30.8	371	344	8.63		<0.005	-93.7	88.5	30	361	<0.04		17	10			0.11	
MW-234D	Nov-90	10	188	<1	30.3	420	290	5	7.2	<0.010	130.6	120	35	401	0.08	<0.1	7.4	10	<0.004	0.032	<0.5	
MW-234D	Feb-91	10	184	<0.5	34.7	620	300	3.4	7.83	<0.010	115.4	98	17	448	<0.04	<0.04						
MW-234D	May-91	11	178	5	32.9	450	286	3.2	7.36	<0.010	222.9	78.5	12.5	437	0.03	0.13						
MW-234D	Aug-91	10	176	1.6	26	670	270	<3.0	7.56	<0.010	280.3	79.2	10	437	<0.03	<0.04						
MW-234D	Nov-91	11	220	1.9	21	659	264	<1	7.46	<0.010	303.6	90	4.1	364	<0.02	0.07						
MW-234D	Feb-92	11	186	18	25.7	641	284	<1.0	7.22	<0.010	79	90	19	364	0.06	<0.02	<0.5	<5	<0.010	<0.004	<0.5	
MW-234D	May-92	13	234	6	40.5	662	331	<1.0	7.44	<0.010	290.1	113	56	400	0.07	0.06						
MW-234D	Aug-92	12	166	1	30.5	592	245	<1	7.36	<0.010	315.2	106	4.3	420	<0.04	0.22						
MW-234D	Dec-92	10	228	<1.0	30.5	776	355	<1	7.39	<0.010	37.9	96.8	38	456	0.05	<0.02						
MW-234D	Feb-93	9	212	2.6	34.5	674	225	12	7.26	<0.010	227.3	83	34.5	428	<0.02	<0.02						
MW-234D	May-93	10.5	222	<1.0	38	431	271	7	7.36	<0.010	191	90.6	18	428	<0.02	<0.02	<0.5	<5	<0.004	<0.004	<0.5	
MW-234D	Aug-93	12.5	218	<1.0	41	563	301	<1.0	7.2	<0.010	134.6	107	3	456	<0.02	<0.02						
MW-234D	Dec-93	10	220	4.9	31	638	308	<1.0	6.95	<0.010	276.4	86.8	23.5	416	<0.02	0.06						
MW-234D	Feb-94	10	218	<1.0	34	683	283	<1.0	7.64	<0.010	157.6	86	26	388	<0.02	0.45	<2.0				<0.5	0.89
MW-234D	34455	11	220	3.2	43	554	300	26	7.37	<0.010	238	97.6	6.9	440	0.22	0.12	<2.0				<0.50	0.92
MW-234D	Aug-94	12	252	10	37	704	322	<1	7.4	<0.010	85.2	115	9.2	480	0.06	0.34	2.2	5	<0.004	<0.004	<0.5	2.4
MW-234D	Nov-94	11	262	9.5	40	585	301	10	7.33	<0.010	127.4	89.3	11.2	500	0.03	0.21	<2.0				<0.5	3.42
MW-234D	March-95	10.5	214	5	33	456	279	4	7.22	<0.010	72.8	105	4.3	428	0.19	0.3	<2				<0.5	<0.2
MW-234D	June-95	12.5	250	<5.0	39	476	307	11	7.24	<0.010	16	79	7.2	500	0.22	0.15	<2				<0.5	<0.2
MW-234D	Sept-95	12	270	12.5	37	435	323	<1	7.29	<0.010	31.7	99.4	7.8	520	0.07	<0.05	<2				<0.5	<0.2
MW-234D	Nov-95	10.5	236	<5.0	33	425	228	<1	7.25	<0.010	54.6	91.9	18	456	<0.02	<0.05	<2	<5	<0.004	<0.004	<0.5	<0.2
MW-234D	April-96	10.2	160	<1	8.6	690	240	2.3	7	<0.002	-35	83	150	340	<0.03	0.091	<4	10	<0.01	<0.01	1	3.2
MW-234D	June-96	11.2	260	1	28	718	350	<1	7.2	<0.002	78	84	24	520	<0.03	<0.02	<4				1.2	<2
MW-234D	Sept-96	10.8	230	1	31	740	300	1	7	0.0035	60	84	7.4	490	<0.03	<0.02	<4				0.34	<2
MW-234D	Nov-96	11.5	220	<1	26	770	270	2.4	7.45	<0.002	160	91	11	380	<0.03	<0.02	<4				0.56	<2
MW-234D	March-97	9.9	160	8.6	28	550	200	1.1	7.4	<0.002	135	74	70	350	<0.03	0.092	<4	15	<0.01	<0.01	0.61	<2
MW-234D	June-97	11.1	180		27	504	210	1.7	7.68	0.0028	185	61	<1	340	<0.03	0.088	<4				0.5	<2
MW-234D	Sept-97	12	150	<1	29	490	220	1.8	7.7	<0.002	155	63	25	350	<0.03	0.13	<4				0.2	<2
MW-234D	Dec-97	9.9	170	4.8	26	541	170	1.2	7.88	<0.002	130	60	33	290	0.032	0.052	<4				0.13	<2
MW-234D	Mar-98	9.6	170	<1	26	539	240	1.2	7.91	<0.002	165	89	118	360	<0.03	0.12	<4				0.31	<2
MW-234D	June-98	11.8	270	<3	24	594	300	1.6	7.32	<0.002	35	82	113	330	0.035	0.052	<4	1	<0.01	<0.01	0.45	<1
MW-234D	Sept-98	11.5	350	21	34	797	460	2.2	7.05	<0.002	65	66	144	550	<0.03	0.069	4.2				0.63	<1
MW-234D	Dec-98	9.3	390	12	45	859	480	3.1	7.07	<0.002	30	45	115	580	<0.03	<0.02	12				0.51	<1
MW-234D	Apr-99	11.1	200	5.4	33	641	310	1.5	6.31	<0.002	130	85	220	400	<0.03	0.05	<4				2.5	0.32
MW-234D	Jun-99	11.2	180	5.5	29	510	330	1.4	7.31	<0.002	210	77	140	330	<0.03	0.096	<4				0.38	0.23
MW-234D	Sept-99	12.2	320	23	34	782	440	1.7	7.91	0.0024	240	86	288	470	<0.03	<0.02	9.8				0.33	0.31
MW-234D	Dec-99	10.2	260	12	31	745	400	1.4	8.24	<0.002	245	92	191	470	<0.03	<0.02	<4	5	<0.01	<0.03	0.26	0.24
MW-234D	Apr-00	9.7	175	<10	30	550	228	1.2	7.75	<0.004	-74	76	23	352	0.178	0.138	<3	10	<0.01	<0.01	<1	<1
MW-234D	Jun-00	14	255	<10	30	550	338	1.2	7.85	<0.004	-160	88	7.49	421	<0.1	<0.05	<3				<1	<1
MW-234D	Sep-00	11.2	256	<10	29.6	714	334	1	7.44	0.005	-21	88	7.6	421	<0.1	<0.05	<3				<1	<1
MW-234D	Dec-00	9.2	229	<10	26.2	624	310	<1	7.66	<0.004	48	70	5.3	425	<0.1	0.115	<3				<1	<1
MW-235S	Dec-00	8.4	578	19.2	25.5	1142	637	<1	7.39	<0.004	-39	61	11	719	<0.1	<0.05	<3				<1	<1
MW-235D	Dec-00	8.6	183	<10	17.1	539	201	<1	7.72	<0.004	8	79	4.1	326	0.134	<0.05	<3				<1	<1

TABLE 10. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Br- (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250				6.5-8.5	0.001		250		500	2	10						2
MW-236S	Nov-89	10.9	156	<10.0	13.8	355	212	2.22		0.016	-53.3	48.2	35	287	0.11	<0.10	10	<5	<0.005	0.03		
MW-236S	Feb-90		169		16.4		234	1.12		<0.005		65.4	3.08	252	0.19		5	10			78	
MW-236S	Apr-90	12.4	168		14.3	487	200	11.5		<0.005	-32.4	65.9	19	334	<0.04		44	5			0.19	
MW-236S	Nov-90	10	180	49	17.1	360	255	15	7.1	<0.010	105.2	68	625	314	0.05	<0.1	9.2	5	<0.004	0.033	<0.5	
MW-236S	Feb-91	9	172	4.3	15.9	520	240	14	7.45	<0.010	64.5	65	145	353	0.12	<0.04						
MW-236S	May-91	11	168	2.2	12.8	360	236	<3	7.27	<0.010	229.8	60	109	313	0.03	<0.04						
MW-236S	Aug-91	11	170	6.7	14.6	530	232	12	6.98	<0.010	169.7	64.8	74	347	0.05	<0.04						
MW-236S	Nov-91	11	170	5.8	12	482	210	<1	7.68	<0.010	366.9	58	17	307	0.03	<0.04						
MW-236S	Feb-92	10	204	10.6	15.8	487	216	3	7.67	<0.010	328.9	51	42	272	0.06	<0.02	<0.5	<5	<0.010	<0.004	<0.5	
MW-236S	May-92	12	200	6.4	14	469	213	<1.0	7.54	<0.010	331.3	63	84	336	<0.04	0.1						
MW-236S	Aug-92	12	168	1	16.5	448	190	<1	7.49	<0.010	359.5	72.8	60	372	<0.04	<0.02						
MW-236S	Dec-92	10	192	8.9	13	582	185	<1	7.69	<0.010	291.1	69.3	59	300	<0.02	<0.02						
MW-236S	Feb-93	10	202	7	16	481	166	13	7.35	<0.010	258.2	54	355	384	<0.02	<0.02						
MW-236S	May-93	12.5	172	<1.0	22	350	201	5	6.86	<0.010	306.4	75.1	86	292	<0.02	<0.02	1	<5	0.005	<0.004	<0.5	
MW-236S	Aug-93	14.5	174	2.92	19	356	205	<1.0	6.86	<0.010	154.2	61.6	110	312	<0.02	<0.02						
MW-236S	Dec-93	10	210	3.9	17	498	222	1	7.04	0.027	170.4	117	410	808	0.06	0.07						
MW-236S	Feb-94	10.5	222	8.9	17	670	256	<1.0	7.18	<0.010	260.6	76.1	425	316	<0.02	<0.05	<2.0				<0.5	0.8
MW-236S	34455	11.5	212	12.9	30	473	252	17	7.16	0.033	150.2	77.6	70	400	<0.02	0.08	3				<0.5	0.79
MW-236S	Aug-94	12.5	176	9.5	20.5	499	242	<1	7.12	<0.010	61.1	71.2	34.5	348	0.03	0.13	<2.0	<5	<0.004	<0.004	<0.5	2
MW-236S	Nov-94	11.5	242	14.3	32	465	288	4	7.08	<0.010	108.4	85.2	45	472	0.02	0.26	<2.0				<0.5	2.05
MW-236S	March-95	10	327	10	43	512	406	15	6.48	<0.010	58.8	120	63	620	0.72	0.42	<2				<0.5	<0.2
MW-236S	June-95	13.5	258	<5.0	40	448	289	9	7.04	<0.010	1.6	79	120	468	0.34	0.3	6				<0.5	<0.2
MW-236S	Sept.-95	11	155	12.5	21	330	191	<1	6.87	<0.010	100.1	48.5	240	328	0.11	0.13	<2				<0.5	<0.2
MW-236S	Nov-95	10	204	12.2	27	374	258	<1	7.56	<0.010	94.7	86.4	120	392	<0.02	0.08	<2	10	<0.004	<0.004	<0.5	<0.2
MW-236S	April-96	9.8	260	41	41	770	450	2.5	7.9	<0.002	210	110	>900	330	<0.03	0.13	6.6	150	<0.01	<0.01	0.86	3
MW-236S	June-96	10.6	220	44	23	5400	210	1.1	7.4	<0.002	220	45	360	390	0.14	0.052	<4				3.7	<2
MW-236S	Sept-96	13.4	240	28	19	560	260	1.1	7.7	<0.002	310	320	28	360	0.038	0.059	<4				0.35	<2
MW-236S	Nov-96	10.1	230	<1	32	712	260	1.8	6.61	<0.002	125	83	54	370	<0.03	0.04	<4				0.59	<2
MW-236S	March-97	9.8	170	17	36	910	370	1.8	6.7	<0.002	135	66	637	380	<0.03	0.053	<4	10	<0.01	<0.01	0.81	<2
MW-236S	June-97	12.1	250	30	32	577	440	1.5	6.78	0.0028	285	73	979	430	0.073	0.075	<4				0.37	<2
MW-236S	Sept-97	12	250	2.8	34	630	330	2.8	7.7	<0.002	195	72	130	450	0.073	0.14	<4				0.17	<2
MW-236S	Dec-97	11.1	230	31	27	820	350	3.1	6.12	<0.002	275	88	845	450	<0.03	0.07	<4				0.39	<2
MW-236S	Mar-98	9.4	280	1	39	813	440	1.9	6.73	<0.002	325	94	731	470	0.076	0.061	<4				0.39	<2
MW-236S	June-98	15.2	280	<3	34	670	320	2.1	6.69	<0.002	-65	66	356	420	0.047	0.06	<4	15	<0.01	<0.01	0.51	<1
MW-236S	Sept-98	11.8	200	72	23	484	280	1.8	7.5	<0.002	150	74	>999	340	<0.03	0.026	<4				0.4	<1
MW-236S	Dec-98	10.5	200	44	28	460	290	1.6	7.38	<0.002	90	75	684	270	<0.03	0.11	<4				0.18	<1
MW-236S	Apr-99	Location Not Sampled																				
MW-236S	Jun-99	Location Not Sampled																				
MW-236S	Sept-99	Location Not Sampled																				
MW-236S	Dec-99	Location Not Sampled																				
MW-236S	Apr-00	Location Not Sampled																				
MW-236S	Jun-00	Location Not Sampled																				
MW-236S	Sep-00	Location Not Sampled																				
MW-236S	Dec-00	Location Not Sampled																				

TABLE 10. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Br- (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250				6.5-8.5	0.001		250		500	2	10						2
MW-236D	Nov-89	11.8	121	<0.01	77.5	363	167	0.84		0.011	-71.15	10.1	135	266	0.07	<0.10	21	5	<0.005	<0.01		
MW-236D	Feb-90		113		75.6		167	1.28		<0.005		<10.0	14.3	260	0.37		47	10			35	
MW-236D	Apr-90	11.9	106		81	419	172	19.2		<0.005		10.6	12	281	<0.04		92	15			0.04	
MW-236D	Nov-90	10	119	8.8	76.8	340	185	7.2	7.35	<0.05	-66.8	13	55	298	<0.1	<0.1	2.9	<5	<0.004	0.026	<0.5	
MW-236D	Feb-91	10	116	<0.5	81.4	1000	190	9	8.11	<0.010	81.1	13.5	40	369	0.14	<0.04						
MW-236D	May-91	11	110	24	82.9	360	186	8	7.33	<0.010	222.8	13.5	61	331	0.05	<0.04						
MW-236D	Aug-91	12	108	9.8	82.3	550	182	4.6	7.28	<0.010	280.7	13.4	13	387	<0.03	<0.04						
MW-236D	Nov-91	10	108	2.9	78	530	160	<1	7.8	<0.010	392	11.4	5	306	0.03	<0.04						
MW-236D	Feb-92	11	126	15.8	80.2	525	108	2	7.59	<0.010	263.1	11.6	3.4	252	0.07	<0.02	<0.5	<5	<0.010	<0.004	<0.5	
MW-236D	May-92	13	116	1.8	70	494	163	<1.0	7.67	<0.010	269.2	19.2	1.5	352	0.05	0.08						
MW-236D	Aug-92	13	114	3	83	459	142	<1	7.63	<0.010	296.7	18.8	14.5	216	<0.04	0.02						
MW-236D	Dec-92	11	132	11.9	70	619	144	<1	7.79	<0.010	271.1	45.8	5.2	240	<0.02	<0.02						
MW-236D	Feb-93	11	114	<1.0	75	494	125	7	7.46	<0.010	221.1	13.5	1.6	296	0.02	0.04						
MW-236D	May-93	13	116	<1.0	75	346	140	4	7.49	<0.010	268.5	49.3	1.4	240	<0.02	<0.02	1	<5	0.004	<0.004	<0.5	
MW-236D	Aug-93	14	114	1.94	74	365	159	<1.0	7.24	<0.010	7	44.3	1.1	284	<0.02	<0.02						
MW-236D	Dec-93	11	116	3.9	77	447	166	<1.0	7.2	0.014	142.8	78	1.3	292	0.06	<0.05						
MW-236D	Feb-94	10	112	<1.0	75	502	109	<1.0	7.45	<0.010	232.5	38.2	3	256	<0.02	<0.05	<2.0				<0.5	0.94
MW-236D	34455	11	120	4.3	75	376	144	14	7.75	<0.010	156.9	31	1.9	288	0.07	0.04	2.2				<0.5	0.93
MW-236D	Aug-94	12.5	112	14.3	73	475	164	<1.0	7.34	<0.010	128	17.9	3	260	0.04	0.16	<2.0	5	<0.004	<0.004	<0.5	2.24
MW-236D	Nov-94	11	145	19	75	411	134	<1	7.52	<0.010	154.7	14.4	3.7	316	<0.02	0.13	<2.0				<0.5	2.55
MW-236D	March-95	11	131	<5.0	76	371	154	4	6.79	0.038	49.9	32.9	4.7	288	0.34	0.25	<2				<0.5	0.7
MW-236D	June-95	14	121	<5.0	72	391	160	<1	7.03	<0.010	-17.7	15.8	2.6	296	0.29	0.12	<2				<0.5	0.5
MW-236D	Sept.-95	12	123	<5.0	71	339	158	18	6.97	<0.010	93.8	10.2	3.3	292	0.09	<0.05	<2				<0.5	0.7
MW-236D	Nov-95	10.5	112	<5.0	73	345	147	<1	7.69	<0.010	23.5	26.7	4.2	288	<0.02	<0.05	<2	5	<0.004	<0.004	<0.5	1.2
MW-236D	April-96	11.3	120	<1	69	450	230	<1	7.2	<0.002	30	14	230	260	<0.03	0.023	<4	10	<0.01	<0.01	0.41	2.8
MW-236D	June-96	11.2	150	1	62	459	200	<1	7.7	<0.002	230	10	10	280	<0.03	<0.02	<4				6	<2
MW-236D	Sept-96	10.9	95	18	57	500	160	<1	7.3	<0.002	387	12	12	260	<0.03	<0.02	<4				0.51	<2
MW-236D	Nov-96	9.9	120	<1	60	467	140	1.2	6.93	<0.002	190	13	9.4	230	<0.03	<0.02	<4				0.54	<2
MW-236D	March-97	9.6	290	4.3	64	557	140	<1	6.2	<0.002	135	30	280	270	<0.03	<0.02	<4	10	<0.01	<0.01	0.48	<2
MW-236D	June-97	13.1	140	6.6	66	443	160	<1	5.85	<0.002	215	10	<1	290	<0.03	<0.02	<4				0.42	<2
MW-236D	Sept-97	12.2	120	7	61	430	150	1.1	8	<0.002	155	33	3.2	300	<0.03	0.034	<4				0.3	<2
MW-236D	Dec-97	11.3	150	16	54	509	150	1.4	5.56	<0.002	250	30	5	300	0.03	0.026	<4				0.27	<2
MW-236D	Mar-98	8.1	160	<1	60	540	160	<1	6.5	<0.002	550	33	9	250	<0.03	<0.02	<4				0.26	<2
MW-236D	June-98	16.5	360	<3	64	430	150	<1	6.93	<0.002	-35	11	12	250	0.053	0.043	7.8	1	<0.01	<0.01	0.24	<1
MW-236D	Sept-98	11.9	140	6.4	68	437	150	1.1	7.47	<0.002	270	13	27	280	<0.03	<0.02	<4				0.43	<1
MW-236D	Dec-98	10.4	120	<1	80	432	160	<1	7.41	<0.002	50	15	66	240	<0.03	0.05	<4				0.045	<1
MW-236D	Apr-99	Location Not Sampled																				
MW-236D	Jun-99	Location Not Sampled																				
MW-236D	Sept-99	Location Not Sampled																				
MW-236D	Dec-99	Location Not Sampled																				
MW-236D	Apr-00	Location Not Sampled																				
MW-236D	Jun-00	Location Not Sampled																				
MW-236D	Sep-00	Location Not Sampled																				
MW-236D	Dec-00	Location Not Sampled																				

TABLE 10. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Br- (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250				6.5-8.5	0.001		250		500	2	10						2
MW-245S	Nov-89	10.7	297	35.9	35.5	851	648	2.93		0.024	-16.4	339	280	781	0.29	<0.10	32	<5	<0.005	<0.01		
MW-245S	Feb-90		336		47.9		750	9.42		<0.005		337	2150	945	0.14		8	70			2.34	
MW-245S	Apr-90	11.4	382		57.3	969	670	3.57		<0.005		331	50	970	0.11		8	15			0.75	
MW-245S	Nov-90	12	334	31	27.4	1200	610	19	7.01	<0.05	134.5	750	300	899	0.14	<0.04	3.4		0.004	<0.004	<0.5	
MW-245S	Feb-91	11	364	3	43.6	1100	640	8.6	7.35	<0.010	-4	154	125	884	0.1	<0.04						
MW-245S	May-91	12	356	7.5	55.6	890	640	9	6.8	<0.010	233.9	218	196	876	0.05	0.31						
MW-245S	Aug-91	12	336	14.8	44.2	1320	650	9.2	7.25	<0.010	105.6	277	250	485	0.07	<0.04						
MW-245S	Nov-91	12	330	35	26	1244	614	<1	7.05	<0.010	175.9	286	280	920	0.17	<0.04						
MW-245S	Feb-92	10	318	21.1	25.7	1221	707	10	6.76	<0.010	172.9	380	37	844	0.17	<0.02	<0.5	<5	<0.010	<0.004	<0.5	
MW-245S	May-92	13	422	8.6	90	1268	658	<1.0	7.01	<0.010	217.4	266	80	1088	0.06	<0.02						
MW-245S	Aug-92	14	1910	<1.0	43.5	900	546	<1	6.74	<0.010	97.7	225	35	720	0.06	<0.02						
MW-245S	Dec-92	10.5	390	42.1	40	1426	588	<1	7.22	<0.010	211.8	341	435	944	0.1	<0.02						
MW-245S	Feb-93	10	426	27	42	1102	516	34	6.52	<0.010	159.4	293	360	936	0.11	0.02						
MW-245S	Jun-93	12.5	354	12.8	38	457	502	8	7.1	<0.010	216.8	296	220	916	0.02	<0.02	1	<5	<0.004	<0.004	0.5	
MW-245S	Sep-93	13.5	314	4.86	40	683	568	<1.0	6.75	<0.010	96.1	317	190	888	<0.02	<0.02						
MW-245S	Dec-93	11	256	7.4	31	904	568	10	7.08	<0.010	139.2	352	240	872	<0.02	0.02						
MW-245S	34394	11	416	10.6	37	1275	628	60	6.96	<0.010	248.4	402	260	860	0.04	<0.05	<2.0				<0.5	0.82
MW-245S	34486	13.5	472	6.5	35	1035	633	3	6.86	<0.010	109.1	359	230	1053	<0.02	0.02	<2.0				<0.50	1
MW-245S	Aug-94	11.5	236	<5.0	22.5	852	447	2	6.99	<0.010	69.4	235	28	646	0.07	<0.05	<2.0	100	<0.004	0.004	<0.5	2
MW-245S	Nov-94	11	396	9.5	42	822	498	7	7.05	<0.010	126.8	288	41	920	0.1	<0.05	<2.0				0.64	3.92
MW-245S	March-95	11.5	509	5	46	686	844	13	7.12	<0.010	106.4	229	53	1052	1.83	0.11	<2				<0.5	0.3
MW-245S	June-95	12	355	<5.0	39	558	607	<1	7.08	<0.010	-13.0	288	93	932	0.18	0.64	<2				<0.5	0.2
MW-245S	Sept-95	11.5	378	20.8	45	525	562	32	7.12	<0.010	11.7	315	110	992	0.21	0.1	<2				<0.5	0.3
MW-245S	Dec-95	10.5	532	<5.0	45	512	646	<1	7.01	<0.010	16.3	239	15	1036	0.1	<0.05	<2	10	<0.004	<0.004	<0.5	<0.2
MW-245S	April-96	11.2	480	79	45	1390	770	2.3	7.1	<0.002	150	280	140	1100	0.042	<0.02	<4	200	<0.01	<0.01	0.49	0.84
MW-245S	June-96	12.3	350	88	21	1180	550	2.3	6.6	0.0056	120	380	560	830	0.046	<0.02	<4				11	<2
MW-245S	Sept-96	10.8	410	43	28	1200	620	2.2	7.5	<0.002	70	460	82	860	<0.03	0.033	<4				0.72	<2
MW-245S	Nov-96	9.5	370	120	29	1130	540	2.3	7.02	<0.002	100	440	150	750	0.06	<0.02	<4				0.87	<2
MW-245S	March-97	9.9	380	23	25	1210	600	3.2	7.1	<0.002	110	240	>999	730	<0.03	<0.02	<4	15	<0.01	<0.01	0.29	<2
MW-245S	June-97	11.6	410	68	32	1150	650	2.7	6.79	<0.002	305	440	357	830	0.16	<0.02	<4				1.2	<2
MW-245S	Sept-97	13	530	15	33	1100	540	2.4	7.4	<0.002	165	240	150	790	0.088	<0.02	<4				0.33	<2
MW-245S	Dec-97	9.3	340	14	23	1100	570	2.4	7.58	<0.002	155	280	135	660	0.15	<0.02	<4				0.4	<2
MW-245S	Mar-98	9.7	400	13	25	1230	600	2	7.47	<0.002	240	430	42	840	0.081	<0.02	<4				0.38	<2
MW-245S	June-98	12.4	240	<3	3.3	453	460	3.3	7.55	<0.002	115	41	238	270	<0.03	0.054	<4	20	<0.01	<0.01	0.95	<1
MW-245S	Sept-98	12.2	330	8.2	32	916	640	2.4	6.55	<0.002	155	190	443	690	<0.03	<0.02	<4				0.55	<1
MW-245S	Dec-98	9.8	360	14	53	893	790	2	7.59	<0.002	115	180	>999	590	<0.03	0.041	7.6				0.4	<1
MW-245S	Apr-99	10.7	320	8.4	25	1110	690	2.1	6.5	<0.002	75	240	315	820	0.061	<0.02	<4				1.1	<0.1
MW-245S	Jun-99	11.5	360	31	30	1170	730	1.9	7.14	0.0023	280	210	104	740	0.045	<0.02	<4				0.64	<0.1
MW-245S	Sept-99	12.5	340	8.5	40	1020	630	2	6.79	<0.002	300	200	55	710	<0.03	<0.02	<4				0.45	<0.1
MW-245S	Dec-99	9.7	360	49	31	1130	610	1.8	6.07	<0.002	520	200	403	680	0.099	<0.02	<4	5	<0.01	<0.03	0.45	<0.1
MW-245S	Apr-00	9.8	380	<10	28.3	1150	582	1.8	7.11	<0.004	-75	200	9.4	828	0.167	<0.05	<3	50	0.016	<0.01	<1	<1
MW-245S	Jun-00	14.4	463	<10	32.8	950	667	3.1	7.53	<0.004	-78	250	4.31	893	0.124	<0.05	<3				<1	<1
MW-245S	Sept-00	11.3	419	<10	34.9	1096	614	2.5	7.07	<0.004	22	200	6.6	776	0.125	<0.05	<3				<1	<1
MW-245S	Dec-00	9	366	<10	27.6	995	519	<1	7.46	<0.004	84	210	16	711	0.11	<0.05	<3				<1	<1

TABLE 10. HISTORICAL GROUNDWATER ANALYTICAL DATA - WATER QUALITY PARAMETERS

Monitoring Well	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)	SO4= (mg/l)	Turb (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	Br- (mg/l)
Class GA Groundwater Quality Standards and Guidance Values					250				6.5-8.5	0.001		250		500	2	10						2
MW-245D	Feb-90		167	39.6	16		153	25		0.006		149	8	411	<0.04	<0.01						
MW-245D	Apr-90	11.3	197		17.2	536	250	3.72		<0.005	-16.75	163	13	482	0.8		22	10	<0.005	0.01		0.98
MW-245D	Nov-90	9	366	116	14.7	890	210	26	7.45	0.065	1.7	110	42	565	2.8	<0.04	23		0.004	0.004	8.1	
MW-245D	Feb-91	11	358	18.1	18.9	930	260	<3.0	7.63	<0.010	-48.3	138	180	496	4.4	<0.04						
MW-245D	May-91	12	288	9.4	15.7	600	290	6.1	7.01	<0.010	171.5	122	80	530	2.62	0.55						
MW-245D	Aug-91	11	276	11.7	18.3	915	330	7.3	7.58	<0.010	104.9	154	40	580	1.91	<0.04						
MW-245D	Nov-91	13	306	7.8	17	898	288	<1	7.18	<0.010	53	112	21	540	5.95	<0.04						
MW-245D	Feb-92	10	340	28.6	19.8	862	370	3	6.86	<0.010	131.2	151	29	496	4.8	<0.02	1.2	<5	<0.010	<0.004	6	
MW-245D	May-92	13	288	10.6	11	842	320	<1.0	7.24	<0.010	199.2	164	2.3	624	2.59	<0.02						
MW-245D	Aug-92	13	330	<1.0	20	570	297	<1	6.93	<0.010	64.1	125	20	176	4.44	<0.02						
MW-245D	Dec-92	10	314	9.14	14.5	1046	293	<1	7.24	<0.010	203.8	158	7.7	572	3.34	0.12						
MW-245D	Feb-93	10	288	16.2	14.5	804	262	27	6.79	<0.010	142.7	184	3.6	556	2.89	<0.02						
MW-245D	Jun-93	13.5	300	1.7	16	441	325	7	7.31	<0.010	202.2	175	5	560	3.99	0.09	2.2	<5	<0.004	<0.004	5	
MW-245D	Sep-93	13	264	<1.0	17	609	350	<1.0	6.94	<0.010	151.5	159	0.5	568	2.87	<0.02						
MW-245D	Dec-93	10.5	244	<1.0	18	814	398	10	7.09	<0.010	-0.1	212	3.1	592	2	0.03						
MW-245D	34394	11	244	<1.0	19	904	338	34	6.88	<0.010	240.6	181	2	448	2.97	<0.05	<2.0				3.54	0.19
MW-245D	34486	14	260	<1.0	17	709	362	<1	7.15	<0.010	105.8	181	1.3	593	3.78	0.02	<2.0				6.03	0.16
MW-245D	Aug-94	11.5	248	13.3	19	885	412	12	7.08	<0.010	64.8	195	2.1	548	2.39	1.18	2	10	<0.004	<0.004	<0.5	1.12
MW-245D	Nov-94	11.5	267	23.8	19	649	347	9	7.26	<0.010	128.9	173	1.3	560	1.65	0.33	<2.0				3.8	1.88
MW-245D	March-95	11.5	148	<5.0	18	535	459	6	7.22	<0.010	107.2	157	0.6	544	3.55	0.22	<2				1.38	<0.2
MW-245D	June-95	12	271	14	18	502	378	3	6.99	<0.010	-12.8	182	2.9	604	2.17	0.22	<2				3.2	<0.2
MW-245D	Sept-95	11	242	12.5	19	461	356	15	7.05	<0.010	14.8	204	1.2	668	3.27	0.08	<2				1.13	<0.2
MW-245D	Dec-95	10	250	<5.0	20	426	362	<1	7.07	<0.010	27.4	206	1	640	2.46	<0.05	<2	<5	<0.004	<0.004	0.73	<0.2
MW-245D	April-96	11.2	270	5.5	21	95	610	2.6	7.5	<0.002	175	210	10	650	1	0.02	<4	30	<0.01	<0.01	2.1	0.12
MW-245D	June-96	12.4	290	14	16	1000	520	1.4	7.2	<0.002	-5	520	10	1300	1	<0.02	5.2				10	<2
MW-245D	Sept-96	11	330	<1	16	980	400	5.4	7.3	<0.002	-30	350	45	700	0.73	<0.02	11				2.3	<2
MW-245D	Nov-96	9.9	340	10	20	1000	300	1.4	7.17	<0.002	105	380	26	650	2.2	<0.02	8.5				6.1	<2
MW-245D	March-97	9.6	480	38	18	1010	420	2.1	7		125	90	110	640	6	0.1	<4	10	<0.01	<0.01	6	<2
MW-245D	June-97	11.9	160	26	19	883	380	2.3	6.73	0.014	180	170	100	590	4.9	0.021	<4				7.3	<2
MW-245D	Sept-97	13.8	340	13	63	930	330	1.4	7.7	<0.002	190	180	9	640	5.7	<0.02	5				6.8	<2
MW-245D	Dec-97	9.4	350	7	17	990	390	1.9	7.49	<0.002	40	280	23	590	3.1	<0.02	8				4.7	<2
MW-245D	Mar-98	9.6	430	28	19	1020	390	2.9	7.69	<0.002	240	190	29	620	8.4	<0.02	9.5				9.1	<2
MW-245D	June-98	12.1	400	<3	20	957	400	1.9	6.85	<0.002	-85	210	33	670	12	0.055	<4	20	<0.01	<0.01	13	<1
MW-245D	Sept-98	12.1	360	15	26	960	410	3.1	6.65	<0.002	-15	180	46	790	6	<0.02	9				6.9	<1
MW-245D	Dec-98	9.7	270	19	20	840	490	2.2	7.04	<0.002	15	110	16	500	2.4	0.038	11				2.9	<1
MW-245D	Apr-99	Location Not Sampled																				
MW-245D	Jun-99	11.3	350	40	20	1020	410	1.8	6.37	<0.002	160	184	118	620	8.3	0.027	7.7				9.7	<0.1
MW-245D	Sept-99	Location Not Sampled																				
MW-245D	Apr-00	9.6	222	54.8	23.9	990	384	1.8	7.14	<0.004	-67	140	24	622	9.43	0.994		150	<0.01		11.8	
MW-245D	Jun-00	14.1	304	28.3	23.7	750	321	1.4	7.58	<0.004	-100	190	25.6	629	7.14	0.094	3				8.22	<1
MW-245D	Sep-00	11.5	300	<10	23.2	977	329	1.5	7.53	<0.004	-100	170	12	580	6.71	<0.05	<3				7.19	<1
MW-245D	Dec-00	9	295	<10	21.9	954	298	<1	7.59	<0.004	-45	200	13	574	7.01	<0.05	<3				8.37	<1

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-230S	Nov-89																								
MW-230S	Feb-90																								
MW-230S	Apr-90																								
MW-230S	Nov-90																								
MW-230S	Feb-91																								
MW-230S	May-91																								
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MW-230S	Aug-94																								
MW-230S	Nov-94																								
MW-230S	March-95																								
MW-230S	June-95																								
MW-230S	Sept-95																								
MW-230S	Nov-95																								
MW-230S	April-96																								
MW-230S	June-96																								
MW-230S	Sept-96																								
MW-230S	Nov-96																								
MW-230S	Mar-97																								
MW-230S	June-97																								
MW-230S	Sept-97																								
MW-230S	Dec-97		<0.01	30	0.14	<0.01	5.5	0.014	2	9.7															
MW-230S	Mar-98		<0.01	36	0.29	<0.01	6.5	0.027	1.4	8.1															
MW-230S	June-98	<1	<0.01	25	<0.05	<0.01	6	0.075	<1	22	<0.1	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.043	<0.01	<0.03	<0.0002
MW-230S	Sept-98		<0.01	44	0.076	<0.01	7.9	0.031	2.3	9.1															
MW-230S	Dec-98		<0.01	54	0.17	<0.01	7.3	0.13	<1	6.7															
MW-230S	Apr-99	Location Not Sampled																							
MW-230S	Jun-99	Location Not Sampled																							
MW-230S	Sept-99	Location Not Sampled																							
MW-230S	Dec-99	<.5	<0.01	66	<.05	<0.01	10	0.18	<1	6.8	<.1	<0.01	<0.01	<0.01	<.2	<0.01	<0.01	<0.01	0.002	<0.01	0.013	<0.01	<0.01	<0.01	<0.0002
MW-230S	Apr-00	<0.048	<0.0050	48.8	0.114	<0.001	8.53	0.038	1.59	8.74	<0.075	<0.050	0.004	<0.002	0.062	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
MW-230S	Jun-00	Location Not Sampled																							
MW-230S	Sept-00	Location Not Sampled																							
MW-230S	Dec-00	Location Not Sampled																							

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Cu (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-230D	Nov-89																								
MW-230D	Feb-90																								
MW-230D	Apr-90																								
MW-230D	Nov-90																								
MW-230D	Feb-91																								
MW-230D	May-91																								
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MW-230D	Nov-91																								
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MW-230D	April-96																								
MW-230D	June-96																								
MW-230D	Sept-96																								
MW-230D	Nov-96																								
MW-230D	Mar-97																								
MW-230D	June-97																								
MW-230D	Sept-97																								
MW-230D	Dec-97		< 0.01	22	< 0.05	< 0.01	5.2	0.093	< 1	21															
MW-230D	Mar-98		< 0.01	23	0.12	< 0.01	5	0.018	< 1	21															
MW-230D	June-98	< 1	< 0.01	35	< 0.05	< 0.01	9.4	0.025	1.6	9.3	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.057	< 0.01	< 0.03	< 0.0002
MW-230D	Sept-98		< 0.01	28	0.075	0.012	6.3	0.015	1	20															
MW-230D	Dec-98		< 0.01	24	0.09	< 0.01	4.4	0.07	< 1	17															
MW-230D	Apr-99	Location Not Sampled																							
MW-230D	Jun-99	Location Not Sampled																							
MW-230D	Sept-99	Location Not Sampled																							
MW-230D	Dec-99	< .5	< 0.01	26	< .05	< .01	5.8	0.094	< 1	18	< .1	< .01	< .01	< .01	< .2	< .01	< .01	< .01	0.05	< .01	0.019	0.012	< .01	< .01	< .0002
MW-230D	Apr-00	0.096	< 0.0050	25.1	< 0.040	< 0.001	5.68	0.068	0.746	21.1	< 0.075	< 0.050	< 0.002	< 0.002	0.053	< 0.010	< 0.017	< 0.012	< 0.002	< 0.010	< 0.001	< 0.020	< 0.010	< 0.010	< 0.0002
MW-230D	Jun-00	Location Not Sampled																							
MW-230D	Sept-00	Location Not Sampled																							
MW-230D	Dec-00	Location Not Sampled																							

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
Standards and Guidance Values																									
MW-232S	Nov-89																								
MW-232S	Feb-90																								
MW-232S	Apr-90																								
MW-232S	Nov-90																								
MW-232S	Feb-91																								
MW-232S	May-91																								
MW-232S	Aug-91																								
MW-232S	Nov-91																								
MW-232S	Feb-92																								
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MW-232S	Aug-92																								
MW-232S	Dec-92																								
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MW-232S	Nov-95																								
MW-232S	April-95																								
MW-232S	June-96																								
MW-232S	Sept-96																								
MW-232S	Nov-96																								
MW-232S	Mar-97																								
MW-232S	June-97																								
MW-232S	Sept-97																								
MW-232S	Dec-97		<0.01	150	0.32	<0.01	25	1.1	2.5	2.9															
MW-232S	Mar-98		<0.01	150	0.05	<0.01	28	0.93	2.1	2.9															
MW-232S	June-98	<1	<0.01	160	0.11	<0.01	24	1.4	2.3	3	<0.1	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.042	<0.01	<0.03	<0.0002
MW-232S	Sept-98		<0.01	200	4.4	0.028	30	2.3	3.4	3															
MW-232S	Dec-98		<0.01	160	0.39	<0.01	24	1.6	2.9	2.4															
MW-232S	Apr-99	Location Not Sampled																							
MW-232S	Jun-99	Location Not Sampled																							
MW-232S	Sept-99	Location Not Sampled																							
MW-232S	Dec-99	Location Not Sampled																							
MW-232S	Apr-00	Location Not Sampled																							
MW-232S	Jun-00		<0.0050	148	1.92	0.003	25.7	1.36	1.82	2.58															
MW-232S	Sep-00		<0.005	142	4.71	<0.001	22.9	1.44	2.18	2.6															
MW-232S	Dec-00		<0.005	138	2.33	<0.001	24.2	1.24	1.95	4.15															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
Standards and Guidance Values																									
MW-232D	Nov-89																								
MW-232D	Feb-90																								
MW-232D	Apr-90																								
MW-232D	Nov-90																								
MW-232D	Feb-91																								
MW-232D	May-91																								
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MW-232D	Nov-91																								
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MW-232D	Aug-92																								
MW-232D	Dec-92																								
MW-232D	Feb-93																								
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MW-232D	Aug-94																								
MW-232D	Nov-94																								
MW-232D	March-95																								
MW-232D	June-95																								
MW-232D	Sept-95																								
MW-232D	Nov-95																								
MW-232D	April-96																								
MW-232D	June-96																								
MW-232D	Sept-96																								
MW-232D	Nov-96																								
MW-232D	Mar-97																								
MW-232D	June-97																								
MW-232D	Sept-97																								
MW-232D	Dec-97																								
MW-232D	Mar-98																								
MW-232D	June-98	No Sample Taken																							
MW-232D	Sept-98		<0.01	33		0.017	13	0.23	4.7	2.2															
MW-232D	Dec-98		<0.01	38	0.27	<0.01	12	0.11	6.8																
MW-232D	Apr-99	Location Not Sampled																							
MW-232D	Jun-99	Location Not Sampled																							
MW-232D	Sept-99	Location Not Sampled																							
MW-232D	Dec-99	Location Not Sampled																							
MW-232D	Apr-00	Location Not Sampled																							
MW-232D	Jun-00	Location Not Sampled																							
MW-232D	Sep-00	Location Not Sampled																							
MW-232D	Dec-00	Location Not Sampled																							

