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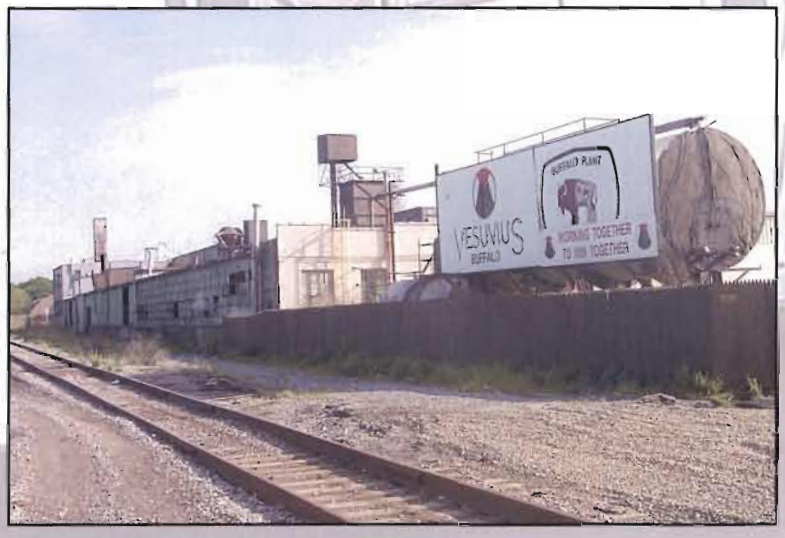
Site Investigation and Remedial Action Report at Vesuvius



prepared for:
Vesuvius
661 Willet Road
Buffalo, New York 14218

prepared by:
URS Corporation
282 Delaware Avenue
Buffalo, New York 14202

July 2002

G3191

SITE INVESTIGATION AND REMEDIAL ACTION REPORT
FOR
VESUVIUS
BUFFALO, NEW YORK

Prepared for:

VESUVIUS FOUNDRY DIVISION
661 WILLET ROAD
BUFFALO, NEW YORK 14218

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282 DELAWARE AVENUE
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DRAFT

JUNE 2002

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1.0 INTRODUCTION

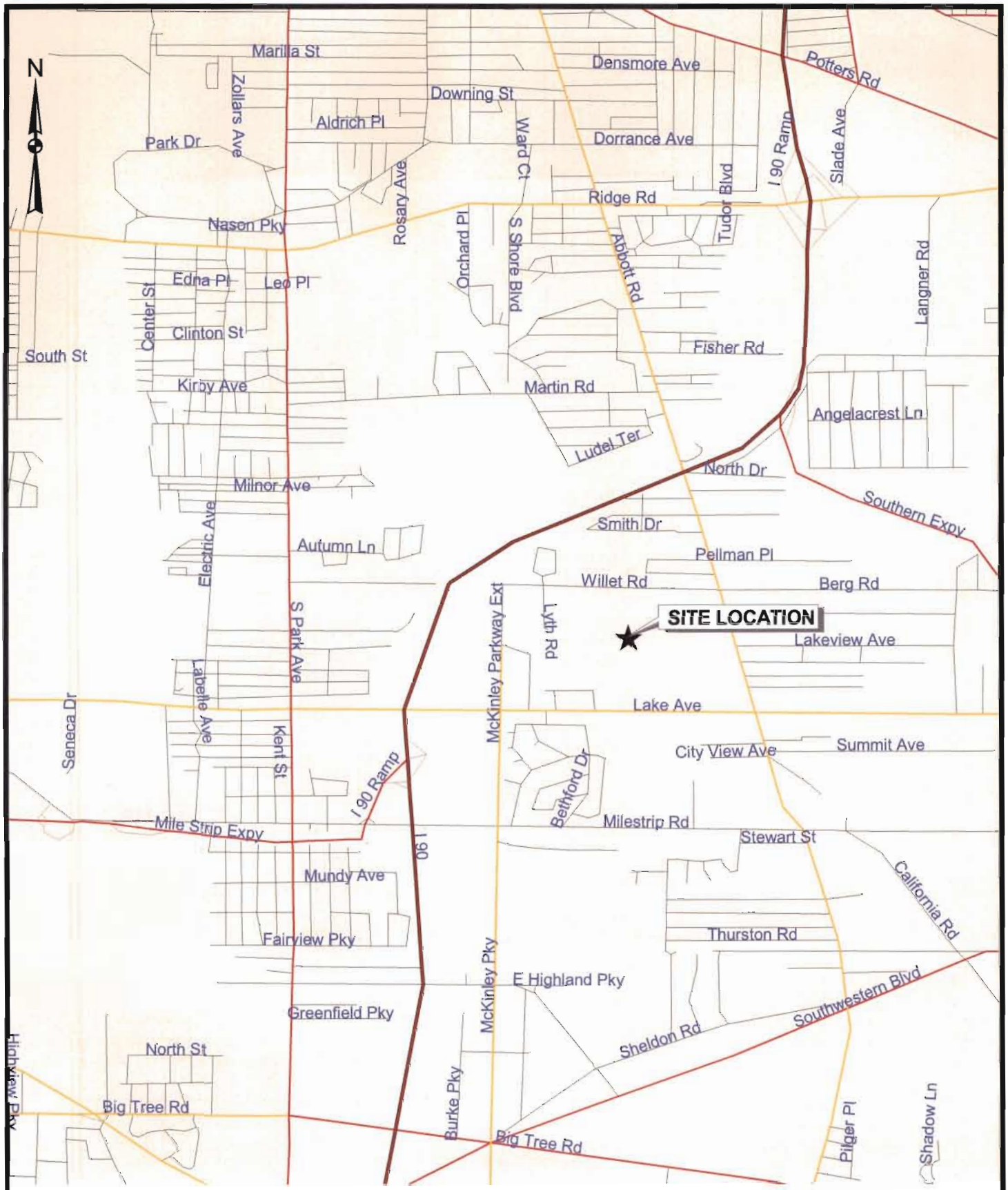
URS Corporation (URS) has been tasked by Vesuvius to conduct a site investigation (SI)/remedial action (RA) at their facility located at 661 Willet Road in the City of Lackawanna, New York (Figure 1-1). The objectives of this SI/RA are to identify areas on site that exhibit elevated levels of PCE, evaluate transport mechanisms to storm water outfall 007 North (N), and select/perform remedial actions that would remove any PCE "hotspots." This SI/RA report presents a summary of SI activities and findings, along with a description of the remedial action activities.

1.1 Site Description

Vesuvius is located at 661 Willet Road in the City of Lackawanna, New York. Vesuvius (formerly the Ferro Corporation) is an active refractory that manufactures various industrial products including kiln furniture, abrasive products and crucibles. The facility occupies approximately 38 acres, of which, approximately 300,000 square feet consists of manufacturing operations, offices, storage and a laboratory. The site is bounded by Willet Road to the north, a mix of open fields and woodland to the south and east, and the Baltimore and Ohio (B&O) railroad to the west. The south branch of Smokes Creek is located to the southwest, and a drainage swale is present that originates at outfall 007N/007 South (S) to Smoke's Creek. The site is generally flat with surface runoff to the east. The site plan is shown in Figure 1-2.

1.2 Site History

The site has been the subject of several environmental investigations in the 1990s. The investigations were performed to evaluate the overall site conditions and to address specific areas of concern on the site (i.e., landfill areas, former underground storage tanks (USTs) and/or aboveground storage tanks (ASTs), and spill locations). Generally, the contaminants identified during previous investigations include polyaromatic hydrocarbons (PAHs) and metals in site soils.



j:\35817.00\db\gis\sitelocation.apr SITE LOCATION
6/26/2002

URS

VESUVIUS
SITE LOCATION MAP

FIGURE 1-1

URS

VESUVIUS
SITE PLAN

FIGURE 1-2

J:\35817.00db\GIS\vesuvuisapr apr FIGURE 1-2 ORTHOPHOTO
6/27/2002

Details of previously conducted investigations can be found in the following reports:

- *Engineering Investigations at Inactive Hazardous Waste Sites in the State of New York, Phase II Investigations by Lawler, Matusky, & Skelly Engineers (dated 2/90).*

- *Phase I Environmental Liabilities Assessment Ferro Corporation Buffalo Plant, Buffalo, New York by McLaren/Hart Engineers Midwest, Inc. (dated 12/91).*

- *Phase II Environmental Site Investigation Ferro Corporation Buffalo Plant, Buffalo, New York by McLaren/Hart Engineers Midwest, Inc. (dated 9/92).*

As part of the Vesuvius facility State Pollution Discharge Elimination System (SPEDES) permit, discharge water samples are collected from the facilities outfalls on a monthly basis. Low concentrations of PCE have been detected intermittently at Outfall 007N. Vesuvius contracted Niagara Environmental Dynamics Inc. to perform a soil vapor survey and soil sampling investigation in 1999 around the perimeter of Building 43. Thirty-six (36) soil borings were advanced with a Geoprobe direct-push drill unit to the top of the shale bedrock (2.5- to 4 feet deep) and soil vapor readings were taken using a photoionization detector (PID). As a result of the soil vapor survey, fifteen soil samples were collected for volatile organic compound (VOC) analysis. Elevated levels of PCE were present in soil borings in the southeast corner of Building 43 at its junction with Building 38.

2.0 STUDY AREA INVESTIGATON

URS conducted this SI using a phased approach beginning in March 2001 and ending in January 2002. The following investigation activities were performed during this time period.

- Test Pit Program (March 2001)
- Soil Vapor Survey (March 2001)
- Sediment Sampling (March 2001)
- Smoke Testing (July 2001)
- Catch Basin Sampling (September 2001)
- Groundwater Collection Sump Sampling (January 2002)

Each of the SI activities is described in the following sections and investigation locations are shown in Figure 2-1.

2.1 Test Pit Program

To identify and characterize potential PCE-contaminated areas and to evaluate if building footers or pipe bedding is acting as a migration pathway, thirteen test pits (TP-01 through TP-10, TP-A, TP-B, and TP-C) were excavated around the perimeter of Building 43. URS contracted SJB Drilling Services (Hamburg, New York) to supply a backhoe and operator to complete the test pit program. The test pits were excavated across both the 007N and 007 South (S) drainage lines to the top of the shale bedrock, which was encountered at depths ranging from 2.5-to 4 feet below ground surface (bgs). Excavated soil was screened with a PID, which measures volatile organic vapors in parts per million (ppm). Four (4) soil samples were collected from the test pits that exhibited the highest PID readings during soil screening. Soil samples were collected from TP-01 (75 ppm), TP-04 (110 ppm), TP-A (60 ppm), and TP-B (110 ppm) for VOC analysis at Friend Laboratory (Waverly, New York). The subsurface material consisted mainly of fill material consisting of brown-black silty sand with some brick and gravel. The fill layer was not present at each test pit, as the underlying weathered shale was present at the surface in several locations. Groundwater was intermittently present in the test pits at depths ranging from 2-to 3 feet bgs. Test pits are shown in Figure 2-1 and the test pit logs are presented in Appendix A.

2.2 Soil Vapor Survey

URS contracted Zebra Environmental (Niagara Falls, New York) to provide a Geoprobe direct-push drill rig to conduct a soil vapor survey and soil sampling program in and around Buildings 38 and 43. Thirty-six (36) soil vapor points (GP-01 through GP-36) were advanced to the top of the shale bedrock, which is present 2- to 4 feet bgs. Nineteen (19) soil vapor points (GP-01 through GP-19) were advanced around the perimeter of Building 43 and seventeen soil vapor points were advanced inside of Buildings 43 and 38. The interior soil vapor survey points were advanced to investigate if a reported stream channel that underlies Building 43 is acting as a conduit between the "hotspot" and 007N. Soil vapor readings were taken using a PID at each soil vapor point. Most of the soil vapor survey readings were at or near background levels. Soil samples were collected from the five soil vapor points that exhibited the highest PID readings. The five samples were collected from soil vapor points GP-10 (2 ppm), GP-11 (8 ppm), GP-25 (4.5 ppm), GP-30 (4.8 ppm), and GP-34 (8.5 ppm). The soil samples were analyzed for VOCs at Friend Laboratory. Soil vapor survey locations are shown in Figure 2-1 and results are shown in Figure 2-2.

2.3 Sediment Sampling

Three sediment samples (SED-1, SED-2, and SED-3) were collected from the drainage swale between the 007N and 007S outfall and Smoke's Creek. SED-1 was collected at the 007N/007S outfall location, SED-2 was collected approximately ½-way between the outfalls and Smoke's Creek, and SED-3 was collected from the swale at its discharge to Smoke's Creek. The sediment samples were sent to Friend Laboratory for VOC analysis. The samples were collected to evaluate if the intermittent PCE present in the 007N outfall has had any long-term impact to the sediments of the discharge swale. Sediment sampling locations are shown in Figure 2-1.

2.4 Smoke Test

URS conducted a smoke test at the facility to identify all connections to both the 007N and 007S drainage line. Smoke bombs were introduced to catch basins on each of the lines and both URS and Vesuvius personnel were situated in, around, and on Buildings 38 and 43. A forced air blower was positioned on top of the catch basin in which the smoke bomb was placed.

Each location that emitted smoke was marked and later noted on a facility drawing. The results of the smoke test are shown in Figure 2-3.

2.5 Catch Basin Sampling

URS collected water and sediment samples from accessible locations along the 007N drainage line. The sampling was performed during a significant rainstorm and flow conditions through the system was steady. Three (3) water samples (007N-1, 007N-2, and 007N-3) were collected along with one sediment sample (SED-01) for VOC analysis. Water sample 007N-1 was collected from the catch basin at the northwest corner of Building 43, 007N-2 was collected from the catch basin west of Building 43, and 007N-3 was collected from the 007N outfall. SED-01 was collected from a floor sump located inside of Building 43. This sump receives groundwater from the groundwater collection sump located inside of Building 43. There was no flow into the floor sump at the time of sampling, therefore, a sediment sample was collected from this location. An additional water sample (V-Sump-1) was collected from the groundwater collection sump to evaluate if PCE is being drawn in from the "hotspot" area in the southeast corner of Building 43. The catch basin sampling locations are shown in Figure 2-1.

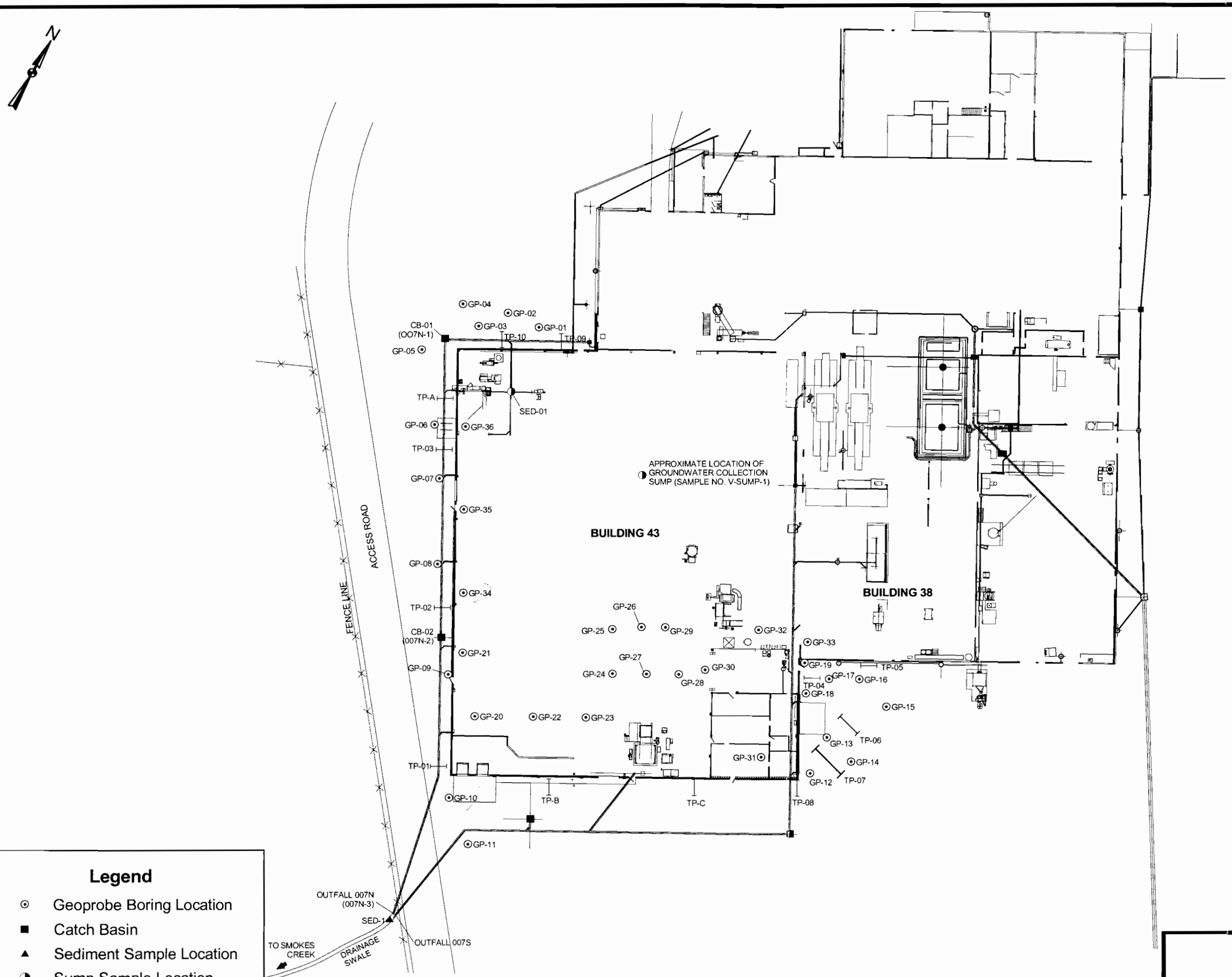
3.0 PHYSICAL CHARACTERISTICS OF THE STUDY AREA

3.1 Surface Features

The facility is situated on a relatively flat parcel of land that drops off in elevation to the west towards Smoke's Creek. Surface water drainage is collected by a series of drainage lines that convey flow to the north and west. Most of the uncollected surface water drainage flows to the southwest and ultimately discharges to Smoke's Creek. A drainage swale runs from northeast to southwest and conveys surface water from outfalls 007N and 007S to Smoke's Creek. Manufacturing and office buildings occupy much of the eastern portion of the site. The western portion of the site is undeveloped and consists of open fields and sparse woodland. A paved access road traverses the site allowing access to the southern loading docks of Buildings 38 and 43.

3.2 Geology and Hydrogeology

The Soil Survey of Erie County defines the area as Brockport silty clay loam that is moderately deep, nearly level, poorly drained soil with a fine-textured subsoil developed in calcareous, clayey, glacial till 1 ½ -to 3 ½ feet thick that overlies shale bedrock. This description is typical of the subsurface material encountered during the test pit program. The overburden material has low permeability with typically discontinuous perched lenses of groundwater that reach seasonal highs of 1-to 1 ½ feet bgs. Groundwater was encountered in seven of the thirteen test pits at depths ranging from 2-to 3 feet bgs. The shale bedrock is typically found near the ground surface and is the uppermost aquifer with groundwater commonly present at depths ranging from 27 to 65 feet bgs. Regional groundwater flow in the shale aquifer is assumed to be to the southwest.



Legend

- Geoprobe Boring Location
- Catch Basin
- Sediment Sample Location
- Sump Sample Location
- Test Pit

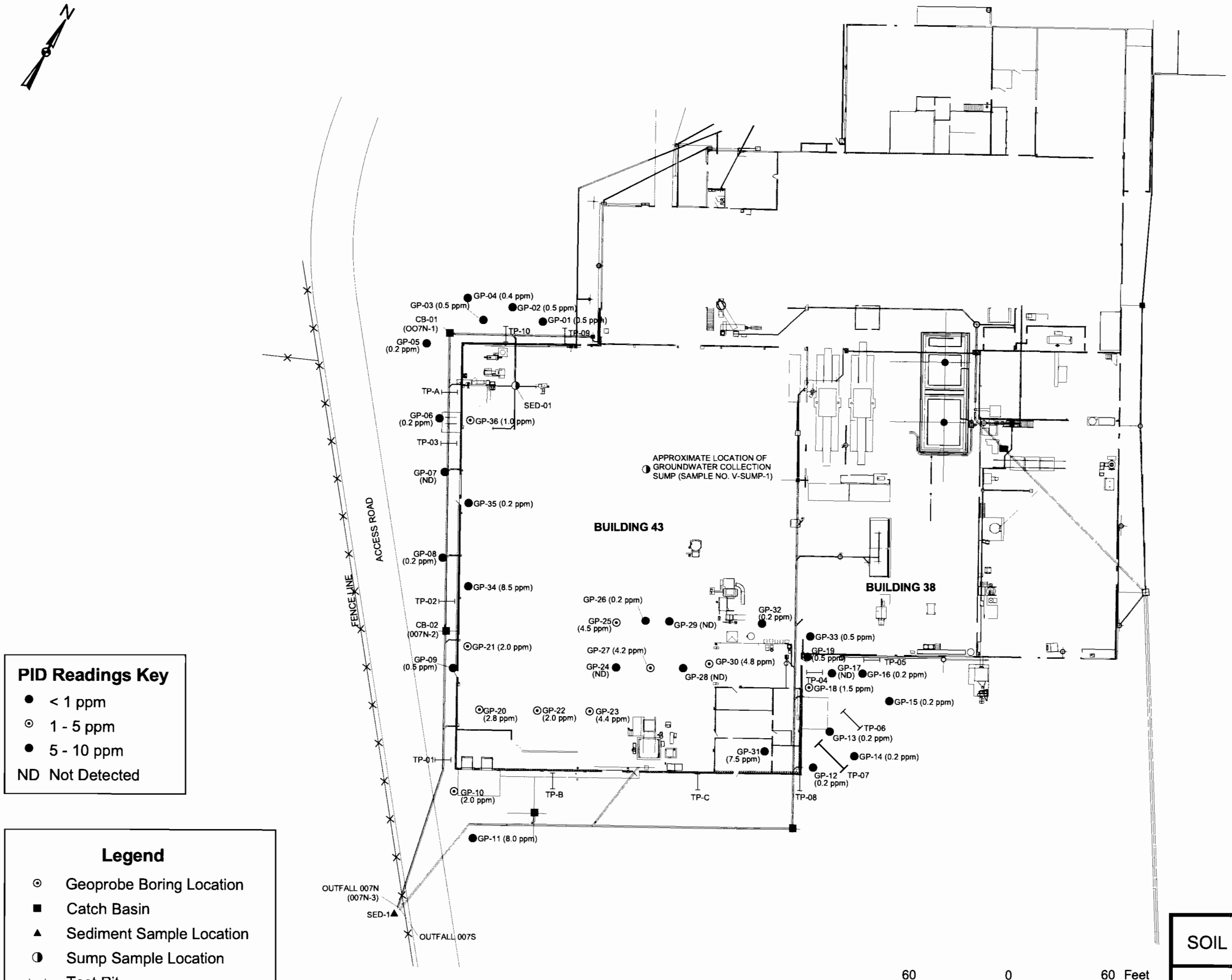
Notes:
1. Sediment samples SED-2 and SED-3 were collected from the drainage swale to Smokes Creek

INVESTIGATION LOCATIONS

URS

FIGURE 2-1

J:\35817.00db\GIS\vesuvuisapr apr FIGURE 2-1 VESUVIUS INVESTIGATION LOCATIONS (11x17) 6/27/2002



