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**GROUNDWATER MONITORING REPORT  
ASH LANDFILL  
THIRD QUARTER 2002**

Prepared for:

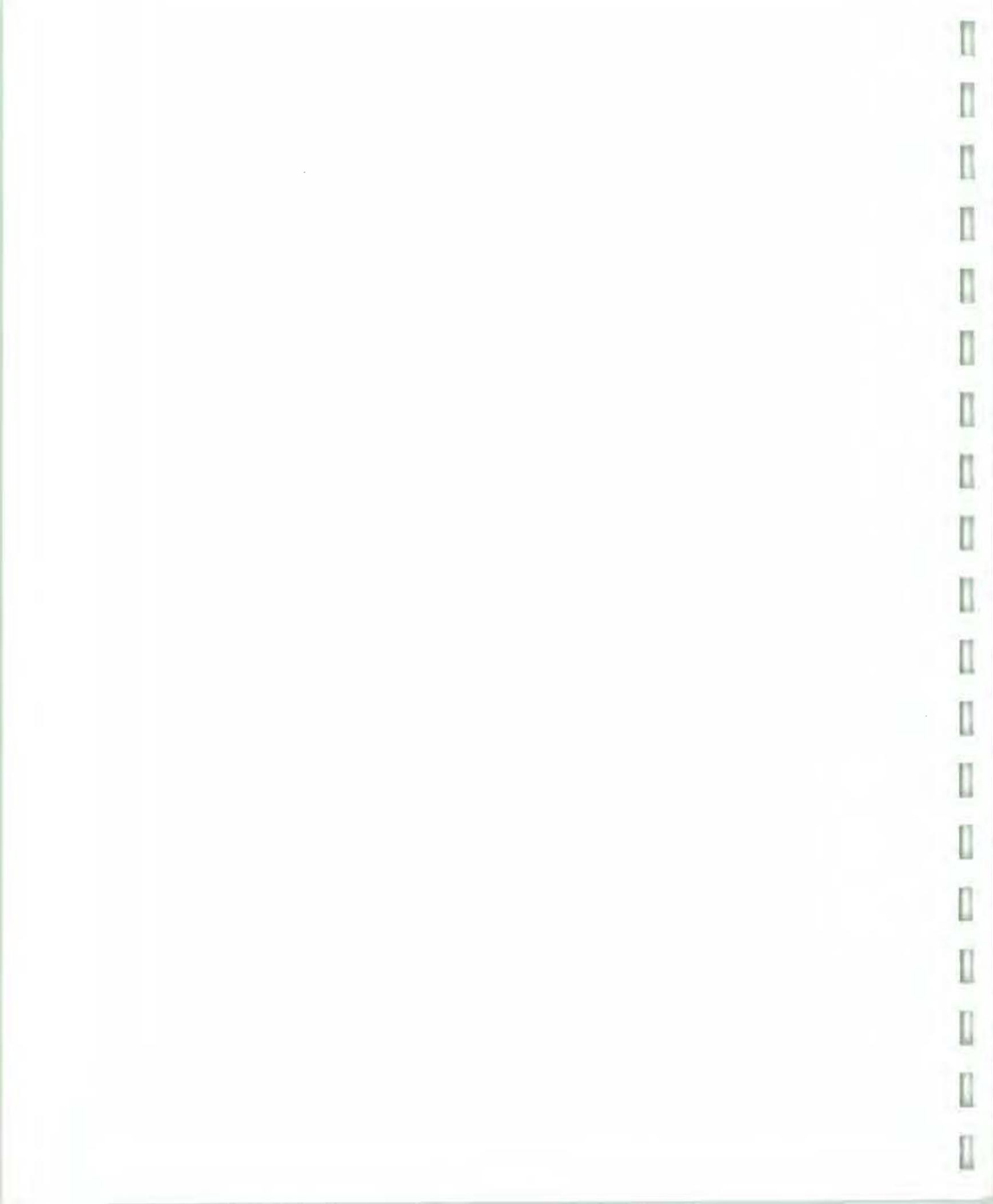
**SENECA ARMY DEPOT ACTIVITY  
ROMULUS, NEW YORK**  
and  
**U.S. ARMY CORPS OF ENGINEERS  
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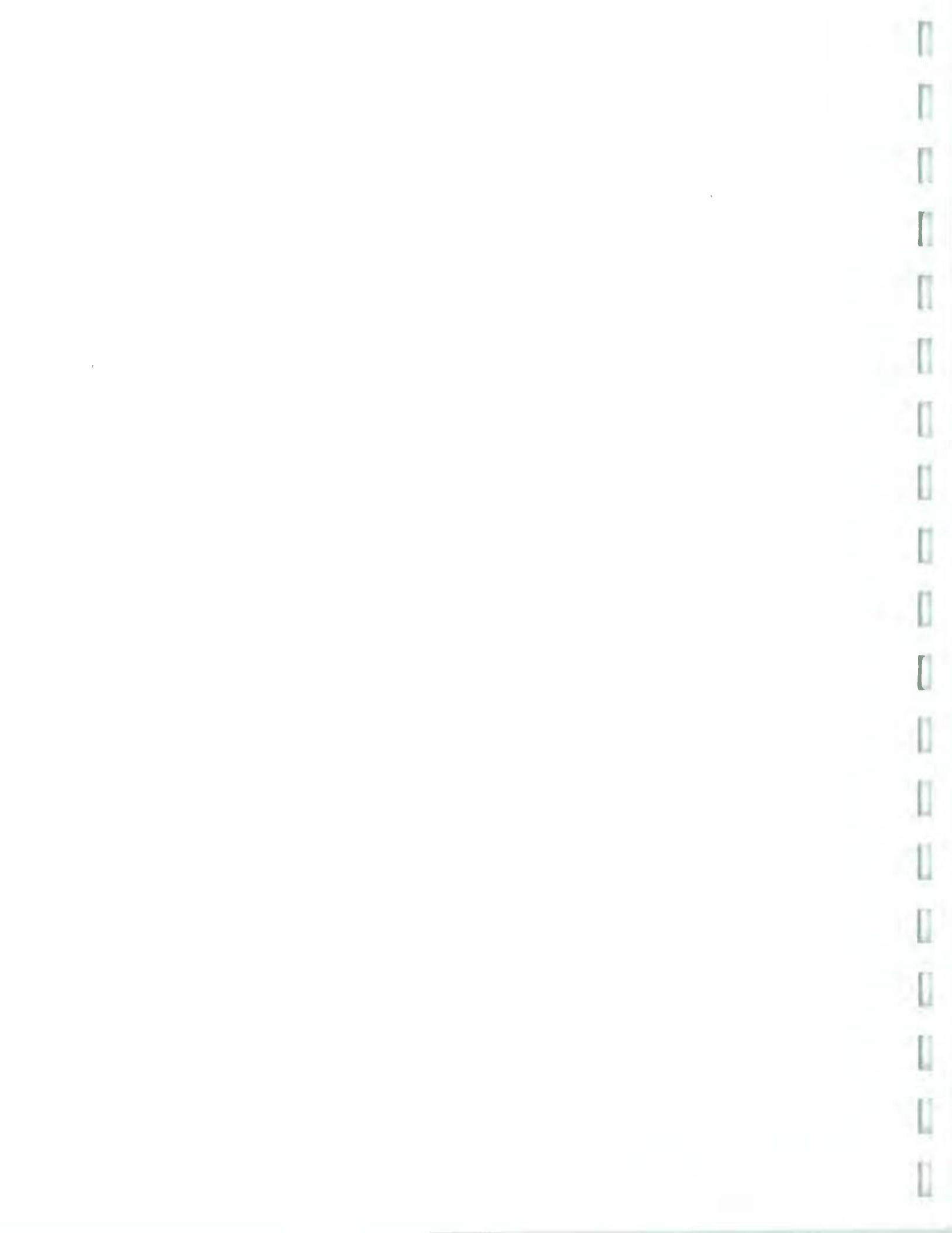
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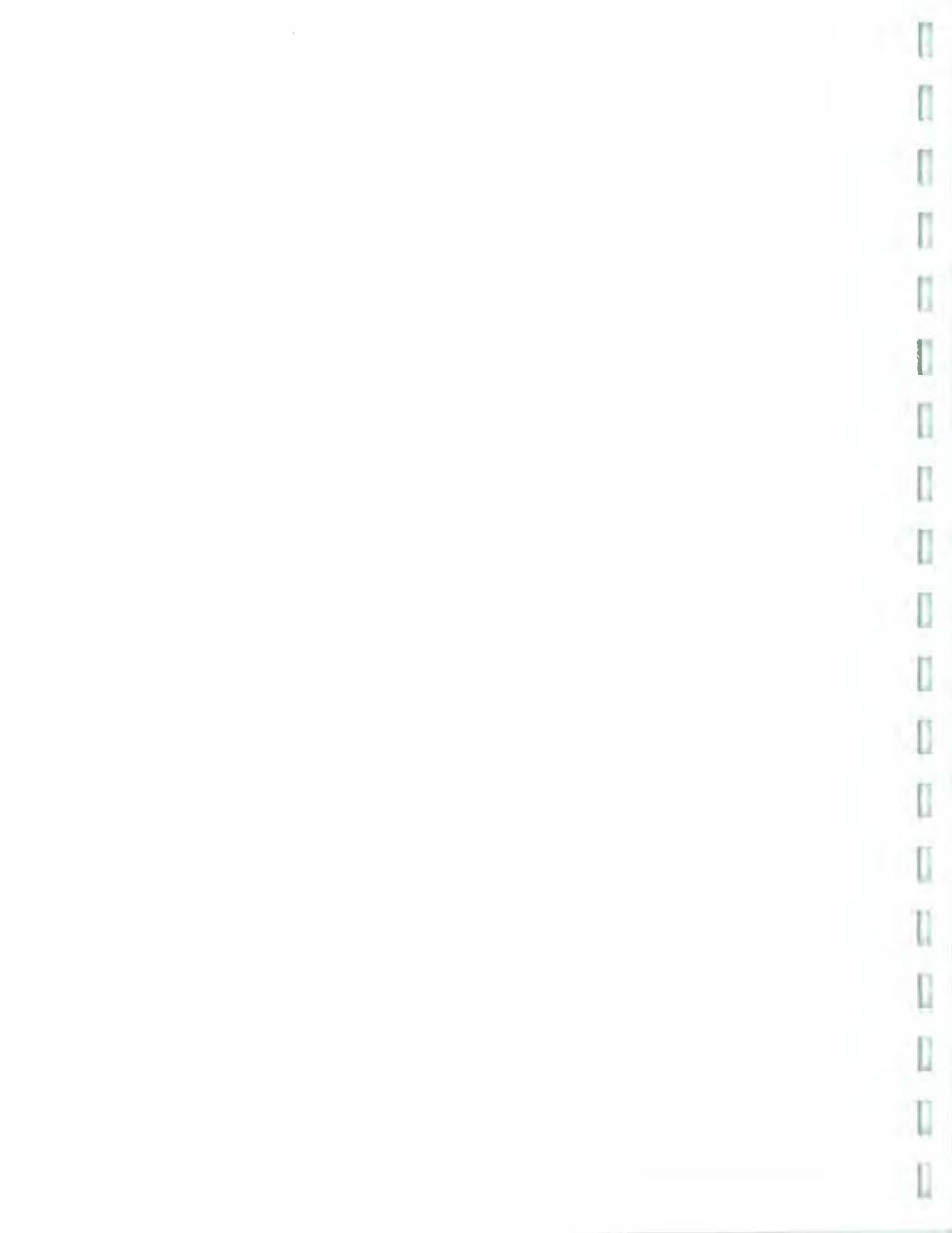
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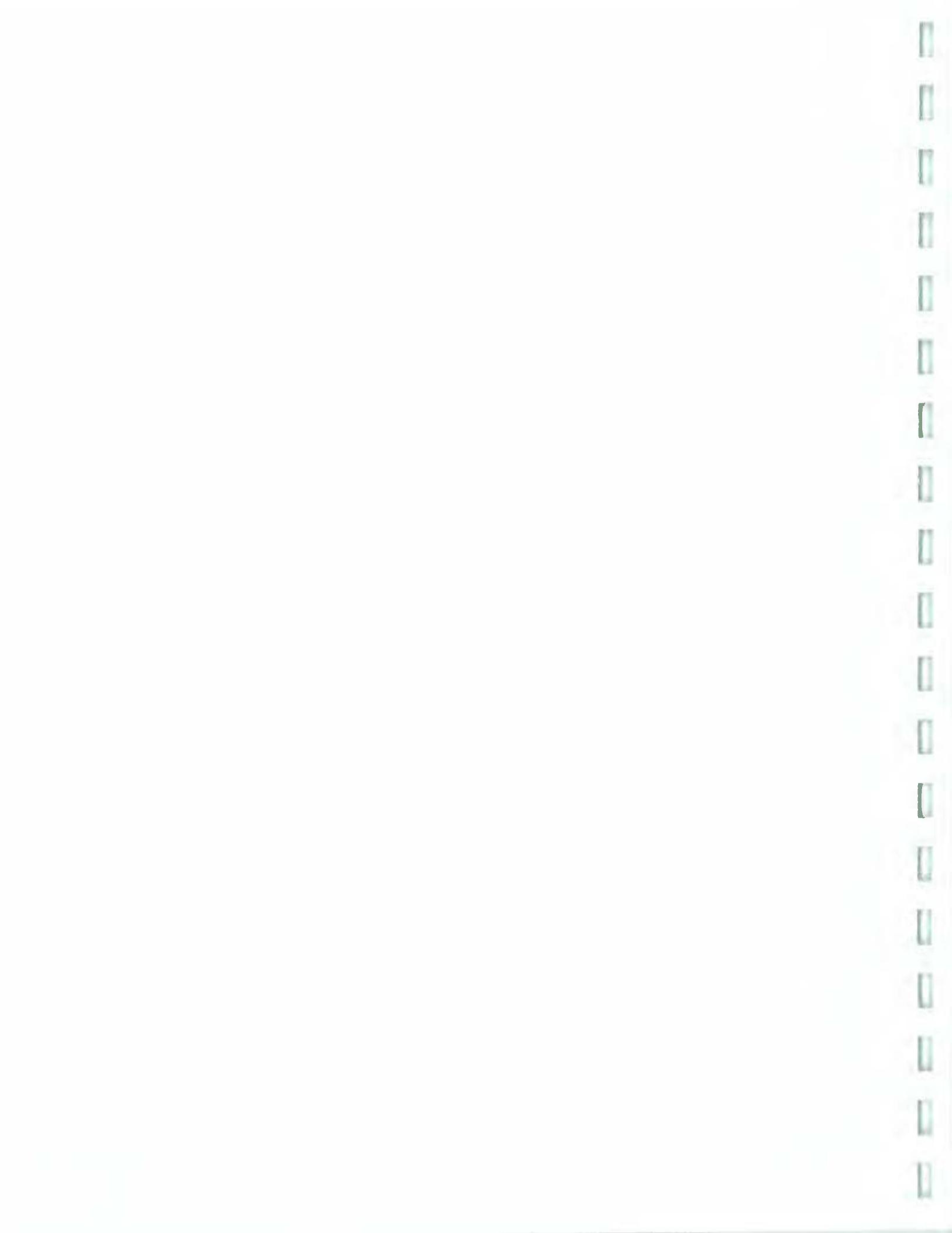
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### APPENDIX A

#### GROUNDWATER ELEVATION DATA

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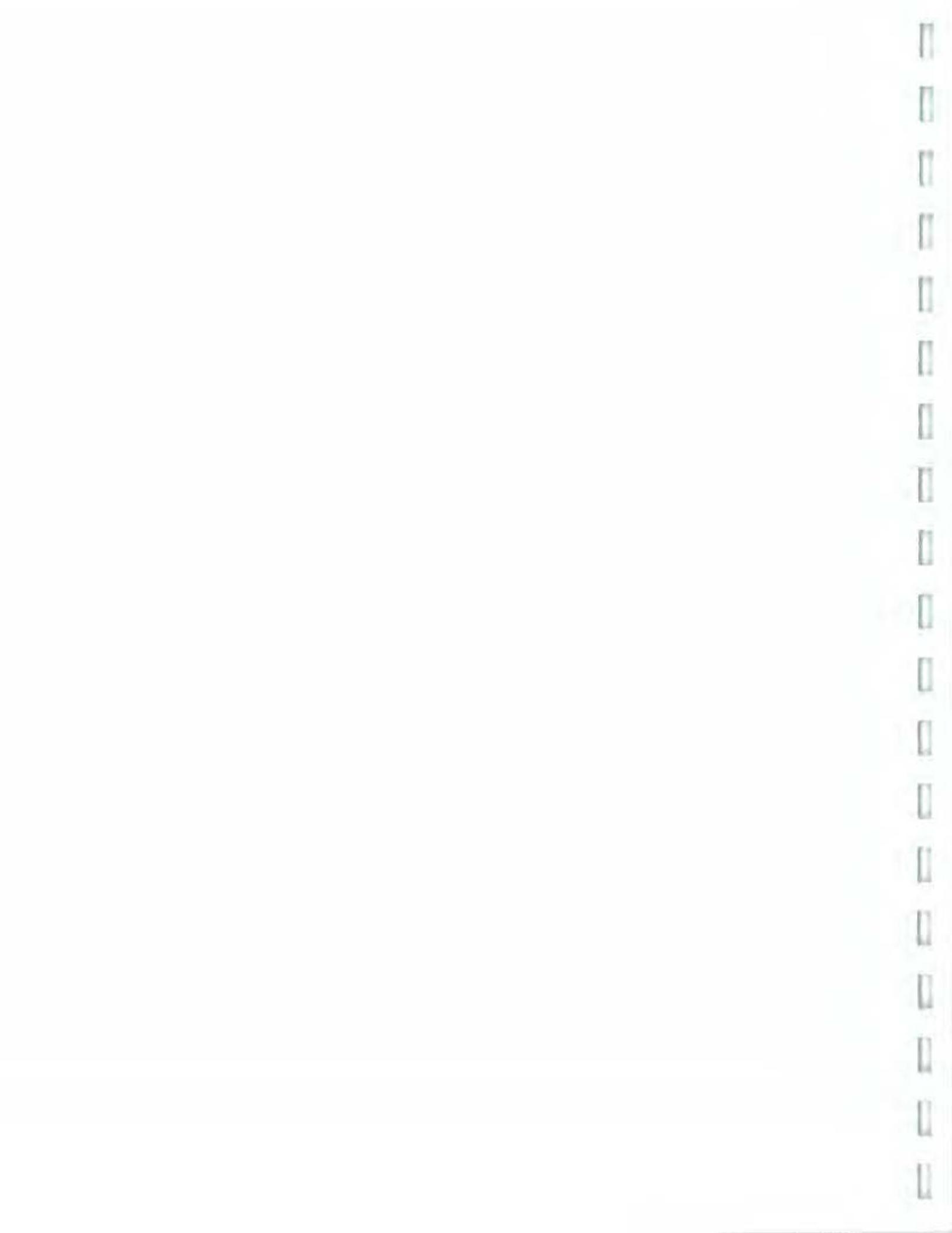
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#### THIRD QUARTER 2002 LABORATORY REPORTS

Severn Trent Labs (STL)

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#### HISTORICAL GROUNDWATER ANALYTICAL DATA



## **1      INTRODUCTION**

This report summarizes results of Third Quarter 2002 (3Q 2002) groundwater sampling and monitoring activities at the Ash Landfill Operable Unit (Ash Landfill) of the Seneca Army Depot Activity (SEDA), Romulus, New York. The goal of groundwater monitoring at the Ash Landfill is to monitor the extent of the well-defined chlorinated ethene contaminant plume at this operable unit. This work was performed in accordance with the requirements of Delivery Order 0006 of Contract DACA87-95-D-0031, Optional Task No. 6.

Previously collected groundwater data is combined with information collected during the 3Q 2002 sampling event to evaluate flow and chemistry in the shallow groundwater aquifer at the Ash Landfill. Section 2.0 provides a summary of quarterly monitoring activities, Section 3.0 provides a summary of monitoring results, and Section 4.0 summarizes the results and conclusions drawn from the 3Q 2002 sampling and monitoring event.

## **2      QUARTERLY MONITORING ACTIVITIES**

3Q 2002 sampling and monitoring activities at the Ash Landfill consisted of measurements of groundwater elevations at 46 locations, field measurements of groundwater physical and chemical properties at 10 locations, and sample collection and laboratory analysis at 11 locations. A description of these activities is provided below.

### **2.1    GROUNDWATER ELEVATION MEASUREMENTS**

From August 15 through August 16, 2002, Parsons measured the depth to groundwater at 46 monitoring wells in the overburden aquifer at the Ash Landfill. The depth to groundwater was measured from the top of the well casing using an electronic water level indicator. Groundwater elevations were then calculated by subtracting the depth to groundwater from the surveyed elevation of the top of each well casing.

### **2.2    GROUNDWATER SAMPLING**

From August 15 through August 16, 2002, Parsons collected groundwater samples from ten monitoring wells and one farmhouse well. Groundwater samples were collected following EPA Region II low-flow groundwater sampling procedures. The selected monitoring wells were purged and sampled using bladder pumps and dedicated Teflon® tubing. The shallow aquifer well located outside the farm house was sampled using a new certified clean Teflon bailer.



## 2.3 GROUNDWATER ANALYSES

**Table 2-1** contains the groundwater quality-sampling matrix for the 3Q 2002 sampling event. As shown in **Table 2-1**, groundwater quality measurements were performed on samples from the same 11 locations that were described in Section 2.2. **Table 2-1** also lists the laboratory analyses performed on the seven quality assurance/quality control (QA/QC) samples that were part of this sampling event. Field parameters (groundwater temperature, pH, specific conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP), turbidity, sulfide and ferrous iron) were measured during well purging and recorded when a particular field parameter was observed to stabilize. Field parameter stabilization marked the completion of the well purging procedure, and groundwater samples for laboratory analysis were therefore collected immediately following stabilization and recording of the field parameters. A Model U-22 Water Quality Monitoring System with flow cell (Horiba, Ltd., Kyoto, Japan) was used to measure groundwater temperature, pH, specific conductivity, DO, ORP, and turbidity. A Model DR/700 colorimeter (Hach Company, Loveland, CO) was used to measure sulfide and ferrous iron.

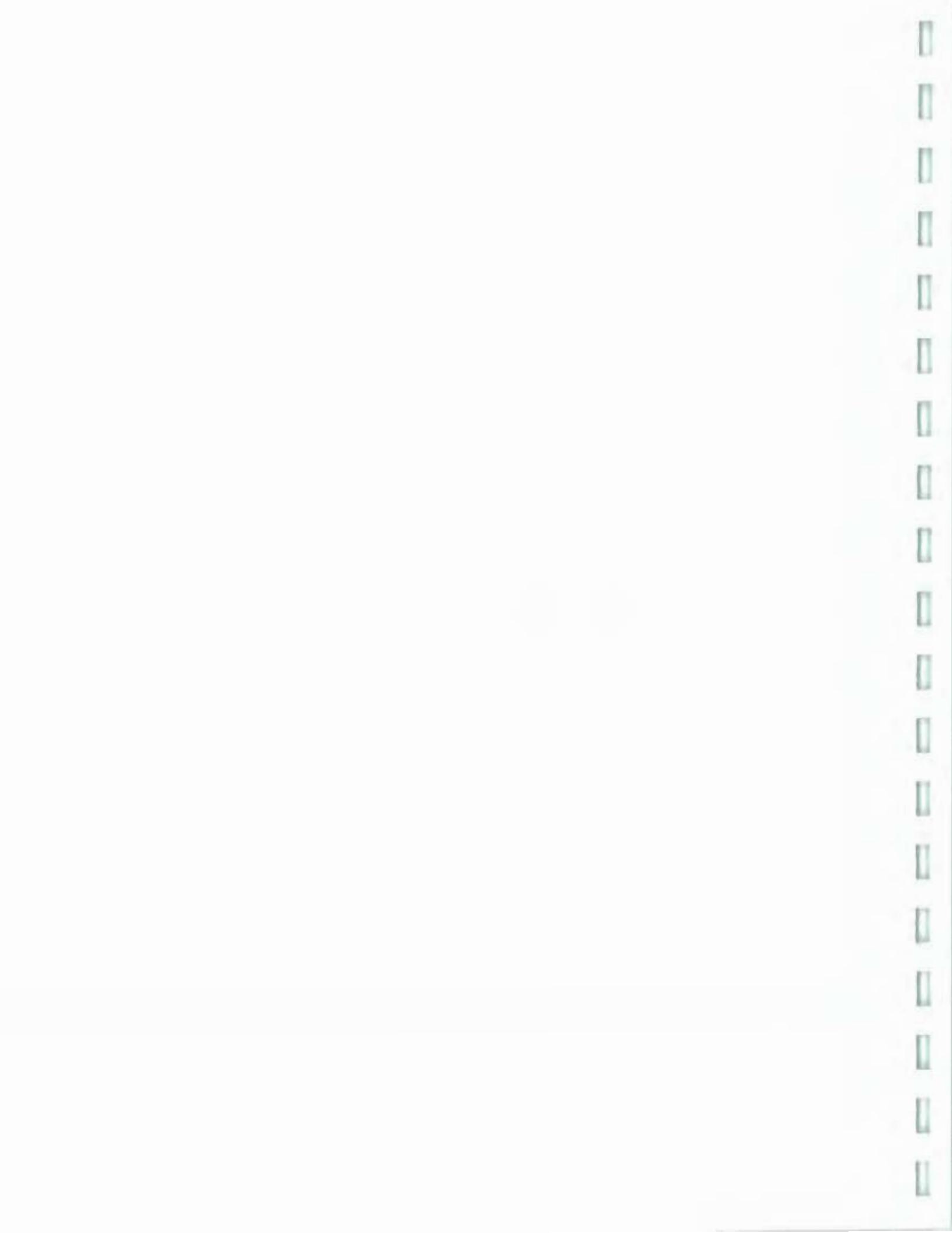
Groundwater samples were collected and sent to Severn Trent Laboratories (STL; Colchester, VT) for analysis of volatile organic compounds (VOCs). VOC concentrations were measured using USEPA Methods 524.2 and 8260B. The Missouri River Division (MRD) of the US Army Corps of Engineers (USACOE) analyzed one QA sample (MWT-6) for VOCs (Method 524.2 only).

## 3 QUARTERLY MONITORING RESULTS

### 3.1 GROUNDWATER ELEVATION CONDITIONS

**Table 3-1** contains historical groundwater table elevation information on 60 monitoring wells at the Ash Landfill. **Table 3-1** also contains the calculated Mean Sea Level (MSL) groundwater elevations for the 48 monitoring wells sampled during the 3Q 2002 sampling event. Of the 48 overburden monitoring wells that were sampled, six were found to be dry. The saturated thickness at monitoring wells in and around the permeable reactive barrier ranged between 1.74 ft (MWT-11) and 3.72 ft (MWT-7). The saturated thicknesses are significantly lower than those recorded during the April 2002 sampling round. Based on a review of the historical data of the 60 monitoring wells listed in **Table 3-1**, the average seasonal variation in groundwater elevation is 6 ft and the maximum-recorded seasonal variation in groundwater elevation is 13.52 ft (MW-50D). Appendix A contains a summary of all groundwater elevation data collected at the Ash Landfill between the 1995 and 3Q 2002.

**Figure 3-1** depicts a groundwater elevation contour map for the Ash Landfill Operable Unit that was drawn using 3Q 2002 groundwater elevation data. The groundwater flow direction is generally to the west with an average horizontal hydraulic gradient of approximately 0.02 ft/ft.



The 3Q 2002 groundwater elevation data are consistent with recorded groundwater elevations at the Ash Landfill site at this time of the year in previous years. The elevations near the well show that the groundwater flows through the wall at all locations during low flow conditions. During the wetter season in April 2002, there was actually a slight flow back into the wall in the center near MWT-4, 5 and 6.

### 3.2 GROUNDWATER FIELD PARAMETER RESULTS

**Table 3-2** provides a summary of all field measurements (groundwater temperature, pH, specific conductivity, DO, ORP, turbidity, sulfide, and ferrous iron) for the 10 monitoring wells that were sampled during 3Q 2002. Field parameter measurements were not obtained during the groundwater sampling of the farmhouse well. The values presented were recorded after parameter stabilization and immediately prior to groundwater collection for laboratory sampling.

In general, field measurements of DO, ORP and pH during 3Q 2002 sampling were consistent with previous sampling events. Dissolved oxygen concentrations for the 3Q 2002 sampling event ranged from 0.56 mg/L (PT-24) to 3.40 mg/L (MWT-7). Groundwater ORP values for the 10 wells monitored during this sampling event range between -35 mV (MWT-9) and +317 mV (MWT-11). The average ORP for this round of sampling was +144.4 mV. The average ORP for 3Q 2002 is higher than the averages calculated for 2Q 2002 (+98.3), 3Q 2001 (+69.5 mV), 4Q 1999 (+50.78 mV) and 1Q 2000 (+64.6 mV). Groundwater pH measurements ranged from 6.7 to 9.75.

### 3.3 GROUNDWATER ANALYTICAL RESULTS

Groundwater analytical results are presented in **Tables 3-3 and 3-4**. VOC results from eleven samples are reported in **Table 3-3**. **Table 3-4** provides a summary of only those VOCs that were detected. Results of 3Q 2002 monitoring for trichloroethene (TCE) and cis-1,2 dichloroethene (DCE) concentrations are shown by location in **Figure 3-2**. The maximum measured concentration of TCE in groundwater was 540 µg/L at MWT-7. The maximum measured concentration of DCE in groundwater was 170 µg/L at MWT-9.

In the eight monitoring wells sampled around the permeable reactive barrier, the maximum measured TCE concentration was 540 µg/L TCE at monitoring well MWT-7. Monitoring well MWT-7 is located on the upgradient side of the barrier, as shown on **Figure 3-2**. The maximum measured DCE concentration in wells near the permeable reactive barrier was 170 DCE µg/ L at MWT-9. Monitoring well MWT-9 is located approximately 12 feet downgradient of both MWT-7 and 6 feet downgradient of the permeable reactive barrier, as shown on **Figure 3-2**. Detectable levels of DCE were found at all four monitoring wells that are immediately downgradient of the permeable reactive barrier (MWT-3, MWT-6, MWT-9, and PT-24). TCE was found in all wells except MWT-10 and BN-S. The maximum and minimum TCE concentrations in these four wells were 140 µg/ L at MWT-9 and 0.53 µg/L at MWT-6, respectively. The maximum and minimum DCE concentrations in these four wells were 170

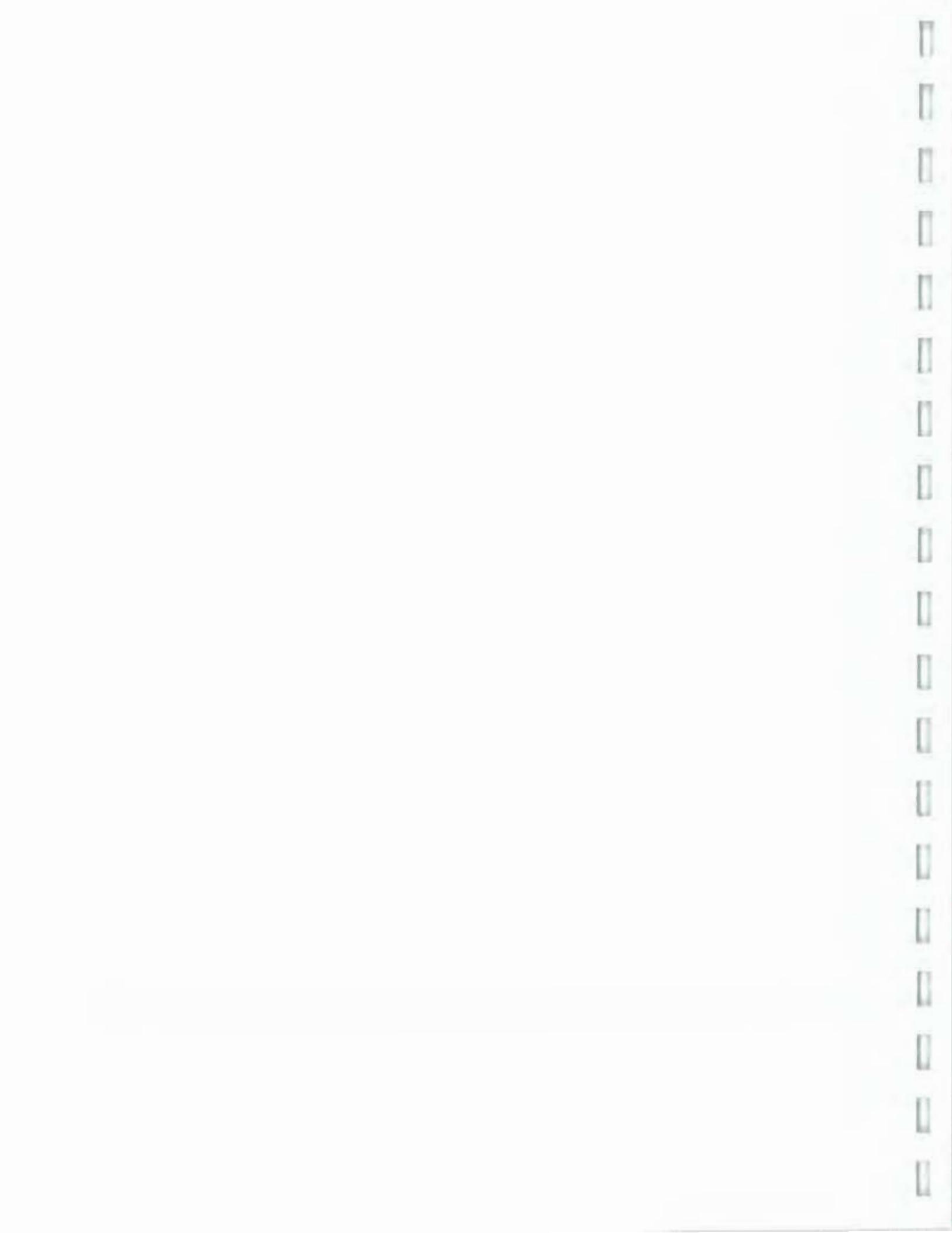


$\mu\text{g}/\text{L}$  at MWT-9 and 21  $\mu\text{g}/\text{L}$  at MWT-3 and MWT-6, respectively. No detectable levels of chlorinated ethenes were found in groundwater samples from the farmhouse well (BN-S). DCE and TCE were detected in MW-28 at concentrations of 17  $\mu\text{g}/\text{L}$  and 20  $\mu\text{g}/\text{L}$ , respectively.

Historical groundwater monitoring data from wells PT-12A, PT-18, MW-44A, MW-28, MW-30, and PT-24 are presented in **Figures 3-3, 3-4, 3-5, 3-6, 3-7, and 3-8**, respectively. The graphs for PT-12A, PT-18, MW-30 and MW-44A were not updated since these wells were not sampled during 3Q 2002. These figures illustrate the seasonal and historical trends for TCE and DCE concentrations in monitoring wells that were sampled during previous monitoring events. As shown in **Figure 3-3**, TCE and DCE concentrations at PT-12A have been observed to vary seasonally, with the maximum concentrations observed in the third quarter, and minimum concentrations observed in the first quarter of each year. As shown in **Figure 3-4**, TCE and DCE concentrations at PT-18 were observed to decrease significantly following an Interim Removal Measure (IRM) that was initiated at the Ash Landfill in August 1994 and completed in June 1995. As with PT-12A, recent TCE and DCE concentrations have also been observed to vary seasonally, with the maximum concentrations observed in the third quarter. **Figures 3-5A** depicts historic concentrations of TCE, DCE, and vinyl chloride for all monitoring events at MW-44A since July 1993. **Figure 3-5B** depicts historic concentrations of TCE, DCE, and vinyl chloride for all monitoring events since December 1994 on a smaller scale so that variation in chlorinated ethane concentrations can be more readily observed. The reason for the marked decrease in chlorinated VOC concentrations at MW-44A between the November 1993 and December 1994 sampling events is a result of the IRM. As shown in **Figure 3-6**, TCE and DCE concentrations at MW-28 appear to be stabilizing with a slight overall downward trend observed. As shown in **Figure 3-7**, TCE and DCE have not been detected at MW-30 since October 1999. As shown in **Figure 3-8**, the 2Q 2002 DCE concentration was the lowest measured at this well (54  $\mu\text{g}/\text{L}$ ). The DCE concentration increased in 3Q 2002 slightly, however, a general trend downward is apparent. The TCE concentrations have generally been consistent over the last three years. Appendix C of this report contains a summary of groundwater monitoring data collected in recent sampling events.

### 3.4 RESULTS INTERPRETATION AT THE PERMEABLE REACTIVE BARRIER

During the 3Q 2002 sampling event, samples were collected from three well pairs at the existing permeable reactive barrier (PRB). The three well pairs are MW-1 and MW-3, MW-4 and MW-6, and MW-7 and MW-9. As shown on **Figure 3-9**, wells MW-1, MW-4, and MW-7 are located immediately upgradient of the PRB and wells MW-3, MW-6, and MW-9 are located immediately downgradient of the PRB. **Table 3-5** presents TCE and DCE concentrations for the three sampling events at the downgradient wells. The purpose of sample collection at these points was to evaluate whether the PRB was continuing to chemically remove chlorinated ethenes from groundwater at the Ash Landfill. Measurements of chlorinated ethenes at the PRB showed mixed results. The measured TCE and DCE concentrations at downgradient MW-3 (TCE = 3.5  $\mu\text{g}/\text{L}$ ; DCE = 21  $\mu\text{g}/\text{L}$ ) were slightly lower than the concentrations at upgradient MW-1 (TCE = 6.0  $\mu\text{g}/\text{L}$ ; DCE = 25  $\mu\text{g}/\text{L}$ ). This suggests that some



chemical destruction of chlorinated ethenes is occurring in this portion of the wall. Residual concentrations downgradient of the wall suggest that existing TCE and DCE concentrations in the groundwater are present downgradient of the wall. In the next well cluster (MW-4/MW-6), TCE and DCE concentrations measured at downgradient MW-6 (TCE = 0.53 $\mu$ g/L ; DCE = 21 $\mu$ g/L) were significantly lower than the concentrations measured at upgradient MW-4 (TCE = 3.7 $\mu$ g/L; DCE = 95 $\mu$ g/L), indicating that the PRB has continued to remove chlorinated ethenes from groundwater in this portion of the wall. In the final well cluster (MW-7/MW-9), the concentration of TCE was observed to decrease from 540 $\mu$ g/L at MW-7 to 140  $\mu$ g/L at MW-9, but the DCE concentration was observed to increase from 32 $\mu$ g/L at MW-7 to 170 $\mu$ g/L at MW-9. This data from MW-7 and MW-9 demonstrates that the PRB has continued to chemically reduce TCE concentrations, but that there is inadequate retention time or that the PRB does not contain an adequate iron content to remove the intermediate product (DCE) that is produced during TCE reduction to ethane or ethene. Subsurface anomalies in this area may lead to higher permeable zones that reduce retention times.

Performance of the PRB can also be evaluated by examining other geochemical parameters that were measured at the PRB. In general, the physical and chemical parameter trends observed at the existing PRB are consistent with observations at other sites where PRBs have been installed for treatment of chlorinated ethenes in groundwater. That is, the PRB is producing an environment downgradient of the PRB that is more reduced than conditions on the upgradient side. For example, the decreased Oxidation-Reduction Potential (ORP) is an indicator of a reduction in the redox condition downgradient of the wall. The observed decreases in specific conductivity are also consistent with observations the PRB is continuing to react with groundwater. It should be noted that these observations should be confirmed with subsequent quarterly groundwater sampling.

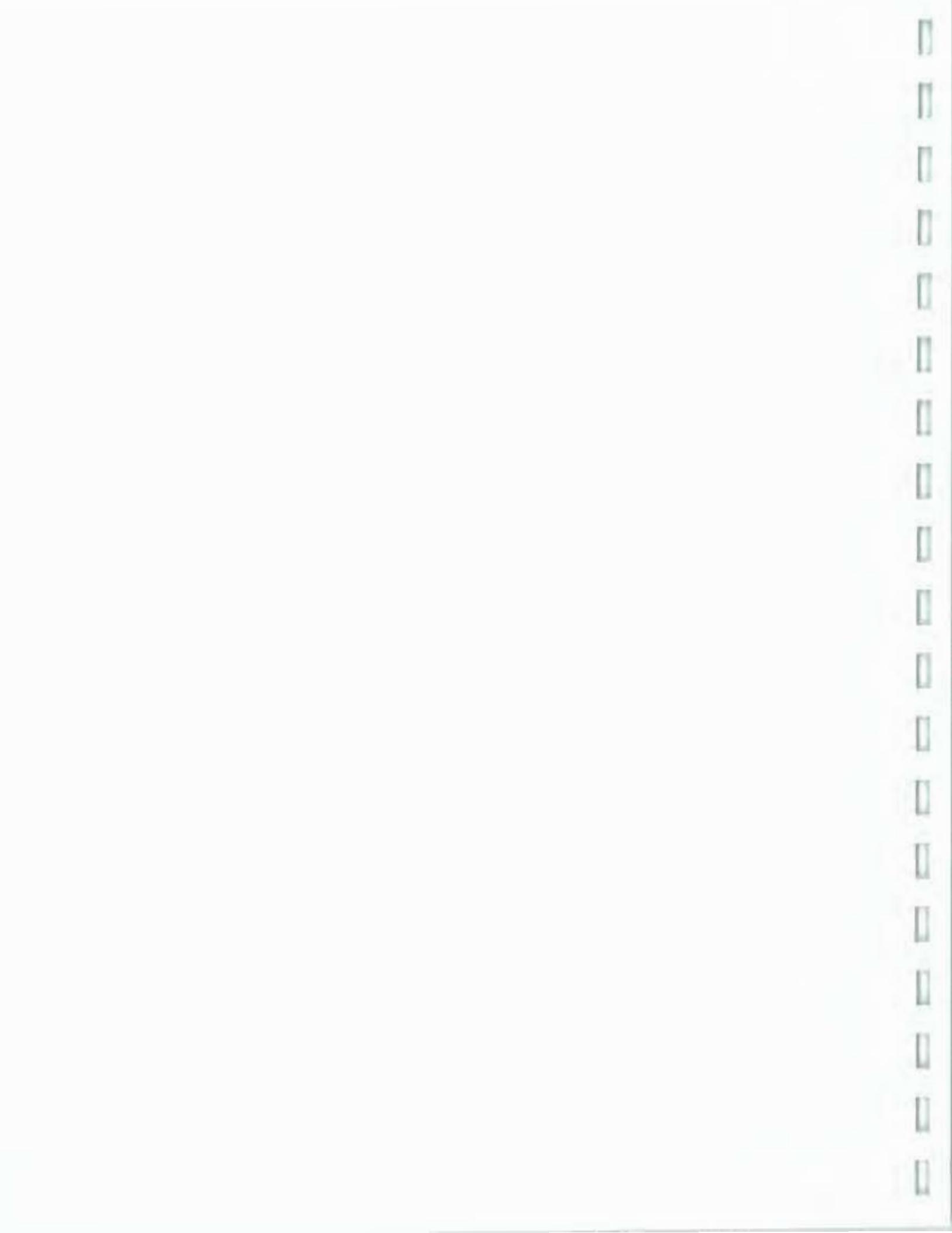
#### **4 SUMMARY AND CONCLUSIONS**

In summary, the 3Q 2002 groundwater monitoring and sampling event found:

1. Groundwater flow direction, and horizontal gradients are consistent with previous data collected in the area.
2. Groundwater elevations were low as expected for the summer.
3. Groundwater analytical results are generally consistent with seasonal trends in the October 1999, January 2000, September 2001, and April 2002 sampling events.
4. There does appear to be a slight downward trend in TCE and DCE concentrations in MW-28, MW-30 and PT-24. MW-28 and MW-30 are located upgradient of the wall and PT-24 is located downgradient of the wall.
5. TCE and DCE concentrations from monitoring wells along the permeable reactive barrier have shown little variation between the last four sampling events.
6. The combined observed changes in TCE concentrations, DCE concentrations, reaction endproduct concentrations, redox indicator concentrations, and other chemical and physical



parameters between wells upgradient and downgradient of the existing PRB generally indicate that the iron in the PRB is continuing to react with site groundwater and reductively dechlorinate chlorinated ethenes at the Ash Landfill.



**TABLE 2-1**  
**DRAFT GROUNDWATER SAMPLING MATRIX - THIRD QUARTER 2002**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Location	Sample ID	QC Code	Well Depth (ft)	Pump Intake	Field Parameters							Lab Parameters					
					pH	Spec Cond	ORP	DO	Turbidity	Sulfide	Fe <sup>2+</sup>	VOC 524.2	VOC CLP (8260B)	Nitrate/Nitrite	Alkalinity / Sulfate/ Chlorides	Hydrogen	Methane/Ethane/Ethene
<b>Farmhouse Wells</b>																	
BN-S <sup>1,2</sup>	ARD2168	SA	na	na								X					
FH-D <sup>2</sup>	No Sample	SA	--	na													
FH-S <sup>2</sup>	No Sample	SA	--	na													
<b>Site Monitoring Wells</b>																	
MW-28 <sup>3</sup>	ARD2177	SA	10.39	9.4	X	X	X	X	X	X	X	X					
MW-30 <sup>3</sup>	No Sample	SA	--	--													
MW-56 <sup>3</sup>	No Sample	SA	--	--													
PT-24 <sup>3</sup>	ARD2180	SA	11.88	10.9	X	X	X	X	X	X	X	X	X				
<b>Permeable Reactive Barrier Monitoring Wells</b>																	
MWT-1 <sup>3</sup>	TR2091	SA	9.75	9.5	X	X	X	X	X	X	X	X					
MWT-3 <sup>3</sup>	TR2092	SA	10	9.0	X	X	X	X	X	X	X	X	X				
MWT-4 <sup>3</sup>	TR2093	SA	12.28	12.0	X	X	X	X	X	X	X	X	X				
MWT-6 <sup>3</sup>	TR2094	SA	12.42	11.4	X	X	X	X	X	X	X	X	X	X			
MWT-7 <sup>3</sup>	TR2095	SA	13.92	13.4	X	X	X	X	X	X	X	X	X	X			
MWT-9 <sup>3</sup>	TR2096	SA	14.08	13.6	X	X	X	X	X	X	X	X	X	X	X		
MWT-10 <sup>3</sup>	TR2097	SA	8.95	8.5	X	X	X	X	X	X	X	X	X	X	X		
MWT-11 <sup>3</sup>	TR2098	SA	9.95	9.5	X	X	X	X	X	X	X	X	X	X			
<b>QA/QC Samples</b>																	
Duplicate (MWT-6)	TR2099	DU	12.42	11.4	X	X	X	X	X	X	X	X	X				
Duplicate (PT-24)	ARD2181	DU	11.88	10.9	X	X	X	X	X	X	X	X	X	X			
MS (MWT-7)	TR2095MS	MS	13.92	13.4	X	X	X	X	X	X	X	X	X	X			
MSD (MWT-7)	TR2095MSD	MSD	13.92	13.4	X	X	X	X	X	X	X	X	X	X			
Rinse Blank	TR0037	RB	na	na										X			
Trip/ Blank	TR0038	TB	na	na										X			
MRD (MWT-6) (QA-LIMS# 6463)	TR2084MRD	SA	12.42	10.4	X	X	X	X	X	X	X	X	X	X			

1 - Shaded areas indicate sample or parameter not collected due to low water conditions or low recovery rates

2 - Sampled at tap

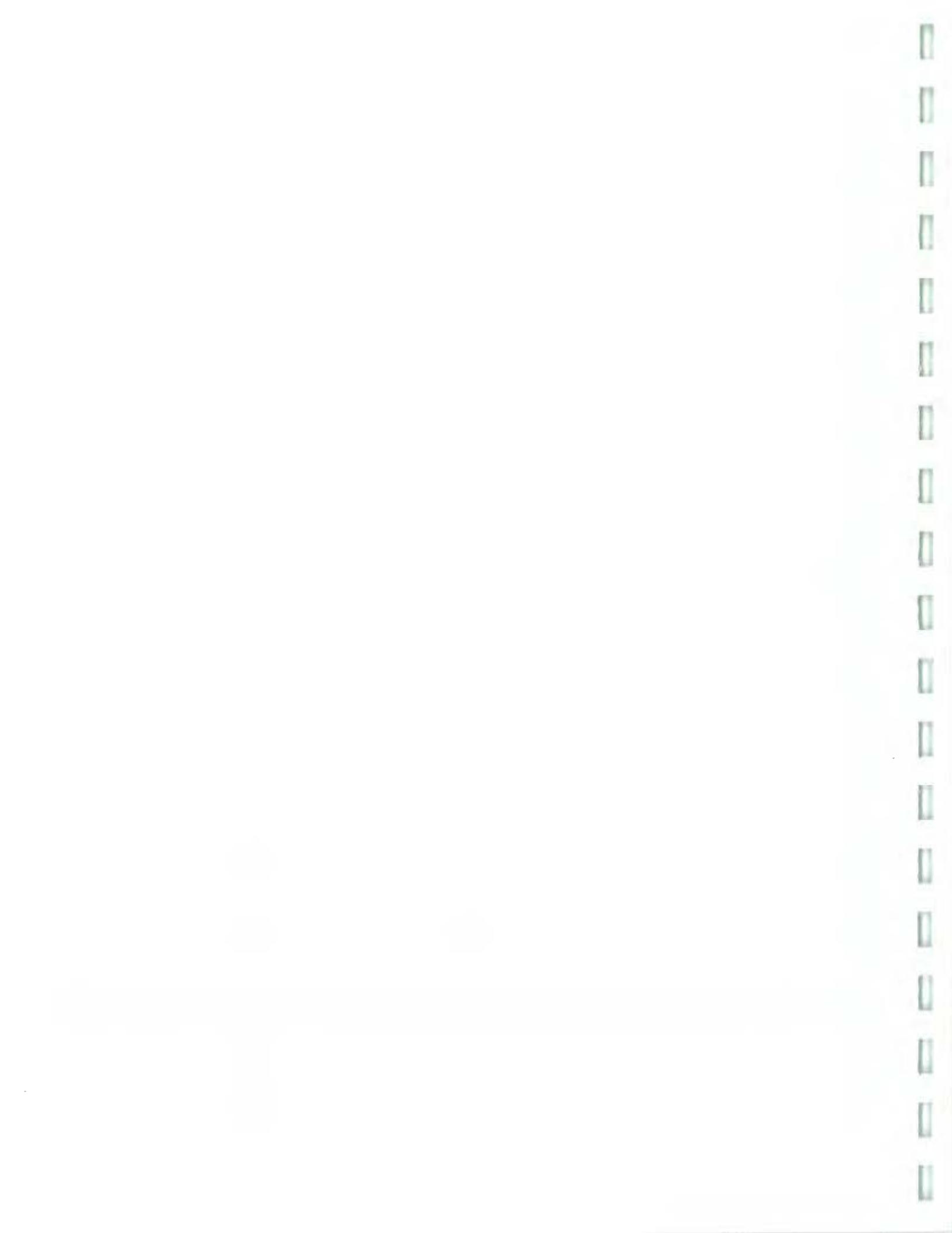
3 - Sampled according to EPA Region II low-flow sampling procedures

DU - Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

MRD - Missouri River Division ACOE



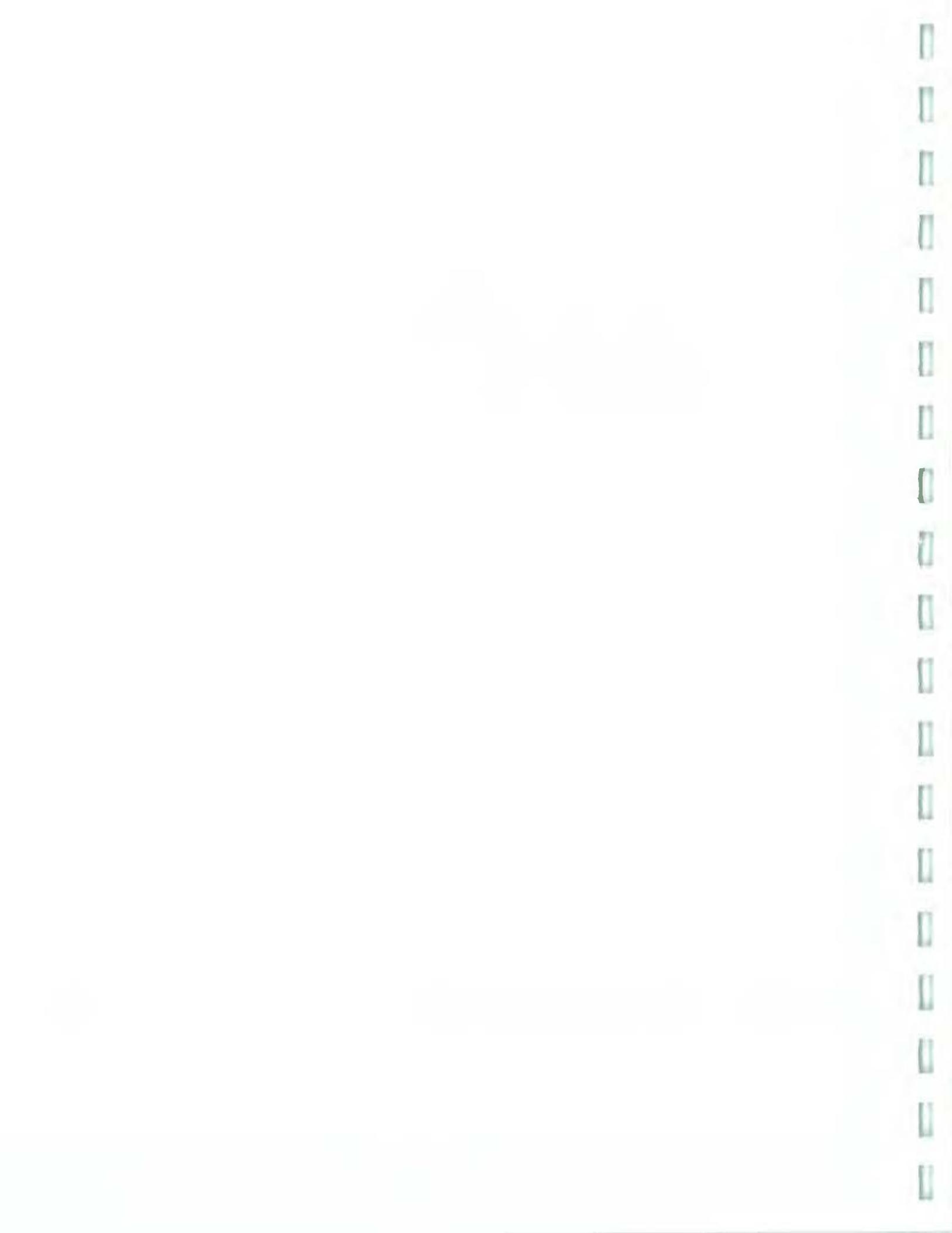
**TABLE 3-1**  
**GROUNDWATER ELEVATION DATA - THIRD QUARTER 2002**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Monitoring Well	Top of Riser Elevation (ft)	3Q 2002 Data				Historical Data				Well Depth (ft)
		Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	Groundwater Elevation (ft)			Well Depth (ft)	
			Maximum	Minimum	Range					
PT-10	681.52	08/15/2002	37.66	8.70	672.82	676.90	671.02	5.88	46.36	
PT-11	658.22	08/15/2002	9.25	10.30	647.92	654.03	647.79	6.24	19.55	
PT-12A	652.15	08/15/2002	3.87	9.51	642.64	649.01	642.26	6.75	13.38	
PT-15	637.76	08/15/2002	9.40	10.10	627.66	633.74	627.38	6.36	19.50	
PT-16	637.51	08/15/2002	3.89	7.15	620.36	634.85	629.83	5.02	11.04	
PT-17	640.14	08/15/2002	0.90	10.75	629.39	635.85	629.05	6.80	11.65	
PT-18	656.68	08/15/2002	3.07	8.63	648.05	652.28	646.30	5.98	11.70	
PT-19	645.26	08/15/2002	1.45	10.25	635.01	643.09	635.01	8.08	11.70	
MW-20	647.28	08/15/2002		Dry		642.34	637.41	4.93	11.80	
MW-21A	647.73	08/15/2002	9.21	10.25	637.48	643.84	637.22	6.62	19.46	
MW-22	648.61	08/15/2002	0.96	10.85	637.76	644.30	637.51	6.79	11.81	
PT-23	641.58	NA	NA	Not Measured		638.14	632.35	5.79	12.08	
PT-24	636.40	08/15/2002	4.53	7.35	629.05	632.76	627.99	4.77	11.88	
PT-25	637.09	08/15/2002	0.58	11.45	625.64	633.51	625.64	7.87	12.03	
PT-26	614.64	NA	NA	Not Measured		611.60	601.53	10.07	14.00	
MW-27	639.32	08/15/2002	1.69	8.85	630.47	634.88	630.09	4.79	10.54	
MW-28	637.21	08/15/2002	2.79	7.60	629.61	632.57	628.71	3.86	10.39	
MW-29	637.31	08/15/2002	0.99	9.55	627.76	632.10	627.30	4.80	10.54	
MW-30	640.32	08/15/2002		Dry		636.38	629.88	6.50	10.52	
MW-31	636.70	08/15/2002		Dry		634.22	627.02	7.20	10.35	
MW-32	641.68	08/15/2002		Dry		637.84	632.70	5.14	10.37	
MW-33	639.56	08/15/2002		Dry		635.65	629.72	5.93	10.39	
MW-34	632.89	NA	NA	Not Measured		630.15	622.36	7.79	18.15	
MW-35D	631.82	NA	NA	Removed		629.44	624.62	4.82	56.64	
MW-36	631.79	NA	NA	Removed		629.47	622.26	7.21	16.58	
MW-37	632.89	NA	NA	Not Measured		630.65	625.77	4.88	13.62	
MW-38D	637.90	08/15/2002	24.44	7.80	630.1	635.39	628.99	6.40	32.24	
MW-39	659.54	NA	NA	Not Measured		657.84	650.47	7.37	11.89	
MW-40	659.30	NA	NA	Not Measured		655.85	650.16	5.69	14.71	
MW-41D	694.02	NA	NA	Not Measured		687.92	685.21	2.71	47.02	
MW-42D	683.04	NA	NA	Not Measured		680.67	671.39	9.28	47.38	
MW-43	657.73	08/15/2002	0.52	6.95	650.78	655.13	650.73	4.40	7.47	
MW-44A	653.85	08/15/2002	1.81	10.67	643.18	650.37	642.42	7.95	12.48	
MW-45	650.90	08/15/2002	0.74	7.60	643.3	648.16	643.12	5.04	8.34	
MW-46	650.41	08/15/2002	2.31	9.14	641.27	647.53	641.12	6.41	11.45	
MW-47	628.06	08/15/2002	0.39	8.17	619.89	625.76	619.88	5.88	8.56	
MW-48	648.32	08/15/2002	3.65	7.85	640.47	645.46	639.94	5.52	11.50	
MW-49D	650.50	08/15/2002	28.59	8.95	641.55	647.62	641.55	6.07	37.54	
MW-50D	649.88	08/15/2002	50.96	8.70	641.18	647.40	633.88	13.52	59.66	
MW-51D	628.24	NA	NA	Not Measured		628.24	620.49	7.75	36.87	
MW-52D	626.35	NA	NA	Not Measured		624.17	618.67	5.50	59.36	
MW-53	639.41	08/15/2002	0.45	9.90	629.51	633.84	629.46	4.38	10.35	
MW-54D	639.11	08/15/2002	24.54	10.45	628.66	633.43	628.66	4.77	34.99	
MW-55D	639.16	08/15/2002	47.98	10.20	628.96	633.41	627.96	5.45	58.18	
MW-56	630.51	08/15/2002	0.00	Dry		627.56	621.66	5.90	6.88	
MW-57D	629.82	08/15/2002	29.14	5.95	623.87	628.13	621.76	6.37	35.09	
MW-58D	629.69	08/15/2002	51.54	5.75	623.94	628.37	623.94	4.43	57.29	



**TABLE 3-1**  
**GROUNDWATER ELEVATION DATA - THIRD QUARTER 2002**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Monitoring Well	Top of Riser Elevation (ft)	3Q 2002 Data				Historical Data			
		Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	Groundwater Elevation (ft)			Well Depth (ft)
						Maximum	Minimum	Range	
MW-59	656.83	NA	NA	Not Measured	654.93	649.85	5.08	9.10	
MW-60	660.15	08/15/2002	2.30	7.20	632.95	658.20	652.23	5.97	9.50
MWT-1	637.24	08/15/2002	2.55	7.20	630.04	632.47	629.06	3.41	9.75
MWT-2	637.19	08/15/2002	2.30	7.25	629.34	632.27	629.94	2.33	9.55
MWT-3	637.31	08/15/2002	2.65	7.35	629.96	632.20	628.99	3.21	10.00
MWT-4	637.68	08/15/2002	3.68	8.25	628.93	632.47	627.28	5.19	12.43
MWT-5	637.72	08/15/2002	2.90	9.05	628.67	632.45	628.67	3.78	11.95
MWT-6	637.59	08/15/2002	3.28	9.00	628.59	632.38	627.24	5.14	12.28
MWT-7	638.34	08/15/2002	3.72	10.25	628.09	632.87	626.58	6.29	13.97
MWT-8	638.40	08/15/2002	2.10	10.45	627.95	632.58	627.95	4.63	12.55
MWT-9	638.08	NA	NA	Not Measured	632.42	626.04	6.38	14.14	
MWT-10	636.07	08/15/2002	3.20	5.75	630.32	632.23	629.55	2.68	8.95
MWT-11	635.90	08/15/2002	1.74	8.21	627.69	632.95	626.92	6.03	9.95



**TABLE 3-2**  
**FIELD MONITORING RESULTS - AUGUST 2002**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Well ID	Sample Number	DO (mg/l)	Temp (deg.C)	Spec. Cond. (S/m)	pH (units)	ORP (mV)	Turbidity (ntu)	Fe+2 (mg/l)	Sulfide (mg/l)
PT-24	ARD2180	0.56	16.8	0.590	7.30	5	10.50	0.02	0.010
MW-28	ARD2177	1.20	18.3	0.676	6.98	192	4.70	0.20	0.198
MW-30	NA	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-56	NA	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
FH-D	NA	NA	NA	NA	NA	NA	NA	NA	NA
FH-S	NA	NA	NA	NA	NA	NA	NA	NA	NA
BN-S	ARD2176	NA	NA	NA	NA	NA	NA	NA	NA
MWT-1	TR2091	2.40	15.8	0.707	7.10	144	14.10	0.06	0.030
MWT-3	TR2092	0.80	16.3	0.562	7.17	146	9.00	0.00	0.027
MWT-4	TR2093	2.68	15.5	1.110	6.86	244	18.50	0.01	0.032
MWT-6	TR2094	0.82	16.1	0.487	7.46	6	9.80	0.04	0.019
MWT-7	TR2095	3.40	14.8	0.861	6.71	285	3.10	0.06	0.029
MWT-9	TR2096	0.66	16.7	0.553	7.31	-35	16.80	0.21	0.049
MWT-10	TR2097	0.65	17.8	0.093	9.75	140	6.70	0.06	0.037
MWT-11	TR2098	1.24	18.5	0.785	6.77	317	16.20	DRY	DRY

ND = Not Detected

NA = Not Analyzed

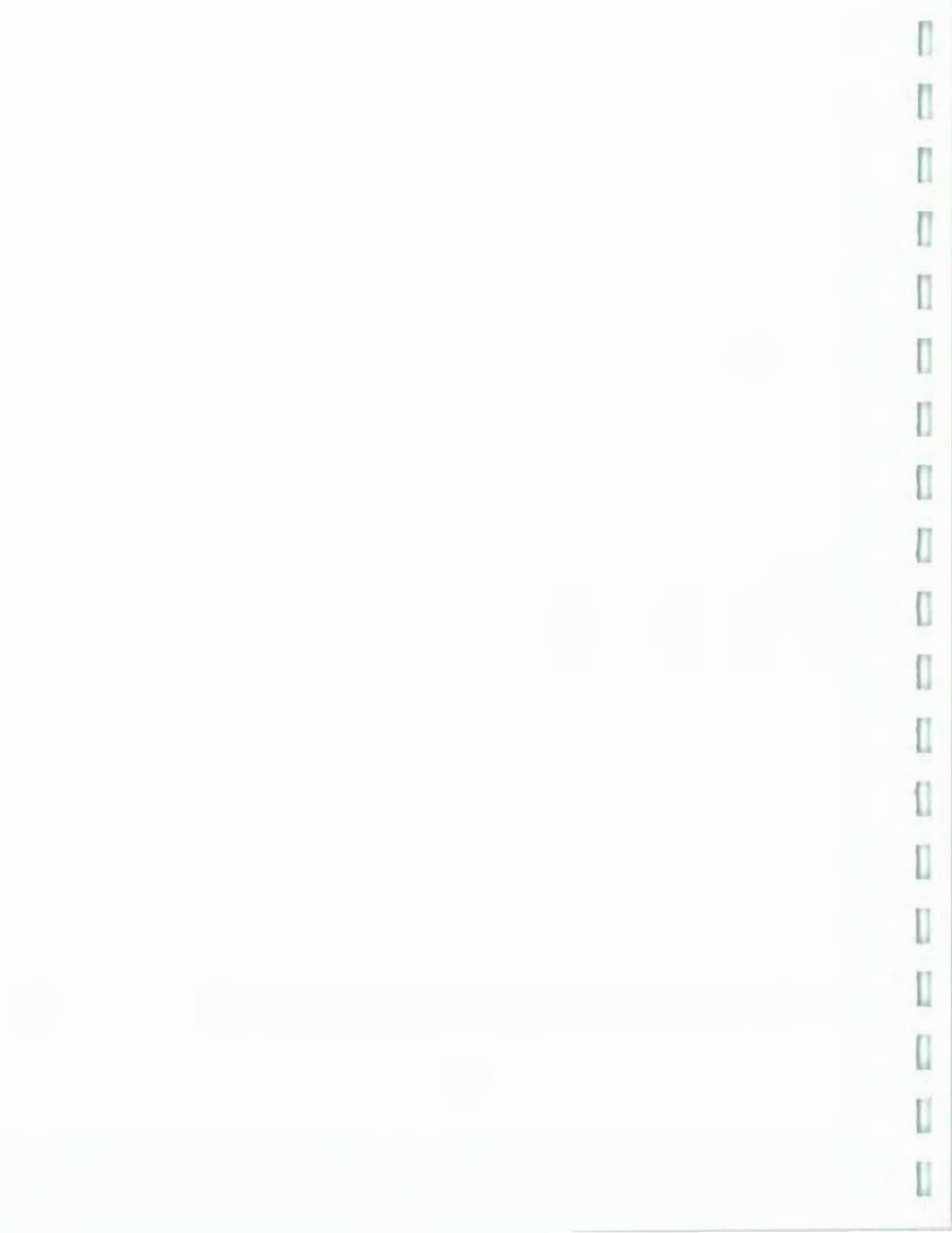
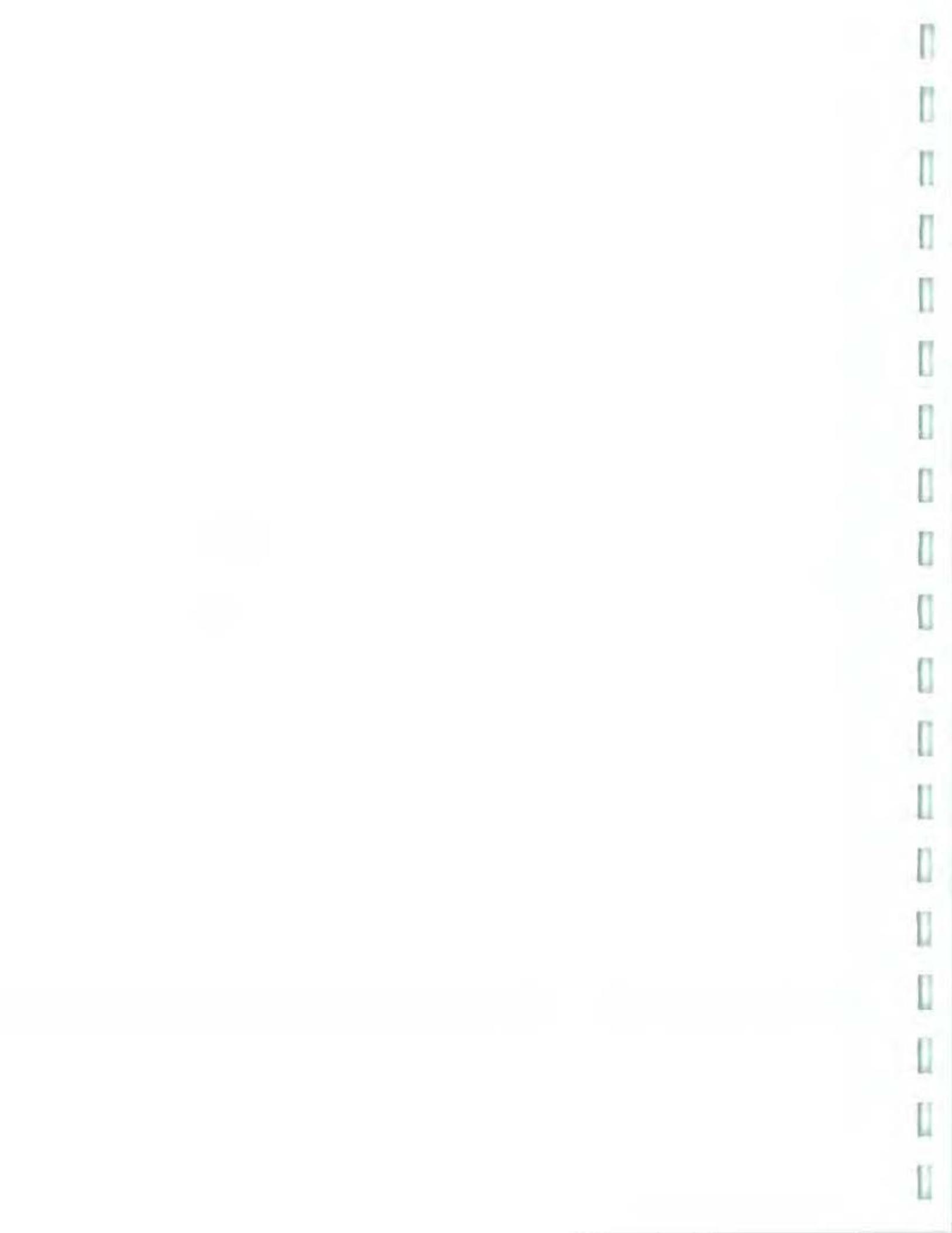


TABLE 3-3  
RESULTS OF VOC ANALYSIS - THIRD QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

Parameter	Units	ction Lev	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
			BN-S GROUNDWATER ARD2176	MW-28 GROUNDWATER ARD2177	MWT-1 GROUNDWATER TR2091	MWT-10 GROUNDWATER TR2097	MWT-11 GROUNDWATER TR2098
1,1,1,2-Tetrachloroethane	UG/L	5	0	7.6	7.2	5.75	8.21
1,1,1-Trichloroethane	UG/L	5	0	10.39	9.75	8.95	9.95
1,1,2,2-Tetrachloroethane	UG/L						
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	5		1 U			
1,1,2-Trichloroethane	UG/L	1	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,1-Dichloroethane	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,1-Dichloroethene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,1-Dichloropropene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,2,3-Trichloropropane	UG/L	0.04	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,2-Dibromo-3-chloropropane	UG/L	0.04	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,2-Dibromoethane	UG/L	0.0006	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,2-Dichlorobenzene	UG/L	3	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,2-Dichloroethane	UG/L	0.6	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,2-Dichloroethene (total)	UG/L	70					
1,2-Dichloropropane	UG/L	1	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,3-Dichlorobenzene	UG/L	3	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,3-Dichloropropane	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,4-Dichlorobenzene	UG/L	3	0.5 U	1 U	0.65 U	0.5 U	0.5 U
1,4-Dioxane	UG/L			50 R			
2,2-Dichloropropane	UG/L		0.5 U	1 U	0.65 U	0.5 U	0.5 U
2-Chloroethylvinylether	UG/L			1 U			
2-Chlorotoluene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
2-Nitropropane	UG/L		10 U		13 U	10 U	10 U
Acetone	UG/L		5 UJ	5 U	6.5 UJ	2 UJ	2.2 UJ
Acrolein	UG/L	5		5 R			
Acrylonitrile	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Allyl chloride	UG/L	5	0.5 U	1 U	0.65 U		0.5 U
Benzene	UG/L	1	0.5 U	1 U	0.65 U	0.65	0.5 U
Bromobenzene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Bromochloromethane	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Bromodichloromethane	UG/L	80	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Bromoform	UG/L	80	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Butyl chloride	UG/L	5	0.5 U		0.65 U	0.5 U	0.5 U
Carbon disulfide	UG/L		0.5 U	1 U	0.65 U	0.5 U	0.5 U
Carbon tetrachloride	UG/L	5	0.5 U	1 UJ	0.65 U	0.5 U	0.5 U
Chloroacetonitrile	UG/L		25 R		32 R	25 R	25 R

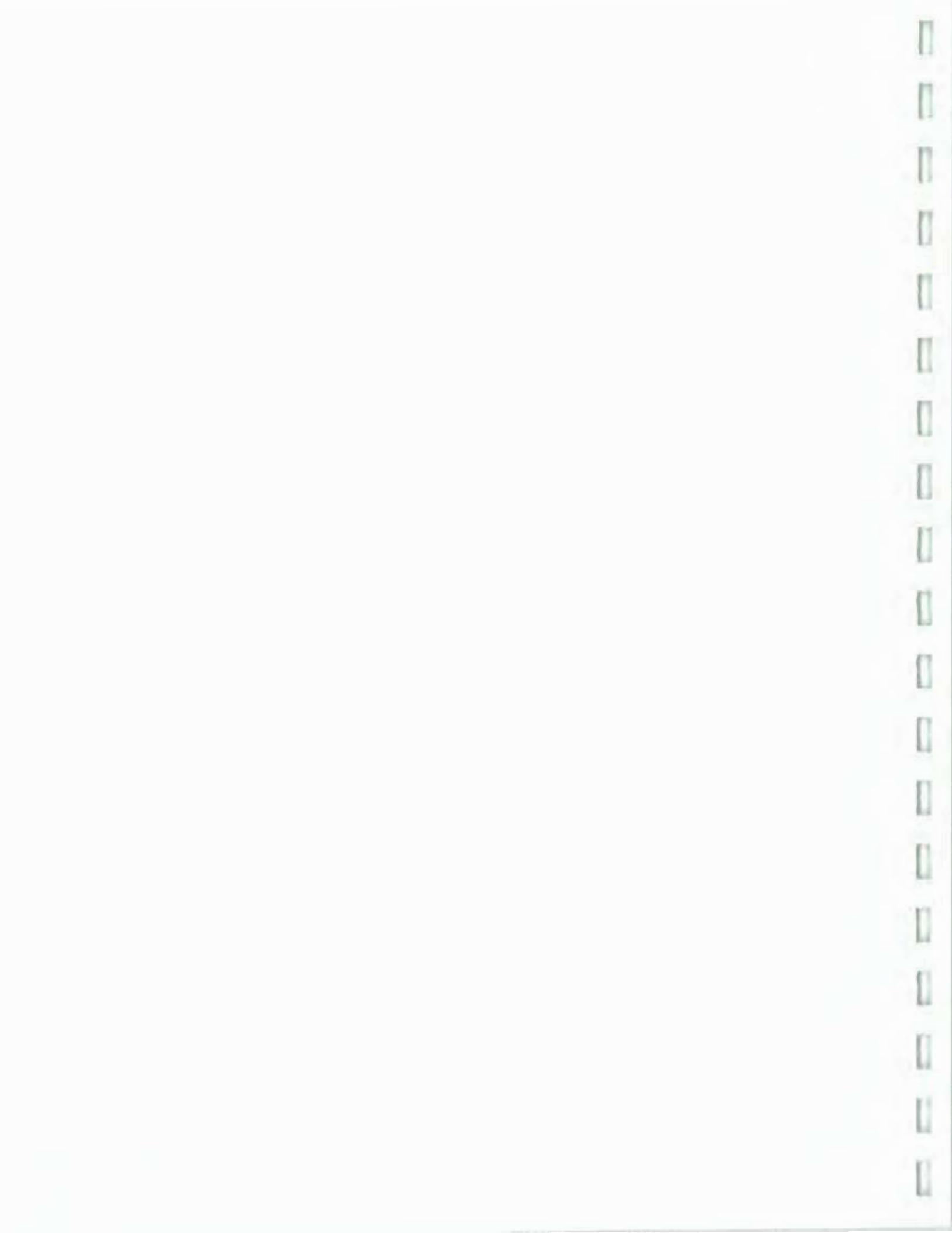
Dark Shade indicates concentration above detection limit  
Light Shade indicates concentration above action level



**TABLE 3-3**  
**RESULTS OF VOC ANALYSIS - THIRD QUARTER 2002**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Action Lev	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
			BN-S GROUNDWATER ARD2176	MW-28 GROUNDWATER ARD2177	MWT-1 GROUNDWATER TR2091	MWT-10 GROUNDWATER TR2097	MWT-11 GROUNDWATER TR2098
Chlorobenzene	UG/L	5	0	7.6	7.2	5.75	8.21
Chlorodibromomethane	UG/L	80	0	10.39	9.75	8.95	9.95
Chloroethane	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Chloroform	UG/L	7	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Chloroprene	UG/L	5		1 U			
Cis-1,2-Dichloroethene	UG/L	5	0.5 U	16	25		0.5 U
Cis-1,3-Dichloropropene	UG/L	0.4	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Dichlorodifluoromethane	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Dichloromethyl methyl ketone	UG/L		10 R		13 R	10 R	10 R
Ethyl benzene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Ethyl ether	UG/L		0.5 U		0.65 U	0.5 U	0.5 U
Ethyl methacrylate	UG/L		0.5 U	1 U	0.65 U	0.5 U	0.5 U
Hexachlorobutadiene	UG/L	0.5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Hexachloroethane	UG/L	5	0.5 U		0.65 U	0.5 U	0.5 U
Isobutyl alcohol	UG/L			50 R			
Isopropylbenzene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Methacrylonitrile	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Methyl 2-propenone	UG/L		0.5 U		0.65 U	0.5 U	0.5 U
Methyl Tertbutyl Ether	UG/L		16	1 U	0.65 U	0.5 U	0.5 U
Methyl bromide	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Methyl butyl ketone	UG/L		2.5 UJ	5 U	3.2 UJ	2.5 UJ	2.5 UJ
Methyl chloride	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Methyl ethyl ketone	UG/L		5 R	5 R	6.5 R	5 R	5 R
Methyl iodide	UG/L	5	0.5 U	1 UJ	0.65 U	0.5 U	0.5 U
Methyl isobutyl ketone	UG/L		2.5 U	5 U	3.2 U	2.5 U	2.5 U
Methyl methacrylate	UG/L	50	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Methylene bromide	UG/L	5	0.5 UJ	1 UJ	0.65 UJ	0.5 UJ	0.5 UJ
Methylene chloride	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Naphthalene	UG/L		0.5 U	1 U	0.65 U	0.5 U	0.5 U
Nitrobenzene	UG/L	0.4	25 R		32 R	25 R	25 R
Ortho Xylene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Pentachloroethane	UG/L	5	0.5 U		0.65 U	0.5 U	0.5 U
Propionitrile	UG/L		25 R	4 R	32 R	25 R	25 R
Propylbenzene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Styrene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Tetrachloroethene	UG/L	5	0.5 UJ	1 U	0.65 UJ	0.5 UJ	0.5 UJ
Tetrahydrofuran	UG/L		2.5 U	14 U	3.2 U	2.5 U	2.5 U
Toluene	UG/L	5	0.5 U	1 U	0.65 U	0.5 UJ	0.5 U
Total Xylenes	UG/L	5	0.5 U		0.65 U	0.5 U	0.5 U
Total Xylenes-A	UG/L			1 U			

Dark Shade indicates concentration above detection limit  
Light Shade indicates concentration above action level



**TABLE 3-3**  
**RESULTS OF VOC ANALYSIS - THIRD QUARTER 2002**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Action Lev	ASH LANDFILL				
			BN-S	MW-28	MWT-1	MWT-10	MWT-11
GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
ARD2176	ARD2177	TR2091	TR2097	TR2098			
	0	7.6	7.2	5.75	8.21		
	0	10.39	9.75	8.95	9.95		
	8/16/02	8/16/02	8/15/02	8/16/02	8/16/02		
SA	SA	SA	SA	SA	SA		
ASH REMEDIAL	ASH REMEDIAL	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH		
	18	18	18	18	18		
	18	18	18	18	18		
Trans-1,2-Dichloroethene	UG/L	5	0.5 U	0.65 U	0.5 U	0.5 U	
Trans-1,3-Dichloropropene	UG/L	0.4	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-butene	UG/L		0.5 U	1 U	0.65 U	0.5 U	0.5 U
Trichloroethene	UG/L	5	0.5 U	20	6	0.5 U	0.25 U
Trichlorofluoromethane	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
Vinyl acetate	UG/L			1 U			
Vinyl chloride	UG/L			1 U			
cis-1,4-Dichloro-2-butene	UG/L			1 U			
n-Butylbenzene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
p-Chlorotoluene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
p-Isopropyltoluene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
sec-Butylbenzene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U
tert-Butylbenzene	UG/L	5	0.5 U	1 U	0.65 U	0.5 U	0.5 U

Dark Shade indicates concentration above detection limit  
Light Shade indicates concentration above action level

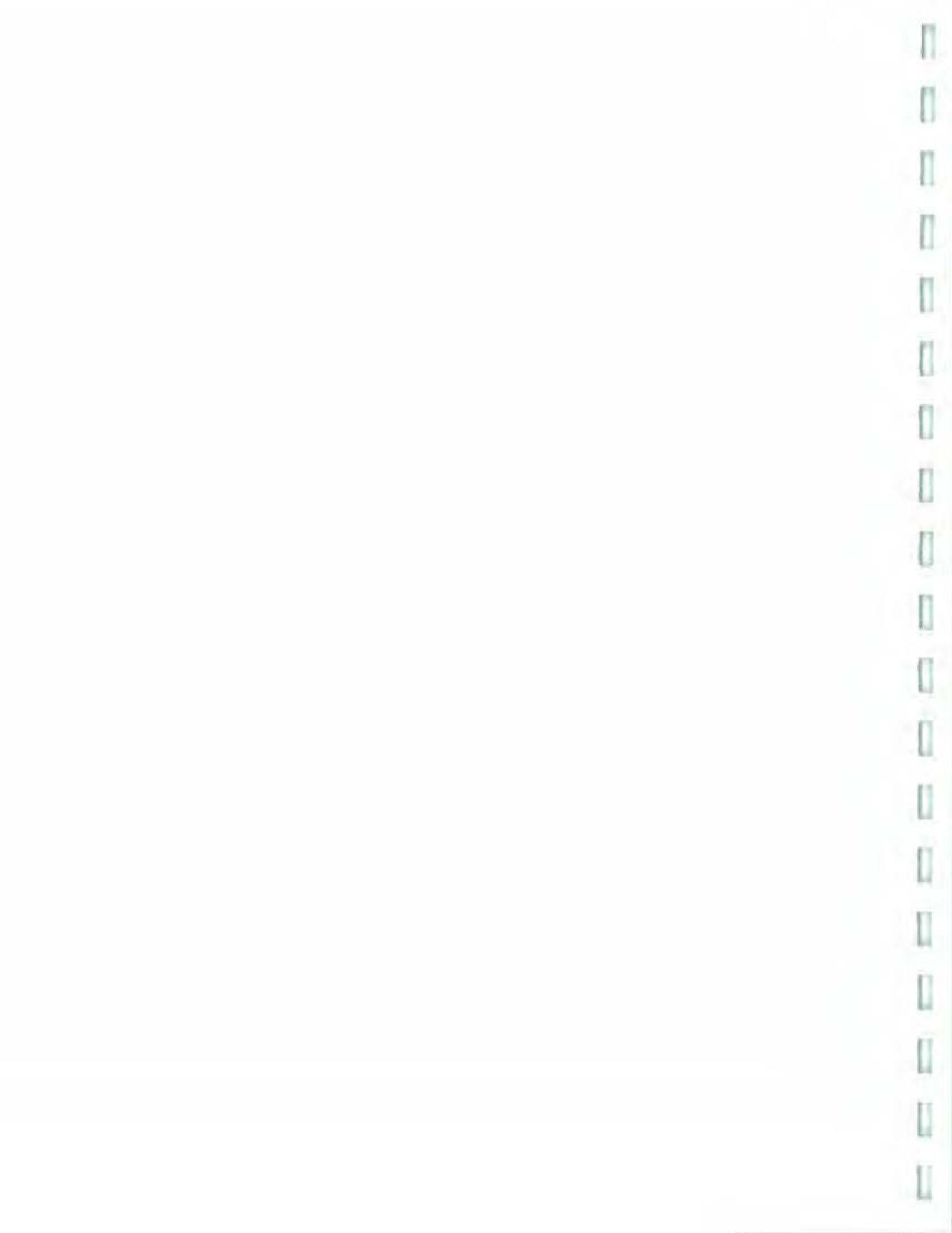


TABLE 3-3  
RESULTS OF VOC ANALYSIS - THIRD QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

Parameter	Units	Action Lev	ASH LANDFILL								
			MWT-3	MWT-4	MWT-6	MWT-6	MWT-7	MWT-9	PT-24	PT-24	
			GROUNDWATER								
			TR2092	TR2093	TR2094	TR2099	TR2095	TR2096	ARD2180	ARD2181	
			7.35	8.75	9	9	10.25	11.48	7.35	7.35	
			10	12.28	12.42	12.42	13.92	14.08	11.88	11.88	
			8/15/02	8/15/02	8/15/02	8/15/02	8/15/02	8/16/02	8/15/02	8/15/02	
			SA								
			ASH TRENCH	ASH REMEDIAL	ASH REMEDIAL						
			18	18	18	18	18	18	18	18	
1,1,1,2-Tetrachloroethane	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,1,1-Trichloroethane	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,1,2,2-Tetrachloroethane	UG/L		0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/L	5							2.4 U	2.7 U	
1,1,2-Trichloroethane	UG/L	1	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,1-Dichloroethane	UG/L	5	0.5 U	3 U	[REDACTED]	[REDACTED]	14 U	4.4 U	[REDACTED] U	2.7 U	
1,1-Dichloroethene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,1-Dichloropropene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,2,3-Trichlorobenzene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,2,3-Trichloropropane	UG/L	0.04	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,2,4-Trichlorobenzene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,2,4-Trimethylbenzene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,2-Dibromo-3-chloropropane	UG/L	0.04	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,2-Dibromoethane	UG/L	0.0006	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,2-Dichlorobenzene	UG/L	3	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,2-Dichloroethane	UG/L	0.6	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,2-Dichloroethene (total)	UG/L	70							[REDACTED]	73	
1,2-Dichloropropane	UG/L	1	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,3,5-Trimethylbenzene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,3-Dichlorobenzene	UG/L	3	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,3-Dichloropropane	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,4-Dichlorobenzene	UG/L	3	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
1,4-Dioxane	UG/L								120 R	140 R	
2,2-Dichloropropane	UG/L		0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
2-Chloroethylvinylether	UG/L								2.4 U	2.7 U	
2-Chlorotoluene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
2-Nitropropane	UG/L		10 U	61 U	10 U	10 U	280 U	88 U			
Acetone	UG/L			5 UJ	30 UJ	5 UJ	140 UJ	44 UJ	[REDACTED] J	[REDACTED] J	
Acrolein	UG/L	5							12 R	14 R	
Acrylonitrile	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Allyl chloride	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Benzene	UG/L	1	[REDACTED] J	3 U	[REDACTED] J	[REDACTED] J	14 U	4.4 U	2.4 U	2.7 U	
Bromobenzene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Bromochloromethane	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Bromodichloromethane	UG/L	80	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Bromoform	UG/L	80	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Butyl chloride	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Carbon disulfide	UG/L		0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Carbon tetrachloride	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 UJ	2.7 UJ	
Chloroacetonitrile	UG/L			25 R	150 R	25 R	25 R	690 R	220 R		

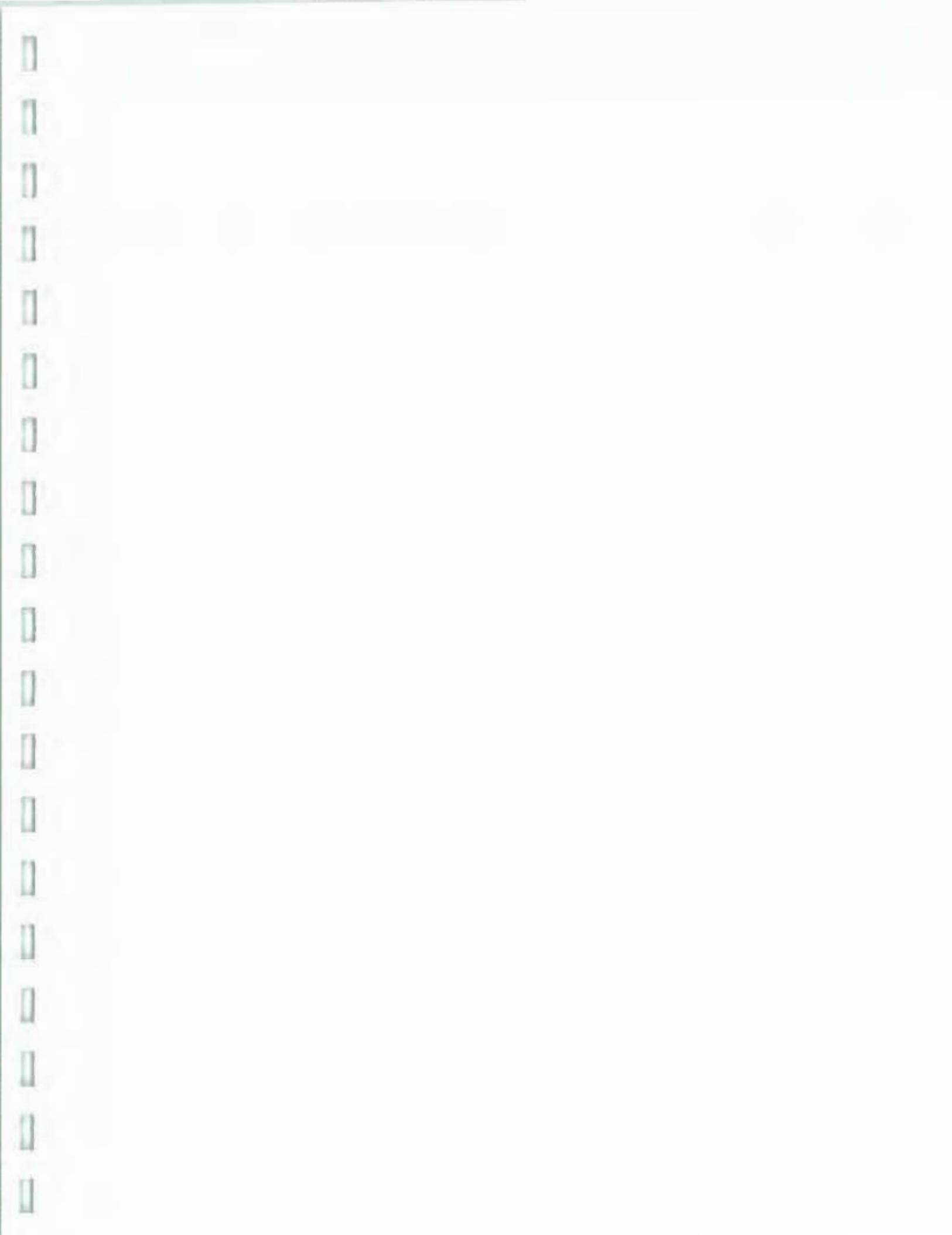
Dark Shade indicates concentration above detection limit  
Light Shade indicates concentration above action level