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
Standards and Guidance Values																									
MW-233S	Nov-90																								
MW-233S	Feb-91																								
MW-233S	May-91																								
MW-233S	Aug-91																								
MW-233S	Nov-91																								
MW-233S	Feb-92																								
MW-233S	May-92																								
MW-233S	Aug-92																								
MW-233S	Dec-92																								
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MW-233S	Nov-94																								
MW-233S	March-95																								
MW-233S	June-95																								
MW-233S	Sept-95																								
MW-233S	Nov-95																								
MW-233S	April-96																								
MW-233S	June-96																								
MW-233S	Sept-96																								
MW-233S	Nov-96																								
MW-233S	Mar-97																								
MW-233S	June-97																								
MW-233S	Sept-97																								
MW-233S	Dec-97		<0.01	170	0.069	<0.01	50	1.5	2.7	3.8															
MW-233S	Mar-98		<0.01	180	<0.05	<0.01	48	2.2	2.7	3.2															
MW-233S	June-98	<1	<0.01	250	0.71	<0.01	31	8.1	1.9	6	<0.1	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	0.032	<0.05	<0.01	<0.03	0.061	0.013	<0.03	<0.0002
MW-233S	Sept-98		<0.01	180	2.8	0.073	39	2.1	3.2	3.1															
MW-233S	Dec-98		<0.01	150	1	<0.01	70	1.5	2.9	2.2															
MW-233S	Jun-00		<0.0050	219	0.498	0.002	84.9	2.14	2.68	2.89															
MW-233S	Sept-00		<0.005	233	0.447	<0.001	92.4	2.27	3.08	2.75															
MW-233S	Dec-00		<0.005	137	0.097	<0.001	34.6	0.71	2.11	3.87															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	Sample Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20		0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2				0.002
Standards and Guidance Values																									
MW-234S	Nov-89																								
MW-234S	Feb-90																								
MW-234S	Apr-90																								
MW-234S	Nov-90																								
MW-234S	Feb-91																								
MW-234S	May-91																								
MW-234S	Aug-91																								
MW-234S	Nov-91																								
MW-234S	Feb-92																								
MW-234S	May-92																								
MW-234S	Aug-92																								
MW-234S	Dec-92																								
MW-234S	Feb-93																								
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MW-234S	Aug-94																								
MW-234S	Nov-94																								
MW-234S	March-95																								
MW-234S	June-95																								
MW-234S	Sept.-95																								
MW-234S	Nov-95																								
MW-234S	April-96																								
MW-234S	June-96																								
MW-234S	Sept-96																								
MW-234S	Nov-96																								
MW-234S	Mar-97																								
MW-234S	June-97																								
MW-234S	Sept-97																								
MW-234S	Dec-97		<0.01	110	<0.05	<0.01	19	0.36	<1	3.9															
MW-234S	Mar-98		<0.01	130	<0.05	<0.01	22	0.67	<1	3.8															
MW-234S	June-98	<1	<0.01	130	0.2	<0.01	22	0.6	1	4.4	0.13	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	0.016	<0.05	<0.01	<0.03	0.084	<0.01	<0.03	<0.0002
MW-234S	Sept-98		<0.01	120	0.088	<0.01	21	0.59	1.1	4															
MW-234S	Dec-98		<0.01	91	0.1	<0.01	15	0.47	1.1	2.8															
MW-234S	Apr-99		<0.01	120	0.071	<0.01	21	0.65	0.81	4.2															
MW-234S	Jun-99		<0.01	130	0.065	<0.01	23	0.65	0.94	4.3															
MW-234S	Sept-99		<0.01	110	<0.05	<0.01	18	0.54	<1	4															
MW-234S	Dec-99	<.5	<0.01	100	<.05	<0.01	19	0.54	<1	3.2	<.1	<0.01	<0.01	<0.01	<.2	<0.01	<0.01	<0.01	0.046	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002
MW-234S	Apr-00	<0.048	<0.0050	101	0.044	<0.001	17.3	0.339	0.824	3.71	<0.075	<0.050	0.003	<0.002	0.083	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
MW-234S	Jun-00		<0.0050	113	0.116	0.002	20.3	0.611	0.863	3.65															
MW-234S	Sep-00		<0.005	107	0.105	<0.001	19.2	0.561	0.919	3.32															
MW-234S	Dec-00		<0.005	98	0.102	<0.001	17.4	0.526	0.844	4.68															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-234D	Nov-89																								
MW-234D	Feb-90																								
MW-234D	Apr-90																								
MW-234D	Nov-90																								
MW-234D	Feb-91																								
MW-234D	May-91																								
MW-234D	Aug-91																								
MW-234D	Nov-91																								
MW-234D	Feb-92																								
MW-234D	May-92																								
MW-234D	Aug-92																								
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MW-234D	Nov-95																								
MW-234D	April-96																								
MW-234D	June-96																								
MW-234D	Sept-96																								
MW-234D	Nov-96																								
MW-234D	Mar-97																								
MW-234D	June-97																								
MW-234D	Sept-97																								
MW-234D	Dec-97		<0.01	51	<0.05	<0.01	8.7	0.078	10	19															
MW-234D	Mar-98		<0.01	63	<0.05	<0.01	11	0.074	8.2	17															
MW-234D	June-98	<1	<0.01	81	<0.05	<0.01	15	0.37	1.9	12	<0.1	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	0.013	<0.05	<0.01	<0.03	0.046	<0.01	<0.03	<0.0002
MW-234D	Sept-98		<0.01	110	0.39	0.012	25	0.61	3.1	20															
MW-234D	Dec-98		<0.01	99	0.13	<0.01	22	0.48	3.2	16															
MW-234D	Apr-99		<0.01	48	0.074	<0.01	15	0.29	6.4	22															
MW-234D	Jun-99		<0.01	81	0.06	<0.01	14	0.081	9.1	23															
MW-234D	Sept-99		<0.01	120	0.55	<0.01	23	0.65	2	24															
MW-234D	Dec-99	<.5	<0.01	110	0.53	<0.01	22	0.33	2.4	20	<.1	<0.01	<0.01	<0.01	<.2	<0.01	<0.01	<0.01	0.038	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002
MW-234D	Apr-00	<0.048	<0.0050	68.4	<0.040	<0.001	11.8	<0.005	8.75	18.7	<0.075	<0.050	0.002	<0.002	0.074	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
MW-234D	Jun-00		<0.0050	101	0.72	0.004	19.3	0.454	1.38	16.3															
MW-234D	Sep-00		<0.005	101	0.672	<0.001	19.3	0.442	1.97	16.8															
MW-234D	Dec-00		<0.005	87.7	0.462	<0.001	15.7	0.348	1.87	14.2															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-235S	Nov-89																								
MW-235S	Feb-90																								
MW-235S	Apr-90																								
MW-235S	Nov-90																								
MW-235S	Feb-91																								
MW-235S	May-91																								
MW-235S	Aug-91																								
MW-235S	Nov-91																								
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MW-235S	Dec-92																								
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MW-235S	Nov-94																								
MW-235S	March-95																								
MW-235S	June-95																								
MW-235S	Sept.-95																								
MW-235S	Nov-95																								
MW-235S	April-96																								
MW-235S	June-96																								
MW-235S	Sept-96																								
MW-235S	Nov-96																								
MW-235S	March-97																								
MW-235S	June-97																								
MW-235S	Sept-97																								
MW-235S	Dec-97		<0.01	110	<0.05	<0.01	25	1	1.4	11															
MW-235S	Mar-98		<0.01	120	0.051	<0.01	28	1.1	2.8	10															
MW-235S	June-98	<1	<0.01	140	<0.05	<0.01	31	1.2	1.6	12	4.8	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.047	<0.01	<0.03	<0.0002
MW-235S	Sept-98		<0.01	150	0.65	<0.01	37	1.3	2	10															
MW-235S	Dec-98		<0.01	110	0.1	<0.01	26	0.98	1.7	6.4															
MW-235S	Jun-00		<0.0050	177	12.8	0.002	41.2	1.3	1.48	8.98															
MW-235S	Sep-00		<0.005	177	13.3	<0.001	40.5	1.25	1.46	7.83															
MW-235S	Dec-00		<0.005	179	17.2	<0.001	41.7	1.21	1.85	10.4															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Tl (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20		0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002	
MW-235D	Nov-89																								
MW-235D	Feb-90																								
MW-235D	Apr-90																								
MW-235D	Nov-90																								
MW-235D	Feb-91																								
MW-235D	May-91																								
MW-235D	Aug-91																								
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MW-235D	April-96																								
MW-235D	June-96																								
MW-235D	Sept-96																								
MW-235D	Nov-96																								
MW-235D	Mar-97																								
MW-235D	June-97																								
MW-235D	Sept-97																								
MW-235D	Dec-97		< 0.01	45	< 0.05	< 0.01	10	0.5	2.1	31															
MW-235D	Mar-98		< 0.01	48	< 0.05	< 0.01	11	0.13	1.9	29															
MW-235D	June-98	< 1	< 0.01	50	0.077	< 0.01	12	0.036	2.3	36	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.057	< 0.1	< 0.03	< 0.0002
MW-235D	Sept-98		< 0.01	55	0.079	0.014	14	0.44	3.1	32															
MW-235D	Dec-98		< 0.01	45	0.13	< 0.01	10	0.47	2.6	24															
MW-235D	Jun-00		< 0.0050	68.6	0.066	0.001	13.8	0.186	2.74	11															
MW-235D	Sep-00		< 0.005	60.4	0.045	< 0.001	14.1	0.096	2.38	28.9															
MW-235D	Dec-00		< 0.005	56.7	0.374	< 0.001	13.9	0.298	1.96	38.8															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
Standards and Guidance Values																									
MW-236S	Nov-89																								
MW-236S	Feb-90																								
MW-236S	Apr-90																								
MW-236S	Nov-90																								
MW-236S	Feb-91																								
MW-236S	May-91																								
MW-236S	Aug-91																								
MW-236S	Nov-91																								
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MW-236S	Aug-92																								
MW-236S	Dec-92																								
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MW-236S	March-95																								
MW-236S	June-95																								
MW-236S	Sept-95																								
MW-236S	Nov-95																								
MW-236S	April-96																								
MW-236S	June-96																								
MW-236S	Sept-96																								
MW-236S	Nov-96																								
MW-236S	Mar-97																								
MW-236S	June-97																								
MW-236S	Sept-97																								
MW-236S	Dec-97		< 0.01	90	0.08	< 0.01	15	0.028	1	12															
MW-236S	Mar-98		< 0.01	110	0.081	< 0.01	20	< 0.01	1.1	12															
MW-236S	June-98	< 1	< 0.01	90	0.054	0.01	18	0.038	1.1	13	< 0.1	< 0.06	< 0.01	< 0.01	< 0.2	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.03	0.05	< 0.01	< 0.03	< 0.0002
MW-236S	Sept-98		< 0.01	73	0.094	0.013	9.9	< 0.01	1.1	9.5															
MW-236S	Dec-98		< 0.01	47	0.09	< 0.01	5.6	< 0.01	< 1	5.6															
MW-236S	Apr-99	Location Not Sampled																							
MW-236S	Jun-99	Location Not Sampled																							
MW-236S	Sept-99	Location Not Sampled																							
MW-236S	Dec-99	Location Not Sampled																							
MW-236S	Apr-00	Location Not Sampled																							
MW-236S	Jun-00	Location Not Sampled																							
MW-236S	Sept-00	Location Not Sampled																							
MW-236S	Dec-00	Location Not Sampled																							

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)	
Clam GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002	
Standards and Guidance Values																										
MW-236D	Nov-89																									
MW-236D	Feb-90																									
MW-236D	Apr-90																									
MW-236D	Nov-90																									
MW-236D	May-91																									
MW-236D	Aug-91																									
MW-236D	Nov-91																									
MW-236D	Feb-92																									
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MW-236D	Dec-92																									
MW-236D	Feb-93																									
MW-236D	May-93																									
MW-236D	Sep-93																									
MW-236D	Dec-93																									
MW-236D	Feb-94																									
MW-236D	May -94																									
MW-236D	Aug-94																									
MW-236D	Nov-94																									
MW-236D	March-95																									
MW-236D	June-95																									
MW-236D	Sept.-95																									
MW-236D	Nov-95																									
MW-236D	April-96																									
MW-236D	June-96																									
MW-236D	Sept-96																									
MW-236D	Nov-96																									
MW-236D	Mar-97																									
MW-236D	June-97																									
MW-236D	Sept-97																									
MW-236D	Dec-97		<0.01	33	<0.05	<0.01	13	0.034	1.6	23																
MW-236D	Mar-98		<0.01	37	0.12	<0.01	15	0.023	1.8	23																
MW-236D	June-98	<1	<0.01	34	<0.05	<0.01	15	0.018	1.8	23	<0.1	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	0.013	<0.05	<0.01	<0.03	0.059	<0.01	<0.03	<0.0002	
MW-236D	Sept-98		<0.01	36	0.13	0.033	16	0.014	2.2	21																
MW-236D	Dec-98		<0.01	28	0.073	<0.01	10	0.015	<1	16																
MW-236D	Apr-99	Location Not Sampled																								
MW-236D	Jun-99	Location Not Sampled																								
MW-236D	Sept-99	Location Not Sampled																								
MW-236D	Dec-99	Location Not Sampled																								
MW-236D	Apr-00	Location Not Sampled																								
MW-236D	Jun-00	Location Not Sampled																								
MW-236D	Sep-00	Location Not Sampled																								
MW-236D	Dec-00	Location Not Sampled																								

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.3	0.1	0.01	0.05	0.001	1			0.002
Standards and Guidance Values																									
MW-245S	Nov-89																								
MW-245S	Feb-90																								
MW-245S	Apr-90																								
MW-245S	Nov-90																								
MW-245S	Feb-91																								
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MW-245S	Dec-92																								
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MW-245S	Jun-93																								
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MW-245S	May-94																								
MW-245S	Aug-94																								
MW-245S	Nov-94																								
MW-245S	March-95																								
MW-245S	June-95																								
MW-245S	Sept.-95																								
MW-245S	Dec-95																								
MW-245S	April-96																								
MW-245S	June-96																								
MW-245S	Sept-96																								
MW-245S	Nov-96																								
MW-245S	Mar-97																								
MW-245S	June-97																								
MW-245S	Sept-97																								
MW-245S	Dec-97		<0.01	140	<0.05	<0.01	29	1.3	1.7	18															
MW-245S	Mar-98		<0.01	160	0.12	<0.01	33	1.4	1.7	19															
MW-245S	June-98	<1	<0.01	67	0.058	0.014	10	0.23	3	5.7	<0.1	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	0.01	<0.05	<0.01	<0.03	0.089	<0.01	<0.03	<0.0002
MW-245S	Sept-98		<0.01	120	0.16	<0.01	28	1.2	1.8	16															
MW-245S	Dec-98		<0.01	120	0.096	<0.01	26	1.2	1.7	15															
MW-245S	Apr-99		<0.01	170	0.36	<0.01	40	1.8	1.7	22															
MW-245S	Jun-99		<0.01	180	0.48	0.03	42	1.9	1.9	25															
MW-245S	Sept-99		<0.01	170	0.33	<0.01	36	1.7	1.8	22															
MW-245S	Dec-99	<0.5	<0.01	160	0.18	<0.01	35	1.6	1.8	18	<0.01	<0.01	0.047	<0.01	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002
MW-245S	Apr-00	0.049	<0.0050	169	0.377	<0.001	37.6	1.66	1.58	19.5	<0.075	<0.050	0.011	<0.002	0.039	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
MW-245S	Jun-00		<0.0050	188	0.453	0.002	46.6	2.01	1.95	24.3															
MW-245S	Sept-00		<0.005	171	0.401	<0.001	36.9	1.83	2.82	19.5															
MW-245S	Dec-00		<0.005	130	0.151	<0.001	28.9	0.948	1.45	22															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	d-Hg (mg/l)
Class GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20		0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002	
Standards and Guidance Values																									
MW-245D	Feb-90																								
MW-245D	Apr-90																								
MW-245D	Nov-90																								
MW-245D	Feb-91																								
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MW-245D	Aug-94																								
MW-245D	Nov-94																								
MW-245D	March-95																								
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MW-245D	Sept-96																								
MW-245D	Nov-96																								
MW-245D	Mar-97																								
MW-245D	June-97																								
MW-245D	Sept-97																								
MW-245D	Dec-97		<0.01	95	0.052	<0.01	30	0.079	2.6	31															
MW-245D	Mar-98		<0.01	92	0.15	<0.01	28	0.088	3.6	45															
MW-245D	June-98	<1	<0.01	95	0.062	0.021	34	0.12	3.6	42	<0.1	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	0.04	<0.05	<0.01	<0.03	0.16	<0.01	<0.03	<0.0002
MW-245D	Sept-98		<0.01	110	0.25	0.011	33	0.17	4.7	49															
MW-245D	Dec-98		<0.01	83	<0.05	<0.01	25	0.06	2.3	18															
MW-245D	Apr-99	Location Not Sampled																							
MW-245D	Jun-99	<0.01	100	0.05	<0.01	32	0.2	3.9	30																
MW-245D	Sept-99	Location Not Sampled																							
MW-245D	Dec-99	Location Not Sampled																							
MW-245D	Apr-00	<0.048	<0.0050	99.6	0.11	<0.001	29.5	0.171	3.16	45.2	<0.075	<0.050	<0.002	<0.002	0.081	<0.010	<0.017	0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
MW-245D	Jun-00		<0.0050	87.3	0.048	0.001	25.6	0.218	3.47	78.6															
MW-245D	Sep-00		<0.005	80.9	2.41	<0.001	24.4	0.187	4.47	74.7															
MW-245D	Dec-00		<0.005	73	3.36	<0.001	23.6	0.122	3.34	83															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Tb (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
Standards and Guidance Values																									
MW-230S	Nov-89		<0.010	77.3	2.4	<0.003		0.35		8.15	1.32	<0.060	<0.010	<0.005	<0.2	<0.01	<0.025	<0.04	<0.005	<0.01	<0.010	0.032			<0.0002
MW-230S	Feb-90		<0.010		5.71	0.0035		0.449					<0.010												
MW-230S	Apr-90		<0.010		5.55	<0.03		0.289					<0.010												
MW-230S	Nov-90		<0.01	230	120	0.1	61	5.4	11	8.3	61	<0.060	0.036	<0.01	0.38	0.07	0.25	0.11	<0.005	<0.02	<0.010	0.41			<0.001
MW-230S	Feb-91		<0.010	77.5	8.07	<0.020	14.3	0.499	1.86	7.04															
MW-230S	May-91		<0.010	89.2	16.2	<0.020	15.9	0.9	2.71	6.9															
MW-230S	Aug-91		<0.010	72.4	2.31	<0.020	11.4	0.388	1.24	6.72															
MW-230S	Nov-91		<0.010	62.2	12.1	<0.020	11.9	0.591	2.3	6.98															
MW-230S	Feb-92		<0.010	64.7	10.5	<0.020	13.2	0.498	2.85	6.04	8.97	<0.060	<0.020	<0.010	0.13	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.053			<0.001
MW-230S	May-92		<0.010	100	8.2	<0.020	18.6	0.472	1.76	6.49															
MW-230S	Aug-92		<0.010	54.9	8.64	<0.020	11.3	0.43	2.36	4.74															
MW-230S	Dec-92		<0.010	55.1	7.96	<0.020	11	0.324	2.18	7.14															
MW-230S	Feb-93		<0.010	63.1	27.6	<0.020	18.1	1.37	4.13	7.3															
MW-230S	May-93		<0.010	61.4	10.6	0.01	10.6	0.38	2.79	6.91	7.7	<0.060	<0.020	<0.010	<0.10	<0.020	0.027	<0.040	<0.005	<0.020	<0.010	0.053			<0.001
MW-230S	Aug-93		<0.010	48.3	20.9	0.02	17.9	0.574	2.07	9.75															
MW-230S	Dec-93		<0.010	61.5	14.4	0.009	17.3	0.683	3.07	7.94															
MW-230S	Feb-94		<0.010	77.2	19.7	0.009	17	0.72	3.46	7.36															
MW-230S	May-94		<0.010	62	6.04	0.006	21.6	0.44	0.69	9.65															
MW-230S	Aug-94		<0.010	53.7	1.19	<0.005	12.8	0.12	1.3	6.43	1.16	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	0.17	<0.005	<0.020	<0.005	0.044			<0.001
MW-230S	Nov-94		<0.010	47	0.5	<0.005	10.1	0.18	0.97	7.37															
MW-230S	March-95		<0.010	66.2	1.83	<0.005	12	0.38	1.48	6.5															
MW-230S	June-95		<0.010	67.6	2.64	<0.005	31.6	0.46	0.99	6.72															
MW-230S	Sept-95		<0.010	61	6.77	<0.005	12.1	0.44	2.14	7.4															
MW-230S	Nov-95		<0.010	48.8	2.43	0.023	10.7	0.024	1.51	10.4	1.56	<0.060	<0.020	<0.010	0.21	<0.020	<0.020	<0.040	<0.005	<0.020	<0.005	<0.020			<0.001
MW-230S	April-96		<0.002	78	12	0.017	13	0.35	1.8	7.6	5.7	<0.1	<0.01	<0.003	<0.2	<0.01	<0.02	0.013	<0.1	<0.01	<0.03	0.055			0.0002
MW-230S	June-96		<0.01	65	9.2	<0.01	11	0.47	1.7	6.5															
MW-230S	Sept-96		<0.01	70	9.1	<0.01	12	0.44	1.7	7															
MW-230S	Nov-96		<0.01	31	2.9	<0.01	8	0.081	1.8	8.1															
MW-230S	Mar-97		<0.01	42	4.2	<0.01	6.5	0.19	2.6	6.2	1.9	<0.06	0.01	<0.01	<0.2	<0.01	<0.02	0.016	<0.05	<0.01	<0.03	0.11			<0.0004
MW-230S	June-97		<0.01	43	5.2	<0.01	8.1	0.24	2.3	6.4															
MW-230S	Sept-97		<0.01	40	7.6	<0.01	8	0.27	3.1	11															
MW-230S	Dec-97		<0.01	46	14	<0.01	10	0.49	3.9	12															
MW-230S	Mar-98		<0.01	73	20	0.017	16	0.86	4.1	9.7															
MW-230S	June-98	<1	<0.01	52	14	0.011	14	0.35	3	9.1	5.3	<0.06	<0.01	<0.01	<0.2	0.015	<0.02	0.017	<0.05	<0.01	<0.03	0.08	<0.01	<0.03	<0.0002
MW-230S	Sept-98		<0.01	77	16	0.019	15	0.61	4.1	8.8															
MW-230S	Dec-98		<0.01	73	9.3	<0.01	11	0.37	<1	7.2															
MW-230S	Apr-99	Location Not Sampled																							
MW-230S	Jun-99	Location Not Sampled																							
MW-230S	Sept-99	Location Not Sampled																							
MW-230S	Dec-99	<.5	<0.01	8.6	18	<0.01	17	0.78	2	7.1	7.3	<0.01	<0.01	<0.01	<.2	0.012	0.024	0.02	0.071	<0.01	<0.01	0.058	<0.01	<0.01	<.0002
MW-230S	Apr-00	<0.048	<0.0050	59	8.82	0.006	11.5	0.396	2.77	8.94	4.65	<0.050	0.007	<0.002	0.09	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	0.042	<0.010	0.012	<0.0002
MW-230S	Jun-00	Location Not Sampled																							
MW-230S	Sep-00	Location Not Sampled																							
MW-230S	Dec-00	Location Not Sampled																							

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
Standards and Guidance Values																									
MW-230D	Nov-89		<0.010	20.9	1.63	0.0042		0.107		15.1	0.998	<0.060	<0.010	<0.005	<0.2	<0.010	<0.025	<0.04	<0.005	<0.01	<0.010	0.202			<0.0002
MW-230D	Feb-90		<0.010		0.289	<0.003		0.106					<0.010												
MW-230D	Apr-90		<0.010		0.188	<0.003		0.17					<0.010												
MW-230D	Nov-90		<0.01	28	1.6	<0.020	6.6	0.16	1.2	22	0.93	<0.060	<0.020	<0.01	0.06	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	0.08			<0.001
MW-230D	Feb-91		<0.010	27.5	0.383	<0.020	6.27	0.123	0.913	22.6															
MW-230D	May-91		<0.010	27.5	0.099	<0.020	6.01	0.118	0.915	22.1															
MW-230D	Aug-91		<0.010	25.7	0.234	<0.020	5.84	0.12	1.01	21.6															
MW-230D	Nov-91		<0.010	23.6	0.258	<0.020	5.3	0.14	0.66	22.6															
MW-230D	Feb-92		<0.010	26.1	0.96	<0.020	5.88	0.144	1.1	17.7	0.7	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.058			<0.001
MW-230D	May-92		<0.010	24.5	0.281	<0.020	5.49	0.111	0.62	19.9															
MW-230D	Aug-92		<0.010	22	0.291	<0.020	5.24	0.115	1.48	17.7															
MW-230D	Dec-92		<0.010	20.8	0.217	<0.020	4.9	0.084	0.85	22.9															
MW-230D	Feb-93		<0.010	18.6	0.7	<0.020	4.6	0.144	1.07	23.6															
MW-230D	May-93		<0.010	22.7	0.43	0.007	5.23	0.099	1.23	25	0.49	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	<0.010			<0.010
MW-230D	Aug-93		<0.010	19	0.607	0.005	6.68	0.142	<0.50	28.7															
MW-230D	Dec-93		<0.010	24	0.707	0.006	6.4	0.163	1.07	23.9															
MW-230D	Feb-94		<0.010	23	0.838	<0.005	6	0.106	0.92	22.1															
MW-230D	May-94		<0.010	21.2	0.6	<0.005	5.93	0.12	0.79	21.9															
MW-230D	Aug-94		<0.010	25	0.4	<0.005	5.6	0.14	0.94	17.5	0.34	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	0.16	<0.005	<0.020	<0.005	0.035			<0.001
MW-230D	Nov-94		<0.010	19.1	0.23	<0.005	5.48	0.12	0.76	22.1															
MW-230D	March-95		<0.010	22.8	0.44	<0.005	5.8	0.099	0.92	21.8															
MW-230D	June-95		<0.010	24.8	0.16	<0.005	5.76	0.13	1.21	19.2															
MW-230D	Sept-95		<0.010	23.7	0.16	<0.005	5.7	0.13	1.09	21.3															
MW-230D	Nov-95		<0.010	18.1	0.46	<0.005	5.38	0.12	1.04	23.2	0.3	<0.060	<0.020	<0.010	0.27	<0.020	0.025	<0.040	<0.005	<0.020	<0.005	0.062			<0.001
MW-230D	April-96		<0.002	27	0.14	<0.01	6.1	0.78	1.2	26	0.48	<0.1	<0.01	<0.003	<0.2	<0.01	<0.02	<0.01	<0.1	<0.01	<0.03	0.085			<0.0002
MW-230D	June-96		<0.01	25	1.4	<0.01	6	0.14	1.1	21															
MW-230D	Sept-96		<0.01	26	0.9	<0.01	6	0.13	0.88	21															
MW-230D	Nov-96		<0.01	25	3.2	<0.01	6.6	0.16	1.1	19															
MW-230D	Mar-97		<0.01	25	4	0.013	6.8	0.21	1.6	15	2.4	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.098			<0.0004
MW-230D	June-97		<0.01	24	1	<0.01	5.8	0.15	<1	13															
MW-230D	Sept-97		<0.01	25	0.86	<0.01	5.6	0.16	<1	21															
MW-230D	Dec-97		<0.01	25	1	<0.01	5.9	0.2	1	23															
MW-230D	Mar-98		<0.01	23	0.69	<0.01	5.6	0.13	<1	23															
MW-230D	June-98	<1	<0.01	29	5.8	<0.01	8.6	0.29	1.9	23	3.1	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	<0.01	0.05	<0.01	<0.03	0.076	<0.01	<0.03	<0.0002
MW-230D	Sept-98		<0.01	30	6.1	0.034	8.6	0.43	2.5	21															
MW-230D	Dec-98		<0.01	27	5.9	<0.01	5.7	0.17	<1	18															
MW-230D	Apr-99	Location Not Sampled																							
MW-230D	Jun-99	Location Not Sampled																							
MW-230D	Sept-99	Location Not Sampled																							
MW-230D	Dec-99	<.5	<.01	29	1.8	<.01	6.8	0.19	<1	20	0.78	<.01	<.01	<.01	<.2	<.01	0.015	<.01	0.057	<.01	0.022	0.044	<.01	<.01	<.0002
MW-230D	Apr-00	0.069	<0.0050	26.1	0.285	<0.001	6	0.106	0.865	21.9	0.099	<0.050	0.004	<0.002	0.038	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	0.028	<0.010	<0.010	<0.0002
MW-230D	Jun-00	Location Not Sampled																							
MW-230D	Sep-00	Location Not Sampled																							
MW-230D	Dec-00	Location Not Sampled																							

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Tb (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-232S	Nov-89		<0.010	80.1	18.9	0.0117		0.7		2.59	9.2	<0.06	<0.010	<0.005	<0.2	0.015	0.026	<0.04	<0.005	<0.01	<0.01	0.102			<0.0002
MW-232S	Feb-90		<0.010		3.5	<0.003		0.263					<0.010												
MW-232S	Apr-90		<0.010		0.434	<0.003		0.189					<0.010												
MW-232S	Nov-90		<0.01	67	15	<0.020	14	1.7	4.2	2.3	9.5	<0.060	<0.020	<0.01	0.12	<0.03	0.02	<0.04	<0.005	<0.02	<0.010	0.06			<0.001
MW-232S	Feb-91		<0.010	79.1	4.95	<0.020	14.2	0.646	2.34	2.03															
MW-232S	May-91		<0.010	68.1	6.43	<0.020	12.5	1.23	2.44	2.29															
MW-232S	Aug-91		<0.010	84.2	6.69	<0.020	15.4	1.05	2.66	2.97															
MW-232S	Nov-91		<0.010	87.6	45	<0.020	22.4	1.43	7.29	3.05															
MW-232S	Feb-92		<0.010	90.1	28.8	<0.020	22.3	1.23	5.2	2.71	19.4	<0.060	<0.020	<0.010	0.15	<0.020	0.029	<0.040	<0.005	<0.020	<0.010	0.096			<0.001
MW-232S	May-92		<0.010	90.1	1.59	<0.020	14.9	0.35	1.07	1.93	1.13	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010				<0.001
MW-232S	Aug-92		<0.010	78.7	3.52	<0.020	15.5	0.654	2.74	2.35															
MW-232S	Dec-92		<0.010	93.5	4.47	<0.020	19	0.622	3.34	2.89															
MW-232S	Feb-93		<0.010	76.7	13.2	<0.020	18.2	0.941	3.62	2.5															
MW-232S	May-93		<0.010	116	3.61	0.007	21.3	0.667	2.83	3.93	3.25	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.022			0.667
MW-232S	Aug-93		<0.010	167	10.8	0.007	43.2	1.01	2.83	7.07															
MW-232S	Dec-93		<0.010	150	8.1	<0.005	33.5	1.26	3.59	3.74															
MW-232S	Feb-94		<0.010	125	5.86	<0.005	24	0.908	2.37	3.58															
MW-232S	May-94		<0.010	118	1.69	0.01	30	0.88	1.59	5.77															
MW-232S	Aug-94		<0.010	146	0.18	<0.005	33.2	1.22	2.42	3.19	<0.20	<0.060	<0.020	<0.010	<0.10	<0.020	0.032	0.073	<0.005	<0.020	<0.005	0.035			<0.001
MW-232S	Nov-94		<0.010	128	0.13	<0.005	35.2	1.03	2.3	3.29															
MW-232S	March-95		<0.010	127	2.05	<0.005	27	0.78	2.37	2.7															
MW-232S	June-95		<0.010	152	0.98	<0.005	34.4	1.17	2.3	3.17															
MW-232S	Sept-95		<0.010	183	2.59	<0.005	39.2	1.32	2.95	3.03															
MW-232S	Nov-95		<0.010	118	5.32	<0.005	26.6	0.77	2.96	7.52	3.13	<0.060	<0.020	<0.010	0.12	<0.020	0.038	<0.040	<0.005	<0.020	<0.005	0.14			<0.001
MW-232S	April-95		<0.002	230	5.6	<0.01	25	1.6	3.8	4.8	2.3	<0.1	<0.01	<0.003	<0.2	<0.01	<0.02	<0.01	<0.01	<0.01	<0.03	0.045			<0.0002
MW-232S	June-96		<0.01	190	7.4	<0.01	26	1.7	3.2	3.5															
MW-232S	Sept-96		<0.01	170	8.5	<0.01	27	1.4	3.7	3.2															
MW-232S	Nov-96		<0.01	150	5.4	<0.01	19	1.4	2.8	2.4															
MW-232S	Mar-97		<0.01	170	18	0.023	23	1.7	4	2	7.2	<0.06	<0.01	<0.01	<0.2	0.013	0.022	0.014	<0.05	<0.01	<0.03	0.094			<0.0004
MW-232S	June-97		<0.01	170	33	0.021	33	2	6.4	1.8															
MW-232S	Sept-97		<0.01	160	31	0.024	34	2	6.4	3.1															
MW-232S	Dec-97		<0.01	180	23	0.016	32	1.9	5.2	3.2															
MW-232S	Mar-98		<0.01	150	17	0.01	33	1.2	4.4	3.3															
MW-232S	June-98	<1	<0.01	200	51	0.036	41	2.8	8.3	3.4	23	<0.06	0.076	<0.01	0.21	0.041	0.074	0.048	<0.05	<0.01	<0.03	0.23	0.023	0.032	<0.0002
MW-232S	Sept-98		<0.01	190	31	0.018	35	2	6.8	2.9															
MW-232S	Dec-98		<0.01	270	70	0.024	38	3.7	<1	3.2															
MW-232S	Apr-99	Location Not Sampled																							
MW-232S	Jun-99	Location Not Sampled																							
MW-232S	Sept-99	Location Not Sampled																							
MW-232S	Dec-99	Location Not Sampled																							
MW-232S	Apr-00	Location Not Sampled																							
MW-232S	Jun-00		<0.0050	153	5.87	0.005	26.1	1.56	2.19	2.49															
MW-232S	Sep-00		<0.005	161	5.32	0.006	25.4	1.39	1.66	2.47															
MW-232S	Dec-00		<0.005	151	3.05	0.001	25.3	1.34	1.74	2.83															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Cu (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-232D	Nov-89		<0.010	44.9	0.178	<0.003		<0.015		148	0.279	<0.06	<0.010	<0.005	<0.2	<0.01	<0.025	<0.04	<0.005	<0.01	<0.01	0.031			<0.0002
MW-232D	Feb-90		<0.010		0.317	<0.003		<0.015					<0.010												
MW-232D	Apr-90		<0.010		0.223	<0.003		<0.015					<0.010												
MW-232D	Nov-90		<0.01	38	0.55	0.03	9.4	0.02	7.4	140	0.26	<0.060	<0.020	<0.01	0.02	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	0.03			<0.001
MW-232D	Feb-91																								
MW-232D	May-91		<0.010	32.6	0.424	<0.020	6.76	0.012	6.89	87.9															
MW-232D	Aug-91		<0.010	38.3	0.296	<0.020	10.4	0.013	5.25	144															
MW-232D	Nov-91		<0.010	36.8	0.277	<0.020	9.7	0.031	3.79	152															
MW-232D	Feb-92		<0.010	38.5	0.419	<0.020	10.6	0.029	5.21	77.1	0.28	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.035			<0.001
MW-232D	May-92		<0.010	94.8	4.52	<0.020	32.3	0.093	2.75	178															
MW-232D	Aug-92		<0.010	59.9	2.22	<0.020	8.8	0.079	11.3	9.08															
MW-232D	Dec-92		<0.010	56.6	0.881	<0.020	16.7	0.033	5.71	162															
MW-232D	Feb-93		<0.010	31.9	0.235	<0.020	8.8	<0.020	4.41	141															
MW-232D	May-93		<0.010	41.6	0.27	<0.005	11.7	<0.020	3.65	164	<0.20	<0.060	<0.020	<0.010	<0.10	<0.020	0.023	<0.040	<0.005	<0.020	<0.010	<0.020			<0.001
MW-232D	Aug-93		<0.010	38.2	0.668	<0.005	17.8	<0.020	2.74	275															
MW-232D	Dec-93		<0.010	48.4	0.363	0.007	16	0.032	4.36	153															
MW-232D	Feb-94		<0.010	42.2	0.627	<0.005	14	0.022	3.19	147															
MW-232D	May-94		<0.010	35.4	0.33	<0.005	14.6	0.021	3.77	135															
MW-232D	Aug-94		<0.010	73.6	0.41	<0.005	27.1	0.03	4	163	<0.20	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	0.081	<0.005	<0.020	<0.005	<0.020			<0.001
MW-232D	Nov-94		<0.010	34.6	0.21	<0.005	14.7	0.032	3.5	135															
MW-232D	March-95		<0.010	38	1.36	0.005	16	0.44	11.4	32															
MW-232D	June-95		<0.010	35.7	0.48	<0.005	14.6	0.13	5.68	87															
MW-232D	Sept-95		<0.010	43.8	0.27	<0.005	16.3	0.094	4.75	129															
MW-232D	Nov-95		<0.010	37.2	1.4	0.007	15.8	0.12	4.4	156	0.27	<0.060	<0.020	<0.010	0.27	<0.020	0.057	<0.040	<0.005	<0.020	<0.005	0.22			<0.001
MW-232D	April-96	No Sample Taken																							
MW-232D	June-96	No Sample Taken																							
MW-232D	Sept-96	No Sample Taken																							
MW-232D	Nov-96	No Sample Taken																							
MW-232D	Mar-97	No Sample Taken																							
MW-232D	June-97		<0.01	37	7.3	<0.01	14	0.32	6.5	10															
MW-232D	Sept-97	No Sample Taken																							
MW-232D	Dec-97	No Sample Taken																							
MW-232D	Mar-98	No Sample Taken																							
MW-232D	June-98	No Sample Taken																							
MW-232D	Sept-98		<0.01	33	3.3	<0.01	13	0.26	2.1	2.8															
MW-232D	Dec-98		<0.01	46	3	<0.01	13	0.16	<1	21															
MW-232D	Apr-99	Location Not Sampled																							
MW-232D	Jun-99	Location Not Sampled																							
MW-232D	Sept-99	Location Not Sampled																							
MW-232D	Dec-99	Location Not Sampled																							
MW-232D	Apr-00	Location Not Sampled																							
MW-232D	Jun-00	Location Not Sampled																							
MW-232D	Sep-00	Location Not Sampled																							
MW-232D	Dec-00	Location Not Sampled																							

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Cu (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-233S	Nov-90	<0.01	140	20	0.022	50	1.4	4.7	5	12	<0.060	<0.020	<0.01	0.12	<0.03	0.05	<0.04	<0.005	<0.02	<0.010	0.07			<0.001	
MW-233S	Feb-91	<0.010	119	5.2	<0.020	44.4	0.886	2.53	4.5																
MW-233S	May-91	<0.010	116	2.14	<0.020	45.5	0.803	2.3	4.94																
MW-233S	Aug-91	<0.010	127	4.58	<0.020	76.9	1.02	3.84	6.49																
MW-233S	Nov-91	<0.010	106	8.38	<0.020	35.4	0.857	2.82	4.97																
MW-233S	Feb-92	<0.010	109	7.85	<0.020	46.7	0.956	2.37	4.74	4.7	<0.060	<0.020	<0.010	0.12	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.027			<0.001	
MW-233S	May-92	<0.010	114	0.571	<0.020	46.5	0.745	1.47	4.41																
MW-233S	Aug-92	<0.010	118	0.197	<0.020	49	0.794	2.68	3.5																
MW-233S	Dec-92	<0.010	131	2.87	<0.020	54	0.774	2.9	5.61																
MW-233S	Feb-93	<0.010	153	11.7	<0.020	78.6	1.91	4.34	5.17																
MW-233S	May-93	<0.010	161	5.83	<0.005	45.9	2.91	1.88	2.21	<0.20	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	<0.020			<0.001	
MW-233S	Aug-93	<0.010	213	2	<0.005	93.8	1.47	2.29	7.01																
MW-233S	Dec-93	<0.010	217	2.89	<0.005	87	1.9	3.34	4.86																
MW-233S	Feb-94	<0.010	142	18.5	<0.005	75	1.57	5.22	3.6																
MW-233S	May-94	<0.010	112	4.8	<0.005	65.8	2.16	1.6	4.26																
MW-233S	Aug-94	<0.010	112	0.73	<0.005	57.4	1.27	2.62	2.07	0.41	<0.060	<0.020	<0.010	<0.10	<0.020	0.03	0.082	<0.005	<0.020	<0.005	0.078			<0.001	
MW-233S	Nov-94	<0.010	76	0.19	<0.005	50.8	0.83	1.88	3.4																
MW-233S	March-95	<0.010	220	1.75	<0.005	84	2.68	2.71	2.2																
MW-233S	June-95	<0.010	170	0.63	<0.005	81.8	1.58	2.07	2.36																
MW-233S	Sept-95	<0.010	160	3.61	<0.005	73.6	1.1	2.57	3.32																
MW-233S	Nov-95	<0.010	133	0.57	<0.005	34.8	1.21	2.82	1.85	0.26	<0.060	<0.020	<0.010	0.11	<0.020	0.025	<0.040	<0.005	<0.020	<0.005	0.031			<0.001	
MW-233S	April-96	<0.002	86	1.3	<0.01	12	0.54	1.3	2.2	0.21	<0.01	<0.01	<0.003	<0.2	<0.01	<0.02	<0.01	<0.1	<0.01	<0.03	0.023			<0.0002	
MW-233S	June-96	<0.01	84	1.2	<0.01	13	0.83	1.4	2.5																
MW-233S	Sept-96	<0.01	150	2.4	<0.01	20	2.7	2.5	6.6																
MW-233S	Nov-96	<0.01	140	2.7	0.016	19	1.6	2.1	3.3																
MW-233S	Mar-97	<0.01	170	1.8	<0.01	26	1.2	2.8	2.2	0.42	<0.06	0.011	<0.01	<0.2	<0.01	<0.01	<0.01	<0.05	<0.01	<0.03	0.039			<0.0004	
MW-233S	June-97	<0.01	170	1.9	<0.01	38	1.3	2.4	2.7																
MW-233S	Sept-97	<0.01	170	2	<0.01	39	1.7	3	3.3																
MW-233S	Dec-97	<0.01	180	3.5	<0.01	55	1.6	3.3	5.5																
MW-233S	Mar-98	<0.01	200	2.2	<0.01	44	2.6	3.3	3.8																
MW-233S	June-98	<1	<0.01	260	7.6	<0.01	35	8.8	2.1	5.8	0.48	<0.06	<0.01	<0.01	<0.2	<0.01	0.021	<0.01	<0.05	<0.01	<0.03	0.044	0.013	<0.03	<0.0002
MW-233S	Sept-98	<0.01	210	5	<0.01	60	2.6	4.4	3.3																
MW-233S	Dec-98	<0.01	210	12	<0.01	92	2.2	<1	3																
MW-233S	Jun-00	<0.005	219	1.21	0.006	86.3	2.32	2.44	2.9																
MW-233S	Sep-00	<0.005	242	0.842	0.006	96.9	2.3	2.59	2.48																
MW-233S	Dec-00	<0.005	135	0.124	<0.001	35.5	0.744	1.76	2.4																