PID Readings Key

- ● < 1 ppm
- ⊙ 1 - 5 ppm
- ● 5 - 10 ppm

ND Not Detected

Legend

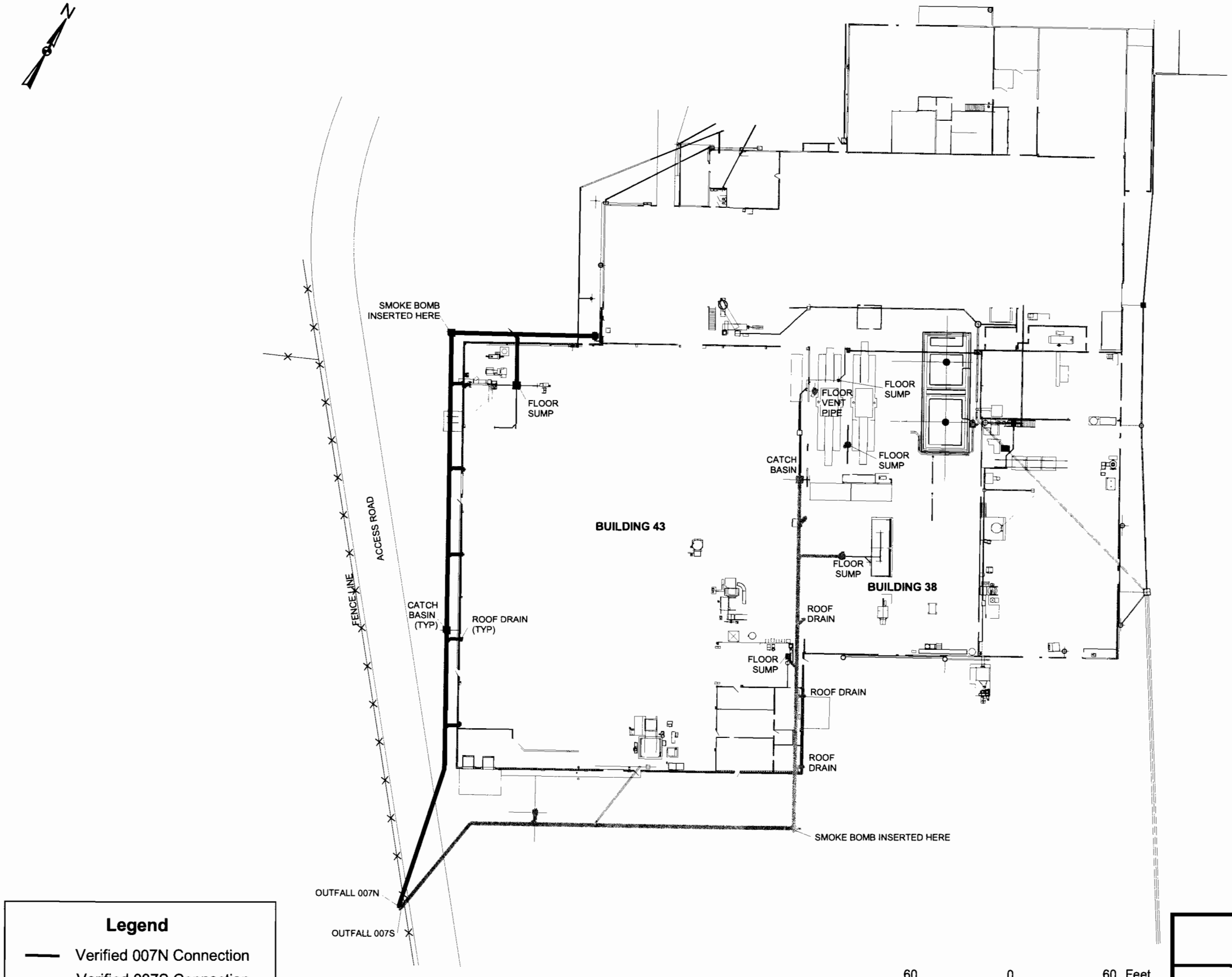
- ⊙ Geoprobe Boring Location
- ■ Catch Basin
- ▲ Sediment Sample Location
- ◑ Sump Sample Location
- ⊢ Test Pit

J:\35817.00\db\GIS\wesuvi\sapr.apr FIGURE 2-2 SOIL VAPOR SURVEY LOCATIONS AND RESULTS (11x17)
6/27/2002

SOIL VAPOR SURVEY LOCATIONS AND RESULTS

URS

FIGURE 2-2



Legend

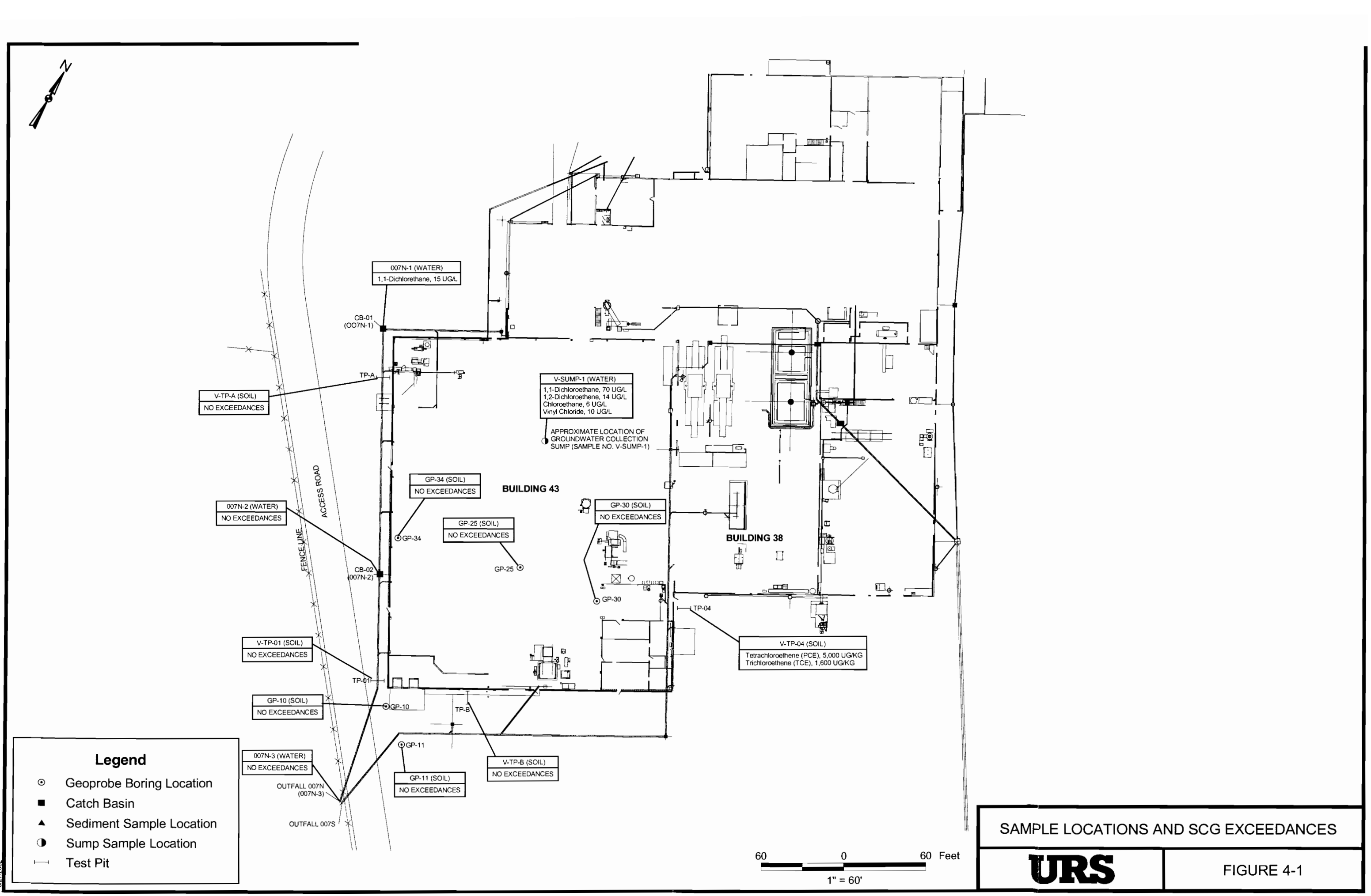
- Verified 007N Connection
- Verified 007S Connection

J:\35817.00\db\GIS\wesvul\sapr apr FIGURE 2-3 SMOKE TEST RESULTS (11x17) 6/27/2002

SMOKE TEST RESULTS

URS

FIGURE 2-3



SAMPLE LOCATIONS AND SCG EXCEEDANCES

URS

FIGURE 4-1

J:\35817.00\gis\vesuvius\apr FIGURE 4-1 SAMPLE LOCATIONS AND SCG EXCEEDANCES 6/27/2002

4.0 NATURE AND EXTENT OF CONTAMINATION

Based on the data collected during the SI, the nature and extent of contamination has been evaluated. The following sections describe the analytical results and comparison to applicable regulatory standards on a media-specific basis.

4.1 Applicable Standards, Criteria, and Guidance

The analytical data obtained from soil, sediment and effluent water samples have been compared to applicable New York State standards, criteria, and guidance (SCG) values. The matrix-specific SCGs are shown below.

Soil/Sediment

New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) 4046: *Determination of Soil Cleanup Objectives and Cleanup Levels*, January 1994, revised.

Groundwater

NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1: *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*, June 1998.

Analytical sample locations and SCG exceedances are shown in Figure 4-1.

4.1.1 Subsurface Soil Sample Analytical Results

Nine (9) subsurface soil samples were collected during this SI; four from test pits, and five from Geoprobe soil borings. Each of the samples were analyzed at Friend Laboratory for VOCs by United States Environmental Protection Agency (USEPA) Method 8260B. No VOCs were detected in soil samples collected from test pits TP-A, TP-B or from soil borings GP-10, GP-11, GP-25, GP-30 and GP-34. One VOC (PCE) was detected in TP-01 at a concentration of 26 microgram per kilogram (µg/kg), which is less than its SCG of 1,400 µg/kg. Two VOCs (PCE and trichloroethene {TCE}) were detected in TP-04 at concentrations of 5,000 µg/kg and 1,600

µg/kg, which exceed their SCGs of 1,400 µg/kg and 700 µg/kg, respectively. Analytical results from the nine subsurface soil samples are shown in Tables 4-1 and 4-2.

4.1.2 Sediment Sample Analytical Results

Four sediment samples were collected during this SI; three samples (SED-1, SED-2, and SED-3) were collected from the drainage swale between outfalls 007N/007S and Smoke's Creek, and one sediment sample (SED-01) was collected from a floor sump located inside of Building 43. Sediment samples SED-1, SED-2, and SED-3 were analyzed at for VOCs at Friend Laboratory. Two VOCs were detected in sediment sample SED-1 (TCE and 1,2-dichloroethene {DCE}) at concentrations of 16 µg/kg and 9 µg/kg, respectively. PCE was the only VOC detected in SED-2 and was present at a concentration of 18 µg/kg. PCE was the only VOC detected in SED-3 and was present at a concentration of 10 µg/kg. The sediment sample collected from the floor sump inside of Building 43 (SED-01) was analyzed at Waste Stream Laboratory (Buffalo, New York) for VOCs by Method 8260B. Eleven (11) VOCs were present in the sample. The VOCs and their detected concentrations include; 1,1-dichloroethane (DCA) at 75 µg/kg, 1,2-DCE at 24 µg/kg, acetone at 42 µg/kg, benzene at 4 µg/kg, carbon disulfide at 12 µg/kg, chloroethane at 7 µg/kg, chloromethane at 18 µg/kg, m&p- xylene at 8 µg/kg, o-xylene at 2 µg/kg, toluene at 7 µg/kg, and vinyl chloride at 14 µg/kg. None of the VOCs detected in any of the sediment samples exceeded the SCG values. Analytical results for the sediment samples are shown in Table 4-3.

4.1.3 Catch Basin Sample Analytical Results

Three (3) water samples (007N-1, 007N-2, and 007N-3) were collected from three locations along the 007N drainage line and one water sample (V-Sump-1) was collected from the groundwater collection sump located inside of Building 43. The water samples were analyzed at Waste Stream Laboratory for VOCs by Method 8260B. Three VOCs were detected in 007N-1 (1,1-DCA, 1,2-DCE and vinyl chloride), but only 1,1 DCA was present at a concentration of 15 micrograms per liter (µg/L), which exceeds its SCG of 5 µg/L. Two VOCs (1,1-DCA and 1,2-DCE) were detected in 007N-2, neither compound exceeded its SCG. One VOC (1,1-DCA) was detected in 007N-3 at a concentration of 1 µg/L, which is less than its SCG of 5 µg/L. Six (6) VOCs were detected in the water sample collected from the groundwater collection sump inside

TABLE 4-1
SOIL SAMPLE ANALYTICAL RESULTS
TEST PIT PROGRAM
VESUVIUS SITE INVESTIGATION

Location ID			TP-01	TP-04	TP-A	TP-B
Sample ID			V-TP-1	V-TP-4	V-TP-A	V-TP-B
Matrix			Soil	Soil	Soil	Soil
Depth Interval (ft)			2.5-3.0	1.5-2.0	2.5-3.0	1.5-2.0
Date Sampled			03/13/01	03/13/01	03/13/01	03/13/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	UG/KG	-	5 U	740 U	6 U	5 U
1,1,1-Trichloroethane	UG/KG	800	5 U	740 U	6 U	5 U
1,1,2,2-Tetrachloroethane	UG/KG	600	5 U	740 U	6 U	5 U
1,1,2-Trichloroethane	UG/KG	-	5 U	740 U	6 U	5 U
1,1-Dichloroethane	UG/KG	200	5 U	740 U	6 U	5 U
1,1-Dichloroethene	UG/KG	400	5 U	740 U	6 U	5 U
1,2,3-Trichloropropane	UG/KG	400	5 U	740 U	6 U	5 U
1,2-Dibromo-3-chloropropane	UG/KG	-	5 U	740 U	6 U	5 U
1,2-Dibromoethane (Ethylene dibromide)	UG/KG	-	5 U	740 U	6 U	5 U
1,2-Dichlorobenzene	UG/KG	7900	5 U	740 U	6 U	5 U
1,2-Dichloroethane	UG/KG	100	5 U	740 U	6 U	5 U
1,2-Dichloroethene (cis)	UG/KG	-	5 U	740 U	6 U	5 U
1,2-Dichloroethene (trans)	UG/KG	300	5 U	740 U	6 U	5 U
1,2-Dichloropropane	UG/KG	-	5 U	740 U	6 U	5 U
1,3-Dichlorobenzene	UG/KG	1600	5 U	740 U	6 U	5 U
1,3-Dichloropropene (cis)	UG/KG	-	5 U	740 U	6 U	5 U
1,3-Dichloropropene (trans)	UG/KG	-	5 U	740 U	6 U	5 U
1,4-Dichlorobenzene	UG/KG	8500	5 U	740 U	6 U	5 U
2-Chloroethyl vinyl ether	UG/KG	-	5 U	740 U	6 U	5 U
2-Chlorotoluene	UG/KG	-	5 U	740 U	6 U	5 U
2-Hexanone	UG/KG	-	10 U	1,500 U	11 U	11 U
4-Chlorotoluene	UG/KG	-	5 U	740 U	6 U	5 U
4-Methyl-2-pentanone	UG/KG	1000	10 U	1,500 U	11 U	11 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-1
SOIL SAMPLE ANALYTICAL RESULTS
TEST PIT PROGRAM
VESUVIUS SITE INVESTIGATION

Location ID			TP-01	TP-04	TP-A	TP-B
Sample ID			V-TP-1	V-TP-4	V-TP-A	V-TP-B
Matrix			Soil	Soil	Soil	Soil
Depth Interval (ft)			2.5-3.0	1.5-2.0	2.5-3.0	1.5-2.0
Date Sampled			03/13/01	03/13/01	03/13/01	03/13/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
Acetone	UG/KG	200	25 U	3,700 U	28 U	27 U
Acrolein	UG/KG	-	20 U	3,000 U	23 U	22 U
Acrylonitrile	UG/KG	-	20 U	3,000 U	23 U	22 U
Benzene	UG/KG	60	0.7 U	100 U	0.8 U	0.8 U
Bromobenzene	UG/KG	-	5 U	740 U	6 U	5 U
Bromodichloromethane	UG/KG	-	5 U	740 U	6 U	5 U
Bromoform	UG/KG	-	5 U	740 U	6 U	5 U
Bromomethane	UG/KG	-	5 U	740 U	6 U	5 U
Carbon disulfide	UG/KG	2700	5 U	740 U	6 U	5 U
Carbon tetrachloride	UG/KG	600	5 U	740 U	6 U	5 U
Chlorobenzene	UG/KG	1700	5 U	740 U	6 U	5 U
Chloroethane	UG/KG	1900	5 U	740 U	6 U	5 U
Chloroform	UG/KG	300	5 U	740 U	6 U	5 U
Chloromethane	UG/KG	-	5 U	740 U	6 U	5 U
Dibromochloromethane	UG/KG	-	5 U	740 U	6 U	5 U
Dibromomethane	UG/KG	-	5 U	740 U	6 U	5 U
Dichlorodifluoromethane	UG/KG	-	5 U	740 U	6 U	5 U
Ethylbenzene	UG/KG	5500	5 U	740 U	6 U	5 U
m&p-Xylene	UG/KG	1200	5 U	740 U	6 U	5 U
Methyl ethyl ketone (2-Butanone)	UG/KG	300	25 U	3,700 U	28 U	27 U
Methylene chloride	UG/KG	100	5	740 U	6 U	5 U
o-Xylene	UG/KG	1200	5 U	740 U	6 U	5 U
Styrene	UG/KG	-	5 U	740 U	6 U	5 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised) Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-1
SOIL SAMPLE ANALYTICAL RESULTS
TEST PIT PROGRAM
VESUVIUS SITE INVESTIGATION

Location ID			TP-01	TP-04	TP-A	TP-B
Sample ID			V-TP-1	V-TP-4	V-TP-A	V-TP-B
Matrix			Soil	Soil	Soil	Soil
Depth Interval (ft)			2.5-3.0	1.5-2.0	2.5-3.0	1.5-2.0
Date Sampled			03/13/01	03/13/01	03/13/01	03/13/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
Tetrachloroethene	UG/KG	1400	26	5,000	6 U	5 U
Toluene	UG/KG	1500	5 U	740 U	6 U	5 U
Trichloroethene	UG/KG	700	5 U	1,600	6 U	5 U
Trichlorofluoromethane	UG/KG	-	5 U	740 U	6 U	5 U
Vinyl chlonde	UG/KG	200	2 U	300 U	2 U	2 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-2
SOIL SAMPLE ANALYTICAL RESULTS
SOIL BORING PROGRAM
VESUVIUS SITE INVESTIGATION

Location ID			GP-10	GP-11	GP-25	GP-30	GP-34
Sample ID			GP-10	GP-11	GP-25	GP-30	GP-34
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			2.0-2.5	2.0-2.5	3.5-4.0	3.0-3.5	1.5-2.0
Date Sampled			03/15/01	03/15/01	03/15/01	03/15/01	03/15/01
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1,2-Tetrachloroethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,1,1-Trichloroethane	UG/KG	800	6 U	5 U	6 U	6 U	5 U
1,1,2,2-Tetrachloroethane	UG/KG	600	6 U	5 U	6 U	6 U	5 U
1,1,2-Trichloroethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,1-Dichloroethane	UG/KG	200	6 U	5 U	6 U	6 U	5 U
1,1-Dichloroethene	UG/KG	400	6 U	5 U	6 U	6 U	5 U
1,2,3-Trichloropropane	UG/KG	400	6 U	5 U	6 U	6 U	5 U
1,2-Dibromo-3-chloropropane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,2-Dibromoethane (Ethylene dibromide)	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,2-Dichlorobenzene	UG/KG	7900	6 U	5 U	6 U	6 U	5 U
1,2-Dichloroethane	UG/KG	100	6 U	5 U	6 U	6 U	5 U
1,2-Dichloroethene (cis)	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,2-Dichloroethene (trans)	UG/KG	300	6 U	5 U	6 U	6 U	5 U
1,2-Dichloropropane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,3-Dichlorobenzene	UG/KG	1600	6 U	5 U	6 U	6 U	5 U
1,3-Dichloropropene (cis)	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,3-Dichloropropene (trans)	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,4-Dichlorobenzene	UG/KG	8500	6 U	5 U	6 U	6 U	5 U
2-Chloroethyl vinyl ether	UG/KG	-	6 U	5 U	6 U	6 U	5 U
2-Chlorotoluene	UG/KG	-	6 U	5 U	6 U	6 U	5 U
2-Hexanone	UG/KG	-	11 U	10 U	12 U	11 U	11 U
4-Chlorotoluene	UG/KG	-	6 U	5 U	6 U	6 U	5 U
4-Methyl-2-pentanone	UG/KG	1000	11 U	10 U	12 U	11 U	11 U

*Criteria- NYSDEC TAGM. Determination of Soil Cleanup Objectives and Cleanup Levels, HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-2
SOIL SAMPLE ANALYTICAL RESULTS
SOIL BORING PROGRAM
VESUVIUS SITE INVESTIGATION

Location ID			GP-10	GP-11	GP-25	GP-30	GP-34
Sample ID			GP-10	GP-11	GP-25	GP-30	GP-34
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			2.0-2.5	2.0-2.5	3.5-4.0	3.0-3.5	1.5-2.0
Date Sampled			03/15/01	03/15/01	03/15/01	03/15/01	03/15/01
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Acetone	UG/KG	200	28 U	26 U	31 U	36	26 U
Acrolein	UG/KG	-	22 U	21 U	25 U	23 U	21 U
Acrylonitrile	UG/KG	-	22 U	21 U	25 U	23 U	21 U
Benzene	UG/KG	60	0.8 U	0.7 U	0.9 U	0.8 U	0.7 U
Bromobenzene	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Bromodichloromethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Bromoform	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Bromomethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Carbon disulfide	UG/KG	2700	6 U	5 U	6 U	6 U	5 U
Carbon tetrachloride	UG/KG	600	6 U	5 U	6 U	6 U	5 U
Chlorobenzene	UG/KG	1700	6 U	5 U	6 U	6 U	5 U
Chloroethane	UG/KG	1900	6 U	5 U	6 U	6 U	5 U
Chloroform	UG/KG	300	6 U	5 U	6 U	6 U	5 U
Chloromethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Dibromochloromethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Dibromomethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Dichlorodifluoromethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Ethylbenzene	UG/KG	5500	6 U	5 U	6 U	6 U	5 U
m&p-Xylene	UG/KG	1200	6 U	5 U	6 U	6 U	5 U
Methyl ethyl ketone (2-Butanone)	UG/KG	300	28 U	26 U	31 U	29 U	26 U
Methylene chloride	UG/KG	100	6 U	5 U	6 U	6 U	5 U
o-Xylene	UG/KG	1200	6 U	5 U	6 U	6 U	5 U
Styrene	UG/KG	-	6 U	5 U	6 U	6 U	5 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-2
SOIL SAMPLE ANALYTICAL RESULTS
SOIL BORING PROGRAM
VESUVIUS SITE INVESTIGATION