**TABLE 3-3**  
**RESULTS OF VOC ANALYSIS - THIRD QUARTER 2002**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Action Level	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL						
			MWT-3 GROUNDWATER TR2092	MWT-4 GROUNDWATER TR2093	MWT-6 GROUNDWATER TR2094	MWT-6 GROUNDWATER TR2099	MWT-7 GROUNDWATER TR2095	MWT-9 GROUNDWATER TR2096	PT-24 GROUNDWATER ARD2180	PT-24 GROUNDWATER ARD2181	
Chlorobenzene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Chlorodibromomethane	UG/L	80	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Chloroethane	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Chloroform	UG/L	7	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Chloroprene	UG/L	5							2.4 U	2.7 U	
Cis-1,2-Dichloroethene	UG/L	5	20	95	19	23	32	170	66	71	
Cis-1,3-Dichloropropene	UG/L	0.4	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Dichlorodifluoromethane	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Dichloromethyl methyl ketone	UG/L		10 R	61 R	10 R	10 R	280 R	88 R			
Ethyl benzene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Ethyl ether	UG/L		0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U			
Ethyl methacrylate	UG/L		0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Hexachlorobutadiene	UG/L	0.5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Hexachloroethane	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U			
Isobutyl alcohol	UG/L								120 R	140 R	
Isopropylbenzene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Methacrylonitrile	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Methyl 2-propenoate	UG/L		0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U			
Methyl Tertbutyl Ether	UG/L		0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Methyl bromide	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Methyl butyl ketone	UG/L		2.5 UJ	15 UJ	2.5 UJ	2.5 UJ	69 UJ	22 UJ	12 U	14 U	
Methyl chloride	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Methyl ethyl ketone	UG/L		5 R	30 R	5 R	5 R	140 R	44 R	12 R	14 R	
Methyl iodide	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 UJ	2.7 UJ	
Methyl isobutyl ketone	UG/L		2.5 U	15 U	2.5 U	2.5 U	69 U	22 U	12 U	14 U	
Methyl methacrylate	UG/L	50	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Methylene bromide	UG/L	5	0.5 UJ	3 UJ	0.5 UJ	0.5 UJ	14 UJ	4.4 UJ	2.4 UJ	2.7 UJ	
Methylene chloride	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	16 J	19 J	
Naphthalene	UG/L		0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Nitrobenzene	UG/L	0.4	25 R	150 R	25 R	25 R	690 R	220 R			
Ortho Xylene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Pentachloroethane	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U			
Propionitrile	UG/L		25 R	150 R	25 R	25 R	690 R	220 R	9.6 R	11 R	
Propylbenzene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Styrene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Tetrachloroethene	UG/L	5	0.5 UJ	3 UJ	0.5 UJ	0.5 UJ	14 UJ	4.4 UJ	2.4 U	2.7 U	
Tetrahydrofuran	UG/L		2.5 U	15 U	2.5 U	2.5 U	69 U	22 U	34 U	38 U	
Toluene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
Total Xylenes	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U			
Total Xylenes-A	UG/L							2.4 U	2.7 U		

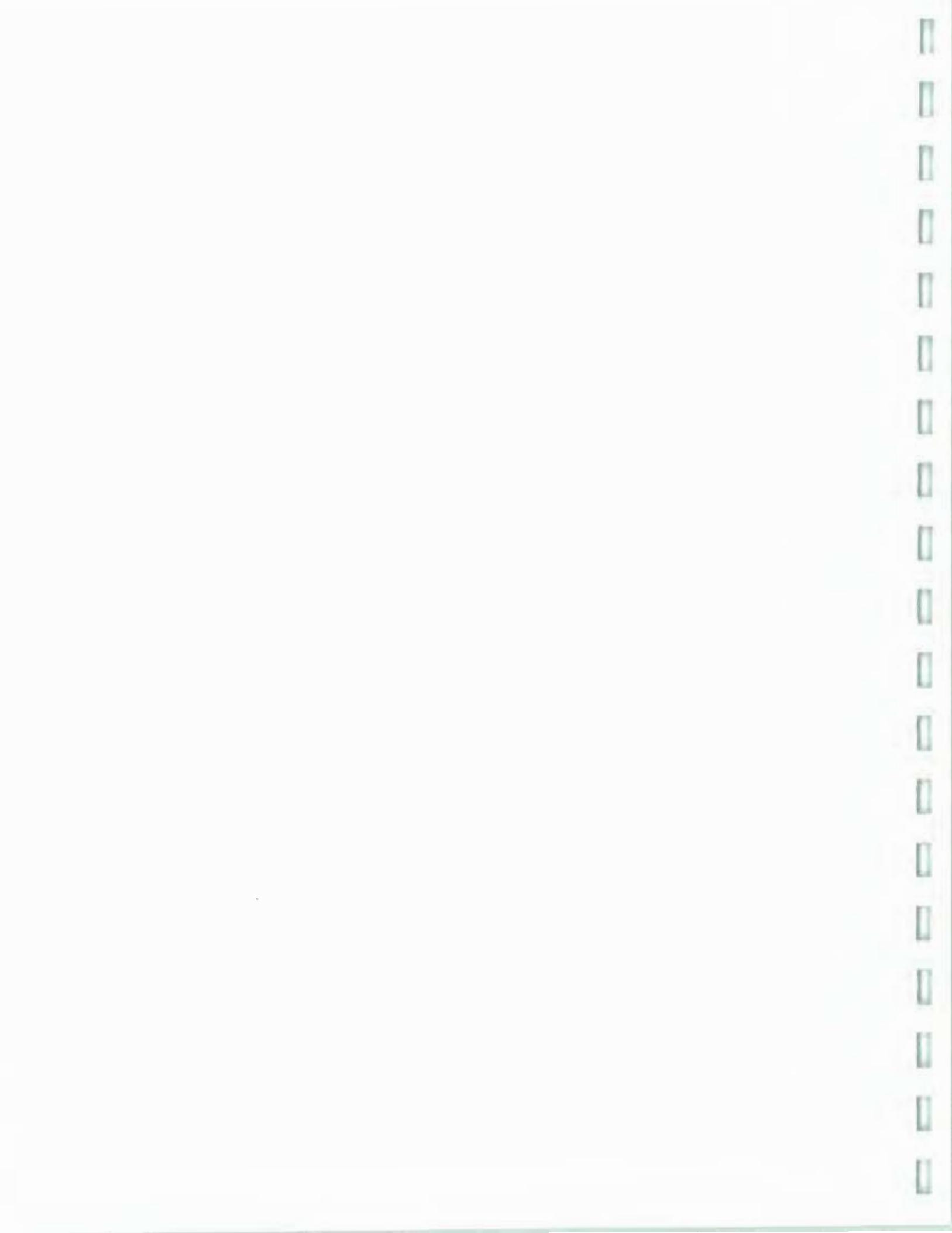
Dark Shade indicates concentration above detection limit  
Light Shade indicates concentration above action level



**TABLE 3-3**  
**RESULTS OF VOC ANALYSIS - THIRD QUARTER 2002**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Action Lev	ASH LANDFILL								
			MWT-3	MWT-4	MWT-6	MWT-6	MWT-7	MWT-9	PT-24	PT-24	
Trans-1,2-Dichloroethene	UG/L	5	7.35	8.75	9	9	10.25	11.48	7.35	7.35	
Trans-1,3-Dichloropropene	UG/L	0.4	10	12.28	12.42	12.42	13.92	14.08	11.88	11.88	
Trans-1,4-Dichloro-2-butene	UG/L		8/15/02	8/15/02	8/15/02	8/15/02	8/15/02	8/16/02	8/15/02	8/15/02	
Trichloroethene	UG/L	5	SA								
Trichlorofluoromethane	UG/L	5	ASH TRENCH	ASH REMEDIAL	ASH REMEDIAL						
Vinyl acetate	UG/L		18	18	18	18	18	18	18	18	
Vinyl chloride	UG/L										
cis-1,4-Dichloro-2-butene	UG/L	2	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
n-Butylbenzene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
p-Chlorotoluene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
p-Isopropyltoluene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
sec-Butylbenzene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	
tert-Butylbenzene	UG/L	5	0.5 U	3 U	0.5 U	0.5 U	14 U	4.4 U	2.4 U	2.7 U	

Dark Shade indicates concentration above detection limit  
Light Shade indicates concentration above action level

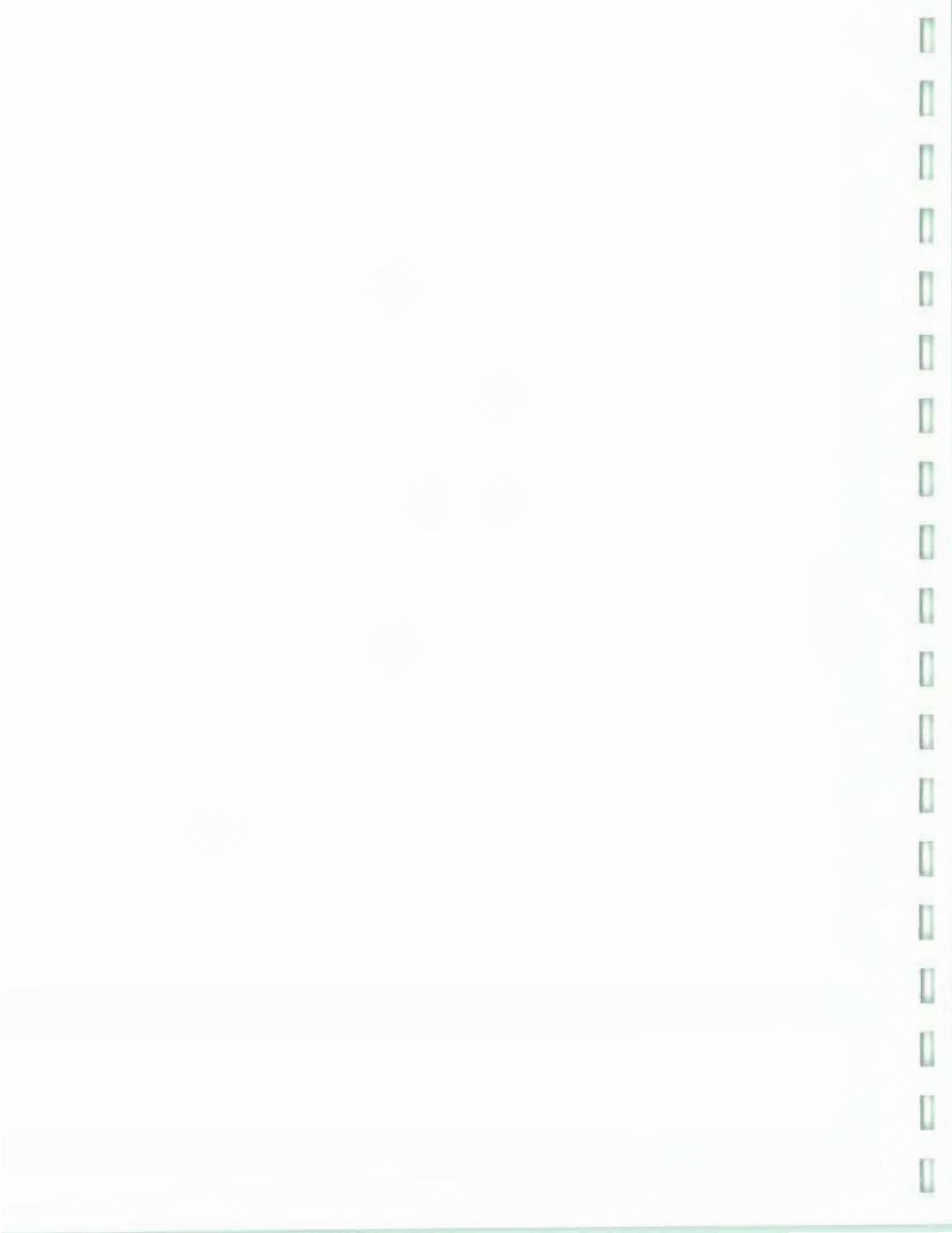


**TABLE 3-4**  
**SUMMARY OF VOC DETECTIONS**  
**GROUNDWATER MONITORING-ASH LANDFILL**  
**August 2002**  
**SENECA ARMY DEPOT**

Parameter	Groundwater Standard <sup>(1)</sup>	Units	PT-24	MW-28	BN-S	MWT-1	MWT-3	MWT-4	MWT-6	MWT-7	MWT-9	MWT-10	MWT-11
Chloroform	7.0	ug/l	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	5.0	ug/l	0.6J	--	--	--	--	--	0.51	--	--	--	--
1,2-Dichloroethene (Total)	70	ug/l	68.5	17	--	25	21	95	21	32	170	0.8	--
Acetone	NS	ug/l	8.9J	--	--	--	--	--	--	--	--	--	--
Allyl chloride	5	ug/l	--	--	--	--	--	--	--	--	--	0.63	--
Benzene	1.0	ug/l	--	--	--	--	0.22J	--	0.43J	--	--	0.65	--
Cis-1,2-Dichloroethene	5.0	ug/l	69.5	16	--	25	20	95	21	32	170	0.8	--
Methyl Tertbutyl Ether	10	ug/l	--	--	0.6	--	--	--	--	--	--	--	--
Methylene Chloride	5.0	ug/l	1.8J	--	--	--	--	--	--	--	--	--	--
Toluene	5.0	ug/l	--	--	--	--	--	--	--	--	--	0.28J	--
Trans-1,2-Dichloroethene	5.0	ug/l	--	0.3J	--	--	0.55	--	--	--	--	--	--
Trichloroethene	5.0	ug/l	4	20	--	6	3.5	3.7	0.53J	540	140	--	0.29J

Notes:

- (1) The groundwater standard is the lower value of the following:  
 New York State Class GA Groundwater Standard  
 Federal Primary or Secondary Drinking Water Maximum Contaminant Levels
- (2) NS = No Standard
- (3) Shaded values exceed the groundwater standard.
- (4) Only those parameters that were detected are shown.
- (5) The average value was used for MWT-6 and PT-24 where duplicate samples were collected.



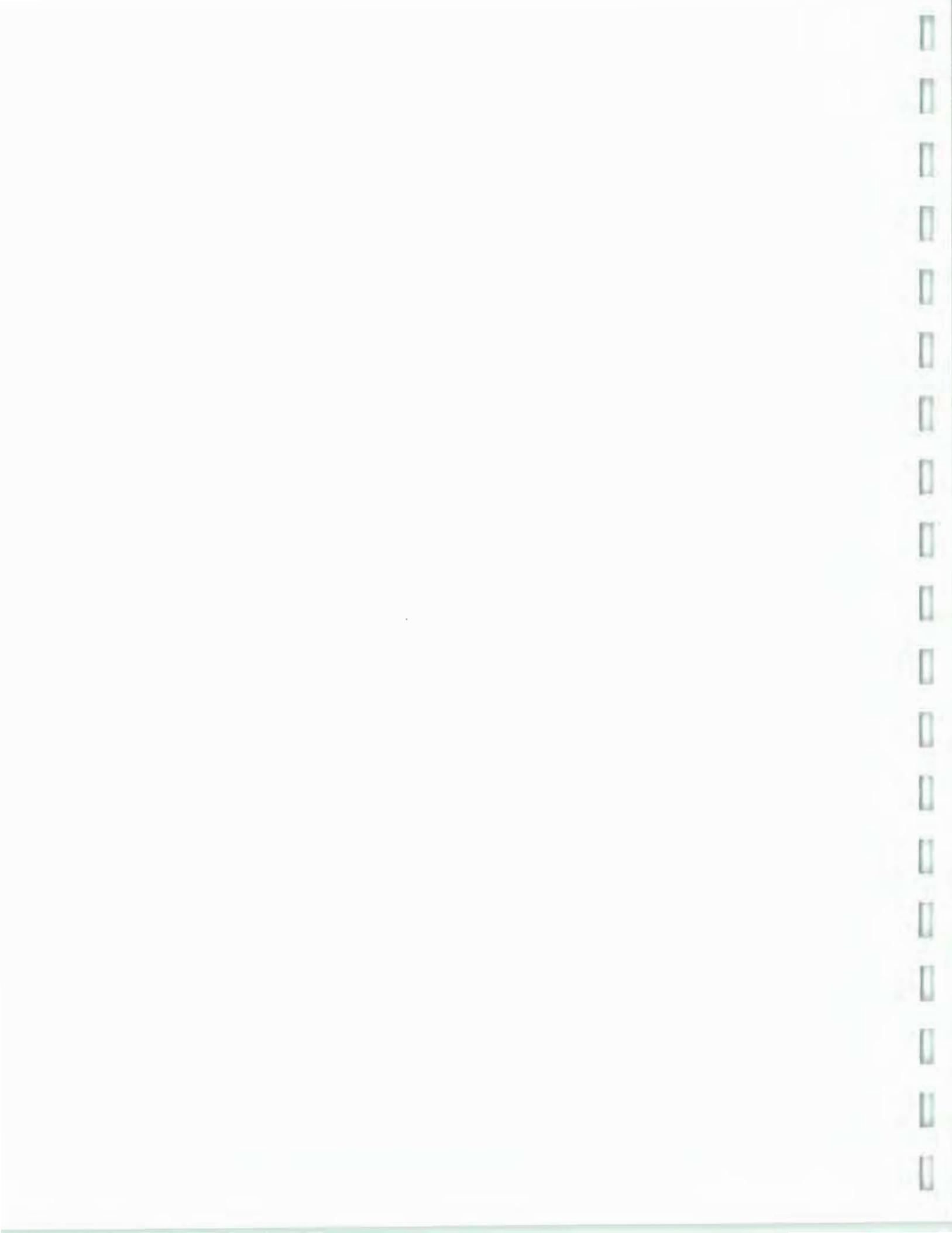
**Table 3-5**  
**Historic TCE and DCE Concentrations Downgradient of PRB**

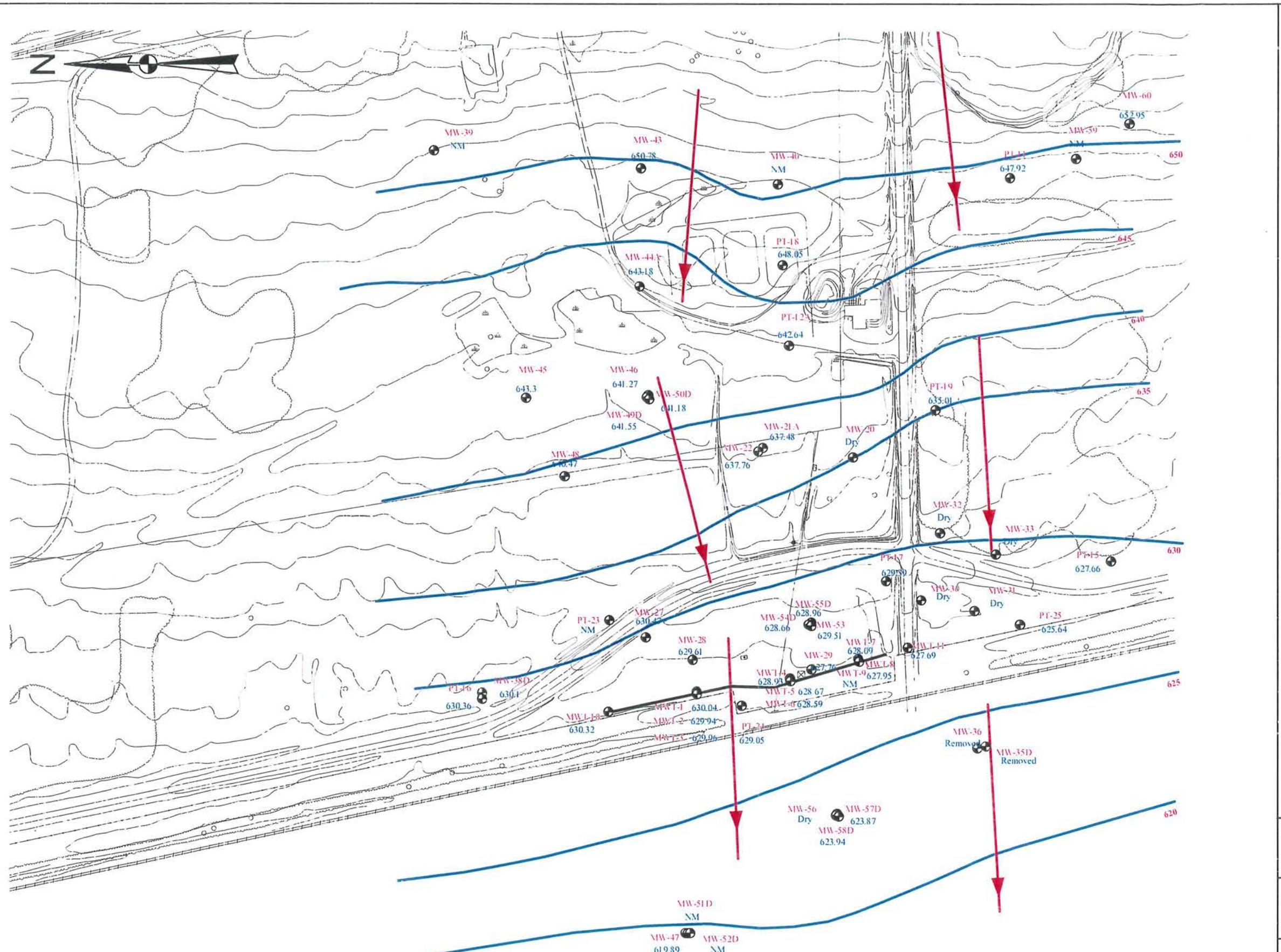
**Seneca Army Depot**

	<b>Groundwater Standard <sup>(1)</sup></b>	<b>Units</b>	<b>April-99</b>	<b>September-02</b>	<b>April-02</b>	<b>August-02</b>
<b>Trichloroethene</b>						
MWT-3	5.0	ug/l	1.0 J	6.5	5.2	3.5
MWT-6	5.0	ug/l	ND	0.9	ND	0.53J
MWT-9	5.0	ug/l	43	28	100	140
<b>Cis 1,2-Dichloroethene</b>						
MWT-3	70	ug/l	27	26	28	20
MWT-6	70	ug/l	3.0	28	8.2	21
MWT-9	70	ug/l	32	160	82	170

Notes:

- (1) The groundwater standard is the lower value of the following:  
 New York State Class GA Groundwater Standard  
 Federal Primary or Secondary Drinking Water Maximum Contaminant Levels



**NOTES:**

GROUNDWATER MEASUREMENTS  
TAKEN IN AUGUST 2002

GROUNDWATER ELEVATIONS CONTOURS  
BASED ON CONDITIONS AT THE TIME  
OF MEASUREMENT. GROUNDWATER  
CONDITIONS AT OTHER TIMES  
MAY VARY.

250' 0 250'

SCALE: 1" = 250'

**PARSONS**

SENECA ARMY DEPOT ACTIVITY

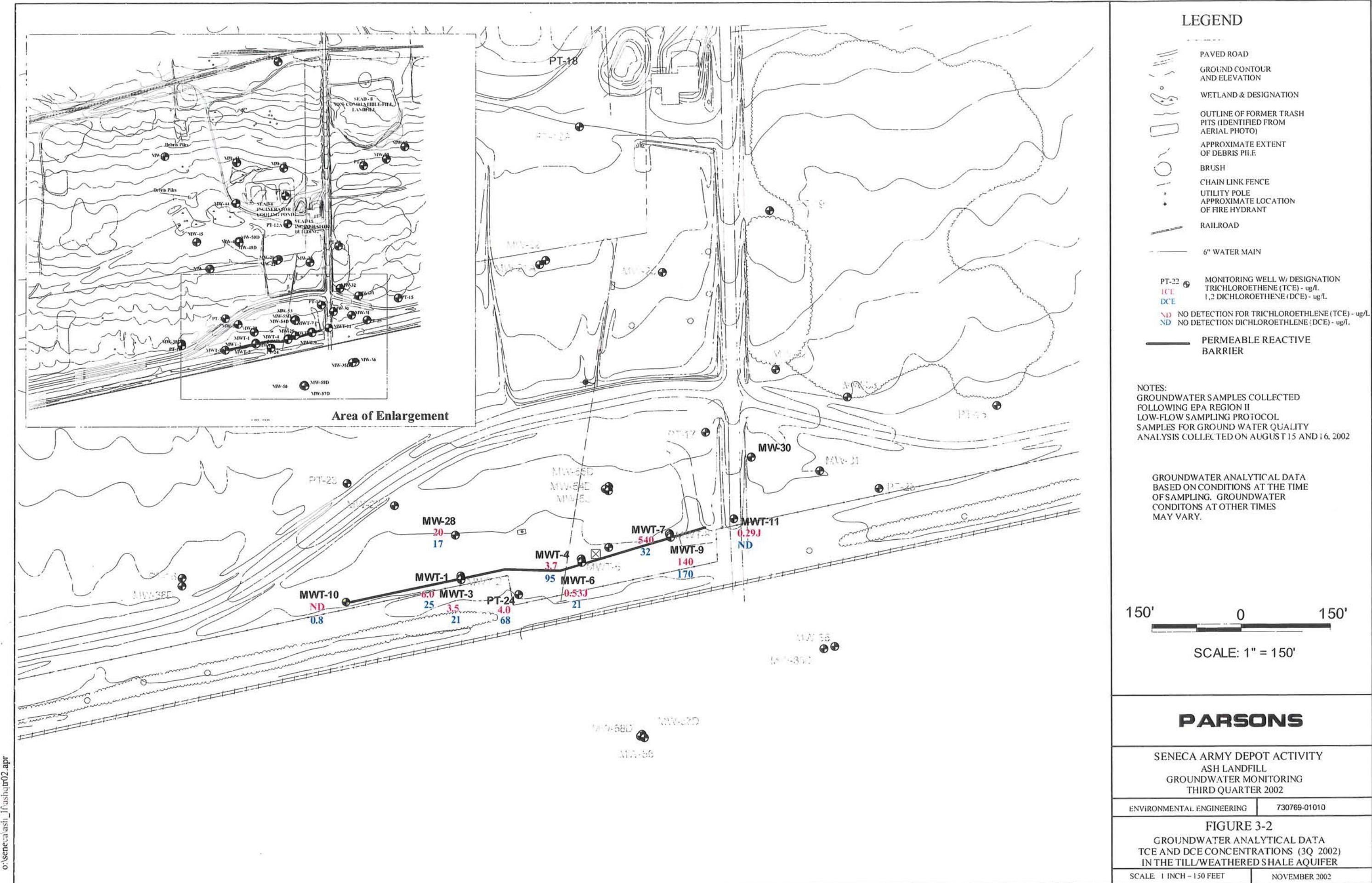
ASH LANDFILL  
GROUNDWATER MONITORING  
THIRD QUARTER 2002

ENVIRONMENTAL ENGINEERING 730769-01010

**FIGURE 3-1**  
GROUNDWATER ELEVATION CONTOURS  
IN THE  
TILL/WEATHERED SHALE AQUIFER (3Q 2002)

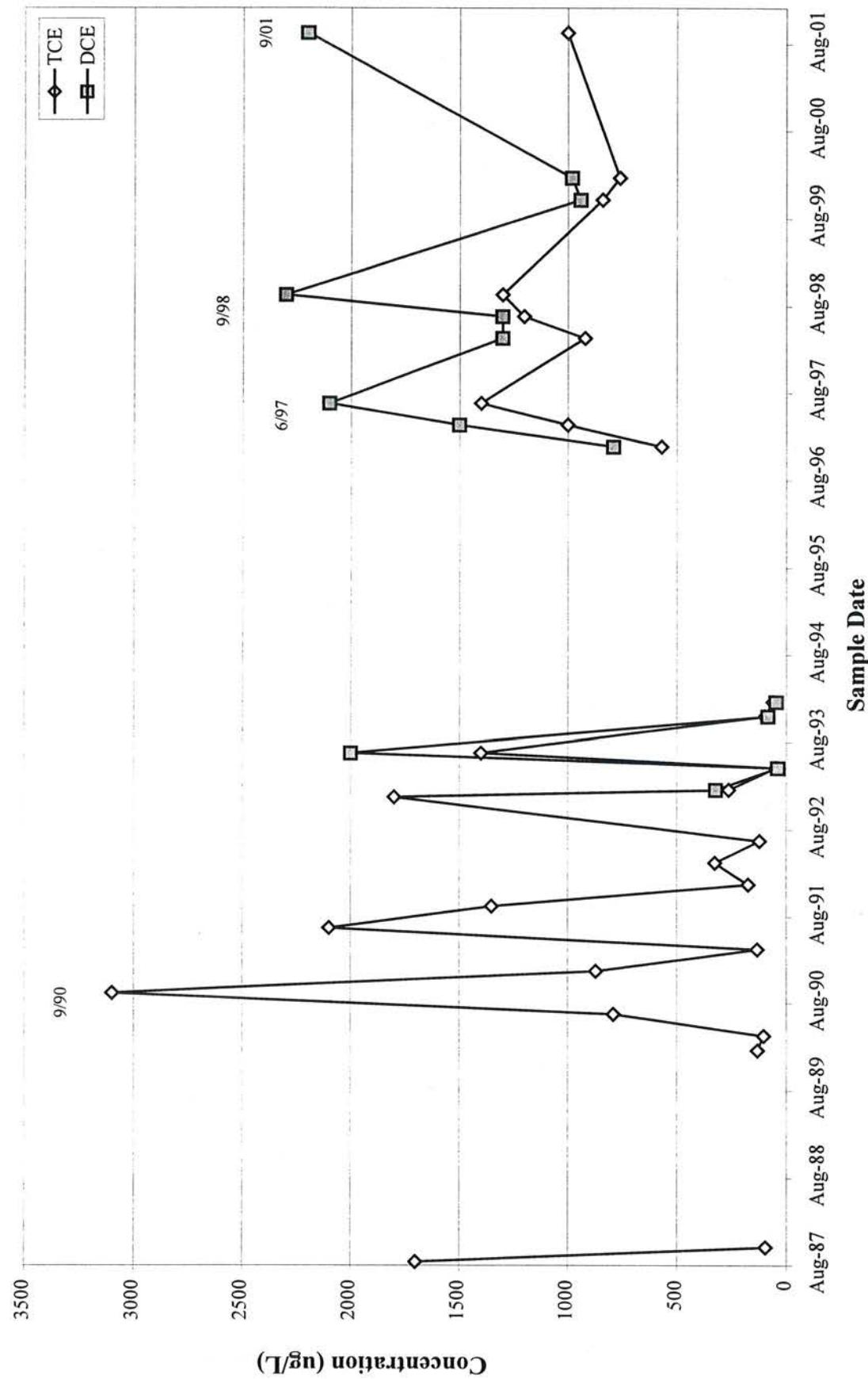
SCALE: 1 INCH = 250 FEET November 2002





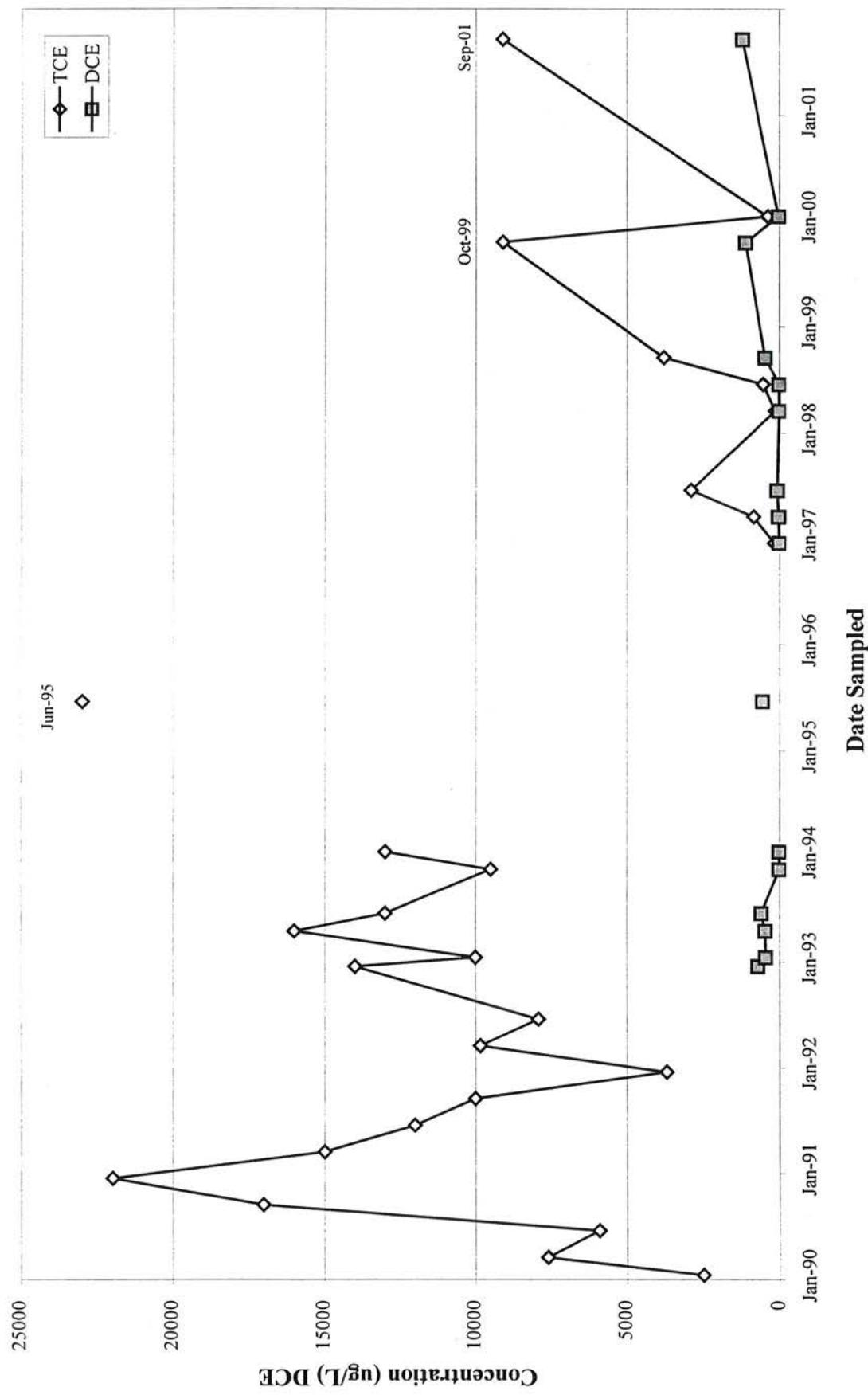


**FIGURE 3-3**  
**HISTORIC TCE AND DCE CONCENTRATIONS AT PT-12A**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**



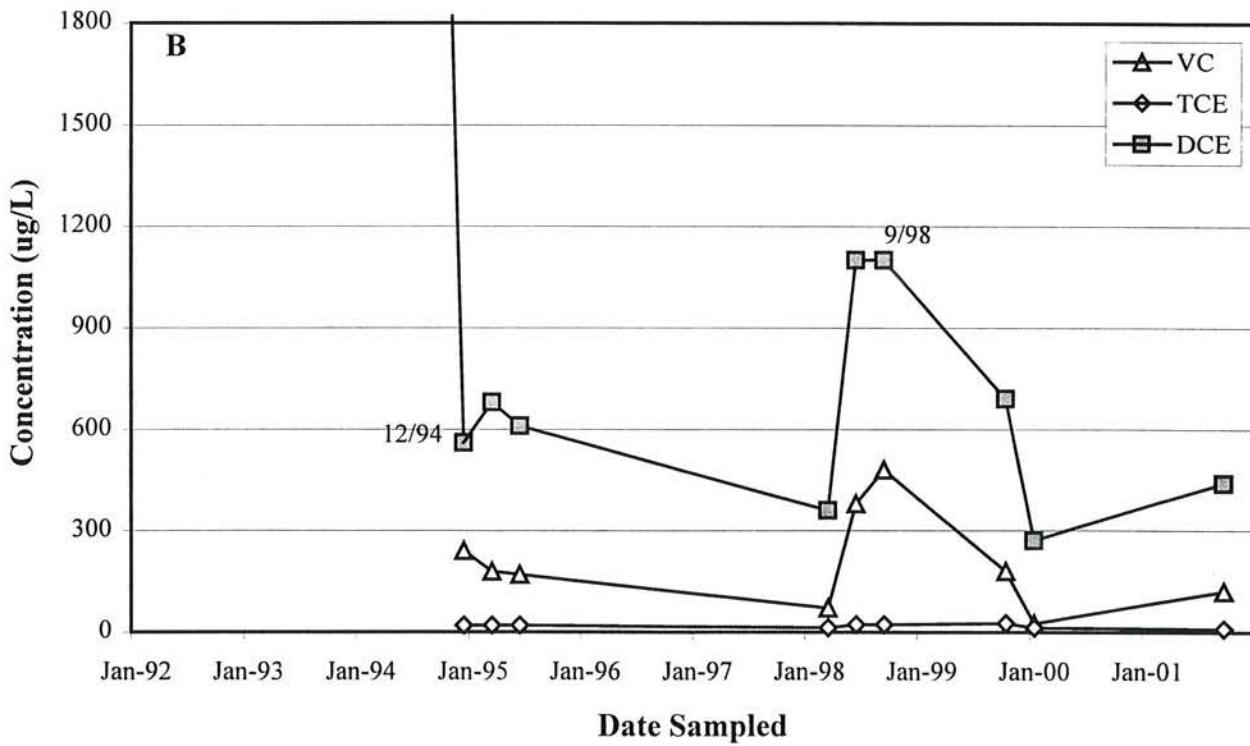
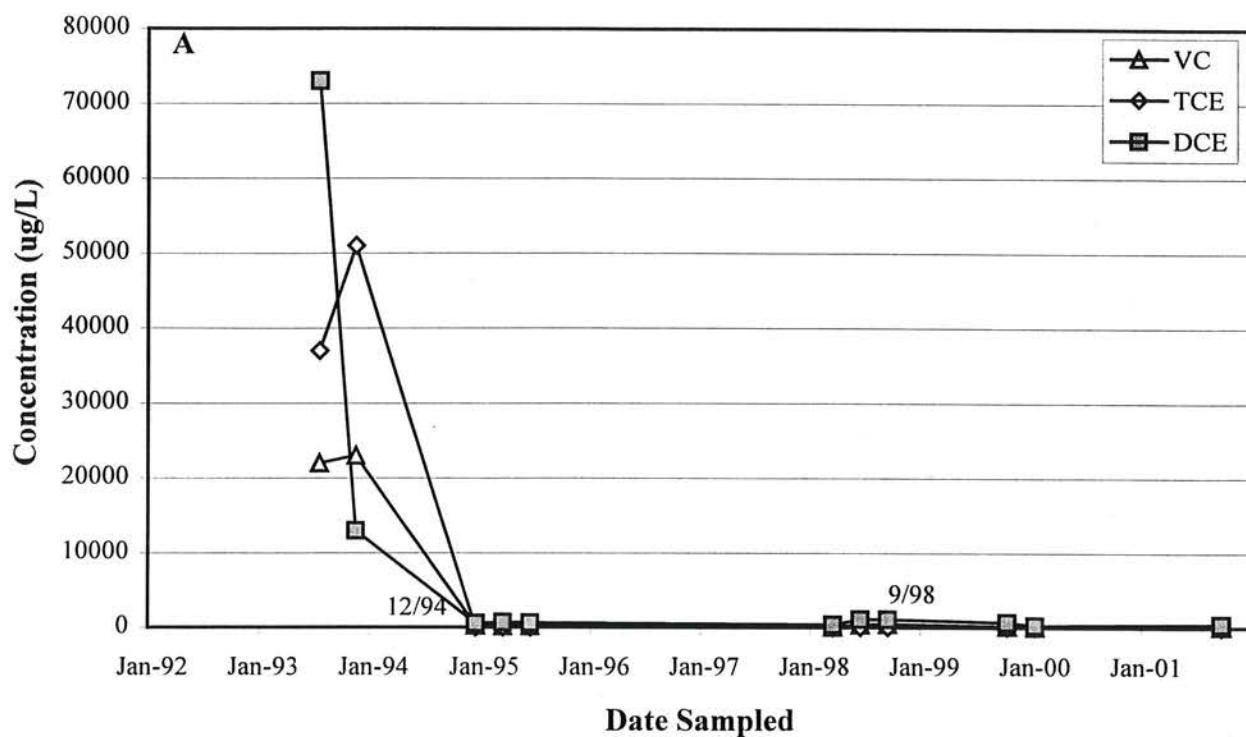


**FIGURE 3-4**  
**HISTORIC TCE AND DCE CONCENTRATIONS AT PT-18**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**





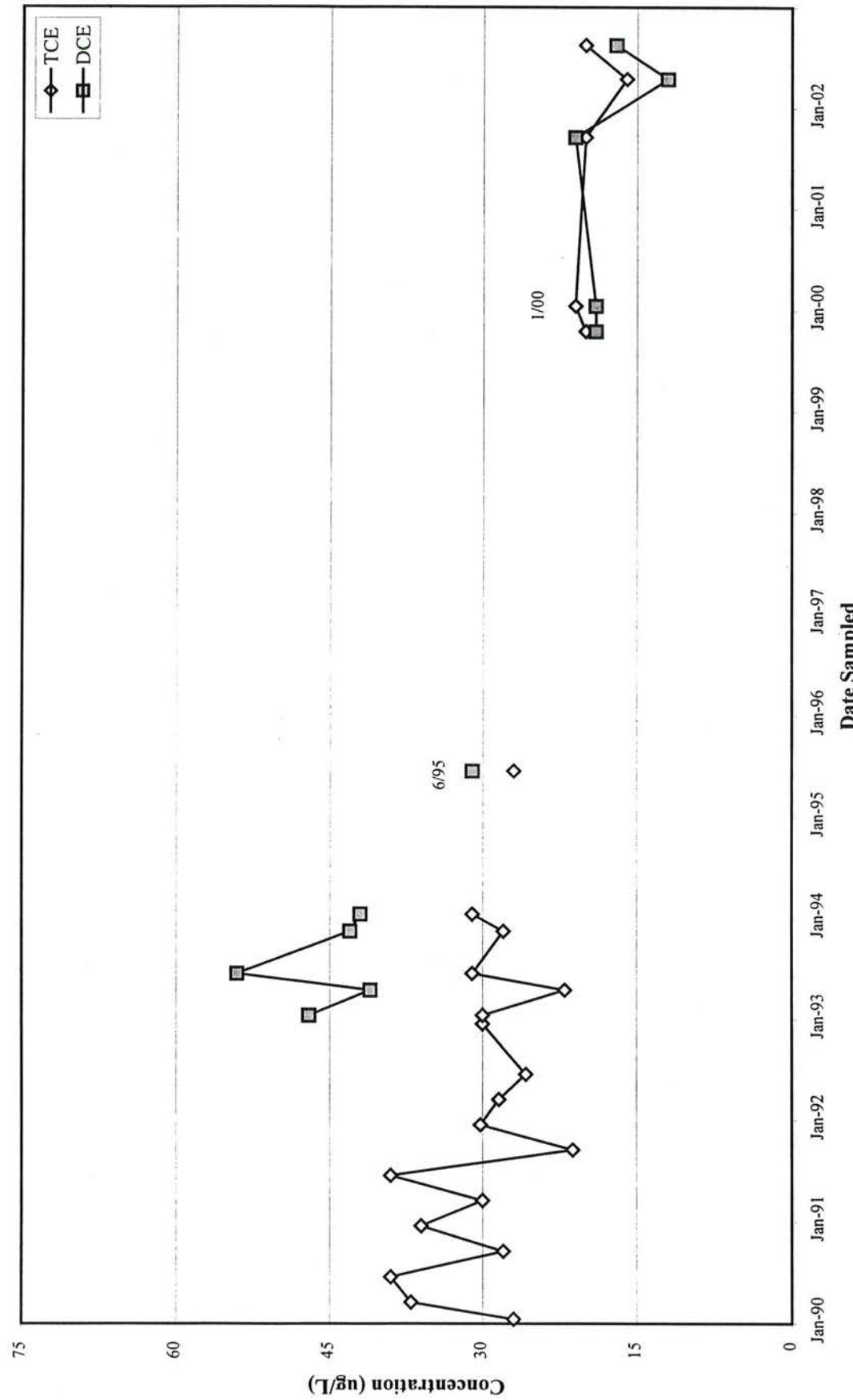
**FIGURE 3-5**  
**HISTORIC TCE, DCE, AND VINYL CHLORIDE CONCENTRATIONS AT MW -44A**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

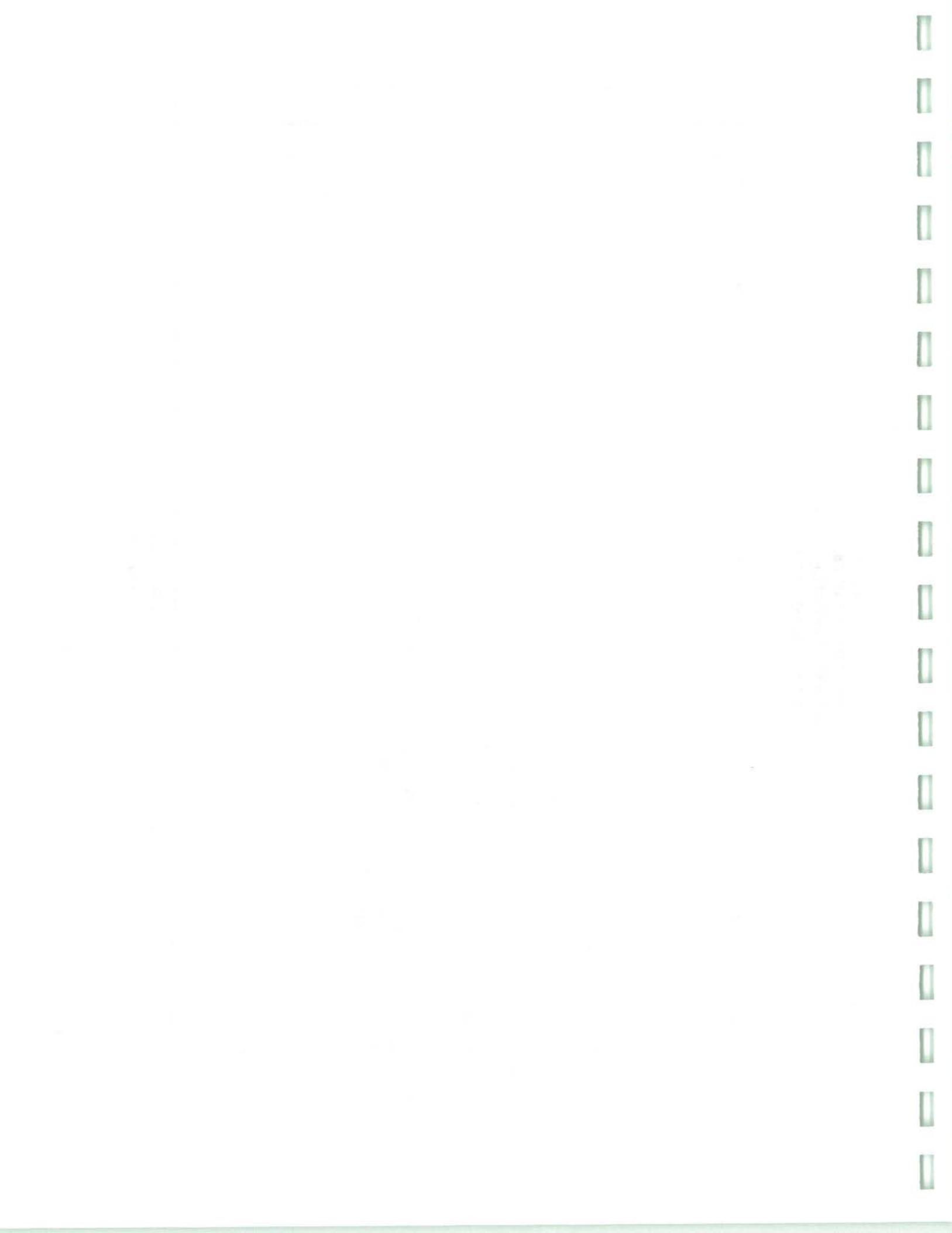


historic chart.xls; mw44a chart

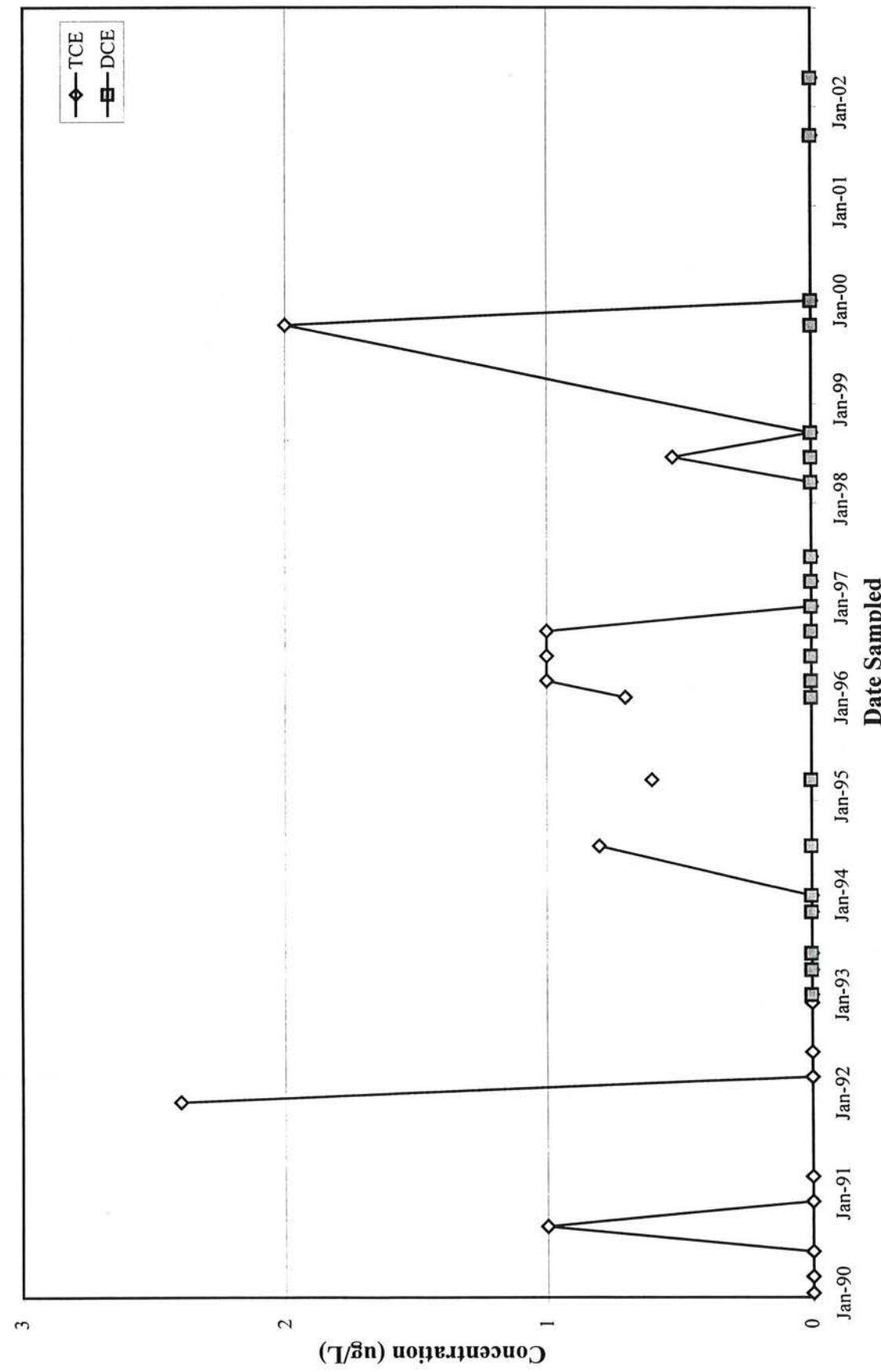


**FIGURE 3-6**  
**HISTORIC TCE AND DCE CONCENTRATIONS AT MW-28**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**





**FIGURE 3-7**  
**HISTORIC TCE AND DCE CONCENTRATIONS AT MW-30**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**



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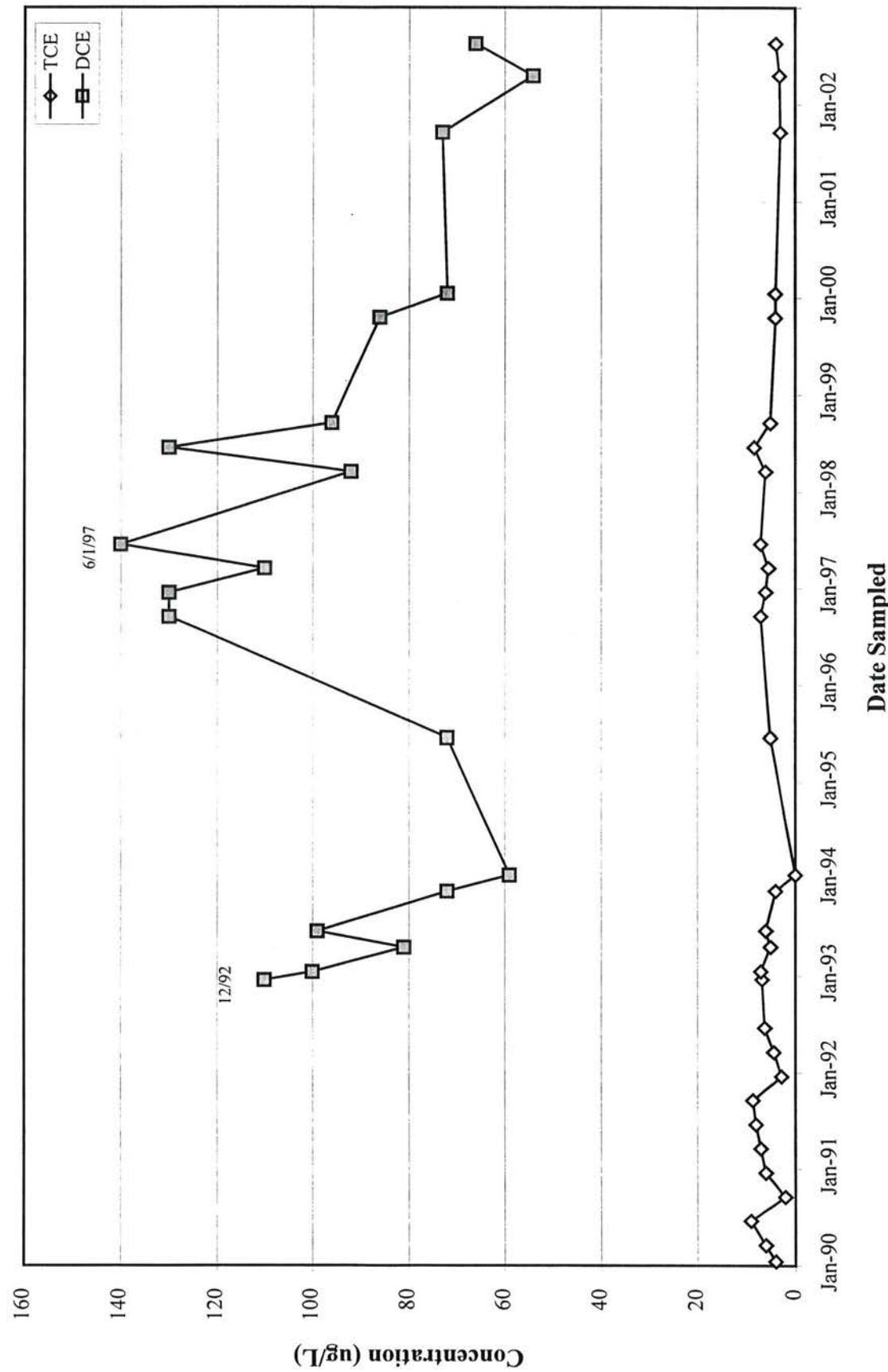
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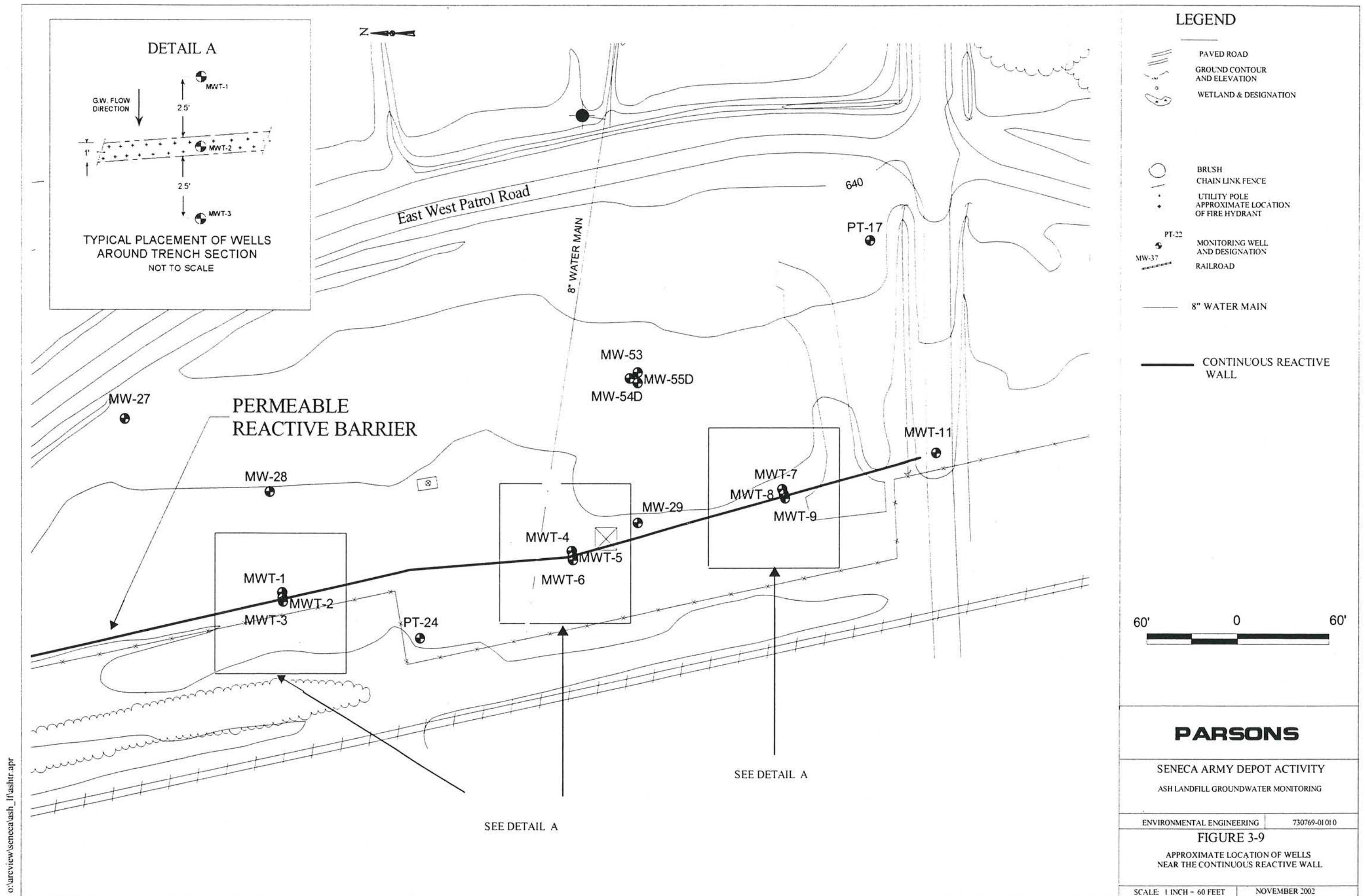
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**FIGURE 3-8**  
**HISTORIC TCE AND DCE CONCENTRATIONS AT PT-24**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**







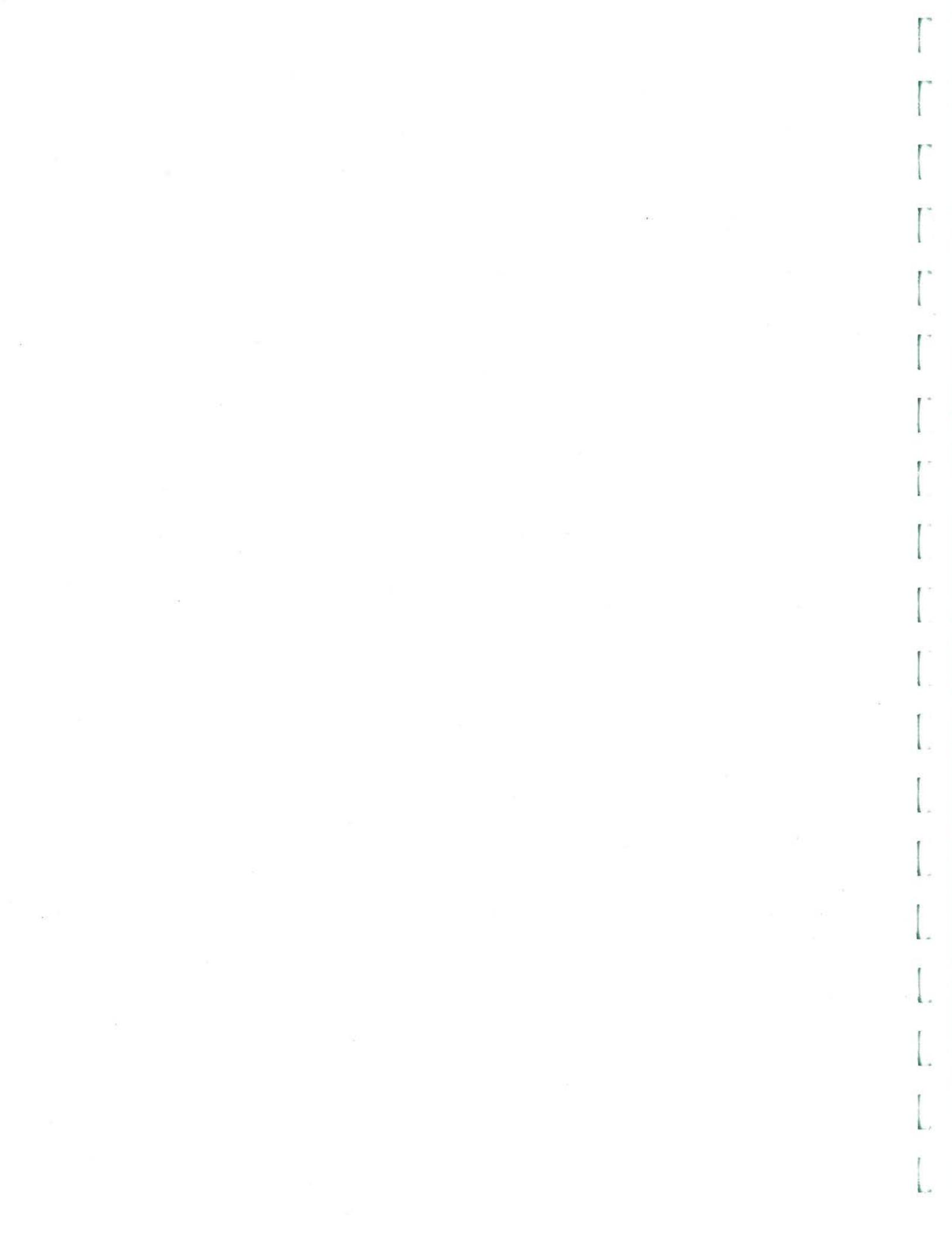


**APPENDIX A**

**GROUNDWATER ELEVATION DATA**

**A1. HISTORICAL GROUNDWATER ELEVATIONS  
(1Q1995 TO PRESENT)**

**A2. FIELD DATA SHEETS**



**A1. HISTORICAL GROUNDWATER ELEVATIONS  
(1Q1995 TO PRESENT)**

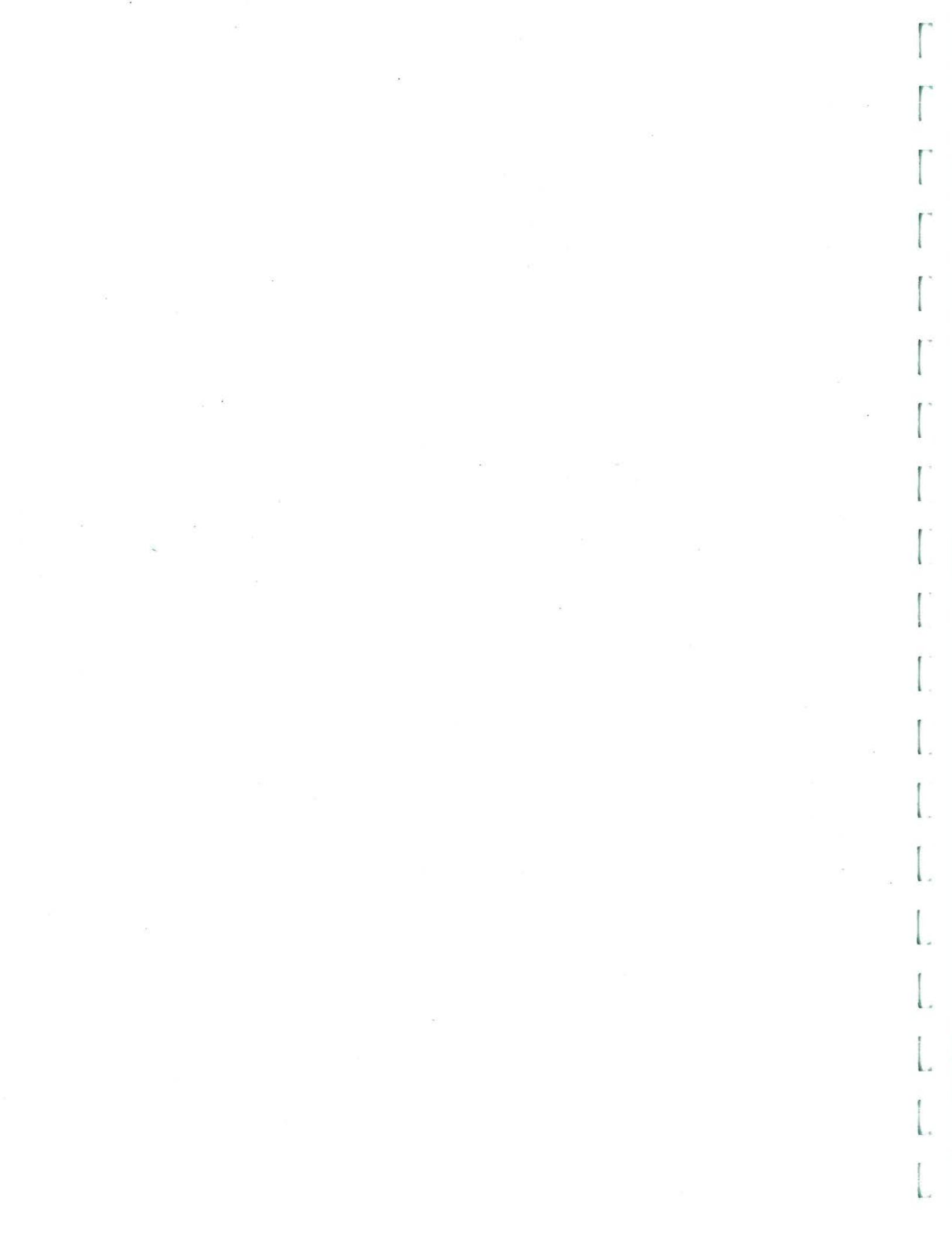


TABLE 3-1  
GROUNDWATER ELEVATION DATA - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

Monitoring Well	First Quarter 1995			Second Quarter 1995			Third Quarter 1995			Fourth Quarter 1995			First Quarter 1996			
	Top of Riser Elevation (ft.)	Date	of Riser (ft.)	Water Level (ft.)	Date	of Riser (ft.)	Water Level (ft.)	Date	of Riser (ft.)	Water Level (ft.)	Date	of Riser (ft.)	Water Level (ft.)	Date	of Riser (ft.)	Water Level (ft.)
PT-10	681.52	03/16/1995	4.28	653.94	06/05/1995	10.4	671.12	09/21/1995	10.5	671.02	01/11/96	8.22	673.3	03/14/1996	7.26	674.26
PT-11	658.22	03/16/1995			06/05/1995	7.2	651.02	09/21/1995	8.39	649.83	01/11/96	4.94	653.28	03/14/1996	4.44	653.78
PT-12A	652.15				06/05/1995									03/14/1996	7.94	644.21
PT-15	637.76				06/05/1995	8.2	629.56	09/21/1995	9.73	628.03	01/11/96	4.94	632.82	03/14/1996	5.73	632.03
PT-16	637.51				06/05/1995	4.68	632.83	09/21/1995	5.36	632.15	01/11/96	3.18	634.33	03/14/1996	2.66	634.85
PT-17	640.14				06/05/1995	7.87	632.27	09/21/1995	8.66	631.48	01/11/96	6.16	633.98	03/14/1996	5.04	635.1
PT-18	656.68				06/05/1995	8.24	648.44	09/21/1995	8.81	647.87	01/11/96	7.22	649.46	03/14/1996	7.08	649.6
PT-19	645.26	03/17/1995	3.1	642.16	06/05/1995	6.33	638.93	09/21/1995	7.57	637.69	01/10/96	4.14	641.12	03/14/1996	2.62	642.64
MW-20	647.28				06/05/1995	7.69	639.59	09/21/1995	8.83	638.45	01/11/96	6.89	640.39	03/14/1996	6.64	640.64
MW-21A	647.73				06/05/1995									03/14/1996		
MW-22	648.61				06/05/1995	8.92	639.69	09/21/1995	9.74	638.87	01/11/96	8.9	639.71	03/14/1996	8.16	639.57
PT-23	641.58				06/05/1995	6.95	634.63	09/21/1995	7.94	633.64	01/11/96	4.74	636.84	03/14/1996	4.17	637.41
PT-24	636.40				06/05/1995	5.41	630.99	09/21/1995	5.64	630.76	01/11/96	5.08	631.32	03/14/1996	4.48	631.92
PT-25	637.09				06/05/1995	7.2	629.89	09/21/1995	9.84	627.25	01/09/96	5.63	631.46	03/14/1996	4.04	633.05
PT-26	614.64				06/05/1995	7.02	607.62	09/21/1995	Not Measured	1/1/96	1/1/96		Not Measured	03/14/1996		
MW-27	639.32	03/16/1995	5.13	634.19	06/05/1995	6.85	632.47	09/21/1995	6.74	632.58	01/11/96	6.04	632.28	03/14/1996	8.66	639.95
MW-28	637.21				06/05/1995	5.93	631.28	09/21/1995	6.12	631.09	01/11/96	5.66	631.55	03/14/1996	5.7	633.62
MW-29	637.31				06/05/1995	7.38	629.93	09/21/1995	7.78	629.53	01/11/96	6.68	630.63	03/14/1996	6.2	631.01
MW-30	640.32	03/17/1995	4.1	636.22	06/05/1995	Dry	09/21/1995	10.42	629.9	01/11/96	7.65	632.67	03/14/1996	5.88	634.44	
MW-31	636.70				06/05/1995	6.49	630.21	09/21/1995	8.7	628.00	01/11/96	4.88	631.82	03/14/1996	3.38	633.32
MW-32	641.68				06/05/1995	8	633.68	09/21/1995	8.9	632.78	01/11/96	8.66	634.82	03/14/1996	5.45	636.23
MW-33	639.56				06/05/1995	8.76	630.8	09/21/1995	9.62	629.94	01/11/96	6.24	633.32	03/14/1996	4.96	631.98
MW-34	632.89				06/05/1995	5.93	626.96	09/21/1995	8.9	623.99	01/09/96	4.72	628.17	03/14/1996	3.16	629.73
MW-35D	631.82				06/05/1995	4.15	627.67	09/21/1995	5.43	626.39	01/09/96	2.89	628.93	03/14/1996	2.38	629.44
MW-36	631.79	03/16/1995	2.34	629.45	06/05/1995	4.36	627.43	09/21/1995	5.94	625.82	01/09/96	2.97	627.82	03/14/1996	2.32	629.47
MW-37	632.89	09/23/1991			06/05/1995	4.58	628.31	09/21/1995	5.96	626.93	01/11/96	3.12	629.57	03/14/1996	2.24	630.65
MW-38D	637.90	09/28/1991			06/05/1995	5.23	632.67	09/21/1995	8.91	628.99	01/11/96	3.88	634.02	03/14/1996	3.47	634.43
MW-39	659.54	10/20/1901			06/05/1995	3.96	655.58	09/21/1995	5.27	654.27	01/11/96	1.91	657.63	03/14/1996		
MW-40	659.30	10/20/1901	3.61	655.69	06/05/1995	6.48	652.82	09/21/1995	7.46	651.84	01/11/96	4.44	654.86	03/14/1996	3.81	
MW-41D	659.02	11/24/1901			06/05/1995	8.48	655.54	09/21/1995	8.76	652.26	01/11/96	7.32	668.7	03/14/1996	7	687.02
MW-42D	683.04				06/05/1995	5.97	657.95	09/21/1995	8.34	674.70	01/11/96	4.02	670.02	03/14/1996	3.53	679.51
MW-43	657.73				06/05/1995	4.72	653.01	09/21/1995	5.73	652.00	01/11/96	Frozen	NA	03/14/1996		
MW-44A	653.85				06/05/1995	Destroyed	09/21/1995	6.34	644.56	01/11/96	Frozen	NA	03/14/1996			
MW-45	650.90	03/17/1995	3.05	647.85	06/05/1995	5.26	645.64	09/21/1995	7.96	642.45	01/11/96	6.16	644.25	03/14/1996	5.72	644.69
MW-46	650.41				06/05/1995	7.06	643.35	09/21/1995	5.96	622.10	01/11/96		623.35	03/14/1996		
MW-47	628.06	03/16/1995	2.84	625.22	06/05/1995	6.48	621.58	09/21/1995	5.96	620.67	01/11/96	3	644.62	03/14/1996		
MW-48	648.32	03/17/1995	3.1	645.22	06/05/1995	6.13	642.19	09/21/1995	8.86	641.46	01/11/96	3.7	644.92	03/14/1996		
MW-49D	650.50				06/05/1995	7.1	643.4	09/21/1995	7.88	642.62	01/11/96	6.09	644.41	03/14/1996	5.71	644.79
MW-50D	649.88				06/05/1995	6.88	643	09/21/1995	7.69	642.19	01/11/96	6.02	643.86	03/14/1996	5.78	644.1
MW-51D	628.24				06/05/1995	6.63	621.61	09/21/1995	6.12	622.12	01/11/96		628.24	03/14/1996	2.78	625.46
MW-52D	626.35				06/05/1995	6.12	620.23	09/21/1995	5.68	620.67	01/11/96					
MW-53	659.41				06/05/1995	8.45	650.96	09/21/1995	8.94	650.47	01/11/96	7.86	631.55	03/14/1996	6.98	632.43
MW-54D	639.11				06/05/1995	8.3	630.81	09/21/1995	8.76	630.35	01/11/96	7.66	631.45	03/14/1996	6.97	632.14
MW-55D	639.16				06/05/1995	8.18	630.98	09/21/1995	8.62	630.54	01/11/96	7.42	631.74	03/14/1996	6.88	632.28
MW-56	630.51	03/16/1995	2.95	627.56	06/05/1995	4.14	626.37	09/21/1995	4.31	626.20	01/11/96	Frozen	NA	03/14/1996		
MW-57D	629.82				06/05/1995	3.79	626.03	09/21/1995	3.7	626.12	01/11/96	2.42	627.4	03/14/1996	1.91	627.91
MW-58D	629.69				06/05/1995	3.6	626.09	09/21/1995	3.52	626.17	01/11/96	2.2	627.49	03/14/1996	2.25	627.44

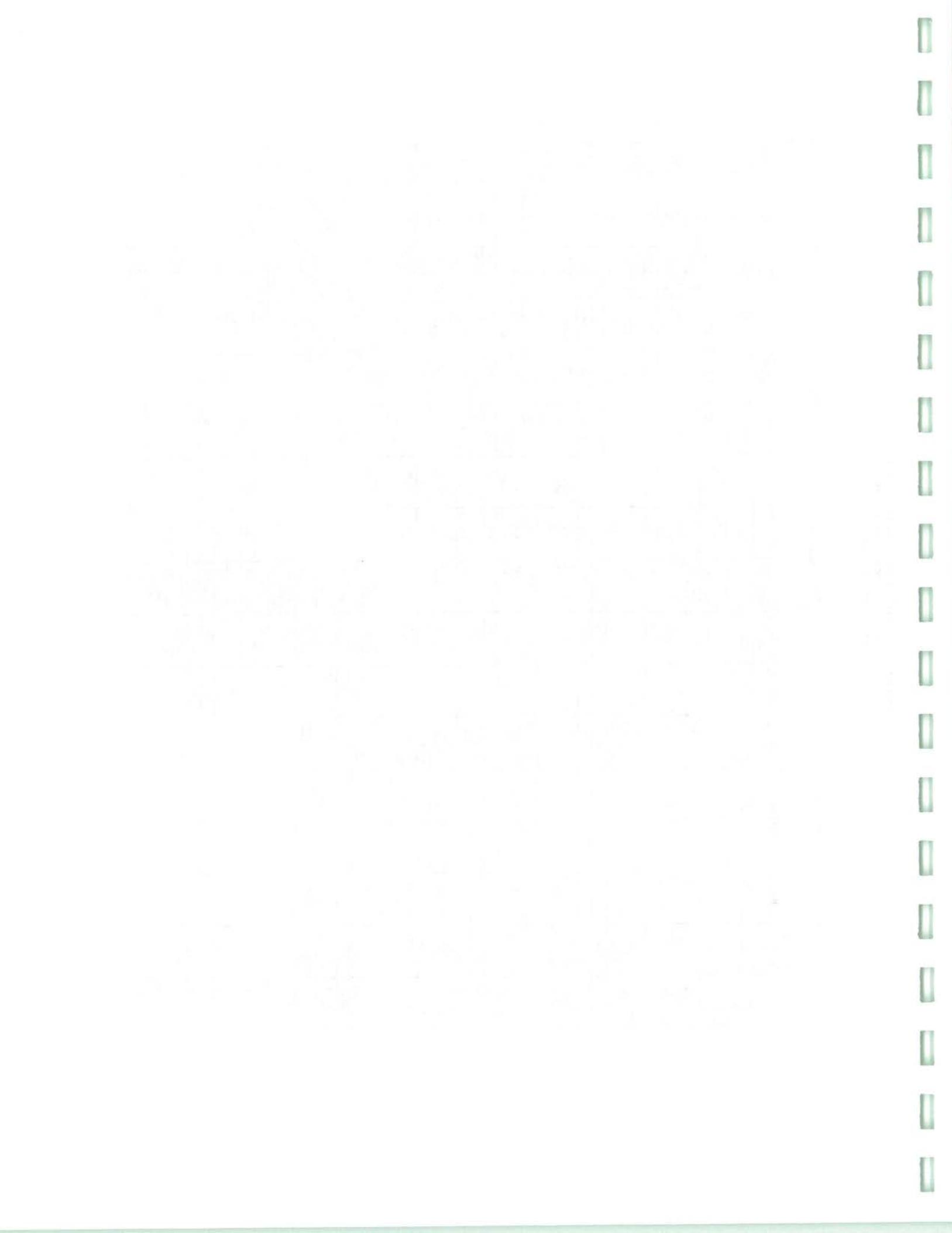


TABLE J-4  
GROUNDWATER ELEVATION DATA - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

Monitoring Well	First Quarter 1995			Second Quarter 1995			Third Quarter 1995			Fourth Quarter 1995			First Quarter 1996			
	Top of Riser Elevation (ft.)	Date	of Riser (ft.)	Water Level (ft.)	Date	of Riser (ft.)	Water Level (ft.)	Date	of Riser (ft.)	Water Level (ft.)	Date	of Riser (ft.)	Water Level (ft.)	Date	of Riser (ft.)	Water Level (ft.)
MW-59	656.83	03/17/1995	1.9	654.93	06/05/1995	3.26	653.57	09/12/1995	4.58	652.25	1/11/96	2.14	654.69	03/14/1996	Frozen	
MW-60	660.15	03/17/1995	2.02	658.13	06/05/1995	3.83	656.32	09/12/1995	5.33	654.82	1/11/96	2.34	657.81	03/14/1996	Frozen	
MWT-1	637.24															
MWT-2	637.19															
MWT-3	637.31															
MWT-4	637.68															
MWT-5	637.72															
MWT-6	637.59															
MWT-7	638.34															
MWT-8	638.40															
MWT-9	638.08															
MWT-10	636.07															
MWT-11	635.90															



TABLE 3-1  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

Monitoring Well	Second Quarter 1996			Third Quarter 1996			Fourth Quarter 1996			First Quarter 1997			Second Quarter 1997			First Quarter 1998			
	Top of Riser Elevation (ft)	Date	of Riser (ft.)	ater Level (ft)	Date	of Riser (ft.)	ater Level (ft)	Date	of Riser (ft.)	ater Level (ft)	Date	of Riser (ft.)	ater Level (ft)	Date	of Riser (ft.)	ater Level (ft)	Date	of Riser (ft.)	ater Level (ft)
PT-10	681.52	06/20/1996	9.65	671.87	09/23/1996	6.62	674.9	01/06/1997	5.31	676.21	03/18/1997	5.3	676.22	06/17/1997	9.03	672.49	03/23/98	4.62	676.9
PT-11	658.22	06/20/1996	6.54	651.68	09/23/1996	6.15	652.07	01/06/1997	4.19	654.03	03/18/1997	4.41	653.81	06/17/1997	6.23	651.99	03/23/98	4.24	653.98
PT-12A	652.15	06/20/1996	7.88	644.27	09/23/1996	7.31	644.84	01/06/1997	4.25	647.9	03/18/1997	5.85	646.3	06/17/1997	7.53	644.62	03/23/98	3.14	649.01
PT-15	637.76	06/20/1996	7.7	630.06	09/23/1996	8.04	629.72	01/06/1997	5.05	632.71	03/18/1997	4.59	633.17	06/17/1997	6.48	631.28	03/23/98	4.02	633.74
PT-16	637.51	06/20/1996	3.2	634.31	09/23/1996	3.62	633.89	01/06/1997	3.02	634.49	03/18/1997	2.93	634.58	06/17/1997	4.05	633.46	03/23/98	2.8	634.71
PT-17	640.14	06/20/1996	6.36	633.78	09/23/1996	4.99	635.15	01/06/1997	4.7	635.44	03/18/1997	4.75	635.59	06/17/1997	7.4	632.74	03/23/98	4.29	635.85
PT-18	656.68	06/20/1996	7.4	649.28	09/23/1996	7.44	649.24	01/06/1997	4.97	651.71	03/18/1997	5.55	651.13	06/17/1997	7.09	649.59	03/23/98	4.4	652.28
PT-19	645.26	06/20/1996	6.27	638.99	09/23/1996	6.34	638.92	01/06/1997	3.18	642.08	03/18/1997	3.34	641.92	06/17/1997	5.34	639.92	03/23/98	2.17	643.09
MW-20	647.28	06/20/1996	6.89	640.59	09/23/1996	5.92	641.36	01/06/1997	5.74	641.54	03/18/1997	5.72	641.56	06/17/1997	7.21	640.07	03/23/98	4.94	642.34
MW-21A	647.73	06/20/1996	8.47	639.26	09/23/1996	7.02	640.71	01/06/1997	6.09	641.64	03/18/1997	5.19	642.54	06/17/1997	8.21	639.52	03/23/98	3.89	643.84
MW-22	648.61	06/20/1996	8.97	639.64	09/23/1996	Not Measured	01/06/1997	6.5	642.11	03/18/1997	6.63	641.98	06/17/1997	7.61	641	03/23/98	4.31	644.3	
PT-23	641.58	06/20/1996	6.15	635.43	09/23/1996	5.11	636.47	01/06/1997	3.44	638.14	03/18/1997	3.94	637.64	06/17/1997	6.37	635.21	03/23/98	3.66	637.92
PT-24	636.40	06/20/1996	5.07	631.33	09/23/1996	4.8	631.36	01/06/1997	4.64	631.76	03/18/1997	4.69	631.71	06/17/1997	5.04	631.26	03/23/98	3.64	632.76
PT-25	637.09	06/20/1996	6.54	630.55	09/23/1996	6.16	630.93	01/06/1997	3.96	633.13	03/18/1997	3.92	633.17	06/17/1997	5.96	631.13	03/23/98	3.58	633.51
PT-26	614.64	06/20/1996	6.72	607.92	09/23/1996	5.54	633.78	01/06/1997	5.21	634.11	03/18/1997	5.25	634.07	06/17/1997	6.48	632.84	03/23/98	3.04	611.6
MW-27	639.32	06/20/1996	6.58	632.74	09/23/1996	5.76	631.45	01/06/1997	5.22	631.99	03/18/1997	5.18	632.03	06/17/1997	5.61	631.6	03/23/98	4.44	634.88
MW-28	637.21	06/20/1996	5.76	631.33	09/23/1996	6.34	631.6	01/06/1997	6.14	631.17	03/18/1997	6.09	631.22	06/17/1997	6.65	630.66	03/23/98	6.1	631.21
MW-29	637.31	06/20/1996	6.96	630.35	09/23/1996	6.34	630.97	01/06/1997	4.2	636.12	03/18/1997	4.33	635.99	06/17/1997	8.35	631.97	03/23/98	3.94	633.38
MW-30	640.32	06/20/1996	6.9	633.42	09/23/1996	7.17	633.15	01/06/1997	2.92	633.78	03/18/1997	2.96	633.74	06/17/1997	5.3	631.4	03/23/98	2.48	634.22
MW-31	636.70	06/20/1996	5.86	630.84	09/23/1996	5.26	631.44	01/06/1997	4.53	637.15	03/18/1997	4.95	636.73	06/17/1997	7.93	633.75	03/23/98	3.84	637.84
MW-32	641.68	06/20/1996	7.02	634.66	09/23/1996	7.42	634.26	01/06/1997	4.53	637.15	03/18/1997	4.6	635.12	06/17/1997	7.45	632.11	03/23/98	3.91	635.65
MW-33	639.56	06/20/1996	8.05	631.51	09/23/1996	7.4	632.16	01/06/1997	4.29	635.27	03/18/1997	4.44	635.12	06/17/1997	4.63	628.26	03/23/98	2.74	630.15
MW-34	632.89	06/20/1996	5.33	627.56	09/23/1996	4.99	627.79	01/06/1997	3.07	629.82	03/18/1997	3.22	629.67	06/17/1997	4.63	621.99	03/23/98	2.6	629.22
MW-35D	631.82	06/20/1996	5.33	626.49	09/23/1996	3.00	628.79	01/06/1997	3.30	628.49	03/18/1997	2.46	629.33	06/17/1997	3.58	628.21	03/23/98	2.60	629.19
MW-36	631.79	06/20/1996	3.4	629.49	09/23/1996	4.34	628.55	01/06/1997	2.48	630.41	03/18/1997	2.59	630.3	06/17/1997	4.73	628.31	03/23/98	2.51	630.38
MW-37	632.89	06/20/1996	3.03	633.81	09/23/1996	4.26	633.64	01/06/1997	3.7	634.2	03/18/1997	3.61	634.29	06/17/1997	Not Measured	03/23/98	3.48	635.39	
MW-38D	637.90	06/20/1996	4.09	645.8	09/23/1996	2.16	657.38	01/06/1997	2.06	657.48	03/18/1997	1.78	657.76	06/17/1997	2.09	657.45	03/23/98	1.7	657.84
MW-39	659.54	06/20/1996	1.82	Frozen	09/23/1996	3.47	647.43	01/06/1997	3.64	655.66	03/18/1997	3.64	655.66	06/17/1997	5.78	653.52	03/23/98	3.45	655.85
MW-40	659.30	06/20/1996	6.2	653.1	09/23/1996	7.82	685.86	01/06/1997	6.1	687.92	03/18/1997	6.45	687.57	06/17/1997	Not Measured	03/23/98	8.12	685.9	
MW-41D	694.02	06/20/1996	8.16	685.86	09/23/1996	4.79	677.5	01/06/1997	4.79	678.25	03/18/1997	2.88	680.43	06/17/1997	4.73	678.31	03/23/98	2.37	680.67
MW-42D	683.04	06/20/1996	3.6	644.57	09/23/1996	3.16	654.57	01/06/1997	2.9	654.83	03/18/1997	3.84	653.89	06/17/1997	3.72	654.01	03/23/98	2.6	655.13
MW-43	657.73	06/20/1996	8.05	645.8	09/23/1996	9.66	644.19	01/06/1997	3.74	650.11	03/18/1997	4.7	649.15	06/17/1997	6.9	646.95	03/23/98	3.48	650.37
MW-44A	653.85	06/20/1996	3.47	647.43	09/23/1996	3.23	647.67	01/06/1997	2.94	647.96	03/18/1997	2.83	648.07	06/17/1997	3.9	647	03/23/98	2.85	648.05
MW-45	650.90	06/20/1996	6.2	643.68	09/23/1996	5.94	644.47	01/06/1997	3.72	646.69	03/18/1997	4.51	645.9	06/17/1997	6.06	644.35	03/23/98	2.88	647.53
MW-46	650.41	06/20/1996	5.75	644.66	09/23/1996	4.42	643.82	01/06/1997	2.99	625.25	03/18/1997	3	625.24	06/17/1997	4.35	623.89	03/23/98	2.35	625.89
MW-47	628.06	06/20/1996	3.6	624.46	09/23/1996	4.34	623.72	01/06/1997	2.88	625.18	03/18/1997	2.88	625.18	06/17/1997	4.22	623.84	03/23/98	2.3	625.76
MW-48	648.32	06/20/1996	4.77	643.55	09/23/1996	3.72	644.6	01/06/1997	3.26	645.06	03/18/1997	3.31	645.01	06/17/1997	5.3	643.02	03/23/98	2.86	645.46
MW-49D	650.50	06/20/1996	5.87	644.63	09/23/1996	5.9	644.6	01/06/1997	3.6	646.9	03/18/1997	4.32	646.18	06/17/1997	5.91	644.59	03/23/98	2.88	647.62
MW-50D	649.88	06/20/1996	6.2	643.68	09/23/1996	5.71	644.17	01/06/1997	3.6	646.28	03/18/1997	4.09	645.79	06/17/1997	5.88	644	03/23/98	2.48	647.4
MW-51D	628.24	06/20/1996	3.7	624.54	09/23/1996	4.42	623.82	01/06/1997	2.99	625.25	03/18/1997	3	625.24	06/17/1997	4.35	623.89	03/23/98	2.35	625.89
MW-52D	626.35	06/20/1996	3.03	622.69	09/23/1996	4.03	622.32	01/06/1997	2.38	623.97	03/18/1997	2.6	623.75	06/17/1997	3.62	622.73	03/23/98	2.3	624.05
MW-53	648.31	06/20/1996	8.28	631.13	09/23/1996	7.02	632.39	01/06/1997	6.6	632.81	03/18/1997	6.6	632.81	06/17/1997	7.7	631.71	03/23/98	5.78	633.63
MW-54D	639.11	06/20/1996	8.08	631.03	09/23/1996	6.92	632.19	01/06/1997	6.55	632.56	03/18/1997	6.56	632.55	06/17/1997	7.69	631.42	03/23/98	5.92	633.19
MW-55D	639.16	06/20/1996	7.91	631.25	09/23/1996	6.78	632.38	01/06/1997	6.34	632.82	03/18/1997	6.36	632.8	06/17/1997	7.47	631.69	03/23/98	5.86	633.3
MW-56	630.51	06/20/1996	3.01	627.5	09/23/1996	3.2	627.31	01/06/1997	3.09	627.42	03/18/1997	3.05	627.46	06/17/1997	3.48	627.03	03/23/98	3.13	627.38
MW-57D	629.82	06/20/1996	2.2	627.62	09/23/1996														



TABLE J-1  
GROUNDWATER ELEVATION DATA - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASHLANDFILL  
SENECA ARMY DEPOT ACTIVITY

