OPERATION AND MAINTENANCE PLAN

PETER WINKELMAN CO.
INACTIVE HAZARDOUS WASTE SITE
Site No. 7-34-047

June 2000

TABLE OF CONTENTS

SECTION 1: BACKGROUND

1.1 Site Description

The Peter Winkelman Co. is located in a mixed commercial and industrial area of Syracuse, New York. The Peter Winkelman property comprises 4.9 acres located at 101-113 & 102 Greenway Avenue of which 0.05 acres are listed as a class 2 site. The property is situated approximately 600' north of the intersection of Divine Street and Erie Boulevard East and is bordered to the north by Interstate Route 690, and to the east by the Former Syracuse Rigging site. The 0.05 acre site is a former transformer area which is situated in an alcove along the east side of a large building. Currently the building is abandoned and the surrounding area has been used as a dumping area for assorted debris (i.e.,. yard waste, old tires).

1.2 Site History

1.2.1 Operating History

Peter Winkelman Co., was a construction company that owned the site until 1991 when the site was conveyed to GSI of Virginia. While the site was owned by Peter Winkelman Co, Inc. various businesses occupied buildings not used by the construction company. Due to a power outage caused by a power surge, one or more of the three transformers on Peter Winkelman's property malfunctioned. Subsequently an unknown quantity of transformer oil leaked from the transformers.

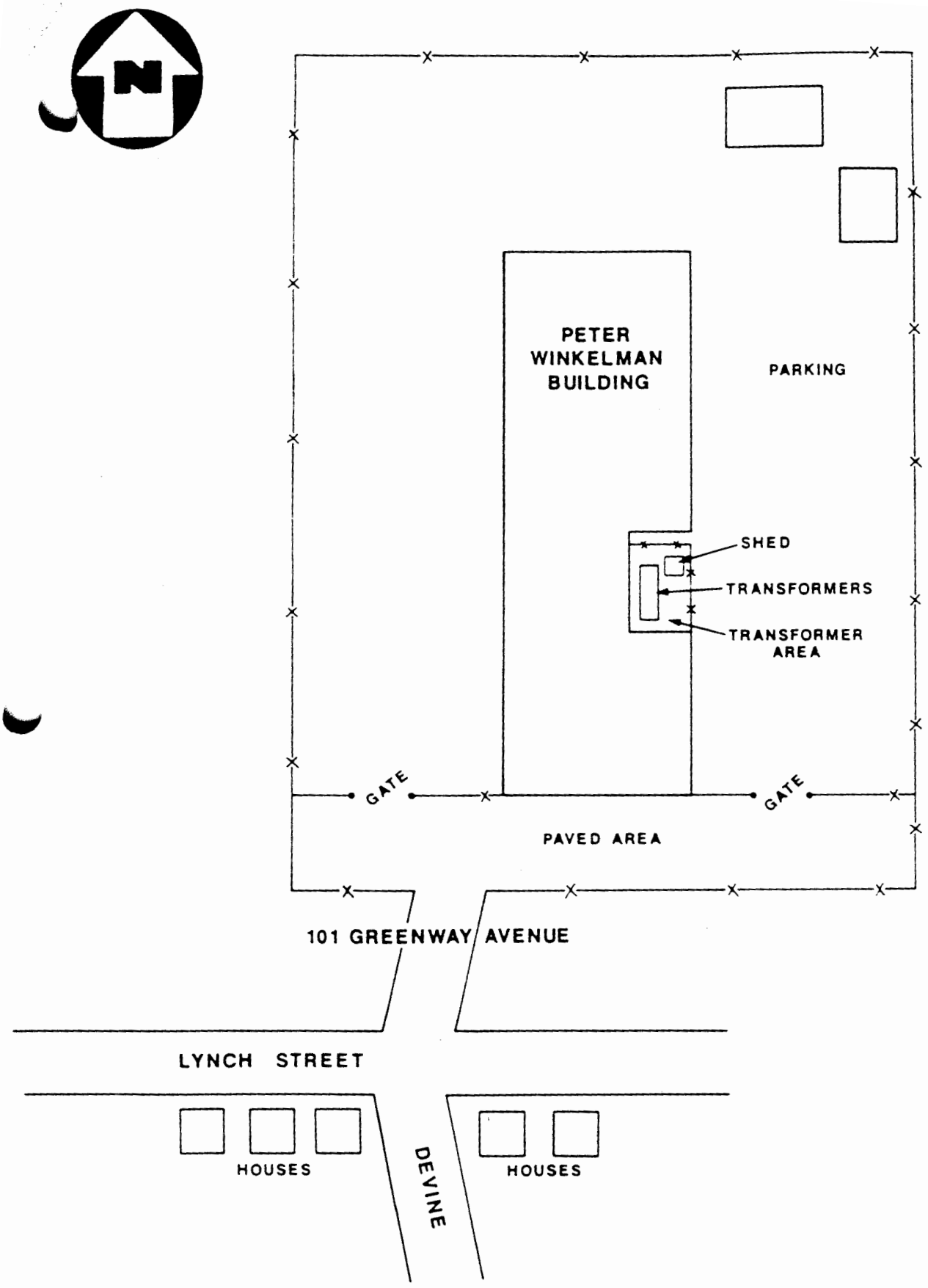
1.2.2 Remedial History

In March of 1986 the transformer oil spill was discovered by the Syracuse Fire Department. Soil sample analysis showed PCB levels as high as 199 ppm. On one or more occasions in 1986, the Peter Winkelman Company was informed by the NYSDEC of the company's legal responsibility to remediate the transformer oil spill.

In July of 1987 the NYSDEC informed Winkelman that if the site was not cleaned up by August of the same year, it would be included on the registry of Inactive Hazardous Waste Sites, and litigation would be commenced.

In June of 1994 additional sampling was conducted at the site. PCB concentrations of up to 120 ppm were detected in the soil.

In April of 1997 it was observed that the oil from the three transformers had been emptied on to the ground as a result of someone scavenging the copper from the transformers. PCB levels of over 300 ppm were detected in residual oil sampled from all three transformers.