Location ID			GP-10	GP-11	GP-25	GP-30	GP-34
Sample ID			GP-10	GP-11	GP-25	GP-30	GP-34
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			2.0-2.5	2.0-2.5	3.5-4.0	3.0-3.5	1.5-2.0
Date Sampled			03/15/01	03/15/01	03/15/01	03/15/01	03/15/01
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Tetrachloroethene	UG/KG	1400	6 U	5 U	6 U	6 U	5 U
Toluene	UG/KG	1500	6 U	5 U	6 U	6 U	5 U
Trichloroethene	UG/KG	700	6 U	5 U	6 U	6 U	5 U
Trichlorofluoromethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Vinyl chloride	UG/KG	200	2 U	2 U	2 U	2 U	2 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-3
SEDIMENT SAMPLE ANALYTICAL RESULTS
VESUVIUS SITE INVESTIGATION

Location ID			SED-01	SED-1	SED-2	SED-3
Sample ID			SED-01	SED-1	SED-2	SED-3
Matrix			Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)			-	-	-	-
Date Sampled			09/25/01	03/15/01	03/15/01	03/15/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	UG/KG	-	NA	6 U	7 U	6 U
1,1,1-Trichloroethane	UG/KG	800	10 U	6 U	7 U	6 U
1,1,2,2-Tetrachloroethane	UG/KG	600	10 U	6 U	7 U	6 U
1,1,2-Trichloroethane	UG/KG	-	99 U	6 U	7 U	6 U
1,1-Dichloroethane	UG/KG	200	75	6 U	7 U	6 U
1,1-Dichloroethene	UG/KG	400	10 U	23 U	35 U	6 U
1,2,3-Trichloropropane	UG/KG	400	NA	6 U	7 U	6 U
1,2-Dibromo-3-chloropropane	UG/KG	-	NA	6 U	7 U	6 U
1,2-Dibromoethane (Ethylene dibromide)	UG/KG	-	NA	6 U	7 U	6 U
1,2-Dichlorobenzene	UG/KG	7900	NA	6 U	7 U	6 U
1,2-Dichloroethane	UG/KG	100	10 U	0.8 U	7 U	6 U
1,2-Dichloroethene (cis)	UG/KG	-	24	9	35 U	6 U
1,2-Dichloroethene (trans)	UG/KG	300	10 U	23 U	7 U	6 U
1,2-Dichloropropane	UG/KG	-	10 U	6 U	7 U	6 U
1,3-Dichlorobenzene	UG/KG	1600	NA	6 U	7 U	6 U
1,3-Dichloropropene (cis)	UG/KG	-	10 U	6 U	7 U	6 U
1,3-Dichloropropene (trans)	UG/KG	-	10 U	6 U	7 U	6 U
1,4-Dichlorobenzene	UG/KG	8500	NA	6 U	7 U	6 U
2-Chloroethyl vinyl ether	UG/KG	-	99 U	6 U	7 U	6 U
2-Chlorotoluene	UG/KG	-	NA	6 U	7 U	6 U
2-Hexanone	UG/KG	-	10 U	11 U	14 U	12 U
4-Chlorotoluene	UG/KG	-	NA	6 U	7 U	6 U
4-Methyl-2-pentanone	UG/KG	1000	10 U	11 U	14 U	12 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-3
SEDIMENT SAMPLE ANALYTICAL RESULTS
VESUVIUS SITE INVESTIGATION

Location ID			SED-01	SED-1	SED-2	SED-3
Sample ID			SED-01	SED-1	SED-2	SED-3
Matrix			Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)			-	-	-	-
Date Sampled			09/25/01	03/15/01	03/15/01	03/15/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
Acetone	UG/KG	200	42 J	6 U	7 U	30 U
Acrolein	UG/KG	-	NA	6 U	7 U	24 U
Acrylonitrile	UG/KG	-	NA	6 U	7 U	24 U
Benzene	UG/KG	60	4 J	6 U	7 U	0.8 U
Bromobenzene	UG/KG	-	NA	6 U	7 U	6 U
Bromodichloromethane	UG/KG	-	10 U	6 U	7 U	6 U
Bromoform	UG/KG	-	10 U	6 U	7 U	6 U
Bromomethane	UG/KG	-	20 U	2 U	7 U	6 U
Carbon disulfide	UG/KG	2700	12 J	28 U	7 U	6 U
Carbon tetrachloride	UG/KG	600	10 U	6 U	1 U	6 U
Chlorobenzene	UG/KG	1700	10 U	6 U	7 U	6 U
Chloroethane	UG/KG	1900	7 J	6 U	7 U	6 U
Chloroform	UG/KG	300	10 U	28 U	7 U	6 U
Chloromethane	UG/KG	-	18 J	6 U	7 U	6 U
Dibromochloromethane	UG/KG	-	10 U	6 U	7 U	6 U
Dibromomethane	UG/KG	-	NA	6 U	7 U	6 U
Dichlorodifluoromethane	UG/KG	-	NA	0 U	7 U	6 U
Ethylbenzene	UG/KG	5500	10 U	6 U	7 U	6 U
m&p-Xylene	UG/KG	1200	8 J	6 U	7 U	6 U
Methyl ethyl ketone (2-Butanone)	UG/KG	300	198 U	6 U	7 U	30 U
Methylene chloride	UG/KG	100	10 U	6 U	28 U	6 U
o-Xylene	UG/KG	1200	2 J	6 U	7 U	6 U
Styrene	UG/KG	-	10 U	6 U	7 U	6 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels: HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

Advanced Selection: SEDIMENT
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TABLE 4-3
SEDIMENT SAMPLE ANALYTICAL RESULTS
VESUVIUS SITE INVESTIGATION

Location ID			SED-01	SED-1	SED-2	SED-3
Sample ID			SED-01	SED-1	SED-2	SED-3
Matrix			Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)			-	-	-	-
Date Sampled			09/25/01	03/15/01	03/15/01	03/15/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
Tetrachloroethene	UG/KG	1400	10 U	6 U	18	10
Toluene	UG/KG	1500	7 J	6 U	7 U	6 U
Trichloroethene	UG/KG	700	10 U	16	7 U	6 U
Trichlorofluoromethane	UG/KG	-	NA	6 U	28 U	6 U
Vinyl acetate	UG/KG	-	99 U	NA	NA	NA
Vinyl chloride	UG/KG	200	14 J	6 U	3 U	2 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels. HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

Building 43 (V-Sump-1). Four of the six VOCs detected exceed their SCGs including; 1,1-DCA at 70 µg/L, 1,2-DCE at 14 µg/L, chloroethane at 6 µg/L, and vinyl chloride at 10 µg/L. Analytical results from catch basins/floor sumps are shown in Table 4-4.

TABLE 4-4
CATCH BASIN/SUMP SAMPLE ANALYTICAL RESULTS
VESUVIUS SITE INVESTIGATION

Location ID			007N-3	CB-01	CB-02	Sump-1
Sample ID			007N-3	007N-1	007N-2	V-Sump-1
Matrix			Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-
Date Sampled			09/25/01	09/25/01	09/25/01	01/25/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/L	5	5 U	5 U	5 U	2 J
1,1,2,2-Tetrachloroethane	UG/L	5	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	UG/L	1	5 U	5 U	5 U	5 U
1,1-Dichloroethane	UG/L	5	1 J	15	5	70
1,1-Dichloroethene	UG/L	5	5 U	5 U	5 U	5 U
1,2-Dichloroethane	UG/L	0.6	5 U	5 U	5 U	5 U
1,2-Dichloroethene (cis)	UG/L	5	5 U	5	1 J	14
1,2-Dichloroethene (trans)	UG/L	5	5 U	5 U	5 U	5 U
1,2-Dichloropropane	UG/L	1	5 U	5 U	5 U	5 U
1,3-Dichloropropene (cis)	UG/L	0.4	5 U	5 U	5 U	5 U
1,3-Dichloropropene (trans)	UG/L	0.4	5 U	5 U	5 U	5 U
2-Chloroethyl vinyl ether	UG/L	-	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	50	50 U	50 U	50 U	50 U
4-Methyl-2-pentanone	UG/L	-	50 U	50 U	50 U	50 U
Acetone	UG/L	50	100 U	100 U	100 U	100 U
Benzene	UG/L	1	5 U	5 U	5 U	5 U
Bromodichloromethane	UG/L	50	5 U	5 U	5 U	5 U
Bromoform	UG/L	50	5 U	5 U	5 U	5 U
Bromomethane	UG/L	5	10 U	10 U	10 U	10 U
Carbon disulfide	UG/L	60	5 U	5 U	5 U	5 U
Carbon tetrachloride	UG/L	5	5 U	5 U	5 U	5 U
Chlorobenzene	UG/L	5	5 U	5 U	5 U	5 U
Chloroethane	UG/L	5	10 U	10 U	10 U	6 J

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class GA.

Flags assigned during chemistry validation are shown.

(oval) Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-4
CATCH BASIN/SUMP SAMPLE ANALYTICAL RESULTS
VESUVIUS SITE INVESTIGATION

Location ID			007N-3	CB-01	CB-02	Sump-1
Sample ID			007N-3	007N-1	007N-2	V-Sump-1
Matrix			Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-
Date Sampled			09/25/01	09/25/01	09/25/01	01/25/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
Chloroform	UG/L	7	5 U	5 U	5 U	5 U
Chloromethane	UG/L	5	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	50	5 U	5 U	5 U	5 U
Ethylbenzene	UG/L	5	5 U	5 U	5 U	5 U
m&p-Xylene	UG/L	5	5 U	5 U	5 U	5 U
Methyl ethyl ketone (2-Butanone)	UG/L	50	100 U	100 U	100 U	100 U
Methylene chloride	UG/L	5	5 U	5 U	5 U	5 U
o-Xylene	UG/L	5	5 U	5 U	5 U	5 U
Styrene	UG/L	5	5 U	5 U	5 U	5 U
Tetrachloroethene	UG/L	5	5 U	5 U	5 U	5 U
Toluene	UG/L	5	5 U	5 U	5 U	5 U
Trichloroethene	UG/L	5	5 U	5 U	5 U	1 J
Vinyl acetate	UG/L	50	50 U	50 U	50 U	50 U
Vinyl chloride	UG/L	2	10 U	2 J	10 U	10

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class GA.

Flags assigned during chemistry validation are shown

(oval) Concentration Exceeds Criteria.

Detection Limits shown are PQL

5.0 SUMMARY AND CONCLUSIONS

5.1 Summary

URS performed a SI at the Vesuvius facility located at 661 Willet Road in the City of Lackawanna, New York. The SI was conducted to investigate possible sources of PCE contamination that may be intermittently contributing to the storm water discharge at outfall 007N. Vesuvuis conducted an investigation in 1999 to identify areas in and around Buildings 38 and 43. Thirty-six (36) soil borings were advanced and fifteen soil samples were collected for VOC analysis. An area exhibiting elevated levels of PCE in soil was identified in the southeast corner of Building 43 at its junction with Building 38.

URS performed several investigative activities between March 2001 and January 2002. A subsurface investigation was conducted in March 2001 that consisted of excavation of thirteen test pits, advancement of thirty-six soil vapor points (19 outside and 17 inside of Building 43 and 38), and collection of nine soil samples and three sediment samples for VOC analysis. The soil samples were collected from the four test pits (TP-01, TP-04, TP-A, and TP-B) and five soil vapor points (GP-10, GP-11, GP-25, GP-30, and GP-34) that exhibited elevated PID readings. The sediment samples were collected from the drainage swale between outfalls 007N/007S and Smoke's Creek. Geological material encountered during the test pit program is consistent with the Brockport silty clay. This overburden material rests on shale bedrock that is 1-to 4 feet bgs across the site. There is no overburden aquifer, but perched water was encountered in some test pit locations.

URS performed a smoke test in July 2001 to verify connections to 007N and 007S drainage lines. Three water samples (007N-1, 007N-2, and 007N-3) were collected from catch basins and along 007N and one sediment sample (SED-01) from a floor sump inside of Building 43 were sampled for VOCs in September 2001. The samples were collected to evaluate PCE concentrations (if any) at various locations within the drainage line associated with 007N. Also, a water sample (V-SUMP-1) was collected from the groundwater collection sump located inside of Building 43 in January 2002. The sump was sampled to evaluate if the pumping of groundwater draws potentially contaminated groundwater into the 007N drainage line.

Sample analytical results were compared to the appropriate matrix-specific SCGs. A sample analytical summary is presented below.

Soil

- No VOCs exceed SCGs in soil samples collected from TP-1, TP-A, TP-B, GP-10, GP-11, GP-25, GP-30, and GP-34.

- TP-4 soil sample had PCE at 5,000 µg/kg and TCE at 1,600 µg/kg. These concentrations exceed their SCGs of 1,400 µg/kg and 700 µg/kg, respectively.

Water

- No VOCs exceed their SCGs in water samples 007N-2 or 007N-3.

- CB-1 (007N-1) water sample had 1,1-DCA at 15 µg/L, which exceeds its SCG of 5 µg/L.

- V-Sump-1 water sample had 1,1-DCA at 70 µg/L, 1,2-DCE at 14 µg/L, chloroethane at 6 µg/L that exceed their SCG value of 5 µg/L, and vinyl chloride at 10 µg/L that exceeds its SCG of 2 µg/L.

Sediment

- The three sediment samples (SED-1, SED-2, and SED-3) collected in the drainage swale to Smoke's Creek showed no VOCs at concentrations that exceed their SCGs.

- The sediment sample collected from the floor sump inside of Building 43 (SED-01) showed no VOCs at concentrations that exceed their SCGs.

5.2 Conclusions

Based on the data collected during this SI, and during previously conducted investigations, the following conclusions have been made.

- One PCE hotspot was identified in soil at the southeast corner of Building 43 near its junction with Building 38. Migration pathways from this area to the 007N drainage line were thoroughly investigated. Contaminant migration from this area is not occurring along the buildings footer or along the sand bedding in which 007N and/or 007S drain lines are set. Contaminant migration is not occurring from this area along the reported stream channel that existed under Building 43.

- Although some VOCs were detected in the groundwater collection sump inside of Building 43, PCE was not detected, therefore, the sump is not considered to be a consistent mechanism of transport from the hotspot area to 007N.

- The smoke test verified that the 007N line has no contributors at or near the hotspot, and that 007N and 007S are not connected to each other.

- A total of 24 soil samples were collected during this and previous sampling events in and around 007N and Buildings 38 and 43. Only one area (southeast corner of Building 43) showed PCE at levels that exceed its SCG that possibly could contribute to the intermittent PCE detections encountered during the monthly SPEDES sampling at 007N.

- PCE has little affect on the sediments of the drainage swale from outfalls 007N/007S to Smoke's Creek. Only trace amounts of PCE were detected in the samples collected from this swale.

After a complete evaluation of the data collected to date, URS and Vesuvius personnel met to discuss appropriate remedial actions for the site. Plate 1 shows the investigation locations and results. It was determined that hotspot removal would be the most appropriate course of action for the site. PCE was not found in any other areas on site at levels that could contribute to the intermittent problem at outfall 007N. The following section describes the remedial action.

6.0 REMEDIAL ACTION

In January 2002, URS performed a remedial action consisting of the excavation and off site disposal of soils at the southeast corner of Building 43 at its junction with Building 38. URS contracted Integrated Waste Removal, Inc. (Lackawanna, New York) to perform the soil excavation and removal. A 16 foot by 16 foot by 1½ foot deep area was excavated and soil was screened with a PID to determine the extent of excavation. Four soil samples (V-SW-E, V-SW-N, V-SW-S, and V-SW-W) were collected from the walls of the excavation for confirmatory VOC analysis. Samples were not collected from the bottom of the excavation as weathered shale bedrock was present at a depth of 1.5 feet bgs.

Soil samples collected from the south wall (V-SW-S), north wall (V-SW-N), and west wall (V-SW-W) showed no VOCs at concentrations that exceed the SCGs. In fact, only trace amounts of PCE (20 µg/kg or less) and TCE (2 µg/kg or less) were detected in these samples. The soil sample collected from the east wall (V-SW-E) had PCE at 417 µg/kg and TCE at 4 µg/kg. Although these concentrations are less than their SCGs, an additional six feet of soil was excavated from the east wall and a soil sample (V-East Wall-R) was collected for VOC analysis. The soil sample had PCE at 1,070 µg/kg and TCE at 60 µg/kg. Again, these concentrations are less than their SCGs. The excavation was backfilled with clean fill and the excavated soil was taken to Modern Landfill for disposal. Soil sample analytical results are shown in Table 6-1 and the excavation area is shown in Figure 6-1.

TABLE 6-1
SOIL SAMPLE ANALYTICAL RESULTS
REMEDIAL ACTION EXCAVATION
VESUVIUS SITE INVESTIGATION

Location ID			East Wall-R	SW-E	SW-N	SW-S	SW-W
Sample ID			V-East Wall-R	V-SW-E	V-SW-N	V-SW-S	V-SW-W
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/14/02	01/24/02	01/24/02	01/24/02	01/24/02
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	800	2 U	2 U	2 U	2 U	2 U
1,1,2,2-Tetrachloroethane	UG/KG	600	2 U	2 U	2 U	2 U	2 U
1,1,2-Trichloroethane	UG/KG	-	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethane	UG/KG	200	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethene	UG/KG	400	2 U	2 U	2 U	2 U	2 U
1,2-Dichloroethane	UG/KG	100	2 U	2 U	2 U	2 U	2 U
1,2-Dichloroethene (cis)	UG/KG	-	5	2 U	2 U	2 U	2 U
1,2-Dichloroethene (trans)	UG/KG	300	2 U	2 U	2 U	2 U	2 U
1,2-Dichloropropane	UG/KG	-	2 U	2 U	2 U	2 U	2 U
1,3-Dichloropropene (cis)	UG/KG	-	2 U	2 U	2 U	2 U	2 U
1,3-Dichloropropene (trans)	UG/KG	-	2 U	2 U	2 U	2 U	2 U
2-Hexanone	UG/KG	-	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	UG/KG	1000	10 U	10 U	10 U	10 U	10 U
Acetone	UG/KG	200	18	13	10 U	10 U	10 U
Benzene	UG/KG	60	2 U	2 U	2 U	2 U	2 U
Bromodichloromethane	UG/KG	-	2 U	2 U	2 U	2 U	2 U
Bromoform	UG/KG	-	2 U	2 U	2 U	2 U	2 U
Bromomethane	UG/KG	-	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	UG/KG	2700	2 U	2 U	2 B	2 U	2 U
Carbon tetrachloride	UG/KG	600	2 U	2 U	2 U	2 U	2 U
Chlorobenzene	UG/KG	1700	2 U	2 U	2 U	2 U	2 U
Chloroethane	UG/KG	1900	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/KG	300	2 U	2 U	2 U	2 U	2 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels: HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 6-1
SOIL SAMPLE ANALYTICAL RESULTS
REMEDIAL ACTION EXCAVATION
VESUVIUS SITE INVESTIGATION

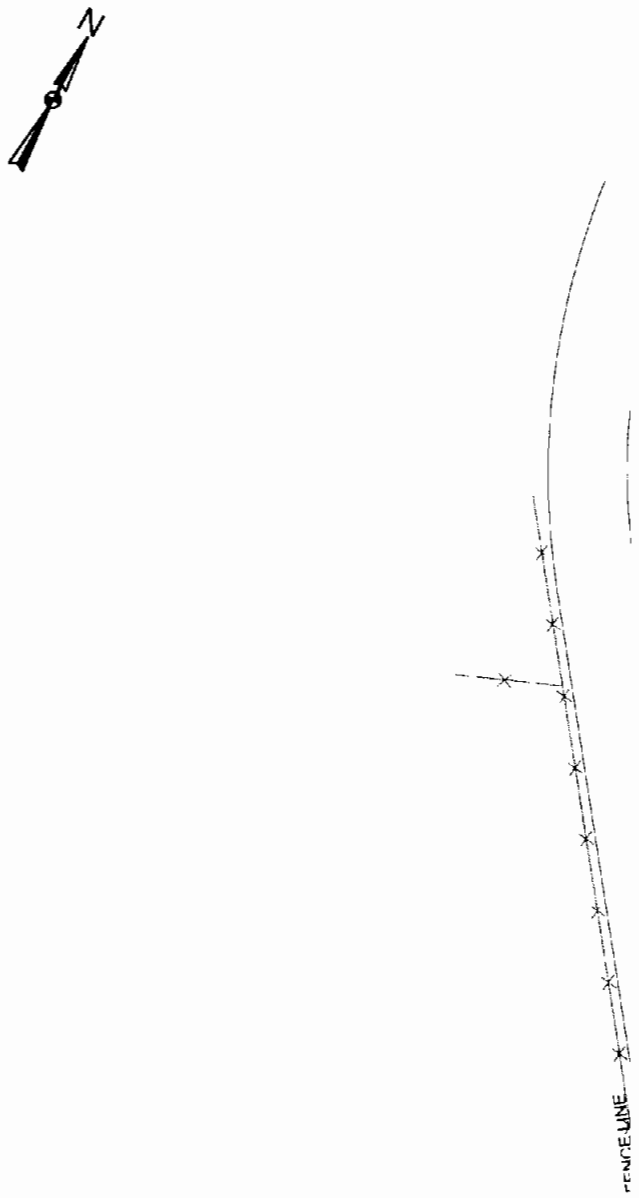
Location ID			East Wall-R	SW-E	SW-N	SW-S	SW-W
Sample ID			V-East Wall-R	V-SW-E	V-SW-N	V-SW-S	V-SW-W
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/14/02	01/24/02	01/24/02	01/24/02	01/24/02
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Chloromethane	UG/KG	-	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/KG	-	2 U	2 U	2 U	2 U	2 U
Ethylbenzene	UG/KG	5500	2 U	2 U	2 U	2 U	2 U
m&p-Xylene	UG/KG	1200	2 U	2 U	2 U	2 U	2 U
Methyl ethyl ketone (2-Butanone)	UG/KG	300	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/KG	100	14	2 U	2 B	2 U	2 B
o-Xylene	UG/KG	1200	2 U	2 U	2 U	2 U	2 U
Styrene	UG/KG	-	2 U	2 U	2 U	2 U	2 U
Tetrachloroethene	UG/KG	1400	1,070 D	417 D	20	8	7
Toluene	UG/KG	1500	2 U	2 U	2 U	2 U	2 U
Trichloroethene	UG/KG	700	60	4	2 U	2	2 U
Vinyl acetate	UG/KG	-	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	UG/KG	200	10 U	10 U	10 U	10 U	10 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised) Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL



Legend

- ⊙ Geoprobe Boring Location
- ■ Catch Basin
- ▲ Sediment Sample Location
- ◑ Sump Sample Location
- ⊢ Test Pit

OUTFALL
(0

OUT

REMEDIAL ACTION EXCAVATION AREA

URS

FIGURE 6-1

J:\35817.00\db\GIS\vesuvuisapr apr FIGURE 6-1 REMEDIAL ACTION EXCAVATION AREA
6/27/2002

APPENDIX A

TEST PIT LOGS

TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR		SHEET: 1 OF 1	
CLIENT: Vesuvius		JOB NUMBER: 0500035817.00.00000	
CONTRACTOR: SJB Drilling		LOCATION: Southwest corner of Building 43	
DATE STARTED: March 13, 2001		GROUND ELEVATION:	
DATE COMPLETED: March 13, 2001		OPERATOR: Art Koske	
PIT NUMBER: TP-1		GEOLOGIST: Kevin Kearney	
		GROUNDWATER: ~ 3.0'	

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1			Brown/gray fine to medium sand, some gravel	75.0
2				
3	1	grab		
4			Test pit completed to 3.0' bgs	
5				
6				
7				
8				
9				
10				
11				
12				

COMMENTS:
Test pit was 8'L x 3'W x 3'D
Sample for VOC analysis collected at 3.0'

TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR		SHEET: 1 OF 1
CLIENT: Vesuvius	JOB NUMBER: 0500035817.00.00000	
CONTRACTOR: SJB Drilling	LOCATION: West of Building 43	
DATE STARTED: March 13, 2001	GROUND ELEVATION:	
DATE COMPLETED: March 13, 2001	OPERATOR: Art Koske	
PIT NUMBER: TP-2	GEOLOGIST: Kevin Kearney	
	GROUNDWATER: Not Encountered	

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1			Gray, weathered shale	0 5
2				
3			Brown, fine to medium sand surrounding 007N corrugated metal pipe	40 0
4			Test pit completed to 3.0 bgs	
5				
6				
7				
8				
9				
10				
11				
12				

COMMENTS:
Test pit was 8'L x 3'W x 3'D

TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR	SHEET: 1 OF 1
CLIENT: Vesuvius	JOB NUMBER: 0500035817.00.00000
CONTRACTOR: SJB Drilling	LOCATION: West of Building 43
DATE STARTED: March 13, 2001	GROUND ELEVATION:
DATE COMPLETED: March 13, 2001	OPERATOR: Art Koske
PIT NUMBER: TP-3	GEOLOGIST: Kevin Kearney
	GROUNDWATER: ~ 3.0'

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1			Gray, weathered shale	0.5
2				
3			Brown, fine to medium sand surrounding 007N corrugated metal pipe	26.0
4			Test pit complete to 3.0' bgs	
5				
6				
7				
8				
9				
10				
11				
12				

COMMENTS:
Test pit was 8'L x 3'W x 3'D

TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR		SHEET: 1 OF 1
CLIENT: Vesuvius	JOB NUMBER: 0500035817.00.00000	
CONTRACTOR: SJB Drilling	LOCATION: Corner of Buildings 43 and 38	
DATE STARTED: March 13, 2001	GROUND ELEVATION:	
DATE COMPLETED: March 13, 2001	OPERATOR: Art Koske	
PIT NUMBER: TP-4	GEOLOGIST: Kevin Kearney	
	GROUNDWATER: ~ 3.0'	

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1	1	grab	Fill consisting of black sand with some brick and metal parts. Slight odor.	110.0
2				
3			Gray weathered shale	
4			Test pit completed to 3.0' bgs	
5				
6				
7				
8				
9				
10				
11				
12				

COMMENTS:
Test pit was 12'L x 3'W x 3'D
Sample for VOC analysis collected at 1.5'

TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR		SHEET: 1 OF 1	
CLIENT: Vesuvius		JOB NUMBER: 0500035817.00.00000	
CONTRACTOR: SJB Drilling		LOCATION: South of Building 38	
DATE STARTED: March 13, 2001		GROUND ELEVATION:	
DATE COMPLETED: March 13, 2001		OPERATOR: Art Koske	
PIT NUMBER: TP-5		GEOLOGIST: Kevin Kearney	
		GROUNDWATER: Not Encountered	

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1			Fill consisting of black sand and gravel with brick, clay pipes, metal parts, and carbon disks.	1.5
2			Gray weathered shale	
3			Test pit completed to 2.5 bgs	
4				
5				
6				
7				
8				
9				
10				
11				
12				

COMMENTS:

TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR	SHEET: 1 OF 1
CLIENT: Vesuvius	JOB NUMBER: 0500035817.00.00000
CONTRACTOR: SJB Drilling	LOCATION: South of Building 38
DATE STARTED: March 13, 2001	GROUND ELEVATION:
DATE COMPLETED: March 13, 2001	OPERATOR: Art Koske
PIT NUMBER: TP-6	GEOLOGIST: Kevin Kearney
	GROUNDWATER: ~ 2.0'

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1			Fill consisting of silty clay with some brick and gravel	1.0
2			Gray weathered shale	
3			Test pit completed to 2.5' bgs	
4				
5				
6				
7				
8				
9				
10				
11				
12				

COMMENTS:

TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR		SHEET: 1 OF 1	
CLIENT: Vesuvius		JOB NUMBER: 0500035817.00.00000	
CONTRACTOR: SJB Drilling		LOCATION: Southeast corner of Building 43	
DATE STARTED: March 13, 2001		GROUND ELEVATION:	
DATE COMPLETED: March 13, 2001		OPERATOR: Art Koske	
PIT NUMBER: TP-7		GEOLOGIST: Kevin Kearney	
		GROUND WATER: ~ 2.0'	

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1			Silty clay and shale	1 0
2			Gray weathered shale	
3			Test pit completed to 2.5' bgs	
4				
5				
6				
7				
8				
9				
10				
11				
12				

COMMENTS:

TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR		SHEET: 1 OF 1	
CLIENT: Vesuvius		JOB NUMBER: 0500035817.00.00000	
CONTRACTOR: SJB Drilling		LOCATION: Southeast corner of Building 43	
DATE STARTED: March 13, 2001		GROUND ELEVATION:	
DATE COMPLETED: March 13, 2001		OPERATOR: Art Koske	
PIT NUMBER: TP-8		GEOLOGIST: Kevin Kearney	
		GROUNDWATER: ~ 2.5'	

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1			Fill consisting of brown/black sand with some brick and metal parts	0.5
2			Black weathered shale and clay	25.0
			Brown sand around clay tile pipe	35.0
3			Test pit completed to 2.5' bgs	
4				
5				
6				
7				
8				
9				
10				
11				
12				

COMMENTS:
Test pit was 8'L x 3'W x 2.5'D

TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR	SHEET: 1 OF 1
CLIENT: Vesuvius	JOB NUMBER: 0500035817.00.00000
CONTRACTOR: SJB Drilling	LOCATION: North of Building 43
DATE STARTED: March 13, 2001	GROUND ELEVATION:
DATE COMPLETED: March 13, 2001	OPERATOR: Art Koske
PIT NUMBER: TP-9	GEOLOGIST: Kevin Kearney
	GROUNDWATER: Not Encountered

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1			Gray, weathered shale and soil	0.5
3			Test pit completed to 3.0' bgs	

COMMENTS:
Test pit 8'L x 3'W x 3'D

TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR		SHEET: 1 OF 1
CLIENT: Vesuvius	JOB NUMBER: 0500035817.00.00000	
CONTRACTOR: SJB Drilling	LOCATION: North of Building 43	
DATE STARTED: March 13, 2001	GROUND ELEVATION:	
DATE COMPLETED: March 13, 2001	OPERATOR: Art Koske	
PIT NUMBER: TP-10	GEOLOGIST: Kevin Kearney	
	GROUNDWATER: Not Encountered	

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1			Gray weathered shale and clay	1.0
2				
3			Test pit completed to 2.5' bgs	
4				
5				
6				
7				
8				
9				
10				
11				
12				

COMMENTS:
Test pit was 8'L x 3' W x 2.5'D

TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR			SHEET: 1 OF 1
CLIENT: Vesuvius		JOB NUMBER: 0500035817.00.00000	
CONTRACTOR: SJB Drilling		LOCATION: Northwest corner of Building 43	
DATE STARTED: March 13, 2001		GROUND ELEVATION:	
DATE COMPLETED: March 13, 2001		OPERATOR: Art Koske	
PIT NUMBER: TP-A		GEOLOGIST: Kevin Kearney	
		GROUNDWATER: Not Encountered	

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1			Gray, weathered shale and clay	0.5
2				
3	1	Grab	Brown, fine to medium sand surrounding 007N corrugated metal pipe	60.0
4			Test pit completed to 3.0' bgs	
5				
6				
7				
8				
9				
10				
11				
12				

COMMENTS:
Test pit was 8'L x 3'W x 3'D
Sample for VOC analysis collected at 3.0' bgs from sand around 007N pipe.

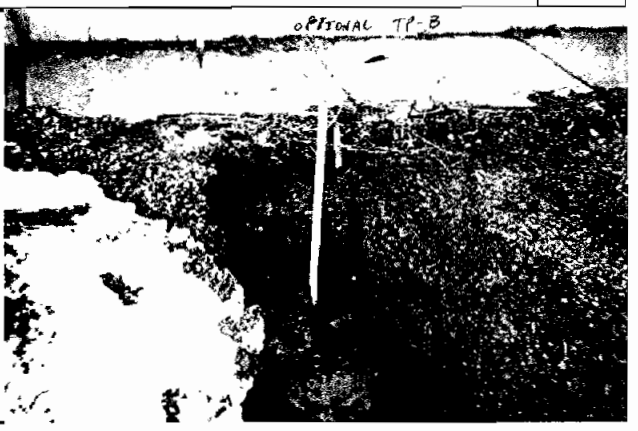
TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR		SHEET: 1 OF 1	
CLIENT: Vesuvius		JOB NUMBER: 0500035817.00.00000	
CONTRACTOR: SJB Drilling		LOCATION: South of Building 43	
DATE STARTED: March 13, 2001		GROUND ELEVATION:	
DATE COMPLETED: March 13, 2001		OPERATOR: Art Koske	
PIT NUMBER: TP-B		GEOLOGIST: Kevin Kearney	
		GROUNDWATER: ~ 2.5'	

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1			Light brown silty clay with some weathered shale and gravel	110.0
2	1	grab		
			Gray weathered shale	
3			Test pit completed to 2.5' bgs	
4				
5				
6				
7				
8				
9				
10				
11				
12				

COMMENTS:
Sample for VOC analysis collected at 1.5'-2.0'



TEST PIT LOG

URS

PROJECT: Vesuvius SI/RAR		SHEET: 1 OF 1	
CLIENT: Vesuvius		JOB NUMBER: 0500035817.00.00000	
CONTRACTOR: SJB Drilling		LOCATION: South of Building 43	
DATE STARTED: March 13, 2001		GROUND ELEVATION:	
DATE COMPLETED: March 13, 2001		OPERATOR: Art Koske	
PIT NUMBER: TP-C		GEOLOGIST: Kevin Kearney	
		GROUNDWATER: Not Encountered	

DEPTH (FT)	SAMPLE ID	SAMPLE TYPE	DESCRIPTION	PID (ppm)
1			Fill consisting of dark brown silty clay with some round carbon-fiber disks	3.0
2				
3				
4			Gray weathered shale	
5			Test pit completed to 4.0' bgs	
6				
7				
8				
9				
10				
11				
12				

COMMENTS:

APPENDIX B

LABORATORY REPORTS

TABLE 4-1
SOIL SAMPLE ANALYTICAL RESULTS
TEST PIT PROGRAM
VESUVIUS SITE INVESTIGATION

Location ID			TP-01	TP-04	TP-A	TP-B
Sample ID			V-TP-1	V-TP-4	V-TP-A	V-TP-B
Matrix			Soil	Soil	Soil	Soil
Depth Interval (ft)			2.5-3.0	1.5-2.0	2.5-3.0	1.5-2.0
Date Sampled			03/13/01	03/13/01	03/13/01	03/13/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	UG/KG	-	5 U	740 U	6 U	5 U
1,1,1-Trichloroethane	UG/KG	800	5 U	740 U	6 U	5 U
1,1,2,2-Tetrachloroethane	UG/KG	600	5 U	740 U	6 U	5 U
1,1,2-Trichloroethane	UG/KG	-	5 U	740 U	6 U	5 U
1,1-Dichloroethane	UG/KG	200	5 U	740 U	6 U	5 U
1,1-Dichloroethene	UG/KG	400	5 U	740 U	6 U	5 U
1,2,3-Trichloropropane	UG/KG	400	5 U	740 U	6 U	5 U
1,2-Dibromo-3-chloropropane	UG/KG	-	5 U	740 U	6 U	5 U
1,2-Dibromoethane (Ethylene dibromide)	UG/KG	-	5 U	740 U	6 U	5 U
1,2-Dichlorobenzene	UG/KG	7900	5 U	740 U	6 U	5 U
1,2-Dichloroethane	UG/KG	100	5 U	740 U	6 U	5 U
1,2-Dichloroethene (cis)	UG/KG	-	5 U	740 U	6 U	5 U
1,2-Dichloroethene (trans)	UG/KG	300	5 U	740 U	6 U	5 U
1,2-Dichloropropane	UG/KG	-	5 U	740 U	6 U	5 U
1,3-Dichlorobenzene	UG/KG	1600	5 U	740 U	6 U	5 U
1,3-Dichloropropene (cis)	UG/KG	-	5 U	740 U	6 U	5 U
1,3-Dichloropropene (trans)	UG/KG	-	5 U	740 U	6 U	5 U
1,4-Dichlorobenzene	UG/KG	8500	5 U	740 U	6 U	5 U
2-Chloroethyl vinyl ether	UG/KG	-	5 U	740 U	6 U	5 U
2-Chlorotoluene	UG/KG	-	5 U	740 U	6 U	5 U
2-Hexanone	UG/KG	-	10 U	1,500 U	11 U	11 U
4-Chlorotoluene	UG/KG	-	5 U	740 U	6 U	5 U
4-Methyl-2-pentanone	UG/KG	1000	10 U	1,500 U	11 U	11 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-1
SOIL SAMPLE ANALYTICAL RESULTS
TEST PIT PROGRAM
VESUVIUS SITE INVESTIGATION

Location ID			TP-01	TP-04	TP-A	TP-B
Sample ID			V-TP-1	V-TP-4	V-TP-A	V-TP-B
Matrix			Soil	Soil	Soil	Soil
Depth Interval (ft)			2.5-3.0	1.5-2.0	2.5-3.0	1.5-2.0
Date Sampled			03/13/01	03/13/01	03/13/01	03/13/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
Acetone	UG/KG	200	25 U	3,700 U	28 U	27 U
Acrolein	UG/KG	-	20 U	3,000 U	23 U	22 U
Acrylonitrile	UG/KG	-	20 U	3,000 U	23 U	22 U
Benzene	UG/KG	60	0.7 U	100 U	0.8 U	0.8 U
Bromobenzene	UG/KG	-	5 U	740 U	6 U	5 U
Bromodichloromethane	UG/KG	-	5 U	740 U	6 U	5 U
Bromoform	UG/KG	-	5 U	740 U	6 U	5 U
Bromomethane	UG/KG	-	5 U	740 U	6 U	5 U
Carbon disulfide	UG/KG	2700	5 U	740 U	6 U	5 U
Carbon tetrachloride	UG/KG	600	5 U	740 U	6 U	5 U
Chlorobenzene	UG/KG	1700	5 U	740 U	6 U	5 U
Chloroethane	UG/KG	1900	5 U	740 U	6 U	5 U
Chloroform	UG/KG	300	5 U	740 U	6 U	5 U
Chloromethane	UG/KG	-	5 U	740 U	6 U	5 U
Dibromochloromethane	UG/KG	-	5 U	740 U	6 U	5 U
Dibromomethane	UG/KG	-	5 U	740 U	6 U	5 U
Dichlorodifluoromethane	UG/KG	-	5 U	740 U	6 U	5 U
Ethylbenzene	UG/KG	5500	5 U	740 U	6 U	5 U
m&p-Xylene	UG/KG	1200	5 U	740 U	6 U	5 U
Methyl ethyl ketone (2-Butanone)	UG/KG	300	25 U	3,700 U	28 U	27 U
Methylene chloride	UG/KG	100	5	740 U	6 U	5 U
o-Xylene	UG/KG	1200	5 U	740 U	6 U	5 U
Styrene	UG/KG	-	5 U	740 U	6 U	5 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised) Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-1
SOIL SAMPLE ANALYTICAL RESULTS
TEST PIT PROGRAM
VESUVIUS SITE INVESTIGATION

Location ID			TP-01	TP-04	TP-A	TP-B
Sample ID			V-TP-1	V-TP-4	V-TP-A	V-TP-B
Matrix			Soil	Soil	Soil	Soil
Depth Interval (ft)			2.5-3.0	1.5-2.0	2.5-3.0	1.5-2.0
Date Sampled			03/13/01	03/13/01	03/13/01	03/13/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
Tetrachloroethene	UG/KG	1400	26	5,000	6 U	5 U
Toluene	UG/KG	1500	5 U	740 U	6 U	5 U
Trichloroethene	UG/KG	700	5 U	1,600	6 U	5 U
Trichlorofluoromethane	UG/KG	-	5 U	740 U	6 U	5 U
Vinyl chloride	UG/KG	200	2 U	300 U	2 U	2 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised) Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown

(oval) Concentration Exceeds Criteria.

Detection Limits shown are PQL

Advanced Selection: TEST PIT
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[LOC10] LIKE 'TP*'

TABLE 4-2
SOIL SAMPLE ANALYTICAL RESULTS
SOIL BORING PROGRAM
VESUVIUS SITE INVESTIGATION

Location ID			GP-10	GP-11	GP-25	GP-30	GP-34
Sample ID			GP-10	GP-11	GP-25	GP-30	GP-34
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			2.0-2.5	2.0-2.5	3.5-4.0	3.0-3.5	1.5-2.0
Date Sampled			03/15/01	03/15/01	03/15/01	03/15/01	03/15/01
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1,2-Tetrachloroethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,1,1-Trichloroethane	UG/KG	800	6 U	5 U	6 U	6 U	5 U
1,1,2,2-Tetrachloroethane	UG/KG	600	6 U	5 U	6 U	6 U	5 U
1,1,2-Trichloroethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,1-Dichloroethane	UG/KG	200	6 U	5 U	6 U	6 U	5 U
1,1-Dichloroethene	UG/KG	400	6 U	5 U	6 U	6 U	5 U
1,2,3-Trichloropropane	UG/KG	400	6 U	5 U	6 U	6 U	5 U
1,2-Dibromo-3-chloropropane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,2-Dibromoethane (Ethylene dibromide)	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,2-Dichlorobenzene	UG/KG	7900	6 U	5 U	6 U	6 U	5 U
1,2-Dichloroethane	UG/KG	100	6 U	5 U	6 U	6 U	5 U
1,2-Dichloroethene (cis)	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,2-Dichloroethene (trans)	UG/KG	300	6 U	5 U	6 U	6 U	5 U
1,2-Dichloropropane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,3-Dichlorobenzene	UG/KG	1600	6 U	5 U	6 U	6 U	5 U
1,3-Dichloropropene (cis)	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,3-Dichloropropene (trans)	UG/KG	-	6 U	5 U	6 U	6 U	5 U
1,4-Dichlorobenzene	UG/KG	8500	6 U	5 U	6 U	6 U	5 U
2-Chloroethyl vinyl ether	UG/KG	-	6 U	5 U	6 U	6 U	5 U
2-Chlorotoluene	UG/KG	-	6 U	5 U	6 U	6 U	5 U
2-Hexanone	UG/KG	-	11 U	10 U	12 U	11 U	11 U
4-Chlorotoluene	UG/KG	-	6 U	5 U	6 U	6 U	5 U
4-Methyl-2-pentanone	UG/KG	1000	11 U	10 U	12 U	11 U	11 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels, HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-2
SOIL SAMPLE ANALYTICAL RESULTS
SOIL BORING PROGRAM
VESUVIUS SITE INVESTIGATION

Location ID			GP-10	GP-11	GP-25	GP-30	GP-34
Sample ID			GP-10	GP-11	GP-25	GP-30	GP-34
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			2.0-2.5	2.0-2.5	3.5-4.0	3.0-3.5	1.5-2.0
Date Sampled			03/15/01	03/15/01	03/15/01	03/15/01	03/15/01
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Acetone	UG/KG	200	28 U	26 U	31 U	36	26 U
Acrolein	UG/KG	-	22 U	21 U	25 U	23 U	21 U
Acrylonitrile	UG/KG	-	22 U	21 U	25 U	23 U	21 U
Benzene	UG/KG	60	0.8 U	0.7 U	0.9 U	0.8 U	0.7 U
Bromobenzene	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Bromodichloromethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Bromoform	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Bromomethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Carbon disulfide	UG/KG	2700	6 U	5 U	6 U	6 U	5 U
Carbon tetrachloride	UG/KG	600	6 U	5 U	6 U	6 U	5 U
Chlorobenzene	UG/KG	1700	6 U	5 U	6 U	6 U	5 U
Chloroethane	UG/KG	1900	6 U	5 U	6 U	6 U	5 U
Chloroform	UG/KG	300	6 U	5 U	6 U	6 U	5 U
Chloromethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Dibromochloromethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Dibromomethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Dichlorodifluoromethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Ethylbenzene	UG/KG	5500	6 U	5 U	6 U	6 U	5 U
m&p-Xylene	UG/KG	1200	6 U	5 U	6 U	6 U	5 U
Methyl ethyl ketone (2-Butanone)	UG/KG	300	28 U	26 U	31 U	29 U	26 U
Methylene chloride	UG/KG	100	6 U	5 U	6 U	6 U	5 U
o-Xylene	UG/KG	1200	6 U	5 U	6 U	6 U	5 U
Styrene	UG/KG	-	6 U	5 U	6 U	6 U	5 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives

Flags assigned during chemistry validation are shown

Concentration Exceeds Criteria

Detection Limits shown are PQL

TABLE 4-2
SOIL SAMPLE ANALYTICAL RESULTS
SOIL BORING PROGRAM
VESUVIUS SITE INVESTIGATION

Location ID			GP-10	GP-11	GP-25	GP-30	GP-34
Sample ID			GP-10	GP-11	GP-25	GP-30	GP-34
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			2.0-2.5	2.0-2.5	3.5-4.0	3.0-3.5	1.5-2.0
Date Sampled			03/15/01	03/15/01	03/15/01	03/15/01	03/15/01
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Tetrachloroethene	UG/KG	1400	6 U	5 U	6 U	6 U	5 U
Toluene	UG/KG	1500	6 U	5 U	6 U	6 U	5 U
Trichloroethene	UG/KG	700	6 U	5 U	6 U	6 U	5 U
Trichlorofluoromethane	UG/KG	-	6 U	5 U	6 U	6 U	5 U
Vinyl chloride	UG/KG	200	2 U	2 U	2 U	2 U	2 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives

Flags assigned during chemistry validation are shown

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-3
SEDIMENT SAMPLE ANALYTICAL RESULTS
VESUVIUS SITE INVESTIGATION

Location ID			SED-01	SED-1	SED-2	SED-3
Sample ID			SED-01	SED-1	SED-2	SED-3
Matrix			Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)			-	-	-	-
Date Sampled			09/25/01	03/15/01	03/15/01	03/15/01
Parameter	Units	Criteria*				
Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	UG/KG	-	NA	6 U	7 U	6 U
1,1,1-Trichloroethane	UG/KG	800	10 U	6 U	7 U	6 U
1,1,2,2-Tetrachloroethane	UG/KG	600	10 U	6 U	7 U	6 U
1,1,2-Trichloroethane	UG/KG	-	99 U	6 U	7 U	6 U
1,1-Dichloroethane	UG/KG	200	75	6 U	7 U	6 U
1,1-Dichloroethene	UG/KG	400	10 U	23 U	35 U	6 U
1,2,3-Trichloropropane	UG/KG	400	NA	6 U	7 U	6 U
1,2-Dibromo-3-chloropropane	UG/KG	-	NA	6 U	7 U	6 U
1,2-Dibromoethane (Ethylene dibromide)	UG/KG	-	NA	6 U	7 U	6 U
1,2-Dichlorobenzene	UG/KG	7900	NA	6 U	7 U	6 U
1,2-Dichloroethane	UG/KG	100	10 U	0.8 U	7 U	6 U
1,2-Dichloroethene (cis)	UG/KG	-	24	9	35 U	6 U
1,2-Dichloroethene (trans)	UG/KG	300	10 U	23 U	7 U	6 U
1,2-Dichloropropane	UG/KG	-	10 U	6 U	7 U	6 U
1,3-Dichlorobenzene	UG/KG	1600	NA	6 U	7 U	6 U
1,3-Dichloropropene (cis)	UG/KG	-	10 U	6 U	7 U	6 U
1,3-Dichloropropene (trans)	UG/KG	-	10 U	6 U	7 U	6 U
1,4-Dichlorobenzene	UG/KG	8500	NA	6 U	7 U	6 U
2-Chloroethyl vinyl ether	UG/KG	-	99 U	6 U	7 U	6 U
2-Chlorotoluene	UG/KG	-	NA	6 U	7 U	6 U
2-Hexanone	UG/KG	-	10 U	11 U	14 U	12 U
4-Chlorotoluene	UG/KG	-	NA	6 U	7 U	6 U
4-Methyl-2-pentanone	UG/KG	1000	10 U	11 U	14 U	12 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-3
SEDIMENT SAMPLE ANALYTICAL RESULTS
VESUVIUS SITE INVESTIGATION

