00582

GROUNDWATER MONITORING REPORT
ASH LANDFILL
THIRD QUARTER 2001

Prepared for:

SENECA ARMY DEPOT ACTIVITY
ROMULUS, NEW YORK
and
U.S. ARMY CORPS OF ENGINEERS
HUNTSVILLE, ALABAMA

Prepared by:

Parsons Engineering Science, Inc.
30 Dan Road
Canton, Massachusetts

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1 INTRODUCTION

This report summarizes results of Third Quarter 2001 (3Q 2001) 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 ethane 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.4.

Previously collected groundwater data is combined with information collected during the 3Q 2001 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 2001 sampling and monitoring event.

2 QUARTERLY MONITORING ACTIVITIES

3Q 2001 sampling and monitoring activities at the Ash Landfill consisted of measurements of groundwater elevations at 39 locations, field measurements of groundwater physical and chemical properties at 15 locations, and sample collection and laboratory analysis at 15 locations. A description of these activities is provided below.

2.1 GROUNDWATER ELEVATION MEASUREMENTS

On August 28, 2001, Parsons measured the depth to groundwater at 39 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. No measurements were collected at monitoring wells screened in the bedrock aquifer.

2.2 GROUNDWATER SAMPLING

From August 29 through September 4, 2001, Parsons collected groundwater samples from thirteen monitoring wells and two farmhouse wells. Monitoring 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. Monitoring wells associated with the permeable reactive barrier were sampled for dissolved hydrogen using a low-flow bubble-stripper provided by Vaportech Laboratories (Valencia, PA). The farmhouse wells were sampled from taps.

No samples were collected from farmhouse well BN-S and monitoring wells MW-30 and MW-56 because these wells were dry. Monitoring well MWT-11 was not sampled because the low water condition at this well did not allow for an adequate purge volume. Dissolved hydrogen was not sampled at MWT-3, MWT-4, MWT-6, MWT-7, and MWT-9 because groundwater recovery rates were insufficiently low.

2.3 GROUNDWATER ANALYSES

Table 2-1 contains the groundwater quality-sampling matrix for the 3Q 2001 sampling event. As shown in **Table 2-1**, groundwater quality measurements were performed on samples from the same 15 locations that were described in Section 2.2. **Table 2-1** also lists the laboratory analyses performed on the eight 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), nitrogen as nitrate or nitrite, chloride, sulfate, alkalinity (as $CaCO_3$), and dissolved organic carbon (DOC). VOC concentrations were measured using USEPA Methods 524.2 and 8260B, nitrogen as nitrate or nitrite was measured using Method 353.2, chloride and sulfate were measured using Method 300.0, alkalinity was measured using Method 310.1, and DOC was measured using Method 9060. Vaportech Laboratories (Valencia, PA) performed analyses for dissolved hydrogen and methane, ethane, and ethene (M/E/E). 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), nitrogen as nitrate or nitrite, alkalinity, chloride, M/E/E and DOC. All samples were shipped with chain-of-custody documentation, copies of which are provided in Appendix B.

3 QUARTERLY MONITORING RESULTS

3.1 GROUNDWATER TABLE 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 Means Sea Level (MSL) groundwater elevations for the 39 monitoring wells sampled during the 3Q 2001 sampling event. Of the 39 overburden monitoring wells that were sampled, seven were found to be dry. In the 32 wells where groundwater was detected, the average saturated thickness was 2.85 ft, with a maximum saturated thickness of 9.12 ft at both PT-11 and PT-15. Of the 15 wells that were sampled for groundwater quality, the maximum saturated thickness was 3.49 ft at PT-12A. The saturated thickness at monitoring wells in and around the permeable reactive barrier ranged between 0.97 ft (MWT-11) and 2.43 ft (MWT-10). 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 First Quarter 1995 and 3Q 2001.

Figure 3-1 depicts a groundwater elevation contour map for the Ash Landfill Operable Unit that was drawn using 3Q 2001 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 trends of the 3Q 2001 data are consistent with third quarter results from previous years in that groundwater elevations at the Ash Landfill site are typically low during this time of the year. The 3Q 2001 groundwater elevation measurements are unique in that the elevations observed at nearly all of the monitoring points are the minimum recorded since 1995.

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) at the 13 of the monitoring wells that were sampled during 3Q 2001. Field parameter measurements were not obtained during the groundwater sampling of the two farmhouse wells. 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 2001 sampling were consistent with previous sampling events. Dissolved oxygen concentrations for the 3Q 2001 sampling event ranged from 0.46 mg/L (MWT-10) to 7.31 mg/L (MWT-4), with an average concentration of 3.22 mg/L. The average DO concentration for 3Q 2001 is similar to the averages calculated for 4Q 1999 (3.11 mg/L) and 1Q 2000 (3.76 mg/L). Groundwater ORP values for 13 of the wells monitored during this sampling event range between -170 mV (MWT-10) and +199 mV (MWT-7). The average ORP for this round of

sampling was +69.5 mV. The average ORP for 3Q 2001 is similar to averages calculated for 4Q 1999 (+50.78 mV) and 1Q 2000 (+64.6 mV). Groundwater pH measurements ranged from 6.7 to 9.9, with an average of 7.2. The pH averages for 4Q 1999 and 1Q 2000 were 7.3 and 7.4, respectively.

3.3 GROUNDWATER ANALYTICAL RESULTS

Groundwater analytical results are presented in **Tables 3-3**, **3-4**, and **3-5**. VOC results from eleven samples analyzed using Method 524.2 are reported in **Table 3-3**. The VOC results from six samples analyzed using Method 8260B are reported in **Table 3-4**. The analytical results for nitrogen as nitrate or nitrite, alkalinity, chloride, sulfate, DOC (Method 9060), hydrogen, and M/E/E are reported in **Table 3-5**. Complete laboratory reports from STL and Vaportech are included as Appendix B.

Results of 3Q 2001 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 9,300 µg/L at PT-18. The maximum measured concentration of DCE in groundwater was 2,300 µg/L at PT-12A. The maximum measured concentration of vinyl chloride in groundwater (data not shown on **Figure 3-2**) was 120 µg/L at MW-44A.

In the seven monitoring wells sampled around the permeable reactive barrier, the maximum measured TCE concentration was 620 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 160 DCE µg/ L at MWT-9. Monitoring well MWT-9 is located approximately 6 feet downgradient of both MWT-7 and the permeable reactive barrier, as shown on **Figure 3-2**. Detectable levels of TCE and 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). The maximum and minimum TCE concentrations in these four wells were 28 µg/ L at MWT-9 and 0.96 µg/ L at MWT-6, respectively. The maximum and minimum DCE concentrations in these four wells were 160 µg/ L at MWT-9 and 25.7 µg/ L at MWT-3, respectively. No detectable levels of chlorinated VOCs were found in groundwater samples from the farmhouse wells (FH-S and FH-D). As mentioned previously, monitoring wells BN-S and MW-56 contained insufficient water for groundwater sampling.

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. These figures illustrate the seasonal and historical trends for TCE and DCE concentrations in monitoring wells that were sampled during the 3Q 2001 monitoring event. 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 have been consistently less than 60µg/L with less variation than has been observed at other monitoring points of the Ash Landfill. As shown in **Figure 3-7**, TCE and DCE concentrations at MW-30 at or below detection for all sampling events sing January of 1990. As shown in **Figure 3-8**, TCE concentrations at PT-24 have been consistently less than 10µg/L. Concentrations of DCE at PT-24 have been generally been observed to range between 60 µg/L and 140 µg/L sing December 1992. Although DCE concentrations have been variable, there appears to be less of a seasonal trend at PT-24 than has been observed at other monitoring points at the Ash Landfill. Appendix C of this report contains a summary of groundwater monitoring data collected during the October 1999 and January 2000 sampling events.

3.4 RESULTS INTERPRETATION AT THE PERMEABLE REACTIVE BARRIER

During the 3Q 2001 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. 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. For example, the measured TCE and DCE concentrations at MW-3 (TCE = 6.5 µg/L; DCE = 25 µg/L) were nearly identical to the concentrations at MW-1 (TCE = 6.4 µg/L; DCE = 25 µg/L). This suggests that little or no chemical destruction of chlorinated ethenes is occurring in this portion of the wall or that these are measurements of existing TCE and DCE concentrations in the groundwater downgradient of the wall. In the next well cluster (MW-4/MW-6), TCE and DCE concentrations measured at MW-6 (TCE = 0.9µg/L; DCE = 29µg/L) were significantly lower than the concentrations measured as MW-4 (TCE = 3.5µg/L; DCE = 100µg/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 620µg/L at MW-7 to 40 µg/L at MW-9, but the DCE concentration was observed to increase from 42µg/L at MW-7 to 160µg/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. Measurable increases in the reaction end products, ethane and ethene, were also observed in the downgradient wells, relative to the upgradient wells, further suggesting that the PRB is continuing to fully dechlorinate a portion of the chlorinated ethenes entering the PRB.

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. Furthermore, the decrease in sulfate concentration and increase in methane concentration suggests that the PRB is enhancing biological activity by the sulfate-reducing and methanogenic microbial populations, respectively. The temperature was also observed to consistently increase as groundwater migrated through the PRB, which is another potential indicator of methanogenic activity. The observed decreases in specific conductivity and alkalinity 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 2001 groundwater elevation monitoring and sampling event found:

1. Groundwater flow direction, and horizontal gradient are consistent with previous data collected in the area.
2. Groundwater elevations at the majority of sampling points were the minimum elevations recorded since 1995.
3. Groundwater analytical results are generally consistent with seasonal trends in the October 1999 and January 2000 sampling events.
4. Groundwater sampling results from monitoring wells along the permeable reactive barrier have shown little variation between the October 1999, January 2000, and Sept 2001 (3Q 2001) sampling events.
5. Seasonal low water levels in the overburden aquifer prevented adequate sampling of natural attenuation parameter data. As such, only two of the proposed eight wells were sampled for dissolved hydrogen.
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
GROUNDWATER SAMPLING MATRIX - THIRD QUARTER 2001
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^{2+}	VOC 524.2	VOC CLP (8260B)	Nitrate/ Nitrite	Alkalinity/ Sulfate/ Chlorides	Hydrogen	Metha Ethar Ethe
se Wells																	
	ARD2156	SA	NA	Dry								X					
	ARD2157	SA	NA	NA								X					
	ARD2158	SA	NA	NA								X					
itoring Wells																	
	ARD2159	SA	10.39	8.5	X	X	X	X	X	X	X		X				
	ARD2160	SA	10.52	Dry	X	X	X	X	X	X	X	X					
	ARD2161	SA	12.48	10.9	X	X	X	X	X	X	X		X				
	ARD2162	SA	11.58	8.4	X	X	X	X	X	X	X	X					
	ARD2163	SA	6.88	Dry	X	X	X	X	X	X	X	X					
	ARD2164	SA	13.38	9.9	X	X	X	X	X	X	X		X				
	ARD2165	SA	11.7	10.0	X	X	X	X	X	X	X		X				
	ARD2166	SA	11.88	10.4	X	X	X	X	X	X	X		X				
le Reactive Barrier Monitoring Wells																	
	TR2072	SA	9.75	8.0	X	X	X	X	X	X	X	X		X	X	X	X
	TR2073	SA	10	8.0	X	X	X	X	X	X	X	X		X	X	X	X
	TR2074	SA	12.28	10.0	X	X	X	X	X	X	X	X		X	X	X	X
	TR2075	SA	12.42	10.5	X	X	X	X	X	X	X	X		X	X	X	X
	TR2076	SA	13.97	11.5	X	X	X	X	X	X	X	X		X	X	X	X
	TR2077	SA	14.08	12.1	X	X	X	X	X	X	X	X		X	X	X	X
	TR2078	SA	8.95	7.0	X	X	X	X	X	X	X	X		X	X	X	X
	TR2079	SA	9.95	8.0	X	X	X	X	X	X	X	X		X	X	X	X
amples																	
(MWT-6)	TR2080	DU										X		X	X		X
(PT-12A)	ARD2167	DU											X				
-7)	TR2076MS	MS										X					
/T-7)	TR2076MSD	MSD										X					
ank	TR2033	RB										X					
nk	TR0034	TB										X					
nk	ARD0030	TB											X				
/T-6) (QA-LIMS# 6463)	TR2075MRD	SA										X		X	X		X

reas indicate sample or parameter not collected due to low water conditions or low recovery rates
t tap
ccording to EPA Reion II low-flow sampling procedures

DU - Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate

MRD - Missouri River Division ACOE

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TABLE 3-1
GROUNDWATER ELEVATION DATA - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

Monitoring Well	Top of Riser Elevation (ft)	3Q 2001 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	
PT-10	681.52	NA	NA	Not Measured		676.90	671.02	5.88	46.36
PT-11	658.22	08/27/2001	9.12	10.43	647.79	654.03	647.79	6.24	19.55
PT-12A	652.15	08/27/2001	3.49	9.89	642.26	649.01	642.26	6.75	13.38
PT-15	637.76	08/27/2001	9.12	10.38	627.38	633.74	627.38	6.36	19.50
PT-16	637.51	08/27/2001	3.36	7.68	629.83	634.85	629.83	5.02	11.04
PT-17	640.14	08/27/2001	0.56	11.09	629.05	635.85	629.05	6.80	11.65
PT-18	656.68	08/28/2001	1.32	10.38	646.30	652.28	646.30	5.98	11.70
PT-19	645.26	08/27/2001	3.01	8.69	636.57	643.09	636.57	6.52	11.70
MW-20	647.28	08/27/2001	0.00	Dry		642.34	637.41	4.93	11.80
MW-21A	647.73	08/27/2001	8.95	10.51	637.22	643.84	637.22	6.62	19.46
MW-22	648.61	08/27/2001	0.71	11.10	637.51	644.30	637.51	6.79	11.81
PT-23	641.58	08/27/2001	2.85	9.23	632.35	638.14	632.35	5.79	12.08
PT-24	636.40	08/27/2001	3.47	8.41	627.99	632.76	627.99	4.77	11.88
PT-25	637.09	08/27/2001	0.00	Dry		633.51	625.74	7.77	12.03
PT-26	614.64	NA	NA	Not Measured		611.60	601.53	10.07	14.00
MW-27	639.32	08/27/2001	1.31	9.23	630.09	634.88	630.09	4.79	10.54
MW-28	637.21	08/27/2001	1.89	8.50	628.71	632.57	628.71	3.86	10.39
MW-29	637.31	08/27/2001	0.00	Dry		631.22	627.30	3.92	10.54
MW-30	640.32	08/27/2001	0.00	Dry		636.38	629.88	6.50	10.52
MW-31	636.70	08/27/2001	0.00	Dry		634.22	627.02	7.20	10.35
MW-32	641.68	08/27/2001	0.00	Dry		637.84	632.70	5.14	10.37
MW-33	639.56	08/27/2001	0.00	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	Not Measured		629.44	624.62	4.82	56.64
MW-36	631.79	08/28/2001	7.05	9.53	622.26	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	NA	NA	Not Measured		635.39	628.99	6.40	32.24
MW-39	659.54	08/27/2001	2.82	9.07	650.47	657.84	650.47	7.37	11.89
MW-40	659.30	08/28/2001	5.57	9.14	650.16	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	NA	NA	Not Measured		655.13	650.73	4.40	5.80
MW-44A	653.85	08/27/2001	1.60	10.88	642.97	650.37	642.42	7.95	12.48
MW-45	650.90	08/27/2001	NA	Not Measured		648.12	643.12	5.00	8.34

TABLE 3-1
GROUNDWATER ELEVATION DATA - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

Monitoring Well	Top of Riser Elevation (ft)	3Q 2001 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-46	650.41	08/27/2001	2.16	9.29	641.12	647.53	641.12	6.41	11.45
MW-47	628.06	08/28/2001	0.41	8.15	619.91	625.76	619.88	5.88	8.56
MW-48	648.32	08/27/2001	3.12	8.38	639.94	645.46	639.94	5.52	11.50
MW-49D	650.50	NA	NA	Not Measured		647.62	641.76	5.86	37.54
MW-50D	649.88	NA	NA	Not Measured		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	08/27/2001	0.45	9.90	629.51	633.63	629.46	4.17	10.35
MW-54D	639.11	NA	NA	Not Measured		633.19	628.71	4.48	34.99
MW-55D	639.16	NA	NA	Not Measured		633.30	627.96	5.34	58.18
MW-56	630.51	08/28/2001	0.32	6.56	623.95	627.56	621.66	5.90	6.88
MW-57D	629.82	NA	NA	Not Measured		628.13	621.76	6.37	35.09
MW-58D	629.69	NA	NA	Not Measured		628.37	624.79	3.58	57.29
MW-59	656.83	08/27/2001	2.12	6.98	649.85	654.93	649.85	5.08	9.10
MW-60	660.15	08/27/2001	1.58	7.92	652.23	658.20	652.23	5.97	9.50
MWT-1	637.24	08/27/2001	1.57	8.18	629.06	629.06	629.06	0.00	9.75
MWT-2	637.19	NA	NA	Not Measured					9.55
MWT-3	637.31	08/27/2001	1.68	8.32	628.99	628.99	628.99	0.00	10.00
MWT-4	637.68	08/27/2001	2.03	10.40	627.28	627.28	627.28	0.00	12.43
MWT-5	637.72	NA	NA	Not Measured					11.95
MWT-6	637.59	08/27/2001	1.93	10.35	627.24	627.24	627.24	0.00	12.28
MWT-7	638.34	08/27/2001	2.21	11.76	626.58	626.58	626.58	0.00	13.97
MWT-8	638.40	NA	NA	Not Measured					12.55
MWT-9	638.08	08/27/2001	2.10	12.04	626.04	626.04	626.04	0.00	14.14
MWT-10	636.07	08/27/2001	2.43	6.52	629.55	629.55	629.55	0.00	8.95
MWT-11	635.90	08/28/2001	0.97	8.98	626.92	626.92	626.92	0.00	9.95

TABLE 3-2
FIELD MONITORING RESULTS - THIRD QUARTER 2001
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-12A	ARD2164	0.60	19.00	2.000	6.71	89.0	21.00	17.00	0.300
PT-18	ARD2165	2.96	16.70	1.450	6.90	-144.0	74.40	0.53	5.400
PT-24	ARD2166	5.58	17.00	0.527	7.20	82.0	140.00	0.13	0.300
MW-28	ARD2159	3.15	18.90	0.635	6.95	131.0	25.10	0.20	0.500
MW-30	Dry	NA	NA	NA	NA	NA	NA	NA	NA
MW-44A	ARD2161	0.60	14.40	4.710	7.09	-94.0	5.10	0.78	0.000
MW-48	ARD2162	0.67	19.00	0.657	6.92	82.0	9.30	0.13	NA
MW-56	Dry	NA	NA	NA	NA	NA	NA	NA	NA
FH-D	ARD2162	NA	NA	NA	NA	NA	NA	NA	NA
FH-S	ARD2162	NA	NA	NA	NA	NA	NA	NA	NA
BN-S	Dry	NA	NA	NA	NA	NA	NA	NA	NA
MWT-1	TR2072	1.65	16.30	0.620	7.07	172.0	159.00	5.10	15.400
MWT-3	TR2073	2.24	17.90	0.505	7.07	133.0	>999	5.10	15.400
MWT-4	TR2074	7.31	16.30	0.814	6.95	140.0	>999	5.10	15.400
MWT-6	TR2075	5.70	17.60	0.286	7.61	128.0	>999	3.33	15.400
MWT-7	TR2076	5.22	15.60	0.798	6.84	199.0	148.00	0.12	0.039
MWT-9	TR2077	3.30	18.90	0.598	6.68	97.0	>999	5.10	15.400
MWT-10	TR2078	0.46	17.30	0.076	9.86	-170.0	72.50	0.10	0.700
MWT-11	Dry	NA	NA	NA	NA	NA	NA	NA	NA

ND = Not Detected
NA = Not Analyzed

TABLE 3-3
RESULTS OF VOC (METHOD 524.2) ANALYSIS - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

STUDY ID:	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH TRENCH	ASH TRENCH	ASH TRENCH
SDG:	84551	84551	84551	84551	84551	84551
LOC ID:	FH-D	FH-S	MW-48	MWT-1	MWT-3	MWT-4
SAMP_ID:	ARD2157	ARD2158	ARD2162	TR2072	TR2073	TR2074
FIELD QC CODE:	SA	SA	SA	SA	SA	SA
SAMP. DEPTH TOP:	0	0	10.58	9.25	9.5	11.78
SAMP. DEPTH BOT:	0	0	10.58	9.25	9.5	11.78
MATRIX:	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMP. DATE:	29-Aug-01	29-Aug-01	31-Aug-01	30-Aug-01	30-Aug-01	30-Aug-01

RAMETER	UNIT	VALUE Q	VALUE Q	VALUE Q	VALUE Q	VALUE Q	VALUE
1,2-Tetrachloroethane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
1-Trichloroethane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
2,2-Tetrachloroethane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
2-Trichloroethane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Dichloroethane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Dichloroethene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Dichloropropene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
3-Trichlorobenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
3-Trichloropropane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
4-Trichlorobenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
4-Trimethylbenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Dibromo-3-chloropropane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Dibromoethane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Dichlorobenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Dichloroethane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Dichloropropane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
5-Trimethylbenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Dichlorobenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Dichloropropane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Dichlorobenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Dichloropropane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
hlorotoluene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
tropropane	ug/L	25. U	25. U	25. U	25. U	25. U	110
tone	ug/L	5. U	5. U	5. U	5. U	52. J	55
lonitrile	ug/L	.5 UJ	.5 UJ	.5 UJ	.5 UJ	.5 UJ	2.2
chloride	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
zene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
nobenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
nochloromethane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
modichloromethane	ug/L	.87	.5 U	.5 U	.5 U	.5 U	2.2
noform	ug/L	.62	.5 U	.5 U	.5 U	.5 U	2.2
l chloride	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
bon disulfide	ug/L	.5 U	.34 J	.5 U	.5 U	.5 U	2.2

TABLE 3-3
RESULTS OF VOC (METHOD 524.2) ANALYSIS - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

STUDY ID:		ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH TRENCH	ASH TRENCH	ASH TRENCH
SDG:		84551	84551	84551	84551	84551	84551
LOC ID:		FH-D	FH-S	MW-48	MWT-1	MWT-3	MWT-4
SAMP_ID:		ARD2157	ARD2158	ARD2162	TR2072	TR2073	TR2074
FIELD QC CODE:		SA	SA	SA	SA	SA	SA
SAMP. DEPTH TOP:		0	0	10.58	9.25	9.5	11.78
SAMP. DEPTH BOT:		0	0	10.58	9.25	9.5	11.78
MATRIX:		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMP. DATE:		29-Aug-01	29-Aug-01	31-Aug-01	30-Aug-01	30-Aug-01	30-Aug-01
RAMETER	UNIT	VALUE Q	VALUE Q	VALUE Q	VALUE Q	VALUE Q	VALUE
bon tetrachloride	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
roacetonitrile	ug/L	25. R	25. R	25. R	25. R	25. R	110
robenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
rodibromomethane	ug/L	1.1	.5 U	.5 U	.5 U	.5 U	2.2
roethane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
roform	ug/L	.46 J	.5 U	.5 U	.5 U	.5 U	2.2
1,2-Dichloroethene	ug/L	.5 U	.5 U	.5 U	25.	25.	100
1,3-Dichloropropene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
lorodifluoromethane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
loromethyl methyl ketone	ug/L	25. R	25. R	25. R	25. R	25. R	110
l benzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
l ether	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
l methacrylate	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
achlorobutadiene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
achloroethane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
ropylbenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
a/Para Xylene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
nacrylonitrile	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
hyl 2-propenoate	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
hyl Tertbutyl Ether	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
hyl bromide	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
hyl butyl ketone	ug/L	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	11
hyl chloride	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
hyl ethyl ketone	ug/L	5. U	5. U	5. U	5. U	5. U	22
hyl iodide	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
hyl isobutyl ketone	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	11
hyl methacrylate	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
hylene bromide	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
hylene chloride	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
hthalene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
obenzene	ug/L	25. R	25. R	25. R	25. R	25. R	110
o Xylene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
tachloroethane	ug/L	.5 UJ	.5 UJ	.5 UJ	.5 UJ	.5 UJ	2.2

TABLE 3-3
RESULTS OF VOC (METHOD 524.2) ANALYSIS - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

STUDY ID:		ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH TRENCH	ASH TRENCH	ASH TRENCH
SDG:		84551	84551	84551	84551	84551	8455
LOC ID:		FH-D	FH-S	MW-48	MWT-1	MWT-3	MWT-
SAMP_ID:		ARD2157	ARD2158	ARD2162	TR2072	TR2073	TR207
FIELD QC CODE:		SA	SA	SA	SA	SA	SA
SAMP. DEPTH TOP:		0	0	10.58	9.25	9.5	11.7
SAMP. DEPTH BOT:		0	0	10.58	9.25	9.5	11.7
MATRIX:		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMP. DATE:		29-Aug-01	29-Aug-01	31-Aug-01	30-Aug-01	30-Aug-01	30-Aug-0
RAMETER	UNIT	VALUE Q	VALUE Q	VALUE Q	VALUE Q	VALUE Q	VALU
ionitrile	ug/L	25. U	25. U	25. U	25. U	25. U	110
ylbenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
ene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
achloroethene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
ahydrofuran	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	11
ene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
l Xylenes	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
s-1,2-Dichloroethene	ug/L	.5 U	.5 U	.5 U	.27 J	.71	2.2
s-1,3-Dichloropropene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
s-1,4-Dichloro-2-butene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
loroethene	ug/L	.5 U	.5 U	.24 J	6.4	6.5	3.5
lorofluoromethane	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
l chloride	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
tylbenzene	ug/L	5.3 U	.5 U	.5 U	.5 U	.5 U	2.2
lorotoluene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
opropyltoluene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Butylbenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2
Butylbenzene	ug/L	.5 U	.5 U	.5 U	.5 U	.5 U	2.2

TABLE 3-3
RESULTS OF VOC (METHOD 524.2) ANALYSIS - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

STUDY ID:		ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH
SDG:		84551	84551	84551	84551	84551
LOC ID:		MWT-6	MWT-7	MWT-9	MWT-10	MWT-6
SAMP_ID:		TR2075	TR2076	TR2077	TR2078	TR2080
FIELD QC CODE:		SA	SA	SA	SA	DU
SAMP. DEPTH TOP:		11.78	12.97	13.6	8	11.78
SAMP. DEPTH BOT:		11.78	12.97	13.6	8	11.78
MATRIX:		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMP. DATE:		30-Aug-01	30-Aug-01	29-Aug-01	29-Aug-01	30-Aug-01
PARAMETER	UNIT	VALUE Q	VALUE Q	VALUE Q	VALUE Q	VALUE Q
1,1,1,2-Tetrachloroethane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,1,1-Trichloroethane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,1,2,2-Tetrachloroethane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,1,2-Trichloroethane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,1-Dichloroethane	ug/L	.65 J	16. U	4.4 U	.5 U	.56 J
1,1-Dichloroethene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,1-Dichloropropene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,2,3-Trichlorobenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,2,3-Trichloropropane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,2,4-Trichlorobenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,2,4-Trimethylbenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,2-Dibromo-3-chloropropane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,2-Dibromoethane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,2-Dichlorobenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,2-Dichloroethane	ug/L	.28 J	16. U	4.4 U	.5 U	.75 U
1,2-Dichloropropane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,3,5-Trimethylbenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,3-Dichlorobenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,3-Dichloropropane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
1,4-Dichlorobenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
2,2-Dichloropropane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
2-Chlorotoluene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
2-Nitropropane	ug/L	25. U	780. U	220. U	25. U	38. U
Acetone	ug/L	120. J	160. UJ	350. J	5. UJ	12. UJ
Acrylonitrile	ug/L	.5 UJ	16. UJ	4.4 UJ	.5 UJ	.75 UJ
Allyl chloride	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Benzene	ug/L	.31 J	16. U	4.4 U	.81	.75 U
Bromobenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Bromochloromethane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Bromodichloromethane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Bromoform	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Butyl chloride	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Carbon disulfide	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U

TABLE 3-3
RESULTS OF VOC (METHOD 524.2) ANALYSIS - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

STUDY ID:		ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH
SDG:		84551	84551	84551	84551	84551
LOC ID:		MWT-6	MWT-7	MWT-9	MWT-10	MWT-6
SAMP_ID:		TR2075	TR2076	TR2077	TR2078	TR2080
FIELD QC CODE:		SA	SA	SA	SA	DU
SAMP. DEPTH TOP:		11.78	12.97	13.6	8	11.78
SAMP. DEPTH BOT:		11.78	12.97	13.6	8	11.78
MATRIX:		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMP. DATE:		30-Aug-01	30-Aug-01	29-Aug-01	29-Aug-01	30-Aug-01
PARAMETER	UNIT	VALUE Q	VALUE Q	VALUE Q	VALUE Q	VALUE Q
Carbon tetrachloride	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Chloroacetonitrile	ug/L	25. R	780. R	220. R	25. R	38. R
Chlorobenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Chlorodibromomethane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Chloroethane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Chloroform	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Cis-1,2-Dichloroethene	ug/L	29. J	42.	160.	.29 J	28.
Cis-1,3-Dichloropropene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Dichlorodifluoromethane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Dichloromethyl methyl ketone	ug/L	25. R	780. R	220. R	25. R	38. R
Ethyl benzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Ethyl ether	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Ethyl methacrylate	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Hexachlorobutadiene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Hexachloroethane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Isopropylbenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Meta/Para Xylene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Methacrylonitrile	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Methyl 2-propenoate	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Methyl Tertbutyl Ether	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Methyl bromide	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Methyl butyl ketone	ug/L	2.5 UJ	78. UJ	22. UJ	2.5 UJ	3.8 UJ
Methyl chloride	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Methyl ethyl ketone	ug/L	5. U	160. U	44. U	5. U	7.5 U
Methyl iodide	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Methyl isobutyl ketone	ug/L	2.5 U	78. U	22. U	2.5 U	3.8 U
Methyl methacrylate	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Methylene bromide	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Methylene chloride	ug/L	.5 UJ	29. J	9.9 J	.5 U	.91 J
Naphthalene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Nitrobenzene	ug/L	25. R	780. R	220. R	25. R	38. R
Ortho Xylene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Pentachloroethane	ug/L	.5 UJ	16. UJ	4.4 UJ	.5 UJ	.75 UJ

TABLE 3-3
RESULTS OF VOC (METHOD 524.2) ANALYSIS - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASII LANDFILL
SENECA ARMY DEPOT ACTIVITY

	STUDY ID:	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH
	SDG:	84551	84551	84551	84551	84551
	LOC ID:	MWT-6	MWT-7	MWT-9	MWT-10	MWT-6
	SAMP_ID:	TR2075	TR2076	TR2077	TR2078	TR2080
	FIELD QC CODE:	SA	SA	SA	SA	DU
	SAMP. DEPTH TOP:	11.78	12.97	13.6	8	11.78
	SAMP. DEPTH BOT:	11.78	12.97	13.6	8	11.78
	MATRIX:	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
	SAMP. DATE:	30-Aug-01	30-Aug-01	29-Aug-01	29-Aug-01	30-Aug-01
PARAMETER	UNIT	VALUE Q	VALUE Q	VALUE Q	VALUE Q	VALUE Q
Propionitrile	ug/L	25. U	780. U	220. U	25. U	38. U
Propylbenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Styrene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Tetrachloroethene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Tetrahydrofuran	ug/L	2.5 U	78. U	22. U	2.5 U	3.8 U
Toluene	ug/L	.5 U	16. U	4.4 U	.29 J	.75 U
Total Xylenes	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Trans-1,2-Dichloroethene	ug/L	.25 J	16. U	4.4 U	.5 U	.42 J
Trans-1,3-Dichloropropene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Trans-1,4-Dichloro-2-butene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Trichloroethene	ug/L	.96 J	620.	28.	.5 U	.86
Trichlorofluoromethane	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
Vinyl chloride	ug/L	.26 J	16. U	4.4 U	.5 U	.75 U
n-Butylbenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
p-Chlorotoluene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
p-Isopropyltoluene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
sec-Butylbenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U
tert-Butylbenzene	ug/L	.5 U	16. U	4.4 U	.5 U	.75 U

TABLE 3-4
RESULTS OF VOC (METHOD 8260B) ANALYSIS - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

STUDY ID:		ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN
SDG:		84551	84551	84551	84551
LOC ID:		MW-28	MW-44A	PT-12A	PT-18
SAMP_ID:		ARD2159	ARD2161	ARD2164	ARD2165
FIELD QC CODE:		SA	SA	SA	SA
SAMP. DEPTH TOP:		9.39	11.98	12.38	11.2
SAMP. DEPTH BOT:		9.39	11.98	12.38	11.2
MATRIX:		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMP. DATE:		31-Aug-01	4-Sep-01	31-Aug-01	4-Sep-01
PARAMETER	UNIT	VALUE Q	VALUE Q	VALUE Q	VALUE Q
TCL VOC					
1,1,1-Trichloroethane	ug/L	1. U	22. U	130. U	550. U
1,1,2,2-Tetrachloroethane	ug/L	1. U	22. U	130. U	550. U
1,1,2-Trichloroethane	ug/L	1. U	22. U	130. U	550. U
1,1-Dichloroethane	ug/L	1. U	6. J	130. U	550. U
1,1-Dichloroethene	ug/L	1. U	22. U	130. U	550. U
1,2,4-Trichlorobenzene	ug/L	1. U	22. U	130. U	550. U
1,2-Dibromo-3-chloropropane	ug/L	1. U	22. U	130. U	550. U
1,2-Dibromoethane	ug/L	1. U	22. U	130. U	550. U
1,2-Dichlorobenzene	ug/L	1. U	22. U	130. U	550. U
1,2-Dichloroethane	ug/L	1. U	22. U	130. U	550. U
1,2-Dichloropropane	ug/L	1. U	22. U	130. U	550. U
1,3-Dichlorobenzene	ug/L	1. U	22. U	130. U	550. U
1,4-Dichlorobenzene	ug/L	1. U	22. U	130. U	550. U
4-Bromofluorobenzene	ug/L	5.	5. J	5. J	4. J
Acetone	ug/L	5. UJ	130. UJ	640. UJ	3,500. UJ
Benzene	ug/L	1. U	22. U	130. U	550. U
Bromochloromethane	ug/L	1. U	22. U	130. U	550. U
Bromodichloromethane	ug/L	1. U	22. U	130. U	550. U
Bromoform	ug/L	1. U	22. U	130. U	550. U
Carbon disulfide	ug/L	1. U	22. U	130. U	550. U
Carbon tetrachloride	ug/L	1. U	22. U	130. U	550. U
Chlorobenzene	ug/L	1. U	22. U	130. U	550. U
Chlorodibromomethane	ug/L	1. U	22. U	130. U	550. U
Chloroethane	ug/L	1. U	22. U	130. U	550. U

TABLE 3-4
RESULTS OF VOC (METHOD 8260B) ANALYSIS - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

STUDY ID:		ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN
SDG:		84551	84551	84551	84551
LOC ID:		MW-28	MW-44A	PT-12A	PT-18
SAMP_ID:		ARD2159	ARD2161	ARD2164	ARD2165
FIELD QC CODE:		SA	SA	SA	SA
SAMP. DEPTH TOP:		9.39	11.98	12.38	11.2
SAMP. DEPTH BOT:		9.39	11.98	12.38	11.2
MATRIX:		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMP. DATE:		31-Aug-01	4-Sep-01	31-Aug-01	4-Sep-01
PARAMETER	UNIT	VALUE Q	VALUE Q	VALUE Q	VALUE Q
Chloroform	ug/L	1. U	22. U	130. U	550. U
Cis-1,2-Dichloroethene	ug/L	21.	440.	2,200.	1,200.
Cis-1,3-Dichloropropene	ug/L	1. U	22. U	130. U	550. U
Ethyl benzene	ug/L	1. U	22. U	130. U	550. U
Methyl bromide	ug/L	1. U	22. U	130. U	550. U
Methyl butyl ketone	ug/L	5. UJ	110. UJ	640. UJ	2,800. UJ
Methyl chloride	ug/L	1. U	22. U	130. U	550. U
Methyl ethyl ketone	ug/L	5. U	110. U	640. U	2,800. U
Methyl isobutyl ketone	ug/L	5. U	110. U	640. U	2,800. U
Methylene chloride	ug/L	2. U	44. U	260. U	1,100. U
Styrene	ug/L	1. U	22. U	130. U	550. U
Tetrachloroethene	ug/L	1. U	22. U	130. U	550. U
Toluene	ug/L	1. U	22. U	130. U	550. U
Total Xylenes	ug/L	1. U	22. U	130. U	550. U
Trans-1,2-Dichloroethene	ug/L	.3 J	22. U	130. U	550. U
Trans-1,3-Dichloropropene	ug/L	1. U	22. U	130. U	550. U
Trichloroethene	ug/L	20.	9. J	1,000.	9,100.
Vinyl chloride	ug/L	1. U	120.	130. U	550. U

TABLE 3-4
RESULTS OF VOC (METHOD 8260B) ANALYSIS - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

STUDY ID:	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN
SDG:	84551	84551
LOC ID:	PT-24	PT-12A
SAMP_ID:	ARD2166	ARD2167
FIELD QC CODE:	SA	DU
SAMP. DEPTH TOP:	10.88	12.3
SAMP. DEPTH BOT:	10.88	12.3
MATRIX:	GROUNDWATER	GROUNDWATER
SAMP. DATE:	31-Aug-01	31-Aug-01

PARAMETER	UNIT	VALUE	Q	VALUE	Q
TCL VOC					
1,1,1-Trichloroethane	ug/L	4.	U	100.	U
1,1,2,2-Tetrachloroethane	ug/L	4.	U	100.	U
1,1,2-Trichloroethane	ug/L	4.	U	100.	U
1,1-Dichloroethane	ug/L	4.	U	100.	U
1,1-Dichloroethene	ug/L	4.	U	100.	U
1,2,4-Trichlorobenzene	ug/L	4.	U	100.	U
1,2-Dibromo-3-chloropropane	ug/L	4.	U	100.	U
1,2-Dibromoethane	ug/L	4.	U	100.	U
1,2-Dichlorobenzene	ug/L	4.	U	100.	U
1,2-Dichloroethane	ug/L	4.	U	100.	U
1,2-Dichloropropane	ug/L	4.	U	100.	U
1,3-Dichlorobenzene	ug/L	4.	U	100.	U
1,4-Dichlorobenzene	ug/L	4.	U	100.	U
4-Bromofluorobenzene	ug/L	4.	J	5.	J
Acetone	ug/L	20.	UJ	510.	UJ
Benzene	ug/L	4.	U	100.	U
Bromochloromethane	ug/L	4.	U	100.	U
Bromodichloromethane	ug/L	4.	U	100.	U
Bromoform	ug/L	4.	U	100.	U
Carbon disulfide	ug/L	4.	U	100.	U
Carbon tetrachloride	ug/L	4.	U	100.	U
Chlorobenzene	ug/L	4.	U	100.	U
Chlorodibromomethane	ug/L	4.	U	100.	U
Chloroethane	ug/L	4.	U	100.	U

TABLE 3-4
RESULTS OF VOC (METHOD 8260B) ANALYSIS - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

STUDY ID:	ASH REMEDIAL DESIGN		ASH REMEDIAL DESIGN
SDG:	84551		84551
LOC ID:	PT-24		PT-12A
SAMP_ID:	ARD2166		ARD2167
FIELD QC CODE:	SA		DU
SAMP. DEPTH TOP:	10.88		12.3
SAMP. DEPTH BOT:	10.88		12.3
MATRIX:	GROUNDWATER		GROUNDWATER
SAMP. DATE:	31-Aug-01		31-Aug-01

PARAMETER	UNIT	VALUE	Q	VALUE	Q
Chloroform	ug/L	4.	U	100.	U
Cis-1,2-Dichloroethene	ug/L	73.		2,300.	
Cis-1,3-Dichloropropene	ug/L	4.	U	100.	U
Ethyl benzene	ug/L	4.	U	100.	U
Methyl bromide	ug/L	4.	U	100.	U
Methyl butyl ketone	ug/L	21.	UJ	510.	UJ
Methyl chloride	ug/L	4.	U	100.	U
Methyl ethyl ketone	ug/L	21.	U	510.	U
Methyl isobutyl ketone	ug/L	21.	U	510.	U
Methylene chloride	ug/L	8.	U	200.	U
Styrene	ug/L	4.	U	100.	U
Tetrachloroethene	ug/L	4.	U	100.	U
Toluene	ug/L	4.	U	100.	U
Total Xylenes	ug/L	4.	U	100.	U
Trans-1,2-Dichloroethene	ug/L	4.	U	100.	U
Trans-1,3-Dichloropropene	ug/L	4.	U	100.	U
Trichloroethene	ug/L	3.	J	1,000.	
Vinyl chloride	ug/L	4.	U	38.	J

TABLE 3-5
RESULTS OF GEOCHEMICAL LABORATORY ANALYSIS - THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

l ID	Sample Number	Nitrate/ Nitrite Nitrogen mg/l	Alkalinity mg/l	Chloride mg/l	Sulfate mg/l	DOC mg/l	Methane nM/l	Ethane ug/l	Ethene ug/l	H
	ARD2164	NA	NA	NA	NA	NA	NA	NA	NA	
	ARD2165	NA	NA	NA	NA	NA	NA	NA	NA	
	ARD2166	NA	NA	NA	NA	NA	NA	NA	NA	
	ARD2159	NA	NA	NA	NA	NA	NA	NA	NA	
	Dry	NA	NA	NA	NA	NA	NA	NA	NA	
A	ARD2161	NA	NA	NA	NA	NA	NA	NA	NA	
	ARD2162	NA	NA	NA	NA	NA	NA	NA	NA	
	Dry	NA	NA	NA	NA	NA	NA	NA	NA	
	ARD2162	NA	NA	NA	NA	NA	NA	NA	NA	
	ARD2162	NA	NA	NA	NA	NA	NA	NA	NA	
	Dry	NA	NA	NA	NA	NA	NA	NA	NA	
	TR2072	0.049	324	9.3	53.5	2	20.9	0.02	0.01	
	TR2073	0.011	272	9.7	41.9	22.6	267.3	0.09	ND	
	TR2074	0.12	348	25.4	141	13.2	0.9	0.02	ND	
	TR2075	<0.010	100	15.6	17.3	1.3	790.8	2.41	1.63	
	TR2076	0.31	372	13.9	133	2.5	5.8	0.02	0.02	
	TR2077	0.014	216	11.3	50.3	16.2	254.1	0.71	0.58	
0	TR2078	0.045	20	7.7	<0.20	1.5	11567.2	5.40	4.41	
6 (Dup)	TR2080	<0.010	100	15.3	15.2	6.5	1149.9	3.87	2.66	
1	Dry	NA	NA	NA	NA	NA	NA	NA	NA	

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APPROXIMATE GROUNDWATER FLOW DIRECTION

MW-39 650.47
MW-43 NM
MW-40 650.16
PT-11 647.79
MW-59 649.85
MW-60 652.23
PT-18 640.3
MW-44A 642.97
PT-12A 642.26
MW-45 NM
MW-46 641.12
MW-49D NM
MW-50D NM
PT-21A 637.33
PT-20 Dry
PT-22 637.51
PT-19 636.57
MW-48 639.94
MW-32 Dry
MW-33 Dry
PT-15 627.38
PT-23 632.35
MW-27 630.09
MW-53 629.51
PT-17 629.65
MW-30 Dry
MW-31 Dry
PT-25 Dry
MW-28 628.21
MW-29 Dry
MWT-7 626.58
MWT-11 626.92
MWT-1 629.06
MWT-4 627.28
MWT-9 626.03
MWT-6 627.21
PT-16 629.83
MW-38D NM
MWT-10 629.55
MWT-3 628.90
PT-24 627.91
MW-35D NM
MW-36 622.26
MW-56 623.95
MW-57D NM
MW-58D NM
MW-37 NM
MW-47 619.91
MW-51D NM
MW-52D NM

650
645
640
635
630
625
620

LEGEND

- PAVED ROAD
- GROUND CONTOUR AND ELEVATION
- WETLAND & DESIGNATION
- OUTLINE OF FORMER TRASH PITS (IDENTIFIED FROM AERIAL PHOTO)
- APPROXIMATE EXTENT OF DEBRIS PILE
- BRUSH
- CHAIN LINK FENCE
- UTILITY POLE
  APPROXIMATE LOCATION OF FIRE HYDRANT
- RAILROAD
- 6" WATER MAIN
- MONITORING WELL WITH LOCATION DESIGNATION
- 637.51 GROUNDWTER ELEVATION (FT MSL)
- 640 GROUNDWATER ELEVATION CONTOUR (FT)

NOTES:
GROUNDWATER MEASUREMENTS TAKEN ON AUGUST 28, 2001

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

-250' 0 250'
SCALE: 1" = 250'

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SENECA ARMY DEPOT ACTIVITY

ASH LANDFILL
GROUNDWATER MONITORING
THIRD QUARTER 2001

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FIGURE 3-1
GROUNDWATER ELEVATION CONTOURS IN THE TILL/WEATHERED SHALE AQUIFER (3Q 2001)

SCALE: 1 INCH = 250 FEET | NOVEMBER 2001

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LEGEND

- PAVED ROAD
- GROUND CONTOUR AND ELEVATION
- WETLAND & DESIGNATION
- OUTLINE OF FORMER TRASH PITS (IDENTIFIED FROM AERIAL PHOTO)
- APPROXIMATE EXTENT OF DEBRIS PILE
- BRUSH
- CHAIN LINK FENCE
- UTILITY POLE
- APPROXIMATE LOCATION OF FIRE HYDRANT
- RAILROAD
- 6" WATER MAIN
- PT-22 — MONITORING WELL W/ DESIGNATION
  TRICHLOROETHLENE (TCE) - ug/L
  DICHLOROETHLENE (DCE) - ug/L
- PERMEABLE REACTIVE BARRIER

NOTES:
GROUNDWATER SAMPLES COLLECTED FOLLOWING EPA REGION II LOW-FLOW SAMPLING PROTOCOL

GROUNDWATER ANALYTICAL DATA BASED ON CONDITIONS AT THE TIME OF SAMPLING. GROUNDWATER CONDITONS AT OTHER TIMES MAY VARY.