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-234S	Nov-89		<0.01	112	58	0.0284		1.68		4.42	27.4	<0.06	0.0131	<0.005	0.275	0.042	0.084	0.056	<0.005	<0.01	<0.01	0.175			0.00029
MW-234S	Feb-90		<0.01		5.09	<0.3		0.41					<0.01												
MW-234S	Apr-90		<0.01		5.57	<0.3		0.461					<0.01												
MW-234S	Nov-90		<0.01	81	4.4	<0.020	13	0.46	1.5	4	3.1	<0.060	<0.020	<0.01	0.12	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	0.08			<0.001
MW-234S	Feb-91		<0.010	82.5	1.21	<0.020	12.1	0.381	0.776	3.66															
MW-234S	May-91		<0.010	83.1	0.806	<0.020	11.7	0.374	0.8	3.78															
MW-234S	Aug-91		<0.010	80.9	3.33	<0.020	12.4	0.444	1.25	3.64															
MW-234S	Nov-91		<0.010	74	3.35	<0.020	10.4	0.404	1.23	3.9															
MW-234S	Feb-92		<0.010	97.5	0.975	<0.020	16.6	0.559	0.94	3.82	0.79	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	0.047	<0.010	<0.020			<0.001
MW-234S	May-92		<0.010	78.2	3.74	<0.020	12.7	0.432	0.98	2.27															
MW-234S	Aug-92		<0.010	68.3	2.47	<0.020	10.7	0.346	1.35	2.47															
MW-234S	Dec-92		<0.010	69.2	5.84	<0.020	11.7	0.331	2.35	4.15															
MW-234S	Feb-93		<0.010	54.4	9.1	0.035	12.1	0.574	2.25	3.73															
MW-234S	May-93		<0.010	68.2	7.86	0.008	11.6	0.466	2.5	4.56	5.4	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.048			<0.001
MW-234S	Aug-93		<0.010	69.9	9.25	0.009	16.1	0.423	1.6	6.63															
MW-234S	Dec-93		<0.010	76.6	11.9	0.008	16.6	0.695	3.14	4.49															
MW-234S	Feb-94		<0.010	79.7	7.91	<0.005	14	0.337	1.93	4															
MW-234S	May-94		<0.010	91.1	3.36	0.071	14.4	0.48	1.05	5.84															
MW-234S	Aug-94		<0.010	104	0.2	<0.005	15.8	0.48	1.21	3.18	0.26	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	0.075	<0.005	<0.020	<0.005	<0.020			<0.001
MW-234S	Nov-94		<0.010	62	0.66	<0.005	12	0.42	0.96	3.99															
MW-234S	March-95		<0.010	91	2.19	<0.005	18	0.59	1.86	3.2															
MW-234S	June-95		<0.010	80.5	1.88	<0.005	14.2	0.55	1.02	2.9															
MW-234S	Sept.-95		<0.010	80.9	5.05	<0.005	14.2	0.56	1.43	2.86															
MW-234S	Nov-95		<0.010	71.4	2.04	<0.005	16.2	0.58	1.09	3.85	1.02	<0.060	<0.020	0.01	0.16	<0.020	0.027	<0.040	<0.005	<0.020	<0.005	0.078			<0.001
MW-234S	April-96		<0.002	95	3.4	0.019	14	0.31	1.6	5	1.9	<0.1	<0.01	<0.003	<0.2	<0.01	<0.02	<0.01	<0.1	<0.01	<0.03	0.082			<0.0002
MW-234S	June-96		<0.01	120	6.9	<0.01	18	0.72	1.7	3.7															
MW-234S	Sept-96		<0.01	130	20	0.028	24	1.3	3.3	4.3															
MW-234S	Nov-96		<0.01	120	0.46	<0.01	18	0.6	<1	3.5															
MW-234S	Mar-97		<0.01	140	17	0.028	23	1	3.7	3.4	9.4	<0.06	<0.01	<0.01	<0.2	0.015	0.033	0.016	<0.05	<0.01	<0.03	0.086			<0.0004
MW-234S	June-97		<0.01	140	28	0.025	27	1.3	4.8	3.2															
MW-234S	Sept-97		<0.01	120	7.8	0.013	21	0.89	2.3	4.2															
MW-234S	Dec-97		<0.01	130	23	0.019	27	1.2	5.3	4.9															
MW-234S	Mar-98		<0.01	160	24	0.02	32	1.4	5.1	4.9															
MW-234S	June-98	<1	<0.01	140	12	0.016	29	1.1	3.1	4.7	6	<0.06	0.016	<0.01	0.26	0.01	<0.02	0.016	<0.05	<0.01	<0.03	0.11	<0.01	<0.03	0.00027
MW-234S	Sept-98		<0.01	130	19	0.02	28	1.1	4.4	3.8															
MW-234S	Dec-98		<0.01	130	26	0.015	26	1.2	<1	3.7															
MW-234S	Apr-99		<0.01	140	39	0.025	32	1.6	4.1	4															
MW-234S	Jun-99		<0.01	160	38	0.02	34	1.7	3.6	4.4															
MW-234S	Sept-99		<0.01	120	28	<0.01	24	1.2	3.6	3.9															
MW-234S	Dec-99	<.5	<0.01	130	30	0.012	30	1.6	3.1	4.1	13	<0.01	<0.01	<0.01	0.71	0.02	0.047	0.037	0.043	<0.01	<0.01	0.087	0.013	0.017	<0.0002
MW-234S	Apr-00	<0.048	<0.0050	109	0.788	<0.001	19.3	0.551	0.984	3.47	0.555	<0.050	0.005	<0.002	0.088	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
MW-234S	Jun-00		<0.0050	117	0.403	0.001	20.9	0.636	0.684	3.58															
MW-234S	Sep-00		<0.005	110	0.519	0.006	19.6	0.594	0.549	3.04															
MW-234S	Dec-00		<0.005	105	0.312	<0.001	18.1	0.56	0.662	3.41															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
Standards and Guidance Values																									
MW-234D	Nov-89		<0.01	30	0.799	<0.003		0.0432		21.1	0.483	<0.06	<0.01	<0.005	<0.2	<0.04	<0.025	<0.04	<0.005	<0.01	<0.01	0.039			<0.0002
MW-234D	Feb-90		<0.01		1.1	<0.003		0.333					<0.01												
MW-234D	Apr-90		<0.01		0.777	<0.003		0.126					<0.01												
MW-234D	Nov-90		<0.01	87	0.39	<0.020	16	0.36	4.5	19	<0.2	<0.060	<0.020	<0.01	0.06	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	0.04			<0.001
MW-234D	Feb-91		<0.010	89.9	0.323	<0.020	15.9	0.368	2.31	19.1															
MW-234D	May-91		<0.010	92.4	0.341	<0.020	16.4	0.367	2.49	19.4															
MW-234D	Aug-91		<0.010	87.3	0.309	<0.020	15.1	0.34	3.17	14.5															
MW-234D	Nov-91		<0.010	84.9	0.189	<0.020	12.7	0.309	2.17	14															
MW-234D	Feb-92		<0.010	87.5	0.563	<0.020	15.9	0.418	1.95	11.7	0.49	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	0.043	<0.010	0.032			<0.001
MW-234D	May-92		<0.010	98.6	2.04	<0.020	20.6	0.49	1.86	18.9															
MW-234D	Aug-92		<0.010	75.8	0.3	<0.020	13.5	0.334	1.88	11															
MW-234D	Dec-92		<0.010	101	3.49	<0.020	25	0.363	2.54	18.3															
MW-234D	Feb-93		<0.010	69	0.951	<0.020	12.9	0.374	2.06	17.4															
MW-234D	May-93		<0.010	84	0.631	<0.005	14.9	0.363	1.85	21.5	0.32	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.023			<0.001
MW-234D	Aug-93		<0.010	87	0.784	<0.005	20.5	0.331	1.61	28.3															
MW-234D	Dec-93		<0.010	92	0.602	<0.005	19	0.439	2.31	18.1															
MW-234D	Feb-94		<0.010	83.6	1.29	<0.005	18	0.418	3.99	18.5															
MW-234D	May-94		<0.010	91.6	0.45	0.006	17.4	0.36	3.41	18.8															
MW-234D	Aug-94		<0.010	98.5	0.25	<0.005	18.4	0.58	2.7	15.8	<0.20	<0.060	<0.020	<0.010	<0.10	<0.020	0.029	0.085	<0.005	<0.020	<0.005	0.028			<0.001
MW-234D	Nov-94		<0.010	84.5	0.42	<0.005	21.8	0.35	1.35	22.4															
MW-234D	March-95		<0.010	85.5	0.27	<0.005	16	0.39	2.25	13.5															
MW-234D	June-95		<0.010	91.5	0.14	<0.005	19	0.52	2.28	16.7															
MW-234D	Sept.-95		<0.010	97.8	0.23	<0.005	19.1	0.51	2.09	18.3															
MW-234D	Nov-95		<0.010	65.5	0.3	<0.005	15.8	0.38	1.96	18.4	<0.20	<0.060	<0.020	0.011	0.27	<0.020	0.027	<0.040	<0.005	<0.020	<0.005	0.041			<0.001
MW-234D	April-96		<0.002	66	0.48	<0.01	11	0.15	7.8	21	0.2	<0.1	<0.01	<0.003	<0.2	<0.01	<0.02	<0.01	<0.1	<0.01	<0.03	0.044			<0.0002
MW-234D	June-96		<0.01	99	0.48	<0.01	17	0.49	2.2	18															
MW-234D	Sept-96		<0.01	92	0.42	<0.01	17	0.46	1.9	16															
MW-234D	Nov-96		<0.01	83	0.48	<0.01	14	0.4	2.6	13															
MW-234D	Mar-97		<0.01	62	1.2	0.012	11	0.26	8.6	12	0.41	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.12			<0.0004
MW-234D	June-97		<0.01	64	1.3	<0.01	13	0.29	8.3	14															
MW-234D	Sept-97		<0.01	64	1.3	0.011	14	0.23	10	20															
MW-234D	Dec-97		<0.01	53	0.33	0.023	10	0.2	12	21															
MW-234D	Mar-98		<0.01	70	1.5	<0.01	15	0.26	9	18															
MW-234D	June-98	<1	<0.01	88	2	<0.01	20	0.46	2.4	12	0.96	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.17	<0.01	<0.03	<0.0002
MW-234D	Sept-98		<0.01	130	2.7	0.016	32	0.85	3.5	31															
MW-234D	Dec-98		<0.01	140	3.2	<0.01	31	0.88	<1	31															
MW-234D	Apr-99		<0.01	88	3.2	<0.01	21	0.34	6.6	19															
MW-234D	Jun-99		<0.01	99	2.7	<0.01	20	0.39	9.6	28															
MW-234D	Sept-99		<0.01	130	2.8	<0.01	29	0.73	2.7	34															
MW-234D	Dec-99	<.5	<0.01	120	2.6	<0.01	28	0.58	2.9	20	0.73	<0.01	<0.01	<0.01	<.2	<0.01	<0.01	<0.01	0.052	<0.01	<0.01	0.012	<0.01	<0.01	<0.0002
MW-234D	Apr-00	0.053	<0.0050	70.4	0.312	<0.001	12.6	0.019	8.97	19.1	0.157	<0.050	0.004	<0.002	0.077	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	0.02	<0.010	<0.010	<0.0002
MW-234D	Jun-00		<0.0050	103	0.721	0.002	19.7	0.461	1.32	15.7															
MW-234D	Sep-00		<0.005	102	0.714	0.005	19.3	0.446	1.16	15.8															
MW-234D	Dec-00		<0.005	96.3	0.499	0.001	16.8	0.369	1.33	11.2															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Clear GA Groundwater Quality Standards and Guidance Values:		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-235S	Nov-89		<0.010	138	39.4	0.0198		2.03		14	15.7	<0.06	0.0574	<0.005	0.213	0.0231	0.0493	<0.04	<0.005	<0.01	<0.01	0.113			0.0064
MW-235S	Feb-90		<0.010		37.8	<0.003		1.1					0.0448												
MW-235S	Apr-90		<0.010		7.7	0.0036		0.984					0.0481												
MW-235S	Nov-90		<0.01	100	4.7	<0.020	23	0.99	1.2	12	0.93	<0.060	0.039	<0.01	0.15	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	0.07			<0.001
MW-235S	Feb-91		<0.010	105	12.9	<0.020	25.9	1.15	2.69	12.1															
MW-235S	May-91		<0.010	92.8	4.51	<0.020	21.9	0.912	1.27	11															
MW-235S	Aug-91		<0.010	100	6.83	<0.020	23.8	1.02	1.39	11.2															
MW-235S	Nov-91		<0.010	96.9	6.39	<0.020	19.8	0.952	1.3	11.5															
MW-235S	Feb-92		<0.010	109	5.25	<0.020	23.8	1.02	1.9	12.2	2.86	<0.060	0.04	<0.010	0.17	<0.020	<0.020	<0.040	<0.005	0.042	<0.010	<0.020			<0.001
MW-235S	May-92		<0.010	122	3.04	<0.020	20.7	1.12	0.91	12.3															
MW-235S	Aug-92		<0.010	88.3	4.53	<0.020	20.6	0.828	1.79	8.73															
MW-235S	Dec-92		<0.010	91	7.94	<0.020	21.1	0.746	2.38	11.7															
MW-235S	Feb-93		<0.010	77.6	9.17	<0.020	19.5	1.04	2.38	11.8															
MW-235S	May-93		<0.010	91.3	7.52	0.007	21.2	0.679	1.82	11.3	2.1	<0.060	0.034	<0.010	0.26	<0.020	<0.020	<0.040	0.005	<0.020	<0.010	<0.020			<0.001
MW-235S	Aug-93		<0.010	100	7.57	0.006	28.8	0.807	1.13	14.9															
MW-235S	Dec-93		<0.010	104	10.4	0.005	29.1	1.22	2.54	12.4															
MW-235S	Feb-94		<0.010	93.5	6.5	<0.005	25	1.03	1.58	10.5															
MW-235S	May-94		<0.010	111	6.32	<0.005	25.2	0.94	0.84	11.9															
MW-235S	Aug-94		<0.010	118	6.8	<0.005	26.1	1.06	1.42	7.32	0.58	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	0.081	<0.005	<0.020	<0.005	<0.020			<0.001
MW-235S	Nov-94		<0.010	84.5	4.49	<0.005	24.8	1	3.56	11.2															
MW-235S	March-95		<0.010	104	5.56	<0.005	26.5	1.13	1.65	10.6															
MW-235S	June-95		<0.010	102	4.42	<0.005	25.1	1.19	1.12	10															
MW-235S	Sept-95		<0.010	110	4.94	<0.005	26.3	1.14	1.45	5.1															
MW-235S	Nov-95		<0.010	91	6.62	<0.005	28.4	1.15	7.26	13.3	1.53	<0.060	0.043	<0.010	0.42	<0.020	0.03	<0.040	<0.005	<0.020	<0.005	0.077			<0.001
MW-235S	April-96		<0.002	130	11	0.012	22	1.2	3.3	13	3.8	<0.1	0.021	<0.003	<0.2	<0.01	<0.02	<0.01	<0.1	<0.01	<0.03	0.076			<0.0002
MW-235S	June-96		<0.01	48	0.81	<0.01	11	0.53	2.5	20															
MW-235S	Sept-96		<0.01	130	24	0.02	27	1.6	3.5	10															
MW-235S	Nov-96		<0.01	110	5.1	<0.01	22	1.2	1.5	10															
MW-235S	March-97		<0.01	120	9.3	0.015	23	1.1	2.5	6.5	3.6	<0.06	0.015	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.077			<0.0004
MW-235S	June-97		<0.01	120	14	0.023	30	1.4	3.2	9.9															
MW-235S	Sept-97		<0.01	130	12	0.01	32	1.4	2.5	12															
MW-235S	Dec-97		<0.01	120	10	<0.01	29	1.3	2.7	12															
MW-235S	Mar-98		<0.01	150	16	0.013	34	1.5	4.9	12															
MW-235S	June-98	<1	<0.01	140	18	0.013	37	1.6	3.2	12	4.9	<0.06	0.077	<0.01	0.24	0.01	<0.02	0.013	<0.05	<0.01	<0.03	0.091	<0.01	<0.03	<0.0002
MW-235S	Sept-98		<0.01	160	17	<0.01	40	1.5	4.2	9.3															
MW-235S	Dec-98		<0.01	180	18	<0.01	42	1.8	<1	10															
MW-235S	Jun-00		<0.0050	183	13.7	0.002	42.3	1.37	1.46	8.67															
MW-235S	Sep-00		<0.005	187	13.9	0.004	42.3	1.31	1.19	7.97															
MW-235S	Dec-00		<0.005	187	14.8	0.001	41.3	1.25	1.44	7.53															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
Standards and Guidance Values																									
MW-235D	Nov-89		<0.010	59.8	0.72	<0.003		0.231		48.5	0.329	<0.06	<0.01	<0.005	<0.2	<0.01	<0.025	<0.04	<0.005	<0.01	<0.01	0.0215			<0.0002
MW-235D	Feb-90		<0.010		1.33	<0.003		0.421					<0.01												
MW-235D	Apr-90		<0.010		6.88	0.004		3.16					<0.01												
MW-235D	Nov-90		<0.01	93	1.6	<0.020	19	2.6	1.3	8.5	0.25	<0.060	<0.020	<0.01	0.11	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	0.05			<0.001
MW-235D	Feb-91		<0.010	105	0.418	<0.020	22	0.175	1.14	5.64															
MW-235D	May-91		<0.010	103	0.679	<0.020	20.5	0.871	1.03	4.08															
MW-235D	Aug-91		<0.010	103	1.35	<0.020	21.1	0.78	1.27	4.38															
MW-235D	Nov-91		<0.010	85.8	1.29	<0.020	15.1	1.65	0.87	3.96															
MW-235D	Feb-92		<0.010	86	1.38	<0.020	19.3	1.74	1.09	4.51	0.49	<0.060	<0.020	<0.010	0.14	<0.020	<0.020	<0.040	<0.005	0.035	<0.010	0.052			<0.001
MW-235D	May-92		<0.010	98.7	1.3	<0.020	20.7	0.938	0.85	3.09															
MW-235D	Aug-92		<0.010	76.3	0.584	<0.020	16.5	0.545	1.44	5.21															
MW-235D	Dec-92		<0.010	111	4.18	<0.020	26	1.47	2.23	5.87															
MW-235D	Feb-93		<0.010	65.5	1.69	<0.020	16.5	1.58	1.49	12.2															
MW-235D	May-93		<0.010	70.9	0.589	<0.005	15.9	0.532	1.65	17.7	<0.20	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.035			<0.001
MW-235D	Aug-93		<0.010	64.1	1.06	<0.005	19.2	0.368	1.06	27															
MW-235D	Dec-93		<0.010	67.6	0.566	0.006	17.7	0.549	1.83	24.3															
MW-235D	Feb-94		<0.010	38.7	1.24	<0.005	7.7	0.36	2.7	7.51															
MW-235D	May-94		<0.010	55.4	0.29	<0.005	9.7	0.59	1.57	15.4															
MW-235D	Aug-94		<0.010	57.5	0.3	<0.005	11.8	0.87	2.02	11.7	0.42	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	0.074	<0.005	<0.020	<0.005	0.024			<0.001
MW-235D	Nov-94		<0.010	42.2	0.18	<0.005	11.2	0.35	2.08	19.2															
MW-235D	March-95		<0.010	52.5	0.4	<0.005	12	0.38	1.85	21.5															
MW-235D	June-95		<0.010	49.6	0.14	<0.005	11.8	0.46	2.57	21.2															
MW-235D	Sept-95		<0.010	61	0.54	<0.005	14.2	0.48	2.15	25.8															
MW-235D	Nov-95		<0.010	46.7	0.84	<0.005	12.3	0.63	3.3	23.9	0.54	<0.060	<0.020	<0.010	0.22	<0.020	<0.020	<0.040	<0.005	<0.020	<0.005	0.048			<0.001
MW-235D	April-96		<0.002	49	1.4	<0.01	10	0.66	3.2	15	0.81	<0.1	<0.01	<0.003	<0.2	<0.01	<0.02	<0.01	<0.1	<0.01	<0.03	0.056			<0.0002
MW-235D	June-96		<0.01	120	12	<0.01	24	1.3	2.2	11															
MW-235D	Sept-96		<0.01	49	3.2	0.021	11	0.86	3.2	26															
MW-235D	Nov-96		<0.01	52	1.3	<0.01	12	0.52	2.2	24															
MW-235D	Mar-97		<0.01	51	1.9	0.012	12	0.41	2.6	17	0.64	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.081			<0.0004
MW-235D	June-97		<0.01	52	1.6	0.012	13	0.52	2.3	21															
MW-235D	Sept-97		<0.01	54	1.6	<0.01	14	0.4	2.2	30															
MW-235D	Dec-97		<0.01	50	3	0.012	13	0.69	2.7	33															
MW-235D	Mar-98		<0.01	51	1.1	<0.01	13	0.32	2.2	32															
MW-235D	June-98	<1	<0.01	52	1.9	0.011	14	0.37	2.8	36	0.6	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.1	<0.01	<0.03	<0.0002
MW-235D	Sept-98		<0.01	53	2.8	<0.01	14	0.43	3.5	23															
MW-235D	Dec-98		<0.01	61	2.4	<0.01	13	0.35	<1	31															
MW-235D	Jun-00		<0.0050	69.7	2.36	0.01	14	0.831	2.67	10.7															
MW-235D	Sep-00		<0.005	65	0.318	0.004	15.1	0.166	1.72	29.7															
MW-235D	Dec-00		<0.005	58.1	0.375	<0.001	13.7	0.299	1.7	30.7															

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Ca (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Ca (mg/l)	Vd (mg/l)	Hg (mg/l)
Clam GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
Standards and Guidance Values																									
MW-236S	Nov-89		<0.010	78.7	0.73	<0.003		0.419		8.33	0.437	<0.06	<0.01	<0.005	<0.2	<0.01	<0.025	<0.04	<0.005	<0.01	<0.01	<0.02			<0.0002
MW-236S	Feb-90		<0.010		2.69	0.0035		0.443					<0.01												
MW-236S	Apr-90		<0.010		0.239	<0.003		0.399					<0.01												
MW-236S	Nov-90		<0.01	97	24	0.023	18	1.1	3.1	8.3	12	<0.060	<0.020	<0.01	0.2	<0.03	0.03	<0.04	<0.005	<0.02	<0.010	0.12			<0.001
MW-236S	Feb-91		<0.010	85.1	7.14	<0.020	12.7	0.61	1.95	8.24															
MW-236S	May-91		<0.010	80.7	4.42	<0.020	11	0.539	1.83	7.83															
MW-236S	Aug-91		<0.010	75	1.19	<0.020	10	0.495	1.1	7.53															
MW-236S	Nov-91		<0.010	69.8	2.04	<0.020	8.78	0.527	0.91	7.75															
MW-236S	Feb-92		<0.010	69.5	3.03	<0.020	10.2	0.489	1.35	8.09	2.26	<0.060	<0.020	<0.010	0.16	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.047			<0.001
MW-236S	May-92		<0.010	69.2	1.63	<0.020	9.73	0.446	1.16	6.46															
MW-236S	Aug-92		<0.010	61.6	2.86	<0.020	8.85	0.403	1.9	6.13															
MW-236S	Dec-92		<0.010	59.7	3.04	<0.020	8.65	0.295	1.56	7.32															
MW-236S	Feb-93		<0.010	48.3	12.8	<0.020	10.9	0.764	3.63	7.39															
MW-236S	May-93		<0.010	65.2	4.77	<0.005	9.34	0.408	2.38	9.15	4.34	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	<0.020			<0.001
MW-236S	Aug-93		<0.010	58.3	7.68	0.008	14.4	0.586	1.87	8.78															
MW-236S	Dec-93		<0.010	68.1	9.79	<0.005	12.7	0.723	2.94	9.61															
MW-236S	Feb-94		<0.010	74.4	23	0.01	17	0.989	3.59	10.1															
MW-236S	May-94		<0.010	76.1	2.31	<0.005	15.2	0.52	0.74	12.8															
MW-236S	Aug-94		<0.010	78.6	13.2	<0.005	11.2	0.15	1.62	0.771	1.3	<0.060	<0.020	<0.010	<0.10	<0.020	0.062	0.12	<0.005	<0.020	<0.005	<0.020			<0.001
MW-236S	Nov-94		<0.010	83.6	1.71	<0.005	19.2	1.09	1.55	14.1															
MW-236S	March-95		<0.010	116	2.21	<0.005	28.4	2.01	2.13	14.3															
MW-236S	June-95		<0.010	96.8	1.22	0.005	18.8	1.85	1.33	9.35															
MW-236S	Sept-95		<0.010	57.5	6.33	<0.005	11.6	2.08	2.4	9.62															
MW-236S	Nov-95		<0.010	77.8	4.4	<0.005	15.5	1.46	2.28	14.4	2.9	<0.060	<0.020	<0.010	0.31	<0.020	0.037	<0.040	<0.005	<0.020	<0.005	0.035			<0.001
MW-236S	April-96		<0.002	120	15	0.016	20	4.9	2.9	16	7.5	<0.1	<0.01	<0.003	<0.2	0.012	<0.02	0.019	<0.1	<0.01	<0.03	0.11			<0.0002
MW-236S	June-96		<0.01	79	9.9	0.011	13	2.6	2.4	10															
MW-236S	Sept-96		<0.01	83	7.7	<0.01	14	1.6	1.9	12															
MW-236S	Nov-96		<0.01	82	3.6	0.012	13	1.6	1.4	11															
MW-236S	Mar-97		<0.01	110	45	0.041	21	5	6.4	10	22	<0.06	<0.01	<0.01	<0.2	0.036	0.044	0.047	<0.05	<0.01	<0.03	0.2			<0.0004
MW-236S	June-97		<0.01	130	56	0.044	30	11	5.5	9.6															
MW-236S	Sept-97		<0.01	97	15	0.013	20	4.5	3.1	12															
MW-236S	Dec-97		<0.01	110	8	<0.01	20	3.1	2.6	15															
MW-236S	Mar-98		<0.01	130	15	0.013	27	3.7	3.8	15															
MW-236S	June-98	<1	<0.01	96	14	0.012	20	1.4	3.7	12	7.6	<0.06	0.027	<0.01	<0.2	0.012	<0.02	0.015	<0.05	<0.01	<0.03	0.076	<0.01	<0.03	<0.0002
MW-236S	Sept-98		<0.01	86	18	0.017	16	6	4.6	9.7															
MW-236S	Dec-98		<0.01	92	24	<0.01	14	11	1.4	8															
MW-236S	Apr-99	Location Not Sampled																							
MW-236S	Jun-99	Location Not Sampled																							
MW-236S	Sept-99	Location Not Sampled																							
MW-236S	Dec-99	Location Not Sampled																							
MW-236S	Apr-00	Location Not Sampled																							
MW-236S	Jun-00	Location Not Sampled																							
MW-236S	Sep-00	Location Not Sampled																							
MW-236S	Dec-00	Location Not Sampled																							

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Cu (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Clam GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
Standards and Guidance Values																									
MW-236D	Nov-89		<0.010	77.4	27.4	0.0106		0.525		24.5	6.91	<0.6	<0.01	<0.005	<0.2	0.0198	0.0303	<0.04	<0.005	<0.01	<0.01	0.103			<0.0002
MW-236D	Feb-90		<0.010		0.985	<0.003		0.0411					<0.01												
MW-236D	Apr-90		<0.010		0.214	<0.003		0.0221					<0.01												
MW-236D	Nov-90		<0.01	44	2.2	<0.020	19	0.06	2	24	0.73	<0.060	<0.020	<0.01	0.04	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	<0.02			<0.001
MW-236D	May-91		<0.010	46.1	4.38	<0.020	19.3	0.103	2.48	23															
MW-236D	Aug-91		<0.010	40.3	0.262	<0.020	17.1	0.024	1.83	23															
MW-236D	Nov-91		<0.010	40.3	0.432	<0.020	14.4	0.048	1.64	24.7															
MW-236D	Feb-92		<0.010	38.3	1.09	<0.020	17.8	0.051	2.05	21.2	1.38	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.02			<0.001
MW-236D	May-92		<0.010	38.8	0.439	<0.020	16	<0.020	1.31	20.2															
MW-236D	Aug-92		<0.010	33.3	0.209	<0.020	14.4	0.023	2.48	18.4															
MW-236D	Dec-92		<0.010	35.2	0.699	<0.020	13.7	0.026	1.79	24.5															
MW-236D	Feb-93		<0.010	29.1	0.156	<0.020	12.6	0.024	1.74	21.8															
MW-236D	May-93		<0.010	33.6	0.11	<0.005	13.7	<0.020	1.95	24.3	<0.20	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	<0.020			<0.001
MW-236D	Sep-93		<0.010	32.7	0.263	<0.005	18.8	<0.020	1.66	23.8															
MW-236D	Dec-93		<0.010	37.9	0.272	<0.005	17.4	0.023	1.87	23.9															
MW-236D	Feb-94		<0.010	18.9	0.492	<0.005	15	0.022	1.52	24.1															
MW-236D	May-94		<0.010	33.1	0.2	0.006	14.8	<0.020	1.44	21.3															
MW-236D	Aug-94		<0.010	40.2	0.56	0.007	15.6	0.029	2.34	18	0.66	<0.060	<0.020	<0.010	<0.10	<0.020	0.07	0.14	<0.005	<0.020	<0.005	0.055			<0.001
MW-236D	Nov-94		<0.010	29	0.16	<0.005	15.1	<0.020	1.63	23.7															
MW-236D	March-95		<0.010	35.2	0.43	0.007	16	<0.020	2.31	24															
MW-236D	June-95		<0.010	35.2	0.16	<0.005	17.4	0.027	2.11	9.34															
MW-236D	Sept-95		<0.010	37.2	0.092	<0.005	15.8	0.026	1.85	22.4															
MW-236D	Nov-95		<0.010	32.7	0.35	<0.005	15.9	0.025	1.96	27.3	0.23	<0.060	<0.020	<0.010	0.18	<0.020	0.14	<0.040	<0.005	<0.020	<0.005	0.052			<0.001
MW-236D	April-96		<0.002	35	0.22	<0.01	14	0.019	1.9	26	<0.1	<0.1	<0.01	<0.003	<0.2	<0.01	<0.02	<0.01	<0.1	<0.01	<0.03	0.053			<0.0002
MW-236D	June-96		<0.01	26	0.37	<0.01	14	0.019	1.9	23															
MW-236D	Sept-96		<0.01	37	0.53	0.015	16	0.024	2	24															
MW-236D	Nov-96		<0.01	34	0.42	<0.01	13	0.022	1.5	20															
MW-236D	Mar-97		<0.01	33	0.83	0.011	14	0.025	2	15	0.3	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	<0.01	0.062	<0.01	<0.03	0.079			<0.0004
MW-236D	June-97		<0.01	39	0.45	<0.01	16	0.03	1.9	17															
MW-236D	Sept-97		<0.01	35	0.35	<0.01	14	0.025	1.6	21															
MW-236D	Dec-97		<0.01	35	0.3	<0.01	14	0.031	1.7	24															
MW-236D	Mar-98		<0.01	37	0.6	<0.01	16	0.035	1.9	23															
MW-236D	June-98	<1	<0.01	35	0.32	0.01	15	0.022	1.8	24	<0.1	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	<0.01	<0.05	<0.01	<0.03	0.023	<0.01	<0.03	<0.0002
MW-236D	Sept-98		<0.01	35	0.35	0.01	16	0.023	2.4	21															
MW-236D	Dec-98		<0.01	41	0.79	<0.01	14	0.036	<1	20															
MW-236D	Apr-99																								
MW-236D	Jun-99																								
MW-236D	Sept-99																								
MW-236D	Dec-99																								
MW-236D	Apr-00																								
MW-236D	Jun-00																								
MW-236D	Sep-00																								
MW-236D	Dec-00																								

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B	Cd	Cu	Fe	Pb	Mg	Mn	K	Na	Al	Sb	As	Be	Ba	Cr	Cu	Ni	Se	Ag	Th	Zn	Co	Vd	Hg
		(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)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Claim GA Groundwater Quality		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
Standards and Guidance Values																									
MW-245S	Nov-89	<0.010	450	269	0.168		0.00997		12.7	116	<0.6	0.05	0.01	0.889	0.199	0.425	0.286	<0.005	<0.01	<0.01	0.725				0.00047
MW-245S	Feb-90	<0.010		190	0.0719		0.00542																		
MW-245S	Apr-90	<0.010		0.917	0.0033		0.002																		
MW-245S	Nov-90	<0.01	207	7.3	<0.020	41	2.2	2.6	13	4	<0.060	<0.020	<0.01	0.07	<0.03	<0.02	<0.04	<0.005	<0.02	<0.010	0.05				<0.001
MW-245S	Feb-91	<0.010	197	4.83	<0.020	42.4	1.9	2.61	15.6																
MW-245S	May-91	<0.010	178	1.63	<0.020	45.7	1.38	2.26	20.1																
MW-245S	Aug-91	<0.010	208	7.84	<0.020	41.4	2.16	2.9	16.3																
MW-245S	Nov-91	<0.010	171	55.9	0.028	45.4	2.78	6.8	11.7																
MW-245S	Feb-92	<0.010	214	1.92	<0.020	42	2.08	1.93	13.1	1.08	<0.060	<0.020	<0.010	0.15	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	<0.020				<0.001
MW-245S	May-92	<0.010	191	1.72	<0.020	44.1	1.6	1.64	15.8																
MW-245S	Aug-92	<0.010	156	4.41	<0.020	37.9	1.46	3.2	13.6																
MW-245S	Dec-92	<0.010	159	52.1	0.021	46.3	1.73	7.12	19.9																
MW-245S	Feb-93	<0.010	140	20.8	0.02	40.3	2.09	4.82	23.2																
MW-245S	Jun-93	<0.010	147	9.36	0.009	32.9	1.34	4.13	14	8.08	<0.060	<0.020	<0.010	<0.10	<0.020	0.028	<0.040	<0.005	<0.020	<0.010	0.046				<0.001
MW-245S	Sep-93	<0.010	150	13.5	0.011	46.8	1.33	3.15	16.1																
MW-245S	Dec-93	<0.010	163	0.419	<0.005	39.1	1.78	2.95	18.2																
MW-245S	Feb-94	<0.010	176	13.7	<0.005	46	1.88	4.06	20																
MW-245S	May-94	0.013	180	5.32	0.01	44.7	1.72	2.01	25.7																
MW-245S	Aug-94	<0.010	136	0.26	<0.005	26.1	1.29	1.59	12.8	0.27	<0.060	<0.020	<0.010	<0.10	<0.020	0.048	0.095	<0.005	<0.020	<0.005	0.047				<0.001
MW-245S	Nov-94	<0.010	136	0.37	<0.005	38.6	1.36	1.63	18.4																
MW-245S	March-95	<0.010	174	3.08	<0.005	51	1.9	2.34	23																
MW-245S	June-95	<0.010	170	2.03	<0.005	44.3	1.34	2.11	15.1																
MW-245S	Sept-95	<0.010	150	9.54	<0.005	45.6	2.17	3.07	16.9																
MW-245S	Dec-95	<0.010	173	0.39	<0.005	52.1	1.8	2.21	30.5	<0.20	<0.060	<0.020	<0.010	0.33	<0.020	0.072	<0.040	<0.005	<0.020	<0.005	0.05				<0.001
MW-245S	April-96	<0.002	240	18	0.019	27	2.3	5.8	27	11	<0.1	<0.01	<0.003	<0.2	0.015	0.03	0.021	<0.1	<0.01	<0.03	0.064				<0.0002
MW-245S	June-96	<0.01	220	52	<0.01	31	3	6.4	34																
MW-245S	Sept-96	<0.01	200	29	0.029	33	2.2	4.8	34																
MW-245S	Nov-96	<0.01	160	54	0.035	33	2.8	6.8	22																
MW-245S	Mar-97	<0.01	190	41	0.032	29	2.5	8.3	16	20	<0.06	<0.01	<0.01	<0.2	0.034	0.062	0.044	<0.05	0.014	<0.03	0.2				<0.0004
MW-245S	June-97	<0.01	190	24	0.022	42	2.1	5	17																
MW-245S	Sept-97	<0.01	160	23	0.019	35	2	5.9	20																
MW-245S	Dec-97	<0.01	160	18	0.014	37	1.9	4.8	20																
MW-245S	Mar-98	<0.01	180	11	<0.01	37	1.8	3.4	20																
MW-245S	June-98	<1	<0.01	130	20	0.016	32	1.6	5.8	15	10	<0.06	0.034	<0.01	<0.2	0.02	0.028	0.027	<0.05	<0.01	<0.03	0.12	0.011	<0.03	<0.0002
MW-245S	Sept-98	<0.01	180	52	0.014	47	2.5	9.8	18																
MW-245S	Dec-98	<0.01	240	80	0.019	49	3	8.2	34																
MW-245S	Apr-99	<0.01	190	30	0.021	31	3.6	4.9	19																
MW-245S	Jun-99	<0.01	210	28	0.012	50	2.6	3.7	26																
MW-245S	Sept-99	<0.01	180	28	<0.01	44	2.2	5.7	21																
MW-245S	Dec-99	<0.5	<0.01	170	25	0.015	42	2.4	4	20	11	<0.01	0.042	<0.01	<0.2	0.026	0.045	0.044	0.02	<0.01	<0.01	<0.01	0.012	0.015	<0.0002
MW-245S	Apr-00	0.07	<0.0050	170	2.31	0.001	38.2	1.7	2.09	19.5	1.41	<0.050	0.016	<0.002	0.047	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
MW-245S	Jun-00	<0.0050	190	0.845	0.004	46.7	2.1	1.92	31																
MW-245S	Sep-00	<0.005	181	3.53	0.005	39.3	2.12	1.81	20.3																
MW-245S	Dec-00	<0.005	154	1.54	0.003	32.6	1.94	1.43	18.2																

TABLE 11. HISTORICAL GROUNDWATER ANALYTICAL DATA - METAL PARAMETERS

Monitoring Well	Sample Date	B (mg/l)	Cd (mg/l)	Cu (mg/l)	Fe (mg/l)	Pb (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
Class GA Groundwater Quality Standards and Guidance Values		1	0.005		0.3	0.025	35	0.3		20			0.025	0.003	1	0.05	0.2	0.1	0.01	0.05	0.001	2			0.002
MW-245D	Feb-90		<0.01	42.9	0.425	<0.003		0.063		54.9	<0.2	<0.06	<0.01	<0.005	<0.2	<0.01	<0.025	<0.04	<0.005	<0.01	<0.01	0.0276			<0.0002
MW-245D	Apr-90		<0.01		0.171	<0.003		0.0597					<0.01												
MW-245D	Nov-90		<0.01	66	14	0.042	33	0.12	4	98	2.6	<0.060	<0.020	<0.01	0.09	<0.03	0.03	0.09	<0.005	<0.02	<0.010	0.12			<0.001
MW-245D	Feb-91		<0.010	69.6	5.05	<0.020	29.1	0.119	3.61	103															
MW-245D	May-91		<0.010	63.8	2.91	<0.020	29.7	0.049	2.79	69.7															
MW-245D	Aug-91		<0.010	89.4	6.32	<0.020	36.4	0.067	2.69	51.6															
MW-245D	Nov-91		<0.010	70.3	8.38	<0.020	27.2	0.092	2.25	69.3															
MW-245D	Feb-92		<0.010	88.1	2.23	<0.020	36.4	0.114	2.49	44.7	0.54	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.03			<0.001
MW-245D	May-92		<0.010	80.9	2.01	<0.020	28.7	0.089	2.07	48.1															
MW-245D	Aug-92		<0.010	73.5	0.197	<0.020	27.4	0.06	3.39	40.2															
MW-245D	Dec-92		<0.010	74.8	6.671	<0.020	25.7	0.034	2.6	49.3															
MW-245D	Feb-93		<0.010	67	0.312	<0.020	23.1	0.06	2.47	39															
MW-245D	Jun-93		<0.010	86.2	1.3	0.008	26.7	0.062	3.52	54.1	0.41	<0.060	<0.020	<0.010	<0.10	<0.020	<0.020	<0.040	<0.005	<0.020	<0.010	0.027			<0.001
MW-245D	Aug-93		<0.010	79.3	0.219	<0.005	36.9	0.036	2.12	34															
MW-245D	Dec-93		<0.010	99	0.081	<0.005	36.8	0.053	2.08	22.9															
MW-245D	Feb-94		<0.010	86.1	0.005	<0.005	30	0.036	1.85	23.3															
MW-245D	May-94		<0.010	91.5	0.1	<0.005	32.2	0.087	2.25	33.9															
MW-245D	Aug-94		<0.010	110	1.57	<0.005	33.3	0.86	4.75	22.1	<0.20	<0.060	<0.020	<0.010	<0.10	<0.020	0.035	0.091	<0.005	<0.020	<0.005	0.1			<0.001
MW-245D	Nov-94		<0.010	83	1.53	<0.005	33.9	0.076	6.54	24.7															
MW-245D	March-95		<0.010	91	1.92	0.006	34	0.062	4.2	40															
MW-245D	June-95		<0.010	97	0.77	<0.05	32.9	0.033	2.98	22															
MW-245D	Sept-95		<0.010	86.7	0.30	<0.005	33.8	0.058	2.32	19.9															
MW-245D	Dec-95		<0.010	89.9	0.097	<0.005	33.5	0.044	2.12	24.8	<0.20	<0.060	<0.020	<0.010	0.26	<0.020	<0.020	<0.040	<0.005	<0.020	<0.005	0.042			<0.001
MW-245D	April-96		<0.002	120	0.92	0.011	24	0.058	2.2	23	0.11	<0.1	<0.01	<0.003	<0.2	<0.01	<0.02	<0.01	<0.1	<0.01	<0.03	0.068			<0.0002
MW-245D	June-96		<0.01	130	2.3	<0.01	27	0.069	2.6	21															
MW-245D	Sept-96		<0.01	120	3.5	<0.01	28	0.064	2.6	22															
MW-245D	Nov-96		<0.01	80	0.64	<0.01	24	0.055	2.7	26															
MW-245D	Mar-97		<0.01	120	22	0.04	28	0.12	4.9	31	9.7	<0.06	<0.01	<0.01	<0.2	0.016	0.045	0.095	<0.05	<0.01	<0.03	0.25			<0.0004
MW-245D	June-97		<0.01	100	3	<0.01	30	0.084	2.9	31															
MW-245D	Sept-97		<0.01	87	1.9	<0.01	27	0.072	2.7	31															
MW-245D	Dec-97		<0.01	100	2.9	<0.01	31	0.091	2.9	34															
MW-245D	Mar-98		<0.01	100	3.5	<0.01	31	0.095	3.5	46															
MW-245D	June-98	<1	<0.01	100	5.1	<0.01	35	0.13	3.6	42	0.2	<0.06	<0.01	<0.01	<0.2	<0.01	<0.02	0.022	<0.05	<0.1	<0.03	0.08	<0.01	<0.03	<0.0002
MW-245D	Sept-98		<0.01	110	5.6	<0.01	34	0.2	5.7	40															
MW-245D	Dec-98		<0.01	140	1	<0.01	32	0.088	2.9	27															
MW-245D	Apr-99		Location Not Sampled																						
MW-245D	Jun-99		<0.01	110	4.6	0.019	33	0.2	4.1	120															
MW-245D	Sept-99		Location Not Sampled																						
MW-245D	Dec-99		Location Not Sampled																						
MW-245D	Apr-00		<0.048	<0.0050	103	2.29	0.009	30.8	0.187	3.22	0.372	<0.050	0.003	<0.002	0.093	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	0.049	<0.010	<0.010	<0.0002
MW-245D	Jun-00		<0.0050	86.7	0.311	0.007	25.4	0.214	3.22	79.1															
MW-245D	Sept-00		<0.005	88.4	2.9	0.007	26.4	0.198	3	78.5															
MW-245D	Dec-00		<0.005	79.3	3.98	0.002	24.2	0.128	3.21	78.5															

TABLE 12 -- SURFACE WATER ANALYTICAL DATA - INORGANIC, METAL PARAMETERS

	Units	Class C Std.	SW-3	SW-5	SW-8	SW-13
<i>Date Sampled</i>			12/27/00	12/27/00	12/27/00	12/27/00
Specific Conductivity	UmHos/cm		293	400	386	285
Eh (MV)	MV		99	120	395	111
Field pH	SU	6.5-8.5	7.87	7.01	7.93	7.86
Temperature (deg. C)	deg C		1.1	1.1	0.2	0.5
Turbidity (NTU)	NTU		17.4	38.8	36	18.4
TOC	mg/l		8.9	7.4	5.5	9
Alkalinity as CaCo3	mg/l		45.8	91.7	91.2	52.6
Ammonia as N	mg/l		< 0.1	0.167	0.145	< 0.1
Biological Oxygen Demand	mg/l		< 3	< 3	< 3	< 3
Chloride	mg/l		30.6	36.7	36.3	30.2
Chemical Oxygen Demand	mg/l		31.6	105	23	< 10
Nitrate as N	mg/l		1.54	1.72	1.79	1.67
Total Hardness as CaCo3	mg/l		95.2	193	155	96.7
Kjeldahl Nitrogen as N	mg/l		2.01	7.37	1.67	1
Phenolics, Total	mg/l	0.005	0.0066	0.0072	< 0.004	< 0.004
Solids, Dissolved	mg/l	500	144	231	190	181
Sulfate as SO4	mg/l		34	81	39	36
Bromide	mg/l	2	< 1	< 1	< 1	< 1
Cadmium	mg/l	*	< 0.005	< 0.005	< 0.005	< 0.005
Calcium	mg/l		27.9	52.4	41.7	28.1
Iron	mg/l	0.3	0.921	9.17	3.13	1.09
Lead	mg/l	*	0.002	0.013	0.005	< 0.001
Magnesium	mg/l		6.2	15.1	12.3	6.44
Manganese	mg/l		0.113	0.674	0.243	0.111
Potassium	mg/l		2.25	3.06	2.33	2.18
Sodium	mg/l		14.9	18.4	19.3	14.9
Cadmium, dissolved	mg/l	*	< 0.005	< 0.005	< 0.005	< 0.005
Calcium, dissolved	mg/l		27.9	38.9	38.6	28.5
Iron, dissolved	mg/l	0.3	0.292	0.235	0.163	0.27
Lead, dissolved	mg/l	*	< 0.001	< 0.001	< 0.001	< 0.001
Magnesium, dissolved	mg/l		6.36	11.4	11.5	6.61
Manganese, dissolved	mg/l		0.115	0.18	0.088	0.103
Potassium, dissolved	mg/l		2.49	2.48	4.27	2.42
Sodium, dissolved	mg/l		18.6	23.2	23	18.6

* Cadmium

 $(0.85)\exp(0.7852 [\ln(\text{hardness})]) - 2.715$

* Lead

 $\{1.46203 - [\ln(\text{hardness}) (0.145712)]\}\exp(1.273 [\ln(\text{hardness})]) - 4.297$

TABLE 13 - HISTORICAL SURFACE WATER ANALYTICAL RESULTS - WATER QUALITY PARAMETERS

Sample Location	Sample Date	Temp (C)	ALK (mg/l)	COD (mg/l)	Cl- (mg/l)	Cond (umhos/cm)	Hard (mg/l)	TOC (mg/l)	pH (field) (S.U.)	Phenols (mg/l)	Eh (mV)
<i>Class C Surface Water Quality Standards and Guidance Values</i>									6.5-8.5	0.005	
SW-3	Apr-99	14.3	46	65	38	417	86	10	7.99	< 0.002	55
SW-3	Jun-99	22.3	150	18	52	510	220	5.7	8.17	0.002	125
SW-3	Sept-99	18.8	82	31	36	463	200	11	7.64	< 0.002	375
SW-3	Dec-99	3.6	120	24	35	477	190	10	9.33	< .002	15
SW-3	Apr-00	12.2	65.3	21.9	28.8	300	100	6.6	7.45	< 0.004	-77
SW-3	Jun-00	25.4	114	33.3	36.1	325	145	8.3	7.91	< 0.004	-138
SW-3	Sep-00	16.4	146	< 10	42.1	511	173	9.2	8.15	< 0.004	34
SW-3	Dec-00	1.1	45.8	31.6	30.6	293	95.2	8.9	7.87	0.0066	99
SW-5	Apr-99	12.6	95	11	43	403	130	5.7	8.05	< 0.002	115
SW-5	Jun-99	21.3	150	14	52	510	230	5.6	8.26	0.0023	135
SW-5	Sept-99	18.8	85	31	39	476	200	11	7.2	< 0.002	370
SW-5	Dec-99	3.7	68	28	35	661	200	10	9.33	< .002	330
SW-5	Apr-00	12.7	62.9	11.5	28.9	290	99.8	7	7.53	< 0.004	-72
SW-5	Jun-00	24.8	117	24.2	36	350	143	8.6	7.93	< 0.004	-162
SW-5	Sep-00	16.5	147	19.9	42.2	684	172	9.6	8.12	< 0.004	44
SW-5	Dec-00	1.1	91.7	105	36.7	400	193	7.4	7.01	0.0072	400
SW-8	Apr-99	12.2	97	12	43	404	130	5.2	7.98	< 0.002	105
SW-8	Jun-99	21	150	13	52	510	230	5.7	7.97	0.0024	125
SW-8	Sept-99	19.4	91	34	40	488	200	11	7.68	< 0.002	365
SW-8	Dec-99	3.8	78	24	35	4940	200	11	8.81	< .002	310
SW-8	Apr-00	13	65.2	24.2	30	300	98.8	6.7	7.45	< 0.004	-68
SW-8	Jun-00	22.2	114	23.2	36.4	300	155	9.5	7.62	< 0.004	-186
SW-8	Sep-00	15.5	146	10	42.1	573	178	9.5	7.83	< 0.004	5
SW-8	Dec-00	0.2	91.2	23	36.3	386	155	5.5	7.93	< 0.004	395
SW-13	Apr-99	12.4	93	21	43	390	120	5.2	7.83	< 0.002	70
SW-13	Jun-99	21.8	150	16	53	510	260	5.8	8.25	0.0026	130
SW-13	Sept-99	18.4	91	31	40	486	200	11	7.52	< 0.002	380
SW-13	Dec-99	4.2	44	29	36	336	110	12	9.02	< .002	145
SW-13	Apr-00	12.5	64.9	29.6	30.8	310	98.4	7	7.63	< 0.004	-76
SW-13	Jun-00	25.3	116	26.6	36.1	325	140	10	7.98	< 0.004	-137
SW-13	Sep-00	16.1	147	< 10	42.5	491	172	12	8.14	< 0.004	54
SW-13	Dec-00	0.5	52.6	< 10	30.2	285	96.7	9	7.86	< 0.004	111

NOTE: *1 - Dependant upon sample temperature and pH (see regs)

TABLE 13 - HISTORICAL SURFACE WATER ANALYTICAL RESULTS - WATER QUALITY PARAMETERS

Sample Location	Sample Date	SO4= (mg/l)	Turbidity (NTU)	TDS (mg/l)	NH3 (mg/l)	NO3- (mg/l)	BOD5 (mg/l)	Color (units)	CN- (mg/l)	Cr+6 (mg/l)	TKN (mg/l)	DO (mg/l)	Bromide (mg/l)
<i>Class C Surface Water Quality Standards and Guidance Values</i>				500	*1				0.0052	0.011		< 4	
SW-3	Apr-99	32	29	210	<0.03	0.35	<4				0.76	7.78	<0.1
SW-3	Jun-99	26	102	290	<0.03	0.55	4.2				1.1	7.27	<0.1
SW-3	Sept-99	90	46	330	<0.03	0.94	<4				0.86	7.05	<0.1
SW-3	Dec-99	97	70	360	0.092	3.1	<4	55	< .01	< .03	1.4	11.01	< .1
SW-3	Apr-00	26	18	176	0.12	1.51	<3	75	<0.01	<0.01	<1	10.6	<1
SW-3	Jun-00	200	16.3	241	<0.1	0.743	3				<1	7.8	<1
SW-3	Sep-00	33	13	230	<0.1	0.855	<3				<1	9.2	<1
SW-3	Dec-00	34	17.4	144	<0.1	1.54	<3				2.01	8.1	<1
SW-5	Apr-99	24	72	230	<0.03	0.59	<4				1.1	8.71	<0.1
SW-5	Jun-99	27	95	290	<0.03	0.58	4				0.93	6.5	<0.1
SW-5	Sept-99	91	54	370	<0.03	1.2	<4				0.89	7.28	<0.1
SW-5	Dec-99	100	82	360	0.084	3.3	<4	45	< .01	< .03	1.3	10.59	< .1
SW-5	Apr-00	31	19	177	0.137	1.52	8	100	<0.01	<0.01	<1	9.2	<1
SW-5	Jun-00	19	18.5	251	0.155	0.74	3				<1	7.8	<1
SW-5	Sep-00	25	8.9	238	<0.1	0.914	<3				<1	9	<1
SW-5	Dec-00	81	38.8	231	0.167	1.72	<3				7.37	7.9	<1
SW-8	Apr-99	24	13	230	<0.03	0.6	<4				0.67	8.46	<0.1
SW-8	Jun-99	27	112	290	<0.03	0.61	<4				1.1	6.17	<0.1
SW-8	Sept-99	91	83	360	<0.03	1.2	14				0.93	7.41	<0.1
SW-8	Dec-99	100	97	370	0.1	3.3	4.5	50	<0.01	< .03	1.6	11.28	< .1
SW-8	Apr-00	29	21	188	0.15	1.52	7	100	<0.01	<0.01	<1	9	<1
SW-8	Jun-00	24	18.4	231	0.103	0.754	<3				<1	8.1	<1
SW-8	Sep-00	27	7	273	<0.1	0.924	<3				<1	8.8	<1
SW-8	Dec-00	39	36	190	0.145	1.79	<3				1.67	7.6	<1
SW-13	Apr-99	23	68	230	<0.03	0.58	<4				0.68	9.31	<0.1
SW-13	Jun-99	26	130	290	<0.03	0.55	<4				1.4	6.86	<0.1
SW-13	Sept-99	91	50	370	<0.03	1.2	<4				1.1	6.79	<0.1
SW-13	Dec-99	40	30	230	0.03	1.5	<4	60	<0.01	< .03	0.98	9.5	< .1
SW-13	Apr-00	30	24	178	0.117	1.82	7	100	<0.01	<0.01	<1	9.4	<1
SW-13	Jun-00	20	19.6	247	<0.1	0.753	<3				<1	7.9	<1
SW-13	Sep-00	28	8.8	244	<0.1	1.17	<3				<1	9	<1
SW-13	Dec-00	36	18.4	181	<0.1	1.67	<3				1	8	<1