Location ID			SED-01	SED-1	SED-2	SED-3
Sample ID			SED-01	SED-1	SED-2	SED-3
Matrix			Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)			-	-	-	-
Date Sampled			09/25/01	03/15/01	03/15/01	03/15/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
Acetone	UG/KG	200	42 J	6 U	7 U	30 U
Acrolein	UG/KG	-	NA	6 U	7 U	24 U
Acrylonitrile	UG/KG	-	NA	6 U	7 U	24 U
Benzene	UG/KG	60	4 J	6 U	7 U	0.8 U
Bromobenzene	UG/KG	-	NA	6 U	7 U	6 U
Bromodichloromethane	UG/KG	-	10 U	6 U	7 U	6 U
Bromoform	UG/KG	-	10 U	6 U	7 U	6 U
Bromomethane	UG/KG	-	20 U	2 U	7 U	6 U
Carbon disulfide	UG/KG	2700	12	28 U	7 U	6 U
Carbon tetrachloride	UG/KG	600	10 U	6 U	1 U	6 U
Chlorobenzene	UG/KG	1700	10 U	6 U	7 U	6 U
Chloroethane	UG/KG	1900	7 J	6 U	7 U	6 U
Chloroform	UG/KG	300	10 U	28 U	7 U	6 U
Chloromethane	UG/KG	-	18 J	6 U	7 U	6 U
Dibromochloromethane	UG/KG	-	10 U	6 U	7 U	6 U
Dibromomethane	UG/KG	-	NA	6 U	7 U	6 U
Dichlorodifluoromethane	UG/KG	-	NA	0 U	7 U	6 U
Ethylbenzene	UG/KG	5500	10 U	6 U	7 U	6 U
m&p-Xylene	UG/KG	1200	8 J	6 U	7 U	6 U
Methyl ethyl ketone (2-Butanone)	UG/KG	300	198 U	6 U	7 U	30 U
Methylene chloride	UG/KG	100	10 U	6 U	28 U	6 U
o-Xylene	UG/KG	1200	2 J	6 U	7 U	6 U
Styrene	UG/KG	-	10 U	6 U	7 U	6 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised) Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-3
SEDIMENT SAMPLE ANALYTICAL RESULTS
VESUVIUS SITE INVESTIGATION

Location ID			SED-01	SED-1	SED-2	SED-3
Sample ID			SED-01	SED-1	SED-2	SED-3
Matrix			Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)			-	-	-	-
Date Sampled			09/25/01	03/15/01	03/15/01	03/15/01
Parameter	Units	Criteria*				
Volatile Organic Compounds						
Tetrachloroethene	UG/KG	1400	10 U	6 U	18	10
Toluene	UG/KG	1500	7 J	6 U	7 U	6 U
Trichloroethene	UG/KG	700	10 U	16	7 U	6 U
Trichlorofluoromethane	UG/KG	-	NA	6 U	28 U	6 U
Vinyl acetate	UG/KG	-	99 U	NA	NA	NA
Vinyl chloride	UG/KG	200	14 J	6 U	3 U	2 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-4
CATCH BASIN/SUMP SAMPLE ANALYTICAL RESULTS
VESUVIUS SITE INVESTIGATION

Location ID			007N-3	CB-01	CB-02	Sump-1
Sample ID			007N-3	007N-1	007N-2	V-Sump-1
Matrix			Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-
Date Sampled			09/25/01	09/25/01	09/25/01	01/25/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/L	5	5 U	5 U	5 U	2 J
1,1,2,2-Tetrachloroethane	UG/L	5	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	UG/L	1	5 U	5 U	5 U	5 U
1,1-Dichloroethane	UG/L	5	1 J	15	5	70
1,1-Dichloroethene	UG/L	5	5 U	5 U	5 U	5 U
1,2-Dichloroethane	UG/L	0.6	5 U	5 U	5 U	5 U
1,2-Dichloroethene (cis)	UG/L	5	5 U	5	1 J	14
1,2-Dichloroethene (trans)	UG/L	5	5 U	5 U	5 U	5 U
1,2-Dichloropropane	UG/L	1	5 U	5 U	5 U	5 U
1,3-Dichloropropene (cis)	UG/L	0.4	5 U	5 U	5 U	5 U
1,3-Dichloropropene (trans)	UG/L	0.4	5 U	5 U	5 U	5 U
2-Chloroethyl vinyl ether	UG/L	-	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	50	50 U	50 U	50 U	50 U
4-Methyl-2-pentanone	UG/L	-	50 U	50 U	50 U	50 U
Acetone	UG/L	50	100 U	100 U	100 U	100 U
Benzene	UG/L	1	5 U	5 U	5 U	5 U
Bromodichloromethane	UG/L	50	5 U	5 U	5 U	5 U
Bromoform	UG/L	50	5 U	5 U	5 U	5 U
Bromomethane	UG/L	5	10 U	10 U	10 U	10 U
Carbon disulfide	UG/L	60	5 U	5 U	5 U	5 U
Carbon tetrachloride	UG/L	5	5 U	5 U	5 U	5 U
Chlorobenzene	UG/L	5	5 U	5 U	5 U	5 U
Chloroethane	UG/L	5	10 U	10 U	10 U	6 J

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum) Class GA.

Flags assigned during chemistry validation are shown.

(oval) Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 4-4
CATCH BASIN/SUMP SAMPLE ANALYTICAL RESULTS
VESUVIUS SITE INVESTIGATION

Location ID			007N-3	CB-01	CB-02	Sump-1
Sample ID			007N-3	007N-1	007N-2	V-Sump-1
Matrix			Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-
Date Sampled			09/25/01	09/25/01	09/25/01	01/25/01
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
Chloroform	UG/L	7	5 U	5 U	5 U	5 U
Chloromethane	UG/L	5	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	50	5 U	5 U	5 U	5 U
Ethylbenzene	UG/L	5	5 U	5 U	5 U	5 U
m&p-Xylene	UG/L	5	5 U	5 U	5 U	5 U
Methyl ethyl ketone (2-Butanone)	UG/L	50	100 U	100 U	100 U	100 U
Methylene chloride	UG/L	5	5 U	5 U	5 U	5 U
o-Xylene	UG/L	5	5 U	5 U	5 U	5 U
Styrene	UG/L	5	5 U	5 U	5 U	5 U
Tetrachloroethene	UG/L	5	5 U	5 U	5 U	5 U
Toluene	UG/L	5	5 U	5 U	5 U	5 U
Trichloroethene	UG/L	5	5 U	5 U	5 U	1 J
Vinyl acetate	UG/L	50	50 U	50 U	50 U	50 U
Vinyl chloride	UG/L	2	10 U	2 J	10 U	10

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 Addendum). Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 6-1
SOIL SAMPLE ANALYTICAL RESULTS
REMEDIAL ACTION EXCAVATION
VESUVIUS SITE INVESTIGATION

Location ID			East Wall-R	SW-E	SW-N	SW-S	SW-W
Sample ID			V-East Wall-R	V-SW-E	V-SW-N	V-SW-S	V-SW-W
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/14/02	01/24/02	01/24/02	01/24/02	01/24/02
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	800	2 U	2 U	2 U	2 U	2 U
1,1,2,2-Tetrachloroethane	UG/KG	600	2 U	2 U	2 U	2 U	2 U
1,1,2-Trichloroethane	UG/KG	-	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethane	UG/KG	200	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethene	UG/KG	400	2 U	2 U	2 U	2 U	2 U
1,2-Dichloroethane	UG/KG	100	2 U	2 U	2 U	2 U	2 U
1,2-Dichloroethene (cis)	UG/KG	-	5	2 U	2 U	2 U	2 U
1,2-Dichloroethene (trans)	UG/KG	300	2 U	2 U	2 U	2 U	2 U
1,2-Dichloropropane	UG/KG	-	2 U	2 U	2 U	2 U	2 U
1,3-Dichloropropene (cis)	UG/KG	-	2 U	2 U	2 U	2 U	2 U
1,3-Dichloropropene (trans)	UG/KG	-	2 U	2 U	2 U	2 U	2 U
2-Hexanone	UG/KG	-	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	UG/KG	1000	10 U	10 U	10 U	10 U	10 U
Acetone	UG/KG	200	18	13	10 U	10 U	10 U
Benzene	UG/KG	60	2 U	2 U	2 U	2 U	2 U
Bromodichloromethane	UG/KG	-	2 U	2 U	2 U	2 U	2 U
Bromoform	UG/KG	-	2 U	2 U	2 U	2 U	2 U
Bromomethane	UG/KG	-	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	UG/KG	2700	2 U	2 U	2 B	2 U	2 U
Carbon tetrachloride	UG/KG	600	2 U	2 U	2 U	2 U	2 U
Chlorobenzene	UG/KG	1700	2 U	2 U	2 U	2 U	2 U
Chloroethane	UG/KG	1900	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/KG	300	2 U	2 U	2 U	2 U	2 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

TABLE 6-1
SOIL SAMPLE ANALYTICAL RESULTS
REMEDIAL ACTION EXCAVATION
VESUVIUS SITE INVESTIGATION

Location ID			East Wall-R	SW-E	SW-N	SW-S	SW-W
Sample ID			V-East Wall-R	V-SW-E	V-SW-N	V-SW-S	V-SW-W
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/14/02	01/24/02	01/24/02	01/24/02	01/24/02
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Chloromethane	UG/KG	-	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/KG	-	2 U	2 U	2 U	2 U	2 U
Ethylbenzene	UG/KG	5500	2 U	2 U	2 U	2 U	2 U
m&p-Xylene	UG/KG	1200	2 U	2 U	2 U	2 U	2 U
Methyl ethyl ketone (2-Butanone)	UG/KG	300	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/KG	100	14	2 U	2 B	2 U	2 B
o-Xylene	UG/KG	1200	2 U	2 U	2 U	2 U	2 U
Styrene	UG/KG	-	2 U	2 U	2 U	2 U	2 U
Tetrachloroethene	UG/KG	1400	1,070 D	417 D	20	8	7
Toluene	UG/KG	1500	2 U	2 U	2 U	2 U	2 U
Trichloroethene	UG/KG	700	60	4	2 U	2	2 U
Vinyl acetate	UG/KG	-	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	UG/KG	200	10 U	10 U	10 U	10 U	10 U

*Criteria- NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 (Revised). Recommended Cleanup Objectives.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria.

Detection Limits shown are PQL

FLI
FINGER LAKES LABORATORY
ONE RESEARCH PARK, WILLIAMSON, NY 14892-1532
TELEPHONE (315) 524-5000 FAX (607) 565-4083

TEST PITS

Date:28-MAR-2001

Lab Sample ID: L65685-1

URS Greiner, Inc.
Robert Henschel
282 Delaware Ave
Buffalo, NY 1420

Sample Source: VESUVIUS, 35817-00
Origin: V-TP-A
Description: GRAB
Sampled On: 13-MAR-01 10:00 by CLIENT
Date Received: 14-MAR-01 13:40
P.O. No: N/A

Analysis Performed			Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids				15-MAR-01 00:00	CLP 3.0	01-001-57
EPA 8260						
Dichlorodifluoromethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Chloromethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Vinyl chloride	U	ug/kg	2	19-MAR-01 18:13	EPA 8260	01-027-4370
Bromomethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Chloroethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Trichlorofluoromethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Acrolein	U	ug/kg	23	19-MAR-01 18:13	EPA 8260	01-027-4370
1,1-Dichloroethene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Acetone	U	ug/kg	28	19-MAR-01 18:13	EPA 8260	01-027-4370
Carbon disulfide	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Methylene Chloride	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Acrylonitrile	U	ug/kg	23	19-MAR-01 18:13	EPA 8260	01-027-4370
trans-1,2-Dichloroethene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
1,1-Dichloroethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
cis-1,2-Dichloroethene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
MEK(2-Butanone)	U	ug/kg	28	19-MAR-01 18:13	EPA 8260	01-027-4370
Chloroform	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
1,1,1-Trichloroethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Carbon tetrachloride	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Benzene	U	ug/kg	0.8	19-MAR-01 18:13	EPA 8260	01-027-4370
1,2-Dichloroethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Trichloroethene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
1,2-Dichloropropane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Dibromomethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Bromodichloromethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
2-Chloroethylvinylether	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
cis-1,3-Dichloropropene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
MIBK(4-Methyl-2-pentanone)	U	ug/kg	11	19-MAR-01 18:13	EPA 8260	01-027-4370
Toluene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
trans-1,3-Dichloropropene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
1,1,2-Trichloroethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Tetrachloroethene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
2-Hexanone	U	ug/kg	11	19-MAR-01 18:13	EPA 8260	01-027-4370
Dibromochloromethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
EDB(1,2-Dibromoethane)	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Chlorobenzene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
1,1,1,2-Tetrachloroethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Ethylbenzene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
p-Xylene/m-Xylene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
o-Xylene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370

Results calculated on a dry weight basis.

Approved by: _____
Lab Director

U = Not Detected
ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million)
mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the preparation blank
J = result estimated below the quantitation limit

FLI
FRIEND LABORATORY, INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-4566 FAX (607) 565-4083

Date: 28-MAR-2001

Lab Sample ID: L65685-1

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: V-TP-A
Description: GRAB
Sampled On: 13-MAR-01 10:00 by CLIENT
Date Received: 14-MAR-01 13:40
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Styrene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Bromoform	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Bromobenzene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
1,1,2,2-Tetrachloroethane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
1,2,3-Trichloropropane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
2-Chlorotoluene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
4-Chlorotoluene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
1,3-Dichlorobenzene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
1,4-Dichlorobenzene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
1,2-Dichlorobenzene	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
1,2-Dibromo-3-chloropropane	U	ug/kg	6	19-MAR-01 18:13	EPA 8260	01-027-4370
Surrogate Recovery:						
Dibromofluoromethane	105	%				01-027-4370
Toluene-d8	96	%				01-027-4370
4-Bromofluorobenzene	91	%				01-027-4370

Results calculated on a dry weight basis.

NY 10852 NJ 73168 PA 68180 EPA ID NY00

Approved by: _____
Lab Director

ND	= None Detected	ug/l	= micrograms per liter (equivalent to parts per billion)
mg/l	= milligrams per liter (equivalent to parts per million)	mg/kg	= milligrams per kilogram (equivalent to parts per million)
B	= analyte was detected in the method blank	J	= result estimated below the quantitation limit

FLI
FRIEND LABORATORY INC.

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

Date:28-MAR-2001

Lab Sample ID: L65685-2

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: V-TP-1
Description: GRAB
Sampled On: 13-MAR-01 10:40 by CLIENT
Date Received: 14-MAR-01 13:40
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	80.5	%		15-MAR-01 00:00	CLP 3.0	01-001-57
EPA 8260						
Dichlorodifluoromethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Chloromethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Vinyl chloride	U	ug/kg	2	19-MAR-01 18:45	EPA 8260	01-027-4371
Bromomethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Chloroethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Trichlorofluoromethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Acrolein	U	ug/kg	20	19-MAR-01 18:45	EPA 8260	01-027-4371
1,1-Dichloroethene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Acetone	U	ug/kg	25	19-MAR-01 18:45	EPA 8260	01-027-4371
Carbon disulfide	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Methylene Chloride	5	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Acrylonitrile	U	ug/kg	20	19-MAR-01 18:45	EPA 8260	01-027-4371
trans-1,2-Dichloroethene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
1,1-Dichloroethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
cis-1,2-Dichloroethene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
MEK(2-Butanone)	U	ug/kg	25	19-MAR-01 18:45	EPA 8260	01-027-4371
Chloroform	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
1,1,1-Trichloroethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Carbon tetrachloride	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Benzene	U	ug/kg	0.7	19-MAR-01 18:45	EPA 8260	01-027-4371
1,2-Dichloroethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Trichloroethene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
1,2-Dichloropropane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Dibromomethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Bromodichloromethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
2-Chloroethylvinylether	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
cis-1,3-Dichloropropene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
MIBK(4-Methyl-2-pentanone)	U	ug/kg	10	19-MAR-01 18:45	EPA 8260	01-027-4371
Toluene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
trans-1,3-Dichloropropene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
1,1,2-Trichloroethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Tetrachloroethene	26	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
2-Hexanone	U	ug/kg	10	19-MAR-01 18:45	EPA 8260	01-027-4371
Dibromochloromethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
EDB(1,2-Dibromoethane)	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Chlorobenzene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
1,1,1,2-Tetrachloroethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Ethylbenzene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
p-Xylene/m-Xylene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
o-Xylene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371

Results calculated on a dry weight basis.

2 NY 10252 NJ 73168 PA 68-160 EPA NY 00 [illegible]

Approved by: [signature]
Lab Director

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

FLI
FREELAND LABORATORY, INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-8550 FAX (607) 565-4083

Date: 28-MAR-2001

Lab Sample ID: L65685-2

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: V-TP-1
Description: GRAB
Sampled On: 13-MAR-01 10:40 by CLIENT
Date Received: 14-MAR-01 13:40
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Styrene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Bromoform	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Bromobenzene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
1,1,2,2-Tetrachloroethane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
1,2,3-Trichloropropane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
2-Chlorotoluene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
4-Chlorotoluene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
1,3-Dichlorobenzene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
1,4-Dichlorobenzene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
1,2-Dichlorobenzene	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
1,2-Dibromo-3-chloropropane	U	ug/kg	5	19-MAR-01 18:45	EPA 8260	01-027-4371
Surrogate Recovery:						
Dibromofluoromethane	116	%				01-027-4371
Toluene-d8	101	%				01-027-4371
4-Bromofluorobenzene	94	%				01-027-4371

Results calculated on a dry weight basis.

Approved by: _____
Lab Director

ND = None Detected
ug/kg = micrograms per liter (equivalent to parts per billion)
mg/kg = milligrams per liter (equivalent to parts per million)
mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method blank
J = result estimated below the quantitation limit

FLI
FINGER LAKES LABORATORIES, INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 28-MAR-2001

Lab Sample ID: L65685-3

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: V-TP-4
Description: GRAB
Sampled On: 13-MAR-01 11:50 by CLIENT
Date Received: 14-MAR-01 13:40
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	80.8	%		15-MAR-01 00:00	CLP 3.0	01-001-57
EPA 8260						
Dichlorodifluoromethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Chloromethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Vinyl chloride	U	ug/kg	300	23-MAR-01 21:21	EPA 8260	01-027-4435
Bromomethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Chloroethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Trichlorofluoromethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Acrolein	U	ug/kg	3000	23-MAR-01 21:21	EPA 8260	01-027-4435
1,1-Dichloroethene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Acetone	U	ug/kg	3700	23-MAR-01 21:21	EPA 8260	01-027-4435
Carbon disulfide	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Methylene Chloride	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Acrylonitrile	U	ug/kg	3000	23-MAR-01 21:21	EPA 8260	01-027-4435
trans-1,2-Dichloroethene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
1,1-Dichloroethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
cis-1,2-Dichloroethene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
MEK(2-Butanone)	U	ug/kg	3700	23-MAR-01 21:21	EPA 8260	01-027-4435
Chloroform	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
1,1,1-Trichloroethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Carbon tetrachloride	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Benzene	U	ug/kg	100	23-MAR-01 21:21	EPA 8260	01-027-4435
1,2-Dichloroethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Trichloroethene	1600	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
1,2-Dichloropropane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Dibromomethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Bromodichloromethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
2-Chloroethylvinylether	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
cis-1,3-Dichloropropene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
MIBK(4-Methyl-2-pentanone)	U	ug/kg	1500	23-MAR-01 21:21	EPA 8260	01-027-4435
Toluene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
trans-1,3-Dichloropropene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
1,1,2-Trichloroethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Tetrachloroethene	5000	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
2-Hexanone	U	ug/kg	1500	23-MAR-01 21:21	EPA 8260	01-027-4435
Dibromochloromethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
EDB(1,2-Dibromoethane)	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Chlorobenzene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
1,1,1,2-Tetrachloroethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Ethylbenzene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
p-Xylene/m-Xylene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
o-Xylene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435

Results calculated on a dry weight basis.

Approved by: _____
Lab Director

U = None Detected = Result ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method blank J = result estimated below the quantitation limit

FLI
FRIEND LABORATORY
I · N · C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-2500 FAX (607) 565-1082

Date:28-MAR-2001

Lab Sample ID: L65685-3

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: V-TP-4
Description: GRAB
Sampled On: 13-MAR-01 11:50 by CLIENT
Date Received: 14-MAR-01 13:40
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Styrene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Bromoform	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Bromobenzene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
1,1,2,2-Tetrachloroethane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
1,2,3-Trichloropropane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
2-Chlorotoluene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
4-Chlorotoluene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
1,3-Dichlorobenzene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
1,4-Dichlorobenzene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
1,2-Dichlorobenzene	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
1,2-Dibromo-3-chloropropane	U	ug/kg	740	23-MAR-01 21:21	EPA 8260	01-027-4435
Surrogate Recovery:						
Dibromofluoromethane	100	%				01-027-4435
Toluene-d8	101	%				01-027-4435
4-Bromofluorobenzene	98	%				01-027-4435

Results calculated on a dry weight basis.

Approved by: _____
Lab Director

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

FLI
FLETCHER LABORATORY, INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-5500 FAX (607) 565-4083

Date:28-MAR-2001

Lab Sample ID: L65685-4

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: V-TP-B
Description: GRAB
Sampled On: 13-MAR-01 15:20 by CLIENT
Date Received: 14-MAR-01 13:40
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	82	%		15-MAR-01 00:00	CLP 3.0	01-001-57
EPA 8260						
Dichlorodifluoromethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Chloromethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Vinyl chloride	U	ug/kg	2	21-MAR-01 13:34	EPA 8260	01-027-4382
Bromomethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Chloroethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Trichlorofluoromethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Acrolein	U	ug/kg	22	21-MAR-01 13:34	EPA 8260	01-027-4382
1,1-Dichloroethene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Acetone	U	ug/kg	27	21-MAR-01 13:34	EPA 8260	01-027-4382
Carbon disulfide	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Methylene Chloride	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Acrylonitrile	U	ug/kg	22	21-MAR-01 13:34	EPA 8260	01-027-4382
trans-1,2-Dichloroethene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
1,1-Dichloroethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
cis-1,2-Dichloroethene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
MEK(2-Butanone)	U	ug/kg	27	21-MAR-01 13:34	EPA 8260	01-027-4382
Chloroform	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
1,1,1-Trichloroethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Carbon tetrachloride	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Benzene	U	ug/kg	0.8	21-MAR-01 13:34	EPA 8260	01-027-4382
1,2-Dichloroethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Trichloroethene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
1,2-Dichloropropane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Dibromomethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Bromodichloromethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
2-Chloroethylvinylether	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
cis-1,3-Dichloropropene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
MIBK(4-Methyl-2-pentanone)	U	ug/kg	11	21-MAR-01 13:34	EPA 8260	01-027-4382
Toluene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
trans-1,3-Dichloropropene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
1,1,2-Trichloroethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Tetrachloroethene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
2-Hexanone	U	ug/kg	11	21-MAR-01 13:34	EPA 8260	01-027-4382
Dibromochloromethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
EDB(1,2-Dibromoethane)	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Chlorobenzene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
1,1,1,2-Tetrachloroethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Ethylbenzene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
p-Xylene/m-Xylene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
o-Xylene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382

Results calculated on a dry weight basis.

Approved by: _____
Lab Director

U = Not detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method blank J = result estimated below the quantitation limit

FLI
FRIEND LABORATORY INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-4500 FAX (607) 565-4083

Date:28-MAR-2001

Lab Sample ID: L65685-4

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: V-TP-B
Description: GRAB
Sampled On: 13-MAR-01 15:20 by CLIENT
Date Received: 14-MAR-01 13:40
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Styrene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Bromoform	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Bromobenzene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
1,1,2,2-Tetrachloroethane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
1,2,3-Trichloropropane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
2-Chlorotoluene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
4-Chlorotoluene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
1,3-Dichlorobenzene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
1,4-Dichlorobenzene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
1,2-Dichlorobenzene	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
1,2-Dibromo-3-chloropropane	U	ug/kg	5	21-MAR-01 13:34	EPA 8260	01-027-4382
Surrogate Recovery:						
Dibromofluoromethane	108	%				01-027-4382
Toluene-d8	107	%				01-027-4382
4-Bromofluorobenzene	99	%				01-027-4382

Analysis Comment:Internal standard 4 recovery below limits. Confirmed by file C4373.

Results calculated on a dry weight basis.

Approved by: _____
Lab Director

U = ND at or above the reported detection limit
ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million)
mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method blank
J = result estimated below the quantitation limit

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 35817-00

SITE NAME VESUVIUS

SAMPLERS (PRINT/SIGNATURE) Kevin Kearney / Kevin Kearney

LAB Friend Lab

COOLER 1 of 1

PAGE 1 of 1

DELIVERY SERVICE: FED EX AIRBILL NO.: 821366424581

TESTS: VOC 95-1

BOTTLE TYPE AND PRESERVATIVE: 1-250 ml Poly 4°C

REMARKS: L056685

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO.# OF CONTAINERS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO # (IRPIMS ONLY)	
TP-A	3/13/01	1000	Grab	V-TP-A	So	1	1	NI	1.5	2	-1
TP-1	3/13/01	1040	Grab	V-TP-1	So	1	1	NI	1.5	2	-2
TP-4	3/13/01	1150	Grab	V-TP-4	So	1	1	NI	1.5	2	-3
TP-B	3/13/01	1520	Grab	V-TP-B	So	1	1	NI	1.5	2	-4

MATRIX CODES

AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES

TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE; (# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME
Kevin L. Kearney	3/13/01	1830	Melanie Page	3/14/01	1340

SPECIAL INSTRUCTIONS: Standard Turnaround Time. Thanks K.S.K

Distribution: Original accompanies shipment, copy to coordinator field files

URSF-075C/1 OF 1/ColCR/GCM

Soil Borings

FLI
FRIEND LABORATORY I · N · C.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 03-APR-2001

Lab Sample ID: L65894-5

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: GP-10
Description: GRAB
Sampled On: 15-MAR-01 16:50 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	75.4	%		20-MAR-01 00:00	CLP 3.0	01-001-60
EPA 8260						
Dichlorodifluoromethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Chloromethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Vinyl chloride	U	ug/kg	2	21-MAR-01 16:19	EPA 8260	01-027-4387
Bromomethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Chloroethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Trichlorofluoromethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Acrolein	U	ug/kg	22	21-MAR-01 16:19	EPA 8260	01-027-4387
1,1-Dichloroethene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Acetone	U	ug/kg	28	21-MAR-01 16:19	EPA 8260	01-027-4387
Carbon disulfide	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Methylene Chloride	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Acrylonitrile	U	ug/kg	22	21-MAR-01 16:19	EPA 8260	01-027-4387
trans-1,2-Dichloroethene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
1,1-Dichloroethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
cis-1,2-Dichloroethene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
MEK(2-Butanone)	U	ug/kg	28	21-MAR-01 16:19	EPA 8260	01-027-4387
Chloroform	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
1,1,1-Trichloroethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Carbon tetrachloride	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Benzene	U	ug/kg	0.8	21-MAR-01 16:19	EPA 8260	01-027-4387
1,2-Dichloroethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Trichloroethene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
1,2-Dichloropropane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Dibromomethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Bromodichloromethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
2-Chloroethylvinylether	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
cis-1,3-Dichloropropene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
MIBK(4-Methyl-2-pentanone)	U	ug/kg	11	21-MAR-01 16:19	EPA 8260	01-027-4387
Toluene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
trans-1,3-Dichloropropene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
1,1,2-Trichloroethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Tetrachloroethene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
2-Hexanone	U	ug/kg	11	21-MAR-01 16:19	EPA 8260	01-027-4387
Dibromochloromethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
EDB(1,2-Dibromoethane)	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Chlorobenzene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
1,1,1,2-Tetrachloroethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Ethylbenzene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
p-Xylene/m-Xylene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
o-Xylene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387

Results calculated on a dry weight basis.

Approved by: _____
Lab Director

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

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

Date: 03-APR-2001

Lab Sample ID: L65894-5

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: GP-10
Description: GRAB
Sampled On: 15-MAR-01 16:50 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Styrene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Bromoform	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Bromobenzene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
1,1,2,2-Tetrachloroethane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
1,2,3-Trichloropropane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
2-Chlorotoluene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
4-Chlorotoluene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
1,3-Dichlorobenzene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
1,4-Dichlorobenzene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
1,2-Dichlorobenzene	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
1,2-Dibromo-3-chloropropane	U	ug/kg	6	21-MAR-01 16:19	EPA 8260	01-027-4387
Surrogate Recovery:						
Dibromofluoromethane	105	%				01-027-4387
Toluene-d8	99	%				01-027-4387
4-Bromofluorobenzene	93	%				01-027-4387

Results calculated on a dry weight basis.

QC [signature] NY 10262 NJ 73168 PA 68-[illegible] EPA NY 00[illegible]

Approved by: [signature]
Lab Director

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

FLI
FREELAND LABORATORY, INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-7500 FAX (607) 565-4085

Date: 03-APR-2001

Lab Sample ID: L65894-4

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: GP-11
Description: GRAB
Sampled On: 15-MAR-01 16:40 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	85.7	%		20-MAR-01 00:00	CLP 3.0	01-001-60
EPA 8260						
Dichlorodifluoromethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Chloromethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Vinyl chloride	U	ug/kg	2	27-MAR-01 14:58	EPA 8260	01-027-4472
Bromomethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Chloroethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Trichlorofluoromethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Acrolein	U	ug/kg	21	27-MAR-01 14:58	EPA 8260	01-027-4472
1,1-Dichloroethene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Acetone	U	ug/kg	26	27-MAR-01 14:58	EPA 8260	01-027-4472
Carbon disulfide	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Methylene Chloride	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Acrylonitrile	U	ug/kg	21	27-MAR-01 14:58	EPA 8260	01-027-4472
trans-1,2-Dichloroethene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
1,1-Dichloroethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
cis-1,2-Dichloroethene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
MEK(2-Butanone)	U	ug/kg	26	27-MAR-01 14:58	EPA 8260	01-027-4472
Chloroform	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
1,1,1-Trichloroethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Carbon tetrachloride	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Benzene	U	ug/kg	0.7	27-MAR-01 14:58	EPA 8260	01-027-4472
1,2-Dichloroethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Trichloroethene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
1,2-Dichloropropane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Dibromomethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Bromodichloromethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
2-Chloroethylvinylether	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
cis-1,3-Dichloropropene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
MIBK(4-Methyl-2-pentanone)	U	ug/kg	10	27-MAR-01 14:58	EPA 8260	01-027-4472
Toluene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
trans-1,3-Dichloropropene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
1,1,2-Trichloroethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Tetrachloroethene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
2-Hexanone	U	ug/kg	10	27-MAR-01 14:58	EPA 8260	01-027-4472
Dibromochloromethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
EDB(1,2-Dibromoethane)	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Chlorobenzene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
1,1,1,2-Tetrachloroethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Ethylbenzene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
p-Xylene/m-Xylene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
o-Xylene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472

Results calculated on a dry weight basis.

 Approved by: _____ Lab Director

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

FLI
FRIEND LABORATORY I · N · C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1562
TELEPHONE (607) 565-3500 FAX (607) 565-4081

Date:03-APR-2001

Lab Sample ID: L65894-4

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: GP-11
Description: GRAB
Sampled On: 15-MAR-01 16:40 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Styrene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Bromoform	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Bromobenzene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
1,1,2,2-Tetrachloroethane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
1,2,3-Trichloropropane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
2-Chlorotoluene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
4-Chlorotoluene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
1,3-Dichlorobenzene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
1,4-Dichlorobenzene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
1,2-Dichlorobenzene	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
1,2-Dibromo-3-chloropropane	U	ug/kg	5	27-MAR-01 14:58	EPA 8260	01-027-4472
Surrogate Recovery:						
Dibromofluoromethane	117	%				01-027-4472
Toluene-d8	109	%				01-027-4472
4-Bromofluorobenzene	110	%				01-027-4472

Results calculated on a dry weight basis.

Approved by: _____
Lab Director

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

FLI
FRIEND LABORATORY I · N · C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3550 FAX (607) 565-4083

Date:03-APR-2001

Lab Sample ID: L65894-3

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: GP-25
Description: GRAB
Sampled On: 15-MAR-01 16:00 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Styrene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Bromoform	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Bromobenzene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
1,1,2,2-Tetrachloroethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
1,2,3-Trichloropropane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
2-Chlorotoluene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
4-Chlorotoluene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
1,3-Dichlorobenzene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
1,4-Dichlorobenzene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
1,2-Dichlorobenzene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
1,2-Dibromo-3-chloropropane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Surrogate Recovery:						
Dibromofluoromethane	100	%				01-027-4471
Toluene-d8	97	%				01-027-4471
4-Bromofluorobenzene	98	%				01-027-4471

Results calculated on a dry weight basis.

QC NY 10853 NJ 73168 PA 68-00 LPA NY 00[illegible]

Approved by: _____
Lab Director

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

FLI
FRIEND LABORATORY, INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-4500 FAX (607) 565-4085

Date: 03-APR-2001

Lab Sample ID: L65894-3

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: GP-25
Description: GRAB
Sampled On: 15-MAR-01 16:00 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	78.3	%		20-MAR-01 00:00	CLP 3.0	01-001-60
EPA 8260						
Dichlorodifluoromethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Chloromethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Vinyl chloride	U	ug/kg	2	27-MAR-01 14:25	EPA 8260	01-027-4471
Bromomethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Chloroethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Trichlorofluoromethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Acrolein	U	ug/kg	25	27-MAR-01 14:25	EPA 8260	01-027-4471
1,1-Dichloroethene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Acetone	U	ug/kg	31	27-MAR-01 14:25	EPA 8260	01-027-4471
Carbon disulfide	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Methylene Chloride	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Acrylonitrile	U	ug/kg	25	27-MAR-01 14:25	EPA 8260	01-027-4471
trans-1,2-Dichloroethene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
1,1-Dichloroethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
cis-1,2-Dichloroethene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
MEK(2-Butanone)	U	ug/kg	31	27-MAR-01 14:25	EPA 8260	01-027-4471
Chloroform	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
1,1,1-Trichloroethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Carbon tetrachloride	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Benzene	U	ug/kg	0.9	27-MAR-01 14:25	EPA 8260	01-027-4471
1,2-Dichloroethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Trichloroethene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
1,2-Dichloropropane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Dibromomethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Bromodichloromethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
2-Chloroethylvinylether	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
cis-1,3-Dichloropropene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
MIBK(4-Methyl-2-pentanone)	U	ug/kg	12	27-MAR-01 14:25	EPA 8260	01-027-4471
Toluene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
trans-1,3-Dichloropropene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
1,1,2-Trichloroethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Tetrachloroethene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
2-Hexanone	U	ug/kg	12	27-MAR-01 14:25	EPA 8260	01-027-4471
Dibromochloromethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
EDB(1,2-Dibromoethane)	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Chlorobenzene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
1,1,1,2-Tetrachloroethane	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
Ethylbenzene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
p-Xylene/m-Xylene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471
o-Xylene	U	ug/kg	6	27-MAR-01 14:25	EPA 8260	01-027-4471

Results calculated on a dry weight basis.

QC [illegible] NY 10982 NC 45165 PA 68180 EPA NY 00[illegible]

Approved by: [signature]
Lab Director

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

FLI
FORTUNE LABORATORY INC.

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

Date: 03-APR-2001

Lab Sample ID: L65894-2

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: GP-30
Description: GRAB
Sampled On: 15-MAR-01 15:10 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	87.2	%		20-MAR-01 00:00	CLP 3.0	01-001-60
EPA 8260						
Dichlorodifluoromethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Chloromethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Vinyl chloride	U	ug/kg	2	27-MAR-01 13:53	EPA 8260	01-027-4470
Bromomethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Chloroethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Trichlorofluoromethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Acrolein	U	ug/kg	23	27-MAR-01 13:53	EPA 8260	01-027-4470
1,1-Dichloroethene	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Acetone	36	ug/kg	29	27-MAR-01 13:53	EPA 8260	01-027-4470
Carbon disulfide	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Methylene Chloride	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Acrylonitrile	U	ug/kg	23	27-MAR-01 13:53	EPA 8260	01-027-4470
trans-1,2-Dichloroethene	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
1,1-Dichloroethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
cis-1,2-Dichloroethene	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
MEK(2-Butanone)	U	ug/kg	29	27-MAR-01 13:53	EPA 8260	01-027-4470
Chloroform	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
1,1,1-Trichloroethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Carbon tetrachloride	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Benzene	U	ug/kg	0.8	27-MAR-01 13:53	EPA 8260	01-027-4470
1,2-Dichloroethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Trichloroethene	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
1,2-Dichloropropane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Dibromomethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Bromodichloromethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
2-Chloroethylvinylether	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
cis-1,3-Dichloropropene	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
MIBK(4-Methyl-2-pentanone)	U	ug/kg	11	27-MAR-01 13:53	EPA 8260	01-027-4470
Toluene	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
trans-1,3-Dichloropropene	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
1,1,2-Trichloroethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Tetrachloroethene	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
2-Hexanone	U	ug/kg	11	27-MAR-01 13:53	EPA 8260	01-027-4470
Dibromochloromethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
EDB(1,2-Dibromoethane)	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Chlorobenzene	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
1,1,1,2-Tetrachloroethane	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
Ethylbenzene	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
p-Xylene/m-Xylene	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470
o-Xylene	U	ug/kg	6	27-MAR-01 13:53	EPA 8260	01-027-4470

Results calculated on a dry weight basis.

QC R NY 10259 11173168 PA 68180 EPA NY00[illegible]

Approved by: John A. Kirk
Lab Director

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

FLI
FRIEND LABORATORY
I N C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-8550 FAX (607) 565-4083

Date: 03-APR-2001

Lab Sample ID: L65894-1

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: GP-34
Description: GRAB
Sampled On: 15-MAR-01 09:00 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	83.7	%		20-MAR-01 00:00	CLP 3.0	01-001-60
EPA 8260						
Dichlorodifluoromethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Chloromethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Vinyl chloride	U	ug/kg	2	21-MAR-01 14:07	EPA 8260	01-027-4383
Bromomethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Chloroethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Trichlorofluoromethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Acrolein	U	ug/kg	21	21-MAR-01 14:07	EPA 8260	01-027-4383
1,1-Dichloroethene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Acetone	U	ug/kg	26	21-MAR-01 14:07	EPA 8260	01-027-4383
Carbon disulfide	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Methylene Chloride	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Acrylonitrile	U	ug/kg	21	21-MAR-01 14:07	EPA 8260	01-027-4383
trans-1,2-Dichloroethene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
1,1-Dichloroethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
cis-1,2-Dichloroethene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
MEK(2-Butanone)	U	ug/kg	26	21-MAR-01 14:07	EPA 8260	01-027-4383
Chloroform	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
1,1,1-Trichloroethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Carbon tetrachloride	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Benzene	U	ug/kg	0.7	21-MAR-01 14:07	EPA 8260	01-027-4383
1,2-Dichloroethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Trichloroethene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
1,2-Dichloropropane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Dibromomethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Bromodichloromethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
2-Chloroethylvinylether	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
cis-1,3-Dichloropropene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
MIBK(4-Methyl-2-pentanone)	U	ug/kg	11	21-MAR-01 14:07	EPA 8260	01-027-4383
Toluene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
trans-1,3-Dichloropropene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
1,1,2-Trichloroethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Tetrachloroethene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
2-Hexanone	U	ug/kg	11	21-MAR-01 14:07	EPA 8260	01-027-4383
Dibromochloromethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
EDB(1,2-Dibromoethane)	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Chlorobenzene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
1,1,1,2-Tetrachloroethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Ethylbenzene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
p-Xylene/m-Xylene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
o-Xylene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383

Results calculated on a dry weight basis.

Approved by: _____
Lab Director

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

FLI
FRUTH LABORATORY INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-8500 FAX (607) 565-4083

Date:03-APR-2001

Lab Sample ID: L65894-1

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: GP-34
Description: GRAB
Sampled On: 15-MAR-01 09:00 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Styrene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Bromoform	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Bromobenzene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
1,1,2,2-Tetrachloroethane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
1,2,3-Trichloropropane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
2-Chlorotoluene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
4-Chlorotoluene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
1,3-Dichlorobenzene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
1,4-Dichlorobenzene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
1,2-Dichlorobenzene	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
1,2-Dibromo-3-chloropropane	U	ug/kg	5	21-MAR-01 14:07	EPA 8260	01-027-4383
Surrogate Recovery:						
Dibromofluoromethane	88	%				01-027-4383
Toluene-d8	106	%				01-027-4383
4-Bromofluorobenzene	101	%				01-027-4383

Analysis Comment:Internal standard 4 recovery below limits. Confirmed by MS/MSD analysis.

Results calculated on a dry weight basis.

NY 10252 NJ 73168 PA 68180 EPA NY00030

Approved by: _____
Lab Director

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

SEDIMENT

FLI
FRIEND LABORATORY INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1362
TELEPHONE (607) 565-4500 FAX (607) 565-4085

Date: 03-APR-2001

Lab Sample ID: L65894-6

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: SED 1
Description: GRAB
Sampled On: 15-MAR-01 00:00 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	65.5	%		20-MAR-01 00:00	CLP 3.0	01-001-60
TOC	1600	mg/kg	224	03-APR-01 00:00	SW846 9060	00-189-71
EPA 8260						
Dichlorodifluoromethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Chloromethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Vinyl chloride	U	ug/kg	2	27-MAR-01 15:30	EPA 8260	01-027-4473
Bromomethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Chloroethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Trichlorofluoromethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Acrolein	U	ug/kg	23	27-MAR-01 15:30	EPA 8260	01-027-4473
1,1-Dichloroethene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Acetone	U	ug/kg	28	27-MAR-01 15:30	EPA 8260	01-027-4473
Carbon disulfide	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Methylene Chloride	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Acrylonitrile	U	ug/kg	23	27-MAR-01 15:30	EPA 8260	01-027-4473
trans-1,2-Dichloroethene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
1,1-Dichloroethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
cis-1,2-Dichloroethene	9	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
MEK(2-Butanone)	U	ug/kg	28	27-MAR-01 15:30	EPA 8260	01-027-4473
Chloroform	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
1,1,1-Trichloroethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Carbon tetrachloride	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Benzene	U	ug/kg	0.8	27-MAR-01 15:30	EPA 8260	01-027-4473
1,2-Dichloroethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Trichloroethene	16	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
1,2-Dichloropropane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Dibromomethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Bromodichloromethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
2-Chloroethylvinylether	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
cis-1,3-Dichloropropene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
MIBK(4-Methyl-2-pentanone)	U	ug/kg	11	27-MAR-01 15:30	EPA 8260	01-027-4473
Toluene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
trans-1,3-Dichloropropene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
1,1,2-Trichloroethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Tetrachloroethene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
2-Hexanone	U	ug/kg	11	27-MAR-01 15:30	EPA 8260	01-027-4473
Dibromochloromethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
EDB(1,2-Dibromoethane)	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Chlorobenzene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
1,1,1,2-Tetrachloroethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Ethylbenzene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473

Results calculated on a dry weight basis.

QC [illegible] NY [illegible] PA 68-[illegible] EPA NY 00[illegible]

Approved by: [signature]
Lab Director

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

FLI
FRIEND LABORATORY I · N · C

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

Date:03-APR-2001

Lab Sample ID: L65894-6

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: SED 1
Description: GRAB
Sampled On: 15-MAR-01 00:00 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
p-Xylene/m-Xylene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
o-Xylene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Styrene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Bromoform	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Bromobenzene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
1,1,2,2-Tetrachloroethane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
1,2,3-Trichloropropane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
2-Chlorotoluene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
4-Chlorotoluene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
1,3-Dichlorobenzene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
1,4-Dichlorobenzene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
1,2-Dichlorobenzene	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
1,2-Dibromo-3-chloropropane	U	ug/kg	6	27-MAR-01 15:30	EPA 8260	01-027-4473
Surrogate Recovery:						
Dibromofluoromethane	82	%				01-027-4473
Toluene-d8	101	%				01-027-4473
4-Bromofluorobenzene	104	%				01-027-4473

Results calculated on a dry weight basis.

Approved by: _____
Lab Director

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

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

Date:03-APR-2001

Lab Sample ID: L65894-7

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: SED 2
Description: GRAB
Sampled On: 15-MAR-01 00:00 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	69.1	%		20-MAR-01 00:00	CLP 3.0	01-001-60
TOC	2100	mg/kg	320	03-APR-01 00:00	SW846 9060	00-189-71
EPA 8260						
Dichlorodifluoromethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Chloromethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Vinyl chloride	U	ug/kg	3	27-MAR-01 16:03	EPA 8260	01-027-4474
Bromomethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Chloroethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Trichlorofluoromethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Acrolein	U	ug/kg	28	27-MAR-01 16:03	EPA 8260	01-027-4474
1,1-Dichloroethene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Acetone	U	ug/kg	35	27-MAR-01 16:03	EPA 8260	01-027-4474
Carbon disulfide	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Methylene Chloride	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Acrylonitrile	U	ug/kg	28	27-MAR-01 16:03	EPA 8260	01-027-4474
trans-1,2-Dichloroethene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
1,1-Dichloroethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
cis-1,2-Dichloroethene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
MEK(2-Butanone)	U	ug/kg	35	27-MAR-01 16:03	EPA 8260	01-027-4474
Chloroform	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
1,1,1-Trichloroethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Carbon tetrachloride	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Benzene	U	ug/kg	1	27-MAR-01 16:03	EPA 8260	01-027-4474
1,2-Dichloroethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Trichloroethene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
1,2-Dichloropropane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Dibromomethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Bromodichloromethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
2-Chloroethylvinylether	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
cis-1,3-Dichloropropene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
MIBK(4-Methyl-2-pentanone)	U	ug/kg	14	27-MAR-01 16:03	EPA 8260	01-027-4474
Toluene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
trans-1,3-Dichloropropene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
1,1,2-Trichloroethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Tetrachloroethene	18	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
2-Hexanone	U	ug/kg	14	27-MAR-01 16:03	EPA 8260	01-027-4474
Dibromochloromethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
EDB(1,2-Dibromoethane)	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Chlorobenzene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
1,1,1,2-Tetrachloroethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Ethylbenzene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474

Results calculated on a dry weight basis.