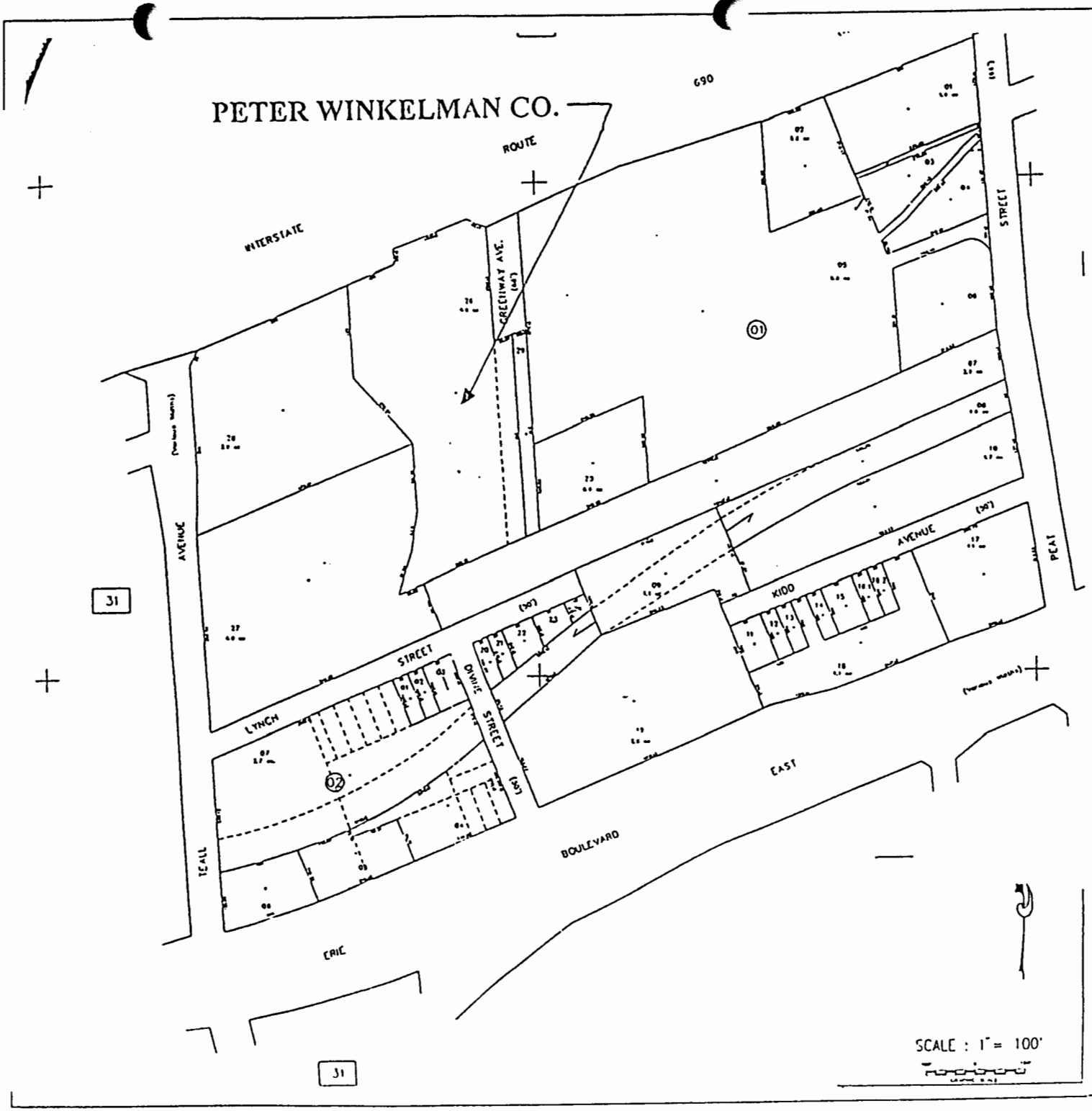
SITE MAP

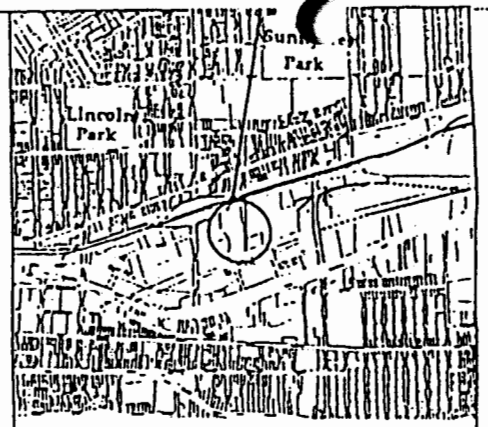
PETER WINKELMAN CO., INC., SYRACUSE, N.Y.

NOT TO SCALE

FIGURE 2

NUS CORPORATION





SCALE : 1" = 100'

PETER WINKELMAN SITE
Syracuse, Onondaga County, New York
Site No. 7-34-047

New York State Department of Environmental Conservation

FILE: DRAWI DWG | DRAWING: JEC

SITE MAP

DATE: 10/20/99 | FIGURE 1

In June of 1997 the transformers were removed by a NYSDEC Spills contractor. Collection of free product from the excavation of the concrete transformer pad and removal of contaminated soil was carried out.

In June of 1997, in response to the presence of PCBs, the transformers were removed from the site and transported for disposal. The concrete pad was broken up and removed along with the contaminated soil. No soil was removed below four feet. The excavation remained open for six days. Booms and pads were placed in the excavation during this time to absorb as much of the PCB oil present as possible. Two slotted culvert pipes were placed vertically in the excavation and surrounded with stone. Ten mil poly was placed over the stone and bentonite around the culverts. Then two feet of crusher run was placed to bring the site up to grade. In August 1997 a mobile oil skimmer was installed in the culvert that exhibited the highest level of PCB contamination . The oil skimmer makes use of the differences in specific gravity and surface tension between oil and water. These physical characteristics allow the unit's continuous belt to attract floating oil in the well. After picking up the oil, the belt travels through tandem wiper blades which scrape the oil off both sides of the belt and discharge it to a 55 gallon drum.