-250' 0 250'

SCALE: 1" = 250'

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ASH LANDFILL
GROUNDWATER MONITORING
THIRD QUARTER 2001

ENVIRONMENTAL ENGINEERING	730769-01008

FIGURE 3-2
GROUNDWATER ANALYTICAL DATA
TCE AND DCE CONCENTRATIONS (3Q 2001)
IN THE TILL/WEATHERED SHALE AQUIFER

SCALE: 1 INCH = 250 FEET	MARCH 2002

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

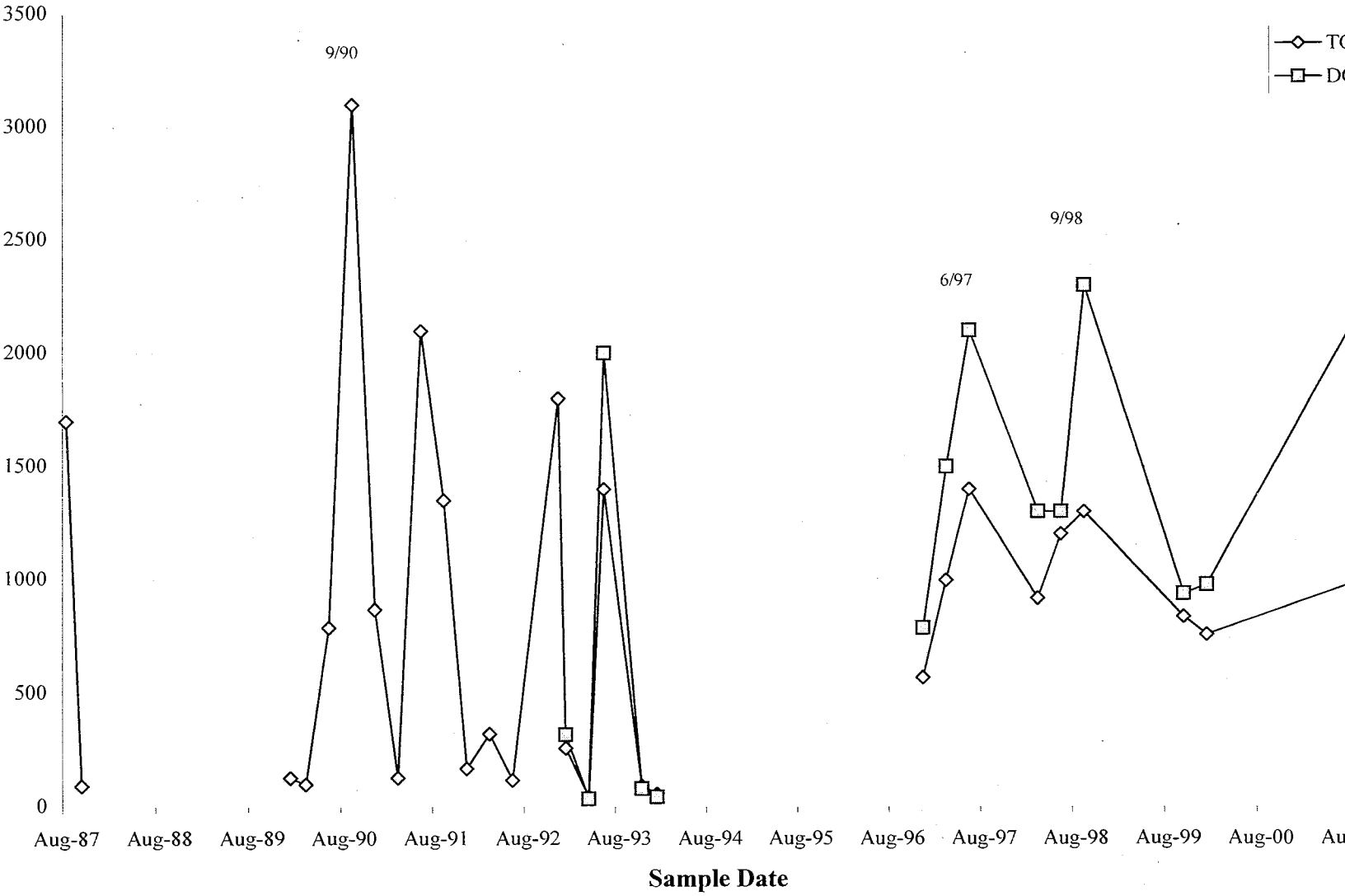
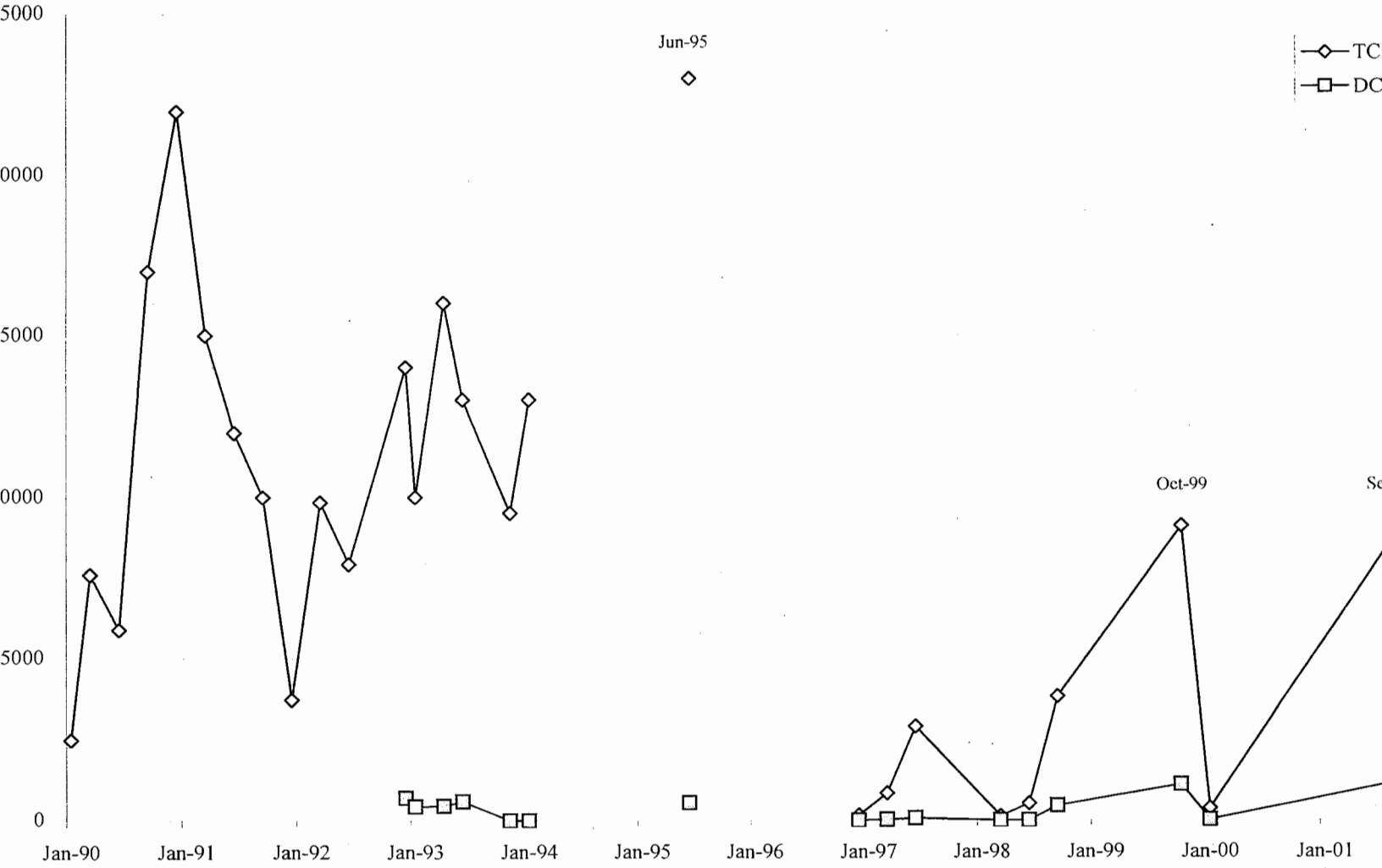


Chart Chart 1

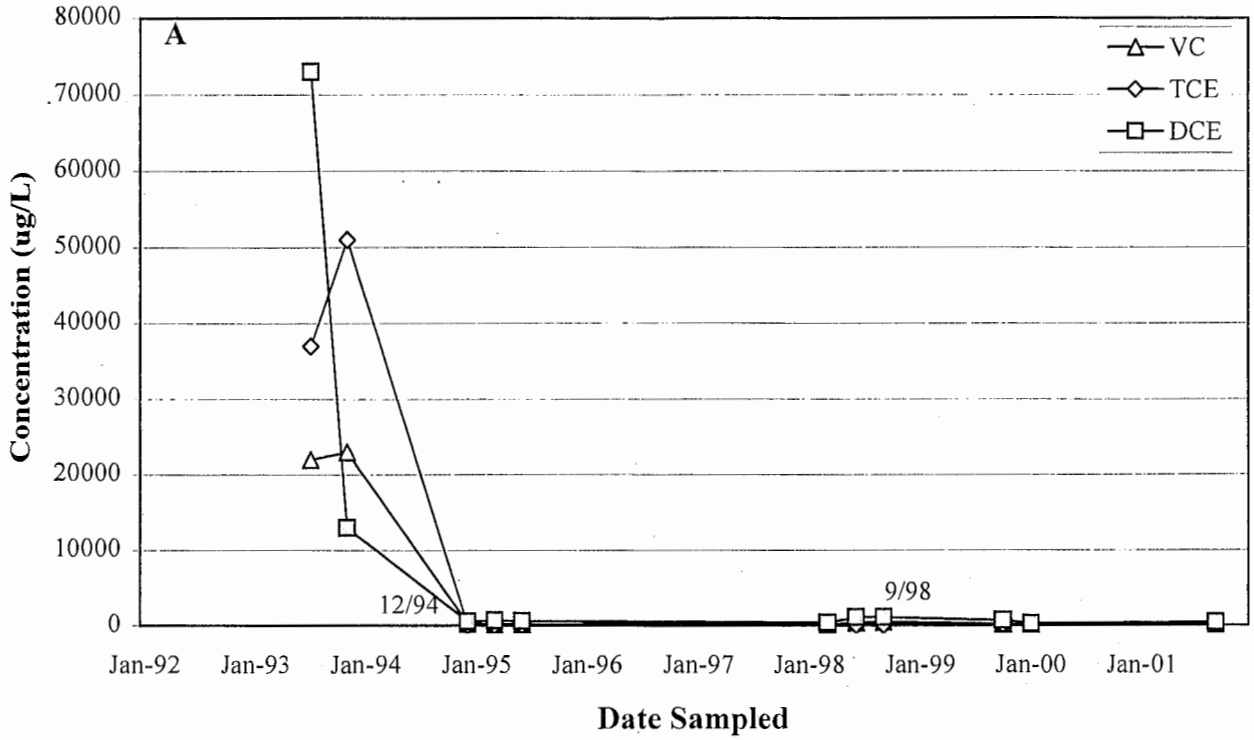
FIGURE 3-4
HISTORIC TCE AND DCE CONCENTRATIONS AT PT-18
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

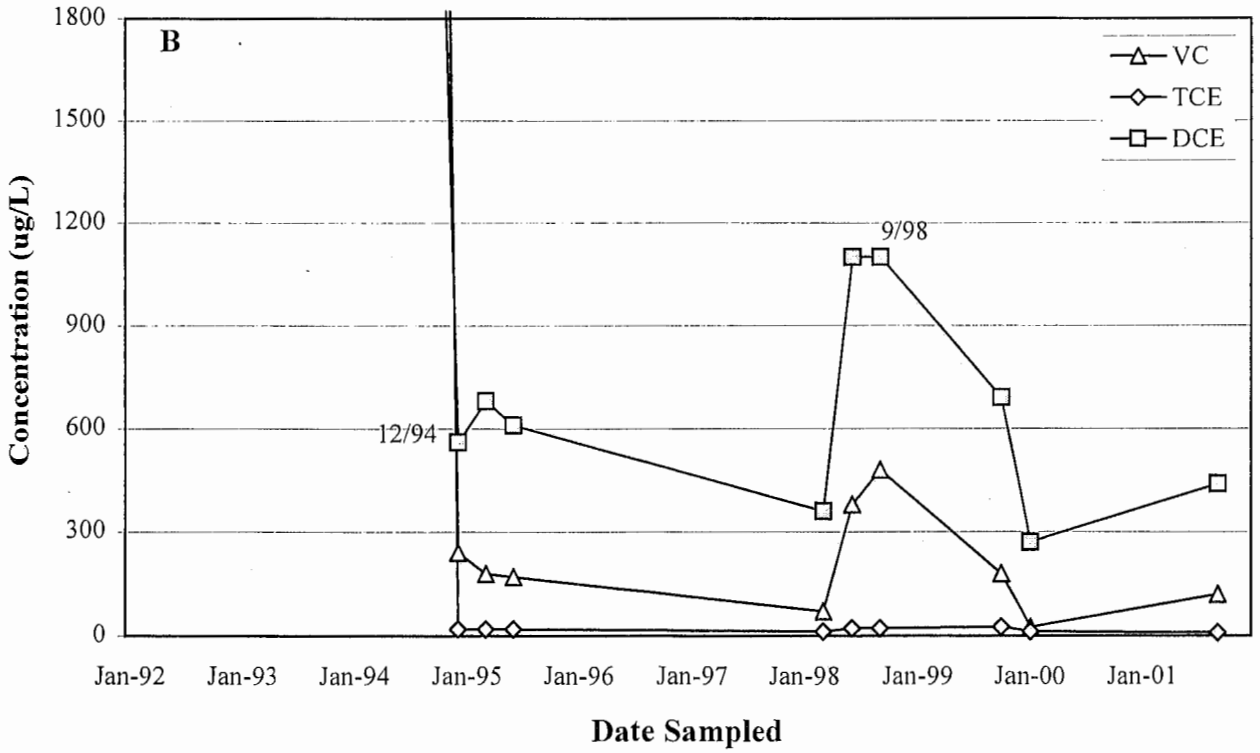


Date Sampled

art Chart 1

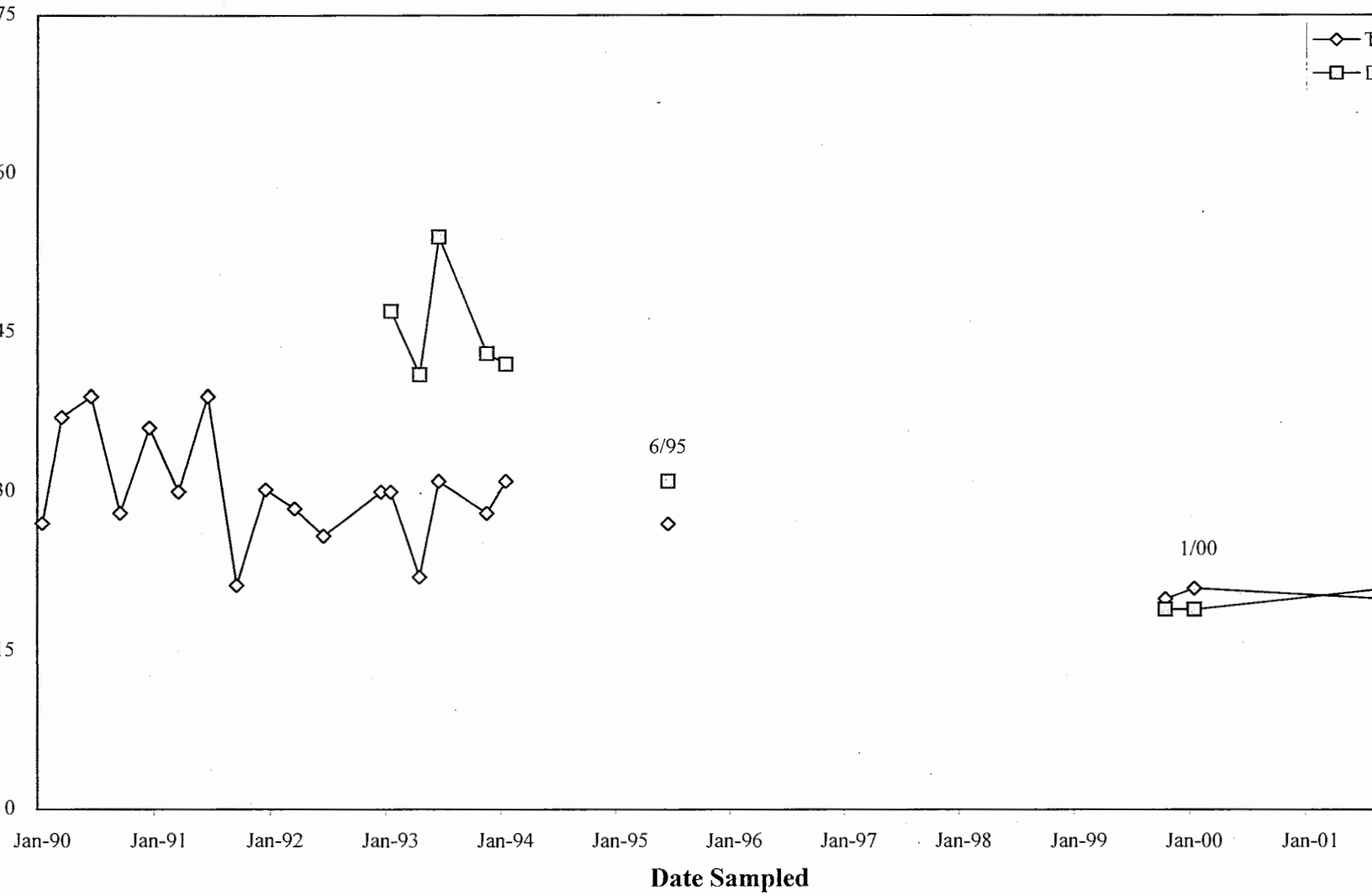
FIGURE 3-5
HISTORIC TCE, DCE, AND VINYL CHLORIDE CONCENTRATIONS AT MW -44A
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY





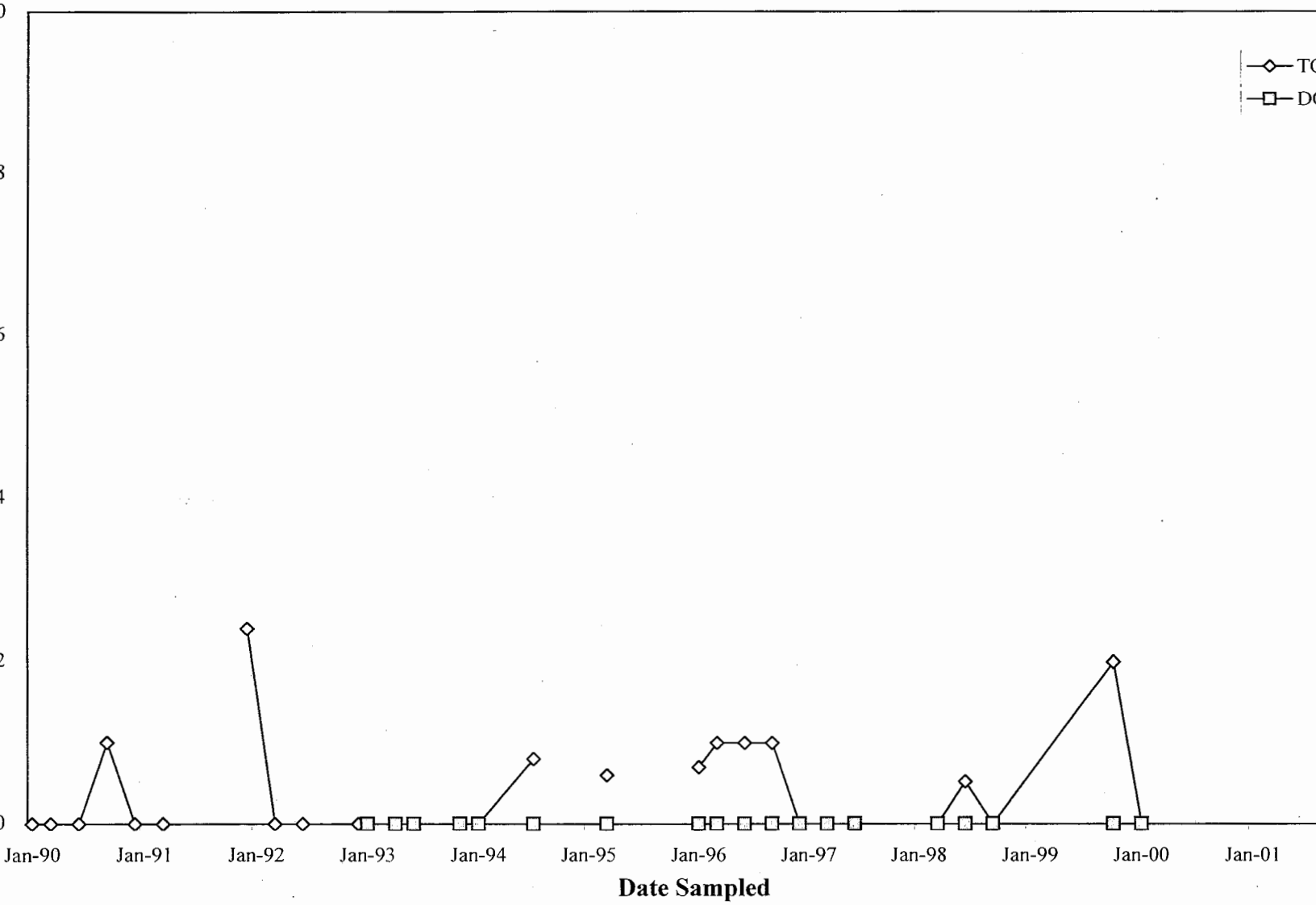
historic chart; mw44a chart

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



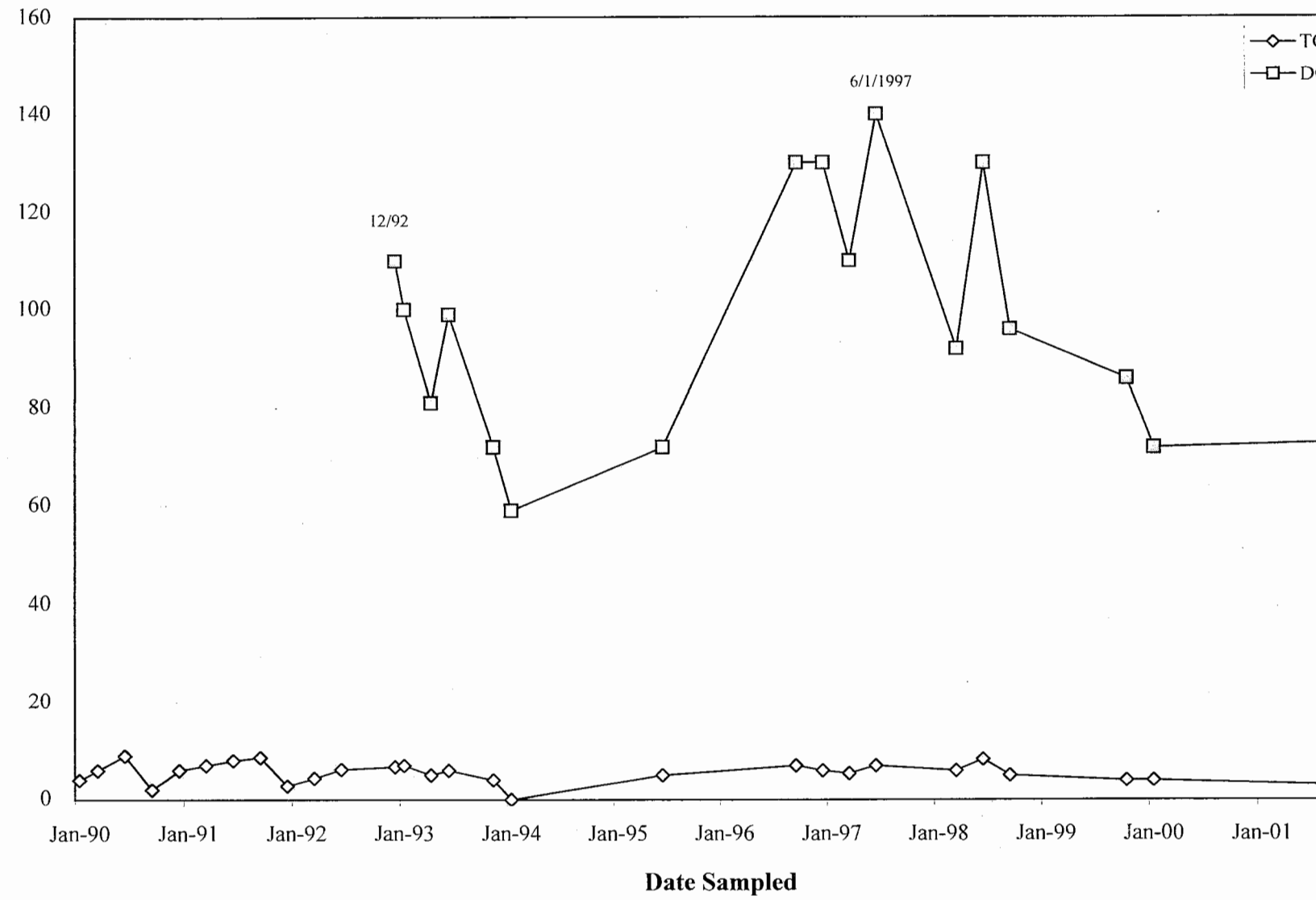
art Chart 1

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



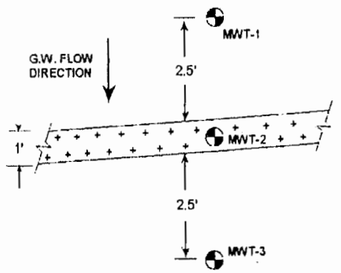
rt Chart 1

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



rt Chart 1

DETAIL A



TYPICAL PLACEMENT OF WELLS AROUND TRENCH SECTION
NOT TO SCALE

N

PERMEABLE REACTIVE BARRIER

MW-27
MW-28
MW-BL34MODI
MW-53
MW-55D
MW-54D
MW-29
PT-17
640
MWT-11
MWT-7
MWT-8
MWT-9
MWT-4
MWT-5
MWT-6
MWT-1
MWT-2
MWT-3
MWT-10
PT-24

SEE DETAIL A

SEE DETAIL A

LEGEND

- PAVED ROAD
- GROUND CONTOUR AND ELEVATION
- WETLAND & DESIGNATION
- BRUSH
- CHAIN LINK FENCE
- UTILITY POLE
- APPROXIMATE LOCATION OF FIRE HYDRANT
- PT-22 / MW-37 MONITORING WELL AND DESIGNATION
- RAILROAD
- 8" WATER MAIN
- PERMEABLE REACTIVE BARRIER

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SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL
GROUNDWATER MONITORING
THIRD QUARTER 2001

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FIGURE 3-9
MONITORING WELL LOCATIONS
NEAR THE EXISTING
PERMEABLE REACTIVE BARRIER

SCALE: 1 INCH = 60 FEET	MARCH 2002

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APPENDIX A

GROUNDWATER ELEVATION DATA

FIELD DATA SHEETS

APPENDIX A
GROUNDWATER ELEVATION DATA -1995 THROUGH THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

tion at f Riser	First Quarter 1995		Second Quarter 1995		Third Quarter 1995		Fourth Quarter 1995		First Quarter 1996		Second Quarter 1996		T
	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Dat
1.52			06/05/1995	671.12	09/12/1995	671.02	1/11/96	673.3	03/14/1996	674.26	06/20/1996	671.87	09/23/
3.22	03/16/1995	653.94	06/05/1995	651.02	09/12/1995	649.83	1/11/96	653.28	03/14/1996	653.78	06/20/1996	651.68	09/23/
2.15			06/05/1995						03/14/1996	644.21	06/20/1996	644.27	09/23/
7.76			06/05/1995	629.56	09/12/1995	628.03	1/11/96	632.82	03/14/1996	632.03	06/20/1996	630.06	09/23/
7.51			06/05/1995	632.83	09/12/1995	632.15	1/11/96	634.33	03/14/1996	634.85	06/20/1996	634.31	09/23/
0.14			06/05/1995	632.27	09/12/1995	631.48	1/11/96	633.98	03/14/1996	635.1	06/20/1996	633.78	09/23/
6.68			06/05/1995	648.44	09/12/1995	647.87	1/11/96	649.46	03/14/1996	649.6	06/20/1996	649.28	09/23/
5.26	03/17/1995	642.16	06/05/1995	638.93	09/12/1995	637.69	1/10/96	641.12	03/14/1996	642.64	06/20/1996	638.99	09/23/
7.28			06/05/1995	639.59	09/12/1995	638.45	1/11/96	640.39	03/14/1996	640.64	06/20/1996	640.39	09/23/
7.73			06/05/1995						03/14/1996	639.57	06/20/1996	639.26	09/23/
8.61			06/05/1995	639.69	09/12/1995	638.87	1/11/96	639.71	03/14/1996	639.95	06/20/1996	639.64	09/23/
1.58			06/05/1995	634.63	09/12/1995	633.64	1/11/96	636.84	03/14/1996	637.41	06/20/1996	635.43	09/23/
6.40			06/05/1995	630.99	09/12/1995	630.76	1/11/96	631.32	03/14/1996	631.92	06/20/1996	631.33	09/23/
7.09			06/05/1995	629.89	09/12/1995	627.25	1/10/96	631.46	03/14/1996	633.05	06/20/1996	630.55	09/23/
4.64			06/05/1995	607.62	09/12/1995	Not Measured	1/11/96	Not Measured	03/14/1996	Not Measured	06/20/1996	607.92	09/23/
9.32	03/16/1995	634.19	06/05/1995	632.47	09/12/1995	632.58	1/11/96	633.28	03/14/1996	633.62	06/20/1996	632.74	09/23/
7.21			06/05/1995	631.28	09/12/1995	631.09	1/11/96	631.55	03/14/1996	631.98	06/20/1996	631.45	09/23/
7.31			06/05/1995	629.93	09/12/1995	629.53	1/11/96	630.63	03/14/1996	631.01	06/20/1996	630.35	09/23/
0.32	03/17/1995	636.22	06/05/1995		09/12/1995	629.9	1/11/96	632.67	03/14/1996	634.44	06/20/1996	633.42	09/23/
6.70			06/05/1995	630.21	09/12/1995	628.00	1/11/96	631.82	03/14/1996	633.32	06/20/1996	630.84	09/23/
1.68			06/05/1995	633.68	09/12/1995	632.78	1/11/96	634.82	03/14/1996	636.23	06/20/1996	634.66	09/23/
9.56			06/05/1995	630.8	09/12/1995	629.94	1/11/96	633.32	03/14/1996	634.6	06/20/1996	631.51	09/23/
2.89			06/05/1995	626.96	09/12/1995	623.99	1/10/96	628.17	03/14/1996	629.73	06/20/1996	627.56	09/23/
1.82			06/05/1995	627.67	09/12/1995	626.39	1/10/96	628.93	03/14/1996	629.44	06/20/1996	626.49	09/23/
1.79	03/16/1995	629.45	06/05/1995	627.43	09/12/1995	625.85	1/10/96	628.82	03/14/1996	629.47	06/20/1996	628.79	09/23/
2.89	09/23/1901		06/05/1995	628.31	09/12/1995	626.93	1/11/96	629.57	03/14/1996	630.65	06/20/1996	629.49	09/23/
7.90	09/28/1901		06/05/1995	632.67	09/12/1995	628.99	1/11/96	634.02	03/14/1996	634.43	06/20/1996	633.81	09/23/
9.54	10/20/1901		06/05/1995	655.58	09/12/1995	654.27	1/11/96	657.63	03/14/1996	Frozen	06/20/1996	Frozen	09/23
9.30	10/20/1901	655.69	06/05/1995	652.82	09/12/1995	651.84	1/11/96	654.86	03/14/1996		06/20/1996	653.1	09/23
4.02	11/24/1901		06/05/1995	685.54	09/12/1995	685.26	1/11/96	686.7	03/14/1996	687.02	06/20/1996	685.86	09/23

APPENDIX A
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GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

tion at f Riser	First Quarter 1995		Second Quarter 1995		Third Quarter 1995		Fourth Quarter 1995		First Quarter 1996		Second Quarter 1996		Th
	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date
.04			06/05/1995	677.07	09/12/1995	674.70	1/11/96	679.02	03/14/1996	679.51	06/20/1996	677.5	09/23/
.73			06/05/1995	653.01	09/12/1995	652.00	1/11/96	NA	03/14/1996	Frozen	06/20/1996	654.7	09/23/
.85			06/05/1995						03/14/1996	644.92	06/20/1996	645.8	09/23/
.90	03/17/1995	647.85	06/05/1995	645.64	09/12/1995	644.56	1/11/96	NA	03/14/1996	Frozen	06/20/1996	647.43	09/23/
.41			06/05/1995	643.35	09/12/1995	642.45	1/11/96	644.25	03/14/1996	644.69	06/20/1996	644.66	09/23/
.06	03/16/1995	625.22	06/05/1995	621.58	09/12/1995	622.10	1/11/96	NA	03/14/1996	Frozen	06/20/1996	624.46	09/23/
.32	03/17/1995	645.22	06/05/1995	642.19	09/12/1995	641.46	1/11/96	644.62	03/14/1996	Frozen	06/20/1996	643.55	09/23/
.50			06/05/1995	643.4	09/12/1995	642.62	1/11/96	644.41	03/14/1996	644.79	06/20/1996	644.63	09/23/
.88			06/05/1995	643	09/12/1995	642.19	1/11/96	643.86	03/14/1996	644.1	06/20/1996	643.68	09/23/
.24			06/05/1995	621.61	09/12/1995	622.12	1/11/96	628.24	03/14/1996	625.46	06/20/1996	624.54	09/23/
.35			06/05/1995	620.23	09/12/1995	620.67	1/11/96	623.35	03/14/1996	Frozen	06/20/1996	622.69	09/23/
.41			06/05/1995	630.96	09/12/1995	630.47	1/11/96	631.55	03/14/1996	632.43	06/20/1996	631.13	09/23/
.11			06/05/1995	630.81	09/12/1995	630.35	1/11/96	631.45	03/14/1996	632.14	06/20/1996	631.03	09/23/
.16			06/05/1995	630.98	09/12/1995	630.54	1/11/96	631.74	03/14/1996	632.28	06/20/1996	631.25	09/23/
.51	03/16/1995	627.56	06/05/1995	626.37	09/12/1995	626.20	1/11/96	NA	03/14/1996	Frozen	06/20/1996	627.5	09/23/
.82			06/05/1995	626.03	09/12/1995	626.12	1/11/96	627.4	03/14/1996	627.91	06/20/1996	627.62	09/23/
.69			06/05/1995	626.09	09/12/1995	626.17	1/11/96	627.49	03/14/1996	627.44	06/20/1996	627.6	09/23/
.83	03/17/1995	654.93	06/05/1995	653.57	09/12/1995	652.25	1/11/96	654.69	03/14/1996	Frozen	06/20/1996	654.92	09/23/
.15	03/17/1995	658.13	06/05/1995	656.32	09/12/1995	654.82	1/11/96	657.81	03/14/1996	Frozen	06/20/1996	Frozen	09/23/
.24													
.19													
.31													
.68													
.72													
.59													
.34													
.40													
.08													
.07													
.90													

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SENECA ARMY DEPOT ACTIVITY

	Fourth Quarter 1996		First Quarter 1997		Second Quarter 1997		First Quarter 1998		Second Quarter 1998		Third Quarter 1998		M
tion at f Riser	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date
.52	01/06/1997	676.21	03/18/1997	676.22	06/17/1997	672.49	03/23/98	676.9	06/16/98	675.22	09/18/98	671.23	10/07/1
.22	01/06/1997	654.03	03/18/1997	653.81	06/17/1997	651.99	03/23/98	653.98	06/16/98	653.79	09/18/98	648.65	10/07/1
.15	01/06/1997	647.9	03/18/1997	646.3	06/17/1997	644.62	03/23/98	649.01	06/16/98	646.9	09/18/98	642.86	10/07/1
.76	01/06/1997	632.71	03/18/1997	633.17	06/17/1997	631.28	03/23/98	633.74	06/16/98	630.62	09/18/98	627.94	10/07/1
.51	01/06/1997	634.49	03/18/1997	634.58	06/17/1997	633.46	03/23/98	634.71	06/16/98	633.71	09/18/98	630.99	10/07/1
.14	01/06/1997	635.44	03/18/1997	635.39	06/17/1997	632.74	03/23/98	635.85	06/16/98	635.17	09/18/98	630.18	10/07/1
.68	01/06/1997	651.71	03/18/1997	651.13	06/17/1997	649.59	03/23/98	652.28	06/16/98	650.34	09/18/98	647.62	10/07/1
.26	01/06/1997	642.08	03/18/1997	641.92	06/17/1997	639.92	03/23/98	643.09	06/16/98	640.36	09/18/98	637.43	10/07/1
.28	01/06/1997	641.54	03/18/1997	641.56	06/17/1997	640.07	03/23/98	642.34	06/16/98	641.59	09/18/98	637.41	10/07/1
.73	01/06/1997	641.64	03/18/1997	642.54	06/17/1997	639.52	03/23/98	643.84	06/16/98	641.27	09/18/98	637.94	10/07/1
.61	01/06/1997	642.11	03/18/1997	641.98	06/17/1997	641	03/23/98	644.3	06/16/98	641.65	09/18/98	638.26	10/07/1
.58	01/06/1997	638.14	03/18/1997	637.64	06/17/1997	635.21	03/23/98	637.92	06/16/98	637.56	09/18/98	633.11	10/07/1
.40	01/06/1997	631.76	03/18/1997	631.71	06/17/1997	631.36	03/23/98	632.76	06/16/98	631.71	09/18/98	629.3	10/07/1
.09	01/06/1997	633.13	03/18/1997	633.17	06/17/1997	631.13	03/23/98	633.51	06/16/98	632.61	09/18/98	625.74	10/07/1
.64	01/06/1997	Not Measured	03/18/1997	Not Measured	06/17/1997	Not Measured	03/23/98	611.6	06/16/98	Not Measured	09/18/98	604.1	10/07/1
.32	01/06/1997	634.11	03/18/1997	634.07	06/17/1997	632.84	03/23/98	634.88	06/16/98	633.96	09/18/98	631.65	10/07/1
.21	01/06/1997	631.99	03/18/1997	632.03	06/17/1997	631.6	03/23/98	632.57	06/16/98	632.07	09/18/98	629.75	10/07/1
.31	01/06/1997	631.17	03/18/1997	631.22	06/17/1997	630.66	03/23/98	631.21	06/16/98	630.92	09/18/98	627.41	10/07/1
.32	01/06/1997	636.12	03/18/1997	635.99	06/17/1997	631.97	03/23/98	636.38	06/16/98	635	09/18/98	629.88	10/07/1
.70	01/06/1997	633.78	03/18/1997	633.74	06/17/1997	631.4	03/23/98	634.22	06/16/98	633.08	09/18/98	627.02	10/07/1
.68	01/06/1997	637.15	03/18/1997	636.73	06/17/1997	633.75	03/23/98	637.84	06/16/98	635.45	09/18/98	632.7	10/07/1
.56	01/06/1997	635.27	03/18/1997	635.12	06/17/1997	632.11	03/23/98	635.65	06/16/98	633.39	09/18/98	629.72	10/07/1
.89	01/06/1997	629.82	03/18/1997	629.67	06/17/1997	628.26	03/23/98	630.15	06/16/98	629.16	09/18/98	622.36	10/07/1
.82	01/06/1997	Not Measured	03/18/1997	Not Measured	06/17/1997	Not Measured	03/23/98	629.22	06/16/98	629.22	09/18/98	624.62	10/07/1
.79	01/06/1997	628.49	03/18/1997	629.33	06/17/1997	628.21	03/23/98	629.19	06/16/98	629.22	09/18/98	623.98	10/07/1
.89	01/06/1997	630.41	03/18/1997	630.3	06/17/1997	Not Measured	03/23/98	630.38	06/16/98	630.38		Not Measured	10/07/1
.90	01/06/1997	634.2	03/18/1997	634.29	06/17/1997	Not Measured	03/23/98	635.39	06/16/98	635.39	09/18/98	630.61	10/07/1
.54	01/06/1997	657.48	03/18/1997	657.76	06/17/1997	657.45	03/23/98	657.84	06/16/98	657.72	09/18/98	653.07	10/07/1
.30	01/06/1997	655.66	03/18/1997	655.66	06/17/1997	653.52	03/23/98	655.85	06/16/98	655.16	09/18/98	651.08	10/07/1
.02	01/06/1997	687.92	03/18/1997	687.57	06/17/1997	Not Measured	03/23/98	685.9	06/16/98	Not Measured			10/07/1

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SENECA ARMY DEPOT ACTIVITY

tion at f Riser	Fourth Quarter 1996		First Quarter 1997		Second Quarter 1997		First Quarter 1998		Second Quarter 1998		Third Quarter 1998		M
	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date
.04	01/06/1997	678.25	03/18/1997	680.43	06/17/1997	678.31	03/23/98	680.67	06/16/98	679.7		Not Measured	10/07/1
.73	01/06/1997	654.83	03/18/1997	653.89	06/17/1997	654.01	03/23/98	655.13	06/16/98	654.92	09/18/98	651.23	10/07/1
.85	01/06/1997	650.11	03/18/1997	649.15	06/17/1997	646.95	03/23/98	650.37	06/16/98	647.12	09/18/98	643.43	10/07/1
.90	01/06/1997	647.96	03/18/1997	648.07	06/17/1997	647	03/23/98	648.05	06/16/98	648.07	09/18/98	643.97	10/07/1
.41	01/06/1997	646.69	03/18/1997	645.9	06/17/1997	644.35	03/23/98	647.53	06/16/98	646.29	09/18/98	641.92	10/07/1
.06	01/06/1997	625.18	03/18/1997	625.18	06/17/1997	623.84	03/23/98	625.76	06/16/98	625	09/18/98	619.88	10/07/1
.32	01/06/1997	645.06	03/18/1997	645.01	06/17/1997	643.02	03/23/98	645.46	06/16/98	645.03	09/18/98	640.9	10/07/1
.50	01/06/1997	646.9	03/18/1997	646.18	06/17/1997	644.59	03/23/98	647.62	06/16/98	646.43	09/18/98	643.18	10/07/1
.88	01/06/1997	646.28	03/18/1997	645.79	06/17/1997	644	03/23/98	647.4	06/16/98	645.89	09/18/98	642.61	10/07/1
.24	01/06/1997	625.25	03/18/1997	625.24	06/17/1997	623.89	03/23/98	625.89	06/16/98	625.1		Not Measured	10/07/1
.35	01/06/1997	623.97	03/18/1997	623.75	06/17/1997	622.73	03/23/98	624.05	06/16/98	623.62	09/18/98	618.67	10/07/1
.41	01/06/1997	632.81	03/18/1997	632.81	06/17/1997	631.71	03/23/98	633.63	06/16/98	632.4	09/18/98	629.46	10/07/1
.11	01/06/1997	632.56	03/18/1997	632.55	06/17/1997	631.42	03/23/98	633.19	06/16/98	632.17	09/18/98	628.71	10/07/1
.16	01/06/1997	632.82	03/18/1997	632.8	06/17/1997	631.69	03/23/98	633.3	06/16/98	632.32	09/18/98	629.1	10/07/1
.51	01/06/1997	627.42	03/18/1997	627.46	06/17/1997	627.03	03/23/98	627.38	06/16/98	627.34	09/18/98	621.66	10/07/1
.82	01/06/1997	628	03/18/1997	627.87	06/17/1997	627.06	03/23/98	628.13	06/16/98	627.87	09/18/98	621.76	10/07/1
.69	01/06/1997	628.18	03/18/1997	627.96	06/17/1997	627.13	03/23/98	628.37	06/16/98	628.03	09/18/98	624.79	10/07/1
.83	01/06/1997	654.73	03/18/1997	654.67	06/17/1997	654.68	03/23/98	654.7	06/16/98	654.83	09/18/98	651	10/07/1
.15	01/06/1997	658.18	03/18/1997	658.01	06/17/1997	657.17	03/23/98	658.2	06/16/98	658.01	09/18/98	653.25	10/07/1
.24													
.19													
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.68													
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APPENDIX A
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SENECA ARMY DEPOT ACTIVITY