TABLE 14 - SURFACE WATER ANALYTICAL RESULTS - METAL PARAMETERS

Sample Location	Sample Date	d-B (mg/l)	d-Cd (mg/l)	d-Ca (mg/l)	d-Fe (mg/l)	d-Pb (mg/l)	d-Mg (mg/l)	d-Mn (mg/l)	d-K (mg/l)	d-Na (mg/l)	d-Al (mg/l)	d-Sb (mg/l)	d-As (mg/l)
<i>Sids and Guid. Values</i>		10	*		0.3	*					0.1		0.15
SW-3	Apr-99		<0.01	24	0.33	<0.01	5.7	0.076	1.3	20			
SW-3	Jun-99		<0.01	52	1	<0.01	18	0.023	2.4	32			
SW-3	Sept-99		<0.01	55	0.34	<0.01	13	0.11	2.4	22			
SW-3	Dec-99	<.5	<0.01	52	0.16	<0.01	12	0.14	2.8	15	<0.01	<0.01	<0.01
SW-3	Apr-00	<0.048	<0.0050	26.4	0.085	<0.001	7.14	0.027	1.3	14.5	<0.075	<0.050	<0.002
SW-3	Jun-00		<0.0050	38.5	0.423	0.002	11.7	0.066	1.61	19.4			
SW-3	Sep-00		<0.005	45.8	0.219	0.002	14.5	0.087	2.56	22.5			
SW-3	Dec-00		<0.005	27.9	0.292	<0.001	6.36	0.115	2.49	18.6			
SW-5	Apr-99		<0.01	33	0.45	<0.01	11	0.057	1.5	23			
SW-5	Jun-99		<0.01	53	0.041	<0.01	18	0.015	2.4	32			
SW-5	Sept-99		<0.01	55	0.29	<0.01	13	0.13	2.4	23			
SW-5	Dec-99	<.5	<0.01	58	0.15	<0.01	12	0.15	3	16	<.1	<0.01	<0.01
SW-5	Apr-00	<0.048	<0.0050	26.8	0.11	<0.001	7.26	0.028	1.37	14.8	<0.075	<0.050	<0.002
SW-5	Jun-00		<0.0050	38.6	0.367	0.002	11.8	0.067	2.25	19.6			
SW-5	Sep-00		<0.005	46.3	0.262	0.003	14.7	0.083	2.42	22.6			
SW-5	Dec-00		<0.005	38.9	0.235	<0.001	11.4	0.18	2.48	23.2			
SW-8	Apr-99		<0.01	32	0.3	<0.01	10	0.053	1.4	23			
SW-8	Jun-99		<0.01	52	0.06	<.01	18	<0.01	2.4	32			
SW-8	Sept-99		<0.01	57	0.31	<0.01	14	0.14	2.5	24			
SW-8	Dec-99	<.5	<0.01	59	0.14	<0.01	13	0.16	3.2	17	<.1	<0.01	<0.01
SW-8	Apr-00	0.062	<0.0050	26.9	0.086	0.003	7.08	0.027	1.41	14.5	0.178	<0.050	<0.002
SW-8	Jun-00		<0.0050	37.1	0.355	0.002	11.3	0.064	1.72	18.8			
SW-8	Sep-00		<0.005	46.5	0.219	0.002	14.6	0.082	2.37	22			
SW-8	Dec-00		<0.005	38.6	0.163	<0.001	11.5	0.088	4.27	23			
SW-13	Apr-99		<0.01	34	0.64	<0.01	11	0.065	1.5	24			
SW-13	Jun-99		<0.01	52	0.11	<0.01	18	0.036	2.4	32			
SW-13	Sept-99		<0.01	57	0.48	<0.01	14	0.14	2.5	24			
SW-13	Dec-99	<.5	<0.01	31	0.24	<0.01	6.9	0.09	2.4	18	<.1	<0.01	<0.01
SW-13	Apr-00	<0.048	<0.0050	27.4	0.184	<0.001	7.44	0.033	1.6	16.1	<0.075	<0.050	<0.002
SW-13	Jun-00		<0.0050	38.4	0.369	0.001	11.8	0.065	2.57	19.4			
SW-13	Sep-00		<0.005	46.4	0.215	0.001	14.7	0.083	2.4	22.1			
SW-13	Dec-00		0.005	28.5	0.27	<0.001	6.61	0.103	2.42	18.6			

*Cadmium- $(0.85)\exp(0.7852[\ln(\text{ppm hardness})]-2.715)$ *Lead- $[1.46203-\ln(\text{hardness})](0.145712)]\exp(1.273[\ln(\text{hardness})]-4.297)$

*Beryllium- 11ug/l, when hardness is less than or equal to 75 ppm; 1,100 ug/l when hardness is greater than 75 ppm

*Chromium- $(0.86)\exp(0.819[\ln(\text{ppm hardness})]+0.6848)$ *Copper- $(0.96)\exp(0.8345[\ln(\text{ppm hardness})]-1.702)$ *Nickel- $(0.997)\exp(0.846[\ln(\text{hardness})]+0.0584)$ *Zinc- $\exp(0.85[\ln(\text{ppm hardness})]+0.50)$

TABLE 14 - SURFACE WATER ANALYTICAL RESULTS - METAL PARAMETERS

Sample Location	Sample Date	d-Be (mg/l)	d-Ba (mg/l)	d-Cr (mg/l)	d-Cu (mg/l)	d-Ni (mg/l)	d-Se (mg/l)	d-Ag (mg/l)	d-Th (mg/l)	d-Zn (mg/l)	d-Co (mg/l)	d-Vd (mg/l)	Hg (mg/l)
<i>Sids and Guid. Values</i>		*		*	*	*	0.00046	0.0001	0.008	*	0.005	0.014	0.00077
SW-3	Apr-99												
SW-3	Jun-99												
SW-3	Sept-99												
SW-3	Dec-99	<0.01	<.2	<0.01	<0.01	<0.01	0.057	<0.01	<0.01	0.024	<0.01	<0.01	<.0002
SW-3	Apr-00	<0.002	<0.016	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
SW-3	Jun-00												
SW-3	Sep-00												
SW-3	Dec-00												
SW-5	Apr-99												
SW-5	Jun-99												
SW-5	Sept-99												
SW-5	Dec-99	<0.01	<.2	<0.01	<0.01	<0.01	0.093	<0.01	0.027	0.029	<0.01	<0.01	<.0002
SW-5	Apr-00	<0.002	<0.016	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
SW-5	Jun-00												
SW-5	Sep-00												
SW-5	Dec-00												
SW-8	Apr-99												
SW-8	Jun-99												
SW-8	Sept-99												
SW-8	Dec-99	<0.01	<.2	<0.01	0.015	<0.01	0.074	<0.01	0.02	0.033	<0.01	<0.01	<.0002
SW-8	Apr-00	<0.002	<0.016	<0.010	<0.017	0.012	<0.002	<0.010	<0.001	0.249	<0.010	<0.010	<0.0002
SW-8	Jun-00												
SW-8	Sep-00												
SW-8	Dec-00												
SW-13	Apr-99												
SW-13	Jun-99												
SW-13	Sept-99												
SW-13	Dec-99	<0.01	<.2	<0.01	0.011	<0.01	0.064	<0.01	0.03	0.023	<0.01	<0.01	<.0002
SW-13	Apr-00	<0.002	<0.016	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
SW-13	Jun-00												
SW-13	Sep-00												
SW-13	Dec-00												

TABLE 14 - SURFACE WATER ANALYTICAL RESULTS - METAL PARAMETERS

Sample Location	Sample Date	B (mg/l)	T-Cd (mg/l)	T-Ca (mg/l)	T-Fe (mg/l)	T-Pb (mg/l)	T-Mg (mg/l)	T-Mn (mg/l)	T-K (mg/l)	T-Na (mg/l)	Al (mg/l)	Sb (mg/l)	As (mg/l)	Be (mg/l)
<i>Stds and Guid. Values</i>		<i>10</i>	<i>*</i>		<i>0.3</i>	<i>*</i>					<i>0.1</i>		<i>0.15</i>	<i>*</i>
SW-3	Apr-99		<0.01	25	0.99	<0.01	5.9	0.098	1.5	15				
SW-3	Jun-99		<0.01	57	1.5	<0.01	20	0.2	2.7	37				
SW-3	Sept-99		<0.01	56	1.2	<0.01	14	0.14	2.6	23				
SW-3	Dec-99	<.5	<0.01	57	1.3	<0.01	12	0.2	3.1	16	0.7	<0.01	<0.01	<0.01
SW-3	Apr-00	<0.048	<0.0050	27.6	0.923	<0.001	7.54	0.051	1.54	15.1	0.54	<0.050	<0.002	<0.002
SW-3	Jun-00		<0.0050	38.5	0.908	0.003	11.8	0.105	1.62	19.8				
SW-3	Sep-00		<0.005	45.4	0.751	0.001	14.4	0.106	2.67	22.3				
SW-3	Dec-00		<0.005	27.9	0.921	0.002	6.2	0.113	2.25	14.9				
SW-5	Apr-99		<0.01	33	0.64	<0.01	11	0.063	1.6	20				
SW-5	Jun-99		<0.01	58	1.3	<0.01	20	0.16	2.7	34				
SW-5	Sept-99		<0.01	56	1.5	<0.01	14	0.17	2.7	23				
SW-5	Dec-99	<.5	<0.01	60	1.54	<0.01	13	0.22	3.2	16	0.84	<0.01	<0.01	<0.01
SW-5	Apr-00	<0.048	<0.0050	27.5	0.997	0.002	7.55	0.055	1.56	15	0.572	<0.050	<0.002	<0.002
SW-5	Jun-00		<0.0050	38.1	0.861	0.006	11.7	0.102	1.61	19.6				
SW-5	Sep-00		<0.005	45.4	0.657	0.002	14.3	0.102	2.62	22				
SW-5	Dec-00		<0.005	52.4	9.17	0.013	15.1	0.674	3.06	18.4				
SW-8	Apr-99		<0.01	33	0.67	<0.01	11	0.065	1.6	20				
SW-8	Jun-99		<0.01	59	1	<0.01	20	0.14	2.7	35				
SW-8	Sept-99		<0.01	55	1.1	<0.01	14	0.15	2.6	23				
SW-8	Dec-99	<0.01	<0.01	58	2	<0.01	13	0.28	<0.01	15	1	<0.01	<0.01	<0.01
SW-8	Apr-00	<0.048	<0.0050	27.1	1.13	<0.001	7.57	0.052	1.65	15	0.854	<0.050	<0.002	<0.002
SW-8	Jun-00		<0.0050	41.1	0.981	0.004	12.6	0.127	1.68	21.1				
SW-8	Sep-00		<0.005	46.8	0.655	0.001	14.8	0.098	2.61	22.5				
SW-8	Dec-00		<0.005	41.7	3.13	0.005	12.3	0.243	2.33	19.3				
SW-13	Apr-99		<0.01	31	0.59	<0.01	10	0.06	1.5	17				
SW-13	Jun-99		<0.01	67	8.2	0.014	21	1	3.2	37				
SW-13	Sept-99		<0.01	56	1.2	<0.01	14	0.15	2.6	23				
SW-13	Dec-99	<.5	<0.01	33	0.98	<0.01	7.3	0.13	2.4	18	0.42	<0.01	<0.01	<0.01
SW-13	Apr-00	0.052	<0.0050	27.2	1.26	0.001	7.4	0.058	1.75	15.3	0.991	<0.050	<0.002	<0.002
SW-13	Jun-00		<0.0050	37.3	0.86	0.01	11.4	0.098	1.65	19.4				
SW-13	Sep-00		<0.05	45.4	0.557	0.001	14.3	0.095	2.51	21.8				
SW-13	Dec-00		<0.005	28.1	1.09	<0.001	6.44	0.111	2.18	14.9				

TABLE 14 - SURFACE WATER ANALYTICAL RESULTS - METAL PARAMETERS

Sample Location	Sample Date	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	Ni (mg/l)	Se (mg/l)	Ag (mg/l)	Th (mg/l)	Zn (mg/l)	Co (mg/l)	Vd (mg/l)	Hg (mg/l)
<i>Stds and Guid. Values</i>			*	*	*	0.00046	0.0001	0.008	*	0.005	0.014	0.00077
SW-3	Apr-99											
SW-3	Jun-99											
SW-3	Sept-99											
SW-3	Dec-99	< .2	<0.01	<0.01	<0.01	0.071	<0.01	0.016	0.026	<0.01	<0.01	<.0002
SW-3	Apr-00	<0.016	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
SW-3	Jun-00											
SW-3	Sep-00											
SW-3	Dec-00											
SW-5	Apr-99											
SW-5	Jun-99											
SW-5	Sept-99											
SW-5	Dec-99	< .2	<0.01	<0.01	<0.01	0.075	<0.01	0.023	<0.028	<0.01	<0.01	<.0002
SW-5	Apr-00	<0.016	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
SW-5	Jun-00											
SW-5	Sep-00											
SW-5	Dec-00											
SW-8	Apr-99											
SW-8	Jun-99											
SW-8	Sept-99											
SW-8	Dec-99	< .2	<0.01	<0.01	<0.01	0.042	<0.01	<0.01	0.033	<0.01	<0.01	<.0002
SW-8	Apr-00	0.017	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	<0.020	<0.010	<0.010	<0.0002
SW-8	Jun-00											
SW-8	Sep-00											
SW-8	Dec-00											
SW-13	Apr-99											
SW-13	Jun-99											
SW-13	Sept-99											
SW-13	Dec-99	< .2	<0.01	<0.01	<0.01	0.059	<0.01	0.022	0.012	<0.01	<0.01	<.0002
SW-13	Apr-00	0.017	<0.010	<0.017	<0.012	<0.002	<0.010	<0.001	0.149	<0.010	<0.010	<0.0002
SW-13	Jun-00											
SW-13	Sep-00											
SW-13	Dec-00											

Table 15. Upstream/Downstream Surface Water Quality - Statistical Analysis

Sample Location	Sample Date	ALK (mg/l)	NH3 (mg/l)	Cl- (mg/l)	Hard (mg/l)	NO3- (mg/l)	Cond umhos/cm	DO (mg/l)	Phenols (mg/l)	SO4 = (mg/l)	TOC (mg/l)	Turbidity (NTU)	Ca (mg/l)	Fe (mg/l)	Mg (mg/l)	Mn (mg/l)	K (mg/l)	Na (mg/l)
SW-3	Nov-91	126	0.13	46	191	0.4	563	10.2	0.005	60.2	0.5	25	51.8	2.7	13.1	0.167	2.75	21.3
SW-3	Feb-92	84	0.18	31.7	113	0.27	348	11.2	0.005	41.6	6	17	31.1	4.63	8.63	0.135	1.83	12.9
SW-3	May-92	122	0.06	50	134	0.88	359	8.2	0.005	12.6	0.5	4.5	36.70	0.59	10.30	0.08	1.06	15.0
SW-3	Aug-92	122	0.02	42	150	1.08	330	8	0.005	45.6	0.5	6.4	41.6	0.591	11.2	0.069	2.78	14
SW-3	Dec-92	122	0.2	31.5	117	0.01		13	0.005	64.4	0.5	4.1	32.1	0.345	9.05	0.050	1.69	17.2
SW-3	Feb-93	120	0.08	46.5	115	1.18	449	12.6	0.005	32.5	12	3.8	30.2	0.299	9.50	0.072	1.36	22.3
SW-3	Jun-93	134	0.01	39.0	156	1.2	286	6.0	0.005	74.4	5	13	42	0.841	12.4	0.075	1.9	21.2
SW-3	Sep-93	168	0.01	56.0	169	0.93	426	6.8	0.005	75.2	2.0	32	44.2	1.61	23.6	0.097	2.68	30.0
SW-3	Dec-93	60.0	0.01	25.0	114	1.6	267	10.0	0.005	46.0	13.0	28.5	30.2	0.909	9.3	0.080	1.64	12.1
SW-3	Mar-94	68.0	0.01	41.0	111	0.81	316	11.2	0.005	59.6	9.0	1.8	29.6	0.453	8.9	0.049	1.59	19.5
SW-3	Jun-94	140	0.01	39.0	161	0.70	404	7.6	0.005	25.3	0.5	11	42.4	0.36	13.4	0.066	1.29	20.1
SW-3	Aug-94	60	0.01	24.5	89.2	0.87	272	6.8	0.005	58.5	9	16.5	25.6	0.95	6.15	0.01	2.22	9.86
SW-3	Nov-94	71	0.16	30	82.4	0.92	277	9.8	0.013	43.6	10	16	20.5	1.02	7.6	0.13	2.82	13.5
SW-3	March-95	112	0.07	35	147	0.76	320	10.4	0.005	22.3	5	3.1	29	0.37	11	0.051	1.12	16
SW-3	June-95	121	0.11	45	166	1.17	375	13.5	0.005	29.9	2	19	40.8	0.55	15.5	0.11	2.06	20.6
SW-3	Sept.-95	126	0.16	58	173	1.26	378	9.1	0.005	41	12	20	38.4	0.88	18.8	0.088	3.92	26.7
SW-3	Dec-95	96	0.06	34	120	1.12	297	12.9	0.005	46	0.5	4.3	29.8	0.36	11	0.061	1.64	20.7
SW-3	April-96	100	0.015	39	180	0.18	460		0.001	28	6.1	10	34	0.33	11	0.041	1.7	20
SW-3	June-96	130	0.015	35	170	0.71	435	4.9	0.001	38	6.8	10	42	1.1	13	0.12	2	22
SW-3	Sept-96	96	0.015	22	120	0.64	320	8.8	0.0053	29	11	250	34	1.1	9.4	0.08	1.8	15
SW-3	Nov-96	100	0.015	29	110	0.88	343	11.62	0.001	22	6.1	5.9	30	0.43	9.5	0.05	1.4	14
SW-3	March-97	92	0.015	40	82	0.71	356	12.4	0.001	24	4.9	20	24	0.41	5.3	0.09	1.1	12
SW-3	Sept-97	170	0.015	41	140	0.63	410	8.9	0.002	29	8.5	21	36	1.2	11	0.086	2	21
SW-3	Dec-97	200	0.015	29	86	0.23	314	10.14	0.002	47	11	5	25	0.27	5.6	0.049	1.5	17
SW-3	Mar-98	56	0.015	32	90	0.36	245	10.67	0.002	33	6.9	12	20	0.59	4.8	0.04	1.3	17
SW-3	June-98	53	0.015	14	65	1.1	160	5.63	0.001	12	9.5	177	18	3.2	4.9	0.12	2.4	8.3
SW-3	Sept-98	200	0.015	61	220	0.78	541	6.27	0.001	39	5	88	55	2	21	0.12	4.3	29
SW-3	Dec-98	150	0.015	76	190	0.91	491	8.02	0.001	26	5.5	44	51	1.2	14	0.11	0.5	23
SW-3	Dec-00	45.8	0.05	30.6	95.2	1.54	293	8.1	0.0066	34	8.9	17.4	27.9	0.921	6.2	0.113	2.25	14.9
SW-13	Apr-99	93	0.015	43	120	0.58	390	9.31	0.001	23	5.2	68	31	0.59	10	0.06	1.5	17
SW-13	June-99	150	0.015	53	260	0.55	510	6.86	0.0026	26	5.8	130	67	8.2	21	1	3.2	37
SW-13	Sept-99	91	0.015	40	200	1.2	486	6.79	0.001	91	11	50	56	1.2	14	0.15	2.6	23
SW-13	Dec-99	120	0.092	35	190	3.1	477	11.01	0.001	97	10	70	57	1.3	12	0.2	3.1	16
SW-13	Apr-00	64.9	0.117	30.8	98.4	1.82	310	9.4	0.002	30	7	24	27.2	1.26	7.4	0.058	1.75	15.3
SW-13	June-00	116	0.05	36.1	140	0.753	325	7.9	0.002	20	10	19.6	37.3	0.86	11.4	0.098	1.65	19.4
SW-13	Sept-00	147	0.05	42.5	172	1.17	491	9	0.002	28	12	8.8	45.4	0.557	14.3	0.095	2.51	21.8
SW-13	Dec-00	52.6	0.05	30.2	96.7	1.67	285	8	0.002	36	9	18.4	28.1	1.09	6.44	0.111	2.18	14.9

t-Test Statistical Analysis

n	37	37	37	37	37	36	36	37	37	37	37	37	37	37	37	37	37
MEAN	110.251	0.052	38.741	138.754	0.937	369.694	9.195	0.004	40.289	6.708	34.462	36.268	1.223	11.126	0.113	2.029	18.664
SUM x	4079.3	1.909	1433.4	5133.9	34.673	13309	331.02	0.1315	1490.7	248.2	1275.1	1341.9	45.266	411.67	4.181	75.09	690.56
SUM (x)^2	5.1E+05	2.1E-01	6.1E+04	7.8E+05	4.4E+01	5.2E+06	3.2E+03	6.9E-04	7.5E+04	2.2E+03	1.4E+05	5.3E+04	1.3E+02	5.3E+03	1.3E+00	1.8E+02	1.4E+04
S^2	1584.84	0.0030	140.62	1954.76	0.31	8547.25	5.03	6.1E-06	410.76	14.90	2662.98	129.69	2.16	20.55	2.4E-02	0.63	33.52
S	39.81	0.055	11.86	44.21	0.55	92.45	2.24	2.5E-03	20.27	3.86	51.60	11.39	1.47	4.53	0.155	0.79	5.79
Sx	6.54	0.009	1.95	7.27	0.09	15.41	0.37	4.0E-04	3.33	0.63	8.48	1.87	0.24	0.75	0.025	0.13	0.95
+/- RANGE	18.72	0.026	5.58	20.80	0.26	44.35	1.08	1.16E-03	9.53	1.82	24.27	5.36	0.69	2.13	0.073	0.37	2.72

Range of Data Values to be Considered Comparable with Background (upgradient) Conditions.

(Based Upon a 99% Confidence Interval)

U.C.I.	128.98	0.077	44.32	159.55	1.20	414.04	10.27	0.005	49.82	8.52	58.73	41.62	1.91	13.26	0.19	2.40	21.39
L.C.I.	91.53	0.026	33.16	117.96	0.68	325.35	8.12	0.002	30.76	4.89	10.19	30.91	0.53	8.99	0.04	1.66	15.94

Downstream Surface Water Sampling Point (Existing Landfill)

SW-5	Dec-00	91.7	0.167	36.7	193	1.72	400	7.9	0.007	81	7.4	38.8	82.4	9.17	15.1	0.674	3.06	18.4
SW-6	Dec-00	91.2	0.143	36.3	155	1.79	386	7.6	<0.004	39	5.5	36	41.7	3.13	12.3	0.243	2.33	19.3

= Above Background Conditions

TABLE 16 -- MANHOLE ANALYTICAL RESULTS

Parameters	Units	MH-7	MH-15
<i>Date Sampled</i>		<i>12/27/00</i>	<i>12/27/00</i>
Specific Conductivity	Umhos/cm	10980	7730
Eh	MV	-22	-17
Field pH	SU	6.98	7.26
Temperature	deg C	8.8	3.4
Turbidity	NTU	130	37
TOC	mg/l	320	320
Alkalinity as CaCo3	mg/l	3080	3000
Ammonia as N	mg/l	477	360
Biological Oxygen Demand	mg/l	96	49
Chloride	mg/l	1760	920
Chemical Oxygen Demand	mg/l	1040	833
Nitrate as N	mg/l	0.108	0.05
Total Hardness as CaCo3	mg/l	1820	760
Kjeldahl Nitrogen as N	mg/l	693	461
Phenolics, Total	mg/l	0.0504	0.0625
Solids, Dissolved	mg/l	4740	3470
Sulfate as SO4	mg/l	63	61
Bromide	mg/l	< 1	< 1
Cadmium	mg/l	0.059	< 0.005
Calcium	mg/l	483	157
Iron	mg/l	615	4.71
Lead	mg/l	< 0.001	0.01
Magnesium	mg/l	148	89.3
Manganese	mg/l	7.2	0.948
Potassium	mg/l	346	247
Sodium	mg/l	1240	785
Cadmium, dissolved	mg/l	< 0.005	< 0.005
Calcium, dissolved	mg/l	97.7	143
Iron, dissolved	mg/l	7.26	3.03
Lead, dissolved	mg/l	< 0.001	< 0.001
Magnesium, dissolved	mg/l	108	85.2
Manganese, dissolved	mg/l	0.383	0.908
Potassium, dissolved	mg/l	333	243
Sodium, dissolved	mg/l	1250	769

TABLE 17
METHOD DETECTION LIMITS

6NYCRR PART 360 BASELINE VOLATILE COMPOUNDS

CAS NO.	COMPOUND	DETECTION LIMIT UG/L
74-87-3	Chloromethane	5
75-01-4	Vinyl Chloride	2
74-82-9	Bromomethane	5
75-00-3	Chloroethane	5
75-69-4	Trichlorofluoromethane	5
75-35-4	1,1-Dichloroethene	5
69-64-1	Acetone	25
75-15-0	Carbon Disulfide	5
74-88-4	Iodomethane	5
75-09-2	Methylene chloride	5
107-13-1	Acrylonitrile	20
156-60-5	trans-1,2-Dichloroethene	5
75-34-3	1,1-Dichloroethane	5
108-05-4	Vinyl Acetate	5
156-59-2	cis-1,2-Dichloroethene	5
78-93-3	Methyl ethyl ketone	25
74-97-5	Bromochloromethane	5
67-66-3	Chloroform	5
71-55-6	1,1,1-Trichloroethane	5
56-23-5	Carbon tetrachloride	5
71-43-2	Benzene	0.7
107-06-2	1,2-Dichloroethane	5
79-01-6	Trichloroethene	5
78-87-5	1,2-Dichloropropane	5
74-95-3	Dibromomethane	5
75-27-4	Bromodichloromethane	5
10061-01-5	cis-1,3-Dichloropropene	5
108-10-1	Methyl Isobutyl Ketone	10
108-88-3	Toluene	5
10061-02-6	trans-1,3-Dichloropropene	5
79-00-5	1,1,2-Trichloroethane	5
127-18-4	Tetrachloroethene	5
591-78-6	2-Hexanone	10
124-48-1	Dibromochloromethane	5
106-93-4	1,2-Dibromoethane	5
108-90-7	Chlorobenzene	5
630-20-6	1,1,1,2-Tetrachloroethane	5
100-41-4	Ethylbenzene	5
1330-20-7	p-Xylene/m-Xylene	5
95-47-6	o-Xylene	5
100-42-5	Styrene	5
75-25-2	Bromoform	5
110-57-6	trans-1,4-Dichloro-2-butene	5
79-34-5	1,1,2,2-Tetrachloroethane	5
96-18-4	1,2,3-Trichloropropane	5
106-46-7	1,4-Dichlorobenzene	2
95-50-1	1,2-Dichlorobenzene	2
96-12-8	1,2-Dibromo-3-chloropropane	5

6NYCRR PART 360 BASELINE INORGANICS

CAS No.	ANALYTE	DETECTION LIMIT mg/L
7429-90-5	Aluminum	0.075
7440-36-0	Antimony	0.003
7440-38-2	Arsenic	0.005
7440-39-3	Barium	0.016
7440-41-7	Beryllium	0.002
7440-43-9	Cadmium	0.005
7440-70-2	Calcium	0.500
7440-47-3	Chromium	0.010
	Chromium, Hex.	0.01
7440-48-4	Cobalt	0.010
7440-50-8	Copper	0.017
7439-89-6	Iron	0.040
7439-92-1	Lead	0.001
7439-95-4	Magnesium	0.500
7439-96-5	Manganese	0.005
7439-97-6	Mercury	0.0002
7440-02-0	Nickel	0.012
7440-09-7	Potassium	0.500
7782-49-2	Selenium	0.002
7440-22-4	Silver	0.010
7440-23-5	Sodium	0.200
7440-28-0	Thallium	0.001
7440-62-2	Vanadium	0.010
7440-66-6	Zinc	0.030
	Boron	0.048

Total Hardness	1
Nitrate as N	0.05
Alkalinity	1
Ammonia	0.1
BOD	3
Bromide	1
Chloride	1
COD	10
Color, Apparent	5 PtCoU
Cyanide	0.01
T. Phenolics	0.004
TDS	10
Sulfate	5
Kjeldahl Nitrogen	1
TOC	1

TABLE 18. - STATISTICAL TREND ANALYSIS SUMMARY

Monitoring Location	Parameter	Trend
PZ-1	Alkalinity	Increasing
	Hardness	Increasing
	Calcium	Increasing
	Magnesium	Increasing
	Potassium	Increasing
	Sodium	Increasing
PZ-4	Alkalinity	Increasing
	Chloride	Increasing
	Sulfate	Decreasing
	TDS	Decreasing
	Calcium	Increasing
	Iron	Increasing
	Magnesium	Increasing
	Manganese	Increasing
	Potassium	Increasing
	Sodium	Increasing
PZ-11	Alkalinity	Increasing
	Hardness	Increasing
	TDS	Increasing
	Calcium	Increasing
	Magnesium	Increasing
	Manganese	Increasing
	Potassium	Increasing
	Sodium	Increasing
MW-3B	Alkalinity	Increasing
	Chloride	Increasing
	Sulfate	Decreasing
	Calcium	Increasing
	Magnesium	Increasing
	Potassium	Increasing
	Sodium	Increasing
MW-207SA	Hardness	Increasing
	Chloride	Decreasing
	Sulfate	Decreasing
	TDS	Decreasing
	Manganese	Decreasing
	Alkalinity	Decreasing

TABLE 18. - STATISTICAL TREND ANALYSIS SUMMARY

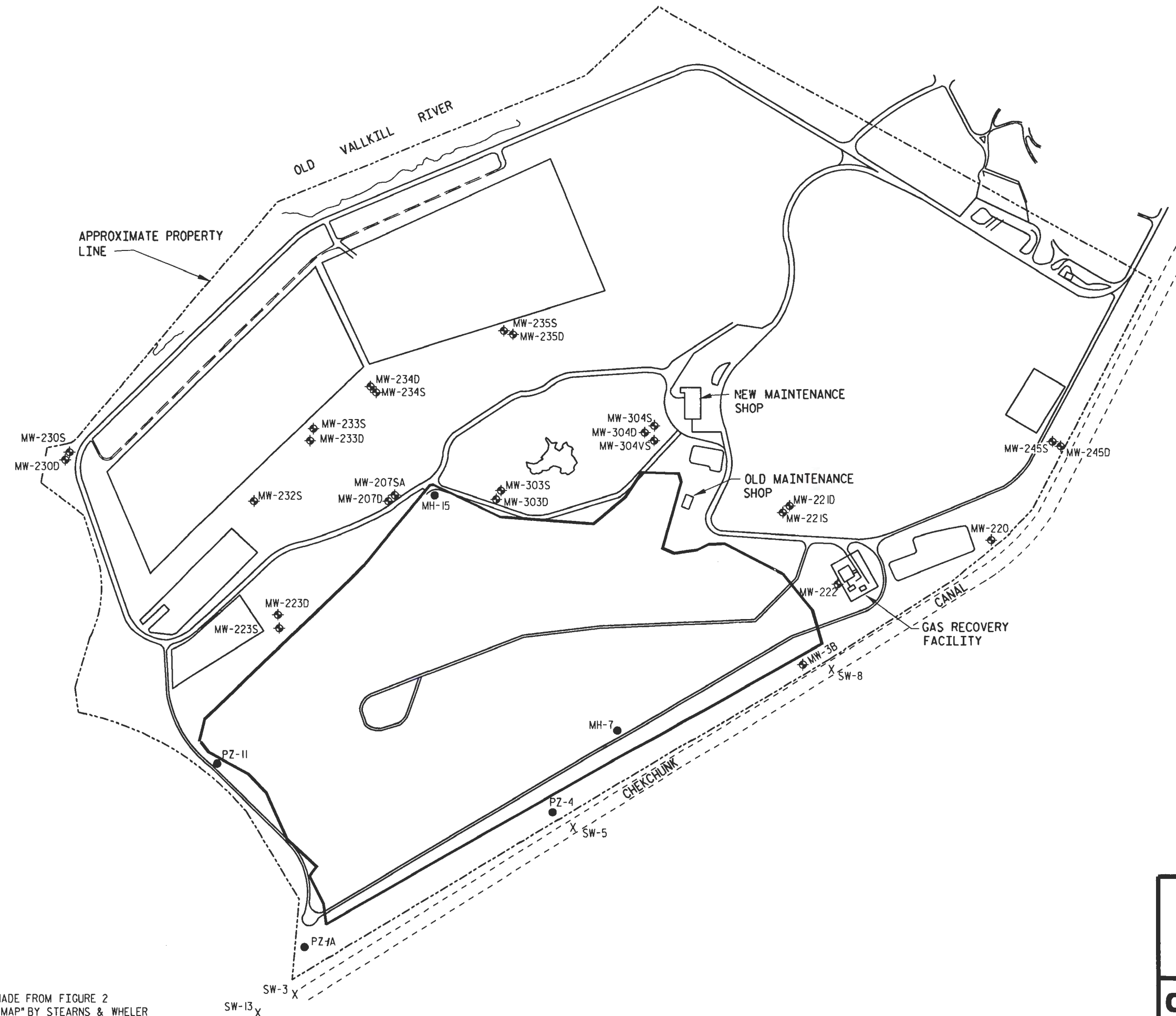
Monitoring Location	Parameter	Trend
MW-207D	Alkalinity	Increasing
	Hardness	Increasing
	Sulfate	Decreasing
	TDS	Increasing
	Calcium	Increasing
	Iron	Increasing
	Magnesium	Increasing
	Manganese	Increasing
	Potassium	Increasing
	Sodium	Increasing
MW-220	Chloride	Decreasing
	Magnesium	Increasing
	Alkalinity	Increasing
	Calcium	Increasing
	Hardness	Increasing
	Manganese	Increasing
	Potassium	Increasing
	Sodium	Increasing
MW-221S	Chloride	Decreasing
	Calcium	Increasing
	Magnesium	Increasing
	Potassium	Increasing
MW-221D	Calcium	Increasing
	Magnesium	Increasing
	Potassium	Increasing
	Sodium	Increasing
MW-222	Alkalinity	Increasing
	Chloride	Increasing
	Sulfate	Decreasing
	Iron	Increasing
	Magnesium	Increasing
	Potassium	Increasing
	Sodium	Increasing
MW-223S	Chloride	Increasing
	Sulfate	Decreasing
	TDS	Decreasing
	Calcium	Increasing
	Iron	Increasing
	Manganese	Increasing
	Potassium	Increasing
	Sodium	Increasing

TABLE 18. - STATISTICAL TREND ANALYSIS SUMMARY

Monitoring Location	Parameter	Trend
MW-223D	Alkalinity	Decreasing
	Hardness	Decreasing
	Sulfate	Decreasing
	Iron	Increasing
	Potassium	Increasing
	Sodium	Increasing
MW-303S	Sulfate	Decreasing
	Alkalinity	Decreasing
	Sodium	Decreasing
	TDS	Decreasing
MW-303D	Alkalinity	Increasing
	Hardness	Increasing
	Sulfate	Decreasing
	Calcium	Increasing
	Iron	Increasing
	Magnesium	Increasing
	Potassium	Decreasing
MW-304D	Chloride	Decreasing
	Alkalinity	Decreasing
	Hardness	Decreasing
	Sulfate	Decreasing
	Calcium	Decreasing
	TDS	Decreasing
MW-304S	Alkalinity	Decreasing
	TDS	Decreasing
	Sulfate	Decreasing
	Sodium	Decreasing
MW-304VS	Alkalinity	Decreasing
	Sulfate	Decreasing
MW-232S	Alkalinity	Increasing
	Hardness	Increasing
	TDS	Increasing
	Calcium	Increasing
	Magnesium	Increasing
	Manganese	Increasing

TABLE 18. - STATISTICAL TREND ANALYSIS SUMMARY

Monitoring Location	Parameter	Trend
MW-234S	Alkalinity	Increasing
	Hardness	Increasing
	Sulfate	Increasing
	TDS	Increasing
	Calcium	Increasing
	Magnesium	Increasing
	Manganese	Increasing
	Potassium	Increasing
MW-234D	Iron	Increasing
	Alkalinity	Increasing
	Calcium	Increasing
	Magnesium	Increasing
	Sulfate	Decreasing
	Potassium	Increasing
MW-245S	Chloride	Decreasing
	Sulfate	Decreasing
	TDS	Decreasing
	Manganese	Increasing
	Potassium	Increasing
	Sodium	Increasing
MW-245D	Chloride	Increasing
	Hardness	Increasing
	Sulfate	Increasing
	TDS	Increasing
	Calcium	Increasing



LEGEND

- | | |
|---|----------------------------|
| — | APPROXIMATE REFUSE LIMIT |
| X | SW-1 |
| ◆ | MW-302 |
| ● | PZ-II |
| ● | MH-15 |
| ● | |
| | SURFACE WATER LOCATION |
| | MONITORING WELL LOCATION |
| | PIEZOMETER LOCATION |
| | LEACHATE SAMPLING LOCATION |

ORANGE COUNTY LANDFILL
TOWN OF GOSHEN, NEW YORK

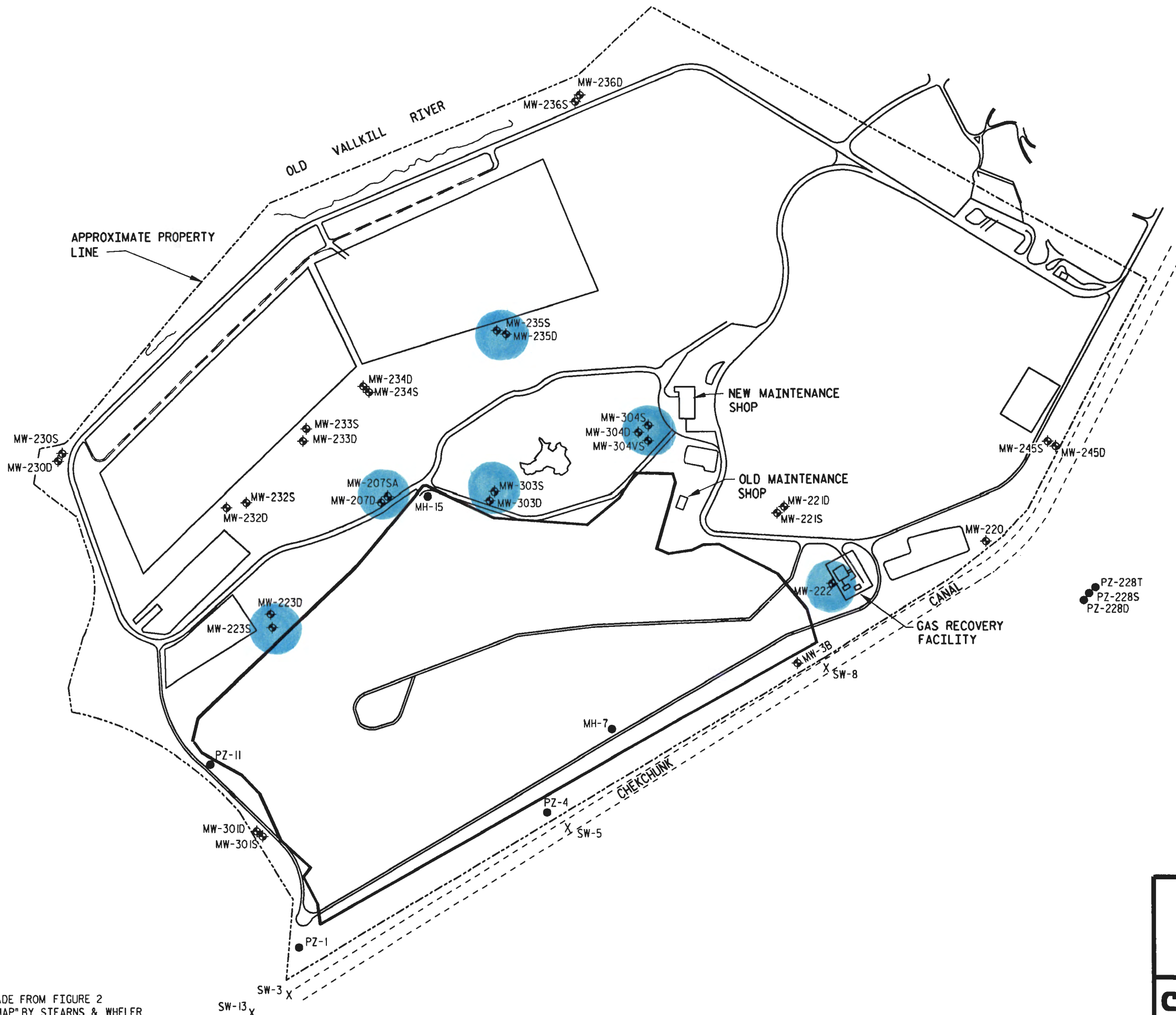
LANDFILL SITE MAP

C&S Engineers, Inc.
BYPLANS @ BUFFALO @ BIRMINGHAM

DATE: JULY 1999
SCALE: 1" = 500' APPROX.
FILE NO. 104.007.008

FIGURE 1

THIS DRAWING MADE FROM FIGURE 2
"LANDFILL SITE MAP" BY STEARNS & WHEELER



LEGEND

- APPROXIMATE REFUSE LIMIT
- X SW-1 SURFACE WATER LOCATION
- ◆ MW-302 MONITORING WELL LOCATION
- PZ-11 PIEZOMETER LOCATION
- MH-15 LEACHATE SAMPLING LOCATION
- Areas of Apparent Leachate Influences

ORANGE COUNTY LANDFILL
TOWN OF GOSHEN, NEW YORK

LANDFILL SITE MAP

C&S Engineers, Inc. SYRACUSE • BUFFALO • BRIGHTON	DATE: JULY 1999
	SCALE: 1" = 500' APPROX.
	FILE NO. 104.007.008

FIGURE 2

THIS DRAWING MADE FROM FIGURE 2
"LANDFILL SITE MAP" BY STEARNS & WHEELER

APPENDIX A

**2000 FOURTH QUARTER MONITORING EVENT
FIELD SAMPLING LOGS AND CHAIN OF CUSTODY DOCUMENTATION**



ONE RESEARCH CIRCLE
WAVERLY NY 14892-1532
Telephone (607) 565 3500
Fax (607) 565 7160

Sample Site: *Orange Co. Landfill*

Sample Matrix: DW WW MW SOIL AIR OTH
GRAB COMPOSITE OTH

Untreated
Sodium thiosulfate
HCl pH <2
Ascorbic acid & HCl pH <2
HNO₃ pH <2
H₂SO₄ pH <2
NaOH pH >12
NaOH & Zinc acetate pH >9
Acetic Buffer pH <3
Sodium sulfite

CLIENT: *C&S Eng.*
ADDRESS:

PHONE: FAX:

INVOICE TO:
ADDRESS:

PROJECT NO. / NAME
Orange Co. Landfill

COPY TO:
ADDRESS:

DATE & TIME OF SAMPLE COLLECTION	SAMPLE DESCRIPTION	NUMBER OF CONTAINERS										ANALYSES / TESTS REQUESTED	SAMPLE NUMBER
<i>12/27/00</i>	<i>10:55</i>	<i>PZ-1A</i>	<i>5</i>					<i>2</i>	<i>4</i>			<i>NYS 360 routine w/ diss. metals</i>	<i>61584</i>
<i>10:45</i>	<i>PZ-4</i>	<i>5</i>						<i>2</i>	<i>4</i>			<i>-2</i>	<i>61585</i>
<i>11:10</i>	<i>PZ-11</i>	<i>5</i>						<i>2</i>	<i>4</i>			<i>-3</i>	<i>LAB USE ONLY</i>
<i>10:35</i>	<i>MW-3B + ms/msg</i>	<i>6</i>						<i>4</i>	<i>8</i>			<i>-4, 32, 33</i>	<i>4, 32, 33</i>
<i>8:10</i>	<i>MW-207SA</i>	<i>5</i>						<i>2</i>	<i>4</i>			<i>-5</i>	<i>-5</i>
<i>8:15</i>	<i>MW-207D</i>	<i>5</i>						<i>2</i>	<i>4</i>			<i>-6</i>	<i>-6</i>
<i>10:25</i>	<i>MW-220</i>	<i>5</i>						<i>2</i>	<i>4</i>			<i>-7</i>	<i>-7</i>
<i>10:10</i>	<i>MW-221S</i>	<i>5</i>						<i>2</i>	<i>4</i>			<i>-8</i>	<i>-8</i>

RELINQUISHED BY	DATE / TIME	ACCEPTED BY	DATE / TIME	NOTES TO LABORATORY
SAMPLER <i>Light</i>	<i>12-27-00</i> <i>4:00 PM</i>	<i>Ten Jones</i>	<i>12/28/00</i> <i>7:37</i>	
				SUSPECTED CONTAMINATION LEVEL NONE SLIGHT MODERATE HIGH (please circle)

FLI
 FRIEND
 LABORATORY
 I • N • C

 ONE RESEARCH CIRCLE
 WAVERLY NY 14892-1532
 Telephone (607) 565 3500
 Fax (607) 565 7160
Sample Site: Orange Co. Landfill
 Sample Matrix: DW ☐ WW ☐ MW SOIL AIR OTH _____
 GRAB COMPOSITE OTH _____

Untreated

Sodium thiosulfate

HCl pH <2

Ascorbic acid & HCl pH <2

HNO₃ pH <2H₂SO₄ pH <2

NaOH pH >12

NaOH & Zinc acetate pH >9

Acetic Buffer pH <3

Sodium sulfite

 CLIENT: Cts Eng.
 ADDRESS:

PHONE: FAX:

PROJECT NO. / NAME

Orange Co. Landfill
 INVOICE TO:
 ADDRESS:

 COPY TO:
 ADDRESS:
DATE & TIME OF
SAMPLE COLLECTION

SAMPLE DESCRIPTION

NUMBER OF
CONTAINERS

ANALYSES / TESTS REQUESTED

SAMPLE
NUMBER

LAB USE ONLY

12/27/00 10:15

mw-221D

5

2 4

nys 360 routine w/diss. metals

10:10

mw-222

5

2 4

-10

-10

8:25

mw-223s

5

2 4

-11

-11

8:30

mw-223D

5

2 4

-12

-12

8:50

mw-232s

5

2 4

-13

-13

9:00

mw-233s

5

2 4

-14

-14

9:10

mw-234s

5

2 4

-15

-15

9:20

mw-234D

5

2 4

-16

-16

RELINQUISHED BY

DATE / TIME

ACCEPTED BY

DATE/TIME

NOTES TO LABORATORY

SAMPLER

12-27-00
4:00 PM

Tone Jones

12/28/00
7:37

SUSPECTED CONTAMINATION LEVEL

NONE SLIGHT MODERATE HIGH (please circle)



ONE RESEARCH CIRCLE
WAVERLY NY 14892-1532
Telephone (607) 565 3500
Fax (607) 565 7160

Sample Site: *Orange Co. Landfill*

Sample Matrix: DW WW MW SOIL AIR OTH
GRAB COMPOSITE OTH

Untreated
Sodium thiosulfate
HCl pH <2
Ascorbic acid & HCl pH <2
HNO₃ pH <2
H₂SO₄ pH <2
NaOH pH >12
NaOH & Zinc acetate pH >9
Acetic Buffer pH <3
Sodium sulfite

CLIENT: *C&S Eng.*
ADDRESS:
PHONE: FAX:

INVOICE TO:
ADDRESS:

PROJECT NO. / NAME
Orange Co. Landfill

COPY TO:
ADDRESS:

DATE & TIME OF SAMPLE COLLECTION	SAMPLE DESCRIPTION	NUMBER OF CONTAINERS										ANALYSES / TESTS REQUESTED	SAMPLE NUMBER
12/21/00	9:30 mw-2355	5						2	4			<i>Nys 360 routine w/diss. Metals</i>	<i>661584</i>
	9:40 mw-235D	5						2	4				<i>-17</i>
	11:20 mw-2455	5						2	4				<i>-18</i>
	11:35 mw-245D	5						2	4				<i>-19</i>
	8:35 mw-3035	5						2	4				<i>-20</i>
	8:40 mw-303D	5						2	4				<i>-21</i>
	9:50 mw-304VS	5						2	4				<i>-22</i>
	9:55 mw-304S	5						2	4				<i>-23</i>
		5						2	4				<i>-24</i>

RELINQUISHED BY SAMPLER	DATE / TIME	ACCEPTED BY	DATE / TIME	NOTES TO LABORATORY
<i>John H.</i>	12/27/00 4:00 PM	<i>Tone Jones</i>	12/28/00 7:37	
				SUSPECTED CONTAMINATION LEVEL NONE SLIGHT MODERATE HIGH (please circle)

FLI FRIEND LABORATORY I • N • C ONE RESEARCH CIRCLE WAVERLY NY 14892-1532 Telephone (607) 565 3500 Fax (607) 565 7160		Untreated Sodium thiosulfate HCl pH <2 Ascorbic acid & HCl pH <2 HNO₃ pH <2 H₂SO₄ pH <2 NaOH pH >12 NaOH & Zinc acetate pH >9 Acetic Buffer pH <3 Sodium sulfite		CLIENT: C & S Eng. ADDRESS: PHONE: FAX:		INVOICE TO: ADDRESS:	
				PROJECT NO. / NAME Orange Co. Landfill		COPY TO: ADDRESS:	
Sample Site: Orange Co. Landfill Sample Matrix: DW WW <u>MW</u> SOIL AIR <u>OTH</u> GRAB COMPOSITE OTH							
DATE & TIME OF SAMPLE COLLECTION		SAMPLE DESCRIPTION		NUMBER OF CONTAINERS		ANALYSES / TESTS REQUESTED	
12/27/00 10:00		MW-304D		5 2 4		NYS 360 routine w/diss metal	
10:55		SW-3		5 2 4		-25	
10:45		SW-5		5 2 4		-26	
10:35		SW-8		5 2 4		-27	
11:00		SW-13		5 2 4		-28	
10:40		MH-7		5 2 4		-29	
8:00		MH-15		5 2 4		-30	
						-31	
RELINQUISHED BY		DATE / TIME		ACCEPTED BY		DATE / TIME	
SAMPLER <i>[Signature]</i>		12/27/00 4:00		<i>Tom Jones</i>		12/28/00 7:37	
						SUSPECTED CONTAMINATION LEVEL	
						NONE SLIGHT MODERATE HIGH (please circle)	

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) SW

MONITORING POINT# SW-3

SAMPLE DATE: (12/27/05)
SAMPLE TIME: 10:45

PURGE DATE: () / () / ()
PURGE TIME: From To

PURGE EQUIPMENT: Teflon Bailer Pump Other
SAMPLE EQUIPMENT: Teflon Bailer Pump Other

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) STEEL (standpipe)
TOTAL DEPTH Ft.
DEPTH TO WATER Ft. DUPLICATE
LENGTH OF COLUMN Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = Purge Volume in Gallons
Volume of Water for 3 Volumes Gallons
Did Well Go Dry? Yes No
Actual Volume of Water Removed: Gallons
Pumping Rates in GPM
Proper Disposal of Purge Water: Yes No

PHYSICAL CHARACTERISTICS DURING PURGE: Color
Odor
Visual Turbidity

PRESENCE OF IMMISCIBLE LAYERS: Yes No Top Bottom

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color 4 L...
Odor
Visual Turbidity 1.0

PRESENCE OF IMMISCIBLE LAYERS: Yes No X Top Bottom

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity		293	uMHOS
Sampling Depth	XXXXXX	X	Ft.
Initial Depth to Water	XXXXXX	X	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	8.1	ppm
Eh		99	mV
pH		7.87	
Temperature		1.1	C
Depth Recovered to at Sampling	XXXXXX	X	Ft.
Turbidity		17.4	NTU

Filtered in the field: Yes X No NA

NOTES

Technicians: ND/MS/CP Weather: Partly Sunny 20°

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: Orange County Landfill
SAMPLE SOURCE (Description): SW

MONITORING POINT# SW-5

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 10:45

PURGE DATE: (/ /)
PURGE TIME: From To

PURGE EQUIPMENT: Teflon Bailer Pump Other
SAMPLE EQUIPMENT: Teflon Bailer Pump Other

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) STEEL (standpipe)
TOTAL DEPTH Ft.
DEPTH TO WATER Ft. DUPLICATE
LENGTH OF COLUMN Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = Purge Volume in Gallons
Volume of Water for 3 Volumes Gallons
Did Well Go Dry? Yes No
Actual Volume of Water Removed: Gallons
Pumping Rates in GPM
Proper Disposal of Purge Water: Yes No

PHYSICAL CHARACTERISTICS DURING PURGE: Color
Odor
Visual Turbidity

PRESENCE OF IMMISCIBLE LAYERS: Yes No Top Bottom

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color lt. brown
Odor no
Visual Turbidity mod.