Monitoring Well	Second Quarter 1996			Third Quarter 1996			Fourth Quarter 1996			First Quarter 1997			Second Quarter 1997			First Quarter 1998		
	Top of Riser Elevation (ft.)	Date	of Riser (ft.)	Water Level (ft)	Date	of Riser (ft.)	Water Level (ft)	Date	of Riser (ft.)	Water Level (ft)	Date	of Riser (ft.)	Water Level (ft)	Date	of Riser (ft.)	Water Level (ft)	Date	of Riser (ft.)
MWT-59	656.83	06/20/1996	1.91	654.92	09/23/1996	2.69	654.14	01/06/1997	2.1	654.73	03/18/1997	2.16	654.68	06/17/1997	2.15	03/23/98	2.13	654.7
MWT-60	660.15	06/20/1996	2.58	Frozen	09/23/1996	2.46	657.69	01/06/1997	1.97	658.18	03/18/1997	2.14	658.01	06/17/1997	2.98	03/23/98	1.95	658.2
MWT-1	637.24																	
MWT-2	637.19																	
MWT-3	637.31																	
MWT-4	637.68																	
MWT-5	637.72																	
MWT-6	637.59																	
MWT-7	638.34																	
MWT-8	638.40																	
MWT-9	638.08																	
MWT-10	636.07																	
MWT-11	635.90																	



TABLE 3-1  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

Monitoring Well	Top of Riser Elevation (ft)	Second Quarter 1998			Third Quarter 1998			Measured on 10/7/99			Measured on 10/27/99			Measured on 10/27/99			Round 2 (1/3/00)			Round 2 (1/3/00)				
		Date	of Riser (ft.)	water Level (ft.)	Date	of Riser (ft.)	water Level (ft.)	Date	of Riser (ft.)	water Level (ft.)	Date	of Riser (ft.)	water Level (ft.)	Date	of Riser (ft.)	water Level (ft.)	Date	of Riser (ft.)	water Level (ft.)	Date	of Riser (ft.)	water Level (ft.)	Date	
PT-10	681.512	06/16/98	6.3	675.22	09/18/98	10.29	671.23	10/07/1999	8.10	673.42	10/27/1999	9.26	672.26	01/03/2000	6.84	674.68	NA	NA	NA	NA	10.43	647.79	Not Measured	
PT-11	658.22	06/16/98	4.43	653.79	09/18/98	9.57	648.65	10/07/1999	10.03	648.19	10/27/1999	9.39	648.83	01/03/2000	5.36	652.86	08/27/2001	9.12	645.53	645.53	08/27/2001	3.49	9.89	642.26
PT-12A	652.15	06/16/98	5.25	646.9	09/18/98	9.29	642.86	10/07/1999	7.00	645.15	10/27/1999	7.60	644.55	01/03/2000	6.62	645.53	08/27/2001	9.12	645.53	645.53	08/27/2001	10.38	627.38	Not Measured
PT-15	637.76	06/16/98	7.14	630.62	09/18/98	9.82	627.94	10/07/1999	10.36	627.4	10/27/1999	6.64	630.87	01/03/2000	3.10	634.41	08/27/2001	3.36	627.94	627.94	08/27/2001	7.68	629.83	Not Measured
PT-16	637.51	06/16/98	3.8	633.71	09/18/98	6.52	630.99	10/07/1999	7.20	630.31	10/27/1999	6.64	630.87	01/03/2000	5.08	635.06	08/27/2001	0.56	11.09	11.09	08/27/2001	10.38	646.30	Not Measured
PT-17	640.14	06/16/98	4.97	635.17	09/18/98	9.96	630.18	10/07/1999	7.26	632.88	10/27/1999	7.90	632.24	01/03/2000	6.34	650.34	08/27/2001	1.32	645.53	645.53	08/27/2001	8.69	636.57	Not Measured
PT-18	656.68	06/16/98	6.34	650.34	09/18/98	9.06	647.62	10/07/1999	9.40	641.28	10/27/1999	8.23	648.45	01/03/2000	3.94	641.32	08/27/2001	3.01	641.32	641.32	08/27/2001	0.00	Dry	Not Measured
PT-19	645.26	06/16/98	4.9	640.36	09/18/98	7.83	637.43	10/07/1999	7.33	637.93	10/27/1999	7.22	638.04	01/03/2000	6.76	640.52	08/27/2001	0.00	640.52	640.52	08/27/2001	0.00	Dry	Not Measured
MW-20	647.28	06/16/98	5.69	641.59	09/18/98	9.87	637.41	10/07/1999	7.58	639.7	10/27/1999	7.60	639.68	01/03/2000	6.76	640.65	08/27/2001	8.95	10.51	10.51	08/27/2001	6.37	622.22	Not Measured
MW-21A	647.73	06/16/98	6.46	641.27	09/18/98	9.79	637.94	10/07/1999	9.12	638.61	10/27/1999	8.14	639.59	01/03/2000	7.08	640.65	08/27/2001	0.00	640.65	640.65	08/27/2001	0.00	Dry	Not Measured
MW-22	648.61	06/16/98	6.96	641.65	09/18/98	10.35	638.26	10/07/1999	9.80	638.81	10/27/1999	8.65	639.96	01/03/2000	7.54	641.07	08/27/2001	0.71	11.10	11.10	08/27/2001	6.37	51	Not Measured
PT-23	641.58	06/16/98	4.02	637.56	09/18/98	8.47	633.11	10/07/1999	7.92	633.66	10/27/1999	7.76	633.82	01/03/2000	4.10	637.48	08/27/2001	2.85	637.48	637.48	08/27/2001	9.23	632.35	Not Measured
PT-24	636.40	06/16/98	4.69	631.71	09/18/98	7.1	629.3	10/07/1999	7.44	628.96	10/27/1999	6.12	630.28	01/03/2000	4.88	631.52	08/27/2001	3.47	8.41	8.41	08/27/2001	8.41	627.99	Not Measured
PT-25	637.09	06/16/98	4.48	632.61	09/18/98	11.25	625.74	10/07/1999	8.92	628.17	10/27/1999	8.31	628.78	01/03/2000	5.26	631.83	08/27/2001	0.00	631.83	631.83	08/27/2001	0.00	Dry	Not Measured
PT-26	614.64	06/16/98	Not Measured	09/18/98	10.54	604.1	10/07/1999	13.11	601.53	10/27/1999	12.16	602.48	01/03/2000	6.88	607.76	NA	NA	NA	NA	NA	NA	NA	Not Measured	
MW-27	659.32	06/16/98	5.36	633.96	09/18/98	7.67	631.65	10/07/1999	5.92	633.34	10/27/1999	6.64	632.68	01/03/2000	5.46	633.56	08/27/2001	1.31	9.23	9.23	08/27/2001	6.30	0.09	Not Measured
MW-28	637.21	06/16/98	5.14	632.07	09/18/98	7.46	629.75	10/07/1999	7.44	629.77	10/27/1999	6.36	630.85	01/03/2000	5.16	632.05	08/27/2001	1.89	8.50	8.50	08/27/2001	6.28	71	Not Measured
MW-29	637.31	06/16/98	6.39	630.92	09/18/98	9.9	627.41	10/07/1999	10.01	627.3	10/27/1999	8.00	629.31	01/03/2000	6.34	630.97	08/27/2001	0.00	630.97	630.97	08/27/2001	0.00	Dry	Not Measured
MW-30	640.32	06/16/98	5.32	635	09/18/98	10.44	629.88	10/07/1999	8.94	631.38	10/27/1999	9.30	631.02	01/03/2000	6.76	633.56	08/27/2001	0.00	633.56	633.56	08/27/2001	0.00	Dry	Not Measured
MW-31	636.70	06/16/98	3.62	633.08	09/18/98	9.68	627.02	10/07/1999	7.91	628.79	10/27/1999	7.29	629.41	01/03/2000	4.48	632.22	08/27/2001	0.00	632.22	632.22	08/27/2001	0.00	Dry	Not Measured
MW-32	641.68	06/16/98	6.23	635.45	09/18/98	8.98	632.97	10/07/1999	7.55	634.13	10/27/1999	8.30	633.38	01/03/2000	6.16	635.52	08/27/2001	0.00	635.52	635.52	08/27/2001	0.00	Dry	Not Measured
MW-33	639.56	06/16/98	6.17	633.39	09/18/98	9.84	629.72	10/07/1999	8.74	630.82	10/27/1999	9.50	630.06	01/03/2000	6.04	633.52	08/27/2001	0.00	633.52	633.52	08/27/2001	0.00	Dry	Not Measured
MW-34	632.89	06/16/98	3.73	629.16	09/18/98	10.53	622.36	10/07/1999	10.42	622.47	10/27/1999	9.10	623.79	01/03/2000	4.64	628.25	NA	NA	NA	NA	NA	NA	NA	Not Measured
MW-35D	631.82	06/16/98	2.4	635	09/18/98	7.2	624.62	10/07/1999	6.86	624.96	10/27/1999	5.20	626.62	01/03/2000	2.76	629.06	08/27/2001	0.00	629.06	629.06	08/27/2001	0.00	Dry	Not Measured
MW-36	631.79	06/16/98	2.57	629.22	09/18/98	7.81	623.98	10/07/1999	7.57	624.22	10/27/1999	7.57	624.22	01/03/2000	5.63	626.16	01/03/2000	2.94	628.85	628.85	08/27/2001	7.95	622.26	Not Measured
MW-37	632.89	06/16/98	3.75	630.38	09/18/98	7.29	620.72	10/07/1999	7.12	625.77	10/27/1999	6.47	626.42	01/03/2000	3.40	629.49	NA	NA	NA	NA	NA	NA	NA	Not Measured
MW-38D	637.90	06/16/98	3.65	635.39	09/18/98	7.29	630.61	10/07/1999	7.78	630.12	10/27/1999	7.28	630.62	01/03/2000	3.78	634.12	08/27/2001	0.00	634.12	634.12	08/27/2001	0.00	Dry	Not Measured
MW-39	659.54	06/16/98	1.82	657.72	09/18/98	6.47	653.07	10/07/1999	3.98	655.56	10/27/1999	3.74	655.8	01/03/2000	1.94	657.6	08/27/2001	2.82	650.47	650.47	08/27/2001	9.07	650.47	Not Measured
MW-40	659.30	06/16/98	4.14	655.16	09/18/98	8.22	651.08	10/07/1999	7.96	651.34	10/27/1999	6.62	652.68	01/03/2000	4.08	655.22	08/27/2001	5.57	9.14	9.14	08/27/2001	650.16	Not Measured	
MW-41D	694.02	06/16/98	Not Measured	09/18/98	8.81	683.21	10/07/1999	8.81	683.21	10/27/1999	n/a	683.21	01/03/2000	7.24	686.78	NA	NA	NA	NA	NA	NA	NA	Not Measured	
MW-42D	683.04	06/16/98	3.34	679.7	09/18/98	6.5	651.23	10/07/1999	11.65	671.77	10/27/1999	5.78	673.26	01/03/2000	3.72	679.32	NA	NA	NA	NA	NA	NA	NA	Not Measured
MW-43	657.73	06/16/98	2.81	654.92	09/18/98	9.95	647.43	10/07/1999	11.43	642.42	10/27/1999	7.00	645.77	01/03/2000	2.84	654.89	NA	NA	NA	NA	NA	NA	NA	Not Measured
MW-44A	653.85	06/16/98	6.73	647.12	09/18/98	10.42	643.43	10/07/1999	6.93	643.97	10/27/1999	7.78	643.12	10/27/1999	4.99	645.91	01/03/2000	2.78	648.12	648.12	08/27/2001	1.60	642.97	Not Measured
MW-45	650.90	06/16/98	2.83	648.07	09/18/98	6.93	641.92	10/07/1999	8.49	641.57	10/27/1999	7.35	643.06	01/03/2000	4.18	646.23	08/27/2001	2.16	9.29	9.29	08/27/2001	641.12	Not Measured	
MW-46	650.41	06/16/98	4.12	646.29	09/18/98	8.49	641.92	10/07/1999	8.84	641.57	10/27/1999	5.42	642.64	01/03/2000	3.32	624.74	08/27/2001	0.41	8.15	8.15	08/27/2001	619.91	Not Measured	
MW-47	628.06	06/16/98	3.06	623.62	09/18/98	8.18	619.88	10/07/1999	7.70	620.36	10/27/1999	6.70	621.25	01/03/2000	2.18	624.17	08/27/2001	3.12	8.38	8.38	08/27/2001	619.91	Not Measured	
MW-48	648.32	06/16/98	3.29	645.03	09/18/98	7.42	640.9	10/07/1999	9.48	640.54	10/27/1999	8.72	640.69	01/03/2000	6.70	632.71	08/27/2001	0.45	9.90	9.90	08/27/2001	629.51	Not Measured	
MW-49D	650.50	06/16/98	4.07	646.43	09/18/98	7.32	643.18	10/07/1999	8.74	641.76	10/27/1999	7.32	643.18											

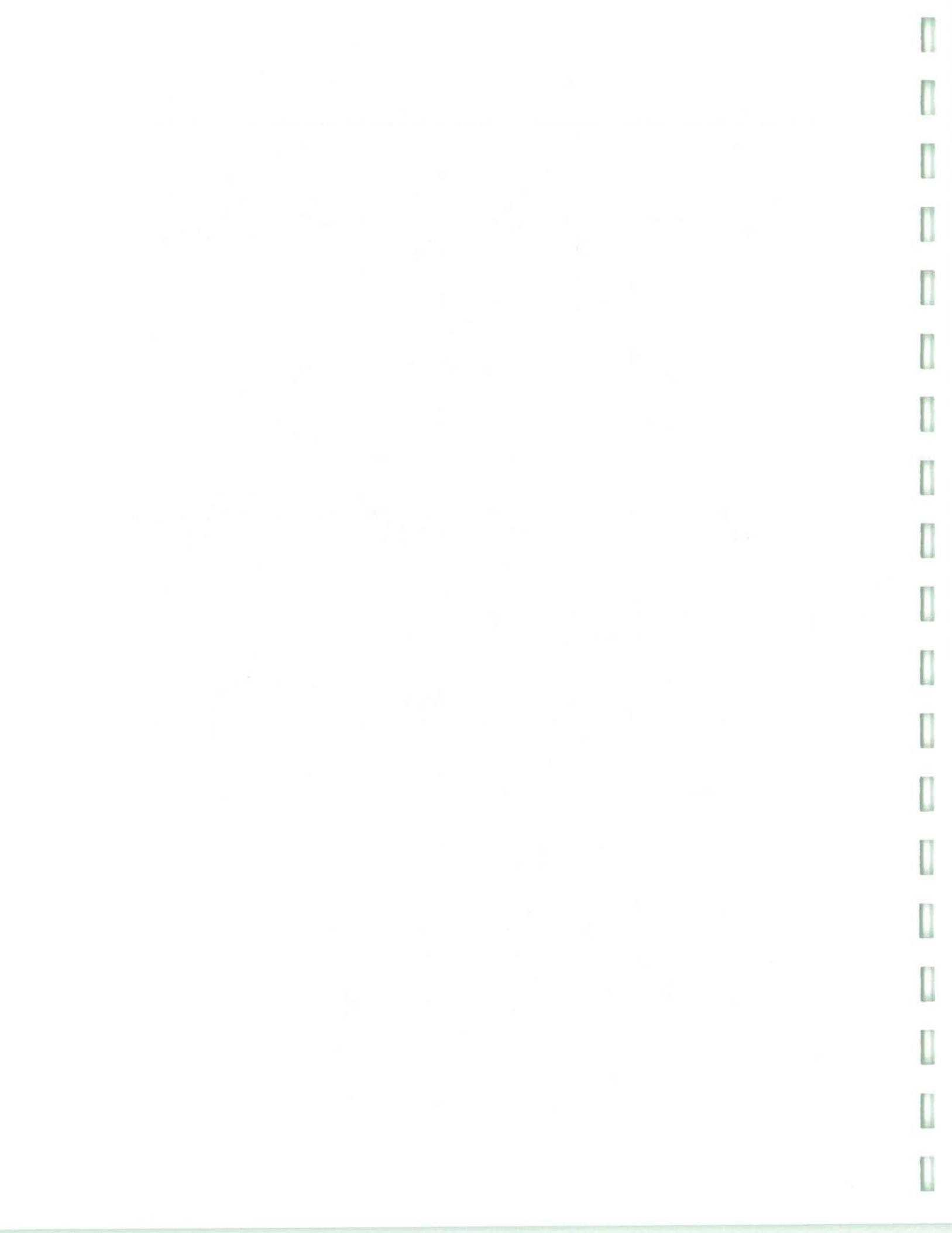


TABLE E-3-1  
GROUNDWATER ELEVATION DATA - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

Monitoring Well	Top of Riser Elevation (ft)	Second Quarter 1998			Third Quarter 1998			Measured on 10/7/99			Measured on 10/27/99			Round 2 (11/3/00)			3Q 2001 Data			
		Date	of Riser (ft.)	water Level (ft)	Date	of Riser (ft.)	water Level (ft)	Date	of Riser (ft.)	water Level (ft)	Date	of Riser (ft.)	water Level (ft)	Date	of Riser (ft.)	water Level (ft)	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	
MWT-59	656.83	06/16/98	2	654.83	09/18/98	5.83	651	10/07/1999	5.10	651.73	10/27/1999	4.19	652.64	01/05/2000	2.16	654.67	08/27/2001	2.12	6.98	649.85
MWT-60	660.15	06/16/98	2.14	658.01	09/18/98	6.9	653.25	10/07/1999	3.32	656.83	10/27/1999	3.86	656.29	01/05/2000	2.16	657.99	08/27/2001	1.58	7.92	652.23
MWT-1	637.24																NA	NA	8.18	629.06
MWT-2	637.19																NA	NA	Not Measured	
MWT-3	637.31																NA	NA	8.32	628.99
MWT-4	637.68																NA	NA	10.40	627.28
MWT-5	637.72																NA	NA	Not Measured	
MWT-6	637.59																NA	NA	10.35	627.24
MWT-7	638.34																NA	NA	Not Measured	
MWT-8	638.40																NA	NA	11.76	626.38
MWT-9	638.08																NA	NA	Not Measured	
MWT-10	636.07																NA	NA	12.04	626.04
MWT-11	635.90																NA	NA	Not Measured	



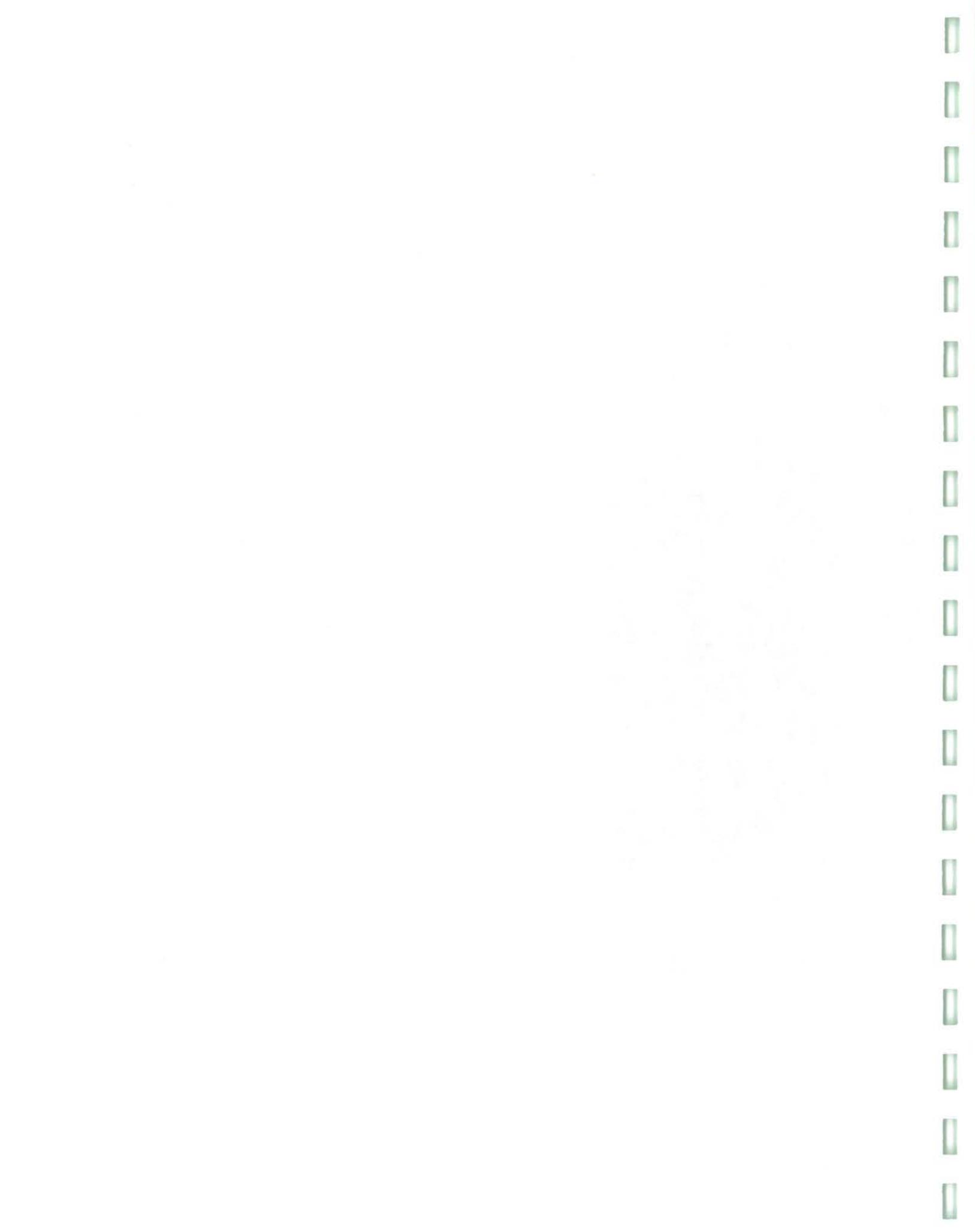
TABLE 3-1  
GROUNDWATER ELEVATION DATA, SECOND QUARTER 2002  
GROUNDWATER MONITORING -ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

Monitoring Well	Top of Riser Elevation (ft)	Date Measured	3Q 2002 Data			Historical Data							
			Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	Maximum	Minimum	Range	
PT-10	681.52	04/08/2002	41.09	5.27	676.23	04/08/2002	37.66	8.70	672.82	676.90	671.02	5.88	46.36
PT-11A	658.22	04/08/2002	14.77	4.78	653.44	04/08/2002	9.25	10.30	647.92	654.03	647.79	6.24	19.55
PT-12A	652.15	04/08/2002	9.22	4.16	647.99	04/08/2002	3.87	9.51	642.64	649.01	642.26	6.75	13.38
PT-15	637.76	04/08/2002	15.35	4.15	633.61	04/08/2002	9.40	10.10	627.66	633.74	627.38	6.36	19.50
PT-16	637.51	04/08/2002	7.12	3.92	633.59	04/08/2002	3.89	7.15	630.36	634.85	629.83	5.02	11.04
PT-17	640.14	04/08/2002	7.12	4.53	635.61	04/08/2002	0.90	10.75	629.39	635.85	629.05	6.80	11.65
PT-18	656.68	04/08/2002	6.84	4.86	648.82	04/08/2002	3.07	8.63	648.05	648.28	646.30	5.98	11.70
PT-19	645.26	04/08/2002	8.71	2.99	642.27	04/08/2002	1.45	10.25	635.01	643.09	635.01	8.08	11.70
MW-20	647.28	04/08/2002	5.81	5.99	641.29	04/08/2002	Dry			642.34	637.41	4.93	11.80
MW-21A	647.73	04/08/2002	14.02	5.44	642.29	04/08/2002	9.21	10.25	637.48	643.84	637.22	6.62	19.46
MW-22	648.61	04/08/2002	5.88	5.93	642.68	04/08/2002	0.96	10.85	637.76	644.30	637.51	6.79	11.81
PT-23	641.58	04/08/2002	8.20	3.88	637.77	NA	Not Measured			638.14	632.35	5.79	12.08
PT-24	636.40	04/08/2002	7.39	4.49	631.91	04/08/2002	4.53	7.35	629.05	632.76	627.99	4.77	11.88
PT-25	637.09	04/08/2002	8.13	3.90	633.19	04/08/2002	0.58	11.45	625.64	633.51	625.64	7.87	12.03
PT-26	614.64	NA	NA	NA	NA	NA	NA	Not Measured		611.60	601.53	10.07	14.00
MW-27	639.32	04/08/2002	5.66	4.88	634.44	04/08/2002	1.69	8.85	630.47	634.88	630.09	4.79	10.54
MW-28	637.21	04/08/2002	5.61	4.78	632.43	04/08/2002	2.79	7.60	629.61	632.57	628.71	3.86	10.39
MW-29	637.31	04/08/2002	5.33	5.21	632.1	04/08/2002	0.99	9.55	627.76	632.10	627.30	4.80	10.54
MW-30	640.32	04/08/2002	5.74	4.78	635.54	04/08/2002	Dry			636.38	629.88	6.50	10.52
MW-31	636.70	04/08/2002	7.41	2.94	633.76	04/08/2002	Dry			634.22	627.02	7.20	10.35
MW-32	641.68	04/08/2002	6.43	4.24	637.44	04/08/2002	Dry			637.84	632.70	5.14	10.37
MW-33	639.56	04/08/2002	6.13	4.26	635.3	04/08/2002	Dry			635.65	629.72	5.93	10.39
MW-34	632.89	04/08/2002	14.30	3.85	629.04	NA	NA	Not Measured		630.15	622.36	7.79	18.15
MW-35D	631.82	04/08/2002	43.72	2.92	628.9	NA	NA	Removed		629.44	624.62	4.82	26.64
MW-36	631.79	04/08/2002	12.97	3.61	628.18	NA	NA	Not Measured		629.47	622.26	7.21	16.58
MW-37	632.89	04/08/2002	10.57	3.05	629.84	NA	NA	Not Measured		630.65	625.77	4.88	13.62
MW-38D	637.90	04/08/2002	28.63	3.61	634.29	04/08/2002	24.44	7.80	630.1	635.39	628.99	6.40	32.24
MW-39	659.54	04/08/2002	10.02	1.87	657.67	NA	NA	Not Measured		657.84	650.47	7.37	11.89
MW-40	659.30	04/08/2002	10.95	3.76	655.54	NA	NA	Not Measured		655.85	650.16	5.69	14.71
MW-41D	694.02	NA	NA	NA	NA	NA	NA	Not Measured		687.92	685.21	2.71	47.02
MW-42D	683.04	04/08/2002	44.85	2.53	680.51	NA	NA	Not Measured		680.67	671.39	9.28	47.38
MW-43	657.73	04/08/2002	4.55	2.92	654.81	04/08/2002	0.52	6.95	650.78	655.13	650.73	4.40	7.47
MW-44A	653.85	04/08/2002	8.46	4.02	649.83	04/08/2002	1.81	10.67	643.18	650.37	642.42	7.95	12.48
MW-45	650.90	04/08/2002	5.60	2.74	648.16	04/08/2002	0.74	7.60	643.3	648.16	643.12	5.04	8.34
MW-46	650.41	04/08/2002	8.11	3.34	647.97	04/08/2002	2.31	9.14	641.22	647.53	641.12	6.41	11.45
MW-47	628.06	04/08/2002	5.65	2.91	625.15	04/08/2002	0.39	8.17	619.89	625.76	619.88	5.88	8.56
MW-48	648.32	04/08/2002	8.60	2.90	645.42	04/08/2002	3.65	7.85	640.47	645.46	639.94	5.52	11.50
MW-49D	650.50	04/08/2002	34.24	3.30	647.72	04/08/2002	28.59	8.95	641.55	647.62	641.55	6.07	37.54
MW-50D	649.88	04/08/2002	56.16	3.30	646.58	04/08/2002	50.96	8.70	641.18	647.40	633.88	13.52	59.66
MW-51D	628.24	04/08/2002	33.07	3.80	623.44	NA	NA	Not Measured		628.24	620.49	7.75	36.87
MW-52D	626.35	04/08/2002	56.79	2.57	623.78	NA	NA	Not Measured		624.17	618.67	5.50	59.76
MW-53	639.41	04/08/2002	4.78	5.57	633.84	04/08/2002	0.45	9.90	629.51	633.84	629.46	4.38	10.35
MW-54D	639.11	04/08/2002	29.31	5.68	633.43	04/08/2002	24.54	10.45	628.66	633.43	628.66	4.77	34.99
MW-55D	639.16	04/08/2002	52.43	5.75	633.41	04/08/2002	47.98	10.20	628.96	633.41	627.96	5.45	58.18
MW-56	630.51	04/08/2002	3.13	3.75	626.76	04/10/2002	0.00	Dry		627.56	621.66	5.90	6.88
MW-57D	629.82	04/08/2002	33.13	1.96	627.86	04/08/2002	29.14	5.95	623.87	628.13	621.76	6.37	35.09
MW-58D	629.69	04/08/2002	55.67	1.62	628.07	04/08/2002	51.54	5.75	623.94	628.37	623.94	4.43	57.29

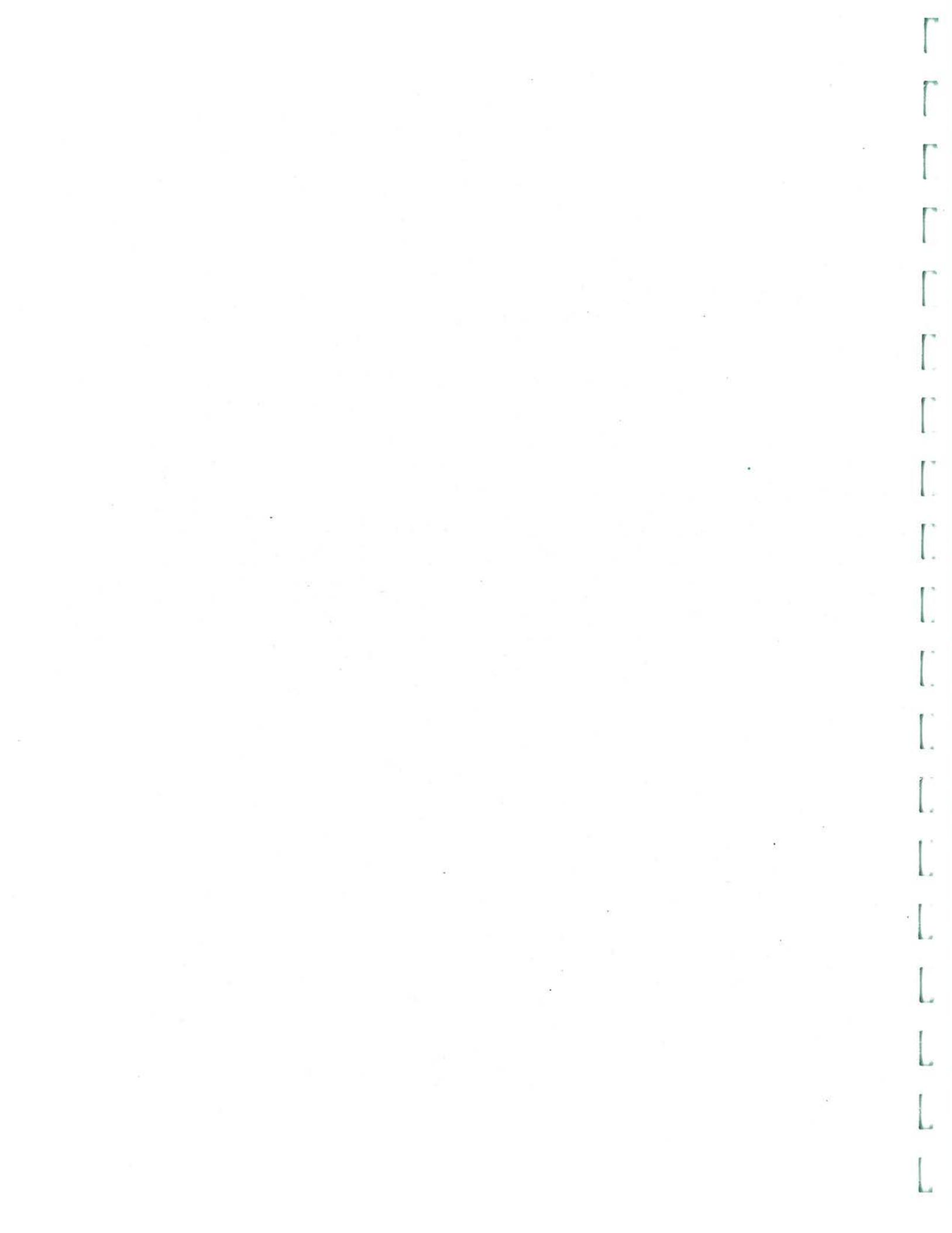


TABLE 3-1  
GROUNDWATER ELEVATION DATA - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASHLANDFILL  
SENECA ARMY DEPOT ACTIVITY

Monitoring Well	Top of Riser Elevation (ft)	2Q 2002 Data				3Q 2002 Data				Historical Data			
		Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	Groundwater Elevation (ft)	Maximum	Minimum	Range
MW-59	656.83	04/08/2002	6.89	2.21	654.62	NA	NA	NA	Not Measured	654.93	649.85	5.08	9.10
MW-60	660.15	04/08/2002	7.40	2.10	658.03	04/08/2002	2.30	7.20	655.95	658.20	652.23	5.97	9.50
MWT-1	637.24	04/09/2002	4.98	4.77	632.47	04/09/2002	2.55	7.20	630.04	632.47	629.06	3.41	9.75
MWT-2	637.19	04/08/2002	4.63	4.92	632.27	04/08/2002	2.30	7.25	625.94	632.27	629.94	2.33	9.55
MWT-3	637.31	04/09/2002	4.89	5.11	632.2	04/09/2002	2.65	7.35	629.96	632.20	628.99	3.21	10.00
MWT-4	637.68	04/09/2002	7.22	5.21	632.47	04/09/2002	3.68	8.75	628.93	632.47	627.28	5.19	12.43
MWT-5	637.72	04/08/2002	6.68	5.27	632.45	04/08/2002	2.90	9.05	628.67	632.45	628.67	3.78	11.95
MWT-6	637.59	04/09/2002	7.07	5.21	632.38	04/09/2002	3.28	9.06	628.59	632.38	627.24	5.14	12.28
MWT-7	638.34	04/09/2002	8.50	5.47	632.87	04/09/2002	3.72	10.25	628.09	632.87	626.58	6.29	13.97
MWT-8	638.40	04/08/2002	6.73	5.82	632.58	04/08/2002	2.10	10.45	627.95	632.58	627.95	4.63	12.55
MWT-9	638.08	04/09/2002	8.48	5.66	632.42	NA	NA	Not Measured	632.42	626.04	6.38	14.14	
MWT-10	636.07	04/09/2002	5.11	3.84	632.23	04/09/2002	3.20	5.75	630.12	632.23	629.55	2.68	8.95
MWT-11	635.90	04/10/2002	7.00	2.95	632.95	04/10/2002	1.74	8.21	627.69	632.95	626.92	6.03	9.95



## A2. FIELD DATA SHEETS



**GROUNDWATER ELEVATION AND WELL MONITORING**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**DELIVERY ORDER #006**  
**SENECA ARMY DEPOT ACTIVITY**

Monitoring Well (1)	Elevation at Top of Riser (2)	Well Depth (rel. TOC historic)	December, 2001		
			Date	Depth from Top of Riser (ft.)	Comments/ well condition
BN-S	NA	NA		—	Dry??
FH-D	NA	NA		—	—
FH-S	NA	NA		—	—
PT-10	681.52	46.39		8.70	
PT-11	658.22	19.55		10.30	
PT-12A	652.15	13.38		9.51	
PT-15	637.76	19.5		10.10	
PT-16	637.51	11.04		7.15	
PT-17	640.14	11.65		10.75	
PT-18	656.68	11.7		8.63	
PT-19	645.26	11.7		10.25	
MW-20	647.28	11.8		DRY	No water
MW-21A	647.73	19.46		10.25	
MW-22/PT-22	648.61	11.81		10.85	
PT-23	641.58	12.8		—	Yellow Jackets
PT-24	636.40	11.88		7.35	
PT-25	637.09	12.03		11.45	
PT-26	614.64	14		—	Yellow Jackets
MW-27	639.32	10.54		8.85	
MW-28	637.21	10.39		7.60	
MW-29	637.31	10.54		9.55	
MW-30	640.32	10.52		10.52	No Water
MW-31	636.70	10.34		10.34	No Water
MW-32/PT-32	641.68	10.37		DRY	No Water
MW-33	639.56	10.36		10.36	No Water
MW-34	632.89	18.15		—	Yellow Jackets
MW-35D	631.82	56.64		—	Offsite Removed
MW-36	631.79	16.58		—	Offsite Remove
MW-37	632.89	13.62		—	Yellow Jackets
MW-38D	637.90	32.24		7.80	
MW-39	659.54	11.89		—	Yellow Jackets
MW-40	659.30	14.71		—	Yellow Jackets
MW-41D	694.02	47.02		—	
MW-42D	683.04	47.38		—	
MW-43	657.73	7.47		6.95	
MW-44A	653.85	12.48		10.67	
MW-45	650.90	8.34		7.60	
MW-46	650.41	11.45		9.14	
MW-47	628.06	8.56		8.17	Offsite



## **SAMPLING RECORD - GROUNDWATER**

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY		CONSULTANT: PARSONS ES		WELL #:		
SAMPLING ORDER	PRESERVATIVES	BOTTLES		SAMPLE NUMBER	TIME	CHECKED BY/ DATE
		COUNT/ VOLUME	TYPE			
1	VOC -CLP(Low Level) or 524.2	4 deg C	HCL	3/ 40 ml	VOA	
2	DOC	4 deg C	H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA	
3	Methane/Ethane/Ethene	4 deg C	HCL	3/ 40 ml	VOA	
4	Nitrate/Nitrogen 352.1	4 deg C		1 x 500 ml	HDPE	
7	Alkalinity/Sulfate/Chlorides	4 deg C		1 x 1L	HDPE	
5	Ferrous Iron		Field Analysis			
6	Sulfide		Field Analysis			
8	Hydrogen	4 deg C		2/ 40 ml	VOA	
9						
10						

COMMENTS: (QA/QC?)

IDW INFORMATION:

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES				WELL #: PT-29		
PROJECT: LOCATION:			QUARTERLY SAMPLING -ASH LANDFILL ROMULUS, NY				DATE: 8-15-02 INSPECTORS: Ben / Date PUMP #: _____ SAMPLE ID #: _____		
WEATHER / FIELD CONDITIONS CHECKLIST						(RECORD MAJOR CHANGES)			
TIME (24 HR)	TEMP (APPRX)	WEATHER (APPRX)	REL. HUMIDITY (GEN)	WIND	(FROM)	GROUND/SITE SURFACE CONDITIONS	MONITORING		
				VELOCITY (APPRX)	DIRECTION (0 - 360)		INSTRUMENT	DETECTOR	
							OVM-580	PID	
WELL VOLUME CALCULATION FACTORS DIAMETER (INCHES): 0.25 1 2 3 4 6 GALLONS/FOOT: 0.0026 0.041 0.163 0.367 0.654 1.47 LITERS/FOOT: 0.010 0.131 0.617 1.389 2.475 5.564				ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)] $4.53 \times .163 \times 3 = 2.21 \text{ gallons}$					
HISTORIC DATA		DEPTH TO POINT OF WELL (TOC)		DEPTH TO TOP OF SCREEN (TOC)	SCREEN LENGTH (FT)	WELL DEVELOPMENT TURBIDITY	WELL DEVELOPMENT PH	WELL DEVELOPMENT SPEC. COND	
		11.88							
DATA COLLECTED AT WELL SITE		PID READING (OPENING WELL)		DEPTH TO STATIC WATER LEVEL (TOC)	DEPTH TO STABILIZED WATER LEVEL (TOC)	DEPTH TO PUMP INTAKE (TOC)	PUMPING START TIME		
		0		7.35		10.88	1030		
RADIATION SCREENING DATA		PUMP PRIOR TO SAMPLING (cps)				PUMP AFTER SAMPLING (cps)			
<b>MONITORING DATA COLLECTED DURING PURGING OPERATIONS</b>									
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	DISSOLVED OXYGEN (mg/L)	TEMP (°C)	SPEC. COND (µmhos)	pH	ORP (mV)	TURBIDITY (NTU)
1030	7.55	300	0	5.02	16.2	.628	8.04	-7.4	14.3
1032	7.77	300	600 ml	3.10	16.3	.627	7.98	-9.1	11.6
1034	7.77	300	1200 ml	1.33	16.5	.618	7.82	-8.7	11.2
1036	7.78	300	1800 ml	.89	16.8	.608	7.62	-6.5	10.5
1038	7.80	300	2400 ml	.78	16.8	.603	7.57	-5.0	10.1
1040	7.80	300	3000 ml	.72	16.7	.600	7.50	-4.1	10.1
1042	7.80	300	3600 ml	.67	16.7	.598	7.45	-3.4	10.2
1044	7.80	300	4200 ml	.64	16.8	.596	7.39	-2.5	10.2
1046	7.80	300	4800 ml	.62	16.8	.595	7.37	-1.6	10.2
1048	7.80	300	5400 ml	.60	16.9	.595	7.35	-1.1	10.1
1050	7.80	300	6000 ml	.59	16.9	.594	7.33	-7	10.3
1052	7.8	300	6600 ml	.58	16.8	.592	7.31	0	10.5
1054	7.8	300	7200 ml	.56	16.8	.590	7.30	5	
<i>Sample time 11:08</i>									
						Sample ID	ARD-2081	ARD-2180 on loc	
						Duplicate ID	ARD-2181	ARD-2180 just	
						Analysis Requested	8260B	10/10/02	

# SAMPLING RECORD - GROUNDWATER

Form #

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES		WELL #:	
SAMPLING ORDER	PRESERVATIVES	BOTTLES		SAMPLE NUMBER	TIME	CHECKED BY/ DATE
		COUNT/ VOLUME	TYPE			
1	VOC -CLP(Low Level) or 524.2	4 deg C	HCL	3/ 40 ml	VOA	
2	DOC	4 deg C	H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA	
3	Methane/Ethane/Ethene	4 deg C	HCL	3/ 40 ml	VOA	
4	Nitrate/Nitrogen 352.1	4 deg C		1 x 500 ml	HDPE	
7	Alkalinity/Sulfate/Chlorides	4 deg C		1 x 1L	HDPE	
5	Ferrous Iron	Field Analysis	0.02	Mg/l	(@)	16.8°
6	Sulfide	Field Analysis	0.010	mg/l	(@)	16.8°
8	Hydrogen	4 deg C		2/ 40 ml	VOA	
9						
10						

COMMENTS: (QA/QC?)

IDW INFORMATION:

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES				WELL #: MW-28		
PROJECT: QUARTERLY SAMPLING -ASH LANDFILL LOCATION: ROMULUS, NY							DATE: 8-16-02 INSPECTORS: Ben / Date PUMP #: _____ SAMPLE ID #: _____		
WEATHER / FIELD CONDITIONS CHECKLIST (RECORD MAJOR CHANGES)									
TIME (24 HR)	TEMP (APPRX)	WEATHER (APPRX)	REL. HUMIDITY (GEN)	WIND	(FROM)	GROUND/SITE	MONITORING INSTRUMENT      DETECTOR OVM-580      PID		
				VELOCITY (APPRX)	DIRECTION (0 - 360)	SURFACE CONDITIONS			
WELL VOLUME CALCULATION FACTORS				ONE WELL VOLUME (GAL) = ((POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)) $2.79 \times 1.63 \times 3 = 1.36 \text{ gallons}$					
HISTORIC DATA		DEPTH TO POINT OF WELL (TOC)		DEPTH TO TOP OF SCREEN (TOC)	SCREEN LENGTH (FT)	WELL DEVELOPMENT TURBIDITY	WELL DEVELOPMENT pH	WELL DEVELOPMENT SPEC. COND.	
		10.39							
DATA COLLECTED AT WELL SITE		MD READING (OPENING WELL)		DEPTH TO STATIC WATER LEVEL (TOC)	DEPTH TO STABILIZED WATER LEVEL (TOC)	DEPTH TO PUMP INTAKE (TOC)	PUMPING START TIME		
		0		7.60	TOP	9.39	1130		
RADIATION SCREENING DATA		PUMP PRIOR TO SAMPLING (cps)		PUMP AFTER SAMPLING (cps)					
MONITORING DATA COLLECTED DURING PURGING OPERATIONS									
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS) ml	DISSOLVED OXYGEN (mg/L)	TEMP (°C)	SPEC. COND (µmhos)	pH	ORP (mV)	TURBIDITY (NTU)
1136	TOP	200	1200	1.27	18.6	680	6.97	196	16.9
1138	TOP	200	1400	1.14	18.5	690	6.97	190	15.9
1140	TOP	200	1600	1.06	18.2	679	6.97	184	16.9
1142	TOP	200	1800	1.06	18.2	679	6.97	183	11.4
1144	TOP	200	2000	1.06	18.2	678	6.98	183	7.9
1146	TOP	200	2200	1.08	18.3	678	6.98	183	6.3
1148	TOP	200	2400	1.10	18.3	678	6.98	184	5.8
1150	TOP	200	2600	1.17	18.3	677	6.97	187	5.5
1152	TOP	200	2800	1.22	18.3	677	6.97	190	5.0
1154	TOP	200	3000	1.21	18.3	677	6.97	191	4.7
1156	TOP	200	3400	1.20	18.3	676	6.98	192	4.7
Sample Time is 1200									
Sample ID ARD217A									
Analyst Requested 8260.B									

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES		WELL #:	
SAMPLING ORDER	PRESERVATIVES	BOTTLES		SAMPLE NUMBER	TIME	CHECKED BY/ DATE
		COUNT/ VOLUME	TYPE			
1 VOC -CLP(Low Level) or 524.2	4 deg C HCl	3/ 40 ml	VOA			
2 DOC	4 deg C H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA			
3 Methane/Ethane/Ethene	4 deg C HCl	3/ 40 ml	VOA			
4 Nitrate/Nitrogen 352.1	4 deg C	1 x 500 ml	HDPE			
7 Alkalinity/Sulfate/Chlorides	4 deg C	1 x 1L	HDPE			
5 Ferrous Iron	Field Analysis	0.20 mg/l	@ 18°C			
6 Sulfide	Field Analysis	0.198 mg/l	@ 18°C			
8 Hydrogen	4 deg C	2/ 40 ml	VOA			
9						
10						

COMMENTS: (QA/QC?)

IDW INFORMATION:

## **SAMPLING RECORD - GROUNDWATER**

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES			WELL #:	
SAMPLING ORDER	PRESERVATIVES	BOTTLES		SAMPLE NUMBER	TIME	CHECKED BY/ DATE	
		COUNT/ VOLUME	TYPE				
1 VOC -CLP(Low Level) or 524.2	4 deg C HCL	3/ 40 ml	VOA				
2 DOC	4 deg C H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA				
3 Methane/Ethane/Ethene	4 deg C HCL	3/ 40 ml	VOA				
4 Nitrate/Nitrogen 352.1	4 deg C	1 x 500 ml	HDPE				
7 Alkalinity/Sulfate/Chlorides	4 deg C	1 x 1L	HDPE				
5 Ferrous Iron	Field Analysis						
6 Sulfide	Field Analysis						
8 Hydrogen	4 deg C	2/ 40 ml	VOA				
9							
10							

COMMENTS: (QA/QC?)

IDW INFORMATION:

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES				WELL #: MW-56		
PROJECT: LOCATION:		QUARTERLY SAMPLING -ASH LANDFILL ROMULUS, NY							
WEATHER / FIELD CONDITIONS CHECKLIST (RECORD MAJOR CHANGES)									
TIME (24 HR)	TEMP (APPRX)	WEATHER (APPRX)	REL. HUMIDITY (GEN)	WIND (FROM)	DIRECTION (0 - 360)	GROUND / SITE SURFACE CONDITIONS	MONITORING		
				VELOCITY (APPRX)			INSTRUMENT	DETECTOR	
							OVM-580      PID		
WELL VOLUME CALCULATION FACTORS				ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]					
DIAMETER (INCHES): GALLONS/FOOT: LITERS/FOOT	0.25 0.0026 U.UIU	1 0.041 U.151	2 0.163 0.61	3 0.367 1.389	4 0.654 2.475	6 1.47 0.064			
HISTORIC DATA		DEPTH TO POINT OF WELL (FT.)		DEPTH TO TOP OF SCREEN (FT.)	SCREEN LENGTH (FT)	WELL DEVELOPMENT TURBIDITY	WELL DEVELOPMENT pH	WELL DEVELOPMENT SPEC. COND	
		6.88							
DATA COLLECTED AT WELL SITE		PID READING (OPENING WELL)		DEPTH TO STATIC WATER LEVEL (FT.)		DEPTH TO STABILIZED WATER LEVEL (FT.)	DEPTH TO PUMP INTAKE (FT.)	PUMPING START TIME	
RADIATION SCREENING DATA		PUMP PRIOR TO SAMPLING (cps)				PUMP AFTER SAMPLING (cps)			
<b>MONITORING DATA COLLECTED DURING PURGING OPERATIONS</b>									
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	DISSOLVED OXYGEN (mg/L)	TEMP (C)	SPEC. COND (mhos)	pH	ORP (mV)	TURBIDITY (NTU)
<i>NO WATER</i>									

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES		WELL #:	
SAMPLING ORDER	PRESERVATIVES	BOTTLES		SAMPLE NUMBER	TIME	CHECKED BY/ DATE
		COUNT/ VOLUME	TYPE			
1 VOC -CLP(Low Level) or 524.2	4 deg C HCl	3/ 40 ml	VOA			
2 DOC	4 deg C H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA			
3 Methane/Ethane/Ethene	4 deg C HCl	3/ 40 ml	VOA			
4 Nitrate/Nitrogen 352.1	4 deg C	1 x 500 ml	HDPE			
7 Alkalinity/Sulfate/Chlorides	4 deg C	1 x 1L	HDPE			
5 Ferrous Iron	Field Analysis					
6 Sulfide	Field Analysis					
8 Hydrogen	4 deg C	2/ 40 ml	VOA			
9						
10						

**COMMENTS: (QA/QC?)**

**IDW INFORMATION:**

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES				WELL #: MWT-1		
PROJECT: QUARTERLY SAMPLING -ASH LANDFILL LOCATION: ROMULUS, NY							DATE: 8-15-02 INSPECTORS: Ben/Dale PUMP #: _____ SAMPLE ID #: _____		
WEATHER / FIELD CONDITIONS CHECKLIST (RECORD MAJOR CHANGES)									
TIME (24 HR)	TEMP (APPRX)	WEATHER (APPRX)	REL. HUMIDITY (GEN)	WIND VELOCITY (APPRX)	(FROM) DIRECTION (0 - 360)	GROUND / SITE SURFACE CONDITIONS	MONITORING		
							INSTRUMENT	DETECTOR	
							OVM-580	PID	
WELL VOLUME CALCULATION FACTORS DIAMETER (INCHES): 0.25 1 2 3 4 6 GALLONS/FOOT: 0.0026 0.041 0.163 0.367 0.654 1.47 LITERS/FOOT: 0.010 0.151 0.611 1.389 2.413 5.004							ONE WELL VOLUME (GAL) = ((POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)) $2.55 \times 1.63 \times 3 = 1.24 \text{ gallons}$		
HISTORIC DATA		DEPTH TO POINT OF WELL (TOC)		DEPTH TO TOP OF SCREEN (TOC)		SCREEN LENGTH (FT)	WELL DEVELOPMENT TURBIDITY	WELL DEVELOPMENT pH	WELL DEVELOPMENT SPEC. COND
		9.75							
DATA COLLECTED AT WELL SITE		PID READING (OPENING WELL)		DEPTH TO STATIC WATER LEVEL (TOC)		DEPTH TO STABILIZED WATER LEVEL (TOC)	DEPTH TO PUMP INTAKE (TOC)	PUMPING START TIME	
		0		7.20		TOP	9.50	1543	
RADIATION SCREENING DATA		PUMP PRIOR TO SAMPLING (cps)				PUMP AFTER SAMPLING (cps)			
MONITORING DATA COLLECTED DURING PURGING OPERATIONS									
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	DISSOLVED OXYGEN (mg/L)	TEMP (C)	SPEC. COND (micro)	pH	ORP (mV)	TURBIDITY (NTU)
1545	400	.25	4.14	16.8	7.28	7.11	170	45.7	
1547	TOP	.80	4.11	16.3	7.16	7.12	153	18.4	
1549	TOP	1.0	3.44	16.1	7.12	7.12	147	15.4	
1551	TOP	400	1.3	2.40	15.8	7.09	7.13	144	19.1
1553			1.6	2.40	15.8	7.07	7.10	144	14.1
<i>Sample Time 1606</i>									
<i>Sample ID TR2091</i>									

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES		WELL #:		
SAMPLING ORDER		PRESERVATIVES	BOTTLES		SAMPLE NUMBER	TIME	CHECKED BY/ DATE
			COUNT/ VOLUME	TYPE			
1	VOC -CLP(Low Level) or 524.2	4 deg C	HCL	3/ 40 ml	VOA		
2	DOC	4 deg C	H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA		
3	Methane/Ethane/Ethene	4 deg C	HCL	3/ 40 ml	VOA		
4	Nitrate/Nitrogen 352.1	4 deg C		1 x 500 ml	HDPE		
7	Alkalinity/Sulfate/Chlorides	4 deg C		1 x 1L	HDPE		
5	Ferrous Iron	Field Analysis	0.06	mg/l	@	15.8 °C	
6	Sulfide	Field Analysis	0.030	mg/l	@	15.8°C	
8	Hydrogen	4 deg C	2/ 40 ml	VOA			
9							
10							

COMMENTS: (QA/QC?)

IDW INFORMATION:

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES				WELL #: MWI-3		
PROJECT: QUARTERLY SAMPLING -ASH LANDFILL LOCATION: ROMULUS, NY							DATE: 8.15.02 INSPECTORS: Ben/Dale PUMP #: _____ SAMPLE ID #: _____		
WEATHER / FIELD CONDITIONS CHECKLIST (RECORD MAJOR CHANGES)									
TIME (24 HR)	TEMP (APPRX)	WEATHER (APPRX)	REL. HUMIDITY (GEN)	WIND	(FROM)	GROUND/SITE SURFACE CONDITIONS	MONITORING		
				VELOCITY (APPRX)	DIRECTION (0 - 360)		INSTRUMENT	DETECTOR	
							OVM-580	PID	
WELL VOLUME CALCULATION FACTORS				ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]					
DIAMETER (INCHES): 0.25 1 2 3 4 6 GALLONS/FOOT: 0.0026 0.041 0.163 0.367 0.654 1.47 LITERS/FOOT: 0.010 0.151 0.617 1.389 2.475 3.564				2.65 X .163 X 3 = 1.29 gallon					
HISTORIC DATA		DEPTH TO POINT OF WELL (TOC)		DEPTH TO TOP OF SCREEN (TOC)	SCREEN LENGTH (FT)	WELL DEVELOPMENT TURBIDITY	WELL DEVELOPMENT pH	WELL DEVELOPMENT SPEC. COND	
		10.0							
DATA COLLECTED AT WELL SITE		PID READING (OPENING WELL)		DEPTH TO STATIC WATER LEVEL (TOC)		DEPTH TO STABILIZED WATER LEVEL (TOC)	DEPTH TO PUMP INTAKE (TOC)	PUMPING START TIME	
		0		7.35			9.0	1610	
RADIATION SCREENING DATA		PUMP PRIOR TO SAMPLING (cps)				PUMP AFTER SAMPLING (cps)			
MONITORING DATA COLLECTED DURING PURGING OPERATIONS									
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	DISSOLVED OXYGEN (mg/L)	TEMP (°C)	SPEC. COND (µmhos)	pH	ORP (mV)	TURBIDITY (NTU)
1610	TOP	400	.25	3.16	17.1	1678	7.15	212	85.3
1612	TOP	400	.6	1.44	16.9	1585	7.14	195	51.4
1613	TOP		.95	1.27	16.1	1578	7.14	188	35.5
1614	TOP		1.30	.95	16.3	1569	7.15	167	13.8
1615	TOP		1.70	.80	16.3	1562	7.17	146	9.0
<i>Sample true</i> 16:20									
<i>Sample ID TR2092</i>									

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES		WELL #:		
SAMPLING ORDER		PRESERVATIVES	BOTTLES		SAMPLE NUMBER	TIME	CHECKED BY/ DATE
			COUNT/ VOLUME	TYPE			
1	VOC -CLP(Low Level) or 524.2	4 deg C HCl	3/ 40 ml	VOA			
2	DOC	4 deg C H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA			
3	Methane/Ethane/Ethene	4 deg C HCl	3/ 40 ml	VOA			
4	Nitrate/Nitrogen 352.1	4 deg C	1 x 500 ml	HDPE			
7	Alkalinity/Sulfate/Chlorides	4 deg C	1 x 1L	HDPE			
5	Ferrous Iron	Field Analysis	0.00				
6	Sulfide	Field Analysis	0.027		Mg/11 @ 16.3		
8	Hydrogen	4 deg C	2/ 40 ml	VOA			
9							
10							

**COMMENTS: (QA/QC?)**

Well started to go dry turbidity oh Fe+ is above 100 mlu.

**IDW INFORMATION:**

## **SAMPLING RECORD - GROUNDWATER**

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY		CONSULTANT: PARSONS ES			WELL #:	
SAMPLING ORDER	PRESERVATIVES	BOTTLES		SAMPLE NUMBER	TIME	CHECKED BY/ DATE
		COUNT/ VOLUME	TYPE			
1 VOC -CLP(Low Level) or 524.2	4 deg C HCl	3/ 40 ml	VOA			
2 DOC	4 deg C H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA			
3 Methane/Ethane/Ethene	4 deg C HCl	3/ 40 ml	VOA			
4 Nitrate/Nitrogen 352.1	4 deg C	1 x 500 ml	HDPE			
7 Alkalinity/Sulfate/Chlorides	4 deg C	1 x 1L	HDPE	Mg/1	@ 5.5 °C	
5 Ferrous Iron	Field Analysis	0.01				
6 Sulfide	Field Analysis	.032		Mg/1	@ 15.5 °C	
8 Hydrogen	4 deg C	2/ 40 ml	VOA			
9						
10						

COMMENTS: (QA/QC?)

IDW INFORMATION:

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES				WELL #: MWT-6		
PROJECT: QUARTERLY SAMPLING -ASH LANDFILL LOCATION: ROMULUS, NY							DATE: 8-15-02 INSPECTORS: Ben / Dale PUMP #: _____ SAMPLE ID #: _____		
WEATHER / FIELD CONDITIONS CHECKLIST (RECORD MAJOR CHANGES)									
TIME (24 HR)	TEMP (APPRX)	WEATHER (APPRX)	REL. HUMIDITY (GEN)	WIND VELOCITY (APPRX)	DIRECTION (0 - 360)	GROUND / SITE SURFACE CONDITIONS	MONITORING		
							INSTRUMENT	DETECTOR	
							OVM-580	PID	
WELL VOLUME CALCULATION FACTORS DIAMETER (INCHES): 0.25 1 2 3 4 6 GALLONS/FOOT: 0.0026 0.041 0.163 0.367 0.654 1.47 LITERS/FOOT: 0.010 0.151 0.611 1.389 2.475 5.364							ONE WELL VOLUME (GAL) = ((POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)).  $3.42 \times 1.63 \times 3 = 1.67 \text{ gallons}$		
HISTORIC DATA		DEPTH TO POINT OF WELL (TOC)		DEPTH TO TOP OF SCREEN (TOC)		SCREEN LENGTH (FT)	WELL DEVELOPMENT TURBIDITY	WELL DEVELOPMENT pH	WELL DEVELOPMENT SPEC. COND
		12.42							
DATA COLLECTED AT WELL SITE		PID READING (OPENING WELL)		DEPTH TO STATIC WATER LEVEL (TOC)		DEPTH TO STABILIZED WATER LEVEL (TOC)	DEPTH TO PUMP INTAKE (TOC)	PUMPING START TIME	
		9.00					11.42	1500	
RADIATION SCREENING DATA		PUMP PRIOR TO SAMPLING (cps)				PUMP AFTER SAMPLING (cps)			
MONITORING DATA COLLECTED DURING PURGING OPERATIONS									
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	DISSOLVED OXYGEN (mg/L)	TEMP (°C)	SPEC. COND (µmhos)	pH	ORP (mV)	TURBIDITY (NTU)
1500	400	400	0.02	3.03	16.3	.730	7.27	36	23.2
1502	9.60	400	.8	1.60	16.0	.609	7.40	16	13.2
1504	9.60	400	1.2	1.31	16.0	.553	7.43	10	10.5
1506	9.60	400	1.6	1.10	16.1	.516	7.43	7	12.2
1507	9.60	400	1.8	.89	16.0	.494	7.45	6	10.2
1509	9.60	400	2.0	.82	16.1	.487	7.46	6	9.8
Sample time 1515									
Sample ID TR2094 1515 Duplicate ID TR2099 1515 Analysis Requested 524.2 on both									

# SAMPLING RECORD - GROUNDWATER

Form # \_\_\_\_\_

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES		WELL #:	
SAMPLING ORDER	PRESERVATIVES	BOTTLES		SAMPLE NUMBER	TIME	CHECKED BY/ DATE
		COUNT/ VOLUME	TYPE			
1 VOC -CLP(Low Level) or 524.2	4 deg C HCL	3/ 40 ml	VOA			
2 DOC	4 deg C H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA			
3 Methane/Ethane/Ethene	4 deg C HCL	3/ 40 ml	VOA			
4 Nitrate/Nitrogen 352.1	4 deg C	1 x 500 ml	HDPE			
7 Alkalinity/Sulfate/Chlorides	4 deg C	1 x 1L	HDPE			
5 Ferrous Iron	Field Analysis	0.04		Mg/1	@ 16.1°C	
6 Sulfide	Field Analysis	0.019		Mg/1	@ 16.1°C	
8 Hydrogen	4 deg C	2/ 40 ml	VOA			
9						
10						

COMMENTS: (QA/QC?)

IDW INFORMATION:

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES				WELL #: MWT-7		
PROJECT: LOCATION:		QUARTERLY SAMPLING -ASH LANDFILL ROMULUS, NY				DATE: 8-15-02 INSPECTORS: Ben/Dale PUMP #: _____ SAMPLE ID #: _____			
WEATHER / FIELD CONDITIONS CHECKLIST (RECORD MAJOR CHANGES)									
TIME (24 HR)	TEMP (APPRX)	WEATHER (APPRX)	REL. HUMIDITY (GEN)	WIND (FROM)	GROUND / SITE SURFACE CONDITIONS	MONITORING			
				VELOCITY (APPRX)		DIRECTION (0 - 360)	INSTRUMENT	DETECTOR	
						OVM-580	PID		
WELL VOLUME CALCULATION FACTORS				ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]					
DIAMETER (INCHES): GALLONS/FOOT: LITERS/FOOT	0.25 0.0026 0.010	1 0.041 0.151	2 0.163 0.611	3 0.367 1.389	4 0.654 2.475	6 1.47 5.004	$3.67 \times .163 \times 3 = 1.79 \text{ gallons}$		
HISTORIC DATA	DEPTH TO POINT OF WELL (TOC)		DEPTH TO TOP OF SCREEN (TOC)	SCREEN LENGTH (FT)	WELL DEVELOPMENT TURBIDITY	WELL DEVELOPMENT PH	WELL DEVELOPMENT SPEC. COND		
	13.92								
DATA COLLECTED AT WELL SITE	PID READING (OPENING WELL)		DEPTH TO STATIC WATER LEVEL (TOC)	DEPTH TO STABILIZED WATER LEVEL (TOC)	DEPTH TO PUMP INTAKE (TOC)	PUMPING START TIME			
	0		10.25	11.55	13.42	13:12			
RADIATION SCREENING DATA	PUMP PRIOR TO SAMPLING (cps)			PUMP AFTER SAMPLING (cps)					
<b>MONITORING DATA COLLECTED DURING PURGING OPERATIONS</b>									
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	DISSOLVED OXYGEN (mg/L)	TEMP (°C)	SPEC. COND (µmhos)	pH	ORP (mV)	TURBIDITY (NTU)
13:12	10.65	500	0	5.89	15.3	.883	7.04	295	489
13:17	11.20	500	2500 ml	4.41	15.1	.864	6.74	294	4.7
13:22	11.55	500	5000 ml	4.36	14.9	.861	6.71	289	3.1
13:27	11.55	500	7500 ml	3.40	14.8	.861	6.71	285	
<i>Sample true 1345</i>									
<i>Sample ID TR2095@B45</i> <i>MIS ID TR 2095 MIS</i> <i>MSD ID TR2095 MSD</i>									
<i>Analysts Requested 524.2</i>									

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES		WELL #:	
SAMPLING ORDER	PRESERVATIVES	BOTTLES		SAMPLE NUMBER	TIME	CHECKED BY/ DATE
		COUNT/ VOLUME	TYPE			
1 VOC -CLP(Low Level) or 524.2	4 deg C HCL	3/ 40 ml	VOA			
2 DOC	4 deg C H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA			
3 Methane/Ethane/Ethene	4 deg C HCL	3/ 40 ml	VOA			
4 Nitrate/Nitrogen 52.1	4 deg C	1 x 500 ml	HDPE			
7 Alkalinity/Sulfate/Chlorides	4 deg C	1 x 1L	HDPE	0.06	My 11 @ 148°C	
5 Ferrous Iron	Field Analysis			0.029	M @ 148°C	
6 Sulfide	Field Analysis					
8 Hydrogen	4 deg C	2/ 40 ml	VOA			
9						
10						

COMMENTS: (QA/QC?)

IDW INFORMATION:

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES				WELL #: MWT-9		
PROJECT: QUARTERLY SAMPLING -ASH LANDFILL LOCATION: ROMULUS, NY							DATE: 8.16.02 INSPECTORS: Ben/Date PUMP #: _____ SAMPLE ID #: _____		
WEATHER / FIELD CONDITIONS CHECKLIST (RECORD MAJOR CHANGES)									
TIME (24 HR)	TEMP (APPRX)	WEATHER (APPRX)	REL. HUMIDITY (GEN)	WIND	(FROM)	GROUND/SITE SURFACE CONDITIONS	MONITORING		
				VELOCITY (APPRX)	DIRECTION (0 - 360)	INSTRUMENT      DETECTOR			
							OVM-580	PID	
WELL VOLUME CALCULATION FACTORS				ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]					
DIAMETER (INCHES): GALLONS/FOOT: LITERS/FOOT		0.25 0.0026 0.010	1 0.041 0.151	2 0.163 0.617	3 0.367 1.389	4 0.654 2.473	6 1.47 3.364	$2.60 \times .163 \times 3 = 1.27 \text{ gallons}$	
HISTORIC DATA		DEPTH TO POINT OF WELL (TOC)		DEPTH TO TOP OF SCREEN (TOC)	SCREEN LENGTH (FT)	WELL DEVELOPMENT TURBIDITY	WELL DEVELOPMENT pH	WELL DEVELOPMENT SPEC COND	
		14.08							
DATA COLLECTED AT WELL SITE		PID READING (OPENING WELL)		DEPTH TO STATIC WATER LEVEL (TOC)		DEPTH TO STABILIZED WATER LEVEL (TOC)	DEPTH TO PUMP INTAKE (TOC)	PUMPING START TIME	
		0		11.48			13.58	13.55	
RADIATION SCREENING DATA		PUMP PRIOR TO SAMPLING (cps)				PUMP AFTER SAMPLING (cps)	135	8.16.02	
MONITORING DATA COLLECTED DURING PURGING OPERATIONS									
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	DISSOLVED OXYGEN (mg/L)	TEMP (C)	SPEC. COND (µmhos)	pH	ORP (mV)	TURBIDITY (NTU)
1403	Well water dry → Well Turbidity over 1000	Well	Turbidity over 1000	water	well	let well sit & come back			
8.16.02	Return to MWT-9	to Sample	Water level 10.70 with pump in well	well depth purging @ 200 ml/min					
			Water is very turbid but clearing up after 5 gallons.						
1350	10.99	200ml	.5	3.53	17.0	.616	7.43	-33	77.8
1350	11.0	300ml	.6	.90	16.7	.578	7.32	-34	21.4
1352	11.0	300ml	.8	.80	16.8	.571	7.32	-35	18.8
1354	11.0	300ml	1.0	.71	16.6	.562	7.32	-35	17.8
1356	11.0	300ml	1.2	.69	16.8	.560	7.31	-35	17.3
1358	11.0	300ml	1.35	.66	16.8	.556	7.31	-35	17.5
1400	11.0	300ml	1.50	.66	16.7	.553	7.31	-35	16.8
Sample time 1400									
Sample ID TR2096 Analyst Requested 524.2									

~~Thick~~ 0.049 mg/l @ 16.7 °C  
Sulfide = ↑

Fe<sup>2+</sup> 0.21 mg/l @ 16.7 °C

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES				WELL #: MWT-10		
PROJECT: QUARTERLY SAMPLING -ASH LANDFILL			LOCATION: ROMULUS, NY				DATE: 8-16-02 INSPECTORS: Ben / Date PUMP #: _____ SAMPLE ID #: _____		
WEATHER / FIELD CONDITIONS CHECKLIST (RECORD MAJOR CHANGES)									
TIME (24 HR)	TEMP (APPRX)	WEATHER (APPRX)	REL. HUMIDITY (GEN)	WIND VELOCITY (APPRX)	DIRECTION (0 - 360)	GROUND/SITE SURFACE CONDITIONS	MONITORING		
							INSTRUMENT	DETECTOR	
							OVM-580	PID	
WELL VOLUME CALCULATION FACTORS							ONE WELL VOLUME (GAL) = ((POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT))		
DIAMETER (INCHES): GALLONS/FOOT: LITERS/FOOT:		0.25    1    2    3    4    6	$3.20 \times 1.63 \times 3 = 1.56 \text{ gallons}$						
HISTORIC DATA		DEPTH TO POINT OF WELL (TOC)	DEPTH TO TOP OF SCREEN (TOC)	SCREEN LENGTH (FT)	WELL DEVELOPMENT TURBIDITY	WELL DEVELOPMENT pH	WELL DEVELOPMENT SPEC. COND.		
		8.95							
DATA COLLECTED AT WELL SITE		PID READING (OPENING WELL)	DEPTH TO STATIC WATER LEVEL (TOC)	DEPTH TO STABILIZED WATER LEVEL (TOC)	DEPTH TO PUMP INTAKE (TOC)	PUMPING START TIME			
			5.75	5.90	8.45	0945			
RADIATION SCREENING DATA		PUMP PRIOR TO SAMPLING (cps)	5.82 8:15 AM	PUMP AFTER SAMPLING (cps)					
MONITORING DATA COLLECTED DURING PURGING OPERATIONS									
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	DISSOLVED OXYGEN (mg/L)	TEMP (C)	SPEC. COND (umhos)	pH	ORP (mV)	TURBIDITY (NTU)
0945	5.90	300	0	2.29	17.9	0.095	8.55	228	2.5
0948	5.90	300	900 ml	1.57	17.6	.115	8.86	216	13.0
950	5.90	300	1800	0.89	17.6	.096	9.55	189	9.1
952	5.90	300	2800	0.85	17.5	.095	9.63	176	6.6
955	5.90	300	2800	0.75	17.6	.094	9.70	164	6.4
957	5.90	300	3300 ml	0.71	17.7	.094	9.72	156	6.1
959	5.90	300	3900 ml	0.65	17.8	.093	9.75	142	6.7
10:00	5.9	300	S	0.65	17.8	.093	9.75	140	6.7
Sample Total 10.00									
Sample ID TR 2097 Analysts Requested 524.2									
52									

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES		WELL #:	
SAMPLING ORDER	PRESERVATIVES	BOTTLES		SAMPLE NUMBER	TIME	CHECKED BY/ DATE
		COUNT/ VOLUME	TYPE			
1	VOC -CLP(Low Level) or 524.2	4 deg C	HCL	3/ 40 ml	VOA	
2	DOC	4 deg C	H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA	
3	Methane/Ethane/Ethene	4 deg C	HCL	3/ 40 ml	VOA	
4	Nitrate/Nitrogen 352.1	4 deg C		1 x 500 ml	HDPE	
7	Alkalinity/Sulfate/Chlorides	4 deg C		1 x 1L	HDPE	
5	Ferrous Iron	Field Analysis		0.06 mg/L	@ 17.8 °C	
6	Sulfide	Field Analysis		0.037 mg/L	@ 17.8 °C	
8	Hydrogen	4 deg C		2/ 40 ml	VOA	
9						
10						

COMMENTS: (QA/QC?)

IDW INFORMATION:

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES				WELL #: MWI-11		
PROJECT:	QUARTERLY SAMPLING -ASH LANDFILL						DATE:	8-16-02	
LOCATION:	ROMULUS, NY						INSPECTORS:	Ben/Pate	
WEATHER / FIELD CONDITIONS CHECKLIST (RECORD MAJOR CHANGES)							PUMP #:		
TIME (24 HR)	TEMP (APPRX)	WEATHER (APPRX)	REL.	WIND (FROM)	GROUND / SITE SURFACE CONDITIONS		SAMPLE ID #:		
			HUMIDITY (GEN)	VELOCITY (APPRX)	DIRECTION (0 - 360)	INSTRUMENT	DETECTOR		
							OVM-580	PID	
WELL VOLUME CALCULATION FACTORS							ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]		
DIAMETER (INCHES): GALLONS/FOOT: LITERS/FOOT	0.25 0.0026 0.010	1 0.041 0.151	2 0.163 0.611	3 0.367 1.989	4 0.654 2.473	6 1.47 3.364	$1.74 \times 1.63 \times 3 = .85 \text{ gallons}$		
HISTORIC DATA	DEPTH TO POINT OF WELL (TOC)		DEPTH TO TOP OF SCREEN (TOC)	SCREEN LENGTH (FT)	WELL DEVELOPMENT TURBIDITY	WELL DEVELOPMENT pH	WELL DEVELOPMENT SPEC. COND.		
	9.95								
DATA COLLECTED AT WELL SITE	PID READING (OPENING WELL)		DEPTH TO STATIC WATER LEVEL (TOC)	DEPTH TO STABILIZED WATER LEVEL (TOC)	DEPTH TO PUMP INTAKE (TOC)	PUMPING START TIME			
			8.21		9.45	1250			
RADIATION SCREENING DATA	PUMP PRIOR TO SAMPLING (cps)			PUMP AFTER SAMPLING (cps)					
MONITORING DATA COLLECTED DURING PURGING OPERATIONS									
TIME (min)	WATER LEVEL	PUMPING RATE (ml/min)	CUMULATIVE VOL (GALLONS)	DISSOLVED OXYGEN (mg/L)	TEMP (C)	SPEC. COND. (umhos)	pH	ORP (mV)	TURBIDITY (NTU)
1252	8.9	500	500 ml	2.84	19.5	.815	6.52	482	48.2
1255	9.6	500	3000 ml	1.24	18.5	.785	6.77	317	16.2
<i>Well went dry @ 1258 .75 gallons</i>									
<i>Sample Collected @ 1422 No param</i>									
<i>well went dry after sample collected.</i>									
<i>Sample DD TR2098</i> <i>Analysts Requested 524.2</i>									

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY		CONSULTANT: PARSONS ES		WELL #:		
SAMPLING ORDER	PRESERVATIVES	BOTTLES		SAMPLE NUMBER	TIME	CHECKED BY/ DATE
		COUNT/ VOLUME	TYPE			
1	VOC -CLP(Low Level) or 524.2	4 deg C	HCL	3/ 40 ml	VOA	
2	DOC	4 deg C	H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA	
3	Methane/Ethane/Ethene	4 deg C	HCL	3/ 40 ml	VOA	
4	Nitrate/Nitrogen 352.1	4 deg C		1 x 500 ml	HDPE	
7	Alkalinity/Sulfate/Chlorides	4 deg C		1 x 1L	HDPE	
5	Ferrous Iron		Field Analysis			
6	Sulfide		Field Analysis			
8	Hydrogen	4 deg C		2/ 40 ml	VOA	
9						
10						

## COMMENTS: (QA/QC?)

Well went dry on 8-15-02 well sampled 8-16-02

Well went dry soon after sample collected No parameters collected

## IDW INFORMATION:

## **SAMPLING RECORD - GROUNDWATER**

# SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY			CONSULTANT: PARSONS ES		WELL #:	
SAMPLING ORDER		PRESERVATIVES	BOTTLES	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
			COUNT/ VOLUME	TYPE		
1	VOC -CLP(Low Level) or 524.2	4 deg C HCl	3/ 40 ml	VOA		
2	DOC	4 deg C H <sub>2</sub> SO <sub>4</sub>	2/ 40 ml	VOA		
3	Methane/Ethane/Ethene	4 deg C HCl	3/ 40 ml	VOA		
4	Nitrate/Nitrogen 352.1	4 deg C	1 x 500 ml	HDPE		
7	Alkalinity/Sulfate/Chlorides	4 deg C	1 x 1L	HDPE		
5	Ferrous Iron	Field Analysis				
6	Sulfide	Field Analysis				
8	Hydrogen	4 deg C	2/ 40 ml	VOA		
9						
10						

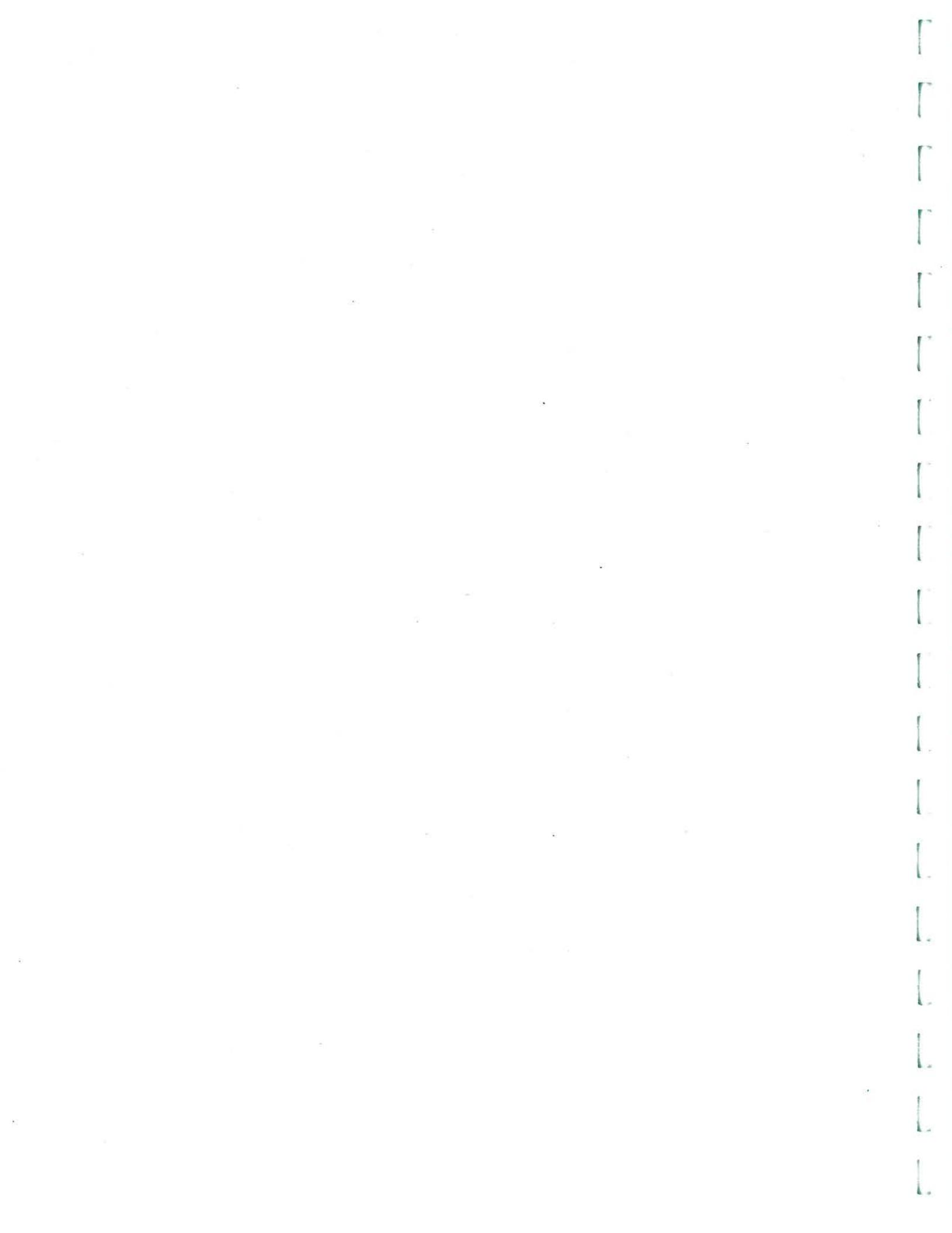
**COMMENTS: (QA/QC?)**

**IDW INFORMATION:**

**APPENDIX B**

**THIRD QUARTER 2002 LABORATORY REPORTS**

**SEVERN TRENT LABS (STL)**

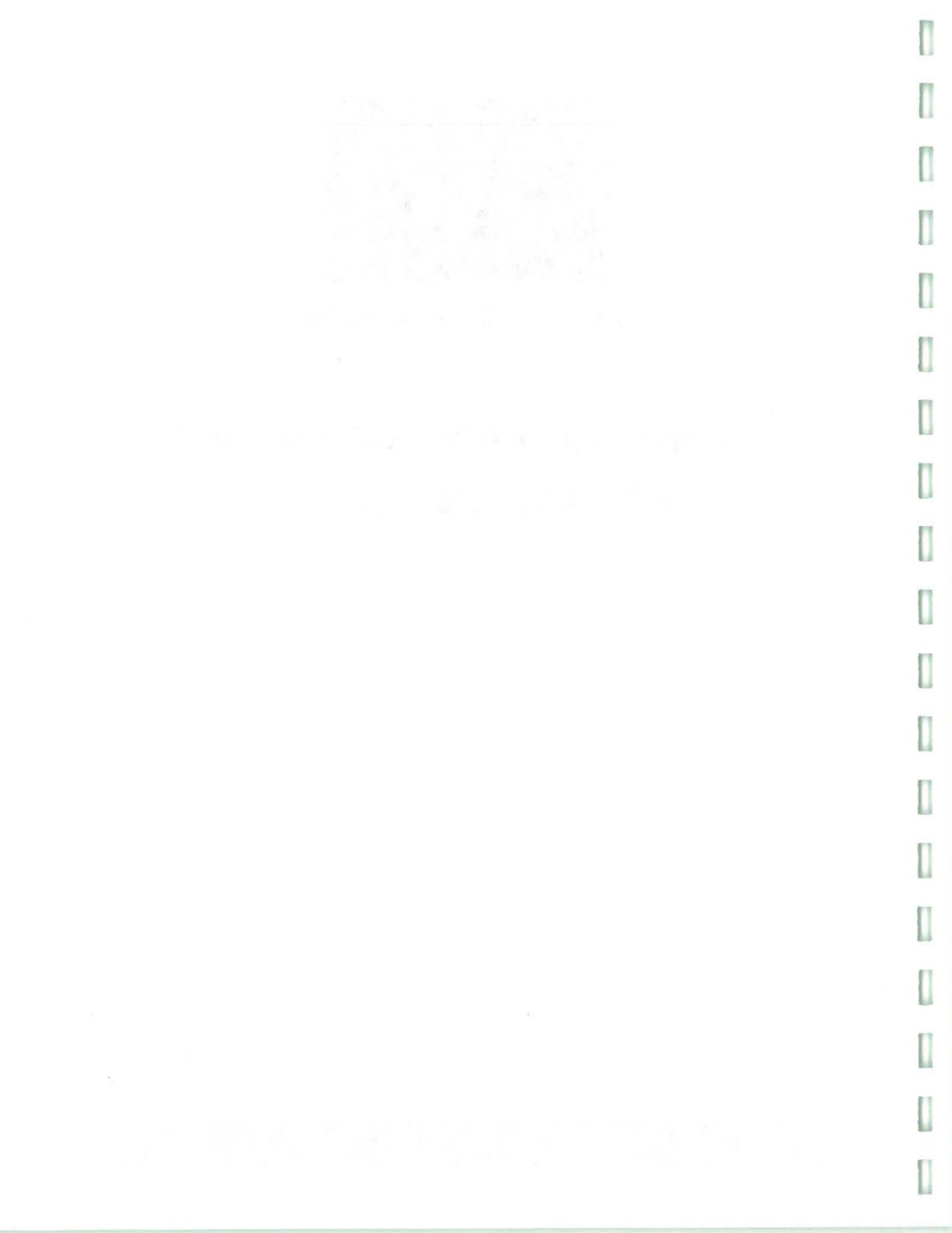




**Severn Trent Laboratories, Inc.**

**SAMPLE DATA SUMMARY PACKAGE**

**SDG NO:** 89326



SEVERN  
TRENT  
SERVICES

September 5, 2002

Mr. Todd Heino  
Parsons Engineering Science Inc.  
30 Dan Road  
Canton, MA 02021

**STL Burlington**  
208 South Park Drive  
Suite 1  
Colchester, VT 05446

Tel: 802 655 1203  
Fax: 802 655 1248  
[www.stl-inc.com](http://www.stl-inc.com)

Re: Laboratory Project No. 98011  
Case: 98011; SDG: 89326

Dear Mr. Heino:

Enclosed are the analytical results of samples received by Severn Trent Laboratories on August 17, 2002. Laboratory numbers have been assigned and designated as follows:

<u>Lab ID</u>	<u>Client Sample ID</u>	<u>Sample Date</u>	<u>Sample Matrix</u>
Received: 08/17/02 ETR No: 89326			
498072	TR2091	08/15/02	Water
498073	TR2092	08/15/02	Water
498074	TR2093	08/15/02	Water
498075	TR2094	08/15/02	Water
498076	TR2099	08/15/02	Water
498077	TR2095	08/15/02	Water
498077MS	TR2095MS	08/15/02	Water
498077MD	TR2095MSD	08/15/02	Water
498078	TR2096	08/16/02	Water
498079	TR2097	08/16/02	Water
498080	TR2098	08/16/02	Water
498081	ARD2180	08/16/02	Water
498082	ARD2181	08/16/02	Water
498083	ARD2177	08/16/02	Water
498084	ARD2168	08/16/02	Water
498085	TR0037	08/16/02	Water
498086	TR0038	08/12/02	Water

Documentation that identifies the condition of the samples at the time of sample receipt and any issues that arose at the time of sample log-in is included in the Sample Handling section of this submittal. Please note that the laboratory received a sample identified on the chain-of-custody record as ARD2161. No corresponding container existed; however, a container identified as ARD2168 was received but not recorded on the chain-of-custody form. The sample date and time did match that provided on the chain-of-



custody form for sample ARD2161. The client was contacted and instructed the laboratory to use the sample identification on the sample container.

Volatile Organic Compounds by EPA 8260B

Manual integrations were performed for analyte quantitation of samples in this delivery group. Documentation of these integrations is provided in the supportive documentation section of the data package.

The analysis of the samples identified as ARD2180 and ARD2181 was performed at a dilution in order to provide quantification of target analytes within the calibrated range of instrument response.

A trace amount (less than the reporting limit but greater than ½ the reporting limit) of naphthalene was detected in the method blank identified as VBLKY2. Naphthalene was not detected in any of the field samples associated with this delivery group.

The recoveries of the following analytes from both the initial and duplicate analysis of the laboratory control sample, LYCE were outside of their respective control ranges for this method: bromomethane (51%, 51%); carbon tetrachloride (120%, 120%); 1,1,1,2-tetrachloroethane (110%, 110%); and 1,1,2,2-tetrachloroethane (110%, 110%).

Volatile Organic Compounds by EPA 524.2

Manual integrations were performed for analyte quantitation of samples in this delivery group. Documentation of these integrations is provided in the supportive documentation section of the data package.

The analysis of several samples in this delivery group was performed at a dilution in order to provide quantification of target analytes within the calibrated range of instrument response.

The recoveries of the following compounds from both the initial and duplicate analysis of the laboratory fortified aliquot of sample TR2095 were outside of established laboratory control criteria: acetone (54%, 50%); carbon disulfide (145%, 136%); trichloroethene (200%, 200%); 1,1-dichloropropanone (50%, 54%); 2-nitropropanone (39%, 43%); and pentachloroethane (142%, 147%).

Acetone and carbon disulfide were also outside of the established control criteria during the analysis of one or more of the laboratory control samples associated with this delivery group. The result for carbon disulfide was consistently biased high and there is no indication of its presence in any of the field samples. The recovery of acetone from the laboratory control sample was just below the control range (68% versus 70%).

If there are any questions regarding this submittal, please contact Jeannine McCrumb at (802) 655-1203.



Mr. Todd Heino  
September 5, 2002  
Page 3 of 3

S E V E R N  
T R E N T  
S E R V I C E S

STL Burlington

This report shall not be reproduced, except in full, without the written approval of the laboratory. This report is sequentially numbered starting with page 0001 and ending with page 0410.

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

Sincerely,



Michael F. Wheeler, Ph.D.  
Laboratory Director

MFW/jta/jmm  
Enclosure



**CHAIN OF CUSTODY RECORD**

Severn Trent Laboratories, Inc.