Monitoring Well	Elevation at Top of Riser	Measured on 10/27/99		Round 2 (1/3/00)		August, 2001					Historical Groundwater Elevation Data		
		Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Well Depth (historic)	Saturated Thickness	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)	MAX	MIN	RANGE
PT-10	681.52	10/27/1999	672.26	01/03/2000	674.68	08/27/2001	46.36	NA	Not Measured		676.90	671.02	5.8
PT-11	658.22	10/27/1999	648.83	01/03/2000	652.86	08/27/2001	19.55	9.12	10.43	647.79	654.03	647.79	6.2
PT-12A	652.15	10/27/1999	644.55	01/03/2000	645.53	08/27/2001	13.38	3.49	9.89	642.26	649.01	642.26	6.7
PT-15	637.76	10/27/1999	DRY	01/03/2000	631.72	08/27/2001	19.50	9.12	10.38	627.38	633.74	627.38	6.3
PT-16	637.51	10/27/1999	630.87	01/03/2000	634.41	08/27/2001	11.04	3.36	7.68	629.83	634.85	629.83	5.0
PT-17	640.14	10/27/1999	632.24	01/03/2000	635.06	08/27/2001	11.65	0.56	11.09	629.05	635.85	629.05	6.8
PT-18	656.68	10/27/1999	648.45	01/03/2000	650.34	08/28/2001	11.70	1.32	10.38	646.3	652.28	646.30	5.9
PT-19	645.26	10/27/1999	638.04	01/03/2000	641.32	08/27/2001	11.70	3.01	8.69	636.57	643.09	636.57	6.5
MW-20	647.28	10/27/1999	639.68	01/03/2000	640.52	08/27/2001	11.80	0.00	Dry		642.34	637.41	4.9
MW-21A	647.73	10/27/1999	639.59	01/03/2000	640.65	08/27/2001	19.46	8.95	10.51	637.22	643.84	637.22	6.6
MW-22	648.61	10/27/1999	639.96	01/03/2000	641.07	08/27/2001	11.81	0.71	11.10	637.51	644.30	637.51	6.7
PT-23	641.58	10/27/1999	633.82	01/03/2000	637.48	08/27/2001	12.08	2.85	9.23	632.35	638.14	632.35	5.7
PT-24	636.40	10/27/1999	630.28	01/03/2000	631.52	08/27/2001	11.88	3.47	8.41	627.99	632.76	627.99	4.7
PT-25	637.09	10/27/1999	628.78	01/03/2000	631.83	08/27/2001	12.03	0.00	Dry		633.51	625.74	7.7
PT-26	614.64	10/27/1999	602.48	01/03/2000	607.76	08/27/2001	14.00	NA	Not Measured		611.60	601.53	10.0
MW-27	639.32	10/27/1999	632.68	01/03/2000	633.86	08/27/2001	10.54	1.31	9.23	630.09	634.88	630.09	4.7
MW-28	637.21	10/27/1999	630.85	01/03/2000	632.05	08/27/2001	10.39	1.89	8.50	628.71	632.57	628.71	3.8
MW-29	637.31	10/27/1999	629.31	01/03/2000	630.97	08/27/2001	10.54	0.00	Dry		631.22	627.30	3.9
MW-30	640.32	10/27/1999	631.02	01/03/2000	633.56	08/27/2001	10.52	0.00	Dry		636.38	629.88	6.5
MW-31	636.70	10/27/1999	629.41	01/03/2000	632.22	08/27/2001	10.35	0.00	Dry		634.22	627.02	7.2
MW-32	641.68	10/27/1999	633.38	01/03/2000	635.52	08/27/2001	10.37	0.00	Dry		637.84	632.70	5.1
MW-33	639.56	10/27/1999	630.06	01/03/2000	633.52	08/27/2001	10.39	0.00	Dry		635.65	629.72	5.9
MW-34	632.89	10/27/1999	623.79	01/03/2000	628.25	08/27/2001	18.15	NA	Not Measured		630.15	622.36	7.7
MW-35D	631.82	10/27/1999	626.62	01/03/2000	629.06	Not Measured	56.64	NA	Not Measured		629.44	624.62	4.8
MW-36	631.79	10/27/1999	626.16	01/03/2000	628.85	08/28/2001	16.58	7.05	9.53	622.26	629.47	622.26	7.2
MW-37	632.89	10/27/1999	626.42	01/03/2000	629.49	08/27/2001	13.62	NA	Not Measured		630.65	625.77	4.8
MW-38D	637.90	10/27/1999	630.62	01/03/2000	634.12	08/27/2001	32.24	NA	Not Measured		635.39	628.99	6.4
MW-39	659.54	10/27/1999	655.8	01/03/2000	657.6	08/27/2001	11.89	2.82	9.07	650.47	657.84	650.47	7.3
MW-40	659.30	10/27/1999	652.68	01/03/2000	655.22	08/28/2001	14.71	5.57	9.14	650.16	655.85	650.16	5.6
MW-41D	694.02	10/27/1999	n/a	01/03/2000	686.78	08/27/2001	47.02	NA	Not Measured		687.92	685.21	2.7

APPENDIX A
GROUNDWATER ELEVATION DATA -1995 THROUGH THIRD QUARTER 2001
GROUNDWATER MONITORING - ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY

Monitoring Well	Elevation at Top of Riser	Measured on 10/27/99		Round 2 (1/3/00)		August, 2001					Historical Groundwater Elevation Data		
		Date	Elevation of Water Level (ft.)	Date	Elevation of Water Level (ft.)	Date	Well Depth (historic)	Saturated Thickness	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)	MAX	MIN	RANGE
MW-42D	683.04	10/27/1999	673.26	01/03/2000	679.32	08/27/2001	47.38	NA	Not Measured		680.67	671.39	9.2
MW-43	657.73	10/27/1999	651.87	01/03/2000	654.89	08/27/2001	5.80	NA	Not Measured		655.13	650.73	4.4
MW-44A	653.85	10/27/1999	643.77	01/03/2000	648.35	08/27/2001	12.48	1.60	10.88	642.97	650.37	642.42	7.9
MW-45	650.90	10/27/1999	645.91	01/03/2000	648.12	08/27/2001	8.34	NA	Not Measured		648.12	643.12	5.0
MW-46	650.41	10/27/1999	643.06	01/03/2000	646.23	08/27/2001	11.45	2.16	9.29	641.12	647.53	641.12	6.4
MW-47	628.06	10/27/1999	622.64	01/03/2000	624.74	08/28/2001	8.56	0.41	8.15	619.91	625.76	619.88	5.8
MW-48	648.32	10/27/1999	641.62	01/03/2000	645	08/27/2001	11.50	3.12	8.38	639.94	645.46	639.94	5.5
MW-49D	650.50	10/27/1999	643.18	01/03/2000	646.4	08/27/2001	37.54	NA	Not Measured		647.62	641.76	5.8
MW-50D	649.88	10/27/1999	633.88	01/03/2000	643.98	08/27/2001	59.66	NA	Not Measured		647.40	633.88	13.5
MW-51D	628.24	10/27/1999	622.64	01/03/2000	624.76	08/27/2001	36.87	NA	Not Measured		628.24	620.49	7.7
MW-52D	626.35	10/27/1999	621.25	01/03/2000	624.17	08/27/2001	59.36	NA	Not Measured		624.17	618.67	5.5
MW-53	639.41	10/27/1999	630.69	01/03/2000	632.71	08/27/2001	10.35	0.45	9.90	629.51	633.63	629.46	4.1
MW-54D	639.11	10/27/1999	630.53	01/03/2000	632.37	08/27/2001	34.99	NA	Not Measured		633.19	628.71	4.4
MW-55D	639.16	10/27/1999	627.96	01/03/2000	632.48	08/27/2001	58.18	NA	Not Measured		633.30	627.96	5.3
MW-56	630.51	10/27/1999	626.09	01/03/2000	627.05	08/28/2001	6.88	0.32	6.56	623.95	627.56	621.66	5.9
MW-57D	629.82	10/27/1999	626.3	01/03/2000	627.52	08/27/2001	35.09	NA	Not Measured		628.13	621.76	6.3
MW-58D	629.69	10/27/1999	626.36	01/03/2000	627.63	08/27/2001	57.29	NA	Not Measured		628.37	624.79	3.5
MW-59	656.83	10/27/1999	652.64	01/03/2000	654.67	08/27/2001	9.10	2.12	6.98	649.85	654.93	649.85	5.0
MW-60	660.15	10/27/1999	656.29	01/03/2000	657.99	08/27/2001	9.50	1.58	7.92	652.23	658.20	652.23	5.9
MWT-1	637.24					08/27/2001	9.75	1.57	8.18	629.06	629.06	629.06	0.0
MWT-2	637.19					08/27/2001	9.55	NA	Not Measured		0.00	0.00	0.0
MWT-3	637.31					08/27/2001	10.00	1.68	8.32	628.99	628.99	628.99	0.0
MWT-4	637.68					08/27/2001	12.43	2.03	10.40	627.28	627.28	627.28	0.0
MWT-5	637.72					08/27/2001	11.95	NA	Not Measured		0.00	0.00	0.0
MWT-6	637.59					08/27/2001	12.28	1.93	10.35	627.24	627.24	627.24	0.0
MWT-7	638.34					08/27/2001	13.97	2.21	11.76	626.58	626.58	626.58	0.0
MWT-8	638.40					08/27/2001	12.55	NA	Not Measured		0.00	0.00	0.0
MWT-9	638.08					08/27/2001	14.14	2.10	12.04	626.04	626.04	626.04	0.0
MWT-10	636.07					08/27/2001	8.95	2.43	6.52	629.55	629.55	629.55	0.0
MWT-11	635.90					08/28/2001	9.95	0.97	8.98	626.92	626.92	626.92	0.0

	Sample ID	QC Code	Well Depth (TOC)	Pump Intake	Field Parameters: pH	Spec Cond	Eh	DO	Turbidity	Sulfide	Ferrous FE	Lab Parameters: VOC 524.2	VOC CLP	Nitrate/ Nitrite	Alkalinity/ Sulfate/ Chlorides	Hydrogen
Y	ARD2156	SA	NA	NA								X				
	ARD2157	SA	NA	NA								X				
	ARD2158	SA	NA	NA								X				
	ARD2159	SA	10.39	8.5	X	X	X	X	X	X	X		X			
RY	ARD2160	SA	10.52	8.5	X	X	X	X	X	X	X	X				
	ARD2161	SA	12.48	12.0	X	X	X	X	X	X	X		X			
	ARD2162	SA	11.58	9.5	X	X	X	X	X	X	X	X				
RY	ARD2163	SA		6.0	X	X	X	X	X	X	X	X				
	ARD2164	SA	13.38	12.0	X	X	X	X	X	X	X		X			
	ARD2165	SA	11.7	10.0	X	X	X	X	X	X	X		X			
	ARD2166	SA	11.88	10.4	X	X	X	X	X	X	X		X			
	TR2072	SA	9.75	8.0	X	X	X	X	X	X	X	X		X	X	X
	TR2073	SA	10	8.0	X	X	X	X	X	X	X	X		X	X	X
	TR2074	SA	12.28	10.0	X	X	X	X	X	X	X	X		X	X	X
	TR2075	SA	12.42	10.5	X	X	X	X	X	X	X	X		X	X	X
	TR2076	SA	13.97	11.5	X	X	X	X	X	X	X	X		X	X	X
	TR2077	SA	14.08	12.1	X	X	X	X	X	X	X	X		X	X	X
	TR2078	SA	8.95	7.0	X	X	X	X	X	X	X	X		X	X	X
Y	TR2079	SA	9.95	8.0	X	X	X	X	X	X	X	X		X	X	X
6)	TR2080	DU										X		X	X	
A	ARD2167	DU											X			
	TR2076MS	MS										X				
	TR2076MSD	MSD										X				
01)	TR0033	RB										X				
	ARD0029	RB														
	TR0034	TB										X				
	ARD0030	TB											X			
	TR2075MRD	SA										X		X	X	
												20	7	10	10	8

d RinseBlank Associated with VOC/CLP sample

Send with ARDs

samples - 6463

- Trip blanks for Vapor tech or MFD
- Trip blank #s
- Rinsate(s) # of

3\~me1a1f.xls\Proposed Round 1

GROUNDWATER ELEVATION DATA
Ash Landfill Quarterly Sampling -8/27/2001
SENECA ARMY DEPOT ACTIVITY

Monitoring Well (1)	Elevation at Top of Riser (2)	Date	Depth from Top of Riser (ft.)	Well Condition
PT-11	658.22		10.43	
PT-12A	652.15		9.89	
PT-15	637.76		10.38'	
PT-16	637.51		7.68	
PT-17	640.14		11.09'	
PT-18	656.68			
PT-19	645.26		8.69	
PT-20	647.28			
PT-21A	647.73			
PT-22	648.61			
PT-23	641.58		9.23	
PT-24	636.40		8.41	
PT-25	637.09		Dry	
MW-27	639.32		8.51	
MW-28	637.21		8.50	
MW-29	637.31		Dry	
MW-30	640.32		Dry	
MW-31	636.70		Dry	
MW-32	641.68		Dry	
MW-33	639.56		Dry	
MW-34	632.89			
MW-36	631.79			
MW-37	632.89			
MW-39	659.54		9.07	
MW-40	659.30		9.14	
MW-43	657.73			
MW-44A	653.85		10.88	
MW-45	650.90			
MW-46	650.41		9.29	
MW-47	628.06			
MW-48	648.32		8.38	
MW-53	639.41		9.90	
MW-56	630.51			
MW-59	656.83		6.98	
MW-60	660.15		7.92	
MW-61				
MW-62				
MW-63				
MW-64				
MW-65				

Notes:

1. Water levels not measured at FH-D, FH-S, and BN-S, which are located at the farmhouse.

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: PT-18

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 9/4/01
INSPECTORS: DRD
PUMP #:
SAMPLE ID #: ARD 2165

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

	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
HISTORIC DATA	11.70					

	PID READING (OPENING WELL)	DEPTH TO STATIC WATER LEVEL (TOC)	DEPTH TO STABILIZED WATER LEVEL (TOC)	DEPTH TO PUMP INTAKE (TOC)	PUMPING START TIME
DATA COLLECTED AT WELL SITE	4.5 ppm	10.60		11.20	0940

	PUMP PRIOR TO SAMPLING (cps)	PUMP AFTER SAMPLING (cps)
RADIATION SCREENING DATA		

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)
0940			100 ml/min			MS/cm			
0945		100		3.74	16.7	1.48	6.92	-162	89.8
0950		100		2.96	16.7	1.45	6.90	-144	74.4
			Well dry	.5 gal					
			0.5 gal total. Not enough flow for stabilized readings.						
			Sample # ARD 2165 collected at 1010 on 9/4/01						

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: PT-18

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA	ARD 2165	1010	DRD 9/4/01
2	DOC	4 deg. C H_2SO_4	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?)

Readings are single readings. Not enough flow for stabilized readings

Ph - 6.90
D.O. - 2.96
Temp. - 16.7°C
Spec. Cond. - 1.45
ORP - -144
Turb 74.4
Ferrous Iron - 0.53 mg/L
Sulfide - 5.4 mg/L

pump intake at 11.20' (6" from bottom) for sampling

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MW-44A

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 9/4/01
INSPECTORS: DRD
PUMP #:
SAMPLE ID #: ARD 2166

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

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
	12.48					

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
	Ø	10.95		11.98'	0845

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)
0845		100 ml/min				mS/cm			
0855		100		1.85	14.2	4.52	7.05	-48	36.3
0900		100		1.15	14.9	4.53	7.08	-83	12.2
0905		100		.68	14.6	4.66	7.09	-97	4.7
0910		100		.60	14.4	4.71	7.09	-94	5.1
			Well dry	.75	gal	purged			
			.75 gal. total						
			Not enough water for flow through stabilization,						
			Sample ARD 2161 collected at 0930						
			on 9/4/01						

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MW-44A

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA	ARD 2161	0930	DRD/ 9/4/01
2	DOC	4 deg. C H_2SO_4	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?)

These are single readings collected just before sampling. Not enough water for flow through stabilized readings

pH - 7.09
D.O. - 0.60
Temp. - 14.4°C
Spec. Cond - 4.71
ORP - -94
Turb. - 5.1
Ferrous Iron - 0.78 mg/L
Sulfide - 0.0 mg/L

pump intake at 11.98' (6" from bottom)

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MW-48

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 8/31/01
INSPECTORS: DRD
PUMP #:
SAMPLE ID #: ARD 2162

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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

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
	11.58					

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
	Ø	8.47		10.58	1210

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)
	100 →		.25 gal			mS/cm			
1210		100		5.52	21.0	.666	6.94	120	252.0
1215		100		1.19	18.3	.663	6.93	108	51.0
1220		100		.90	18.3	.660	6.92	102	16.3
1225		100		.87	18.7	.657	6.93	90	10.0
1230		100		.63	18.8	.657	6.92	86	10.0
1235		100		.67	19.0	.657	6.93	83	9.3
1240		100	2.0 gals total	.67	19.0	.657	6.92	82	9.3

Sample # ARD 2162 collected at 1245 on 8/31/01

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MW-48

	SAMPLING ORDER	PRESERVATIVES		BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C	HCL	3/ 40 ml	VOA	ARD 2162	1245	DRD/8/31/01
2	DOC	4 deg. C	H_2SO_4	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				0.13 mg/L		
6	Sulfide	Field Analysis				0.0 mg/L		
8	Hydrogen	4 deg. C		2/ 40 ml	VOA			
9								
10								

COMMENTS: (QA/QC?)

Stabilized Readings

pH - 6.92
D.O. - 0.67
Temp - 19.0 °C
Spec Cond. - 0.657
ORP - 82
Turb. - 9.3

Sample flow rate 100-120 ml/min
pump intake at 10.58'

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: PT-12A

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 8/31/01
INSPECTORS: DRD
PUMP #:
SAMPLE ID #: ARD 2164

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

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
	13.38					

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
	10.7 ppm	9.92'		12.38	1053

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)
1053		100 ML	.25			MSICAN			
1100		100		3.07	19.8	2.05	6.70	119	114.0
1105		100		2.22	20.1	2.04	6.66	110	62.1
1110		100		1.97	19.7	1.97	6.70	104	22.4
1115		100		.83	18.8	1.97	6.75	94	17.1
1120		100		.79	19.0	1.98	6.74	89	19.0
1125		100		.61	19.1	1.98	6.74	89	19.5
1130		100		.63	19.1	1.98	6.72	90	20.0
1135	80-100		1.5 gals total	.60	19.0	200	6.71	89	21.0

Collected Sample ARD 2164 @ 1140 on 8/31/01

also collected duplicate ARD 2167

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: PT-12A

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC-CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA	ARD 2164	1140	DAP/8/31/01
2	DOC	4 deg. C H_2SO_4	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			17.0 mg/L		
6	Sulfide	Field Analysis			0.30 mg/L		
8	Hydrogen	4 deg. C	2/ 40 ml	VOA			
9							
10							

COMMENTS: (QA/QC?)

Duplicate ARD 2167 collected at PT-12A

Stabilized readings

Ph - 6.71
D.O - 0.60
Temp - 19.0°C
Spec. Cond - 2.00
ORP - 89
Turb - 21.0

Pumping rate was 80-100 ml/min
pump intake at 12.38'

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MW-28

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 8/31/01
INSPECTORS: DRD
PUMP #:
SAMPLE ID #: ARD 2159

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

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	PID READING (OPENING WELL)	DEPTH TO STATIC WATER LEVEL (TOC)	DEPTH TO STABILIZED WATER LEVEL (TOC)	DEPTH TO PUMP INTAKE (TOC)	PUMPING START TIME
	Ø	8.55		9.39	0993

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)
0943									
0945		100 ml/min	.1						
0950		100		8.36	21.4	.629	6.94	112	314.0
0955		160		2.28	20.4	.641	7.00	101	180.0
1000		160		1.09	18.6	.643	6.95	101	47.4
1005		160		1.69	18.5	.642	6.99	105	32.9
1010		160		2.30	18.7	.639	6.99	111	32.4
1015		160		2.70	18.7	.637	6.97	117	25.2
1020		120		2.97	18.8	.636	6.96	124	24.4
1025		120		3.12	18.9	.637	6.95	127	24.5
1030		120		3.13	18.9	.635	6.95	130	25.2
1035		120	2.25 gal Total	3.15	18.9	.635	6.95	131	25.1

Sample ARD 2159 Collected at 1035 on 8/31/01

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MW-28

	SAMPLING ORDER	PRESERVATIVES		BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C	HCL	3/ 40 ml	VOA	ARD 2159	1035	DRD/8/31/01
2	DOC	4 deg. C	H_2SO_4	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		
6	Sulfide	Field Analysis				0.50 mg/L		
8	Hydrogen	4 deg. C		2/ 40 ml	VOA			
9								
10								

COMMENTS: (QA/QC?)

Flow through
Readings stabilized

Ph - 6.95
D.O. - 3.15
Temp - 18.9°C
Spec. Cond - 0.635
ORP - 131
Turb - 25.1

Sample taken at 120 ml/m
with pump intake @ 9.39
(1' from bottom)

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: PT-24

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 8/31/01
INSPECTORS: DRD
PUMP #:
SAMPLE ID #: ARD 2166

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

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
	Ø	8.49		10.88	~~1020~~ 0840

RADIATION SCREENING DATA	PUMP PRIOR TO SAMPLING (cps)	PUMP AFTER SAMPLING (cps)	
			lowered to 11.38, 08

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)
+2		200 ml/min	.25			MS/CM			
0825		160		2.87	17.0	.549	6.96	-2	56.1
0830		200		1.38	16.5	.537	7.14	-32	77.8
0840		200		.89	16.1	.534	7.27	2	73.1
		Drying up		1 gallon	removed				
0855		100 mL		4.90	18.5	.536	7.08	-39	429.0
0900		100		3.42	17.5	.531	7.25	-55	231.0
0905		100		4.73	18.6	.529	7.22	-1	173.0
0910		100		5.76	18.0	.526	7.22	30	142.0
0915		100		6.20	18.5	.528	7.16	60	138.0
0920		100		5.87	17.0	.526	7.19	75	135.0
0925		~~820~~ ~~100~~ 80		5.64	17.0	.527	7.20	79	142.0
0930		~~820~~ ~~100~~ 80	2.5 gals total	5.58	17.0	.527	7.20	82	140.0

Sample ARD 2166 collected at 0930

8/31/01

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: PT-24

	SAMPLING ORDER	PRESERVATIVES		BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC-CLP(Low Level) or 524.2	4 deg. C	HCL	3/ 40 ml	VOA	ARD 2166	0930	DRD/8/31/01
2	DOC	4 deg. C	H_2SO_4	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				0.13 mg/L		
6	Sulfide	Field Analysis				0.30 mg/L		
8	Hydrogen	4 deg. C		2/ 40 ml	VOA			
9								
10								

COMMENTS: (QA/QC?)

Flow through stabilized readings

Ph - 7.20
D.O. - 5.58
Temp. - 17.0°C
Spec. Cond. - 0.527
ORP - 82
Turb - 140

Sample collected at 80 ml/ flow rate with pump inlet at 11.38' (6" from bottom)

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-3

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 8/29/01
INSPECTORS: DRB
PUMP #:
SAMPLE ID #: TR 2073

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

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
	Ø	8.39			1230

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)
+2		600-700	.75	DRY					
+5			1.25	Recharge rate		200 ml/min.			
+10			1.50	Recharge rate		170 ml/min			
+15			1.75	Recharge rate		140 ml/min			
+20			2.00	Recharge rate		110 ml/min			
+25			2.25	Recharge rate		100 ml/min			
+30			2.50	Recharge rate		90 ml/min			

Will let well set and collect samples later. Not enough flow for hydrogen sampling.

Collected Sample # TR 2073 on 8/30/01 @ 1100, No hydrogen, not enough flow.

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-3

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA	TR 2073	1100	DRD/8/30/01
2	DOC	4 deg. C H_2SO_4	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			5.10 mg/L		
6	Sulfide	Field Analysis			15.4 mg/L		
8	Hydrogen	4 deg. C	2/ 40 ml	VOA	No sample Flow to low		
9							
10							

COMMENTS: (QA/QC?)

Single reading taker after sampling, Not enough flow for stabilized readings

Ph - 7.07
D.O. - 2.24
Temp. - 17.9°C
Spec. Cond - 0.505
ORP - +133
Turb - 7.999

bladder pump inlet at 9.50' (6' off bottom)

No hydrogen - not enough water

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-6

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 8/29/01
INSPECTORS: DRO
PUMP #:
SAMPLE ID #: TR 2075

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

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
	12.28					

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
	Ø	10.38	N/A Below DRY		

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)
			2.0 gallons						

Pumped 2 gallons from well with peristaltic then had recharge rate of 90 ml/min that was decreasing. We will let well set and come back and sample. Not enough flow for hydrogen.

Collected Sample # TR 2075 on 8/30/01 @ 1010

Duplicate TR 2080 collected

MRD Sample TR 2075 MRD collected

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-6

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA	TR 2075	1010	DRD / 8/30/01
2	DOC	4 deg. C H_2SO_4	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	No sample Not Enough flow		
9							
10							

COMMENTS: (QA/QC?)

Duplicate TR 2080 8/30/01 @ 1010 collected.

MRD split sample ~~MRD2075~~ TR2075MRD 8/30/01 @ 1010 collected

These readings are a single reading collected after sampling. Not enough flow for ~~Stabilized~~ readings.

pH - 7.61
D.O. - 5.70
Temp - 17.6 °C
Spec. Cond - 0.286
ORP - +158
Turb - >.999

Ferrous Iron - 3.33 mg/L
Sulfide - 15.4 mg/L

pump inlet at 11.78 (6" from bottom) during sampling.

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-4

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 8/29/01
INSPECTORS: DRD
PUMP #:
SAMPLE ID #: TR 2074

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

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
	12.28'					

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
	Ø	10.42'	None		1140

RADIATION SCREENING DATA	PUMP PRIOR TO SAMPLING (cps)		PUMP AFTER SAMPLING (cps)	
	~~10.42'~~			

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)
1140									
+3		700-800	1.5	Well	Dry.				
+10			1.75	Recharge	rate	160	ml/min		
+15			2.0	Recharge	rate	116	ml/min		
+20			2.5	Recharge	rate	90	ml/min		
		We will let well set and come back and							
		Sample. Not enough recharge for hydrogen.							
			Sampled on 8/30/01		@	0930			

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-4

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA	TR 2074	0930	DRD 8/20/01
2	DOC	4 deg. C H_2SO_4	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	Not enough flow		
9							
10							

COMMENTS: (QA/QC?)

These readings are a single reading. Not enough flow for flow through Readings taken following sample Collection

Ferrouse Iron - 5.10
Sulfide - 15.4 mg/L
Ph - 6.95
D.O - 7.31
Temp - 16.3
Spec. Cond - 0.814
ORP - 140
Turb - >.999

pump inlet depth 11.78' (6" from bottom)

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: RB 53001

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA	TR0033	0945	DRD/8/30/01
2	DOC	4 deg. C H_2SO_4	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?)

Rinse blank of bladder pump # 800535 (Marshalk) of organic free water from STL.

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-10

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 8/30/01
INSPECTORS: DRP
PUMP #:
SAMPLE ID #: TR 2078

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

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
	16.7 ppm	6.56		Bladder 8.00'	0803

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)
+5		600-700	2.0	Peristaltic pump, well made lots					
			of water and W/L was 7.80.						
			We will begin flow through purging with						
			Bladder pump at a rate of 450 ml/min						
0817	Bladder pump start								
+8		340 ml/min	3.0						
+9		300 ml/min	3.1						
0820		300		.99	17.2	.076	9.47	96	71.9
0825		300		.64	17.2	.076	9.83	69	52.0
0830		300		.59	17.1	.076	9.79	49	62.6
0835		300		.54	17.1	.076	9.80	-9	69.0
0840		300		.51	17.1	.076	9.83	-69	71.0
0845		300		.47	17.2	.076	9.84	-139	69.6
0850		300		.44	17.2	.076	9.83	-160	72.3
0855		300		.46	17.3	.076	9.86	-170	72.5
			Collected Sample # TR 2078 @ 0900						
							8/30/01		

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-10

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA	TRQ078	0900	DAD/8/30/01
2	DOC	4 deg. C H_2SO_4	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			0.10 mg/L		
6	Sulfide	Field Analysis			0.7 mg/L		
8	Hydrogen	4 deg. C	2/ 40 ml	VOA	TR 2078	0935	
9							
10							

COMMENTS: (QA/QC?)

Ferrous Iron - .10 mg/L

Sulfide - .7 mg/L

Hydrogen 300 ml/min

Ph - 9.86

D.O - 0.46

Temp. 17.3°C

SpecCond 0.076

ORP - -170

Turb - 72.5

Pump intake at 8.00' depth

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-9

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 8/28/01
INSPECTORS:
PUMP #:
SAMPLE ID #: TR2077

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

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
	~~12.01~~					

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
		12.01'	None	13.60'	1455

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)
			Recharge rate of 60 ml/min after initial purge. Very silty, not enough water to sample						
				150 gallons removed					
			8/29/01 Came back to sample with bladder pump Very little water.						
			Sample collected on 8/29/01 @ 1600						

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-9

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA	7077	1600	DRD/8/29/01
2	DOC	4 deg. C H_2SO_4	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	5.10 mg/L				
6	Sulfide	Field Analysis	15.4 mg/L				
8	Hydrogen	4 deg. C	2/ 40 ml	VOA	N/A Not enough water		
9							
10							

COMMENTS: (QA/QC?)

These field measurements were collected after sample collection and are a single set of readings, Not a stabilized flow through reading, not enough water

Ph - 6.68
Spec. Cond.- 0.598
Turb - >.999
D.O - 3.30
Temp - 18.9°C
ORP - 97

Ferrous Iron 5.10 mg/L
Sulfide 15.4 mg/L

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-1

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY
DATE: 8/29/01
INSPECTORS: DRD
PUMP #:
SAMPLE ID #: TR2072

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

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	8.26		9.25	1305

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)
1130		600-700	4	Well	did dry up				
1315			4	Hooked	up bladder pump. Depth to pump				
1330		300		intake	9.25 (approx 6" abv bottom)				
1330		300		1.95	12.6	.627	7.03	165	>999
1335		200		1.97	16.2	.626	6.88	174	>999
1340		200		1.98	16.8	.608	6.68	186	>999
1345		200		2.06	16.8	.625	6.75	178	>999
1350		200		1.99	16.8	.624	6.80	174	>999
1355		200		1.86	16.5	.626	6.86	170	795
1400		200		1.79	16.3	.623	6.98	173	605
1410		200		1.72	16.6	.623	7.07	173	298
1420		200		1.67	16.4	.622	7.07	173	218
1425		200	9 gal	1.68	16.1	.622	7.07	175	176
1430		200		1.65	16.3	.620	7.07	172	159

Sample TR2072 collected @ 1430

8/29/01

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-1

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA	TR 2072	1430	DRD 8/29/01
2	DOC	4 deg. C H_2SO_4	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			5.10 mg/L		
6	Sulfide	Field Analysis			15.4 mg/L		
8	Hydrogen	4 deg. C	2/ 40 ml	VOA	TR 2072	1505	DRD 8/29/01
9							
10							

COMMENTS: (QA/QC?)

D.O - 1.65
Temp - 16.3
Spec. Cond - 0.620
pH - 7.07
ORP - 172
Turb - 159
Ferrous Iron - 5.10 mg/L
Sulfide - 15.4 mg/L

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-7

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 8/29/01
INSPECTORS: DRD
PUMP #:
SAMPLE ID #: TR2076

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = [(POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT)]

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
	13.97					

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
	Ø	11.82	N/A Below Pump	12.97'	1005

RADIATION SCREENING DATA	PUMP PRIOR TO SAMPLING (cps)	PUMP AFTER SAMPLING (cps)
		MS/CM

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)
1005		300	1.5	5.64	15.6	.811	6.54	231	120
1010				5.79	15.5	.811	6.43	231	104
1015				5.46	15.2	.807	6.44	223	190
1020				5.22	15.6	.798	6.84	199	148
		Well stopped producing water. Lowered pumping rate,							
		still no water. We will forgo hydrogen and let							
		well recharge and collect the sample.							
			2.5 gallons removed total.						

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-7

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA	TR2076	1040	DRD/8/29/01
2	DOC	4 deg. C H_2SO_4	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	None Collected	Not enough Flow	
9							
10							

COMMENTS: (QA/QC?)

Samples collected through bladder pump

MS/MSD TR 2076 MS and TR 2076 MSD collected

Ferrous Iron - 0.12 mg/L

Sulfide - 0.039 mg/L

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: FH-D

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA	ARD 2157	0900	DRD/8/29/01
2	DOC	4 deg. C H_2SO_4	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?)

Sample from cold water tap in kitchen. Mrs Slates said water for a bath was drawn in the morning

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: BW-5

	SAMPLING ORDER	PRESERVATIVES		BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C	HCL	3/ 40 ml	VOA	None	—	—
2	DOC	4 deg. C	H_2SO_4	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?)

Dug well by barn was dry. No sample collected.

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: FH-5

	SAMPLING ORDER	PRESERVATIVES		BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C	HCL	3/ 40 ml	VOA	ARD 2158	0905	DRD/8/29/01
2	DOC	4 deg. C	H_2SO_4	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?)

Sample collected from spigot in SE corner of basement. We drew 10 gallons of water from spigot before sampling

IDW INFORMATION:

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-11

PROJECT: QUARTERLY SAMPLING -ASH LANDFILL
LOCATION: ROMULUS, NY

DATE: 8/28/01
INSPECTORS: JRD
PUMP #:
SAMPLE ID #: TR2079

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	MONITORING 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	0.617	1.389	2.475	5.564

ONE WELL VOLUME (GAL) = ((POW - STABILIZED WATER LEVEL) X WELL DIAMETER FACTOR (GAL/FT))

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
	65	8.98	None		

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)
		0.5' of water in screen, recharge only						40 ml/min	
		unable to sample							
				.25 gallons removed					

Form # _____

SAMPLING RECORD - GROUNDWATER

SENECA ARMY DEPOT ACTIVITY	CONSULTANT: PARSONS ES	WELL #: MWT-11

	SAMPLING ORDER	PRESERVATIVES	BOTTLES COUNT/ VOLUME	BOTTLES TYPE	SAMPLE NUMBER	TIME	CHECKED BY/ DATE
1	VOC -CLP(Low Level) or 524.2	4 deg. C HCL	3/ 40 ml	VOA			
2	DOC	4 deg. C H_2SO_4	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:

1015 DRD on site. Door to Parsons office (Bldg 125) open, DRD placed equipment inside. Weather is p/cloudy, warm. Temps in 70s.
DRD checked in with Randy Battaglia.
1030 DRD to Ash Landfill to begin Well gauging.
Couldn't get through gates. No key.
1045 Went to Bldg 123. Got keys.
1115 DRD at Ash Landfill site to begin PID HS and W/L gauging.
DRD calibrated ES PID # to 100 ppm Isobutylene.
1530 DRD back to Parsons office from Ash Landfill. Called in and left Cliff L. a status for site work
1600 DRD left message for Kerry at Hotel. DRD and TJB will meet him at 0715 tomorrow.
1610 DRD departs the site for the day.

0770 DRD, TJB on site. Weather is Sunny, warm Temps in 70S. Met with Kerry Smith (Parsons Boston) at Bldg 125
1000 DRD, TJB and Kerry to back gate (outside fence) of Ash Landfill to collect Water Level measurements.
1145 Return to Bldg 125. Crew has lunch.
1230 TJB calibrated Field Measurement meter for Ph/Cond/Temp/DO.
1320 DRD, TJB, Kerry at Ash LF site. Crew decon'ed bladder pumps with alchinox, distilled and Isopropanol. MWT-11 - Well had 0.5' of water in screen and a recharge rate of 40 ml/min. We tried low flow pumping with peristaltic and bladder pumps. Well is dry.
1345 Crew at MWT-9. Depth to water is 12.01'. After initial purge Well only made 60 ml/min. Water was very silty, not enough volume to sample

8/28/01 SEAD DRN

1530 Crew packing up. We will go to Bldg 125 to call Cliff Lippert.

1545 Crew back to Bldg 125. We will call Cliff.

The following is water level measurements collected today and yesterday.

Well #	Depth to Water	PID HS (PPM)	Remarks	Date
PT-17	11.09'	1.0		8/27/01
MW-33	Dry	Ø		
PT-15	10.38'	174		
MW-31	DRY	8.6		
PT-25	DRY	24		
MW-30	DRY	Ø		
MW-32	DRY	Ø		
MWT-7	11.76	Ø	-	
MWT-9	12.04	Ø	-	
MW-29	DRY	Ø		
MW-53	9.90	Ø		
MWT-4	10.40	Ø	-	
MWT-6	10.35	Ø	-	
PT-24	8.41	Ø		
MWT-1	8.18	Ø	-	

SEAD DRN

Well #	Depth to Water	PID HS (PPM)	Remarks	Date
MWT-3	8.32	Ø -		
MW-28	8.50	Ø		
MW-27	8.51	Ø		
PT-23	9.23	Ø		
PT-16	7.68	Ø ✓		
MW-10	6.52	16.7 -	MWT-10 ?	
PT-11 ✓	10.43	Ø		
MW-59 ✓	6.98	Ø		
MW-60 ✓	7.92	Ø		
PT-19 ✓	8.69	Ø		
MW-20 ✓	DRY	Ø		
MW-21A ✓	10.51	Ø	39.	
MW-22 ✓	11.10	Ø		
MW-46 ✓	9.29	Ø		
MW-48 ✓	8.38	Ø		
MW-39 ✓	9.07	Ø		
MW-44A ✓	10.88	Ø		
PT-12A ✓	9.89	10.7		
MW-40 ✓	9.14	Ø		8/28/01
MW-47 ✓	8.15	* NR		
MW-56 ✓	6.56	* NR		
MW-36 ✓	9.53	* NR		
PT-18 ✓	10.38	4.5		
MWT-11 ✓	8.98	65. *-		

* No Reading, Wet from rainy conditions, PID not working

8/28/01 SEAD DRD

1550 Kerry called in to Cliff. He is not in, left message.

1630 Had conference call with Cliff. The following items were discussed:

* To address the fact that we are not producing enough water from these shallow wells, we will forego hydrogen sample in wells that produce less than 100 ml/min recharge rate
* Wells will initially be purged using peristaltic pump to clear out silt and determine recharge rate.
* For wells with recharge rate of less than 100 ml/min we will return and sample with stainless steel bladder pump.

1700 DRD, TJB and Kerry depart site for the day.

8/29/01 SEAD

0715 DRD, TJB on site. Weat overcast, cool. Temps in

0720 TJB calibrated combo m for PH/Cond/Temp/DO. Kerry Smith called. DRD to him concerning samp procedures

0900 DRD, TJB at Slates Farm to collect VOA samples. Collected ARD 2157 sample sink for VOA 524.2 analys. Mrs Slates said that they drawn a bath in the morni We collected sample from water tap. FH-D

0905 Collected ARD 2158 sample spigot in SE corner of bas We let water run for 10 Sample is for VOA 524.6 an FH-S

0910 ~~Collected~~ Went to outside well location BN-5. Well dry except for some very

8/29/01 SEAD DRD

pools in bottom that are probably surface water run in from rain yesterday and are not enough to sample.

0945 DRD, TJB at Ash LF On site MWT-7. DTW - 11.82. Purged approx. 1 gallon with peristaltic. Then well made 320 ml/min. We will begin low flow sampling. Well was relatively clear.
Set Pump intake at 12.97' (approx) 1' off bottom.
Well dry on low submersible mode. Lowered bladder pump 6" and we are using STD Subm. mode.

1005 Began flow through sampling at 300 ml/min.

1020 After pumping for 15 minutes well went dry. Tried to lower flow rate. Still no water. Shut pump off will let it recharge and collect sample. We will not collect hydrogen sample.

8/29/01 SEAD DRD

1040 Collected Sample # TR 2076 from MWT-7 Also collected TR 2076 MS and TR 2076 MSD.
Analysis is VOC (524.2), MEE, DOC, Nitrate/Nitrite, Alk/Sulf/Chlorides. No hydrogen collected, not enough flow.
Ph - 6.84
Temp - 15.6
D.O. - 5.22
Spec. Cond - 0.798
ORP - 199
Turb - 148
Ferrous Iron - 0.13 mg/L
Sulfide - 0.039 mg/L

1110 On site MWT-6.
DTW - 10.38
1115 - Starting purging with peristaltic. After approx 1.5 gallons well went dry. We continued with peristaltic.

1135 Purged two gallons. ~~Total~~ flow rate was 90 ml/min. We will let well set and sample later. Not

8/29/01 SEAD DRD

1140 On site MWT-4.
DTW - 10.42
Began pumping well with peristaltic pump.
1143 Dry at 1.5 gallons. Let peristaltic continue to determine recharge rate.
1150 Recharge rate 160 ml/min
1150 Recharge rate 116 ml/min
1200 Recharge rate 90 ml/min
We will let well set and come back and sample later. Not enough flow for hydrogen sampling. 2.5 gallons removed.
1205 Pulling off T-4. TJB to office.
1225 On site MWT-3
DTW - 8.39
1230 Began pumping with peristaltic
1232 Well dry. We will let peristaltic pump run to determine recharge rate.
1235 Recharge rate 200 ml/min
1240 Recharge rate 170 ml/min

8/29/01 SEAD DRD

1245 Recharge rate 140 ml/min
1250 Recharge rate 110 ml/min
1255 Recharge rate 100 ml/min
1300 Recharge rate 90 ml/min
We will let well set and sample later. Not enough flow for hydrogen sampling. 2.5 gallons removed
1305 On site MWT-1
DTW - 8.26'
Began pumping with peristaltic.
1315 Pumped 4 gallons at 500-600 ml/min and didn't dry up.
We will hook up bladder pump and pump at 300 ml/min for low flow sampling
1320 Hooked up bladder pump. Bottom of pump at 9.25' (approx 6" off bottom). Pumping rate 300 ml/min
1335 Water very turbid > 999 adjusted pumping rate to 200 ml/min to clear up.
1345 Water still turbid. We will continue to purge.

8/29/01 SEAD DRD

1350 TJB did Ferrous Iron and Sulfide field tests
MWT-1 Ferrous Iron - 5.10 mg/L
Sulfide - 15.4 mg/L
1430 Reading stable. Collecting Sample # TR 2072
D.O. - 1.65
Temp - 16.3
SpecCond - 0.620
PH - 7.07
ORP - 172
Turb - 159
Sample parameters are VOC (524.2), DOC, MEE, Nitrate/Nitrate, Alk/Sulf/Chlorides
1440 Increased flow with peristaltic pump to 300 ml/min and began taking H_2 sample. Injected 30 cc ambient air in agitation chamber.
1505 Collected TR 2072 Hydrogen sample from MWT-1.
1515 Done at MWT-1.

8/29/01 SEAD DRD

1535 At MWT-11
DTW - 9.50'
Total Depth - 9.95'
There is no water to sample, screen starts at 9.35'.
1540 At MWT-9
DTW - 12.08
We will attempt to sample with a bladder pump
1600 Collected sample # 2077 with bladder pump. Analytes are VOC (524.2), MEE, DOC, Nitrate/Nitrite, Alk/Sulf/Chlorides. No hydrogen not enough water
PH - 6.68
SpaCon - 0.598
Turb - > .999
D.O - 3.30
Temp - 18.9°C
ORP - 97
These readings are a single reading taken after sample collection, not a flow through stabilized readings.

8/29/01 SEAD DRD

1610 Collected Ferrous Iron and Sulfide
Ferrous Iron - 5.10 mg/L
Sulfide - 15.4 mg/L

1620 DRD, TJB secured wells and departed the site for Parsons office at SEAD.

1700 DRD called in to Cliff. Left message on project progress.

1710 DRD, TJB depart site for the day.

Cliff Off

8/29/01

8/30/01 SEAD DRD

0710 DRD, TJB at site. Weather is P/cloudy, cool. Temps in 60s

0725 DRD called in to Cliff updated him on project progress.
TJB calibrated combo meter to pH, cond, D.O. and Turb standards.

0755 DRD, TJB at Ash LF on site MWT-10.
DTW - 6.56

0803 We will begin purging with peristaltic pump

0808 Pumped two gallons with peristaltic pump. Well appears to have plenty of water We will set bladder pump at 8.00' depth with a target rate of 450 ml/min.

0812 Began flow through purge with bladder pump

0821 Water was surging so we made flow rate 300 ml/min.

0900 Collected sample TR2078 from MWT-10.

8/30/01 SEAD DRD

MWT-10

PH - 9.86
D.O - 0.46
Temp - 17.3°C
Spec. - 0.076
ORP - -170
Turb - 72.5
Sample parameters are VOC (524.2) MEE, DOC, Nitrate/Nitrite, Alk/Sulf/Chlorides.
Ferrous Iron - 0.10 mg/L
Sulfide - 0.7 mg/L
TJB will collect hydrogen sample at a 300 ml/min flow rate Hydrogen sample 0935

0910 DRD to MWT-4 to collect sample. Sample will be collected with bladder pump, but no hydrogen will be sampled or readings stabilized due to low recharge (< 100 ml/min)
DTW - 10.51

0930 Collected Sample TR 2074 from MWT-4. Used bladder pump. Bottom of pump (inlet) set at 11.78 (6" from bottom).

8/30/01 SEAD DRD

Readings for field measurements will be for a single reading. Not enough water for a flow through. No hydrogen collected.
PH - 6.95
D.O - 7.31 Ferrous Iron - 5.10 mg/L
Temp - 16.3 Sulfide - 15.4 mg/L
Spec Cond - 0.814
ORP - 140
Turb - > 999
Sample parameters were VOC (524.2) MEE, DOC, Nitrate/Nitrate, Alk/Sulf/Chlorides

0945 Collected RB 83001. Sample # TR0033. Sample is lab grade water from STL passed through bladder pump # 800535 Marshalk. Analysis is VOA 524.2 only.

1000 At MWT-6 to collect sample. Not enough flow for hydrogen or stabilization. We will use bladder pump.
DTW - 10.43

8/30/ SEAD DRA

1010 Collected Sample # TR 2075
Bladder pump set at 12.78'
(6" from bottom)
Also collected Sample # TR 2080
which is a duplicate of TR 2075
Also Collected Sample # TR 2075 MRD
This sample is a split for
MRD Labs. All analysis are
VOCs (524.2), MEE, DOC, Nitrate/
Nitrite, Alk/Sulf./Chlorides.
pH - 7.61
D.O. - 5.70
Temp - 17.6°C
Spec Cond - 0.286
ORP - +128
Turb - >.999
Ferrous Iron - 3.33 mg/L
Sulfides - 15.4 mg/L
Not enough flow for hydrogen or
Stabilized field measurements.