SECTION 2: OIL SKIMMER

2.1 Operation

The oil skimmer will be operated by turning on the power. Prior to operation the belt will be inspected for signs of wear. The belt will also be checked to make sure a portion of it is below the water table. The 55 gallon drum used to contain contaminated water will also be inspected and replaced if necessary. The oil skimmer should only be operated from April to November of each year. Figure 3 shows the current oil skimmer location.

2.1.2 Operating Temperature

Since the groundwater at the site is located approximately four feet below the ground surface the oil skimmer will not be able to operate if the water in the extraction well freezes. For this reason the oil skimmer should not be operated during the winter months.

2.2 Monitoring

Monitoring the oil skimmer will consist of periodic measurements to establish the rate of water and oil removal. Once this rate is established a schedule will be developed for the removal of the contaminated water/oil collected by the system.

2.2.1 Field Measurements

The following field measurements will be made daily during the first weeks of operation, weekly during subsequent month of operation:

Oil Skimmer - Field Measurements
* Water/Oil level in the 55 gallon drum
* Time water level was measured.

2.2.2 Data Usage

The oil skimmer monitoring data will be used to determine the rate at which water/oil is being removed from the well and how often the collection drum will have to emptied.

2.3 Maintenance

Maintenance of the oil Skimmer will be required to ensure that the system is operating properly and remediation is occurring as expected. Maintenance checks of the oil skimmer will be made when the 55 gallon drum is emptied.

SECTION 3: GROUNDWATER MONITORING

3.1 Frequency

In accordance with the ROD groundwater monitoring will be conducted in six month intervals. The groundwater will be analyzed for PCBs. If PCB contamination is detected in piezometers other than P-1 and P-6 further action will be required. If concentrations of PCBs in the impacted piezometers drops below drinking water levels for two consecutive sampling events the monitoring program will be discontinued and the site will be considered for removal from the New York State Registry of Inactive Hazardous Waste Disposal Sites. Piezometer locations are shown in Figure 3.

3.2 Groundwater Removal Alternatives

The site should be periodically evaluated to determine if another, more aggressive, means of collecting the remaining contaminated groundwater would be appropriate. For example, if it becomes apparent that the oil skimmer is not recovering appreciable amounts of oil and contamination above SCGs still exists in the piezometers then a vacuum truck could be used to pump the contaminated groundwater from the extraction wells, allowing the wells to recharge, then pumping them again.

TABLE 1

Subsurface Soil Results		
Sample Location	**Sample Depth**	**PCB Concentration**
SB-1	1'-2'	204 PPB
SB-1	4'-5'	217 PPB
SB-2	2'-4'	ND
SB-2	4'-5'	ND
SB-3	4'-5'	ND
SB-3	7'-8'	ND
SB-4	3'-4'	292 PPB
SB-4	4'-5'	11089 PPB
SB-5	3'-4'	ND
SB-5	4'-5'	ND
SB-6	4'-5'	ND
SB-7	4'-5'	ND
SB-8	3'-4'	ND
SB-8	4'-5'	ND

TABLE 2

Groundwater Results	
Sample Location	**PCB Concentration**
P-1	70 PPB
P-2	ND
P-3	ND
P-4	ND
P-5	ND
P-6	0.89 PPB
P-7	ND
P-8	ND

SECTION 4: HEALTH & SAFETY

4.1 Training Requirements

All personnel conducting field activities on site are required to be certified in health and safety practices for hazardous waste operations as specified in th Federal OSHA Regulations (29 CFR 1910.120) (revised March 6, 1990). Paragraph (e) (2) of the above-referenced regulations requires that each employee, at the time of job assignment, receive a minimum of 40 hours of initial instruction off the site, and a minimum of three days of supervised field experience.

Paragraph (e) (3) of the above-referenced regulations requires that all onsite management and supervisory personnel directly responsible for, or who supervise employees engaged in hazardous waste operations, must initially receive eight hours of additional training. Management and supervisory training must emphasize health and safety practices related to managing hazardous waste work.

Paragraph (e)(8) of the above-referenced regulations requires that workers and supervisors receive eight hours of refresher training annually on the items specified in paragraph (e)(1) and/or (e)(3).

4.2 Chemical Hazards

The primary chemical of concern on site is Aroclor 1260 (PCB). The health and safety characteristics and occupational exposure values of this chemical are summarized in Table XX. The risk of exposure to these contaminants can be by the dermal or respiratory route, depending on the type of compound and activity being conducted.

4.3 Personal Protection

Since personnel working on site may be exposed to chemical contaminants during sampling or maintenance of the oil skimmer gloves should be warn during sampling and maintenance activities.