208 South Park Drive, Suite 1, Colchester, VT 05446 Tel: (802) 655-1203



**CHAIN OF CUSTODY RECORD**

Report to:		Invoice to:		ANALYSIS REQUESTED	
Company: <b>DAKOONIC</b>	Company: _____	Address: <b>30 Dyer Road</b>	Address: _____	Temp. of coolers when received (C):	Lab Use Only Due Date:
Address: <b>Colchester, VT 05446</b>	Contact: <b>Forrest Heslop</b>	Phone: <b>(802) 655-1209</b>	Phone: _____	1    2    3    4    5	N / Y
Contact: <b>Forrest Heslop</b>	Phone: <b>(802) 655-1209</b>	Fax: <b>(802) 655-1203</b>	Fax: _____	Custody Seal	N / Y
Contract/Quote: _____	Sampler's Name: <b>Beth McAllister</b>	Sampler's Signature: <b>Beth McAllister</b>	No/Type of Container(s):	Intact	N / Y
Proj. No.:	Project Name:	Identifying Marks of Sample(s)	VOA	A/G	250 ml P/O
Matrix	Date	Time	0	1 Lt.	ml
W	9/16/03	10:45 AM	X		
W	9/16/03	11:00 AM	X		
W	9/16/03	11:15 AM	X		
W	9/16/03	11:30 AM	X		
W	9/16/03	11:45 AM	X		
W	9/16/03	12:00 PM	X		
W	9/16/03	12:15 PM	X		
W	9/16/03	12:30 PM	X		
W	9/16/03	12:45 PM	X		
W	9/16/03	1:00 PM	X		
W	9/16/03	1:15 PM	X		
W	9/16/03	1:30 PM	X		
W	9/16/03	1:45 PM	X		
W	9/16/03	2:00 PM	X		
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W	9/16/03	3:30 PM	X		
W	9/16/03	3:45 PM	X		
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W	9/16/03	4:15 PM	X		
W	9/16/03	4:30 PM	X		
W	9/16/03	4:45 PM	X		
W	9/16/03	5:00 PM	X		
W	9/16/03	5:15 PM	X		
W	9/16/03	5:30 PM	X		
W	9/16/03	5:45 PM	X		
W	9/16/03	6:00 PM	X		
W	9/16/03	6:15 PM	X		
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W	9/16/03	7:00 PM	X		
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W	9/16/03	11:30 PM	X		
W	9/16/03	11:45 PM	X		
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W	9/16/03	8:15 PM	X		
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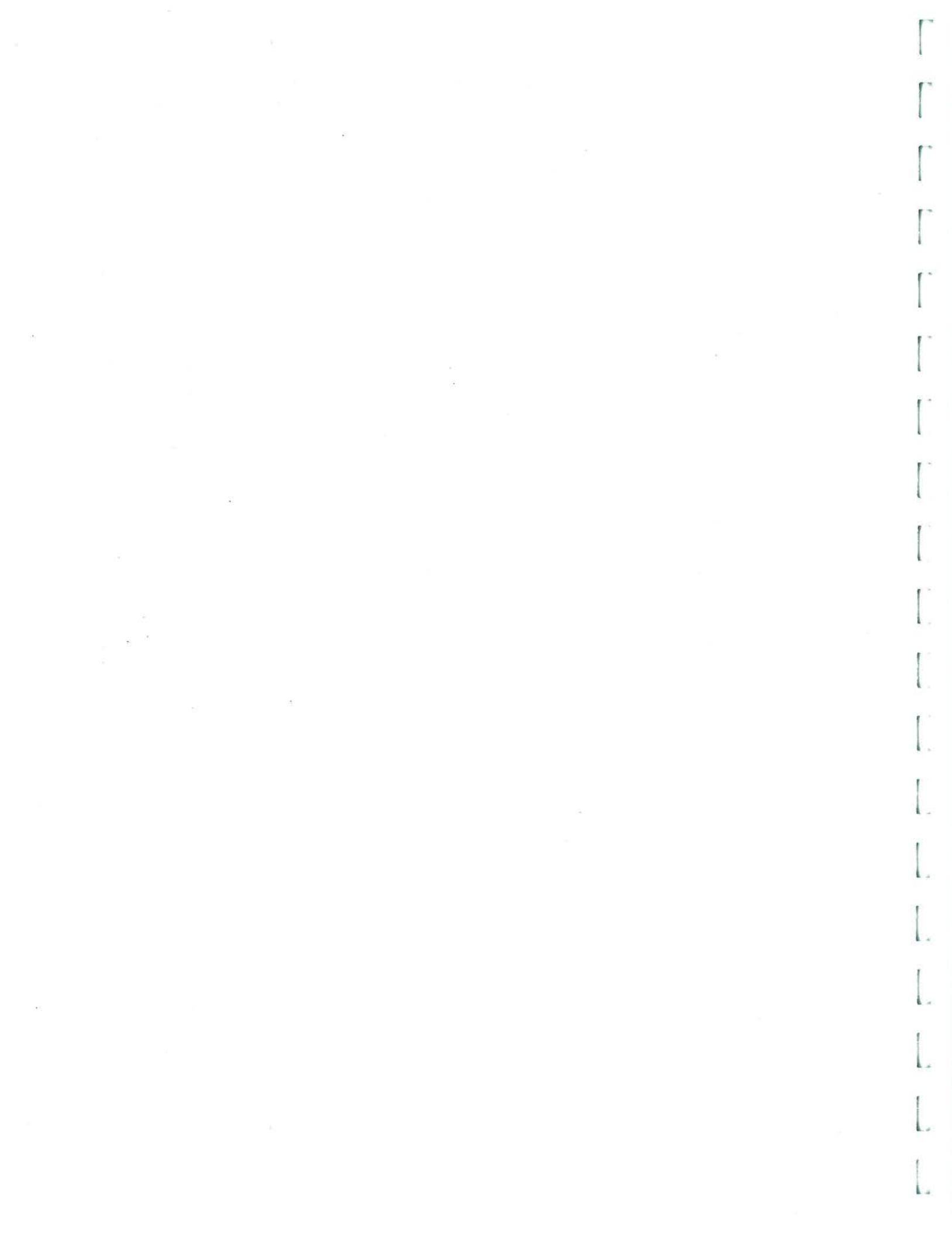




**Severn Trent Laboratories, Inc.**

**METHOD 8260B  
VOLATILE ORGANIC ANALYSIS**

**SAMPLE DATA SUMMARY PACKAGE**



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

ARD2177

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498083

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498083

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane	1.0	U	
74-87-3-----	Chloromethane	1.0	U	
75-01-4-----	Vinyl Chloride	1.0	U	
74-83-9-----	Bromomethane	1.0	U	
75-00-3-----	Chloroethane	1.0	U	
75-69-4-----	Trichlorofluoromethane	1.0	U	
107-02-8-----	Acrolein	5.0	U	
76-13-1-----	Freon TF	1.0	U	
75-35-4-----	1,1-Dichloroethene	1.0	U	
67-64-1-----	Acetone	5.0	U	
74-88-4-----	Methyl Iodide	1.0	U	
75-15-0-----	Carbon Disulfide	1.0	U	
107-05-1-----	Allyl Chloride	1.0	U	
75-09-2-----	Methylene Chloride	1.0	U	
107-13-1-----	Acrylonitrile	1.0	U	
156-60-5-----	trans-1,2-Dichloroethene	0.30	J	
540-59-0-----	1,2-Dichloroethene (total)	17		
1634-04-4-----	Methyl-t-Butyl Ether	1.0	U	
75-34-3-----	1,1-Dichloroethane	1.0	U	
108-05-4-----	Vinyl Acetate	1.0	U	
126-99-8-----	Chloroprene	1.0	U	
156-59-2-----	cis-1,2-Dichloroethene	16		
78-93-3-----	2-Butanone	5.0	U	
107-12-0-----	Propionitrile	4.0	U	
126-98-7-----	Methacrylonitrile	1.0	U	
74-97-5-----	Bromoform	1.0	U	
109-99-9-----	Tetrahydrofuran	14	U	
67-66-3-----	Chloroform	1.0	U	
71-55-6-----	1,1,1-Trichloroethane	1.0	U	
56-23-5-----	Carbon Tetrachloride	1.0	U	
78-83-1-----	Isobutyl Alcohol	50	U	
71-43-2-----	Benzene	1.0	U	
107-06-2-----	1,2-Dichloroethane	1.0	U	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

ARD2177

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498083

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498083

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

79-01-6-----	Trichloroethene	20	
78-87-5-----	1,2-Dichloropropane	1.0	U
80-62-6-----	Methyl Methacrylate	1.0	U
74-95-3-----	Dibromomethane	1.0	U
123-91-1-----	1,4-Dioxane	50	U
75-27-4-----	Bromodichloromethane	1.0	U
110-75-8-----	2-Chloroethyl Vinyl Ether	1.0	U
10061-01-5-----	cis-1,3-Dichloropropene	1.0	U
108-10-1-----	4-Methyl-2-pentanone	5.0	U
108-88-3-----	Toluene	1.0	U
10061-02-6-----	trans-1,3-Dichloropropene	1.0	U
97-63-2-----	Ethyl Methacrylate	1.0	U
79-00-5-----	1,1,2-Trichloroethane	1.0	U
127-18-4-----	Tetrachloroethene	1.0	U
591-78-6-----	2-Hexanone	5.0	U
124-48-1-----	Dibromochloromethane	1.0	U
106-93-4-----	1,2-Dibromoethane	1.0	U
108-90-7-----	Chlorobenzene	1.0	U
630-20-6-----	1,1,1,2-Tetrachloroethane	1.0	U
100-41-4-----	Ethylbenzene	1.0	U
1330-20-7-----	Xylene (m,p)	1.0	U
1330-20-7-----	Xylene (total)	1.0	U
95-47-6-----	Xylene (o)	1.0	U
100-42-5-----	Styrene	1.0	U
75-25-2-----	Bromoform	1.0	U
98-82-8-----	Isopropylbenzene	1.0	U
1476-11-5-----	cis-1,4-Dichloro-2-butene	1.0	U
79-34-5-----	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4-----	1,2,3-Trichloropropane	1.0	U
110-57-6-----	trans-1,4-Dichloro-2-butene	1.0	U
541-73-1-----	1,3-Dichlorobenzene	1.0	U
106-46-7-----	1,4-Dichlorobenzene	1.0	U
95-50-1-----	1,2-Dichlorobenzene	1.0	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

ARD2177

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498083

Sample wt/vol:

5.000 (g/mL) ML

Lab File ID: 498083

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/22/02

GC Column: CAP

ID: 0.53 (mm)

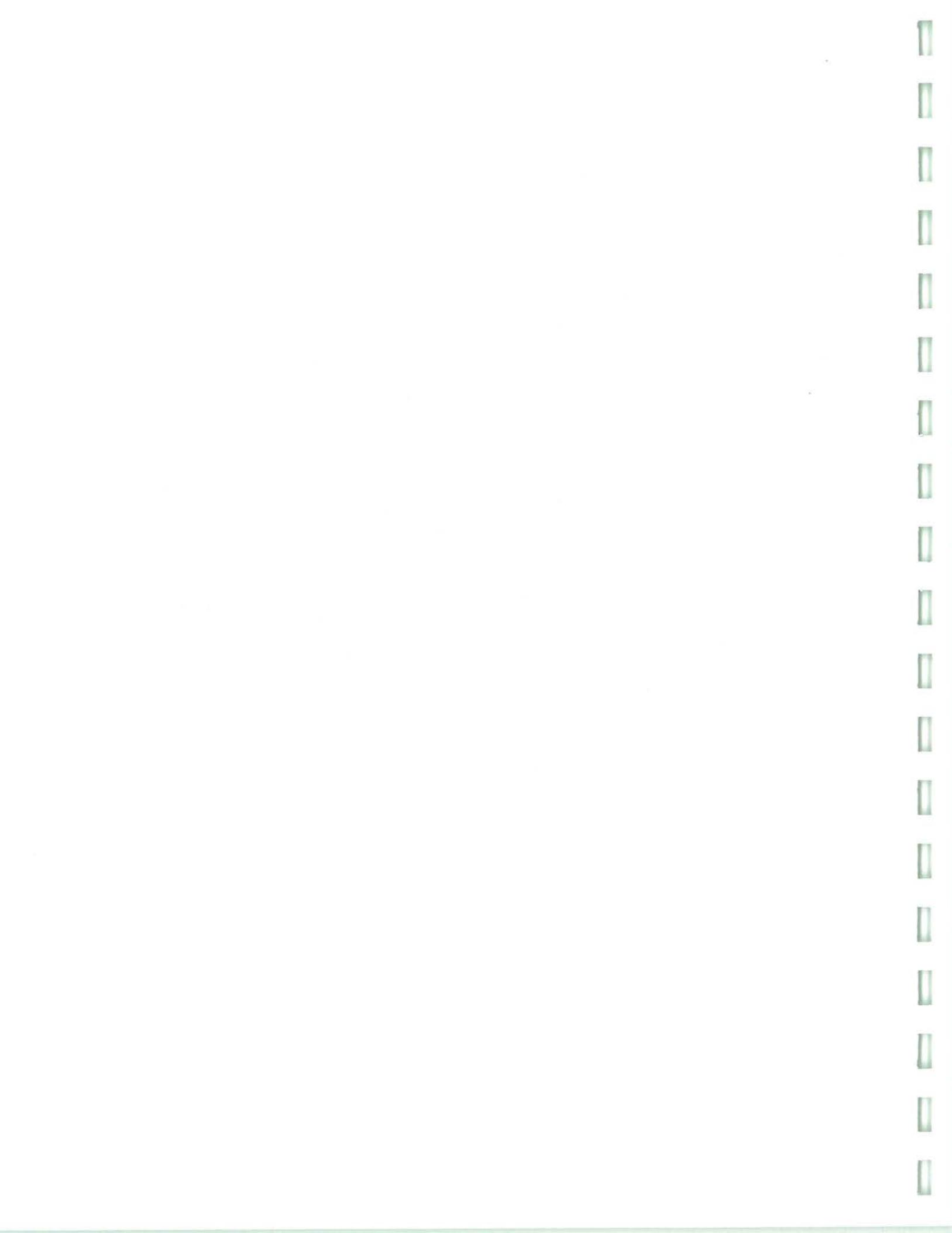
Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

96-12-8-----	1,2-Dibromo-3-Chloropropane	1.0	U
120-82-1-----	1,2,4-Trichlorobenzene	1.0	U
87-68-3-----	Hexachlorobutadiene	1.0	U
91-20-3-----	Naphthalene	1.0	U
594-20-7-----	2,2-Dichloropropane	1.0	U
563-58-6-----	1,1-Dichloropropene	1.0	U
142-28-9-----	1,3-Dichloropropane	1.0	U
108-86-1-----	Bromobenzene	1.0	U
103-65-1-----	n-Propylbenzene	1.0	U
95-49-8-----	2-Chlorotoluene	1.0	U
106-43-4-----	4-Chlorotoluene	1.0	U
108-67-8-----	1,3,5-Trimethylbenzene	1.0	U
98-06-6-----	tert-Butylbenzene	1.0	U
95-63-6-----	1,2,4-Trimethylbenzene	1.0	U
135-98-8-----	sec-Butylbenzene	1.0	U
99-87-6-----	4-Isopropyltoluene	1.0	U
104-51-8-----	n-Butylbenzene	1.0	U
87-61-6-----	1,2,3-Trichlorobenzene	1.0	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

ARD2180

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498081

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498081D

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 2.4

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

75-71-8-----	Dichlorodifluoromethane	2.4	U
74-87-3-----	Chloromethane	2.4	U
75-01-4-----	Vinyl Chloride	2.4	U
74-83-9-----	Bromomethane	2.4	U
75-00-3-----	Chloroethane	2.4	U
75-69-4-----	Trichlorofluoromethane	2.4	U
107-02-8-----	Acrolein	12	U
76-13-1-----	Freon TF	2.4	U
75-35-4-----	1,1-Dichloroethene	2.4	U
67-64-1-----	Acetone	8.4	J
74-88-4-----	Methyl Iodide	2.4	U
75-15-0-----	Carbon Disulfide	2.4	U
107-05-1-----	Allyl Chloride	2.4	U
75-09-2-----	Methylene Chloride	1.7	J
107-13-1-----	Acrylonitrile	2.4	U
156-60-5-----	trans-1,2-Dichloroethene	2.4	U
540-59-0-----	1,2-Dichloroethene (total)	67	_____
1634-04-4-----	Methyl-t-Butyl Ether	2.4	U
75-34-3-----	1,1-Dichloroethane	0.60	J
108-05-4-----	Vinyl Acetate	2.4	U
126-99-8-----	Chloroprene	2.4	U
156-59-2-----	cis-1,2-Dichloroethene	66	_____
78-93-3-----	2-Butanone	12	U
107-12-0-----	Propionitrile	9.6	U
126-98-7-----	Methacrylonitrile	2.4	U
74-97-5-----	Bromochloromethane	2.4	U
109-99-9-----	Tetrahydrofuran	34	U
67-66-3-----	Chloroform	2.4	U
71-55-6-----	1,1,1-Trichloroethane	2.4	U
56-23-5-----	Carbon Tetrachloride	2.4	U
78-83-1-----	Isobutyl Alcohol	120	U
71-43-2-----	Benzene	2.4	U
107-06-2-----	1,2-Dichloroethane	2.4	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

ARD2180

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498081

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498081D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 2.4

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

79-01-6-----	Trichloroethene	3.9		
78-87-5-----	1,2-Dichloropropane	2.4	U	
80-62-6-----	Methyl Methacrylate	2.4	U	
74-95-3-----	Dibromomethane	2.4	U	
123-91-1-----	1,4-Dioxane	120	U	
75-27-4-----	Bromodichloromethane	2.4	U	
110-75-8-----	2-Chloroethyl Vinyl Ether	2.4	U	
10061-01-5-----	cis-1,3-Dichloropropene	2.4	U	
108-10-1-----	4-Methyl-2-pentanone	12	U	
108-88-3-----	Toluene	2.4	U	
10061-02-6-----	trans-1,3-Dichloropropene	2.4	U	
97-63-2-----	Ethyl Methacrylate	2.4	U	
79-00-5-----	1,1,2-Trichloroethane	2.4	U	
127-18-4-----	Tetrachloroethene	2.4	U	
591-78-6-----	2-Hexanone	12	U	
124-48-1-----	Dibromochloromethane	2.4	U	
106-93-4-----	1,2-Dibromoethane	2.4	U	
108-90-7-----	Chlorobenzene	2.4	U	
630-20-6-----	1,1,1,2-Tetrachloroethane	2.4	U	
100-41-4-----	Ethylbenzene	2.4	U	
1330-20-7-----	Xylene (m,p)	2.4	U	
1330-20-7-----	Xylene (total)	2.4	U	
95-47-6-----	Xylene (o)	2.4	U	
100-42-5-----	Styrene	2.4	U	
75-25-2-----	Bromoform	2.4	U	
98-82-8-----	Isopropylbenzene	2.4	U	
1476-11-5-----	cis-1,4-Dichloro-2-butene	2.4	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	2.4	U	
96-18-4-----	1,2,3-Trichloropropane	2.4	U	
110-57-6-----	trans-1,4-Dichloro-2-butene	2.4	U	
541-73-1-----	1,3-Dichlorobenzene	2.4	U	
106-46-7-----	1,4-Dichlorobenzene	2.4	U	
95-50-1-----	1,2-Dichlorobenzene	2.4	U	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

ARD2180

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498081

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498081D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 2.4

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

96-12-8-----	1,2-Dibromo-3-Chloropropane		2.4	U
120-82-1-----	1,2,4-Trichlorobenzene		2.4	U
87-68-3-----	Hexachlorobutadiene		2.4	U
91-20-3-----	Naphthalene		2.4	U
594-20-7-----	2,2-Dichloropropane		2.4	U
563-58-6-----	1,1-Dichloropropene		2.4	U
142-28-9-----	1,3-Dichloropropane		2.4	U
108-86-1-----	Bromobenzene		2.4	U
103-65-1-----	n-Propylbenzene		2.4	U
95-49-8-----	2-Chlorotoluene		2.4	U
106-43-4-----	4-Chlorotoluene		2.4	U
108-67-8-----	1,3,5-Trimethylbenzene		2.4	U
98-06-6-----	tert-Butylbenzene		2.4	U
95-63-6-----	1,2,4-Trimethylbenzene		2.4	U
135-98-8-----	sec-Butylbenzene		2.4	U
99-87-6-----	4-Isopropyltoluene		2.4	U
104-51-8-----	n-Butylbenzene		2.4	U
87-61-6-----	1,2,3-Trichlorobenzene		2.4	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

ARD2181

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498082

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498082D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 2.7

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------	---

75-71-8-----	Dichlorodifluoromethane	2.7	U
74-87-3-----	Chloromethane	2.7	U
75-01-4-----	Vinyl Chloride	2.7	U
74-83-9-----	Bromomethane	2.7	U
75-00-3-----	Chloroethane	2.7	U
75-69-4-----	Trichlorofluoromethane	2.7	U
107-02-8-----	Acrolein	14	U
76-13-1-----	Freon TF	2.7	U
75-35-4-----	1,1-Dichloroethene	2.7	U
67-64-1-----	Acetone	9.4	J
74-88-4-----	Methyl Iodide	2.7	U
75-15-0-----	Carbon Disulfide	2.7	U
107-05-1-----	Allyl Chloride	2.7	U
75-09-2-----	Methylene Chloride	1.9	J
107-13-1-----	Acrylonitrile	2.7	U
156-60-5-----	trans-1,2-Dichloroethene	2.7	U
540-59-0-----	1,2-Dichloroethene (total)	72	_____
1634-04-4-----	Methyl-t-Butyl Ether	2.7	U
75-34-3-----	1,1-Dichloroethane	2.7	U
108-05-4-----	Vinyl Acetate	2.7	U
126-99-8-----	Chloroprene	2.7	U
156-59-2-----	cis-1,2-Dichloroethene	71	_____
78-93-3-----	2-Butanone	14	U
107-12-0-----	Propionitrile	11	U
126-98-7-----	Methacrylonitrile	2.7	U
74-97-5-----	Bromochloromethane	2.7	U
109-99-9-----	Tetrahydrofuran	38	U
67-66-3-----	Chloroform	2.7	U
71-55-6-----	1,1,1-Trichloroethane	2.7	U
56-23-5-----	Carbon Tetrachloride	2.7	U
78-83-1-----	Isobutyl Alcohol	140	U
71-43-2-----	Benzene	2.7	U
107-06-2-----	1,2-Dichloroethane	2.7	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

ARD2181

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498082

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498082D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 2.7

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

79-01-6-----Trichloroethene	4.1	
78-87-5-----1,2-Dichloropropane	2.7	U
80-62-6-----Methyl Methacrylate	2.7	U
74-95-3-----Dibromomethane	2.7	U
123-91-1-----1,4-Dioxane	140	U
75-27-4-----Bromodichloromethane	2.7	U
110-75-8-----2-Chloroethyl Vinyl Ether	2.7	U
10061-01-5-----cis-1,3-Dichloropropene	2.7	U
108-10-1-----4-Methyl-2-pentanone	14	U
108-88-3-----Toluene	2.7	U
10061-02-6-----trans-1,3-Dichloropropene	2.7	U
97-63-2-----Ethyl Methacrylate	2.7	U
79-00-5-----1,1,2-Trichloroethane	2.7	U
127-18-4-----Tetrachloroethene	2.7	U
591-78-6-----2-Hexanone	14	U
124-48-1-----Dibromochloromethane	2.7	U
106-93-4-----1,2-Dibromoethane	2.7	U
108-90-7-----Chlorobenzene	2.7	U
630-20-6-----1,1,1,2-Tetrachloroethane	2.7	U
100-41-4-----Ethylbenzene	2.7	U
1330-20-7-----Xylene (m,p)	2.7	U
1330-20-7-----Xylene (total)	2.7	U
95-47-6-----Xylene (o)	2.7	U
100-42-5-----Styrene	2.7	U
75-25-2-----Bromoform	2.7	U
98-82-8-----Isopropylbenzene	2.7	U
1476-11-5-----cis-1,4-Dichloro-2-butene	2.7	U
79-34-5-----1,1,2,2-Tetrachloroethane	2.7	U
96-18-4-----1,2,3-Trichloropropane	2.7	U
110-57-6-----trans-1,4-Dichloro-2-butene	2.7	U
541-73-1-----1,3-Dichlorobenzene	2.7	U
106-46-7-----1,4-Dichlorobenzene	2.7	U
95-50-1-----1,2-Dichlorobenzene	2.7	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

ARD2181

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498082

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498082D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 2.7

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------------------------------	------	---

96-12-8-----	1,2-Dibromo-3-Chloropropane		2.7	U
120-82-1-----	1,2,4-Trichlorobenzene		2.7	U
87-68-3-----	Hexachlorobutadiene		2.7	U
91-20-3-----	Naphthalene		2.7	U
594-20-7-----	2,2-Dichloropropane		2.7	U
563-58-6-----	1,1-Dichloropropene		2.7	U
142-28-9-----	1,3-Dichloropropane		2.7	U
108-86-1-----	Bromobenzene		2.7	U
103-65-1-----	n-Propylbenzene		2.7	U
95-49-8-----	2-Chlorotoluene		2.7	U
106-43-4-----	4-Chlorotoluene		2.7	U
108-67-8-----	1,3,5-Trimethylbenzene		2.7	U
98-06-6-----	tert-Butylbenzene		2.7	U
95-63-6-----	1,2,4-Trimethylbenzene		2.7	U
135-98-8-----	sec-Butylbenzene		2.7	U
99-87-6-----	4-Isopropyltoluene		2.7	U
104-51-8-----	n-Butylbenzene		2.7	U
87-61-6-----	1,2,3-Trichlorobenzene		2.7	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

LYCE LCS
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Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: LYCE LCS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: LYC10EQ

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

75-71-8-----	Dichlorodifluoromethane	9.3	
74-87-3-----	Chloromethane	7.1	
75-01-4-----	Vinyl Chloride	8.8	
74-83-9-----	Bromomethane	5.1	
75-00-3-----	Chloroethane	9.5	
75-69-4-----	Trichlorofluoromethane	8.9	
107-02-8-----	Acrolein	44	
76-13-1-----	Freon TF	9.8	
75-35-4-----	1,1-Dichloroethene	9.2	
67-64-1-----	Acetone	48	
74-88-4-----	Methyl Iodide	6.8	
75-15-0-----	Carbon Disulfide	9.7	
107-05-1-----	Allyl Chloride	9.3	
75-09-2-----	Methylene Chloride	9.6	
107-13-1-----	Acrylonitrile	9.8	
156-60-5-----	trans-1,2-Dichloroethene	9.6	
540-59-0-----	1,2-Dichloroethene (total)	21	
1634-04-4-----	Methyl-t-Butyl Ether	9.3	
75-34-3-----	1,1-Dichloroethane	9.4	
108-05-4-----	Vinyl Acetate	11	
126-99-8-----	Chloroprene	9.7	
156-59-2-----	cis-1,2-Dichloroethene	11	
78-93-3-----	2-Butanone	55	
107-12-0-----	Propionitrile	36	
126-98-7-----	Methacrylonitrile	9.6	
74-97-5-----	Bromoform	10	
109-99-9-----	Tetrahydrofuran	140	
67-66-3-----	Chloroform	10	
71-55-6-----	1,1,1-Trichloroethane	10	
56-23-5-----	Carbon Tetrachloride	12	
78-83-1-----	Isobutyl Alcohol	500	
71-43-2-----	Benzene	10	
107-06-2-----	1,2-Dichloroethane	10	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

LYCE LCS

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: LYCE LCS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: LYC10EQ

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
79-01-6-----	Trichloroethene	9.8		
78-87-5-----	1,2-Dichloropropane	10		
80-62-6-----	Methyl Methacrylate	10		
74-95-3-----	Dibromomethane	10		
123-91-1-----	1,4-Dioxane	450		
75-27-4-----	Bromodichloromethane	10		
110-75-8-----	2-Chloroethyl Vinyl Ether	9.7		
10061-01-5-----	cis-1,3-Dichloropropene	10		
108-10-1-----	4-Methyl-2-pentanone	53		
108-88-3-----	Toluene	11		
10061-02-6-----	trans-1,3-Dichloropropene	11		
97-63-2-----	Ethyl Methacrylate	9.8		
79-00-5-----	1,1,2-Trichloroethane	11		
127-18-4-----	Tetrachloroethene	9.6		
591-78-6-----	2-Hexanone	55		
124-48-1-----	Dibromochloromethane	11		
106-93-4-----	1,2-Dibromoethane	11		
108-90-7-----	Chlorobenzene	11		
630-20-6-----	1,1,1,2-Tetrachloroethane	11		
100-41-4-----	Ethylbenzene	11		
1330-20-7-----	Xylene (m,p)	21		
1330-20-7-----	Xylene (total)	32		
95-47-6-----	Xylene (o)	10		
100-42-5-----	Styrene	11		
75-25-2-----	Bromoform	11		
98-82-8-----	Isopropylbenzene	11		
1476-11-5-----	cis-1,4-Dichloro-2-butene	10		
79-34-5-----	1,1,2,2-Tetrachloroethane	11		
96-18-4-----	1,2,3-Trichloropropane	10		
110-57-6-----	trans-1,4-Dichloro-2-butene	10		
541-73-1-----	1,3-Dichlorobenzene	10		
106-46-7-----	1,4-Dichlorobenzene	10		
95-50-1-----	1,2-Dichlorobenzene	10		

79-01-6-----	Trichloroethene	9.8		
78-87-5-----	1,2-Dichloropropane	10		
80-62-6-----	Methyl Methacrylate	10		
74-95-3-----	Dibromomethane	10		
123-91-1-----	1,4-Dioxane	450		
75-27-4-----	Bromodichloromethane	10		
110-75-8-----	2-Chloroethyl Vinyl Ether	9.7		
10061-01-5-----	cis-1,3-Dichloropropene	10		
108-10-1-----	4-Methyl-2-pentanone	53		
108-88-3-----	Toluene	11		
10061-02-6-----	trans-1,3-Dichloropropene	11		
97-63-2-----	Ethyl Methacrylate	9.8		
79-00-5-----	1,1,2-Trichloroethane	11		
127-18-4-----	Tetrachloroethene	9.6		
591-78-6-----	2-Hexanone	55		
124-48-1-----	Dibromochloromethane	11		
106-93-4-----	1,2-Dibromoethane	11		
108-90-7-----	Chlorobenzene	11		
630-20-6-----	1,1,1,2-Tetrachloroethane	11		
100-41-4-----	Ethylbenzene	11		
1330-20-7-----	Xylene (m,p)	21		
1330-20-7-----	Xylene (total)	32		
95-47-6-----	Xylene (o)	10		
100-42-5-----	Styrene	11		
75-25-2-----	Bromoform	11		
98-82-8-----	Isopropylbenzene	11		
1476-11-5-----	cis-1,4-Dichloro-2-butene	10		
79-34-5-----	1,1,2,2-Tetrachloroethane	11		
96-18-4-----	1,2,3-Trichloropropane	10		
110-57-6-----	trans-1,4-Dichloro-2-butene	10		
541-73-1-----	1,3-Dichlorobenzene	10		
106-46-7-----	1,4-Dichlorobenzene	10		
95-50-1-----	1,2-Dichlorobenzene	10		



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 98011

LYCE LCS

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: LYCE LCS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: LYC10EQ

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
96-12-8-----	1,2-Dibromo-3-Chloropropane	10		
120-82-1-----	1,2,4-Trichlorobenzene	10		
87-68-3-----	Hexachlorobutadiene	9.9		
91-20-3-----	Naphthalene	10	B	
594-20-7-----	2,2-Dichloropropane	10		
563-58-6-----	1,1-Dichloropropene	10		
142-28-9-----	1,3-Dichloropropane	11		
108-86-1-----	Bromobenzene	10		
103-65-1-----	n-Propylbenzene	11		
95-49-8-----	2-Chlorotoluene	10		
106-43-4-----	4-Chlorotoluene	10		
108-67-8-----	1,3,5-Trimethylbenzene	11		
98-06-6-----	tert-Butylbenzene	11		
95-63-6-----	1,2,4-Trimethylbenzene	10		
135-98-8-----	sec-Butylbenzene	11		
99-87-6-----	4-Isopropyltoluene	11		
104-51-8-----	n-Butylbenzene	11		
87-61-6-----	1,2,3-Trichlorobenzene	9.9		

96-12-8-----	1,2-Dibromo-3-Chloropropane	10		
120-82-1-----	1,2,4-Trichlorobenzene	10		
87-68-3-----	Hexachlorobutadiene	9.9		
91-20-3-----	Naphthalene	10	B	
594-20-7-----	2,2-Dichloropropane	10		
563-58-6-----	1,1-Dichloropropene	10		
142-28-9-----	1,3-Dichloropropane	11		
108-86-1-----	Bromobenzene	10		
103-65-1-----	n-Propylbenzene	11		
95-49-8-----	2-Chlorotoluene	10		
106-43-4-----	4-Chlorotoluene	10		
108-67-8-----	1,3,5-Trimethylbenzene	11		
98-06-6-----	tert-Butylbenzene	11		
95-63-6-----	1,2,4-Trimethylbenzene	10		
135-98-8-----	sec-Butylbenzene	11		
99-87-6-----	4-Isopropyltoluene	11		
104-51-8-----	n-Butylbenzene	11		
87-61-6-----	1,2,3-Trichlorobenzene	9.9		



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

LYCE LCSD

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: LYCE LCSD

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: LYC10EQ2

Level: (low/med) LOW

Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

75-71-8-----	Dichlorodifluoromethane	11	
74-87-3-----	Chloromethane	9.4	
75-01-4-----	Vinyl Chloride	11	
74-83-9-----	Bromomethane	5.9	
75-00-3-----	Chloroethane	11	
75-69-4-----	Trichlorofluoromethane	9.4	
107-02-8-----	Acrolein	47	
76-13-1-----	Freon TF	9.7	
75-35-4-----	1,1-Dichloroethene	9.8	
67-64-1-----	Acetone	53	
74-88-4-----	Methyl Iodide	8.0	
75-15-0-----	Carbon Disulfide	11	
107-05-1-----	Allyl Chloride	9.9	
75-09-2-----	Methylene Chloride	10	
107-13-1-----	Acrylonitrile	10	
156-60-5-----	trans-1,2-Dichloroethene	9.9	
540-59-0-----	1,2-Dichloroethene (total)	21	
1634-04-4-----	Methyl-t-Butyl Ether	9.7	
75-34-3-----	1,1-Dichloroethane	10	
108-05-4-----	Vinyl Acetate	10	
126-99-8-----	Chloroprene	9.6	
156-59-2-----	cis-1,2-Dichloroethene	11	
78-93-3-----	2-Butanone	56	
107-12-0-----	Propionitrile	40	
126-98-7-----	Methacrylonitrile	10	
74-97-5-----	Bromochloromethane	10	
109-99-9-----	Tetrahydrofuran	150	
67-66-3-----	Chloroform	10	
71-55-6-----	1,1,1-Trichloroethane	9.9	
56-23-5-----	Carbon Tetrachloride	12	
78-83-1-----	Isobutyl Alcohol	520	
71-43-2-----	Benzene	10	
107-06-2-----	1,2-Dichloroethane	10	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

LYCE LCSD

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: LYCE LCSD

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: LYC10EQ2

Level: (low/med) LOW

Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm)

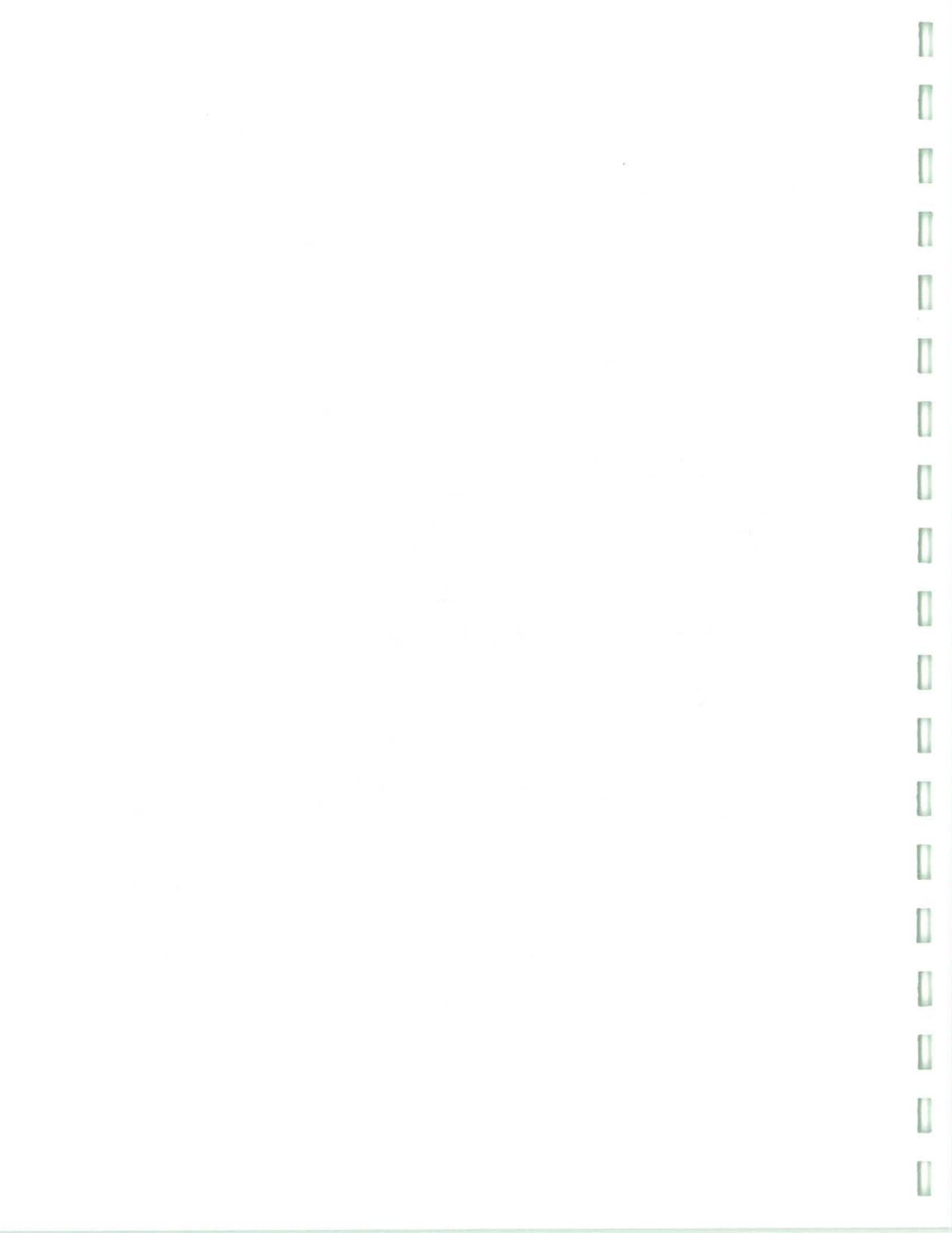
Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
79-01-6-----	Trichloroethene	9.8	
78-87-5-----	1,2-Dichloropropane	10	
80-62-6-----	Methyl Methacrylate	10	
74-95-3-----	Dibromomethane	10	
123-91-1-----	1,4-Dioxane	480	
75-27-4-----	Bromodichloromethane	10	
110-75-8-----	2-Chloroethyl Vinyl Ether	10	
10061-01-5-----	cis-1,3-Dichloropropene	10	
108-10-1-----	4-Methyl-2-pentanone	54	
108-88-3-----	Toluene	11	
10061-02-6-----	trans-1,3-Dichloropropene	10	
97-63-2-----	Ethyl Methacrylate	10	
79-00-5-----	1,1,2-Trichloroethane	10	
127-18-4-----	Tetrachloroethene	10	
591-78-6-----	2-Hexanone	55	
124-48-1-----	Dibromochloromethane	11	
106-93-4-----	1,2-Dibromoethane	10	
108-90-7-----	Chlorobenzene	10	
630-20-6-----	1,1,1,2-Tetrachloroethane	11	
100-41-4-----	Ethylbenzene	10	
1330-20-7-----	Xylene (m,p)	21	
1330-20-7-----	Xylene (total)	32	
95-47-6-----	Xylene (o)	10	
100-42-5-----	Styrene	11	
75-25-2-----	Bromoform	11	
98-82-8-----	Isopropylbenzene	10	
1476-11-5-----	cis-1,4-Dichloro-2-butene	11	
79-34-5-----	1,1,2,2-Tetrachloroethane	11	
96-18-4-----	1,2,3-Trichloropropane	10	
110-57-6-----	trans-1,4-Dichloro-2-butene	11	
541-73-1-----	1,3-Dichlorobenzene	10	
106-46-7-----	1,4-Dichlorobenzene	10	
95-50-1-----	1,2-Dichlorobenzene	10	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

LYCE LCSD
-----------

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: LYCE LCSD

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: LYC10EQ2

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

96-12-8-----	1,2-Dibromo-3-Chloropropane		10	
120-82-1-----	1,2,4-Trichlorobenzene		10	
87-68-3-----	Hexachlorobutadiene		10	
91-20-3-----	Naphthalene		10	B
594-20-7-----	2,2-Dichloropropane		9.6	
563-58-6-----	1,1-Dichloropropene		9.8	
142-28-9-----	1,3-Dichloropropane		10	
108-86-1-----	Bromobenzene		10	
103-65-1-----	n-Propylbenzene		10	
95-49-8-----	2-Chlorotoluene		10	
106-43-4-----	4-Chlorotoluene		10	
108-67-8-----	1,3,5-Trimethylbenzene		10	
98-06-6-----	tert-Butylbenzene		11	
95-63-6-----	1,2,4-Trimethylbenzene		10	
135-98-8-----	sec-Butylbenzene		11	
99-87-6-----	4-Isopropyltoluene		10	
104-51-8-----	n-Butylbenzene		11	
87-61-6-----	1,2,3-Trichlorobenzene		10	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

VBLKY2

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: VBLKY2

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: LYCB01E

Level: (low/med) LOW

Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

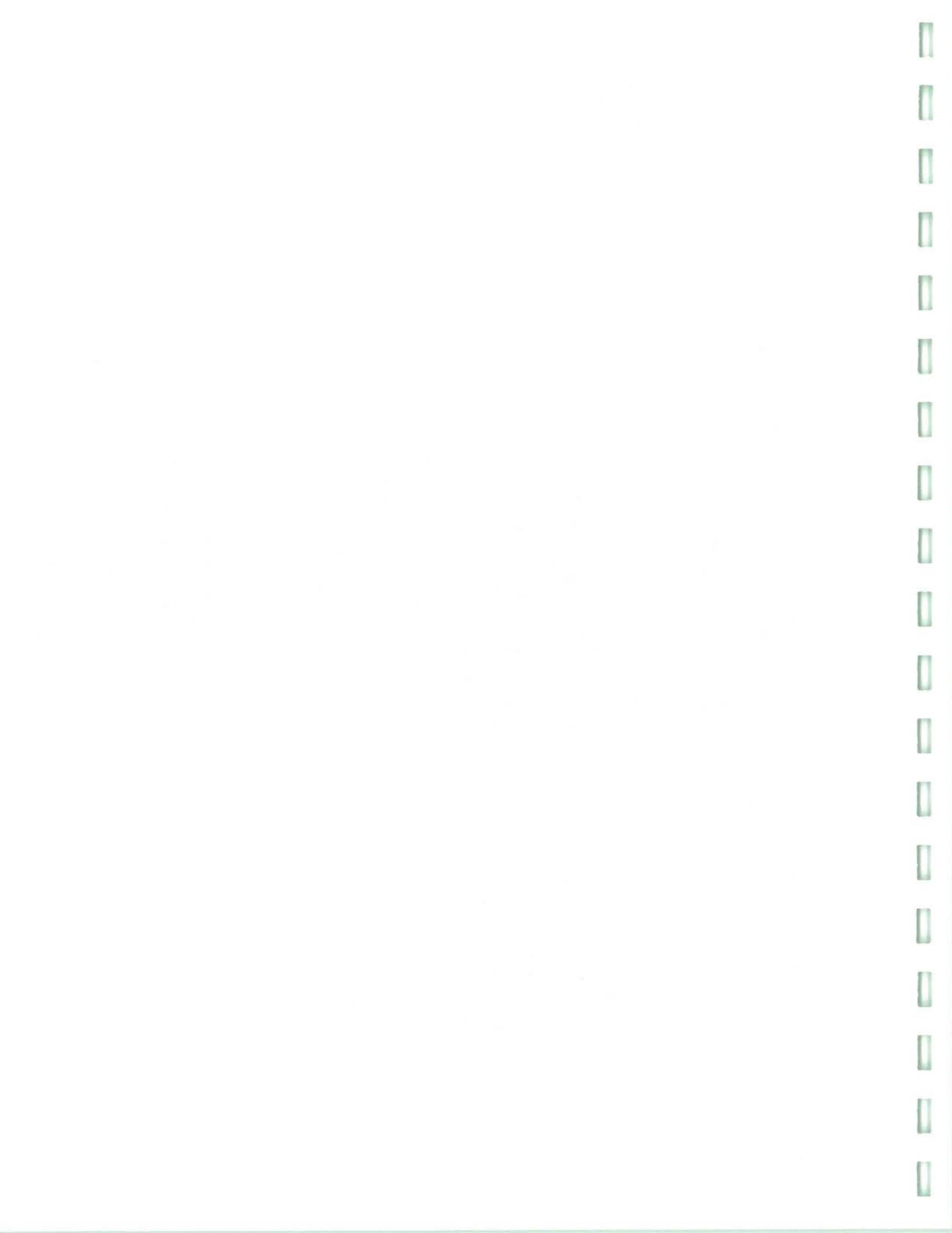
Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------	---

75-71-8-----	Dichlorodifluoromethane	1.0	U
74-87-3-----	Chloromethane	1.0	U
75-01-4-----	Vinyl Chloride	1.0	U
74-83-9-----	Bromomethane	1.0	U
75-00-3-----	Chloroethane	1.0	U
75-69-4-----	Trichlorofluoromethane	1.0	U
107-02-8-----	Acrolein	5.0	U
76-13-1-----	Freon TF	1.0	U
75-35-4-----	1,1-Dichloroethene	1.0	U
67-64-1-----	Acetone	5.0	U
74-88-4-----	Methyl Iodide	1.0	U
75-15-0-----	Carbon Disulfide	1.0	U
107-05-1-----	Allyl Chloride	1.0	U
75-09-2-----	Methylene Chloride	1.0	U
107-13-1-----	Acrylonitrile	1.0	U
156-60-5-----	trans-1,2-Dichloroethene	1.0	U
540-59-0-----	1,2-Dichloroethene (total)	1.0	U
1634-04-4-----	Methyl-t-Butyl Ether	1.0	U
75-34-3-----	1,1-Dichloroethane	1.0	U
108-05-4-----	Vinyl Acetate	1.0	U
126-99-8-----	Chloroprene	1.0	U
156-59-2-----	cis-1,2-Dichloroethene	1.0	U
78-93-3-----	2-Butanone	5.0	U
107-12-0-----	Propionitrile	4.0	U
126-98-7-----	Methacrylonitrile	1.0	U
74-97-5-----	Bromoform	1.0	U
109-99-9-----	Tetrahydrofuran	14	U
67-66-3-----	Chloroform	1.0	U
71-55-6-----	1,1,1-Trichloroethane	1.0	U
56-23-5-----	Carbon Tetrachloride	1.0	U
78-83-1-----	Isobutyl Alcohol	50	U
71-43-2-----	Benzene	1.0	U
107-06-2-----	1,2-Dichloroethane	1.0	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

VBLKY2

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: VBLKY2

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: LYCB01E

Level: (low/med) LOW

Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

79-01-6-----	Trichloroethene		1.0	U
78-87-5-----	1,2-Dichloropropane		1.0	U
80-62-6-----	Methyl Methacrylate		1.0	U
74-95-3-----	Dibromomethane		1.0	U
123-91-1-----	1,4-Dioxane		50	U
75-27-4-----	Bromodichloromethane		1.0	U
110-75-8-----	2-Chloroethyl Vinyl Ether		1.0	U
10061-01-5-----	cis-1,3-Dichloropropene		1.0	U
108-10-1-----	4-Methyl-2-pentanone		5.0	U
108-88-3-----	Toluene		1.0	U
10061-02-6-----	trans-1,3-Dichloropropene		1.0	U
97-63-2-----	Ethyl Methacrylate		1.0	U
79-00-5-----	1,1,2-Trichloroethane		1.0	U
127-18-4-----	Tetrachloroethene		1.0	U
591-78-6-----	2-Hexanone		5.0	U
124-48-1-----	Dibromochloromethane		1.0	U
106-93-4-----	1,2-Dibromoethane		1.0	U
108-90-7-----	Chlorobenzene		1.0	U
630-20-6-----	1,1,1,2-Tetrachloroethane		1.0	U
100-41-4-----	Ethylbenzene		1.0	U
1330-20-7-----	Xylene (m,p)		1.0	U
1330-20-7-----	Xylene (total)		1.0	U
95-47-6-----	Xylene (o)		1.0	U
100-42-5-----	Styrene		1.0	U
75-25-2-----	Bromoform		1.0	U
98-82-8-----	Isopropylbenzene		1.0	U
1476-11-5-----	cis-1,4-Dichloro-2-butene		1.0	U
79-34-5-----	1,1,2,2-Tetrachloroethane		1.0	U
96-18-4-----	1,2,3-Trichloropropane		1.0	U
110-57-6-----	trans-1,4-Dichloro-2-butene		1.0	U
541-73-1-----	1,3-Dichlorobenzene		1.0	U
106-46-7-----	1,4-Dichlorobenzene		1.0	U
95-50-1-----	1,2-Dichlorobenzene		1.0	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

VBLKY2

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: VBLKY2

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: LYCB01E

Level: (low/med) LOW

Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/22/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

96-12-8-----	1,2-Dibromo-3-Chloropropane	1.0	U
120-82-1-----	1,2,4-Trichlorobenzene	1.0	U
87-68-3-----	Hexachlorobutadiene	1.0	U
91-20-3-----	Naphthalene	0.23	J
594-20-7-----	2,2-Dichloropropane	1.0	U
563-58-6-----	1,1-Dichloropropene	1.0	U
142-28-9-----	1,3-Dichloropropane	1.0	U
108-86-1-----	Bromobenzene	1.0	U
103-65-1-----	n-Propylbenzene	1.0	U
95-49-8-----	2-Chlorotoluene	1.0	U
106-43-4-----	4-Chlorotoluene	1.0	U
108-67-8-----	1,3,5-Trimethylbenzene	1.0	U
98-06-6-----	tert-Butylbenzene	1.0	U
95-63-6-----	1,2,4-Trimethylbenzene	1.0	U
135-98-8-----	sec-Butylbenzene	1.0	U
99-87-6-----	4-Isopropyltoluene	1.0	U
104-51-8-----	n-Butylbenzene	1.0	U
87-61-6-----	1,2,3-Trichlorobenzene	1.0	U



FORM 2  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

	CLIENT SAMPLE NO.	SMC1 (TOL) #	SMC2 (DCE) #	SMC3 (BFB) #	OTHER (DCB) #	TOT OUT
01	LYCE LCS	105	96	102	103	0
02	LYCE LCSD	104	96	101	101	0
03	VBLKY2	105	101	105	102	0
04	ARD2180	106	99	108	104	0
05	ARD2181	105	102	107	104	0
06	ARD2177	102	99	108	106	0
07						
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28						
29						
30						

QC LIMITS

SMC1 (TOL) = Toluene-d8 (88-110)  
SMC2 (DCE) = 1,2-Dichloroethane-d4 (72-141)  
SMC3 (BFB) = Bromofluorobenzene (72-122)  
OTHER (DCB) = 1,2-Dichlorobenzene-d4 (69-124)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out



FORM 3  
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - Sample No.: LYCE LCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Dichlorodifluoromethane	10		9.3	93	78-116
Chloromethane	10		7.1	71	68-118
Vinyl Chloride	10		8.8	88	78-118
Bromomethane	10		5.1	51*	72-118
Chloroethane	10		9.5	95	65-113
Trichlorofluoromethane	10		8.9	89	67-111
Acrolein	50		44	88	60-140
Freon TF	10		9.8	98	60-140
1,1-Dichloroethene	10		9.2	92	75-113
Acetone	50		48	96	60-140
Methyl Iodide	10		6.8	68	60-140
Carbon Disulfide	10		9.7	97	60-140
Allyl Chloride	10		9.3	93	60-140
Methylene Chloride	10		9.6	96	80-110
Acrylonitrile	10		9.8	98	60-140
trans-1,2-Dichloroethen	10		9.6	96	77-109
1,2-Dichloroethene (tot)	20		21	105	60-140
Methyl-t-Butyl Ether	10		9.3	93	60-140
1,1-Dichloroethane	10		9.4	94	81-111
Vinyl Acetate	10		11	110	60-140
Chloroprene	10		9.7	97	60-140
cis-1,2-Dichloroethene	10		11	110	81-121
2-Butanone	50		55	110	60-140
Propionitrile	40		36	90	60-140
Methacrylonitrile	10		9.6	96	60-140
Bromochemicalmethane	10		10	100	73-107
Tetrahydrofuran	140		140	100	60-140
Chloroform	10		10	100	74-106

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - Sample No.: LYCE LCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1,1-Trichloroethane	10		10	100	74-122
Carbon Tetrachloride	10		12	120*	62-106
Isobutyl Alcohol	500		500	100	60-140
Benzene	10		10	100	78-116
1,2-Dichloroethane	10		10	100	80-110
Trichloroethene	10		9.8	98	70-109
1,2-Dichloropropane	10		10	100	79-115
Methyl Methacrylate	10		10	100	60-140
Dibromomethane	10		10	100	83-117
1,4-Dioxane	500		450	90	60-140
Bromodichloromethane	10		10	100	78-112
2-Chloroethyl Vinyl Eth	10		9.7	97	60-140
cis-1,3-Dichloropropene	10		10	100	60-140
4-Methyl-2-pentanone	50		53	106	60-140
Toluene	10		11	110	78-126
trans-1,3-Dichloroprope	10		11	110	60-140
Ethyl Methacrylate	10		9.8	98	60-140
1,1,2-Trichloroethane	10		11	110	81-126
Tetrachloroethene	10		9.6	96	71-107
2-Hexanone	50		55	110	60-140
Dibromochloromethane	10		11	110	72-112
1,2-Dibromoethane	10		11	110	90-114
Chlorobenzene	10		11	110	81-115
1,1,1,2-Tetrachloroetha	10		11	110*	72-108
Ethylbenzene	10		11	110	74-124
Xylene (m,p)	20		21	105	78-116
Xylene (total)	30		32	107	60-140
Xylene (o)	10		10	100	81-125

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

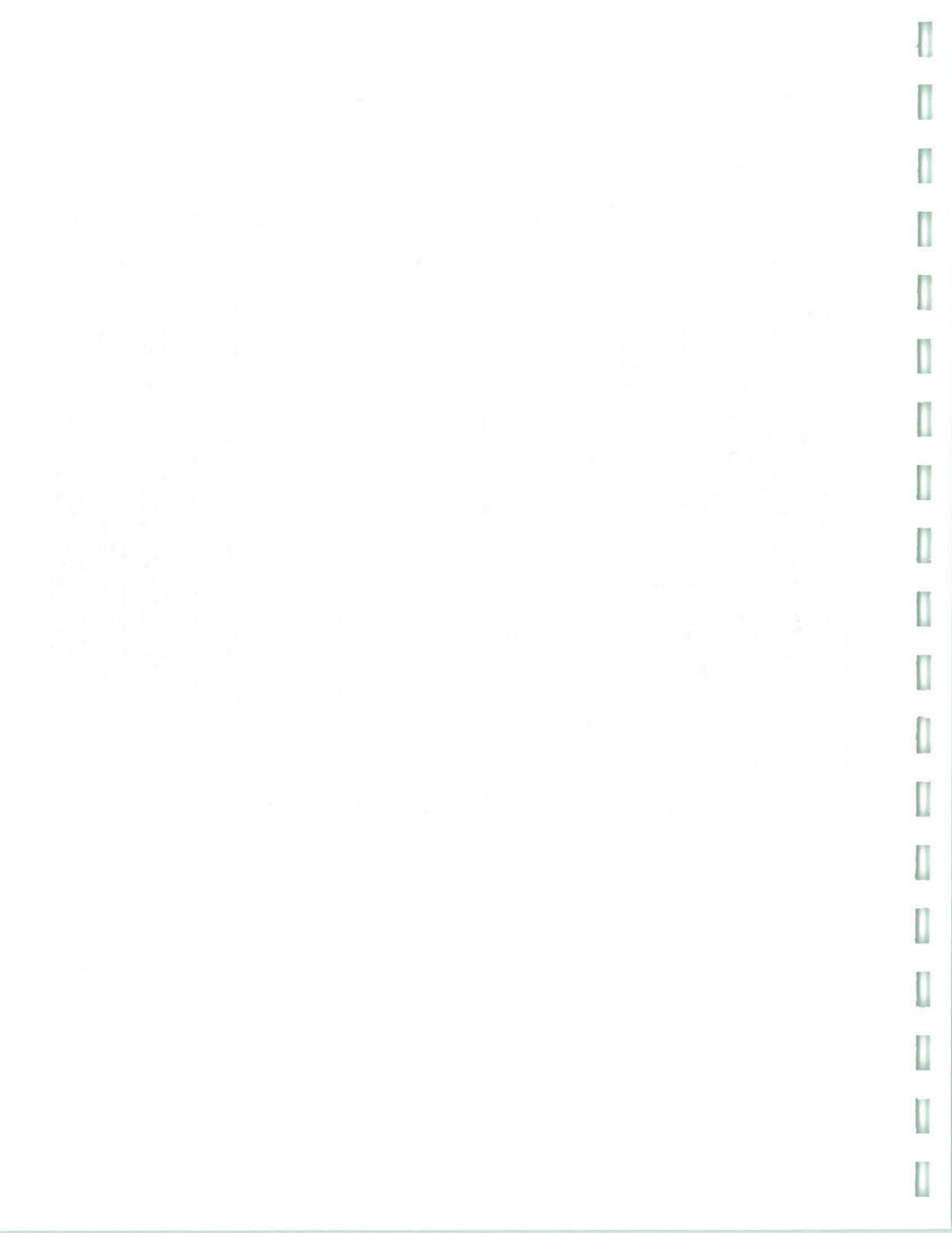
Matrix Spike - Sample No.: LYCE LCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Styrene	10		11	110	80-124
Bromoform	10		11	110	82-120
Isopropylbenzene	10		11	110	78-124
cis-1,4-Dichloro-2-bute	10		10	100	60-140
1,1,2,2-Tetrachloroetha	10		11	110*	74-108
1,2,3-Trichloropropane	10		10	100	81-137
trans-1,4-Dichloro-2-bu	10		10	100	60-140
1,3-Dichlorobenzene	10		10	100	79-119
1,4-Dichlorobenzene	10		10	100	83-123
1,2-Dichlorobenzene	10		10	100	76-110
1,2-Dibromo-3-Chloropro	10		10	100	33-132
1,2,4-Trichlorobenzene	10		10	100	81-135
Hexachlorobutadiene	10		9.9	99	80-120
Naphthalene	10		10	100	78-130
2,2-Dichloropropane	10		10	100	42-130
1,1-Dichloropropene	10		10	100	72-124
1,3-Dichloropropane	10		11	110	79-113
Bromobenzene	10		10	100	84-116
n-Propylbenzene	10		11	110	83-117
2-Chlorotoluene	10		10	100	73-107
4-Chlorotoluene	10		10	100	74-124
1,3,5-Trimethylbenzene	10		11	110	72-112
tert-Butylbenzene	10		11	110	80-124
1,2,4-Trimethylbenzene	10		10	100	75-123
sec-Butylbenzene	10		11	110	77-123
4-Isopropyltoluene	10		11	110	79-119
n-Butylbenzene	10		11	110	77-123
1,2,3-Trichlorobenzene	10		9.9	99	81-137

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - Sample No.: LYCE LCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	REC.
Dichlorodifluoromethane	10	11	110	17	40	78-116
Chloromethane	10	9.4	94	28	40	68-118
Vinyl Chloride	10	11	110	22	40	78-118
Bromomethane	10	5.9	59*	14	40	72-118
Chloroethane	10	11	110	15	40	65-113
Trichlorofluoromethane	10	9.4	94	5	40	67-111
Acrolein	50	47	94	6	40	60-140
Freon TF	10	9.7	97	1	40	60-140
1,1-Dichloroethene	10	9.8	98	6	40	75-113
Acetone	50	53	106	10	40	60-140
Methyl Iodide	10	8.0	80	16	40	60-140
Carbon Disulfide	10	11	110	12	40	60-140
Allyl Chloride	10	9.9	99	6	40	60-140
Methylene Chloride	10	10	100	4	40	80-110
Acrylonitrile	10	10	100	2	40	60-140
trans-1,2-Dichloroethene	10	9.9	99	3	40	77-109
1,2-Dichloroethene (tot)	20	21	105	0	40	60-140
Methyl-t-Butyl Ether	10	9.7	97	4	40	60-140
1,1-Dichloroethane	10	10	100	6	40	81-111
Vinyl Acetate	10	10	100	10	40	60-140
Chloroprene	10	9.6	96	1	40	60-140
cis-1,2-Dichloroethene	10	11	110	0	40	81-121
2-Butanone	50	56	112	2	40	60-140
Propionitrile	40	40	100	10	40	60-140
Methacrylonitrile	10	10	100	4	40	60-140
Bromochloromethane	10	10	100	0	40	73-107
Tetrahydrofuran	140	150	107	7	40	60-140
Chloroform	10	10	100	0	40	74-106

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - Sample No.: LYCE LCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1,1-Trichloroethane	10	9.9	99	1	40	74-122
Carbon Tetrachloride	10	12	120*	0	40	62-106
Isobutyl Alcohol	500	520	104	4	40	60-140
Benzene	10	10	100	0	40	78-116
1,2-Dichloroethane	10	10	100	0	40	80-110
Trichloroethene	10	9.8	98	0	40	70-109
1,2-Dichloropropane	10	10	100	0	40	79-115
Methyl Methacrylate	10	10	100	0	40	60-140
Dibromomethane	10	10	100	0	40	83-117
1,4-Dioxane	500	480	96	6	40	60-140
Bromodichloromethane	10	10	100	0	40	78-112
2-Chloroethyl Vinyl Eth	10	10	100	3	40	60-140
cis-1,3-Dichloropropene	10	10	100	0	40	60-140
4-Methyl-2-pentanone	50	54	108	2	40	60-140
Toluene	10	11	110	0	40	78-126
trans-1,3-Dichloroprope	10	10	100	10	40	60-140
Ethyl Methacrylate	10	10	100	2	40	60-140
1,1,2-Trichloroethane	10	10	100	10	40	81-126
Tetrachloroethene	10	10	100	4	40	71-107
2-Hexanone	50	55	110	0	40	60-140
Dibromochloromethane	10	11	110	0	40	72-112
1,2-Dibromoethane	10	10	100	10	40	90-114
Chlorobenzene	10	10	100	10	40	81-115
1,1,1,2-Tetrachloroetha	10	11	110*	0	40	72-108
Ethylbenzene	10	10	100	10	40	74-124
Xylene (m,p)	20	21	105	0	40	78-116
Xylene (total)	30	32	107	0	40	60-140
Xylene (o)	10	10	100	0	40	81-125

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - Sample No.: LYCE LCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Styrene	10	11	110	0	40	80-124
Bromoform	10	11	110	0	40	82-120
Isopropylbenzene	10	10	100	10	40	78-124
cis-1,4-Dichloro-2-bute	10	11	110	10	40	60-140
1,1,2,2-Tetrachloroetha	10	11	110*	0	40	74-108
1,2,3-Trichloropropane	10	10	100	0	40	81-137
trans-1,4-Dichloro-2-bu	10	11	110	10	40	60-140
1,3-Dichlorobenzene	10	10	100	0	40	79-119
1,4-Dichlorobenzene	10	10	100	0	40	83-123
1,2-Dichlorobenzene	10	10	100	0	40	76-110
1,2-Dibromo-3-Chloropro	10	10	100	0	40	33-132
1,2,4-Trichlorobenzene	10	10	100	0	40	81-135
Hexachlorobutadiene	10	10	100	1	40	80-120
Naphthalene	10	10	100	0	40	78-130
2,2-Dichloropropane	10	9.6	96	4	40	42-130
1,1-Dichloropropene	10	9.8	98	2	40	72-124
1,3-Dichloropropane	10	10	100	10	40	79-113
Bromobenzene	10	10	100	0	40	84-116
n-Propylbenzene	10	10	100	10	40	83-117
2-Chlorotoluene	10	10	100	0	40	73-107
4-Chlorotoluene	10	10	100	0	40	74-124
1,3,5-Trimethylbenzene	10	10	100	10	40	72-112
tert-Butylbenzene	10	11	110	0	40	80-124
1,2,4-Trimethylbenzene	10	10	100	0	40	75-123
sec-Butylbenzene	10	11	110	0	40	77-123
4-Isopropyltoluene	10	10	100	10	40	79-119
n-Butylbenzene	10	11	110	0	40	77-123
1,2,3-Trichlorobenzene	10	10	100	1	40	81-137

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 84 outside limits

Spike Recovery: 8 out of 168 outside limits

COMMENTS: \_\_\_\_\_



FORM 4  
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

VBLKY2

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Lab File ID: LYCB01E

Lab Sample ID: VBLKY2

Date Analyzed: 08/22/02

Time Analyzed: 0313

GC Column: CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: L

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LYCE LCS	LYC10EQ	0216
02	LYCE LCSD	LYC10EQ2	0245
03	ARD2180	498081	0520
04	ARD2181	498082	0549
05	ARD2177	498083	0617
06			
07			
08			
09			
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COMMENTS:

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FORM 5  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Lab File ID: LYC02PV

BFB Injection Date: 08/19/02

Instrument ID: L

BFB Injection Time: 0740

GC Column: CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.4
75	30.0 - 60.0% of mass 95	49.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.3 ( 0.5)1
174	50.0 - 120.0% of mass 95	67.4
175	5.0 - 9.0% of mass 174	4.8 ( 7.2)1
176	95.0 - 101.0% of mass 174	66.0 ( 97.9)1
177	5.0 - 9.0% of mass 176	4.4 ( 6.7)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 VSTD001	VSTD001	LYC01V	08/19/02	0821
02 VSTD005	VSTD005	LYC05V	08/19/02	0929
03 VSTD010	VSTD010	LYC10V	08/19/02	0958
04 VSTD025	VSTD025	LYC25V	08/19/02	1026
05 VSTD050	VSTD050	LYC50V	08/19/02	1055
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FORM 5  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Lab File ID: LYC08PV

BFB Injection Date: 08/22/02

Instrument ID: L

BFB Injection Time: 0137

GC Column: CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.2
75	30.0 - 60.0% of mass 95	49.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.3 ( 0.4)1
174	50.0 - 120.0% of mass 95	66.5
175	5.0 - 9.0% of mass 174	4.6 ( 7.0)1
176	95.0 - 101.0% of mass 174	65.6 ( 98.6)1
177	5.0 - 9.0% of mass 176	4.5 ( 6.8)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 VSTD010	VSTD010	LYC10EV	08/22/02	0148
02 LYCE LCS	LYCE LCS	LYC10EQ	08/22/02	0216
03 LYCE LCSD	LYCE LCSD	LYC10EQ2	08/22/02	0245
04 VBLKY2	VBLKY2	LYCB01E	08/22/02	0313
05 ARD2180	498081	498081D	08/22/02	0520
06 ARD2181	498082	498082D	08/22/02	0549
07 ARD2177	498083	498083	08/22/02	0617
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6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Instrument ID: L

Calibration Date(s): 08/19/02 08/19/02

Heated Purge: (Y/N) N

Calibration Time(s): 0821

1055

GC Column: CAP

ID: 0.53 (mm)

LAB FILE ID: RRF10 =LYC10V	RRF1 =LYC01V RRF25 =LYC25V	RRF5 =LYC05V RRF50 =LYC50V	RRF	% RSD
COMPOUND	RRF1	RRF5	RRF10	RRF25
Dichlorodifluoromethane	0.542	0.581	0.598	0.660
Chloromethane	* 0.330	0.324	0.315	0.400
Vinyl Chloride	0.288	0.295	0.307	0.374
Bromomethane	0.350	0.298	0.267	0.263
Chloroethane	0.164	0.166	0.158	0.169
Trichlorofluoromethane	0.585	0.669	0.649	0.710
Acrolein	0.031	0.038	0.037	0.042
Freon TF	0.505	0.553	0.492	0.520
1,1-Dichloroethene	0.265	0.278	0.272	0.291
Acetone	0.058	0.057	0.062	0.071
Methyl Iodide	0.261	0.383	0.380	0.444
Carbon Disulfide	0.610	0.663	0.626	0.685
Allyl Chloride	0.353	0.403	0.371	0.411
Methylene Chloride	0.251	0.288	0.279	0.290
Acrylonitrile	0.079	0.065	0.065	0.068
trans-1,2-Dichloroethene	0.292	0.297	0.270	0.287
1,2-Dichloroethene (total)	0.290	0.304	0.281	0.301
Methyl-t-Butyl Ether	0.606	0.582	0.552	0.594
1,1-Dichloroethane	* 0.578	0.620	0.592	0.634
Vinyl Acetate	0.428	0.450	0.428	0.445
Chloroprene	0.425	0.504	0.464	0.469
cis-1,2-Dichloroethene	0.287	0.311	0.292	0.314
2-Butanone	0.017	0.019	0.017	0.021
Propionitrile	0.026	0.026	0.024	0.027
Methacrylonitrile	0.073	0.077	0.070	0.074
Bromochloromethane	0.237	0.241	0.236	0.253
Tetrahydrofuran	0.062	0.068	0.064	0.069
Chloroform	0.698	0.705	0.704	0.726
1,1,1-Trichloroethane	0.591	0.651	0.596	0.628
Carbon Tetrachloride	0.322	0.548	0.476	0.548
Isobutyl Alcohol	0.009	0.010	0.009	0.011
Benzene	0.890	0.843	0.827	0.858
1,2-Dichloroethane	0.523	0.504	0.520	0.534
Trichloroethene	0.466	0.430	0.448	0.449
1,2-Dichloropropane	0.387	0.394	0.397	0.417
Methyl Methacrylate	0.206	0.222	0.190	0.199
Dibromomethane	0.404	0.408	0.421	0.432

\* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.



6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Instrument ID: L

Calibration Date(s): 08/19/02 08/19/02

Heated Purge: (Y/N) N

Calibration Time(s): 0821

1055

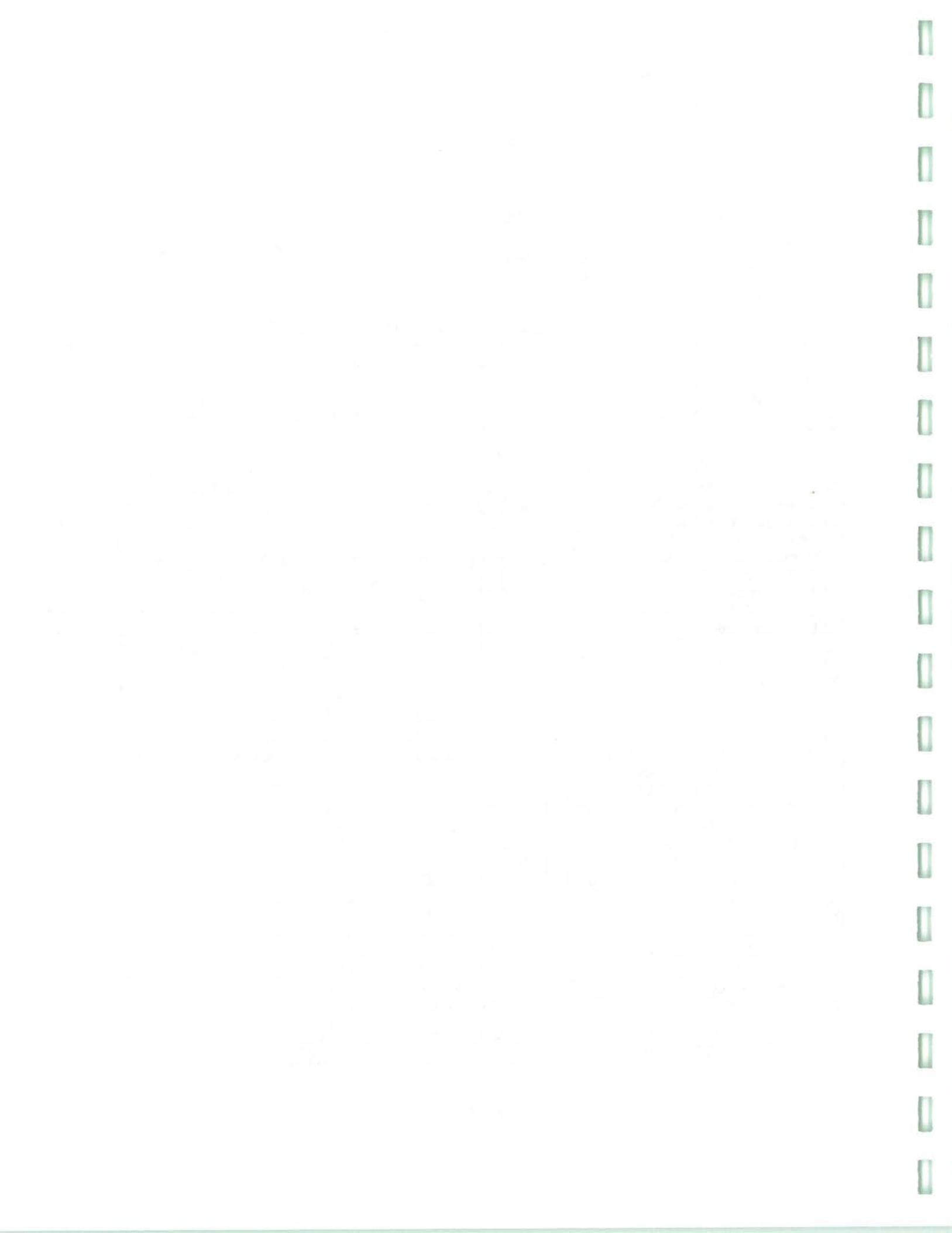
GC Column: CAP

ID: 0.53 (mm)

LAB FILE ID: RRF10 =LYC10V	RRF1 =LYC01V RRF25 =LYC25V	RRF5 =LYC05V RRF50 =LYC50V	RRF	% RSD
COMPOUND	RRF1	RRF5	RRF10	RRF25
1,4-Dioxane	0.002	0.003	0.002	0.003
Bromodichloromethane	0.602	0.681	0.645	0.689
2-Chloroethyl Vinyl Ether	0.229	0.218	0.217	0.226
cis-1,3-Dichloropropene	0.478	0.548	0.534	0.561
4-Methyl-2-pentanone	0.315	0.317	0.317	0.348
Toluene	0.624	0.625	0.607	0.640
trans-1,3-Dichloropropene	0.450	0.532	0.484	0.515
Ethyl Methacrylate	0.431	0.422	0.445	0.490
1,1,2-Trichloroethane	0.300	0.316	0.292	0.302
Tetrachloroethene	0.627	0.586	0.580	0.653
2-Hexanone	0.203	0.229	0.223	0.250
Dibromochloromethane	0.526	0.653	0.596	0.666
1,2-Dibromoethane	0.489	0.580	0.544	0.582
Chlorobenzene	* 0.894	0.901	0.875	0.940
1,1,1,2-Tetrachloroethane	0.378	0.476	0.424	0.460
Ethylbenzene	1.338	1.354	1.361	1.444
Xylene (m,p)	0.515	0.525	0.537	0.563
Xylene (total)	0.503	0.496	0.514	0.551
Xylene (o)	0.503	0.496	0.514	0.551
Styrene	0.818	0.854	0.882	0.942
Bromoform	* 0.328	0.473	0.446	0.508
Isopropylbenzene	2.533	2.526	2.542	2.594
cis-1,4-Dichloro-2-butene	0.142	0.192	0.208	0.240
1,1,2,2-Tetrachloroethane	* 0.890	1.008	0.977	1.017
1,2,3-Trichloropropane	0.277	0.294	0.277	0.286
trans-1,4-Dichloro-2-butene	0.191	0.241	0.242	0.257
1,3-Dichlorobenzene	1.432	1.404	1.448	1.491
1,4-Dichlorobenzene	1.529	1.495	1.495	1.549
1,2-Dichlorobenzene	1.280	1.297	1.303	1.352
1,2-Dibromo-3-Chloropropane	0.221	0.221	0.236	0.247
1,2,4-Trichlorobenzene	1.064	1.054	1.083	1.119
Hexachlorobutadiene	0.768	0.730	0.717	0.759
Naphthalene	1.682	1.867	1.861	2.012
2,2-Dichloropropane	0.524	0.571	0.456	0.501
1,1-Dichloropropene	0.485	0.503	0.478	0.509
1,3-Dichloropropane	0.549	0.598	0.537	0.566
Bromobenzene	0.824	0.835	0.838	0.865

\* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.



6A

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Instrument ID: L

Calibration Date(s) : 08/19/02 08/19/02

Heated Purge: (Y/N) N

Calibration Time(s) : 0821

1055

GC Column: CAP

ID: 0.53 (mm)

\* Compounds with required minimum RRF and maximum %RSD values.  
All other compounds must meet a minimum RRF of 0.010.



FORM 7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Instrument ID: L

Calibration Date: 08/22/02 Time: 0148

Lab File ID: LYC10EV

Init. Calib. Date(s): 08/19/02 08/19/02

Heated Purge: (Y/N) N

Init. Calib. Times: 0821

1055

GC Column: CAP

ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.624	0.660	0.01	5.8	20.0
Chloromethane	0.380	0.296	0.1	22.1	20.0
Vinyl Chloride	0.343	0.331	0.01	3.5	20.0
Bromomethane	0.293	0.157	0.01	46.4	20.0
Chloroethane	0.166	0.182	0.01	9.6	20.0
Trichlorofluoromethane	0.691	0.712	0.01	3.0	20.0
Acrolein	0.041	0.038	0.01	7.3	20.0
Freon TF	0.542	0.572	0.01	5.5	20.0
1,1-Dichloroethene	0.300	0.285	0.01	5.0	20.0
Acetone	0.067	0.056	0.01	16.4	20.0
Methyl Iodide	0.402	0.280	0.01	30.3	20.0
Carbon Disulfide	0.706	0.715	0.01	1.3	20.0
Allyl Chloride	0.417	0.433	0.01	3.8	20.0
Methylene Chloride	0.298	0.274	0.01	8.0	20.0
Acrylonitrile	0.073	0.069	0.01	5.5	20.0
trans-1,2-Dichloroethene	0.300	0.314	0.01	4.7	20.0
1,2-Dichloroethene (total)	0.305	0.321	0.01	5.2	20.0
Methyl-t-Butyl Ether	0.594	0.585	0.01	1.5	20.0
1,1-Dichloroethane	0.631	0.635	0.1	0.6	20.0
Vinyl Acetate	0.439	0.504	0.01	14.8	20.0
Chloroprene	0.483	0.508	0.01	5.2	20.0
cis-1,2-Dichloroethene	0.310	0.329	0.01	6.1	20.0
2-Butanone	0.019	0.020	0.01	5.3	20.0
Propionitrile	0.027	0.024	0.01	11.1	20.0
Methacrylonitrile	0.074	0.076	0.01	2.7	20.0
Bromochloromethane	0.250	0.240	0.01	4.0	20.0
Tetrahydrofuran	0.067	0.068	0.01	1.5	20.0
Chloroform	0.725	0.714	0.01	1.5	20.0
1,1,1-Trichloroethane	0.623	0.654	0.01	5.0	20.0
Carbon Tetrachloride	0.495	0.647	0.01	30.7	20.0
Isobutyl Alcohol	0.010	0.010	0.01	0.0	20.0
Benzene	0.874	0.883	0.01	1.0	20.0
1,2-Dichloroethane	0.525	0.520	0.01	1.0	20.0
Trichloroethene	0.455	0.421	0.01	7.5	20.0
1,2-Dichloropropane	0.409	0.412	0.01	0.7	20.0
Methyl Methacrylate	0.200	0.220	0.01	10.0	20.0
Dibromomethane	0.425	0.418	0.01	1.6	20.0



FORM 7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Instrument ID: L

Calibration Date: 08/22/02 Time: 0148

Lab File ID: LYC10EV

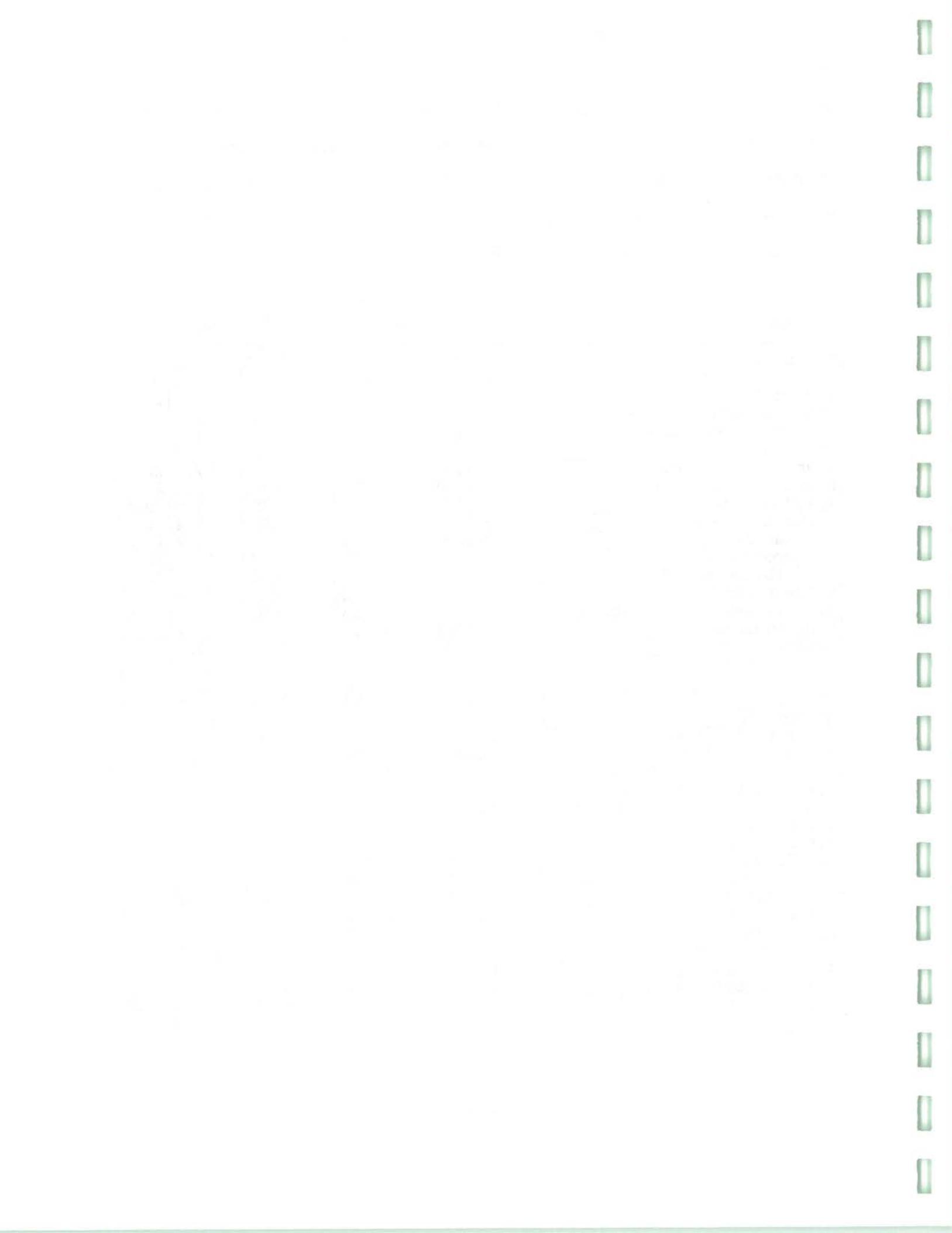
Init. Calib. Date(s): 08/19/02 08/19/02

Heated Purge: (Y/N) N

Init. Calib. Times: 0821 1055

GC Column: CAP ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D	
1,4-Dioxane	0.003	0.002	0.01	33.3	20.0	<-
Bromodichloromethane	0.670	0.696	0.01	3.9	20.0	
2-Chloroethyl Vinyl Ether	0.224	0.211	0.01	5.8	20.0	
cis-1,3-Dichloropropene	0.547	0.564	0.01	3.1	20.0	
4-Methyl-2-pentanone	0.330	0.316	0.01	4.2	20.0	
Toluene	0.626	0.653	0.01	4.3	20.0	
trans-1,3-Dichloropropene	0.496	0.581	0.01	17.1	20.0	
Ethyl Methacrylate	0.463	0.420	0.01	9.3	20.0	
1,1,2-Trichloroethane	0.300	0.345	0.01	15.0	20.0	
Tetrachloroethene	0.623	0.552	0.01	11.4	20.0	
2-Hexanone	0.229	0.234	0.01	2.2	20.0	
Dibromochloromethane	0.622	0.735	0.01	18.2	20.0	
1,2-Dibromoethane	0.555	0.626	0.01	12.8	20.0	
Chlorobenzene	0.910	0.936	0.3	2.8	20.0	
1,1,1,2-Tetrachloroethane	0.439	0.513	0.01	16.8	20.0	
Ethylbenzene	1.393	1.424	0.01	2.2	20.0	
Xylene (m,p)	0.542	0.547	0.01	0.9	20.0	
Xylene (total)	0.524	0.536	0.01	2.3	20.0	
Xylene (o)	0.524	0.536	0.01	2.3	20.0	
Styrene	0.893	0.924	0.01	3.5	20.0	
Bromoform	0.455	0.522	0.1	14.7	20.0	
Isopropylbenzene	2.570	2.670	0.01	3.9	20.0	
cis-1,4-Dichloro-2-butene	0.207	0.228	0.01	10.1	20.0	
1,1,2,2-Tetrachloroethane	0.987	1.078	0.3	9.2	20.0	
1,2,3-Trichloropropane	0.284	0.295	0.01	3.9	20.0	
trans-1,4-Dichloro-2-butene	0.241	0.260	0.01	7.9	20.0	
1,3-Dichlorobenzene	1.459	1.464	0.01	0.3	20.0	
1,4-Dichlorobenzene	1.534	1.552	0.01	1.2	20.0	
1,2-Dichlorobenzene	1.323	1.354	0.01	2.3	20.0	
1,2-Dibromo-3-Chloropropane	0.240	0.237	0.01	1.2	20.0	
1,2,4-Trichlorobenzene	1.099	1.108	0.01	0.8	20.0	
Hexachlorobutadiene	0.752	0.734	0.01	2.4	20.0	
Naphthalene	1.918	1.884	0.01	1.8	20.0	
2,2-Dichloropropane	0.505	0.567	0.01	12.3	20.0	
1,1-Dichloropropene	0.503	0.527	0.01	4.8	20.0	
1,3-Dichloropropane	0.561	0.624	0.01	11.2	20.0	
Bromobenzene	0.849	0.862	0.01	1.5	20.0	



FORM 7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Instrument ID: L

Calibration Date: 08/22/02 Time: 0148

Lab File ID: LYC10EV

Init. Calib. Date(s): 08/19/02 08/19/02

Heated Purge: (Y/N) N

Init. Calib. Times: 0821 1055

GC Column: CAP ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
n-Propylbenzene	0.713	0.722	0.01	1.3	20.0
2-Chlorotoluene	0.675	0.690	0.01	2.2	20.0
4-Chlorotoluene	0.692	0.705	0.01	1.9	20.0
1,3,5-Trimethylbenzene	2.014	2.056	0.01	2.1	20.0
tert-Butylbenzene	2.631	2.874	0.01	9.2	20.0
1,2,4-Trimethylbenzene	2.033	2.066	0.01	1.6	20.0
sec-Butylbenzene	3.138	3.239	0.01	3.2	20.0
4-Isopropyltoluene	2.606	2.661	0.01	2.1	20.0
n-Butylbenzene	2.423	2.525	0.01	4.2	20.0
1,2,3-Trichlorobenzene	1.029	0.991	0.01	3.7	20.0
Toluene-d8	0.944	0.988	0.01	4.7	20.0
1,2-Dichloroethane-d4	0.404	0.415	0.01	2.7	20.0
Bromofluorobenzene	1.314	1.350	0.01	2.7	20.0
1,2-Dichlorobenzene-d4	0.880	0.881	0.01	0.1	20.0



FORM 8  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Lab File ID (Standard): LYC10EV

Date Analyzed: 08/22/02

Instrument ID: L

Time Analyzed: 0148

GC Column: CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	444820	9.78	409741	15.60	242849	19.97
UPPER LIMIT	889640	10.28	819482	16.10	485698	20.47
LOWER LIMIT	222410	9.28	204870	15.10	121424	19.47
CLIENT SAMPLE NO.						
01 LYCE LCS	425714	9.77	428401	15.60	256303	19.98
02 LYCE LCSD	408888	9.77	429119	15.60	256846	19.98
03 VBLKY2	437330	9.77	439005	15.60	242932	19.98
04 ARD2180	437773	9.78	404239	15.60	222083	19.97
05 ARD2181	407592	9.76	398938	15.60	217424	19.98
06 ARD2177	377475	9.77	380784	15.60	214500	19.98
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 = Fluorobenzene

IS2 (CBZ) = Chlorobenzene-d5

IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.