1050 On site MWT-3 to collect
sample. Well had to low flow
for hydrogen or stabilized readings

8/30/01 SEAD DRA

DTW - 8.39'
We will set bladder pump at 9.50'
(6" above bottom)

1100 Collected Sample # TR 2073 from
MWT-3, Analysis is VOA (524.2),
MEE, DOC, Nitrate/Nitrite, Alk/Sulf/
Chlorides
pH - 7.07
D.O - 2.24
Temp - 17.9°C
Spec Cond - 0.505
ORP - +133
Turb - >.999
Ferrous Iron - 5.10 mg/L
Sulfides - 15.4 mg/L
Not enough flow for hydrogen or
Stabilized field measurements

1130 Secured Wells at Ash LF. DRA
and TJB to Parsons SEAD office
to process samples

1500 DRA, TJB complete packing up
samples for shipment to STL,
Vaportech and MRD.
Crew departs the site

8/31/01 SEAD DRD

0720 DRD on site. Weather is overcast, Warm. Temps in 70s.
TJB on site
0730 TJB calibrated the combo meter for Ph/Cond./D.O.
0800 DRD, TJB on site PT-24
DTW - 8.49
We will start pumping with bladder pump at a low rate (100 ml/min)
Pump intake set at 10.88 (1' from botton of well
Well appears to be making water. We will increase flow to 200 ml/min.
0820 Started purging.
0825 Performing flow through measurement.
0837 Well drying up. We will shut down and start back up at 100 ml/min.
0841 Restarted at 100 ml/min, still drying up, lowered pump intake 6" to 11.38'

8/31/01 SEAD DRD

0930 Collected ARD 2166 sample from PT-24 well.
Flow rate ~~180~~ ml/min. Pump intake @ 38'
Ph - 7.20
D.O - 5.58
Temp - 17.0°C
Spec Cond - 0.527
ORP - 82
Turb - 140
Ferrous Iron - 0.13 mg/L
Sulfides - 0.30 mg/L
0940 On site MW-28
DTW - 8.55'
We will start pumping at a rate of 100 ml/min with pump intake at 9.59 (1' from bottom)
0950 Flow rate at 160 ml/min
1000 Flow rate at 120 ml/min
1035 Collected ARD 2159 sample from MW-28. Flow rate is 120 ml/min
Pump intake is 9.59' (1' from bottom)
Ph - 6.95
D.O. - 3.15
Temp - 18.9

8/31/01 SEAD DRD

Spec Cond - 0.635
ORP - 131
Turb - 25.1
Ferrous Iron - 0.20 mg/L
Sulfides - 0.50 mg/L

1045 On site PT-12A.
DTW - 9.92'
We will start well with pump intake at 12.38' (1' from bottom) and 100 ml/min.

1140 Collected sample ARD 2164 from PT-12A. Also collected duplicate ARD 2167.
Flow Rate 80 ml/min. Pump Intake at 12.38'.
Ph - 6.71
D.O. - 0.60
Temp - 19.0°C
Spec. Cond - 2.00
ORP - 89
Turb - 21.0
Ferrous Iron - 17.0 mg/L
Sulfides - 0.3 mg/L

8/31/01 SEAD DRD

1155 On site MW-48. Teflon tubing out of reach down well.
Retrieved tubing.
DTW - 8.47'
Total Depth - 11.58'
We will set pump intake at 10.58' (1' above bottom) and purge at a rate of 100 ml/min.

1210 Started purge.

1245 Collected ARD 2162 sample from MW-48. Flow rate 100 ml/min.
Pump intake at 10.58'
Ph - 6.92
D.O. - 0.67
Temp - 19.0°C
Spec Cond - 0.657
ORP - 82
Turb - 9.3
Ferrous Iron - 0.13 mg/L
Sulfide - 0.0 mg/L

1515 DRD, TJB at Parsons SEAD field office. We are securing for the long weekend.

8/31/01 SEAD DRD

1345 DRD, TJB to Parsons Trailer to see if any teflon tubing is there. None found.

1400 DRD left message with Cliff. Updated him on project progress.

1405 DRD, TJB depart site. Will return Tues 9/4/01.

Cliff Lee 8/31/01

9/4/01 SEAD DRD

0730 DRD, TJB at site. Weather is overcast, warm. Temps in 70s Threat of rain today. TJB calibrated compo meter to ph/cond/D.O standards.

0830 DRD, TJB at Ash LF

0840 MW-44A
DTW - 10.95'
Total Depth - 12.48
We will set bladder pump 6" from bottom - 11.98'

0845 Began purging at 100 ml/min

0910 Well went dry at 0.75 gallons. Not enough water for flow through stabilization. We will let well recharge and collect VOA sample.
Ferrous Iron - 0.18 mg/L
Sulfide - 0.0 mg/L
ph - 7.09
D.O - 0.60
Temp. - 14.4°C
Spec. Cond - 4.71
ORP - -94

9/4/01 SEAD DLD

Sample analysis will be VOC CLP

0930 Collected ARD-2161 from MW-44A sample collected through bladder pump. Pump intake 11.98' (6" from bottom)

0940 AT MW-PT-18.
DTW - 10.60
Total Depth - 11.70'
We will set bladder pump at 11.20' (6" from bottom) at pump at 100-150 ml/min.

0950 Well dry at 0.5 gallons. We will let well set and collect samples.
Not enough flow for stabilization, the following reading taken just before sampling.
Ferrous Iron - 0.53 mg/L
Sulfide - 5.4 mg/L
PH - 6.90
D.O - 2.96
Temp. - 16.7°C
Spec Cond - 1.45
ORP - -144
Turb. - 74.4

9/4/4 SEAD DLD

1010 Collected Sample ARD 2165 from PT-18. Analysis will be VOC CLP. Sampled through bladder pump. Pump intake at 11.20' (6" from bottom) Not enough flow for stabilized field measurements.

1015 Sampling completed for ASH LF. We will ship out VOC samples today.

APPENDIX B

THIRD QUARTER 2001 LABORATORY REPORTS

SEVERN TRENT LABS (STL)

&

VAPORTECH SERVICES, Inc.

SEVERN TRENT SERVICES

STL Burlington

Lab ID	Client Sample ID	Sample Date	Sample Matrix
	Received: 09/05/01 ETR No: 84594		
464264	ARD2166	08/31/01	Water
464265	ARD2159	08/31/01	Water
464266	ARD2164	08/31/01	Water
464267	ARD2162	08/31/01	Water
464268	ARD2167	08/31/01	Water
464269	TB ARD0030		Water
464270	ARD2161	09/04/01	Water
464271	ARD2165	09/04/01	Water
464272	VSBLK01	09/05/01	Water

Documentation that identifies the condition of the samples at the time of sample receipt and the issues arising at the time of sample log-in was included in the Sample Handling section of this submittal.

In the volatile organic analyses by Method 524.2, the recovery of toluene-d8 in the sample labeled TR2075 was slightly above the upper control limit. The matrix spike and matrix spike duplicate samples, TR2076, exhibited recoveries outside the established quality control limits for select compounds. In the laboratory control sample, MVMC LCS, select target analytes exhibited recoveries that were beyond the control criteria. Please refer to the associated summary Form 3 for specific recoveries.

Please note that manual integrations were performed for the processing of volatile organic data files. These integrations can be found in the supportive documentation section of the data package.

The volatile organic analysis of samples in this delivery group by CLP Method OLC02.1 included a volatile organic holding blank. This blank was carried through the sample storage period and analyzed with this case. The data for this blank has been included in the sample preparation section of the data package and is labeled as VBLK01.

The initial calibration verification sample, ICV2, analyzed on 9/5/01 for total organic carbon yielded a percent recovery (118%) slightly below the established quality control limit (120%).

If there are any questions regarding this submittal, please contact Jennifer Clements at 802 655-1203.

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SEVERN
TRENT
SERVICES

Severn Trent Laboratories, Inc.

Sample Data Summary Package for Wet Chemistry

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

Tel: 802 655 1203
Fax: 802 655 1248

SEVERN TRENT SERVICES
STL Burlington

Analytical Report

Parsons Engineering Science
Attn: Accounts Payable
30 Dan Road
Canton, MA 02021

Attention : Cliff Lippitt

Date : 09/20/01
ETR Number : 84551
Project No.: 99029
No. Samples: 22
Arrived : 08/31/01

Case:99029 SDG:84551

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.
All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
464051	TR2072:08/30/01 @1430(Water)	
353.2	Nitrate/Nitrite Nitrogen	0.049
310.1	Alkalinity (as CaCO3)	324
300.0	Chloride	9.3
300.0	Sulfate	53.5
464052	TR2072F:08/30/01 @1430(Filtrate)	
9060	Dissolved Organic Carbon	2.0
464053	TR2073:08/30/01 @1100(Water)	
353.2	Nitrate/Nitrite Nitrogen	0.011
310.1	Alkalinity (as CaCO3)	272
300.0	Chloride	9.7
300.0	Sulfate	41.9
464054	TR2073F:08/30/01 @1100(Filtrate)	
9060	Dissolved Organic Carbon	22.6
464055	TR2074:08/30/01 @0930(Water)	
353.2	Nitrate/Nitrite Nitrogen	0.12
310.1	Alkalinity (as CaCO3)	348
300.0	Chloride	25.4
300.0	Sulfate	141
464056	TR2074F:08/30/01 @0930(Filtrate)	
9060	Dissolved Organic Carbon	13.2
464057	TR2075:08/30/01 @1010(Water)	
353.2	Nitrate/Nitrite Nitrogen	<0.010
310.1	Alkalinity (as CaCO3)	100

< Cont. Next Page >

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

Tel: 802 655 1203
Fax: 802 655 1248

SEVERN TRENT SERVICES
STL Burlington

Analytical Report

Parsons Engineering Science
Attn: Accounts Payable
30 Dan Road
Canton, MA 02021

Attention : Cliff Lippitt

Date : 09/20/01
ETR Number : 84551
Project No.: 99029
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Case:99029 SDG:84551

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All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
464064	TR2078F:08/30/01 @0900(Filtrate)	
9060	Dissolved Organic Carbon	1.5
464065	TR2080:08/30/01 @1010(Water)	
353.2	Nitrate/Nitrite Nitrogen	<0.010
310.1	Alkalinity (as CaCO3)	100
300.0	Chloride	15.3
300.0	Sulfate	15.2
464066	TR2080F:08/30/01 @1010(Filtrate)	
9060	Dissolved Organic Carbon	6.5

< Last Page >

Submitted By : STL Burlington

Kristine Russell

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SERVICES

Severn Trent Laboratories, Inc.

SAMPLE DATA SUMMARY PACKAGE

FOR 524.2

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

ARD2157

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464068

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464068

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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	0.50	U
1634-04-4	Methyl-t-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
590-20-7	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	0.46	J
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.

ARD2157

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464068

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464068

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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.

ARD2158

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464069

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464069

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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	25	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
79-46-9	2-Nitropropane	25	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.

ARD2162

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464267

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464267

Level: (low/med) LOW Date Received: 09/05/01

% Moisture: not dec. _____ Date Analyzed: 09/07/01

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	0.50	U
1634-04-4	Methyl-t-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
590-20-7	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	0.24	J

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

ARD2162

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464267

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464267

Level: (low/med) LOW Date Received: 09/05/01

% Moisture: not dec. _____ Date Analyzed: 09/07/01

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.

TB0034

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464070

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464070

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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	25	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
79-46-9	2-Nitropropane	25	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.

TR20033

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464067

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464067

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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	1.8	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
590-20-7	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.

TR20033

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464067

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464067

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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.

TR2072

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464051

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464051

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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	25	U
108-10-1	4-Methyl-2-Pentanone	2.5	U
79-46-9	2-Nitropropane	25	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.

TR2073

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464053

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464053

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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	52	
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	0.71	
1634-04-4	Methyl-t-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
590-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	25	
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	6.5	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR2073

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464053

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464053

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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.

TR2074

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464055

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464055D

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 4.5

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	2.2	U
78-87-5	1,2-Dichloropropane	2.2	U
80-62-6	Methyl Methacrylate	2.2	U
75-27-4	Bromodichloromethane	2.2	U
107-14-2	Chloroacetonitrile	110	U
10061-01-5	cis-1,3-Dichloropropene	2.2	U
513-88-2	1,1-Dichloropropanone	110	U
108-10-1	4-Methyl-2-Pentanone	11	U
79-46-9	2-Nitropropane	110	U
108-88-3	Toluene	2.2	U
10061-02-6	trans-1,3-Dichloropropene	2.2	U
97-63-2	Ethyl Methacrylate	2.2	U
79-00-5	1,1,2-Trichloroethane	2.2	U
127-18-4	Tetrachloroethene	2.2	U
142-28-9	1,3-Dichloropropane	2.2	U
591-78-6	2-Hexanone	11	U
124-48-1	Dibromochloromethane	2.2	U
106-93-4	1,2-Dibromoethane	2.2	U
108-90-7	Chlorobenzene	2.2	U
630-20-6	1,1,1,2-Tetrachloroethane	2.2	U
100-41-4	Ethylbenzene	2.2	U
1330-20-7	m- & p-Xylene	2.2	U
95-47-6	o-Xylene	2.2	U
100-42-5	Styrene	2.2	U
75-25-2	Bromoform	2.2	U
1330-20-7	Xylene (total)	2.2	U
98-82-8	Isopropylbenzene	2.2	U
108-86-1	Bromobenzene	2.2	U
79-34-5	1,1,2,2-Tetrachloroethane	2.2	U
96-18-4	1,2,3-Trichloropropane	2.2	U
110-57-6	trans-1,4-Dichloro-2-butene	2.2	U
95-49-8	2-Chlorotoluene	2.2	U
106-43-4	4-Chlorotoluene	2.2	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR2075

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464057

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464057

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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	0.26	J
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	120	
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	0.25	J
1634-04-4	Methyl-t-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.65	
590-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	29	
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	0.31	J
107-06-2	1,2-Dichloroethane	0.28	J
79-01-6	Trichloroethene	0.96	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR2075

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464057

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464057

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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.

TR2075DL

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464057D1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464057D2

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/07/01

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 2.2

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	1.1	U
78-87-5	1,2-Dichloropropane	1.1	U
80-62-6	Methyl Methacrylate	1.1	U
75-27-4	Bromodichloromethane	1.1	U
107-14-2	Chloroacetonitrile	55	U
10061-01-5	cis-1,3-Dichloropropene	1.1	U
513-88-2	1,1-Dichloropropanone	55	U
108-10-1	4-Methyl-2-Pentanone	5.5	U
79-46-9	2-Nitropropane	55	U
108-88-3	Toluene	1.1	U
10061-02-6	trans-1,3-Dichloropropene	1.1	U
97-63-2	Ethyl Methacrylate	1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	U
127-18-4	Tetrachloroethene	1.1	U
142-28-9	1,3-Dichloropropane	1.1	U
591-78-6	2-Hexanone	5.5	U
124-48-1	Dibromochloromethane	1.1	U
106-93-4	1,2-Dibromoethane	1.1	U
108-90-7	Chlorobenzene	1.1	U
630-20-6	1,1,1,2-Tetrachloroethane	1.1	U
100-41-4	Ethylbenzene	1.1	U
1330-20-7	m- & p-Xylene	1.1	U
95-47-6	o-Xylene	1.1	U
100-42-5	Styrene	1.1	U
75-25-2	Bromoform	1.1	U
1330-20-7	Xylene (total)	1.1	U
98-82-8	Isopropylbenzene	1.1	U
108-86-1	Bromobenzene	1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U
96-18-4	1,2,3-Trichloropropane	1.1	U
110-57-6	trans-1,4-Dichloro-2-butene	1.1	U
95-49-8	2-Chlorotoluene	1.1	U
106-43-4	4-Chlorotoluene	1.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR2076

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464059

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464059D

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 31.4

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	16	U
74-87-3	Chloromethane	16	U
75-01-4	Vinyl Chloride	16	U
74-83-9	Bromomethane	16	U
75-00-3	Chloroethane	16	U
75-69-4	Trichlorofluoromethane	16	U
60-29-7	Diethyl Ether	16	U
75-35-4	1,1-Dichloroethene	16	U
67-64-1	Acetone	66	J
74-88-4	Methyl Iodide	16	U
75-15-0	Carbon Disulfide	16	U
107-05-1	Allyl Chloride	16	U
75-09-2	Methylene Chloride	29	
107-13-1	Acrylonitrile	16	U
156-60-5	trans-1,2-Dichloroethene	16	U
1634-04-4	Methyl-t-Butyl Ether	16	U
75-34-3	1,1-Dichloroethane	16	U
590-20-7	2,2-Dichloropropane	16	U
156-59-2	cis-1,2-Dichloroethene	42	
78-93-3	2-Butanone	160	U
107-12-0	Propionitrile	780	U
96-33-3	Methyl Acrylate	16	U
74-97-5	Bromochloromethane	16	U
126-98-7	Methacrylonitrile	16	U
109-99-9	Tetrahydrofuran	78	U
67-66-3	Chloroform	16	U
71-55-6	1,1,1-Trichloroethane	16	U
109-69-3	1-Chlorobutane	16	U
56-23-5	Carbon Tetrachloride	16	U
563-58-6	1,1-Dichloropropene	16	U
71-43-2	Benzene	16	U
107-06-2	1,2-Dichloroethane	16	U
79-01-6	Trichloroethene	620	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR2076

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464059

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464059D

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 31.4

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	16	U
108-67-8	1,3,5-Trimethylbenzene	16	U
76-01-7	Pentachloroethane	16	U
98-06-6	tert-Butylbenzene	16	U
95-63-6	1,2,4-Trimethylbenzene	16	U
135-98-8	sec-Butylbenzene	16	U
541-73-1	1,3-Dichlorobenzene	16	U
99-87-6	p-Isopropyltoluene	16	U
106-46-7	1,4-Dichlorobenzene	16	U
95-50-1	1,2-Dichlorobenzene	16	U
104-51-8	n-Butylbenzene	16	U
67-72-1	Hexachloroethane	16	U
96-12-8	1,2-Dibromo-3-Chloropropane	16	U
98-95-3	Nitrobenzene	780	U
120-82-1	1,2,4-Trichlorobenzene	16	U
87-68-3	Hexachlorobutadiene	16	U
91-20-3	Naphthalene	16	U
87-61-6	1,2,3-Trichlorobenzene	16	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR2077

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464061

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464061D

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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	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	220	U
108-10-1	4-Methyl-2-Pentanone	22	U
79-46-9	2-Nitropropane	220	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.

TR2078

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464063

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464063

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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
590-20-7	2,2-Dichloropropane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.29	J
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	0.81	
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.

TR2078

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464063

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464063

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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.

TR2080

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464065

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464065D

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.5

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	0.75	U
78-87-5	1,2-Dichloropropane	0.75	U
80-62-6	Methyl Methacrylate	0.75	U
75-27-4	Bromodichloromethane	0.75	U
107-14-2	Chloroacetonitrile	38	U
10061-01-5	cis-1,3-Dichloropropene	0.75	U
513-88-2	1,1-Dichloropropanone	38	U
108-10-1	4-Methyl-2-Pentanone	3.8	U
79-46-9	2-Nitropropane	38	U
108-88-3	Toluene	0.75	U
10061-02-6	trans-1,3-Dichloropropene	0.75	U
97-63-2	Ethyl Methacrylate	0.75	U
79-00-5	1,1,2-Trichloroethane	0.75	U
127-18-4	Tetrachloroethene	0.75	U
142-28-9	1,3-Dichloropropane	0.75	U
591-78-6	2-Hexanone	3.8	U
124-48-1	Dibromochloromethane	0.75	U
106-93-4	1,2-Dibromoethane	0.75	U
108-90-7	Chlorobenzene	0.75	U
630-20-6	1,1,1,2-Tetrachloroethane	0.75	U
100-41-4	Ethylbenzene	0.75	U
1330-20-7	m- & p-Xylene	0.75	U
95-47-6	o-Xylene	0.75	U
100-42-5	Styrene	0.75	U
75-25-2	Bromoform	0.75	U
1330-20-7	Xylene (total)	0.75	U
98-82-8	Isopropylbenzene	0.75	U
108-86-1	Bromobenzene	0.75	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U
96-18-4	1,2,3-Trichloropropane	0.75	U
110-57-6	trans-1,4-Dichloro-2-butene	0.75	U
95-49-8	2-Chlorotoluene	0.75	U
106-43-4	4-Chlorotoluene	0.75	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

STLVT SAMPLE NO.

VBLKL9

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: VBLKL9

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MVMB02C

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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	0.50	U
1634-04-4	Methyl-t-Butyl Ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
590-20-7	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

STLVT SAMPLE NO.

VBLKL9

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: VBLKL9

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MVMB02C

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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.

TR2076MS

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464059MS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464059M

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 31.4

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	69	
78-87-5	1,2-Dichloropropane	68	
80-62-6	Methyl Methacrylate	57	
75-27-4	Bromodichloromethane	64	
107-14-2	Chloroacetonitrile	2900	
10061-01-5	cis-1,3-Dichloropropene	62	
513-88-2	1,1-Dichloropropanone	3100	
108-10-1	4-Methyl-2-Pentanone	320	
79-46-9	2-Nitropropane	3100	
108-88-3	Toluene	68	
10061-02-6	trans-1,3-Dichloropropene	72	
97-63-2	Ethyl Methacrylate	63	
79-00-5	1,1,2-Trichloroethane	69	
127-18-4	Tetrachloroethene	58	
142-28-9	1,3-Dichloropropane	71	
591-78-6	2-Hexanone	210	
124-48-1	Dibromochloromethane	60	
106-93-4	1,2-Dibromoethane	65	
108-90-7	Chlorobenzene	66	
630-20-6	1,1,1,2-Tetrachloroethane	68	
100-41-4	Ethylbenzene	68	
1330-20-7	m- & p-Xylene	140	
95-47-6	o-Xylene	68	
100-42-5	Styrene	66	
75-25-2	Bromoform	58	
1330-20-7	Xylene (total)	210	
98-82-8	Isopropylbenzene	68	
108-86-1	Bromobenzene	69	
79-34-5	1,1,2,2-Tetrachloroethane	68	
96-18-4	1,2,3-Trichloropropane	67	
110-57-6	trans-1,4-Dichloro-2-butene	58	
95-49-8	2-Chlorotoluene	70	
106-43-4	4-Chlorotoluene	72	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR2076MSD

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464059MD

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464059S

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 31.4

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	62	
74-87-3	Chloromethane	61	
75-01-4	Vinyl Chloride	65	
74-83-9	Bromomethane	60	
75-00-3	Chloroethane	62	
75-69-4	Trichlorofluoromethane	61	
60-29-7	Diethyl Ether	72	
75-35-4	1,1-Dichloroethene	66	
67-64-1	Acetone	210	
74-88-4	Methyl Iodide	74	
75-15-0	Carbon Disulfide	88	
107-05-1	Allyl Chloride	65	
75-09-2	Methylene Chloride	99	
107-13-1	Acrylonitrile	67	
156-60-5	trans-1,2-Dichloroethene	64	
1634-04-4	Methyl-t-Butyl Ether	68	
75-34-3	1,1-Dichloroethane	69	
590-20-7	2,2-Dichloropropane	63	
156-59-2	cis-1,2-Dichloroethene	110	
78-93-3	2-Butanone	240	
107-12-0	Propionitrile	3200	
96-33-3	Methyl Acrylate	66	
74-97-5	Bromochloromethane	67	
126-98-7	Methacrylonitrile	71	
109-99-9	Tetrahydrofuran	310	
67-66-3	Chloroform	63	
71-55-6	1,1,1-Trichloroethane	67	
109-69-3	1-Chlorobutane	68	
56-23-5	Carbon Tetrachloride	66	
563-58-6	1,1-Dichloropropene	84	
71-43-2	Benzene	70	
107-06-2	1,2-Dichloroethane	69	
79-01-6	Trichloroethene	610	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ENGSC2 SAMPLE NO.

TR2076MSD

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix: (soil/water) WATER Lab Sample ID: 464059MD

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 464059S

Level: (low/med) LOW Date Received: 08/31/01

% Moisture: not dec. _____ Date Analyzed: 09/06/01

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 31.4

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	70	
108-67-8	1,3,5-Trimethylbenzene	72	
76-01-7	Pentachloroethane	92	
98-06-6	tert-Butylbenzene	74	
95-63-6	1,2,4-Trimethylbenzene	67	
135-98-8	sec-Butylbenzene	72	
541-73-1	1,3-Dichlorobenzene	71	
99-87-6	p-Isopropyltoluene	73	
106-46-7	1,4-Dichlorobenzene	69	
95-50-1	1,2-Dichlorobenzene	73	
104-51-8	n-Butylbenzene	67	
67-72-1	Hexachloroethane	67	
96-12-8	1,2-Dibromo-3-Chloropropane	73	
98-95-3	Nitrobenzene	1700	
120-82-1	1,2,4-Trichlorobenzene	64	
87-68-3	Hexachlorobutadiene	78	
91-20-3	Naphthalene	68	
87-61-6	1,2,3-Trichlorobenzene	65	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

STLVT SAMPLE NO.

MVMC LCS

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

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

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MVM01CQ2

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/06/01

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	1.2	
78-87-5	1,2-Dichloropropane	1.2	
80-62-6	Methyl Methacrylate	0.83	
75-27-4	Bromodichloromethane	1.1	
107-14-2	Chloroacetonitrile	47	
10061-01-5	cis-1,3-Dichloropropene	1.1	
513-88-2	1,1-Dichloropropanone	56	
108-10-1	4-Methyl-2-Pentanone	6.2	
79-46-9	2-Nitropropane	56	
108-88-3	Toluene	1.2	
10061-02-6	trans-1,3-Dichloropropene	1.2	
97-63-2	Ethyl Methacrylate	1.0	
79-00-5	1,1,2-Trichloroethane	1.2	
127-18-4	Tetrachloroethene	1.0	
142-28-9	1,3-Dichloropropane	1.2	
591-78-6	2-Hexanone	4.6	
124-48-1	Dibromochloromethane	1.1	
106-93-4	1,2-Dibromoethane	1.1	
108-90-7	Chlorobenzene	1.2	
630-20-6	1,1,1,2-Tetrachloroethane	1.1	
100-41-4	Ethylbenzene	1.2	
1330-20-7	m- & p-Xylene	2.3	
95-47-6	o-Xylene	1.1	
100-42-5	Styrene	1.1	
75-25-2	Bromoform	1.1	
1330-20-7	Xylene (total)	3.4	
98-82-8	Isopropylbenzene	1.1	
108-86-1	Bromobenzene	1.1	
79-34-5	1,1,2,2-Tetrachloroethane	1.2	
96-18-4	1,2,3-Trichloropropane	1.2	
110-57-6	trans-1,4-Dichloro-2-butene	1.1	
95-49-8	2-Chlorotoluene	1.2	
106-43-4	4-Chlorotoluene	1.2	

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

	STLVT SAMPLE NO.	SMC1 (DCE) #	SMC2 (BFB) #	SMC3 (DCB) #	OTHER (TOL) #	TOT OUT
01	MVMC LCS	108	107	108	110	0
02	VBLKL9	102	99	107	109	0
03	TR2072	103	98	96	101	0
04	TR2073	110	104	102	101	0
05	TR2074	106	102	111	106	0
06	TR2075	116	103	106	112*	1
07	TR2076	103	95	106	109	0
08	TR2076MS	115	106	105	108	0
09	TR2076MSD	113	103	104	107	0
10	TR2077	102	98	103	106	0
11	TR2078	104	99	102	104	0
12	TR2080	106	103	108	107	0
13	TR20033	104	99	100	104	0
14	ARD2157	104	103	108	102	0
15	ARD2158	101	101	106	105	0
16	TB0034	113	103	106	103	0
17	ARD2162	102	101	101	107	0
18	TR2075DL	96	88	97	111*	1
19						
20						
21						
22						
23						
24						
25						
26						
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: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix Spike - ENGSC2 Sample No.: TR2076

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Carbon Tetrachloride	63	0.0	64	102	70-130
1,1-Dichloropropene	63	0.0	84	133*	70-130
Benzene	63	0.0	69	110	70-130
1,2-Dichloroethane	63	0.0	66	105	70-130
Trichloroethene	63	620	640	32*	70-130
Dibromomethane	63	0.0	69	110	70-130
1,2-Dichloropropane	63	0.0	68	108	70-130
Methyl Methacrylate	63	0.0	57	90	70-130
Bromodichloromethane	63	0.0	64	102	70-130
Chloroacetonitrile	3100	0.0	2900	94	70-130
cis-1,3-Dichloropropene	63	0.0	62	98	70-130
1,1-Dichloropropanone	3100	0.0	3100	100	70-130
4-Methyl-2-Pentanone	310	0.0	320	103	70-130
2-Nitropropane	3100	0.0	3100	100	70-130
Toluene	63	0.0	68	108	70-130
trans-1,3-Dichloroprope	63	0.0	72	114	70-130
Ethyl Methacrylate	63	0.0	63	100	70-130
1,1,2-Trichloroethane	63	0.0	69	110	70-130
Tetrachloroethene	63	0.0	58	92	70-130
1,3-Dichloropropane	63	0.0	71	113	70-130
2-Hexanone	310	0.0	210	68*	70-130
Dibromochloromethane	63	0.0	60	95	70-130
1,2-Dibromoethane	63	0.0	65	103	70-130
Chlorobenzene	63	0.0	66	105	70-130
1,1,1,2-Tetrachloroetha	63	0.0	68	108	70-130
Ethylbenzene	63	0.0	68	108	70-130
m- & p-Xylene	120	0.0	140	117	70-130
o-Xylene	63	0.0	68	108	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: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix Spike - ENGSC2 Sample No.: TR2076

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Dichlorodifluoromethane	63	62	98	3	40	70-130
Chloromethane	63	61	97	3	40	70-130
Vinyl Chloride	63	65	103	8	40	70-130
Bromomethane	63	60	95	1	40	70-130
Chloroethane	63	62	98	4	40	70-130
Trichlorofluoromethane	63	61	97	5	40	70-130
Diethyl Ether	63	72	114	1	40	70-130
1,1-Dichloroethene	63	66	105	3	40	70-130
Acetone	310	210	46*	8	40	70-130
Methyl Iodide	63	74	117	1	40	70-130
Carbon Disulfide	63	88	140*	1	40	70-130
Allyl Chloride	63	65	103	2	40	70-130
Methylene Chloride	63	99	111	7	40	70-130
Acrylonitrile	63	67	106	6	40	70-130
trans-1,2-Dichloroethen	63	64	102	4	40	70-130
Methyl-t-Butyl Ether	63	68	108	5	40	70-130
1,1-Dichloroethane	63	69	110	6	40	70-130
2,2-Dichloropropane	63	63	100	2	40	70-130
cis-1,2-Dichloroethene	63	110	108	0	40	70-130
2-Butanone	310	240	77	0	40	70-130
Propionitrile	3100	3200	103	3	40	70-130
Methyl Acrylate	63	66	105	10	40	70-130
Bromochloromethane	63	67	106	1	40	70-130
Methacrylonitrile	63	71	113	2	40	70-130
Tetrahydrofuran	310	310	100	6	40	70-130
Chloroform	63	63	100	2	40	70-130
1,1,1-Trichloroethane	63	67	106	1	40	70-130
1-Chlorobutane	63	68	108	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: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix Spike - ENGSC2 Sample No.: TR2076

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Styrene	63	70	111	6	40	70-130
Bromoform	63	62	98	6	40	70-130
Xylene (total)	190	210	110	0	40	70-130
Isopropylbenzene	63	72	114	5	40	70-130
Bromobenzene	63	71	113	3	40	70-130
1,1,2,2-Tetrachloroetha	63	73	116	7	40	70-130
1,2,3-Trichloropropane	63	72	114	7	40	70-130
trans-1,4-Dichloro-2-bu	63	58	92	0	40	70-130
2-Chlorotoluene	63	74	117	5	40	70-130
4-Chlorotoluene	63	69	110	4	40	70-130
n-Propylbenzene	63	70	111	10	40	70-130
1,3,5-Trimethylbenzene	63	72	114	5	40	70-130
Pentachloroethane	63	92	146*	6	40	70-130
tert-Butylbenzene	63	74	117	1	40	70-130
1,2,4-Trimethylbenzene	63	67	106	2	40	70-130
sec-Butylbenzene	63	72	114	4	40	70-130
1,3-Dichlorobenzene	63	71	113	4	40	70-130
p-Isopropyltoluene	63	73	116	4	40	70-130
1,4-Dichlorobenzene	63	69	110	2	40	70-130
1,2-Dichlorobenzene	63	73	116	7	40	70-130
n-Butylbenzene	63	67	106	1	40	70-130
Hexachloroethane	63	67	106	1	40	70-130
1,2-Dibromo-3-Chloropro	63	73	116	4	40	70-130
Nitrobenzene	3100	1700	55*	20	40	70-130
1,2,4-Trichlorobenzene	63	64	102	5	40	70-130
Hexachlorobutadiene	63	78	124	8	40	70-130
Naphthalene	63	68	108	18	40	70-130
1,2,3-Trichlorobenzene	63	65	103	5	40	70-130

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

* Values outside of QC limits

RPD: 1 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: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Matrix Spike - STLVT Sample No.: MVMC LCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Carbon Tetrachloride	1.0		1.1	110	70-130
1,1-Dichloropropene	1.0		1.6	160*	70-130
Benzene	1.0		1.2	120	70-130
1,2-Dichloroethane	1.0		1.2	120	70-130
Trichloroethene	1.0		1.1	110	70-130
Dibromomethane	1.0		1.2	120	70-130
1,2-Dichloropropane	1.0		1.2	120	70-130
Methyl Methacrylate	1.0		0.83	83	70-130
Bromodichloromethane	1.0		1.1	110	70-130
Chloroacetonitrile	50		47	94	70-130
cis-1,3-Dichloropropene	1.0		1.1	110	70-130
1,1-Dichloropropanone	50		56	112	70-130
4-Methyl-2-Pentanone	5.0		6.2	124	70-130
2-Nitropropane	50		56	112	70-130
Toluene	1.0		1.2	120	70-130
trans-1,3-Dichloroprope	1.0		1.2	120	70-130
Ethyl Methacrylate	1.0		1.0	100	70-130
1,1,2-Trichloroethane	1.0		1.2	120	70-130
Tetrachloroethene	1.0		1.0	100	70-130
1,3-Dichloropropane	1.0		1.2	120	70-130
2-Hexanone	5.0		4.6	92	70-130
Dibromochloromethane	1.0		1.1	110	70-130
1,2-Dibromoethane	1.0		1.1	110	70-130
Chlorobenzene	1.0		1.2	120	70-130
1,1,1,2-Tetrachloroetha	1.0		1.1	110	70-130
Ethylbenzene	1.0		1.2	120	70-130
m- & p-Xylene	2.0		2.3	115	70-130
o-Xylene	1.0		1.1	110	70-130

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

* Values outside of QC limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

STLVT SAMPLE NO.

VBLKL9

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab File ID: MVMB02C Lab Sample ID: VBLKL9

Date Analyzed: 09/06/01 Time Analyzed: 1540

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:

	STLVT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MVMC LCS	MVMC LCS	MVM01CQ2	1446
02	TR2072	464051	464051	1621
03	TR2073	464053	464053	1650
04	TR2074	464055	464055D	1718
05	TR2075	464057	464057	1747
06	TR2076	464059	464059D	1815
07	TR2076MS	464059MS	464059M	1843
08	TR2076MSD	464059MD	464059S	1912
09	TR2077	464061	464061D	1940
10	TR2078	464063	464063	2008
11	TR2080	464065	464065D	2037
12	TR20033	464067	464067	2106
13	ARD2157	464068	464068	2134
14	ARD2158	464069	464069	2202
15	TB0034	464070	464070	2231
16	ARD2162	464267	464267	0019
17	TR2075DL	464057D1	464057D2	0108
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COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab File ID: MVM05PV BFB Injection Date: 09/06/01

Instrument ID: M BFB Injection Time: 1307

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	22.5
75	30.0 - 60.0% of mass 95	43.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 120.0% of mass 95	67.3
175	5.0 - 9.0% of mass 174	5.0 (7.4)1
176	95.0 - 101.0% of mass 174	66.4 (98.8)1
177	5.0 - 9.0% of mass 176	4.3 (6.4)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	MVM02CV	09/06/01	1319
02	MVMC LCS	MVMC LCS	MVM01CQ2	09/06/01	1446
03	VBLKL9	VBLKL9	MVMB02C	09/06/01	1540
04	TR2072	464051	464051	09/06/01	1621
05	TR2073	464053	464053	09/06/01	1650
06	TR2074	464055	464055D	09/06/01	1718
07	TR2075	464057	464057	09/06/01	1747
08	TR2076	464059	464059D	09/06/01	1815
09	TR2076MS	464059MS	464059M	09/06/01	1843
10	TR2076MSD	464059MD	464059S	09/06/01	1912
11	TR2077	464061	464061D	09/06/01	1940
12	TR2078	464063	464063	09/06/01	2008
13	TR2080	464065	464065D	09/06/01	2037
14	TR20033	464067	464067	09/06/01	2106
15	ARD2157	464068	464068	09/06/01	2134
16	ARD2158	464069	464069	09/06/01	2202
17	TB0034	464070	464070	09/06/01	2231
18	ARD2162	464267	464267	09/07/01	0019
19	TR2075DL	464057D1	464057D2	09/07/01	0108
20					
21					
22					

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Instrument ID: M Calibration Date(s): 08/29/01 08/29/01

Heated Purge: (Y/N) N Calibration Time(s): 1548 1741

GC Column: CAP ID: 0.53 (mm)

LAB FILE ID: RRF0.5=MVM005V RRF2 =MVM02V
RRF10 =MVM10V RRF20 =MVM20V RRF30 =MVM30V

COMPOUND	RRF0.5	RRF2	RRF10	RRF20	RRF30	$\overline{RRF}$	% RSD
Chloroacetonitrile	0.011	0.013	0.014	0.015	0.014	0.013	11.8
cis-1,3-Dichloropropene	0.566	0.597	0.599	0.623	0.593	0.596	3.4
1,1-Dichloropropanone	0.006	0.007	0.007	0.007	0.007	0.007	5.5
4-Methyl-2-Pentanone	0.096	0.123	0.131	0.136	0.122	0.122	12.5
2-Nitropropane	0.069	0.080	0.081	0.086	0.078	0.079	7.6
Toluene	0.482	0.565	0.560	0.591	0.566	0.553	7.5
trans-1,3-Dichloropropene	0.339	0.420	0.460	0.488	0.465	0.434	13.5
Ethyl Methacrylate	0.399	0.419	0.418	0.440	0.431	0.421	3.7
1,1,2-Trichloroethane	0.246	0.307	0.290	0.312	0.292	0.289	8.9
Tetrachloroethene	0.420	0.512	0.573	0.627	0.670	0.560	17.6
1,3-Dichloropropane	0.518	0.525	0.524	0.551	0.525	0.529	2.4
2-Hexanone	0.478	0.288	0.336	0.350	0.323	0.355	20.5
Dibromochloromethane	0.548	0.731	0.771	0.770	0.792	0.722	13.9
1,2-Dibromoethane	0.577	0.646	0.701	0.699	0.720	0.669	8.7
Chlorobenzene	0.786	0.916	0.965	0.959	0.978	0.921	8.6
1,1,1,2-Tetrachloroethane	0.421	0.491	0.510	0.504	0.516	0.488	8.0
Ethylbenzene	1.239	1.418	1.465	1.438	1.459	1.404	6.7
m- & p-Xylene	0.439	0.546	0.572	0.557	0.572	0.537	10.5
o-Xylene	0.488	0.523	0.556	0.535	0.542	0.529	4.9
Styrene	0.677	0.850	0.919	0.937	0.961	0.869	13.2
Bromoform	0.354	0.542	0.604	0.627	0.650	0.555	21.6
Xylene (total)	0.488	0.523	0.556	0.535	0.542	0.529	4.9
Isopropylbenzene	1.263	1.469	1.536	1.541	1.575	1.477	8.5
Bromobenzene	0.396	0.500	0.531	0.547	0.548	0.504	12.6
1,1,2,2-Tetrachloroethane	0.678	0.731	0.744	0.760	0.736	0.730	4.3
1,2,3-Trichloropropane	0.137	0.168	0.176	0.182	0.180	0.169	10.9
trans-1,4-Dichloro-2-butene	0.118	0.134	0.130	0.143	0.142	0.133	7.5
2-Chlorotoluene	0.334	0.347	0.372	0.376	0.376	0.361	5.4
4-Chlorotoluene	0.274	0.363	0.374	0.380	0.376	0.353	12.6
n-Propylbenzene	0.326	0.362	0.383	0.395	0.395	0.372	7.8
1,3,5-Trimethylbenzene	0.968	1.115	1.174	1.184	1.188	1.126	8.3
Pentachloroethane	0.238	0.261	0.230	0.234	0.191	0.231	11.0
tert-Butylbenzene	0.249	0.298	0.311	0.311	0.306	0.295	8.9
1,2,4-Trimethylbenzene	0.972	1.113	1.118	1.185	1.174	1.112	7.6
sec-Butylbenzene	1.489	1.664	1.719	1.780	1.762	1.683	7.0
1,3-Dichlorobenzene	0.631	0.721	0.783	0.800	0.804	0.748	9.8
p-Isopropyltoluene	1.072	1.212	1.304	1.340	1.347	1.255	9.2

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

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Instrument ID: M Calibration Date: 09/06/01 Time: 1319

Lab File ID: MVM02CV Init. Calib. Date(s): 08/29/01 08/29/01

Heated Purge: (Y/N) N Init. Calib. Times: 1548 1741

GC Column: CAP ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF2	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.550	0.676	0.01	22.9	30.0
Chloromethane	0.366	0.436	0.01	19.1	30.0
Vinyl Chloride	0.335	0.387	0.01	15.5	30.0
Bromomethane	0.311	0.357	0.01	14.8	30.0
Chloroethane	0.205	0.238	0.01	16.1	30.0
Trichlorofluoromethane	0.619	0.723	0.01	16.8	30.0
Diethyl Ether	0.170	0.198	0.01	16.5	30.0
1,1-Dichloroethene	0.266	0.303	0.01	13.9	30.0
Acetone	0.103	0.083	0.01	19.4	30.0
Methyl Iodide	0.499	0.533	0.01	6.8	30.0
Carbon Disulfide	0.571	0.684	0.01	19.8	30.0
Allyl Chloride	0.535	0.589	0.01	10.1	30.0
Methylene Chloride	0.314	0.351	0.01	11.8	30.0
Acrylonitrile	0.076	0.064	0.01	15.8	30.0
trans-1,2-Dichloroethene	0.305	0.334	0.01	9.5	30.0
Methyl-t-Butyl Ether	0.591	0.688	0.01	16.4	30.0
1,1-Dichloroethane	0.600	0.701	0.01	16.8	30.0
2,2-Dichloropropane	0.513	0.596	0.01	16.2	30.0
cis-1,2-Dichloroethene	0.329	0.370	0.01	12.5	30.0
2-Butanone	0.026	0.024	0.01	7.7	30.0
Propionitrile	0.026	0.027	0.01	3.8	30.0
Methyl Acrylate	0.311	0.350	0.01	12.5	30.0
Bromochloromethane	0.200	0.232	0.01	16.0	30.0
Methacrylonitrile	0.075	0.085	0.01	13.3	30.0
Tetrahydrofuran	0.084	0.098	0.01	16.7	30.0
Chloroform	0.727	0.751	0.01	3.3	30.0
1,1,1-Trichloroethane	0.553	0.619	0.01	11.9	30.0
1-Chlorobutane	0.660	0.739	0.01	12.0	30.0
Carbon Tetrachloride	0.505	0.576	0.01	14.0	30.0
1,1-Dichloropropene	0.346	0.399	0.01	15.3	30.0
Benzene	0.846	0.961	0.01	13.6	30.0
1,2-Dichloroethane	0.409	0.456	0.01	11.5	30.0
Trichloroethene	0.410	0.465	0.01	13.4	30.0
Dibromomethane	0.372	0.424	0.01	14.0	30.0
1,2-Dichloropropane	0.409	0.468	0.01	14.4	30.0
Methyl Methacrylate	0.209	0.208	0.01	0.5	30.0
Bromodichloromethane	0.665	0.707	0.01	6.3	30.0

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Instrument ID: M Calibration Date: 09/06/01 Time: 1319

Lab File ID: MVM02CV Init. Calib. Date(s): 08/29/01 08/29/01

Heated Purge: (Y/N) N Init. Calib. Times: 1548 1741

GC Column: CAP ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF2	MIN RRF	%D	MAX %D	
1,4-Dichlorobenzene	0.846	0.904	0.01	6.8	30.0	
1,2-Dichlorobenzene	0.710	0.738	0.01	3.9	30.0	
n-Butylbenzene	1.314	1.312	0.01	0.2	30.0	
Hexachloroethane	0.464	0.484	0.01	4.3	30.0	
1,2-Dibromo-3-Chloropropane	0.148	0.154	0.01	4.0	30.0	
Nitrobenzene	0.014	0.009	0.01	35.7	30.0	<-
1,2,4-Trichlorobenzene	0.571	0.538	0.01	5.8	30.0	
Hexachlorobutadiene	0.373	0.405	0.01	8.6	30.0	
Naphthalene	0.726	0.616	0.01	15.2	30.0	
1,2,3-Trichlorobenzene	0.510	0.467	0.01	8.4	30.0	
1,2-Dichloroethane-d4	0.345	0.370	0.01	7.2	30.0	
Bromofluorobenzene	0.826	0.908	0.01	9.9	30.0	
1,2-Dichlorobenzene-d4	0.505	0.559	0.01	10.7	30.0	
Toluene-d8	0.808	0.924	0.01	14.4	30.0	

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SAMPLE DATA SUMMARY PACKAGE

FOR ORC

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ARD2159

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: 464265 Date Received: 09/05/01

Lab File ID: 464265 Date Analyzed: 09/07/01

Purge Volume: 5 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	2	U
156-60-5	trans-1,2-Dichloroethene	0.3	J
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	21	
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	20	
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
127-18-4	Tetrachloroethene	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
75-25-2	Bromoform	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ARD2161

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: 464270 Date Received: 09/05/01

Lab File ID: 464270D Date Analyzed: 09/07/01

Purge Volume: 5 (mL) Dilution Factor: 22.0

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	22	U
75-01-4	Vinyl Chloride	120	
74-83-9	Bromomethane	22	U
75-00-3	Chloroethane	22	U
75-35-4	1,1-Dichloroethene	22	U
67-64-1	Acetone	130	
75-15-0	Carbon Disulfide	22	U
75-09-2	Methylene Chloride	31	JB
156-60-5	trans-1,2-Dichloroethene	22	U
75-34-3	1,1-Dichloroethane	6	J
156-59-2	cis-1,2-Dichloroethene	440	
78-93-3	2-Butanone	110	U
74-97-5	Bromochloromethane	22	U
67-66-3	Chloroform	22	U
71-55-6	1,1,1-Trichloroethane	22	U
56-23-5	Carbon Tetrachloride	22	U
71-43-2	Benzene	22	U
107-06-2	1,2-Dichloroethane	22	U
79-01-6	Trichloroethene	9	J
78-87-5	1,2-Dichloropropane	22	U
75-27-4	Bromodichloromethane	22	U
10061-01-5	cis-1,3-Dichloropropene	22	U
108-10-1	4-Methyl-2-Pentanone	110	U
108-88-3	Toluene	22	U
10061-02-6	trans-1,3-Dichloropropene	22	U
79-00-5	1,1,2-Trichloroethane	22	U
127-18-4	Tetrachloroethene	22	U
591-78-6	2-Hexanone	110	U
124-48-1	Dibromochloromethane	22	U
106-93-4	1,2-Dibromoethane	22	U
108-90-7	Chlorobenzene	22	U
100-41-4	Ethylbenzene	22	U
100-42-5	Styrene	22	U
1330-20-7	Xylene (total)	22	U
75-25-2	Bromoform	22	U
79-34-5	1,1,2,2-Tetrachloroethane	22	U
541-73-1	1,3-Dichlorobenzene	22	U
106-46-7	1,4-Dichlorobenzene	22	U
95-50-1	1,2-Dichlorobenzene	22	U
96-12-8	1,2-Dibromo-3-chloropropane	22	U
120-82-1	1,2,4-Trichlorobenzene	22	U

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ARD2164

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: 464266 Date Received: 09/05/01

Lab File ID: 464266D Date Analyzed: 09/07/01

Purge Volume: 5 (mL) Dilution Factor: 127.9

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	130	U
75-01-4	Vinyl Chloride	130	U
74-83-9	Bromomethane	130	U
75-00-3	Chloroethane	130	U
75-35-4	1,1-Dichloroethene	130	U
67-64-1	Acetone	640	U
75-15-0	Carbon Disulfide	130	U
75-09-2	Methylene Chloride	27	JB
156-60-5	trans-1,2-Dichloroethene	130	U
75-34-3	1,1-Dichloroethane	130	U
156-59-2	cis-1,2-Dichloroethene	2200	
78-93-3	2-Butanone	640	U
74-97-5	Bromochloromethane	130	U
67-66-3	Chloroform	130	U
71-55-6	1,1,1-Trichloroethane	130	U
56-23-5	Carbon Tetrachloride	130	U
71-43-2	Benzene	130	U
107-06-2	1,2-Dichloroethane	130	U
79-01-6	Trichloroethene	1000	
78-87-5	1,2-Dichloropropane	130	U
75-27-4	Bromodichloromethane	130	U
10061-01-5	cis-1,3-Dichloropropene	130	U
108-10-1	4-Methyl-2-Pentanone	640	U
108-88-3	Toluene	130	U
10061-02-6	trans-1,3-Dichloropropene	130	U
79-00-5	1,1,2-Trichloroethane	130	U
127-18-4	Tetrachloroethene	130	U
591-78-6	2-Hexanone	640	U
124-48-1	Dibromochloromethane	130	U
106-93-4	1,2-Dibromoethane	130	U
108-90-7	Chlorobenzene	130	U
100-41-4	Ethylbenzene	130	U
100-42-5	Styrene	130	U
1330-20-7	Xylene (total)	130	U
75-25-2	Bromoform	130	U
79-34-5	1,1,2,2-Tetrachloroethane	130	U
541-73-1	1,3-Dichlorobenzene	130	U
106-46-7	1,4-Dichlorobenzene	130	U
95-50-1	1,2-Dichlorobenzene	130	U
96-12-8	1,2-Dibromo-3-chloropropane	130	U
120-82-1	1,2,4-Trichlorobenzene	130	U

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ARD2165

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: 464271 Date Received: 09/05/01

Lab File ID: 464271D Date Analyzed: 09/07/01

Purge Volume: 5 (mL) Dilution Factor: 550.0

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	550	U
75-01-4	Vinyl Chloride	550	U
74-83-9	Bromomethane	550	U
75-00-3	Chloroethane	550	U
75-35-4	1,1-Dichloroethene	550	U
67-64-1	Acetone	3500	
75-15-0	Carbon Disulfide	550	U
75-09-2	Methylene Chloride	1000	JB
156-60-5	trans-1,2-Dichloroethene	550	U
75-34-3	1,1-Dichloroethane	550	U
156-59-2	cis-1,2-Dichloroethene	1200	
78-93-3	2-Butanone	2800	U
74-97-5	Bromochloromethane	550	U
67-66-3	Chloroform	550	U
71-55-6	1,1,1-Trichloroethane	550	U
56-23-5	Carbon Tetrachloride	550	U
71-43-2	Benzene	550	U
107-06-2	1,2-Dichloroethane	550	U
79-01-6	Trichloroethene	9100	
78-87-5	1,2-Dichloropropane	550	U
75-27-4	Bromodichloromethane	550	U
10061-01-5	cis-1,3-Dichloropropene	550	U
108-10-1	4-Methyl-2-Pentanone	2800	U
108-88-3	Toluene	550	U
10061-02-6	trans-1,3-Dichloropropene	550	U
79-00-5	1,1,2-Trichloroethane	550	U
127-18-4	Tetrachloroethene	550	U
591-78-6	2-Hexanone	2800	U
124-48-1	Dibromochloromethane	550	U
106-93-4	1,2-Dibromoethane	550	U
108-90-7	Chlorobenzene	550	U
100-41-4	Ethylbenzene	550	U
100-42-5	Styrene	550	U
1330-20-7	Xylene (total)	550	U
75-25-2	Bromoform	550	U
79-34-5	1,1,2,2-Tetrachloroethane	550	U
541-73-1	1,3-Dichlorobenzene	550	U
106-46-7	1,4-Dichlorobenzene	550	U
95-50-1	1,2-Dichlorobenzene	550	U
96-12-8	1,2-Dibromo-3-chloropropane	550	U
120-82-1	1,2,4-Trichlorobenzene	550	U

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ARD2166

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: 464264 Date Received: 09/05/01

Lab File ID: 464264D Date Analyzed: 09/07/01

Purge Volume: 5 (mL) Dilution Factor: 4.2

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	4	U
75-01-4	Vinyl Chloride	4	U
74-83-9	Bromomethane	4	U
75-00-3	Chloroethane	4	U
75-35-4	1,1-Dichloroethene	4	U
67-64-1	Acetone	11	J
75-15-0	Carbon Disulfide	4	U
75-09-2	Methylene Chloride	1	JB
156-60-5	trans-1,2-Dichloroethene	4	U
75-34-3	1,1-Dichloroethane	4	U
156-59-2	cis-1,2-Dichloroethene	73	
78-93-3	2-Butanone	21	U
74-97-5	Bromochloromethane	4	U
67-66-3	Chloroform	4	U
71-55-6	1,1,1-Trichloroethane	4	U
56-23-5	Carbon Tetrachloride	4	U
71-43-2	Benzene	4	U
107-06-2	1,2-Dichloroethane	4	U
79-01-6	Trichloroethene	3	J
78-87-5	1,2-Dichloropropane	4	U
75-27-4	Bromodichloromethane	4	U
10061-01-5	cis-1,3-Dichloropropene	4	U
108-10-1	4-Methyl-2-Pentanone	21	U
108-88-3	Toluene	4	U
10061-02-6	trans-1,3-Dichloropropene	4	U
79-00-5	1,1,2-Trichloroethane	4	U
127-18-4	Tetrachloroethene	4	U
591-78-6	2-Hexanone	21	U
124-48-1	Dibromochloromethane	4	U
106-93-4	1,2-Dibromoethane	4	U
108-90-7	Chlorobenzene	4	U
100-41-4	Ethylbenzene	4	U
100-42-5	Styrene	4	U
1330-20-7	Xylene (total)	4	U
75-25-2	Bromoform	4	U
79-34-5	1,1,2,2-Tetrachloroethane	4	U
541-73-1	1,3-Dichlorobenzene	4	U
106-46-7	1,4-Dichlorobenzene	4	U
95-50-1	1,2-Dichlorobenzene	4	U
96-12-8	1,2-Dibromo-3-chloropropane	4	U
120-82-1	1,2,4-Trichlorobenzene	4	U

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ARD2167

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: 464268 Date Received: 09/05/01

Lab File ID: 464268D Date Analyzed: 09/07/01

Purge Volume: 5 (mL) Dilution Factor: 102.3

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	100	U
75-01-4	Vinyl Chloride	38	J
74-83-9	Bromomethane	100	U
75-00-3	Chloroethane	100	U
75-35-4	1,1-Dichloroethene	100	U
67-64-1	Acetone	510	U
75-15-0	Carbon Disulfide	100	U
75-09-2	Methylene Chloride	200	U
156-60-5	trans-1,2-Dichloroethene	100	U
75-34-3	1,1-Dichloroethane	100	U
156-59-2	cis-1,2-Dichloroethene	2300	
78-93-3	2-Butanone	510	U
74-97-5	Bromochloromethane	100	U
67-66-3	Chloroform	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	100	U
71-43-2	Benzene	100	U
107-06-2	1,2-Dichloroethane	100	U
79-01-6	Trichloroethene	1000	
78-87-5	1,2-Dichloropropane	100	U
75-27-4	Bromodichloromethane	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
108-10-1	4-Methyl-2-Pentanone	510	U
108-88-3	Toluene	100	U
10061-02-6	trans-1,3-Dichloropropene	100	U
79-00-5	1,1,2-Trichloroethane	100	U
127-18-4	Tetrachloroethene	100	U
591-78-6	2-Hexanone	510	U
124-48-1	Dibromochloromethane	100	U
106-93-4	1,2-Dibromoethane	100	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	100	U
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	100	U
75-25-2	Bromoform	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U
541-73-1	1,3-Dichlorobenzene	100	U
106-46-7	1,4-Dichlorobenzene	100	U
95-50-1	1,2-Dichlorobenzene	100	U
96-12-8	1,2-Dibromo-3-chloropropane	100	U
120-82-1	1,2,4-Trichlorobenzene	100	U

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB ARD0030

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: 464269 Date Received: 09/05/01

Lab File ID: 464269 Date Analyzed: 09/07/01

Purge Volume: 5 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	2	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
127-18-4	Tetrachloroethene	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
75-25-2	Bromoform	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKM3

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: VBLKM3 Date Received: _____

Lab File ID: MVIB01F Date Analyzed: 09/07/01

Purge Volume: 5 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	0.3	J
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
127-18-4	Tetrachloroethene	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
75-25-2	Bromoform	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.2	J

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKQ8

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: VBLKQ8 Date Received: _____

Lab File ID: OPRB01A Date Analyzed: 09/24/01

Purge Volume: 5 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	2	J
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	0.3	J
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
127-18-4	Tetrachloroethene	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
75-25-2	Bromoform	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MVIF LCS

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: MVIF LCS Date Received: _____

Lab File ID: MVI05FQ Date Analyzed: 09/07/01

Purge Volume: 5 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	4	
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	0.2	JB
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	5	
71-43-2	Benzene	5	
107-06-2	1,2-Dichloroethane	5	
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	5	
75-27-4	Bromodichloromethane	1	U
10061-01-5	cis-1,3-Dichloropropene	5	
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	5	
127-18-4	Tetrachloroethene	5	
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	5	
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
75-25-2	Bromoform	6	
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	5	
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	6	B

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VSBLK01

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: 464272 Date Received: _____

Lab File ID: 464272 Date Analyzed: 09/24/01

Purge Volume: 5 (mL) Dilution Factor: 1.0

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	2	JB
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	2	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
127-18-4	Tetrachloroethene	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
75-25-2	Bromoform	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

2LCA

LOW CONC. WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

	EPA SAMPLE NO.	SMC1 %REC #	OTHER	TOT OUT
01	VBLKM3	93		0
02	MVIF LCS	94		0
03	ARD2166	90		0
04	ARD2159	92		0
05	ARD2164	94		0
06	ARD2167	93		0
07	TB ARD0030	92		0
08	ARD2161	94		0
09	ARD2165	90		0
10	VBLKQ8	93		0
11	OPRA LCS	95		0
12	VSBLK01	93		0
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

	QC LIMITS %REC
SMC1 = 4-Bromofluorobenzene	(80-120)

Column to be used to flag recovery values.
* Values outside of contract required QC limits.

3LCA

LOW CONC. WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

OPRA LCS

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: OPRA LCS LCS Lot No.:

Lab File ID: OPR05AQ Date Analyzed: 09/24/01

Purge Volume: 5 (mL) Dilution Factor: 1.0

LCS Aliquot: 0 (uL)

COMPOUND	CONC ADDED (ug/L)	CONC RECOVERED (ug/L)	%REC #	QC LIMITS
Vinyl Chloride	5	4	80	60-140
Carbon Tetrachloride	5	5	100	60-140
Benzene	5	5	100	60-140
1,2-Dichloroethane	5	5	100	60-140
Trichloroethene	5	5	100	60-140
1,2-Dichloropropane	5	5	100	60-140
cis-1,3-Dichloropropene	5	5	100	60-140
1,1,2-Trichloroethane	5	4	80	60-140
Tetrachloroethene	5	5	100	60-140
1,2-Dibromoethane	5	5	100	60-140
Bromoform	5	5	100	60-140
1,4-Dichlorobenzene	5	4	80	60-140

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 12 total.

COMMENTS: _____

4LCA

LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKQ8

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab Sample ID: VBLKQ8 Date Analyzed: 09/24/01

Lab File ID: OPRB01A Time Analyzed: 0900

Instrument ID: O

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	OPRA LCS	OPRA LCS	OPR05AQ	0928
02	VSBLK01	464272	464272	1336
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
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COMMENTS: _____

5LCA

LOW CONC. WATER VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK BROMOFLUOROBENZENE (BFB)

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab File ID: MVI08PV BFB Injection Date: 09/07/01

Instrument ID: M BFB Injection Time: 0850

GC Column: CAP ID: 0.53 (mm) Length: 0 (m)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.4
75	30.0 - 60.0% of mass 95	43.1
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	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	70.1
175	5.0 - 9.0% of mass 174	5.0 (7.1)1
176	95.0 - 101.0% of mass 174	69.4 (99.1)1
177	5.0 - 9.0% of mass 176	4.6 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, LCS, LES, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD005	VSTD005	MVI05FV	09/07/01	0909
02	VBLKM3	VBLKM3	MVIB01F	09/07/01	0935
03	MVIF LCS	MVIF LCS	MVI05FQ	09/07/01	1002
04	ARD2166	464264	464264D	09/07/01	1340
05	ARD2159	464265	464265	09/07/01	1407
06	ARD2164	464266	464266D	09/07/01	1433
07	ARD2167	464268	464268D	09/07/01	1500
08	TB ARD0030	464269	464269	09/07/01	1528
09	ARD2161	464270	464270D	09/07/01	1554
10	ARD2165	464271	464271D	09/07/01	1621
11					
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5LCA

LOW CONC. SOIL VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK BROMOFLUOROBENZENE (BFB)

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab File ID: OPR01PV BFB Injection Date: 09/24/01

Instrument ID: O BFB Injection Time: 0813

GC Column: CAP ID: 0.53 (mm) Length: 0 (m)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.2
75	30.0 - 60.0% of mass 95	43.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.4 (0.6)1
174	50.0 - 120.0% of mass 95	72.0
175	5.0 - 9.0% of mass 174	5.1 (7.1)1
176	95.0 - 101.0% of mass 174	70.4 (97.7)1
177	5.0 - 9.0% of mass 176	4.0 (5.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, LCS, LES, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD005	VSTD005	OPR05AV	09/24/01	0833
02	VBLKQ8	VBLKQ8	OPRB01A	09/24/01	0900
03	OPRA LCS	OPRA LCS	OPR05AQ	09/24/01	0928
04	VSBLK01	464272	464272	09/24/01	1336
05					
06					
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6LCA

LOW CONC. WATER VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Instrument ID: O Calibration Date(s): 09/21/01 09/21/01

Calibration Time(s): 1223 1413

GC Column: CAP ID: 0.53 (mm)

LAB FILE ID: RRF1 =OPR01V RRF2 =OPR02V

RRF5 =OPR05V RRF10 =OPR10V RRF25 =OPR25V

COMPOUND	RRF1	RRF2	RRF5	RRF10	RRF25	$\overline{RRF}$	% RSD
Chloromethane	* 0.265	0.318	0.261	0.251	0.245	0.268	10.8*
Vinyl Chloride	* 0.306	0.308	0.294	0.294	0.291	0.299	2.7*
Bromomethane	* 0.297	0.305	0.279	0.256	0.228	0.273	11.5*
Chloroethane	* 0.214	0.188	0.178	0.177	0.153	0.182	12.0*
1,1-Dichloroethene	* 0.290	0.293	0.299	0.293	0.290	0.293	1.3*
Acetone	* 0.146	0.137	0.107	0.101	0.097	0.118	19.1*
Carbon Disulfide	* 0.876	0.842	0.832	0.818	0.796	0.833	3.6*
Methylene Chloride	* 0.404	0.354	0.326	0.312	0.304	0.340	12.0*
trans-1,2-Dichloroethene	* 0.340	0.331	0.335	0.333	0.334	0.335	1.0*
1,1-Dichloroethane	* 0.592	0.590	0.569	0.581	0.566	0.580	2.1*
cis-1,2-Dichloroethene	* 0.344	0.340	0.344	0.329	0.325	0.336	2.6*
2-Butanone	* 0.156	0.155	0.149	0.141	0.144	0.149	4.3*
Bromochloromethane	* 0.242	0.251	0.245	0.239	0.242	0.244	1.9*
Chloroform	* 0.692	0.684	0.688	0.671	0.658	0.679	2.1*
1,1,1-Trichloroethane	* 0.667	0.674	0.676	0.657	0.659	0.667	1.3*
Carbon Tetrachloride	* 0.561	0.580	0.578	0.590	0.594	0.581	2.2*
Benzene	* 1.041	1.048	1.016	1.001	0.991	1.019	2.4*
1,2-Dichloroethane	* 0.385	0.385	0.378	0.395	0.387	0.386	1.5*
Trichloroethene	* 0.487	0.511	0.485	0.478	0.484	0.489	2.6*
1,2-Dichloropropane	* 0.456	0.444	0.421	0.419	0.410	0.430	4.5*
Bromodichloromethane	* 0.745	0.758	0.772	0.771	0.762	0.762	1.5*
cis-1,3-Dichloropropene	* 0.696	0.679	0.663	0.648	0.640	0.665	3.5*
4-Methyl-2-Pentanone	* 0.419	0.412	0.417	0.397	0.397	0.408	2.7*
Toluene	* 1.243	1.172	1.173	1.149	1.137	1.175	3.5*
trans-1,3-Dichloropropene	* 0.632	0.545	0.546	0.548	0.563	0.567	6.5*
1,1,2-Trichloroethane	* 0.423	0.449	0.433	0.417	0.425	0.429	2.9*
Tetrachloroethene	* 0.566	0.574	0.567	0.562	0.558	0.565	1.1*
2-Hexanone	* 1.184	0.727	0.465	0.389	0.331	0.619	56.6*
Dibromochloromethane	* 0.721	0.728	0.719	0.717	0.732	0.723	0.9*
1,2-Dibromoethane	* 0.691	0.688	0.720	0.700	0.719	0.704	2.2*
Chlorobenzene	* 0.942	0.963	0.927	0.920	0.928	0.936	1.8*
Ethylbenzene	* 1.406	1.431	1.423	1.410	1.378	1.410	1.5*
Styrene	* 0.868	0.893	0.870	0.874	0.880	0.877	1.2*
Xylene (total)	* 0.541	0.546	0.542	0.542	0.538	0.542	0.5*
Bromoform	* 0.834	0.861	0.855	0.908	0.920	0.876	4.2*
1,1,2,2-Tetrachloroethane	* 0.730	0.754	0.741	0.742	0.725	0.738	1.5*
1,3-Dichlorobenzene	* 1.364	1.429	1.292	1.338	1.329	1.350	3.8*
1,4-Dichlorobenzene	* 1.579	1.612	1.563	1.534	1.456	1.549	3.8*
1,2-Dichlorobenzene	* 1.306	1.313	1.289	1.303	1.253	1.293	1.8*
1,2-Dibromo-3-chloropropane	* 0.310	0.284	0.269	0.280	0.270	0.283	5.9*
1,2,4-Trichlorobenzene	* 1.108	1.056	1.026	1.053	1.021	1.053	3.3*
4-Bromofluorobenzene	* 0.480	0.514	0.513	0.510	0.511	0.506	2.9*

* Compounds with required minimum RRF and maximim %RSD values.

@ These compounds must meet only a minimum RRF of 0.010.

These compounds have no minimum RRF and maximum %RSD values.

7LCA

LOW CONC. WATER VOLATILE ORGANINCS CONTINUING CALIBRATION SUMMARY

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Instrument ID: O Calibration Date: 09/24/01 Time: 0833

Lab File ID: OPR05AV Init. Calib. Date(s): 09/21/01 09/21/01

Init. Calib. Times: 1223 1413

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

COMPOUND	$\overline{RRF}$	RRF5	MIN RRF	%D	MAX %D	
Chloromethane	0.268	0.250	0.010	6.7		
Vinyl Chloride	0.299	0.285	0.100	4.7	30.0	
Bromomethane	0.273	0.279	0.100	-2.2	30.0	
Chloroethane	0.182	0.187	0.010	-2.7		
1,1-Dichloroethene	0.293	0.294	0.100	-0.3	30.0	
Acetone	0.118	0.101		14.4		
Carbon Disulfide	0.833	0.808	0.010	3.0		
Methylene Chloride	0.340	0.317	0.010	6.8		
trans-1,2-Dichloroethene	0.335	0.339	0.010	-1.2		
1,1-Dichloroethane	0.580	0.590	0.200	-1.7	30.0	
cis-1,2-Dichloroethene	0.336	0.340	0.010	-1.2		
2-Butanone	0.149	0.151		-1.3		
Bromochloromethane	0.244	0.240	0.050	1.6	30.0	
Chloroform	0.679	0.680	0.200	-0.1	30.0	
1,1,1-Trichloroethane	0.667	0.682	0.100	-2.2	30.0	
Carbon Tetrachloride	0.581	0.624	0.100	-7.4	30.0	
Benzene	1.019	1.044	0.400	-2.4	30.0	
1,2-Dichloroethane	0.386	0.392	0.100	-1.6	30.0	
Trichloroethene	0.489	0.502	0.300	-2.6	30.0	
1,2-Dichloropropane	0.430	0.444	0.010	-3.2		
Bromodichloromethane	0.762	0.802	0.200	-5.2	30.0	
cis-1,3-Dichloropropene	0.665	0.689	0.200	-3.6	30.0	
4-Methyl-2-Pentanone	0.408	0.445		-9.1		
Toluene	1.175	1.195	0.400	-1.7	30.0	
trans-1,3-Dichloropropene	0.567	0.564	0.100	0.5	30.0	
1,1,2-Trichloroethane	0.429	0.476	0.100	-11.0	30.0	
Tetrachloroethene	0.565	0.576	0.100	-1.9	30.0	
2-Hexanone	0.619	0.313		49.4		<-
Dibromochloromethane	0.723	0.754	0.100	-4.3	30.0	
1,2-Dibromoethane	0.704	0.727	0.100	-3.3	30.0	
Chlorobenzene	0.936	0.958	0.500	-2.4	30.0	
Ethylbenzene	1.410	1.443	0.100	-2.3	30.0	
Styrene	0.877	0.926	0.300	-5.6	30.0	
Xylene (total)	0.542	0.551	0.300	-1.7	30.0	
Bromoform	0.876	0.933	0.050	-6.5	30.0	
1,1,2,2-Tetrachloroethane	0.738	0.781	0.100	-5.8	30.0	
1,3-Dichlorobenzene	1.350	1.338	0.400	0.9	30.0	
1,4-Dichlorobenzene	1.549	1.616	0.400	-4.3	30.0	
1,2-Dichlorobenzene	1.293	1.332	0.400	-3.0	30.0	
1,2-Dibromo-3-chloropropane	0.283	0.314		-11.0		
1,2,4-Trichlorobenzene	1.053	1.051		0.2		
4-Bromofluorobenzene	0.506	0.533	0.200	-5.3	30.0	

8LCA

LOW CONC. WATER VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL BURLINGTON Contract: 99029

Lab Code: STLVT Case No.: 99029 SAS No.: SDG No.: 84551

Lab File ID (Standard): OPR05AV Date Analyzed: 09/24/01

Instrument ID: O Time Analyzed: 0833

GC Column: CAP ID: 0.53 (mm) Length: 75 (m)

		IS1 (DFB) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	366254	8.51	323360	12.15	205741	14.93
	UPPER LIMIT	512756	8.84	452704	12.49	288037	15.26
	LOWER LIMIT	219752	8.17	194016	11.82	123445	14.60
	EPA SAMPLE NO.						
01	VBLKQ8	381231	8.51	328139	12.15	209087	14.95
02	OPRA LCS	364523	8.50	315451	12.15	200419	14.94
03	VSBLK01	349362	8.50	310077	12.15	204528	14.94
04							
05							
06							
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22							

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Column used to flag internal standard area and RT values with an asterisk.
* Values outside of QC limits.

ver ent ora es

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

CHAIN OF CUSTODY

Report to:
y: Parsons ES
s: 30 Dan Rd
Canton MA 02021
t: Cliff Lippett
e: 781 401 2273
x:
l/
t:

Invoice to
Company: Same
Address:
Contact:
Phone:
PO/SO #: 730769.01008

ame
R. Dolph

Sampler's Signature

Project Name

No /Type of Containers²

ANALYSIS REQUESTED

VOC 524.2

Lab use
Due Dat

Temp. of
when rec
1 2

Custody
Intact

Screened
For Radio

Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	VOC 524.2	Lab Sample ID (La
0915		X	TR 20033	3				X	Rinse Bla
0900		↓	ARD 2157	3				X	
0905		↓	ARD 2158	3				X	
-			TB 0034	2				X	Trip Blank

8/30/01

by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/30/01	1700	Fedex		
by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Remarks
Airbill #
820164866632

Client's delivery of samples constitutes acceptance of Seve
Laboratories terms and conditions contained in the Price Sc

WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - Sludge O - Oil

VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

STL cannot accept verb
Please Fax written ch
(802) 655-124

Vaportech Services, Inc.

PES11-12672

Parsons Engineering Science, Inc.
Project: 730769.01008 Seneca Army Depot

QUALITY CONTROL

CONTINUING CALIBRATION CHECK (FID)

STANDARD: "54"
FILE NAME: D18A2.46A
DATE ANALYZED: 09/05/2001

COMPOUND	KNOWN PPMV	RESULT PPMV	PERCENT DIFFERENCE
Methane	15.69	15.55	0.89
Ethane	15.66	15.09	3.66
Ethene	15.76	15.21	3.52

LABORATORY BLANK RESULTS (FID)

BLANK: CARRIER IN LOOP
FILE NAME: D18A2.45A
DATE ANALYZED: 09/05/2001

COMPOUND	BLANK PPMV	METHOD DETECTION LIMIT PPMV
Methane	ND	1.00
Ethane	ND	0.02
Ethene	ND	0.02

CONTINUING CALIBRATION CHECK (RGD)

STANDARD: "H"
FILE NAME: H3A1.23A
DATE ANALYZED: 09/04/2001

COMPOUND	KNOWN PPMV	RESULT PPMV	PERCENT DIFFERENCE
Hydrogen	1.00	1.01	1.20

LABORATORY BLANK RESULTS (RGD)

BLANK: ARGON IN LOOP
FILE NAME: H3A1.16A
DATE ANALYZED: 09/04/2001

COMPOUND	BLANK PPMV	METHOD DETECTION LIMIT PPMV
Hydrogen	ND	0.10

CONTINUING CALIBRATION CHECK (TCD)

STANDARD: "876"
FILE NAME: D18B2.48A
DATE ANALYZED: 09/05/2001

COMPOUND	KNOWN (%)	RESULT (%)	PERCENT DIFFERENCE
Methane	10.00	9.74	2.56

LABORATORY BLANK RESULTS (TCD)

BLANK: CARRIER IN LOOP
FILE NAME: D18B2.45A
DATE ANALYZED: 09/05/2001

COMPOUND	BLANK (%)	METHOD DETECTION LIMIT (%)
Methane	ND	0.03

ND - denotes 'Not Detected' at or above the lower method detection limit

OF-CUSTODY RECORD PESII-12672

VAPORTECH Services, Inc.

1158 Pittsburgh Road • Suite 201 • Valencia, PA 16059
Tel: 724-898-2622 • Fax: 724-898-2633

me: Parsons ES
30 Dan Rd
Canton State: MA Zip: 02021
r: Cliff Lippett
n: Seneca Army Depot
: 730769.01008
781 401 2273 Fax #:
nature :

Analysis Options: Enter letters in Requested Analysis colum

A	Light Hydrocarbons	F	BTEX
B	Permanent Gases	G	BTEX & C5 - C
C	Methane	H	TPH (C4 -C12
D	Methane, Ethane, Ethylene	I	Chlorinated Hyd
E	Hydrogen	J	624 Compound L

Light Hydrocarbons: Methane, Ethane, Ethylene, Propane, Propylene, iso-Butane, n-Butane
Permanent Gases: Carbon Dioxide, Oxygen, Nitrogen, Methane, Carbon Monoxide
BTEX: Benzene, Toluene, Ethyl Benzene, m & p -Xylene, o-Xylene
C5-C10: Pentane, Hexane, Heptane, Octane, Nonane, Decane
Chlorinated HC: 1,1-DCE, 1,1- DCA, Methylene Chloride, trans-1,2-DCE, cis-1,2-DCE, C
1,1,1-TCA, Carbon Tetrachloride, Trichloroethylene (TCE), Tetrachloroe

ne	Number of Containers	Sample Type	Sample Identification	Requested Analysis				(Other)	Rema
05	1	Air	TR 2072	E					
35	1	Air	TR 2078	E					

Cliff Lippett

Invoice to : Parsons Canton Airbill # 820164866 2

y :	Company : Parsons ES	Date : 8/30/01	Time : 1700	Received by : Fedex	Company :	Date :
y : D EX	Company :	Date :	Time :	Received by : D. Mc	Company : VAPORTECH	Date : 8/31/0
y :	Company :	Date :	Time :	Received by :	Company :	Date :

WHITE COPY : Laboratory to return. YELLOW COPY : Laboratory PINK COPY : Submitter

APPENDIX C

HISTORICAL GROUNDWATER ANALYTICAL DATA

January 2000 Sampling Event

&

October 1999 Sampling Event

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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LAND
							LOCATION ID	BN-S	FH-D	FH-S	MW-12A	MW-27
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND
							SAMPLE ID	ARD2038	ARD2036	ARD2037	ARD2047	ARD2030
							DEPTH TO TOP OF SAMPLE	0	0	0	11	10
							DEPTH TO BOTTOM OF SAMPLE	0	0	0	11	10
							SAMPLE DATE	19-Oct-99	19-Oct-99	19-Oct-99	21-Oct-99	19-Oct-99
ODE								SA	SA	SA	SA	SA
Y ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMED
LE ROUND			OF	CLASS GA	ABOVE	OF	OF	1	1	1	1	1
METER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N
TILE ORGANICS												
richloroethane	UG/L	1	2%	5	0	1	55	10 U	10 U	10 U	73 U	10
-Tetrachloroethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
richloroethane	UG/L	0	0%		0	0	55	10 U	10 U	10 U	73 U	10
chloroethane	UG/L	9	2%	5	1	1	55	10 U	10 U	10 U	73 U	10
chloroethene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
chloroethane	UG/L	4	4%	5	0	2	55	10 U	10 U	10 U	73 U	10
chloroethene (total)	UG/L	1100	27%	5	14	15	55	10 U	10 U	10 U	940	10
chloropropane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
ne	UG/L	2	4%		0	2	55	10 UJ	10 UJ	10 UJ	73 UJ	10
ne	UG/L	0	0%	0.7	0	0	55	10 U	10 U	10 U	73 U	10
dichloromethane	UG/L	0	0%		0	0	55	10 U	10 U	10 U	73 U	10
form	UG/L	0	0%		0	0	55	10 U	10 U	10 U	73 U	10
n disulfide	UG/L	0	0%		0	0	55	10 U	10 U	10 U	73 U	10
n tetrachloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
benzene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
dibromomethane	UG/L	0	0%		0	0	55	10 U	10 U	10 U	73 U	10
ethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
form	UG/L	74	2%	7	1	1	55	10 U	10 U	10 U	73 U	10
3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
enzene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
bromide	UG/L	0	0%		0	0	55	10 U	10 U	10 U	73 U	10
butyl ketone	UG/L	0	0%		0	0	55	10 UJ	10 UJ	10 UJ	73 U	10
chloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
ethyl ketone	UG/L	0	0%	50	0	0	55	10 UJ	10 UJ	10 UJ	73 U	10
isobutyl ketone	UG/L	0	0%		0	0	55	10 UJ	10 UJ	10 UJ	73 U	10
ene chloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
e	UG/L	0	0%		0	0	55	10 U	10 U	10 U	73 U	10
hloroethene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
ne	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
Xylenes	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	73 U	10
roethene	UG/L	9100	27%	5	10	15	55	10 U	10 U	10 U	840	10
hloride	UG/L	180	5%	2	2	3	55	10 U	10 U	10 U	11 J	10
LS												
um	UG/L	2600	65%		0	34	52				56.2 J	1130
ny	UG/L	3	2%		0	1	52				2.7 U	2.7
c	UG/L	7	23%	25	0	12	52				1.9 U	1.9
n	UG/L	176	98%	1000	0	51	52				32.8 J	47.5
um	UG/L	0.66	10%		0	5	52				0.2 U	0.2

APPENDIX C1

GROUND WATER CHEMICAL RESULTS - 4Q 1999

GROUNDWATER MONITORING -

ASH REMEDIAL DESIGN

SENECA ARMY DEPOT ACTIVITY - ROMULUS, NY

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANI
							LOCATION ID	BN-S	FH-D	FH-S	MW-12A	MW-27
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND
							SAMPLE ID	ARD2038	ARD2036	ARD2037	ARD2047	ARD2030
							DEPTH TO TOP OF SAMPLE	0	0	0	11	10
							DEPTH TO BOTTOM OF SAMPLE	0	0	0	11	10
							SAMPLE DATE	19-Oct-99	19-Oct-99	19-Oct-99	21-Oct-99	19-Oct-99
ODE								SA	SA	SA	SA	SA
Y ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMED
LE ROUND			OF	CLASS GA	ABOVE	OF	OF	1	1	1	1	1
METER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N
ium	UG/L	0	0%	10	0	0	52				0.3 U	0.3
m	UG/L	268000	98%		0	51	52				268000	83200
nium	UG/L	5.6	15%	50	0	8	52				0.9 U	0.9
	UG/L	8.4	4%		0	2	52				2.5 U	2
er	UG/L	6.1	10%	200	0	5	52				1.7 U	1.7
de	UG/L	0	0%	100	0	0	52				5 U	5
	UG/L	11600	67%	300	14	35	52				155 J	1130
	UG/L	5.4	10%	25	0	5	52				1.2 U	1.1
esium	UG/L	47100	98%		0	51	52				38400	10800
anese	UG/L	3140	83%	300	7	43	52				528	102
ry	UG/L	0.2	12%	2	0	6	52				0.1 U	0.1
	UG/L	5.6	12%		0	6	52				1.7 U	1.7
sium	UG/L	18400	98%		0	51	52				6100	2640
um	UG/L	2.6	2%	10	0	1	52				2.4 U	2.4
	UG/L	0	0%	50	0	0	52				1.6 U	1.6
m	UG/L	142000	98%	20000	27	51	52				74000	28600
m	UG/L	10.8	19%		0	10	52				2.9 U	2.7
ium	UG/L	4.5	6%		0	3	52				1.5 U	1.5
	UG/L	134	81%	300	0	42	52				6.5 J	5.2

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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LAND
							LOCATION ID	MW-28	MW-29	MW-30	MW-31	MW-32
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND
							SAMPLE ID	ARD2044	ARD2056	ARD2028	ARD2003	ARD2029
							DEPTH TO TOP OF SAMPLE	9	11	9.5	9.8	10
							DEPTH TO BOTTOM OF SAMPLE	9	11	9.5	9.8	10
							SAMPLE DATE	21-Oct-99	22-Oct-99	19-Oct-99	08-Oct-99	19-Oct-99
DDE								SA	SA	SA	SA	SA
Y ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMED
LE ROUND			OF	CLASS GA	ABOVE	OF	OF	1	1	1	1	1
METER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N
TILE ORGANICS												
richloroethane	UG/L	1	2%	5	0	1	55	10 U	1 J	10 U	10 UJ	10
-Tetrachloroethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
richloroethane	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 UJ	10
hloroethane	UG/L	9	2%	5	1	1	55	10 U	10 U	10 U	10 UJ	10
hloroethene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
hloroethane	UG/L	4	4%	5	0	2	55	10 U	10 U	10 U	10 UJ	10
hloroethene (total)	UG/L	1100	27%	5	14	15	55	19	110	10 U	10 UJ	10
hloropropane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
e	UG/L	2	4%		0	2	55	10 UJ	10 UJ	10 UJ	10 UJ	2
ne	UG/L	0	0%	0.7	0	0	55	10 U	10 U	10 U	10 UJ	10
dichloromethane	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 UJ	10
form	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 UJ	10
disulfide	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 UJ	10
tetrachloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
benzene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
dibromomethane	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 UJ	10
ethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
form	UG/L	74	2%	7	1	1	55	10 U	10 U	10 U	10 UJ	10
-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
enzene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
bromide	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 UJ	10
butyl ketone	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	10 UJ	10
chloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
ethyl ketone	UG/L	0	0%	50	0	0	55	10 U	10 U	10 UJ	10 UJ	10
isobutyl ketone	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	10 UJ	10
ene chloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
e	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 UJ	10
hloroethene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
e	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
ylenes	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 UJ	10
roethene	UG/L	9100	27%	5	10	15	55	21	3 J	2 J	10 UJ	10
hloride	UG/L	180	5%	2	2	3	55	10 U	10 U	10 U	10 UJ	10
LS												
um	UG/L	2600	65%		0	34	52	21.1 J	173 J	106 J	38.4 J	826
ny	UG/L	3	2%		0	1	52	2.7 U	2.7 U	2.7 U	4.9 UJ	2.7
	UG/L	7	23%	25	0	12	52	1.9 U	1.9 U	1.9 U	3.7 UJ	1.9
	UG/L	176	98%	1000	0	51	52	43.8 J	67.9 J	46.8 J	42.6 J	45.4
m	UG/L	0.66	10%		0	5	52	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2

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

						FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LAND
						LOCATION ID		MW-28	MW-29	MW-30	MW-31	MW-32
						MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND
						SAMPLE ID		ARD2044	ARD2056	ARD2028	ARD2003	ARD2029
						DEPTH TO TOP OF SAMPLE		9	11	9.5	9.8	10
						DEPTH TO BOTTOM OF SAMPLE		9	11	9.5	9.8	10
						SAMPLE DATE		21-Oct-99	22-Oct-99	19-Oct-99	08-Oct-99	19-Oct-99
DE								SA	SA	SA	SA	SA
ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMED
E ROUND			OF	CLASS GA	ABOVE	OF	OF	1	1	1	1	1
METER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N
um	UG/L	0	0%	10	0	0	52	0.3 U	0.3 U	0.3 U	0.7 UJ	0.3
n	UG/L	268000	98%		0	51	52	112000	164000	112000	91500 J	108000
um	UG/L	5.6	15%	50	0	8	52	0.9 U	0.9 U	0.9 U	0.9 UJ	0.9
	UG/L	8.4	4%		0	2	52	2.5 U	2.5 U	2 U	2.5 UJ	2
	UG/L	6.1	10%	200	0	5	52	1.7 U	1.7 U	1.7 U	1.9 UJ	1.7
e	UG/L	0	0%	100	0	0	52	5 U	5 U	5 U	5 UJ	5
	UG/L	11600	67%	300	14	35	52	28.8 J	442 J	109	14.7 UJ	1490
	UG/L	5.4	10%	25	0	5	52	1 U	1 U	1 U	1.2 UJ	1
sium	UG/L	47100	98%		0	51	52	12100	18900	15600	11600 J	14000
nese	UG/L	3140	83%	300	7	43	52	1.3 J	2.6 J	1.4 J	17.1 J	805
y	UG/L	0.2	12%	2	0	6	52	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1
	UG/L	5.6	12%		0	6	52	1.7 U	1.7 U	1.7 U	2.6 UJ	1.8
ium	UG/L	18400	98%		0	51	52	1220 J	1680 J	2760 J	1860 J	3390
m	UG/L	2.6	2%	10	0	1	52	2.4 U	2.4 U	2.4 U	2.8 UJ	2.4
	UG/L	0	0%	50	0	0	52	1.6 U	1.6 U	1.6 U	1.6 UJ	1.6
	UG/L	142000	98%	20000	27	51	52	8770	22900	16300	15800 J	21100
m	UG/L	10.8	19%		0	10	52	4.4 J	2.9 U	2.7 U	2.9 UJ	2.7
um	UG/L	4.5	6%		0	3	52	1.5 U	1.5 U	1.5 U	3.2 UJ	1.5
	UG/L	134	81%	300	0	42	52	2.1 J	2.5 J	3 J	2 J	5.1

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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	A
							LOCATION ID	MW-33	MW-34	MW-35D	MW-36	M
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	G
							SAMPLE ID	ARD2020	ARD2021	ARD2043	ARD2041	A
							DEPTH TO TOP OF SAMPLE	9.79	12.5	44	10	
							DEPTH TO BOTTOM OF SAMPLE	9.79	12.5	44	10	
							SAMPLE DATE	12-Oct-99	12-Oct-99	20-Oct-99	20-Oct-99	2
CODE								SA	SA	SA	DU	S
DY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	A
MPLE ROUND			OF	CLASS GA	ABOVE	OF	OF	1	1	1	1	
RAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N
LATILE ORGANICS												
1-Trichloroethane	UG/L	1	2%	5	0	1	55	10 U	10 U	10 U	10 U	
2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
2-Trichloroethane	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U	
Dichloroethane	UG/L	9	2%	5	1	1	55	10 U	10 U	10 U	10 U	
Dichloroethene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
Dichloroethane	UG/L	4	4%	5	0	2	55	10 U	10 U	10 U	10 U	
Dichloroethene (total)	UG/L	1100	27%	5	14	15	55	10 U	10 U	10 U	10 U	
Dichloropropane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
tone	UG/L	2	4%		0	2	55	10 U	10 U	10 UJ	10 UJ	
zene	UG/L	0	0%	0.7	0	0	55	10 U	10 U	10 U	10 U	
modichloromethane	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U	
moform	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U	
bon disulfide	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U	
bon tetrachloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
robenzene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
rodibromomethane	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U	
roethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
roform	UG/L	74	2%	7	1	1	55	10 U	10 U	10 U	10 U	
1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
l benzene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
nyl bromide	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U	
nyl butyl ketone	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	10 UJ	
nyl chloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
nyl ethyl ketone	UG/L	0	0%	50	0	0	55	10 U	10 U	10 UJ	10 UJ	
nyl isobutyl ketone	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	10 UJ	
nylene chloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
ene	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U	
achloroethene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
ene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
l Xylenes	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
s-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U	
hloroethene	UG/L	9100	27%	5	10	15	55	10 U	10 U	10 U	10 U	
l chloride	UG/L	180	5%	2	2	3	55	10 U	10 U	10 U	10 U	
TALS												
minum	UG/L	2600	65%		0	34	52	89.3 J	82 J	42 J	14.3 U	
mony	UG/L	3	2%		0	1	52	2.7 U	2.7 U	2.7 U	2.7 U	
enic	UG/L	7	23%	25	0	12	52	1.9 U	1.9 U	3.6 J	2.2 J	
um	UG/L	176	98%	1000	0	51	52	36.1 J	82.6 J	102 J	68.4 J	
llium	UG/L	0.66	10%		0	5	52	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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
							LOCATION ID	MW-33	MW-34	MW-35D	MW-36	
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	
							SAMPLE ID	ARD2020	ARD2021	ARD2043	ARD2041	
							DEPTH TO TOP OF SAMPLE	9.79	12.5	44	10	
							DEPTH TO BOTTOM OF SAMPLE	9.79	12.5	44	10	
							SAMPLE DATE	12-Oct-99	12-Oct-99	20-Oct-99	20-Oct-99	
C CODE								SA	SA	SA	DU	
UDY ID								ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	
MPLE ROUND			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	1	1	1	1	
RAMETER	UNIT	MAXIMUM	OF DETECTION	CLASS GA STD.	ABOVE STD.	OF DETECTS	OF ANALYSES	N	N	N	N	
dmium	UG/L	0	0%	10	0	0	52	0.3 U	0.3 U	0.3 U	0.3 U	
cium	UG/L	268000	98%		0	51	52	106000	49900	19400	114000	
romium	UG/L	5.6	15%	50	0	8	52	0.9 U	0.9 U	0.9 U	0.9 U	
balt	UG/L	8.4	4%		0	2	52	2 U	2 U	2.5 U	2.5 U	
pper	UG/L	6.1	10%	200	0	5	52	1.7 U	1.7 U	1.7 U	1.7 U	
anide	UG/L	0	0%	100	0	0	52	5 U	5 U	5 U	5 U	
	UG/L	11600	67%	300	14	35	52	81.7 J	142	66.9 J	25.4 U	
d	UG/L	5.4	10%	25	0	5	52	1 U	1 U	1 U	1 U	
gnesium	UG/L	47100	98%		0	51	52	11200	11200	6010	16700	
nganese	UG/L	3140	83%	300	7	43	52	6.3 J	54.4	37.6	23.1	
cury	UG/L	0.2	12%	2	0	6	52	0.1 U	0.1 U	0.1 U	0.2 J	
kel	UG/L	5.6	12%		0	6	52	1.7 U	1.7 U	1.7 U	1.7 U	
ssium	UG/L	18400	98%		0	51	52	1710 J	2450 J	1820 J	1830 J	
enium	UG/L	2.6	2%	10	0	1	52	2.4 U	2.4 U	2.4 U	2.4 U	
er	UG/L	0	0%	50	0	0	52	1.6 U	1.6 U	1.6 U	1.6 U	
um	UG/L	142000	98%	20000	27	51	52	16000	63100	95900	32600	
lium	UG/L	10.8	19%		0	10	52	2.7 U	2.7 U	2.9 U	2.9 U	
adium	UG/L	4.5	6%		0	3	52	1.5 U	1.5 U	1.5 U	1.5 U	
	UG/L	134	81%	300	0	42	52	1.6 U	2.5 J	3.7 J	3.7 J	

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

						FACILITY	FILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
						LOCATION ID		MW-37	MW-38D	MW-39	MW-40
						MATRIX	ATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER
						SAMPLE ID		ARD2017	ARD2015	ARD2007	ARD2008
						DEPTH TO TOP OF SAMPLE		11	20	9.5	12
						DEPTH TO BOTTOM OF SAMPLE		11	20	9.5	12
						SAMPLE DATE		11-Oct-99	11-Oct-99	09-Oct-99	09-Oct-99
CODE								SA	SA	SA	SA
UDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	AL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL D
MPLE ROUND			OF	CLASS GA	ABOVE	OF	OF		1	1	1	1
RAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES		N	N	N	N
LATILE ORGANICS												
,1-Trichloroethane	UG/L	1	2%	5	0	1	55	U	10 U	10 U	10 U	10 U
,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
,2-Trichloroethane	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
-Dichloroethane	UG/L	9	2%	5	1	1	55	U	10 U	10 U	10 U	10 U
-Dichloroethene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
-Dichloroethane	UG/L	4	4%	5	0	2	55	U	10 U	10 U	10 U	10 U
-Dichloroethene (total)	UG/L	1100	27%	5	14	15	55	U	10 U	10 U	10 U	10 U
-Dichloropropane	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
etone	UG/L	2	4%		0	2	55	UJ	10 U	10 U	10 U	10 U
nzene	UG/L	0	0%	0.7	0	0	55	U	10 U	10 U	10 U	10 U
modichloromethane	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
moform	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
bon disulfide	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
bon tetrachloride	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
orobenzene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
orodibromomethane	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
oroethane	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
oroform	UG/L	74	2%	7	1	1	55	U	10 U	10 U	10 U	10 U
-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
yl benzene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
thyl bromide	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
thyl butyl ketone	UG/L	0	0%		0	0	55	UJ	10 U	10 U	10 U	10 U
thyl chloride	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
thyl ethyl ketone	UG/L	0	0%	50	0	0	55	UJ	10 U	10 U	10 U	10 U
thyl isobutyl ketone	UG/L	0	0%		0	0	55	UJ	10 U	10 U	10 U	10 U
thylene chloride	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
rene	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
rachloroethene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
uene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
al Xylenes	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
ns-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
chloroethene	UG/L	9100	27%	5	10	15	55	U	10 U	10 U	10 U	10 U
yl chloride	UG/L	180	5%	2	2	3	55	U	10 U	10 U	10 U	10 U
TALS												
minum	UG/L	2600	65%		0	34	52	J	69.6 J	16.3 U	16.3 U	71.2 J
imony	UG/L	3	2%		0	1	52	U	4.9 U	4.9 U	4.9 U	4.9 U
enic	UG/L	7	23%	25	0	12	52	J	3.7 U	4.5 J	3.7 U	3.7 U
ium	UG/L	176	98%	1000	0	51	52	J	58.3 J	164 J	39.2 J	69.8 J
yllium	UG/L	0.66	10%		0	5	52	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

						FACILITY	FILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
						LOCATION ID		MW-37	MW-38D	MW-39	MW-40
						MATRIX	ATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER
						SAMPLE ID		ARD2017	ARD2015	ARD2007	ARD2008
						DEPTH TO TOP OF SAMPLE		11	20	9.5	12
						DEPTH TO BOTTOM OF SAMPLE		11	20	9.5	12
						SAMPLE DATE		11-Oct-99	11-Oct-99	09-Oct-99	09-Oct-99
CODE								SA	SA	SA	SA
JDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	AL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL D
MPLE ROUND			OF	CLASS GA	ABOVE	OF	OF		1	1	1	1
RAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES		N	N	N	N
dmium	UG/L	0	0%	10	0	0	52	U	0.7 U	0.7 U	0.7 U	0.7 U
cium	UG/L	268000	98%		0	51	52		97600	91200	92300	99200
romium	UG/L	5.6	15%	50	0	8	52	J	0.9 U	0.9 U	0.9 U	0.9 U
balt	UG/L	8.4	4%		0	2	52	U	2.5 U	2.5 U	2.5 U	2.5 U
pper	UG/L	6.1	10%	200	0	5	52	U	1.9 U	1.9 U	1.9 U	1.9 U
anide	UG/L	0	0%	100	0	0	52	U	5 U	5 U	5 U	5 U
n	UG/L	11600	67%	300	14	35	52	U	61.4 J	172	14.7 U	14.7 U
d	UG/L	5.4	10%	25	0	5	52	U	1.2 U	1.2 U	1.2 U	1.2 U
gnesium	UG/L	47100	98%		0	51	52		13400	16500	11800	10600
nganese	UG/L	3140	83%	300	7	43	52		12 J	143	0.9 U	0.9 U
rcury	UG/L	0.2	12%	2	0	6	52	UJ	0.1 U	0.1 U	0.1 U	0.1 U
kel	UG/L	5.6	12%		0	6	52	U	2.6 U	2.6 U	4.6 J	2.6 U
assium	UG/L	18400	98%		0	51	52	J	1120 J	7100	2430 J	1720 J
enium	UG/L	2.6	2%	10	0	1	52	U	2.8 U	2.8 U	2.8 U	2.8 U
er	UG/L	0	0%	50	0	0	52	U	1.6 U	1.6 U	1.6 U	1.6 U
dium	UG/L	142000	98%	20000	27	51	52		9360	5580	8040	13600
allium	UG/L	10.8	19%		0	10	52	U	2.9 U	2.9 U	2.9 UJ	2.9 U
nadium	UG/L	4.5	6%		0	3	52	U	3.2 U	3.2 U	3.2 U	3.2 U
c	UG/L	134	81%	300	0	42	52	J	7.7 J	18.6 J	9.5 J	5 J

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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH
							LOCATION ID	MW-41D	MW-42D	MW-43	MW-44A	MW
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GR
							SAMPLE ID	ARD2001	ARD2053	ARD2049	ARD2050	ARI
							DEPTH TO TOP OF SAMPLE	32	38	7	12	
							DEPTH TO BOTTOM OF SAMPLE	32	38	7	12	
							SAMPLE DATE	08-Oct-99	22-Oct-99	22-Oct-99	22-Oct-99	
C CODE								SA	SA	SA	SA	SA
TUDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASI
AMPLE ROUND			OF	CLASS GA	ABOVE	OF	OF	1	1	1	1	
ARAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N
OLATILE ORGANICS												
,1-Trichloroethane	UG/L	1	2%	5	0	1	55	10 UJ	10 U	10 U	55 U	
,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
,2-Trichloroethane	UG/L	0	0%		0	0	55	10 UJ	10 U	10 U	55 U	
-Dichloroethane	UG/L	9	2%	5	1	1	55	10 UJ	10 U	10 U	9 J	
-Dichloroethene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
-Dichloroethane	UG/L	4	4%	5	0	2	55	10 UJ	10 U	10 U	55 U	
-Dichloroethene (total)	UG/L	1100	27%	5	14	15	55	10 UJ	10 U	10 U	690	
-Dichloropropane	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
etone	UG/L	2	4%		0	2	55	10 UJ	10 UJ	10 UJ	55 UJ	
nzene	UG/L	0	0%	0.7	0	0	55	10 UJ	10 U	10 U	55 U	
omodichloromethane	UG/L	0	0%		0	0	55	10 UJ	10 U	10 U	55 U	
omoform	UG/L	0	0%		0	0	55	10 UJ	10 U	10 U	55 U	
rbon disulfide	UG/L	0	0%		0	0	55	10 UJ	10 U	10 U	55 U	
rbon tetrachloride	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
lorobenzene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
lorodibromomethane	UG/L	0	0%		0	0	55	10 UJ	10 U	10 U	55 U	
loroethane	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
loroform	UG/L	74	2%	7	1	1	55	10 UJ	10 U	10 U	55 U	
s-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
hyl benzene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
ethyl bromide	UG/L	0	0%		0	0	55	10 UJ	10 U	10 U	55 U	
ethyl butyl ketone	UG/L	0	0%		0	0	55	10 UJ	10 U	10 U	55 U	
ethyl chloride	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
ethyl ethyl ketone	UG/L	0	0%	50	0	0	55	10 UJ	10 U	10 U	55 U	
ethyl isobutyl ketone	UG/L	0	0%		0	0	55	10 UJ	10 U	10 U	55 U	
ethylene chloride	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
yrene	UG/L	0	0%		0	0	55	10 UJ	10 U	10 U	55 U	
trachloroethene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
luene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
tal Xylenes	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
ans-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 UJ	10 U	10 U	55 U	
chloroethene	UG/L	9100	27%	5	10	15	55	10 UJ	10 U	10 U	26 J	
hyl chloride	UG/L	180	5%	2	2	3	55	10 UJ	10 U	10 U	180	
ETALS												
uminum	UG/L	2600	65%		0	34	52	16.3 UJ	14.3 U	40.2 J	14.3 U	
timony	UG/L	3	2%		0	1	52	4.9 UJ	3 J	2.7 U	2.7 U	
senic	UG/L	7	23%	25	0	12	52	3.7 UJ	1.9 U	1.9 U	1.9 U	
rium	UG/L	176	98%	1000	0	51	52	66.3 J	79.1 J	48.3 J	52.9 J	
ryllium	UG/L	0.66	10%		0	5	52	0.2 UJ	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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH
							LOCATION ID	MW-41D	MW-42D	MW-43	MW-44A	MW-4
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROU
							SAMPLE ID	ARD2001	ARD2053	ARD2049	ARD2050	ARD2
							DEPTH TO TOP OF SAMPLE	32	38	7	12	
							DEPTH TO BOTTOM OF SAMPLE	32	38	7	12	
							SAMPLE DATE	08-Oct-99	22-Oct-99	22-Oct-99	22-Oct-99	22
CODE								SA	SA	SA	SA	SA
DY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH
PLE ROUND			OF	CLASS GA	ABOVE	OF	OF	1	1	1	1	
AMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N
nium	UG/L	0	0%	10	0	0	52	0.7 UJ	0.3 U	0.3 U	0.3 U	
um	UG/L	268000	98%		0	51	52	86700 J	62600	112000	236000	
mium	UG/L	5.6	15%	50	0	8	52	0.9 UJ	0.9 U	0.9 U	1.3 J	
lt	UG/L	8.4	4%		0	2	52	2.5 UJ	2.5 U	2.5 U	2.5 U	
er	UG/L	6.1	10%	200	0	5	52	1.9 UJ	1.7 U	2 J	1.7 U	
ide	UG/L	0	0%	100	0	0	52	5 UJ	5 U	5 U	5 U	
	UG/L	11600	67%	300	14	35	52	14.7 UJ	58.6 J	57.2 J	82.6 J	
	UG/L	5.4	10%	25	0	5	52	1.2 UJ	1 U	1 U	1 U	
nesium	UG/L	47100	98%		0	51	52	31100 J	28600	9700	43400	
ganese	UG/L	3140	83%	300	7	43	52	252 J	88	0.4 U	1250	
ury	UG/L	0.2	12%	2	0	6	52	0.1 UJ	0.1 U	0.1 U	0.1 U	
el	UG/L	5.6	12%		0	6	52	2.6 UJ	1.7 U	1.7 U	1.7 U	
ssium	UG/L	18400	98%		0	51	52	3520 J	3230 J	1140 J	18400	
nium	UG/L	2.6	2%	10	0	1	52	2.8 UJ	2.4 U	2.4 U	2.4 U	
r	UG/L	0	0%	50	0	0	52	1.6 UJ	1.6 U	1.6 U	1.6 U	
um	UG/L	142000	98%	20000	27	51	52	35500 J	14300	13200	78100	
ium	UG/L	10.8	19%		0	10	52	2.9 UJ	2.9 U	4.6 J	8.3 J	
dium	UG/L	4.5	6%		0	3	52	3.2 UJ	1.5 U	1.5 U	1.5 U	
	UG/L	134	81%	300	0	42	52	4.8 J	2.5 J	2.6 J	5.3 J	

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

							FACILITY	L	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFI
							LOCATION ID		MW-46	MW-47	MW-48	MW-49D
							MATRIX	TER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WA
							SAMPLE ID		ARD2009	ARD2032	ARD2012	ARD2011
							DEPTH TO TOP OF SAMPLE		10.5	9.5	10	26
							DEPTH TO BOTTOM OF SAMPLE		10.5	9.5	10	26
							SAMPLE DATE		10-Oct-99	19-Oct-99	10-Oct-99	10-Oct-99
CODE									SA	SA	SA	SA
UDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	L DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL
MPLE ROUND			OF	CLASS GA	ABOVE	OF	OF		1	1	1	1
RAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES		N	N	N	N
LATILE ORGANICS												
,1-Trichloroethane	UG/L	1	2%	5	0	1	55 U		10 U	10 U	10 U	10 U
,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
,2-Trichloroethane	UG/L	0	0%		0	0	55 U		10 U	10 U	10 U	10 U
-Dichloroethane	UG/L	9	2%	5	1	1	55 U		10 U	10 U	10 U	10 U
-Dichloroethene	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
-Dichloroethane	UG/L	4	4%	5	0	2	55 U		10 U	10 U	10 U	10 U
-Dichloroethene (total)	UG/L	1100	27%	5	14	15	55 U		73	10 U	10 U	14
-Dichloropropane	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
etone	UG/L	2	4%		0	2	55 UJ		10 U	10 UJ	10 U	10 U
nzene	UG/L	0	0%	0.7	0	0	55 U		10 U	10 U	10 U	10 U
omodichloromethane	UG/L	0	0%		0	0	55 U		10 U	10 U	10 U	10 U
omoform	UG/L	0	0%		0	0	55 U		10 U	10 U	10 U	10 U
rbon disulfide	UG/L	0	0%		0	0	55 U		10 U	10 U	10 U	10 U
rbon tetrachloride	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
loroberizene	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
lorodibromomethane	UG/L	0	0%		0	0	55 U		10 U	10 U	10 U	10 U
loroethane	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
loroform	UG/L	74	2%	7	1	1	55 U		10 U	10 U	10 U	10 U
-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
yl benzene	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
thyl bromide	UG/L	0	0%		0	0	55 U		10 U	10 U	10 U	10 U
thyl butyl ketone	UG/L	0	0%		0	0	55 U		10 U	10 UJ	10 U	10 U
thyl chloride	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
thyl ethyl ketone	UG/L	0	0%	50	0	0	55 U		10 U	10 UJ	10 U	10 U
thyl isobutyl ketone	UG/L	0	0%		0	0	55 U		10 U	10 UJ	10 U	10 U
thylene chloride	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
rene	UG/L	0	0%		0	0	55 U		10 U	10 U	10 U	10 U
rachloroethene	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
uene	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
al Xylenes	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
ns-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55 U		10 U	10 U	10 U	10 U
chloroethene	UG/L	9100	27%	5	10	15	55 U		57	10 U	10 U	4 J
yl chloride	UG/L	180	5%	2	2	3	55 U		1 J	10 U	10 U	10 U
TALS												
minum	UG/L	2600	65%		0	34	52 J		124 J	25.1 J	16.3 U	16.3 U
timony	UG/L	3	2%		0	1	52 U		4.9 UJ	2.7 U	4.9 UJ	4.9 U
enic	UG/L	7	23%	25	0	12	52 U		3.7 U	1.9 U	3.7 U	3.7 U
ium	UG/L	176	98%	1000	0	51	52 J		71.4 J	48.3 J	45.2 J	115 J
yllium	UG/L	0.66	10%		0	5	52 U		0.23 J	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

							FACILITY	L	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFIL
							LOCATION ID		MW-46	MW-47	MW-48	MW-49D
							MATRIX	TER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WA
							SAMPLE ID		ARD2009	ARD2032	ARD2012	ARD2011
							DEPTH TO TOP OF SAMPLE		10.5	9.5	10	26
							DEPTH TO BOTTOM OF SAMPLE		10.5	9.5	10	26
							SAMPLE DATE		10-Oct-99	19-Oct-99	10-Oct-99	10-Oct-99
CODE									SA	SA	SA	SA
IDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	L DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL
MPLE ROUND			OF	CLASS GA	ABOVE	OF	OF		1	1	1	1
RAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES		N	N	N	N
mium	UG/L	0	0%	10	0	0	52	U	0.7 U	0.3 U	0.7 U	0.7 U
cium	UG/L	268000	98%		0	51	52		129000	110000	104000	100000
omium	UG/L	5.6	15%	50	0	8	52	U	0.9 U	0.9 U	0.9 U	0.9 U
alt	UG/L	8.4	4%		0	2	52	U	2.5 U	2 U	2.5 U	2.5 U
per	UG/L	6.1	10%	200	0	5	52	U	1.9 U	1.7 U	1.9 U	1.9 U
nide	UG/L	0	0%	100	0	0	52	U	5 U	5 U	5 U	5 U
	UG/L	11600	67%	300	14	35	52	U	1330 J	14.7 U	14.7 U	250 J
d	UG/L	5.4	10%	25	0	5	52	U	1.2 U	1 U	1.2 U	1.2 U
nesium	UG/L	47100	98%		0	51	52		17800	12000	12500	23200
ganese	UG/L	3140	83%	300	7	43	52	J	570	0.9 U	1.2 J	125
cury	UG/L	0.2	12%	2	0	6	52	U	0.1 U	0.1 U	0.1 U	0.1 U
kel	UG/L	5.6	12%		0	6	52	U	2.6 U	1.7 U	2.6 U	2.6 U
assium	UG/L	18400	98%		0	51	52	J	2690 J	992 J	1870 J	1820 J
enium	UG/L	2.6	2%	10	0	1	52	U	2.8 U	2.4 U	2.8 U	2.8 U
er	UG/L	0	0%	50	0	0	52	U	1.6 U	1.6 U	1.6 U	1.6 U
ium	UG/L	142000	98%	20000	27	51	52		10100	9240	8490	8220
llium	UG/L	10.8	19%		0	10	52	U	2.9 U	2.7 U	2.9 U	2.9 U
adium	UG/L	4.5	6%		0	3	52	U	3.2 U	1.5 U	3.2 U	3.2 U
	UG/L	134	81%	300	0	42	52	J	1.8 U	1.6 J	1.8 U	1.8 U

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

						FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
						LOCATION ID	MW-50D	MW-51D	MW-52D	MW-53
						MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER
						SAMPLE ID	ARD2010	ARD2033	ARD2034	ARD2055
						DEPTH TO TOP OF SAMPLE	50	28	50	11.5
						DEPTH TO BOTTOM OF SAMPLE	50	28	50	11.5
						SAMPLE DATE	10-Oct-99	19-Oct-99	19-Oct-99	22-Oct-99
DE							SA	SA	SA	SA
ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN
E ROUND			OF	CLASS GA	ABOVE	OF	OF	1	1	1	1
METER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N
TILE ORGANICS											
richloroethane	UG/L	1	2%	5	0	1	55	10 U	10 U	10 U	10 U
-Tetrachloroethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
richloroethane	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U
hloroethane	UG/L	9	2%	5	1	1	55	10 U	10 U	10 U	10 U
hloroethene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
hloroethane	UG/L	4	4%	5	0	2	55	10 U	10 U	10 U	10 U
hloroethene (total)	UG/L	1100	27%	5	14	15	55	10 U	10 U	10 U	15
hloropropane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
e	UG/L	2	4%		0	2	55	10 U	10 UJ	2 J	10 UJ
e	UG/L	0	0%	0.7	0	0	55	10 U	10 U	10 U	10 U
dichloromethane	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U
orm	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U
disulfide	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U
tetrachloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
benzene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
dibromomethane	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U
ethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
orm	UG/L	74	2%	7	1	1	55	10 U	10 U	10 U	10 U
-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
enzene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
bromide	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U
butyl ketone	UG/L	0	0%		0	0	55	10 U	10 UJ	10 UJ	10 U
chloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
ethyl ketone	UG/L	0	0%	50	0	0	55	10 U	10 UJ	10 UJ	10 U
isobutyl ketone	UG/L	0	0%		0	0	55	10 U	10 UJ	10 UJ	10 U
ene chloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
e	UG/L	0	0%		0	0	55	10 U	10 U	10 U	10 U
loroethene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
e	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
ylenes	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 U	10 U
oethene	UG/L	9100	27%	5	10	15	55	10 U	10 U	10 U	2 J
loride	UG/L	180	5%	2	2	3	55	10 U	10 U	10 U	10 U
LS											
um	UG/L	2600	65%		0	34	52	22.7 J	20.2 J	2350	14.3 U
ny	UG/L	3	2%		0	1	52	4.9 UJ	2.7 U	2.7 U	2.7 U
	UG/L	7	23%	25	0	12	52	3.7 U	1.9 U	1.9 U	3.9 J
	UG/L	176	98%	1000	0	51	52	107 J	125 J	64.7 J	71 J
m	UG/L	0.66	10%		0	5	52	0.46 J	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

							FACILITY	ASH LANDFILL		ASH LANDFILL		ASH LANDFILL		ASH LANDFILL	
							LOCATION ID	MW-50D		MW-51D		MW-52D		MW-53	
							MATRIX	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
							SAMPLE ID	ARD2010		ARD2033		ARD2034		ARD2055	
							DEPTH TO TOP OF SAMPLE	50		28		50		11.5	
							DEPTH TO BOTTOM OF SAMPLE	50		28		50		11.5	
							SAMPLE DATE	10-Oct-99		19-Oct-99		19-Oct-99		22-Oct-99	
DE								SA		SA		SA		SA	
ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN		ASH REMEDIAL DESIGN		ASH REMEDIAL DESIGN		ASH REMEDIAL DESIGN	
E ROUND			OF	CLASS GA	ABOVE	OF	OF	1		1		1		1	
METER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N		N		N		N	
um	UG/L	0	0%	10	0	0	52	0.7 U		0.3 U		0.3 U		0.3 U	
n	UG/L	268000	98%		0	51	52	49700		85400		5920		165000	
um	UG/L	5.6	15%	50	0	8	52	0.9 U		0.9 U		0.9 U		0.9 U	
	UG/L	8.4	4%		0	2	52	2.5 U		2 U		2 U		2.5 U	
	UG/L	6.1	10%	200	0	5	52	1.9 U		1.7 U		1.9 J		1.7 U	
e	UG/L	0	0%	100	0	0	52	5 U		5 U		5 U		5 U	
	UG/L	11600	67%	300	14	35	52	348 J		56.2 J		2310		25.4 U	
	UG/L	5.4	10%	25	0	5	52	1.2 U		1 U		2.6 J		1 U	
sium	UG/L	47100	98%		0	51	52	22400		13500		2180 J		20100	
nese	UG/L	3140	83%	300	7	43	52	87.4		42.5		39.3		0.4 U	
y	UG/L	0.2	12%	2	0	6	52	0.1 U		0.1 U		0.1 U		0.1 U	
	UG/L	5.6	12%		0	6	52	2.6 U		1.7 U		2.7 J		1.7 U	
um	UG/L	18400	98%		0	51	52	2270 J		1350 J		1570 J		1690 J	
m	UG/L	2.6	2%	10	0	1	52	2.8 U		2.6 J		2.4 U		2.4 U	
	UG/L	0	0%	50	0	0	52	1.6 U		1.6 U		1.6 U		1.6 U	
	UG/L	142000	98%	20000	27	51	52	20900		26300		102000		24100	
n	UG/L	10.8	19%		0	10	52	2.9 U		2.7 U		2.7 U		2.9 U	
um	UG/L	4.5	6%		0	3	52	3.2 U		1.5 U		3.3 J		1.5 U	
	UG/L	134	81%	300	0	42	52	1.8 U		2.9 J		6.9 J		2.5 J	

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

							FACILITY	FILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
							LOCATION ID		MW-55D	MW-56	MW-57D	MW-58D
							MATRIX	ATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER
							SAMPLE ID		ARD2022	ARD2035	ARD2039	ARD2042
							DEPTH TO TOP OF SAMPLE		50	6	25	48
							DEPTH TO BOTTOM OF SAMPLE		50	6	25	48
							SAMPLE DATE		13-Oct-99	20-Oct-99	20-Oct-99	20-Oct-99
DE									SA	SA	SA	SA
ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	AL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN
E ROUND			OF	CLASS GA	ABOVE	OF	OF		1	1	1	1
ETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES		N	N	N	N
LE ORGANICS												
chloroethane	UG/L	1	2%	5	0	1	55	U	10 U	10 U	10 U	10 U
Tetrachloroethane	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
chloroethane	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
loroethane	UG/L	9	2%	5	1	1	55	U	10 U	10 U	10 U	10 U
loroethene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
loroethane	UG/L	4	4%	5	0	2	55	U	10 U	10 U	10 U	10 U
loroethene (total)	UG/L	1100	27%	5	14	15	55	J	10 U	10 U	10 U	10 U
loropropane	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
	UG/L	2	4%		0	2	55	U	10 U	10 UJ	10 UJ	10 UJ
	UG/L	0	0%	0.7	0	0	55	U	10 U	10 U	10 U	10 U
chloromethane	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
m	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
disulfide	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
etrachloride	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
enzene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
bromomethane	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
hane	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
m	UG/L	74	2%	7	1	1	55	U	10 U	10 U	10 U	10 U
Dichloropropene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
nzene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
romide	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
utyl ketone	UG/L	0	0%		0	0	55	U	10 U	10 UJ	10 UJ	10 UJ
hloride	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
thyl ketone	UG/L	0	0%	50	0	0	55	U	10 U	10 UJ	10 UJ	10 UJ
obutyl ketone	UG/L	0	0%		0	0	55	U	10 U	10 UJ	10 UJ	10 UJ
ne chloride	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
	UG/L	0	0%		0	0	55	U	10 U	10 U	10 U	10 U
proethene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
lenes	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
3-Dichloropropene	UG/L	0	0%	5	0	0	55	U	10 U	10 U	10 U	10 U
ethene	UG/L	9100	27%	5	10	15	55	U	10 U	10 U	10 U	10 U
oride	UG/L	180	5%	2	2	3	55	U	10 U	10 U	10 U	10 U
S												
m	UG/L	2600	65%		0	34	52	U	1160	160 J	688	2400
y	UG/L	3	2%		0	1	52	U	2.7 U	2.7 U	2.7 U	2.7 U
	UG/L	7	23%	25	0	12	52	U	1.9 U	1.9 U	1.9 U	1.9 U
	UG/L	176	98%	1000	0	51	52	J	61.9 J	44.5 J	62.1 J	69.1 J
n	UG/L	0.66	10%		0	5	52	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

							FACILITY	FILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
							LOCATION ID		MW-55D	MW-56	MW-57D	MW-58D
							MATRIX	ATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER
							SAMPLE ID		ARD2022	ARD2035	ARD2039	ARD2042
							DEPTH TO TOP OF SAMPLE		50	6	25	48
							DEPTH TO BOTTOM OF SAMPLE		50	6	25	48
							SAMPLE DATE		13-Oct-99	20-Oct-99	20-Oct-99	20-Oct-99
DE									SA	SA	SA	SA
ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	AL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN
E ROUND			OF	CLASS GA	ABOVE	OF	OF		1	1	1	1
ETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES		N	N	N	N
n	UG/L	0	0%	10	0	0	52	U	0.3 U	0.3 U	0.3 U	0.3 U
	UG/L	268000	98%		0	51	52		2440 J	104000	3130 J	4110 J
m	UG/L	5.6	15%	50	0	8	52	U	0.9 U	0.9 U	1.9 J	4.5 J
	UG/L	8.4	4%		0	2	52	U	2 U	2.5 U	2.5 U	2.5 U
	UG/L	6.1	10%	200	0	5	52	U	1.7 U	1.7 U	1.7 U	2.2 J
	UG/L	0	0%	100	0	0	52	U	5 U	5 U	5 U	5 U
	UG/L	11600	67%	300	14	35	52	J	1050	149 J	853 J	3200 J
	UG/L	5.4	10%	25	0	5	52	U	1.5 J	1 U	1 U	1.9 J
um	UG/L	47100	98%		0	51	52		781 J	12500	842 J	1350 J
ese	UG/L	3140	83%	300	7	43	52		16.9	12.3 J	3.2 J	35.3
	UG/L	0.2	12%	2	0	6	52	U	0.1 U	0.1 U	0.1 U	0.1 U
	UG/L	5.6	12%		0	6	52	U	1.7 U	1.7 U	1.7 U	3.4 J
m	UG/L	18400	98%		0	51	52	J	1120 J	1630 J	1150 J	1740 J
n	UG/L	2.6	2%	10	0	1	52	U	2.4 U	2.4 U	2.4 U	2.4 U
	UG/L	0	0%	50	0	0	52	U	1.6 U	1.6 U	1.6 U	1.6 U
	UG/L	142000	98%	20000	27	51	52		118000	18800	133000	142000
	UG/L	10.8	19%		0	10	52	U	2.7 J	2.9 U	2.9 U	2.9 U
m	UG/L	4.5	6%		0	3	52	U	1.5 U	1.5 U	1.5 U	4.1 J
	UG/L	134	81%	300	0	42	52	J	15.7 J	3.7 J	7.1 J	8.9 J

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

							FACILITY	FILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFI
							LOCATION ID		MW-60	PT-10	PT-11	PT-15
							MATRIX	ATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WA
							SAMPLE ID		ARD2004	ARD2002	ARD2006	ARD2031
							DEPTH TO TOP OF SAMPLE		8.5	40	18	18.5
							DEPTH TO BOTTOM OF SAMPLE		8.5	40	18	18.5
							SAMPLE DATE		09-Oct-99	08-Oct-99	10-Oct-99	20-Oct-99
C CODE									SA	SA	SA	SA
TUDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	AL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL
AMPLE ROUND			OF	CLASS GA	ABOVE	OF	OF		1	1	1	1
ARAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES		N	N	N	N
OLATILE ORGANICS												
1,1-Trichloroethane	UG/L	1	2%	5	0	1	55 U		10 U	10 UJ	10 U	10 U
1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
1,2-Trichloroethane	UG/L	0	0%		0	0	55 U		10 U	10 UJ	10 U	10 U
1-Dichloroethane	UG/L	9	2%	5	1	1	55 U		10 U	10 UJ	10 U	10 U
1-Dichloroethene	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
2-Dichloroethane	UG/L	4	4%	5	0	2	55 U		10 U	10 UJ	10 U	10 U
2-Dichloroethene (total)	UG/L	1100	27%	5	14	15	55 U		10 U	10 UJ	10 U	10 U
2-Dichloropropane	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
etone	UG/L	2	4%		0	2	55 U		10 U	10 UJ	10 U	10 U
enzene	UG/L	0	0%	0.7	0	0	55 U		10 U	10 UJ	10 U	10 U
omodichloromethane	UG/L	0	0%		0	0	55 U		10 U	10 UJ	10 U	10 U
omoform	UG/L	0	0%		0	0	55 U		10 U	10 UJ	10 U	10 U
arbon disulfide	UG/L	0	0%		0	0	55 U		10 U	10 UJ	10 U	10 U
arbon tetrachloride	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
hlorobenzene	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
hlorodibromomethane	UG/L	0	0%		0	0	55 U		10 U	10 UJ	10 U	10 U
hloroethane	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
hloroform	UG/L	74	2%	7	1	1	55 U		10 U	10 UJ	10 U	10 U
s-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
hyl benzene	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
ethyl bromide	UG/L	0	0%		0	0	55 U		10 U	10 UJ	10 U	10 U
ethyl butyl ketone	UG/L	0	0%		0	0	55 U		10 U	10 UJ	10 U	10 U
ethyl chloride	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
ethyl ethyl ketone	UG/L	0	0%	50	0	0	55 U		10 U	10 UJ	10 U	10 U
ethyl isobutyl ketone	UG/L	0	0%		0	0	55 U		10 U	10 UJ	10 U	10 U
ethylene chloride	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
yrene	UG/L	0	0%		0	0	55 U		10 U	10 UJ	10 U	10 U
etrachloroethene	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
oluene	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
otal Xylenes	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
ans-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55 U		10 U	10 UJ	10 U	10 U
ichloroethene	UG/L	9100	27%	5	10	15	55 U		10 U	10 UJ	10 U	10 U
nyl chloride	UG/L	180	5%	2	2	3	55 U		10 U	10 UJ	10 U	10 U
ETALS												
uminum	UG/L	2600	65%		0	34	52 J		16.3 U	16.3 UJ	340	2600
timony	UG/L	3	2%		0	1	52 U		4.9 U	4.9 UJ	2.7 U	2.7 U
senic	UG/L	7	23%	25	0	12	52 U		3.7 U	4.7 J	1.9 U	3 J
arium	UG/L	176	98%	1000	0	51	52 J		46.6 J	176 J	86.6 J	119 J
eryllium	UG/L	0.66	10%		0	5	52 U		0.66 J	0.2 UJ	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

							FACILITY	FILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFIL
							LOCATION ID		MW-60	PT-10	PT-11	PT-15
							MATRIX	ATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WA
							SAMPLE ID		ARD2004	ARD2002	ARD2006	ARD2031
							DEPTH TO TOP OF SAMPLE		8.5	40	18	18.5
							DEPTH TO BOTTOM OF SAMPLE		8.5	40	18	18.5
							SAMPLE DATE		09-Oct-99	08-Oct-99	10-Oct-99	20-Oct-99
CODE									SA	SA	SA	SA
UDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	AL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL
MPLE ROUND			OF	CLASS GA	ABOVE	OF	OF		1	1	1	1
RAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES		N	N	N	N
dmium	UG/L	0	0%	10	0	0	52	U	0.7 U	0.7 UJ	0.3 U	0.3 U
cium	UG/L	268000	98%		0	51	52		114000	81200 J	92000	92000
omium	UG/L	5.6	15%	50	0	8	52	U	0.9 U	0.9 UJ	0.9 U	5.6 J
balt	UG/L	8.4	4%		0	2	52	U	2.5 U	2.5 UJ	2 U	8.4 J
pper	UG/L	6.1	10%	200	0	5	52	U	1.9 U	1.9 UJ	1.7 U	6.1 J
nide	UG/L	0	0%	100	0	0	52	U	5 U	5 UJ	5 U	5 U
n	UG/L	11600	67%	300	14	35	52	U	14.7 U	21.8 J	457	4410 J
d	UG/L	5.4	10%	25	0	5	52	U	1.2 U	1.2 UJ	1 U	5.4
gnesium	UG/L	47100	98%		0	51	52		16400	33300 J	31900	22100
nganese	UG/L	3140	83%	300	7	43	52	U	1.8 J	105 J	38.1	259
rcury	UG/L	0.2	12%	2	0	6	52	U	0.1 U	0.1 UJ	0.1 U	0.1 U
kel	UG/L	5.6	12%		0	6	52	U	2.6 U	2.6 UJ	1.7 U	5.6 J
assium	UG/L	18400	98%		0	51	52	J	2320 J	2560 J	3160 J	3460 J
enium	UG/L	2.6	2%	10	0	1	52	U	2.8 U	2.8 UJ	2.4 U	2.8 U
er	UG/L	0	0%	50	0	0	52	U	1.6 U	1.6 UJ	1.6 U	1.6 U
dium	UG/L	142000	98%	20000	27	51	52		19900	33500 J	19700	27600
llium	UG/L	10.8	19%		0	10	52	UJ	2.9 UJ	2.9 UJ	2.7 UJ	3.3 J
nadium	UG/L	4.5	6%		0	3	52	U	3.2 U	3.2 UJ	1.5 U	4.5 J
c	UG/L	134	81%	300	0	42	52	J	1.8 U	1.8 UJ	9.5 J	34.1

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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	A
							LOCATION ID	PT-16	PT-16	PT-17	PT-18	P
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	G
							SAMPLE ID	ARD2014	ARD2013	ARD2027	ARD2048	A
							DEPTH TO TOP OF SAMPLE	10	10	10.5	11.1	
							DEPTH TO BOTTOM OF SAMPLE	10	10	10.5	11.1	
							SAMPLE DATE	11-Oct-99	11-Oct-99	18-Oct-99	21-Oct-99	1
C CODE								DU	SA	SA	SA	S
TUDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	A
AMPLE ROUND			OF	CLASS GA	ABOVE	OF	OF	1	1	1	1	
ARAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N
OLATILE ORGANICS												
,1,1-Trichloroethane	UG/L	1	2%	5	0	1	55	10 U	10 U	10 UJ	540 U	
,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
,1,2-Trichloroethane	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	540 U	
,1-Dichloroethane	UG/L	9	2%	5	1	1	55	10 U	10 U	10 UJ	540 U	
,1-Dichloroethene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
,2-Dichloroethane	UG/L	4	4%	5	0	2	55	10 U	10 U	10 UJ	540 U	
,2-Dichloroethene (total)	UG/L	1100	27%	5	14	15	55	10 U	10 U	16 J	1100	
,2-Dichloropropane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
cetone	UG/L	2	4%		0	2	55	10 U	10 U	10 UJ	540 UJ	
enzene	UG/L	0	0%	0.7	0	0	55	10 U	10 U	10 UJ	540 U	
romodichloromethane	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	540 U	
romoform	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	540 U	
arbon disulfide	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	540 U	
arbon tetrachloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
hlorobenzene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
hlorodibromomethane	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	540 U	
hloroethane	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
hloroform	UG/L	74	2%	7	1	1	55	10 U	10 U	10 UJ	74 J	
is-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
thyl benzene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
lethyl bromide	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	540 U	
lethyl butyl ketone	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	540 U	
lethyl chloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
lethyl ethyl ketone	UG/L	0	0%	50	0	0	55	10 U	10 U	10 UJ	540 U	
lethyl isobutyl ketone	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	540 U	
lethylene chloride	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
tyrene	UG/L	0	0%		0	0	55	10 U	10 U	10 UJ	540 U	
etrachloroethene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
oluene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
otal Xylenes	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
rans-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 U	10 UJ	540 U	
richloroethene	UG/L	9100	27%	5	10	15	55	10 U	10 U	110 J	9100	
inyl chloride	UG/L	180	5%	2	2	3	55	10 U	10 U	10 UJ	540 U	
ETALS												
luminum	UG/L	2600	65%		0	34	52	16.3 U	16.3 U	198 J	51.6 J	
ntimony	UG/L	3	2%		0	1	52	4.9 U	4.9 UJ	2.7 UJ	2.7 U	
rsenic	UG/L	7	23%	25	0	12	52	4.4 J	3.7 U	1.9 UJ	3.7 J	
arium	UG/L	176	98%	1000	0	51	52	40.6 J	44.5 J	50.5 J	50.3 J	
eryllium	UG/L	0.66	10%		0	5	52	0.57 J	0.2 U	0.2 UJ	0.2 U	

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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH
							LOCATION ID	PT-16	PT-16	PT-17	PT-18	PT-
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GR
							SAMPLE ID	ARD2014	ARD2013	ARD2027	ARD2048	ARI
							DEPTH TO TOP OF SAMPLE	10	10	10.5	11.1	
							DEPTH TO BOTTOM OF SAMPLE	10	10	10.5	11.1	
							SAMPLE DATE	11-Oct-99	11-Oct-99	18-Oct-99	21-Oct-99	11-
CODE								DU	SA	SA	SA	SA
DY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH
MPLE ROUND			OF	CLASS GA	ABOVE	OF	OF	1	1	1	1	
RAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N
mium	UG/L	0	0%	10	0	0	52	0.7 U	0.7 U	0.3 UJ	0.3 U	
cium	UG/L	268000	98%		0	51	52	95500	100000	105000 J	224000	2
omium	UG/L	5.6	15%	50	0	8	52	0.9 U	0.9 U	0.9 UJ	0.93 J	
alt	UG/L	8.4	4%		0	2	52	2.5 U	2.5 U	2 UJ	2.5 U	
per	UG/L	6.1	10%	200	0	5	52	1.9 U	1.9 U	1.7 UJ	1.7 U	
nide	UG/L	0	0%	100	0	0	52	5 U	5 U	5 UJ	5 U	
	UG/L	11600	67%	300	14	35	52	14.7 U	14.7 U	243 J	199 J	
d	UG/L	5.4	10%	25	0	5	52	1.2 U	1.2 U	1 UJ	1.2 U	
nesium	UG/L	47100	98%		0	51	52	11500	12400	10200 J	27900	
ganese	UG/L	3140	83%	300	7	43	52	7.3 J	3.7 J	12.2 J	471	
cury	UG/L	0.2	12%	2	0	6	52	0.1 U	0.15 J	0.1 UJ	0.16 J	
kel	UG/L	5.6	12%		0	6	52	2.6 U	2.6 U	1.7 UJ	1.8 J	
assium	UG/L	18400	98%		0	51	52	1050 J	1160 J	1230 J	4470 J	
enium	UG/L	2.6	2%	10	0	1	52	2.8 U	2.8 U	2.4 UJ	2.4 U	
er	UG/L	0	0%	50	0	0	52	1.6 U	1.6 U	1.6 UJ	1.6 U	
ium	UG/L	142000	98%	20000	27	51	52	7140	7780	20000 J	58600	
llium	UG/L	10.8	19%		0	10	52	2.9 U	2.9 U	2.7 UJ	4.2 J	
adium	UG/L	4.5	6%		0	3	52	3.2 U	3.2 U	1.5 UJ	1.5 U	
	UG/L	134	81%	300	0	42	52	1.8 U	2.9 J	2.3 J	134	

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

						FACILITY	FILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDF
						LOCATION ID		PT-20	PT-20	PT-21A	PT-22
						MATRIX	ATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND W
						SAMPLE ID		ARD2026	ARD2025	ARD2046	ARD2045
						DEPTH TO TOP OF SAMPLE		10	10	17.5	11.3
						DEPTH TO BOTTOM OF SAMPLE		10	10	17.5	11.3
						SAMPLE DATE		18-Oct-99	18-Oct-99	21-Oct-99	21-Oct-99
CODE								DU	SA	SA	SA
JDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	AL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIA
MPLE ROUND			OF	CLASS GA	ABOVE	OF	OF		1	1	1	1
RAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES		N	N	N	N
LATILE ORGANICS												
1-Trichloroethane	UG/L	1	2%	5	0	1	55	U	10 UJ	10 UJ	10 U	10 U
2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
2-Trichloroethane	UG/L	0	0%		0	0	55	U	10 UJ	10 UJ	10 U	10 U
-Dichloroethane	UG/L	9	2%	5	1	1	55	U	10 UJ	10 UJ	10 U	10 U
-Dichloroethene	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
-Dichloroethane	UG/L	4	4%	5	0	2	55	U	10 UJ	10 UJ	2 J	4 J
-Dichloroethene (total)	UG/L	1100	27%	5	14	15	55	U	28 J	29 J	16	88
-Dichloropropane	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
tone	UG/L	2	4%		0	2	55	U	10 UJ	10 UJ	10 UJ	10 U
nzene	UG/L	0	0%	0.7	0	0	55	U	10 UJ	10 UJ	10 U	10 U
modichloromethane	UG/L	0	0%		0	0	55	U	10 UJ	10 UJ	10 U	10 U
moform	UG/L	0	0%		0	0	55	U	10 UJ	10 UJ	10 U	10 U
bon disulfide	UG/L	0	0%		0	0	55	U	10 UJ	10 UJ	10 U	10 U
bon tetrachloride	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
orobenzene	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
orodibromomethane	UG/L	0	0%		0	0	55	U	10 UJ	10 UJ	10 U	10 U
oroethane	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
oroform	UG/L	74	2%	7	1	1	55	U	10 UJ	10 UJ	10 U	10 U
-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
yl benzene	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
hyl bromide	UG/L	0	0%		0	0	55	U	10 UJ	10 UJ	10 U	10 U
hyl butyl ketone	UG/L	0	0%		0	0	55	U	10 UJ	10 UJ	10 U	10 U
hyl chloride	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
hyl ethyl ketone	UG/L	0	0%	50	0	0	55	U	10 UJ	10 UJ	10 U	10 U
hyl isobutyl ketone	UG/L	0	0%		0	0	55	U	10 UJ	10 UJ	10 U	10 U
hylene chloride	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
rene	UG/L	0	0%		0	0	55	U	10 UJ	10 UJ	10 U	10 U
rachloroethene	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
uene	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
al Xylenes	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
ns-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	U	10 UJ	10 UJ	10 U	10 U
hloroethene	UG/L	9100	27%	5	10	15	55	U	36 J	36 J	6 J	74
yl chloride	UG/L	180	5%	2	2	3	55	U	10 UJ	10 UJ	10 U	10 U
TALS												
minum	UG/L	2600	65%		0	34	52	J	14.3 UJ	14.3 UJ	14.3 U	30.3 J
imony	UG/L	3	2%		0	1	52	U	2.7 UJ	2.7 UJ	2.7 U	2.7
enic	UG/L	7	23%	25	0	12	52	J	1.9 UJ	1.9 UJ	2.2 J	1.9
ium	UG/L	176	98%	1000	0	51	52	J	81.1 J	5.6 UJ	56.9 J	77.5 J
yllium	UG/L	0.66	10%		0	5	52	J	0.2 UJ	0.2 UJ	0.2 U	0.2