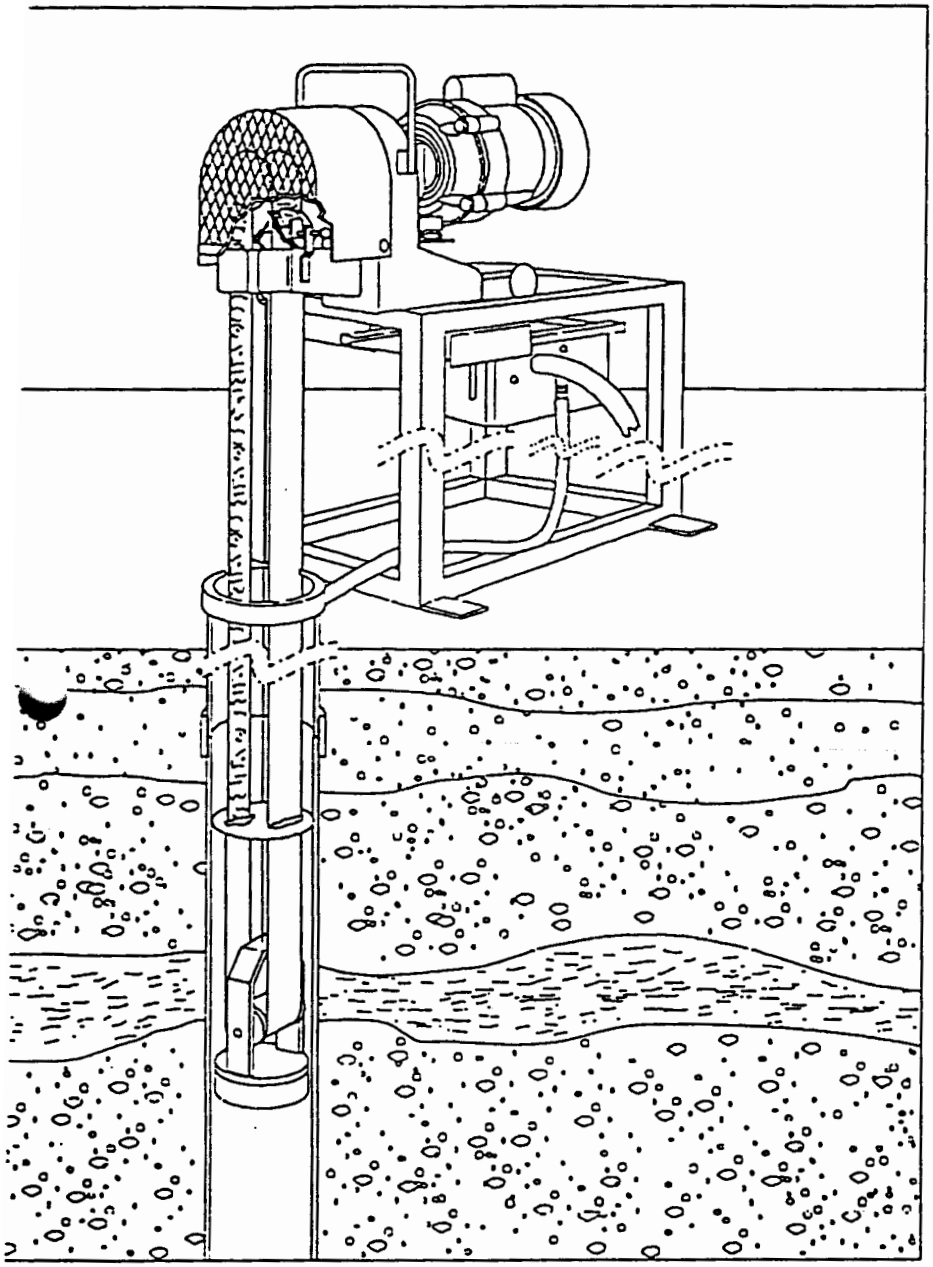
4.4 Handling of Samples

The collection and analysis of environmental samples will require caution, not only to ensure safety of site sampling and support personnel, but also to ensure accuracy of the results. To minimize hazards to lab personnel, samples volumes will be no larger than necessary, and the outside of all sample containers will be wiped clean prior to shipment. Gloves should also be changed between samples to prevent cross contamination.

FIGURES

ABANAKI - OPTION #2

PetroXtractor™ – Well Oil Skimmer



Oil Skimming for Wells and Other Small Openings

- Ideal for removal of floating oil and other hydrocarbon liquids from existing remediation or monitoring wells
- Can be installed in well casings as small as 2 in. ID
- Elevates skimmed oil 100 feet or more for easy discharge into 55 gallon drum
- Removes up to 12 gph of oil from water

General Description

The Abenaki PetroXtractor™ is a dependable and cost effective means of removing oil, fuel, and other floating hydrocarbons from water where access to the fluid surface is limited. It provides efficient remediation of groundwater contaminated by oil, using existing recovery and monitoring wells. Often, the PetroXtractor™ working alone will reduce oil or fuel content to an acceptable E.P.A. level. Models are available for two inch, four inch, and six inch ID well casings, with removal rates up to 12 gph. Depths of 100 feet or more can be accommodated without the use of pumps.

The PetroXtractor™ is an oil skimmer that makes use of the differences in specific gravity and surface tension between oil and water. These physical characteristics allow the unit's continuous belt to attract floating oil in the well. After picking up the oil, the belt travels over the head pulley on the drive unit and through tandem wiper blades. The oil is then scraped off both sides of the belt and discharged through a 1-1/4" ID hose. The unique bearingless design of the tail pulley (immersed in the well water) with its tethered frame allows it to perform three important functions: it keeps proper tension on the belt, prevents accidental loss down the well, and keeps the belt centered in the casing.

The PetroXtractor™ can be installed in existing wells by mounting it on a flat surface above the well casing. Skimmer operation consists of merely lowering the belt and tail pulley into the casing until the pulley is fully immersed, placing the discharge hose in a container, and switching the unit on.