QC: R NY 10252 NJ 73165 PA 65180 EPA NY 00956

Approved by: _____ Lab Director

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

FLI
FRIEND LABORATORY
I N C.

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

Date: 03-APR-2001

Lab Sample ID: L65894-7

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: SED 2
Description: GRAB
Sampled On: 15-MAR-01 00:00 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
p-Xylene/m-Xylene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
o-Xylene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Styrene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Bromoform	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Bromobenzene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
1,1,2,2-Tetrachloroethane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
1,2,3-Trichloropropane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
2-Chlorotoluene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
4-Chlorotoluene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
1,3-Dichlorobenzene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
1,4-Dichlorobenzene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
1,2-Dichlorobenzene	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
1,2-Dibromo-3-chloropropane	U	ug/kg	7	27-MAR-01 16:03	EPA 8260	01-027-4474
Surrogate Recovery:						
Dibromofluoromethane	100	%				01-027-4474
Toluene-d8	103	%				01-027-4474
4-Bromofluorobenzene	102	%				01-027-4474

Results calculated on a dry weight basis.

QC NY 10252 NJ 73168 PA 68180 EPA NY 00939

Approved by: _____
Lab Director

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

FLI
FRIEND LABORATORY I · N · C

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

Date:03-APR-2001

Lab Sample ID: L65894-8

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: SED 3
Description: GRAB
Sampled On: 15-MAR-01 00:00 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	73.2	%		20-MAR-01 00:00	CLP 3.0	01-001-60
TOC	2500	mg/kg	425	03-APR-01 00:00	SW846 9060	00-189-71
EPA 8260						
Dichlorodifluoromethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Chloromethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Vinyl chloride	U	ug/kg	2	27-MAR-01 16:35	EPA 8260	01-027-4475
Bromomethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Chloroethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Trichlorofluoromethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Acrolein	U	ug/kg	24	27-MAR-01 16:35	EPA 8260	01-027-4475
1,1-Dichloroethene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Acetone	U	ug/kg	30	27-MAR-01 16:35	EPA 8260	01-027-4475
Carbon disulfide	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Methylene Chloride	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Acrylonitrile	U	ug/kg	24	27-MAR-01 16:35	EPA 8260	01-027-4475
trans-1,2-Dichloroethene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
1,1-Dichloroethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
cis-1,2-Dichloroethene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
MEK(2-Butanone)	U	ug/kg	30	27-MAR-01 16:35	EPA 8260	01-027-4475
Chloroform	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
1,1,1-Trichloroethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Carbon tetrachloride	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Benzene	U	ug/kg	0.8	27-MAR-01 16:35	EPA 8260	01-027-4475
1,2-Dichloroethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Trichloroethene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
1,2-Dichloropropane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Dibromomethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Bromodichloromethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
2-Chloroethylvinylether	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
cis-1,3-Dichloropropene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
MIBK(4-Methyl-2-pentanone)	U	ug/kg	12	27-MAR-01 16:35	EPA 8260	01-027-4475
Toluene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
trans-1,3-Dichloropropene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
1,1,2-Trichloroethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Tetrachloroethene	10	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
2-Hexanone	U	ug/kg	12	27-MAR-01 16:35	EPA 8260	01-027-4475
Dibromochloromethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
EDB(1,2-Dibromoethane)	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Chlorobenzene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
1,1,1,2-Tetrachloroethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Ethylbenzene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475

Results calculated on a dry weight basis.

 Approved by: Lab Director

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

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

Date:03-APR-2001

Lab Sample ID: L65894-8

URS Greiner, Inc.
Robert Henschel
282 Delaware Avenue
Buffalo, NY 14202

Sample Source: VESUVIUS, 35817-00
Origin: SED 3
Description: GRAB
Sampled On: 15-MAR-01 00:00 by CLIENT
Date Received: 19-MAR-01 10:48
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
p-Xylene/m-Xylene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
o-Xylene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Styrene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Bromoform	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Bromobenzene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
1,1,2,2-Tetrachloroethane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
1,2,3-Trichloropropane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
2-Chlorotoluene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
4-Chlorotoluene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
1,3-Dichlorobenzene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
1,4-Dichlorobenzene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
1,2-Dichlorobenzene	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
1,2-Dibromo-3-chloropropane	U	ug/kg	6	27-MAR-01 16:35	EPA 8260	01-027-4475
Surrogate Recovery:						
Dibromofluoromethane	102	%				01-027-4475
Toluene-d8	105	%				01-027-4475
4-Bromofluorobenzene	103	%				01-027-4475

Results calculated on a dry weight basis.

QC NY 10252 NJ 73168 PA 68180 EPA NY 00039

Approved by: Lab Director

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

WASTE STREAM TECHNOLOGY, INC.

302 Grote Street
Buffalo, NY 14207
(716) 876-5290

CATCH BASIN / FLOOR SUMP

Analytical Data Report
Report Date : 10/09/01
Group Numbers : 2011-2323

Prepared For :
Mr. Dave Sheppard
URS Corporation Group Consultants
282 Delaware Ave.
Buffalo, NY 14202-1090
Fax: 716-856-2545

Site: Vesuvius

Analytical Services		
Analytical Parameters	**Number of Samples**	**Turnaround Time**
8260	4	Standard

007 N WATER SAMPLES

Report Released By : B Schepart
Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS
NYSDOH ELAP #11179 NJDEPE #73977

ACCREDITED IN ACCORDANCE WITH nelac

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.
302 Grote Street
Buffalo, NY 14207
(716) 876-5290

Analytical Data Report

Group Number: 2011-2323
Site: Vesuvius

Field and Laboratory Information

WST ID	Client ID	Matrix	Date Sampled	Date Received	Time
WS86943	007N-1	Aqueous	9/25/01	9/25/01	17:00
WS86944	007N-2	Aqueous	9/25/01	9/25/01	17:00
WS86945	007N-3	Aqueous	9/25/01	9/25/01	17:00
WS86946	SED-1	Soil	9/25/01	9/25/01	17:00

PUT THIS WITH TABLE 4-3

METHODOLOGIES

The specific methodologies employed in obtaining the analytical data reported are indicated on each of the result forms. The method numbers shown refer to the following U.S. Environmental Protection Agency Reference:

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020, March 1979, Revised 1983, U.S. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

Federal Register, 40 CFR Part 136: Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act. Revised July 1992.

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. Third Edition, Revised December 1996, U.S. EPA SW-846.

Annual Book of ASTM Standards, Volume II. ASTM, 100 Harbor Drive. West Conshohocken, PA 19428-2959.

Standard Methods for the Examination of Water and Wastewater. (20th Edition). American Public Health Association, 1105 18th Street, NW, Washington, D.C. 20036.

ORGANIC DATA QUALIFIERS

U - Indicates compound was analyzed for but not detected.

J - Indicates an estimated value. This flag is used to qualify the following: when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed; a compound is detected in the sample but the result is less than the method quantitation limit but greater than the statistically calculated laboratory method detection limit; the result for a compound is estimated due to the analysis of a sample beyond the USEPA defined holding time; the result for a compound is estimated due to a quality control sample result that is outside the laboratory quality control recovery limits.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as the sample.

E - This flag identifies all compounds whose concentrations exceed the calibration range of the GC/MS instrument of that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

G - Matrix spike recovery is greater than the expected upper limit of analytical performance.

L - Matrix spike recovery is less than the expected lower limit of analytical performance.

 # - Indicates that a surrogate recovery was found to be outside the expected limits of analytical performance.

$ - Indicates that the surrogate compound was diluted out. The sample had to be diluted to obtain analytical results and a recovery could not be calculated.

(%) - Indicates that the compound is a surrogate and that the value reported for this compound is in percent recovery. The quality control recovery limits are indicated in the detection limit or QC limits column.

Waste Stream Technology, Inc.

Volatile Organics Analysis

SW-846 8260B

Site: Vesuvius
Date Sampled: 9/25/01
Date Received: 9/25/01

Group Number: 2011-2323
Units: µg/L
Matrix: Aqueous

WST ID: WS86943
Client ID: 007N-1
Extraction Date: NA
Date Analyzed: 10/1/01

W6

Compound	Detection Limit	Result	QC Limits (%)	Qualifier
chloromethane	10	Not detected		U
vinyl chloride	10	2		J
bromomethane	10	Not detected		U
chloroethane	10	Not detected		U
1,1-dichloroethene	5	Not detected		U
acetone	100	Not detected		U
carbon disulfide	5	Not detected		U
methylene chloride	5	Not detected		U
trans-1,2-dichloroethene	5	Not detected		U
1,1-dichloroethane	5	15		
vinyl acetate	50	Not detected		U
2-butanone	100	Not detected		U
cis-1,2-dichloroethene	5	5		
chloroform	5	Not detected		U
1,1,1-trichloroethane	5	Not detected		U
carbon tetrachloride	5	Not detected		U
benzene	5	Not detected		U
1,2-dichloroethane	5	Not detected		U
trichloroethene	5	Not detected		U
1,2-dichloropropane	5	Not detected		U
bromodichloromethane	5	Not detected		U
2-chloroethylvinyl ether	10	Not detected		U
4-methyl-2-pentanone	50	Not detected		U
cis-1,3-dichloropropene	5	Not detected		U
toluene	5	Not detected		U
trans-1,3-dichloropropene	5	Not detected		U
1,1,2-trichloroethane	5	Not detected		U
2-hexanone	50	Not detected		U
tetrachloroethene	5	Not detected		U
dibromochloromethane	5	Not detected		U
chlorobenzene	5	Not detected		U
ethylbenzene	5	Not detected		U
m,p-xylene	5	Not detected		U
o-xylene	5	Not detected		U
styrene	5	Not detected		U
bromoform	5	Not detected		U
1,1,2,2-tetrachloroethane	5	Not detected		U
1,2-Dichloroethane-d4 (%)		95	76-119	
Toluene-d8 (%)		94	80-117	
Bromofluorobenzene (%)		97	82-117	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Volatile Organics Analysis

SW-846 8260B

Site: Vesuvius
Date Sampled: 9/25/01
Date Received: 9/25/01

Group Number: 2011-2323
Units: µg/L
Matrix: Aqueous

WST ID: WS86944
Client ID: 007N-2
Extraction Date: NA
Date Analyzed: 10/1/01

Compound	Detection Limit	Result	QC Limits (%)	Qualifier
chloromethane	10	Not detected		U
vinyl chloride	10	Not detected		U
bromomethane	10	Not detected		U
chloroethane	10	Not detected		U
1,1-dichloroethene	5	Not detected		U
acetone	100	Not detected		U
carbon disulfide	5	Not detected		U
methylene chloride	5	Not detected		U
trans-1,2-dichloroethene	5	Not detected		U
1,1-dichloroethane	5	5		
vinyl acetate	50	Not detected		U
2-butanone	100	Not detected		U
cis-1,2-dichloroethene	5	1		J
chloroform	5	Not detected		U
1,1,1-trichloroethane	5	Not detected		U
carbon tetrachloride	5	Not detected		U
benzene	5	Not detected		U
1,2-dichloroethane	5	Not detected		U
trichloroethene	5	Not detected		U
1,2-dichloropropane	5	Not detected		U
bromodichloromethane	5	Not detected		U
2-chloroethylvinyl ether	10	Not detected		U
4-methyl-2-pentanone	50	Not detected		U
cis-1,3-dichloropropene	5	Not detected		U
toluene	5	Not detected		U
trans-1,3-dichloropropene	5	Not detected		U
1,1,2-trichloroethane	5	Not detected		U
2-hexanone	50	Not detected		U
tetrachloroethene	5	Not detected		U
dibromochloromethane	5	Not detected		U
chlorobenzene	5	Not detected		U
ethylbenzene	5	Not detected		U
m,p-xylene	5	Not detected		U
o-xylene	5	Not detected		U
styrene	5	Not detected		U
bromoform	5	Not detected		U
1,1,2,2-tetrachloroethane	5	Not detected		U
1,2-Dichloroethane-d4 (%)		100	76-119	
Toluene-d8 (%)		104	80-117	
Bromofluorobenzene (%)		95	82-117	
Dilution Factor	**1**			

Waste Stream Technology, Inc.

Volatile Organics Analysis

SW-846 8260B

Site: Vesuvius
Date Sampled: 9/25/01
Date Received: 9/25/01

Group Number: 2011-2323
Units: µg/L
Matrix: Aqueous

WST ID: WS86945
Client ID: 007N-3
Extraction Date: NA
Date Analyzed: 10/1/01

Compound	Detection Limit	Result	QC Limits (%)	Qualifier
chloromethane	10	Not detected		U
vinyl chloride	10	Not detected		U
bromomethane	10	Not detected		U
chloroethane	10	Not detected		U
1,1-dichloroethene	5	Not detected		U
acetone	100	Not detected		U
carbon disulfide	5	Not detected		U
methylene chloride	5	Not detected		U
trans-1,2-dichloroethene	5	Not detected		U
1,1-dichloroethane	5	1		J
vinyl acetate	50	Not detected		U
2-butanone	100	Not detected		U
cis-1,2-dichloroethene	5	Not detected		U
chloroform	5	Not detected		U
1,1,1-trichloroethane	5	Not detected		U
carbon tetrachloride	5	Not detected		U
benzene	5	Not detected		U
1,2-dichloroethane	5	Not detected		U
trichloroethene	5	Not detected		U
1,2-dichloropropane	5	Not detected		U
bromodichloromethane	5	Not detected		U
2-chloroethylvinyl ether	10	Not detected		U
4-methyl-2-pentanone	50	Not detected		U
cis-1,3-dichloropropene	5	Not detected		U
toluene	5	Not detected		U
trans-1,3-dichloropropene	5	Not detected		U
1,1,2-trichloroethane	5	Not detected		U
2-hexanone	50	Not detected		U
tetrachloroethene	5	Not detected		U
dibromochloromethane	5	Not detected		U
chlorobenzene	5	Not detected		U
ethylbenzene	5	Not detected		U
m,p-xylene	5	Not detected		U
o-xylene	5	Not detected		U
styrene	5	Not detected		U
bromoform	5	Not detected		U
1,1,2,2-tetrachloroethane	5	Not detected		U
1,2-Dichloroethane-d4 (%)		97	76-119	
Toluene-d8 (%)		95	80-117	
Bromofluorobenzene (%)		98	82-117	
Dilution Factor	1			

Waste Stream Technology, Inc.

Volatile Organics in Solids

SW-846 8260B

Site: Vesuvius
Date Sampled: 9/25/01
Date Received: 9/25/01

Group Number: 2011-2323
Units: µg/Kg
Matrix: Soil

WST ID: WS86946
Client ID: SED-1
Extraction Date: NA
Date Analyzed: 9/29/02

Compound	Detection Limit	Result	QC Limits (%)	Qualifier
chloromethane	20	18		J
vinyl chloride	20	14		J
bromomethane	20	Not detected		U
chloroethane	20	7		J
1,1-dichloroethene	10	Not detected		U
acetone	198	42		J
carbon disulfide	10	12		
methylene chloride	10	Not detected		U
trans-1,2-dichloroethene	10	Not detected		U
1,1-dichloroethane	10	75		
vinyl acetate	99	Not detected		U
2-butanone	198	Not detected		U
cis-1,2-dichloroethene	10	24		
chloroform	10	Not detected		U
1,1,1-trichloroethane	10	Not detected		U
carbon tetrachloride	10	Not detected		U
benzene	10	4		J
1,2-dichloroethane	10	Not detected		U
trichloroethene	10	Not detected		U
1,2-dichloropropane	10	Not detected		U
bromodichloromethane	10	Not detected		U
4-methyl-2-pentanone	99	Not detected		U
cis-1,3-dichloropropene	10	Not detected		U
toluene	10	7		J
trans-1,3-dichloropropene	10	Not detected		U
1,1,2-trichloroethane	10	Not detected		U
2-hexanone	99	Not detected		U
tetrachloroethene	10	Not detected		U
dibromochloromethane	10	Not detected		U
chlorobenzene	10	Not detected		U
ethylbenzene	10	Not detected		U
m,p-xylene	10	8		J
o-xylene	10	2		J
styrene	10	Not detected		U
bromoform	10	Not detected		U
1,1,2,2-tetrachloroethane	10	Not detected		U
1,2-Dichloroethane-d4 (%)		92	70-121	
Toluene-d8 (%)		77	81-117	#
Bromofluorobenzene (%)		113	74-121	
Dilution Factor	**2**			

Waste Stream Technology, Inc.

VOC Water Method Blank

SW-846 8260B

Site: Vesuvius
Date Sampled: NA
Date Received: NA

Group Number: 2011-2323
Units: µg/L

WST ID: MB100101
Client ID: NA
Extraction Date: NA
Date Analyzed: 10/1/01

Compound	Detection Limit	Result	QC Limits (%)	Qualifier
chloromethane	10	Not detected		U
vinyl chloride	10	Not detected		U
bromomethane	10	Not detected		U
chloroethane	10	Not detected		U
1,1-dichloroethene	5	Not detected		U
acetone	100	Not detected		U
carbon disulfide	5	Not detected		U
methylene chloride	5	Not detected		U
trans-1,2-dichloroethene	5	Not detected		U
1,1-dichloroethane	5	Not detected		U
vinyl acetate	50	Not detected		U
2-butanone	100	Not detected		U
cis-1,2-dichloroethene	5	Not detected		U
chloroform	5	Not detected		U
1,1,1-trichloroethane	5	Not detected		U
carbon tetrachloride	5	Not detected		U
benzene	5	Not detected		U
1,2-dichloroethane	5	Not detected		U
trichloroethene	5	Not detected		U
1,2-dichloropropane	5	Not detected		U
bromodichloromethane	5	Not detected		U
2-chloroethylvinyl ether	10	Not detected		U
4-methyl-2-pentanone	50	Not detected		U
cis-1,3-dichloropropene	5	Not detected		U
toluene	5	Not detected		U
trans-1,3-dichloropropene	5	Not detected		U
1,1,2-trichloroethane	5	Not detected		U
2-hexanone	50	Not detected		U
tetrachloroethene	5	Not detected		U
dibromochloromethane	5	Not detected		U
chlorobenzene	5	Not detected		U
ethylbenzene	5	Not detected		U
m,p-xylene	5	Not detected		U
o-xylene	5	Not detected		U
styrene	5	Not detected		U
bromoform	5	Not detected		U
1,1,2,2-tetrachloroethane	5	Not detected		U
1,2-Dichloroethane-d4 (%)		95	76-119	
Toluene-d8 (%)		96	80-117	
Bromofluorobenzene (%)		97	82-117	

Dilution Factor 1

NA denotes Not Applicable

MB denotes Method Blank

2011-2323

CHAIN OF CUSTODY RECORD

URS

PROJECT NO.: 05-35817.00

SITE NAME: VESUVIUS

SAMPLERS (PRINT/SIGNATURE): DAVID J. SHEPPARD

DELIVERY SERVICE: NA AIRBILL NO.: NA

LAB: WST

COOLER: 1 of 1

PAGE: 1 of 1

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO. OF CONTAINERS	TESTS: TCL VOC 8260B	TESTS: TCL VOC 8260B	BOTTLE TYPE AND PRESERVATIVE: 40ml vial 4°C	BOTTLE TYPE AND PRESERVATIVE: 4oz glass 4°C	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO.# (IRPIMS ONLY)
007N	9/25/01	1000	X	007N-1	WG	2	2		WS 86943		NW CB	N1	-	-	-
007N		1015	X	007N-2	WG	2	2			44	CENTER CB	N1	-	-	-
007N		1030	X	007N-3	WG	2	2			45	OUTFALL	N1	-	-	-
SED		1045	X	SED-1	SE	2		2		46	INT. SUMP	N1	-	-	-

MATRIX CODES: AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES: TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE; (# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
	9-25-01	1600		9-25-01	1600
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME
	9-25-01	1700		9-25-01	1700

SPECIAL INSTRUCTIONS: SEND RESULTS TO DAVE SHEPPARD

PO # 05-17144

Distribution: Original accompanies shipment, copy to coordinator field files

URSF-075C/1 OF 1/CofCR/GCM

WASTE STREAM TECHNOLOGY, INC.

302 Grote Street
Buffalo, NY 14207
(716) 876-5290

GROUNDWATER
COLLECTION
SUMP

Analytical Data Report
Report Date : 02/08/02
Group Numbers : 2021-204

Prepared For :
Mr. Dave Sheperd
URS Corporation Group Consultants
282 Delaware Ave.
Buffalo, NY 14202-1090

Site: Vesuvius

Analytical Parameters	Analytical Services Number of Samples	Turnaround Time
8260	1	Standard

SUMP

Report Released By : Daniel W. Vollmer

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS
NYSDOH ELAP #11179 NJDEPE #73977

Waste Stream Technology, Inc.
302 Grote Street
Buffalo, NY 14207
(716) 876-5290

Analytical Data Report

Group Number: 2021-204
Site: Vesuvius

Field and Laboratory Information

WST ID	Client ID	Matrix	Date Sampled	Date Received	Time
WT01357	V-Sump-1	Aqueous	01/25/02	01/25/02	14:00

METHODOLOGIES

The specific methodologies employed in obtaining the analytical data reported are indicated on each of the result forms. The method numbers shown refer to the following U.S. Environmental Protection Agency Reference:

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020, March 1979, Revised 1983, U.S. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

Federal Register, 40 CFR Part 136: Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act. Revised July 1992.

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. Third Edition, Revised December 1996, U.S. EPA SW-846.

Annual Book of ASTM Standards, Volume II. ASTM, 100 Harbor Drive, West Conshohocken, PA 19428-2959.

Standard Methods for the Examination of Water and Wastewater. (20th Edition). American Public Health Association, 1105 18th Street, NW, Washington, D.C. 20036.

ORGANIC DATA QUALIFIERS

U - Indicates compound was analyzed for but not detected.

J - Indicates an estimated value. This flag is used to qualify the following: when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed; a compound is detected in the sample but the result is less than the method quantitation limit but greater than the statistically calculated laboratory method detection limit; the result for a compound is estimated due to the analysis of a sample beyond the USEPA defined holding time; the result for a compound is estimated due to a quality control sample result that is outside the laboratory quality control recovery limits.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as the sample.

E - This flag identifies all compounds whose concentrations exceed the calibration range of the GC/MS instrument of that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

G - Matrix spike recovery is greater than the expected upper limit of analytical performance.

L - Matrix spike recovery is less than the expected lower limit of analytical performance.

 # - Indicates that a surrogate recovery was found to be outside the expected limits of analytical performance.

$ - Indicates that the surrogate compound was diluted out. The sample had to be diluted to obtain analytical results and a recovery could not be calculated.

(%) - Indicates that the compound is a surrogate and that the value reported for this compound is in percent recovery. The quality control recovery limits are indicated in the detection limit or QC limits column.

Waste Stream Technology, Inc.

Volatile Organics Analysis

SW-846 8260B

Site: Vesuvius
Date Sampled: 01/25/02
Date Received: 01/25/02

Group Number: 2021-204
Units: µg/L
Matrix: Aqueous

WST ID: WT01357
Client ID: V-Sump-1
Extraction Date: NA
Date Analyzed: 02/05/02

Compound	Detection Limit	Result	QC Limits (%)	Qualifier
chloromethane	10	Not detected		U
vinyl chloride	10	10		
bromomethane	10	Not detected		U
chloroethane	10	6		J
1,1-dichloroethene	5	Not detected		U
acetone	100	Not detected		U
carbon disulfide	5	Not detected		U
methylene chloride	5	Not detected		U
trans-1,2-dichloroethene	5	Not detected		U
1,1-dichloroethane	5	70		
vinyl acetate	50	Not detected		U
2-butanone	100	Not detected		U
cis-1,2-dichloroethene	5	14		
chloroform	5	Not detected		U
1,1,1-trichloroethane	5	2		J
carbon tetrachloride	5	Not detected		U
benzene	5	Not detected		U
1,2-dichloroethane	5	Not detected		U
trichloroethene	5	1		J
1,2-dichloropropane	5	Not detected		U
bromodichloromethane	5	Not detected		U
2-chloroethylvinyl ether	10	Not detected		U
4-methyl-2-pentanone	50	Not detected		U
cis-1,3-dichloropropene	5	Not detected		U
toluene	5	Not detected		U
trans-1,3-dichloropropene	5	Not detected		U
1,1,2-trichloroethane	5	Not detected		U
2-hexanone	50	Not detected		U
tetrachloroethene	5	Not detected		U
dibromochloromethane	5	Not detected		U
chlorobenzene	5	Not detected		U
ethylbenzene	5	Not detected		U
m,p-xylene	5	Not detected		U
o-xylene	5	Not detected		U
styrene	5	Not detected		U
bromoform	5	Not detected		U
1,1,2,2-tetrachloroethane	5	Not detected		U
1,2-Dichloroethane-d4 (%)		84	76-119	
Toluene-d8 (%)		83	80-117	
Bromofluorobenzene (%)		81	82-117	#
Dilution Factor	1			

2021-204

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 05-35817.00

SITE NAME Vesuvius

SAMPLERS (PRINT/SIGNATURE) Kevin S. Kearney Kevin S. Kearney

DELIVERY SERVICE: Hand Del AIRBILL NO.: X

LAB Wastestream

COOLER 1 of 1

PAGE 1 of 1

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO.# OF CONTAINERS	TESTS: TCL-VOCs (40ml vial #2c)	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO.# (IRPIMS ONLY)
Sump	1/25/02	11:15	Grab	V-Sump-1	WG	2	2	WT01357				

MATRIX CODES

AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES

TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE; (# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME
Kevin S. Kearney	1/25/02	14:00	Kris Forster	1/25/02	2:00 pm

SPECIAL INSTRUCTIONS

Distribution: Original accompanies shipment, copy to coordinator field files

URSF-075C/1 OF 1/CofCR/GCM

WASTE STREAM TECHNOLOGY, INC.

302 Grote Street
Buffalo, NY 14207
(716) 876-5290

EXCAVATION WALL SAMPLES

Analytical Data Report
Report Date : 02/07/02
Group Numbers : 2021-191

Prepared For :
Mr. Dave Sheperd
URS Corporation Group Consultants
282 Delaware Ave.
Buffalo, NY 14202-1090

Site: Vesuvius

Analytical Parameters	Analytical Services Number of Samples	Turnaround Time
8260	4	Standard

X - SAMPLES

Report Released By : Daniel W. Voll

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS
NYSDOH ELAP #11179 NJDEPE #73977

ACCREDITED IN ACCORDANCE WITH nelac

WASTE STREAM TECHNOLOGY

METHODOLOGIES

The specific methodologies employed in obtaining the analytical data reported are indicated on each of the result forms. The method numbers shown refer to the following U.S. Environmental Protection Agency Reference:

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020, March 1979, Revised 1983, U.S. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

Federal Register, 40 CFR Part 136: Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act. Revised July 1992.

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. Third Edition, Revised December 1996, U.S. EPA SW-846.

Annual Book of ASTM Standards, Volume II. ASTM, 100 Harbor Drive, West Conshohocken, PA 19428-2959.

Standard Methods for the Examination of Water and Wastewater. (20th Edition). American Public Health Association, 1105 18th Street, NW, Washington, D.C. 20036.

ORGANIC DATA QUALIFIERS

U - Indicates compound was analyzed for but not detected.

J - Indicates an estimated value. This flag is used to qualify the following: when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed; a compound is detected in the sample but the result is less than the method quantitation limit but greater than the statistically calculated laboratory method detection limit; the result for a compound is estimated due to the analysis of a sample beyond the USEPA defined holding time; the result for a compound is estimated due to a quality control sample result that is outside the laboratory quality control recovery limits.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as the sample.

E - This flag identifies all compounds whose concentrations exceed the calibration range of the GC/MS instrument of that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

G - Matrix spike recovery is greater than the expected upper limit of analytical performance.

L - Matrix spike recovery is less than the expected lower limit of analytical performance.

 # - Indicates that a surrogate recovery was found to be outside the expected limits of analytical performance.

$ - Indicates that the surrogate compound was diluted out. The sample had to be diluted to obtain analytical results and a recovery could not be calculated.

(%) - Indicates that the compound is a surrogate and that the value reported for this compound is in percent recovery. The quality control recovery limits are indicated in the detection limit or QC limits column.

Waste Stream Technology, Inc.
302 Grote Street
Buffalo, NY 14207
(716) 876-5290

Analytical Data Report

Group Number: 2021-191
Site: Vesuvius

Field and Laboratory Information

WST ID	Client ID	Matrix	Date Sampled	Date Received	Time
WT01284	V-SW-S	Soil	01/24/02	01/24/02	16:55
WT01285	V-SW-N	Soil	01/24/02	01/24/02	16:55
WT01286	V-SW-W	Soil	01/24/02	01/24/02	16:55
WT01287	V-SW-E	Soil	01/24/02	01/24/02	16:55

Waste Stream Technology, Inc.

Volatile Organics in Solids

SW-846 8260B

Site: Vesuvius
Date Sampled: 01/24/02
Date Received: 01/24/02

Group Number: 2021-191
Units: µg/Kg
Matrix: Soil

WST ID: WT01284
Client ID: V-SW-S
Extraction Date: NA
Date Analyzed: 02/02/02

Compound	Detection Limit	Result	QC Limits (%)	Qualifier
chloromethane	10	Not detected		U
vinyl chloride	10	Not detected		U
bromomethane	10	Not detected		U
chloroethane	10	Not detected		U
1,1-dichloroethene	2	Not detected		U
acetone	10	Not detected		U
carbon disulfide	2	Not detected		U
methylene chloride	2	Not detected		U
trans-1,2-dichloroethene	2	Not detected		U
1,1-dichloroethane	2	Not detected		U
vinyl acetate	10	Not detected		U
2-butanone	10	Not detected		U
cis-1,2-dichloroethene	2	Not detected		U
chloroform	2	Not detected		U
1,1,1-trichloroethane	2	Not detected		U
carbon tetrachloride	2	Not detected		U
benzene	2	Not detected		U
1,2-dichloroethane	2	Not detected		U
trichloroethene	2	2		
1,2-dichloropropane	2	Not detected		U
bromodichloromethane	2	Not detected		U
4-methyl-2-pentanone	10	Not detected		U
cis-1,3-dichloropropene	2	Not detected		U
toluene	2	Not detected		U
trans-1,3-dichloropropene	2	Not detected		U
1,1,2-trichloroethane	2	Not detected		U
2-hexanone	10	Not detected		U
tetrachloroethene	2	8		
dibromochloromethane	2	Not detected		U
chlorobenzene	2	Not detected		U
ethylbenzene	2	Not detected		U
m,p-xylene	2	Not detected		U
o-xylene	2	Not detected		U
styrene	2	Not detected		U
bromoform	2	Not detected		U
1,1,2,2-tetrachloroethane	2	Not detected		U
1,2-Dichloroethane-d4 (%)		108	70-121	
Toluene-d8 (%)		91	81-117	
Bromofluorobenzene (%)		101	74-121	
Dilution Factor	**1**			

Waste Stream Technology, Inc.

Volatile Organics in Solids

SW-846 8260B

Site: Vesuvius
Date Sampled: 01/24/02
Date Received: 01/24/02

Group Number: 2021-191
Units: µg/Kg
Matrix: Soil

WST ID: WT01285
Client ID: V-SW-N
Extraction Date: NA
Date Analyzed: 02/02/02

Compound	Detection Limit	Result	QC Limits (%)	Qualifier
chloromethane	10	Not detected		U
vinyl chloride	10	Not detected		U
bromomethane	10	Not detected		U
chloroethane	10	Not detected		U
1,1-dichloroethene	2	Not detected		U
acetone	10	Not detected		U
carbon disulfide	2	Not detected		U
methylene chloride	2	2		B
trans-1,2-dichloroethene	2	Not detected		U
1,1-dichloroethane	2	Not detected		U
vinyl acetate	10	Not detected		U
2-butanone	10	Not detected		U
cis-1,2-dichloroethene	2	Not detected		U
chloroform	2	Not detected		U
1,1,1-trichloroethane	2	Not detected		U
carbon tetrachloride	2	Not detected		U
benzene	2	Not detected		U
1,2-dichloroethane	2	Not detected		U
trichloroethene	2	Not detected		U
1,2-dichloropropane	2	Not detected		U
bromodichloromethane	2	Not detected		U
4-methyl-2-pentanone	10	Not detected		U
cis-1,3-dichloropropene	2	Not detected		U
toluene	2	Not detected		U
trans-1,3-dichloropropene	2	Not detected		U
1,1,2-trichloroethane	2	Not detected		U
2-hexanone	10	Not detected		U
tetrachloroethene	2	20		
dibromochloromethane	2	Not detected		U
chlorobenzene	2	Not detected		U
ethylbenzene	2	Not detected		U
m,p-xylene	2	Not detected		U
o-xylene	2	Not detected		U
styrene	2	Not detected		U
bromoform	2	Not detected		U
1,1,2,2-tetrachloroethane	2	Not detected		U
1,2-Dichloroethane-d4 (%)		112	70-121	
Toluene-d8 (%)		93	81-117	
Bromofluorobenzene (%)		109	74-121	
Dilution Factor	**1**			

Waste Stream Technology, Inc.

Volatile Organics in Solids

SW-846 8260B

Site: Vesuvius
Date Sampled: 01/24/02
Date Received: 01/24/02

Group Number: 2021-191
Units: µg/Kg
Matrix: Soil

WST ID: WT01286
Client ID: V-SW-W
Extraction Date: NA
Date Analyzed: 02/02/02

Compound	Detection Limit	Result	QC Limits (%)	Qualifier
chloromethane	10	Not detected		U
vinyl chloride	10	Not detected		U
bromomethane	10	Not detected		U
chloroethane	10	Not detected		U
1,1-dichloroethene	2	Not detected		U
acetone	10	Not detected		U
carbon disulfide	2	Not detected		U
methylene chloride	2	2		B
trans-1,2-dichloroethene	2	Not detected		U
1,1-dichloroethane	2	Not detected		U
vinyl acetate	10	Not detected		U
2-butanone	10	Not detected		U
cis-1,2-dichloroethene	2	Not detected		U
chloroform	2	Not detected		U
1,1,1-trichloroethane	2	Not detected		U
carbon tetrachloride	2	Not detected		U
benzene	2	Not detected		U
1,2-dichloroethane	2	Not detected		U
trichloroethene	2	Not detected		U
1,2-dichloropropane	2	Not detected		U
bromodichloromethane	2	Not detected		U
4-methyl-2-pentanone	10	Not detected		U
cis-1,3-dichloropropene	2	Not detected		U
toluene	2	Not detected		U
trans-1,3-dichloropropene	2	Not detected		U
1,1,2-trichloroethane	2	Not detected		U
2-hexanone	10	Not detected		U
tetrachloroethene	2	7		
dibromochloromethane	2	Not detected		U
chlorobenzene	2	Not detected		U
ethylbenzene	2	Not detected		U
m,p-xylene	2	Not detected		U
o-xylene	2	Not detected		U
styrene	2	Not detected		U
bromoform	2	Not detected		U
1,1,2,2-tetrachloroethane	2	Not detected		U
1,2-Dichloroethane-d4 (%)		113	70-121	
Toluene-d8 (%)		92	81-117	
Bromofluorobenzene (%)		110	74-121	
Dilution Factor	**1**			

Waste Stream Technology, Inc.

Volatile Organics in Solids

SW-846 8260B

Site: Vesuvius
Date Sampled: 01/24/02
Date Received: 01/24/02

Group Number: 2021-191
Units: µg/Kg
Matrix: Soil

WST ID: WT01287
Client ID: V-SW-E
Extraction Date: NA
Date Analyzed: 02/02/02

Compound	Detection Limit	Result	QC Limits (%)	Qualifier
chloromethane	10	Not detected		U
vinyl chloride	10	Not detected		U
bromomethane	10	Not detected		U
chloroethane	10	Not detected		U
1,1-dichloroethene	2	Not detected		U
acetone	10	13		
carbon disulfide	2	Not detected		U
methylene chloride	2	Not detected		U
trans-1,2-dichloroethene	2	Not detected		U
1,1-dichloroethane	2	Not detected		U
vinyl acetate	10	Not detected		U
2-butanone	10	Not detected		U
cis-1,2-dichloroethene	2	Not detected		U
chloroform	2	Not detected		U
1,1,1-trichloroethane	2	Not detected		U
carbon tetrachloride	2	Not detected		U
benzene	2	Not detected		U
1,2-dichloroethane	2	Not detected		U
trichloroethene	2	4		
1,2-dichloropropane	2	Not detected		U
bromodichloromethane	2	Not detected		U
4-methyl-2-pentanone	10	Not detected		U
cis-1,3-dichloropropene	2	Not detected		U
toluene	2	Not detected		U
trans-1,3-dichloropropene	2	Not detected		U
1,1,2-trichloroethane	2	Not detected		U
2-hexanone	10	Not detected		U
tetrachloroethene	2	417		D
dibromochloromethane	2	Not detected		U
chlorobenzene	2	Not detected		U
ethylbenzene	2	Not detected		U
m,p-xylene	2	Not detected		U
o-xylene	2	Not detected		U
styrene	2	Not detected		U
bromoform	2	Not detected		U
1,1,2,2-tetrachloroethane	2	Not detected		U
1,2-Dichloroethane-d4 (%)		106	70-121	
Toluene-d8 (%)		91	81-117	
Bromofluorobenzene (%)		102	74-121	
Dilution Factor	**1**			

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

VOC Soil Method Blank Results

SW-846 8260B

Site: Vesuvius
Date Sampled: NA
Date Received: NA

Group Number: 2021-191
Units: µg/Kg

WST ID: MB020202
Client ID: NA
Extraction Date: NA
Date Analyzed: 02/02/02

Compound	Detection Limit	Result	QC Limits (%)	Qualifier
chloromethane	10	Not detected		U
vinyl chloride	10	Not detected		U
bromomethane	10	Not detected		U
chloroethane	10	Not detected		U
1,1-dichloroethene	2	Not detected		U
acetone	10	Not detected		U
carbon disulfide	2	Not detected		U
methylene chloride	2	2		
trans-1,2-dichloroethene	2	Not detected		U
1,1-dichloroethane	2	Not detected		U
vinyl acetate	10	Not detected		U
2-butanone	10	Not detected		U
cis-1,2-dichloroethene	2	Not detected		U
chloroform	2	Not detected		U
1,1,1-trichloroethane	2	Not detected		U
carbon tetrachloride	2	Not detected		U
benzene	2	Not detected		U
1,2-dichloroethane	2	Not detected		U
trichloroethene	2	Not detected		U
1,2-dichloropropane	2	Not detected		U
bromodichloromethane	2	Not detected		U
4-methyl-2-pentanone	10	Not detected		U
cis-1,3-dichloropropene	2	Not detected		U
toluene	2	Not detected		U
trans-1,3-dichloropropene	2	Not detected		U
1,1,2-trichloroethane	2	Not detected		U
2-hexanone	10	Not detected		U
tetrachloroethene	2	Not detected		U
dibromochloromethane	2	Not detected		U
chlorobenzene	2	Not detected		U
ethylbenzene	2	Not detected		U
m,p-xylene	2	Not detected		U
o-xylene	2	Not detected		U
styrene	2	Not detected		U
bromoform	2	Not detected		U
1,1,2,2-tetrachloroethane	2	Not detected		U
1,2-Dichloroethane-d4 (%)		102	70-121	
Toluene-d8 (%)		97	81-117	
Bromofluorobenzene (%)		89	74-121	

Dilution Factor 1

MB denotes Method Blank
NA denotes Not Applicable

2021-191

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 05-35817-00

SITE NAME Vesuvius

SAMPLERS (PRINT/SIGNATURE) Kevin Kearney Kevin S. Kearney

LAB Wastestream

COOLER 1 of 1

PAGE 1 of 1

DELIVERY SERVICE: Hand Del. AIRBILL NO.: X

TESTS: VOCs 8260

BOTTLE TYPE AND PRESERVATIVE: 2-2oz glass

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO. OF CONTAINERS	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO.# (IRPIMS ONLY)
Side Wall-S	1/24/02	10:30	Grab	V-SW-S	So	2	WT01284	N1	8"	10"	
Side Wall-N	1/24/02	10:40	Grab	V-SW-N	So	2	85	N1	8"	10"	
Side Wall-W	1/24/02	10:50	Grab	V-SW-W	So	2	86	N1	8"	10"	
Side Wall-E	1/24/02	11:00	Grab	V-SW-E	So	2	87	N1	8"	10"	

MATRIX CODES: AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES: TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE; (# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME
Kevin Kearney	1/24/02	1655	Kris Foster	1/24/02	55 hapk

SPECIAL INSTRUCTIONS Standard Turnaround. Any questions contact

Distribution: Original accompanies shipment, copy to coordinator field files

URSF-075C/1 OF 1/CofCR/GCM

WASTE STREAM TECHNOLOGY, INC.
302 Grote Street
Buffalo, NY 14207
(716) 876-5290

EAST WALL SAMPLE

Analytical Data Report
Report Date : 02/26/02
Group Numbers : 2021-331

Prepared For :
Mr. David Sheppard
URS Corporation Group Consultants
282 Delaware Ave.
Buffalo, NY 14202-1090

Site: Vesuvius

Analytical Services		
Analytical Parameters	**Number of Samples**	**Turnaround Time**
8260	1	Standard

EAST WALL

Report Released By : B Schepart
Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS
NYSDOH ELAP #11179 NJDEPE #73977

Waste Stream Technology, Inc.
302 Grote Street
Buffalo, NY 14207
(716) 876-5290

Analytical Data Report

Group Number: 2021-331
Site: Vesuvius

Field and Laboratory Information

WST ID	Client ID	Matrix	Date Sampled	Date Received	Time
WT02125	V-East Wall-R	Soil	02/14/02	02/14/02	14:10

METHODOLOGIES

The specific methodologies employed in obtaining the analytical data reported are indicated on each of the result forms. The method numbers shown refer to the following U.S. Environmental Protection Agency Reference:

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020, March 1979, Revised 1983, U.S. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

Federal Register, 40 CFR Part 136: Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act. Revised July 1992.

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. Third Edition, Revised December 1996, U.S. EPA SW-846.

Annual Book of ASTM Standards, Volume II. ASTM, 100 Harbor Drive, West Conshohocken, PA 19428-2959.

Standard Methods for the Examination of Water and Wastewater. (20th Edition). American Public Health Association, 1105 18th Street, NW, Washington, D.C. 20036.

ORGANIC DATA QUALIFIERS

U - Indicates compound was analyzed for but not detected.

J - Indicates an estimated value. This flag is used to qualify the following: when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed; a compound is detected in the sample but the result is less than the method quantitation limit but greater than the statistically calculated laboratory method detection limit; the result for a compound is estimated due to the analysis of a sample beyond the USEPA defined holding time; the result for a compound is estimated due to a quality control sample result that is outside the laboratory quality control recovery limits.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as the sample.

E - This flag identifies all compounds whose concentrations exceed the calibration range of the GC/MS instrument of that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

G - Matrix spike recovery is greater than the expected upper limit of analytical performance.

L - Matrix spike recovery is less than the expected lower limit of analytical performance.

 # - Indicates that a surrogate recovery was found to be outside the expected limits of analytical performance.

$ - Indicates that the surrogate compound was diluted out. The sample had to be diluted to obtain analytical results and a recovery could not be calculated.

(%) - Indicates that the compound is a surrogate and that the value reported for this compound is in percent recovery. The quality control recovery limits are indicated in the detection limit or QC limits column.

Waste Stream Technology, Inc.

Volatile Organics in Solids

SW-846 8260B

Site: Vesuvius
Date Sampled: 02/14/02
Date Received: 02/14/02

Group Number: 2021-331
Units: µg/Kg
Matrix: Soil

WST ID: WT02125
Client ID: V-East Wall-R
Extraction Date: NA
Date Analyzed: 02/18/02

Compound	Detection Limit	Result	QC Limits (%)	Qualifier
chloromethane	10	Not detected		U
vinyl chloride	10	Not detected		U
bromomethane	10	Not detected		U
chloroethane	10	Not detected		U
1,1-dichloroethene	2	Not detected		U
acetone	10	18		
carbon disulfide	2	Not detected		U
methylene chloride	2	14		
trans-1,2-dichloroethene	2	Not detected		U
1,1-dichloroethane	2	Not detected		U
vinyl acetate	10	Not detected		U
2-butanone	10	Not detected		U
cis-1,2-dichloroethene	2	5		
chloroform	2	Not detected		U
1,1,1-trichloroethane	2	Not detected		U
carbon tetrachloride	2	Not detected		U
benzene	2	Not detected		U
1,2-dichloroethane	2	Not detected		U
trichloroethene	2	60		
1,2-dichloropropane	2	Not detected		U
bromodichloromethane	2	Not detected		U
4-methyl-2-pentanone	10	Not detected		U
cis-1,3-dichloropropene	2	Not detected		U
toluene	2	Not detected		U
trans-1,3-dichloropropene	2	Not detected		U
1,1,2-trichloroethane	2	Not detected		U
2-hexanone	10	Not detected		U
tetrachloroethene	10	1070		D
dibromochloromethane	2	Not detected		U
chlorobenzene	2	Not detected		U
ethylbenzene	2	Not detected		U
m,p-xylene	2	Not detected		U
o-xylene	2	Not detected		U
styrene	2	Not detected		U
bromoform	2	Not detected		U
1,1,2,2-tetrachloroethane	2	Not detected		U
1,2-Dichloroethane-d4 (%)		103	70-121	
Toluene-d8 (%)		90	81-117	
Bromofluorobenzene (%)		101	74-121	
Dilution Factor	**1**			

2021-331

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 05-35817.00

SITE NAME Vesuvius

SAMPLERS (PRINT/SIGNATURE) Kevin Kearney Kevin Kearney

LAB Wastestream

COOLER 1 of 1

PAGE 1 of 1

DELIVERY SERVICE: Hand Del. AIRBILL NO.: X

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO. # OF CONTAINERS	TESTS: VOC's	BOTTLE TYPE AND PRESERVATIVE: 2 oz glass	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO # (IRFIMS ONLY)
East Wall	2/14/02	10:30	Grab	V-East Wall-R	So	2	2		Resample WTO2125	N1	1.0	1.5	—

MATRIX CODES

AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES

TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE; (# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME
Kevin S. Kearney	2/14/02	14:10	Kris Forster	2/14/02	2:10PM

SPECIAL INSTRUCTIONS Standard Turnaround Any question please contact David Sheppard.

Distribution: Original accompanies shipment, copy to coordinator field files

URSF-075C/1 OF 1/CofCR/GCM