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

							FACILITY	FILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDI
							LOCATION ID		PT-20	PT-20	PT-21A	PT-22
							MATRIX	ATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND W
							SAMPLE ID		ARD2026	ARD2025	ARD2046	ARD2045
							DEPTH TO TOP OF SAMPLE		10	10	17.5	11.3
							DEPTH TO BOTTOM OF SAMPLE		10	10	17.5	11.3
							SAMPLE DATE		18-Oct-99	18-Oct-99	21-Oct-99	21-Oct-99
CODE									DU	SA	SA	SA
UDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	AL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDI
MPLE ROUND			OF	CLASS GA	ABOVE	OF	OF		1	1	1	1
RAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES		N	N	N	N
dmium	UG/L	0	0%	10	0	0	52	U	0.3 UJ	0.3 UJ	0.3 U	0.3
cium	UG/L	268000	98%		0	51	52		159000 J	124 UJ	191000	236000
romium	UG/L	5.6	15%	50	0	8	52	J	0.9 UJ	0.9 UJ	0.9 U	0.9
balt	UG/L	8.4	4%		0	2	52	J	2 UJ	2 UJ	2.5 U	2.5
pper	UG/L	6.1	10%	200	0	5	52	J	1.7 UJ	1.7 UJ	1.7 U	1.7
anide	UG/L	0	0%	100	0	0	52	U	5 UJ	5 UJ	5 U	5
n	UG/L	11600	67%	300	14	35	52		14.7 UJ	14.7 UJ	556 J	58.4
ad	UG/L	5.4	10%	25	0	5	52	U	1 UJ	1 UJ	1 U	1
gnesium	UG/L	47100	98%		0	51	52		16200 J	134 UJ	36200	28500
nganese	UG/L	3140	83%	300	7	43	52		3.3 J	0.9 UJ	503	37.1
rcury	UG/L	0.2	12%	2	0	6	52	J	0.12 J	0.1 UJ	0.1 U	0.1
kel	UG/L	5.6	12%		0	6	52	U	1.7 UJ	1.7 UJ	1.7 U	1.7
assium	UG/L	18400	98%		0	51	52		2050 J	261 UJ	8560	1990
enium	UG/L	2.6	2%	10	0	1	52	U	2.4 UJ	2.4 UJ	2.4 U	2.4
ver	UG/L	0	0%	50	0	0	52	U	1.6 UJ	1.6 UJ	1.6 U	1.6
dium	UG/L	142000	98%	20000	27	51	52		24800 J	875 UJ	41300	59400
allium	UG/L	10.8	19%		0	10	52		2.7 UJ	2.7 UJ	5.1 J	3.9
nadium	UG/L	4.5	6%		0	3	52	U	1.5 UJ	1.5 UJ	1.5 U	1.5
c	UG/L	134	81%	300	0	42	52	J	2.4 J	1.6 UJ	4.2 J	5.3

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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
							LOCATION ID	PT-23	PT-24	PT-25	PT-26
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER
							SAMPLE ID	ARD2016	ARD2000	ARD2019	ARD2057
							DEPTH TO TOP OF SAMPLE	12	10.4	11.5	13.5
							DEPTH TO BOTTOM OF SAMPLE	12	10.4	11.5	13.5
							SAMPLE DATE	11-Oct-99	07-Oct-99	12-Oct-99	27-Oct-99
QC CODE								SA	SA	SA	SA
STUDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN
SAMPLE ROUND			OF	CLASS GA	ABOVE	OF	OF	1	1	1	1
PARAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N
VOLATILE ORGANICS											
1,1,1-Trichloroethane	UG/L	1	2%	5	0	1	55	10 U	10 UJ	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
1,1,2-Trichloroethane	UG/L	0	0%		0	0	55	10 U	10 UJ	10 U	10 U
1,1-Dichloroethane	UG/L	9	2%	5	1	1	55	10 U	10 UJ	10 U	10 U
1,1-Dichloroethene	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
1,2-Dichloroethane	UG/L	4	4%	5	0	2	55	10 U	10 UJ	10 U	10 U
1,2-Dichloroethene (total)	UG/L	1100	27%	5	14	15	55	10 U	86 J	10 U	10 U
1,2-Dichloropropane	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
Acetone	UG/L	2	4%		0	2	55	10 U	10 UJ	10 U	10 UJ
Benzene	UG/L	0	0%	0.7	0	0	55	10 U	10 UJ	10 U	10 U
Bromodichloromethane	UG/L	0	0%		0	0	55	10 U	10 UJ	10 U	10 U
Bromoform	UG/L	0	0%		0	0	55	10 U	10 UJ	10 U	10 U
Carbon disulfide	UG/L	0	0%		0	0	55	10 U	10 UJ	10 U	10 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
Chlorobenzene	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
Chlorodibromomethane	UG/L	0	0%		0	0	55	10 U	10 UJ	10 U	10 U
Chloroethane	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
Chloroform	UG/L	74	2%	7	1	1	55	10 U	10 UJ	10 U	10 U
Cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
Ethyl benzene	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
Methyl bromide	UG/L	0	0%		0	0	55	10 U	10 UJ	10 U	10 U
Methyl butyl ketone	UG/L	0	0%		0	0	55	10 U	10 UJ	10 U	10 U
Methyl chloride	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
Methyl ethyl ketone	UG/L	0	0%	50	0	0	55	10 U	10 UJ	10 U	10 UJ
Methyl isobutyl ketone	UG/L	0	0%		0	0	55	10 U	10 UJ	10 U	10 U
Methylene chloride	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
Styrene	UG/L	0	0%		0	0	55	10 U	10 UJ	10 U	10 U
Tetrachloroethene	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
Toluene	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
Total Xylenes	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
Trans-1,3-Dichloropropene	UG/L	0	0%	5	0	0	55	10 U	10 UJ	10 U	10 U
Trichloroethene	UG/L	9100	27%	5	10	15	55	10 U	4 J	10 U	10 U
Vinyl chloride	UG/L	180	5%	2	2	3	55	10 U	10 UJ	10 U	10 U
METALS											
Aluminum	UG/L	2600	65%		0	34	52	357	16.3 UJ	41.9 J	96.2 J
Antimony	UG/L	3	2%		0	1	52	4.9 U	4.9 UJ	2.7 U	2.7 U
Arsenic	UG/L	7	23%	25	0	12	52	3.9 J	3.7 UJ	1.9 U	1.9 U
Barium	UG/L	176	98%	1000	0	51	52	52.9 J	41.3 J	29.2 J	58.2 J
Beryllium	UG/L	0.66	10%		0	5	52	0.2 U	0.2 UJ	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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
							LOCATION ID	PT-23	PT-24	PT-25	PT-26
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER
							SAMPLE ID	ARD2016	ARD2000	ARD2019	ARD2057
							DEPTH TO TOP OF SAMPLE	12	10.4	11.5	13.5
							DEPTH TO BOTTOM OF SAMPLE	12	10.4	11.5	13.5
							SAMPLE DATE	11-Oct-99	07-Oct-99	12-Oct-99	27-Oct-99
QC CODE								SA	SA	SA	SA
STUDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN	ASH REMEDIAL DESIGN
SAMPLE ROUND			OF	CLASS GA	ABOVE	OF	OF	1	1	1	1
PARAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N
Cadmium	UG/L	0	0%	10	0	0	52	0.7 U	0.7 UJ	0.3 U	0.3 U
Calcium	UG/L	268000	98%		0	51	52	104000	101000 J	77200	36900
Chromium	UG/L	5.6	15%	50	0	8	52	0.9 U	0.9 UJ	0.9 U	1.2 J
Cobalt	UG/L	8.4	4%		0	2	52	2.5 U	2.5 UJ	2 U	2.5 U
Copper	UG/L	6.1	10%	200	0	5	52	1.9 U	1.9 UJ	1.7 U	1.7 U
Cyanide	UG/L	0	0%	100	0	0	52	5 U	5 UJ	5 U	5 U
Iron	UG/L	11600	67%	300	14	35	52	413	14.7 UJ	27.8 J	191 J
Lead	UG/L	5.4	10%	25	0	5	52	1.2 U	1.2 UJ	1 U	1 U
Magnesium	UG/L	47100	98%		0	51	52	12700	11400 J	8130	14000
Manganese	UG/L	3140	83%	300	7	43	52	146	0.9 UJ	0.9 U	82.2
Mercury	UG/L	0.2	12%	2	0	6	52	0.1 U	0.1 UJ	0.15 J	0.1 U
Nickel	UG/L	5.6	12%		0	6	52	2.6 U	2.6 UJ	1.7 U	1.7 U
Potassium	UG/L	18400	98%		0	51	52	2220 J	1510 J	1050 J	2680 J
Selenium	UG/L	2.6	2%	10	0	1	52	2.8 U	2.8 UJ	2.4 U	2.4 U
Silver	UG/L	0	0%	50	0	0	52	1.6 U	1.6 UJ	1.6 U	1.6 U
Sodium	UG/L	142000	98%	20000	27	51	52	10600	10200 J	10800	91100
Thallium	UG/L	10.8	19%		0	10	52	2.9 U	2.9 UJ	2.7 U	5.5 J
Vanadium	UG/L	4.5	6%		0	3	52	3.2 U	3.2 UJ	1.5 U	1.5 U
Zinc	UG/L	134	81%	300	0	42	52	5.9 J	1.8 UJ	1.9 J	2.8 J

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

							FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LA
							LOCATION ID		BN-S	FH-D	FH-S	MW-12A	MW-27	MW-28
							MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUN
							SAMPLE ID		ARD2141	ARD2140	ARD2139	ARD2152	ARD2132	ARD214
							DEPTH TO TOP OF SAMPLE		0	0	0	12	10	8
							DEPTH TO BOTTOM OF SAMPLE		0	0	0	12	10	8
							SAMPLE DATE		1/19/2000	1/19/2000	1/19/2000	1/21/2000	1/10/2000	1/20/20
							QC CODE		SA	SA	SA	SA	SA	SA
)			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER		ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH RE
ROUND			OF	CLASS GA	ABOVE	OF	OF		2	2	2	2	2	
TER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N		N	N	N	N	N
E ORGANICS														
hloroethane	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
etrachloroethane	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
hloroethane	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
roethane	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
roethene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
hlorobenzene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
no-3-chloropropane	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
noethane	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
robenzene	UG/L	0	0%	4.7	0	0	54		1 U	1 U	1 U	58 U	1 U	
roethane	UG/L	3	2%	5	0	1	54		1 U	1 U	1 U	58 U	1 U	
ropropane	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
robenzene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
robenzene	UG/L	0	0%	4.7	0	0	54		1 U	1 U	1 U	58 U	1 U	
	UG/L	1	4%		0	2	54		5 UJ	1 J	5 UJ	290 R	5 UJ	
	UG/L	0	0%	0.7	0	0	54		1 U	1 U	1 U	58 U	1 U	
promethane	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
hloromethane	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
n	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
sulfide	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
trachloride	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
nzene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
romomethane	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
ane	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
n	UG/L	0	0%	7	0	0	54		1 U	1 U	1 U	58 U	1 U	
chloroethene	UG/L	980	28%	5	14	15	54		1 U	1 U	1 U	980	1 U	
chloropropene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
zene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
mide	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
tyl ketone	UG/L	0	0%		0	0	54		5 U	5 U	5 U	290 UJ	5 U	
oride	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
yl ketone	UG/L	0	0%	50	0	0	54		5 U	5 U	5 U	290 U	5 UJ	
butyl ketone	UG/L	0	0%		0	0	54		5 U	5 U	5 U	290 U	5 U	
chloride	UG/L	0	0%	5	0	0	54		2 U	2 U	2 U	120 U	2 U	
	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
oethene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
	UG/L	2	6%	5	0	3	54		1 U	1 U	1 U	58 U	1 U	
nes	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
-Dichloroethene	UG/L	2	4%	5	0	2	54		1 U	1 U	1 U	58 U	1 U	
-Dichloropropene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
thene	UG/L	760	28%	5	8	15	54		1 U	1 U	1 U	760	1 U	
ride	UG/L	25	2%	2	1	1	54		1 U	1 U	1 U	58 U	1 U	
	UG/L	7700	49%		0	25	51					34.4 UJ	443 J	1

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

							FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LA
							LOCATION ID		BN-S	FH-D	FH-S	MW-12A	MW-27	MW-28
							MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUN
							SAMPLE ID		ARD2141	ARD2140	ARD2139	ARD2152	ARD2132	ARD214
							DEPTH TO TOP OF SAMPLE		0	0	0	12	10	8
							DEPTH TO BOTTOM OF SAMPLE		0	0	0	12	10	8
							SAMPLE DATE		1/19/2000	1/19/2000	1/19/2000	1/21/2000	1/10/2000	1/20/200
							QC CODE		SA	SA	SA	SA	SA	SA
)			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER		ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH RE
ROUND			OF	CLASS GA	ABOVE	OF	OF		2	2	2	2	2	
TER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N		N	N	N	N	N
E ORGANICS														
hloroethane	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
trachloroethane	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
hloroethane	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
roethane	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
roethene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
hlorobenzene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
mo-3-chloropropane	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
moethane	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
robenzene	UG/L	0	0%	4.7	0	0	54		1 U	1 U	1 U	58 U	1 U	
roethane	UG/L	3	2%	5	0	1	54		1 U	1 U	1 U	58 U	1 U	
ropropane	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
robenzene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
robenzene	UG/L	0	0%	4.7	0	0	54		1 U	1 U	1 U	58 U	1 U	
	UG/L	1	4%		0	2	54		5 UJ	1 J	5 UJ	290 R	5 UJ	
	UG/L	0	0%	0.7	0	0	54		1 U	1 U	1 U	58 U	1 U	
promethane	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
hloromethane	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
n	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
sulfide	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
trachloride	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
zene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
omomethane	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
ane	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
n	UG/L	0	0%	7	0	0	54		1 U	1 U	1 U	58 U	1 U	
chloroethene	UG/L	980	28%	5	14	15	54		1 U	1 U	1 U	980	1 U	
chloropropene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
ene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
mide	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
yl ketone	UG/L	0	0%		0	0	54		5 U	5 U	5 U	290 UJ	5 U	
oride	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
yl ketone	UG/L	0	0%	50	0	0	54		5 U	5 U	5 U	290 U	5 UJ	
butyl ketone	UG/L	0	0%		0	0	54		5 U	5 U	5 U	290 U	5 U	
chloride	UG/L	0	0%	5	0	0	54		2 U	2 U	2 U	120 U	2 U	
	UG/L	0	0%		0	0	54		1 U	1 U	1 U	58 U	1 U	
oethene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
	UG/L	2	6%	5	0	3	54		1 U	1 U	1 U	58 U	1 U	
nes	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
Dichloroethene	UG/L	2	4%	5	0	2	54		1 U	1 U	1 U	58 U	1 U	
Dichloropropene	UG/L	0	0%	5	0	0	54		1 U	1 U	1 U	58 U	1 U	
hene	UG/L	760	28%	5	8	15	54		1 U	1 U	1 U	760	1 U	
ide	UG/L	25	2%	2	1	1	54		1 U	1 U	1 U	58 U	1 U	
	UG/L	7700	49%		0	25	51					34.4 UJ	443 J	1

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

							FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LA
							LOCATION ID		BN-S	FH-D	FH-S	MW-12A	MW-27	MW-28
							MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROU
							SAMPLE ID		ARD2141	ARD2140	ARD2139	ARD2152	ARD2132	ARD21
							DEPTH TO TOP OF SAMPLE		0	0	0	12	10	
							DEPTH TO BOTTOM OF SAMPLE		0	0	0	12	10	
							SAMPLE DATE		1/19/2000	1/19/2000	1/19/2000	1/21/2000	1/10/2000	1/20/2
							QC CODE		SA	SA	SA	SA	SA	SA
D			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER		ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH R
E ROUND			OF	CLASS GA	ABOVE	OF	OF		2	2	2	2	2	
ETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N		N	N	N	N	N
y	UG/L	4.5	12%		0	6	51					5.4 U	2.2 U	
	UG/L	5	22%	25	0	11	51					2.4 U	2.5 U	
	UG/L	173	100%	1000	0	51	51					24.2 J	40.6 J	4
n	UG/L	0.26	14%		0	7	51					0.6 U	0.1 U	
n	UG/L	0.35	2%	10	0	1	51					0.2 U	0.2 U	
	UG/L	391000	100%		0	51	51					240000	92900	126
m	UG/L	4.1	14%	50	0	7	51					1 U	1 U	
	UG/L	2	6%		0	3	51					3.5 U	1.3 U	
	UG/L	14.6	33%	200	0	17	51					1.6 U	2.2 J	
	UG/L	0	0%	100	0	0	51					10 U	10 U	
	UG/L	6350	63%	300	14	32	51					42.8 J	347 J	
	UG/L	3.8	10%	25	0	5	51					1 U	1.3 U	
um	UG/L	85900	100%		0	51	51					38000	9390	13
ese	UG/L	344	100%	300	2	51	51					196	24	
	UG/L	0.14	2%	2	0	1	51					0.1 U	0.1 U	
	UG/L	6.2	10%		0	5	51					4.2 U	1.7 U	
m	UG/L	25600	100%		0	51	51					4480 J	1610 J	
n	UG/L	3	2%	10	0	1	51					2.2 U	2.2 U	
	UG/L	2.8	2%	50	0	1	51					1 UJ	1.3 UJ	
	UG/L	175000	90%	20000	23	46	51					60800 J	26500	8
	UG/L	7.4	6%		0	3	51					3.2 U	3.2 UJ	
n	UG/L	10.8	8%		0	4	51					2.8 U	1.8 U	
	UG/L	1620	100%	300	1	51	51					2 J	7.9 J	

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

						FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LA
						LOCATION ID		MW-29	MW-30	MW-30	MW-31	MW-32	MW-33
						MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUN
						SAMPLE ID		ARD2148	ARD2129	ARD2115	ARD2114	ARD2119	ARD21
						DEPTH TO TOP OF SAMPLE		9.5	8.5	8.5	8.5	8.5	
						DEPTH TO BOTTOM OF SAMPLE		9.5	8.5	8.5	8.5	8.5	
						SAMPLE DATE		1/20/2000	1/9/2000	1/9/2000	1/9/2000	1/9/2000	1/9/20
						QC CODE		SA	DU	SA	SA	SA	SA
D			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH RE
ROUND			OF	CLASS GA	ABOVE	OF	OF	2	2	2	2	2	
TER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N	N
LE ORGANICS													
hloroethane	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
etrachloroethane	UG/L	0	0%	5	0	0	54	4 U	1 UJ	1 UJ	1 U	1 UJ	
hloroethane	UG/L	0	0%		0	0	54	4 U	1 U	1 U	1 U	1 U	
oroethane	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
oroethene	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 UJ	1 U	
hlorobenzene	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
mo-3-chloropropane	UG/L	0	0%		0	0	54	4 U	1 U	1 U	1 U	1 U	
moethane	UG/L	0	0%		0	0	54	4 U	1 U	1 U	1 U	1 U	
orobenzene	UG/L	0	0%	4.7	0	0	54	4 U	1 U	1 U	1 U	1 U	
oroethane	UG/L	3	2%	5	0	1	54	4 U	1 U	1 U	1 U	1 U	
oropropane	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
orobenzene	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
orobenzene	UG/L	0	0%	4.7	0	0	54	4 U	1 U	1 U	1 U	1 U	
	UG/L	1	4%		0	2	54	19 R	5 UJ	5 U	5 U	5 UJ	
	UG/L	0	0%	0.7	0	0	54	4 U	1 U	1 U	1 U	1 U	
oromethane	UG/L	0	0%		0	0	54	4 U	1 U	1 U	1 U	1 U	
hloromethane	UG/L	0	0%		0	0	54	4 U	1 U	1 U	1 U	1 U	
m	UG/L	0	0%		0	0	54	4 U	1 U	1 U	1 U	1 U	
isulfide	UG/L	0	0%		0	0	54	4 U	1 U	1 U	1 U	1 U	
etrachloride	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
nzene	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
oromomethane	UG/L	0	0%		0	0	54	4 U	1 U	1 U	1 U	1 U	
ane	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
m	UG/L	0	0%	7	0	0	54	4 U	1 UJ	1 U	1 U	1 UJ	
ichloroethene	UG/L	980	28%	5	14	15	54	72	1 U	1 U	1 U	1 U	
ichloropropene	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
zene	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
omide	UG/L	0	0%		0	0	54	4 U	1 UJ	1 U	1 U	1 UJ	
tyl ketone	UG/L	0	0%		0	0	54	19 UJ	5 U	5 U	5 U	5 U	
loride	UG/L	0	0%	5	0	0	54	4 U	1 UJ	1 U	1 U	1 UJ	
hyl ketone	UG/L	0	0%	50	0	0	54	19 U	5 UJ	5 U	5 U	5 UJ	
obutyl ketone	UG/L	0	0%		0	0	54	19 U	5 U	5 U	5 U	5 U	
e chloride	UG/L	0	0%	5	0	0	54	8 U	2 U	2 U	2 U	2 U	
	UG/L	0	0%		0	0	54	4 U	1 U	1 U	1 U	1 U	
roethene	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
	UG/L	2	6%	5	0	3	54	4 U	1 U	1 U	1 U	1 U	
enes	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
-Dichloroethene	UG/L	2	4%	5	0	2	54	4 U	1 U	1 U	1 U	1 U	
-Dichloropropene	UG/L	0	0%	5	0	0	54	4 U	1 U	1 U	1 U	1 U	
ethene	UG/L	760	28%	5	8	15	54	2 J	0.7 J	1 U	1 U	1 U	
ride	UG/L	25	2%	2	1	1	54	4 U	1 UJ	1 U	1 UJ	1 UJ	
n	UG/L	7700	49%		0	25	51	98 J	15.5 UJ	15.5 UJ	833 J	118 J	1

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

							FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LA
							LOCATION ID		MW-29	MW-30	MW-30	MW-31	MW-32	MW-33
							MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROU
							SAMPLE ID		ARD2148	ARD2129	ARD2115	ARD2114	ARD2119	ARD21
							DEPTH TO TOP OF SAMPLE		9.5	8.5	8.5	8.5	8.5	
							DEPTH TO BOTTOM OF SAMPLE		9.5	8.5	8.5	8.5	8.5	
							SAMPLE DATE		1/20/2000	1/9/2000	1/9/2000	1/9/2000	1/9/2000	1/9/2
							QC CODE		SA	DU	SA	SA	SA	SA
D			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER		ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH R
E ROUND			OF	CLASS GA	ABOVE	OF	OF		2	2	2	2	2	
ETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N		N	N	N	N	N
y	UG/L	4.5	12%		0	6	51		2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	
	UG/L	5	22%	25	0	11	51		4.1 J	2.5 U	2.4 U	2.5 U	2.5 U	
	UG/L	173	100%	1000	0	51	51		64.1 J	37.6 J	38 J	34 J	41.3 J	3
n	UG/L	0.26	14%		0	7	51		0.1 U	0.1 U	0.1 U	0.1 J	0.1 U	
n	UG/L	0.35	2%	10	0	1	51		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
	UG/L	391000	100%		0	51	51		173000	94900	99300	82700	102000	97
m	UG/L	4.1	14%	50	0	7	51		1 U	1.2 J	1 U	1.8 J	1 U	
	UG/L	2	6%		0	3	51		1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	
	UG/L	14.6	33%	200	0	17	51		5.2 J	1.6 U	1.6 U	1.6 U	1.6 U	
	UG/L	0	0%	100	0	0	51		10 U	10 U	10 U	10 U	10 U	
	UG/L	6350	63%	300	14	32	51		98.6 J	63.7 J	20.3 UJ	647 J	158 J	2
	UG/L	3.8	10%	25	0	5	51		1 U	1.3 U	1.3 U	1.3 U	1.3 U	
um	UG/L	85900	100%		0	51	51		20800	14000	14500	10800	13800	11
ese	UG/L	344	100%	300	2	51	51		7.6 J	1.8 J	1.5 J	16.9	12.3 J	
	UG/L	0.14	2%	2	0	1	51		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
	UG/L	6.2	10%		0	5	51		1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	
m	UG/L	25600	100%		0	51	51		594 J	1930 J	1830 J	1210 J	1980 J	
n	UG/L	3	2%	10	0	1	51		2.2 U	3 J	2.5 U	2.5 U	2.5 U	
	UG/L	2.8	2%	50	0	1	51		1.3 UJ	1 UJ	1 UJ	1 UJ	1 UJ	
	UG/L	175000	90%	20000	23	46	51		20900 U	13200	12300	11400	18100	15
	UG/L	7.4	6%		0	3	51		3.2 UJ	3.2 U	6.2 J	3.6 U	3.2 U	
m	UG/L	10.8	8%		0	4	51		1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	
	UG/L	1620	100%	300	1	51	51		5.2 J	4.3 J	5 J	6.4 J	5.1 J	

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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LAN
							LOCATION ID	MW-34	MW-35D	MW-36	MW-37	MW-38D	MW-39
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUN
							SAMPLE ID	ARD2117	ARD2127	ARD2124	ARD2120	ARD2122	ARD210
							DEPTH TO TOP OF SAMPLE	15	45	12	11.5	20	9
							DEPTH TO BOTTOM OF SAMPLE	15	45	12	11.5	20	9
							SAMPLE DATE	1/9/2000	1/11/2000	1/11/2000	1/10/2000	1/10/2000	1/6/200
							QC CODE	SA	SA	SA	SA	SA	SA
			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH RE
ROUND			OF	CLASS GA	ABOVE	OF	OF	2	2	2	2	2	
TER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N	N
E ORGANICS													
hloroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
trachloroethane	UG/L	0	0%	5	0	0	54	1 UJ	1 UJ	1 U	1 U	1 UJ	
hloroethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
roethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
roethene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
hlorobenzene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
no-3-chloropropane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
noethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
robenzene	UG/L	0	0%	4.7	0	0	54	1 U	1 U	1 U	1 U	1 U	
roethane	UG/L	3	2%	5	0	1	54	1 U	1 U	1 U	1 U	1 U	
ropropane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
robenzene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
robenzene	UG/L	0	0%	4.7	0	0	54	1 U	1 U	1 U	1 U	1 U	
	UG/L	1	4%		0	2	54	5 UJ	5 UJ	5 U	5 U	5 UJ	
	UG/L	0	0%	0.7	0	0	54	1 U	1 U	1 U	1 U	1 U	
promethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
hloromethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
n	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
sulfide	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
trachloride	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
zene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
omomethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
ane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
n	UG/L	0	0%	7	0	0	54	1 UJ	1 UJ	1 U	1 U	1 UJ	
chloroethene	UG/L	980	28%	5	14	15	54	1 U	1 U	1 U	1 U	1 U	
chloropropene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
ene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
mide	UG/L	0	0%		0	0	54	1 UJ	1 UJ	1 U	1 U	1 UJ	
yl ketone	UG/L	0	0%		0	0	54	5 U	5 U	5 U	5 U	5 U	
oride	UG/L	0	0%	5	0	0	54	1 UJ	1 UJ	1 U	1 U	1 UJ	
yl ketone	UG/L	0	0%	50	0	0	54	5 UJ	5 UJ	5 U	5 U	5 UJ	
butyl ketone	UG/L	0	0%		0	0	54	5 U	5 U	5 U	5 U	5 U	
chloride	UG/L	0	0%	5	0	0	54	2 U	2 U	2 U	2 U	2 U	
	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
oethene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
	UG/L	2	6%	5	0	3	54	1 U	1 U	2	1 U	1 U	
nes	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
Dichloroethene	UG/L	2	4%	5	0	2	54	1 U	1 U	1 U	1 U	1 U	
Dichloropropene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
thene	UG/L	760	28%	5	8	15	54	1 U	1 U	1 U	1 U	1 U	
ide	UG/L	25	2%	2	1	1	54	1 UJ	1 UJ	1 U	1 U	1 UJ	
	UG/L	7700	49%		0	25	51	55.5 J	91.8 J	20.3 J	395 J	80.4 J	15

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

							FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LA
							LOCATION ID		MW-34	MW-35D	MW-36	MW-37	MW-38D	MW-39
							MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUN
							SAMPLE ID		ARD2117	ARD2127	ARD2124	ARD2120	ARD2122	ARD210
							DEPTH TO TOP OF SAMPLE		15	45	12	11.5	20	9
							DEPTH TO BOTTOM OF SAMPLE		15	45	12	11.5	20	9
							SAMPLE DATE		1/9/2000	1/11/2000	1/11/2000	1/10/2000	1/10/2000	1/6/20
							QC CODE		SA	SA	SA	SA	SA	SA
D			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER		ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH RE
ROUND			OF	CLASS GA	ABOVE	OF	OF		2	2	2	2	2	
TER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N		N	N	N	N	N
	UG/L	4.5	12%		0	6	51	2.2 U		3.6 J	2.2 U	2.2 U	2.2 U	2
	UG/L	5	22%	25	0	11	51	2.5 U		3.2 J	2.5 U	2.5 U	3.1 J	2
	UG/L	173	100%	1000	0	51	51	96.7 J		82.9 J	54.7 J	54.9 J	170 J	
	UG/L	0.26	14%		0	7	51	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U	0.
	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
	UG/L	391000	100%		0	51	51	75800		14400	107000	95000	95900	944
n	UG/L	4.1	14%	50	0	7	51	1 U		1 U	1 U	1 U	1 U	
	UG/L	2	6%		0	3	51	1.3 U		1.3 U	1.3 U	1.3 U	1.3 U	1
	UG/L	14.6	33%	200	0	17	51	1.6 U		1.9 U	1.9 U	1.9 U	1.9 U	1
	UG/L	0	0%	100	0	0	51	10 U		10 U	10 U	10 U	10 U	
	UG/L	6350	63%	300	14	32	51	203 J		97.8 J	20.3 UJ	498 J	595 J	20
	UG/L	3.8	10%	25	0	5	51	1.3 U		1.4 J	1.3 U	1.3 U	1.3 U	1
m	UG/L	85900	100%		0	51	51	13300		4690 J	15900	12800	15800	127
se	UG/L	344	100%	300	2	51	51	39.7		44.4	41.1	53.1	251	1
	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
	UG/L	6.2	10%		0	5	51	1.8 J		1.7 U	1.7 U	1.7 U	1.7 U	1
n	UG/L	25600	100%		0	51	51	1730 J		1650 J	1250 J	895 J	7990	16
	UG/L	3	2%	10	0	1	51	2.5 U		2.2 U	2.2 U	2.2 U	2.2 U	2
	UG/L	2.8	2%	50	0	1	51	1 UJ		1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	
	UG/L	175000	90%	20000	23	46	51	41200		107000	29300	10400	6750	74
	UG/L	7.4	6%		0	3	51	3.2 U		3.2 U	3.2 U	3.2 UJ	3.2 UJ	3
n	UG/L	10.8	8%		0	4	51	1.8 U		1.8 U	1.8 U	1.8 U	1.8 U	1
	UG/L	1620	100%	300	1	51	51	19.1 J		6.4 J	5.4 J	13.8 J	7.5 J	11

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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LA
							LOCATION ID	MW-40	MW-41D	MW-42D	MW-43	MW-44A	MW-45
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUN
							SAMPLE ID	ARD2108	ARD2100	ARD2109	ARD2103	ARD2155	ARD21
							DEPTH TO TOP OF SAMPLE	12	32	38	6.5	12	
							DEPTH TO BOTTOM OF SAMPLE	12	32	38	6.5	12	
							SAMPLE DATE	1/7/2000	1/6/2000	1/7/2000	1/6/2000	1/22/2000	1/8/20
							QC CODE	SA	SA	SA	SA	SA	SA
D			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH RE
ROUND			OF	CLASS GA	ABOVE	OF	OF	2	2	2	2	2	
TER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N	N
LE ORGANICS													
hloroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
etrachloroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
hloroethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	18 U	
oroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
oroethene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 UJ	1 U	18 U	
hlorobenzene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
mo-3-chloropropane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	18 U	
moethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	18 U	
orobenzene	UG/L	0	0%	4.7	0	0	54	1 U	1 U	1 U	1 U	18 U	
oroethane	UG/L	3	2%	5	0	1	54	1 U	1 U	1 U	1 U	18 U	
opropropane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
orobenzene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
orobenzene	UG/L	0	0%	4.7	0	0	54	1 U	1 U	1 U	1 U	18 U	
	UG/L	1	4%		0	2	54	5 U	5 UJ	5 U	5 UJ	88 R	
	UG/L	0	0%	0.7	0	0	54	1 U	1 U	1 U	1 U	18 U	
oromethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	18 U	
hloromethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	18 U	
m	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	18 U	
isulfide	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	18 U	
etrachloride	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
nzene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
romomethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	18 U	
ane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
m	UG/L	0	0%	7	0	0	54	1 U	1 U	1 U	1 U	18 U	
ichloroethene	UG/L	980	28%	5	14	15	54	1 U	1 U	1 U	1 U	270	
ichloropropene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
zene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
omide	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	18 U	
tyl ketone	UG/L	0	0%		0	0	54	5 U	5 UJ	5 U	5 UJ	88 UJ	
loride	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
hyl ketone	UG/L	0	0%	50	0	0	54	5 U	5 UJ	5 U	5 UJ	88 U	
obutyl ketone	UG/L	0	0%		0	0	54	5 U	5 U	5 U	5 U	88 U	
e chloride	UG/L	0	0%	5	0	0	54	2 U	2 U	2 U	2 U	35 U	
	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	18 U	
roethene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
	UG/L	2	6%	5	0	3	54	1 U	1 U	1 U	1 U	18 U	
enes	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
-Dichloroethene	UG/L	2	4%	5	0	2	54	1 U	1 U	1 U	1 U	18 U	
-Dichloropropene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	18 U	
ethene	UG/L	760	28%	5	8	15	54	1 U	1 U	1 U	1 U	13 J	
ride	UG/L	25	2%	2	1	1	54	1 U	1 U	1 UJ	1 U	25	
n	UG/L	7700	49%		0	25	51	15.5 UJ	15.5 UJ	15.5 UJ	15.5 UJ	34.4 UJ	1

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

							FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LA
							LOCATION ID		MW-40	MW-41D	MW-42D	MW-43	MW-44A	MW-45
							MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUN
							SAMPLE ID		ARD2108	ARD2100	ARD2109	ARD2103	ARD2155	ARD21
							DEPTH TO TOP OF SAMPLE		12	32	38	6.5	12	7
							DEPTH TO BOTTOM OF SAMPLE		12	32	38	6.5	12	7
							SAMPLE DATE		1/7/2000	1/6/2000	1/7/2000	1/6/2000	1/22/2000	1/8/20
							QC CODE		SA	SA	SA	SA	SA	SA
D			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER		ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH RE
ROUND			OF	CLASS GA	ABOVE	OF	OF	N	2	2	2	2	2	
TER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES			N	N	N	N	N
	UG/L	4.5	12%		0	6	51		2.2 U	2.2 U	2.2 U	2.2 U	2.5 J	2
	UG/L	5	22%	25	0	11	51		2.5 U	2.5 U	2.5 U	2.5 U	2.8 J	2
	UG/L	173	100%	1000	0	51	51		69.2 J	75.9 J	93.2 J	39.6 J	66.9 J	
	UG/L	0.26	14%		0	7	51		0.1 U	0.12 J	0.1 U	0.1 U	0.1 U	0
	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
	UG/L	391000	100%		0	51	51		96800	74100	53700	114000	391000	938
n	UG/L	4.1	14%	50	0	7	51		2.9 J	1 U	1 U	1 U	1 U	1
	UG/L	2	6%		0	3	51		1.3 U	1.3 J	1.3 U	1.3 U	1.3 U	1
	UG/L	14.6	33%	200	0	17	51		1.7 J	1.6 J	1.6 U	3.1 J	1.9 U	3
	UG/L	0	0%	100	0	0	51		10 U	10 U	10 U	10 U	10 U	
	UG/L	6350	63%	300	14	32	51		20.3 UJ	20.3 UJ	137 J	20.3 UJ	48.9 J	20
	UG/L	3.8	10%	25	0	5	51		1.3 U	1.3 U	1.3 U	1 U	1 U	1
m	UG/L	85900	100%		0	51	51		11100	27100	28300	10800	85900	109
se	UG/L	344	100%	300	2	51	51		1.8 J	182	71	0.95 J	300	1
	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
	UG/L	6.2	10%		0	5	51		1.7 U	2.1 J	1.7 U	1.7 U	1.7 U	1
n	UG/L	25600	100%		0	51	51		1340 J	3230 J	1960 J	420 J	25600	7
	UG/L	3	2%	10	0	1	51		2.5 U	2.5 U	2.5 U	2.5 U	2.2 U	2
	UG/L	2.8	2%	50	0	1	51		1 UJ	1 UJ	1 UJ	1 UJ	1.3 UJ	
	UG/L	175000	90%	20000	23	46	51		13900	50400	15900	9960	91500 J	70
	UG/L	7.4	6%		0	3	51		3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3
n	UG/L	10.8	8%		0	4	51		1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1
	UG/L	1620	100%	300	1	51	51		9.1 J	9.4 J	3.2 J	4.1 J	2.4 J	4

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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LAN
							LOCATION ID	MW-46	MW-48	MW-49D	MW-50D	MW-51D	MW-52D
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUN
							SAMPLE ID	ARD2113	ARD2111	ARD2134	ARD2135	ARD2142	ARD214
							DEPTH TO TOP OF SAMPLE	9.5	9.5	26	50	28	5
							DEPTH TO BOTTOM OF SAMPLE	9.5	9.5	26	50	28	5
							SAMPLE DATE	1/8/2000	1/8/2000	1/18/2000	1/18/2000	1/19/2000	1/18/200
							QC CODE	SA	SA	SA	SA	SA	SA
)			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH RE
ROUND			OF	CLASS GA	ABOVE	OF	OF	2	2	2	2	2	
TER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N	N
E ORGANICS													
hloroethane	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
trachloroethane	UG/L	0	0%	5	0	0	54	3 UJ	1 UJ	1 U	1 U	1 U	
hloroethane	UG/L	0	0%		0	0	54	3 U	1 U	1 U	1 U	1 U	
roethane	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
roethene	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
hlorobenzene	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
no-3-chloropropane	UG/L	0	0%		0	0	54	3 U	1 U	1 U	1 U	1 U	
noethane	UG/L	0	0%		0	0	54	3 U	1 U	1 U	1 U	1 U	
robenzene	UG/L	0	0%	4.7	0	0	54	3 U	1 U	1 U	1 U	1 U	
roethane	UG/L	3	2%	5	0	1	54	3 U	1 U	1 U	1 U	1 U	
ropropane	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
robenzene	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
robenzene	UG/L	0	0%	4.7	0	0	54	3 U	1 U	1 U	1 U	1 U	
	UG/L	1	4%		0	2	54	17 U	5 U	5 UJ	5 UJ	5 UJ	
	UG/L	0	0%	0.7	0	0	54	3 U	1 U	1 U	1 U	1 U	
promethane	UG/L	0	0%		0	0	54	3 U	1 U	1 U	1 U	1 U	
hloromethane	UG/L	0	0%		0	0	54	3 U	1 U	1 U	1 U	1 U	
n	UG/L	0	0%		0	0	54	3 U	1 U	1 U	1 U	1 U	
sulfide	UG/L	0	0%		0	0	54	3 U	1 U	1 U	1 U	1 U	
trachloride	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
nzene	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
romomethane	UG/L	0	0%		0	0	54	3 U	1 U	1 U	1 U	1 U	
ane	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
n	UG/L	0	0%	7	0	0	54	3 U	1 U	1 U	1 U	1 U	
chloroethene	UG/L	980	28%	5	14	15	54	42	1 U	19	1 U	1 U	
chloropropene	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
zene	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
mide	UG/L	0	0%		0	0	54	3 U	1 U	1 U	1 U	1 U	
tyl ketone	UG/L	0	0%		0	0	54	17 U	5 U	5 U	5 U	5 U	
oride	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
yl ketone	UG/L	0	0%	50	0	0	54	17 U	5 U	5 U	5 U	5 U	
butyl ketone	UG/L	0	0%		0	0	54	17 U	5 U	5 U	5 U	5 U	
e chloride	UG/L	0	0%	5	0	0	54	7 U	2 U	2 U	2 U	2 U	
	UG/L	0	0%		0	0	54	3 U	1 U	1 U	1 U	1 U	
roethene	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
	UG/L	2	6%	5	0	3	54	3 U	1 U	1 U	1 U	1 U	
nes	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
-Dichloroethene	UG/L	2	4%	5	0	2	54	3 U	1 U	1 U	1 U	1 U	
-Dichloropropene	UG/L	0	0%	5	0	0	54	3 U	1 U	1 U	1 U	1 U	
thene	UG/L	760	28%	5	8	15	54	23	1 U	4	1 U	1 U	
ride	UG/L	25	2%	2	1	1	54	3 U	1 U	1 U	1 U	1 U	
	UG/L	7700	49%		0	25	51	15.5 UJ	15.5 UJ	32.6 J	15.8 J	34.4 UJ	32

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

							FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LA
							LOCATION ID		MW-46	MW-48	MW-49D	MW-50D	MW-51D	MW-52D
							MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUN
							SAMPLE ID		ARD2113	ARD2111	ARD2134	ARD2135	ARD2142	ARD214
							DEPTH TO TOP OF SAMPLE		9.5	9.5	26	50	28	
							DEPTH TO BOTTOM OF SAMPLE		9.5	9.5	26	50	28	
							SAMPLE DATE		1/8/2000	1/8/2000	1/18/2000	1/18/2000	1/19/2000	1/18/20
							QC CODE		SA	SA	SA	SA	SA	SA
)			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER		ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH RE
ROUND			OF	CLASS GA	ABOVE	OF	OF		2	2	2	2	2	
TER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N		N	N	N	N	N
	UG/L	4.5	12%		0	6	51		2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2
	UG/L	5	22%	25	0	11	51		2.5 U	2.5 U	2.5 U	2.5 U	2.9 J	4
	UG/L	173	100%	1000	0	51	51		56 J	36.6 J	133 J	119 J	90.2 J	72
	UG/L	0.26	14%		0	7	51		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0
	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
	UG/L	391000	100%		0	51	51		126000	90100	93100	54100	86700	59
n	UG/L	4.1	14%	50	0	7	51		1 U	1 U	1 U	1 U	1 U	
	UG/L	2	6%		0	3	51		1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1
	UG/L	14.6	33%	200	0	17	51		2.2 J	1.6 U	1.9 U	1.9 U	1.9 U	1
	UG/L	0	0%	100	0	0	51		10 U	10 U	10 U	10 U	10 U	
	UG/L	6350	63%	300	14	32	51		179 J	81.1 J	418 J	150 J	43.5 J	19
	UG/L	3.8	10%	25	0	5	51		1.3 U	1 U	1.3 U	1.3 U	1 U	1
m	UG/L	85900	100%		0	51	51		15000	11200	24400	25100	13900	21
se	UG/L	344	100%	300	2	51	51		38.1	6.6 J	99.4	79.2	17.4	48
	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
	UG/L	6.2	10%		0	5	51		1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1
n	UG/L	25600	100%		0	51	51		730 J	1260 J	1860 J	2360 J	1100 J	12
	UG/L	3	2%	10	0	1	51		2.5 U	2.5 U	2.2 U	2.2 U	2.2 U	2
	UG/L	2.8	2%	50	0	1	51		1 UJ	1 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1
	UG/L	175000	90%	20000	23	46	51		10500	6690	8970	19800	27100	1610
	UG/L	7.4	6%		0	3	51		3.2 U	3.2 U	3.2 U	3.2 U	3.2 UJ	3
n	UG/L	10.8	8%		0	4	51		1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	2
	UG/L	1620	100%	300	1	51	51		3.8 J	4 J	4.5 J	10 J	3.2 J	7

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

						FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LA
						LOCATION ID		MW-53	MW-53	MW-54D	MW-55D	MW-56	MW-57D
						MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUN
						SAMPLE ID		ARD2147	ARD2145	ARD2137	ARD2136	ARD2130	ARD213
						DEPTH TO TOP OF SAMPLE		9	9	25	50	6	
						DEPTH TO BOTTOM OF SAMPLE		9	9	25	50	6	
						SAMPLE DATE		1/20/2000	1/20/2000	1/18/2000	1/18/2000	1/11/2000	1/11/20
						QC CODE		DU	SA	SA	SA	SA	SA
D			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH RE
ROUND			OF	CLASS GA	ABOVE	OF	OF	2	2	2	2	2	
TER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N	N
E ORGANICS													
hloroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
etrachloroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
hloroethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
roethane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
roethene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
hlorobenzene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
mo-3-chloropropane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
moethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
robenzene	UG/L	0	0%	4.7	0	0	54	1 U	1 U	1 U	1 U	1 U	
roethane	UG/L	3	2%	5	0	1	54	1 U	1 U	1 U	1 U	1 U	
ropropane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
robenzene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
robenzene	UG/L	0	0%	4.7	0	0	54	1 U	1 U	1 U	1 U	1 U	
	UG/L	1	4%		0	2	54	5 R	5 R	0.9 J	5 UJ	5 UJ	
	UG/L	0	0%	0.7	0	0	54	1 U	1 U	1 U	1 U	1 U	
oromethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
hloromethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
n	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
sulfide	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
trachloride	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
nzene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
romomethane	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
ane	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
n	UG/L	0	0%	7	0	0	54	1 U	1 U	1 U	1 U	1 U	
ichloroethene	UG/L	980	28%	5	14	15	54	22	23	1	1 U	1 U	
ichloropropene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
zene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
omide	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
tyl ketone	UG/L	0	0%		0	0	54	5 UJ	5 UJ	5 U	5 U	5 U	
loride	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
nyl ketone	UG/L	0	0%	50	0	0	54	5 U	5 U	5 U	5 U	5 UJ	
obutyl ketone	UG/L	0	0%		0	0	54	5 U	5 U	5 U	5 U	5 U	
e chloride	UG/L	0	0%	5	0	0	54	2 U	2 U	2 U	2 U	2 U	
	UG/L	0	0%		0	0	54	1 U	1 U	1 U	1 U	1 U	
roethene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
	UG/L	2	6%	5	0	3	54	1 U	1 U	1 U	1 U	1 U	
enes	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
-Dichloroethene	UG/L	2	4%	5	0	2	54	1 U	1 U	1 U	1 U	1 U	
-Dichloropropene	UG/L	0	0%	5	0	0	54	1 U	1 U	1 U	1 U	1 U	
ethene	UG/L	760	28%	5	8	15	54	2	2	1 U	1 U	1 U	
ride	UG/L	25	2%	2	1	1	54	1 U	1 U	1 U	1 U	1 U	
n	UG/L	7700	49%		0	25	51	34.4 UJ	34.4 UJ	35.6 J	1410 J	7700 J	7

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

							FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LA
							LOCATION ID		MW-53	MW-53	MW-54D	MW-55D	MW-56	MW-57D
							MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUN
							SAMPLE ID		ARD2147	ARD2145	ARD2137	ARD2136	ARD2130	ARD213
							DEPTH TO TOP OF SAMPLE		9	9	25	50	6	2
							DEPTH TO BOTTOM OF SAMPLE		9	9	25	50	6	2
							SAMPLE DATE		1/20/2000	1/20/2000	1/18/2000	1/18/2000	1/11/2000	1/11/200
							QC CODE		DU	SA	SA	SA	SA	SA
)			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER		ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH RE
ROUND			OF	CLASS GA	ABOVE	OF	OF		2	2	2	2	2	
TER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N		N	N	N	N	N
	UG/L	4.5	12%		0	6	51	2.2 U		2.2 U	2.2 U	3.4 J	2.2 U	2
	UG/L	5	22%	25	0	11	51	2.5 U		2.5 U	2.5 U	2.8 J	2.5 U	2
	UG/L	173	100%	1000	0	51	51	59.4 J		58.9 J	130 J	73.7 J	90.2 J	71
	UG/L	0.26	14%		0	7	51	0.1 U		0.1 U	0.1 U	0.1 U	0.18 J	0
	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
	UG/L	391000	100%		0	51	51	145000		144000	86200	2960 J	106000	32
	UG/L	4.1	14%	50	0	7	51	1 U		1 U	1 U	1 U	4.1 J	
	UG/L	2	6%		0	3	51	1.3 U		1.3 U	1.3 U	1.3 U	2 J	1
	UG/L	14.6	33%	200	0	17	51	1.9 U		1.9 U	1.9 U	1.9 U	5.5 J	7
	UG/L	0	0%	100	0	0	51	10 U		10 U	10 U	10 U	10 U	
	UG/L	6350	63%	300	14	32	51	20.3 U		20.3 U	151 J	1070 J	6350 J	9
	UG/L	3.8	10%	25	0	5	51	1 U		1 U	1.3 U	1.3 U	3.8	1
m	UG/L	85900	100%		0	51	51	18800		17800	26000	916 J	13000	6
se	UG/L	344	100%	300	2	51	51	2.2 J		2.1 J	161	29.9	103	
	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
	UG/L	6.2	10%		0	5	51	1.7 U		1.7 U	1.7 U	1.7 U	6.2 J	1
	UG/L	25600	100%		0	51	51	951 J		971 J	2430 J	1250 J	3530 J	11
	UG/L	3	2%	10	0	1	51	2.2 U		2.2 U	2.2 U	2.2 U	2.2 U	2
	UG/L	2.8	2%	50	0	1	51	1.3 UJ		1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1
	UG/L	175000	90%	20000	23	46	51	23200		22900 U	22900	102000	13200	1640
	UG/L	7.4	6%		0	3	51	3.2 UJ		3.2 UJ	3.2 U	3.2 U	3.2 U	3
	UG/L	10.8	8%		0	4	51	1.8 U		1.8 U	1.8 U	1.8 U	10.8 J	1
	UG/L	1620	100%	300	1	51	51	3.6 J		4.5 J	3.9 J	18.2 J	28.4	7

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

							FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LA
							LOCATION ID		MW-58D	MW-59	MW-60	PT-10	PT-11	PT-15
							MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUN
							SAMPLE ID		ARD2128	ARD2105	ARD2104	ARD2101	ARD2107	ARD213
							DEPTH TO TOP OF SAMPLE		48	7	8	40	18	
							DEPTH TO BOTTOM OF SAMPLE		48	7	8	40	18	
							SAMPLE DATE		1/11/2000	1/7/2000	1/7/2000	1/6/2000	1/7/2000	1/11/20
							QC CODE		SA	SA	SA	SA	SA	SA
D			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER		ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH RE
ROUND			OF	CLASS GA	ABOVE	OF	OF		2	2	2	2	2	
TER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N		N	N	N	N	N
E ORGANICS														
hloroethane	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
etrachloroethane	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
hloroethane	UG/L	0	0%		0	0	54	1 U		1 U	1 U	1 U	1 U	
roethane	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
roethene	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
hlorobenzene	UG/L	0	0%	5	0	0	54	1 U		1 UJ	1 U	1 U	1 UJ	
mo-3-chloropropane	UG/L	0	0%		0	0	54	1 U		1 UJ	1 U	1 U	1 UJ	
moethane	UG/L	0	0%		0	0	54	1 U		1 U	1 U	1 U	1 U	
robenzene	UG/L	0	0%	4.7	0	0	54	1 U		1 UJ	1 U	1 U	1 UJ	
roethane	UG/L	3	2%	5	0	1	54	1 U		1 U	1 U	1 U	1 U	
ropropane	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
robenzene	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
robenzene	UG/L	0	0%	4.7	0	0	54	1 U		1 UJ	1 U	1 U	1 UJ	
	UG/L	1	4%		0	2	54	5 UJ		5 UJ	5 U	5 UJ	5 UJ	
	UG/L	0	0%	0.7	0	0	54	1 U		1 U	1 U	1 U	1 U	
oromethane	UG/L	0	0%		0	0	54	1 U		1 U	1 U	1 U	1 U	
hloromethane	UG/L	0	0%		0	0	54	1 U		1 U	1 U	1 U	1 U	
m	UG/L	0	0%		0	0	54	1 U		1 U	1 U	1 U	1 U	
sulfide	UG/L	0	0%		0	0	54	1 U		1 U	1 U	1 U	1 U	
etrachloride	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
nzene	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
romomethane	UG/L	0	0%		0	0	54	1 U		1 U	1 U	1 U	1 U	
ane	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
m	UG/L	0	0%	7	0	0	54	1 U		1 U	1 U	1 U	1 U	
ichloroethene	UG/L	980	28%	5	14	15	54	1 U		1 U	1 U	1 U	1 U	
ichloropropene	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
zene	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
omide	UG/L	0	0%		0	0	54	1 U		1 U	1 U	1 U	1 U	
tyl ketone	UG/L	0	0%		0	0	54	5 U		5 UJ	5 U	5 UJ	5 UJ	
loride	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
nyl ketone	UG/L	0	0%	50	0	0	54	5 UJ		5 UJ	5 U	5 UJ	5 UJ	
obutyl ketone	UG/L	0	0%		0	0	54	5 U		5 U	5 U	5 U	5 U	
e chloride	UG/L	0	0%	5	0	0	54	2 U		2 U	2 U	2 U	2 U	
	UG/L	0	0%		0	0	54	1 U		1 U	1 U	1 U	1 U	
roethene	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
	UG/L	2	6%	5	0	3	54	1 U		1 U	1 U	1 U	1 U	
enes	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
-Dichloroethene	UG/L	2	4%	5	0	2	54	1 U		1 U	1 U	1 U	1 U	
-Dichloropropene	UG/L	0	0%	5	0	0	54	1 U		1 U	1 U	1 U	1 U	
ethene	UG/L	760	28%	5	8	15	54	1 U		1 U	1 U	1 U	1 U	
ride	UG/L	25	2%	2	1	1	54	1 U		1 U	1 U	1 U	1 U	
n	UG/L	7700	49%		0	25	51	3940 J		33.9 J	15.5 UJ	15.5 UJ	1550 J	1

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

							FACILITY	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH L
							LOCATION ID	MW-58D	MW-59	MW-60	PT-10	PT-11	PT-15
							MATRIX	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROU
							SAMPLE ID	ARD2128	ARD2105	ARD2104	ARD2101	ARD2107	ARD21
							DEPTH TO TOP OF SAMPLE	48	7	8	40	18	
							DEPTH TO BOTTOM OF SAMPLE	48	7	8	40	18	
							SAMPLE DATE	1/11/2000	1/7/2000	1/7/2000	1/6/2000	1/7/2000	1/11/2
							QC CODE	SA	SA	SA	SA	SA	SA
ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH R
E ROUND			OF	CLASS GA	ABOVE	OF	OF	2	2	2	2	2	
ETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N	N
y	UG/L	4.5	12%		0	6	51	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	
	UG/L	5	22%	25	0	11	51	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
	UG/L	173	100%	1000	0	51	51	86.9 J	94.2 J	39.3 J	173 J	95.9 J	7
n	UG/L	0.26	14%		0	7	51	0.26 J	0.1 U	0.1 U	0.1 U	0.13 J	
n	UG/L	0.35	2%	10	0	1	51	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
	UG/L	391000	100%		0	51	51	5450	177000	104000	82600	126000	75
m	UG/L	4.1	14%	50	0	7	51	1 U	1 U	1 U	1.1 J	4 J	
	UG/L	2	6%		0	3	51	1.4 J	1.3 U	1.3 U	1.3 U	1.3 U	
	UG/L	14.6	33%	200	0	17	51	1.9 U	1.7 J	1.6 U	1.6 U	5.3 J	
	UG/L	0	0%	100	0	0	51	10 U	10 U	10 U	10 U	10 U	
	UG/L	6350	63%	300	14	32	51	5010 J	68.2 J	20.3 UJ	20.3 UJ	2020 J	
	UG/L	3.8	10%	25	0	5	51	1.9 J	1 U	1.3 U	1 U	1.3 U	
um	UG/L	85900	100%		0	51	51	1770 J	40500	15300	30700	34300	18
ese	UG/L	344	100%	300	2	51	51	96.6	7.7 J	3.1 J	101	99.8	
	UG/L	0.14	2%	2	0	1	51	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
	UG/L	6.2	10%		0	5	51	5.2 J	1.7 U	1.7 U	1.7 U	4.6 J	
m	UG/L	25600	100%		0	51	51	1900 J	1470 J	850 J	2160 J	2520 J	1
n	UG/L	3	2%	10	0	1	51	2.2 U	2.5 U	2.5 U	2.5 U	2.5 U	
	UG/L	2.8	2%	50	0	1	51	1.3 UJ	1 UJ	1 UJ	1 UJ	1 UJ	
	UG/L	175000	90%	20000	23	46	51	175000	29700	16400	27700	32200	19
	UG/L	7.4	6%		0	3	51	3.2 UJ	3.2 U	3.2 U	3.2 U	3.6 U	
m	UG/L	10.8	8%		0	4	51	5.5 J	1.8 U	1.8 U	1.8 U	2 J	
	UG/L	1620	100%	300	1	51	51	15.1 J	6.1 J	5.1 J	3.5 J	13.8 J	

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

						FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH L
						LOCATION ID		PT-16	PT-16	PT-17	PT-18	PT-19	PT-20
						MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROU
						SAMPLE ID		ARD2121	ARD2125	ARD2149	ARD2154	ARD2110	ARD21
						DEPTH TO TOP OF SAMPLE		9	9	10	10	8.5	
						DEPTH TO BOTTOM OF SAMPLE		9	9	10	10	8.5	
						SAMPLE DATE		1/10/2000	1/10/2000	1/20/2000	1/21/2000	1/8/2000	1/21/2
						QC CODE		DU	SA	SA	SA	SA	SA
ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH R
E ROUND			OF	CLASS GA	ABOVE	OF	OF	2	2	2	2	2	
ETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N	N	N	N	N	N
LE ORGANICS													
ichloroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
Tetrachloroethane	UG/L	0	0%	5	0	0	54	1 U	1 UJ	7 U	23 U	1 UJ	
ichloroethane	UG/L	0	0%		0	0	54	1 U	1 U	7 U	23 U	1 U	
loroethane	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
loroethene	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
chlorobenzene	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
omo-3-chloropropane	UG/L	0	0%		0	0	54	1 U	1 U	7 U	23 U	1 U	
omoethane	UG/L	0	0%		0	0	54	1 U	1 U	7 U	23 U	1 U	
lorobenzene	UG/L	0	0%	4.7	0	0	54	1 U	1 U	7 U	23 U	1 U	
loroethane	UG/L	3	2%	5	0	1	54	1 U	1 U	7 U	23 U	1 U	
loropropane	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
lorobenzene	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
lorobenzene	UG/L	0	0%	4.7	0	0	54	1 U	1 U	7 U	23 U	1 U	
	UG/L	1	4%		0	2	54	5 U	5 UJ	36 R	120 R	5 U	
e	UG/L	0	0%	0.7	0	0	54	1 U	1 U	7 U	23 U	1 U	
hloromethane	UG/L	0	0%		0	0	54	1 U	1 U	7 U	23 U	1 U	
chloromethane	UG/L	0	0%		0	0	54	1 U	1 U	7 U	23 U	1 U	
rm	UG/L	0	0%		0	0	54	1 U	1 U	7 U	23 U	1 U	
disulfide	UG/L	0	0%		0	0	54	1 U	1 U	7 U	23 U	1 U	
etrachloride	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
enzene	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
bromomethane	UG/L	0	0%		0	0	54	1 U	1 U	7 U	23 U	1 U	
hane	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
rm	UG/L	0	0%	7	0	0	54	1 U	1 UJ	7 U	23 U	1 U	
Dichloroethene	UG/L	980	28%	5	14	15	54	1 U	1 U	27	16 J	1 U	
Dichloropropene	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
nzene	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
romide	UG/L	0	0%		0	0	54	1 U	1 UJ	7 U	23 U	1 U	
utyl ketone	UG/L	0	0%		0	0	54	5 U	5 U	36 UJ	120 UJ	5 U	
hloride	UG/L	0	0%	5	0	0	54	1 U	1 UJ	7 U	23 U	1 U	
thyl ketone	UG/L	0	0%	50	0	0	54	5 U	5 UJ	36 U	120 U	5 U	
sobutyl ketone	UG/L	0	0%		0	0	54	5 U	5 U	36 U	120 U	5 U	
ne chloride	UG/L	0	0%	5	0	0	54	2 U	2 U	15 U	46 U	2 U	
	UG/L	0	0%		0	0	54	1 U	1 U	7 U	23 U	1 U	
oroethene	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
	UG/L	2	6%	5	0	3	54	1 J	1 J	7 U	23 U	1 U	
lenes	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
2-Dichloroethene	UG/L	2	4%	5	0	2	54	1 U	1 U	7 U	23 U	1 U	
3-Dichloropropene	UG/L	0	0%	5	0	0	54	1 U	1 U	7 U	23 U	1 U	
ethene	UG/L	760	28%	5	8	15	54	1 U	1 U	140	370	1 U	
oride	UG/L	25	2%	2	1	1	54	1 U	1 UJ	7 U	23 U	1 U	
S													
m	UG/L	7700	49%		0	25	51	65.5 J	31.2 J	34.4 UJ	34.4 UJ	15.5 UJ	

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

							FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH L
							LOCATION ID		PT-16	PT-16	PT-17	PT-18	PT-19	PT-20
							MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROU
							SAMPLE ID		ARD2121	ARD2125	ARD2149	ARD2154	ARD2110	ARD21
							DEPTH TO TOP OF SAMPLE		9	9	10	10	8.5	
							DEPTH TO BOTTOM OF SAMPLE		9	9	10	10	8.5	
							SAMPLE DATE		1/10/2000	1/10/2000	1/20/2000	1/21/2000	1/8/2000	1/21/2
							QC CODE		DU	SA	SA	SA	SA	SA
ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER		ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH R
E ROUND			OF	CLASS GA	ABOVE	OF	OF		2	2	2	2	2	
ETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N		N	N	N	N	N
y	UG/L	4.5	12%		0	6	51		2.2 U	2.5 J	2.2 U	5.4 U	2.2 U	
	UG/L	5	22%	25	0	11	51		2.5 U	2.5 U	2.7 J	2.4 U	2.5 U	
	UG/L	173	100%	1000	0	51	51		39.4 J	39 J	54.6 J	47.8 J	44.8 J	8
n	UG/L	0.26	14%		0	7	51		0.1 U	0.1 U	0.1 U	0.6 U	0.11 J	
n	UG/L	0.35	2%	10	0	1	51		0.2 U	0.2 U	0.2 U	0.35 J	0.2 U	
	UG/L	391000	100%		0	51	51		99100	99400	123000	289000	110000	154
m	UG/L	4.1	14%	50	0	7	51		1 U	1 U	1 U	1 U	1 U	
	UG/L	2	6%		0	3	51		1.3 U	1.3 U	1.3 U	3.5 U	1.3 U	
	UG/L	14.6	33%	200	0	17	51		2.6 J	1.9 U	2.6 J	14.6 J	1.6 U	
	UG/L	0	0%	100	0	0	51		10 U	10 U	10 U	10 U	10 U	
	UG/L	6350	63%	300	14	32	51		82.6 J	20.3 UJ	20.3 U	14.8 UJ	812 J	1
	UG/L	3.8	10%	25	0	5	51		1.3 U	1.3 U	1 U	1 U	1.3 U	
um	UG/L	85900	100%		0	51	51		12400	12400	12100	44500	15300	19
ese	UG/L	344	100%	300	2	51	51		15.7 J	7.1 J	2.2 J	9.7 J	316	
	UG/L	0.14	2%	2	0	1	51		0.1 U	0.1 U	0.1 U	0.14 J	0.1 U	
	UG/L	6.2	10%		0	5	51		1.7 U	1.7 U	1.7 U	4.2 U	1.7 U	
m	UG/L	25600	100%		0	51	51		712 J	822 J	690 J	4740 J	1900 J	1
n	UG/L	3	2%	10	0	1	51		2.2 U	2.2 U	2.2 U	2.2 U	2.5 U	
	UG/L	2.8	2%	50	0	1	51		1.3 UJ	1.3 UJ	1.3 UJ	1 UJ	1 UJ	
	UG/L	175000	90%	20000	23	46	51		5800	6010	24100 U	39800 J	20700	26
	UG/L	7.4	6%		0	3	51		3.2 UJ	3.2 UJ	3.2 UJ	7.4 J	3.2 U	
m	UG/L	10.8	8%		0	4	51		1.8 U	1.8 U	1.8 U	2.8 U	1.8 U	
	UG/L	1620	100%	300	1	51	51		3.1 J	4 J	4.1 J	1620	8 J	

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

							FACILITY		ASH LANDFILL		ASH LANDFILL		ASH LANDFILL		ASH LANDFILL		ASH LANDFILL
							LOCATION ID		PT-21A		PT-22		PT-23		PT-24		PT-25
							MATRIX		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER
							SAMPLE ID		ARD2150		ARD2151		ARD2123		ARD2144		ARD2116
							DEPTH TO TOP OF SAMPLE		17.5		11.3		10.8		10.4		10
							DEPTH TO BOTTOM OF SAMPLE		17.5		11.3		10.8		10.4		10
							SAMPLE DATE		1/21/2000		1/21/2000		1/10/2000		1/20/2000		1/9/2000
							QC CODE		SA		SA		SA		SA		SA
STUDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER		ASH REMEDIAL DES		ASH REMEDIAL DES		ASH REMEDIAL DES		ASH REMEDIAL DESIG		ASH REMEDIAL DE
SAMPLE ROUND			OF	CLASS GA	ABOVE	OF	OF		2		2		2		2		2
PARAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD	DETECTS	ANALYSES	N		N		N		N		N	
VOLATILE ORGANICS																	
1,1-Trichloroethane	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 UJ
1,1,2-Trichloroethane	UG/L	0	0%		0	0	54		1 U		5 U		1 U		4 U		1 U
1,1-Dichloroethane	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
1,1-Dichloroethene	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%		0	0	54		1 U		5 U		1 U		4 U		1 U
1,2-Dibromoethane	UG/L	0	0%		0	0	54		1 U		5 U		1 U		4 U		1 U
1,2-Dichlorobenzene	UG/L	0	0%	4.7	0	0	54		1 U		5 U		1 U		4 U		1 U
1,2-Dichloroethane	UG/L	3	2%	5	0	1	54		1 U		3 J		1 U		4 U		1 U
1,2-Dichloropropane	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
1,3-Dichlorobenzene	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
1,4-Dichlorobenzene	UG/L	0	0%	4.7	0	0	54		1 U		5 U		1 U		4 U		1 U
Acetone	UG/L	1	4%		0	2	54		5 R		25 R		5 U		19 R		5 UJ
Benzene	UG/L	0	0%	0.7	0	0	54		1 U		5 U		1 U		4 U		1 U
Bromochloromethane	UG/L	0	0%		0	0	54		1 U		5 U		1 U		4 U		1 U
Bromodichloromethane	UG/L	0	0%		0	0	54		1 U		5 U		1 U		4 U		1 U
Bromoform	UG/L	0	0%		0	0	54		1 U		5 U		1 U		4 U		1 U
Carbon disulfide	UG/L	0	0%		0	0	54		1 U		5 U		1 U		4 U		1 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
Chlorobenzene	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
Chlorodibromomethane	UG/L	0	0%		0	0	54		1 U		5 U		1 U		4 U		1 U
Chloroethane	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
Chloroform	UG/L	0	0%	7	0	0	54		1 U		5 U		1 U		4 U		1 UJ
cis-1,2-Dichloroethene	UG/L	980	28%	5	14	15	54		6		76		1 U		72		1 U
cis-1,3-Dichloropropene	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
Ethyl benzene	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
Methyl bromide	UG/L	0	0%		0	0	54		1 U		5 U		1 U		4 U		1 UJ
Methyl butyl ketone	UG/L	0	0%		0	0	54		5 UJ		25 UJ		5 U		19 UJ		5 U
Methyl chloride	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 UJ
Methyl ethyl ketone	UG/L	0	0%	50	0	0	54		5 U		25 U		5 U		19 U		5 UJ
Methyl isobutyl ketone	UG/L	0	0%		0	0	54		5 U		25 U		5 U		19 U		5 U
Methylene chloride	UG/L	0	0%	5	0	0	54		2 U		10 U		2 U		8 U		2 U
Styrene	UG/L	0	0%		0	0	54		1 U		5 U		1 U		4 U		1 U
Tetrachloroethene	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
Toluene	UG/L	2	6%	5	0	3	54		1 U		5 U		1 U		4 U		1 U
Total Xylenes	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
trans-1,2-Dichloroethene	UG/L	2	4%	5	0	2	54		1 U		2 J		1 U		4 U		1 U
trans-1,3-Dichloropropene	UG/L	0	0%	5	0	0	54		1 U		5 U		1 U		4 U		1 U
Trichloroethene	UG/L	760	28%	5	8	15	54		2		65		1 U		4		1 U
Vinyl chloride	UG/L	25	2%	2	1	1	54		1 U		5 U		1 U		4 U		1 UJ
METALS																	
Aluminum	UG/L	7700	49%		0	25	51		34.4 UJ		34.4 UJ		243 J		34.4 UJ		15.5 UJ

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

							FACILITY		ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL	ASH LANDFILL
							LOCATION ID		PT-21A	PT-22	PT-23	PT-24	PT-25
							MATRIX		GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER	GROUND WATER
							SAMPLE ID		ARD2150	ARD2151	ARD2123	ARD2144	ARD2116
							DEPTH TO TOP OF SAMPLE		17.5	11.3	10.8	10.4	10
							DEPTH TO BOTTOM OF SAMPLE		17.5	11.3	10.8	10.4	10
							SAMPLE DATE		1/21/2000	1/21/2000	1/10/2000	1/20/2000	1/9/2000
							QC CODE		SA	SA	SA	SA	SA
TUDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER		ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DES	ASH REMEDIAL DESIG	ASH REMEDIAL DES
AMPLE ROUND			OF	CLASS GA	ABOVE	OF	OF		2	2	2	2	2
ARAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N		N	N	N	N
ntimony	UG/L	4.5	12%		0	6	51		5.4 U	2.2 U	2.6 J	2.2 U	2.2 U
senic	UG/L	5	22%	25	0	11	51		2.4 U	2.5 U	2.5 U	3.1 J	2.5 U
rium	UG/L	173	100%	1000	0	51	51		69.2 J	74.9 J	37.8 J	31.1 J	24.7 J
eryllium	UG/L	0.26	14%		0	7	51		0.6 U	0.1 U	0.1 U	0.1 U	0.1 U
admium	UG/L	0.35	2%	10	0	1	51		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
alcium	UG/L	391000	100%		0	51	51		164000	247000	102000	91400	68100
hromium	UG/L	4.1	14%	50	0	7	51		1 U	1 U	1 U	1 U	1 U
obalt	UG/L	2	6%		0	3	51		3.5 U	1.3 U	1.3 U	1.3 U	1.3 U
opper	UG/L	14.6	33%	200	0	17	51		3 J	1.9 U	1.9 U	1.9 U	1.6 U
yanide	UG/L	0	0%	100	0	0	51		10 U	10 U	10 U	10 U	10 U
on	UG/L	6350	63%	300	14	32	51		369	20.3 U	386 J	20.3 U	20.3 UJ
ead	UG/L	3.8	10%	25	0	5	51		1 U	1 U	1.3 U	1 U	1.3 U
agnesium	UG/L	85900	100%		0	51	51		37800	26400	10800	9800	7480
anganese	UG/L	344	100%	300	2	51	51		344	10 J	5.6 J	198	2.4 J
ercury	UG/L	0.14	2%	2	0	1	51		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
ckel	UG/L	6.2	10%		0	5	51		4.2 U	1.7 U	1.7 U	1.7 U	1.7 U
otassium	UG/L	25600	100%		0	51	51		10300	879 J	574 J	753 J	626 J
elenium	UG/L	3	2%	10	0	1	51		2.2 U	2.2 U	2.2 U	2.2 U	2.5 U
lver	UG/L	2.8	2%	50	0	1	51		1 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1 UJ
odium	UG/L	175000	90%	20000	23	46	51		36300	43700	5850	12000 U	10100
allium	UG/L	7.4	6%		0	3	51		3.2 UJ	3.2 UJ	3.2 UJ	3.2 UJ	3.2 U
anadium	UG/L	10.8	8%		0	4	51		2.8 U	1.8 U	1.8 U	1.8 U	1.8 U
nc	UG/L	1620	100%	300	1	51	51		3 J	4.3 J	5 J	4.7 J	4 J

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

						FACILITY		ASH LANDFILL
						LOCATION ID		PT-26
						MATRIX		GROUND WATER
						SAMPLE ID		ARD2138
						DEPTH TO TOP OF SAMPLE		13.5
						DEPTH TO BOTTOM OF SAMPLE		13.5
						SAMPLE DATE		1/29/2000
						QC CODE		SA
STUDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN
SAMPLE ROUND			OF	CLASS GA	ABOVE	OF	OF	2
PARAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N
VOLATILE ORGANICS								
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%		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%		0	0	54	1 U
1,2-Dibromoethane	UG/L	0	0%		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%		0	2	54	5 UJ
Benzene	UG/L	0	0%	0.7	0	0	54	1 U
Bromochloromethane	UG/L	0	0%		0	0	54	1 U
Bromodichloromethane	UG/L	0	0%		0	0	54	1 U
Bromoform	UG/L	0	0%		0	0	54	1 U
Carbon disulfide	UG/L	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	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	54	1 U
Methyl butyl ketone	UG/L	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	54	5 U
Methylene chloride	UG/L	0	0%	5	0	0	54	2 U
Styrene	UG/L	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
METALS								
Aluminum	UG/L	7700	49%		0	25	51	303 J

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

						FACILITY		ASH LANDFILL
						LOCATION ID		PT-26
						MATRIX		GROUND WATER
						SAMPLE ID		ARD2138
						DEPTH TO TOP OF SAMPLE		13.5
						DEPTH TO BOTTOM OF SAMPLE		13.5
						SAMPLE DATE		1/29/2000
						QC CODE		SA
STUDY ID			FREQUENCY	NYSDEC	NUMBER	NUMBER	NUMBER	ASH REMEDIAL DESIGN
SAMPLE ROUND			OF	CLASS GA	ABOVE	OF	OF	2
PARAMETER	UNIT	MAXIMUM	DETECTION	STD.	STD.	DETECTS	ANALYSES	N
Antimony	UG/L	4.5	12%		0	6	51	4.5 J
Arsenic	UG/L	5	22%	25	0	11	51	5 J
Barium	UG/L	173	100%	1000	0	51	51	78.9 J
Beryllium	UG/L	0.26	14%		0	7	51	0.1 U
Cadmium	UG/L	0.35	2%	10	0	1	51	0.2 U
Calcium	UG/L	391000	100%		0	51	51	91400
Chromium	UG/L	4.1	14%	50	0	7	51	1 U
Cobalt	UG/L	2	6%		0	3	51	1.3 U
Copper	UG/L	14.6	33%	200	0	17	51	1.9 U
Cyanide	UG/L	0	0%	100	0	0	51	10 U
Iron	UG/L	6350	63%	300	14	32	51	251 J
Lead	UG/L	3.8	10%	25	0	5	51	1.3 U
Magnesium	UG/L	85900	100%		0	51	51	33100
Manganese	UG/L	344	100%	300	2	51	51	23.7
Mercury	UG/L	0.14	2%	2	0	1	51	0.1 U
Nickel	UG/L	6.2	10%		0	5	51	1.7 U
Potassium	UG/L	25600	100%		0	51	51	1850 J
Selenium	UG/L	3	2%	10	0	1	51	2.2 U
Silver	UG/L	2.8	2%	50	0	1	51	1.3 UJ
Sodium	UG/L	175000	90%	20000	23	46	51	38400
Thallium	UG/L	7.4	6%		0	3	51	3.2 U
Vanadium	UG/L	10.8	8%		0	4	51	1.8 U
Zinc	UG/L	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 MWT-1 GROUND WATER TR2002 8 8 4/26/1999 SA ASH TRENCH	ASH LANDFILL MWT-10 GROUND WATER TR2001 7 7 4/26/1999 SA ASH TRENCH	ASH LANDFI MWT-11 GROUND W TR2000 8 8 4/26/1999 SA ASH TRENC
		MAXIMUM	FREQUENCY OF DETECTION	NYS CLASS GA STANDARD	NUMBER ABOVE TAGM	NUMBER OF DETECTS	NUMBER OF ANALYSES			
Trichloroethane	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
2-Tetrachloroethane	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
Trichloroethane	UG/L	0	0%		0	0	12	4 U	1 U	1 U
chloroethane	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
chloroethene	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
bromo-3-chloropropane	UG/L	0	0%		0	0	12	4 U	1 U	1 U
bromoethane	UG/L	0	0%		0	0	12	4 U	1 U	1 U
chloroethane	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
chloropropane	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
ne	UG/L	16	42%		0	5	12	20 U	5 U	5 U
ne	UG/L	0.9	50%	0.7	1	6	12	4 U	0.7 J	1 U
chloromethane	UG/L	0	0%		0	0	12	4 U	1 U	1 U
dichloromethane	UG/L	0	0%		0	0	12	4 U	1 U	1 U
form	UG/L	0	0%		0	0	12	4 U	1 U	1 U
n disulfide	UG/L	1	8%		0	1	12	4 U	1 U	1 U
n tetrachloride	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
benzene	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
dibromomethane	UG/L	0	0%		0	0	12	4 U	1 U	1 U
ethane	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
form	UG/L	0	0%	7	0	0	12	4 U	1 U	1 U
2-Dichloroethene	UG/L	73	83%	5	7	10	12	73	6	1 U
3-Dichloropropene	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
benzene	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
bromide	UG/L	0	0%		0	0	12	4 U	1 U	1 U
butyl ketone	UG/L	0	0%		0	0	12	20 U	5 U	5 U
chloride	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
ethyl ketone	UG/L	0	0%	50	0	0	12	20 U	5 U	5 U
isobutyl ketone	UG/L	0	0%		0	0	12	20 U	5 U	5 U
ene chloride	UG/L	0	0%	5	0	0	12	8 U	2 U	2 U
e	UG/L	0	0%		0	0	12	4 U	1 U	1 U
hloroethene	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
ıe	UG/L	0.7	17%	5	0	2	12	4 U	1 U	1 U
Xylenes	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U

APPENDIX C3
GROUNDWATER MONITORING - ASH LANDFILL
CHEMICAL RESULTS TRENCH WELLS -2Q 1999
SENECA ARMY DEPOT ACTIVITY

								ASH LANDFILL MWT-1 GROUND WATER TR2002 8 8 4/26/1999 SA ASH TRENCH	ASH LANDFILL MWT-10 GROUND WATER TR2001 7 7 4/26/1999 SA ASH TRENCH	ASH LANDFIL MWT-11 GROUND WA TR2000 8 8 4/26/1999 SA ASH TRENCH
		MAXIMUM	FREQUENCY OF DETECTION	NYS CLASS GA STANDARD	NUMBER ABOVE TAGM	NUMBER OF DETECTS	NUMBER OF ANALYSES			
l,2-Dichloroethene	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
l,3-Dichloropropene	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
roethene	UG/L	430	50%	5	3	6	12	23	1 U	1 U
hloride	UG/L	0	0%	2	0	0	12	4 U	1 U	1 U
richlorobenzene	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
hlorobenzene	UG/L	0	0%	4.7	0	0	12	4 U	1 U	1 U
hlorobenzene	UG/L	0	0%	5	0	0	12	4 U	1 U	1 U
hlorobenzene	UG/L	0	0%	4.7	0	0	12	4 U	1 U	1 U
n	UG/L	264000	100%		0	12	12	122000	49900	102000
	UG/L	548000	100%	300	9	12	12	403	13100	54.6 B
sium	UG/L	74400	100%		0	12	12	13800	10600	12800
nese	UG/L	6260	100%	300	5	12	12	13.2 B	191	78
ium	UG/L	15100	100%		0	12	12	1460 B	1520 B	5600
n	UG/L	16400	100%	20000	0	12	12	9010	8860	12300

APPENDIX C3
GROUNDWATER MONITORING - ASH LANDFILL
CHEMICAL RESULTS TRENCH WELLS -2Q 1999
SENECA ARMY DEPOT ACTIVITY

								ASH LANDFILL MWT-2 GROUND WATER TR2008 11.3 11.3 4/28/1999 SA ASH TRENCH	ASH LANDFILL MWT-3 GROUND WATER TR2007 8 8 4/27/1999 SA ASH TRENCH	ASH LANDFI MWT-4 GROUND WA TR2004 10 10 4/26/1999 SA ASH TRENCI
		MAXIMUM	FREQUENCY OF DETECTION	NYS CLASS GA STANDARD	NUMBER ABOVE TAGM	NUMBER OF DETECTS	NUMBER OF ANALYSES			
richloroethane	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
-Tetrachloroethane	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
richloroethane	UG/L	0	0%		0	0	12	1 U	2 U	3 U
hloroethane	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
hloroethene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
romo-3-chloropropane	UG/L	0	0%		0	0	12	1 U	2 U	3 U
romoethane	UG/L	0	0%		0	0	12	1 U	2 U	3 U
hloroethane	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
hloropropane	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
e	UG/L	16	42%		0	5	12	6	8 U	14 U
ne	UG/L	0.9	50%	0.7	1	6	12	0.7 J	0.4 J	3 U
chloromethane	UG/L	0	0%		0	0	12	1 U	2 U	3 U
dichloromethane	UG/L	0	0%		0	0	12	1 U	2 U	3 U
form	UG/L	0	0%		0	0	12	1 U	2 U	3 U
disulfide	UG/L	1	8%		0	1	12	1	2 U	3 U
tetrachloride	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
benzene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
dibromomethane	UG/L	0	0%		0	0	12	1 U	2 U	3 U
ethane	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
form	UG/L	0	0%	7	0	0	12	1 U	2 U	3 U
-Dichloroethene	UG/L	73	83%	5	7	10	12	30 E	27	49
-Dichloropropene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
enzene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
bromide	UG/L	0	0%		0	0	12	1 U	2 U	3 U
butyl ketone	UG/L	0	0%		0	0	12	5 U	8 U	14 U
chloride	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
ethyl ketone	UG/L	0	0%	50	0	0	12	5 U	8 U	14 U
isobutyl ketone	UG/L	0	0%		0	0	12	5 U	8 U	14 U
ene chloride	UG/L	0	0%	5	0	0	12	2 U	3 U	6 U
e	UG/L	0	0%		0	0	12	1 U	2 U	3 U
hloroethene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
e	UG/L	0.7	17%	5	0	2	12	0.7 J	2 U	3 U
ylenes	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U

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GROUNDWATER MONITORING - ASH LANDFILL
CHEMICAL RESULTS TRENCH WELLS -2Q 1999
SENECA ARMY DEPOT ACTIVITY

								ASH LANDFILL MWT-2 GROUND WATER TR2008 11.3 11.3 4/28/1999 SA ASH TRENCH	ASH LANDFILL MWT-3 GROUND WATER TR2007 8 8 4/27/1999 SA ASH TRENCH	ASH LANDFIL MWT-4 GROUND WA TR2004 10 10 4/26/1999 SA ASH TRENCH
		MAXIMUM	FREQUENCY OF DETECTION	NYS CLASS GA STANDARD	NUMBER ABOVE TAGM	NUMBER OF DETECTS	NUMBER OF ANALYSES			
1,2-Dichloroethene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
1,3-Dichloropropene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
roethene	UG/L	430	50%	5	3	6	12	1	1 J	2 J
hloride	UG/L	0	0%	2	0	0	12	1 U	2 U	3 U
richlorobenzene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
hlorobenzene	UG/L	0	0%	4.7	0	0	12	1 U	2 U	3 U
hlorobenzene	UG/L	0	0%	5	0	0	12	1 U	2 U	3 U
hlorobenzene	UG/L	0	0%	4.7	0	0	12	1 U	2 U	3 U
n	UG/L	264000	100%		0	12	12	264000	58000	118000
	UG/L	548000	100%	300	9	12	12	**523000**	**3600**	**983**
sium	UG/L	74400	100%		0	12	12	60800	13000	14300
nese	UG/L	6260	100%	300	5	12	12	**6260**	**611**	37.1
ium	UG/L	15100	100%		0	12	12	15100	1900 B	1860 B
n	UG/L	16400	100%	20000	0	12	12	7410	9240	15900

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GROUNDWATER MONITORING - ASH LANDFILL
CHEMICAL RESULTS TRENCH WELLS -2Q 1999
SENECA ARMY DEPOT ACTIVITY

		MAXIMUM	FREQUENCY OF DETECTION	NYS CLASS GA STANDARD	NUMBER ABOVE TAGM	NUMBER OF DETECTS	NUMBER OF ANALYSES	ASH LANDFILL MWT-5 GROUND WATER TR2009 11.1 11.1 4/28/1999 SA ASH TRENCH	ASH LANDFILL MWT-6 GROUND WATER TR2006 10.5 10.5 4/28/1999 SA ASH TRENCH	ASH LANDFI MWT-6 GROUND WA TR2011 10.5 10.5 4/28/1999 DU ASH TRENC
richloroethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
-Tetrachloroethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
richloroethane	UG/L	0	0%		0	0	12	1 U	1 U	1 U
hloroethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
hloroethene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
romo-3-chloropropane	UG/L	0	0%		0	0	12	1 U	1 U	1 U
romoethane	UG/L	0	0%		0	0	12	1 U	1 U	1 U
hloroethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
hloropropane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
e	UG/L	16	42%		0	5	12	7	5	6
ne	UG/L	0.9	50%	0.7	1	6	12	0.9 J	0.7 J	0.7 J
chloromethane	UG/L	0	0%		0	0	12	1 U	1 U	1 U
dichloromethane	UG/L	0	0%		0	0	12	1 U	1 U	1 U
form	UG/L	0	0%		0	0	12	1 U	1 U	1 U
n disulfide	UG/L	1	8%		0	1	12	1 U	1 U	1 U
n tetrachloride	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
benzene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
dibromomethane	UG/L	0	0%		0	0	12	1 U	1 U	1 U
ethane	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
form	UG/L	0	0%	7	0	0	12	1 U	1 U	1 U
-Dichloroethene	UG/L	73	83%	5	7	10	12	0.7 J	3	3
-Dichloropropene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
enzene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
bromide	UG/L	0	0%		0	0	12	1 U	1 U	1 U
butyl ketone	UG/L	0	0%		0	0	12	5 U	5 U	5 U
chloride	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
ethyl ketone	UG/L	0	0%	50	0	0	12	5 U	5 U	5 U
isobutyl ketone	UG/L	0	0%		0	0	12	5 U	5 U	5 U
ene chloride	UG/L	0	0%	5	0	0	12	2 U	2 U	2 U
e	UG/L	0	0%		0	0	12	1 U	1 U	1 U
hloroethene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
e	UG/L	0.7	17%	5	0	2	12	0.3 J	1 U	1 U
ylenes	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U

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GROUNDWATER MONITORING - ASH LANDFILL
CHEMICAL RESULTS TRENCH WELLS -2Q 1999
SENECA ARMY DEPOT ACTIVITY

		MAXIMUM	FREQUENCY OF DETECTION	NYS CLASS GA STANDARD	NUMBER ABOVE TAGM	NUMBER OF DETECTS	NUMBER OF ANALYSES	ASH LANDFILL MWT-5 GROUND WATER TR2009 11.1 11.1 4/28/1999 SA ASH TRENCH	ASH LANDFILL MWT-6 GROUND WATER TR2006 10.5 10.5 4/28/1999 SA ASH TRENCH	ASH LANDFIL MWT-6 GROUND WA TR2011 10.5 10.5 4/28/1999 DU ASH TRENCH
1,2-Dichloroethene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
1,3-Dichloropropene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
roethene	UG/L	430	50%	5	3	6	12	1 U	1 U	1 U
hloride	UG/L	0	0%	2	0	0	12	1 U	1 U	1 U
richlorobenzene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
hlorobenzene	UG/L	0	0%	4.7	0	0	12	1 U	1 U	1 U
hlorobenzene	UG/L	0	0%	5	0	0	12	1 U	1 U	1 U
hlorobenzene	UG/L	0	0%	4.7	0	0	12	1 U	1 U	1 U
n	UG/L	264000	100%		0	12	12	177000	43800	44000
	UG/L	548000	100%	300	9	12	12	**548000**	244	**392**
sium	UG/L	74400	100%		0	12	12	74400	4920 B	4970 B
nese	UG/L	6260	100%	300	5	12	12	**5010**	170	169
um	UG/L	15100	100%		0	12	12	14200	1910 B	2080 B
	UG/L	16400	100%	20000	0	12	12	13900	16100	16100

APPENDIX C3
GROUNDWATER MONITORING - ASH LANDFILL
CHEMICAL RESULTS TRENCH WELLS -2Q 1999
SENECA ARMY DEPOT ACTIVITY

								ASH LANDFILL MWT-7 GROUND WATER TR2003 11.5 11.5 4/27/1999 SA ASH TRENCH	ASH LANDFILL MWT-8 GROUND WATER TR2010 11.58 11.58 4/28/1999 SA ASH TRENCH	ASH LANDFI MWT-9 GROUND WA TR2005 12.14 12.14 4/27/1999 SA ASH TRENCI
		MAXIMUM	FREQUENCY OF DETECTION	NYS CLASS GA STANDARD	NUMBER ABOVE TAGM	NUMBER OF DETECTS	NUMBER OF ANALYSES			
richloroethane	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
-Tetrachloroethane	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
richloroethane	UG/L	0	0%		0	0	12	22 U	1 U	2 U
hloroethane	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
hloroethene	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
romo-3-chloropropane	UG/L	0	0%		0	0	12	22 U	1 U	2 U
romoethane	UG/L	0	0%		0	0	12	22 U	1 U	2 U
hloroethane	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
hloropropane	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
e	UG/L	16	42%		0	5	12	110 U	16	11 U
ne	UG/L	0.9	50%	0.7	1	6	12	22 U	1 U	2 U
chloromethane	UG/L	0	0%		0	0	12	22 U	1 U	2 U
dichloromethane	UG/L	0	0%		0	0	12	22 U	1 U	2 U
form	UG/L	0	0%		0	0	12	22 U	1 U	2 U
disulfide	UG/L	1	8%		0	1	12	22 U	1 U	2 U
tetrachloride	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
benzene	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
dibromomethane	UG/L	0	0%		0	0	12	22 U	1 U	2 U
ethane	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
form	UG/L	0	0%	7	0	0	12	22 U	1 U	2 U
2-Dichloroethene	UG/L	73	83%	5	7	10	12	20 J	1 U	32
3-Dichloropropene	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
enzene	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
bromide	UG/L	0	0%		0	0	12	22 U	1 U	2 U
butyl ketone	UG/L	0	0%		0	0	12	110 U	5 U	11 U
chloride	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
ethyl ketone	UG/L	0	0%	50	0	0	12	110 U	5 U	11 U
isobutyl ketone	UG/L	0	0%		0	0	12	110 U	5 U	11 U
ene chloride	UG/L	0	0%	5	0	0	12	44 U	2 U	4 U
e	UG/L	0	0%		0	0	12	22 U	1 U	2 U
hloroethene	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
e	UG/L	0.7	17%	5	0	2	12	22 U	1 U	2 U
Xylenes	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U

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GROUNDWATER MONITORING - ASH LANDFILL
CHEMICAL RESULTS TRENCH WELLS -2Q 1999
SENECA ARMY DEPOT ACTIVITY

								ASH LANDFILL MWT-7 GROUND WATER TR2003 11.5 11.5 4/27/1999 SA ASH TRENCH	ASH LANDFILL MWT-8 GROUND WATER TR2010 11.58 11.58 4/28/1999 SA ASH TRENCH	ASH LANDF MWT-9 GROUND W TR2005 12.14 12.14 4/27/1999 SA ASH TRENC
		MAXIMUM	FREQUENCY OF DETECTION	NYS CLASS GA STANDARD	NUMBER ABOVE TAGM	NUMBER OF DETECTS	NUMBER OF ANALYSES			
-1,2-Dichloroethene	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
-1,3-Dichloropropene	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
proethene	UG/L	430	50%	5	3	6	12	**430**	1 U	**43**
chloride	UG/L	0	0%	2	0	0	12	22 U	1 U	2 U
Trichlorobenzene	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
chlorobenzene	UG/L	0	0%	4.7	0	0	12	22 U	1 U	2 U
chlorobenzene	UG/L	0	0%	5	0	0	12	22 U	1 U	2 U
chlorobenzene	UG/L	0	0%	4.7	0	0	12	22 U	1 U	2 U
m	UG/L	264000	100%		0	12	12	122000	40200	36200
	UG/L	548000	100%	300	9	12	12	228	**37300**	**1010**
esium	UG/L	74400	100%		0	12	12	14300	9830	9520
anese	UG/L	6260	100%	300	5	12	12	22.5	**416**	**444**
sium	UG/L	15100	100%		0	12	12	2030 B	6250	1600 B
m	UG/L	16400	100%	20000	0	12	12	16400	10000	14100