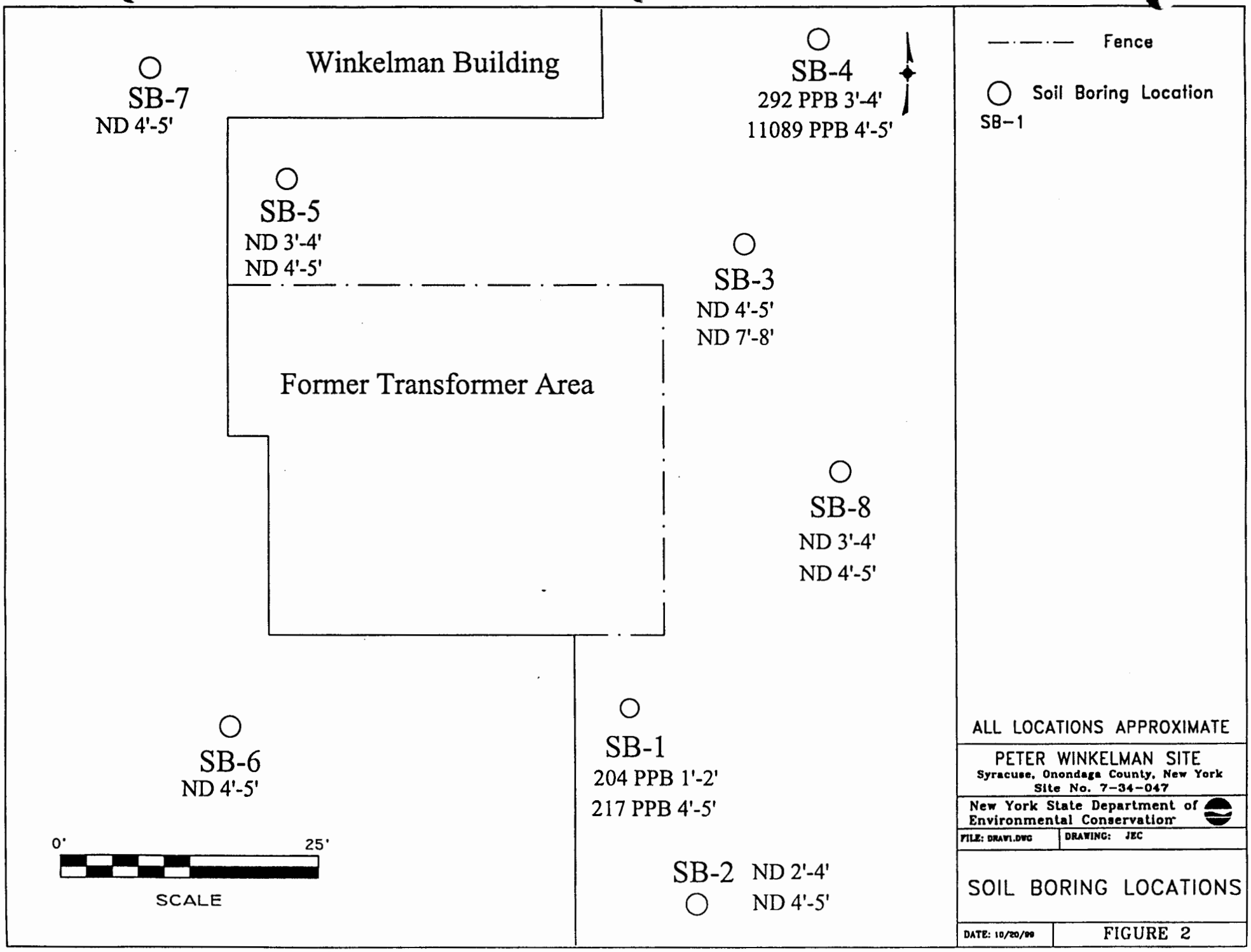
ABANAKI CORPORATION
OIL SKIMMER DIVISION

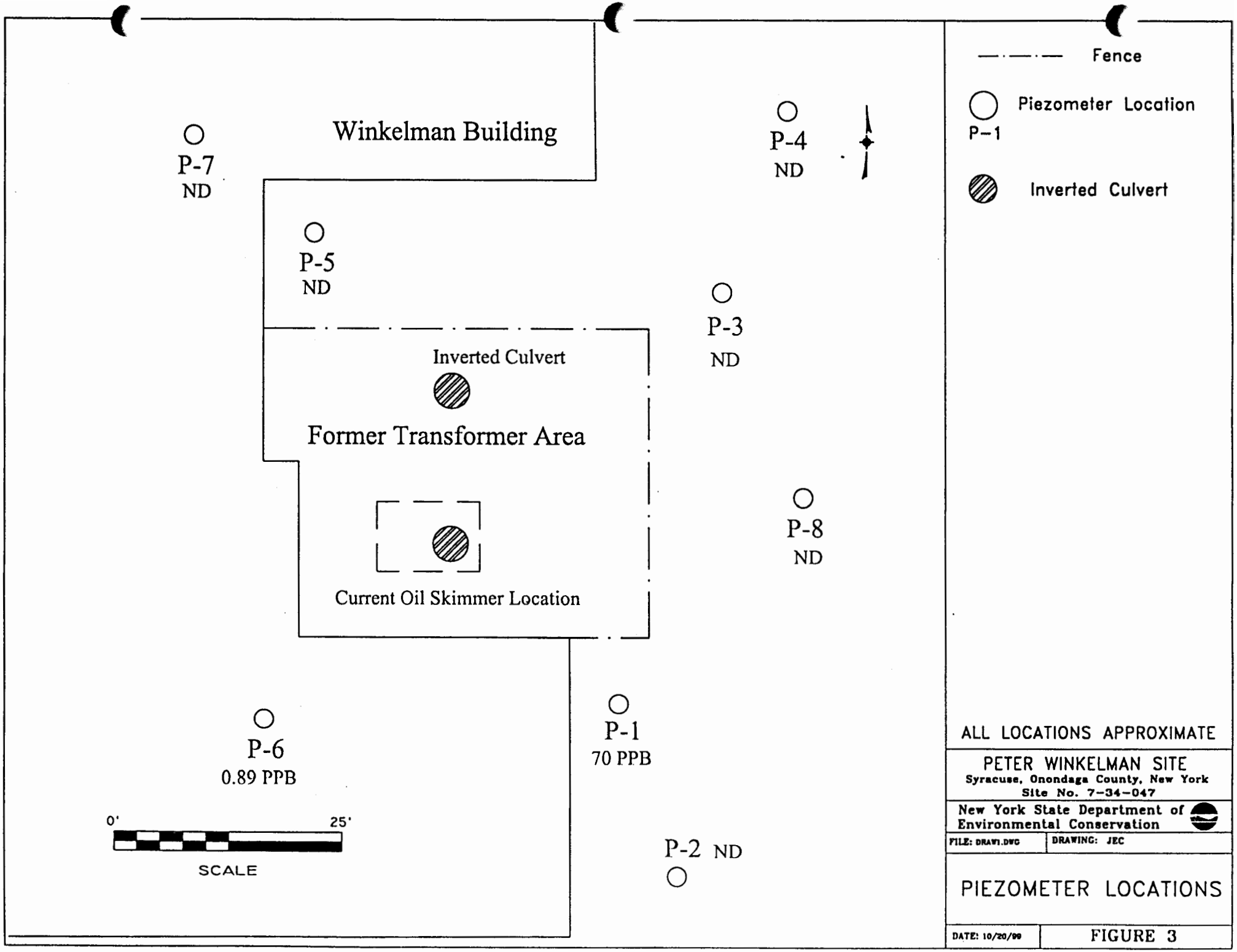
17387 Munn Road
Chagrin Falls, OH 44023
Telephone: 800-358-7546
Fax: 216-543-7404