PRESENCE OF IMMISCIBLE LAYERS: Yes No X Top Bottom

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity		400	uMHOS
Sampling Depth	XXXXXX	X	Ft.
Initial Depth to Water	XXXXXX	X	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	7.9	ppm
Eh		120	mV
pH		7.01	
Temperature		1.1	C
Depth Recovered to at Sampling	XXXXXX	X	Ft.
Turbidity		38.8	NTU

Filtered in the field: Yes X No NA

NOTES

Technicians: NS / JB / CR Weather: partly sunny 20°

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) SW

MONITORING POINT# SW-8

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 10:35

PURGE DATE: (/ /)
PURGE TIME: From To

PURGE EQUIPMENT: Teflon Bailer Pump Other
SAMPLE EQUIPMENT: Teflon Bailer Pump Other

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) STEEL (standpipe)
TOTAL DEPTH Ft.
DEPTH TO WATER Ft. DUPLICATE
LENGTH OF COLUMN Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = Purge Volume in Gallons
Volume of Water for 3 Volumes Gallons
Did Well Go Dry? Yes No
Actual Volume of Water Removed: Gallons
Pumping Rates in GPM
Proper Disposal of Purge Water: Yes No

PHYSICAL CHARACTERISTICS DURING PURGE: Color
Odor
Visual Turbidity

PRESENCE OF IMMISCIBLE LAYERS: Yes No Top Bottom

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color lt. brown
Odor
Visual Turbidity mod

PRESENCE OF IMMISCIBLE LAYERS: Yes No X Top Bottom

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity		386	uMHOS
Sampling Depth	XXXXXX	X	Ft.
Initial Depth to Water	XXXXXX	X	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	7.6	ppm
Eh		395	mV
pH		7.93	
Temperature		2.2	C
Depth Recovered to at Sampling	XXXXXX	X	Ft.
Turbidity		36	NTU

Filtered in the field: Yes X No NA

NOTES

Technicians: AS/MS/CM

Weather: Partly Sunny 20°

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) SW

MONITORING POINT# SW-13

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 11:00

PURGE DATE: () / () / ()
PURGE TIME: From To

PURGE EQUIPMENT: Teflon Bailer Pump Other
SAMPLE EQUIPMENT: Teflon Bailer Pump Other

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) STEEL (standpipe)
TOTAL DEPTH Ft.
DEPTH TO WATER Ft. DUPLICATE
LENGTH OF COLUMN Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = Gallons
Volume of Water for 3 Volumes Gallons
Did Well Go Dry? Yes No
Actual Volume of Water Removed: Gallons
Pumping Rates in GPM
Proper Disposal of Purge Water: Yes No

PHYSICAL CHARACTERISTICS DURING PURGE: Color
Odor
Visual Turbidity

PRESENCE OF IMMISCIBLE LAYERS: Yes No Top Bottom

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color lt. brown
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes No X Top Bottom

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity		285	uMHOS
Sampling Depth	XXXXXX	X	Ft.
Initial Depth to Water	XXXXXX	X	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	8.0	ppm
Eh		111	mV
pH		7.86	
Temperature		0.5	C
Depth Recovered to at Sampling	XXXXXX	X	Ft.
Turbidity		18.4	NTU

Filtered in the field: Yes X No NA

NOTES

Technicians: MS/SB/CH

Weather: partly sunny 2010

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: Orange County Landfill
SAMPLE SOURCE (Description) Leachate

MONITORING POINT# M11-7

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 10:40

PURGE DATE: (/ /)
PURGE TIME: From To

PURGE EQUIPMENT: Teflon Bailer Pump Other
SAMPLE EQUIPMENT: Teflon Bailer Pump Other S.S. bucket

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) STEEL (standpipe)
TOTAL DEPTH Ft.
DEPTH TO WATER Ft. DUPLICATE
LENGTH OF COLUMN Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = Purge Volume in Gallons
Volume of Water for 3 Volumes Gallons
Did Well Go Dry? Yes No
Actual Volume of Water Removed: Gallons
Pumping Rates in GPM
Proper Disposal of Purge Water: Yes No

PHYSICAL CHARACTERISTICS DURING PURGE: Color
Odor
Visual Turbidity

PRESENCE OF IMMISCIBLE LAYERS: Yes No Top Bottom

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color black
Odor yes
Visual Turbidity high

PRESENCE OF IMMISCIBLE LAYERS: Yes No X Top Bottom

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity		10980	uMHOS
Sampling Depth	XXXXXX	X	Ft.
Initial Depth to Water	XXXXXX	X	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	X	ppm
Eh		-22	mV
pH		6.98	
Temperature		8.8	C
Depth Recovered to at Sampling	XXXXXX	X	Ft.
Turbidity		130	NTU

Filtered in the field: Yes X No NA

NOTES

Technicians: ND/JD/6M Weather: partly sunny 20°

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) Leachate

MONITORING POINT# MH-15

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 8:00

PURGE DATE: () / () / ()
PURGE TIME: From To

PURGE EQUIPMENT: Teflon Bailer Pump Other
SAMPLE EQUIPMENT: Teflon Bailer X Pump Other

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) STEEL (standpipe)
TOTAL DEPTH Ft.
DEPTH TO WATER Ft. DUPLICATE
LENGTH OF COLUMN Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = Purge Volume in Gallons
Volume of Water for 3 Volumes Gallons
Did Well Go Dry? Yes No
Actual Volume of Water Removed: Gallons
Pumping Rates in GPM
Proper Disposal of Purge Water: Yes No

PHYSICAL CHARACTERISTICS DURING PURGE: Color
Odor
Visual Turbidity

PRESENCE OF IMMISCIBLE LAYERS: Yes No Top Bottom

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color yellow/orange
Odor yes
Visual Turbidity mod.

PRESENCE OF IMMISCIBLE LAYERS: Yes No X Top Bottom

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity		7730	uMHOS
Sampling Depth	XXXXXX	X	Ft.
Initial Depth to Water	XXXXXX	X	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	X	ppm
Eh		-17	mV
pH		7.26	
Temperature		3.4	C
Depth Recovered to at Sampling	XXXXXX	X	Ft.
Turbidity		37	NTU

Filtered in the field: Yes X No NA

NOTES

Technicians: AS/JOS/CA Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) MW

MONITORING POINT# PZ-11

SAMPLE DATE: (12/27/02)
SAMPLE TIME: 11:10

PURGE DATE: (12/26/02)
PURGE TIME: From 1:23 To 1:33

PURGE EQUIPMENT: ^{PVC}~~Teflon~~ Bailer ☒ Pump _____ Other _____
SAMPLE EQUIPMENT: Teflon Bailer _____ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 29.90 Ft.
DEPTH TO WATER 18.22 Ft. DUPLICATE _____
LENGTH OF COLUMN 11.68 Ft. (LWC)

WELL DIAMETER: ^{1.66}~~2.00~~" LWC x 0.163 = 1.9 .48 Purge Volume in Gallons
Volume of Water for 3 Volumes 5.7 1.44 Gallons
Did Well Go Dry? Yes _____ No ☒
Actual Volume of Water Removed: 6 Gallons
Pumping Rates in GPM 6.166
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>951</u>	<u>997</u>	uMHOS
Sampling Depth	XXXXXX	<u>18.27</u>	Ft.
Initial Depth to Water	XXXXXX	<u>18.22</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>53</u>	<u>50</u>	mV
pH	<u>7.30</u>	<u>7.28</u>	
Temperature	<u>9.4</u>	<u>9.7</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>18.27</u>	Ft.
Turbidity	<u>12.6</u>	<u>12.3</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES

Technicians: RD / JDS / GAT Weather: Partly Sunny 20's

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**

MONITORING POINT# MW-2235

SAMPLE SOURCE (Description) MW

SAMPLE DATE: (12/27/00)

PURGE DATE: (12/26/00)

SAMPLE TIME: 8:25

PURGE TIME: From 1:37 To 1:50

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____

SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) _____ STEEL (standpipe) _____

TOTAL DEPTH 68.60 Ft.

DEPTH TO WATER 17.27 Ft. DUPLICATE _____

LENGTH OF COLUMN 50.73 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 8.3 Purge Volume in Gallons

Volume of Water for 3 Volumes 24.9 Gallons

Did Well Go Dry? Yes _____ No ☒

Actual Volume of Water Removed: 25 Gallons

Pumping Rates in GPM 2

Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear

Odor no

Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear

Odor no

Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1376</u>	<u>1370</u>	uMHOS
Sampling Depth	XXXXXX	<u>17.34</u>	Ft.
Initial Depth to Water	XXXXXX	<u>17.27</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>6</u>	<u>10</u>	mV
pH	<u>6.92</u>	<u>6.80</u>	
Temperature	<u>9.4</u>	<u>9.4</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>17.34</u>	Ft.
Turbidity	<u>5.5</u>	<u>3.0</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES _____

Technicians: NP / SDJ / CM Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**

MONITORING POINT# MW-2230

SAMPLE SOURCE (Description) MW

SAMPLE DATE: (12/27/00)

PURGE DATE: (12/26/00)

SAMPLE TIME: 8:30

PURGE TIME: From 1:38 To 1:56

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____

SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) _____ STEEL (standpipe) _____

TOTAL DEPTH 89.50 Ft.

DEPTH TO WATER 17.43 Ft. DUPLICATE _____

LENGTH OF COLUMN 70.07 Ft. (LWC) _____

WELL DIAMETER: 2.00" LWC x 0.163 = 11.4 Purge Volume in Gallons

Volume of Water for 3 Volumes 34.2 Gallons

Did Well Go Dry? Yes _____ No ☒

Actual Volume of Water Removed: 35 Gallons

Pumping Rates in GPM 2

Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear

Odor no

Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear

Odor no

Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1335</u>	<u>1345</u>	uMHOS
Sampling Depth	XXXXXX	<u>17.52</u>	Ft.
Initial Depth to Water	XXXXXX	<u>17.43</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>24</u>	<u>37</u>	mV
pH	<u>7.14</u>	<u>7.01</u>	
Temperature	<u>8.9</u>	<u>9.6</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>17.52</u>	Ft.
Turbidity	<u>9.1</u>	<u>9.2</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES _____

Technicians: NS/JH/CT Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) MV

MONITORING POINT# nw-2325

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 8:50

PURGE DATE: (12/26/00)
PURGE TIME: From 2:00 To 2:05

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 26.30 Ft.
DEPTH TO WATER 14.70 Ft. DUPLICATE _____
LENGTH OF COLUMN 11.60 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 1.9 Purge Volume in Gallons
Volume of Water for 3 Volumes 5.7 Gallons
Did Well Go Dry? Yes _____ No ☒
Actual Volume of Water Removed: 6 Gallons
Pumping Rates in GPM 115
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color LC
Odor no
Visual Turbidity LC

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color LC
Odor no
Visual Turbidity LC

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	856	855	uMHOS
Sampling Depth	XXXXXX	15.04	Ft.
Initial Depth to Water	XXXXXX	14.70	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	X	ppm
Eh	30	33	mV
pH	7.22	7.18	
Temperature	10.2	10.4	C
Depth Recovered to at Sampling	XXXXXX	15.04	Ft.
Turbidity	6.7	5.0	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES

Technicians: 100/cm/101 Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) mw

MONITORING POINT# A1W-233

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 9:00

PURGE DATE: (12/26/00)
PURGE TIME: From 2:15 To 2:18

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 19.90 Ft.
DEPTH TO WATER 14.70 Ft. DUPLICATE _____
LENGTH OF COLUMN 5.20 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = .85 Purge Volume in Gallons
Volume of Water for 3 Volumes 2.55 Gallons
Did Well Go Dry? Yes _____ No ☒
Actual Volume of Water Removed: 3 Gallons
Pumping Rates in GPM 1
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>891</u>	<u>895</u>	uMHOS
Sampling Depth	XXXXXX	<u>14.91</u>	Ft.
Initial Depth to Water	XXXXXX	<u>14.70</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>73</u>	<u>95</u>	mV
pH	<u>7.31</u>	<u>7.29</u>	
Temperature	<u>9.1</u>	<u>9.2</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>14.91</u>	Ft.
Turbidity	<u>1.6</u>	<u>1.1</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES cell was missing label

Technicians: AD / JCS / GAV Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**

MONITORING POINT# MW-2346

SAMPLE SOURCE (Description) MW

SAMPLE DATE: (12/27/00)

PURGE DATE: (12/26/00)

SAMPLE TIME: 9:10

PURGE TIME: From 2:30 To 2:40

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____

SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____

TOTAL DEPTH 44.85 Ft.

DEPTH TO WATER 17.93 Ft. DUPLICATE _____

LENGTH OF COLUMN 26.92 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 44 Purge Volume in Gallons

Volume of Water for 3 Volumes 13.2 Gallons

Did Well Go Dry? Yes _____ No ☒

Actual Volume of Water Removed: 14 Gallons

Pumping Rates in GPM 1.5

Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear

Odor no

Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear

Odor no

Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	630	631	uMHOS
Sampling Depth	XXXXXX	18.14	Ft.
Initial Depth to Water	XXXXXX	17.93	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	X	ppm
Eh	103	95	mV
pH	7.64	7.67	
Temperature	8.5	9.2	C
Depth Recovered to at Sampling	XXXXXX	18.14	Ft.
Turbidity	6.3	4.4	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES _____

Technicians: PS/JW/GA

Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) mw

MONITORING POINT# MW-234D

SAMPLE DATE: (12/21/00)
SAMPLE TIME: 9:20

PURGE DATE: (12/26/00)
PURGE TIME: From 2:45 To 3:05

PURGE EQUIPMENT: Teflon Bailer _____ Pump _____ Other _____
SAMPLE EQUIPMENT: Teflon Bailer _____ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) X STEEL (standpipe) _____
TOTAL DEPTH 86.55 Ft.
DEPTH TO WATER 18.45 Ft. DUPLICATE _____
LENGTH OF COLUMN 68.10 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 11.1 Purge Volume in Gallons
Volume of Water for 3 Volumes 33.3 Gallons
Did Well Go Dry? Yes _____ No X
Actual Volume of Water Removed: 35 Gallons
Pumping Rates in GPM 1.5
Proper Disposal of Purge Water: Yes X No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No X Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No X Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>625</u>	<u>624</u>	uMHOS
Sampling Depth	XXXXXX	<u>19.10</u>	Ft.
Initial Depth to Water	XXXXXX	<u>18.45</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>57</u>	<u>48</u>	mV
pH	<u>7.68</u>	<u>7.66</u>	
Temperature	<u>8.6</u>	<u>9.2</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>19.10</u>	Ft.
Turbidity	<u>5.3</u>	<u>4.7</u>	NTU

Filtered in the field: Yes X No _____ NA _____

NOTES _____

Technicians: NS/JD/GT Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) MW

MONITORING POINT# MW-2355

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 9:30

PURGE DATE: (12/26/00)
PURGE TIME: From 3:10 To 3:18

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 44.65 Ft.
DEPTH TO WATER 17.20 Ft. DUPLICATE _____
LENGTH OF COLUMN 27.45 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 4.5 Purge Volume in Gallons
Volume of Water for 3 Volumes 13.5 Gallons
Did Well Go Dry? Yes _____ No ☒
Actual Volume of Water Removed: 14 Gallons
Pumping Rates in GPM 2
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1163</u>	<u>1142</u>	uMHOS
Sampling Depth	XXXXXX	<u>17.34</u>	Ft.
Initial Depth to Water	XXXXXX	<u>17.20</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>1</u>	ppm
Eh	<u>-39</u>	<u>-39</u>	mV
pH	<u>7.48</u>	<u>7.39</u>	
Temperature	<u>8.0</u>	<u>8.4</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>17.34</u>	Ft.
Turbidity	<u>11</u>	<u>10</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES luck had been cont.

Technicians: NS / JBS / GM Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: Orange County Landfill
SAMPLE SOURCE (Description) mw

MONITORING POINT# mw-235D

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 9:40

PURGE DATE: (12/26/00)
PURGE TIME: From 3:20 To 3:40

PURGE EQUIPMENT: Teflon Bailer _____ Pump X Other _____
SAMPLE EQUIPMENT: Teflon Bailer X Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) X STEEL (standpipe) _____
TOTAL DEPTH 81.60 Ft.
DEPTH TO WATER 16.18 Ft. DUPLICATE _____
LENGTH OF COLUMN 65.42 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 10.7 Purge Volume in Gallons
Volume of Water for 3 Volumes 32.1 Gallons
Did Well Go Dry? Yes _____ No _____
Actual Volume of Water Removed: ~~32.1~~ 33 Gallons
Pumping Rates in GPM 2
Proper Disposal of Purge Water: Yes X No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No X Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No X Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>569</u>	<u>539</u>	uMHOS
Sampling Depth	XXXXXX	<u>16.31</u>	Ft.
Initial Depth to Water	XXXXXX	<u>16.18</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>-9</u>	<u>8</u>	mV
pH	<u>7.64</u>	<u>7.72</u>	
Temperature	<u>8.4</u>	<u>8.6</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>16.31</u>	Ft.
Turbidity	<u>4.1</u>	<u>2.6</u>	NTU

Filtered in the field: Yes X No _____ NA _____

NOTES _____

Technicians: nss/jps/GN Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) mw

MONITORING POINT# mw-2075A

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 8:10

PURGE DATE: (12/26/00)
PURGE TIME: From 3:50 To 3:55

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 25.00 Ft.
DEPTH TO WATER 18.10 Ft. DUPLICATE _____
LENGTH OF COLUMN 6.90 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 1.1 Purge Volume in Gallons
Volume of Water for 3 Volumes 3.3 Gallons
Did Well Go Dry? Yes _____ No ☒
Actual Volume of Water Removed: 3.5 Gallons
Pumping Rates in GPM 15
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	1110	1139	uMHOS
Sampling Depth	XXXXXX	18.27	Ft.
Initial Depth to Water	XXXXXX	18.10	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	X	ppm
Eh	9	21	mV
pH	7.22	6.83	
Temperature	9.1	9.3	C
Depth Recovered to at Sampling	XXXXXX	18.27	Ft.
Turbidity	19	3.3	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES _____

Technicians: MS/GMS/SB Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) MW

MONITORING POINT# MW-207D

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 8:15

PURGE DATE: (12/26/00)
PURGE TIME: From 3:55 To 4:05

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 59.00 Ft.
DEPTH TO WATER 19.25 Ft. DUPLICATE _____
LENGTH OF COLUMN 39.75 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 6.5 Purge Volume in Gallons
Volume of Water for 3 Volumes 19.5 Gallons
Did Well Go Dry? Yes _____ No ☒
Actual Volume of Water Removed: 20 Gallons
Pumping Rates in GPM 2
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear - light brown
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear - light brown
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1104</u>	<u>1106</u>	uMHOS
Sampling Depth	XXXXXX	<u>19.34</u>	Ft.
Initial Depth to Water	XXXXXX	<u>19.25</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>33</u>	<u>26</u>	mV
pH	<u>7.02</u>	<u>7.07</u>	
Temperature	<u>9.0</u>	<u>9.1</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>19.34</u>	Ft.
Turbidity	<u>32</u>	<u>25</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES

Technicians: MS/JS/GM Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) mw

MONITORING POINT# MW-3035

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 8:30

PURGE DATE: (12/26/00)
PURGE TIME: From 4:10 To 4:14

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 27.20 Ft.
DEPTH TO WATER 18.35 Ft. DUPLICATE _____
LENGTH OF COLUMN 8.85 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 1.4 Purge Volume in Gallons
Volume of Water for 3 Volumes 4.2 Gallons
Did Well Go Dry? Yes _____ No ☒
Actual Volume of Water Removed: 4.5 Gallons
Pumping Rates in GPM 1.1
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color CL
Odor yes
Visual Turbidity 1.0

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color CL
Odor yes
Visual Turbidity 1.0

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1234</u>	<u>1206</u>	uMHOS
Sampling Depth	XXXXXX	<u>18.42</u>	Ft.
Initial Depth to Water	XXXXXX	<u>18.35</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>-8</u>	<u>-12</u>	mV
pH	<u>7.21</u>	<u>7.00</u>	
Temperature	<u>9.4</u>	<u>10.4</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>18.42</u>	Ft.
Turbidity	<u>3.8</u>	<u>5.1</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES _____

Technicians: AM / JD / CL

Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) MW

MONITORING POINT# MW-3030

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 8:40

PURGE DATE: (12/26/00)
PURGE TIME: From 4:15 To 4:30

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 74.54 Ft.
DEPTH TO WATER 18.51 Ft. DUPLICATE _____
LENGTH OF COLUMN 56.03 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 9.1 Purge Volume in Gallons
Volume of Water for 3 Volumes 27.3 Gallons
Did Well Go Dry? Yes ☒ No _____
Actual Volume of Water Removed: 10 Gallons
Pumping Rates in GPM 2
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1191</u>	<u>1187</u>	uMHOS
Sampling Depth	XXXXXX	<u>18.57</u>	Ft.
Initial Depth to Water	XXXXXX	<u>18.51</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>-31</u>	<u>-20</u>	mV
pH	<u>7.42</u>	<u>7.54</u>	
Temperature	<u>9.5</u>	<u>9.9</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>18.57</u>	Ft.
Turbidity	<u>13</u>	<u>15</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES _____

Technicians: DDP / JDI / CG Weather: clear 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) mw

MONITORING POINT# mw-3c4VS

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 9:50

PURGE DATE: (12/26/00)
PURGE TIME: From 4:35 To 4:38

PURGE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____
SAMPLE EQUIPMENT: Teflon Bailer _____ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 10.16 Ft.
DEPTH TO WATER 5.64 Ft. DUPLICATE _____
LENGTH OF COLUMN 4.52 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = .74 Purge Volume in Gallons
Volume of Water for 3 Volumes 2.22 Gallons
Did Well Go Dry? Yes ☒ No _____
Actual Volume of Water Removed: .75 Gallons
Pumping Rates in GPM 2.46
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear then brown
Odor no
Visual Turbidity low - high

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear - brown
Odor no
Visual Turbidity low - high

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1976</u>	<u>2050</u>	uMHOS
Sampling Depth	XXXXXX	<u>5.75</u>	Ft.
Initial Depth to Water	XXXXXX	<u>5.64</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>68</u>	<u>71</u>	mV
pH	<u>7.54</u>	<u>7.52</u>	
Temperature	<u>5.5</u>	<u>6.0</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>5.75</u>	Ft.
Turbidity	<u>3.7</u>	<u>1000</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES

Technicians: MS / DS / BK Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) mw

MONITORING POINT# MW-3045

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 7:55

PURGE DATE: (12/26/00)
PURGE TIME: From 4:35 To 4:42

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 32.59 Ft.
DEPTH TO WATER 25.50 Ft. DUPLICATE _____
LENGTH OF COLUMN 7.07 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 1.2 Purge Volume in Gallons
Volume of Water for 3 Volumes 3.6 Gallons
Did Well Go Dry? Yes _____ No ☒
Actual Volume of Water Removed: 4 Gallons
Pumping Rates in GPM 1
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear
Odor yes
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear
Odor yes
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1235</u>	<u>1215</u>	uMHOS
Sampling Depth	XXXXXX	<u>25.52</u>	Ft.
Initial Depth to Water	XXXXXX	<u>25.50</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>0</u>	<u>-10</u>	mV
pH	<u>7.12</u>	<u>7.00</u>	
Temperature	<u>10.2</u>	<u>10.6</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>25.52</u>	Ft.
Turbidity	<u>35</u>	<u>20</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES _____

Technicians: DSS/JS/LCS Weather: cloudy 20

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) mw

MONITORING POINT# MW-304D

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 10:00

PURGE DATE: (12/26/00)
PURGE TIME: From 4:45 To 5:00

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 62.32 Ft.
DEPTH TO WATER 24.13 Ft. DUPLICATE _____
LENGTH OF COLUMN 38.19 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 6.2 Purge Volume in Gallons
Volume of Water for 3 Volumes 18.6 Gallons
Did Well Go Dry? Yes ☒ No _____
Actual Volume of Water Removed: 14 Gallons
Pumping Rates in GPM 1
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>686</u>	<u>697</u>	uMHOS
Sampling Depth	XXXXXX	<u>24.15</u>	Ft.
Initial Depth to Water	XXXXXX	<u>24.13</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>-39</u>	<u>-29</u>	mV
pH	<u>7.62</u>	<u>7.62</u>	
Temperature	<u>9.9</u>	<u>10.1</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>24.15</u>	Ft.
Turbidity	<u>5.9</u>	<u>9.3</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES _____

Technicians: MSB / SD / GMR Weather: cloudy 30

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**

MONITORING POINT# PZ-1A

SAMPLE SOURCE (Description) MW

SAMPLE DATE: (12/27/00)

PURGE DATE: (12/26/00)

SAMPLE TIME: 10:55

PURGE TIME: From 1:00 To 1:17

PURGE EQUIPMENT: Teflon Bailer _____ Pump X Other _____

SAMPLE EQUIPMENT: Teflon Bailer X Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) X STEEL (standpipe) _____

TOTAL DEPTH 80.30 Ft.

DEPTH TO WATER 13.18 Ft. DUPLICATE _____

LENGTH OF COLUMN 67.12 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 10.9 Purge Volume in Gallons

Volume of Water for 3 Volumes 32.7 Gallons

Did Well Go Dry? Yes _____ No X

Actual Volume of Water Removed: 33 Gallons

Pumping Rates in GPM 2

Proper Disposal of Purge Water: Yes X No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear

Odor no

Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No X Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear

Odor no

Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No X Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>749</u>	<u>762</u>	uMHOS
Sampling Depth	XXXXXX	<u>13.53</u>	Ft.
Initial Depth to Water	XXXXXX	<u>13.18</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>98</u>	<u>90</u>	mV
pH	<u>7.55</u>	<u>7.58</u>	
Temperature	<u>9.6</u>	<u>10.1</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>13.53</u>	Ft.
Turbidity	<u>5.81</u>	<u>3.3</u>	NTU

Filtered in the field: Yes X No _____ NA _____

NOTES _____

Technicians: DS/SPS/GAS Weather: Partly Sunny 21°

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) MW

MONITORING POINT# PZ-4

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 10:45

PURGE DATE: (12/26/00)
PURGE TIME: From 11:45 To 12:00

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 51.00 Ft.
DEPTH TO WATER 13.70 Ft. DUPLICATE _____
LENGTH OF COLUMN 37.30 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 6.1 Purge Volume in Gallons
Volume of Water for 3 Volumes 18.3 Gallons
Did Well Go Dry? Yes _____ No ☒
Actual Volume of Water Removed: 20 Gallons
Pumping Rates in GPM 1.5
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color Gray - clear
Odor no
Visual Turbidity 14.5 ph - med.

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1048</u>	<u>1077</u>	uMHOS
Sampling Depth	XXXXXX	<u>13.85</u>	Ft.
Initial Depth to Water	XXXXXX	<u>13.70</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	☒	ppm
Eh	<u>114</u>	<u>81</u>	mV
pH	<u>6.15</u>	<u>6.56</u>	
Temperature	<u>10.1</u>	<u>10.2</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>13.85</u>	Ft.
Turbidity	<u>5.1</u>	<u>2.1</u>	NTU

Filtered in the field: Yes _____ No _____ NA _____

NOTES

Technicians: PO/JD/GMS Weather: Partly Sunny 2010

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) MW

MONITORING POINT# MW-245

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 11:20

PURGE DATE: (12/26/00)
PURGE TIME: From 10:30 To 10:40

PURGE EQUIPMENT: ^{FUL}~~Teflon~~ Bailer ☒ Pump _____ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 47.00 Ft.
DEPTH TO WATER 29.25 Ft. DUPLICATE _____
LENGTH OF COLUMN 17.75 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 2.89 Purge Volume in Gallons
Volume of Water for 3 Volumes 8.67 Gallons
Did Well Go Dry? Yes _____ No ☒
Actual Volume of Water Removed: 9 Gallons
Pumping Rates in GPM 6.0
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear thru gray
Odor no
Visual Turbidity low thru H/L

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color CLEAR
Odor NO
Visual Turbidity LOW

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1002</u>	<u>995</u>	uMHOS
Sampling Depth	XXXXXX	<u>30.12</u>	Ft.
Initial Depth to Water	XXXXXX	<u>29.25</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>83</u>	<u>84</u>	mV
pH	<u>7.57</u>	<u>7.46</u>	
Temperature	<u>8.6</u>	<u>9.0</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>30.12</u>	Ft.
Turbidity	<u>16</u>	<u>45</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES

Technicians: MS/SB/BA Weather: Partly Sunny 20°

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) mw

MONITORING POINT# mw-245D

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 11:35

PURGE DATE: (12/26/00)
PURGE TIME: From 10:30 To 10:50

PURGE EQUIPMENT: ~~Teflon Bailer~~ ☒ Pump ☐ Other ☐
SAMPLE EQUIPMENT: Teflon Bailer ☐ Pump ☐ Other ☐

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) ☐
TOTAL DEPTH 81.00 Ft.
DEPTH TO WATER 30.26 Ft. DUPLICATE ☐
LENGTH OF COLUMN 50.74 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 8.27 Purge Volume in Gallons
Volume of Water for 3 Volumes 24.81 Gallons
Did Well Go Dry? Yes ☒ No ☐
Actual Volume of Water Removed: 8.3 Gallons
Pumping Rates in GPM bailed
Proper Disposal of Purge Water: Yes ☒ No ☐

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear - light brown
Odor no
Visual Turbidity low - med.

PRESENCE OF IMMISCIBLE LAYERS: Yes ☐ No ☒ Top ☐ Bottom ☐

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes ☐ No ☒ Top ☐ Bottom ☐

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>959</u>	<u>954</u>	uMHOS
Sampling Depth	XXXXXX	<u>39.95</u>	Ft.
Initial Depth to Water	XXXXXX	<u>30.26</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>-18</u>	<u>-45</u>	mV
pH	<u>7.51</u>	<u>7.59</u>	
Temperature	<u>8.4</u>	<u>9.0</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>39.95</u>	Ft.
Turbidity	<u>1.3</u>	<u>9.6</u>	NTU

Filtered in the field: Yes ☒ No ☐ NA ☐

NOTES

Technicians: MS/KS/LAT

Weather: Partly Sunny 2013

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**

MONITORING POINT# mw-22c

SAMPLE SOURCE (Description) mw

SAMPLE DATE: (12/27/00)

PURGE DATE: (12/26/00)

SAMPLE TIME: 10:25

PURGE TIME: From 10:55 To 11:01

PURGE EQUIPMENT: ^{PVC} Teflon Bailer ☒ Pump _____ Other _____

SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____

TOTAL DEPTH 30.00 Ft.

DEPTH TO WATER 17.20 Ft. DUPLICATE _____

LENGTH OF COLUMN 12.80 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 2.1 Purge Volume in Gallons

Volume of Water for 3 Volumes 6.3 Gallons

Did Well Go Dry? Yes _____ No ☒

Actual Volume of Water Removed: 6.5 Gallons

Pumping Rates in GPM 59.68

Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear - brown

Odor no

Visual Turbidity low - High

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear - brown

Odor no

Visual Turbidity low - High

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1455</u>	<u>1635</u>	uMHOS
Sampling Depth	XXXXXX	<u>17.35</u>	Ft.
Initial Depth to Water	XXXXXX	<u>17.20</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>69</u>	<u>82</u>	mV
pH	<u>7.22</u>	<u>7.18</u>	
Temperature	<u>9.8</u>	<u>9.8</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>17.35</u>	Ft.
Turbidity	<u>33</u>	<u>160</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES _____

Technicians: MS/SDS/bas Weather: Partly Sunny 2010

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) mw

MONITORING POINT# mw-2215

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 10:10

PURGE DATE: (12/26/00)
PURGE TIME: From 11:05 To 11:10

PURGE EQUIPMENT: ~~Teflon~~ Bailer ☒ Pump _____ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 25.00 Ft.
DEPTH TO WATER 15.22 Ft. DUPLICATE _____
LENGTH OF COLUMN 9.78 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 1.6 Purge Volume in Gallons
Volume of Water for 3 Volumes 4.8 Gallons
Did Well Go Dry? Yes _____ No ☒
Actual Volume of Water Removed: 5 Gallons
Pumping Rates in GPM 6.16
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear - brown
Odor no
Visual Turbidity low - High

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear - brown
Odor no
Visual Turbidity low - High

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1050</u>	<u>1019</u>	uMHOS
Sampling Depth	XXXXXX	<u>15.25</u>	Ft.
Initial Depth to Water	XXXXXX	<u>15.22</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>80</u>	<u>100</u>	mV
pH	<u>7.25</u>	<u>7.06</u>	
Temperature	<u>8.9</u>	<u>10.5</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>15.25</u>	Ft.
Turbidity	<u>27</u>	<u>360</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES

Technicians: MS/OS/600 Weather: partly sunny 20's

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) MW

MONITORING POINT# MW-22/0

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 10:15

PURGE DATE: (12/26/00)
PURGE TIME: From 11:05 To 11:17

PURGE EQUIPMENT: ^{PVC}~~Teflon~~ Bailer ☒ Pump _____ Other _____
SAMPLE EQUIPMENT: Teflon Bailer _____ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 54.60 Ft.
DEPTH TO WATER 16.72 Ft. DUPLICATE _____
LENGTH OF COLUMN 37.28 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 6.1 Purge Volume in Gallons
Volume of Water for 3 Volumes 18.3 Gallons
Did Well Go Dry? Yes ☒ No _____
Actual Volume of Water Removed: 6.5 Gallons
Pumping Rates in GPM 54.60
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color clear
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>466</u>	<u>453</u>	uMHOS
Sampling Depth	XXXXXX	<u>17.94</u>	Ft.
Initial Depth to Water	XXXXXX	<u>16.72</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>81</u>	<u>85</u>	mV
pH	<u>7.66</u>	<u>7.77</u>	
Temperature	<u>10.6</u>	<u>10.9</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>17.94</u>	Ft.
Turbidity	<u>6.7</u>	<u>8.4</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES

Technicians: MJL/JDB/GAT

Weather: partly sunny

Groundwater Sampling Field Log

SAMPLE SOURCE (Description)	PCW
1. <u>Water</u>	
2. <u>Soil</u>	
3. <u>Plant</u>	
4. <u>Animal</u>	
5. <u>Human</u>	
6. <u>Other</u>	

MONITORING POINT# MW-222

SAMPLE TIME: 16:10

PURGE TIME: From 11:24 To 11:25

SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump ☐ Other ☐

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) x STEEL (standpipe)

TOTAL DEPTH	32.00	Ft.
-------------	-------	-----

DEPTH TO WATER	19.38	Ft.	DUPLICATE
----------------	-------	-----	-----------

LENGTH OF COLUMN	12.62	Ft.	(LWC)
------------------	-------	-----	-------

WELL DIAMETER: 2.00" LWC x 0.163 = 2.1 Purge Volume in Gallons

Volume of Water for 3 Volumes	4.3	Gallons
-------------------------------	-----	---------

Did Well Go Dry? Yes No ☒

Actual Volume of Water Removed: 6.5 Gallons

Pumping Rates in GPM 6.64

Proper Disposal of Purge Water: Yes ☒ No ☐

PHYSICAL CHARACTERISTICS DURING PURGE: Color *Gray*

Odor yes

Visual Turbidity *H. 12*

PRESENCE OF IMMISCIBLE LAYERS: Yes		No	×	Top	Bottom

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color *Clear - color*

Odor yes

Visual Turbidity 160 - med.

PRESENCE OF IMMISCIBLE LAYERS: Yes No ☒ Top Bottom

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	1913	1960	uMHOS
Sampling Depth	XXXXXXX	19.44	Ft.
Initial Depth to Water	XXXXXXX	19.38	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXXX	X	ppm
Eh	-23	-28	mV
pH	6.92	6.87	
Temperature	10.9	11.4	C
Depth Recovered to at Sampling	XXXXXXX	19.44	Ft.
Turbidity	15	100	NTU

Filtered in the field: Yes ☒ No ☐ NA ☐

NOTES

Technicians: 10/12/68 Weather: Partly Sunny 24°

Weather: Partly Sunny 24°

FRIEND LABORATORY, INC.
Groundwater Sampling Field Log

SAMPLE SITE: **Orange County Landfill**
SAMPLE SOURCE (Description) mw

MONITORING POINT# N.W - 3B

SAMPLE DATE: (12/27/00)
SAMPLE TIME: 10:35

PURGE DATE: (12/26/00)
PURGE TIME: From 11:30 To 11:11

PURGE EQUIPMENT: Teflon Bailer _____ Pump ☒ Other _____
SAMPLE EQUIPMENT: Teflon Bailer ☒ Pump _____ Other _____

PURGE VOLUME CALCULATION

TOTAL DEPTH: Top of Casing: PVC (well) ☒ STEEL (standpipe) _____
TOTAL DEPTH 52.00 Ft.
DEPTH TO WATER 26.17 Ft. DUPLICATE _____
LENGTH OF COLUMN 25.83 Ft. (LWC)

WELL DIAMETER: 2.00" LWC x 0.163 = 4.21 Purge Volume in Gallons
Volume of Water for 3 Volumes 12.63 Gallons
Did Well Go Dry? Yes _____ No ☒
Actual Volume of Water Removed: 13 Gallons
Pumping Rates in GPM 1.5
Proper Disposal of Purge Water: Yes ☒ No _____

PHYSICAL CHARACTERISTICS DURING PURGE: Color low
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

PHYSICAL CHARACTERISTICS DURING SAMPLING: Color low
Odor no
Visual Turbidity low

PRESENCE OF IMMISCIBLE LAYERS: Yes _____ No ☒ Top _____ Bottom _____

FIELD READINGS/LOG-IN DATA

	INITIAL	FINAL	UNITS
Conductivity	<u>1382</u>	<u>1387</u>	uMHOS
Sampling Depth	XXXXXX	<u>26.95</u>	Ft.
Initial Depth to Water	XXXXXX	<u>26.17</u>	Ft.
Dissolved Oxygen-(Surface Waters)	XXXXXX	<u>X</u>	ppm
Eh	<u>132</u>	<u>82</u>	mV
pH	<u>7.16</u>	<u>7.07</u>	
Temperature	<u>10.0</u>	<u>10.0</u>	C
Depth Recovered to at Sampling	XXXXXX	<u>26.95</u>	Ft.
Turbidity	<u>2.5</u>	<u>2.7</u>	NTU

Filtered in the field: Yes ☒ No _____ NA _____

NOTES ms/msp

Technicians: NS (JDS) (6m) Weather: partly sun 20°

APPENDIX B.1

**2000 FOURTH QUARTER MONITORING EVENT
ORANGE COUNTY LANDFILL ANALYTICAL DATA**



ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-1

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: PZ-1A
Description: GRAB
Sampled On: 27-DEC-00 10:55 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	762	umhos/cm		27-DEC-00 10:55	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	13.53	ft		27-DEC-00 10:55		FLI/RJS/JDS/
Initial Depth To Water	13.18	ft		27-DEC-00 10:55		FLI/RJS/JDS/
Eh	90	mV		27-DEC-00 10:55	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.58			27-DEC-00 10:55	EPA 9040	FLI/RJS/JDS/
Sampling Depth	13.53	ft		27-DEC-00 10:55		FLI/RJS/JDS/
Temperature	10.1	Deg. C		27-DEC-00 10:55	EPA 170.1	FLI/RJS/JDS/
Turbidity	5.81	ntu		27-DEC-00 10:55	EPA 180.1	FLI/RJS/JDS/
Total Hardness	376	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	203	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-81
Ammonia as N	U	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 11:24	EPA 405.1	00-173-54
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-72
Chloride	17.9	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-59
C.O.D.	U	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-32
Phenolics, Total	U	mg/l	0.004	11-JAN-01 00:00	EPA 420.2	00-011-67
Solids, Dissolved	479	mg/l	10	28-DEC-00 00:00	EPA 160.1	00-118-111
Sulfate as SO4	170	mg/l	50	17-JAN-01 00:00	EPA 375.4	00-167-56
Kjeldahl Nitrogen as N	1.67	mg/l	1	29-DEC-00 00:00	EPA 351.3	00-166-22
TOC	U	mg/l	1	08-JAN-01 00:00	SW846 9060	00-189-17
Cadmium	U	mg/l	0.005	11-JAN-01 05:14	EPA 6010	01-017-01
Calcium	112	mg/l	0.500	09-JAN-01 05:30	EPA 6010	00-178-14
Iron	0.176	mg/l	0.040	09-JAN-01 05:30	EPA 6010	00-178-14
Lead	0.002	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	23.4	mg/l	0.500	09-JAN-01 05:30	EPA 6010	00-178-14

Page 1 of 2

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services.
Your samples will be discarded after 14 days unless we are advised otherwise.

"Our family, caring about your analytical needs... Since 1963."



ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-1

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

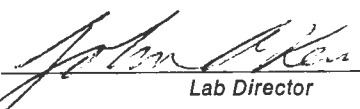
Sample Source: ORANGE COUNTY LANDFILL
Origin: PZ-1A
Description: GRAB
Sampled On: 27-DEC-00 10:55 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	0.485	mg/l	0.005	09-JAN-01 05:30	EPA 6010	00-178-14
Potassium	1.71	mg/l	0.500	09-JAN-01 05:30	EPA 6010	00-178-14
Sodium	16	mg/l	0.200	11-JAN-01 05:14	EPA 6010	01-017-01

Page 2 of 2

QC 

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-1

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, PZ-1A
Description: GRAB
Sampled On: 27-DEC-00 10:55 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	0.006	mg/l	0.005	05-JAN-01 06:30	EPA 6010	00-178-13
Calcium	120	mg/l	0.500	05-JAN-01 06:30	EPA 6010	00-178-13
Iron	0.08	mg/l	0.040	05-JAN-01 06:30	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	23.2	mg/l	0.500	03-JAN-01 11:08	EPA 6010	00-178-12
Manganese	0.557	mg/l	0.005	05-JAN-01 06:30	EPA 6010	00-178-13
Potassium	1.88	mg/l	0.500	03-JAN-01 11:08	EPA 6010	00-178-12
Sodium	20.3	mg/l	0.200	05-JAN-01 06:30	EPA 6010	00-178-13

Page 1 of 1

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-2

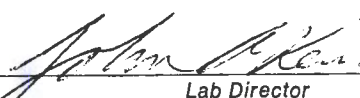
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: PZ-4
Description: GRAB
Sampled On: 27-DEC-00 10:45 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1077	umhos/cm		27-DEC-00 10:45	EPA 120.1	FLI/RJS/JDS/C
Depth Recovered To At Sampling	13.85	ft		27-DEC-00 10:45		FLI/RJS/JDS/C
Initial Depth To Water	13.7	ft		27-DEC-00 10:45		FLI/RJS/JDS/C
Eh	81	mV		27-DEC-00 10:45	ASTM D1498-76	FLI/RJS/JDS/C
Field pH	6.56			27-DEC-00 10:45	EPA 9040	FLI/RJS/JDS/C
Sampling Depth	13.85	ft		27-DEC-00 10:45		FLI/RJS/JDS/C
Temperature	10.2	Deg. C		27-DEC-00 10:45	EPA 170.1	FLI/RJS/JDS/C
Turbidity	5.7	ntu		27-DEC-00 10:45	EPA 180.1	FLI/RJS/JDS/C
Total Hardness	325	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	0.274	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	198	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-82
Ammonia as N	0.146	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 11:26	EPA 405.1	00-173-54
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	20.8	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-60
C.O.D.	U	mg/l	10	09-JAN-01 00:00	EPA 410.4	99-120-93
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	711	mg/l	10	28-DEC-00 00:00	EPA 160.1	00-118-111
Sulfate as SO4	140	mg/l	50	17-JAN-01 00:00	EPA 375.4	00-167-59
Kjeldahl Nitrogen as N	U	mg/l	1	02-JAN-01 00:00	EPA 351.3	00-067-79
TOC	3.3	mg/l	1	08-JAN-01 00:00	SW846 9060	00-189-17
Cadmium	U	mg/l	0.005	11-JAN-01 05:17	EPA 6010	01-017-01
Calcium	83.5	mg/l	0.500	09-JAN-01 05:33	EPA 6010	00-178-14
Iron	1.31	mg/l	0.040	09-JAN-01 05:33	EPA 6010	00-178-14
Lead	0.002	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	28.3	mg/l	0.500	09-JAN-01 05:33	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 
Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-2

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

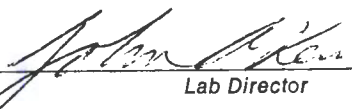
Sample Source: ORANGE COUNTY LANDFILL
Origin: PZ-4
Description: GRAB
Sampled On: 27-DEC-00 10:45 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	0.482	mg/l	0.005	09-JAN-01 05:33	EPA 6010	00-178-14
Potassium	4.41	mg/l	0.500	09-JAN-01 05:33	EPA 6010	00-178-14
Sodium	38.7	mg/l	0.200	11-JAN-01 05:17	EPA 6010	01-017-01

Page 2 of 2

QC 

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-2

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, PZ-4
Description: GRAB
Sampled On: 27-DEC-00 10:45 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 06:33	EPA 6010	00-178-13
Calcium	169	mg/l	0.500	05-JAN-01 06:33	EPA 6010	00-178-13
Iron	U	mg/l	0.040	05-JAN-01 06:33	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	38.6	mg/l	0.500	03-JAN-01 11:11	EPA 6010	00-178-12
Manganese	0.036	mg/l	0.005	05-JAN-01 06:33	EPA 6010	00-178-13
Potassium	2.78	mg/l	0.500	03-JAN-01 11:11	EPA 6010	00-178-12
Sodium	20.8	mg/l	0.200	05-JAN-01 06:33	EPA 6010	00-178-13

Page 1 of 1

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-3

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

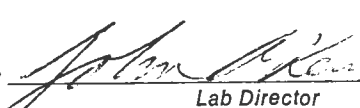
Sample Source: ORANGE COUNTY LANDFILL
Origin: PZ-11
Description: GRAB
Sampled On: 27-DEC-00 11:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	997	umhos/cm		27-DEC-00 11:10	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	18.27	ft		27-DEC-00 11:10		FLI/RJS/JDS/
Initial Depth To Water	18.22	ft		27-DEC-00 11:10		FLI/RJS/JDS/
Eh	50	mV		27-DEC-00 11:10	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.28			27-DEC-00 11:10	EPA 9040	FLI/RJS/JDS/
Sampling Depth	18.27	ft		27-DEC-00 11:10		FLI/RJS/JDS/
Temperature	9.7	Deg. C		27-DEC-00 11:10	EPA 170.1	FLI/RJS/JDS/
Turbidity	12.6	ntu		27-DEC-00 11:10	EPA 180.1	FLI/RJS/JDS/
Total Hardness	517	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	0.326	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	322	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-83
Ammonia as N	0.114	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 11:27	EPA 405.1	00-173-54
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	21.2	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-61
C.O.D.	20.3	mg/l	10	16-JAN-01 00:00	EPA 410.4	00-126-37
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	653	mg/l	10	28-DEC-00 00:00	EPA 160.1	00-118-111
Sulfate as SO4	240	mg/l	50	22-JAN-01 00:00	EPA 375.4	00-167-60
Kjeldahl Nitrogen as N	1.17	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
TOC	3.8	mg/l	1	12-JAN-01 00:00	SW846 9060	00-189-20
Cadmium	U	mg/l	0.005	11-JAN-01 05:20	EPA 6010	01-017-01
Calcium	162	mg/l	0.500	09-JAN-01 05:36	EPA 6010	00-178-14
Iron	2.44	mg/l	0.040	09-JAN-01 05:36	EPA 6010	00-178-14
Lead	0.002	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	27.4	mg/l	0.500	09-JAN-01 05:36	EPA 6010	00-178-14

Page 1 of 2

QC 

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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Date: 25-JAN-2001

Lab Sample ID: L61584-3

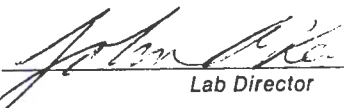
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: PZ-11
Description: GRAB
Sampled On: 27-DEC-00 11:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	1.33	mg/l	0.005	09-JAN-01 05:36	EPA 6010	00-178-14
Potassium	2.12	mg/l	0.500	09-JAN-01 05:36	EPA 6010	00-178-14
Sodium	10.2	mg/l	0.200	11-JAN-01 05:20	EPA 6010	01-017-01

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-2500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-3

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, PZ-11
Description: GRAB
Sampled On: 27-DEC-00 11:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 06:36	EPA 6010	00-178-13
Calcium	166	mg/l	0.500	05-JAN-01 06:36	EPA 6010	00-178-13
Iron	1.93	mg/l	0.040	05-JAN-01 06:36	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	27.2	mg/l	0.500	03-JAN-01 11:14	EPA 6010	00-178-12
Manganese	1.48	mg/l	0.005	05-JAN-01 06:36	EPA 6010	00-178-13
Potassium	2.13	mg/l	0.500	03-JAN-01 11:14	EPA 6010	00-178-12
Sodium	12.2	mg/l	0.200	05-JAN-01 06:36	EPA 6010	00-178-13

Page 1 of 1

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-4

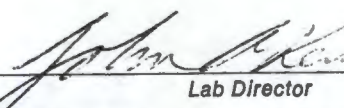
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-3B
Description: GRAB
Sampled On: 27-DEC-00 10:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1387	umhos/cm		27-DEC-00 10:35	EPA 120.1	FLI/RJS/JDS/(
Depth Recovered To At Sampling	26.95	ft		27-DEC-00 10:35		FLI/RJS/JDS/(
Initial Depth To Water	26.17	ft		27-DEC-00 10:35		FLI/RJS/JDS/(
Eh	82	mV		27-DEC-00 10:35	ASTM D1498-76	FLI/RJS/JDS/(
Field pH	7.07			27-DEC-00 10:35	EPA 9040	FLI/RJS/JDS/(
Sampling Depth	26.95	ft		27-DEC-00 10:35		FLI/RJS/JDS/(
Temperature	10	Deg. C		27-DEC-00 10:35	EPA 170.1	FLI/RJS/JDS/(
Turbidity	2.5	ntu		27-DEC-00 10:35	EPA 180.1	FLI/RJS/JDS/(
Total Hardness	612	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
TOC	4	mg/l	1	23-JAN-01 00:00	SW846 9060	SUBCONTRACT
Analysis Comment: O'Brien & Gere - Syracuse, NY #10155						
Alkalinity as CaCO3	561	mg/l	5	05-JAN-01 00:00	EPA 310.1	00-057-83
Ammonia as N	0.12	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 11:29	EPA 405.1	00-173-54
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	122	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-61
C.O.D.	18.5	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-35
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	831	mg/l	10	28-DEC-00 00:00	EPA 160.1	00-118-111
Sulfate as SO4	55	mg/l	25	22-JAN-01 00:00	EPA 375.4	00-167-61
Kjeldahl Nitrogen as N	1.51	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
Cadmium	U	mg/l	0.005	11-JAN-01 05:23	EPA 6010	01-017-01
Calcium	186	mg/l	0.500	09-JAN-01 05:39	EPA 6010	00-178-14
Iron	1.14	mg/l	0.040	09-JAN-01 05:39	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:  Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-4

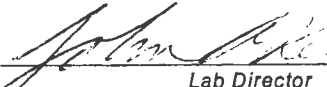
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-3B
Description: GRAB
Sampled On: 27-DEC-00 10:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Lead	0.001	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	35.9	mg/l	0.500	09-JAN-01 05:39	EPA 6010	00-178-14
Manganese	1.04	mg/l	0.005	09-JAN-01 05:39	EPA 6010	00-178-14
Potassium	1.77	mg/l	0.500	09-JAN-01 05:39	EPA 6010	00-178-14
Sodium	61.7	mg/l	0.200	11-JAN-01 05:23	EPA 6010	01-017-01

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Date: 12-JAN-2001

Lab Sample ID: L61585-4

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-3B
Description: GRAB
Sampled On: 27-DEC-00 10:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	0.006	mg/l	0.005	05-JAN-01 06:45	EPA 6010	00-178-13
Calcium	190	mg/l	0.500	05-JAN-01 06:45	EPA 6010	00-178-13
Iron	1.15	mg/l	0.040	05-JAN-01 06:45	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	37.6	mg/l	0.500	05-JAN-01 06:45	EPA 6010	00-178-13
Manganese	1.1	mg/l	0.005	05-JAN-01 06:45	EPA 6010	00-178-13
Potassium	2.03	mg/l	0.500	05-JAN-01 06:45	EPA 6010	00-178-13
Sodium	66.7	mg/l	0.200	05-JAN-01 06:45	EPA 6010	00-178-13

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Date: 25-JAN-2001

Lab Sample ID: L61584-5

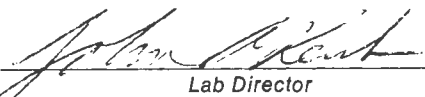
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-207SA
Description: GRAB
Sampled On: 27-DEC-00 08:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1139	umhos/cm		27-DEC-00 08:10	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	18.27	ft		27-DEC-00 08:10		FLI/RJS/JDS/
Initial Depth To Water	18.1	ft		27-DEC-00 08:10		FLI/RJS/JDS/
Eh	21	mV		27-DEC-00 08:10	ASTM D1498-76	FLI/RJS/JDS/
Field pH	6.83			27-DEC-00 08:10	EPA 9040	FLI/RJS/JDS/
Sampling Depth	18.27	ft		27-DEC-00 08:10		FLI/RJS/JDS/
Temperature	9.3	Deg. C		27-DEC-00 08:10	EPA 170.1	FLI/RJS/JDS/
Turbidity	19	ntu		27-DEC-00 08:10	EPA 180.1	FLI/RJS/JDS/
Total Hardness	589	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
TOC	U	mg/l	1	23-JAN-01 00:00	SW846 9060	SUBCONTRACT
Analysis Comment: O'Brien & Gere - Syracuse, NY #10155						
Alkalinity as CaCO3	617	mg/l	5	05-JAN-01 00:00	EPA 310.1	00-057-83
Ammonia as N	0.1	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 11:30	EPA 405.1	00-173-54
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	30.7	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-61
C.O.D.	U	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-35
Phenolics, Total	0.0098	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	675	mg/l	10	28-DEC-00 00:00	EPA 160.1	00-118-111
Sulfate as SO4	33	mg/l	5	22-JAN-01 00:00	EPA 375.4	00-167-61
Kjeldahl Nitrogen as N	7.53	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
Cadmium	U	mg/l	0.005	11-JAN-01 05:26	EPA 6010	01-017-01
Calcium	180	mg/l	0.500	09-JAN-01 05:42	EPA 6010	00-178-14
Iron	22.8	mg/l	0.040	09-JAN-01 05:42	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Lab Director

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Date: 25-JAN-2001

Lab Sample ID: L61584-5

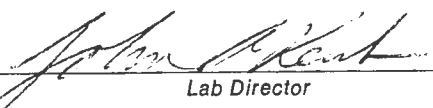
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-207SA
Description: GRAB
Sampled On: 27-DEC-00 08:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Lead	0.002	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	34	mg/l	0.500	09-JAN-01 05:42	EPA 6010	00-178-14
Manganese	1.27	mg/l	0.005	09-JAN-01 05:42	EPA 6010	00-178-14
Potassium	2.67	mg/l	0.500	09-JAN-01 05:42	EPA 6010	00-178-14
Sodium	9.53	mg/l	0.200	11-JAN-01 05:26	EPA 6010	01-017-01

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Lab Director

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TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-5

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

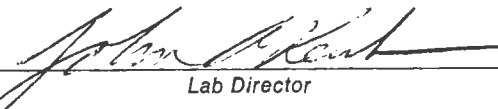
Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-207SA
Description: GRAB
Sampled On: 27-DEC-00 08:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 06:57	EPA 6010	00-178-13
Calcium	197	mg/l	0.500	05-JAN-01 06:57	EPA 6010	00-178-13
Iron	25.1	mg/l	0.040	05-JAN-01 06:57	EPA 6010	00-178-13
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-027-97
Magnesium	38.4	mg/l	0.500	05-JAN-01 06:57	EPA 6010	00-178-13
Manganese	1.45	mg/l	0.005	05-JAN-01 06:57	EPA 6010	00-178-13
Potassium	3.09	mg/l	0.500	05-JAN-01 06:57	EPA 6010	00-178-13
Sodium	12.8	mg/l	0.200	05-JAN-01 06:57	EPA 6010	00-178-13

Page 1 of 1

QC 

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-6

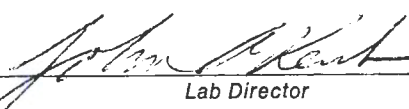
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-207D
Description: GRAB
Sampled On: 27-DEC-00 08:15 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1106	umhos/cm		27-DEC-00 08:15	EPA 120.1	FLI/RJS/JDS/()
Depth Recovered To At Sampling	19.34	ft		27-DEC-00 08:15		FLI/RJS/JDS/()
Initial Depth To Water	19.25	ft		27-DEC-00 08:15		FLI/RJS/JDS/()
Eh	26	mV		27-DEC-00 08:15	ASTM D1498-76	FLI/RJS/JDS/()
Field pH	7.07			27-DEC-00 08:15	EPA 9040	FLI/RJS/JDS/()
Sampling Depth	19.34	ft		27-DEC-00 08:15		FLI/RJS/JDS/()
Temperature	9.1	Deg. C		27-DEC-00 08:15	EPA 170.1	FLI/RJS/JDS/()
Turbidity	32	ntu		27-DEC-00 08:15	EPA 180.1	FLI/RJS/JDS/()
Total Hardness	611	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	585	mg/l	5	05-JAN-01 00:00	EPA 310.1	00-057-83
Ammonia as N	U	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 11:35	EPA 405.1	00-173-55
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	13.9	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-61
C.O.D.	U	mg/l	10	09-JAN-01 00:00	EPA 410.4	99-120-93
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	679	mg/l	10	28-DEC-00 00:00	EPA 160.1	00-118-111
Sulfate as SO4	78	mg/l	25	22-JAN-01 00:00	EPA 375.4	00-167-61
Kjeldahl Nitrogen as N	1	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
TOC	1.8	mg/l	1	16-JAN-01 00:00	SW846 9060	00-189-20
Cadmium	U	mg/l	0.005	11-JAN-01 05:29	EPA 6010	01-017-01
Calcium	186	mg/l	0.500	09-JAN-01 05:45	EPA 6010	00-178-14
Iron	3.27	mg/l	0.040	09-JAN-01 05:45	EPA 6010	00-178-14
Lead	0.001	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	35.6	mg/l	0.500	09-JAN-01 05:45	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-6

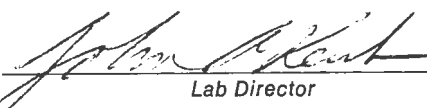
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-207D
Description: GRAB
Sampled On: 27-DEC-00 08:15 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	1.98	mg/l	0.005	09-JAN-01 05:45	EPA 6010	00-178-14
Potassium	1.4	mg/l	0.500	09-JAN-01 05:45	EPA 6010	00-178-14
Sodium	11.7	mg/l	0.200	11-JAN-01 05:29	EPA 6010	01-017-01

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Lab Director

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TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-6

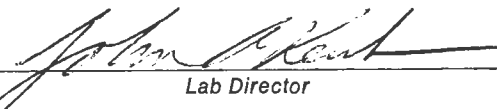
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-207D
Description: GRAB
Sampled On: 27-DEC-00 08:15 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:00	EPA 6010	00-178-13
Calcium	192	mg/l	0.500	05-JAN-01 07:00	EPA 6010	00-178-13
Iron	2.36	mg/l	0.040	05-JAN-01 07:00	EPA 6010	00-178-13
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-027-97
Magnesium	38.5	mg/l	0.500	05-JAN-01 07:00	EPA 6010	00-178-13
Manganese	2.13	mg/l	0.005	05-JAN-01 07:00	EPA 6010	00-178-13
Potassium	1.64	mg/l	0.500	05-JAN-01 07:00	EPA 6010	00-178-13
Sodium	14.8	mg/l	0.200	05-JAN-01 07:00	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 
Lab Director

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Date: 25-JAN-2001

Lab Sample ID: L61584-7

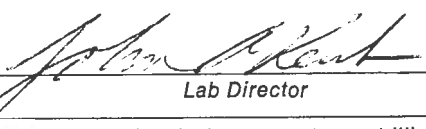
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-220
Description: GRAB
Sampled On: 27-DEC-00 10:25 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1635	umhos/cm		27-DEC-00 10:25	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	17.35	ft		27-DEC-00 10:25		FLI/RJS/JDS/
Initial Depth To Water	17.2	ft		27-DEC-00 10:25		FLI/RJS/JDS/
Eh	82	mV		27-DEC-00 10:25	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.18			27-DEC-00 10:25	EPA 9040	FLI/RJS/JDS/
Sampling Depth	17.35	ft		27-DEC-00 10:25		FLI/RJS/JDS/
Temperature	9.8	Deg. C		27-DEC-00 10:25	EPA 170.1	FLI/RJS/JDS/
Turbidity	33	ntu		27-DEC-00 10:25	EPA 180.1	FLI/RJS/JDS/
Total Hardness	924	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	0.054	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	492	mg/l	5	05-JAN-01 00:00	EPA 310.1	00-057-83
Ammonia as N	U	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 11:37	EPA 405.1	00-173-55
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	13.6	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-61
C.O.D.	U	mg/l	10	09-JAN-01 00:00	EPA 410.4	99-120-93
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	1250	mg/l	10	28-DEC-00 00:00	EPA 160.1	00-118-111
Sulfate as SO4	600	mg/l	100	22-JAN-01 00:00	EPA 375.4	00-167-61
Kjeldahl Nitrogen as N	U	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
TOC	1.6	mg/l	1	16-JAN-01 00:00	SW846 9060	00-189-20
Cadmium	U	mg/l	0.005	09-JAN-01 05:59	EPA 6010	00-178-14
Calcium	250	mg/l	0.500	09-JAN-01 05:59	EPA 6010	00-178-14
Iron	6.93	mg/l	0.040	09-JAN-01 05:59	EPA 6010	00-178-14
Lead	0.005	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	72.7	mg/l	0.500	09-JAN-01 05:59	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 
Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-7

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-220
Description: GRAB
Sampled On: 27-DEC-00 10:25 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	1.29	mg/l	0.005	09-JAN-01 05:59	EPA 6010	00-178-14
Potassium	3.38	mg/l	0.500	09-JAN-01 05:59	EPA 6010	00-178-14
Sodium	12.4	mg/l	0.200	11-JAN-01 05:34	EPA 6010	01-017-01

Page 2 of 2

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-7

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-220
Description: GRAB
Sampled On: 27-DEC-00 10:25 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:03	EPA 6010	00-178-13
Calcium	250	mg/l	0.500	05-JAN-01 07:03	EPA 6010	00-178-13
Iron	0.088	mg/l	0.040	05-JAN-01 07:03	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	73.2	mg/l	0.500	05-JAN-01 07:03	EPA 6010	00-178-13
Manganese	0.773	mg/l	0.005	05-JAN-01 07:03	EPA 6010	00-178-13
Potassium	3.19	mg/l	0.500	05-JAN-01 07:03	EPA 6010	00-178-13
Sodium	16.6	mg/l	0.200	05-JAN-01 07:03	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-8

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-221S
Description: GRAB
Sampled On: 27-DEC-00 10:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1119	umhos/cm		27-DEC-00 10:10	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	15.25	ft		27-DEC-00 10:10		FLI/RJS/JDS/
Initial Depth To Water	15.22	ft		27-DEC-00 10:10		FLI/RJS/JDS/
Eh	100	mV		27-DEC-00 10:10	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.06			27-DEC-00 10:10	EPA 9040	FLI/RJS/JDS/
Sampling Depth	15.25	ft		27-DEC-00 10:10		FLI/RJS/JDS/
Temperature	10.5	Deg. C		27-DEC-00 10:10	EPA 170.1	FLI/RJS/JDS/
Turbidity	27	ntu		27-DEC-00 10:10	EPA 180.1	FLI/RJS/JDS/
Total Hardness	645	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	0.291	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
TOC	5	mg/l	1	23-JAN-01 00:00	SW846 9060	SUBCONTRACT
Analysis Comment: O'Brien & Gere - Syracuse, NY #10155						
Alkalinity as CaCO3	592	mg/l	10	05-JAN-01 00:00	EPA 310.1	00-057-83
Ammonia as N	U	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 11:39	EPA 405.1	00-173-55
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-75
Chloride	8.76	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-61
C.O.D.	U	mg/l	10	09-JAN-01 00:00	EPA 410.4	99-120-93
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	679	mg/l	10	28-DEC-00 00:00	EPA 160.1	00-118-111
Sulfate as SO4	99	mg/l	50	22-JAN-01 00:00	EPA 375.4	00-167-61
Kjeldahl Nitrogen as N	1.84	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
Cadmium	U	mg/l	0.005	09-JAN-01 06:02	EPA 6010	00-178-14
Calcium	214	mg/l	0.500	09-JAN-01 06:02	EPA 6010	00-178-14
Iron	4.99	mg/l	0.040	09-JAN-01 06:02	EPA 6010	00-178-14

Page 1 of 2

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-8

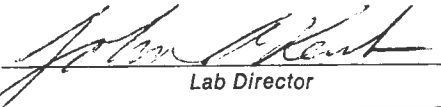
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-221S
Description: GRAB
Sampled On: 27-DEC-00 10:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Lead	0.006	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	26.8	mg/l	0.500	09-JAN-01 06:02	EPA 6010	00-178-14
Manganese	0.953	mg/l	0.005	09-JAN-01 06:02	EPA 6010	00-178-14
Potassium	3.42	mg/l	0.500	09-JAN-01 06:02	EPA 6010	00-178-14
Sodium	9.8	mg/l	0.200	11-JAN-01 05:37	EPA 6010	01-017-01

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-8

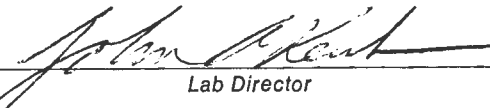
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-221S
Description: GRAB
Sampled On: 27-DEC-00 10:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:06	EPA 6010	00-178-13
Calcium	224	mg/l	0.500	05-JAN-01 07:06	EPA 6010	00-178-13
Iron	U	mg/l	0.040	05-JAN-01 07:06	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	28.1	mg/l	0.500	05-JAN-01 07:06	EPA 6010	00-178-13
Manganese	0.847	mg/l	0.005	05-JAN-01 07:06	EPA 6010	00-178-13
Potassium	3.26	mg/l	0.500	05-JAN-01 07:06	EPA 6010	00-178-13
Sodium	12.6	mg/l	0.200	05-JAN-01 07:06	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 73168 PA 66180 EPA NY 00033

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-9

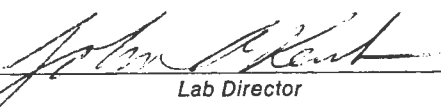
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-221D
Description: GRAB
Sampled On: 27-DEC-00 10:15 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	453	umhos/cm		27-DEC-00 10:15	EPA 120.1	FLI/RJS/JDS/G
Depth Recovered To At Sampling	17.94	ft		27-DEC-00 10:15		FLI/RJS/JDS/G
Initial Depth To Water	16.72	ft		27-DEC-00 10:15		FLI/RJS/JDS/G
Eh	85	mV		27-DEC-00 10:15	ASTM D1498-76	FLI/RJS/JDS/G
Field pH	7.77			27-DEC-00 10:15	EPA 9040	FLI/RJS/JDS/G
Sampling Depth	17.94	ft		27-DEC-00 10:15		FLI/RJS/JDS/G
Temperature	10.9	Deg. C		27-DEC-00 10:15	EPA 170.1	FLI/RJS/JDS/G
Turbidity	6.7	ntu		27-DEC-00 10:15	EPA 180.1	FLI/RJS/JDS/G
Total Hardness	178	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	0.08	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
TOC	U	mg/l	1	23-JAN-01 00:00	SW846 9060	SUBCONTRACT
Analysis Comment: O'Brien & Gere - Syracuse, NY #10155						
Alkalinity as CaCO3	124	mg/l	1	11-JAN-01 00:00	EPA 310.1	00-057-84
Analysis Comment: Sample analyzed past holding time.						
Ammonia as N	U	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 11:41	EPA 405.1	00-173-55
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-75
Chloride	54.5	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-61
C.O.D.	U	mg/l	10	09-JAN-01 00:00	EPA 410.4	99-120-93
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	207	mg/l	10	28-DEC-00 00:00	EPA 160.1	00-118-111
Sulfate as SO4	18	mg/l	5	22-JAN-01 00:00	EPA 375.4	00-167-61
Kjeldahl Nitrogen as N	U	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
Cadmium	U	mg/l	0.005	09-JAN-01 06:05	EPA 6010	00-178-14
Calcium	42.9	mg/l	0.500	09-JAN-01 06:05	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-9

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

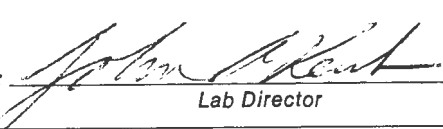
Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-221D
Description: GRAB
Sampled On: 27-DEC-00 10:15 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Iron	0.049	mg/l	0.040	09-JAN-01 06:05	EPA 6010	00-178-14
Lead	0.002	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	17.3	mg/l	0.500	09-JAN-01 06:05	EPA 6010	00-178-14
Manganese	U	mg/l	0.005	09-JAN-01 06:05	EPA 6010	00-178-14
Potassium	2.39	mg/l	0.500	09-JAN-01 06:05	EPA 6010	00-178-14
Sodium	14.3	mg/l	0.200	11-JAN-01 05:40	EPA 6010	01-017-01

Page 2 of 2

QC 

NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Lab Director

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Date: 12-JAN-2001

Lab Sample ID: L61585-9

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-221D
Description: GRAB
Sampled On: 27-DEC-00 10:15 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:09	EPA 6010	00-178-13
Calcium	43.7	mg/l	0.500	05-JAN-01 07:09	EPA 6010	00-178-13
Iron	U	mg/l	0.040	05-JAN-01 07:09	EPA 6010	00-178-13
Lead	0.001	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-027-97
Magnesium	18.3	mg/l	0.500	05-JAN-01 07:09	EPA 6010	00-178-13
Manganese	U	mg/l	0.005	05-JAN-01 07:09	EPA 6010	00-178-13
Potassium	2.69	mg/l	0.500	05-JAN-01 07:09	EPA 6010	00-178-13
Sodium	17.5	mg/l	0.200	05-JAN-01 07:09	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Lab Director

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Date: 25-JAN-2001

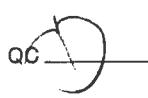
Lab Sample ID: L61584-10

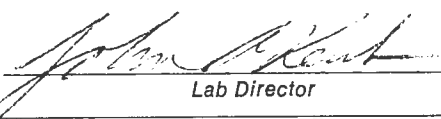
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-222
Description: GRAB
Sampled On: 27-DEC-00 10:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1960	umhos/cm		27-DEC-00 10:10	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	19.44	ft		27-DEC-00 10:10		FLI/RJS/JDS/
Initial Depth To Water	19.38	ft		27-DEC-00 10:10		FLI/RJS/JDS/
Eh	-28	mV		27-DEC-00 10:10	ASTM D1498-76	FLI/RJS/JDS/
Field pH	6.87			27-DEC-00 10:10	EPA 9040	FLI/RJS/JDS/
Sampling Depth	19.44	ft		27-DEC-00 10:10		FLI/RJS/JDS/
Temperature	11.4	Deg. C		27-DEC-00 10:10	EPA 170.1	FLI/RJS/JDS/
Turbidity	15	ntu		27-DEC-00 10:10	EPA 180.1	FLI/RJS/JDS/
Total Hardness	892	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	757	mg/l	5	05-JAN-01 00:00	EPA 310.1	00-057-81
Ammonia as N	20.5	mg/l	2.5	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	9	mg/l	3	28-DEC-00 11:42	EPA 405.1	00-173-55
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-72
Chloride	130	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-59
C.O.D.	29.2	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-34
Phenolics, Total	U	mg/l	0.004	11-JAN-01 00:00	EPA 420.2	00-011-67
Solids, Dissolved	1060	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	66	mg/l	25	17-JAN-01 00:00	EPA 375.4	00-167-57
Kjeldahl Nitrogen as N	29.3	mg/l	1	29-DEC-00 00:00	EPA 351.3	00-166-22
TOC	9.9	mg/l	1	08-JAN-01 00:00	SW846 9060	00-189-17
Cadmium	U	mg/l	0.005	09-JAN-01 06:08	EPA 6010	00-178-14
Calcium	228	mg/l	0.500	09-JAN-01 06:08	EPA 6010	00-178-14
Iron	50.2	mg/l	0.040	09-JAN-01 06:08	EPA 6010	00-178-14
Lead	0.002	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	78.4	mg/l	0.500	09-JAN-01 06:08	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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"Our family, caring about your analytical needs... Since 1963."



ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-10

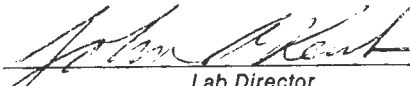
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-222
Description: GRAB
Sampled On: 27-DEC-00 10:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	0.65	mg/l	0.005	09-JAN-01 06:08	EPA 6010	00-178-14
Potassium	15.9	mg/l	0.500	09-JAN-01 06:08	EPA 6010	00-178-14
Sodium	47.2	mg/l	0.200	11-JAN-01 05:49	EPA 6010	01-017-01

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

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ORANGE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-5500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-10

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-222
Description: GRAB
Sampled On: 27-DEC-00 10:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/L	0.005	05-JAN-01 07:12	EPA 6010	00-178-13
Calcium	227	mg/L	0.500	05-JAN-01 07:12	EPA 6010	00-178-13
Iron	42.4	mg/L	0.040	05-JAN-01 07:12	EPA 6010	00-178-13
Lead	U	mg/L	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	83.8	mg/L	0.500	05-JAN-01 07:12	EPA 6010	00-178-13
Manganese	0.623	mg/L	0.005	05-JAN-01 07:12	EPA 6010	00-178-13
Potassium	18.7	mg/L	0.500	05-JAN-01 07:12	EPA 6010	00-178-13
Sodium	60.5	mg/L	0.200	05-JAN-01 07:12	EPA 6010	00-178-13

Page 1 of 1

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-11

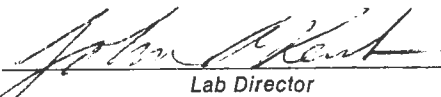
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-223S
Description: GRAB
Sampled On: 27-DEC-00 08:25 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1370	umhos/cm		27-DEC-00 08:25	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	17.34	ft		27-DEC-00 08:25		FLI/RJS/JDS/
Initial Depth To Water	17.27	ft		27-DEC-00 08:25		FLI/RJS/JDS/
Eh	10	mV		27-DEC-00 08:25	ASTM D1498-76	FLI/RJS/JDS/
Field pH	6.8			27-DEC-00 08:25	EPA 9040	FLI/RJS/JDS/
Sampling Depth	17.34	ft		27-DEC-00 08:25		FLI/RJS/JDS/
Temperature	9.4	Deg. C		27-DEC-00 08:25	EPA 170.1	FLI/RJS/JDS/
Turbidity	5.5	ntu		27-DEC-00 08:25	EPA 180.1	FLI/RJS/JDS/
Total Hardness	783	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	659	mg/l	5	05-JAN-01 00:00	EPA 310.1	00-057-81
Ammonia as N	U	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 11:47	EPA 405.1	00-173-56
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-72
Chloride	24.6	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-59
C.O.D.	17.2	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-34
Phenolics, Total	U	mg/l	0.004	11-JAN-01 00:00	EPA 420.2	00-011-67
Solids, Dissolved	891	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	120	mg/l	50	17-JAN-01 00:00	EPA 375.4	00-167-57
Kjeldahl Nitrogen as N	2.18	mg/l	1	29-DEC-00 00:00	EPA 351.3	00-166-22
TOC	3.6	mg/l	1	08-JAN-01 00:00	SW846 9060	00-189-17
Cadmium	U	mg/l	0.005	09-JAN-01 06:11	EPA 6010	00-178-14
Calcium	235	mg/l	0.500	09-JAN-01 06:11	EPA 6010	00-178-14
Iron	24.6	mg/l	0.040	09-JAN-01 06:11	EPA 6010	00-178-14
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	47.6	mg/l	0.500	09-JAN-01 06:11	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-11

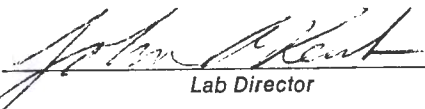
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-223S
Description: GRAB
Sampled On: 27-DEC-00 08:25 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	3.85	mg/L	0.005	09-JAN-01 06:11	EPA 6010	00-178-14
Potassium	1.24	mg/L	0.500	09-JAN-01 06:11	EPA 6010	00-178-14
Sodium	15.7	mg/L	0.200	11-JAN-01 05:52	EPA 6010	01-017-01

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-11

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-223S
Description: GRAB
Sampled On: 27-DEC-00 08:25 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:20	EPA 6010	00-178-13
Calcium	234	mg/l	0.500	05-JAN-01 07:20	EPA 6010	00-178-13
Iron	26.2	mg/l	0.040	05-JAN-01 07:20	EPA 6010	00-178-13
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-027-97
Magnesium	49.8	mg/l	0.500	05-JAN-01 07:20	EPA 6010	00-178-13
Manganese	4.08	mg/l	0.005	05-JAN-01 07:20	EPA 6010	00-178-13
Potassium	1.57	mg/l	0.500	05-JAN-01 07:20	EPA 6010	00-178-13
Sodium	19.1	mg/l	0.200	05-JAN-01 07:20	EPA 6010	00-178-13

Page 1 of 1

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

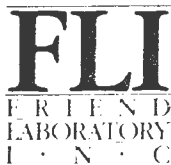
Approved by:

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-12

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-223D
Description: GRAB
Sampled On: 27-DEC-00 08:30 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1345	umhos/cm		27-DEC-00 08:30	EPA 120.1	FLI/RJS/JDS/C
Depth Recovered To At Sampling	17.52	ft		27-DEC-00 08:30		FLI/RJS/JDS/C
Initial Depth To Water	17.43	ft		27-DEC-00 08:30		FLI/RJS/JDS/C
Eh	37	mV		27-DEC-00 08:30	ASTM D1498-76	FLI/RJS/JDS/C
Field pH	7.01			27-DEC-00 08:30	EPA 9040	FLI/RJS/JDS/C
Sampling Depth	17.52	ft		27-DEC-00 08:30		FLI/RJS/JDS/C
Temperature	9.6	Deg. C		27-DEC-00 08:30	EPA 170.1	FLI/RJS/JDS/C
Turbidity	9.1	ntu		27-DEC-00 08:30	EPA 180.1	FLI/RJS/JDS/C
Total Hardness	781	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	696	mg/l	5	05-JAN-01 00:00	EPA 310.1	00-057-81
Ammonia as N	U	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 11:53	EPA 405.1	00-173-56
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-72
Chloride	24.8	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-59
C.O.D.	17.2	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-34
Phenolics, Total	U	mg/l	0.004	11-JAN-01 00:00	EPA 420.2	00-011-67
Solids, Dissolved	920	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	140	mg/l	50	17-JAN-01 00:00	EPA 375.4	00-167-57
Kjeldahl Nitrogen as N	2.18	mg/l	1	02-JAN-01 00:00	EPA 351.3	00-067-79
TOC	2.6	mg/l	1	08-JAN-01 00:00	SW846 9060	00-189-17
Cadmium	U	mg/l	0.005	09-JAN-01 06:14	EPA 6010	00-178-14
Calcium	228	mg/l	0.500	09-JAN-01 06:14	EPA 6010	00-178-14
Iron	4.4	mg/l	0.040	09-JAN-01 06:14	EPA 6010	00-178-14
Lead	0.001	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	51.4	mg/l	0.500	09-JAN-01 06:14	EPA 6010	00-178-14

Page 1 of 2

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

Lab Director

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FLI

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LABORATORY
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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-12

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-223D
Description: GRAB
Sampled On: 27-DEC-00 08:30 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	1.89	mg/l	0.005	09-JAN-01 06:14	EPA 6010	00-178-14
Potassium	1.11	mg/l	0.500	09-JAN-01 06:14	EPA 6010	00-178-14
Sodium	11.9	mg/l	0.200	11-JAN-01 05:55	EPA 6010	01-017-01

Page 2 of 2

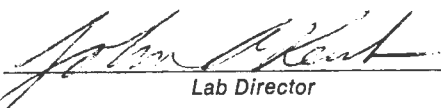
QC 

NY 10252

NJ 73168

PA 68180

EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-12

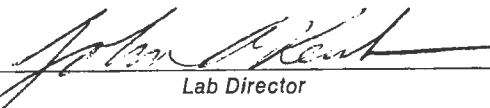
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-223D
Description: GRAB
Sampled On: 27-DEC-00 08:30 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:23	EPA 6010	00-178-13
Calcium	223	mg/l	0.500	05-JAN-01 07:23	EPA 6010	00-178-13
Iron	4.53	mg/l	0.040	05-JAN-01 07:23	EPA 6010	00-178-13
Lead	0.006	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-027-97
Magnesium	52.2	mg/l	0.500	05-JAN-01 07:23	EPA 6010	00-178-13
Manganese	1.94	mg/l	0.005	05-JAN-01 07:23	EPA 6010	00-178-13
Potassium	1.37	mg/l	0.500	05-JAN-01 07:23	EPA 6010	00-178-13
Sodium	14.4	mg/l	0.200	05-JAN-01 07:23	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 73168 PA 66180 EPA NY 00033

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Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-13

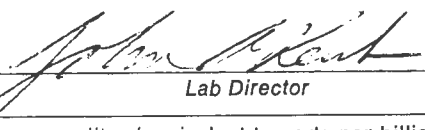
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-232S
Description: GRAB
Sampled On: 27-DEC-00 08:50 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	855	umhos/cm		27-DEC-00 08:50	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	15.04	ft		27-DEC-00 08:50		FLI/RJS/JDS/
Initial Depth To Water	14.7	ft		27-DEC-00 08:50		FLI/RJS/JDS/
Eh	33	mV		27-DEC-00 08:50	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.18			27-DEC-00 08:50	EPA 9040	FLI/RJS/JDS/
Sampling Depth	15.04	ft		27-DEC-00 08:50		FLI/RJS/JDS/
Temperature	10.4	Deg. C		27-DEC-00 08:50	EPA 170.1	FLI/RJS/JDS/
Turbidity	6.7	ntu		27-DEC-00 08:50	EPA 180.1	FLI/RJS/JDS/
Total Hardness	481	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	437	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-81
Ammonia as N	U	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 11:54	EPA 405.1	00-173-56
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	3.17	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-59
C.O.D.	U	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-34
Phenolics, Total	U	mg/l	0.004	11-JAN-01 00:00	EPA 420.2	00-011-67
Solids, Dissolved	535	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	69	mg/l	25	17-JAN-01 00:00	EPA 375.4	00-167-57
Kjeldahl Nitrogen as N	U	mg/l	1	02-JAN-01 00:00	EPA 351.3	00-067-79
TOC	2.8	mg/l	1	08-JAN-01 00:00	SW846 9060	00-189-17
Cadmium	U	mg/l	0.005	09-JAN-01 06:17	EPA 6010	00-178-14
Calcium	151	mg/l	0.500	09-JAN-01 06:17	EPA 6010	00-178-14
Iron	3.05	mg/l	0.040	09-JAN-01 06:17	EPA 6010	00-178-14
Lead	0.001	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	25.3	mg/l	0.500	09-JAN-01 06:17	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-13

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-232S
Description: GRAB
Sampled On: 27-DEC-00 08:50 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	1.34	mg/l	0.005	09-JAN-01 06:17	EPA 6010	00-178-14
Potassium	1.74	mg/l	0.500	09-JAN-01 06:17	EPA 6010	00-178-14
Sodium	2.83	mg/l	0.200	11-JAN-01 05:58	EPA 6010	01-017-01

Page 2 of 2

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

Lab Director

KEY: ND or U = None Detected < = less than
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OLIVER RESEARCH CORP. WEAVERLY, NY 14892-1532
TELEPHONE (607) 565-5500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-13

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-232S
Description: GRAB
Sampled On: 27-DEC-00 08:50 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:29	EPA 6010	00-178-13
Calcium	138	mg/l	0.500	04-JAN-01 12:30	EPA 6010	00-178-12
Iron	2.33	mg/l	0.040	05-JAN-01 07:29	EPA 6010	00-178-13
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-027-97
Magnesium	24.2	mg/l	0.500	04-JAN-01 12:30	EPA 6010	00-178-12
Manganese	1.24	mg/l	0.005	04-JAN-01 12:30	EPA 6010	00-178-12
Potassium	1.95	mg/l	0.500	04-JAN-01 12:30	EPA 6010	00-178-12
Sodium	4.15	mg/l	0.200	05-JAN-01 07:29	EPA 6010	00-178-13

Page 1 of 1

NY 10252 NJ 73168 PA 68180 EPA NY 00033

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-14

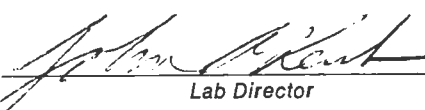
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-233S
Description: GRAB
Sampled On: 27-DEC-00 09:00 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	895	umhos/cm		27-DEC-00 09:00	EPA 120.1	FLI/RJS/JDS/C
Depth Recovered To At Sampling	14.91	ft		27-DEC-00 09:00		FLI/RJS/JDS/C
Initial Depth To Water	14.7	ft		27-DEC-00 09:00		FLI/RJS/JDS/C
Eh	95	mV		27-DEC-00 09:00	ASTM D1498-76	FLI/RJS/JDS/C
Field pH	7.29			27-DEC-00 09:00	EPA 9040	FLI/RJS/JDS/C
Sampling Depth	14.91	ft		27-DEC-00 09:00		FLI/RJS/JDS/C
Temperature	9.2	Deg. C		27-DEC-00 09:00	EPA 170.1	FLI/RJS/JDS/C
Turbidity	1.6	ntu		27-DEC-00 09:00	EPA 180.1	FLI/RJS/JDS/C
Total Hardness	483	mg/L	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	5.97	mg/L	0.5	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	376	mg/L	5	05-JAN-01 00:00	EPA 310.1	00-057-81
Ammonia as N	U	mg/L	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/L	3	28-DEC-00 12:00	EPA 405.1	00-173-56
Bromide	U	mg/L	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	1.28	mg/L	1	08-JAN-01 00:00	EPA 325.3	00-096-59
C.O.D.	10.9	mg/L	10	11-JAN-01 00:00	EPA 410.4	00-126-34
Phenolics, Total	U	mg/L	0.004	11-JAN-01 00:00	EPA 420.2	00-011-67
Solids, Dissolved	599	mg/L	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	110	mg/L	50	17-JAN-01 00:00	EPA 375.4	00-167-57
Kjeldahl Nitrogen as N	U	mg/L	1	02-JAN-01 00:00	EPA 351.3	00-067-79
TOC	5.6	mg/L	1	08-JAN-01 00:00	SW846 9060	00-189-17
Cadmium	U	mg/L	0.005	09-JAN-01 06:20	EPA 6010	00-178-14
Calcium	135	mg/L	0.500	09-JAN-01 06:20	EPA 6010	00-178-14
Iron	0.124	mg/L	0.040	09-JAN-01 06:20	EPA 6010	00-178-14
Lead	U	mg/L	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	35.5	mg/L	0.500	09-JAN-01 06:20	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

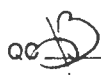
Lab Sample ID: L61584-14

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-233S
Description: GRAB
Sampled On: 27-DEC-00 09:00 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	0.744	mg/l	0.005	09-JAN-01 06:20	EPA 6010	00-178-14
Potassium	1.76	mg/l	0.500	09-JAN-01 06:20	EPA 6010	00-178-14
Sodium	2.4	mg/l	0.200	11-JAN-01 06:01	EPA 6010	01-017-01

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-5500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-14

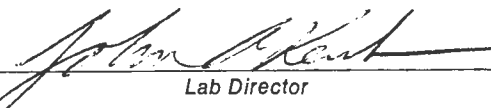
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-233S
Description: GRAB
Sampled On: 27-DEC-00 09:00 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:32	EPA 6010	00-178-13
Calcium	137	mg/l	0.500	04-JAN-01 12:33	EPA 6010	00-178-12
Iron	0.097	mg/l	0.040	05-JAN-01 07:32	EPA 6010	00-178-13
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-027-97
Magnesium	34.6	mg/l	0.500	04-JAN-01 12:33	EPA 6010	00-178-12
Manganese	0.71	mg/l	0.005	04-JAN-01 12:33	EPA 6010	00-178-12
Potassium	2.11	mg/l	0.500	04-JAN-01 12:33	EPA 6010	00-178-12
Sodium	3.87	mg/l	0.200	05-JAN-01 07:32	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-15

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-234s
Description: GRAB
Sampled On: 27-DEC-00 09:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	631	umhos/cm		27-DEC-00 09:10	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	18.14	ft		27-DEC-00 09:10		FLI/RJS/JDS/
Initial Depth To Water	17.93	ft		27-DEC-00 09:10		FLI/RJS/JDS/
Eh	95	mV		27-DEC-00 09:10	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.67			27-DEC-00 09:10	EPA 9040	FLI/RJS/JDS/
Sampling Depth	18.14	ft		27-DEC-00 09:10		FLI/RJS/JDS/
Temperature	9.2	Deg. C		27-DEC-00 09:10	EPA 170.1	FLI/RJS/JDS/
Turbidity	6.3	ntu		27-DEC-00 09:10	EPA 180.1	FLI/RJS/JDS/
Total Hardness	337	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	232	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-81
Ammonia as N	U	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 13:26	EPA 405.1	00-173-57
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	3.11	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-59
C.O.D.	U	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-34
Phenolics, Total	U	mg/l	0.004	11-JAN-01 00:00	EPA 420.2	00-011-67
Solids, Dissolved	435	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	120	mg/l	50	17-JAN-01 00:00	EPA 375.4	00-167-57
Kjeldahl Nitrogen as N	U	mg/l	1	02-JAN-01 00:00	EPA 351.3	00-067-79
TOC	1.7	mg/l	1	08-JAN-01 00:00	SW846 9060	00-189-17
Cadmium	U	mg/l	0.005	09-JAN-01 06:23	EPA 6010	00-178-14
Calcium	105	mg/l	0.500	09-JAN-01 06:23	EPA 6010	00-178-14
Iron	0.312	mg/l	0.040	09-JAN-01 06:23	EPA 6010	00-178-14
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	18.1	mg/l	0.500	09-JAN-01 06:23	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-15