**SEVERN**

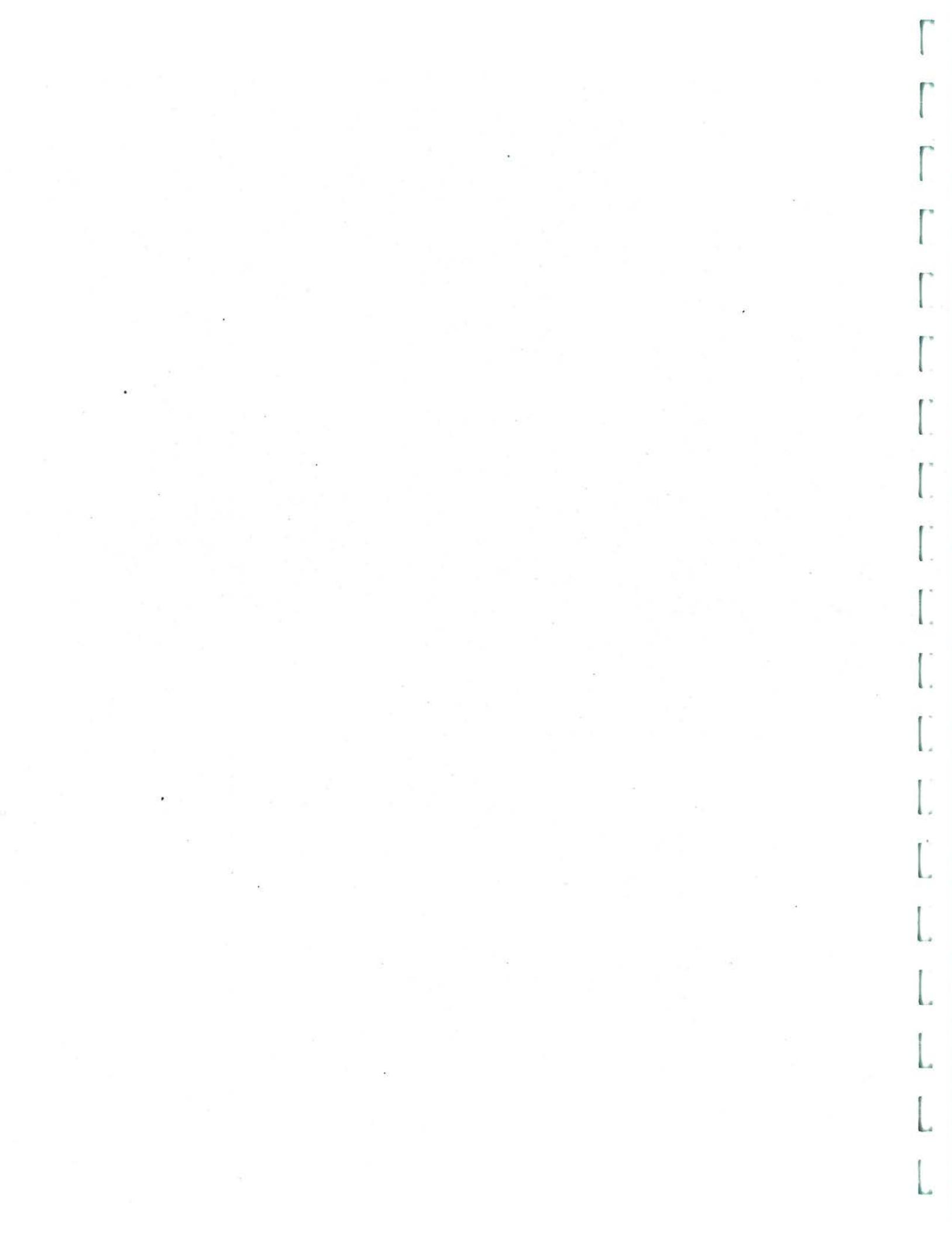
**TRENT**

**SERVICES**

**Severn Trent Laboratories, Inc.**

**SAMPLE DATA SUMMARY PACKAGE**

**FOR** 524.2



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

ARD2168

Lab Name: STL BURLINGTON Contract: 98011

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498084

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498084

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane	0.50	U	
74-87-3-----	Chloromethane	0.50	U	
75-01-4-----	Vinyl Chloride	0.50	U	
74-83-9-----	Bromomethane	0.50	U	
75-00-3-----	Chloroethane	0.50	U	
75-69-4-----	Trichlorofluoromethane	0.50	U	
60-29-7-----	Diethyl Ether	0.50	U	
75-35-4-----	1,1-Dichloroethene	0.50	U	
67-64-1-----	Acetone	5.0	U	
74-88-4-----	Methyl Iodide	0.50	U	
75-15-0-----	Carbon Disulfide	0.50	U	
107-05-1-----	Allyl Chloride	0.50	U	
75-09-2-----	Methylene Chloride	0.50	U	
107-13-1-----	Acrylonitrile	0.50	U	
156-60-5-----	trans-1,2-Dichloroethene	0.50	U	
1634-04-4-----	Methyl-t-Butyl Ether	0.60		
75-34-3-----	1,1-Dichloroethane	0.50	U	
594-20-7-----	2,2-Dichloropropane	0.50	U	
156-59-2-----	cis-1,2-Dichloroethene	0.50	U	
78-93-3-----	2-Butanone	5.0	U	
107-12-0-----	Propionitrile	25	U	
96-33-3-----	Methyl Acrylate	0.50	U	
74-97-5-----	Bromochloromethane	0.50	U	
126-98-7-----	Methacrylonitrile	0.50	U	
109-99-9-----	Tetrahydrofuran	2.5	U	
67-66-3-----	Chloroform	0.50	U	
71-55-6-----	1,1,1-Trichloroethane	0.50	U	
109-69-3-----	1-Chlorobutane	0.50	U	
56-23-5-----	Carbon Tetrachloride	0.50	U	
563-58-6-----	1,1-Dichloropropene	0.50	U	
71-43-2-----	Benzene	0.50	U	
107-06-2-----	1,2-Dichloroethane	0.50	U	
79-01-6-----	Trichloroethene	0.50	U	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

ARD2168

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498084

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498084

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3-----	Dibromomethane	0.50	U
78-87-5-----	1,2-Dichloropropane	0.50	U
80-62-6-----	Methyl Methacrylate	0.50	U
75-27-4-----	Bromodichloromethane	0.50	U
107-14-2-----	Chloroacetonitrile	25	U
10061-01-5-----	cis-1,3-Dichloropropene	0.50	U
513-88-2-----	1,1-Dichloropropanone	10	U
108-10-1-----	4-Methyl-2-Pentanone	2.5	U
79-46-9-----	2-Nitropropane	10	U
108-88-3-----	Toluene	0.50	U
10061-02-6-----	trans-1,3-Dichloropropene	0.50	U
97-63-2-----	Ethyl Methacrylate	0.50	U
79-00-5-----	1,1,2-Trichloroethane	0.50	U
127-18-4-----	Tetrachloroethene	0.50	U
142-28-9-----	1,3-Dichloropropane	0.50	U
591-78-6-----	2-Hexanone	2.5	U
124-48-1-----	Dibromochloromethane	0.50	U
106-93-4-----	1,2-Dibromoethane	0.50	U
108-90-7-----	Chlorobenzene	0.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4-----	Ethylbenzene	0.50	U
1330-20-7-----	m- & p-Xylene	0.50	U
95-47-6-----	o-Xylene	0.50	U
100-42-5-----	Styrene	0.50	U
75-25-2-----	Bromoform	0.50	U
1330-20-7-----	Xylene (total)	0.50	U
98-82-8-----	Isopropylbenzene	0.50	U
108-86-1-----	Bromobenzene	0.50	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.50	U
96-18-4-----	1,2,3-Trichloropropane	0.50	U
110-57-6-----	trans-1,4-Dichloro-2-butene	0.50	U
95-49-8-----	2-Chlorotoluene	0.50	U
106-43-4-----	4-Chlorotoluene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

ARD2168

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498084

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498084

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

103-65-1-----	n-Propylbenzene	0.50	U
108-67-8-----	1,3,5-Trimethylbenzene	0.50	U
76-01-7-----	Pentachloroethane	0.50	U
98-06-6-----	tert-Butylbenzene	0.50	U
95-63-6-----	1,2,4-Trimethylbenzene	0.50	U
135-98-8-----	sec-Butylbenzene	0.50	U
541-73-1-----	1,3-Dichlorobenzene	0.50	U
99-87-6-----	p-Isopropyltoluene	0.50	U
106-46-7-----	1,4-Dichlorobenzene	0.50	U
95-50-1-----	1,2-Dichlorobenzene	0.50	U
104-51-8-----	n-Butylbenzene	0.50	U
67-72-1-----	Hexachloroethane	0.50	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.50	U
98-95-3-----	Nitrobenzene	25	U
120-82-1-----	1,2,4-Trichlorobenzene	0.50	U
87-68-3-----	Hexachlorobutadiene	0.50	U
91-20-3-----	Naphthalene	0.50	U
87-61-6-----	1,2,3-Trichlorobenzene	0.50	U

1. *What is the primary purpose of the study?*

2. *What is the study's hypothesis or research question?*

3. *What is the study's design and methodology?*

4. *What are the study's key findings and conclusions?*

5. *What are the study's limitations and potential biases?*

6. *What are the study's implications for practice and policy?*

7. *What are the study's strengths and positive contributions?*

8. *What are the study's overall conclusions and recommendations?*

9. *What are the study's implications for future research?*

10. *What are the study's overall findings and conclusions?*

11. *What are the study's overall findings and conclusions?*

12. *What are the study's overall findings and conclusions?*

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23. *What are the study's overall findings and conclusions?*

24. *What are the study's overall findings and conclusions?*

25. *What are the study's overall findings and conclusions?*

26. *What are the study's overall findings and conclusions?*

27. *What are the study's overall findings and conclusions?*

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR0037

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498085

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498085

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

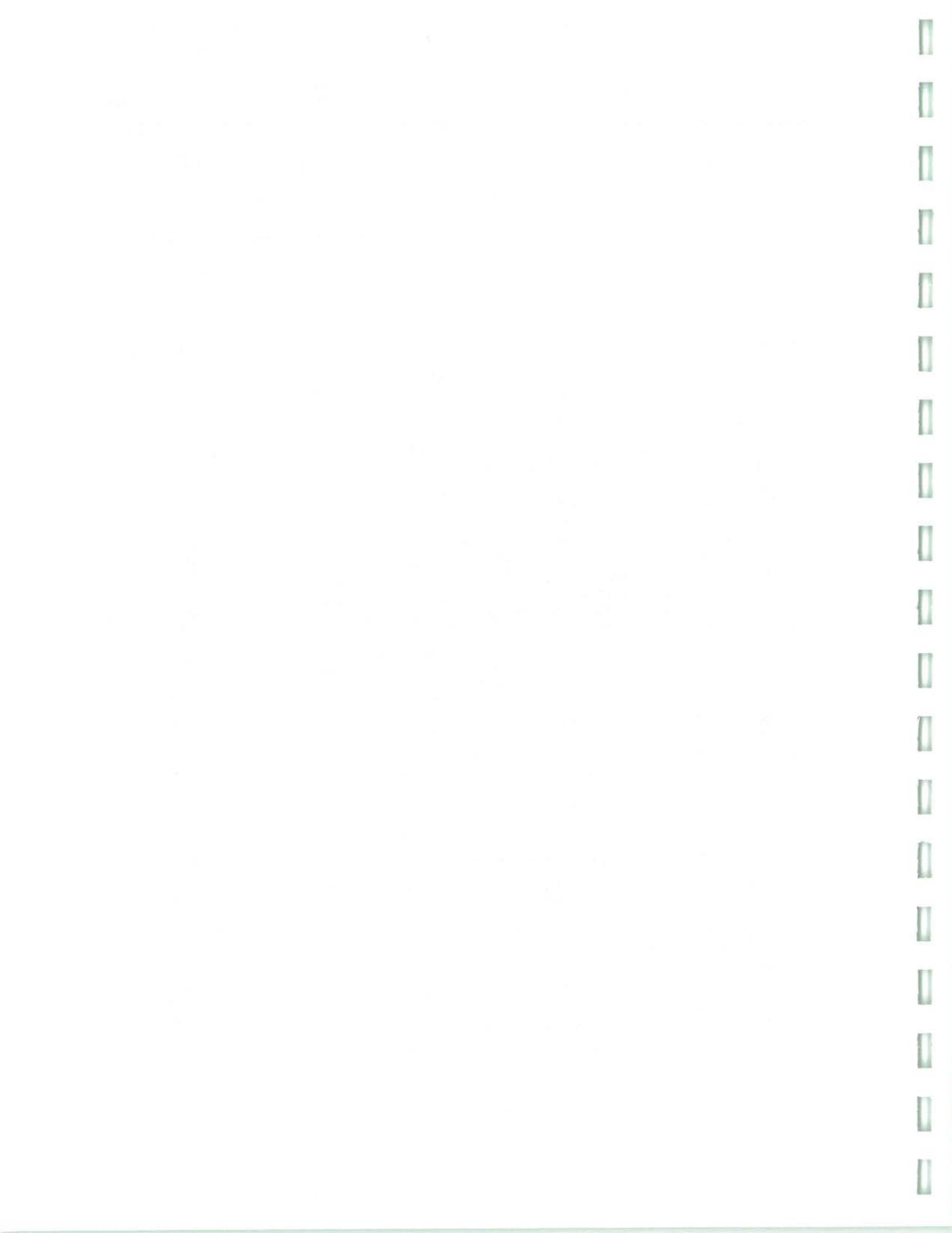
Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

75-71-8-----	Dichlorodifluoromethane	0.50	U
74-87-3-----	Chloromethane	0.50	U
75-01-4-----	Vinyl Chloride	0.50	U
74-83-9-----	Bromomethane	0.50	U
75-00-3-----	Chloroethane	0.50	U
75-69-4-----	Trichlorofluoromethane	0.50	U
60-29-7-----	Diethyl Ether	0.50	U
75-35-4-----	1,1-Dichloroethene	0.50	U
67-64-1-----	Acetone	4.2	J
74-88-4-----	Methyl Iodide	0.50	U
75-15-0-----	Carbon Disulfide	0.50	U
107-05-1-----	Allyl Chloride	0.50	U
75-09-2-----	Methylene Chloride	0.50	U
107-13-1-----	Acrylonitrile	0.50	U
156-60-5-----	trans-1,2-Dichloroethene	0.50	U
1634-04-4-----	Methyl-t-Butyl Ether	0.50	U
75-34-3-----	1,1-Dichloroethane	0.50	U
594-20-7-----	2,2-Dichloropropane	0.50	U
156-59-2-----	cis-1,2-Dichloroethene	0.50	U
78-93-3-----	2-Butanone	5.0	U
107-12-0-----	Propionitrile	25	U
96-33-3-----	Methyl Acrylate	0.50	U
74-97-5-----	Bromochloromethane	0.50	U
126-98-7-----	Methacrylonitrile	0.50	U
109-99-9-----	Tetrahydrofuran	2.5	U
67-66-3-----	Chloroform	0.50	U
71-55-6-----	1,1,1-Trichloroethane	0.50	U
109-69-3-----	1-Chlorobutane	0.50	U
56-23-5-----	Carbon Tetrachloride	0.50	U
563-58-6-----	1,1-Dichloropropene	0.50	U
71-43-2-----	Benzene	0.50	U
107-06-2-----	1,2-Dichloroethane	0.50	U
79-01-6-----	Trichloroethene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR0037

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498085

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498085

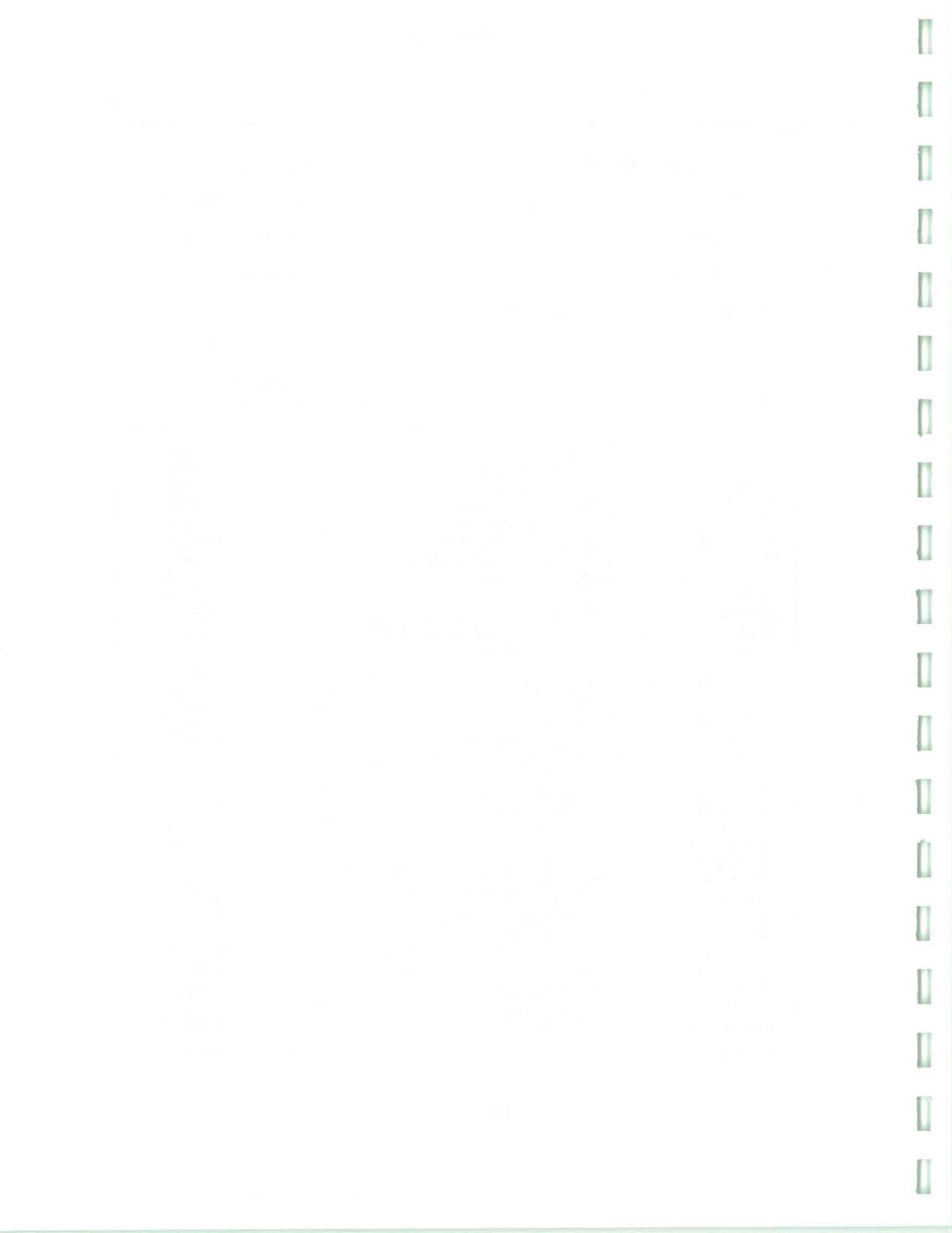
Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
74-95-3-----	Dibromomethane	0.50	U	
78-87-5-----	1,2-Dichloropropane	0.50	U	
80-62-6-----	Methyl Methacrylate	0.50	U	
75-27-4-----	Bromodichloromethane	0.50	U	
107-14-2-----	Chloroacetonitrile	25	U	
10061-01-5-----	cis-1,3-Dichloropropene	0.50	U	
513-88-2-----	1,1-Dichloropropanone	10	U	
108-10-1-----	4-Methyl-2-Pentanone	2.5	U	
79-46-9-----	2-Nitropropane	10	U	
108-88-3-----	Toluene	0.50	U	
10061-02-6-----	trans-1,3-Dichloropropene	0.50	U	
97-63-2-----	Ethyl Methacrylate	0.50	U	
79-00-5-----	1,1,2-Trichloroethane	0.50	U	
127-18-4-----	Tetrachloroethene	0.50	U	
142-28-9-----	1,3-Dichloropropane	0.50	U	
591-78-6-----	2-Hexanone	2.5	U	
124-48-1-----	Dibromochloromethane	0.50	U	
106-93-4-----	1,2-Dibromoethane	0.50	U	
108-90-7-----	Chlorobenzene	0.50	U	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.50	U	
100-41-4-----	Ethylbenzene	0.50	U	
1330-20-7-----	m- & p-Xylene	0.50	U	
95-47-6-----	o-Xylene	0.50	U	
100-42-5-----	Styrene	0.50	U	
75-25-2-----	Bromoform	0.50	U	
1330-20-7-----	Xylene (total)	0.50	U	
98-82-8-----	Isopropylbenzene	0.50	U	
108-86-1-----	Bromobenzene	0.50	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.50	U	
96-18-4-----	1,2,3-Trichloropropane	0.50	U	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.50	U	
95-49-8-----	2-Chlorotoluene	0.50	U	
106-43-4-----	4-Chlorotoluene	0.50	U	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR0037

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498085

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498085

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

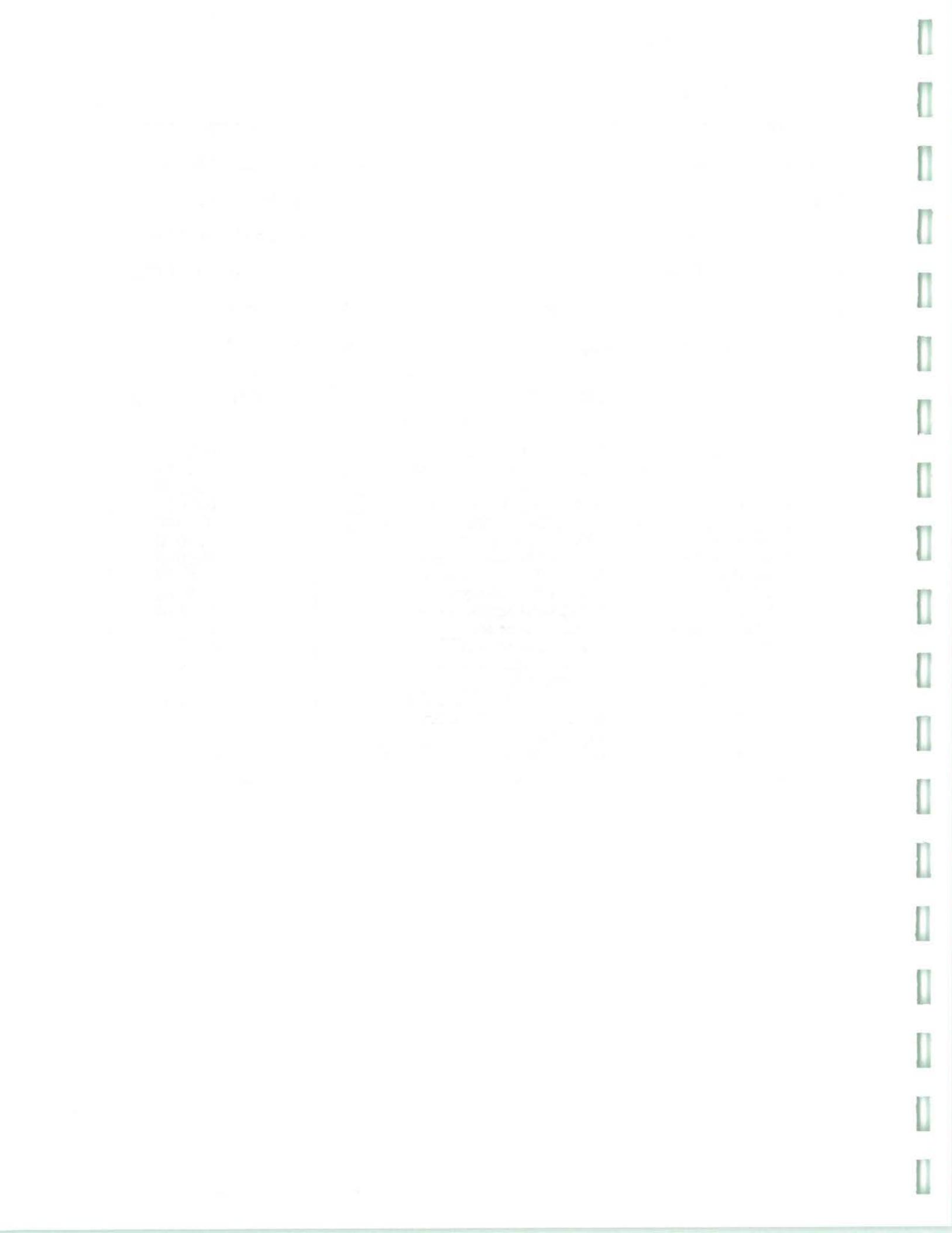
Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
103-65-1-----	n-Propylbenzene	0.50	U
108-67-8-----	1,3,5-Trimethylbenzene	0.50	U
76-01-7-----	Pentachloroethane	0.50	U
98-06-6-----	tert-Butylbenzene	0.50	U
95-63-6-----	1,2,4-Trimethylbenzene	0.50	U
135-98-8-----	sec-Butylbenzene	0.50	U
541-73-1-----	1,3-Dichlorobenzene	0.50	U
99-87-6-----	p-Isopropyltoluene	0.50	U
106-46-7-----	1,4-Dichlorobenzene	0.50	U
95-50-1-----	1,2-Dichlorobenzene	0.50	U
104-51-8-----	n-Butylbenzene	0.50	U
67-72-1-----	Hexachloroethane	0.50	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.50	U
98-95-3-----	Nitrobenzene	25	U
120-82-1-----	1,2,4-Trichlorobenzene	0.50	U
87-68-3-----	Hexachlorobutadiene	0.50	U
91-20-3-----	Naphthalene	0.50	U
87-61-6-----	1,2,3-Trichlorobenzene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR0038

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498086

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498086

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

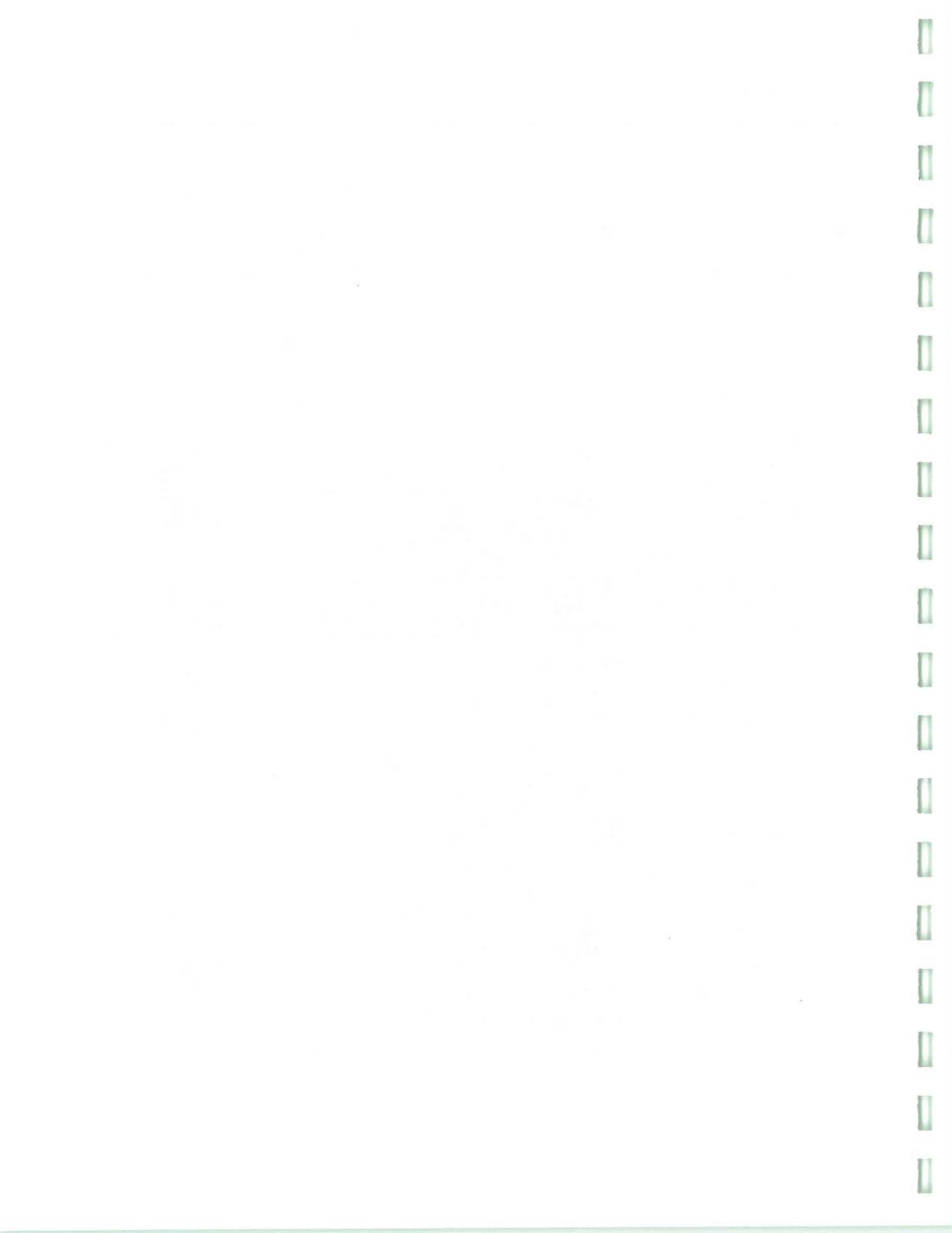
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

75-71-8-----	Dichlorodifluoromethane	0.50	U
74-87-3-----	Chloromethane	0.50	U
75-01-4-----	Vinyl Chloride	0.50	U
74-83-9-----	Bromomethane	0.50	U
75-00-3-----	Chloroethane	0.50	U
75-69-4-----	Trichlorofluoromethane	0.50	U
60-29-7-----	Diethyl Ether	0.50	U
75-35-4-----	1,1-Dichloroethene	0.50	U
67-64-1-----	Acetone	5.0	U
74-88-4-----	Methyl Iodide	0.50	U
75-15-0-----	Carbon Disulfide	0.50	U
107-05-1-----	Allyl Chloride	0.50	U
75-09-2-----	Methylene Chloride	0.50	U
107-13-1-----	Acrylonitrile	0.50	U
156-60-5-----	trans-1,2-Dichloroethene	0.50	U
1634-04-4-----	Methyl-t-Butyl Ether	0.50	U
75-34-3-----	1,1-Dichloroethane	0.50	U
594-20-7-----	2,2-Dichloropropane	0.50	U
156-59-2-----	cis-1,2-Dichloroethene	0.50	U
78-93-3-----	2-Butanone	5.0	U
107-12-0-----	Propionitrile	25	U
96-33-3-----	Methyl Acrylate	0.50	U
74-97-5-----	Bromo-chloromethane	0.50	U
126-98-7-----	Methacrylonitrile	0.50	U
109-99-9-----	Tetrahydrofuran	2.5	U
67-66-3-----	Chloroform	0.50	U
71-55-6-----	1,1,1-Trichloroethane	0.50	U
109-69-3-----	1-Chlorobutane	0.50	U
56-23-5-----	Carbon Tetrachloride	0.50	U
563-58-6-----	1,1-Dichloropropene	0.50	U
71-43-2-----	Benzene	0.50	U
107-06-2-----	1,2-Dichloroethane	0.50	U
79-01-6-----	Trichloroethene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR0038

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498086

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498086

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------------------------------	------	---

74-95-3-----	Dibromomethane	0.50	U
78-87-5-----	1,2-Dichloropropane	0.50	U
80-62-6-----	Methyl Methacrylate	0.50	U
75-27-4-----	Bromodichloromethane	0.50	U
107-14-2-----	Chloroacetonitrile	25	U
10061-01-5-----	cis-1,3-Dichloropropene	0.50	U
513-88-2-----	1,1-Dichloropropanone	10	U
108-10-1-----	4-Methyl-2-Pentanone	2.5	U
79-46-9-----	2-Nitropropane	10	U
108-88-3-----	Toluene	0.50	U
10061-02-6-----	trans-1,3-Dichloropropene	0.50	U
97-63-2-----	Ethyl Methacrylate	0.50	U
79-00-5-----	1,1,2-Trichloroethane	0.50	U
127-18-4-----	Tetrachloroethene	0.50	U
142-28-9-----	1,3-Dichloropropane	0.50	U
591-78-6-----	2-Hexanone	2.5	U
124-48-1-----	Dibromochloromethane	0.50	U
106-93-4-----	1,2-Dibromoethane	0.50	U
108-90-7-----	Chlorobenzene	0.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4-----	Ethylbenzene	0.50	U
1330-20-7-----	m- & p-Xylene	0.50	U
95-47-6-----	o-Xylene	0.50	U
100-42-5-----	Styrene	0.50	U
75-25-2-----	Bromoform	0.50	U
1330-20-7-----	Xylene (total)	0.50	U
98-82-8-----	Isopropylbenzene	0.50	U
108-86-1-----	Bromobenzene	0.50	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.50	U
96-18-4-----	1,2,3-Trichloropropane	0.50	U
110-57-6-----	trans-1,4-Dichloro-2-butene	0.50	U
95-49-8-----	2-Chlorotoluene	0.50	U
106-43-4-----	4-Chlorotoluene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR0038

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498086

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498086

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

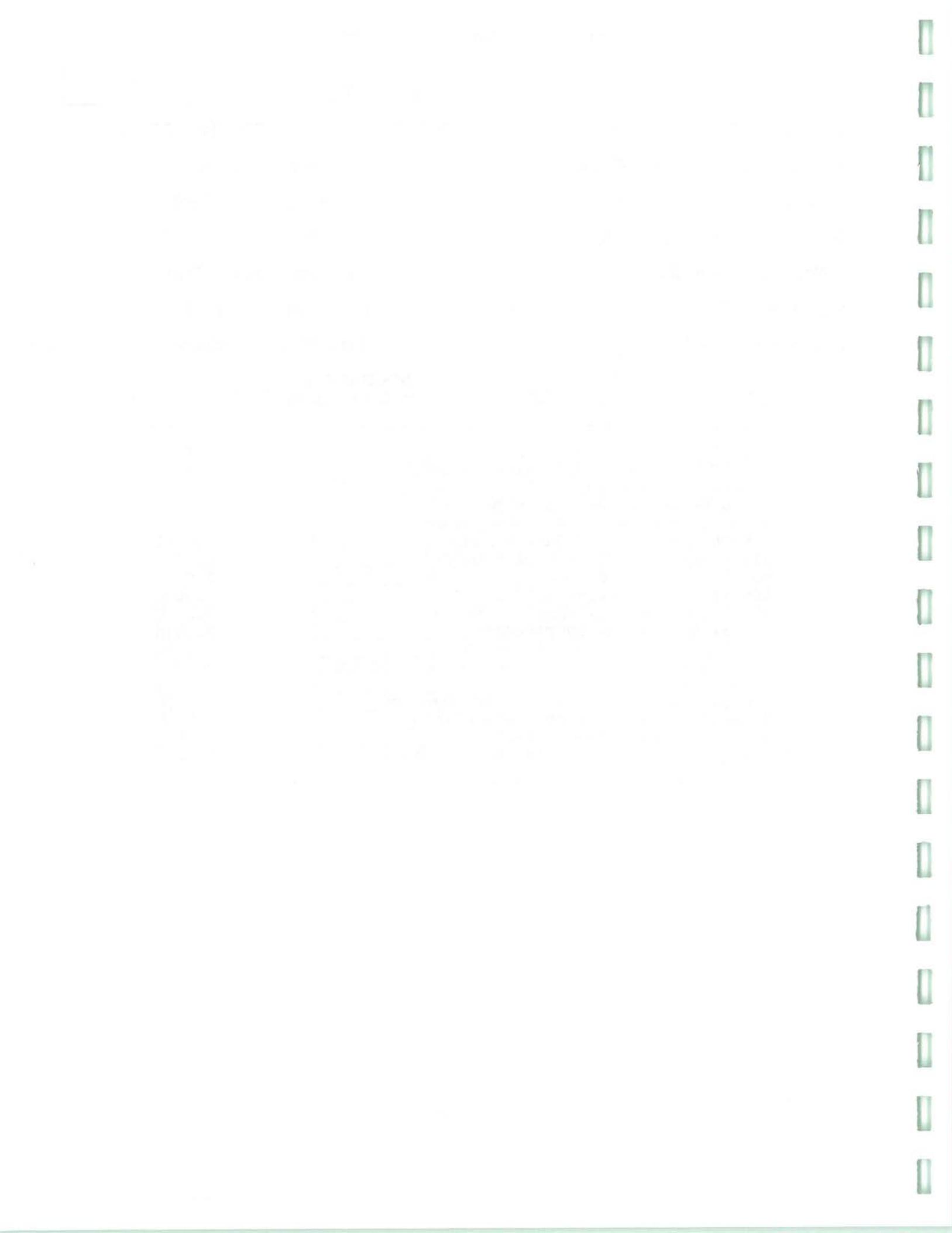
Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
103-65-1-----	n-Propylbenzene	0.50	U
108-67-8-----	1,3,5-Trimethylbenzene	0.50	U
76-01-7-----	Pentachloroethane	0.50	U
98-06-6-----	tert-Butylbenzene	0.50	U
95-63-6-----	1,2,4-Trimethylbenzene	0.50	U
135-98-8-----	sec-Butylbenzene	0.50	U
541-73-1-----	1,3-Dichlorobenzene	0.50	U
99-87-6-----	p-Isopropyltoluene	0.50	U
106-46-7-----	1,4-Dichlorobenzene	0.50	U
95-50-1-----	1,2-Dichlorobenzene	0.50	U
104-51-8-----	n-Butylbenzene	0.50	U
67-72-1-----	Hexachloroethane	0.50	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.50	U
98-95-3-----	Nitrobenzene	25	U
120-82-1-----	1,2,4-Trichlorobenzene	0.50	U
87-68-3-----	Hexachlorobutadiene	0.50	U
91-20-3-----	Naphthalene	0.50	U
87-61-6-----	1,2,3-Trichlorobenzene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 98011

TR2091

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498072

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498072D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.3

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

75-71-8-----	Dichlorodifluoromethane	0.65	U
74-87-3-----	Chloromethane	0.65	U
75-01-4-----	Vinyl Chloride	0.65	U
74-83-9-----	Bromomethane	0.65	U
75-00-3-----	Chloroethane	0.65	U
75-69-4-----	Trichlorofluoromethane	0.65	U
60-29-7-----	Diethyl Ether	0.65	U
75-35-4-----	1,1-Dichloroethene	0.65	U
67-64-1-----	Acetone	6.5	U
74-88-4-----	Methyl Iodide	0.65	U
75-15-0-----	Carbon Disulfide	0.65	U
107-05-1-----	Allyl Chloride	0.65	U
75-09-2-----	Methylene Chloride	0.65	U
107-13-1-----	Acrylonitrile	0.65	U
156-60-5-----	trans-1,2-Dichloroethene	0.65	U
1634-04-4-----	Methyl-t-Butyl Ether	0.65	U
75-34-3-----	1,1-Dichloroethane	0.65	U
594-20-7-----	2,2-Dichloropropane	0.65	U
156-59-2-----	cis-1,2-Dichloroethene	25	_____
78-93-3-----	2-Butanone	6.5	U
107-12-0-----	Propionitrile	32	U
96-33-3-----	Methyl Acrylate	0.65	U
74-97-5-----	Bromochloromethane	0.65	U
126-98-7-----	Methacrylonitrile	0.65	U
109-99-9-----	Tetrahydrofuran	3.2	U
67-66-3-----	Chloroform	0.65	U
71-55-6-----	1,1,1-Trichloroethane	0.65	U
109-69-3-----	1-Chlorobutane	0.65	U
56-23-5-----	Carbon Tetrachloride	0.65	U
563-58-6-----	1,1-Dichloropropene	0.65	U
71-43-2-----	Benzene	0.65	U
107-06-2-----	1,2-Dichloroethane	0.65	U
79-01-6-----	Trichloroethene	6.0	_____

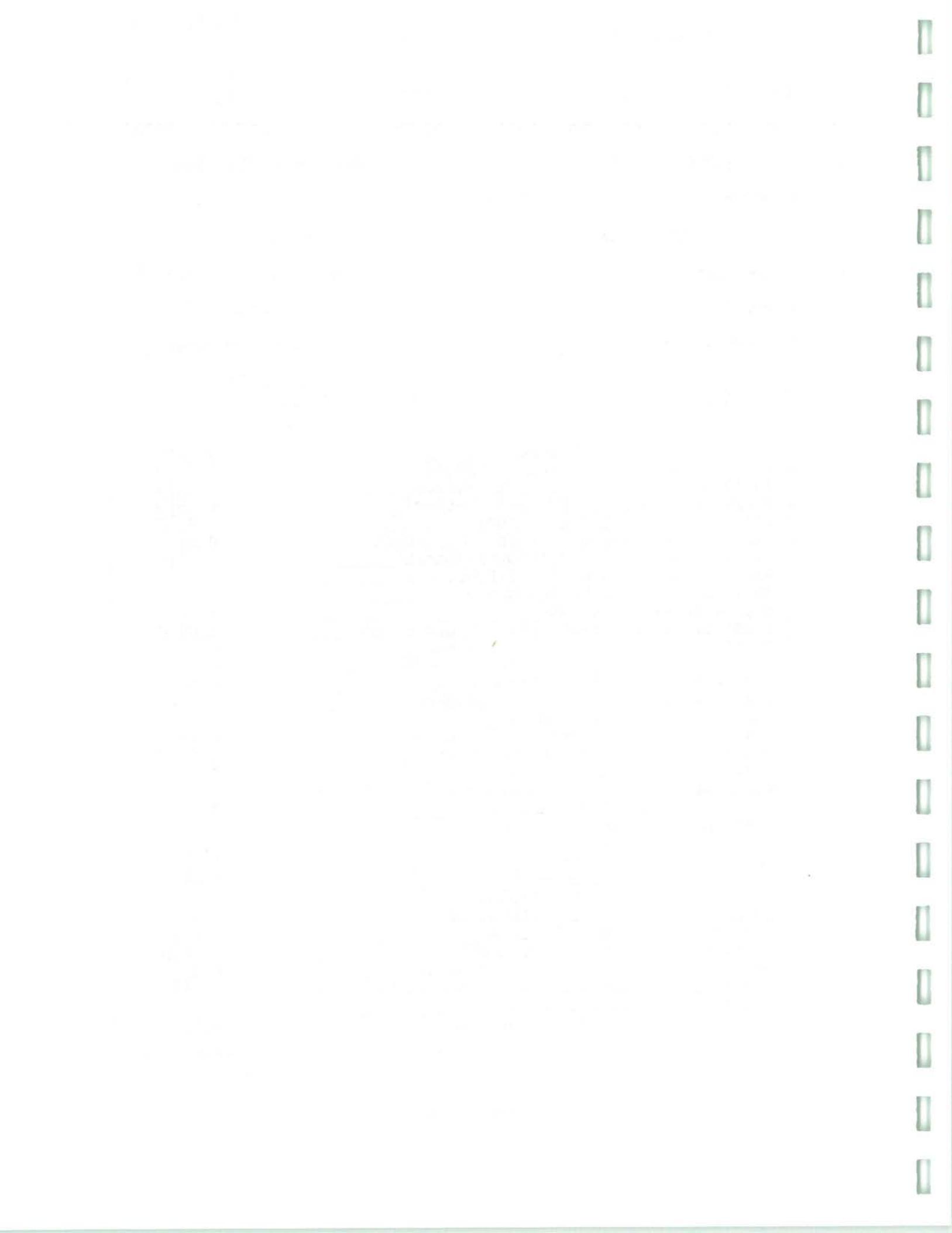


FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON	Contract: 98011	TR2091
Lab Code: STLVT	Case No.: 98011	SAS No.: SDG No.: 89326
Matrix: (soil/water) WATER	Lab Sample ID: 498072	
Sample wt/vol: 5.000 (g/mL) ML	Lab File ID: 498072D	
Level: (low/med) LOW	Date Received: 08/17/02	
% Moisture: not dec.	Date Analyzed: 08/26/02	
GC Column: CAP ID: 0.53 (mm)	Dilution Factor: 1.3	
Soil Extract Volume: _____ (uL)	Soil Aliquot Volume: _____ (uL)	

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
74-95-3-----	Dibromomethane	0.65	U	
78-87-5-----	1,2-Dichloropropane	0.65	U	
80-62-6-----	Methyl Methacrylate	0.65	U	
75-27-4-----	Bromodichloromethane	0.65	U	
107-14-2-----	Chloroacetonitrile	32	U	
10061-01-5-----	cis-1,3-Dichloropropene	0.65	U	
513-88-2-----	1,1-Dichloropropanone	13	U	
108-10-1-----	4-Methyl-2-Pentanone	3.2	U	
79-46-9-----	2-Nitropropane	13	U	
108-88-3-----	Toluene	0.65	U	
10061-02-6-----	trans-1,3-Dichloropropene	0.65	U	
97-63-2-----	Ethyl Methacrylate	0.65	U	
79-00-5-----	1,1,2-Trichloroethane	0.65	U	
127-18-4-----	Tetrachloroethene	0.65	U	
142-28-9-----	1,3-Dichloropropane	0.65	U	
591-78-6-----	2-Hexanone	3.2	U	
124-48-1-----	Dibromochloromethane	0.65	U	
106-93-4-----	1,2-Dibromoethane	0.65	U	
108-90-7-----	Chlorobenzene	0.65	U	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.65	U	
100-41-4-----	Ethylbenzene	0.65	U	
1330-20-7-----	m- & p-Xylene	0.65	U	
95-47-6-----	o-Xylene	0.65	U	
100-42-5-----	Styrene	0.65	U	
75-25-2-----	Bromoform	0.65	U	
1330-20-7-----	Xylene (total)	0.65	U	
98-82-8-----	Isopropylbenzene	0.65	U	
108-86-1-----	Bromobenzene	0.65	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.65	U	
96-18-4-----	1,2,3-Trichloropropane	0.65	U	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.65	U	
95-49-8-----	2-Chlorotoluene	0.65	U	
106-43-4-----	4-Chlorotoluene	0.65	U	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 98011

TR2091

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498072

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498072D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.3

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
103-65-1-----	n-Propylbenzene	0.65	U
108-67-8-----	1,3,5-Trimethylbenzene	0.65	U
76-01-7-----	Pentachloroethane	0.65	U
98-06-6-----	tert-Butylbenzene	0.65	U
95-63-6-----	1,2,4-Trimethylbenzene	0.65	U
135-98-8-----	sec-Butylbenzene	0.65	U
541-73-1-----	1,3-Dichlorobenzene	0.65	U
99-87-6-----	p-Isopropyltoluene	0.65	U
106-46-7-----	1,4-Dichlorobenzene	0.65	U
95-50-1-----	1,2-Dichlorobenzene	0.65	U
104-51-8-----	n-Butylbenzene	0.65	U
67-72-1-----	Hexachloroethane	0.65	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.65	U
98-95-3-----	Nitrobenzene	32	U
120-82-1-----	1,2,4-Trichlorobenzene	0.65	U
87-68-3-----	Hexachlorobutadiene	0.65	U
91-20-3-----	Naphthalene	0.65	U
87-61-6-----	1,2,3-Trichlorobenzene	0.65	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2092

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498073

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498073

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

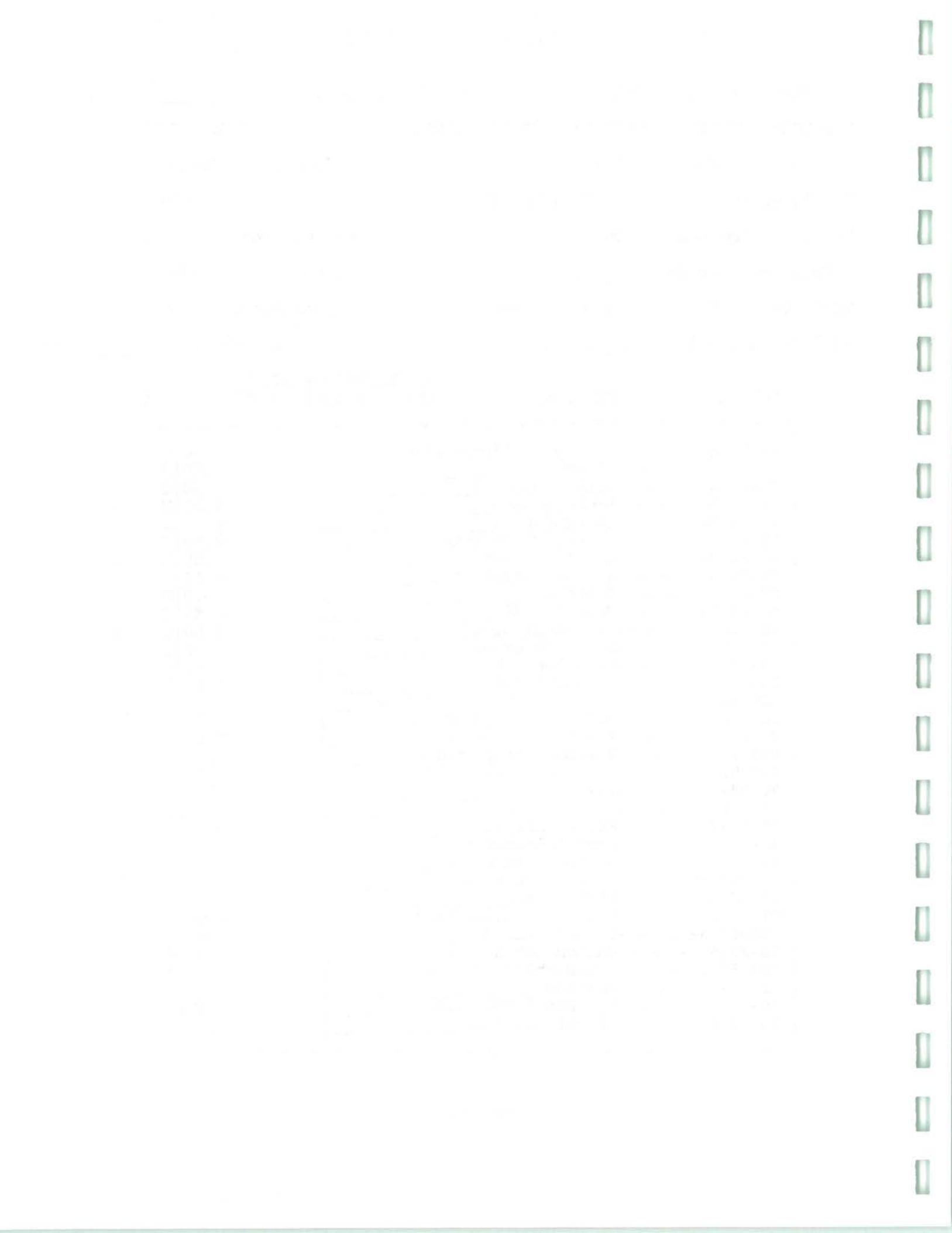
Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------------------------------	------	---

75-71-8-----	Dichlorodifluoromethane	0.50	U
74-87-3-----	Chloromethane	0.50	U
75-01-4-----	Vinyl Chloride	0.50	U
74-83-9-----	Bromomethane	0.50	U
75-00-3-----	Chloroethane	0.50	U
75-69-4-----	Trichlorofluoromethane	0.50	U
60-29-7-----	Diethyl Ether	0.50	U
75-35-4-----	1,1-Dichloroethene	0.50	U
67-64-1-----	Acetone	5.0	U
74-88-4-----	Methyl Iodide	0.50	U
75-15-0-----	Carbon Disulfide	0.50	U
107-05-1-----	Allyl Chloride	0.50	U
75-09-2-----	Methylene Chloride	0.50	U
107-13-1-----	Acrylonitrile	0.50	U
156-60-5-----	trans-1,2-Dichloroethene	0.55	_____
1634-04-4-----	Methyl-t-Butyl Ether	0.50	U
75-34-3-----	1,1-Dichloroethane	0.50	U
594-20-7-----	2,2-Dichloropropane	0.50	U
156-59-2-----	cis-1,2-Dichloroethene	20	_____
78-93-3-----	2-Butanone	5.0	U
107-12-0-----	Propionitrile	25	U
96-33-3-----	Methyl Acrylate	0.50	U
74-97-5-----	Bromochloromethane	0.50	U
126-98-7-----	Methacrylonitrile	0.50	U
109-99-9-----	Tetrahydrofuran	2.5	U
67-66-3-----	Chloroform	0.50	U
71-55-6-----	1,1,1-Trichloroethane	0.50	U
109-69-3-----	1-Chlorobutane	0.50	U
56-23-5-----	Carbon Tetrachloride	0.50	U
563-58-6-----	1,1-Dichloropropene	0.50	U
71-43-2-----	Benzene	0.22	J
107-06-2-----	1,2-Dichloroethane	0.50	U
79-01-6-----	Trichloroethene	3.5	_____



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2092

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498073

Sample wt/vol:

5.000 (g/mL) ML

Lab File ID: 498073

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

74-95-3-----	Dibromomethane	0.50	U
78-87-5-----	1,2-Dichloropropane	0.50	U
80-62-6-----	Methyl Methacrylate	0.50	U
75-27-4-----	Bromodichloromethane	0.50	U
107-14-2-----	Chloroacetonitrile	25	U
10061-01-5-----	cis-1,3-Dichloropropene	0.50	U
513-88-2-----	1,1-Dichloropropanone	10	U
108-10-1-----	4-Methyl-2-Pentanone	2.5	U
79-46-9-----	2-Nitropropane	10	U
108-88-3-----	Toluene	0.50	U
10061-02-6-----	trans-1,3-Dichloropropene	0.50	U
97-63-2-----	Ethyl Methacrylate	0.50	U
79-00-5-----	1,1,2-Trichloroethane	0.50	U
127-18-4-----	Tetrachloroethene	0.50	U
142-28-9-----	1,3-Dichloropropane	0.50	U
591-78-6-----	2-Hexanone	2.5	U
124-48-1-----	Dibromochloromethane	0.50	U
106-93-4-----	1,2-Dibromoethane	0.50	U
108-90-7-----	Chlorobenzene	0.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4-----	Ethylbenzene	0.50	U
1330-20-7-----	m- & p-Xylene	0.50	U
95-47-6-----	o-Xylene	0.50	U
100-42-5-----	Styrene	0.50	U
75-25-2-----	Bromoform	0.50	U
1330-20-7-----	Xylene (total)	0.50	U
98-82-8-----	Isopropylbenzene	0.50	U
108-86-1-----	Bromobenzene	0.50	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.50	U
96-18-4-----	1,2,3-Trichloropropane	0.50	U
110-57-6-----	trans-1,4-Dichloro-2-butene	0.50	U
95-49-8-----	2-Chlorotoluene	0.50	U
106-43-4-----	4-Chlorotoluene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR2092

Lab Name: STL BURLINGTON Contract: 98011

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498073

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498073

Level: (low/med) LOW Date Received: 08/17/02

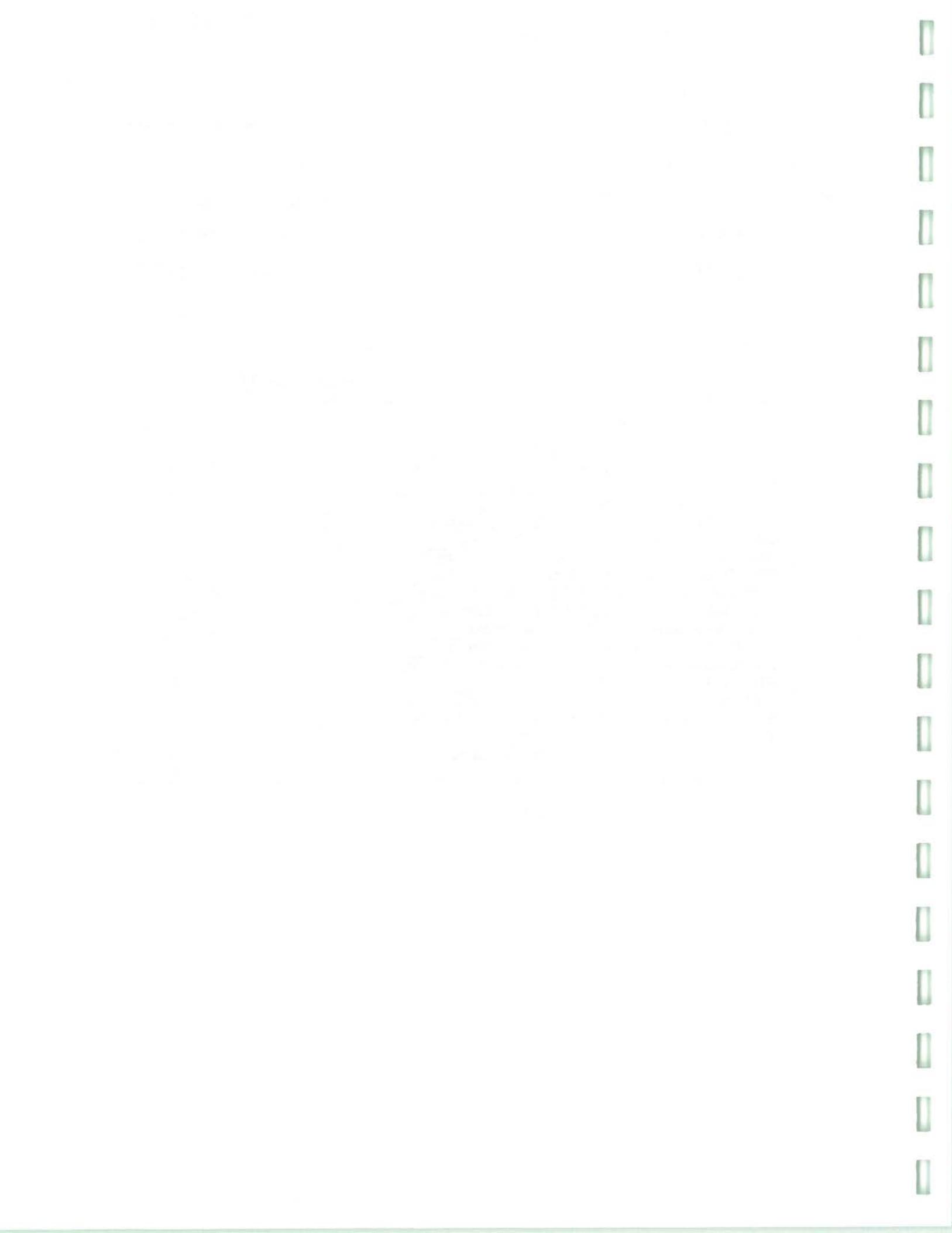
% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

103-65-1-----n-Propylbenzene		0.50	U
108-67-8-----1,3,5-Trimethylbenzene		0.50	U
76-01-7-----Pentachloroethane		0.50	U
98-06-6-----tert-Butylbenzene		0.50	U
95-63-6-----1,2,4-Trimethylbenzene		0.50	U
135-98-8-----sec-Butylbenzene		0.50	U
541-73-1-----1,3-Dichlorobenzene		0.50	U
99-87-6-----p-Isopropyltoluene		0.50	U
106-46-7-----1,4-Dichlorobenzene		0.50	U
95-50-1-----1,2-Dichlorobenzene		0.50	U
104-51-8-----n-Butylbenzene		0.50	U
67-72-1-----Hexachloroethane		0.50	U
96-12-8-----1,2-Dibromo-3-Chloropropane		0.50	U
98-95-3-----Nitrobenzene		25	U
120-82-1-----1,2,4-Trichlorobenzene		0.50	U
87-68-3-----Hexachlorobutadiene		0.50	U
91-20-3-----Naphthalene		0.50	U
87-61-6-----1,2,3-Trichlorobenzene		0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 98011

TR2093

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498074

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498074D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 6.1

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/L Q
75-71-8-----	Dichlorodifluoromethane	3.0	U
74-87-3-----	Chloromethane	3.0	U
75-01-4-----	Vinyl Chloride	3.0	U
74-83-9-----	Bromomethane	3.0	U
75-00-3-----	Chloroethane	3.0	U
75-69-4-----	Trichlorofluoromethane	3.0	U
60-29-7-----	Diethyl Ether	3.0	U
75-35-4-----	1,1-Dichloroethene	3.0	U
67-64-1-----	Acetone	30	U
74-88-4-----	Methyl Iodide	3.0	U
75-15-0-----	Carbon Disulfide	3.0	U
107-05-1-----	Allyl Chloride	3.0	U
75-09-2-----	Methylene Chloride	3.0	U
107-13-1-----	Acrylonitrile	3.0	U
156-60-5-----	trans-1,2-Dichloroethene	3.0	U
1634-04-4-----	Methyl-t-Butyl Ether	3.0	U
75-34-3-----	1,1-Dichloroethane	3.0	U
594-20-7-----	2,2-Dichloropropane	3.0	U
156-59-2-----	cis-1,2-Dichloroethene	95	U
78-93-3-----	2-Butanone	30	U
107-12-0-----	Propionitrile	150	U
96-33-3-----	Methyl Acrylate	3.0	U
74-97-5-----	Bromoform	3.0	U
126-98-7-----	Methacrylonitrile	3.0	U
109-99-9-----	Tetrahydrofuran	15	U
67-66-3-----	Chloroform	3.0	U
71-55-6-----	1,1,1-Trichloroethane	3.0	U
109-69-3-----	1-Chlorobutane	3.0	U
56-23-5-----	Carbon Tetrachloride	3.0	U
563-58-6-----	1,1-Dichloropropene	3.0	U
71-43-2-----	Benzene	3.0	U
107-06-2-----	1,2-Dichloroethane	3.0	U
79-01-6-----	Trichloroethene	3.7	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2093

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498074

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498074D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 6.1

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

74-95-3-----	Dibromomethane	3.0	U
78-87-5-----	1,2-Dichloropropane	3.0	U
80-62-6-----	Methyl Methacrylate	3.0	U
75-27-4-----	Bromodichloromethane	3.0	U
107-14-2-----	Chloroacetonitrile	150	U
10061-01-5-----	cis-1,3-Dichloropropene	3.0	U
513-88-2-----	1,1-Dichloropropanone	61	U
108-10-1-----	4-Methyl-2-Pentanone	15	U
79-46-9-----	2-Nitropropane	61	U
108-88-3-----	Toluene	3.0	U
10061-02-6-----	trans-1,3-Dichloropropene	3.0	U
97-63-2-----	Ethyl Methacrylate	3.0	U
79-00-5-----	1,1,2-Trichloroethane	3.0	U
127-18-4-----	Tetrachloroethene	3.0	U
142-28-9-----	1,3-Dichloropropane	3.0	U
591-78-6-----	2-Hexanone	15	U
124-48-1-----	Dibromochloromethane	3.0	U
106-93-4-----	1,2-Dibromoethane	3.0	U
108-90-7-----	Chlorobenzene	3.0	U
630-20-6-----	1,1,1,2-Tetrachloroethane	3.0	U
100-41-4-----	Ethylbenzene	3.0	U
1330-20-7-----	m- & p-Xylene	3.0	U
95-47-6-----	o-Xylene	3.0	U
100-42-5-----	Styrene	3.0	U
75-25-2-----	Bromoform	3.0	U
1330-20-7-----	Xylene (total)	3.0	U
98-82-8-----	Isopropylbenzene	3.0	U
108-86-1-----	Bromobenzene	3.0	U
79-34-5-----	1,1,2,2-Tetrachloroethane	3.0	U
96-18-4-----	1,2,3-Trichloropropane	3.0	U
110-57-6-----	trans-1,4-Dichloro-2-butene	3.0	U
95-49-8-----	2-Chlorotoluene	3.0	U
106-43-4-----	4-Chlorotoluene	3.0	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 98011

TR2093

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498074

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498074D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 6.1

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
103-65-1-----	n-Propylbenzene	3.0	U
108-67-8-----	1,3,5-Trimethylbenzene	3.0	U
76-01-7-----	Pentachloroethane	3.0	U
98-06-6-----	tert-Butylbenzene	3.0	U
95-63-6-----	1,2,4-Trimethylbenzene	3.0	U
135-98-8-----	sec-Butylbenzene	3.0	U
541-73-1-----	1,3-Dichlorobenzene	3.0	U
99-87-6-----	p-Isopropyltoluene	3.0	U
106-46-7-----	1,4-Dichlorobenzene	3.0	U
95-50-1-----	1,2-Dichlorobenzene	3.0	U
104-51-8-----	n-Butylbenzene	3.0	U
67-72-1-----	Hexachloroethane	3.0	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	3.0	U
98-95-3-----	Nitrobenzene	150	U
120-82-1-----	1,2,4-Trichlorobenzene	3.0	U
87-68-3-----	Hexachlorobutadiene	3.0	U
91-20-3-----	Naphthalene	3.0	U
87-61-6-----	1,2,3-Trichlorobenzene	3.0	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON	Contract: 98011	TR2094
Lab Code: STLVT	Case No.: 98011	SAS No.: SDG No.: 89326
Matrix: (soil/water) WATER		Lab Sample ID: 498075
Sample wt/vol:	5.000 (g/mL) ML	Lab File ID: 498075
Level: (low/med)	LOW	Date Received: 08/17/02
% Moisture: not dec.		Date Analyzed: 08/26/02
GC Column: CAP	ID: 0.53 (mm)	Dilution Factor: 1.0
Soil Extract Volume: _____ (uL)		Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q	
		UG/L	Q
75-71-8-----	Dichlorodifluoromethane	0.50	U
74-87-3-----	Chloromethane	0.50	U
75-01-4-----	Vinyl Chloride	0.50	U
74-83-9-----	Bromomethane	0.50	U
75-00-3-----	Chloroethane	0.50	U
75-69-4-----	Trichlorofluoromethane	0.50	U
60-29-7-----	Diethyl Ether	0.50	U
75-35-4-----	1,1-Dichloroethene	0.50	U
67-64-1-----	Acetone	5.0	U
74-88-4-----	Methyl Iodide	0.50	U
75-15-0-----	Carbon Disulfide	0.50	U
107-05-1-----	Allyl Chloride	0.50	U
75-09-2-----	Methylene Chloride	0.50	U
107-13-1-----	Acrylonitrile	0.50	U
156-60-5-----	trans-1,2-Dichloroethene	0.50	U
1634-04-4-----	Methyl-t-Butyl Ether	0.50	U
75-34-3-----	1,1-Dichloroethane	0.50	
594-20-7-----	2,2-Dichloropropane	0.50	U
156-59-2-----	cis-1,2-Dichloroethene	19	
78-93-3-----	2-Butanone	5.0	U
107-12-0-----	Propionitrile	25	U
96-33-3-----	Methyl Acrylate	0.50	U
74-97-5-----	Bromochloromethane	0.50	U
126-98-7-----	Methacrylonitrile	0.50	U
109-99-9-----	Tetrahydrofuran	2.5	U
67-66-3-----	Chloroform	0.50	U
71-55-6-----	1,1,1-Trichloroethane	0.50	U
109-69-3-----	1-Chlorobutane	0.50	U
56-23-5-----	Carbon Tetrachloride	0.50	U
563-58-6-----	1,1-Dichloropropene	0.50	U
71-43-2-----	Benzene	0.43	J
107-06-2-----	1,2-Dichloroethane	0.50	U
79-01-6-----	Trichloroethene	0.40	J



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR2094

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498075

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498075

Level: (low/med) LOW Date Received: 08/17/02

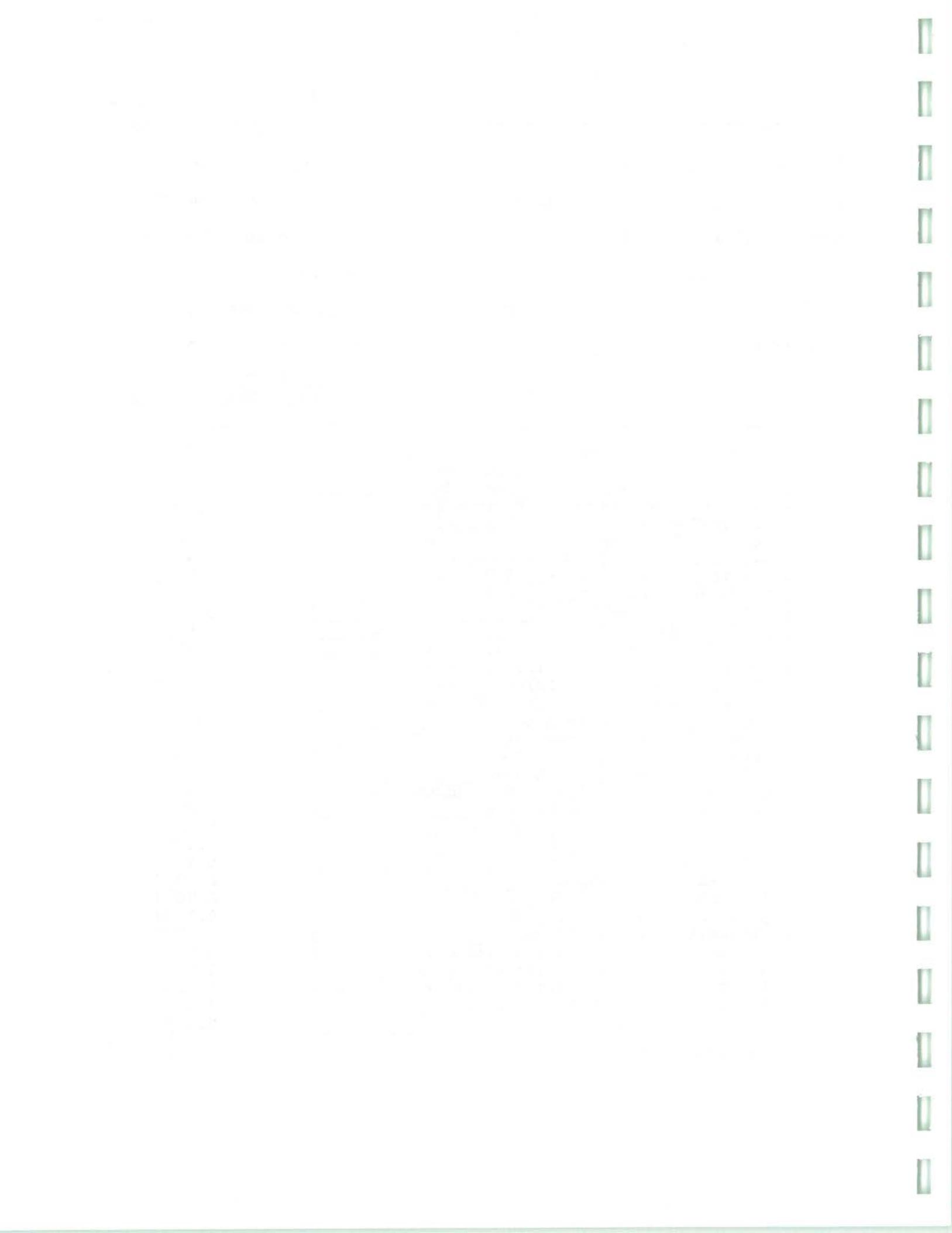
% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

74-95-3-----	Dibromomethane	0.50	U
78-87-5-----	1,2-Dichloropropane	0.50	U
80-62-6-----	Methyl Methacrylate	0.50	U
75-27-4-----	Bromodichloromethane	0.50	U
107-14-2-----	Chloroacetonitrile	25	U
10061-01-5-----	cis-1,3-Dichloropropene	0.50	U
513-88-2-----	1,1-Dichloropropanone	10	U
108-10-1-----	4-Methyl-2-Pentanone	2.5	U
79-46-9-----	2-Nitropropane	10	U
108-88-3-----	Toluene	0.50	U
10061-02-6-----	trans-1,3-Dichloropropene	0.50	U
97-63-2-----	Ethyl Methacrylate	0.50	U
79-00-5-----	1,1,2-Trichloroethane	0.50	U
127-18-4-----	Tetrachloroethene	0.50	U
142-28-9-----	1,3-Dichloropropane	0.50	U
591-78-6-----	2-Hexanone	2.5	U
124-48-1-----	Dibromochloromethane	0.50	U
106-93-4-----	1,2-Dibromoethane	0.50	U
108-90-7-----	Chlorobenzene	0.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4-----	Ethylbenzene	0.50	U
1330-20-7-----	m- & p-Xylene	0.50	U
95-47-6-----	o-Xylene	0.50	U
100-42-5-----	Styrene	0.50	U
75-25-2-----	Bromoform	0.50	U
1330-20-7-----	Xylene (total)	0.50	U
98-82-8-----	Isopropylbenzene	0.50	U
108-86-1-----	Bromobenzene	0.50	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.50	U
96-18-4-----	1,2,3-Trichloropropane	0.50	U
110-57-6-----	trans-1,4-Dichloro-2-butene	0.50	U
95-49-8-----	2-Chlorotoluene	0.50	U
106-43-4-----	4-Chlorotoluene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2094

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498075

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498075

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

103-65-1-----n-Propylbenzene		0.50	U
108-67-8-----1,3,5-Trimethylbenzene		0.50	U
76-01-7-----Pentachloroethane		0.50	U
98-06-6-----tert-Butylbenzene		0.50	U
95-63-6-----1,2,4-Trimethylbenzene		0.50	U
135-98-8-----sec-Butylbenzene		0.50	U
541-73-1-----1,3-Dichlorobenzene		0.50	U
99-87-6-----p-Isopropyltoluene		0.50	U
106-46-7-----1,4-Dichlorobenzene		0.50	U
95-50-1-----1,2-Dichlorobenzene		0.50	U
104-51-8-----n-Butylbenzene		0.50	U
67-72-1-----Hexachloroethane		0.50	U
96-12-8-----1,2-Dibromo-3-Chloropropane		0.50	U
98-95-3-----Nitrobenzene		25	U
120-82-1-----1,2,4-Trichlorobenzene		0.50	U
87-68-3-----Hexachlorobutadiene		0.50	U
91-20-3-----Naphthalene		0.50	U
87-61-6-----1,2,3-Trichlorobenzene		0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 98011

TR2095

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498077

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498077D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 27.5

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
74-95-3-----	Dibromomethane	14	U	
78-87-5-----	1,2-Dichloropropane	14	U	
80-62-6-----	Methyl Methacrylate	14	U	
75-27-4-----	Bromodichloromethane	14	U	
107-14-2-----	Chloroacetonitrile	690	U	
10061-01-5-----	cis-1,3-Dichloropropene	14	U	
513-88-2-----	1,1-Dichloropropanone	280	U	
108-10-1-----	4-Methyl-2-Pentanone	69	U	
79-46-9-----	2-Nitropropane	280	U	
108-88-3-----	Toluene	14	U	
10061-02-6-----	trans-1,3-Dichloropropene	14	U	
97-63-2-----	Ethyl Methacrylate	14	U	
79-00-5-----	1,1,2-Trichloroethane	14	U	
127-18-4-----	Tetrachloroethene	14	U	
142-28-9-----	1,3-Dichloropropane	14	U	
591-78-6-----	2-Hexanone	69	U	
124-48-1-----	Dibromochloromethane	14	U	
106-93-4-----	1,2-Dibromoethane	14	U	
108-90-7-----	Chlorobenzene	14	U	
630-20-6-----	1,1,1,2-Tetrachloroethane	14	U	
100-41-4-----	Ethylbenzene	14	U	
1330-20-7-----	m- & p-Xylene	14	U	
95-47-6-----	o-Xylene	14	U	
100-42-5-----	Styrene	14	U	
75-25-2-----	Bromoform	14	U	
1330-20-7-----	Xylene (total)	14	U	
98-82-8-----	Isopropylbenzene	14	U	
108-86-1-----	Bromobenzene	14	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	14	U	
96-18-4-----	1,2,3-Trichloropropane	14	U	
110-57-6-----	trans-1,4-Dichloro-2-butene	14	U	
95-49-8-----	2-Chlorotoluene	14	U	
106-43-4-----	4-Chlorotoluene	14	U	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR2095

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498077

Sample wt/vol:

5.000 (g/mL) ML

Lab File ID: 498077D

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP

ID: 0.53 (mm)

Dilution Factor: 27.5

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------	---

103-65-1-----n-Propylbenzene		14	U
108-67-8-----1,3,5-Trimethylbenzene		14	U
76-01-7-----Pentachloroethane		14	U
98-06-6-----tert-Butylbenzene		14	U
95-63-6-----1,2,4-Trimethylbenzene		14	U
135-98-8-----sec-Butylbenzene		14	U
541-73-1-----1,3-Dichlorobenzene		14	U
99-87-6-----p-Isopropyltoluene		14	U
106-46-7-----1,4-Dichlorobenzene		14	U
95-50-1-----1,2-Dichlorobenzene		14	U
104-51-8-----n-Butylbenzene		14	U
67-72-1-----Hexachloroethane		14	U
96-12-8-----1,2-Dibromo-3-Chloropropane		14	U
98-95-3-----Nitrobenzene		690	U
120-82-1-----1,2,4-Trichlorobenzene		14	U
87-68-3-----Hexachlorobutadiene		14	U
91-20-3-----Naphthalene		14	U
87-61-6-----1,2,3-Trichlorobenzene		14	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2095MS

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498077MS

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498077M

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 27.5

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

75-71-8-----	Dichlorodifluoromethane	54	
74-87-3-----	Chloromethane	49	
75-01-4-----	Vinyl Chloride	53	
74-83-9-----	Bromomethane	54	
75-00-3-----	Chloroethane	56	
75-69-4-----	Trichlorofluoromethane	51	
60-29-7-----	Diethyl Ether	63	
75-35-4-----	1,1-Dichloroethene	53	
67-64-1-----	Acetone	140	
74-88-4-----	Methyl Iodide	63	
75-15-0-----	Carbon Disulfide	75	
107-05-1-----	Allyl Chloride	55	
75-09-2-----	Methylene Chloride	54	
107-13-1-----	Acrylonitrile	66	
156-60-5-----	trans-1,2-Dichloroethene	53	
1634-04-4-----	Methyl-t-Butyl Ether	58	
75-34-3-----	1,1-Dichloroethane	50	
594-20-7-----	2,2-Dichloropropane	53	
156-59-2-----	cis-1,2-Dichloroethene	84	
78-93-3-----	2-Butanone	200	
107-12-0-----	Propionitrile	3000	
96-33-3-----	Methyl Acrylate	58	
74-97-5-----	Bromochloromethane	58	
126-98-7-----	Methacrylonitrile	62	
109-99-9-----	Tetrahydrofuran	330	
67-66-3-----	Chloroform	49	
71-55-6-----	1,1,1-Trichloroethane	54	
109-69-3-----	1-Chlorobutane	57	
56-23-5-----	Carbon Tetrachloride	51	
563-58-6-----	1,1-Dichloropropene	48	
71-43-2-----	Benzene	51	
107-06-2-----	1,2-Dichloroethane	58	
79-01-6-----	Trichloroethene	650	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2095MS

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498077MS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498077M

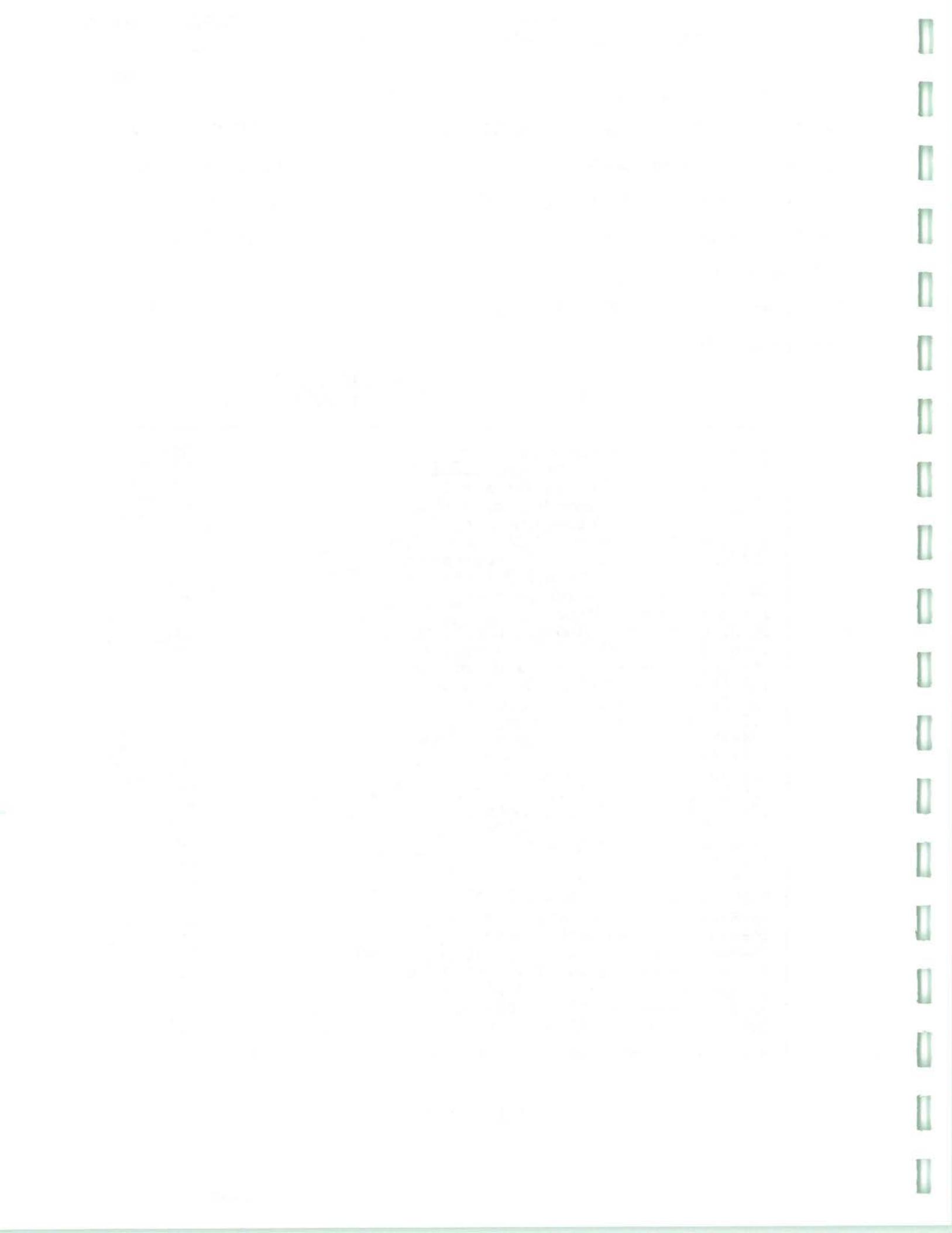
Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 27.5

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-95-3-----	Dibromomethane	58	
78-87-5-----	1,2-Dichloropropane	50	
80-62-6-----	Methyl Methacrylate	58	
75-27-4-----	Bromodichloromethane	54	
107-14-2-----	Chloroacetonitrile	2900	
10061-01-5-----	cis-1,3-Dichloropropene	51	
513-88-2-----	1,1-Dichloropropanone	1500	
108-10-1-----	4-Methyl-2-Pentanone	280	
79-46-9-----	2-Nitropropane	1200	
108-88-3-----	Toluene	59	
10061-02-6-----	trans-1,3-Dichloropropene	51	
97-63-2-----	Ethyl Methacrylate	59	
79-00-5-----	1,1,2-Trichloroethane	58	
127-18-4-----	Tetrachloroethene	54	
142-28-9-----	1,3-Dichloropropane	60	
591-78-6-----	2-Hexanone	200	
124-48-1-----	Dibromochloromethane	47	
106-93-4-----	1,2-Dibromoethane	55	
108-90-7-----	Chlorobenzene	56	
630-20-6-----	1,1,1,2-Tetrachloroethane	54	
100-41-4-----	Ethylbenzene	54	
1330-20-7-----	m- & p-Xylene	110	
95-47-6-----	o-Xylene	56	
100-42-5-----	Styrene	54	
75-25-2-----	Bromoform	45	
1330-20-7-----	Xylene (total)	170	
98-82-8-----	Isopropylbenzene	56	
108-86-1-----	Bromobenzene	55	
79-34-5-----	1,1,2,2-Tetrachloroethane	58	
96-18-4-----	1,2,3-Trichloropropane	60	
110-57-6-----	trans-1,4-Dichloro-2-butene	50	
95-49-8-----	2-Chlorotoluene	57	
106-43-4-----	4-Chlorotoluene	56	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2095MS

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498077MS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498077M

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 27.5

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

103-65-1-----	n-Propylbenzene	57	
108-67-8-----	1,3,5-Trimethylbenzene	56	
76-01-7-----	Pentachloroethane	81	
98-06-6-----	tert-Butylbenzene	60	
95-63-6-----	1,2,4-Trimethylbenzene	55	
135-98-8-----	sec-Butylbenzene	56	
541-73-1-----	1,3-Dichlorobenzene	56	
99-87-6-----	p-Isopropyltoluene	58	
106-46-7-----	1,4-Dichlorobenzene	58	
95-50-1-----	1,2-Dichlorobenzene	58	
104-51-8-----	n-Butylbenzene	58	
67-72-1-----	Hexachloroethane	56	
96-12-8-----	1,2-Dibromo-3-Chloropropane	58	
98-95-3-----	Nitrobenzene	2100	
120-82-1-----	1,2,4-Trichlorobenzene	60	
87-68-3-----	Hexachlorobutadiene	59	
91-20-3-----	Naphthalene	62	
87-61-6-----	1,2,3-Trichlorobenzene	62	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 98011

TR2095MSD

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498077MD

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498077S

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 27.5

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

75-71-8-----	Dichlorodifluoromethane	47	
74-87-3-----	Chloromethane	46	
75-01-4-----	Vinyl Chloride	54	
74-83-9-----	Bromomethane	53	
75-00-3-----	Chloroethane	54	
75-69-4-----	Trichlorofluoromethane	51	
60-29-7-----	Diethyl Ether	60	
75-35-4-----	1,1-Dichloroethene	50	
67-64-1-----	Acetone	150	
74-88-4-----	Methyl Iodide	62	
75-15-0-----	Carbon Disulfide	80	
107-05-1-----	Allyl Chloride	52	
75-09-2-----	Methylene Chloride	55	
107-13-1-----	Acrylonitrile	65	
156-60-5-----	trans-1,2-Dichloroethene	56	
1634-04-4-----	Methyl-t-Butyl Ether	57	
75-34-3-----	1,1-Dichloroethane	46	
594-20-7-----	2,2-Dichloropropane	50	
156-59-2-----	cis-1,2-Dichloroethene	87	
78-93-3-----	2-Butanone	180	
107-12-0-----	Propionitrile	2800	
96-33-3-----	Methyl Acrylate	54	
74-97-5-----	Bromochloromethane	56	
126-98-7-----	Methacrylonitrile	56	
109-99-9-----	Tetrahydrofuran	290	
67-66-3-----	Chloroform	48	
71-55-6-----	1,1,1-Trichloroethane	50	
109-69-3-----	1-Chlorobutane	48	
56-23-5-----	Carbon Tetrachloride	48	
563-58-6-----	1,1-Dichloropropene	51	
71-43-2-----	Benzene	49	
107-06-2-----	1,2-Dichloroethane	55	
79-01-6-----	Trichloroethene	650	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2095MSD

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498077MD

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498077S

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 27.5

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
74-95-3-----	Dibromomethane	56	
78-87-5-----	1,2-Dichloropropane	50	
80-62-6-----	Methyl Methacrylate	56	
75-27-4-----	Bromodichloromethane	52	
107-14-2-----	Chloroacetonitrile	2700	
10061-01-5-----	cis-1,3-Dichloropropene	51	
513-88-2-----	1,1-Dichloropropanone	1400	
108-10-1-----	4-Methyl-2-Pentanone	270	
79-46-9-----	2-Nitropropane	1100	
108-88-3-----	Toluene	56	
10061-02-6-----	trans-1,3-Dichloropropene	51	
97-63-2-----	Ethyl Methacrylate	57	
79-00-5-----	1,1,2-Trichloroethane	53	
127-18-4-----	Tetrachloroethene	51	
142-28-9-----	1,3-Dichloropropane	58	
591-78-6-----	2-Hexanone	180	
124-48-1-----	Dibromochloromethane	48	
106-93-4-----	1,2-Dibromoethane	56	
108-90-7-----	Chlorobenzene	55	
630-20-6-----	1,1,1,2-Tetrachloroethane	52	
100-41-4-----	Ethylbenzene	54	
1330-20-7-----	m- & p-Xylene	110	
95-47-6-----	o-Xylene	56	
100-42-5-----	Styrene	55	
75-25-2-----	Bromoform	48	
1330-20-7-----	Xylene (total)	170	
98-82-8-----	Isopropylbenzene	56	
108-86-1-----	Bromobenzene	56	
79-34-5-----	1,1,2,2-Tetrachloroethane	59	
96-18-4-----	1,2,3-Trichloropropane	61	
110-57-6-----	trans-1,4-Dichloro-2-butene	53	
95-49-8-----	2-Chlorotoluene	57	
106-43-4-----	4-Chlorotoluene	55	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2095MSD

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498077MD

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498077S

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 27.5

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

103-65-1-----n-Propylbenzene	58	
108-67-8-----1,3,5-Trimethylbenzene	56	
76-01-7-----Pentachloroethane	78	
98-06-6-----tert-Butylbenzene	58	
95-63-6-----1,2,4-Trimethylbenzene	57	
135-98-8-----sec-Butylbenzene	57	
541-73-1-----1,3-Dichlorobenzene	58	
99-87-6-----p-Isopropyltoluene	57	
106-46-7-----1,4-Dichlorobenzene	59	
95-50-1-----1,2-Dichlorobenzene	59	
104-51-8-----n-Butylbenzene	58	
67-72-1-----Hexachloroethane	55	
96-12-8-----1,2-Dibromo-3-Chloropropane	54	
98-95-3-----Nitrobenzene	2400	
120-82-1-----1,2,4-Trichlorobenzene	61	
87-68-3-----Hexachlorobutadiene	60	
91-20-3-----Naphthalene	62	
87-61-6-----1,2,3-Trichlorobenzene	63	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 98011

TR2096

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498078

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498078D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 8.8

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/L
75-71-8-----	Dichlorodifluoromethane	4.4	U
74-87-3-----	Chloromethane	4.4	U
75-01-4-----	Vinyl Chloride	4.4	U
74-83-9-----	Bromomethane	4.4	U
75-00-3-----	Chloroethane	4.4	U
75-69-4-----	Trichlorofluoromethane	4.4	U
60-29-7-----	Diethyl Ether	4.4	U
75-35-4-----	1,1-Dichloroethene	4.4	U
67-64-1-----	Acetone	44	U
74-88-4-----	Methyl Iodide	4.4	U
75-15-0-----	Carbon Disulfide	4.4	U
107-05-1-----	Allyl Chloride	4.4	U
75-09-2-----	Methylene Chloride	4.4	U
107-13-1-----	Acrylonitrile	4.4	U
156-60-5-----	trans-1,2-Dichloroethene	4.4	U
1634-04-4-----	Methyl-t-Butyl Ether	4.4	U
75-34-3-----	1,1-Dichloroethane	4.4	U
594-20-7-----	2,2-Dichloropropane	4.4	U
156-59-2-----	cis-1,2-Dichloroethene	170	_____
78-93-3-----	2-Butanone	44	U
107-12-0-----	Propionitrile	220	U
96-33-3-----	Methyl Acrylate	4.4	U
74-97-5-----	Bromoform	4.4	U
126-98-7-----	Methacrylonitrile	4.4	U
109-99-9-----	Tetrahydrofuran	22	U
67-66-3-----	Chloroform	4.4	U
71-55-6-----	1,1,1-Trichloroethane	4.4	U
109-69-3-----	1-Chlorobutane	4.4	U
56-23-5-----	Carbon Tetrachloride	4.4	U
563-58-6-----	1,1-Dichloropropene	4.4	U
71-43-2-----	Benzene	4.4	U
107-06-2-----	1,2-Dichloroethane	4.4	U
79-01-6-----	Trichloroethene	140	_____



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2096

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498078

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498078D

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 8.8

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
74-95-3-----	Dibromomethane	4.4	U	
78-87-5-----	1,2-Dichloropropane	4.4	U	
80-62-6-----	Methyl Methacrylate	4.4	U	
75-27-4-----	Bromodichloromethane	4.4	U	
107-14-2-----	Chloroacetonitrile	220	U	
10061-01-5-----	cis-1,3-Dichloropropene	4.4	U	
513-88-2-----	1,1-Dichloropropanone	88	U	
108-10-1-----	4-Methyl-2-Pentanone	22	U	
79-46-9-----	2-Nitropropane	88	U	
108-88-3-----	Toluene	4.4	U	
10061-02-6-----	trans-1,3-Dichloropropene	4.4	U	
97-63-2-----	Ethyl Methacrylate	4.4	U	
79-00-5-----	1,1,2-Trichloroethane	4.4	U	
127-18-4-----	Tetrachloroethene	4.4	U	
142-28-9-----	1,3-Dichloropropane	4.4	U	
591-78-6-----	2-Hexanone	22	U	
124-48-1-----	Dibromochloromethane	4.4	U	
106-93-4-----	1,2-Dibromoethane	4.4	U	
108-90-7-----	Chlorobenzene	4.4	U	
630-20-6-----	1,1,1,2-Tetrachloroethane	4.4	U	
100-41-4-----	Ethylbenzene	4.4	U	
1330-20-7-----	m- & p-Xylene	4.4	U	
95-47-6-----	o-Xylene	4.4	U	
100-42-5-----	Styrene	4.4	U	
75-25-2-----	Bromoform	4.4	U	
1330-20-7-----	Xylene (total)	4.4	U	
98-82-8-----	Isopropylbenzene	4.4	U	
108-86-1-----	Bromobenzene	4.4	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	4.4	U	
96-18-4-----	1,2,3-Trichloropropane	4.4	U	
110-57-6-----	trans-1,4-Dichloro-2-butene	4.4	U	
95-49-8-----	2-Chlorotoluene	4.4	U	
106-43-4-----	4-Chlorotoluene	4.4	U	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 98011

TR2096

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498078

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498078D

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 8.8

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
103-65-1-----	n-Propylbenzene	4.4	U
108-67-8-----	1,3,5-Trimethylbenzene	4.4	U
76-01-7-----	Pentachloroethane	4.4	U
98-06-6-----	tert-Butylbenzene	4.4	U
95-63-6-----	1,2,4-Trimethylbenzene	4.4	U
135-98-8-----	sec-Butylbenzene	4.4	U
541-73-1-----	1,3-Dichlorobenzene	4.4	U
99-87-6-----	p-Isopropyltoluene	4.4	U
106-46-7-----	1,4-Dichlorobenzene	4.4	U
95-50-1-----	1,2-Dichlorobenzene	4.4	U
104-51-8-----	n-Butylbenzene	4.4	U
67-72-1-----	Hexachloroethane	4.4	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	4.4	U
98-95-3-----	Nitrobenzene	220	U
120-82-1-----	1,2,4-Trichlorobenzene	4.4	U
87-68-3-----	Hexachlorobutadiene	4.4	U
91-20-3-----	Naphthalene	4.4	U
87-61-6-----	1,2,3-Trichlorobenzene	4.4	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2097

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498079

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498079

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

75-71-8-----	Dichlorodifluoromethane	0.50	U
74-87-3-----	Chloromethane	0.50	U
75-01-4-----	Vinyl Chloride	0.50	U
74-83-9-----	Bromomethane	0.50	U
75-00-3-----	Chloroethane	0.50	U
75-69-4-----	Trichlorofluoromethane	0.50	U
60-29-7-----	Diethyl Ether	0.50	U
75-35-4-----	1,1-Dichloroethene	0.50	U
67-64-1-----	Acetone	2.0	J
74-88-4-----	Methyl Iodide	0.50	U
75-15-0-----	Carbon Disulfide	0.50	U
107-05-1-----	Allyl Chloride	0.63	U
75-09-2-----	Methylene Chloride	0.50	U
107-13-1-----	Acrylonitrile	0.50	U
156-60-5-----	trans-1,2-Dichloroethene	0.50	U
1634-04-4-----	Methyl-t-Butyl Ether	0.50	U
75-34-3-----	1,1-Dichloroethane	0.50	U
594-20-7-----	2,2-Dichloropropane	0.50	U
156-59-2-----	cis-1,2-Dichloroethene	0.80	U
78-93-3-----	2-Butanone	5.0	U
107-12-0-----	Propionitrile	25	U
96-33-3-----	Methyl Acrylate	0.50	U
74-97-5-----	Bromochloromethane	0.50	U
126-98-7-----	Methacrylonitrile	0.50	U
109-99-9-----	Tetrahydrofuran	2.5	U
67-66-3-----	Chloroform	0.50	U
71-55-6-----	1,1,1-Trichloroethane	0.50	U
109-69-3-----	1-Chlorobutane	0.50	U
56-23-5-----	Carbon Tetrachloride	0.50	U
563-58-6-----	1,1-Dichloropropene	0.50	U
71-43-2-----	Benzene	0.65	U
107-06-2-----	1,2-Dichloroethane	0.50	U
79-01-6-----	Trichloroethene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2097

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498079

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498079

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec.

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------------------------------	------	---

74-95-3-----	Dibromomethane		0.50	U
78-87-5-----	1,2-Dichloropropane		0.50	U
80-62-6-----	Methyl Methacrylate		0.50	U
75-27-4-----	Bromodichloromethane		0.50	U
107-14-2-----	Chloroacetonitrile		25	U
10061-01-5-----	cis-1,3-Dichloropropene		0.50	U
513-88-2-----	1,1-Dichloropropanone		10	U
108-10-1-----	4-Methyl-2-Pentanone		2.5	U
79-46-9-----	2-Nitropropane		10	U
108-88-3-----	Toluene		0.28	J
10061-02-6-----	trans-1,3-Dichloropropene		0.50	U
97-63-2-----	Ethyl Methacrylate		0.50	U
79-00-5-----	1,1,2-Trichloroethane		0.50	U
127-18-4-----	Tetrachloroethene		0.50	U
142-28-9-----	1,3-Dichloropropane		0.50	U
591-78-6-----	2-Hexanone		2.5	U
124-48-1-----	Dibromochloromethane		0.50	U
106-93-4-----	1,2-Dibromoethane		0.50	U
108-90-7-----	Chlorobenzene		0.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane		0.50	U
100-41-4-----	Ethylbenzene		0.50	U
1330-20-7-----	m- & p-Xylene		0.50	U
95-47-6-----	o-Xylene		0.50	U
100-42-5-----	Styrene		0.50	U
75-25-2-----	Bromoform		0.50	U
1330-20-7-----	Xylene (total)		0.50	U
98-82-8-----	Isopropylbenzene		0.50	U
108-86-1-----	Bromobenzene		0.50	U
79-34-5-----	1,1,2,2-Tetrachloroethane		0.50	U
96-18-4-----	1,2,3-Trichloropropane		0.50	U
110-57-6-----	trans-1,4-Dichloro-2-butene		0.50	U
95-49-8-----	2-Chlorotoluene		0.50	U
106-43-4-----	4-Chlorotoluene		0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2097

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498079

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498079

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

103-65-1-----n-Propylbenzene	0.50	U
108-67-8-----1,3,5-Trimethylbenzene	0.50	U
76-01-7-----Pentachloroethane	0.50	U
98-06-6-----tert-Butylbenzene	0.50	U
95-63-6-----1,2,4-Trimethylbenzene	0.50	U
135-98-8-----sec-Butylbenzene	0.50	U
541-73-1-----1,3-Dichlorobenzene	0.50	U
99-87-6-----p-Isopropyltoluene	0.50	U
106-46-7-----1,4-Dichlorobenzene	0.50	U
95-50-1-----1,2-Dichlorobenzene	0.50	U
104-51-8-----n-Butylbenzene	0.50	U
67-72-1-----Hexachloroethane	0.50	U
96-12-8-----1,2-Dibromo-3-Chloropropane	0.50	U
98-95-3-----Nitrobenzene	25	U
120-82-1-----1,2,4-Trichlorobenzene	0.50	U
87-68-3-----Hexachlorobutadiene	0.50	U
91-20-3-----Naphthalene	0.50	U
87-61-6-----1,2,3-Trichlorobenzene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON	Contract: 98011	TR2098
Lab Code: STLVT	Case No.: 98011	SAS No.: SDG No.: 89326
Matrix: (soil/water) WATER	Lab Sample ID: 498080	
Sample wt/vol: 5.000 (g/mL) ML	Lab File ID: 498080	
Level: (low/med) LOW	Date Received: 08/17/02	
% Moisture: not dec.	Date Analyzed: 08/26/02	
GC Column: CAP ID: 0.53 (mm)	Dilution Factor: 1.0	
Soil Extract Volume: _____ (uL)	Soil Aliquot Volume: _____ (uL)	

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	0.50	U
74-87-3-----	Chloromethane _____	0.50	U
75-01-4-----	Vinyl Chloride _____	0.50	U
74-83-9-----	Bromomethane _____	0.50	U
75-00-3-----	Chloroethane _____	0.50	U
75-69-4-----	Trichlorofluoromethane _____	0.50	U
60-29-7-----	Diethyl Ether _____	0.50	U
75-35-4-----	1,1-Dichloroethene _____	0.50	U
67-64-1-----	Acetone _____	2.2	J
74-88-4-----	Methyl Iodide _____	0.50	U
75-15-0-----	Carbon Disulfide _____	0.50	U
107-05-1-----	Allyl Chloride _____	0.50	U
75-09-2-----	Methylene Chloride _____	0.50	U
107-13-1-----	Acrylonitrile _____	0.50	U
156-60-5-----	trans-1,2-Dichloroethene _____	0.50	U
1634-04-4-----	Methyl-t-Butyl Ether _____	0.50	U
75-34-3-----	1,1-Dichloroethane _____	0.50	U
594-20-7-----	2,2-Dichloropropane _____	0.50	U
156-59-2-----	cis-1,2-Dichloroethene _____	0.50	U
78-93-3-----	2-Butanone _____	5.0	U
107-12-0-----	Propionitrile _____	25	U
96-33-3-----	Methyl Acrylate _____	0.50	U
74-97-5-----	Bromochloromethane _____	0.50	U
126-98-7-----	Methacrylonitrile _____	0.50	U
109-99-9-----	Tetrahydrofuran _____	2.5	U
67-66-3-----	Chloroform _____	0.50	U
71-55-6-----	1,1,1-Trichloroethane _____	0.50	U
109-69-3-----	1-Chlorobutane _____	0.50	U
56-23-5-----	Carbon Tetrachloride _____	0.50	U
563-58-6-----	1,1-Dichloropropene _____	0.50	U
71-43-2-----	Benzene _____	0.50	U
107-06-2-----	1,2-Dichloroethane _____	0.50	U
79-01-6-----	Trichloroethene _____	0.29	J



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2098

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498080

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498080

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
---------	----------	-----------------	------	---

74-95-3-----	Dibromomethane	0.50	U
78-87-5-----	1,2-Dichloropropane	0.50	U
80-62-6-----	Methyl Methacrylate	0.50	U
75-27-4-----	Bromodichloromethane	0.50	U
107-14-2-----	Chloroacetonitrile	25	U
10061-01-5-----	cis-1,3-Dichloropropene	0.50	U
513-88-2-----	1,1-Dichloropropanone	10	U
108-10-1-----	4-Methyl-2-Pentanone	2.5	U
79-46-9-----	2-Nitropropane	10	U
108-88-3-----	Toluene	0.50	U
10061-02-6-----	trans-1,3-Dichloropropene	0.50	U
97-63-2-----	Ethyl Methacrylate	0.50	U
79-00-5-----	1,1,2-Trichloroethane	0.50	U
127-18-4-----	Tetrachloroethene	0.50	U
142-28-9-----	1,3-Dichloropropane	0.50	U
591-78-6-----	2-Hexanone	2.5	U
124-48-1-----	Dibromochloromethane	0.50	U
106-93-4-----	1,2-Dibromoethane	0.50	U
108-90-7-----	Chlorobenzene	0.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4-----	Ethylbenzene	0.50	U
1330-20-7-----	m- & p-Xylene	0.50	U
95-47-6-----	o-Xylene	0.50	U
100-42-5-----	Styrene	0.50	U
75-25-2-----	Bromoform	0.50	U
1330-20-7-----	Xylene (total)	0.50	U
98-82-8-----	Isopropylbenzene	0.50	U
108-86-1-----	Bromobenzene	0.50	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.50	U
96-18-4-----	1,2,3-Trichloropropane	0.50	U
110-57-6-----	trans-1,4-Dichloro-2-butene	0.50	U
95-49-8-----	2-Chlorotoluene	0.50	U
106-43-4-----	4-Chlorotoluene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 98011

TR2098

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: 498080

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 498080

Level: (low/med) LOW Date Received: 08/17/02

% Moisture: not dec. Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(ug/L or ug/Kg) UG/L	

103-65-1-----n-Propylbenzene	0.50	U
108-67-8-----1,3,5-Trimethylbenzene	0.50	U
76-01-7-----Pentachloroethane	0.50	U
98-06-6-----tert-Butylbenzene	0.50	U
95-63-6-----1,2,4-Trimethylbenzene	0.50	U
135-98-8-----sec-Butylbenzene	0.50	U
541-73-1-----1,3-Dichlorobenzene	0.50	U
99-87-6-----p-Isopropyltoluene	0.50	U
106-46-7-----1,4-Dichlorobenzene	0.50	U
95-50-1-----1,2-Dichlorobenzene	0.50	U
104-51-8-----n-Butylbenzene	0.50	U
67-72-1-----Hexachloroethane	0.50	U
96-12-8-----1,2-Dibromo-3-Chloropropane	0.50	U
98-95-3-----Nitrobenzene	25	U
120-82-1-----1,2,4-Trichlorobenzene	0.50	U
87-68-3-----Hexachlorobutadiene	0.50	U
91-20-3-----Naphthalene	0.50	U
87-61-6-----1,2,3-Trichlorobenzene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2099

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498076

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498076

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec.

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

75-71-8-----	Dichlorodifluoromethane	0.50	U
74-87-3-----	Chloromethane	0.50	U
75-01-4-----	Vinyl Chloride	0.50	U
74-83-9-----	Bromomethane	0.50	U
75-00-3-----	Chloroethane	0.50	U
75-69-4-----	Trichlorofluoromethane	0.50	U
60-29-7-----	Diethyl Ether	0.50	U
75-35-4-----	1,1-Dichloroethene	0.50	U
67-64-1-----	Acetone	0.80	J
74-88-4-----	Methyl Iodide	0.50	U
75-15-0-----	Carbon Disulfide	0.50	U
107-05-1-----	Allyl Chloride	0.50	U
75-09-2-----	Methylene Chloride	0.50	U
107-13-1-----	Acrylonitrile	0.50	U
156-60-5-----	trans-1,2-Dichloroethene	0.50	U
1634-04-4-----	Methyl-t-Butyl Ether	0.50	U
75-34-3-----	1,1-Dichloroethane	0.53	
594-20-7-----	2,2-Dichloropropane	0.50	U
156-59-2-----	cis-1,2-Dichloroethene	23	
78-93-3-----	2-Butanone	5.0	U
107-12-0-----	Propionitrile	25	U
96-33-3-----	Methyl Acrylate	0.50	U
74-97-5-----	Bromochloromethane	0.50	U
126-98-7-----	Methacrylonitrile	0.50	U
109-99-9-----	Tetrahydrofuran	2.5	U
67-66-3-----	Chloroform	0.50	U
71-55-6-----	1,1,1-Trichloroethane	0.50	U
109-69-3-----	1-Chlorobutane	0.50	U
56-23-5-----	Carbon Tetrachloride	0.50	U
563-58-6-----	1,1-Dichloropropene	0.50	U
71-43-2-----	Benzene	0.43	J
107-06-2-----	1,2-Dichloroethane	0.50	U
79-01-6-----	Trichloroethene	0.67	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR2099

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498076

Sample wt/vol:

5.000 (g/mL) ML

Lab File ID: 498076

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

74-95-3-----	Dibromomethane	0.50	U
78-87-5-----	1,2-Dichloropropane	0.50	U
80-62-6-----	Methyl Methacrylate	0.50	U
75-27-4-----	Bromodichloromethane	0.50	U
107-14-2-----	Chloroacetonitrile	25	U
10061-01-5-----	cis-1,3-Dichloropropene	0.50	U
513-88-2-----	1,1-Dichloropropanone	10	U
108-10-1-----	4-Methyl-2-Pentanone	2.5	U
79-46-9-----	2-Nitropropane	10	U
108-88-3-----	Toluene	0.50	U
10061-02-6-----	trans-1,3-Dichloropropene	0.50	U
97-63-2-----	Ethyl Methacrylate	0.50	U
79-00-5-----	1,1,2-Trichloroethane	0.50	U
127-18-4-----	Tetrachloroethene	0.50	U
142-28-9-----	1,3-Dichloropropane	0.50	U
591-78-6-----	2-Hexanone	2.5	U
124-48-1-----	Dibromochloromethane	0.50	U
106-93-4-----	1,2-Dibromoethane	0.50	U
108-90-7-----	Chlorobenzene	0.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4-----	Ethylbenzene	0.50	U
1330-20-7-----	m- & p-Xylene	0.50	U
95-47-6-----	o-Xylene	0.50	U
100-42-5-----	Styrene	0.50	U
75-25-2-----	Bromoform	0.50	U
1330-20-7-----	Xylene (total)	0.50	U
98-82-8-----	Isopropylbenzene	0.50	U
108-86-1-----	Bromobenzene	0.50	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.50	U
96-18-4-----	1,2,3-Trichloropropane	0.50	U
110-57-6-----	trans-1,4-Dichloro-2-butene	0.50	U
95-49-8-----	2-Chlorotoluene	0.50	U
106-43-4-----	4-Chlorotoluene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

TR2099

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: 498076

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: 498076

Level: (low/med) LOW

Date Received: 08/17/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q	
		0.50	U
103-65-1-----n-Propylbenzene		0.50	U
108-67-8-----1,3,5-Trimethylbenzene		0.50	U
76-01-7-----Pentachloroethane		0.50	U
98-06-6-----tert-Butylbenzene		0.50	U
95-63-6-----1,2,4-Trimethylbenzene		0.50	U
135-98-8-----sec-Butylbenzene		0.50	U
541-73-1-----1,3-Dichlorobenzene		0.50	U
99-87-6-----p-Isopropyltoluene		0.50	U
106-46-7-----1,4-Dichlorobenzene		0.50	U
95-50-1-----1,2-Dichlorobenzene		0.50	U
104-51-8-----n-Butylbenzene		0.50	U
67-72-1-----Hexachloroethane		0.50	U
96-12-8-----1,2-Dibromo-3-Chloropropane		0.50	U
98-95-3-----Nitrobenzene		25	U
120-82-1-----1,2,4-Trichlorobenzene		0.50	U
87-68-3-----Hexachlorobutadiene		0.50	U
91-20-3-----Naphthalene		0.50	U
87-61-6-----1,2,3-Trichlorobenzene		0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

MYFB LCS

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix: (soil/water) WATER

Lab Sample ID: MYFB LCS

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: MYF01BQ

Level: (low/med) LOW

Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

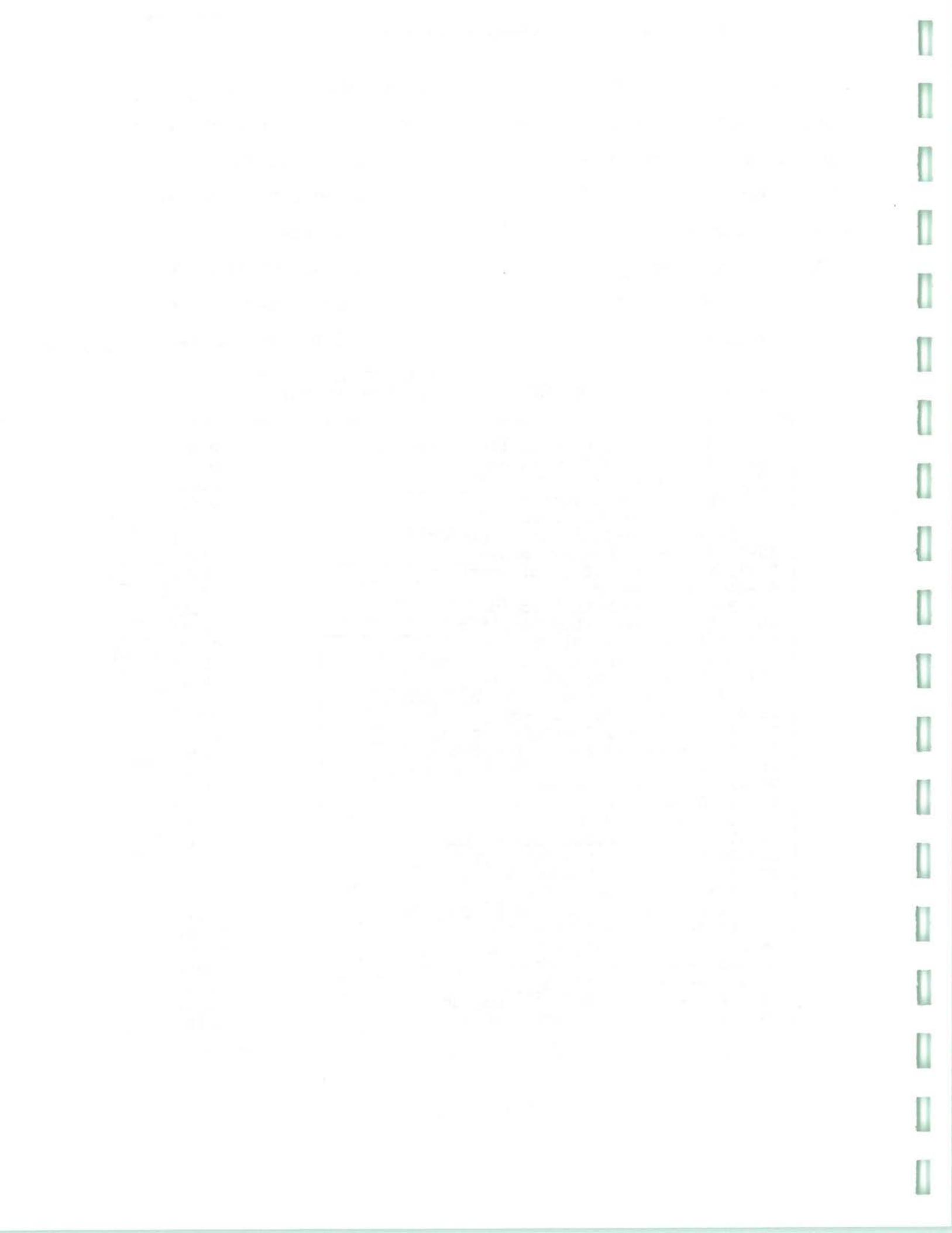
Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

75-71-8-----	Dichlorodifluoromethane	0.92	
74-87-3-----	Chloromethane	0.99	
75-01-4-----	Vinyl Chloride	0.94	
74-83-9-----	Bromomethane	0.96	
75-00-3-----	Chloroethane	1.1	
75-69-4-----	Trichlorofluoromethane	0.93	
60-29-7-----	Diethyl Ether	1.2	
75-35-4-----	1,1-Dichloroethene	1.0	
67-64-1-----	Acetone	3.4	J
74-88-4-----	Methyl Iodide	1.2	
75-15-0-----	Carbon Disulfide	1.8	
107-05-1-----	Allyl Chloride	0.96	
75-09-2-----	Methylene Chloride	1.1	
107-13-1-----	Acrylonitrile	1.2	
156-60-5-----	trans-1,2-Dichloroethene	1.0	
1634-04-4-----	Methyl-t-Butyl Ether	0.95	
75-34-3-----	1,1-Dichloroethane	0.98	
594-20-7-----	2,2-Dichloropropane	0.98	
156-59-2-----	cis-1,2-Dichloroethene	0.98	
78-93-3-----	2-Butanone	3.9	J
107-12-0-----	Propionitrile	47	
96-33-3-----	Methyl Acrylate	1.1	
74-97-5-----	Bromochloromethane	1.0	
126-98-7-----	Methacrylonitrile	1.2	
109-99-9-----	Tetrahydrofuran	5.3	
67-66-3-----	Chloroform	0.90	
71-55-6-----	1,1,1-Trichloroethane	0.97	
109-69-3-----	1-Chlorobutane	0.96	
56-23-5-----	Carbon Tetrachloride	0.85	
563-58-6-----	1,1-Dichloropropene	0.99	
71-43-2-----	Benzene	0.92	
107-06-2-----	1,2-Dichloroethane	1.0	
79-01-6-----	Trichloroethene	0.95	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 98011

MYFB LCS

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: MYFB LCS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MYF01BQ

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

74-95-3-----	Dibromomethane	0.99	
78-87-5-----	1,2-Dichloropropane	1.0	
80-62-6-----	Methyl Methacrylate	1.4	
75-27-4-----	Bromodichloromethane	1.0	
107-14-2-----	Chloroacetonitrile	53	
10061-01-5-----	cis-1,3-Dichloropropene	1.0	
513-88-2-----	1,1-Dichloropropanone	23	
108-10-1-----	4-Methyl-2-Pentanone	4.6	
79-46-9-----	2-Nitropropane	20	
108-88-3-----	Toluene	1.1	
10061-02-6-----	trans-1,3-Dichloropropene	1.0	
97-63-2-----	Ethyl Methacrylate	0.98	
79-00-5-----	1,1,2-Trichloroethane	0.97	
127-18-4-----	Tetrachloroethene	0.98	
142-28-9-----	1,3-Dichloropropane	1.0	
591-78-6-----	2-Hexanone	3.7	
124-48-1-----	Dibromochloromethane	0.95	
106-93-4-----	1,2-Dibromoethane	0.97	
108-90-7-----	Chlorobenzene	1.0	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.97	
100-41-4-----	Ethylbenzene	1.0	
1330-20-7-----	m- & p-Xylene	2.0	
95-47-6-----	o-Xylene	1.0	
100-42-5-----	Styrene	0.99	
75-25-2-----	Bromoform	0.92	
1330-20-7-----	Xylene (total)	3.1	
98-82-8-----	Isopropylbenzene	1.0	
108-86-1-----	Bromobenzene	0.99	
79-34-5-----	1,1,2,2-Tetrachloroethane	1.0	
96-18-4-----	1,2,3-Trichloropropane	1.1	
110-57-6-----	trans-1,4-Dichloro-2-butene	1.1	
95-49-8-----	2-Chlorotoluene	1.0	
106-43-4-----	4-Chlorotoluene	1.1	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

MYFB LCS
----------

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: MYFB LCS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MYF01BQ

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

103-65-1-----n-Propylbenzene		1.0	
108-67-8-----1,3,5-Trimethylbenzene		1.0	
76-01-7-----Pentachloroethane		1.2	
98-06-6-----tert-Butylbenzene		1.0	
95-63-6-----1,2,4-Trimethylbenzene		1.0	
135-98-8-----sec-Butylbenzene		1.0	
541-73-1-----1,3-Dichlorobenzene		1.0	
99-87-6-----p-Isopropyltoluene		1.0	
106-46-7-----1,4-Dichlorobenzene		1.0	
95-50-1-----1,2-Dichlorobenzene		1.0	
104-51-8-----n-Butylbenzene		1.1	
67-72-1-----Hexachloroethane		0.96	
96-12-8-----1,2-Dibromo-3-Chloropropane		1.2	
98-95-3-----Nitrobenzene		52	
120-82-1-----1,2,4-Trichlorobenzene		1.1	
87-68-3-----Hexachlorobutadiene		1.1	
91-20-3-----Naphthalene		1.1	
87-61-6-----1,2,3-Trichlorobenzene		1.2	



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON Contract: 98011

VBLKZ1

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: VBLKZ1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MYFB01B

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	Q
		(ug/L or ug/Kg) UG/L	

75-71-8-----	Dichlorodifluoromethane	0.50	U
74-87-3-----	Chloromethane	0.50	U
75-01-4-----	Vinyl Chloride	0.50	U
74-83-9-----	Bromomethane	0.50	U
75-00-3-----	Chloroethane	0.50	U
75-69-4-----	Trichlorofluoromethane	0.50	U
60-29-7-----	Diethyl Ether	0.50	U
75-35-4-----	1,1-Dichloroethene	0.50	U
67-64-1-----	Acetone	5.0	U
74-88-4-----	Methyl Iodide	0.50	U
75-15-0-----	Carbon Disulfide	0.50	U
107-05-1-----	Allyl Chloride	0.50	U
75-09-2-----	Methylene Chloride	0.50	U
107-13-1-----	Acrylonitrile	0.50	U
156-60-5-----	trans-1,2-Dichloroethene	0.50	U
1634-04-4-----	Methyl-t-Butyl Ether	0.50	U
75-34-3-----	1,1-Dichloroethane	0.50	U
594-20-7-----	2,2-Dichloropropane	0.50	U
156-59-2-----	cis-1,2-Dichloroethene	0.50	U
78-93-3-----	2-Butanone	5.0	U
107-12-0-----	Propionitrile	25	U
96-33-3-----	Methyl Acrylate	0.50	U
74-97-5-----	Bromoform	0.50	U
126-98-7-----	Methacrylonitrile	0.50	U
109-99-9-----	Tetrahydrofuran	2.5	U
67-66-3-----	Chloroform	0.50	U
71-55-6-----	1,1,1-Trichloroethane	0.50	U
109-69-3-----	1-Chlorobutane	0.50	U
56-23-5-----	Carbon Tetrachloride	0.50	U
563-58-6-----	1,1-Dichloropropene	0.50	U
71-43-2-----	Benzene	0.50	U
107-06-2-----	1,2-Dichloroethane	0.50	U
79-01-6-----	Trichloroethene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

VBLKZ1

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Matrix: (soil/water) WATER Lab Sample ID: VBLKZ1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MYFB01B

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 08/26/02

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------------------------------	---

74-95-3-----	Dibromomethane	0.50	U
78-87-5-----	1,2-Dichloropropane	0.50	U
80-62-6-----	Methyl Methacrylate	0.50	U
75-27-4-----	Bromodichloromethane	0.50	U
107-14-2-----	Chloroacetonitrile	25	U
10061-01-5-----	cis-1,3-Dichloropropene	0.50	U
513-88-2-----	1,1-Dichloropropanone	10	U
108-10-1-----	4-Methyl-2-Pentanone	2.5	U
79-46-9-----	2-Nitropropane	10	U
108-88-3-----	Toluene	0.50	U
10061-02-6-----	trans-1,3-Dichloropropene	0.50	U
97-63-2-----	Ethyl Methacrylate	0.50	U
79-00-5-----	1,1,2-Trichloroethane	0.50	U
127-18-4-----	Tetrachloroethene	0.50	U
142-28-9-----	1,3-Dichloropropane	0.50	U
591-78-6-----	2-Hexanone	2.5	U
124-48-1-----	Dibromochloromethane	0.50	U
106-93-4-----	1,2-Dibromoethane	0.50	U
108-90-7-----	Chlorobenzene	0.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	0.50	U
100-41-4-----	Ethylbenzene	0.50	U
1330-20-7-----	m- & p-Xylene	0.50	U
95-47-6-----	o-Xylene	0.50	U
100-42-5-----	Styrene	0.50	U
75-25-2-----	Bromoform	0.50	U
1330-20-7-----	Xylene (total)	0.50	U
98-82-8-----	Isopropylbenzene	0.50	U
108-86-1-----	Bromobenzene	0.50	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.50	U
96-18-4-----	1,2,3-Trichloropropane	0.50	U
110-57-6-----	trans-1,4-Dichloro-2-butene	0.50	U
95-49-8-----	2-Chlorotoluene	0.50	U
106-43-4-----	4-Chlorotoluene	0.50	U



FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON	Contract: 98011	VBLKZ1
Lab Code: STLVT	Case No.: 98011	SAS No.: SDG No.: 89326
Matrix: (soil/water) WATER	Lab Sample ID: VBLKZ1	
Sample wt/vol: 5.000 (g/mL) ML	Lab File ID: MYFB01B	
Level: (low/med) LOW	Date Received: _____	
% Moisture: not dec. _____	Date Analyzed: 08/26/02	
GC Column: CAP ID: 0.53 (mm)	Dilution Factor: 1.0	
Soil Extract Volume: _____ (uL)	Soil Aliquot Volume: _____ (uL)	

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
103-65-1-----	n-Propylbenzene	0.50	U
108-67-8-----	1,3,5-Trimethylbenzene	0.50	U
76-01-7-----	Pentachloroethane	0.50	U
98-06-6-----	tert-Butylbenzene	0.50	U
95-63-6-----	1,2,4-Trimethylbenzene	0.50	U
135-98-8-----	sec-Butylbenzene	0.50	U
541-73-1-----	1,3-Dichlorobenzene	0.50	U
99-87-6-----	p-Isopropyltoluene	0.50	U
106-46-7-----	1,4-Dichlorobenzene	0.50	U
95-50-1-----	1,2-Dichlorobenzene	0.50	U
104-51-8-----	n-Butylbenzene	0.50	U
67-72-1-----	Hexachloroethane	0.50	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.50	U
98-95-3-----	Nitrobenzene	25	U
120-82-1-----	1,2,4-Trichlorobenzene	0.50	U
87-68-3-----	Hexachlorobutadiene	0.50	U
91-20-3-----	Naphthalene	0.50	U
87-61-6-----	1,2,3-Trichlorobenzene	0.50	U



FORM 2  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

	CLIENT SAMPLE NO.	SMC1 (DCE) #	SMC2 (BFB) #	SMC3 (DCB) #	OTHER (TOL) #	TOT OUT
01	MYFB LCS	95	98	103	99	0
02	VBLKZ1	92	97	96	97	0
03	TR2091	110	104	106	107	0
04	TR2092	96	99	103	98	0
05	TR2093	99	97	102	97	0
06	TR2094	97	102	106	98	0
07	TR2099	100	99	108	100	0
08	TR2095	92	92	94	95	0
09	TR2096	89	95	104	92	0
10	TR2097	106	99	106	101	0
11	TR2098	95	97	107	93	0
12	ARD2168	96	94	103	94	0
13	TR0037	103	95	100	95	0
14	TR0038	95	96	98	92	0
15	TR2095MS	95	93	106	101	0
16	TR2095MSD	93	101	107	101	0
17						
18						
19						
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25						
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27						
28						
29						
30						

QC LIMITS

SMC1 (DCE) = 1,2-Dichloroethane-d4 (78-133)  
 SMC2 (BFB) = Bromofluorobenzene (80-114)  
 SMC3 (DCB) = 1,2-Dichlorobenzene-d4 (79-112)  
 OTHER (TOL) = Toluene-d8 (79-111)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out



FORM 3  
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - ENGSC2 Sample No.: TR2095

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Dichlorodifluoromethane	55	0.0	54	98	70-130
Chloromethane	55	0.0	49	89	70-130
Vinyl Chloride	55	0.0	53	96	70-130
Bromomethane	55	0.0	54	98	70-130
Chloroethane	55	0.0	56	102	70-130
Trichlorofluoromethane	55	0.0	51	93	70-130
Diethyl Ether	55	0.0	63	114	70-130
1,1-Dichloroethene	55	0.0	53	96	70-130
Acetone	280	0.0	140	50*	70-130
Methyl Iodide	55	0.0	63	114	70-130
Carbon Disulfide	55	0.0	75	136*	70-130
Allyl Chloride	55	0.0	55	100	70-130
Methylene Chloride	55	0.0	54	98	70-130
Acrylonitrile	55	0.0	66	120	70-130
trans-1,2-Dichloroethene	55	0.0	53	96	70-130
Methyl-t-Butyl Ether	55	0.0	58	105	70-130
1,1-Dichloroethane	55	0.0	50	91	70-130
2,2-Dichloropropane	55	0.0	53	96	70-130
cis-1,2-Dichloroethene	55	32	84	94	70-130
2-Butanone	280	0.0	200	71	70-130
Propionitrile	2800	0.0	3000	107	70-130
Methyl Acrylate	55	0.0	58	105	70-130
Bromochloromethane	55	0.0	58	105	70-130
Methacrylonitrile	55	0.0	62	113	70-130
Tetrahydrofuran	280	0.0	330	118	70-130
Chloroform	55	0.0	49	89	70-130
1,1,1-Trichloroethane	55	0.0	54	98	70-130
1-Chlorobutane	55	0.0	57	104	70-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - ENGSC2 Sample No.: TR2095

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Carbon Tetrachloride	55	0.0	51	93	70-130
1,1-Dichloropropene	55	0.0	48	87	70-130
Benzene	55	0.0	51	93	70-130
1,2-Dichloroethane	55	0.0	58	105	70-130
Trichloroethene	55	540	650	200*	70-130
Dibromomethane	55	0.0	58	105	70-130
1,2-Dichloropropane	55	0.0	50	91	70-130
Methyl Methacrylate	55	0.0	58	105	70-130
Bromodichloromethane	55	0.0	54	98	70-130
Chloroacetonitrile	2800	0.0	2900	104	70-130
cis-1,3-Dichloropropene	55	0.0	51	93	70-130
1,1-Dichloropropanone	2800	0.0	1500	54*	70-130
4-Methyl-2-Pentanone	280	0.0	280	100	70-130
2-Nitropropane	2800	0.0	1200	43*	70-130
Toluene	55	0.0	59	107	70-130
trans-1,3-Dichloropropene	55	0.0	51	93	70-130
Ethyl Methacrylate	55	0.0	59	107	70-130
1,1,2-Trichloroethane	55	0.0	58	105	70-130
Tetrachloroethene	55	0.0	54	98	70-130
1,3-Dichloropropane	55	0.0	60	109	70-130
2-Hexanone	280	0.0	200	71	70-130
Dibromochloromethane	55	0.0	47	85	70-130
1,2-Dibromoethane	55	0.0	55	100	70-130
Chlorobenzene	55	0.0	56	102	70-130
1,1,1,2-Tetrachloroethane	55	0.0	54	98	70-130
Ethylbenzene	55	0.0	54	98	70-130
m- & p-Xylene	110	0.0	110	100	70-130
o-Xylene	55	0.0	56	102	70-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - ENGSC2 Sample No.: TR2095

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Styrene	55	0.0	54	98	70-130
Bromoform	55	0.0	45	82	70-130
Xylene (total)	160	0.0	170	106	70-130
Isopropylbenzene	55	0.0	56	102	70-130
Bromobenzene	55	0.0	55	100	70-130
1,1,2,2-Tetrachloroetha	55	0.0	58	105	70-130
1,2,3-Trichloropropane	55	0.0	60	109	70-130
trans-1,4-Dichloro-2-bu	55	0.0	50	91	70-130
2-Chlorotoluene	55	0.0	57	104	70-130
4-Chlorotoluene	55	0.0	56	102	70-130
n-Propylbenzene	55	0.0	57	104	70-130
1,3,5-Trimethylbenzene	55	0.0	56	102	70-130
Pentachloroethane	55	0.0	81	147*	70-130
tert-Butylbenzene	55	0.0	60	109	70-130
1,2,4-Trimethylbenzene	55	0.0	55	100	70-130
sec-Butylbenzene	55	0.0	56	102	70-130
1,3-Dichlorobenzene	55	0.0	56	102	70-130
p-Isopropyltoluene	55	0.0	58	105	70-130
1,4-Dichlorobenzene	55	0.0	58	105	70-130
1,2-Dichlorobenzene	55	0.0	58	105	70-130
n-Butylbenzene	55	0.0	58	105	70-130
Hexachloroethane	55	0.0	56	102	70-130
1,2-Dibromo-3-Chloropro	55	0.0	58	105	70-130
Nitrobenzene	2800	0.0	2100	75	70-130
1,2,4-Trichlorobenzene	55	0.0	60	109	70-130
Hexachlorobutadiene	55	0.0	59	107	70-130
Naphthalene	55	0.0	62	113	70-130
1,2,3-Trichlorobenzene	55	0.0	62	113	70-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - ENGSC2 Sample No.: TR2095

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Dichlorodifluoromethane	55	47	85	14	40	70-130
Chloromethane	55	46	84	6	40	70-130
Vinyl Chloride	55	54	98	2	40	70-130
Bromomethane	55	53	96	2	40	70-130
Chloroethane	55	54	98	4	40	70-130
Trichlorofluoromethane	55	51	93	0	40	70-130
Diethyl Ether	55	60	109	4	40	70-130
1,1-Dichloroethene	55	50	91	5	40	70-130
Acetone	280	150	54*	8	40	70-130
Methyl Iodide	55	62	113	1	40	70-130
Carbon Disulfide	55	80	145*	6	40	70-130
Allyl Chloride	55	52	94	6	40	70-130
Methylene Chloride	55	55	100	2	40	70-130
Acrylonitrile	55	65	118	2	40	70-130
trans-1,2-Dichloroethene	55	56	102	6	40	70-130
Methyl-t-Butyl Ether	55	57	104	1	40	70-130
1,1-Dichloroethane	55	46	84	8	40	70-130
2,2-Dichloropropane	55	50	91	5	40	70-130
cis-1,2-Dichloroethene	55	87	100	6	40	70-130
2-Butanone	280	180	64*	10	40	70-130
Propionitrile	2800	2800	100	7	40	70-130
Methyl Acrylate	55	54	98	7	40	70-130
Bromoform	55	56	102	3	40	70-130
Tetrahydrofuran	280	290	104	13	40	70-130
Chloroform	55	48	87	2	40	70-130
1,1,1-Trichloroethane	55	50	91	7	40	70-130
1-Chlorobutane	55	48	87	18	40	70-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - ENGSC2 Sample No.: TR2095

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD	% REC #	% RPD #	QC LIMITS	
			% REC			RPD	REC.
Carbon Tetrachloride	55	48	87	7	40	70-130	
1,1-Dichloropropene	55	51	93	7	40	70-130	
Benzene	55	49	89	4	40	70-130	
1,2-Dichloroethane	55	55	100	5	40	70-130	
Trichloroethene	55	650	200*	0	40	70-130	
Dibromomethane	55	56	102	3	40	70-130	
1,2-Dichloropropane	55	50	91	0	40	70-130	
Methyl Methacrylate	55	56	102	3	40	70-130	
Bromodichloromethane	55	52	94	4	40	70-130	
Chloroacetonitrile	2800	2700	96	8	40	70-130	
cis-1,3-Dichloropropene	55	51	93	0	40	70-130	
1,1-Dichloropropanone	2800	1400	50*	8	40	70-130	
4-Methyl-2-Pentanone	280	270	96	4	40	70-130	
2-Nitropropane	2800	1100	39*	10	40	70-130	
Toluene	55	56	102	5	40	70-130	
trans-1,3-Dichloropropane	55	51	93	0	40	70-130	
Ethyl Methacrylate	55	57	104	3	40	70-130	
1,1,2-Trichloroethane	55	53	96	9	40	70-130	
Tetrachloroethene	55	51	93	5	40	70-130	
1,3-Dichloropropane	55	58	105	4	40	70-130	
2-Hexanone	280	180	64*	10	40	70-130	
Dibromochloromethane	55	48	87	2	40	70-130	
1,2-Dibromoethane	55	56	102	2	40	70-130	
Chlorobenzene	55	55	100	2	40	70-130	
1,1,1,2-Tetrachloroethane	55	52	94	4	40	70-130	
Ethylbenzene	55	54	98	0	40	70-130	
m- & p-Xylene	110	110	100	0	40	70-130	
o-Xylene	55	56	102	0	40	70-130	

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011 SAS No.:

SDG No.: 89326

Matrix Spike - ENGSC2 Sample No.: TR2095

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Styrene	55	55	100	2	40	70-130
Bromoform	55	48	87	6	40	70-130
Xylene (total)	160	170	106	0	40	70-130
Isopropylbenzene	55	56	102	0	40	70-130
Bromobenzene	55	56	102	2	40	70-130
1,1,2,2-Tetrachloroetha	55	59	107	2	40	70-130
1,2,3-Trichloropropane	55	61	111	2	40	70-130
trans-1,4-Dichloro-2-bu	55	53	96	5	40	70-130
2-Chlorotoluene	55	57	104	0	40	70-130
4-Chlorotoluene	55	55	100	2	40	70-130
n-Propylbenzene	55	58	105	1	40	70-130
1,3,5-Trimethylbenzene	55	56	102	0	40	70-130
Pentachloroethane	55	78	142*	3	40	70-130
tert-Butylbenzene	55	58	105	4	40	70-130
1,2,4-Trimethylbenzene	55	57	104	4	40	70-130
sec-Butylbenzene	55	57	104	2	40	70-130
1,3-Dichlorobenzene	55	58	105	3	40	70-130
p-Isopropyltoluene	55	57	104	1	40	70-130
1,4-Dichlorobenzene	55	59	107	2	40	70-130
1,2-Dichlorobenzene	55	59	107	2	40	70-130
n-Butylbenzene	55	58	105	0	40	70-130
Hexachloroethane	55	55	100	2	40	70-130
1,2-Dibromo-3-Chloropro	55	54	98	7	40	70-130
Nitrobenzene	2800	2400	86	14	40	70-130
1,2,4-Trichlorobenzene	55	61	111	2	40	70-130
Hexachlorobutadiene	55	60	109	2	40	70-130
Naphthalene	55	62	113	0	40	70-130
1,2,3-Trichlorobenzene	55	63	114	1	40	70-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 84 outside limits

Spike Recovery: 14 out of 168 outside limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - Sample No.: MYFB LCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Dichlorodifluoromethane	1.0		0.92	92	70-130
Chloromethane	1.0		0.99	99	70-130
Vinyl Chloride	1.0		0.94	94	70-130
Bromomethane	1.0		0.96	96	70-130
Chloroethane	1.0		1.1	110	70-130
Trichlorofluoromethane	1.0		0.93	93	70-130
Diethyl Ether	1.0		1.2	120	70-130
1,1-Dichloroethene	1.0		1.0	100	70-130
Acetone	5.0		3.4	68*	70-130
Methyl Iodide	1.0		1.2	120	70-130
Carbon Disulfide	1.0		1.8	180*	70-130
Allyl Chloride	1.0		0.96	96	70-130
Methylene Chloride	1.0		1.1	110	70-130
Acrylonitrile	1.0		1.2	120	70-130
trans-1,2-Dichloroethene	1.0		1.0	100	70-130
Methyl-t-Butyl Ether	1.0		0.95	95	70-130
1,1-Dichloroethane	1.0		0.98	98	70-130
2,2-Dichloropropane	1.0		0.98	98	70-130
cis-1,2-Dichloroethene	1.0		0.98	98	70-130
2-Butanone	5.0		3.9	78	70-130
Propionitrile	50		47	94	70-130
Methyl Acrylate	1.0		1.1	110	70-130
Bromochloromethane	1.0		1.0	100	70-130
Methacrylonitrile	1.0		1.2	120	70-130
Tetrahydrofuran	5.0		5.3	106	70-130
Chloroform	1.0		0.90	90	70-130
1,1,1-Trichloroethane	1.0		0.97	97	70-130
1-Chlorobutane	1.0		0.96	96	70-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - Sample No.: MYFB LCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Carbon Tetrachloride	1.0		0.85	85	70-130
1,1-Dichloropropene	1.0		0.99	99	70-130
Benzene	1.0		0.92	92	70-130
1,2-Dichloroethane	1.0		1.0	100	70-130
Trichloroethene	1.0		0.95	95	70-130
Dibromomethane	1.0		0.99	99	70-130
1,2-Dichloropropane	1.0		1.0	100	70-130
Methyl Methacrylate	1.0		1.4	140*	70-130
Bromodichloromethane	1.0		1.0	100	70-130
Chloroacetonitrile	50		53	106	70-130
cis-1,3-Dichloropropene	1.0		1.0	100	70-130
1,1-Dichloropropanone	20		23	115	70-130
4-Methyl-2-Pentanone	5.0		4.6	92	70-130
2-Nitropropane	20		20	100	70-130
Toluene	1.0		1.1	110	70-130
trans-1,3-Dichloroprope	1.0		1.0	100	70-130
Ethyl Methacrylate	1.0		0.98	98	70-130
1,1,2-Trichloroethane	1.0		0.97	97	70-130
Tetrachloroethene	1.0		0.98	98	70-130
1,3-Dichloropropane	1.0		1.0	100	70-130
2-Hexanone	5.0		3.7	74	70-130
Dibromochloromethane	1.0		0.95	95	70-130
1,2-Dibromoethane	1.0		0.97	97	70-130
Chlorobenzene	1.0		1.0	100	70-130
1,1,1,2-Tetrachloroetha	1.0		0.97	97	70-130
Ethylbenzene	1.0		1.0	100	70-130
m- & p-Xylene	2.0		2.0	100	70-130
o-Xylene	1.0		1.0	100	70-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

COMMENTS: \_\_\_\_\_



FORM 3  
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Matrix Spike - Sample No.: MYFB LCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Styrene	1.0		0.99	99	70-130
Bromoform	1.0		0.92	92	70-130
Xylene (total)	3.0		3.1	103	70-130
Isopropylbenzene	1.0		1.0	100	70-130
Bromobenzene	1.0		0.99	99	70-130
1,1,2,2-Tetrachloroethane	1.0		1.0	100	70-130
1,2,3-Trichloropropane	1.0		1.1	110	70-130
trans-1,4-Dichloro-2-butene	1.0		1.1	110	70-130
2-Chlorotoluene	1.0		1.0	100	70-130
4-Chlorotoluene	1.0		1.1	110	70-130
n-Propylbenzene	1.0		1.0	100	70-130
1,3,5-Trimethylbenzene	1.0		1.0	100	70-130
Pentachloroethane	1.0		1.2	120	70-130
tert-Butylbenzene	1.0		1.0	100	70-130
1,2,4-Trimethylbenzene	1.0		1.0	100	70-130
sec-Butylbenzene	1.0		1.0	100	70-130
1,3-Dichlorobenzene	1.0		1.0	100	70-130
p-Isopropyltoluene	1.0		1.0	100	70-130
1,4-Dichlorobenzene	1.0		1.0	100	70-130
1,2-Dichlorobenzene	1.0		1.0	100	70-130
n-Butylbenzene	1.0		1.1	110	70-130
Hexachloroethane	1.0		0.96	96	70-130
1,2-Dibromo-3-Chloropropane	1.0		1.2	120	70-130
Nitrobenzene	50		52	104	70-130
1,2,4-Trichlorobenzene	1.0		1.1	110	70-130
Hexachlorobutadiene	1.0		1.1	110	70-130
Naphthalene	1.0		1.1	110	70-130
1,2,3-Trichlorobenzene	1.0		1.2	120	70-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 3 out of 84 outside limits

COMMENTS: \_\_\_\_\_



FORM 4  
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 98011

VBLKZ1

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Lab File ID: MYFB01B Lab Sample ID: VBLKZ1

Date Analyzed: 08/26/02 Time Analyzed: 0246

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: M

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01 MYFB LCS	MYFB LCS	MYF01BQ	0218
02 TR2091	498072	498072D	0545
03 TR2092	498073	498073	0614
04 TR2093	498074	498074D	0642
05 TR2094	498075	498075	0711
06 TR2099	498076	498076	0739
07 TR2095	498077	498077D	0808
08 TR2096	498078	498078D	0836
09 TR2097	498079	498079	0902
10 TR2098	498080	498080	0931
11 ARD2168	498084	498084	0956
12 TR0037	498085	498085	1024
13 TR0038	498086	498086	1053
14 TR2095MS	498077MS	498077M	1121
15 TR2095MSD	498077MD	498077S	1150
16			
17			
18			
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COMMENTS:



FORM 5  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Lab File ID: MYF01PV

BFB Injection Date: 08/22/02

Instrument ID: M

BFB Injection Time: 2355

GC Column: CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	47.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.2 ( 0.3 ) 1
174	50.0 - 120.0% of mass 95	60.7
175	5.0 - 9.0% of mass 174	4.5 ( 7.3 ) 1
176	95.0 - 101.0% of mass 174	60.5 ( 99.7 ) 1
177	5.0 - 9.0% of mass 176	3.8 ( 6.3 ) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 VSTD0005	VSTD0005	MYF005V	08/23/02	0113
02 VSTD002	VSTD002	MYF02V	08/23/02	0142
03 VSTD010	VSTD010	MYF10V	08/23/02	0211
04 VSTD020	VSTD020	MYF20V	08/23/02	0240
05 VSTD030	VSTD030	MYF30V	08/23/02	0308
06				
07				
08				
09				
10				
11				
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15				
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20				
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22				



FORM 5  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Lab File ID: MYF03PV

BFB Injection Date: 08/26/02

Instrument ID: M

BFB Injection Time: 0130

GC Column: CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

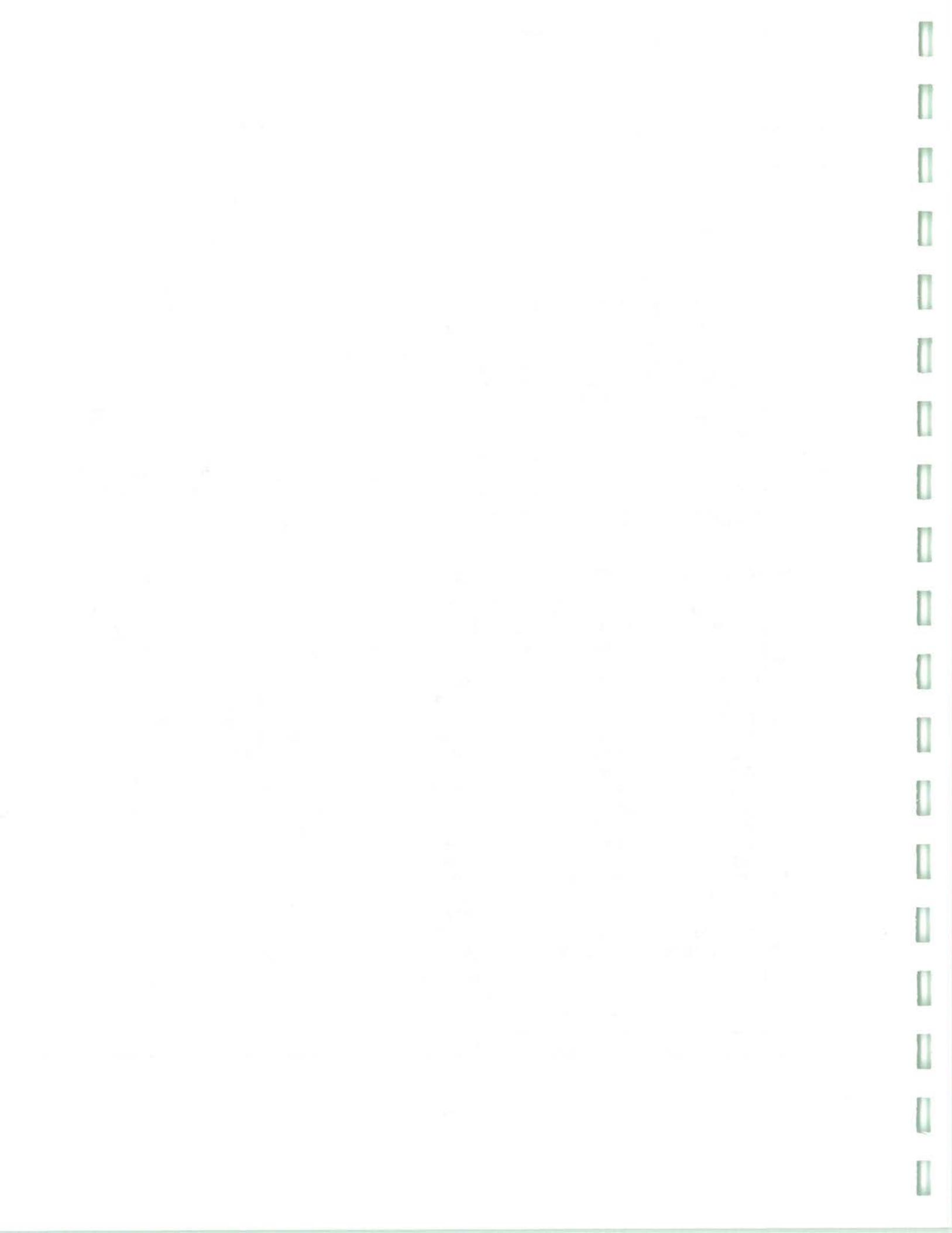
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	48.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.1 ( 0.2)1
174	50.0 - 120.0% of mass 95	60.4
175	5.0 - 9.0% of mass 174	4.3 ( 7.1)1
176	95.0 - 101.0% of mass 174	60.5 (100.1)1
177	5.0 - 9.0% of mass 176	4.2 ( 6.9)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 VSTD002	VSTD002	MYF02BV	08/26/02	0150
02 MYFB LCS	MYFB LCS	MYF01BQ	08/26/02	0218
03 VBLKZ1	VBLKZ1	MYFB01B	08/26/02	0246
04 TR2091	498072	498072D	08/26/02	0545
05 TR2092	498073	498073	08/26/02	0614
06 TR2093	498074	498074D	08/26/02	0642
07 TR2094	498075	498075	08/26/02	0711
08 TR2099	498076	498076	08/26/02	0739
09 TR2095	498077	498077D	08/26/02	0808
10 TR2096	498078	498078D	08/26/02	0836
11 TR2097	498079	498079	08/26/02	0902
12 TR2098	498080	498080	08/26/02	0931
13 ARD2168	498084	498084	08/26/02	0956
14 TR0037	498085	498085	08/26/02	1024
15 TR0038	498086	498086	08/26/02	1053
16 TR2095MS	498077MS	498077M	08/26/02	1121
17 TR2095MSD	498077MD	498077S	08/26/02	1150
18				
19				
20				
21				
22				



6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Instrument ID: M

Calibration Date(s): 08/23/02 08/23/02

Heated Purge: (Y/N) N

Calibration Time(s): 0113

0308

GC Column: CAP

ID: 0.53 (mm)

LAB FILE ID: RRF10 =MYF10V	RRF0.5=MYF005V	RRF2	=MYF02V	RRF30	=MYF30V	RRF	% RSD
COMPOUND	RRF0.5	RRF2	RRF10	RRF20	RRF30	RRF	RSD
Dichlorodifluoromethane	0.674	0.478	0.485	0.520	0.508	0.533	15.1
Chloromethane	0.369	0.219	0.225	0.254	0.254	0.264	23.0
Vinyl Chloride	0.313	0.247	0.239	0.264	0.258	0.264	11.0
Bromomethane	0.373	0.224	0.217	0.207	0.192	0.243	30.5
Chloroethane	0.238	0.144	0.160	0.176	0.159	0.175	20.9
Trichlorofluoromethane	0.632	0.523	0.558	0.600	0.587	0.580	7.2
Diethyl Ether	0.172	0.161	0.167	0.177	0.173	0.170	3.7
1,1-Dichloroethene	0.324	0.250	0.253	0.292	0.287	0.281	11.0
Acetone	0.089	0.071	0.114	0.136	0.138	0.110	26.8
Methyl Iodide	0.446	0.349	0.368	0.397	0.369	0.386	9.8
Carbon Disulfide	0.464	0.369	0.368	0.390	0.381	0.394	10.2
Allyl Chloride	0.484	0.324	0.326	0.346	0.334	0.363	18.8
Methylene Chloride	0.305	0.323	0.295	0.322	0.299	0.309	4.2
Acrylonitrile	0.084	0.044	0.054	0.053	0.051	0.057	27.2
trans-1,2-Dichloroethene	0.374	0.266	0.289	0.323	0.326	0.316	13.0
Methyl-t-Butyl Ether	0.745	0.613	0.641	0.708	0.688	0.679	7.8
1,1-Dichloroethane	0.661	0.540	0.637	0.674	0.630	0.628	8.4
2,2-Dichloropropane	0.561	0.474	0.461	0.498	0.481	0.495	7.9
cis-1,2-Dichloroethene	0.356	0.322	0.332	0.345	0.369	0.345	5.4
2-Butanone	0.027	0.027	0.041	0.048	0.049	0.038	27.7
Propionitrile	0.023	0.022	0.026	0.029	0.028	0.026	10.9
Methyl Acrylate	0.484	0.491	0.523	0.564	0.567	0.526	7.5
Bromoform	0.218	0.210	0.226	0.241	0.225	0.224	5.2
Methacrylonitrile	0.106	0.092	0.081	0.088	0.087	0.091	10.4
Tetrahydrofuran	0.071	0.061	0.067	0.077	0.075	0.070	9.0
Chloroform	0.745	0.647	0.736	0.826	0.806	0.752	9.3
1,1,1-Trichloroethane	0.631	0.526	0.542	0.591	0.576	0.573	7.2
1-Chlorobutane	0.667	0.519	0.582	0.638	0.624	0.606	9.5
Carbon Tetrachloride	0.487	0.392	0.422	0.472	0.470	0.449	8.9
1,1-Dichloropropene	0.581	0.435	0.514	0.560	0.536	0.525	10.7
Benzene	0.924	0.887	0.968	1.073	0.993	0.969	7.3
1,2-Dichloroethane	0.439	0.401	0.434	0.467	0.457	0.440	5.8
Trichloroethene	0.489	0.389	0.431	0.494	0.467	0.454	9.7
Dibromomethane	0.418	0.412	0.407	0.445	0.430	0.422	3.6
1,2-Dichloropropane	0.497	0.404	0.404	0.434	0.427	0.433	8.8
Methyl Methacrylate	0.240	0.212	0.223	0.246	0.241	0.232	6.0
Bromodichloromethane	0.653	0.646	0.654	0.719	0.702	0.675	4.9

\* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.



6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Instrument ID: M

Calibration Date(s): 08/23/02 08/23/02

Heated Purge: (Y/N) N

Calibration Time(s): 0113

0308

GC Column: CAP

ID: 0.53 (mm)

LAB FILE ID: RRF10 =MYF10V	RRF0.5=MYF005V		RRF2 =MYF02V		RRF30 =MYF30V		% RSD
COMPOUND	RRF0.5	RRF2	RRF10	RRF20	RRF30	RRF	
Chloroacetonitrile	0.013	0.012	0.014	0.015	0.014	0.014	8.7
cis-1,3-Dichloropropene	0.671	0.598	0.640	0.679	0.659	0.649	5.0
1,1-Dichloropropanone	0.006	0.007	0.007	0.008	0.008	0.007	9.2
4-Methyl-2-Pentanone	0.140	0.119	0.134	0.156	0.153	0.140	10.5
2-Nitropropane	0.057	0.054	0.058	0.064	0.062	0.059	7.2
Toluene	0.623	0.614	0.626	0.692	0.655	0.642	4.9
trans-1,3-Dichloropropene	0.551	0.510	0.527	0.591	0.566	0.549	5.8
Ethyl Methacrylate	0.512	0.446	0.474	0.538	0.520	0.498	7.4
1,1,2-Trichloroethane	0.424	0.322	0.322	0.358	0.348	0.355	11.8
Tetrachloroethene	0.522	0.605	0.727	0.825	0.826	0.701	19.3
1,3-Dichloropropane	0.562	0.574	0.592	0.655	0.632	0.603	6.6
2-Hexanone	0.232	0.223	0.356	0.416	0.419	0.329	29.2
Dibromochloromethane	0.750	0.727	0.728	0.800	0.816	0.764	5.4
1,2-Dibromoethane	0.682	0.680	0.686	0.745	0.754	0.709	5.2
Chlorobenzene	0.969	0.971	0.948	1.017	1.026	0.986	3.4
1,1,1,2-Tetrachloroethane	0.577	0.491	0.486	0.524	0.535	0.523	7.1
Ethylbenzene	1.528	1.575	1.577	1.672	1.675	1.605	4.1
m- & p-Xylene	0.548	0.539	0.559	0.596	0.595	0.567	4.7
o-Xylene	0.541	0.535	0.526	0.565	0.568	0.547	3.4
Styrene	0.935	0.945	0.969	1.013	1.031	0.979	4.3
Bromoform	0.521	0.528	0.569	0.628	0.648	0.579	9.9
Xylene (total)	0.541	0.535	0.526	0.565	0.568	0.547	3.4
Isopropylbenzene	1.527	1.558	1.576	1.703	1.700	1.613	5.1
Bromobenzene	0.534	0.526	0.536	0.568	0.572	0.547	3.9
1,1,2,2-Tetrachloroethane	0.814	0.754	0.729	0.774	0.790	0.772	4.2
1,2,3-Trichloropropane	0.199	0.187	0.176	0.190	0.193	0.189	4.4
trans-1,4-Dichloro-2-butene	0.169	0.134	0.125	0.140	0.136	0.141	12.0
2-Chlorotoluene	0.385	0.366	0.361	0.384	0.387	0.377	3.2
4-Chlorotoluene	0.380	0.389	0.365	0.385	0.398	0.383	3.2
n-Propylbenzene	0.383	0.354	0.365	0.385	0.391	0.376	4.2
1,3,5-Trimethylbenzene	1.243	1.128	1.184	1.233	1.240	1.206	4.1
Pentachloroethane	0.301	0.277	0.226	0.224	0.187	0.243	18.8
tert-Butylbenzene	0.315	0.304	0.294	0.312	0.310	0.307	2.7
1,2,4-Trimethylbenzene	1.229	1.141	1.163	1.256	1.259	1.210	4.5
sec-Butylbenzene	1.766	1.670	1.716	1.833	1.828	1.763	4.0
1,3-Dichlorobenzene	0.827	0.797	0.831	0.885	0.880	0.844	4.4
p-Isopropyltoluene	1.331	1.241	1.259	1.336	1.340	1.301	3.6

\* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.



**6A**  
**VOLATILE ORGANICS INITIAL CALIBRATION DATA**

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No. :

SDG No.: 89326

Instrument ID: M

Calibration Date(s) : 08/23/02 08/23/02

Heated Purge: (Y/N) N

Calibration Time(s) : 0113

0308

GC Column: CAP

ID: 0.53 (mm)

\* Compounds with required minimum RRF and maximum %RSD values.  
All other compounds must meet a minimum RRF of 0.010.



FORM 7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Instrument ID: M

Calibration Date: 08/26/02 Time: 0150

Lab File ID: MYF02BV

Init. Calib. Date(s): 08/23/02 08/23/02

Heated Purge: (Y/N) N

Init. Calib. Times: 0113

0308

GC Column: CAP

ID: 0.53 (mm)

COMPOUND	RRF	RRF2	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.533	0.622	0.01	16.7	30.0
Chloromethane	0.264	0.285	0.01	8.0	30.0
Vinyl Chloride	0.264	0.308	0.01	16.7	30.0
Bromomethane	0.243	0.267	0.01	9.9	30.0
Chloroethane	0.175	0.205	0.01	17.1	30.0
Trichlorofluoromethane	0.580	0.633	0.01	9.1	30.0
Diethyl Ether	0.170	0.173	0.01	1.8	30.0
1,1-Dichloroethene	0.281	0.298	0.01	6.0	30.0
Acetone	0.110	0.069	0.01	37.3	30.0
Methyl Iodide	0.386	0.449	0.01	16.3	30.0
Carbon Disulfide	0.394	0.434	0.01	10.2	30.0
Allyl Chloride	0.363	0.384	0.01	5.8	30.0
Methylene Chloride	0.309	0.313	0.01	1.3	30.0
Acrylonitrile	0.057	0.066	0.01	15.8	30.0
trans-1,2-Dichloroethene	0.316	0.334	0.01	5.7	30.0
Methyl-t-Butyl Ether	0.679	0.655	0.01	3.5	30.0
1,1-Dichloroethane	0.628	0.641	0.01	2.1	30.0
2,2-Dichloropropane	0.495	0.557	0.01	12.5	30.0
cis-1,2-Dichloroethene	0.345	0.348	0.01	0.9	30.0
2-Butanone	0.038	0.026	0.01	31.6	30.0
Propionitrile	0.026	0.024	0.01	7.7	30.0
Methyl Acrylate	0.526	0.529	0.01	0.6	30.0
Bromochloromethane	0.224	0.211	0.01	5.8	30.0
Methacrylonitrile	0.091	0.080	0.01	12.1	30.0
Tetrahydrofuran	0.070	0.066	0.01	5.7	30.0
Chloroform	0.752	0.716	0.01	4.8	30.0
1,1,1-Trichloroethane	0.573	0.602	0.01	5.1	30.0
1-Chlorobutane	0.606	0.601	0.01	0.8	30.0
Carbon Tetrachloride	0.449	0.507	0.01	12.9	30.0
1,1-Dichloropropene	0.525	0.538	0.01	2.5	30.0
Benzene	0.969	0.944	0.01	2.6	30.0
1,2-Dichloroethane	0.440	0.397	0.01	9.8	30.0
Trichloroethene	0.454	0.405	0.01	10.8	30.0
Dibromomethane	0.422	0.390	0.01	7.6	30.0
1,2-Dichloropropane	0.433	0.392	0.01	9.5	30.0
Methyl Methacrylate	0.232	0.207	0.01	10.8	30.0
Bromodichloromethane	0.675	0.676	0.01	0.1	30.0



FORM 7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Instrument ID: M

Calibration Date: 08/26/02 Time: 0150

Lab File ID: MYF02BV

Init. Calib. Date(s): 08/23/02 08/23/02

Heated Purge: (Y/N) N

Init. Calib. Times: 0113

0308

GC Column: CAP

ID: 0.53 (mm)

COMPOUND	RRF	RRF2	MIN RRF	%D	MAX %D
Chloroacetonitrile	0.014	0.015	0.01	7.1	30.0
cis-1,3-Dichloropropene	0.649	0.652	0.01	0.5	30.0
1,1-Dichloropropanone	0.007	0.008	0.01	14.3	30.0
4-Methyl-2-Pentanone	0.140	0.118	0.01	15.7	30.0
2-Nitropropane	0.059	0.055	0.01	6.8	30.0
Toluene	0.642	0.570	0.01	11.2	30.0
trans-1,3-Dichloropropene	0.549	0.514	0.01	6.4	30.0
Ethyl Methacrylate	0.498	0.444	0.01	10.8	30.0
1,1,2-Trichloroethane	0.355	0.309	0.01	13.0	30.0
Tetrachloroethene	0.701	0.494	0.01	29.5	30.0
1,3-Dichloropropane	0.603	0.569	0.01	5.6	30.0
2-Hexanone	0.329	0.199	0.01	39.5	30.0
Dibromochloromethane	0.764	0.730	0.01	4.4	30.0
1,2-Dibromoethane	0.709	0.681	0.01	3.9	30.0
Chlorobenzene	0.986	0.947	0.01	4.0	30.0
1,1,1,2-Tetrachloroethane	0.523	0.509	0.01	2.7	30.0
Ethylbenzene	1.605	1.554	0.01	3.2	30.0
m- & p-Xylene	0.567	0.541	0.01	4.6	30.0
o-Xylene	0.547	0.522	0.01	4.6	30.0
Styrene	0.979	0.927	0.01	5.3	30.0
Bromoform	0.579	0.502	0.01	13.3	30.0
Xylene (total)	0.547	0.522	0.01	4.6	30.0
Isopropylbenzene	1.613	1.557	0.01	3.5	30.0
Bromobenzene	0.547	0.505	0.01	7.7	30.0
1,1,2,2-Tetrachloroethane	0.772	0.756	0.01	2.1	30.0
1,2,3-Trichloropropane	0.189	0.178	0.01	5.8	30.0
trans-1,4-Dichloro-2-butene	0.141	0.112	0.01	20.6	30.0
2-Chlorotoluene	0.377	0.362	0.01	4.0	30.0
4-Chlorotoluene	0.383	0.366	0.01	4.4	30.0
n-Propylbenzene	0.376	0.355	0.01	5.6	30.0
1,3,5-Trimethylbenzene	1.206	1.116	0.01	7.5	30.0
Pentachloroethane	0.243	0.291	0.01	19.8	30.0
tert-Butylbenzene	0.307	0.302	0.01	1.6	30.0
1,2,4-Trimethylbenzene	1.210	1.138	0.01	6.0	30.0
sec-Butylbenzene	1.763	1.693	0.01	4.0	30.0
1,3-Dichlorobenzene	0.844	0.791	0.01	6.3	30.0
p-Isopropyltoluene	1.301	1.216	0.01	6.5	30.0



FORM 7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT Case No.: 98011 SAS No.: SDG No.: 89326

Instrument ID: M Calibration Date: 08/26/02 Time: 0150

Lab File ID: MYF02BV Init. Calib. Date(s): 08/23/02 08/23/02

Heated Purge: (Y/N) N Init. Calib. Times: 0113 0308

GC Column: CAP ID: 0.53 (mm)

COMPOUND	RRF	RRF2	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	0.903	0.868	0.01	3.9	30.0
1,2-Dichlorobenzene	0.782	0.755	0.01	3.4	30.0
n-Butylbenzene	1.342	1.324	0.01	1.3	30.0
Hexachloroethane	0.388	0.394	0.01	1.5	30.0
1,2-Dibromo-3-Chloropropane	0.164	0.157	0.01	4.3	30.0
Nitrobenzene	0.016	0.014	0.01	12.5	30.0
1,2,4-Trichlorobenzene	0.579	0.538	0.01	7.1	30.0
Hexachlorobutadiene	0.411	0.378	0.01	8.0	30.0
Naphthalene	0.936	0.891	0.01	4.8	30.0
1,2,3-Trichlorobenzene	0.512	0.486	0.01	5.1	30.0
1,2-Dichloroethane-d4	0.368	0.324	0.01	12.0	30.0
Bromofluorobenzene	0.879	0.864	0.01	1.7	30.0
1,2-Dichlorobenzene-d4	0.527	0.516	0.01	2.1	30.0
Toluene-d8	0.961	0.869	0.01	9.6	30.0



FORM 8  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL BURLINGTON

Contract: 98011

Lab Code: STLVT

Case No.: 98011

SAS No.:

SDG No.: 89326

Lab File ID (Standard): MYF02BV

Date Analyzed: 08/26/02

Instrument ID: M

Time Analyzed: 0150

GC Column: CAP

ID: 0.53 (mm)

Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	219555	9.48	172586	15.22	99287	19.75
UPPER LIMIT	285422	9.98	224362	15.72	129073	20.25
LOWER LIMIT	153688	8.98	120810	14.72	69501	19.25
CLIENT SAMPLE NO.						
01 MYFB LCS	190636	9.46	161820	15.21	96024	19.75
02 VBLKZ1	198111	9.48	167775	15.21	96232	19.74
03 TR2091	175719	9.48	158127	15.23	91183	19.75
04 TR2092	186095	9.48	156970	15.23	84681	19.75
05 TR2093	185073	9.48	160278	15.23	95581	19.75
06 TR2094	188033	9.48	158781	15.23	95146	19.74
07 TR2099	178945	9.48	150698	15.23	90722	19.74
08 TR2095	197678	9.49	167674	15.23	99896	19.76
09 TR2096	196383	9.48	162799	15.23	98378	19.75
10 TR2097	170949	9.45	152309	15.22	85843	19.75
11 TR2098	190576	9.48	161915	15.23	96111	19.76
12 ARD2168	175971	9.43	150483	15.22	91958	19.75
13 TR0037	184947	9.48	162917	15.23	96056	19.74
14 TR0038	191709	9.48	161328	15.23	97099	19.74
15 TR2095MS	167184	9.49	151349	15.23	93593	19.76
16 TR2095MSD	179460	9.48	156517	15.23	94609	19.76
17						
18						
19						
20						
21						
22						

IS1 = Fluorobenzene

IS2 (CBZ) = Chlorobenzene-d5

IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = + 30% of internal standard area

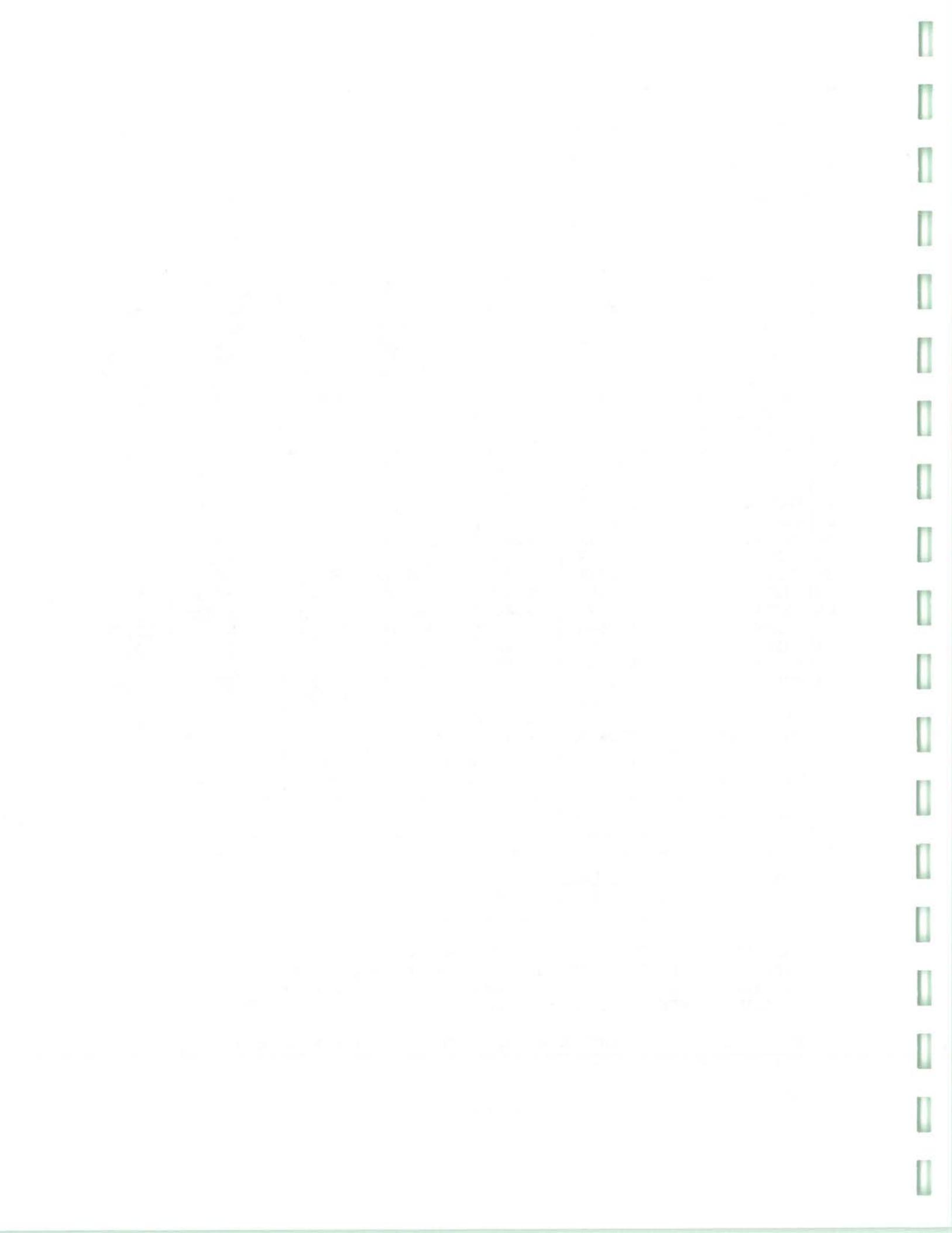
AREA LOWER LIMIT = - 30% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

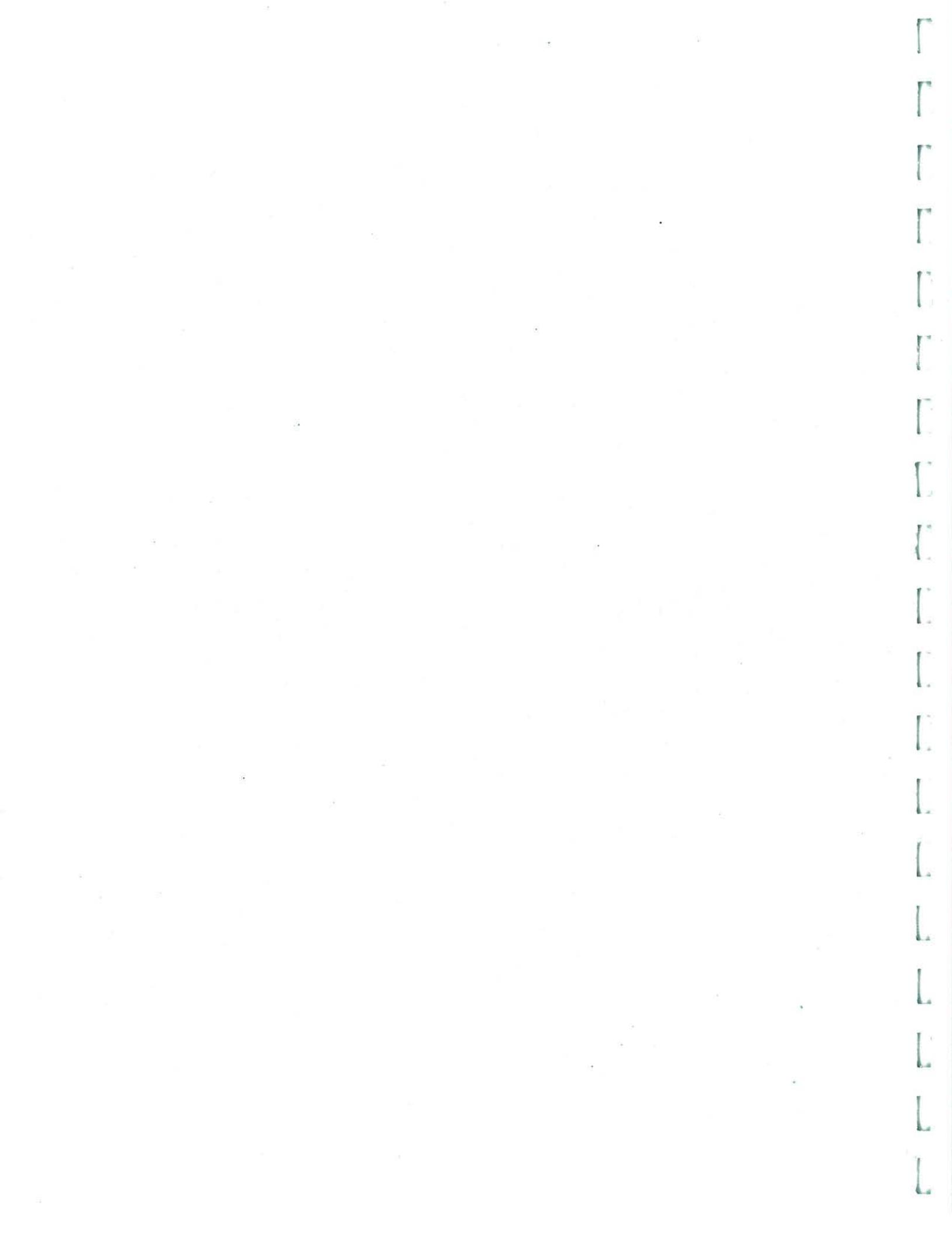
# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

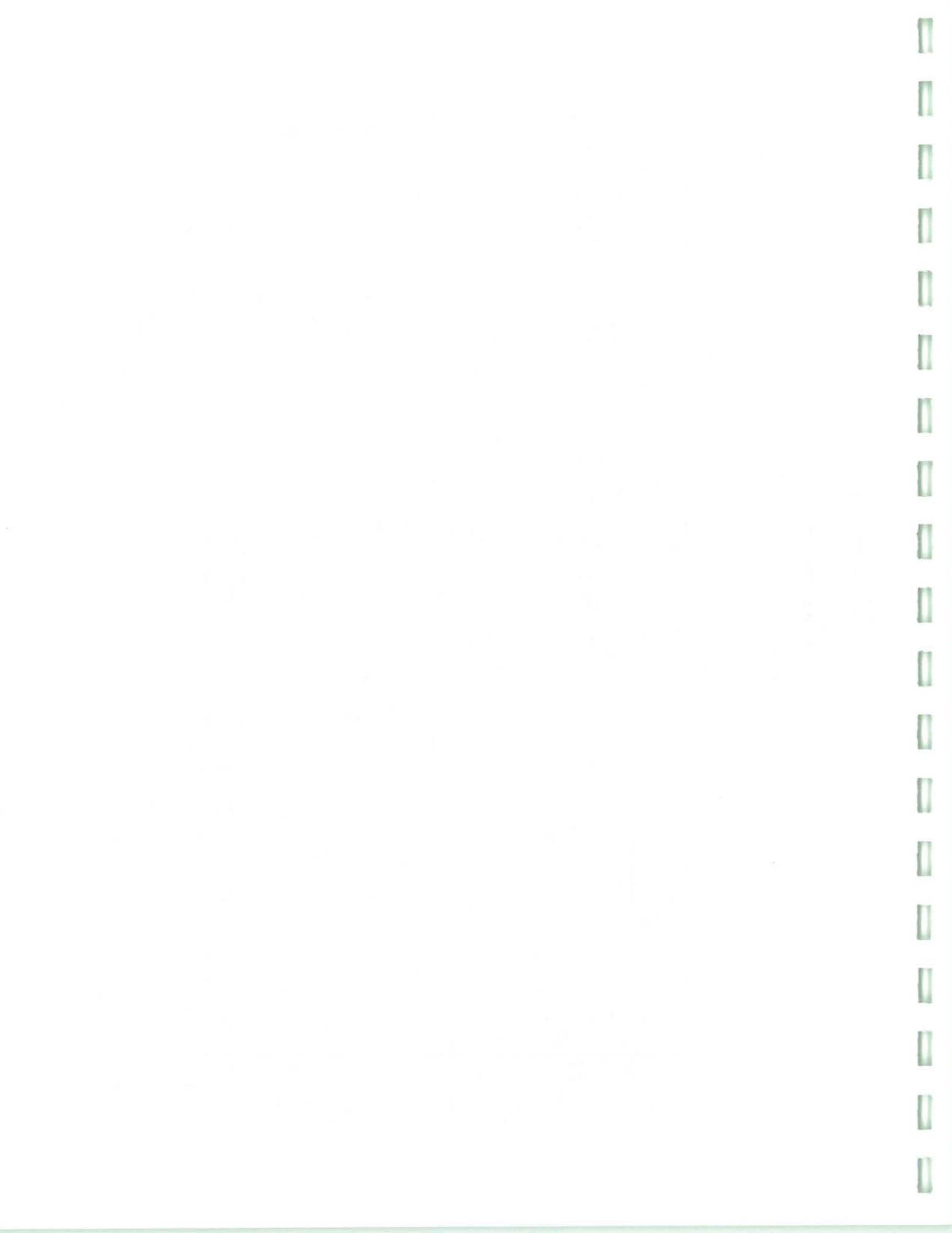


**APPENDIX C**

**HISTORICAL GROUNDWATER ANALYTICAL DATA**



**APPENDIX C1  
GROUND WATER CHEMICAL RESULTS - 4Q 1999  
GROUNDWATER MONITORING -  
ASH REMEDIAL DESIGN**



**APPENDIX C1**  
**GROUND WATER CHEMICAL RESULTS - 4Q 1999**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**

QC CODE	STUDY ID	SAMPLE ROUND	PARAMETER	UNIT	MAXIMUM DETECTION	NYSDEC NUMBER OF CLASS GA ABOVE	NUMBER OF STD.	NUMBER OF STD.	ASH REMEDIAL DESIGN								
									DETECTS	ANALYSES	N	N	N	N	N	N	N
Cadmium	UG/L	0	0%	10	0	0	0	0	52								
Calcium	UG/L	268000	98%		0	51	52										
Chromium	UG/L	5.6	15%	50	0	8	52										
Cobalt	UG/L	8.4	4%		0	2	52										
Copper	UG/L	6.1	10%	200	0	5	52										
Cyanide	UG/L	0	0%	100	0	0	52										
Iron	UG/L	11600	67%	300	14	35	52										
Lead	UG/L	5.4	10%	25	0	5	52										
Magnesium	UG/L	47100	98%	0	51	52											
Manganese	UG/L	3140	83%	300	7	43	52										
Mercury	UG/L	0.2	12%	2	0	6	52										
Nickel	UG/L	5.6	12%		0	6	52										
Potassium	UG/L	18400	98%		0	51	52										
Selenium	UG/L	2.6	2%	10	0	1	52										
Silver	UG/L	0	0%	50	0	0	52										
Sodium	UG/L	142000	98%	20000	27	51	52										
Thallium	UG/L	10.8	19%		0	10	52										
Vanadium	UG/L	4.5	6%		0	3	52										
Zinc	UG/L	134	81%	300	0	42	52										



## C1

**APPENDIX C1**  
**GROUND WATER CHEMICAL RESULTS - 4Q 1999**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**
**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**

OC CODE	STUDY ID	FREQUENCY			NYSDEC NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN					
		OF	CLASS GA	ABOVE				OF	STD.	DETECTS	ANALYSES	N	N
<b>VOLATILE ORGANICS</b>													
1,1,1-Trichloroethane	UG/L	1	2%	5	0	1	55	10 U		1 J	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	0	0%	5	1	1	55	10 U		10 U	10 U	10 U	10 U
1,1-Dichloroethane	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	4	4%	5	0	2	55	10 U		10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	UG/L	1100	27%	5	14	15	55	19		110	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
Acetone	UG/L	2	4%	0	2	55	10 U		10 U				
Benzene	UG/L	0	0%	0.7	0	0	55	10 U		10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	0	0%	0	0	0	55	10 U		10 U	10 U	10 U	10 U
Bromoform	UG/L	0	0%	0	0	0	55	10 U		10 U	10 U	10 U	10 U
Carbon disulfide	UG/L	0	0%	0	0	0	55	10 U		10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
Chlorobenzene	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
Chlorodibromomethane	UG/L	0	0%	0	0	0	55	10 U		10 U	10 U	10 U	10 U
Chloroethane	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
Chloroform	UG/L	74	2%	7	1	1	55	10 U		10 U	10 U	10 U	10 U
Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
Ethyl benzene	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
Methyl bromide	UG/L	0	0%	0	0	0	55	10 U		10 U	10 U	10 U	10 U
Methyl butyl ketone	UG/L	0	0%	0	0	0	55	10 U		10 U	10 U	10 U	10 U
Methyl chloride	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
Methyl ethyl ketone	UG/L	0	0%	50	0	0	55	10 U		10 U	10 U	10 U	10 U
Methyl isobutyl ketone	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
Methylene chloride	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
Styrene	UG/L	0	0%	0	0	0	55	10 U		10 U	10 U	10 U	10 U
Tetrachloroethene	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
Toluene	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
Total Xylenes	UG/L	0	0%	5	0	0	55	10 U		10 U	10 U	10 U	10 U
Trans-1,3-Dichloropropene	UG/L	9100	27%	5	10	15	55	21		3 J	2 J	10 U	10 U
Trichloroethene	UG/L	180	5%	2	2	3	55	10 U		10 U	10 U	10 U	10 U
<b>METALS</b>													
Aluminum	UG/L	2600	65%	0	34	52	21,1 J	173 J	106 J	38,4 J	826		
Antimony	UG/L	3	2%	0	1	52	2,7 U	2,7 U	2,7 U	4,9 UJ	2,7 U		
Arsenic	UG/L	7	23%	25	0	12	52	1,9 U	1,9 U	3,7 UJ	1,9 U		
Barium	UG/L	176	98%	1000	0	51	52	43,8 J	67,9 J	46,8 J	42,6 J	45,4 J	
Beryllium	UG/L	0.66	10%	0	5	52	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	



## APPENDIX C1

**GROUND WATER CHEMICAL RESULTS - 4Q 1999**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**

STUDY ID	SAMPLE ROUND	PARAMETER	UNIT	MAXIMUM DETECTION	STD.	CLASS GA ABOVE OF	NUMBER OF	NUMBER	N	ASH REMEDIAL DESIGN		ASH REMEDIAL DESIGN						
										FREQUENCY	NYSDEC ANALYSES N	DETECTS	ANALYSES N	OF	1	1	1	
Cadmium	UG/L	0	0%	10	0	0	0	52	0.3	U	0.3	U	0.3	U	0.7	UJ	N	
Calcium	UG/L	268000	98%	0	51	52	112000	160000	112000								1	
Chromium	UG/L	5.6	15%	50	0	8	52	0.9	U	0.9	U	0.9	U	0.9	UJ	0.9	U	
Cobalt	UG/L	8.4	4%	0	2	52	25	5	2.5	U	2.5	U	2.5	U	2.5	UJ	2	U
Copper	UG/L	6.1	10%	200	0	5	52	17	U	1.7	U	1.7	U	1.9	UJ	1.7	U	
Oyanide	UG/L	0	0%	100	0	0	52	5	U	5	U	5	U	5	UJ	5	U	
Iron	UG/L	11600	67%	300	14	35	52	28.8	J	442	J	109		14.7	J	1490		
Lead	UG/L	5.4	10%	25	0	5	52	1	U	1	U	1	U	1.2	UJ	1	U	
Magnesium	UG/L	47100	98%	0	51	52	12100	18900	15600								14000	
Manganese	UG/L	3140	83%	300	7	43	52	1.3	J	2.6	J	1.4	J	17.1	J	805		
Mercury	UG/L	0.2	12%	2	0	6	52	0.1	U	0.1	U	0.1	U	0.1	UJ	0.1	U	
Nickel	UG/L	5.6	12%	0	6	52	1.7	U	1.7	U	1.7	U	2.6	UJ	1.8	J		
Potassium	UG/L	18400	98%	0	51	52	1220	J	1680	J	2760	J	1860	J	3390	J		
Selenium	UG/L	2.6	2%	10	0	1	52	2.4	U	2.4	U	2.4	U	2.8	UJ	2.4	U	
Silver	UG/L	0	0%	50	0	0	52	1.6	U	1.6	U	1.6	U	1.6	UJ	1.6	U	
Sodium	UG/L	142000	98%	20000	27	51	52	8770	22900	16300							21100	
Titanium	UG/L	10.8	19%	0	10	52	4.4	J	2.9	U	2.7	U	2.9	UJ	2.7	J		
Vanadium	UG/L	4.5	6%	0	3	52	1.5	U	1.5	U	1.5	U	3.2	UJ	1.5	J		
Zinc	UG/L	134	81%	300	0	42	52	2.1	J	2.5	J	3	J	2	J	5.1	J	



**APPENDIX C1**  
**GROUND WATER CHEMICAL RESULTS - 4Q 1999**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**

**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**

QC CODE	STUDY ID	SAMPLE ROUND	FREQUENCY	NYSDEC OF	CLASS GA	NUMBER ABOVE STD.	DETECTS OF	ANALYSES N	ASH REMEDIAL DESIGN		ASH REMEDIAL DESIGN		ASH REMEDIAL DESIGN
									NUMBER	ASH REMEDIAL DESIGN	NUMBER	ASH REMEDIAL DESIGN	
		VOLATILE ORGANICS							1	1	1	1	1
PARAMETER	UNIT	MAXIMUM	DETECTION	STD.	CLASS	GA	NUMBER	OF	N	N	N	N	N
1,1,1-Trichloroethane	UG/L	1	2%	5	0	1	55	10 U	10 U	10 U	10 U	10 U	10
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
1,1,2-Trichloroethane	UG/L	0	0%	5	1	1	55	10 U	10 U	10 U	10 U	10 U	10
1,1-Dichloroethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
1,1-Dichloroethene	UG/L	4	4%	5	0	2	55	10 U	10 U	10 U	10 U	10 U	10
1,2-Dichloroethene (total)	UG/L	1100	27%	5	14	15	55	10 U	10 U	10 U	10 U	10 U	10
1,2-Dichloropropane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Acetone	UG/L	2	4%	0	0	2	55	10 U	10 U	10 U	10 U	10 U	10
Benzene	UG/L	0	0%	0.7	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Bromodichloromethane	UG/L	0	0%	0	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Bromoform	UG/L	0	0%	0	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Carbon disulfide	UG/L	0	0%	0	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Carbon tetrachloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Chlorobenzene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Chlorodibromomethane	UG/L	0	0%	0	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Chloroethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Chloroform	UG/L	74	2%	7	1	1	55	10 U	10 U	10 U	10 U	10 U	10
Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Ethyl benzene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Methyl bromide	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Methyl butyl ketone	UG/L	0	0%	0	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Methyl chloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Methyl ethyl ketone	UG/L	0	0%	50	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Methyl isobutyl ketone	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Methylene chloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Styrene	UG/L	0	0%	0	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Tetrachloroethene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Toluene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Total Xylenes	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	10 U	10
Trans-1,3-Dichloropropene	UG/L	0	0%	5	10	15	55	10 U	10 U	10 U	10 U	10 U	10
Trichloroethene	UG/L	9100	27%	5	2	3	55	10 U	10 U	10 U	10 U	10 U	10
Vinyl chloride	UG/L	180	5%	0	5	52	52	10 U	10 U	10 U	10 U	10 U	10
<b>METALS</b>													
Aluminum	UG/L	2600	65%	0	34	52	89.3 J	82 J	42 J	42 J	14.3 U	24	
Antimony	UG/L	3	2%	0	1	52	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7	
Arsenic	UG/L	7	23%	25	0	12	52	1.9 U	1.9 U	3.6 J	2.2 J	3.2	
Barium	UG/L	176	98%	1000	0	51	52	36.1 J	82.6 J	102 J	68.4 J	66.9	
Beryllium	UG/L	0.66	10%	0	5	52	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2	



APPENDIX C1

GROUNDWATER CHEMICAL RESULTS - 4Q 1999  
 GROUNDWATER MONITORING -  
 ASH REMEDIAL DESIGN  
 SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY

STUDY ID	SAMPLE ROUND	FREQUENCY	NYSDEC NUMBER	NUMBER OF CLASS GA ABOVE STD.	DETECTION OF	STD.	DETECTS	ANALYSES N	NUMBER	ASH REMEDIAL DESIGN			ASH REMEDIAL DESIGN			ASH REMEDIAL DESIGN			
										1	1	N	1	N	1	N	1	N	
PARAMETER																			
Cadmium	UG/L	0	0%	10	0	0	0	52	52	106000	49800	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
Calcium	UG/L	268000	98%	0	51	52	52	52	52	106000	49800	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	
Chromium	UG/L	5.6	15%	50	0	8	8	52	52	106000	49800	2 U	2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cobalt	UG/L	8.4	4%	0	0	2	2	52	52	106000	49800	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	
Copper	UG/L	6.1	10%	200	0	5	5	52	52	106000	49800	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
Cyanide	UG/L	0	0%	100	0	0	0	52	52	106000	49800	142	142	66.9 J	66.9 J	25.4 U	25.4 U	25.4 U	
Iron	UG/L	11600	67%	300	14	35	35	52	52	81.7 J	19400	11200	11200	6010	114000	114000	114000	114000	
<u>Lead</u>	<u>UG/L</u>	<u>5.4</u>	<u>10%</u>	<u>25</u>	<u>0</u>	<u>5</u>	<u>5</u>	<u>52</u>	<u>52</u>	<u>11200</u>	<u>49800</u>	<u>1 U</u>	<u>1 U</u>	<u>1 U</u>	<u>1 U</u>	<u>1 U</u>	<u>1 U</u>	<u>1 U</u>	<u>1 U</u>
Magnesium	UG/L	47100	98%	0	51	52	52	52	52	11200	11200	54.4	54.4	37.6	37.6	23.1	23.1	16700	16700
Manganese	UG/L	3140	83%	300	7	43	43	52	52	6.3 J	6.3 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Mercury	UG/L	0.2	12%	2	0	6	6	52	52	16000	63100	59900	59900	32600	32600	20.7	20.7	20.7	20.7
Nickel	UG/L	5.6	12%	0	6	52	52	52	52	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	
Potassium	UG/L	18400	98%	0	51	52	52	52	52	1710 J	2450 J	2450 J	2450 J	1820 J	1830 J	1830 J	1830 J	1830 J	1830 J
Selenium	UG/L	2.6	2%	10	0	1	1	52	52	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Silver	UG/L	0	0%	50	0	0	0	52	52	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Sodium	UG/L	142000	98%	20000	27	51	51	52	52	16000	63100	59900	59900	32600	32600	32600	32600	32600	32600
Thallium	UG/L	10.8	19%	0	10	52	52	52	52	2.7 U	2.7 U	2.7 U	2.7 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U
Vanadium	UG/L	4.5	6%	0	3	52	52	52	52	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Zinc	UG/L	134	81%	300	0	42	52	52	52	1.6 U	2.5 J	2.5 J	2.5 J	3.7 J	3.7 J	3.7 J	3.7 J	3.7 J	3.7 J



**APPENDIX C1  
GROUND WATER CHEMICAL RESULTS - 4Q 1999  
GROUNDWATER MONITORING -  
ASH REMEDIAL DESIGN  
SENeca ARMY DEPOT ACTIVITY - ROMILLIS NY**



APPENDIX C1

**GROUNDWATER CHEMICAL RESULTS - 4Q 1999  
GROUNDWATER MONITORING -  
ASH REMEDIAL DESIGN  
SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**



APPENDIX C1  
SELECTED CHEMICAL RESULTS - 4O 1999

GROUNDWATER CHEMISTRY - GROUNDWATER MONITORING -

SOUNDWAVE DESIGN

ASH REMEDIAL DESIGN

SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY			ASH LANDFILL	ASH LANDFILL
FACILITY	ASH LANDFILL	ASH LANDFILL	MW-43	MW-44A
LOCATION ID	MW-41D	MW-42D	GROUND WATER	GROUND WATER
	GROUND WATER	GROUND WATER	ARD2049	ARD2050
DEPTL TO TOP OF SAMPLE	32	38	7	12
DEPTL TO BOTTOM OF SAMPLE	32	38	7	12

QC CODE	STUDY ID	SAMPLE ROUND	PARAMETER	VOLATILE ORGANICS*	FREQUENCY OF	NYSDEC NUMBER OF CLASS GA ABOVE	NUMBER OF STD. DETECTS	NUMBER OF ANALYSES N	ASH REMEDIAL DESIGN			ASH REMEDIAL DESIGN			ASH REMEDIAL DESIGN			
									MAXIMUM DETECTION	ST. DETECTS	N	1	1	N	1	N	1	
22-OCT-99	SA	SA	SA	1,1,1-Trichloroethane	UG/L	1	2%	5	0	1	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	1,1,2-Trichloroethane	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	1,1-Dichloroethane	UG/L	9	2%	5	1	1	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	1,1-Dichloroethene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	1,2-Dichloroethane	UG/L	4	4%	5	0	2	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	1,2-Dichloroethane (total)	UG/L	1100	27%	5	14	15	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	1,2-Dichloropropane	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Acetone	UG/L	2	4%	0	2	55	10 UJ	10 UJ	55	UJ	55	UJ	10	
22-OCT-99	SA	SA	SA	Benzene	UG/L	0	0%	0.7	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Bromodichloromethane	UG/L	0	0%	0	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Bromoform	UG/L	0	0%	0	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Carbon disulfide	UG/L	0	0%	0	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Carbon tetrachloride	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Chlorobenzene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Chlorodibromomethane	UG/L	0	0%	0	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Chloroethane	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Chloroform	UG/L	74	2%	7	1	1	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Ethyl benzene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Methyl bromide	UG/L	0	0%	0	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Methyl butyl ketone	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Methyl chloride	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Methyl ethyl ketone	UG/L	0	0%	50	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Methyl isobutyl ketone	UG/L	0	0%	0	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Methylene chloride	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Styrene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Tetrachloroethene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Toluene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Total Xylenes	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Trans-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Trichloroethene	UG/L	9100	27%	5	10	15	55	10 UJ	10 U	55	U	55	U	10
22-OCT-99	SA	SA	SA	Vinyl chloride	UG/L	180	5%	2	2	3	55	10 UJ	10 U	55	U	55	U	10
<b>METALS</b>				Aluminum	UG/L	2600	65%	0	34	52	16.3 UJ	14.3 U	40.2 J	14.3 U	14.7			
				Antimony	UG/L	3	2%	0	1	52	4.9 UJ	3 J	2.7 U	2.7 U	2.7			
				Arsenic	UG/L	7	23%	25	0	12	52	3.7 UJ	1.9 U	1.9 U	1.9 U	1.9		
				Barium	UG/L	176	98%	1000	0	51	52	66.3 J	78.1 J	48.3 J	52.9 J	44.5		
				Boron	UG/L	0.66	10%	0	5	52	0.2 UJ	0.2 J	0.2 J	0.2 J	0.2 J			
				Cadmium	UG/L	0.001	0%	0	0	0	0.001 UJ	0.001 J	0.001 J	0.001 J	0.001 J			
				Chromium	UG/L	0.001	0%	0	0	0	0.001 UJ	0.001 J	0.001 J	0.001 J	0.001 J			
				Copper	UG/L	0.001	0%	0	0	0	0.001 UJ	0.001 J	0.001 J	0.001 J	0.001 J			
				Iron	UG/L	0.001	0%	0	0	0	0.001 UJ	0.001 J	0.001 J	0.001 J	0.001 J			
				Manganese	UG/L	0.001	0%	0	0	0	0.001 UJ	0.001 J	0.001 J	0.001 J	0.001 J			
				Nickel	UG/L	0.001	0%	0	0	0	0.001 UJ	0.001 J	0.001 J	0.001 J	0.001 J			
				Pb	UG/L	0.001	0%	0	0	0	0.001 UJ	0.001 J	0.001 J	0.001 J	0.001 J			
				Selenium	UG/L	0.001	0%	0	0	0	0.001 UJ	0.001 J	0.001 J	0.001 J	0.001 J			
				Zinc	UG/L	0.001	0%	0	0	0	0.001 UJ	0.001 J	0.001 J	0.001 J	0.001 J			



**APPENDIX C1**  
**GROUND WATER CHEMICAL RESULTS - 4Q 1999**  
**WATERSHED MONITORING PROGRAM**  
**WATER POLLUTION CONTROL BOARD**  
**STATE OF NEW YORK**  
**MANHATTAN, NEW YORK CITY**

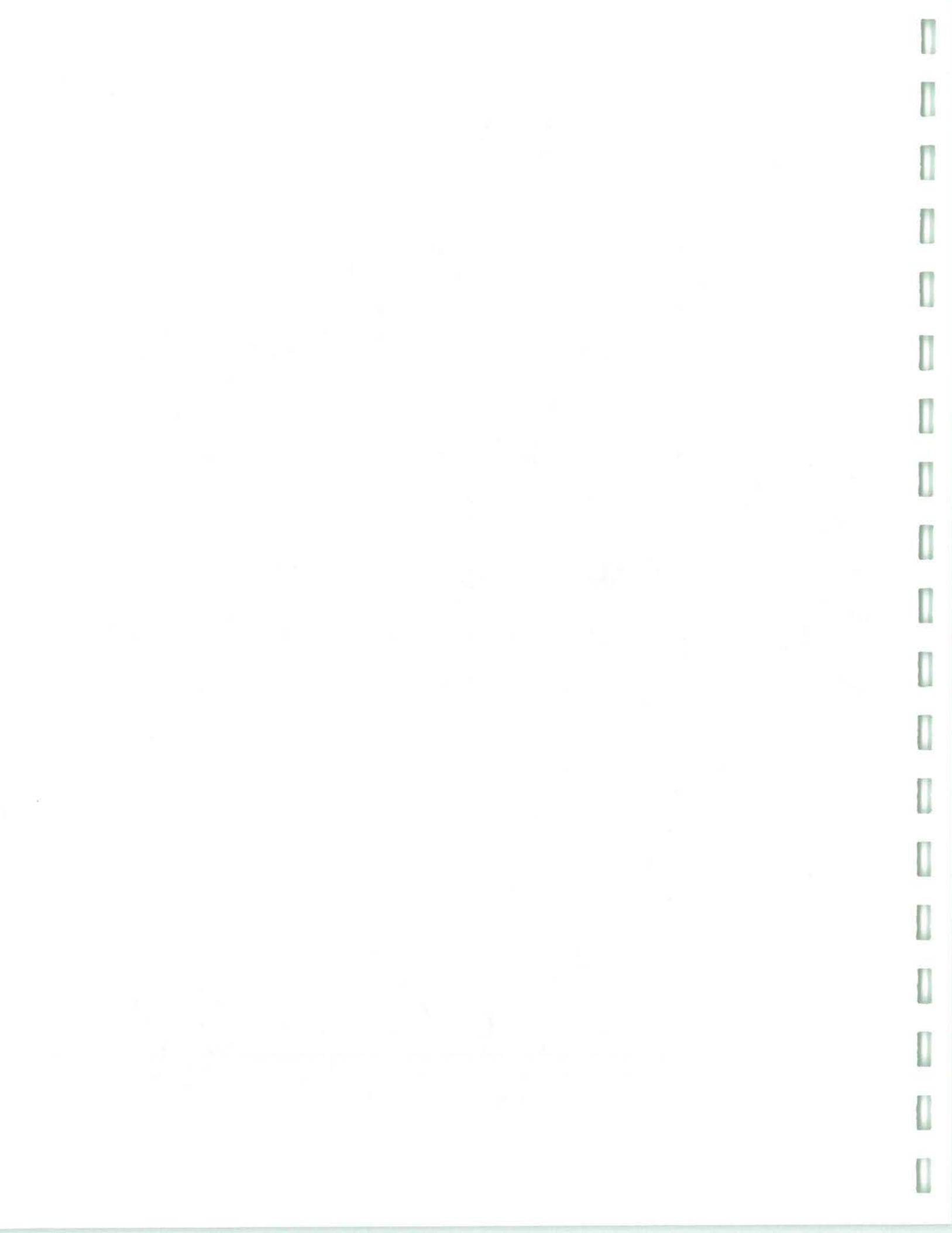
QC CODE	STUDY ID	FREQUENCY	NYSDEC NUMBER	NUMBER	ASH LANDFILL MW-41D GROUND WATER ARD2001	ASH LANDFILL MW-42D GROUND WATER ARD2053	ASH LANDFILL MW-43 GROUND WATER ARD2049	ASH LANDFILL MW-44A GROUND WATER ARD2050	ASH LANDFILL MW-45 GROUND WATER ARD2054	ASH REMEDIAL DESIGN		ASH REMEDIAL DESIGN		ASH REMEDIAL DESIGN		ASH REMEDIAL DESIGN		
										OF CLASS GA ABOVE OF STD.	DETECTS	ANALYSES N OF	1	1	N	1	N	1
SAMPLE ROUND	PARAMETER	UNIT	MAXIMUM DETECTION	STD.	CADMIUM	UG/L	0	0%	10	0	0	52	0.7 UJ	N	0.3 U	N	0.3 U	N
					Calcium	UG/L	268000	98%	50	0	51	52	86700 J	62600	112000	236000	100000	0.3
					Chromium	UG/L	5.6	15%	50	0	8	52	0.9 UJ	0.9 U	0.9 U	1.3 J	0.9	0.9
					Cobalt	UG/L	8.4	4%	0	2	52	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5	
					Copper	UG/L	6.1	10%	200	0	5	52	1.9 UJ	1.7 U	2 J	1.7 U	1.7 U	1.7
					Cyanide	UG/L	0	0%	100	0	0	52	5 UJ	5 U	5 U	5 U	5 U	5
					Iron	UG/L	11600	67%	300	14	35	52	14.7 UJ	58.6 J	57.2 J	82.6 J	82.6 J	25.4
					Lead	UG/L	5.4	10%	25	0	5	52	1.2 UJ	1 U	1 U	1 U	1 U	1
					Magnesium	UG/L	47100	98%	0	51	52	31100 J	28600	9700	43400	11000	0.44	
					Manganese	UG/L	3140	83%	300	7	43	52	252 J	88	0.4 U	1250	1250	0.44
					Mercury	UG/L	0.2	12%	2	0	6	52	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1
					Nickel	UG/L	5.6	12%	0	6	52	2.6 UJ	1.7 U	1.7 U	1.7 U	1.7 U	1.7	
					Potassium	UG/L	18400	98%	0	51	52	3520 J	3230 J	1140 J	18400	1050	1050	
					Selenium	UG/L	2.6	2%	10	0	1	52	2.8 UJ	2.4 U	2.4 U	2.4 U	2.4 U	2.4
					Silver	UG/L	0	0%	50	0	0	52	1.6 UJ	1.6 U	1.6 U	1.6 U	1.6 U	1.6
					Sodium	UG/L	142000	98%	20000	27	51	52	35500 J	14300	13200	78100	7400	0.44
					Tellurium	UG/L	10.8	19%	0	10	52	2.9 UJ	2.9 U	4.6 J	8.3 J	8.3 J	2.9	
					Vanadium	UG/L	4.5	6%	0	3	52	3.2 UJ	1.5 U	1.5 U	1.5 U	1.5 U	1.5	
					Zinc	UG/L	134	81%	300	0	42	52	4.8 J	2.5 J	2.6 J	5.3 J	5.3 J	3.3



APPENDIX C1

GROUND WATER CHEMICAL RESULTS - 4Q 1999  
GROUNDWATER MONITORING -  
ASH REMEDIAL DESIGN

STUDY ID	SAMPLE ROUND	PARAMETER	UNIT	FREQUENCY OF	NYSDEC NUMBER OF	CLASS GA ABOVE STD.	MAXIMUM DETECTION STD.	NUMBER OF	L DESIGN OF	ASH REMEDIAL DESIGN OF	N	N	N	ASH REMEDIAL DESIGN OF				
<b>SENECA ARMY DEPO ACTIVITY - RUMILIS, NY</b>																		
			FACILITY LOCATION ID	L		ASH LANDFILL MW-46				ASH LANDFILL MW-47					ASH LANDFILL MW-48			ASH LANDFILL MW-49D
			MATRIX	TER		GROUND WATER ARD2009				GROUND WATER ARD2032					GROUND WATER ARD2012			GROUND WATER ARD2011
QC CODE	SAMPLE DATE	DEPTH TO TOP OF SAMPLE				10.5				9.5					10			26
	SAMPLE DATE	DEPTH TO BOTTOM OF SAMPLE				10.5				9.5					10			26
						10-Oct-99				19-Oct-99					10-Oct-99			10-Oct-99
																SA		SA
<b>VOLATILE ORGANICS</b>																		
1,1,1-Trichloroethane	UG/L	1	2%	5	0	1	55 U		10 U	10 U					10 U			10 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
1,1,2-Trichloroethane	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
1,1-Dichloroethane	UG/L	9	2%	5	1	1	55 U		10 U	10 U					10 U			10 U
1,1-Dichloroethene	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
1,2-Dichloroethane	UG/L	4	4%	5	0	2	55 U		10 U	10 U					10 U			10 U
1,2-Dichloroethene (total)	UG/L	1100	27%	5	14	15	55 U		10 U	10 U					10 U			10 U
1,2-Dichloropropane	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
Acetone	UG/L	2	4%	0	0	2	55 U		10 U	10 U					10 U			10 U
Benzene	UG/L	0	0%	0.7	0	0	55 U		10 U	10 U					10 U			10 U
Bromodichloromethane	UG/L	0	0%	0	0	0	55 U		10 U	10 U					10 U			10 U
Bromoform	UG/L	0	0%	0	0	0	55 U		10 U	10 U					10 U			10 U
Carbon disulfide	UG/L	0	0%	0	0	0	55 U		10 U	10 U					10 U			10 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
Chlorobenzene	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
Chlorodibromomethane	UG/L	0	0%	0	0	0	55 U		10 U	10 U					10 U			10 U
Chloroethane	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
Chloroform	UG/L	74	2%	7	1	1	55 U		10 U	10 U					10 U			10 U
Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
Ethyl benzene	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
Methyl bromide	UG/L	0	0%	0	0	0	55 U		10 U	10 U					10 U			10 U
Methyl butyl ketone	UG/L	0	0%	0	0	0	55 U		10 U	10 U					10 U			10 U
Methyl chloride	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
Methyl ethyl ketone	UG/L	0	0%	50	0	0	55 U		10 U	10 U					10 U			10 U
Methyl isobutyl ketone	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
Methylene chloride	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
Styrene	UG/L	0	0%	0	0	0	55 U		10 U	10 U					10 U			10 U
Tetrachloroethene	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
Toluene	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
Total Xylenes	UG/L	0	0%	5	0	0	55 U		10 U	10 U					10 U			10 U
Trans-1,3-Dichloropropene	UG/L	9100	27%	5	10	15	55 U		10 U	10 U					10 U			10 U
Trichloroethene	UG/L	180	5%	2	2	3	55 U		10 U	10 U					10 U			10 U
<b>METALS</b>																		
Aluminum	UG/L	2600	65%	0	34	52 J	124 J		25.1 J	124 J					16.3 U			16.3 U
Antimony	UG/L	3	2%	0	1	52 U	4.9 UJ		2.7 U	4.9 UJ					4.9 UJ			4.9 UJ
Arsenic	UG/L	7	23%	25	0	12	52 U		3.7 U	3.7 U					3.7 U			3.7 U
Barium	UG/L	176	98%	1000	0	51	52 J		48.3 J	48.3 J					45.2 J			45.2 J
Boron	UG/L	0.66	10%	0	5	52 J	0.23 J		0.2 J	0.2 J					0.2 J			0.2 J



APPENDIX C1

GROUND WATER CHEMICAL RESULTS - 4Q 1999  
GROUNDWATER MONITORING -  
ASH REMEDIAL DESIGN  
SENICA ARMY DEPOT ACTIVITY - ROMILLIS NY

FACILITY	LOCATION ID	MATRIX	SAMPLE ID	ASH LANDFILL			ASH LANDFILL				
				L	MW-46	MW-47	MW-48	GROUND WATER	GROUND WATER		
				TER	GROUND WATER	ARD209	ARD2032	ARD2012	ARD2011		
DEPTH TO TOP OF SAMPLE					10.5		9.5		26		
DEPTH TO BOTTOM OF SAMPLE					10.5		9.5		26		
SAMPLE DATE					10-Oct-99	19-Oct-99	10-Oct-99	10-Oct-99	SA		
QC CCODE	STUDY ID	FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN		
SAMPLE ROUND		OF CLASS GA ABOVE	OF STD.	DETECTS	ANALYSES	N	N	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN		
PARAMETER	UNIT	MAXIMUM DETECTION	STD.								
Cadmium	UG/L	0	0%	10	0	0	52	U	1		
Calcium	UG/L	268000	98%	50	0	51	52	U	1		
Chromium	UG/L	5.6	15%	50	0	8	52	U	1		
Cobalt	UG/L	8.4	4%	0	2	52	U	2.5	U		
Copper	UG/L	6.1	10%	200	0	5	52	U	1.9	U	
Cyanide	UG/L	0	0%	100	0	0	52	U	5	U	
Iron	UG/L	11600	67%	300	14	35	52	U	14.7	U	
Lead	UG/L	5.4	10%	25	0	5	52	U	1	U	
Magnesium	UG/L	47100	98%	0	51	52	17800	U	12500	U	
Manganese	UG/L	3140	83%	300	7	43	52	J	570	U	
Mercury	UG/L	0.2	12%	2	0	6	52	U	0.1	U	
Nickel	UG/L	5.6	12%	0	6	52	U	2.6	U	2.6	U
Potassium	UG/L	18400	98%	0	51	52	J	2690	J	992	J
Selenium	UG/L	2.6	2%	10	0	1	52	U	2.8	U	
Silver	UG/L	0	0%	50	0	0	52	U	1.6	U	
Sodium	UG/L	142000	98%	20000	27	51	52	U	10100	U	
Thallium	UG/L	10.8	19%	0	10	52	U	2.9	U	2.7	U
Vanadium	UG/L	4.5	6%	62	0	3	52	U	3.2	U	
Zinc	UG/L	124	91%	200	0	42	52	U	1.9	U	



**APPENDIX C1  
GROUND WATER CHEMICAL RESULTS - 4Q 1999  
GROUNDWATER MONITORING -  
ASH REMEDIAL DESIGN**



APPENDIX C1

GROUND WATER CHEMICAL RESULTS - 4Q 1999  
GROUNDWATER MONITORING -  
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SENeca ARMY DEPOT ACTIVITY, ROMILLIS, NY

ASH LANDFILL MW-54D GROUND VARD2023											
LOCATION ID		ASH LANDFILL MW-50D GROUND WATER ARD2010		ASH LANDFILL MM-51D GROUND WATER ARD2033		ASH LANDFILL MM-52D GROUND WATER ARD2034		ASH LANDFILL MM-53 GROUND WATER ARD2055		ASH LANDFILL MW-53 GROUND WATER ARD2055	
MATRIX		SAMPLE ID		DEPTH TO TOP OF SAMPLE		DEPTH TO BOTTOM OF SAMPLE		SAMPLE DATE		SAMPLE DATE	
QC CODE	STUDY ID	SAMPLE ROUND	FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN
			OF CLASS GA ABOVE	OF STD.	DETECTION	STD.	DETECTS	ANALYSES N	N	N	1
PARAMETER	UNIT	MAXIMUM	DETECTION	STD.	0%	10	0	0	52	0.7 U	1
Cadmium	UGL	0	0%	0%	0	0	0	0	0	0.3 U	N
Calcium	UGL	268000	98%	0	0	51	52	49700	85400	0.9 U	0.3 U
Chromium	UGL	5.6	15%	50	0	8	52	0.9 U	5920	165000	0.3 U
Cobalt	UGL	8.4	4%	0	0	2	52	2.5 U	2	0.9 U	820000
Copper	UGL	6.1	10%	200	0	5	52	1.9 U	1.7 U	2.5 U	0.9 U
Cyanide	UGL	0	0%	100	0	0	52	5 U	5 U	5 U	0.9 U
Iron	UGL	11600	67%	300	14	35	52	348 J	56.2 J	25.4 U	5 U
Lead	UGL	5.4	10%	25	0	5	52	1.2 U	1 U	2.6 J	28.7 J
Magnesium	UGL	47100	98%	0	0	51	52	22400	13500	2180 J	20100
Manganese	UGL	3140	83%	300	7	43	52	87.4	42.5	39.3	24600
Mercury	UGL	0.2	12%	2	0	6	52	0.1 U	0.1 U	0.1 U	127
Nickel	UGL	5.6	12%	0	0	6	52	2.6 U	1.7 U	2.7 J	0.1 U
Potassium	UGL	18400	98%	0	0	51	52	2270 J	1350 J	1570 J	1690 J
Selenium	UGL	2.6	2%	10	0	1	52	2.8 U	2.6 J	2.4 U	2570 J
Siliver	UGL	0	0%	50	0	0	52	1.6 U	1.6 U	1.6 U	1.6 U
Sodium	UGL	142000	98%	20000	27	51	52	20900	102000	24100	233000
Thallium	UGL	10.8	19%	0	0	10	52	19.9 U	2.7 U	2.9 U	2.7 U
Vanadium	UGL	4.5	6%	0	0	3	52	3.2 U	1.5 U	3.3 J	1.5 U
Zinc	UGL	134	81%	300	0	42	52	1.8 U	29 J	69 J	2.5 J



**APPENDIX C1**  
**GROUNDWATER CHEMICAL RESULTS - 4Q 1999**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**

**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**

QC CODE	STUDY ID	SAMPLE ROUND	PARAMETER	FREQUENCY OF	NYSDEC CLASS	NUMBER ABOVE STD.	NUMBER OF DETECTS	NUMBER OF ANALYSES	AL DESIGN			ASH REMEDIAL DESIGN			ASH REMEDIAL DESIGN		
									MAXIMUM	DETECTION	STD.	N	N	N	N	N	N
<b>VOLATILE ORGANICS</b>																	
1,1,1-Trichloroethane	UGL	1	2%	5	0	1	55	U	10	U	10	U	10	U	10	U	10
1,1,2,2-Tetrachloroethane	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
1,1,2-Trichloroethane	UGL	0	0%	0	0	0	55	U	10	U	10	U	10	U	10	U	10
1,1-Dichloroethane	UGL	9	2%	5	1	1	55	U	10	U	10	U	10	U	10	U	10
1,1,1-Dichloroethane	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
1,2-Dichloroethane	UGL	4	4%	5	0	2	55	U	10	U	10	U	10	U	10	U	10
1,2-Dichloroethene (total)	UGL	1100	27%	5	14	15	55	J	10	U	10	U	10	U	10	U	10
1,2-Dichloropropane	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
Acetone	UGL	2	4%	0	2	0	55	U	10	U	10	U	10	U	10	U	10
Benzene	UGL	0	0%	0,7	0	0	55	U	10	U	10	U	10	U	10	U	10
Bromodichloromethane	UGL	0	0%	0	0	0	55	U	10	U	10	U	10	U	10	U	10
Bromoform	UGL	0	0%	0	0	0	55	U	10	U	10	U	10	U	10	U	10
Carbon disulfide	UGL	0	0%	0	0	0	55	U	10	U	10	U	10	U	10	U	10
Carbon tetrachloride	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
Chlorobenzene	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
Chlorodibromomethane	UGL	0	0%	0	0	0	55	U	10	U	10	U	10	U	10	U	10
Chloroethane	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
Chloroform	UGL	74	2%	7	1	1	55	U	10	U	10	U	10	U	10	U	10
Cis-1,3-Dichloropropene	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
Ethyl benzene	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
Methyl bromide	UGL	0	0%	0	0	0	55	U	10	U	10	U	10	U	10	U	10
Methyl butyl ketone	UGL	0	0%	0	0	0	55	U	10	U	10	U	10	U	10	U	10
Methyl chloride	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
Methyl ethyl ketone	UGL	0	0%	50	0	0	55	U	10	U	10	U	10	U	10	U	10
Methyl isobutyl Ketone	UGL	0	0%	0	0	0	55	U	10	U	10	U	10	U	10	U	10
Methylene chloride	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
Styrene	UGL	0	0%	0	0	0	55	U	10	U	10	U	10	U	10	U	10
Tetrachloroethene	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
Toluene	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
Total Xylenes	UGL	0	0%	5	0	0	55	U	10	U	10	U	10	U	10	U	10
Trans-1,3-Dichloropropene	UGL	9100	27%	5	10	15	55	U	10	U	10	U	10	U	10	U	10
Trichloroethene	UGL	180	5%	2	2	3	55	U	10	U	10	U	10	U	10	U	10
<b>METALS</b>																	
Aluminum	UGL	2600	65%	0	34	52	1160	J	160	J	688		2400		219		
Antimony	UGL	3	2%	0	1	52	U	2.7	U	2.7	U		2.7	U	2.7	U	4.9
Arsenic	UGL	7	23%	25	0	12	52	U	1.9	U	1.9	U		1.9	U	1.9	U
Barium	UGL	176	98%	1000	0	51	52	J	61.9	J	44.5	J		62.1	J	69.1	J
Beryllium	UGL	0.66	10%	0	5	52	U	0.2	U	0.2	U		0.2	U	0.2	U	0.2



**APPENDIX C1  
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**APPENDIX C1**  
**GROUNDWATER CHEMICAL RESULTS - 4Q 1999**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**

**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**

QC CODE	STUDY ID	SAMPLE ROUND	PARAMETER	UNIT	MAXIMUM	DETECTION	NYSDEC OF CLASS GA	NUMBER OF STD.	NUMBER OF DETECTS	NUMBER OF ANALYSES	FACILITY LOCATION ID	FILL ATER	ASH LANDFILL MNW-60 GROUND WATER	ASH LANDFILL PT-10 GROUND WATER	ASH LANDFILL PT-11 GROUND WATER	ASH LANDFILL PT-15 GROUND WATER
											DEPTH TO TOP OF SAMPLE	DEPTH TO BOTTOM OF SAMPLE	SAMPLE DATE	ARD2004	ARD2002	ARD2006
<b>VOLATILE ORGANICS</b>																
1,1,1-Trichloroethane	UG/L	1	2%	5	0	1	55 U	10 U	10 U	10 U						
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
1,1,2-Trichloroethane	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
1,1-Dichloroethane	UG/L	9	2%	5	1	1	55 U	10 U	10 U	10 U						
1,1-Dichloroethene	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
1,2-Dichloroethane	UG/L	4	4%	5	0	2	55 U	10 U	10 U	10 U						
1,2-Dichloroethene (total)	UG/L	1100	27%	5	14	15	55 U	10 U	10 U	10 U						
1,2-Dichloropropane	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
Acetone	UG/L	2	4%	5	0	2	55 U	10 U	10 U	10 U						
Benzene	UG/L	0	0%	0.7	0	0	55 U	10 U	10 U	10 U						
Bromodichloromethane	UG/L	0	0%	0	0	0	55 U	10 U	10 U	10 U						
Bromoform	UG/L	0	0%	0	0	0	55 U	10 U	10 U	10 U						
Carbon disulfide	UG/L	0	0%	0	0	0	55 U	10 U	10 U	10 U						
Carbon tetrachloride	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
Chlorobenzene	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
Chlorodibromomethane	UG/L	0	0%	0	0	0	55 U	10 U	10 U	10 U						
Chloroethane	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
Chloroform	UG/L	74	2%	7	1	1	55 U	10 U	10 U	10 U						
Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
Ethyl benzene	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
Methyl bromide	UG/L	0	0%	0	0	0	55 U	10 U	10 U	10 U						
Methyl butyl ketone	UG/L	0	0%	0	0	0	55 U	10 U	10 U	10 U						
Methyl chloride	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
Methyl ethyl ketone	UG/L	0	0%	50	0	0	55 U	10 U	10 U	10 U						
Methylene chloride	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
Styrene	UG/L	0	0%	0	0	0	55 U	10 U	10 U	10 U						
Tetrachloroethene	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
Toluene	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
Total Xylenes	UG/L	0	0%	5	0	0	55 U	10 U	10 U	10 U						
Trans-1,3-Dichloropropene	UG/L	9100	27%	5	10	15	55 U	10 U	10 U	10 U						
Trichloroethene	UG/L	180	5%	2	2	3	55 U	10 U	10 U	10 U						
<b>METALS</b>																
Aluminum	UG/L	2600	65%	0	34	52 J	16.3 U	16.3 U	16.3 U	340	2600					
Antimony	UG/L	3	2%	0	1	52 U	4.9 U	4.9 U	4.9 U	2.7 U	2.7 U					
Arsenic	UG/L	7	23%	25	0	12	52 U	3.7 U	4.7 J	1.9 U	3 J					
Barium	UG/L	176	98%	1000	0	51	52 J	46.6 J	176 J	86.6 J	119 J					
Beryllium	UG/L	0.66	10%	0	5	52 U	0.66 J	0.2 UJ	0.2 UJ	0.2 U	0.2 U					

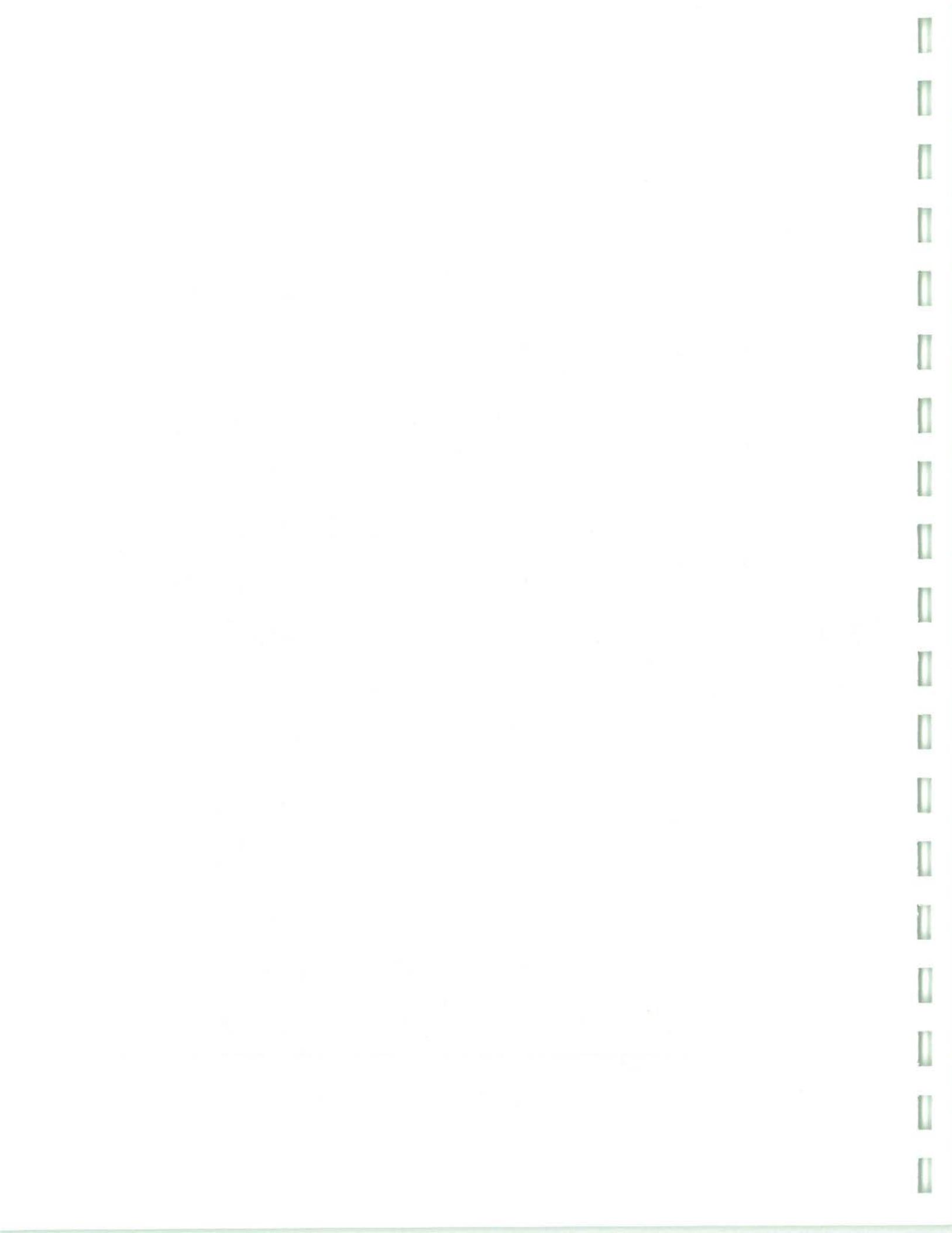


**APPENDIX C1  
GROUND WATER CHEMICAL RESULTS - 4Q 1999  
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APPENDIX C1

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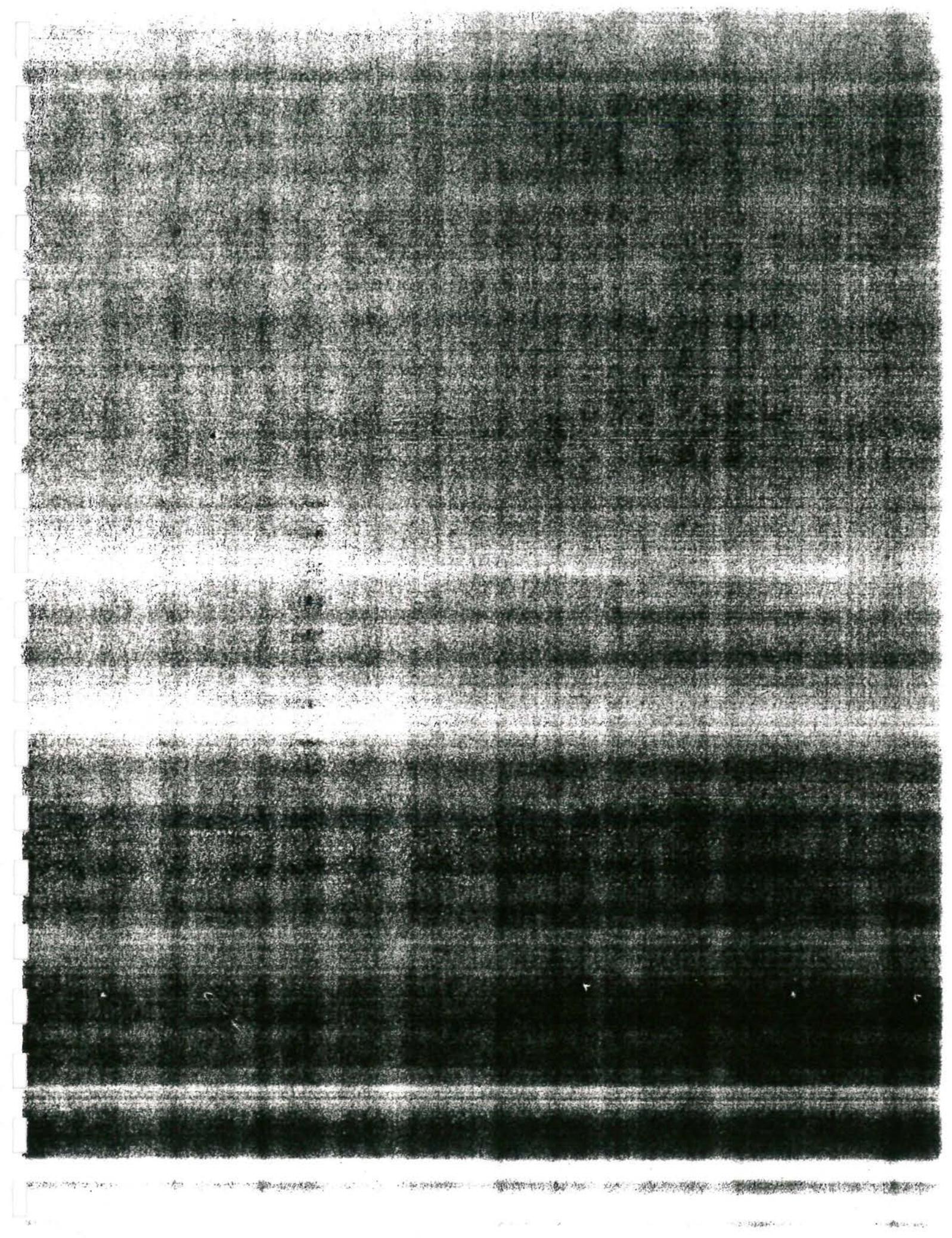
**APPENDIX CI**  
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**SENeca ARMY DEPOT ACTIVITY - ROMULUS, NY**



**APPENDIX C1**  
**GROUND WATER CHEMICAL RESULTS - 4Q 1999**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**

QC CODE	STUDY ID	NYSDEC ASH REMEDIAL DESIGN										ASH REMEDIAL DESIGN		ASH REMEDIAL DESIGN	
		SAMPLE ROUND	FREQUENCY	NYSDEC NUMBER	NUMBER	CLASS GA ABOVE OF	OF	STD.	DETECTS	ANALYSES N	1	1	1	1	1
PARAMETER	UNIT	MAXIMUM	DETECTION	STD.	OF	DETECTS	ANALYSES N	1	N	N	N	N	N	N	1
Cadmium	UG/L	0	0%	10	0	0	52	0.7 U	0.7 U	0.7 U	0.3 U	0.3 U	0.3 U	0.3 U	1
Calcium	UG/L	2680000	98%	50	0	51	52	104000 J	101000 J	101000 J	77200	77200	36900	36900	1
Chromium	UG/L	5.6	15%	50	0	8	52	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	1.2 J	1.2 J	1
Cobalt	UG/L	8.4	4%	0	2	52	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1
Copper	UG/L	6.1	10%	200	0	5	52	1.9 U	1.9 U	1.9 U	1.7 U	1.7 U	1.7 U	1.7 U	1
Cyanide	UG/L	0	0%	100	0	0	52	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1
Iron	UG/L	11600	67%	300	14	35	52	413	413	413	14.7 U	27.8 J	191 J	191 J	1
Lead	UG/L	5.4	10%	25	0	5	52	1.2 U	1.2 U	1.2 U	1 U	1 U	1 U	1 U	1
Magnesium	UG/L	47100	98%	0	51	52	12700	11400 J	11400 J	11400 J	8130	8130	14000	14000	1
Manganese	UG/L	3140	83%	300	7	43	52	146	146	146	0.9 U	0.9 U	0.9 U	0.9 U	1
Mercury	UG/L	0.2	12%	2	0	6	52	0.1 U	0.1 U	0.1 U	0.15 J	0.15 J	0.15 J	0.15 J	1
Nickel	UG/L	5.6	12%	0	6	52	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	1
Potassium	UG/L	18400	98%	0	51	52	2220 J	1510 J	1510 J	1510 J	1050 J	1050 J	2680 J	2680 J	1
Selenium	UG/L	2.6	2%	10	0	1	52	2.8 U	2.8 U	2.8 U	2.4 U	2.4 U	2.4 U	2.4 U	1
Silver	UG/L	0	0%	50	0	0	52	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1
Sodium	UG/L	142000	98%	20000	27	51	52	10600 J	10200 J	10200 J	10800	10800	91100	91100	1
Thallium	UG/L	10.8	19%	0	10	52	2.9 U	2.9 U	2.9 U	2.9 U	2.7 U	2.7 U	2.7 U	2.7 U	1
Vanadium	UG/L	4.5	6%	0	3	52	3.2 U	3.2 U	3.2 U	3.2 U	3.1 U	3.1 U	3.1 U	3.1 U	1
Zinc	UG/L	134	81%	300	0	42	52	5.9 J	5.9 J	5.9 J	1.8 U	1.8 U	1.9 J	1.9 J	1







**APPENDIX C2**  
**GROUND WATER CHEMICAL RESULTS - 1Q 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**

STUDY ID	SAMPLE ROUND	PARAMETER	FREQUENCY	NYSDEC	NUMBER	NUMBER	ASH REMEDIAL DESIASH	ASH LANDFILL					
													REMEDIATION DESIGN
SAMPLE ID	UNIT	MAXIMUM	DETECTION	STD.	OF	OF	2	2	2	2	2	2	SA
VOLATILE ORGANICS													
1,1,1-Trichloroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
1,1,2-Trichloroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
1,1-Dichloroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
1,1-Dichloroethene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
1,2-Dibromoethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
1,2-Dichlorobenzene	UG/L	0	0%	4.7	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
1,2-Dichloroethane	UG/L	3	2%	5	0	1	54	1 U	1 U	1 U	58 U	1 U	1 U
1,2-Dichloropropane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
1,3-Dichlorobenzene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
1,4-Dichlorobenzene	UG/L	0	0%	4.7	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Acetone	UG/L	1	4%	0	2	54	5 U	1 J	5 U	290 R	5 UJ	5 R	
Benzene	UG/L	0	0%	0.7	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Bromochloromethane	UG/L	0	0%	0	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Bromodichloromethane	UG/L	0	0%	0	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Bromoform	UG/L	0	0%	0	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Carbon disulfide	UG/L	0	0%	0	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Chlorobenzene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Chlorodibromomethane	UG/L	0	0%	0	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Chloroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Chloroform	UG/L	0	0%	7	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Cis-1,2-Dichloroethene	UG/L	28%	5	14	15	54	1 U	1 U	1 U	980	1 U	19	
Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Ethyl benzene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Methyl bromide	UG/L	0	0%	0	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Methyl butyl ketone	UG/L	0	0%	0	0	0	54	5 U	5 U	5 U	290 U	5 U	5 U
Methyl chloride	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Methyl ethyl ketone	UG/L	0	0%	50	0	0	54	5 U	5 U	5 U	290 U	5 UJ	5 U
Methyl isobutyl ketone	UG/L	0	0%	5	0	0	54	5 U	5 U	5 U	290 U	5 U	5 U
Methylene chloride	UG/L	0	0%	5	0	0	54	2 U	2 U	2 U	120 U	2 U	2 U
Styrene	UG/L	0	0%	0	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Tetrachloroethylene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Toluene	UG/L	2	6%	5	3	54	1 U	1 U	1 U	58 U	1 U	1 U	
Total Xylenes	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	58 U	1 U	1 U
Trans-1,2-Dichloroethene	UG/L	2	4%	5	2	54	1 U	1 U	1 U	58 U	1 U	1 U	
Trans-1,3-Dichloropropene	UG/L	0	0%	5	8	54	1 U	1 U	1 U	58 U	1 U	1 U	
Trichloroethene	UG/L	760	28%	5	1	1	54	1 U	1 U	1 U	760	1 U	20
Vinyl chloride	UG/L	25	2%	2	1	1	54	1 U	1 U	1 U	58 U	1 U	1 U
<b>METALS</b>													
Aluminum	UG/L	7700	49%	0	25	51						34.4 UJ	443 J
												123 J	123 J



APPENDIX C2

**GROUND WATER CHEMICAL RESULTS - 1Q 2000  
GROUNDWATER MONITORING - ASH REMEDIAL DESIGN  
SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**

STUDY ID	SAMPLE ROUND	ASH LANDFILL										ASH LANDFILL											
		FACILITY	LOCATION ID	ASH LANDFILL BN-S	ASH LANDFILL FH-D	ASH LANDFILL MM-2A	ASH LANDFILL MW-27	FACILITY	LOCATION ID	ASH LANDFILL BN-S	ASH LANDFILL FH-S	ASH LANDFILL MM-2A	ASH LANDFILL MW-27	MATRIX	LOCATION ID	ASH LANDFILL BN-S	ASH LANDFILL FH-S	ASH LANDFILL MM-2A	ASH LANDFILL MW-27	MATRIX	LOCATION ID		
	MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	MATRIX	LOCATION ID	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	LOCATION ID	ASH LANDFILL BN-S	ASH LANDFILL FH-S	ASH LANDFILL MM-2A	ASH LANDFILL MW-27	MATRIX	LOCATION ID		
	SAMPLE ID	ARD2141	ARD2140	ARD2140	ARD2140	ARD2139	ARD2132	ARD2146	ARD2146	ARD2132	ARD2132	ARD2132	ARD2132	ARD2132	ARD2146	ASH LANDFILL BN-S	ASH LANDFILL FH-S	ASH LANDFILL MM-2A	ASH LANDFILL MW-27	ASH LANDFILL BN-S	ASH LANDFILL FH-S		
	DEPTH TO TOP OF SAMPLE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ASH LANDFILL BN-S	ASH LANDFILL FH-S	ASH LANDFILL MM-2A	ASH LANDFILL MW-27	ASH LANDFILL BN-S	ASH LANDFILL FH-S		
	DEPTH TO BOTTOM OF SAMPLE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ASH LANDFILL BN-S	ASH LANDFILL FH-S	ASH LANDFILL MM-2A	ASH LANDFILL MW-27	ASH LANDFILL BN-S	ASH LANDFILL FH-S		
	SAMPLE DATE	1/19/2000	1/19/2000	1/19/2000	1/19/2000	1/19/2000	1/19/2000	1/19/2000	1/19/2000	1/19/2000	1/19/2000	1/19/2000	1/19/2000	1/19/2000	1/19/2000	ASH LANDFILL BN-S	ASH LANDFILL FH-S	ASH LANDFILL MM-2A	ASH LANDFILL MW-27	ASH LANDFILL BN-S	ASH LANDFILL FH-S		
	QC CODE	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	ASH LANDFILL BN-S	ASH LANDFILL FH-S	ASH LANDFILL MM-2A	ASH LANDFILL MW-27	ASH LANDFILL BN-S	ASH LANDFILL FH-S		
	FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	ASH LANDFILL BN-S	ASH LANDFILL FH-S	ASH LANDFILL MM-2A	ASH LANDFILL MW-27	ASH LANDFILL BN-S	ASH LANDFILL FH-S		
	OF	CLASS	GA	ABOVE	OF	OF	OF	OF	OF	OF	OF	OF	OF	OF	OF	ASH LANDFILL BN-S	ASH LANDFILL FH-S	ASH LANDFILL MM-2A	ASH LANDFILL MW-27	ASH LANDFILL BN-S	ASH LANDFILL FH-S		
	PARAMETER	UNIT	MAXIMUM	DETECTION	STD.	DETECTS	ANALYSES	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Antimony	UG/L	4.5	12%	0	6	51										5.4	U	2.2	U	2.2	U	2.2	U
Arsenic	UG/L	5	22%	25	0	11	51									2.4	U	2.5	U	2.5	U	2.5	U
Barium	UG/L	173	100%	1000	0	51	51									24.2	J	40.6	J	45.1	J	45.1	J
Beryllium	UG/L	0.26	14%	0	7	51									0.6	U	0.1	U	0.1	U	0.1	U	
Cadmium	UG/L	0.35	2%	10	1	51									0.2	U	0.2	U	0.2	U	0.2	U	
Calcium	UG/L	391000	100%	0	51	51									240000	92900	126000	126000	126000	126000	126000	126000	
Chromium	UG/L	4.1	14%	50	0	7	51								1	U	1	U	1	U	1	U	
Cobalt	UG/L	2	6%	0	3	51									3.5	U	1.3	U	1.3	U	1.3	U	
Copper	UG/L	14.6	33%	200	0	17	51								1.6	U	2.2	J	19	U	19	U	
Cyanide	UG/L	0	0%	100	0	0	51								10	U	10	U	10	U	10	U	
Iron	UG/L	6350	63%	300	14	32	51								42.8	J	347	J	150	J	150	J	
Lead	UG/L	3.8	10%	25	0	5	51								1	U	1.3	U	1	U	1	U	
Magnesium	UG/L	85900	100%	0	51	51									38000	9390	13500	13500	13500	13500	13500	13500	
Manganese	UG/L	344	100%	300	2	51	51								196		24		4.6	J	4.6	J	
Mercury	UG/L	0.14	2%	2	0	1	51								0.1	U	0.1	U	0.1	U	0.1	U	
Nickel	UG/L	6.2	10%	0	5	51									4.2	U	4.2	U	4.2	U	4.2	U	
Potassium	UG/L	25600	100%	0	51	51									4480	J	1610	J	607	J	607	J	
Selenium	UG/L	3	20%	10	0	1	51								2.2	U	2.2	U	2.2	U	2.2	U	
Silver	UG/L	2.8	2%	50	0	1	51								1	UJ	1.3	UJ	1.3	UJ	1.3	UJ	
Sodium	UG/L	175000	90%	20000	23	46	51								60000	J	24500	J	8210	J	8210	J	
Thallium	UG/L	7.4	6%	0	3	51									3.2	U	3.2	U	3.2	U	3.2	U	
Vanadium	UG/L	10.8	8%	0	4	51									2.8	U	1.8	U	1.8	U	1.8	U	
Zinc	UG/L	1620	100%	300	1	51	51								2	J	2	J	2	J	2	J	



**APPENDIX C2**

**GROUND WATER CHEMICAL RESULTS - 1Q 2000**

**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**

**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**



**APPENDIX C2**  
**GROUNDWATER CHEMICAL RESULTS - 1Q 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**



**APPENDIX C2**  
**GROUND WATER CHEMICAL RESULTS - 1Q 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENeca ARMY DEPOT ACTIVITY ROMULUS, NY**



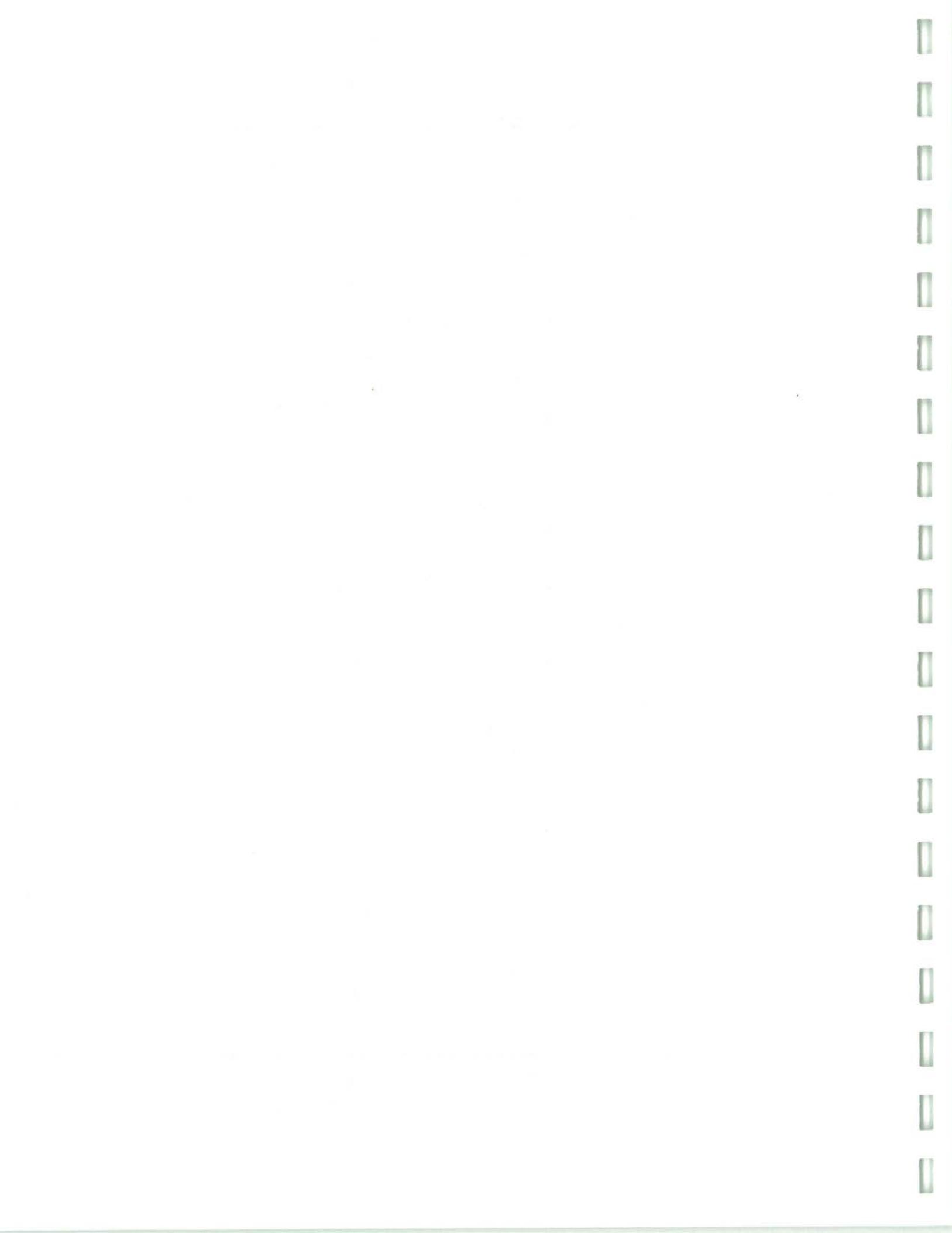
**APPENDIX C2**

**GROUND WATER CHEMICAL RESULTS - 1 Q 2000**

**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**

**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**

STUDY ID	SAMPLE ROUND	SAMPLE ANALYSIS										DESIAH REMEDIAL DESIGN											
		FREQUENCY	NYSDEC	NUMBER	NUMBER	CLASS	GA	ABOVE	OF	DEFECTS	STD.	STD.	ANALYSES	N	ASH	REMEDIATION	DESIAH	REMEDIATION	DESIAH	REMEDIATION			
PARAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DEFECTS	OF	ANALYSES	N	N	N	N	N	N	ASH	REMEDIATION	DESIAH	REMEDIATION	DESIAH	REMEDIATION			
Antimony	UGL	4.5	12%	0	6	51	2.2	U	3.6	J	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U			
Arsenic	UGL	5	22%	25	0	11	51	2.5	U	3.2	J	2.5	U	2.5	U	3.1	J	3.1	J	2.5	U		
Barium	UGL	173	100%	1000	0	51	96.7	J	829	J	54.7	J	54.9	J	170	J	37	J	37	J	12	J	
Beryllium	UGL	0.26	14%	0	7	51	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.12	J	
Cadmium	UGL	0.35	2%	10	0	1	51	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Calcium	UGL	391000	100%	0	51	51	75800	14400	14400	107000	95000	95900	95900	95900	95900	95900	95900	95900	95900	95900	94400		
Chromium	UGL	4.1	14%	50	0	7	51	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2.2	U
Cobalt	UGL	2	6%	0	3	51	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	
Copper	UGL	14.6	33%	200	0	17	51	1.6	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.6	U
Cyanide	UGL	0	0%	100	0	0	51	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Iron	UGL	6350	63%	300	14	32	51	203	51	97.8	J	203	J	49.8	J	59.5	J	59.5	J	59.5	J	20.3	J
Lead	UGL	3.8	10%	25	0	5	51	1.3	U	1.4	J	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U
Magnesium	UGL	85900	100%	0	51	51	13300	4690	4690	J	15900	J	12800	J	15800	J	15800	J	15800	J	12700	J	
Manganese	UGL	344	100%	300	2	51	39.7	44.4	44.4	41.1	-	53.1	-	53.1	-	53.1	-	53.1	-	53.1	-	1.2	J
Mercury	UGL	0.14	2%	2	0	1	51	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Nickel	UGL	6.2	10%	0	5	51	1.8	J	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	
Potassium	UGL	25600	100%	0	51	51	1730	J	1650	J	1250	J	895	J	7990	J	7990	J	7990	J	1680	J	
Selenium	UGL	3	2%	10	0	1	51	2.5	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.5	U
Silver	UGL	2.8	2%	50	0	1	51	1	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1	U
Sodium	UGL	175000	90%	20000	23	46	51	41200	107000	107000	J	29300	J	10400	J	6750	J	6750	J	6750	J	7400	J
Thallium	UGL	7.4	6%	0	3	51	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U	
Zinc	UGL	1620	100%	300	1	51	51	191	J	64	J	64	J	64	J	138	J	138	J	138	J	112	J

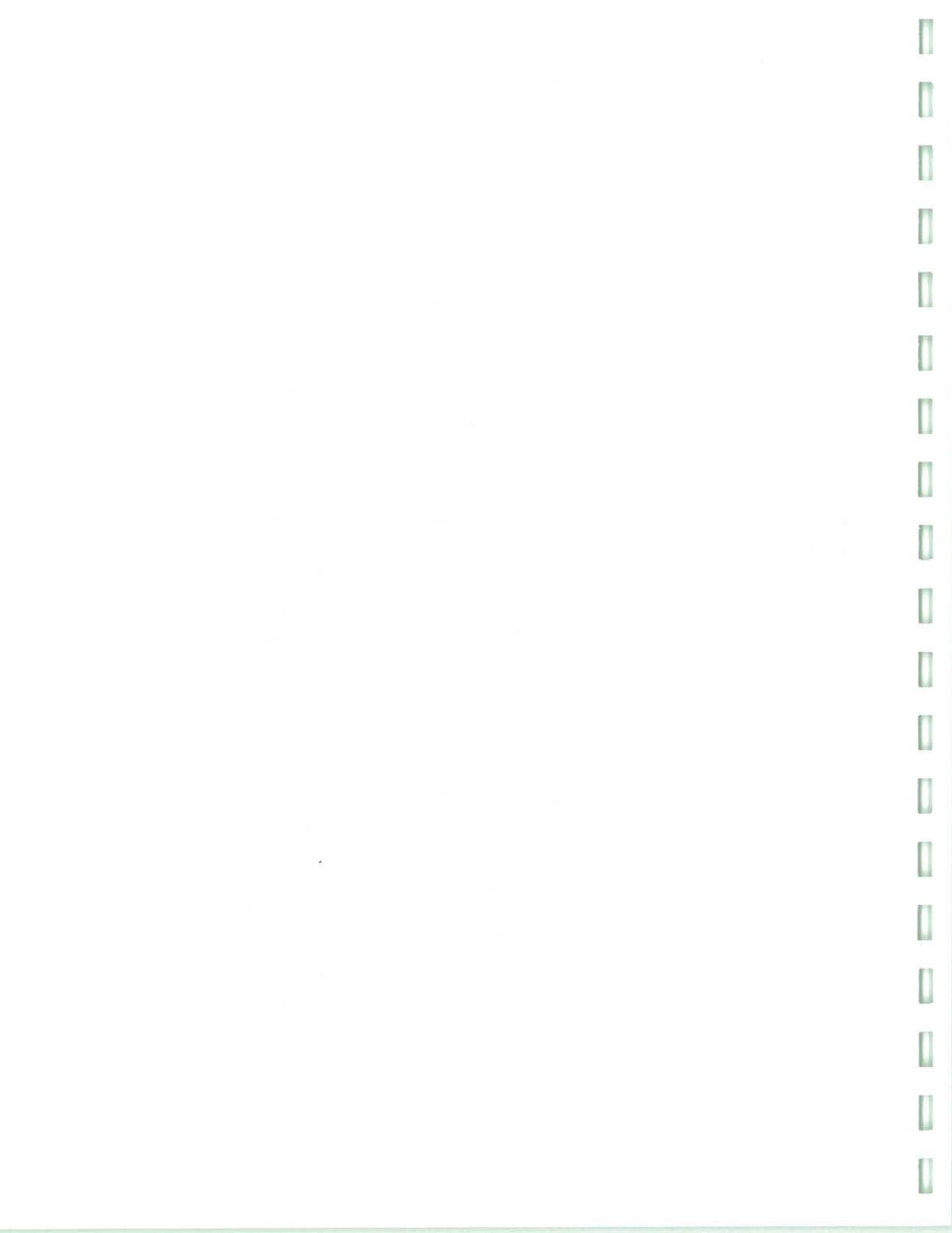


**APPENDIX C2**  
**GROUND WATER CHEMICAL RESULTS - 1Q 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENeca ARMY DEPOT ACTIVITY ROMULUS, NY**

STUDY ID	PARAMETER	UNIT	MAXIMUM	DETECTION	STD.	DETECTS	ANALYSIS	N	ASH LANDFILL		ASH LANDFILL		ASH LANDFILL		ASH LANDFILL	
									MW-41D	GROUND WATER	ARD2100	ARD2103	MW-44A	GROUND WATER	MW-45	
STUDY ROUND									12	32	38	38	6.5	12	7.5	
									1/17/2000	1/16/2000	1/17/2000	1/16/2000	SA	SA	SA	
									SA	SA	SA	SA	SA	SA	SA	
	<b>VOLATILE ORGANICS</b>															
	1,1,1-Trichloroethane	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	1,1,2-Trichloroethane	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	1,1-Dichloroethane	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	1,1-Dichloroethylene	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	1,2-Trichlorobenzene	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	1,2-Dibromo-3-chloropropane	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	1,2-Dibromoethane	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	1,2-Dichlorobenzene	UG/L	0	0%	4.7	0	54	1	U	1	U	1	U	18	U	
	1,2-Dichloroethylene	UG/L	3	2%	5	1	54	1	U	1	U	1	U	18	U	
	1,2-Dichloropropane	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	1,3-Dichlorobenzene	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	1,4-Dichlorobenzene	UG/L	0	0%	4.7	0	54	1	U	1	U	1	U	18	U	
	Acetone	UG/L	1	4%	0	2	54	5	U	5	U	5	U	88	R	
	Benzene	UG/L	0	0%	0.7	0	54	1	U	1	U	1	U	18	U	
	Bromochloromethane	UG/L	0	0%	0	0	54	1	U	1	U	1	U	18	U	
	Bromodichloromethane	UG/L	0	0%	0	0	54	1	U	1	U	1	U	18	U	
	Chloroform	UG/L	0	0%	0	0	54	1	U	1	U	1	U	18	U	
	Carbon disulfide	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	Carbon tetrachloride	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	Chlorobenzene	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	Chlorodibromomethane	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	Chloroethane	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	Chloroform	UG/L	0	0%	7	0	54	1	U	1	U	1	U	18	U	
	Cis-1,2-Dichloroethene	UG/L	980	2%	5	14	54	1	U	1	U	1	U	18	U	
	Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	Ethyl benzene	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	Methyl bromide	UG/L	0	0%	0	0	54	1	U	1	U	1	U	18	U	
	Methyl ketone	UG/L	0	0%	0	0	54	1	U	1	U	1	U	18	U	
	Methyl chloride	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	Methyl ethyl ketone	UG/L	0	0%	50	0	54	5	U	5	U	5	U	88	U	
	Methyl isobutyl ketone	UG/L	0	0%	0	0	54	5	U	5	U	5	U	88	U	
	Methylene chloride	UG/L	0	0%	5	0	54	2	U	2	U	2	U	35	U	
	Styrene	UG/L	0	0%	0	0	54	1	U	1	U	1	U	18	U	
	Tetrachloroethene	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	Toluene	UG/L	2	6%	5	0	54	1	U	1	U	1	U	18	U	
	Total Xylenes	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	Trans-1,2-Dichloroethene	UG/L	2	4%	5	0	54	1	U	1	U	1	U	18	U	
	Trans-1,3-Dichloropropene	UG/L	0	0%	5	0	54	1	U	1	U	1	U	18	U	
	Trichloroethene	UG/L	760	29%	5	8	54	1	U	1	U	1	U	13	J	
	Vinyl chloride	UG/L	25	2%	2	1	54	1	U	1	U	1	U	25	U	
	<b>METALS</b>															
	Aluminum	UG/L	7700	48%	0	0	25	51	155	U	155	U	155	U	155	U

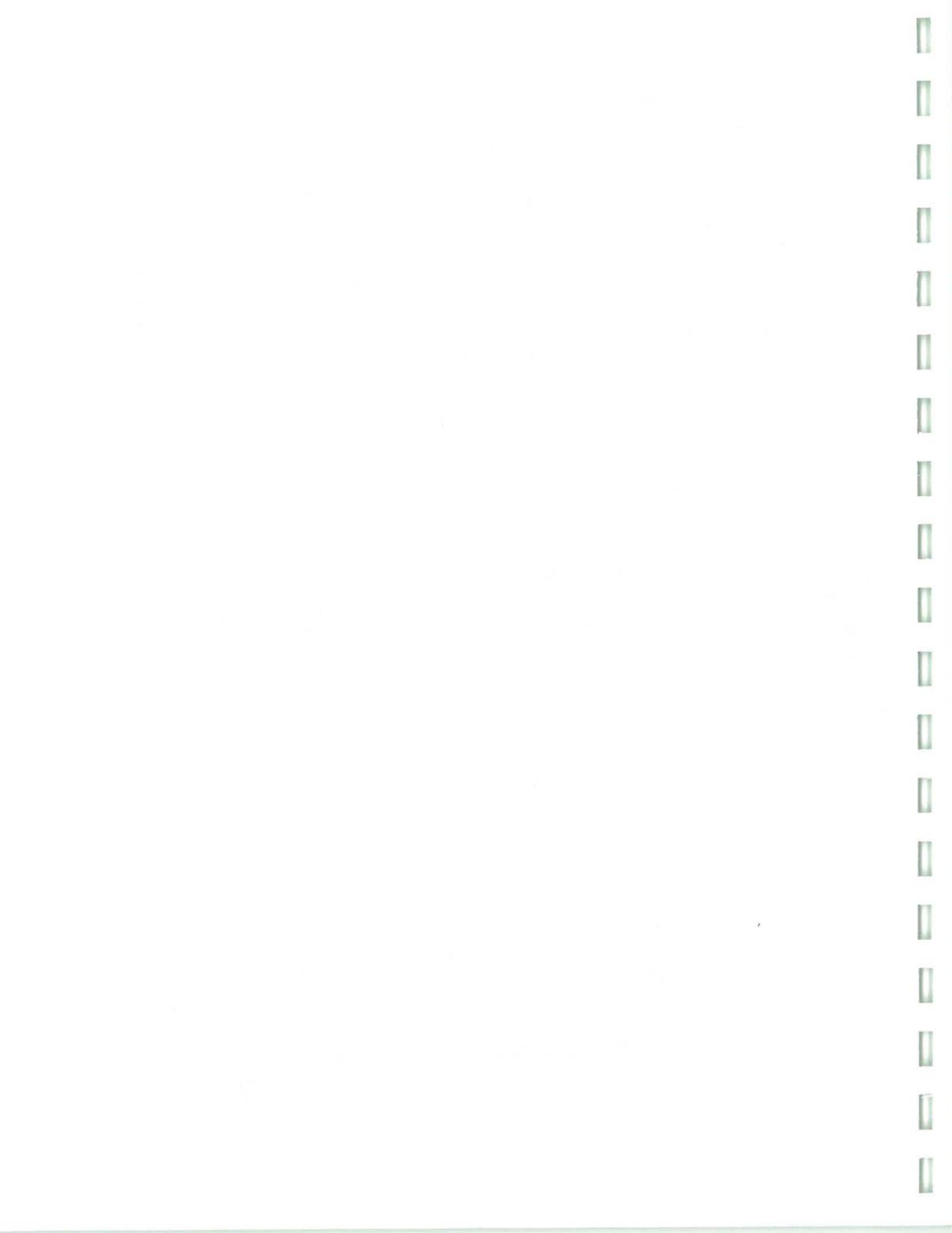


**APPENDIX C2**  
**GROUNDWATER CHEMICAL RESULTS - 1Q 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**



**APPENDIX C2**  
**GROUND WATER CHEMICAL RESULTS - 1Q 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**

STUDY ID	SAMPLE ROUND	PARAMETER	UNIT	MAXIMUM	DETECTION	STD.	DETECTS	ANALYSES N	N	ASH LANDFILL		ASH LANDFILL		ASH LANDFILL		
										MW-46 GROUND WATER ARD2113	MW-48 GROUND WATER ARD2111	MW-50D GROUND WATER ARD2135	MW-51D GROUND WATER ARD2134	GROUND WATER ARD2142	GROUND WATER ARD2143	
		VOLATILE ORGANICS	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		1,1,1,1-Trichloroethane	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		1,1,1,2-Tetrachloroethane	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		1,1,2,2-Tetrachloroethane	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		1,1-Dichloroethane	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		1,1,1-Dichloroethene	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		1,2,2-Trichlorobenzene	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		1,2,4-Dibromo-3-chloropropane	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		1,2,4-Dibromoethane	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		1,2-Dibromoethene	UGL	0	0%	4.7	0	54	3	U	1	U	1	U	1	
		1,2-Dichlorobenzene	UGL	3	2%	5	0	54	3	U	1	U	1	U	1	
		1,2-Dichloroethane	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		1,2-Dichloropropane	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		1,3-Dichlorobenzene	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		1,4-Dichlorobenzene	UGL	0	0%	4.7	0	54	3	U	1	U	1	U	1	
		Acetone	UGL	1	4%	0	0	54	17	U	5	U	5	U	5	
		Benzene	UGL	0	0%	0.7	0	54	3	U	1	U	1	U	1	
		Bromochloromethane	UGL	0	0%	0	0	54	3	U	1	U	1	U	1	
		Bromodichloromethane	UGL	0	0%	0	0	54	3	U	1	U	1	U	1	
		Bromoform	UGL	0	0%	0	0	54	3	U	1	U	1	U	1	
		Carbon disulfide	UGL	0	0%	0	0	54	3	U	1	U	1	U	1	
		Carbon tetrachloride	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		Chlorobenzene	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		Chlorodibromomethane	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		Chloroethane	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		Chloroform	UGL	0	0%	7	0	54	3	U	1	U	1	U	1	
		Cis-1,2-Dichloroethylene	UGL	980	28%	5	14	54	42	19	1	U	1	U	1	
		Cis-1,3-Dichloropropene	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		Ethyl benzene	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		Methyl bromide	UGL	0	0%	0	0	54	3	U	1	U	1	U	1	
		Methyl butyl ketone	UGL	0	0%	0	0	54	17	U	5	U	5	U	5	
		Methyl chloride	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		Methyl ethyl ketone	UGL	0	0%	50	0	54	17	U	5	U	5	U	5	
		Methyl isobutyl ketone	UGL	0	0%	0	0	54	17	U	5	U	5	U	5	
		Methylene chloride	UGL	0	0%	5	0	54	7	U	2	U	2	U	2	
		Sterene	UGL	0	0%	0	0	54	3	U	1	U	1	U	1	
		Tetrachloroethene	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		Toluene	UGL	2	6%	5	0	54	3	U	1	U	1	U	1	
		Total Xylenes	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		Trans-1,2-Dichloroethene	UGL	2	4%	5	0	54	3	U	1	U	1	U	1	
		Trans-1,3-Dichloropropene	UGL	0	0%	5	0	54	3	U	1	U	1	U	1	
		Trichloroethylene	UGL	760	28%	5	8	54	23	4	1	U	1	U	1	
		Vinyl chloride	UGL	25	2%	2	1	54	3	U	1	U	1	U	1	
		METALS	UGL	7700	49%	0	25	51	155	UJ	155	UJ	326	J	3220	J



**APPENDIX C2**  
**GROUND WATER CHEMICAL RESULTS - IQ 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**



**APPENDIX C2**  
**GROUNDWATER CHEMICAL RESULTS - 1Q 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**

STUDY ID	SAMPLE ROUND	FREQUENCY	NYSDEC NUMBER	NUMBER	ASH REMEDIAL DESIASH	ASH REMEDIAL DESIASH	ASH REMEDIAL DESIASH	ASH LANDFILL	MW-56	MW-57D	ASH LANDFILL	
PARAMETER	UNIT	MAXIMUM DETECTION	CLASS GA OF	ABOVE OF	STD	DETECTS	ANALYSES N	N	N	N	N	N
<b>VOLATILE ORGANICS</b>												
1,1,1-Trichloroethane	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
1,1-Dichloroethane	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
1,1-Dichloroethene	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
1,2-Dibromoethane	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
1,2-Dichlorobenzene	UG/L	0	0%	4.7	0	0	54	1U	1U	1U	1U	1U
1,2-Dichloroethane	UG/L	3	2%	5	0	1	54	1U	1U	1U	1U	1U
1,2-Dichloropropane	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
1,2-Dichlorotoluene	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	UG/L	0	0%	4.7	0	0	54	1U	1U	1U	1U	1U
Acetone	UG/L	1	4%	5	0	2	54	5R	09J	5UJ	5UJ	5UJ
Benzene	UG/L	0	0%	0.7	0	0	54	1U	1U	1U	1U	1U
Bromochloromethane	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Bromodichloromethane	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Bromoform	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Carbon disulfide	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Carbon tetrachloride	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Chlorobenzene	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Chlorodibromomethane	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Chloroethane	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Chloroform	UG/L	0	0%	7	0	0	54	1U	1U	1U	1U	1U
Cis-1,2-Dichloroethene	UG/L	980	28%	5	14	15	54	22	23	1	1U	1U
Ois-1,3-Dichloropropene	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Ethyl benzene	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Methyl bromide	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Methyl butyl ketone	UG/L	0	0%	5	0	0	54	5UJ	5UJ	5UJ	5UJ	5UJ
Methyl chloride	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Methyl ethyl ketone	UG/L	0	0%	50	0	0	54	5U	5U	5U	5U	5U
Methyl isobutyl ketone	UG/L	0	0%	5	0	0	54	5U	5U	5U	5U	5U
Methylene chloride	UG/L	0	0%	5	0	0	54	2U	2U	2U	2U	2U
Solvent	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Tetrachloroethene	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Toluene	UG/L	2	6%	5	0	3	54	1U	1U	1U	1U	1U
Total Xylenes	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
Trans-1,2-Dichloroethene	UG/L	2	4%	5	0	2	54	1U	1U	1U	1U	1U
Trans-1,3-Dichloropropene	UG/L	760	28%	5	8	15	54	2	2	1U	1U	1U
Trichloroethene	UG/L	25	2%	2	1	1	54	1U	1U	1U	1U	1U
Vinyl chloride	UG/L	0	0%	5	0	0	54	1U	1U	1U	1U	1U
<b>METALS</b>												
Aluminum	UG/L	7700	49%	0	25	51	34.4 UJ	35.6 J	1410 J	7700 J	738 J	2



**APPENDIX C2**  
**GROUNDWATER CHEMICAL RESULTS - 1Q 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**

STUDY ID	SAMPLE ROUND	CLASS GA ABOVE OF	NYSDEC NUMBER	NUMBER	QC CODE	SAMPLE DATE	DEPTH TO BOTTOM OF SAMPLE	DEPTH TO TOP OF SAMPLE	SAMPLE ID	LOCATION ID	FACILITY	ASH LANDFILL							
												OF	STD.	DETECTS	ANALYSES	N			
Antimony	UGL	4.5	12%	0	6	51	2.2	U	2.2	U	2.2	U	2.2	U	3.4	2.2	U		
Arsenic	UGL	5	22%	25	0	11	51	2.5	U	2.5	U	2.5	U	2.5	U	2.7	J		
Barium	UGL	173	100%	1000	0	51	59.4	J	58.9	J	130	J	73.7	J	90.2	J	71.4	J	
Beryllium	UGL	0.26	14%	7	51	0.1	U	0.1	U	0.1	U	0.1	U	0.18	J	0.1	U		
Cadmium	UGL	0.35	22%	10	0	1	51	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Calcium	UGL	391000	100%	0	51	145000	144000	51	145000	144000	86200	29600	106200	29600	106200	29600	J		
Chromium	UGL	4.1	14%	50	0	7	51	1	U	1	U	1	U	4.1	J	1	U		
Cobalt	UGL	2	6%	0	3	51	1.3	U	1.3	U	1.3	U	1.3	U	2	J	1.3	U	
Cooper	UGL	14.6	33%	200	0	17	51	1.9	U	1.9	U	1.9	U	1.9	U	5.5	J	7.5	J
Cyanide	UGL	0	0%	100	0	0	51	10	U	10	U	10	U	10	U	10	U	10	U
Iron	UGL	6350	63%	300	14	32	51	20.3	U	20.3	U	151	J	1070	J	6350	J	962	J
Lead	UGL	3.8	10%	25	0	5	51	1	U	1	U	1	U	1.3	U	3.8	J	1.3	U
Magnesium	UGL	85900	100%	0	51	51	18800	17800	51	18800	17800	26000	916	J	13000	916	J	642	J
Manganese	UGL	344	100%	300	2	51	51	2.2	U	2.1	J	161	J	299	J	103	J	40	J
Mercury	UGL	0.14	2%	2	0	1	51	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Nickel	UGL	6.2	10%	0	5	51	1.7	U	1.7	U	1.7	U	1.7	U	6.2	J	1.7	U	
Potassium	UGL	25600	100%	0	51	51	951	J	971	J	2450	J	1250	J	3520	J	1100	J	
Selenium	UGL	3	2%	10	1	51	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	J	
Silver	UGL	2.8	2%	50	0	1	51	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U
Sodium	UGL	175000	90%	20000	23	46	51	23200	22900	51	22900	22900	102000	13200	164000	13200	164000	13200	
Thallium	UGL	7.4	6%	0	3	51	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U	
Vanadium	UGL	10.8	8%	0	4	51	1.8	U	1.8	U	1.8	U	1.8	U	10.8	J	10.8	J	
Zinc	UGL	1620	100%	300	1	51	51	3.6	J	4.5	J	3.9	J	18.2	J	28.4	J	7.7	J



**APPENDIX C2**

**GROUND WATER CHEMICAL RESULTS - 1Q 2000**

**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**

**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**



**APPENDIX C2**

**GROUND WATER CHEMICAL RESULTS - 1Q 2000**

**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**

**SENeca ARMY DEPOT ACTIVITY ROMULUS, NY**



**APPENDIX C2**

**GROUND WATER CHEMICAL RESULTS - 1 Q 2000**

**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**

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**APPENDIX C2**

**GROUND WATER CHEMICAL RESULTS - 1Q 2000**

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**APPENDIX C2**  
**GROUND WATER CHEMICAL RESULTS - 1Q 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENeca ARMY DEPOT ACTIVITY ROMULUS, NY**



APPENDIX C2  
**GROUND WATER CHEMICAL RESULTS - IQ 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**

STUDY ID	SAMPLE ROUND	PARAMETER	UNIT	MAXIMUM DETECTION	STD	DETECTS	CLASS GA ABOVE	NUMBER OF ANALYSES N	NUMBER OF ANALYSES N	ASH LANDFILL			ASH LANDFILL					
										FREQUENCY NSDEC	NUMBER NUMBER							
Antimony	UG/L	4.5	12%	0	6	51	5.4 U	2.2 U	2.6 J	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U		
Arsenic	UG/L	5	22%	25	0	11	51	2.4 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		
Barium	UG/L	173	100%	1000	0	51	69.2 J	74.9 J	37.8 J	31.1 J	31.1 J	31.1 J	31.1 J	31.1 J	31.1 J	31.1 J		
Beryllium	UG/L	0.26	14%	0	7	51	0.6 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U		
Cadmium	UG/L	0.35	2%	10	0	1	51	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
Calcium	UG/L	391000	100%	0	51	51	164000	247000	102000	914000	914000	914000	914000	914000	914000	914000		
Chromium	UG/L	4.1	14%	50	0	7	51	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Cobalt	UG/L	2	6%	0	3	51	3.5 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U		
Copper	UG/L	14.6	33%	200	0	17	51	3 J	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	
Cyanide	UG/L	0	0%	100	0	0	51	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Iron	UG/L	6350	63%	300	14	32	51	369	20.3 J	386 J	20.3 J	386 J	20.3 J	386 J	20.3 J	386 J	20.3 J	
Lead	UG/L	3.8	10%	25	0	5	51	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Magnesium	UG/L	85900	100%	0	51	51	37800	26400	10800	9800	9800	9800	9800	9800	9800	9800	9800	
Manganese	UG/L	344	100%	300	2	51	344	344	10 J	5.6 J	5.6 J	5.6 J	5.6 J	5.6 J	5.6 J	5.6 J	5.6 J	
Mercury	UG/L	0.14	2%	2	0	1	51	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Nickel	UG/L	6.2	10%	0	5	51	4.2 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U		
Potassium	UG/L	25600	100%	0	51	51	10300	879 J	574 J	753 J	753 J	753 J	753 J	753 J	753 J	753 J	753 J	
Selenium	UG/L	3	2%	10	0	1	51	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	
Silver	UG/L	2.8	2%	50	0	1	51	1 UU	1.3 UU	1.3 UU	1.3 UU	1.3 UU	1.3 UU	1.3 UU	1.3 UU	1.3 UU	1.3 UU	
Sodium	UG/L	175000	90%	20000	23	46	51	36300	43700	5850	12000 U	12000 U						
Thallium	UG/L	7.4	6%	0	3	51	3.2 UU	3.2 UU	3.2 UU	3.2 UU	3.2 UU	3.2 UU	3.2 UU	3.2 UU	3.2 UU	3.2 UU	3.2 UU	
Vanadium	UG/L	10.8	8%	0	4	51	2.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	
Zinc	UG/L	1620	100%	300	1	51	3 J	4.3 J	5 J	4.7 J	4.7 J	4.7 J	4.7 J	4.7 J	4.7 J	4.7 J	4.7 J	4.7 J



**APPENDIX C2**  
**GROUND WATER CHEMICAL RESULTS -1Q 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**

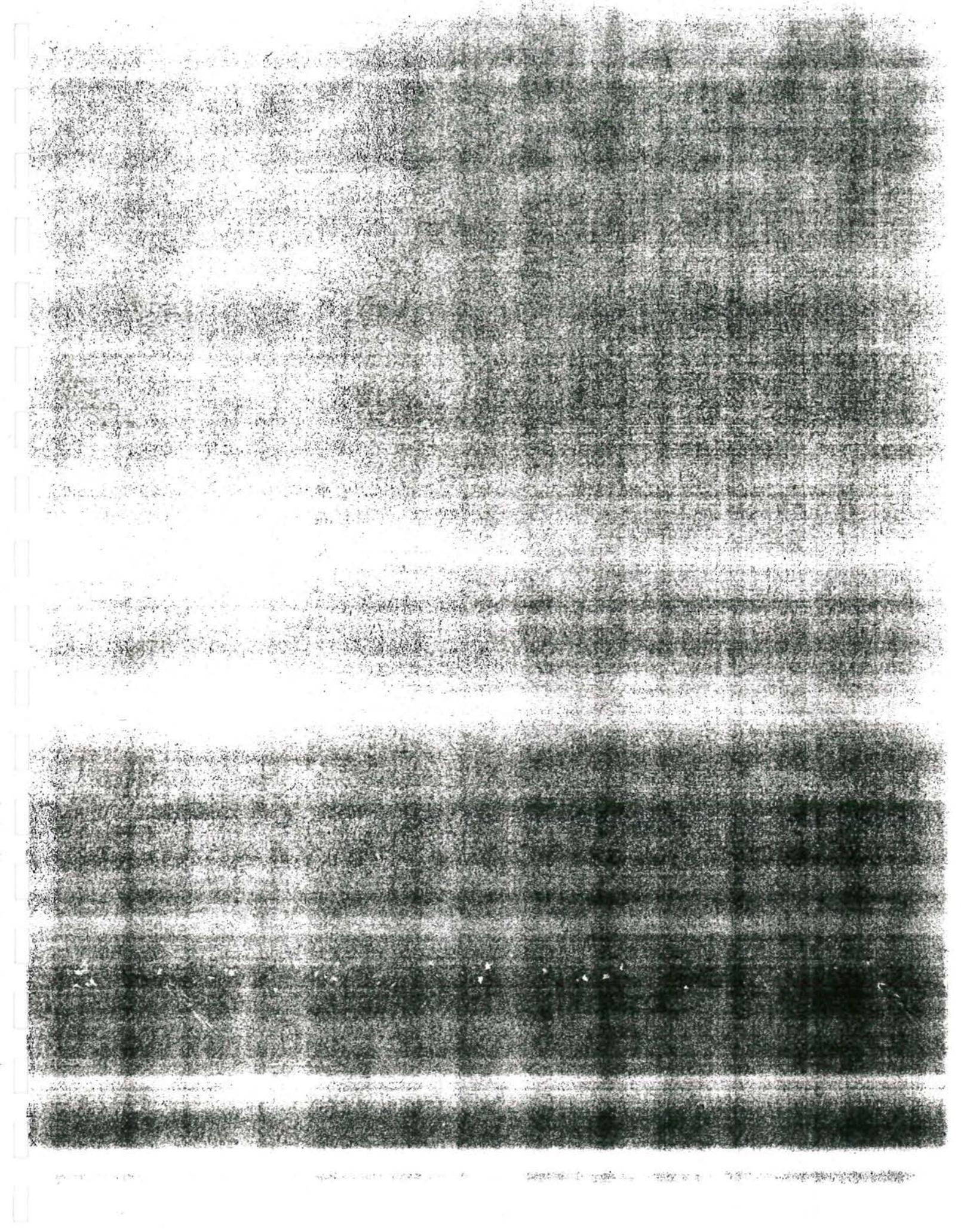
STUDY ID	SAMPLE ROUND	PARAMETER	UNIT	MAXIMUM	DETECTION	FREQUENCY OF	NYSDDEC CLASS GA	NUMBER STD.	NUMBER DETECTS OF	NUMBER ANALYSES N	SA QC CODE	ASH REMEDIAL DESIGN 2
		VOLATILE ORGANICS	UG/L	0	0%	5	0	0	54	1	U	
		1,1,1-Trichloroethane	UG/L	0	0%	5	0	0	54	1	U	
		1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	54	1	U	
		1,1,2-Trichloroethane	UG/L	0	0%	5	0	0	54	1	U	
		1,1-Dichloroethane	UG/L	0	0%	5	0	0	54	1	U	
		1,1-Dichloroethene	UG/L	0	0%	5	0	0	54	1	U	
		1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	54	1	U	
		1,2-Dibromo-3-chloropropane	UG/L	0	0%	5	0	0	54	1	U	
		1,2-Dibromoethane	UG/L	0	0%	5	0	0	54	1	U	
		1,2-Dichlorobenzene	UG/L	0	0%	4.7	0	0	54	1	U	
		1,2-Dichloroethane	UG/L	3	2%	5	0	1	54	1	U	
		1,2-Dichloropropane	UG/L	0	0%	5	0	0	54	1	U	
		1,3-Dichlorobenzene	UG/L	0	0%	5	0	0	54	1	U	
		1,4-Dichlorobenzene	UG/L	0	0%	4.7	0	0	54	1	U	
		Acetone	UG/L	1	4%	5	0	2	54	5	UJ	
		Benzene	UG/L	0	0%	0.7	0	0	54	1	U	
		Bromochloromethane	UG/L	0	0%	0	0	0	54	1	U	
		Bromodichloromethane	UG/L	0	0%	0	0	0	54	1	U	
		Bromoform	UG/L	0	0%	0	0	0	54	1	U	
		Carbon disulfide	UG/L	0	0%	0	0	0	54	1	U	
		Carbon tetrachloride	UG/L	0	0%	5	0	0	54	1	U	
		Chlorobenzene	UG/L	0	0%	5	0	0	54	1	U	
		Chlorodibromomethane	UG/L	0	0%	0	0	0	54	1	U	
		Chloroethane	UG/L	0	0%	5	0	0	54	1	U	
		Chloroform	UG/L	0	0%	7	0	0	54	1	U	
		Cis-1,2-Dichloroethene	UG/L	980	28%	5	14	15	54	1	U	
		Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	54	1	U	
		Ethyl benzene	UG/L	0	0%	5	0	0	54	1	U	
		Methyl bromide	UG/L	0	0%	0	0	0	54	1	U	
		Methyl butyl ketone	UG/L	0	0%	0	0	0	54	5	U	
		Methyl chloride	UG/L	0	0%	5	0	0	54	1	U	
		Methyl ethyl ketone	UG/L	0	0%	50	0	0	54	5	U	
		Methyl isobutyl ketone	UG/L	0	0%	0	0	0	54	5	U	
		Methylene chloride	UG/L	0	0%	5	0	0	54	2	U	
		Styrene	UG/L	0	0%	0	0	0	54	1	U	
		Tetrachloroethene	UG/L	0	0%	5	0	0	54	1	U	
		Toluene	UG/L	2	6%	5	0	3	54	1	U	
		Total Xylenes	UG/L	0	0%	5	0	0	54	1	U	
		Trans-1,2-Dichloroethene	UG/L	2	4%	5	0	2	54	1	U	
		Trans-1,3-Dichloropropene	UG/L	0	0%	5	0	0	54	1	U	
		Trichloroethene	UG/L	760	28%	5	8	15	54	1	U	
		Vinyl chloride	UG/L	25	2%	2	1	1	54	1	U	
		<b>METALS</b>										
		Aluminum	UG/L	7700	49%	0	25	51	303	J		



**APPENDIX C2**  
**GROUNDWATER CHEMICAL RESULTS - 1Q 2000**  
**GROUNDWATER MONITORING - ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY ROMULUS, NY**

STUDY ID	SAMPLE ROUND	PARAMETER	UNIT	FREQUENCY OF	NYSDEC CLASS GA	NUMBER ABOVE STD.	NUMBER OF	SA	NUMBER ASH REMEDIAL DESIGN	2
		Antimony	UGL	4.5	12%	0	6	51	4.5 J	
		Arsenic	UGL	5	22%	25	0	51	5 J	
		Barium	UGL	173	100%	1000	0	51	78.9 J	
		Beryllium	UGL	0.26	14%	0	7	51	0.1 U	
		Cadmium	UGL	0.35	2%	10	0	51	0.2 U	
		Calcium	UGL	391000	100%	0	0	51	91400	
		Chromium	UGL	4.1	14%	50	0	7	51	1 U
		Cobalt	UGL	2	6%	0	3	51	13 U	
		Copper	UGL	14.6	33%	200	0	17	51	1.9 U
		Cyanide	UGL	0	0%	100	0	0	51	10 U
		Iron	UGL	6350	63%	300	14	32	51	251 J
		Lead	UGL	3.8	10%	25	0	5	51	1.3 U
		Magnesium	UGL	85900	100%	0	0	51	33100	
		Manganese	UGL	344	100%	300	2	51	51	23.7
		Mercury	UGL	0.14	2%	2	0	1	51	0.1 U
		Nickel	UGL	6.2	10%	0	0	5	51	1.7 U
		Potassium	UGL	25600	100%	0	0	51	51	1850 J
		Selenium	UGL	3	2%	10	0	1	51	2.2 U
		Silver	UGL	2.8	2%	50	0	1	51	1.3 UJ
		Sodium	UGL	175000	90%	20000	23	46	51	38400
		Thallium	UGL	7.4	6%	0	3	51	3.2 U	
		Vanadium	UGL	10.8	8%	0	4	51	1.8 U	
		Zinc	UGL	1620	100%	300	1	51	51	5.1 J







**APPENDIX C3**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**CHEMICAL RESULTS TRENCH WELLS -2Q 1999**  
**SENECA ARMY DEPOT ACTIVITY**

		ASH LANDFILL MWTF-1 GROUND WATER TR2002	ASH LANDFILL MWTF-10 GROUND WATER TR2001	ASH LANDFILL MWTF-11 GROUND WATER TR2000						
		MAXIMUM DETECTION OF	NUMBER CLASS GA STANDARD	NUMBER NUMBER OF TAGM	DETECTS OF	NUMBER NUMBER OF SA	ANALYSES ASH TRENCH	NUMBER NUMBER OF SA	ASH TRENCH	ASH TRENCH
1,1,1-Trichloroethane	UG/L	0	0%	5	0	0	12	4	U	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	12	4	U	1 U
1,1,2-Trichloroethane	UG/L	0	0%	5	0	0	12	4	U	1 U
1,1-Dichloroethane	UG/L	0	0%	5	0	0	12	4	U	1 U
1,1-Dichloroethylene	UG/L	0	0%	5	0	0	12	4	U	1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	5	0	0	12	4	U	1 U
1,2-Dibromoethane	UG/L	0	0%	5	0	0	12	4	U	1 U
1,2-Dichloroethane	UG/L	0	0%	5	0	0	12	4	U	1 U
1,2-Dichloropropane	UG/L	0	0%	5	0	0	12	4	U	1 U
Acetone	UG/L	16	42%	0	5	0	5	12	20	U
Benzene	UG/L	0.9	50%	0.7	1	6	12	4	U	0.7 J
Bromochloromethane	UG/L	0	0%	0	0	0	12	4	U	1 U
Bromodichloromethane	UG/L	0	0%	0	0	0	12	4	U	1 U
Bromoform	UG/L	0	0%	0	0	0	12	4	U	1 U
Carbon disulfide	UG/L	1	8%	0	1	12	4	U	1 U	1 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	12	4	U	1 U
Chlorobenzene	UG/L	0	0%	5	0	0	12	4	U	1 U
Chlorodibromomethane	UG/L	0	0%	5	0	0	12	4	U	1 U
Chloroethane	UG/L	0	0%	5	0	0	12	4	U	1 U
Chloroform	UG/L	0	0%	7	0	0	12	4	U	1 U
Cis-1,2-Dichloroethene	UG/L	73	83%	5	7	10	12	4	U	6
Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	12	4	U	1 U
Ethyl benzene	UG/L	0	0%	5	0	0	12	4	U	1 U
Methyl bromide	UG/L	0	0%	0	0	0	12	4	U	1 U
Methyl butyl ketone	UG/L	0	0%	0	0	0	12	20	U	5 U
Methyl chloride	UG/L	0	0%	5	0	0	12	4	U	1 U
Methyl ethyl ketone	UG/L	0	0%	50	0	0	12	20	U	5 U
Methyl isobutyl ketone	UG/L	0	0%	0	0	0	12	20	U	5 U
Methylene chloride	UG/L	0	0%	5	0	0	12	8	U	2 U
Styrene	UG/L	0	0%	0	0	0	12	4	U	1 U
Tetrachloroethene	UG/L	0.7	17%	5	0	2	12	4	U	1 U
Toluene	UG/L	0	0%	5	0	0	12	4	U	1 U
Total Xylenes	UG/L	0	0%	5	0	0	12	4	U	1 U



**APPENDIX C3**

**GROUNDWATER MONITORING - ASH LANDFILL  
CHEMICAL RESULTS TRENCH WELLS -2Q 1999  
SENECA ARMY DEPOT ACTIVITY**

	MAXIMUM DETECTION STANDARD	NYS OF CLASS GA	NUMBER ABOVE OF TAGM	NUMBER DETECTS	NUMBER OF ANALYSES	ASH TRENCH	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
							MWT-1 GROUND WATER TR2002	MWT-10 GROUND WATER TR2001	MWT-11 GROUND WATER TR2000
Trans-1,2-Dichloroethene	UG/L	0	0%	5	0	0	12	4	U
Trans-1,3-Dichloropropene	UG/L	0	0%	5	0	0	12	4	U
Trichloroethene	UG/L	430	50%	5	3	6	12	23	U
Vinyl chloride	UG/L	0	0%	2	0	0	12	4	U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	12	4	U
1,2-Dichlorobenzene	UG/L	0	0%	4.7	0	0	12	4	U
1,3-Dichlorobenzene	UG/L	0	0%	5	0	0	12	4	U
1,4-Dichlorobenzene	UG/L	0	0%	4.7	0	0	12	4	U
Calcium	UG/L	264000	100%	0	0	12	12	122000	49900
Iron	UG/L	548000	100%	300	9	12	12	403	13100
Magnesium	UG/L	74400	100%	0	0	12	12	13800	10600
Manganese	UG/L	6260	100%	300	5	12	12	13.2 B	191
Potassium	UG/L	15100	100%	0	0	12	12	1460 B	1520 B
Sodium	UG/L	16400	100%	20000	0	12	12	9010	8860



**APPENDIX C3**

**GROUNDWATER MONITORING - ASH LANDFILL  
CHEMICAL RESULTS TRENCH WELLS-2Q 1999  
SENECA ARMY DEPOT ACTIVITY**

	ASH LANDFILL MWTF-2 GROUND WATER TR2008	ASH LANDFILL MWTF-3 GROUND WATER TR2007	ASH LANDFILL MWTF-4 GROUND WATER TR2004					
	MAXIMUM OF DETECTION CLASS	NUMBER OF STANDARD GA	NUMBER OF TAGM	DETECTS NYS OF ANALYSES	NUMBER OF SA	ASH TRENCH 4/28/1999 SA	ASH TRENCH 4/27/1999 SA	ASH TRENCH 4/26/1999 SA
1,1,1-Trichloroethane	UG/L	0	0%	5	0	0	12	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	12	1 U
1,1,2-Trichloroethane	UG/L	0	0%	5	0	0	12	1 U
1,1-Dichloroethane	UG/L	0	0%	5	0	0	12	1 U
1,1-Dichloroethene	UG/L	0	0%	5	0	0	12	1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	5	0	0	12	1 U
1,2-Dibromoethane	UG/L	0	0%	5	0	0	12	1 U
1,2-Dichloroethane	UG/L	0	0%	5	0	0	12	1 U
1,2-Dichloropropane	UG/L	0	0%	5	0	0	12	1 U
Acetone	UG/L	16	42%	0	5	5	12	6
Benzene	UG/L	0.9	50%	0.7	1	6	12	0.7 J
Bromochloromethane	UG/L	0	0%	0	0	0	12	1 U
Bromodichloromethane	UG/L	0	0%	0	0	0	12	1 U
Bromoform	UG/L	0	0%	0	0	0	12	1 U
Carbon disulfide	UG/L	1	8%	0	1	12	1	2 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	12	1 U
Chlorobenzene	UG/L	0	0%	5	0	0	12	1 U
Chlorodibromomethane	UG/L	0	0%	0	0	0	12	1 U
Chloroethane	UG/L	0	0%	5	0	0	12	1 U
Chloroform	UG/L	0	0%	7	0	0	12	1 U
Cis-1,2-Dichloroethene	UG/L	73	83%	5	7	10	12	30 E
Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	12	1 U
Ethyl benzene	UG/L	0	0%	5	0	0	12	1 U
Methyl bromide	UG/L	0	0%	0	0	0	12	1 U
Methyl butyl ketone	UG/L	0	0%	0	0	0	12	5 U
Methyl chloride	UG/L	0	0%	5	0	0	12	1 U
Methyl ethyl ketone	UG/L	0	0%	50	0	0	12	5 U
Methyl isobutyl ketone	UG/L	0	0%	0	0	0	12	5 U
Methylene chloride	UG/L	0	0%	5	0	0	12	2 U
Styrene	UG/L	0	0%	0	0	0	12	1 U
Tetrachloroethene	UG/L	0	0%	5	0	0	12	1 U
Toluene	UG/L	0.7	17%	5	0	2	12	0.7 J
Total Xylenes	UG/L	0	0%	5	0	0	12	1 U



**APPENDIX C3**

**GROUNDWATER MONITORING - ASH LANDFILL  
CHEMICAL RESULTS TRENCH WELLS -2Q 1999  
SENECA ARMY DEPOT ACTIVITY**

	MAXIMUM DETECTION STANDARD	NYS CLASS GA	NUMBER ABOVE STANDARD	NUMBER TAGM DETECTS	NUMBER OF SA	NUMBER OF ANALYSES	ASH TRENCH	ASH TRENCH		ASH TRENCH
								4/28/1999	4/27/1999	
Trans-1,2-Dichloroethene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
Trans-1,3-Dichloropropene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
Trichloroethene	UG/L	430	50%	5	3	6	12	1	1 J	2 J
Vinyl chloride	UG/L	0	0%	2	0	0	12	1 U	2 U	3 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
1,2-Dichlorobenzene	UG/L	0	0%	4.7	0	0	12	1 U	2 U	3 U
1,3-Dichlorobenzene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
1,4-Dichlorobenzene	UG/L	0	0%	4.7	0	0	12	1 U	2 U	3 U
Calcium	UG/L	264000	100%	0	12	264000	58000	118000		
Iron	UG/L	548000	100%	300	9	12	12	523000	3600	983
Magnesium	UG/L	74400	100%	0	12	60800	13000	14300		
Manganese	UG/L	6260	100%	300	5	12	12	6260	611	37.1
Potassium	UG/L	15100	100%	0	12	15100	1900	B	1860	B
Sodium	UG/L	16400	100%	20000	0	12	12	7410	9240	15900



**APPENDIX C3**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**CHEMICAL RESULTS TRENCH WELLS-2Q 1999**

SENECA ARMY DEPOT ACTIVITY	ASH LANDFILL MWTF-5 GROUND WATER TR2009			ASH LANDFILL MWTF-6 GROUND WATER TR2006			ASH LANDFILL MWTF-6 GROUND WATER TR2011			
	MAXIMUM OF DETECTION	NYS CLASS GA	NUMBER ABOVE STANDARD	NUMBER TAGM	NUMBER OF DETECTS	NUMBER SA	NUMBER ASH TRENCH	NUMBER ASH TRENCH	DU	ASH TRENCH
1,1,1-Trichloroethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
1,1,2-Trichloroethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
1,1-Dichloroethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
1,1-Dichloroethylene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
1,2-Dibromoethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
1,2-Dichloroethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
1,2-Dichloropropane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Acetone	UG/L	16	42%	0	5	0	5	12	7	5
Benzene	UG/L	0.9	50%	0.7	1	6	12	0.9 J	0.7 J	0.7 J
Bromochloromethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Bromodichloromethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Bromoform	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Carbon disulfide	UG/L	1	8%	0	1	12	1 U	1 U	1 U	1 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Chlorobenzene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Chlorodibromomethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Chloroethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Chloroform	UG/L	0	0%	7	0	0	12	1 U	1 U	1 U
Cis-1,2-Dichloroethene	UG/L	73	83%	5	7	10	12	0.7 J	3	3
Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Ethyl benzene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Methyl bromide	UG/L	0	0%	0	0	0	12	1 U	1 U	1 U
Methyl butyl ketone	UG/L	0	0%	0	0	0	12	5 U	5 U	5 U
Methyl chloride	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Methyl ethyl ketone	UG/L	0	0%	50	0	0	12	5 U	5 U	5 U
Methyl isobutyl ketone	UG/L	0	0%	0	0	0	12	5 U	5 U	5 U
Methylene chloride	UG/L	0	0%	5	0	0	12	2 U	2 U	2 U
Styrene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Tetrachloroethene	UG/L	0.7	17%	5	0	2	12	0.3 J	1 U	1 U
Toluene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
Total Xylenes	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U



**APPENDIX C3**

**GROUNDWATER MONITORING - ASH LANDFILL  
CHEMICAL RESULTS TRENCH WELLS -2Q 1999  
SENECA ARMY DEPOT ACTIVITY**

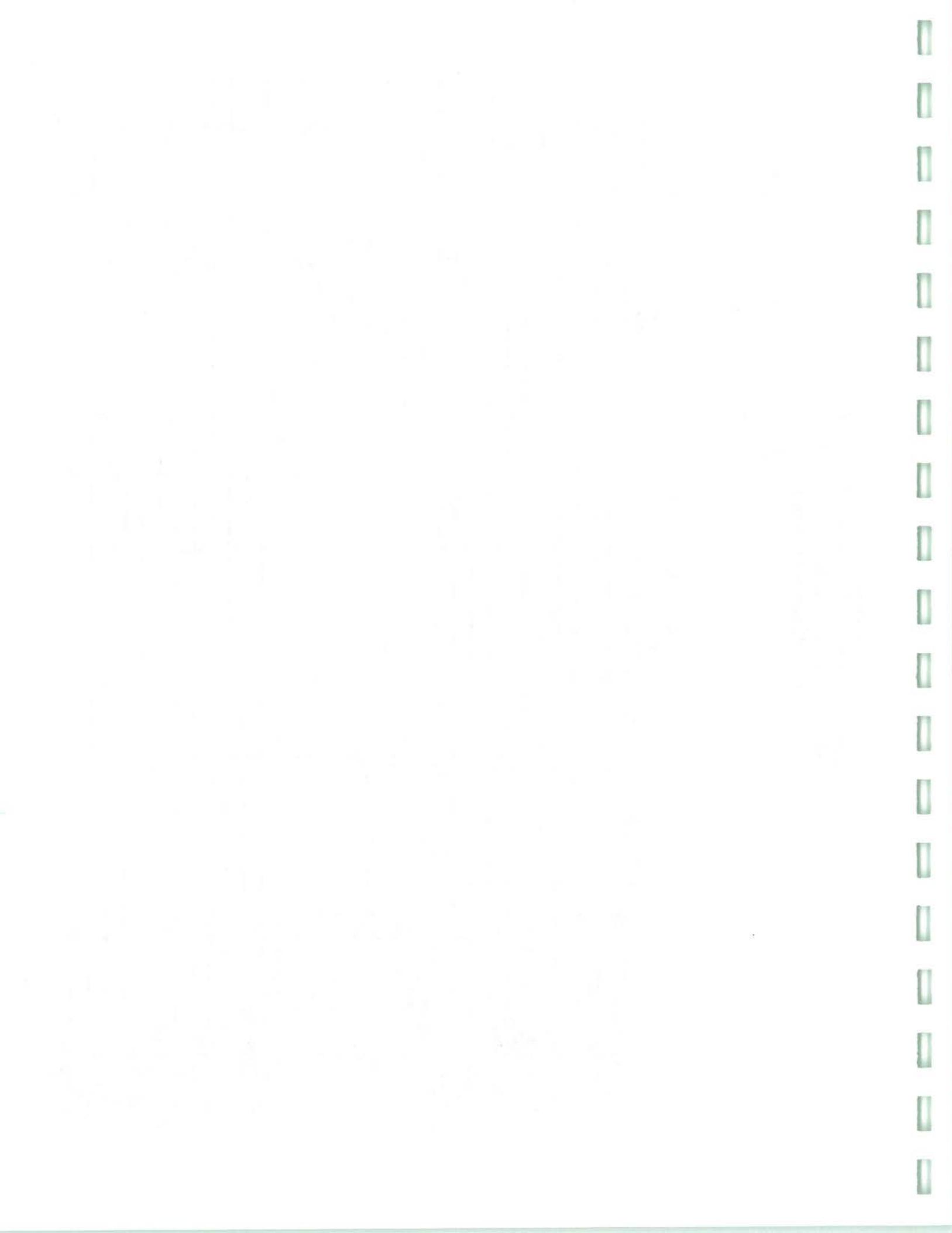
		ASH LANDFILL MWTF-5	ASH LANDFILL MWTF-6	ASH LANDFILL MWTF-6
		GROUND WATER TR2009	GROUND WATER TR2006	GROUND WATER TR2011
		11.1	10.5	10.5
		11.1	10.5	10.5
		4/28/1999	4/28/1999	4/28/1999
		SA	DU	DU
		ASH TRENCH	ASH TRENCH	ASH TRENCH
Trans-1,2-Dichloroethene	UG/L	0	0%	0
Trans-1,3-Dichloropropene	UG/L	0	0%	0
Trichloroethene	UG/L	430	50%	5
Vinyl chloride	UG/L	0	0%	2
1,2,4-Trichlorobenzene	UG/L	0	0%	5
1,2-Dichlorobenzene	UG/L	0	0%	4.7
1,3-Dichlorobenzene	UG/L	0	0%	5
1,4-Dichlorobenzene	UG/L	0	0%	4.7
Calcium	UG/L	264000	100%	0
Iron	UG/L	548000	100%	300
Magnesium	UG/L	74400	100%	0
Manganese	UG/L	6260	100%	300
Potassium	UG/L	15100	100%	0
Sodium	UG/L	16400	100%	20000



**APPENDIX C3**

**GROUNDWATER MONITORING - ASH LANDFILL  
CHEMICAL RESULTS TRENCH WELLS -2Q 1999  
SENECA ARMY DEPOT ACTIVITY**

		MAXIMUM DETECTION STANDARD	NYS OF CLASS GA	NUMBER ABOVE OF	NUMBER TAGM	NUMBER DETECTS	ANALYSES	NUMBER SA	ASH TRENCH	ASH LANDFILL MWTF-7 GROUND WATER TR2003	ASH LANDFILL MWTF-8 GROUND WATER TR2010	ASH LANDFILL MWTF-9 GROUND WATER TR2005	ASH LANDFILL
1,1,1-Trichloroethane	UG/L	0	0%	5	0	0	0	12	22 U	1 U	11.5	11.58	12.14
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	0	12	22 U	1 U	11.5	11.58	12.14
1,1,2-Trichloroethane	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
1,1-Dichloroethane	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
1,1-Dichloroethene	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
1,2-Dibromo-3-chloropropane	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
1,2-Dibromoethane	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
1,2-Dichloroethane	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
1,2-Dichloropropane	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
Acetone	UG/L	16	42%	0	5	5	5	12	110 U	16			
Benzene	UG/L	0.9	50%	0.7	1	6	6	12	22 U	1 U			
Bromoform	UG/L	0	0%	0	0	0	0	12	22 U	1 U			
Carbon disulfide	UG/L	1	8%	0	0	1	1	12	22 U	1 U			
Carbon tetrachloride	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
Chlorobenzene	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
Chlorodibromomethane	UG/L	0	0%	0	0	0	0	12	22 U	1 U			
Chloroethane	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
Chloroform	UG/L	0	0%	7	0	0	0	12	22 U	1 U			
Cis-1,2-Dichloroethene	UG/L	73	83%	5	7	10	12	20 J	1 U				32
Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
Ethyl benzene	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
Methyl bromide	UG/L	0	0%	0	0	0	0	12	22 U	1 U			
Methyl butyl ketone	UG/L	0	0%	5	0	0	0	12	110 U	5 U			
Methyl chloride	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
Methyl ethyl ketone	UG/L	0	0%	50	0	0	0	12	110 U	5 U			
Methyl isobutyl ketone	UG/L	0	0%	0	0	0	0	12	110 U	5 U			
Methylene chloride	UG/L	0	0%	5	0	0	0	12	44 U	2 U			
Styrene	UG/L	0	0%	0	0	0	0	12	22 U	1 U			
Tetrachloroethene	UG/L	0	0%	5	0	0	0	12	22 U	1 U			
Toluene	UG/L	0.7	17%	5	0	2	2	12	22 U	1 U			
Total Xylenes	UG/L	0	0%	5	0	0	0	12	22 U	1 U			

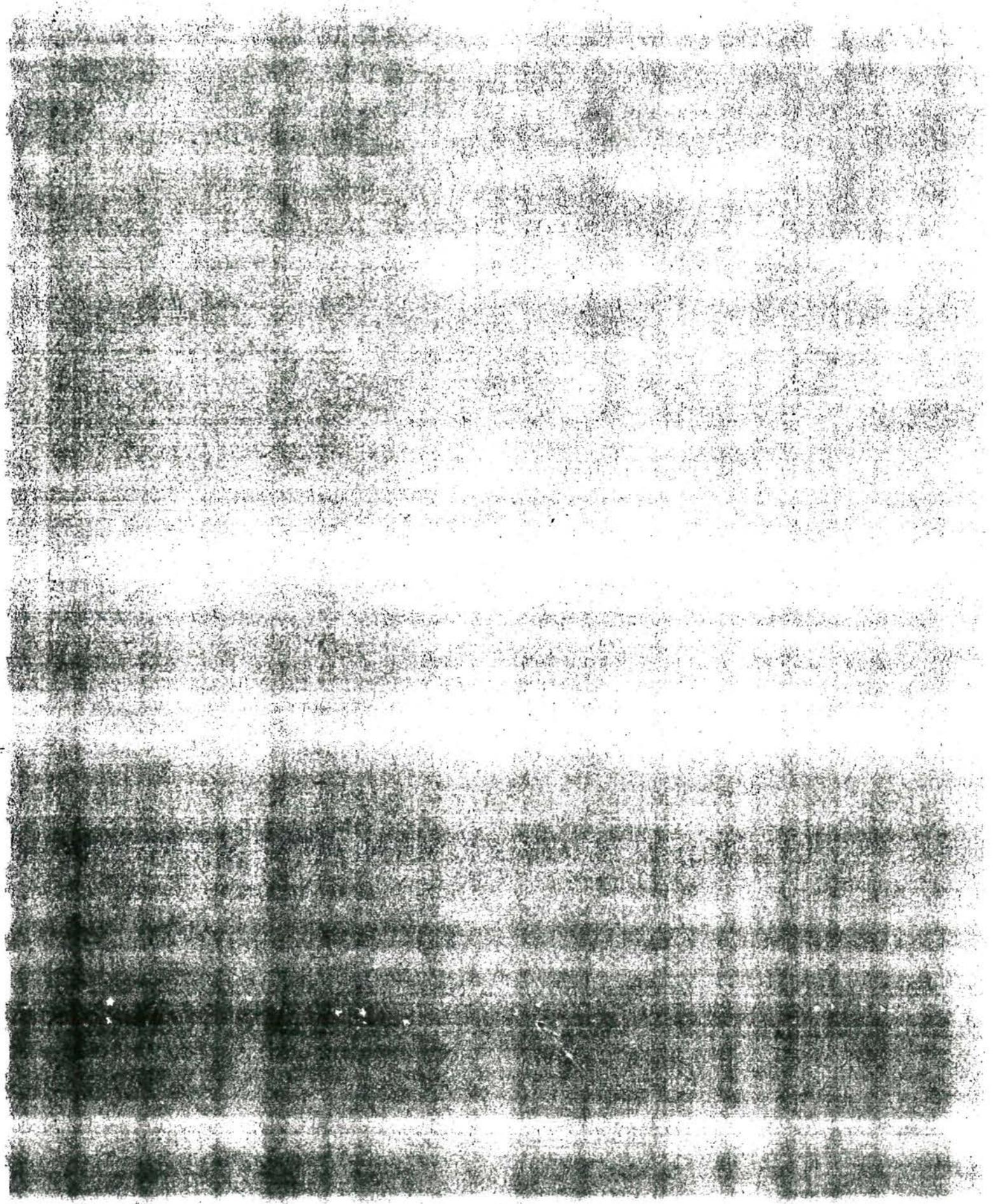


APPENDIX C3

**GROUNDWATER MONITORING - ASH LANDFILL  
CHEMICAL RESULTS TRENCH WELLS -2Q 1999  
SENECA ARMY DEPOT ACTIVITY**

	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
	MWT-7	MWT-8	MWT-9
	GROUND WATER	GROUND WATER	GROUND WATER
	TR2003	TR2010	TR2005
Trans-1,2-Dichloroethene	UG/L	0	0%
Trans-1,3-Dichloropropene	UG/L	0	0%
Trichloroethylene	UG/L	430	50%
Vinyl chloride	UG/L	0	0%
1,2,4-Trichlorobenzene	UG/L	0	0%
1,2-Dichlorobenzene	UG/L	0	0%
1,3-Dichlorobenzene	UG/L	0	0%
1,4-Dichlorobenzene	UG/L	0	0%
Calcium	UG/L	264000	100%
Iron	UG/L	548000	100%
Magnesium	UG/L	74400	100%
Manganese	UG/L	6260	100%
Potassium	UG/L	15100	100%
Sodium	UG/L	16400	100%







**APPENDIX C4**

**GROUND WATER CHEMICAL RESULTS - 3Q 2001**

**GROUNDWATER MONITORING -**

**ASH REMEDIAL DESIGN**

**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**

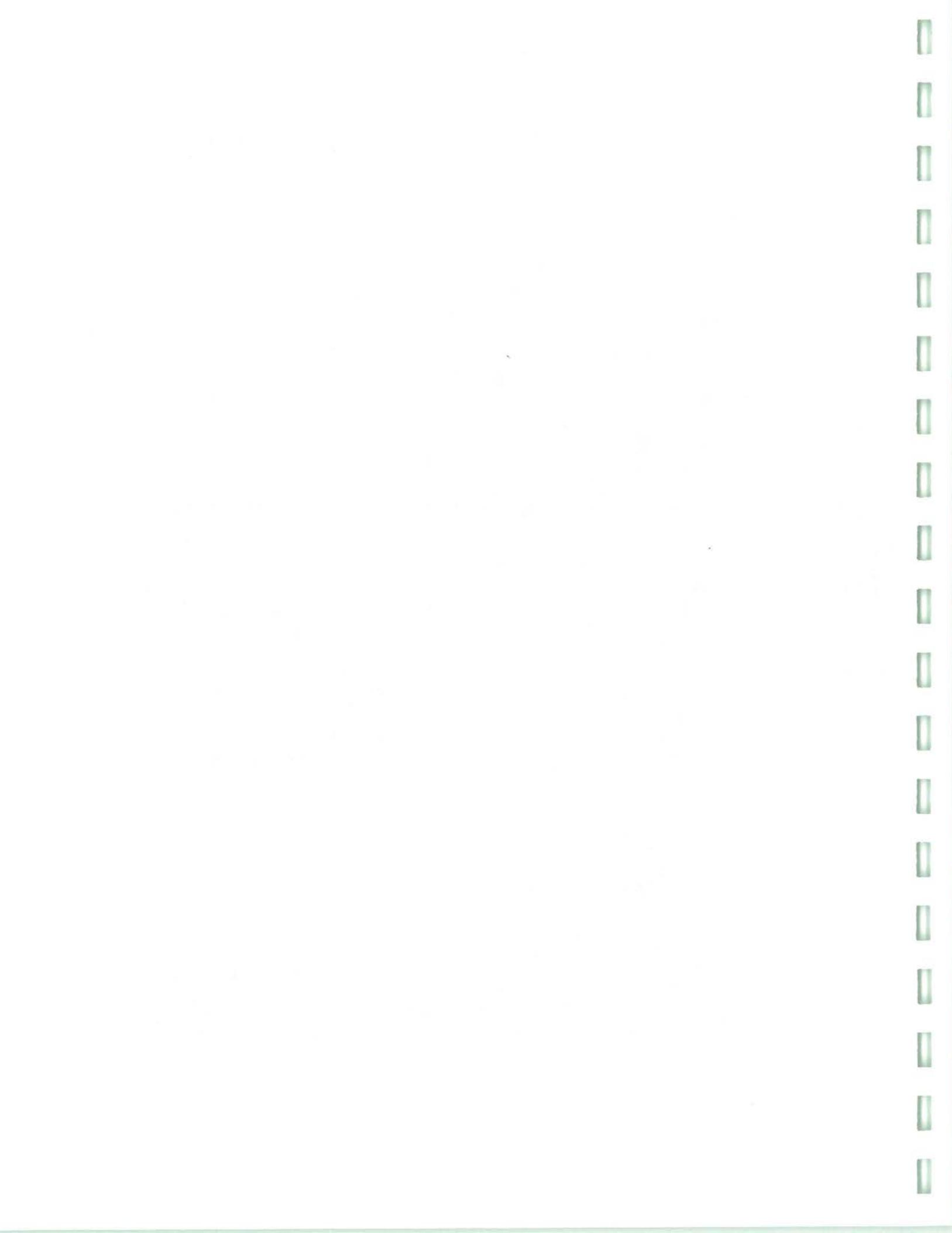


**APPENDIX C4**  
**GROUND WATER CHEMICAL RESULTS - 3Q 2001**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**

Notes

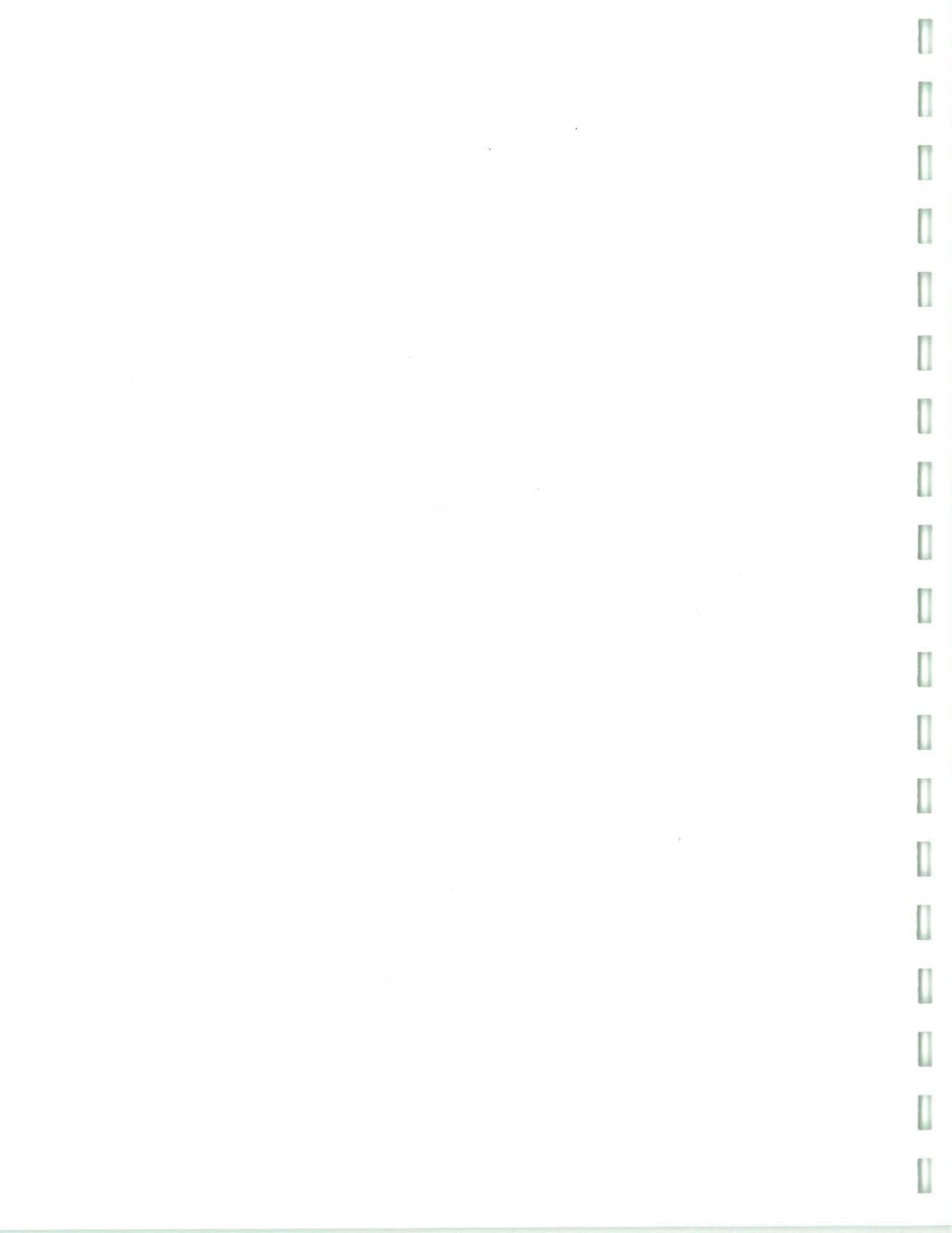
NOTES: 111-100-0001-GA-NY State Class GA Grandmother Standard/TOGS June 19

1. GA: NY State Class GA Groundwater Standard (10GS-1) 10GS-10001



**APPENDIX C4**  
**GROUND WATER CHEMICAL RESULTS - 3Q 2001**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**

FACILITY	ASH LANDFILL		ASH LANDFILL		ASH LANDFILL		ASH LANDFILL	
	LOCATION ID	MWT-1	MWT-10	MWT-3	MWT-4	GROUNDWATER	GROUNDWATER	GROUNDWATER
MATRIX	TR2072	TR2078	TR2073	TR2074	TR2074	TR2074	TR2074	TR2080
SAMPLE ID	9.25	9.25	8	9.5	9.5	11.78	11.78	11.78
DEPTH TO TOP OF SAMPLE	30-Aug-01	30-Aug-01	30-Aug-01	SA	SA	30-Aug-01	30-Aug-01	30-Aug-01
DEPTH TO BOTTOM OF SAMPLE	SA	SA	SA	SA	SA	SA	SA	DU
SAMPLE DATE	30-Aug-01	30-Aug-01	30-Aug-01	SA	SA	SA	SA	ASH TRENCH
QC CODE	FREQUENCY	NUMBER	NUMBER	NUMBER	NUMBER	ASH TRENCH	ASH TRENCH	ASH TRENCH
STUDY ID	OF	Criteria	Criteria	Criteria	Criteria	ASH TRENCH	ASH TRENCH	ASH TRENCH
SAMPLE ROUND	UNIT	MAXIMUM	DETECTION	DETECTION	DETECTION	ASH TRENCH	ASH TRENCH	ASH TRENCH
PARAMETER	UNIT	MAXIMUM	DETECTION	DETECTION	DETECTION	ASH TRENCH	ASH TRENCH	ASH TRENCH
<b>VOLATILE ORGANICS</b>								
1,1,1,2-Tetrachloroethane	UG/L	0	0%	5	GA	0	11	0.5 U
1,1,1-Trichloroethane	UG/L	0	0%	5	GA	0	17	0.5 U
1,1,1,2,2-Tetrachloroethane	UG/L	0	0%	0	GA	0	17	0.5 U
1,1,2-Trichloroethane	UG/L	0	0%	1	GA	0	17	0.5 U
1,1-Dichloroethane	UG/L	6	18%	5	GA	1	3	0.5 U
1,1-Dichloroethene	UG/L	0	0%	5	GA	0	17	0.5 U
1,1-Dichloropropene	UG/L	0	0%	5	GA	0	11	0.5 U
1,2,2,3-Trichlorobenzene	UG/L	0	0%	5	GA	0	11	0.5 U
1,2,3-Trichloropropane	UG/L	0	0%	0.04	GA	0	11	0.5 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	GA	0	17	0.5 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	GA	0	11	0.5 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	GA	0	17	0.5 U
1,2-Dibromobenzene	UG/L	0	0%	0.0006	GA	0	17	0.5 U
1,2-Dichlorobenzene	UG/L	0	0%	3	GA	0	17	0.5 U
1,2-Dichloroethane	UG/L	0.28	6%	0.6	GA	0	1	0.5 U
1,2-Dichloropropane	UG/L	0	0%	1	GA	0	17	0.5 U
1,3,5-Trimethylbenzene	UG/L	0	0%	5	GA	0	11	0.5 U
1,3-Dichlorobenzene	UG/L	0	0%	3	GA	0	17	0.5 U
1,3-Dichloropropane	UG/L	0	0%	5	GA	0	11	0.5 U
1,4-Dichlorobenzene	UG/L	0	0%	3	GA	0	17	0.5 U
1,2-Dichloroethane	UG/L	0	0%	0.6	GA	0	1	0.5 U
2,2,2-Trichloropropane	UG/L	0	0%	1	GA	0	17	0.5 U
2-Chlorotoluene	UG/L	0	0%	5	GA	0	11	0.5 U
2-Nitropropane	UG/L	0	0%	0	GA	0	11	0.5 U
4-Bromofluorobenzene	UG/L	5	100%	0	GA	6	6	0.5 U
Acetone	UG/L	350	24%	0	4	17	5	0.5 U
Acrylonitrile	UG/L	0	0%	5	GA	0	11	0.5 U
Allyl chloride	UG/L	0	0%	5	GA	0	11	0.5 U
Benzene	UG/L	C-81	12%	1	GA	0	2	0.81
Bromobenzene	UG/L	0	0%	5	GA	0	11	0.5 U
Bromochloromethane	UG/L	0	0%	5	GA	0	17	0.5 U
Bromodichloromethane	UG/L	0.87	6%	80	MCL	0	1	0.5 U
Bromoform	UG/L	C-62	6%	80	MCL	0	1	0.5 U
Butyl chloride	UG/L	0	0%	5	GA	0	11	0.5 U
Carbon disulfide	UG/L	C-34	6%	0	GA	0	1	0.5 U
Carbon tetrachloride	UG/L	0	0%	5	GA	0	0	0.5 U
Chloracetonitrile	UG/L	0	0%	0	GA	0	11	0.5 U
Chlorobenzene	UG/L	0	0%	5	GA	0	17	0.5 U
Chlorodibromomethane	UG/L	1.1	6%	80	MCL	0	1	0.5 U
Chloroethane	UG/L	0	0%	5	GA	0	17	0.5 U
Chloroform	UG/L	C-46	6%	7	GA	0	1	0.5 U
Cis-1,2-Dichloroethane	UG/L	2300	82%	5	GA	13	14	0.25
Cis-1,3-Dichloroaniline	UG/L	0	0%	0.4	GA	0	0	0.25
Cis-1,3-Dichloroaniline	UG/L	0	0%	0.4	GA	0	17	0.5 U



**APPENDIX C4**  
**GROUND WATER CHEMICAL RESULTS - 3Q 2001**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**

FACILITY	ASH LANDFILL		ASH LANDFILL		ASH LANDFILL		ASH LANDFILL	
	LOCATION ID	MWT-1	LOCATION ID	MWT-3	LOCATION ID	MWT-4	LOCATION ID	MWT-5
MATRIX	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE ID	TR2072	TR2078	TR2073	TR2074	TR2075	TR2076	TR2077	TR2080
DEPTH TO TOP OF SAMPLE	9.25	8	9.5	11.78	11.78	11.78	11.78	11.78
DEPTH TO BOTTOM OF SAMPLE	30-Aug-01	30-Aug-01	30-Aug-01	30-Aug-01	30-Aug-01	30-Aug-01	30-Aug-01	30-Aug-01
SAMPLE DATE	SA	SA	SA	SA	SA	SA	DU	DU
QC CODE	FREQUENCY	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
STUDY ID	OF	Criteria	Criteria	Source <sup>1</sup>	STD.	DETECTS	ANALYSES	Value (Q)
SAMPLE ROUND	UNIT	MAXIMUM	DETECTION	Value	5 GA	0	0	0.5 U
PARAMETER	UNIT	DETECTION	Value	Source <sup>1</sup>	STD.	DETECTS	ANALYSES	Value (Q)
Dichlorodifluoromethane	UG/L	0%	0%	5 GA	0	0	0	0.5 U
Dichloromethyl methyl ketone	UG/L	0%	0%	5 GA	0	0	11	25 R
Ethyl benzene	UG/L	0%	0%	5 GA	0	0	17	0.5 U
Ethyl ether	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Ethyl methylacetate	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Hexachlorobutadiene	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Hexachloroethane	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Isopropylbenzene	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Methyl/Para Xylene	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Methylacrylonitrile	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Methyl 2-propenoate	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Methyl Terbutyl Ether	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Methyl bromide	UG/L	0%	0%	5 GA	0	0	17	0.5 U
Methyl butyl ketone	UG/L	0%	0%	5 GA	0	0	17	25 UJ
Methyl chloride	UG/L	0%	0%	5 GA	0	0	17	0.5 U
Methyl ethyl ketone	UG/L	0%	0%	5 GA	0	0	17	0.5 U
Methyl iodide	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Methyl isobutyl ketone	UG/L	0%	0%	5 GA	0	0	17	25 U
Methyl methacrylate	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Methylene bromide	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Methylene chloride	UG/L	29	18%	5 GA	2	3	17	0.5 U
Naphthalene	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Nitrobenzene	UG/L	0%	0%	0.4 GA	0	0	11	25 R
Orho Xylene	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Pentachloroethane	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Propionitrile	UG/L	0%	0%	5 GA	0	0	11	25 U
Propylbenzene	UG/L	0%	0%	5 GA	0	0	11	0.5 U
Styrene	UG/L	0%	0%	5 GA	0	0	17	0.5 U
Tetrachloroethene	UG/L	0%	0%	5 GA	0	0	17	0.5 U
Tetrahydroduran	UG/L	0%	0%	5 GA	0	0	11	2.5 U
Toluene	UG/L	0.29	6%	5 GA	0	1	17	0.5 U
Total Xylenes	UG/L	0	0%	5 GA	0	0	17	0.5 U
Trans-1,2-Dichloroethene	UG/L	0.71	29%	5 GA	0	5	17	0.27 J
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4 GA	0	0	17	0.5 U
Trans-1,4-Dichloro-2-butene	UG/L	0	0%	5 GA	0	0	11	0.5 U
Trichloroethene	UG/L	9.100	82%	5 GA	9	14	17 [REDACTED] 6.4	0.5 U
Trichlorofluoromethane	UG/L	0	0%	5 GA	0	0	11	0.5 U
Vinyl chloride	UG/L	120	18%	2 GA	2	3	17	0.5 U
n-Biphenylbenzene	UG/L	0	0%	5 GA	0	0	11	0.5 U
p-Chlorotoluene	UG/L	0	0%	5 GA	0	0	11	0.5 U
p-isopropyltoluene	UG/L	0	0%	5 GA	0	0	11	0.5 U
sec-Biphenylbenzene	UG/L	0	0%	5 GA	0	0	11	0.5 U

Notice

Notes:  
1. GA: NY State Class GA Groundwater Standard (TOGS 1.1.1, June 1998)  
MCL: US EPA Maximum Contaminant Limit, March 2001.



**APPENDIX C4**  
**GROUND WATER CHEMICAL RESULTS - 3Q 2001**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**



**APPENDIX C4**  
**GROUND WATER CHEMICAL RESULTS - 3Q 2001**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**

FACILITY	LOCATION ID	MATRIX	SAMPLE ID	ASH LANDFILL		ASH LANDFILL		ASH LANDFILL		ASH LANDFILL	
				MVT-6	MVT-7	MVT-9	MVT-9	PT-12A	PT-12A	GROUNDWATER	GROUNDWATER
QC CODE	STUDY ID	SAMPLE ROUND	FREQUENCY	NUMBER OF	NUMBER ABOVE	NUMBER OF	NUMBER OF	NUMBER ASH TRENCH	NUMBER ASH TRENCH	NUMBER ASH TRENCH	NUMBER ASH TRENCH
				OF	Criteria	Source <sup>1</sup>	STD.	DETECTS	ANALYSES	Value (Q)	Value (Q)
PARAMETER		UNIT	MAXIMUM DETECTION	Value	Source <sup>1</sup>	STD.	DETECTS	ANALYSES	Value (Q)	Value (Q)	Value (Q)
Dichlorodifluoromethane		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Dichloromethyl methyl ketone		UG/L	0	0%	5 GA	0	0	11	25 R	780 R	220 R
Ethyl benzene		UG/L	0	0%	5 GA	0	0	17	0.5 U	16 U	4.4 U
Ethyli ether		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Ethyl methacrylate		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Hexachlorobutadiene		UG/L	0	0%	0.5 GA	0	0	11	0.5 U	16 U	4.4 U
Hexachloroethane		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Isopropylbenzene		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Methyl para Xylene		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Methacrylonitrile		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Methyl 2-propenoate		UG/L	0	0%	0	0	0	11	0.5 U	16 U	4.4 U
Methyl Terbutyl Ether		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Methyl bromide		UG/L	0	0%	5 GA	0	0	17	0.5 U	16 U	4.4 U
Methyl butyl ketone		UG/L	0	0%	0	0	0	17	2.5 UJ	78 UJ	22 UJ
Methyl chloride		UG/L	0	0%	5 GA	0	0	17	0.5 U	16 U	4.4 U
Methyl ethyl ketone		UG/L	0	0%	0	0	0	17	0.5 U	16 U	4.4 U
Methyl Iodide		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Methyl isobutyl ketone		UG/L	0	0%	0	0	0	17	2.5 U	78 U	22 U
Methyl methacrylate		UG/L	0	0%	50 GA	0	0	11	0.5 U	16 U	4.4 U
Methylene bromide		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Methylene chloride		UG/L	29	18%	5 GA	2	3	17	0.5 U	16 U	4.4 U
Naphthalene		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Nitrobenzene		UG/L	0	0%	0.4 GA	0	0	11	25 R	780 R	220 R
Ortho Xylene		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Pentachloroethane		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Propionitrile		UG/L	0	0%	0	0	0	11	25 U	780 U	220 U
Propylbenzene		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Styrene		UG/L	0	0%	5 GA	0	0	17	0.5 U	16 U	4.4 U
Tetrachloroethene		UG/L	0	0%	5 GA	0	0	17	0.5 U	16 U	4.4 U
Tetrahydrofuran		UG/L	0	0%	0	0	0	11	2.5 U	78 U	22 U
Toluene		UG/L	0.29	6%	5 GA	0	1	17	0.5 U	16 U	4.4 U
Total Xylenes		UG/L	0	0%	5 GA	0	0	17	0.5 U	16 U	4.4 U
Trans-1,2-Dichloroethene		UG/L	0.71	29%	5 GA	0	5	17	0.25 J	16 U	4.4 U
Trans-1,3-Dichloropropene		UG/L	0	0%	0.4 GA	0	0	17	0.5 U	16 U	4.4 U
Trans-1,4-Dichloro-2-butene		UG/L	0	0%	0	0	0	11	0.5 U	16 U	4.4 U
Trichloroethene		UG/L	9100	82%	5 GA	9	14	17	0.96 J	620 U	28 U
Trichlorodifluoromethane		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
Vinyl chloride		UG/L	120	18%	2 GA	2	3	17	0.26 J	16 U	4.4 U
n-Butylbenzene		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
p-Chlorotoluene		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
p-Isopropyltoluene		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
sec-Butylbenzene		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U
tert-Butylbenzene		UG/L	0	0%	5 GA	0	0	11	0.5 U	16 U	4.4 U

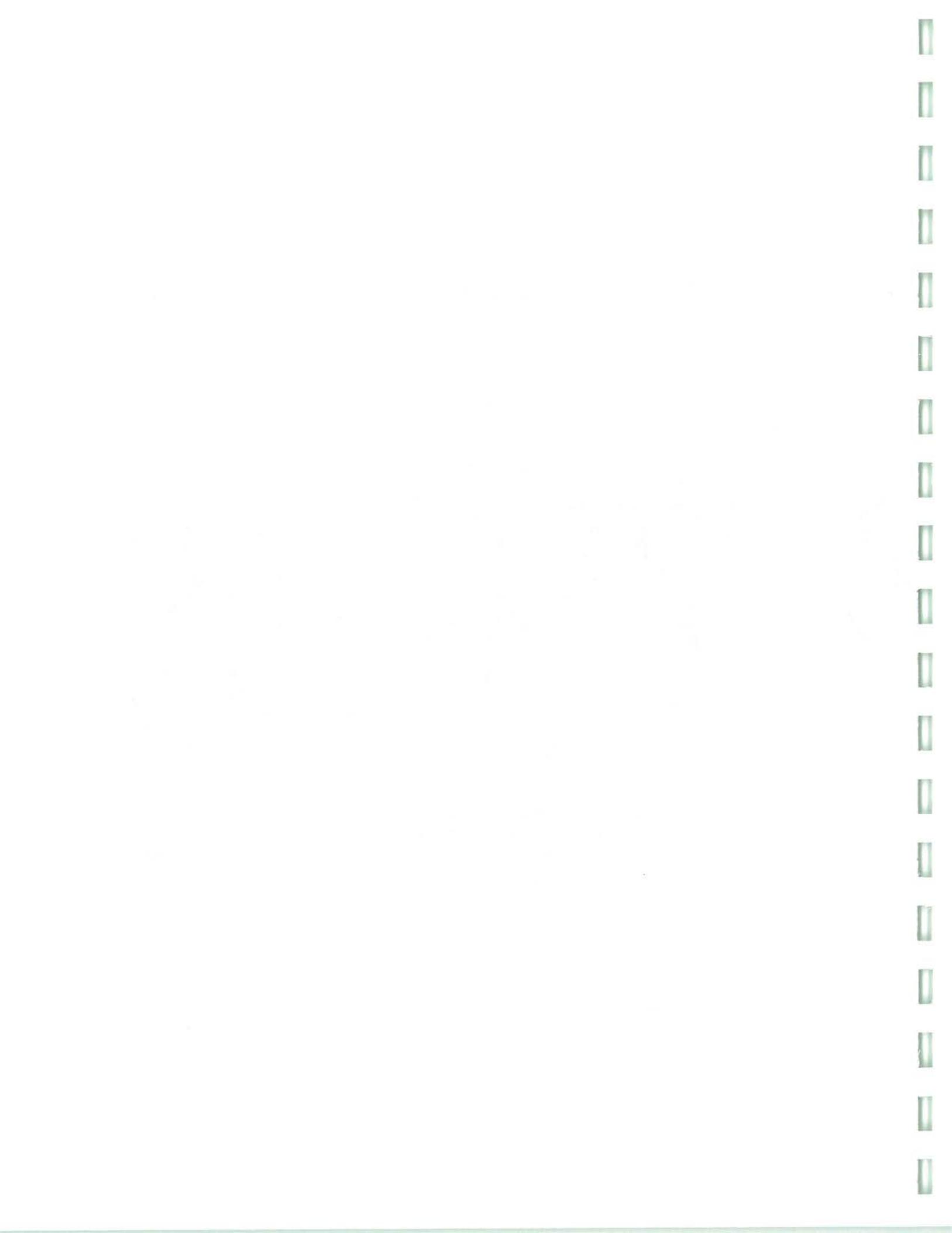
Notes

- Notes  
1. GA: NY State Class GA Groundwater Standard (TOGS 1.1.1, June 1998)  
MCL: US EPA Maximum Contaminant Limit March 2001



APPENDIX C4  
 GROUNDWATER CHEMICAL RESULTS - 3Q 2001  
 GROUNDWATER MONITORING -  
 ASH REMEDIAL DESIGN  
 SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY

QC CODE	STUDY ID	SAMPLE ROUND	PARAMETER	FREQUENCY OF			Criteria	Criteria	Source <sup>1</sup>	STD.	DETECTS	ANALYSES	NUMBER OF	NUMBER OF	ASH REMEDIAL
				UNIT	MAXIMUM	DETECTION									
<b>VOLATILE ORGANICS</b>															
1,1,1,2-Tetrachloroethane		UG/L	0	0%	5 GA	0	0	0	0	11	17	4 U			
1,1,1,1-Trichloroethane		UG/L	0	0%	5 GA	0	0	0	0	17	4 U				
1,1,2,2-Tetrachloroethane		UG/L	0	0%	1 GA	0	0	0	0	17	4 U				
1,1,2-Trichloroethane		UG/L	6	18%	5 GA	1	3	3	17	4 U					
1,1-Dichloroethane		UG/L	0	0%	5 GA	0	0	0	0	17	4 U				
1,1-Dichloropropene		UG/L	0	0%	5 GA	0	0	0	0	11					
1,2,3-Trichlorobenzene		UG/L	0	0%	5 GA	0	0	0	0	11					
1,2,3-Trichloropropane		UG/L	0	0%	0.04 GA	0	0	0	0	11					
1,2,4-Trichlorobenzene		UG/L	0	0%	5 GA	0	0	0	0	17	4 U				
1,2,4-Trimethylbenzene		UG/L	0	0%	5 GA	0	0	0	0	11					
1,2-Dibromo-3-chloropropane		UG/L	0	0%	0.04 GA	0	0	0	0	17	4 U				
1,2-Dibromoethane		UG/L	0	0%	0.0006 GA	0	0	0	0	17	4 U				
1,2-Dichlorobenzene		UG/L	0	0%	3 GA	0	0	0	0	17	4 U				
1,2-Dichloroethane		UG/L	0.28	6%	0.6 GA	0	0	1	17	4 U					
1,2-Dichloropropane		UG/L	0	0%	1 GA	0	0	0	0	17	4 U				
1,3,5-Trimethylbenzene		UG/L	0	0%	5 GA	0	0	0	0	11					
1,3-Dichlorobenzene		UG/L	0	0%	3 GA	0	0	0	0	17	4 U				
1,3-Dichloropropane		UG/L	0	0%	5 GA	0	0	0	0	11					
1,4-Dichlorobenzene		UG/L	0	0%	3 GA	0	0	0	0	17	4 U				
2,2-Dichloropropane		UG/L	0	0%	5 GA	0	0	0	0	11					
2-Chlorotoluene		UG/L	0	0%	5 GA	0	0	0	0	11					
2-Nitropropane		UG/L	0	0%	0	0	0	0	0	11					
4-Bromofluorobenzene		UG/L	5	100%	0	0	0	0	6	6	4 J				
Acetone		UG/L	350	24%	0	4	0	4	17	21 UJ					
Acrylonitrile		UG/L	0	0%	5 GA	0	0	0	0	11					
Allyl Chloride		UG/L	0	0%	5 GA	0	0	0	0	11					
Benzene		UG/L	0.81	12%	1 GA	0	2	2	17	4 U					
Bromobenzene		UG/L	0	0%	5 GA	0	0	0	0	11					
Bromoform		UG/L	0	0%	5 GA	0	0	0	0	17	4 U				
Bromochloromethane		UG/L	0.87	6%	80 MCL	0	1	1	17	4 U					
Chloroform		UG/L	0.62	6%	80 MCL	0	1	1	17	4 U					
Butyl chloride		UG/L	0	0%	5 GA	0	0	0	0	11					
Carbon disulfide		UG/L	0.34	6%	7 GA	0	1	1	17	4 U					
Carbon tetrachloride		UG/L	0	0%	5 GA	0	0	0	0	17	4 U				
Chloroacetonitrile		UG/L	0	0%	5 GA	0	0	0	0	11					
Chlorobenzene		UG/L	1.1	6%	80 MCL	0	1	1	17	4 U					
Chlorodromomethane		UG/L	0	0%	5 GA	0	0	0	0	17	4 U				
Chloroethane		UG/L	0.46	6%	7 GA	0	1	1	17	4 U					
Cis-1,2-Dichloroethene		UG/L	2300	82%	5 GA	13	14	17	73						
Cis-1,3-Dichloropropene		UG/L	0	0%	0.4 GA	0	0	0	0	17	4 U				



**APPENDIX C4**  
**GROUNDWATER CHEMICAL RESULTS - 3Q 2001**  
**GROUNDWATER MONITORING -**  
**ASH REMEDIAL DESIGN**  
**SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY**

QC CODE	STUDY ID	SAMPLE ROUND	PARAMETER	UNIT	MAXIMUM	DETECTION	FREQUENCY OF	Criteria	Criteria Value	Source <sup>1</sup>	NUMBER OF	NUMBER OF	ASH REMEDIAL ANALYSES	Value (Q)	16
Dichlorodifluoromethane		UG/L		0	0%	5 GA	0	0	0	STD.	0	0	0	11	
Dichloromethyl methyl ketone		UG/L		0	0%	5 GA	0	0	0	OF	0	0	0	11	
Ethyl benzene		UG/L		0	0%	5 GA	0	0	0	DETECTS	0	0	0	17	4 U
EthyL ether		UG/L		0	0%	5 GA	0	0	0	ANALYSES	0	0	0	11	
Ethyl methacrylate		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Hexachlorobutadiene		UG/L		0	0%	0.5 GA	0	0	0		0	0	0	11	
Hexachloroethane		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Isopropylbenzene		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Metal/Para Xylene		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Methyl acrylonitrile		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Methyl 2-propenoate		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Methyl Terbutyl Ether		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Methyl bromide		UG/L		0	0%	5 GA	0	0	0		0	0	0	17	4 U
Methyl butyl Ketone		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Methyl chloride		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Methyl ethyl Ketone		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Methyl Iodide		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Methyl Isobutyl ketone		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Methyl methacrylate		UG/L		0	0%	50 GA	0	0	0		0	0	0	17	
Methylene bromide		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Methylene chloride		UG/L		29	18%	5 GA	0	0	0		0	0	0	17	4 U
Naphthalene		UG/L		0	0%	5 GA	0	0	0		0	0	0	17	21 U
Nitrobenzene		UG/L		0	0%	0.4 GA	0	0	0		0	0	0	17	21 U
Ortho Xylene		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Pentachloroethane		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Propionitrile		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Propylbenzene		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Styrene		UG/L		0	0%	5 GA	0	0	0		0	0	0	17	
Tetrachloroethene		UG/L		0	0%	5 GA	0	0	0		0	0	0	17	4 U
Tetrahydroduran		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Toluene		UG/L		0.29	6%	5 GA	0	0	0		0	0	0	11	
Total Xylenes		UG/L		0	0%	5 GA	0	0	0		0	0	0	17	4 U
Trans-1,2-Dichloroethene		UG/L		0.71	29%	5 GA	0	0	0		5	5	5	17	4 U
Trans-1,3-Dichloropropene		UG/L		0	0%	0.4 GA	0	0	0		0	0	0	17	4 U
Trans-1,4-Dichloro-2-butene		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Trichloroethene		UG/L		9100	82%	5 GA	9	9	14		17	17	3 J		
Trichlorofluoromethane		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
Vinyl chloride		UG/L		120	18%	2 GA	2	2	3		17	17	4 U		
n-Butylbenzene		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
p-Chlorotoluene		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
p-Isopropyltoluene		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
sec-Butylbenzene		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	
tert-Butylbenzene		UG/L		0	0%	5 GA	0	0	0		0	0	0	11	

Notes:

1. GA: NY State Class GA Groundwater Standard (TOGS 1.1.1, June 1998)
- MC: US EPA Maximum Contaminant Limit, March 2001.



TABLE 3-3  
RESULTS OF VOC (METHOD 534.2) ANALYSIS - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

	STUDY LOCATION: ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
	LOC ID: BN-S	FH-D	FH-S	MW-30
	MATRIX: GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMP. ID:	ARD2168	ARD2169	ARD2170	ARD2172
SAMP. DEPTH TOP:	0	0	0	10.52
SAMP. DEPTH BOT:	0	0	0	10.52
SAMP. DATE	4/10/02	4/10/02	4/10/02	4/10/02
FIELD QC CODE: SA	SA	SA	SA	SA
Parameter	Action Level	Units	Value (Q)	Value (Q)
1,1,1,2-Tetrachloroethane	5 UGL	8.4 U	0.5 U	0.5 U
1,1,1-Trichloroethane	5 UGL	8.4 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5 UGL	8.4 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	1 UGL	8.4 U	0.5 U	0.5 U
1,1,2-Trichloroethane	5 UGL	8.4 U	0.5 U	0.5 U
1,1-Dichloroethene	5 UGL	8.4 U	0.5 U	0.5 U
1,1-Dichloropropene	5 UGL	8.4 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5 UGL	8.4 U	0.5 U	0.5 U
1,2,3-Trichloropropane	0.04 UGL	8.4 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	5 UGL	8.4 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	5 UGL	8.4 U	0.5 U	0.5 U
1,2-Dibromo-3-chloropropane	0.04 UGL	8.4 U	0.5 U	0.5 U
1,2-Dibromoethane	0.0006 UGL	8.4 U	0.5 U	0.5 U
1,2-Dichlorobenzene	3 UGL	8.4 U	0.5 U	0.5 U
1,2-Dichloroethane	0.6 UGL	8.4 U	0.5 U	0.5 U
1,2-Dichloroethene (total)	70 UGL	8.4 U	0.5 U	0.5 U
1,2-Dichloropropane	1 UGL	8.4 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	5 UGL	8.4 U	0.5 U	0.5 U
1,3-Dichlorobenzene	3 UGL	8.4 U	0.5 U	0.5 U
1,3-Dichloropropane	5 UGL	8.4 U	0.5 U	0.5 U
1,4-Dichlorobenzene	3 UGL	8.4 U	0.5 U	0.5 U
1,4-Dioxane	UGL	8.4 U	0.5 U	0.5 U
2,2-Dichloropropane	UGL	8.4 U	0.5 U	0.5 U
2-Chloroethylvinylether	UGL	8.4 U	0.5 U	0.5 U
2-Chrotoluene	5 UGL	8.4 U	0.5 U	0.5 U
2-Nitropropane	UGL	420 U	25 U	25 U
Acetone	5 UGL	84 UJ	5 UJ	5 UJ
Acrolein	5 UGL	8.4 U	0.5 U	0.5 U
Acrylonitrile	5 UGL	8.4 U	0.5 U	0.5 U
Allyl chloride	5 UGL	8.4 U	0.5 U	0.5 U
Benzene	1 UGL	8.4 U	0.5 U	0.5 U
Bromobenzene	5 UGL	8.4 U	0.5 U	0.5 U
Bromochloromethane	5 UGL	8.4 U	0.5 U	0.5 U
Bromodichloromethane	80 UGL	8.4 U	0.5 U	0.5 U
Bromoform	80 UGL	8.4 U	0.5 U	0.5 U
Bury chloride	5 UGL	8.4 U	0.5 U	0.5 U
Carbon disulfide	UGL	8.4 U	0.5 U	0.5 U

Dark Shade: Indicates concentration above detection limit  
Light Shade: Indicates concentration above action level.  
P=Project Status; quartermonth whrreporttablev5242.xls



TABLE 3-3  
RESULTS OF VOC (METHOD 524.2) ANALYSIS - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

Parameter	Action Level	Units	Value (Q)				
Carbon tetrachloride	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroacetonitrile	UG/L	420 R	25 R	25 R	25 R	25 R	25 R
Chlorobenzene	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorodibromomethane	80 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	7 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroprene	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cis-1,2-Dichloroethene	0.4 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cis-1,3-Dichloropropene	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	UG/L	420 R	25 R	25 R	25 R	25 R	25 R
Dichloromethyl methyl ketone	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethyl benzene	UG/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethyl ether	UG/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethyl methacrylate	UG/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	0.5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachloroethane	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isobutyl alcohol	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	UG/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Meta/Para Xylene	5 U/g/L	8.4 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Methacrylonitrile	UG/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl 2-propenoate	UG/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Terbutyl Ether	UG/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl bromide	UG/L	42 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Methyl butyl ketone	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl chloride	UG/L	84 R	5 R	5 R	5 R	5 R	5 R
Methylene ethyl ketone	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl iodide	UG/L	42 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl isobutyl ketone	50 U/g/L	8.4 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Methyl methacrylate	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene bromide	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	UG/L	420 R	25 R	25 R	25 R	25 R	25 R
Nitrobenzene	0.4 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ortho Xylene	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Pentachloroethane	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Propionitrile	UG/L	420 R	25 R	25 R	25 R	25 R	25 R
Propylbenzene	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	5 U/g/L	8.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	UG/L	42 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrahydrofuran							

Dark Shade: Indicates concentration above detection limit  
Light Shade: Indicates concentration above action level.



**TABLE 3-3**  
**RESULTS OF VOC (METHOD 524.2) ANALYSIS - SECOND QUARTER 2002**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

STUDY LOCATION: ASH LANDFILL		ASH LANDFILL		ASH LANDFILL	
LOC ID: BN-S	MATRIX: GROUNDWATER	FH-D	GROUNDWATER	FH-S	GROUNDWATER
SAMP. ID: ARD2168	ARD2168	0	0	0	0
SAMP. DEPTH TOP:		0	0	0	0
SAMP. DEPTH BOT:					10.52
SAMP. DATE	4/10/02		4/10/02	4/10/02	4/10/02
FIELD QC CODE: SA		SA		SA	
Parameter	Action Level	Units	Value (Q)	Value (Q)	Value (Q)
Toluene	5	UG/L	8.4 U	0.5 U	0.5 U
Total Xylenes	5	UG/L	8.4 U	0.5 U	0.5 U
Total Xylenes-A		UG/L			
Trans-1,2-Dichloroethene	5	UG/L	8.4 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene	0.4	UG/L	8.4 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-butene	UG/L		8.4 UJ	0.5 UJ	0.5 UJ
Trichloroethene	5	UG/L	8.4 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	8.4 U	0.5 U	0.5 U
Vinyl acetate	UG/L		8.4 U	0.5 U	0.5 U
Vinyl chloride	2	UG/L			
cis-1,4-Dichloro-2-butene	UG/L		8.4 U	0.5 U	0.5 U
n-Butylbenzene	5	UG/L	8.4 U	0.5 U	0.5 U
p-Chlorotoluene	5	UG/L	8.4 U	0.5 U	0.5 U
p-Isopropyltoluene	5	UG/L	8.4 U	0.5 U	0.5 U
sec-Butylbenzene	5	UG/L	8.4 U	0.5 U	0.5 U
tert-Butylbenzene	5	UG/L	8.4 U	0.5 U	0.5 U

Dark Shade: Indicates concentration above detection limit  
Light Shade: Indicates concentration above action level.

P: Pre-project Sample; S: Quartile Sample; A: Repetitive Sample; M: Median Sample



TABLE 3-3  
RESULTS OF VOC (METHOD 524.2) ANALYSIS - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

Parameter	Action Level	Units	Value (Q)									
1,1,1,2-Tetrachloroethane	5 UGL	0.5 U	1.8 U	0.5 U								
1,1,1-Trichloroethane	5 UGL	0.5 U	1.8 U	0.5 U								
1,1,2,2-Tetrachloroethane	5 UGL	0.5 U	1.8 U	0.5 U								
1,1,2-Trichloro-1,2,2-Trifluoroethane	1 UGL	0.5 U	1.8 U	0.5 U								
1,1,2-Trichloroethane	5 UGL	0.5 U	1.8 U	0.5 U								
1,1-Dichloroethene	5 UGL	0.5 U	1.8 U	0.5 U								
1,1-Dichloropropene	5 UGL	0.5 U	1.8 U	0.5 U								
1,2,3-Trichlorobenzene	5 UGL	0.5 U	1.8 U	0.5 U								
1,2,3-Trichloropropane	0.04 UGL	0.5 U	1.8 U	0.5 U								
1,2,4-Trichlorobenzene	5 UGL	0.5 U	1.8 U	0.5 U								
1,2,4-Trimethylbenzene	5 UGL	0.5 U	1.8 U	0.5 U								
1,2-Dibromo-3-chloropropane	0.04 UGL	0.5 U	1.8 U	0.5 U								
1,2-Dibromoethane	0.0006 UGL	0.5 U	1.8 U	0.5 U								
1,2-Dichlorobenzene	3 UGL	0.5 U	1.8 U	0.5 U								
1,2-Dichloroethane	0.6 UGL	0.5 U	1.8 U	0.5 U								
1,2-Dichloroethene (total)	70 UGL	0.5 U	1.8 U	0.5 U								
1,2-Dichloropropane	1 UGL	0.5 U	1.8 U	0.5 U								
1,3,5-Trimethylbenzene	5 UGL	0.5 U	1.8 U	0.5 U								
1,3-Dichlorobenzene	3 UGL	0.5 U	1.8 U	0.5 U								
1,3-Dichloropropane	5 UGL	0.5 U	1.8 U	0.5 U								
1,4-Dichlorobenzene	3 UGL	0.5 U	1.8 U	0.5 U								
1,4-Dioxane	UGL	0.5 U	1.8 U	0.5 U								
2,2-Dichloropropane	UGL	0.5 U	1.8 U	0.5 U								
2-Chloroethylvinylether	5 UGL	0.5 U	1.8 U	0.5 U								
2-Chlorotoluene	25 UGL	0.5 U	90 U	25 U								
2-Nitropropane	5 UGL	0.5 U	1.8 U	0.5 U								
Acetone	5 UGL	0.5 U	1.8 U	0.5 U								
Acrylonitrile	5 UGL	0.5 U	1.8 U	0.5 U								
Allyl chloride	5 UGL	0.5 U	1.8 U	0.5 U								
Benzene	1 UGL	0.5 U	1.8 U	0.5 U								
Bromobenzene	5 UGL	0.5 U	1.8 U	0.5 U								
Bromochloromethane	5 UGL	0.5 U	1.8 U	0.5 U								
Bromodichloromethane	80 UGL	0.5 U	1.8 U	0.5 U								
Bromoform	80 UGL	0.5 U	1.8 U	0.5 U								
Buryl chloride	5 UGL	0.5 U	1.8 U	0.5 U								
Carbon disulfide	UGL	0.5 U	1.8 U	0.5 U								

Dark Shade: Indicates concentration above detection limit  
Light Shade: Indicates concentration above action level.



TABLE 3-3  
RESULTS OF VOC (METHOD 524.2) ANALYSIS - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL,  
SENECA ARMY DEPOT ACTIVITY

Parameter	Action Level	Units	Value (Q)								
Carbon tetrachloride	5 U/g/L	0.5 U	1.8 U	0.5 U							
Chloroacetonitrile	UG/L	25 R	90 R	25 R							
Chlorobenzene	5 U/g/L	0.5 U	1.8 U	0.5 U							
Chlorodibromomethane	80 U/g/L	0.5 U	1.8 U	0.5 U							
Chloroethane	5 U/g/L	0.5 U	1.8 U	0.5 U							
Chloroform	7 U/g/L	0.5 U	1.8 U	0.5 U							
Chloroprene	5 U/g/L	0.5 U	1.8 U	0.5 U							
Cis-1,2-Dichloroethene	0.4 U/g/L	0.5 U	1.8 U	0.5 U							
Cis-1,3-Dichloropropene	5 U/g/L	0.5 U	1.8 U	0.5 U							
Dichlorodifluoromethane	UG/L	25 R	90 R	25 R							
Dichloromethyl methyl ketone	5 U/g/L	0.5 U	1.8 U	0.5 U							
Ethy benzene	UG/L	0.5 U	1.8 U	0.5 U							
Ethyl ether	UG/L	0.5 U	1.8 U	0.5 U							
Ethyl methacrylate	UG/L	0.5 U	1.8 U	0.5 U							
Hexachlorobutadiene	0.5 U/g/L	0.5 U	1.8 U	0.5 U							
Hexachloroethane	5 U/g/L	0.5 U	1.8 U	0.5 U							
Isobutyl alcohol	UG/L	0.5 U	1.8 U	0.5 U							
Isopropylbenzene	5 U/g/L	0.5 U	1.8 U	0.5 U							
Meta/Para Xylene	UG/L	0.5 U	1.8 U	0.5 U							
Methacrylonitrile	5 U/g/L	0.5 U	1.8 U	0.5 U							
Methyl 2-propenoate	UG/L	0.5 U	1.8 U	0.5 U							
Methyl Terbutyl Ether	UG/L	0.5 U	1.8 U	0.5 U							
Methyl bromide	5 U/g/L	0.5 U	1.8 U	0.5 U							
Methyl butyl ketone	UG/L	2.5 U	9 UJ	2.5 U							
Methyl chloride	5 U/g/L	0.5 U	1.8 U	0.5 U							
Methyl ethyl ketone	5 R	18 R	5 R	5 R	5 R	5 R	5 R	5 R	5 R	5 R	5 R
Methyl iodide	5 U/g/L	0.5 U	1.8 U	0.5 U							
Methyl isobutyl ketone	UG/L	2.5 U	9 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl methacrylate	50 U/g/L	0.5 U	1.8 U	0.5 U							
Methylene bromide	5 U/g/L	0.5 U	1.8 U	0.5 U							
Methylene chloride	5 U/g/L	0.5 U	1.8 U	0.5 U							
Naphthalene	0.4 U/g/L	25 R	90 R	25 R							
Nitrobenzene	5 U/g/L	0.5 U	1.8 U	0.5 U							
Ortho Xylene	5 U/g/L	0.5 U	1.8 U	0.5 U							
Pentachloroethane	5 U/g/L	0.5 U	1.8 U	0.5 U							
Propionitrile	UG/L	25 R	90 R	25 R							
Propylbenzene	5 U/g/L	0.5 U	1.8 U	0.5 U							
Styrene	5 U/g/L	0.5 U	1.8 U	0.5 U							
Tetrachloroethene	5 U/g/L	0.5 U	1.8 U	0.5 U							
Tetrahydrofuran	2.5 U	9 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

Dark Shade: Indicates concentration above detection limit  
Light Shade: Indicates concentration above action level.  
P: Pre-project Sample; quant=quantifiable; n=number of replicates



TABLE 3-3  
RESULTS OF VOC (METHOD 524.2) ANALYSIS - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

STUDY LOCATION: ASH LANDFILL		ASH LANDFILL		ASH LANDFILL	
LOC ID: MW-56	MATRIX: GROUNDWATER	MWT-1	ASH LANDFILL	MWT-10	ASH LANDFILL
SAMP ID: ARD2173	TR2081	GROUNDWATER	TR2087	GROUNDWATER	GROUNDWATER
SAMP. DEPTH TOP:	6.88	9.75	8.95	9.95	MWT-3
SAMP. DEPTH BOT:	6.88	9.75	8.95	9.95	GROUNDWATER
SAMP. DATE	4/10/02	4/9/02	4/9/02	4/10/02	TR2082
FIELD QC CODE: SA	SA	SA	SA	SA	10
Action Level	Units	Value (Q)	Value (Q)	Value (Q)	10
Toluene	5 UG/L	0.5 U	1.8 U	0.5 U	0.5 U
Total Xylenes	5 UG/L	0.5 U	1.8 U	0.5 U	0.5 U
Total Xylenes-A	UG/L				
Total Xylenes-B	5 UG/L	0.5 U	1.8 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	0.4 UG/L	0.5 U	1.8 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene	UG/L	0.5 U	1.8 U	0.5 U	0.5 U
Trans-1,4-Dichlore-2-butene	5 UG/L	0.5 U	1.8 U	0.5 U	0.5 U
Trichloroethene	5 UG/L	0.5 U	1.8 U	0.5 U	0.5 U
Trichlorofluoromethane	UG/L				
Vinyl acetate	2 UG/L	0.5 U	1.8 U	0.5 U	0.5 U
Vinyl chloride	UG/L				
cis-1,4-Dichloro-2-butene	5 UG/L	0.5 U	1.8 U	0.5 U	0.5 U
n-Butylbenzene	5 UG/L	0.5 U	1.8 U	0.5 U	0.5 U
p-Chlorotoluene	5 UG/L	0.5 U	1.8 U	0.5 U	0.5 U
p-Isopropyltoluene	5 UG/L	0.5 U	1.8 U	0.5 U	0.5 U
sec-Butylbenzene	5 UG/L	0.5 U	1.8 U	0.5 U	0.5 U
tert-Butylbenzene	5 UG/L	0.5 U	1.8 U	0.5 U	0.5 U

Dark Shade: Indicates concentration above detection limit  
Light Shade: Indicates concentration above action level.

P: Per project Science Guidance (ASH report table 3-2.xls)



TABLE 3-3  
RESULTS OF VOC (METHOD 524.2) ANALYSIS - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

Parameter	Action Level	Units	Value (Q)						
1,1,1,2-Tetrachloroethane	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,1,1-Trichloroethane	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,1,2,2-Tetrachloroethane	UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,1,2-Trichloro-1,2,2-Trifluoroethane	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,1,2-Trichloroethane	1 UGL	1.8 U		0.3 J	0.3 J	11 U	2 U		
1,1-Dichloroethane	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,1-Dichloroethene	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,1-Dichloropropene	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,2,3-Trichlorobenzene	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,2,3-Trichloropropane	0.04 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,2,4-Trichlorobenzene	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,2,4-Timethylbenzene	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,2-Dibromo-3-chloropropane	0.04 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,2-Dibromoethane	0.0006 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,2-Dichlorobenzene	3 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,2-Dichloroethane	0.6 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,2-Dichloroethene (total)	70 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,2-Dichloropropane	1 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,3,5-Trimethylbenzene	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,3-Dichlorobenzene	3 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,3-Dichloropropane	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,4-Dichlorobenzene	3 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
1,4-Dioxane	UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
2,2-Dichloropropane	UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
2-Chloroethylvinylether	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
2-Chlorotoluene	UGL	90 U		25 U	25 U	550 U	100 U		
2-Nitropropane	UGL	24 J		5 UJ	5 UJ	110 UJ	20 UJ		
Acetone	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
Acrylonitrile	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
Allyl chloride	5 UGL	1.8 U		0.4 J	0.4 J	0.3 J	11 U		
Benzene	1 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
Bromobenzene	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
Bromochloromethane	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
Bromodichloromethane	80 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
Bromoform	80 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
Butyl chloride	5 UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		
Carbon disulfide	UGL	1.8 U		0.5 U	0.5 U	11 U	2 U		

Dark Shade: Indicates concentration above detection limit  
Light Shade: Indicates concentration above action level  
P-98 project: S:\\98\\Project\\Samp\\524.2\\Tables\\524.2-SH.xls



TABLE 3-3  
RESULTS OF VOC (METHOD 524.2) ANALYSIS - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL,  
SENECA ARMY DEPOT ACTIVITY

Parameter	Action Level	Units	Value (Q)							
Carbon tetrachloride	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Chloroacetonitrile	UG/L	90 R	25 R	25 R	550 R	100 R				
Chlorobenzene	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Chlorodibromomethane	80 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Chloroethane	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Chloroform	7 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Chloroprene	5 U/G/L	56	8.2	8	28	82				
Cis-1,2-Dichloroethene	0.4 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Cis-1,3-Dichloropropene	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Dichlorodifluoromethane	UG/L	90 R	25 R	25 R	550 R	100 R				
Dichloromethyl methyl ketone	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Ethyl benzene	UG/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Ethyl ether	UG/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Ethyl methacrylate	0.5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Hexachlorobutadiene	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Hexachloroethane	UG/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Isobutyl alcohol	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Isopropylbenzene	UG/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Meta/Para Xylene	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Methacrylonitrile	UG/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Methyl 2-propenoate	UG/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Methyl Terbutyl Ether	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Methyl bromide	UG/L	9 UJ	2.5 UJ	2.5 UJ	55 UJ	10 UJ				
Methyl butyl ketone	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Methyl chloride	UG/L	18 R	5 R	5 R	110 R	20 R				
Methyl ethyl ketone	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Methyl iodide	UG/L	9 U	2.5 U	2.5 U	55 U	10 U				
Methyl isobutyl ketone	50 U/G/L	1.8 UJ	0.5 UJ	0.5 UJ	11 UJ	2 UJ				
Methyl methacrylate	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Methylene bromide	UG/L	90 R	25 R	25 R	550 R	100 R				
Methylene chloride	5 U/G/L	74 J	0.5 U	0.5 U	0.5 U	11 U	2 U			
Naphthalene	UG/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Nitrobenzene	0.4 U/G/L	90 R	25 R	25 R	550 R	100 R				
Ortho Xylene	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Pentachloroethane	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Propionitrile	UG/L	90 R	25 R	25 R	550 R	100 R				
Propylbenzene	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Styrene	5 U/G/L	1.8 U	0.5 U	0.5 U	0.5 U	11 U	2 U			
Tetrachloroethene	UG/L	9 U	2.5 U	2.5 U	55 U	10 U				
Tetrahydrofuran	UG/L									

Dark Shade: Indicates concentration above detection limit  
Light Shade: Indicates concentration above action level.

P-Project Name: quantifying ash report table-234.2-46  
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TABLE 3-3  
RESULTS OF VOC (METHOD 524.2) ANALYSIS - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

STUDY LOCATION: ASH LANDFILL		ASH LANDFILL MW <sup>T</sup> -6		ASH LANDFILL MW <sup>T</sup> -7		ASH LANDFILL MW <sup>T</sup> -9	
LOC ID: MW <sup>T</sup> -4		GROUNDWATER		GROUNDWATER		GROUNDWATER	
MATRIX: GROUNDWATER		TR2089	12.42	TR2084	12.42	TR2085	13.97
SAMP. ID: TR2083		12.28	12.42	12.42	12.42	13.97	14.08
SAMP. DEPTH TOP:		12.28		12.42		13.97	14.08
SAMP. DEPTH BOT:		12.28		12.42		13.97	
SAMP. DATE:		4/9/02		4/9/02		4/9/02	
FIELD QC CODE: SA		DU		SA		SA	
Parameter	Action Level	Units	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Toluene	5	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U
Total Xylenes	5	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U
Total Xylenes-A		UG/L					
Trans-1,2-Dichloroethene	5	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U
Trans-1,3-Dichloropropene	0.4	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U
Trans-1,4-Dichloro-2-butene	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U	2 U
Trichloroethene	5	UG/L	1.8 U	0.5 U	0.5 U	11 U	100
Trichlorofluoromethane	5	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U
Vinyl acetate	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U	
Vinyl chloride	2	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U
cis-1,4-Dichloro-2-butene	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U	
n-Butylbenzene	5	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U
p-Chlorotoluene	5	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U
p-Isopropyltoluene	5	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U
sec-Butylbenzene	5	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U
tert-Butylbenzene	5	UG/L	1.8 U	0.5 U	0.5 U	11 U	2 U

Dark Shade: Indicates concentration above detection limit  
Light Shade: Indicates concentration above action level.  
P: Per project. Source: quantamp sub report table 3-34.2.xls



TABLE 3-4  
RESULTS OF VOC (METHOD 8260B) ANALYSIS - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT

Parameter	Action Level	Units	Value (Q)	Value (Q)	Value (Q)	Value (Q)
					ASH LANDFILL PT-24	ASH LANDFILL GROUNDWATER
1,1,1,2-Tetrachloroethane	5 UGL	1 U			1.7 U	1.7 U
1,1,1-Trichloroethane	5 UGL	1 U			1.7 U	1.7 U
1,1,2-Tetrachloroethane	UGL	1 U			1.7 U	1.7 U
1,1,2-Trifluoro-1,2,2-Trifluoroethane	5 UGL	1 U			1.7 U	1.7 U
1,1,2-Trichloroethane	1 UGL	1 U			1.7 U	1.7 U
1,1-Dichloroethane	5 UGL	1 U	0.44 J		1.7 U	0.42 J
1,1-Dichloroethene	5 UGL	1 U			1.7 U	1.7 U
1,1-Dichloropropene	5 UGL	1 U			1.7 U	1.7 U
1,2,3-Trichlorobenzene	5 UGL	1 U			1.7 U	1.7 U
1,2,3-Trichloropropane	0.04 UGL	1 U			1.7 U	1.7 U
1,2,4-Trichlorobenzene	5 UGL	1 U			1.7 U	1.7 U
1,2,4-Trimethylbenzene	5 UGL	1 U			1.7 U	1.7 U
1,2-Dibromo-3-chloropropane	0.04 UGL	1 U			1.7 U	1.7 U
1,2-Dibromoethane	0.0006 UGL	1 U			1.7 U	1.7 U
1,2-Dichlorobenzene	3 UGL	1 U			1.7 U	1.7 U
1,2-Dichloroethane	0.6 UGL	1 U			1.7 U	1.7 U
1,2-Dichloroethene (total)	70 UGL	13		38		37
1,2-Dichloropropane	1 UGL	1 U			1.7 U	1.7 U
1,3,5-Trimethylbenzene	5 UGL	1 U			1.7 U	1.7 U
1,3-Dichlorobenzene	3 UGL	1 U			1.7 U	1.7 U
1,3-Dichloropropane	5 UGL	1 U			1.7 U	1.7 U
1,4-Dichlorobenzene	3 UGL	1 U			1.7 U	1.7 U
1,4-Dioxane	UGL	50 R		85 R	85 R	1.7 U
2,2-Dichloropropane	UGL	1 U				

Dark Shade: Indicates concentration above detection limit.  
Light Shade: Indicates concentration above action level.



TABLE 3-4  
RESULTS OF VOC (METHOD 8260B) ANALYSIS - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL.  
SENECA ARMY DEPOT

	ASH LANDFILL MW-28	ASH LANDFILL PT-24	ASH LANDFILL PT-24 GROUNDWATER	ASH LANDFILL ARD2171	ASH LANDFILL ARD2175	ASH LANDFILL ARD2174
Action Level	Units	Value (Q)	Value (Q)	Units	Value (Q)	Value (Q)
2-Chloroethylvinylether	UGL.	1 U	1.7 U	UGL.	1 U	1.7 U
2-Chlorotoluene	5 UGL.	1 U	1.7 U	UGL.	1 U	1.7 U
2-Nitropropane	UGL.	5 U	8.5 U	5 UGL.	5 R	8.5 R
Acetone	5 UGL.	5 R	8.5 U	5 UGL.	1 U	1.7 U
Acrolein	5 UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Acrylonitrile	5 UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Allyl chloride	1 UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Benzene	5 UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Bromobenzene	5 UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Bromochloromethane	80 UGL.	1 U	1.7 U	80 UGL.	1 U	1.7 U
Bromodichloromethane	80 UGL.	1 U	1.7 U	80 UGL.	1 U	1.7 U
Bromoform	5 UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Butyl chloride	UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Carbon disulfide	5 UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Carbon tetrachloride	UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Chloroacetonitrile	5 UGL.	1 U	1.7 U	80 UGL.	1 U	1.7 U
Chlorobenzene	5 UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Chlorodibromomethane	7 UGL.	1 U	1.7 U	7 UGL.	1 U	1.7 U
Chloroethane	5 UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Chloroform	5 UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Chloroprene	5 UGL.	12	54	5 UGL.	1 U	1.7 U
Cis-1,2-Dichloroethene	0.4 UGL.	1 U	1.7 U	5 UGL.	1 U	1.7 U
Cis-1,3-Dichloropropene						
Dichlorodifluoromethane	5 UGL.	1 U	1.7 U			

Dark Shade: Indicates concentration above detection limit.

Light Shade: Indicates concentration above action level.



TABLE 3-4  
RESULTS OF VOC (METHOD 8260B) ANALYSIS - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT

Parameter	Action Level	Units	ASH LANDFILL		ASH LANDFILL	
			MW-28	PT-24	GROUNDWATER	GROUNDWATER
Dichloromethyl methyl ketone	ARD2171	UG/L	10.39	11.88	ARD2175	11.88
Ethyl benzene	ARD2171	UG/L	10.39	11.88	ARD2174	11.88
Ethyl ether	ARD2171	UG/L	4/8/02	4/9/02	DU	4/9/02
Ethyl methacrylate	ARD2171	UG/L			SA	
Hexachlorobutadiene	ARD2171	UG/L			SA	
Hexachloroethane	ARD2171	UG/L			SA	
Isobutyl alcohol	ARD2171	UG/L			Value (Q)	Value (Q)
Isopropylbenzene	ARD2171	UG/L			1 U	1.7 U
Meta/Para Xylene	ARD2171	UG/L			1 U	1.7 U
Methacrylonitrile	ARD2171	UG/L			1 U	1.7 U
Methyl 2-propenoate	ARD2171	UG/L			1 U	1.7 U
Methyl Tertbutyl Ether	ARD2171	UG/L			1 U	1.7 U
Methyl bromide	ARD2171	UG/L			1 U	1.7 U
Methyl butyl ketone	ARD2171	UG/L			5 U	8.5 U
Methyl chloride	ARD2171	UG/L			1 U	1.7 U
Methyl ethyl ketone	ARD2171	UG/L			5 U	8.5 U
Methyl iodide	ARD2171	UG/L			1 U	1.7 U
Methyl isobutyl ketone	ARD2171	UG/L			5 U	8.5 U
Methyl methacrylate	ARD2171	UG/L			1 U	1.7 U
Methylene bromide	ARD2171	UG/L			1 U	1.7 U
Methylene chloride	ARD2171	UG/L			1 U	1.7 U
Naphthalene	ARD2171	UG/L			1 U	1.7 U
Nitrobenzene	ARD2171	UG/L	0.4	1 U	1 U	1.7 U
Ortho Xylene	ARD2171	UG/L	5	1 U	1 U	1.7 U

Dark Shade: Indicates concentration above detection limit.

Light Shade: Indicates concentration above action level.  
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TABLE 3-4  
RESULTS OF VOC (METHOD 8260B) ANALYSIS - SECOND QUARTER 2002  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT

Parameter	Action Level	Units	Value (Q)	Action Level	Units	Value (Q)	Action Level	Units	Value (Q)
Pentachloroethane	ASH LANDFILL	PT-24	ASH LANDFILL	PT-24			ASH LANDFILL	PT-24	
MW-28	GROUNDWATER	ARD2171	10.39	GROUNDWATER	ARD2175	11.88	GROUNDWATER	ARD2174	11.88
n-Butylbenzene			10.39			11.88			11.88
p-Chlorotoluene			4/8/02			4/9/02			4/9/02
p-Isopropyltoluene	SA	DU		SA	DU		SA	DU	
sec-Butylbenzene									
tert-Butylbenzene									
Total Xylenes-A	5 UGL	UGL	4 R	5 UGL	UGL	6.8 R	5 UGL	UGL	6.8 R
Total Xylenes-B	5 UGL	UGL	1 U	5 UGL	UGL	1.7 U	5 UGL	UGL	1.7 U
Trans-1,2-Dichloroethylene	5 UGL	UGL	1 U	5 UGL	UGL	1.7 U	5 UGL	UGL	1.7 U
Trans-1,3-Dichloropropene	5 UGL	UGL	1 U	5 UGL	UGL	0.36 J	5 UGL	UGL	0.36 J
Trans-1,4-Dichloro-2-butene	5 UGL	UGL	1 U	5 UGL	UGL	1.7 U	5 UGL	UGL	1.7 U
Trichloroethene	5 UGL	UGL	16	5 UGL	UGL	1.7 U	5 UGL	UGL	1.7 U
Trichlorofluoromethane	5 UGL	UGL	1 U	5 UGL	UGL	1.7 U	5 UGL	UGL	1.7 U
Vinyl acetate	5 UGL	UGL	1 U	5 UGL	UGL	1.7 U	5 UGL	UGL	1.7 U
Vinyl chloride	2 UGL	UGL	1 U	2 UGL	UGL	1.7 U	2 UGL	UGL	1.7 U
cis-1,4-Dichloro-2-butene	5 UGL	UGL	1 U	5 UGL	UGL	1.7 U	5 UGL	UGL	1.7 U
n-Butylbenzene	5 UGL	UGL	1 U	5 UGL	UGL	1.7 U	5 UGL	UGL	1.7 U
p-Isopropyltoluene	5 UGL	UGL	1 U	5 UGL	UGL	1.7 U	5 UGL	UGL	1.7 U
sec-Butylbenzene	5 UGL	UGL	1 U	5 UGL	UGL	1.7 U	5 UGL	UGL	1.7 U
tert-Butylbenzene	5 UGL	UGL	1 U	5 UGL	UGL	1.7 U	5 UGL	UGL	1.7 U

Dark Shade: Indicates concentration above detection limit.

Light Shade: Indicates concentration above action level.