MADE IN THE USA

The PetroXtractor Advantages

- Allows existing monitoring wells to be used as recovery wells
- Portable — can be easily hand-carried from site to site
- A single unit separates oil and elevates it up to 100 feet without a pump
- Skims very little water (unlike other skimmers and torpedo pumps)
- Maintains skimming efficiency with fluctuating water level
- Tail pulley is tethered to the frame to prevent accidental loss of belt and tail pulley in the well casing
- Easy mounting, fast cleaning with minimal maintenance
- Belt materials to fit any application


Winkelman Building
SB-7
ND 4'-5'
SB-4
292 PPB 3'-4'
11089 PPB 4'-5'
SB-5
ND 3'-4'
ND 4'-5'
SB-3
ND 4'-5'
ND 7'-8'
Former Transformer Area
SB-8
ND 3'-4'
ND 4'-5'
SB-6
ND 4'-5'
SB-1
204 PPB 1'-2'
217 PPB 4'-5'
SB-2 ND 2'-4'
ND 4'-5'
0'
25'
SCALE
Fence
Soil Boring Location
SB-1
ALL LOCATIONS APPROXIMATE
PETER WINKELMAN SITE
Syracuse, Onondaga County, New York
Site No. 7-34-047
New York State Department of Environmental Conservation
FILE: DRAW1.DWG
DRAWING: JEC
SOIL BORING LOCATIONS
DATE: 10/20/99
FIGURE 2


Winkelman Building
P-7
ND
P-4
ND
P-5
ND
P-3
ND
Inverted Culvert
Former Transformer Area
Current Oil Skimmer Location
P-8
ND
P-1
70 PPB
P-6
0.89 PPB
P-2 ND
0'
25'
SCALE
Fence
Piezometer Location
P-1
Inverted Culvert
ALL LOCATIONS APPROXIMATE
PETER WINKELMAN SITE
Syracuse, Onondaga County, New York
Site No. 7-34-047
New York State Department of Environmental Conservation
FILE: DRAW1.DWG
DRAWING: JEC
PIEZOMETER LOCATIONS
DATE: 10/20/99
FIGURE 3

APPENDIX A

Emergency Contact List

A. EMERGENCY PLANNING

HOSPITAL: Upstate Medical Center, 750 Adams Street (315-473-4240)
AMBULANCE: Syracuse Fire Department Rescue Squad (315-471-1161 or 911)
POLICE: 911
FIRE: 911
POISON CONTROL CENTER: Onondaga County Health Department (315-476-7529)
D.E.C. REGIONAL CONTACT: Charles Branagh (315-426-7551)

B. ROUTE TO HOSPITAL

Exit site, take Devine Ave. to Erie Blvd. (Rt. 5) take right, travel west to RT 81 on ramp. Take 81 south to exit 18. Adams Street Hospital is on 750 Adams Street. (SEE MAP)

C. SITE CONTACTS

SITE CONTACT	PHONE NUMBER
James Candiloro, NYSDEC Project Engineer	518-457-4343
Robert Schick, NYSDEC Section Chief	518-457-4343
Charles Branagh, NYSDEC Region 7	315-426-7551
Dan Geraghty, NYSDOH	518-402-7890

	Directions	miles
1.	Start out going Southwest on ramp towards I-690 W.	0.1
2.	Merge onto I-690 W.	1.0
3.	Take the TOWNSEND ST exit	0.1
4.	Turn LEFT onto N TOWNSEND ST.	0.1
5.	Turn RIGHT onto RT 5.	0.1
6.	Turn LEFT onto US-11.	0.6
7.	Turn LEFT onto E ADAMS ST.	0.4

Full Route

Destination

APPENDIX B

Piezometer Logs

Contractor: Advanced Cleanup Technologies	**NYSDEC DRILLING RECORD**	BORING NO. WSB-1
Driller: Steve and Shawn		
Inspector: Bradley Brown	PROJECT NAME Winkleman	Sheet 1 of 1
Rig Type: Direct push probe - truck mounted	PROJECT NUMBER 7-34-047	Location: Southeast of southeast
Method: Macro Core		corner of fence

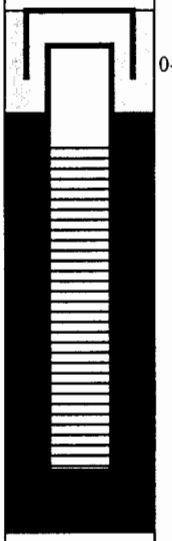
GROUNDWATER OBSERVATIONS			
Date			
From			
DTW			

Date Start 5/19/99

Date Finish 5/19/99

Elevations
Top outer casing N/A
Top inner casing N/A
Ground N/A

Photovac Reading	Sample I.D.	Sample Depth	Feet Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	COMMENTS
	MC-1	0	2.00		1' Dark brown silt, fine sand, crushed stone - fill	Flush mounted Protective Casing
		1				0-1.5' Cement/Bentonite Grout
		2			.75' Light tan to pink granular ash - fill .25' Dark brown ash - fill	1" ID PVC riser
		3				1.5' - 8' Sand pack
		4				2' to 7' - 1" ID PVC .010" Slot Screen
	MC-2		2.00		.5' Dark brown ash, coal frags, saturated with oil and water - fill	
		5			.25' Dark brown organic rich silt	
		6			.75' Dark brown peat	
		7			.5' Light tan marl	
		8				



STANDARD PENETRATION

MC = Macro Core Sample Lenth 4'

SUMMARY:

NYSDEC DRILLING RECORD

Contractor:	Advanced Cleanup Technologies	BORING NO.	WSB-2
Driller:	Steve and Shawn		
Inspector:	Bradley Brown	PROJECT NAME: Winkleman	Sheet 1 of 1
Rig Type:	Direct push probe - truck mounted	PROJECT NUMBER: 7-34-047	Location: 20 Feet southeast of WSB-1
Method:	Macro Core		