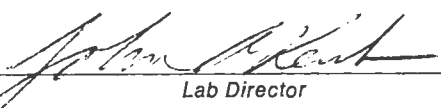
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-234S
Description: GRAB
Sampled On: 27-DEC-00 09:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	0.56	mg/l	0.005	09-JAN-01 06:23	EPA 6010	00-178-14
Potassium	0.662	mg/l	0.500	09-JAN-01 06:23	EPA 6010	00-178-14
Sodium	3.41	mg/l	0.200	11-JAN-01 06:04	EPA 6010	01-017-01

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-15

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-234S
Description: GRAB
Sampled On: 27-DEC-00 09:10 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:35	EPA 6010	00-178-13
Calcium	98	mg/l	0.500	04-JAN-01 12:36	EPA 6010	00-178-12
Iron	0.102	mg/l	0.040	05-JAN-01 07:35	EPA 6010	00-178-13
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-027-97
Magnesium	17.4	mg/l	0.500	04-JAN-01 12:36	EPA 6010	00-178-12
Manganese	0.526	mg/l	0.005	04-JAN-01 12:36	EPA 6010	00-178-12
Potassium	0.844	mg/l	0.500	04-JAN-01 12:36	EPA 6010	00-178-12
Sodium	4.68	mg/l	0.200	05-JAN-01 07:35	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-16

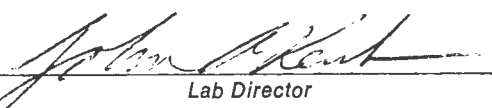
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-234D
Description: GRAB
Sampled On: 27-DEC-00 09:20 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	624	umhos/cm		27-DEC-00 09:20	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	19.1	ft		27-DEC-00 09:20		FLI/RJS/JDS/
Initial Depth To Water	18.45	ft		27-DEC-00 09:20		FLI/RJS/JDS/
Eh	48	mV		27-DEC-00 09:20	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.66			27-DEC-00 09:20	EPA 9040	FLI/RJS/JDS/
Sampling Depth	19.1	ft		27-DEC-00 09:20		FLI/RJS/JDS/
Temperature	9.2	Deg. C		27-DEC-00 09:20	EPA 170.1	FLI/RJS/JDS/
Turbidity	5.3	ntu		27-DEC-00 09:20	EPA 180.1	FLI/RJS/JDS/
Total Hardness	310	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	0.115	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
TOC	U	mg/l	1	23-JAN-01 00:00	SW846 9060	SUBCONTRACT
Analysis Comment: O'Brien & Gere - Syracuse, NY #10155						
Alkalinity as CaCO3	229	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-81
Ammonia as N	U	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 13:28	EPA 405.1	00-173-57
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	26.2	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-59
C.O.D.	U	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-34
Phenolics, Total	U	mg/l	0.004	11-JAN-01 00:00	EPA 420.2	00-011-67
Solids, Dissolved	425	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	70	mg/l	25	17-JAN-01 00:00	EPA 375.4	00-167-57
Kjeldahl Nitrogen as N	U	mg/l	1	02-JAN-01 00:00	EPA 351.3	00-067-79
Cadmium	U	mg/l	0.005	09-JAN-01 06:26	EPA 6010	00-178-14
Calcium	96.3	mg/l	0.500	09-JAN-01 06:26	EPA 6010	00-178-14
Iron	0.499	mg/l	0.040	09-JAN-01 06:26	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-16

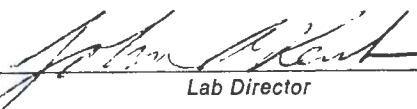
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-234D
Description: GRAB
Sampled On: 27-DEC-00 09:20 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Lead	0.001	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	16.8	mg/l	0.500	09-JAN-01 06:26	EPA 6010	00-178-14
Manganese	0.369	mg/l	0.005	09-JAN-01 06:26	EPA 6010	00-178-14
Potassium	1.33	mg/l	0.500	09-JAN-01 06:26	EPA 6010	00-178-14
Sodium	11.2	mg/l	0.200	11-JAN-01 06:07	EPA 6010	01-017-01

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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Date: 12-JAN-2001

Lab Sample ID: L61585-16

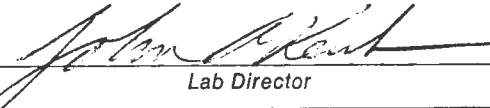
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-234D
Description: GRAB
Sampled On: 27-DEC-00 09:20 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:38	EPA 6010	00-178-13
Calcium	87.7	mg/l	0.500	04-JAN-01 12:39	EPA 6010	00-178-12
Iron	0.462	mg/l	0.040	05-JAN-01 07:38	EPA 6010	00-178-13
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-027-97
Magnesium	15.7	mg/l	0.500	04-JAN-01 12:39	EPA 6010	00-178-12
Manganese	0.348	mg/l	0.005	04-JAN-01 12:39	EPA 6010	00-178-12
Potassium	1.87	mg/l	0.500	04-JAN-01 12:39	EPA 6010	00-178-12
Sodium	14.2	mg/l	0.200	05-JAN-01 07:38	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 N: 73163 PA 66180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1582
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-17

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-235S
Description: GRAB
Sampled On: 27-DEC-00 09:30 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1142	umhos/cm		27-DEC-00 09:30	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	17.34	ft		27-DEC-00 09:30		FLI/RJS/JDS/
Initial Depth To Water	17.2	ft		27-DEC-00 09:30		FLI/RJS/JDS/
Eh	-39	mV		27-DEC-00 09:30	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.39			27-DEC-00 09:30	EPA 9040	FLI/RJS/JDS/
Sampling Depth	17.34	ft		27-DEC-00 09:30		FLI/RJS/JDS/
Temperature	8.4	Deg. C		27-DEC-00 09:30	EPA 170.1	FLI/RJS/JDS/
Turbidity	11	ntu		27-DEC-00 09:30	EPA 180.1	FLI/RJS/JDS/
Total Hardness	637	mg/L	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/L	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
TOC	U	mg/L	1	23-JAN-01 00:00	SW846 9060	SUBCONTRACT
Analysis Comment: O'Brien & Gere - Syracuse, NY #10155						
Alkalinity as CaCO3	578	mg/L	5	05-JAN-01 00:00	EPA 310.1	00-057-81
Ammonia as N	U	mg/L	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/L	3	28-DEC-00 13:30	EPA 405.1	00-173-57
Bromide	U	mg/L	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	25.5	mg/L	1	08-JAN-01 00:00	EPA 325.3	00-096-59
C.O.D.	19.2	mg/L	10	11-JAN-01 00:00	EPA 410.4	00-126-32
Phenolics, Total	U	mg/L	0.004	11-JAN-01 00:00	EPA 420.2	00-011-67
Solids, Dissolved	719	mg/L	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	61	mg/L	25	17-JAN-01 00:00	EPA 375.4	00-167-57
Kjeldahl Nitrogen as N	U	mg/L	1	02-JAN-01 00:00	EPA 351.3	00-067-79
Cadmium	U	mg/L	0.005	09-JAN-01 06:35	EPA 6010	00-178-14
Calcium	187	mg/L	0.500	09-JAN-01 06:35	EPA 6010	00-178-14
Iron	14.8	mg/L	0.040	09-JAN-01 06:35	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-17

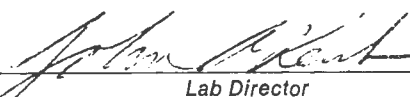
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-235s
Description: GRAB
Sampled On: 27-DEC-00 09:30 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Lead	0.001	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	41.3	mg/l	0.500	09-JAN-01 06:35	EPA 6010	00-178-14
Manganese	1.25	mg/l	0.005	09-JAN-01 06:35	EPA 6010	00-178-14
Potassium	1.44	mg/l	0.500	09-JAN-01 06:35	EPA 6010	00-178-14
Sodium	7.53	mg/l	0.200	09-JAN-01 06:35	EPA 6010	00-178-14

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 
Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-17

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-235S
Description: GRAB
Sampled On: 27-DEC-00 09:30 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:41	EPA 6010	00-178-13
Calcium	179	mg/l	0.500	04-JAN-01 12:42	EPA 6010	00-178-12
Iron	17.2	mg/l	0.040	05-JAN-01 07:41	EPA 6010	00-178-13
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-027-97
Magnesium	41.7	mg/l	0.500	04-JAN-01 12:42	EPA 6010	00-178-12
Manganese	1.21	mg/l	0.005	04-JAN-01 12:42	EPA 6010	00-178-12
Potassium	1.85	mg/l	0.500	04-JAN-01 12:42	EPA 6010	00-178-12
Sodium	10.4	mg/l	0.200	05-JAN-01 07:41	EPA 6010	00-178-13

Page 1 of 1

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-18

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

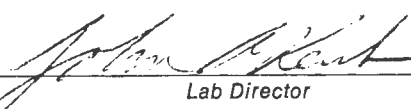
Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-235D
Description: GRAB
Sampled On: 27-DEC-00 09:40 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	539	umhos/cm		27-DEC-00 09:40	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	16.31	ft		27-DEC-00 09:40		FLI/RJS/JDS/
Initial Depth To Water	16.18	ft		27-DEC-00 09:40		FLI/RJS/JDS/
Eh	8	mV		27-DEC-00 09:40	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.72			27-DEC-00 09:40	EPA 9040	FLI/RJS/JDS/
Sampling Depth	16.31	ft		27-DEC-00 09:40		FLI/RJS/JDS/
Temperature	8.6	Deg. C		27-DEC-00 09:40	EPA 170.1	FLI/RJS/JDS/
Turbidity	4.1	ntu		27-DEC-00 09:40	EPA 180.1	FLI/RJS/JDS/
Total Hardness	201	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
TOC	U	mg/l	1	23-JAN-01 00:00	SW846 9060	SUBCONTRACT
Analysis Comment: O'Brien & Gere - Syracuse, NY #10155						
Alkalinity as CaCO3	183	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-82
Ammonia as N	0.134	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 13:31	EPA 405.1	00-173-57
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	17.1	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-60
C.O.D.	U	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-34
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	326	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	79	mg/l	25	17-JAN-01 00:00	EPA 375.4	00-167-57
Kjeldahl Nitrogen as N	U	mg/l	1	02-JAN-01 00:00	EPA 351.3	00-067-79
Cadmium	U	mg/l	0.005	09-JAN-01 06:38	EPA 6010	00-178-14
Calcium	58.1	mg/l	0.500	09-JAN-01 06:38	EPA 6010	00-178-14
Iron	0.375	mg/l	0.040	09-JAN-01 06:38	EPA 6010	00-178-14

Page 1 of 2

QC 

NY 10252 NJ 73165 FA 68180 EPA NY 00033

Approved by: 

Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
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"Our family, caring about your analytical needs... Since 1963."



ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-18

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-235D
Description: GRAB
Sampled On: 27-DEC-00 09:40 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	13.7	mg/l	0.500	09-JAN-01 06:38	EPA 6010	00-178-14
Manganese	0.299	mg/l	0.005	09-JAN-01 06:38	EPA 6010	00-178-14
Potassium	1.7	mg/l	0.500	09-JAN-01 06:38	EPA 6010	00-178-14
Sodium	30.7	mg/l	0.200	09-JAN-01 06:38	EPA 6010	00-178-14

Page 2 of 2

QC 

NY 10252 NJ 73166 FA 68180 EPA NY 00033

Approved by: 

Lab Director

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OFFICE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-18

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-235D
Description: GRAB
Sampled On: 27-DEC-00 09:40 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:44	EPA 6010	00-178-13
Calcium	56.7	mg/l	0.500	04-JAN-01 12:45	EPA 6010	00-178-12
Iron	0.374	mg/l	0.040	05-JAN-01 07:44	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	13.9	mg/l	0.500	04-JAN-01 12:45	EPA 6010	00-178-12
Manganese	0.298	mg/l	0.005	04-JAN-01 12:45	EPA 6010	00-178-12
Potassium	1.96	mg/l	0.500	04-JAN-01 12:45	EPA 6010	00-178-12
Sodium	38.8	mg/l	0.200	05-JAN-01 07:44	EPA 6010	00-178-13

Page 1 of 1

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-19

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-245S
Description: GRAB
Sampled On: 27-DEC-00 11:20 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	995	umhos/cm		27-DEC-00 11:20	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	30.12	ft		27-DEC-00 11:20		FLI/RJS/JDS/
Initial Depth To Water	29.25	ft		27-DEC-00 11:20		FLI/RJS/JDS/
Eh	84	mV		27-DEC-00 11:20	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.46			27-DEC-00 11:20	EPA 9040	FLI/RJS/JDS/
Sampling Depth	30.12	ft		27-DEC-00 11:20		FLI/RJS/JDS/
Temperature	9	Deg. C		27-DEC-00 11:20	EPA 170.1	FLI/RJS/JDS/
Turbidity	16	ntu		27-DEC-00 11:20	EPA 180.1	FLI/RJS/JDS/
Total Hardness	519	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
TOC	U	mg/l	1	23-JAN-01 00:00	SW846 9060	SUBCONTRACT
Analysis Comment: O'Brien & Gere - Syracuse, NY #10155						
Alkalinity as CaCO ₃	366	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-82
Ammonia as N	0.11	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 13:33	EPA 405.1	00-173-57
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	27.6	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-60
C.O.D.	U	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-34
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	711	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO ₄	210	mg/l	100	17-JAN-01 00:00	EPA 375.4	00-167-57
Kjeldahl Nitrogen as N	U	mg/l	1	02-JAN-01 00:00	EPA 351.3	00-067-79
Cadmium	U	mg/l	0.005	09-JAN-01 06:41	EPA 6010	00-178-14
Calcium	154	mg/l	0.500	09-JAN-01 06:41	EPA 6010	00-178-14
Iron	1.54	mg/l	0.040	09-JAN-01 06:41	EPA 6010	00-178-14

Page 1 of 2

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-19

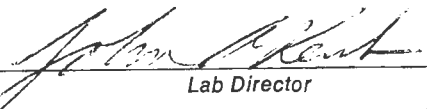
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-245S
Description: GRAB
Sampled On: 27-DEC-00 11:20 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Lead	0.003	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	32.6	mg/l	0.500	09-JAN-01 06:41	EPA 6010	00-178-14
Manganese	1.94	mg/l	0.005	09-JAN-01 06:41	EPA 6010	00-178-14
Potassium	1.43	mg/l	0.500	09-JAN-01 06:41	EPA 6010	00-178-14
Sodium	18.2	mg/l	0.200	09-JAN-01 06:41	EPA 6010	00-178-14

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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RESEARCH CORP. LE Waverly, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-19

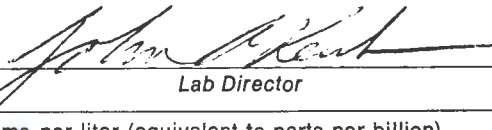
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-245S
Description: GRAB
Sampled On: 27-DEC-00 11:20 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 07:47	EPA 6010	00-178-13
Calcium	130	mg/l	0.500	04-JAN-01 12:48	EPA 6010	00-178-12
Iron	0.151	mg/l	0.040	05-JAN-01 07:47	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	28.9	mg/l	0.500	04-JAN-01 12:48	EPA 6010	00-178-12
Manganese	0.948	mg/l	0.005	04-JAN-01 12:48	EPA 6010	00-178-12
Potassium	1.45	mg/l	0.500	04-JAN-01 12:48	EPA 6010	00-178-12
Sodium	22	mg/l	0.200	05-JAN-01 07:47	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 73166 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 31-JAN-2001

Lab Sample ID: L61584-20

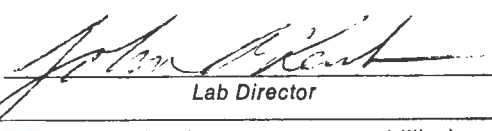
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-245D
Description: GRAB
Sampled On: 27-DEC-00 11:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	954	umhos/cm		27-DEC-00 11:35	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	39.95	ft		27-DEC-00 11:35		FLI/RJS/JDS/
Initial Depth To Water	30.26	ft		27-DEC-00 11:35		FLI/RJS/JDS/
Eh	-45	mV		27-DEC-00 11:35	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.59			27-DEC-00 11:35	EPA 9040	FLI/RJS/JDS/
Sampling Depth	39.95	ft		27-DEC-00 11:35		FLI/RJS/JDS/
Temperature	9	Deg. C		27-DEC-00 11:35	EPA 170.1	FLI/RJS/JDS/
Turbidity	13	ntu		27-DEC-00 11:35	EPA 180.1	FLI/RJS/JDS/
Total Hardness	298	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	295	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-82
Ammonia as N	7.01	mg/l	1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 13:45	EPA 405.1	00-173-58
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	21.9	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-60
C.O.D.	U	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-34
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	574	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	200	mg/l	50	17-JAN-01 00:00	EPA 375.4	00-167-59
Kjeldahl Nitrogen as N	8.37	mg/l	1	30-JAN-01 00:00	EPA 351.3	00-166-28
Analysis Comment: Sample analyzed past holding time.						
TOC	U	mg/l	1	12-JAN-01 00:00	SW846 9060	00-189-20
Cadmium	U	mg/l	0.005	09-JAN-01 06:44	EPA 6010	00-178-14
Calcium	79.3	mg/l	0.500	09-JAN-01 06:44	EPA 6010	00-178-14
Iron	3.98	mg/l	0.040	09-JAN-01 06:44	EPA 6010	00-178-14

Page 1 of 2

QC lak NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 31-JAN-2001

Lab Sample ID: L61584-20

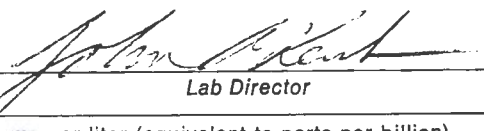
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-245D
Description: GRAB
Sampled On: 27-DEC-00 11:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Lead	0.002	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	24.2	mg/l	0.500	09-JAN-01 06:44	EPA 6010	00-178-14
Manganese	0.128	mg/l	0.005	09-JAN-01 06:44	EPA 6010	00-178-14
Potassium	3.21	mg/l	0.500	09-JAN-01 06:44	EPA 6010	00-178-14
Sodium	78.5	mg/l	0.200	09-JAN-01 06:44	EPA 6010	00-178-14

Page 2 of 2

QC *cal* NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ORANGE RESEARCH CORP. WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-20

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-245D
Description: GRAB
Sampled On: 27-DEC-00 11:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	09-JAN-01 11:05	EPA 6010	00-178-14
Calcium	73	mg/l	0.500	04-JAN-01 12:51	EPA 6010	00-178-12
Iron	3.36	mg/l	0.040	09-JAN-01 11:05	EPA 6010	00-178-14
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	23.6	mg/l	0.500	04-JAN-01 12:51	EPA 6010	00-178-12
Manganese	0.122	mg/l	0.005	04-JAN-01 12:51	EPA 6010	00-178-12
Potassium	3.34	mg/l	0.500	04-JAN-01 12:51	EPA 6010	00-178-12
Sodium	83	mg/l	0.200	09-JAN-01 11:05	EPA 6010	00-178-14

Page 1 of 1

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 31-JAN-2001

Lab Sample ID: L61584-21

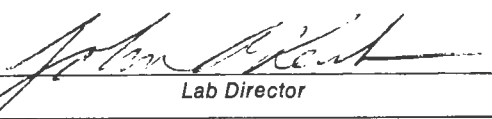
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-303S
Description: GRAB
Sampled On: 27-DEC-00 08:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1206	umhos/cm		27-DEC-00 08:35	EPA 120.1	FLI/RJS/JDS/C
Depth Recovered To At Sampling	18.42	ft		27-DEC-00 08:35		FLI/RJS/JDS/C
Initial Depth To Water	18.35	ft		27-DEC-00 08:35		FLI/RJS/JDS/C
Eh	-12	mV		27-DEC-00 08:35	ASTM D1498-76	FLI/RJS/JDS/C
Field pH	7			27-DEC-00 08:35	EPA 9040	FLI/RJS/JDS/C
Sampling Depth	18.42	ft		27-DEC-00 08:35		FLI/RJS/JDS/C
Temperature	10.4	Deg. C		27-DEC-00 08:35	EPA 170.1	FLI/RJS/JDS/C
Turbidity	3.8	ntu		27-DEC-00 08:35	EPA 180.1	FLI/RJS/JDS/C
Total Hardness	625	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	637	mg/l	5	05-JAN-01 00:00	EPA 310.1	00-057-82
Ammonia as N	4.69	mg/l	1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 13:47	EPA 405.1	00-173-58
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	18.4	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-60
C.O.D.	U	mg/l	10	09-JAN-01 00:00	EPA 410.4	99-120-93
Phenolics, Total	0.0042	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	659	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	23	mg/l	5	17-JAN-01 00:00	EPA 375.4	00-167-59
Kjeldahl Nitrogen as N	4.69	mg/l	1	30-JAN-01 00:00	EPA 351.3	00-166-28
Analysis Comment: Sample analyzed past holding time.						
TOC	U	mg/l	1	12-JAN-01 00:00	SW846 9060	00-189-20
Cadmium	U	mg/l	0.005	09-JAN-01 06:46	EPA 6010	00-178-14
Calcium	192	mg/l	0.500	09-JAN-01 06:46	EPA 6010	00-178-14
Iron	24	mg/l	0.040	09-JAN-01 06:46	EPA 6010	00-178-14

Page 1 of 2

QC cal NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 31-JAN-2001

Lab Sample ID: L61584-21

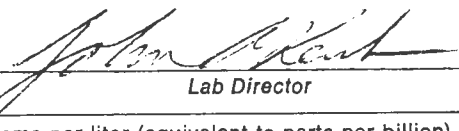
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-303S
Description: GRAB
Sampled On: 27-DEC-00 08:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Lead	0.008	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	35.4	mg/l	0.500	09-JAN-01 06:46	EPA 6010	00-178-14
Manganese	2.94	mg/l	0.005	09-JAN-01 06:46	EPA 6010	00-178-14
Potassium	5.58	mg/l	0.500	09-JAN-01 06:46	EPA 6010	00-178-14
Sodium	14.2	mg/l	0.200	09-JAN-01 06:46	EPA 6010	00-178-14

Page 2 of 2

QC ear NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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OLIVE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-21

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-303S
Description: GRAB
Sampled On: 27-DEC-00 08:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 08:04	EPA 6010	00-178-13
Calcium	190	mg/l	0.500	05-JAN-01 08:04	EPA 6010	00-178-13
Iron	25	mg/l	0.040	05-JAN-01 08:04	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	36.8	mg/l	0.500	05-JAN-01 08:04	EPA 6010	00-178-13
Manganese	3.1	mg/l	0.005	05-JAN-01 08:04	EPA 6010	00-178-13
Potassium	6.3	mg/l	0.500	05-JAN-01 08:04	EPA 6010	00-178-13
Sodium	18.3	mg/l	0.200	05-JAN-01 08:04	EPA 6010	00-178-13

Page 1 of 1

QC 

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-22

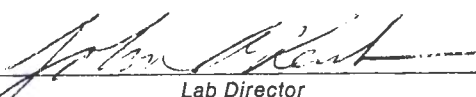
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-303D
Description: GRAB
Sampled On: 27-DEC-00 08:40 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1187	umhos/cm		27-DEC-00 08:40	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	18.57	ft		27-DEC-00 08:40		FLI/RJS/JDS/
Initial Depth To Water	18.51	ft		27-DEC-00 08:40		FLI/RJS/JDS/
Eh	-20	mV		27-DEC-00 08:40	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.54			27-DEC-00 08:40	EPA 9040	FLI/RJS/JDS/
Sampling Depth	18.57	ft		27-DEC-00 08:40		FLI/RJS/JDS/
Temperature	9.9	Deg. C		27-DEC-00 08:40	EPA 170.1	FLI/RJS/JDS/
Turbidity	13	ntu		27-DEC-00 08:40	EPA 180.1	FLI/RJS/JDS/
Total Hardness	221	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	0.121	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	257	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-82
Ammonia as N	0.625	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 13:49	EPA 405.1	00-173-58
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	152	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-60
C.O.D.	U	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-34
Phenolics, Total	0.0063	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	651	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	110	mg/l	25	17-JAN-01 00:00	EPA 375.4	00-167-59
Kjeldahl Nitrogen as N	1	mg/l	1	02-JAN-01 00:00	EPA 351.3	00-067-79
TOC	1.9	mg/l	1	08-JAN-01 00:00	SW846 9060	00-189-17
Cadmium	U	mg/l	0.005	09-JAN-01 06:49	EPA 6010	00-178-14
Calcium	53.9	mg/l	0.500	09-JAN-01 06:49	EPA 6010	00-178-14
Iron	1.33	mg/l	0.040	09-JAN-01 06:49	EPA 6010	00-178-14
Lead	0.002	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	21	mg/l	0.500	09-JAN-01 06:49	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-22

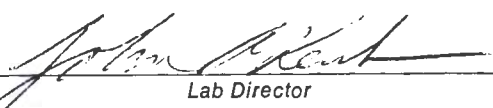
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-303D
Description: GRAB
Sampled On: 27-DEC-00 08:40 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	0.056	mg/l	0.005	09-JAN-01 06:49	EPA 6010	00-178-14
Potassium	6.51	mg/l	0.500	09-JAN-01 06:49	EPA 6010	00-178-14
Sodium	155	mg/l	0.200	09-JAN-01 06:49	EPA 6010	00-178-14

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Lab Director

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OLYMPIAN RESEARCH CENTER WEAVERLY, NY 14892-1532
TELEPHONE (607) 565-9500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-22

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-303D
Description: GRAB
Sampled On: 27-DEC-00 08:40 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 08:13	EPA 6010	00-178-13
Calcium	50.7	mg/l	0.500	05-JAN-01 08:13	EPA 6010	00-178-13
Iron	0.369	mg/l	0.040	05-JAN-01 08:13	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	21.1	mg/l	0.500	05-JAN-01 08:13	EPA 6010	00-178-13
Manganese	0.044	mg/l	0.005	05-JAN-01 08:13	EPA 6010	00-178-13
Potassium	7.22	mg/l	0.500	05-JAN-01 08:13	EPA 6010	00-178-13
Sodium	178	mg/l	0.200	05-JAN-01 08:13	EPA 6010	00-178-13

Page 1 of 1

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-23

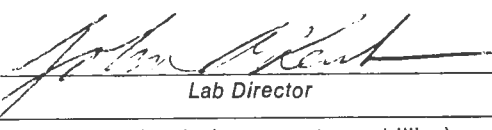
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-304VS
Description: GRAB
Sampled On: 27-DEC-00 09:50 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	2050	umhos/cm		27-DEC-00 09:50	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	5.75	ft		27-DEC-00 09:50		FLI/RJS/JDS/
Initial Depth To Water	5.64	ft		27-DEC-00 09:50		FLI/RJS/JDS/
Eh	71	mV		27-DEC-00 09:50	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.52			27-DEC-00 09:50	EPA 9040	FLI/RJS/JDS/
Sampling Depth	5.75	ft		27-DEC-00 09:50		FLI/RJS/JDS/
Temperature	6	Deg. C		27-DEC-00 09:50	EPA 170.1	FLI/RJS/JDS/
Turbidity	3.7	ntu		27-DEC-00 09:50	EPA 180.1	FLI/RJS/JDS/
Total Hardness	535	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	376	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-82
Ammonia as N	0.3	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 13:51	EPA 405.1	00-173-58
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	82.8	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-60
C.O.D.	U	mg/l	10	09-JAN-01 00:00	EPA 410.4	99-120-93
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	1120	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	61	mg/l	25	17-JAN-01 00:00	EPA 375.4	00-167-59
Kjeldahl Nitrogen as N	U	mg/l	1	02-JAN-01 00:00	EPA 351.3	00-067-79
TOC	8.2	mg/l	1	08-JAN-01 00:00	SW846 9060	00-189-17
Cadmium	U	mg/l	0.005	09-JAN-01 06:52	EPA 6010	00-178-14
Calcium	166	mg/l	0.500	09-JAN-01 06:52	EPA 6010	00-178-14
Iron	4.31	mg/l	0.040	09-JAN-01 06:52	EPA 6010	00-178-14
Lead	0.004	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	29.3	mg/l	0.500	09-JAN-01 06:52	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-23

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-304VS
Description: GRAB
Sampled On: 27-DEC-00 09:50 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	3.1	mg/l	0.005	09-JAN-01 06:52	EPA 6010	00-178-14
Potassium	2.9	mg/l	0.500	09-JAN-01 06:52	EPA 6010	00-178-14
Sodium	176	mg/l	0.200	09-JAN-01 06:52	EPA 6010	00-178-14

Page 2 of 2

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

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OF T. RESEARCH CIRCLE WEAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-23

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-304VS
Description: GRAB
Sampled On: 27-DEC-00 09:50 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 08:19	EPA 6010	00-178-13
Calcium	160	mg/l	0.500	05-JAN-01 08:19	EPA 6010	00-178-13
Iron	U	mg/l	0.040	05-JAN-01 08:19	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	29.8	mg/l	0.500	05-JAN-01 08:19	EPA 6010	00-178-13
Manganese	U	mg/l	0.005	05-JAN-01 08:19	EPA 6010	00-178-13
Potassium	3.9	mg/l	0.500	05-JAN-01 08:19	EPA 6010	00-178-13
Sodium	274	mg/l	1.00	05-JAN-01 08:22	EPA 6010	00-178-13

Page 1 of 1

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00036

Approved by:

Lab Director

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Date: 25-JAN-2001

Lab Sample ID: L61584-24

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

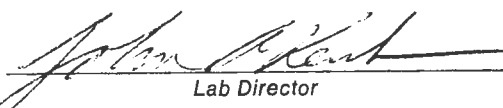
Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-304S
Description: GRAB
Sampled On: 27-DEC-00 09:55 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	1215	umhos/cm		27-DEC-00 09:55	EPA 120.1	FLI/RJS/JDS/C
Depth Recovered To At Sampling	25.52	ft		27-DEC-00 09:55		FLI/RJS/JDS/C
Initial Depth To Water	25.5	ft		27-DEC-00 09:55		FLI/RJS/JDS/C
Eh	-10	mV		27-DEC-00 09:55	ASTM D1498-76	FLI/RJS/JDS/C
Field pH	7			27-DEC-00 09:55	EPA 9040	FLI/RJS/JDS/C
Sampling Depth	25.52	ft		27-DEC-00 09:55		FLI/RJS/JDS/C
Temperature	10.6	Deg. C		27-DEC-00 09:55	EPA 170.1	FLI/RJS/JDS/C
Turbidity	35	ntu		27-DEC-00 09:55	EPA 180.1	FLI/RJS/JDS/C
Total Hardness	653	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	671	mg/l	5	05-JAN-01 00:00	EPA 310.1	00-057-82
Ammonia as N	0.639	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 13:52	EPA 405.1	00-173-58
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	24.6	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-60
C.O.D.	U	mg/l	10	09-JAN-01 00:00	EPA 410.4	99-120-93
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	697	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	11	mg/l	5	17-JAN-01 00:00	EPA 375.4	00-167-59
Kjeldahl Nitrogen as N	U	mg/l	1	02-JAN-01 00:00	EPA 351.3	00-067-79
TOC	U	mg/l	1	16-JAN-01 00:00	SW846 9060	00-189-20
Cadmium	U	mg/l	0.005	09-JAN-01 06:55	EPA 6010	00-178-14
Calcium	198	mg/l	0.500	09-JAN-01 06:55	EPA 6010	00-178-14
Iron	16.7	mg/l	0.040	09-JAN-01 06:55	EPA 6010	00-178-14
Lead	0.003	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	38.5	mg/l	0.500	09-JAN-01 06:55	EPA 6010	00-178-14

Page 1 of 2

QC 

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-24

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-304S
Description: GRAB
Sampled On: 27-DEC-00 09:55 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	3.59	mg/l	0.005	09-JAN-01 06:55	EPA 6010	00-178-14
Potassium	3.23	mg/l	0.500	09-JAN-01 06:55	EPA 6010	00-178-14
Sodium	17.3	mg/l	0.200	09-JAN-01 06:55	EPA 6010	00-178-14

Page 2 of 2

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

Lab Director

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OF R RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-24

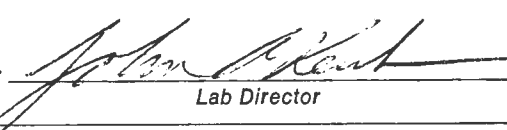
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-304S
Description: GRAB
Sampled On: 27-DEC-00 09:55 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 08:31	EPA 6010	00-178-13
Calcium	196	mg/l	0.500	05-JAN-01 08:31	EPA 6010	00-178-13
Iron	16	mg/l	0.040	05-JAN-01 08:31	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	39.4	mg/l	0.500	05-JAN-01 08:31	EPA 6010	00-178-13
Manganese	3.7	mg/l	0.005	05-JAN-01 08:31	EPA 6010	00-178-13
Potassium	3.41	mg/l	0.500	05-JAN-01 08:31	EPA 6010	00-178-13
Sodium	21.2	mg/l	0.200	05-JAN-01 08:31	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Date: 25-JAN-2001

Lab Sample ID: L61584-25

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-304D
Description: GRAB
Sampled On: 27-DEC-00 10:00 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	697	umhos/cm		27-DEC-00 10:00	EPA 120.1	FLI/RJS/JDS/
Depth Recovered To At Sampling	24.15	ft		27-DEC-00 10:00		FLI/RJS/JDS/
Initial Depth To Water	24.13	ft		27-DEC-00 10:00		FLI/RJS/JDS/
Eh	-29	mV		27-DEC-00 10:00	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.62			27-DEC-00 10:00	EPA 9040	FLI/RJS/JDS/
Sampling Depth	24.15	ft		27-DEC-00 10:00		FLI/RJS/JDS/
Temperature	10.1	Deg. C		27-DEC-00 10:00	EPA 170.1	FLI/RJS/JDS/
Turbidity	5.9	ntu		27-DEC-00 10:00	EPA 180.1	FLI/RJS/JDS/
Total Hardness	241	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	233	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-82
Ammonia as N	0.331	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 13:58	EPA 405.1	00-173-59
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	48.9	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-60
C.O.D.	U	mg/l	10	09-JAN-01 00:00	EPA 410.4	99-120-93
Phenolics, Total	0.0077	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	609	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	43	mg/l	25	22-JAN-01 00:00	EPA 375.4	00-167-60
Kjeldahl Nitrogen as N	1.17	mg/l	1	02-JAN-01 00:00	EPA 351.3	00-067-79
TOC	1.2	mg/l	1	12-JAN-01 00:00	SW846 9060	00-189-20
Cadmium	U	mg/l	0.005	09-JAN-01 06:58	EPA 6010	00-178-14
Calcium	64.3	mg/l	0.500	09-JAN-01 06:58	EPA 6010	00-178-14
Iron	0.922	mg/l	0.040	09-JAN-01 06:58	EPA 6010	00-178-14
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	19.6	mg/l	0.500	09-JAN-01 06:58	EPA 6010	00-178-14

Page 1 of 2

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-25

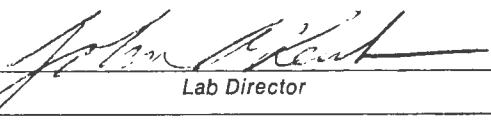
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MW-304D
Description: GRAB
Sampled On: 27-DEC-00 10:00 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	0.041	mg/l	0.005	09-JAN-01 06:58	EPA 6010	00-178-14
Potassium	2.51	mg/l	0.500	09-JAN-01 06:58	EPA 6010	00-178-14
Sodium	40.3	mg/l	0.200	09-JAN-01 06:58	EPA 6010	00-178-14

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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O. E. RESEARCH CHEM. WEAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-25

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MW-304D
Description: GRAB
Sampled On: 27-DEC-00 10:00 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 08:34	EPA 6010	00-178-13
Calcium	60.4	mg/l	0.500	05-JAN-01 08:34	EPA 6010	00-178-13
Iron	0.669	mg/l	0.040	05-JAN-01 08:34	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	19	mg/l	0.500	05-JAN-01 08:34	EPA 6010	00-178-13
Manganese	0.034	mg/l	0.005	05-JAN-01 08:34	EPA 6010	00-178-13
Potassium	2.79	mg/l	0.500	05-JAN-01 08:34	EPA 6010	00-178-13
Sodium	46.2	mg/l	0.200	05-JAN-01 08:34	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 73168 PA 66180 EPA NY 00033

Approved by: 
Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 26-JAN-2001

Lab Sample ID: L61584-32

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: L61584-4MS, MW-3B
Description: L61584-4
Sampled On: 27-DEC-00 10:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Nitrate as N	1.06	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
TOC	24.12	mg/l		24-JAN-01 00:00	SW846 9060	SUBCONTRACT
Analysis Comment: O'Brien & Gere - Syracuse, NY #10155						
Ammonia as N	0.579	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
Bromide	9.57	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	212	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-61
C.O.D.	62.3	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-35
Phenolics, Total	0.0291	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Sulfate as SO ₄	100	mg/l	25	22-JAN-01 00:00	EPA 375.4	00-167-61
Kjeldahl Nitrogen as N	27.1	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
Cadmium	0.043	mg/l	0.005	09-JAN-01 07:22	EPA 6010	00-178-14
Iron	2	mg/l	0.040	09-JAN-01 07:22	EPA 6010	00-178-14
Lead	0.012	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Manganese	1.44	mg/l	0.005	09-JAN-01 07:22	EPA 6010	00-178-14

Page 1 of 1

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-32

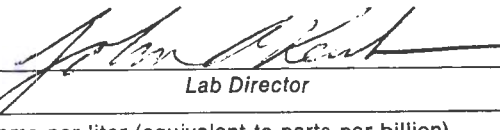
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: L61585-4MS, MW-3B
Description: L61585-4
Sampled On: 27-DEC-00 10:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	0.055	mg/l	0.005	05-JAN-01 06:48	EPA 6010	00-178-13
Iron	2.22	mg/l	0.040	05-JAN-01 06:48	EPA 6010	00-178-13
Lead	0.012	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Manganese	1.44	mg/l	0.005	04-JAN-01 12:53	EPA 6010	00-178-12

Page 1 of 1

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 26-JAN-2001

Lab Sample ID: L61584-33

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: L61584-4MSD/DUP, MW-3B
Description: L61584-4
Sampled On: 27-DEC-00 10:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Hardness	598	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
TOC	3.94	mg/l		24-JAN-01 00:00	SW846 9060	SUBCONTRACT
Analysis Comment: O'Brien & Gere - Syracuse, NY #10155						
Ammonia as N	0.108	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-73
Chloride	123	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-61
C.O.D.	18.9	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-35
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	821	mg/l	10	28-DEC-00 00:00	EPA 160.1	00-118-111
Analysis Comment: 61584-4D						
Sulfate as SO ₄	56	mg/l	25	22-JAN-01 00:00	EPA 375.4	00-167-61
Kjeldahl Nitrogen as N	1.67	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
Cadmium	U	mg/l	0.005	09-JAN-01 07:25	EPA 6010	00-178-14
Calcium	181	mg/l	0.500	09-JAN-01 07:25	EPA 6010	00-178-14
Iron	1.13	mg/l	0.040	09-JAN-01 07:25	EPA 6010	00-178-14
Lead	0.001	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	35.5	mg/l	0.500	09-JAN-01 07:25	EPA 6010	00-178-14
Manganese	1.02	mg/l	0.005	09-JAN-01 07:25	EPA 6010	00-178-14
Potassium	1.81	mg/l	0.500	09-JAN-01 07:25	EPA 6010	00-178-14
Sodium	60.6	mg/l	0.200	09-JAN-01 07:25	EPA 6010	00-178-14

Page 1 of 1

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Date: 12-JAN-2001

Lab Sample ID: L61585-33

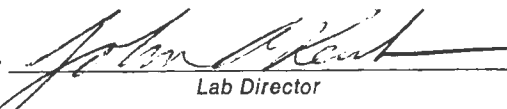
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: L61585-4MSD/DUP, MW-38
Description: L61585-4
Sampled On: 27-DEC-00 10:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 06:51	EPA 6010	00-178-13
Calcium	170	mg/l	0.500	04-JAN-01 12:56	EPA 6010	00-178-12
Iron	1.17	mg/l	0.040	05-JAN-01 06:51	EPA 6010	00-178-13
Lead	0.001	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	34.2	mg/l	0.500	04-JAN-01 12:56	EPA 6010	00-178-12
Manganese	0.968	mg/l	0.005	04-JAN-01 12:56	EPA 6010	00-178-12
Potassium	1.76	mg/l	0.500	04-JAN-01 12:56	EPA 6010	00-178-12
Sodium	68.3	mg/l	0.200	05-JAN-01 06:51	EPA 6010	00-178-13

Page 1 of 1

QC 13 NY 10252 NJ 73168 PA 66180 EPA NY 00033

Approved by: 

Lab Director

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QC Form	Description	Sample Delivery Group Associations	Page
	Laboratory Validation and Useability Summary		
	Analytical Requirement Summary		1
	Metals		
3	Blanks - ICP and Furnace AA		3
5A	Spike Sample Recovery		7
5B	Post Digestion Spike Sample Recovery		15
6	Duplicates		16
7	Laboratory Control Sample		23



Laboratory Validation and Usability Assessment

Project: C & S Engineers, Inc.
Orange County Landfill
Sampled December 27, 2000

The data reported in this package have been reviewed for compliance with QC acceptance limits as specified in the method cited for each analysis.

These statistical limits are typically based on historical laboratory data for a given sample matrix, and will not exceed any default limits specified by the method. CLP acceptance limits are also considered.

The following Quality Control operations are considered in the validation of reported results:

Holding times, surrogate recovery, spiked sample recovery, duplicates/spiked duplicate precision, tuning criteria, internal standard variation, continuing calibration variation, reference (check) sample recovery, and instrument, method, trip and field blanks. The appropriate frequency for each operation is also considered.

Every effort has been made to report data that is compliant with the EPA methodology cited for each analysis. In cases where the laboratory was unable to meet all method requirements prior to sample expiry, either due to the nature of the sample or other technical difficulty, results are reported with qualification with the understanding that qualified results may not be suitable for compliance purposes. The internal technical review is based on the USEPA Contract Laboratory Program *National Functional Guidelines for Organic Review* (EPA 540/R-94/012, February 1994) and *National Functional Guidelines for Inorganic Review* (EPA 540/R-94/013, February 1994).

Validation

Metals

Samples were analyzed by Inductively Coupled Plasma Spectrometry and Furnace AA.

The ICP instrument is an ARL 3560 with an AIM 1250 autosampler with an extension. The data is acquired with the Microactive, Australia software ICP Manager 35xx.

The Furnace instruments are Varian 400 or 300/400 Zeeman background with autosampler and acquisition software.

Site samples were spiked and duplicated for all routine metals, except minerals, by all methods reported. Spike recoveries were within limits, with one exception. The recovery of Manganese for MW-3B Dissolved was under the limit of 75% at 68%. Post spike recovery is reported for this metal. The result for dissolved Manganese should be considered a usable estimate for this site.

Precision as indicated by RPD was within limits for all metals. If the sample or duplicate level was less than five times the CRDL, then the absolute difference between the sample and duplicate should be less than the CRDL. If the sample and duplicate were less than the IDL, no limit was applied.

Laboratory Control sample recoveries were within acceptance limits for all metals by all methods reported.

Wet Chemistry

Site sample MW-221D was analyzed for alkalinity one day out of holding time due to laboratory oversight. The result for alkalinity for this site should be considered a usable estimate.

Site samples MW-245D and MW-303S were reanalyzed for TKN out of holding time. The reanalyzes occurred because the initial TKN results were inconsistent with sample history and were exceeded by the results for ammonia. The TKN results for these samples should be considered usable estimates.

Usability Assessment

All reported data were found to be valid and usable within the EPA National Functional Validation guidelines except those that were qualified in this Laboratory Validation.

Laboratory Validation and

Usability Assessment conducted by: Miranda L. Druso

Date: January 31, 2001

Miranda L. Druso
Quality Assurance

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY**

Customer Sample Code	Laboratory Sample Code	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	SV GC/MS	VOA GC	PCB PEST	METALS	OTHER
PZ-1A	L61584-1					*	*
PZ-4	L61584-2					*	*
PZ-11	L61584-3					*	*
MW-3B	L61584-4					*	*
MW-207SA	L61584-5					*	*
MW-207D	L61584-6					*	*
MW-220	L61584-7					*	*
MW-221S	L61584-8					*	*
MW-221D	L61584-9					*	*
MW-222	L61584-10					*	*
MW-223S	L61584-11					*	*
MW-223D	L61584-12					*	*
MW-232S	L61584-13					*	*
MW-233S	L61584-14					*	*
MW-234S	L61584-15					*	*
MW-234D	L61584-16					*	*
MW-235S	L61584-17					*	*
MW-235D	L61584-18					*	*
MW-245S	L61584-19					*	*
MW-245D	L61584-20					*	*
MW-303S	L61584-21					*	*
MW-303D	L61584-22					*	*
MW-304VS	L61584-23					*	*
MW-304S	L61584-24					*	*
MW-304D	L61584-25					*	*
SW-3	L61584-26					*	*
SW-4	L61584-27					*	*
SW-8	L61584-28					*	*
SW-13	L61584-29					*	*
MH-7	L61584-30					*	*
MH-15	L61584-31					*	*
MW-3B, L61584-4MS	L61584-32					*	*
MW-3B, L61584-4MSD/DUP	L61584-33					*	*

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY**

Customer Sample Code	Laboratory Sample Code	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	SV GC/MS	VOA GC	PCB PEST	METALS	OTHER
PZ-1A, DISSOLVED	L61585-1					*	
PZ-4, DISSOLVED	L61585-2					*	
PZ-11, DISSOLVED	L61585-3					*	
MW-3B, DISSOLVED	L61585-4					*	
MW-207SA, DISSOLVED	L61585-5					*	
MW-207D, DISSOLVED	L61585-6					*	
MW-220, DISSOLVED	L61585-7					*	
MW-221S, DISSOLVED	L61585-8					*	
MW-221D, DISSOLVED	L61585-9					*	
MW-222, DISSOLVED	L61585-10					*	
MW-223S, DISSOLVED	L61585-11					*	
MW-223D, DISSOLVED	L61585-12					*	
MW-232S, DISSOLVED	L61585-13					*	
MW-233S, DISSOLVED	L61585-14					*	
MW-234S, DISSOLVED	L61585-15					*	
MW-234D, DISSOLVED	L61585-16					*	
MW-235S, DISSOLVED	L61585-17					*	
MW-235D, DISSOLVED	L61585-18					*	
MW-245S, DISSOLVED	L61585-19					*	
MW-245D, DISSOLVED	L61585-20					*	
MW-303S, DISSOLVED	L61585-21					*	
MW-303D, DISSOLVED	L61585-22					*	
MW-304VS, DISSOLVED	L61585-23					*	
MW-304S, DISSOLVED	L61585-24					*	
MW-304D, DISSOLVED	L61585-25					*	
SW-3, DISSOLVED	L61585-26					*	
SW-4, DISSOLVED	L61585-27					*	
SW-8, DISSOLVED	L61585-28					*	
SW-13, DISSOLVED	L61585-29					*	
MH-7, DISSOLVED	L61585-30					*	
MH-15, DISSOLVED	L61585-31					*	
MW-3B, DISS., L61585-4MS	L61585-32					*	
MW-3B, DISS., L61585-4MSD/DUP	L61585-33					*	

NYSDEC - ASP

3

BLANKS

Lab Name: FRIEND LABORATORY, INC.

Contract: ____

Lab Code: 10252

Case No.: ____

SAS No.: ____

SDG No.: ORANGE DIS

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

14P 205

Analyte	Initial Calib. Blank (ug/L) C		Continuing Calibration Blank (ug/L)						Preparation Blank C		M
	1	C	2	C	3	C					
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium								4.000	U	P	
Calcium	19.0	U						22.600	B	P	
Chromium											
Cobalt											
Copper											
Iron	10.0	U						10.000	U	P	
Lead	1.0	U						1.000	U	F	
Magnesium	60.0	U						60.000	U	P	
Manganese	2.0	U						2.000	U	P	
Mercury											
Nickel											
Potassium	111.0	U						111.000	U	P	
Selenium											
Silver											
Sodium								171.600	B	P	
Thallium											
Vanadium											
Zinc											
Cyanide											

NYSDEC - ASP

3

BLANKS

Lab Name: FRIEND LABORATORY, INC.

Contract: ____

Lab Code: 10252

Case No.: ____

SAS No.: ____

SDG No.: ORANGE DI

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

16214

Analyte	Initial Calib. Blank (ug/L) C		Continuing Calibration Blank (ug/L)						Preparation Blank C		M
	1	C	2	C	3	C					
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium	4.00	U						4.000	U	P	
Calcium	19.0	U						26.000	B	P	
Chromium											
Cobalt											
Copper											
Iron	10.0	U						10.000	U	P	
Lead								1.000	U	F	
Magnesium	60.0	U						60.000	U	P	
Manganese	2.0	U						2.000	U	P	
Mercury											
Nickel											
Potassium	111.0	U						682.100	B	P	
Selenium											
Silver											
Sodium	140.0	U						140.000	U	P	
Thallium											
Vanadium											
Zinc											
Cyanide											

NYSDEC - ASP

3

BLANKS

Lab Name: FRIEND LABORATORY, INC.

Contract: ____

Lab Code: 10252

Case No.: ____

SAS No.: ____

SDG No.: ORANGE

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

ICP 214

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium	4.0	U							4.000	U	P
Calcium	19.0	U							19.000	U	P
Chromium											
Cobalt											
Copper											
Iron	10.0	U							18.000	B	P
Lead	1.0	U							1.000	U	F
Magnesium	60.0	U							60.000	U	P
Manganese	2.0	U							2.000	U	P
Mercury											
Nickel											
Potassium	11.0	U							111.000	U	P
Selenium											
Silver											
Sodium	140.0	U							140.000	U	P
Thallium											
Vanadium											
Zinc											
Cyanide											

NYSDEC - ASP

3

BLANKS

Lab Name: FRIEND LABORATORY, INC.

Contract: ____

Lab Code: 10252

Case No.: ____

SAS No.: ____

SDG No.: ORANGE

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

ILP 219

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium	4.000								4.000	U	P
Calcium									19.000	U	P
Chromium											
Cobalt											
Copper											
Iron									10.000	U	P
Lead									1.000	U	F
Magnesium									60.000	U	P
Manganese									2.000	U	P
Mercury											
Nickel											
Potassium									111.000	U	P
Selenium											
Silver											
Sodium	140.000								186.600	B	P
Thallium											
Vanadium											
Zinc											
Cyanide											

NYSDEC - ASP
5A
SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

MW-3B S

Lab Name: FRIEND LABORATORY, INC. Contract: _____

Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE

Matrix (soil/water): WATER Level (low/med): LOW _____

% Solids for Sample: 0.0 _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony							NR
Arsenic							NR
Barium							NR
Beryllium							NR
Cadmium	75-125	43.1000	4.0000 U	50.00	86.2		P
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron	75-125	1997.3000	1143.5000	1000.00	85.4		P
Lead	75-125	12.4000	1.0000 B	10.00	114.0		F
Magnesium							NR
Manganese	75-125	1444.4000	1037.2000	500.00	81.4		P
Mercury							NR
Nickel							NR
Potassium							NR
Selenium							NR
Silver							NR
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR
Cyanide							NR

Comments:

NYSDEC - ASP
5A
SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

MW-3B S DISSOLVED

Lab Name: FRIEND LABORATORY, INC. Contract: _____

Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE DIS

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony							NR
Arsenic							NR
Barium							NR
Beryllium							NR
Cadmium	75-125	54.5000	5.5000	50.00	98.0		P
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron	75-125	2216.7000	1153.2000	1000.00	106.4		P
Lead	75-125	11.8000	1.0000 U	10.00	118.0		F
Magnesium							NR
Manganese	75-125	1437.6000	1097.7000	500.00	68.0	N	P
Mercury							NR
Nickel							NR
Potassium							NR
Selenium							NR
Silver							NR
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR
Cyanide							NR

Comments:

NYSDEC - ASP
5A
SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

MW-303S S
DISSOLVED

Lab Name: FRIEND LABORATORY, INC. Contract: _____

Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE DIS

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony							NR
Arsenic							NR
Barium							NR
Beryllium							NR
Cadmium	75-125	47.8000	4.0000 U	50.00	95.6		P
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron		25451.0000	25029.7000	1000.00	42.1		P
Lead							NR
Magnesium							NR
Manganese		3529.4000	3095.8000	500.00	86.7		P
Mercury							NR
Nickel							NR
Potassium							NR
Selenium							NR
Silver							NR
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR
Cyanide							NR

Comments:

NYSDEC - ASP
5A
SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

MW-223S S

Lab Name: FRIEND LABORATORY, INC. Contract: _____

Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony							NR
Arsenic							NR
Barium							NR
Beryllium							NR
Cadmium							NR
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron							NR
Lead	75-125	11.1000	1.0000 U	10.00	111.0		F
Magnesium							NR
Manganese							NR
Mercury							NR
Nickel							NR
Potassium							NR
Selenium							NR
Silver							NR
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR
Cyanide							NR

Comments:

NYSDEC - ASP
5A
SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

MW-232S S
DISSOLVED

Lab Name: FRIEND LABORATORY, INC. Contract: _____

Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE DI:

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony							NR
Arsenic							NR
Barium							NR
Beryllium							NR
Cadmium							NR
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron							NR
Lead	75-125	10.4000	1.0000 U	10.00	104.0		F
Magnesium							NR
Manganese							NR
Mercury							NR
Nickel							NR
Potassium							NR
Selenium							NR
Silver							NR
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR
Cyanide							NR

Comments:

NYSDEC - ASP
5A
SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

MW-304D S
DISSOLVED

Lab Name: FRIEND LABORATORY, INC. Contract: _____

Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE DIS

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony							NR
Arsenic							NR
Barium							NR
Beryllium							NR
Cadmium							NR
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron							NR
Lead	75-125	9.7000	1.0000 U	10.00	97.0		F
Magnesium							NR
Manganese							NR
Mercury							NR
Nickel							NR
Potassium							NR
Selenium							NR
Silver							NR
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR
Cyanide							NR

Comments:

NYSDEC - ASP
5A
SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

MW-304S S

Lab Name: FRIEND LABORATORY, INC. Contract: _____

Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony							NR
Arsenic							NR
Barium							NR
Beryllium							NR
Cadmium							NR
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron							NR
Lead	75-125	12.0000	2.8000 B	10.00	92.0		F
Magnesium							NR
Manganese							NR
Mercury							NR
Nickel							NR
Potassium							NR
Selenium							NR
Silver							NR
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR
Cyanide							NR

Comments:

NYSDEC - ASP
5A
SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

MW-304VS S

DISSOLVED

Lab Name: FRIEND LABORATORY, INC. Contract: _____

Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE DIS

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony							NR
Arsenic							NR
Barium							NR
Beryllium							NR
Cadmium							NR
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron							NR
Lead	75-125	8.4000	1.0000 U	10.00	84.0		F
Magnesium							NR
Manganese							NR
Mercury							NR
Nickel							NR
Potassium							NR
Selenium							NR
Silver							NR
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR
Cyanide							NR

Comments:

NYSDEC - ASP
5B
POST DIGEST SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

MW-3B A
DISSOLVED

Lab Name: FRIEND LABORATORY, INC.____

Contract:_____

Lab Code: 10252_

Case No.:_____

SAS No.:_____

SDG No.: ORANGE_DT

Matrix (soil/water): WATER

Level (low/med): LOW__

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony							NR
Arsenic							NR
Barium							NR
Beryllium							NR
Cadmium							NR
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron							NR
Lead							NR
Magnesium							NR
Manganese		2034.70	1097.70	1000.0	93.7		P
Mercury							NR
Nickel							NR
Potassium							NR
Selenium							NR
Silver							NR
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR
Cyanide							NR

Comments:

NYSDEC - ASP

6

DUPLICATES

NYSDEC SAMPLE NO.

MW-3B D

Lab Name: FRIEND LABORATORY, INC.

Contract: _____

Lab Code: 10252

Case No.: _____

SAS No.: _____

SDG No.: ORANGE

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

% Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium	5.0	4.0000	U	4.0000	U			P
Calcium		186480.2000		181362.4000		2.8		P
Chromium								NR
Cobalt								NR
Copper								NR
Iron		1143.5000		1129.1000		1.3		P
Lead	3.0	1.0000	B	1.2000	B	18.2		F
Magnesium		35898.0000		35539.1000		1.0		P
Manganese		1037.2000		1019.9000		1.7		P
Mercury								NR
Nickel								NR
Potassium	5000.0	1770.4000	B	1812.7000	B	2.4		P
Selenium								NR
Silver								NR
Sodium		61716.9000		60601.0000		1.8		P
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

NYSDEC - ASP

6

DUPLICATES

NYSDEC SAMPLE NO.

MW-3B D

DISSOLVED

Lab Name: FRIEND LABORATORY, INC.

Contract: _____

Lab Code: 10252

Case No.: _____

SAS No.: _____

SDG No.: ORANGE DISS.

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

% Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium	5.0	5.5000		4.0000	U	200.0		P
Calcium		189858.8000		169669.9000		11.2		P
Chromium								NR
Cobalt								NR
Copper								NR
Iron		1153.2000		1167.1000		1.2		P
Lead	3.0	1.0000	U	1.2000	B	200.0		F
Magnesium		37607.2000		34231.5000		9.4		P
Manganese		1097.7000		967.7000		12.6		P
Mercury								NR
Nickel								NR
Potassium	5000.0	2029.0000	B	1760.3000	B	14.2		P
Selenium								NR
Silver								NR
Sodium		66667.5000		68310.1000		2.4		P
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

NYSDEC - ASP

6

DUPLICATES

NYSDEC SAMPLE NO.

MW-303D D

DISSOLVED

Lab Name: FRIEND LABORATORY, INC.

Contract: _____

Lab Code: 10252_

Case No.: _____

SAS No.: _____

SDG No.: ORANGE DISS.

Matrix (soil/water): WATER_

Level (low/med): LOW_

% Solids for Sample: 0.0_

% Solids for Duplicate: 0.0_

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium	5.0	4.0000	U	4.0000	U			P
Calcium		50707.1000		48959.9000		3.5		P
Chromium								NR
Cobalt								NR
Copper								NR
Iron	100.0	369.0000		435.3000		16.5		P
Lead								NR
Magnesium	5000.0	21050.8000		20558.6000		2.4		P
Manganese	15.0	43.6000		40.8000		6.6		P
Mercury								NR
Nickel								NR
Potassium	5000.0	7223.1000		7179.7000		0.6		P
Selenium								NR
Silver								NR
Sodium		177960.3000		178808.3000		0.5		P
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

MW-233S D

DISSOLVED

Lab Name: FRIEND LABORATORY, INC.

Contract: _____

Lab Code: 10252

Case No.: _____

SAS No.: _____

SDG No.: ORANGE DISS

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

% Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead	3.0	1.0000	U	1.0000	U			F
Magnesium								NR
Manganese								NR
Mercury								NR
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

NYSDEC - ASP

6

DUPLICATES

NYSDEC SAMPLE NO.

MW-304D D

Lab Name: FRIEND LABORATORY, INC.

Contract: _____

Lab Code: 10252_

Case No.: _____

SAS No.: _____

SDG No.: ORANGE_

Matrix (soil/water): WATER_

Level (low/med): LOW_

% Solids for Sample: 0.0_

% Solids for Duplicate: 0.0_

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead	3.0	1.0000	U	1.0000	U			F
Magnesium								NR
Manganese								NR
Mercury								NR
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

NYSDEC - ASP

6

DUPLICATES

NYSDEC SAMPLE NO.

MW-304S D

~~DISSOLVED~~

Lab Name: FRIEND LABORATORY, INC.

Contract: _____

Lab Code: 10252_

Case No.: _____

SAS No.: _____

SDG No.: ORANGE DISS

Matrix (soil/water): WATER_

Level (low/med): LOW_

% Solids for Sample: 0.0_

% Solids for Duplicate: 0.0_

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead	3.0	1.0000	U	1.0000	B	200.0		F
Magnesium								NR
Manganese								NR
Mercury								NR
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

NYSDEC - ASP

6

DUPLICATES

NYSDEC SAMPLE NO.

SW-3 D

DISSOLVED

Lab Name: FRIEND LABORATORY, INC.

Contract: _____

Lab Code: 10252

Case No.: _____

SAS No.: _____

SDG No.: ORANGE DISS.

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

% Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead	3.0	1.0000	U	1.0000	U			F
Magnesium								NR
Manganese								NR
Mercury								NR
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

NYSDEC - ASP
7
LABORATORY CONTROL SAMPLE

Lab Name: FRIEND LABORATORY, INC. Contract: _____
 Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE DISS.
 Solid LCS Source: _____
 Aqueous LCS Source: SPEX, ULTRA, EM

ICP 205

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium	50.0	49.1	98.2					
Calcium	10000.0	9255.3	92.6					
Chromium								
Cobalt								
Copper								
Iron	1000.0	954.9	95.5					
Lead								
Magnesium	10000.0	9052.2	90.5					
Manganese	500.0	472.4	94.5					
Mercury								
Nickel								
Potassium	10000.0	9155.1	91.6					
Selenium								
Silver								
Sodium	10000.0	9005.6	90.1					
Thallium								
Vanadium								
Zinc								
Cyanide								

NYSDEC - ASP
7
LABORATORY CONTROL SAMPLE

Lab Name: FRIEND LABORATORY, INC. Contract: _____
 Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE DISS
 Solid LCS Source: _____
 Aqueous LCS Source: SPEX, ULTRA, EM

ILP 214

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium	50.0	48.9	97.8					
Calcium	10000.0	9191.4	91.9					
Chromium								
Cobalt								
Copper								
Iron	1000.0	981.9	98.2					
Lead								
Magnesium	10000.0	9033.0	90.3					
Manganese	500.0	484.7	96.9					
Mercury								
Nickel								
Potassium	10000.0	9316.2	93.2					
Selenium								
Silver								
Sodium	10000.0	8810.8	88.1					
Thallium								
Vanadium								
Zinc								
Cyanide								

NYSDEC - ASP
7
LABORATORY CONTROL SAMPLE

Lab Name: FRIEND LABORATORY, INC. Contract: _____
 Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE
 Solid LCS Source: _____
 Aqueous LCS Source: SPEX, ULTRA, EM

11P 216

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium	50.0	44.5	89.0					
Calcium	10000.0	9378.6	93.8					
Chromium								
Cobalt								
Copper								
Iron	1000.0	938.1	93.8					
Lead								
Magnesium	10000.0	9485.7	94.9					
Manganese	500.0	466.3	93.3					
Mercury								
Nickel								
Potassium	10000.0	9794.2	97.9					
Selenium								
Silver								
Sodium	10000.0	9967.9	99.7					
Thallium								
Vanadium								
Zinc								
Cyanide								

NYSDEC - ASP
7
LABORATORY CONTROL SAMPLE

Lab Name: FRIEND LABORATORY, INC. Contract: _____
 Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE
 Solid LCS Source: _____
 Aqueous LCS Source: SPEX, ULTRA, EM

ICP 219

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	%R	True	Found	C	Limits	%R	
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium	50.0	53.9	107.8						
Calcium	10000.0	9669.4	96.7						
Chromium									
Cobalt									
Copper									
Iron	1000.0	989.5	99.0						
Lead									
Magnesium	10000.0	9563.1	95.6						
Manganese	500.0	489.2	97.8						
Mercury									
Nickel									
Potassium	10000.0	9555.6	95.6						
Selenium									
Silver									
Sodium	10000.0	9565.2	95.7						
Thallium									
Vanadium									
Zinc									
Cyanide									

NYSDEC - ASP
7
LABORATORY CONTROL SAMPLE

Lab Name: FRIEND_LABORATORY,_INC. Contract: _____
 Lab Code: 10252_ Case No.: _____ SAS No.: _____ SDG No.: ORANGE
 Solid LCS Source: _____
 Aqueous LCS Source: EM,_FISHER

Analyte	Aqueous (ug/L)			Solid (mg/kg)					%R
	True	Found	%R	True	Found	C	Limits		
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	10.0	10.3	103.0						
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

NYSDEC - ASP
7
LABORATORY CONTROL SAMPLE

Lab Name: FRIEND LABORATORY, INC. Contract: _____
 Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE
 Solid LCS Source: _____
 Aqueous LCS Source: EM, FISHER

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead	10.0	10.0	100.0					
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

NYSDEC - ASP
7
LABORATORY CONTROL SAMPLE

Lab Name: FRIEND LABORATORY, INC. Contract: _____
 Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE DISS
 Solid LCS Source: _____
 Aqueous LCS Source: EM, FISHER

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead	10.0	10.9	109.0					
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

NYSDEC - ASP
7
LABORATORY CONTROL SAMPLE

Lab Name: FRIEND LABORATORY, INC. Contract: _____
 Lab Code: 10252 Case No.: _____ SAS No.: _____ SDG No.: ORANGE DISS
 Solid LCS Source: _____
 Aqueous LCS Source: EM, FISHER

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead	10.0	11.3	113.0					
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

APPENDIX B.2

**2000 FOURTH QUARTER MONITORING EVENT
ORANGE COUNTY LANDFILL ANALYTICAL DATA
SURFACE WATER AND LEACHATE SAMPLING LOCATIONS**

Date: 25-JAN-2001

Lab Sample ID: L61584-26

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: SW-3
Description: GRAB
Sampled On: 27-DEC-00 10:55 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	293	umhos/cm		27-DEC-00 10:55	EPA 120.1	FLI/RJS/JDS/
Eh	99	mV		27-DEC-00 10:55	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.87			27-DEC-00 10:55	EPA 9040	FLI/RJS/JDS/
Oxygen Dissolved	8.1	ppm		27-DEC-00 10:55	EPA 360.1	FLI/RJS/JDS/
Temperature	1.1	Deg. C		27-DEC-00 10:55	EPA 170.1	FLI/RJS/JDS/
Turbidity	17.4	ntu		27-DEC-00 10:55	EPA 180.1	FLI/RJS/JDS/
Total Hardness	95.2	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	1.54	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	45.8	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-82
Ammonia as N	U	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 14:00	EPA 405.1	00-173-59
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	30.6	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-60
C.O.D.	31.6	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-32
Phenolics, Total	0.0066	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	144	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	34	mg/l	5	22-JAN-01 00:00	EPA 375.4	00-167-60
Kjeldahl Nitrogen as N	2.01	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
TOC	8.9	mg/l	1	12-JAN-01 00:00	SW846 9060	00-189-20
Cadmium	U	mg/l	0.005	09-JAN-01 07:10	EPA 6010	00-178-14
Calcium	27.9	mg/l	0.500	09-JAN-01 07:10	EPA 6010	00-178-14
Iron	0.921	mg/l	0.040	09-JAN-01 07:10	EPA 6010	00-178-14
Lead	0.002	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	6.2	mg/l	0.500	09-JAN-01 07:10	EPA 6010	00-178-14
Manganese	0.113	mg/l	0.005	09-JAN-01 07:10	EPA 6010	00-178-14

Page 1 of 2

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services. Your samples will be discarded after 14 days unless we are advised otherwise.

"Our family, caring about your analytical needs... Since 1963."



ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-26

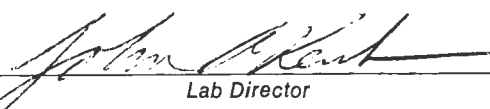
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: SW-3
Description: GRAB
Sampled On: 27-DEC-00 10:55 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Potassium	2.25	mg/l	0.500	09-JAN-01 07:10	EPA 6010	00-178-14
Sodium	14.9	mg/l	0.200	09-JAN-01 07:10	EPA 6010	00-178-14

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 
Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

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OL E RESEARCH CHOLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-26

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, SW-3
Description: GRAB
Sampled On: 27-DEC-00 10:55 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 08:37	EPA 6010	00-178-13
Calcium	27.9	mg/l	0.500	05-JAN-01 08:37	EPA 6010	00-178-13
Iron	0.292	mg/l	0.040	05-JAN-01 08:37	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	6.36	mg/l	0.500	05-JAN-01 08:37	EPA 6010	00-178-13
Manganese	0.115	mg/l	0.005	05-JAN-01 08:37	EPA 6010	00-178-13
Potassium	2.49	mg/l	0.500	05-JAN-01 08:37	EPA 6010	00-178-13
Sodium	18.6	mg/l	0.200	05-JAN-01 08:37	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 73168 PA 66180 EPA NY 00033

Approved by: 

Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-27

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: SW-5
Description: GRAB
Sampled On: 27-DEC-00 10:45 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	400	umhos/cm		27-DEC-00 10:45	EPA 120.1	FLI/RJS/JDS/
Eh	120	mV		27-DEC-00 10:45	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.01			27-DEC-00 10:45	EPA 9040	FLI/RJS/JDS/
Oxygen Dissolved	7.9	ppm		27-DEC-00 10:45	EPA 360.1	FLI/RJS/JDS/
Temperature	1.1	Deg. C		27-DEC-00 10:45	EPA 170.1	FLI/RJS/JDS/
Turbidity	38.8	ntu		27-DEC-00 10:45	EPA 180.1	FLI/RJS/JDS/
Total Hardness	193	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	1.72	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	91.7	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-82
Ammonia as N	0.167	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 14:01	EPA 405.1	00-173-59
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	36.7	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-60
C.O.D.	105	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-32
Phenolics, Total	0.0072	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	231	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	81	mg/l	25	22-JAN-01 00:00	EPA 375.4	00-167-60
Kjeldahl Nitrogen as N	7.37	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
TOC	7.4	mg/l	1	12-JAN-01 00:00	SW846 9060	00-189-20
Cadmium	U	mg/l	0.005	09-JAN-01 07:13	EPA 6010	00-178-14
Calcium	52.4	mg/l	0.500	09-JAN-01 07:13	EPA 6010	00-178-14
Iron	9.17	mg/l	0.040	09-JAN-01 07:13	EPA 6010	00-178-14
Lead	0.013	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	15.1	mg/l	0.500	09-JAN-01 07:13	EPA 6010	00-178-14
Manganese	0.674	mg/l	0.005	09-JAN-01 07:13	EPA 6010	00-178-14

Page 1 of 2

QC

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

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"Our family, caring about your analytical needs... Since 1963."



ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-27

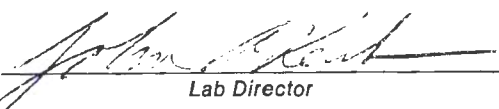
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: SW-5
Description: GRAB
Sampled On: 27-DEC-00 10:45 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Potassium	3.06	mg/l	0.500	09-JAN-01 07:13	EPA 6010	00-178-14
Sodium	18.4	mg/l	0.200	09-JAN-01 07:13	EPA 6010	00-178-14

Page 2 of 2

QC  NY 10252 NJ 73168 PA 66180 EPA NY 00033

Approved by: 

Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

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O. E. RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-27

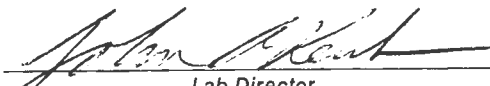
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, SW-5
Description: GRAB
Sampled On: 27-DEC-00 10:45 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 08:40	EPA 6010	00-178-13
Calcium	38.9	mg/l	0.500	05-JAN-01 08:40	EPA 6010	00-178-13
Iron	0.235	mg/l	0.040	05-JAN-01 08:40	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	11.4	mg/l	0.500	05-JAN-01 08:40	EPA 6010	00-178-13
Manganese	0.18	mg/l	0.005	05-JAN-01 08:40	EPA 6010	00-178-13
Potassium	2.48	mg/l	0.500	05-JAN-01 08:40	EPA 6010	00-178-13
Sodium	23.2	mg/l	0.200	05-JAN-01 08:40	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 79168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-28

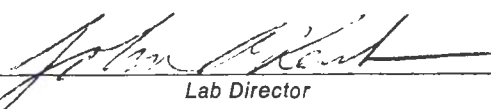
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: SW-8
Description: GRAB
Sampled On: 27-DEC-00 10:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	386	umhos/cm		27-DEC-00 10:35	EPA 120.1	FLI/RJS/JDS/
Eh	395	mV		27-DEC-00 10:35	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.93			27-DEC-00 10:35	EPA 9040	FLI/RJS/JDS/
Oxygen Dissolved	7.6	ppm		27-DEC-00 10:35	EPA 360.1	FLI/RJS/JDS/
Temperature	0.2	Deg. C		27-DEC-00 10:35	EPA 170.1	FLI/RJS/JDS/
Turbidity	36	ntu		27-DEC-00 10:35	EPA 180.1	FLI/RJS/JDS/
Total Hardness	155	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	1.79	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	91.2	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-83
Ammonia as N	0.145	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 14:03	EPA 405.1	00-173-59
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	36.3	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-60
C.O.D.	23	mg/l	10	11-JAN-01 00:00	EPA 410.4	00-126-34
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	190	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	39	mg/l	5	22-JAN-01 00:00	EPA 375.4	00-167-60
Kjeldahl Nitrogen as N	1.67	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
TOC	5.5	mg/l	1	12-JAN-01 00:00	SW846 9060	00-189-20
Cadmium	U	mg/l	0.005	09-JAN-01 07:16	EPA 6010	00-178-14
Calcium	41.7	mg/l	0.500	09-JAN-01 07:16	EPA 6010	00-178-14
Iron	3.13	mg/l	0.040	09-JAN-01 07:16	EPA 6010	00-178-14
Lead	0.005	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	12.3	mg/l	0.500	09-JAN-01 07:16	EPA 6010	00-178-14
Manganese	0.243	mg/l	0.005	09-JAN-01 07:16	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73166 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-28

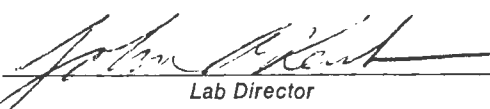
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: SW-8
Description: GRAB
Sampled On: 27-DEC-00 10:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Potassium	2.33	mg/l	0.500	09-JAN-01 07:16	EPA 6010	00-178-14
Sodium	19.3	mg/l	0.200	09-JAN-01 07:16	EPA 6010	00-178-14

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ORANGE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-28

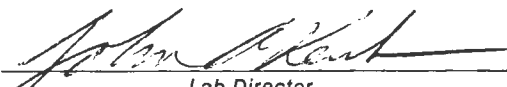
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, SW-8
Description: GRAB
Sampled On: 27-DEC-00 10:35 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 08:43	EPA 6010	00-178-13
Calcium	38.6	mg/l	0.500	05-JAN-01 08:43	EPA 6010	00-178-13
Iron	0.163	mg/l	0.040	05-JAN-01 08:43	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	11.5	mg/l	0.500	05-JAN-01 08:43	EPA 6010	00-178-13
Manganese	0.088	mg/l	0.005	05-JAN-01 08:43	EPA 6010	00-178-13
Potassium	4.27	mg/l	0.500	05-JAN-01 08:43	EPA 6010	00-178-13
Sodium	23	mg/l	0.200	05-JAN-01 08:43	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 IN 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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Date: 25-JAN-2001

Lab Sample ID: L61584-29

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: SW-13
Description: GRAB
Sampled On: 27-DEC-00 11:00 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	285	umhos/cm		27-DEC-00 11:00	EPA 120.1	FLI/RJS/JDS/
Eh	111	mV		27-DEC-00 11:00	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.86			27-DEC-00 11:00	EPA 9040	FLI/RJS/JDS/
Oxygen Dissolved	8	ppm		27-DEC-00 11:00	EPA 360.1	FLI/RJS/JDS/
Temperature	0.5	Deg. C		27-DEC-00 11:00	EPA 170.1	FLI/RJS/JDS/
Turbidity	18.4	ntu		27-DEC-00 11:00	EPA 180.1	FLI/RJS/JDS/
Total Hardness	96.7	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	1.67	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
TOC	9	mg/l	1	23-JAN-01 00:00	SW846 9060	SUBCONTRACT
Analysis Comment: O'Brien & Gere - Syracuse, NY #10155						
Alkalinity as CaCO3	52.6	mg/l	1	05-JAN-01 00:00	EPA 310.1	00-057-83
Ammonia as N	U	mg/l	0.1	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	U	mg/l	3	28-DEC-00 14:04	EPA 405.1	00-173-59
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	30.2	mg/l	1	08-JAN-01 00:00	EPA 325.3	00-096-61
C.O.D.	U	mg/l	10	16-JAN-01 00:00	EPA 410.4	00-126-37
Phenolics, Total	U	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	181	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	36	mg/l	5	22-JAN-01 00:00	EPA 375.4	00-167-60
Kjeldahl Nitrogen as N	1	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
Cadmium	U	mg/l	0.005	09-JAN-01 07:19	EPA 6010	00-178-14
Calcium	28.1	mg/l	0.500	09-JAN-01 07:19	EPA 6010	00-178-14
Iron	1.09	mg/l	0.040	09-JAN-01 07:19	EPA 6010	00-178-14
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

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Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-29

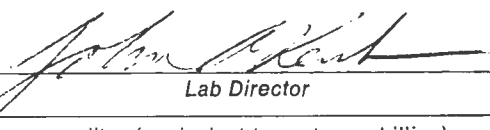
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: SW-13
Description: GRAB
Sampled On: 27-DEC-00 11:00 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Magnesium	6.44	mg/l	0.500	09-JAN-01 07:19	EPA 6010	00-178-14
Manganese	0.111	mg/l	0.005	09-JAN-01 07:19	EPA 6010	00-178-14
Potassium	2.18	mg/l	0.500	09-JAN-01 07:19	EPA 6010	00-178-14
Sodium	14.9	mg/l	0.200	09-JAN-01 07:19	EPA 6010	00-178-14

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 
Lab Director

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OLIVE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-29

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, SW-13
Description: GRAB
Sampled On: 27-DEC-00 11:00 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	0.005	mg/l	0.005	05-JAN-01 08:46	EPA 6010	00-178-13
Calcium	28.5	mg/l	0.500	05-JAN-01 08:46	EPA 6010	00-178-13
Iron	0.27	mg/l	0.040	05-JAN-01 08:46	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	6.61	mg/l	0.500	05-JAN-01 08:46	EPA 6010	00-178-13
Manganese	0.103	mg/l	0.005	05-JAN-01 08:46	EPA 6010	00-178-13
Potassium	2.42	mg/l	0.500	05-JAN-01 08:46	EPA 6010	00-178-13
Sodium	18.6	mg/l	0.200	05-JAN-01 08:46	EPA 6010	00-178-13

Page 1 of 1

QC  NY 10252 NJ 7-168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-30

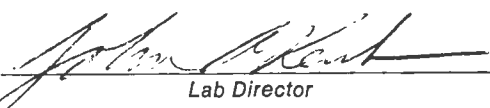
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MH-7
Description: GRAB
Sampled On: 27-DEC-00 10:40 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	10980	umhos/cm		27-DEC-00 10:40	EPA 120.1	FLI/RJS/JDS/
Eh	-22	mV		27-DEC-00 10:40	ASTM D1498-76	FLI/RJS/JDS/
Field pH	6.98			27-DEC-00 10:40	EPA 9040	FLI/RJS/JDS/
Temperature	8.8	Deg. C		27-DEC-00 10:40	EPA 170.1	FLI/RJS/JDS/
Turbidity	130	ntu		27-DEC-00 10:40	EPA 180.1	FLI/RJS/JDS/
Total Hardness	1820	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	0.108	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
Alkalinity as CaCO3	3080	mg/l	10	05-JAN-01 00:00	EPA 310.1	00-057-83
Ammonia as N	477	mg/l	50	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	96	mg/l	24	28-DEC-00 14:23	EPA 405.1	00-173-60
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	1760	mg/l	10	08-JAN-01 00:00	EPA 325.3	00-096-61
C.O.D.	1040	mg/l	200	11-JAN-01 00:00	EPA 410.4	00-126-33
Phenolics, Total	0.0504	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	4740	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	63	mg/l	25	22-JAN-01 00:00	EPA 375.4	00-167-60
Kjeldahl Nitrogen as N	693	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
TOC	320	mg/l	100	12-JAN-01 00:00	SW846 9060	00-189-20
Cadmium	0.059	mg/l	0.005	09-JAN-01 11:25	EPA 6010	00-178-14
Calcium	483	mg/l	10.0	09-JAN-01 08:38	EPA 6010	00-178-14
Iron	615	mg/l	0.800	09-JAN-01 08:38	EPA 6010	00-178-14
Lead	U	mg/l	0.001	08-JAN-01 00:00	EPA 7421	00-028-98
Magnesium	148	mg/l	0.500	09-JAN-01 11:25	EPA 6010	00-178-14
Manganese	7.2	mg/l	0.005	09-JAN-01 11:25	EPA 6010	00-178-14

Page 1 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 25-JAN-2001

Lab Sample ID: L61584-30

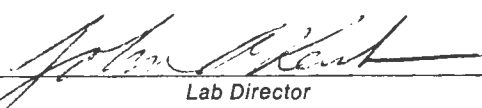
C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MH-7
Description: GRAB
Sampled On: 27-DEC-00 10:40 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Potassium	346	mg/l	10.0	09-JAN-01 08:38	EPA 6010	00-178-14
Sodium	1240	mg/l	4.00	09-JAN-01 08:38	EPA 6010	00-178-14

Page 2 of 2

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 

Lab Director

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FLI RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-30

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MH-7
Description: GRAB
Sampled On: 27-DEC-00 10:40 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 08:49	EPA 6010	00-178-13
Calcium	97.7	mg/l	0.500	05-JAN-01 08:49	EPA 6010	00-178-13
Iron	7.26	mg/l	0.040	05-JAN-01 08:49	EPA 6010	00-178-13
Lead	U	mg/l	0.001	09-JAN-01 00:00	EPA 7421	00-027-99
Magnesium	108	mg/l	0.500	05-JAN-01 08:49	EPA 6010	00-178-13
Manganese	0.383	mg/l	0.005	05-JAN-01 08:49	EPA 6010	00-178-13
Potassium	333	mg/l	10.0	09-JAN-01 08:03	EPA 6010	00-178-14
Sodium	1250	mg/l	4.00	09-JAN-01 08:03	EPA 6010	00-178-14

Page 1 of 1

QC  NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: 
Lab Director

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Date: 25-JAN-2001

Lab Sample ID: L61584-31

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: MH-15
Description: GRAB
Sampled On: 27-DEC-00 08:00 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Field Data						
Conductivity	7730	umhos/cm		27-DEC-00 08:00	EPA 120.1	FLI/RJS/JDS/
Eh	-17	mV		27-DEC-00 08:00	ASTM D1498-76	FLI/RJS/JDS/
Field pH	7.26			27-DEC-00 08:00	EPA 9040	FLI/RJS/JDS/
Temperature	3.4	Deg. C		27-DEC-00 08:00	EPA 170.1	FLI/RJS/JDS/
Turbidity	37	ntu		27-DEC-00 08:00	EPA 180.1	FLI/RJS/JDS/
Total Hardness	760	mg/l	1	10-JAN-01 00:00	EPA 6010	CALCULATION
Nitrate as N	U	mg/l	0.05	28-DEC-00 00:00	EPA 353.2	CALCULATION
TOC	320	mg/l	10	23-JAN-01 00:00	SW846 9060	SUBCONTRACT
Analysis Comment: O'Brien & Gere - Syracuse, NY #10155						
Alkalinity as CaCO3	3000	mg/l	10	05-JAN-01 00:00	EPA 310.1	00-057-83
Ammonia as N	360	mg/l	50	02-JAN-01 00:00	EPA 350.1	00-012-64
BOD	49	mg/l	24	28-DEC-00 14:24	EPA 405.1	00-173-60
Bromide	U	mg/l	1	13-JAN-01 00:00	EPA 320.1	99-078-74
Chloride	920	mg/l	10	08-JAN-01 00:00	EPA 325.3	00-096-61
C.O.D.	833	mg/l	100	11-JAN-01 00:00	EPA 410.4	00-126-33
Phenolics, Total	0.0625	mg/l	0.004	18-JAN-01 00:00	EPA 420.2	00-011-69
Solids, Dissolved	3470	mg/l	10	29-DEC-00 00:00	EPA 160.1	00-118-112
Sulfate as SO4	61	mg/l	50	22-JAN-01 00:00	EPA 375.4	00-167-61
Kjeldahl Nitrogen as N	461	mg/l	1	04-JAN-01 00:00	EPA 351.3	00-166-23
Cadmium	U	mg/l	0.005	09-JAN-01 11:31	EPA 6010	00-178-14
Calcium	157	mg/l	0.500	09-JAN-01 11:31	EPA 6010	00-178-14
Iron	4.71	mg/l	0.040	09-JAN-01 11:31	EPA 6010	00-178-14
Lead	0.01	mg/l	0.001	10-JAN-01 00:00	EPA 7421	00-027-100
Magnesium	89.3	mg/l	0.500	09-JAN-01 11:31	EPA 6010	00-178-14

Page 1 of 2



NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by:

John P. Kait
Lab Director

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Date: 25-JAN-2001

Lab Sample ID: L61584-31

C & S Engineers, Inc.
 John Kanoza
 1099 Airport Blvd.
 N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
 Origin: MH-15
 Description: GRAB
 Sampled On: 27-DEC-00 08:00 by FLI/JDS
 Date Received: 28-DEC-00 07:37
 P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Manganese	0.948	mg/l	0.005	09-JAN-01 11:31	EPA 6010	00-178-14
Potassium	247	mg/l	10.0	09-JAN-01 08:44	EPA 6010	00-178-14
Sodium	785	mg/l	4.00	09-JAN-01 08:44	EPA 6010	00-178-14



O. E. RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 12-JAN-2001

Lab Sample ID: L61585-31

C & S Engineers, Inc.
John Kanoza
1099 Airport Blvd.
N. Syracuse, NY 13292

Sample Source: ORANGE COUNTY LANDFILL
Origin: DISSOLVED, MH-15
Description: GRAB
Sampled On: 27-DEC-00 08:00 by FLI/JDS
Date Received: 28-DEC-00 07:37
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.005	05-JAN-01 08:52	EPA 6010	00-178-13
Calcium	143	mg/l	0.500	05-JAN-01 08:52	EPA 6010	00-178-13
Iron	3.03	mg/l	0.040	05-JAN-01 08:52	EPA 6010	00-178-13
Lead	U	mg/l	0.001	10-JAN-01 00:00	EPA 7421	00-027-100
Magnesium	85.2	mg/l	0.500	05-JAN-01 08:52	EPA 6010	00-178-13
Manganese	0.908	mg/l	0.005	05-JAN-01 08:52	EPA 6010	00-178-13
Potassium	243	mg/l	10.0	09-JAN-01 08:06	EPA 6010	00-178-14
Sodium	769	mg/l	4.00	09-JAN-01 08:06	EPA 6010	00-178-14

Page 1 of 1

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Well	(B)	alk ^c	cl ^d	hard ^e	so4 ^f	tds ^g	ca ^h	fe ^j	mg ⁱ	mn ^k	k ^l	na ^m	n	j	D
PZ-1	2.. 48	I	X	I	X	X	J	X	J	X	J	J	6	0	
PZ-4	49.. 98	J	J	X	(D)	(D)	J	J	J	J	J	J	8	2	
PZ-11	99.. 149	J	X	J	X	J	J	X	J	J	J	J	8	0	
MW-3B	150.. 189	J	J	X	(D)	X	J	x	J	X	J	J	6	1	
207SA	190.. 230	(D)	(D)	J	(D)	(D)	X	X	X	(D)	X	X	1	5	
207D	231.. 281	J	X	J	(D)	J	J	J	J	J	J	J	9	1	
220	282.. 330	J	(D)	J	X	x	J	X	J	J	J	J	7	7	
221S	331.. 381	X	(D)	X	x	x	J	X	J	X	J	X	3	1	
221D	382.. 432	X	X	X	X	X	J	X	J	X	J	J	4	0	
222	433.. 483	J	J	X	(D)	X	X	J	J	X	J	J	6	1	
223S	484.. 534	X	J	X	(D)	(D)	J	J	X	J	J	J	6	2	
223D	535.. 585	(D)	X	(D)	(D)	X	X	J	X	X	J	J	3	3	
303D	586.. 608	J	X	J	(D)	X	J	J	J	X	(D)	X	5	2	
303S	609.. 633	(D)	X	X	(D)	(D)	X	X	X	X	X	(D)	0	4	
304D	634.. 658	(D)	(D)	(D)	(D)	(D)	(D)	X	X	X	X	X	0	6	
304S	659.. 683	(D)	X	X	(D)	(D)	x	X	x	X	X	(D)	0	4	
304VS	684.. 707	(D)	X	X	(D)	X	X	X	X	X	X	X	0	2	
232S	708.. 746	J	X	J	X	J	J	X	J	J	X	X	6	0	
234S	747.. 790	J	X	J	J	J	J	X	J	J	J	X	8	0	
234D	791.. 834	J	X	X	(D)	X	J	J	J	X	J	X	5	1	
245S	835.. 878	X	(D)	X	(D)	(D)	X	X	X	J	J	J	3	3	
245D	879.. 918	X	J	J	J	J	J	X	X	X	x	X	5	0	
J		(11)	5	(4)	2	5	14	7	13	X	14	11			
D		6	5	2	14	7	1	0	0	1	1	2			
		5	12	11	6	10	7	15	9	13	7				

9p:1 Interim
w/1



ENVIRONMENTAL MONITORING • MICROBIOLOGY
ANALYTICAL CHEMISTRY • AIR QUALITY
INFORMATION MANAGEMENT

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

C & S ENGINEERS, INC.

ORANGE COUNTY LANDFILL

SAMPLED: DECEMBER 27 & 29, 2000

ORANGE COUNTY LANDFILL Parameter List	PZ-1A								MIN	MAX	RANGE	MEAN	STDEV	NYS GA MCL STD
	4/26/00	Q	6/27/00	Q	9/26/00	Q	12/27/00	Q						
Field Parameters:	L49015-1		L52182-1		L57142-1		L61584-1							
Specific Conductivity UmHos/cm	750		590		774		762		590	774	184	719	86.55634	
Sampling Depth	11.1		12.21		13.27		13.53		11.1	13.53	2.43	12.5275	1.109786	
Depth to Groundwater (ft.)	11.07		12.02		13.27		13.18		11.07	13.27	2.2	12.385	1.045259	
Eh (MV)	-33		-196		57		90		-196	90	286	-20.5	128.0273	
Field pH	7.71		7.76		7.81		7.58		7.58	7.81	0.23	7.715	0.098826	6.5-8.5
Temperature (deg. C)	9		13.3		12.1		10.1		9	13.3	4.3	11.125	1.936276	
Turbidity (NTU)	15		3.89		2.2		5.81		2.2	15	12.8	6.725	5.710391	5
Dissolved Oxygen									0	0	0			
Leachate Indicators:														
TOC	1	U	1	U	1	U	1	U	1	1	0	1	0	
Alkalinity as CaCo3	205		200		199		203		199	205	6	201.75	2.753785	
Ammonia as N	0.126		0.1	U	0.1	U	0.1	U	0.1	0.126	0.026	0.1065	0.013	2
Biological Oxygen Demand	3	U	3	U	3	U	3	U	3	3	0	3	0	
Chloride	18.8		18.4		18.8		17.9		17.9	18.8	0.9	18.475	0.4272	250
Chemical Oxygen Demand	12.5		10	U	10	U	10	U	10	12.5	2.5	10.625	1.25	
Color (Pt. Co. U.)	10								10	10	0	10		15
Nitrate as N	0.087		0.05	U	0.05	U	0.05	U	0.05	0.087	0.037	0.05925	0.0185	10
Total Hardness as CaCo3	371		356		386		376		356	386	30	372.25	12.5	
Kjeldahl Nitrogen as N	1	U	1	U	1.41		1.67		1	1.67	0.67	1.27	0.329343	
Phenolics, Total	0.007		0.004	U	0.004	U	0.004	U	0.004	0.007	0.003	0.00475	0.0015	0.001
Solids, Dissolved	512		501		478		479		478	512	34	492.5	16.78293	500
Sulfate as SO4	140		160		250		170		140	250	110	180	48.30459	250
Bromide	1	U	1	U	1	U	1	U	1	1	0	1	0	
Fluoride									0	0	0			1.5
Inorganic Parameters:														
Aluminum	0.698								0.698	0.698	0	0.698		
Antimony	0.05	U							0.05	0.05	0	0.05		0.003
Arsenic	0.002								0.002	0.002	0	0.002		0.025
Barium	0.051								0.051	0.051	0	0.051		1
Beryllium	0.002	U							0.002	0.002	0	0.002		
Boron	0.048	U							0.048	0.048	0	0.048		1
Cadmium	0.005	U	0.005	U	0.005	U	0.005	U	0.005	0.005	0	0.005	0	0.005
Calcium	109		105		114		112		105	114	9	110	3.91578	
Chromium	0.01	U							0.01	0.01	0	0.01		0.05
Cobalt	0.01	U							0.01	0.01	0	0.01		
Copper	0.017	U							0.017	0.017	0	0.017		0.2
Cyanide, Total	0.01	U							0.01	0.01	0	0.01		0.2
Hexachromium	0.01	U							0.01	0.01	0	0.01		0.05
Iron	1.11		0.187		0.139		0.176		0.139	1.11	0.971	0.403	0.47178	0.3
Lead	0.002		0.004		0.007		0.002		0.002	0.007	0.005	0.00375	0.002363	0.025
Magnesium	24		22.9		24.5		23.4		22.9	24.5	1.6	23.7	0.697615	
Manganese	0.229		0.454		0.489		0.485		0.229	0.489	0.26	0.41425	0.124487	0.3
Mercury	0.0002	U							0.0002	0.0002	0	0.0002		0.0007
Nickel	0.012	U							0.012	0.012	0	0.012		0.1
Potassium	2.09		1.69		1.73		1.71		1.69	2.09	0.4	1.805	0.1907	
Selenium	0.002	U							0.002	0.002	0	0.002		0.01
Silver	0.01	U							0.01	0.01	0	0.01		0.05
Sodium	17		16.9		17		16		16	17	1	16.725	0.485627	20
Thallium	0.001	U							0.001	0.001	0	0.001		
Tin									0	0	0			
Vanadium	0.01	U							0.01	0.01	0	0.01		
Zinc	0.02	U							0.02	0.02	0	0.02		