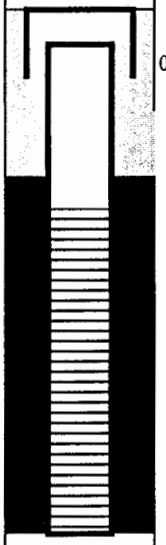
GROUNDWATER OBSERVATIONS			
Date			
From			
DTW			

Date Start: 5/19/99

Date Finish: 5/19/99

Elevations
Top outer casing N/A
Top inner casing N/A
Ground N/A

Photovac Reading	Sample I.D.	Sample Depth	Feet Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL
	MC-1	0	2.50		1' Dark brown silt, fine sand, crushed stone - fill
		1			.5' Light tan to pink granular ash - fill
		2			1' Dark brown foundry sand - fill
		3			
		4			
	MC-2		2.50		< 5' Dark brown sand and fine gravel - fill
		5			.5' Dark brown organic rich silt
		6			2' Dark brown peat
		7			
		8			Light tan marl in tip of sampler



COMMENTS

Flush mounted Protective Casing

0-2.5' Cement/Bentonite Grout

1" ID PVC riser

2.5' - 8' Sand pack

3' to 8' - 1" ID PVC .010" Slot Screen

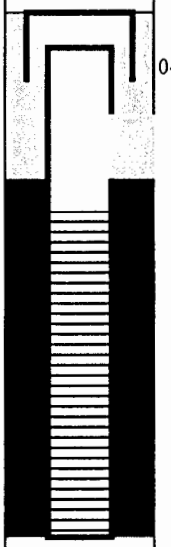
STANDARD PENETRATION

MC = Macro Core Sample Lenth 4'

SUMMARY:

Contractor: Advanced Cleanup Technologies	**NYSDEC DRILLING RECORD**	**BORING NO.** WSB-3	
Driller: Steve and Shawn			
Inspector: Bradley Brown	PROJECT NAME Winkleman	Sheet 1 of 1	
Rig Type: Direct push probe - truck mounted	PROJECT NUMBER 7-34-047	Location: 9'9" Northeast of northeast	
Method: Macro Core		corner of fence	
GROUNDWATER OBSERVATIONS		Elevations	
Date	Date Start 5/19/99	Top outer casing N/A	
From		Top inner casing N/A	
DTW	Date Finish 5/19/99	Ground N/A	

Photovac Reading	Sample I.D.	Sample Depth	Feet Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	COMMENTS
	MC-1	0	1.50		1.5' crushed stone - fill	Flush mounted Protective Casing
		1				0-2.5' Cement/Bentonite Grout
		2				1" ID PVC riser
		3				2.5' - 8' Sand pack
		4				3' to 8' - 1" ID PVC .010" Slot Screen
	MC-2		1.50		1.5' Dark brown to black silt, fine sand, some gravel, petroleum odor, wet -fill	
		5				
		6				
		7				
		8				
	MC-3		2.00		Hole collapsed after macro core sampling 4-8,	
		9			2' light grey - tan marl, numerous small gastropod shells resampled 8-10 using piston sampler	Bentonite to 10'
		10				



STANDARD PENETRATION

MC = Macro Core Sample Lenth 4'

SUMMARY:

Contractor: Advanced Cleanup Technologies	**NYSDEC DRILLING RECORD**	**BORING NO.** WSB-4
Driller: Steve and Shawn		
Inspector: Bradley Brown	PROJECT NAME Winkleman	Sheet 1 of 1
Rig Type: Direct push probe - truck mounted	PROJECT NUMBER 7-34-047	Location: 21' Northeast of WSB-3
Method: Macro Core		

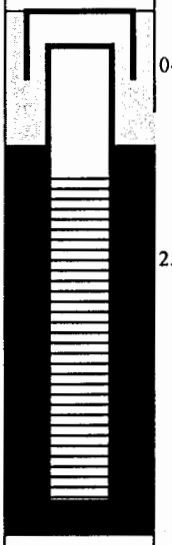
GROUNDWATER OBSERVATIONS			
Date			
From			
DTW			

Date Start 5/19/99

Date Finish 5/19/99

Elevations
Top outer casing N/A
Top inner casing N/A
Ground N/A

Photovac Reading	Sample I.D.	Sample Depth	Feet Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	COMMENTS
	MC-1	0	2.50		.5' crushed stone - fill	Flush mounted Protective Casing
		1			.5' Dark Brown sand and gravel - fill	0-2' Cement/Bentonite Grout
					.5' Light tan to pink granular ash - fill	
		2			1' Dark brown silt, sand, and gravel - fill	1" ID PVC riser
		3			1" thin layer red-brown foundry sand - fill	2' - 8' Sand pack
		4				2.5' to 7.5' - 1" ID PVC .010" Slot Screen
	MC-2	5	2.50		<.5' Dark brown and light tan ash and coal frags, saturated, no odor - fill	
					1.5' Dark brown peat	
		6				
		7			.5' Light tan marl	
		8			.5' Dark brown peat	



STANDARD PENETRATION

MC = Macro Core Sample Lenth 4'

SUMMARY:

Contractor: Advanced Cleanup Technologies	**NYSDEC DRILLING RECORD**	**BORING NO.** WSB-5	
Driller: Steve and Shawn			
Inspector: Bradley Brown	PROJECT NAME Winkleman	Sheet 1 of 1	
Rig Type: Direct push probe - truck mounted	PROJECT NUMBER 7-34-047	Location: Northwest corner of indented	
Method: Macro Core		section of building next to doorway	

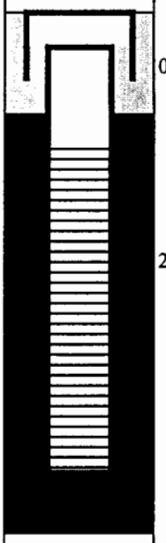
GROUNDWATER OBSERVATIONS			
Date			
From			
DTW			

Date Start 5/19/99

Date Finish 5/20/99

Elevations
Top outer casing N/A
Top inner casing N/A
Ground N/A

Photovac Reading	Sample I.D.	Sample Depth	Feet Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	COMMENTS
	MC-1	0	2.50		.5' Crushed stone - fill	Flush mounted Protective Casing
		1			.5' Dark brown sand and gravel - fill	0-2' Cement/Bentonite Grout
					1.5' Dark brown ash and coal - fill	
		2			(contained thin layer of light tan, paste type waste similar to marl found elsewhere, however is in fill material and contains no shells or plant material. Thought to be "Allied Wastes")	1" ID PVC riser
		3				2' - 8' Sand pack
		4				2.5' to 7.5 - 1" ID PVC .010" Slot Screen
	MC-2		2.00		1.5' Dark brown ash, coal frags, and gravel saturated with oil and water - fill	
		5			.5' Interbedded peat and marl	
		6				
		7				
		8				



STANDARD PENETRATION

MC = Macro Core Sample Lenth 4'

SUMMARY:

Contractor: Advanced Cleanup Technologies	**NYSDEC DRILLING RECORD**		**BORING NO.** WSB-6
Driller: Steve and Shawn			
Inspector: Bradley Brown	PROJECT NAME	Winkleman	Sheet 1 of 1
Rig Type: Direct push probe - truck mounted	PROJECT NUMBER	7-34-047	Location: Inside building, south of former transformer area
Method: Macro Core			

GROUNDWATER OBSERVATIONS			
Date			
From			
DTW			

Date Start 5/20/99

Date Finish 5/20/99

Elevations
Top outer casing N/A
Top inner casing N/A
Ground N/A

Photovac Reading	Sample I.D.	Sample Depth	Feet Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	COMMENTS
	MC-1	0	2.00		12" Concrete floor	No Protective Casing
		1			.5' Crushed stone - fill	1' Concrete floor
		2			.5' Clayey silt - fill	1 to 2.5' Cement/Bentonite Grout
					1' Ash, slag, coal - fill	1" ID PVC riser
		3				2.5' - 8' Sand pack
		4				
	MC-2		2.00		1' Black ash, slag, coal, saturated, no oil - fill	3' to 8' - 1" ID PVC .010" Slot Screen
		5			.5' Peat, marl in tip of sampler	
		6				
		7				
		8				

STANDARD PENETRATION

MC = Macro Core Sample Lenth 4'

SUMMARY:

NYSDEC DRILLING RECORD

Contractor:	Advanced Cleanup Technologies	BORING NO.	WSB-7
Driller:	Steve and Shawn		
Inspector:	Bradley Brown	PROJECT NAME: Winkleman	Sheet 1 of 1
Rig Type:	Direct push probe - truck mounted	PROJECT NUMBER: 7-34-047	Location: Inside building, north of former transformer area
Method:	Macro Core		

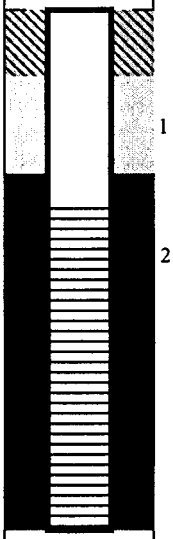
GROUNDWATER OBSERVATIONS			
Date			
From			
DTW			

Date Start: 5/20/99

Date Finish: 5/20/99

Elevations
Top outer casing N/A
Top inner casing N/A
Ground N/A

Photovac Reading	Sample I.D.	Sample Depth	Feet Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	COMMENTS
	MC-1	0	2.00		12" Concrete floor	No Protective Casing
		1			.5' Crushed stone - fill	1' concrete floor
		2			1.5' Ash, slag, coal - fill	1 to 2.5' Cement/Bentonite Grout
		3				1" ID PVC riser
		4				2.5' - 8' Sand pack
	MC-2		2.50		.5' Ash, slag, coal, saturated - fill	
		5			.5' Silt and clay - fill	3' to 8' - 1" ID PVC .010" Slot Screen
		6			1' Light tan "Allied Wastes" - fill	
		7			.5' Peat	
		8				



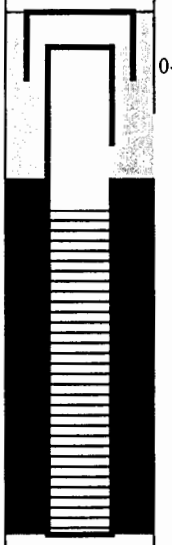
STANDARD PENETRATION

MC = Macro Core Sample Lenth 4'

SUMMARY:

Contractor:	Advanced Cleanup Technologies				NYSDEC DRILLING RECORD	BORING NO. WSB-8
Driller:	Steve and Shawn					
Inspector:	Bradley Brown				PROJECT NAME Winkleman	Sheet 1 of 1
Rig Type:	Direct push probe - truck mounted				PROJECT NUMBER 7-34-047	Location: West of fenced area in driveway
Method:	Macro Core					
GROUNDWATER OBSERVATIONS						Elevations
Date					Date Start 5/20/99	Top outer casing N/A
From						Top inner casing N/A
DTW					Date Finish 5/20/99	Ground N/A

Photovac Reading	Sample I.D.	Sample Depth	Feet Recovery	SPT	FIELD IDENTIFICATION OF MATERIAL	COMMENTS
	MC-1	0	3.50		1' Crushed stone - fill	Flush mounted Protective Casing
		1			1' Dark brown silt, sand, some fine gravel - fill	0-2.5' Cement/Bentonite Grout
		2			.5' Black ash - fill	1" ID PVC riser
		3			1' Dark brown foundry sand - fill	2.5' - 8' Sand pack
		4				3' to 8' - 1" ID PVC .010" Slot Screen
	MC-2		3.00		1.5' Ash, coal frags, brick frags, wet - fill	
		5				
		6			.5' Dark brown silt	
					1' Peat	
		7				
		8				



STANDARD PENETRATION

MC = Macro Core Sample Lenth 4'

SUMMARY: