report.hw241031.2000-07-24.IIWA.Summary.of.Field.Investigation.pdf

URS

July 24, 2000

Mr. Dave Harrington, Project Manager
New York State Department of Environmental Conservation
Bureau of Hazardous Site Control
Division of Environmental Remediation
50 Wolf Road
Albany, New York 12233-7010

RE: NYSDEC Standby Contract Immediate Investigation Work Assignment # D003825-22
Kliegman Brothers, Inc.
Summary of Field Investigation – Draft Letter Report

Dear Mr. Harrington:

URS Greiner Woodward Clyde (URSGWC) has completed the Immediate Investigation Work Assignment (IIWA) # D003825-22 field investigation at the Kliegman Brothers, Inc. site located in Glendale, NY, Queens County (Figure 1). A site plan is presented in Figure 2. The work was performed in accordance with the NYSDEC Project Work Plan (NYSDEC, May 5, 2000), including Revisions to NYSDEC Project Work Plan (URS, June 7, 2000).

The IIWA included the collection of soil gas samples, lithologic description and characterization, surveying, monitoring well sampling, and piezometer installation. This letter report summarizes the field activities, sample location map, tabulated validated analytical results, and field logs that were generated during the June 19-23, 2000 field investigation.

1.0 FIELD ACTIVITIES

Small Diameter Monitoring Point Installation

Seventeen borings were advanced by Zebra Environmental Corp., using a Geoprobe unit consisting of 2-inch diameter by 4-foot macro core samplers, under the supervision of a URS geologist. The locations of these borings are presented in Figure 3. No borings were advanced inside the building, per the direction of the onsite NYSDEC representative, due to access restrictions. Boring logs are presented in Attachment 1. Daily drilling records and daily construction reports are presented in Attachment 2.

Soil Gas Sampling

Soil gas samples were collected from 17 boring locations, by Zebra Environmental Corp., as shown in Figure 3, under the supervision of a URS geologist. Soil gas samples were collected from each of the borings at depths of 6' and 10', except SG-15, which was collected at 8' instead of 10' due to soil saturation. At soil gas locations SG-7, SG-8, SG-11, SG-14, and SG-17 soil gas samples were also collected at a 14' depth. All soil gas samples were analyzed onsite by BL Analytical, LLC for tetrachloroethene and its breakdown products, and other volatile organic compounds. Approximately ten percent of the soil gas samples were sent offsite for confirmatory volatile analysis at York Analytical

URS Corporation
282 Delaware Avenue
Buffalo, NY 14202-1805
Tel: 716.856.5636
Fax: 716.856.2545

Laboratories, Inc. Validated analytical results for onsite results are presented in Attachment 3/Table 1 and shown on Figure 3. Validated analytical results for offsite confirmatory volatile analysis are presented in Attachment 3/Table 2 and shown on Figure 4.

Subsurface Soil Lithology Identification

Five subsurface soil borings were advanced by Zebra Environmental Corp. using a Geoprobe unit consisting of 2-inch diameter by 4-foot macro core samplers, under the supervision of a URS geologist, in order to characterize the soil lithology. A change to the scope of work included installing a fifth boring to the field investigation program, under the direction of the NYSDEC representative. Borings were advanced until refusal was encountered or to a maximum depth of approximately 30 feet. Sample SG-17/PZ-3 was installed to gather information on soil gas, lithology, and water quality. Sample SG-12/SB-4 was installed to gather information on soil gas and lithology. Refusal due to cobble, boulders, etc. was encountered in soil borings SB-01 (16 feet), SG-17/PZ-03 (22 feet), SG-12/SB-4 (24 feet), and SB-05 (22 feet). Soil boring SB-02 was drilled to 32 feet. The location of these borings is shown in Figure 3. DNAPL was not identified in any of the borings.

Piezometer Installation and Groundwater Sampling

As determined onsite by the NYDEC representative and the URS geologist, only one of three planned piezometers were installed during the field investigation. This was because subsurface conditions were not conducive to the installation of the two additional piezometers. Soil boring SG-17 was converted to piezometer PZ-3; the location is shown in Figure 3. The piezometer construction detail is presented in Attachment 4. The well is screened from 2 to 12 feet below ground surface (bgs). An attempt to sample the piezometer was made two days after installation and could not be sampled because it was dry.

Prior to sampling monitoring well MW-1, an interface probe was used to check for DNAPLs in the water column. No DNAPLs were detected. A sheen was detected in the last 5 gallons of purge water, however, there was no phase separation and a laboratory sample could not be collected. Monitoring well MW-1 purge log is presented in Attachment 5. The location of this well is shown on Figure 3. A groundwater sample was sent to H2M Labs, Inc. for volatile organic analysis. Site-specific quality control (QC) samples were not submitted; instead the laboratory provided batch QC results. All QC data was acceptable. The validated analytical results are presented in Attachment 3/Table 3 and shown in Figure 4.

Surveying

All site features and soil borings, piezometer, and monitoring well sample locations were surveyed during the field investigation by GEOD Corporation for location and elevation. All surveying was performed under the supervision of a New York State licensed land surveyor.

2.0 FIGURES AND ATTACHMENTS

The following figures and attachments are included as part of this IIWA letter report:

Figures

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Onsite Field Measurements - Sample Locations and Detections
Figure 4	Offsite Confirmatory - Sample Locations and Detections

Attachments

Attachment 1	Boring Logs
Attachment 2	Daily Drilling Records/Construction Reports
Attachment 3	Validated Analytical Results
Attachment 4	Piezometer Construction Detail
Attachment 5	Purge Log

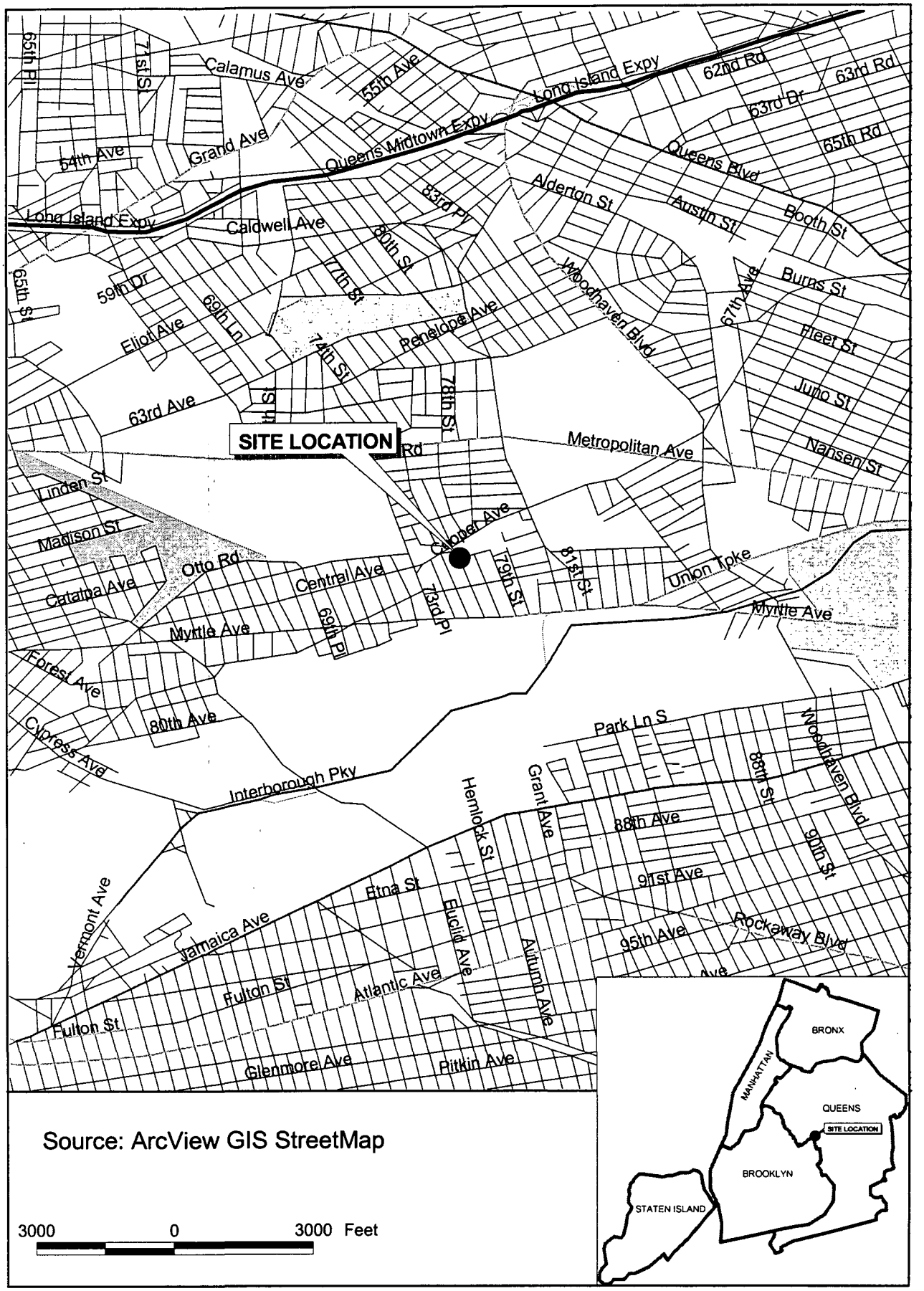
Should you have any questions or comments, please do not hesitate to contact me at 716-856-5636.

Sincerely,

URS Greiner Woodward Clyde

Charles E. Dusel, Jr.
Project Manager

cc: Mary Bitka-URSGWC
File: 05.35787.00 (C-1)



URS Greiner Woodward Clyde	KLIEGMAN BROTHERS, INC. SITE SITE LOCATION MAP	FIGURE 1

J:\35787.00\db\GIS\site.apr SITELOCATION
7/14/2000

N

LAND OF LONG ISLAND RAILROAD COMPANY

UTILITY POLE

2 STORY BRICK BUILDINGS

78-07

78-09

ASPHALT

LOADING DOCK

GATE

CONCRETE

EDSALL AVE.

MH

E

WV

2 STORY BRICK KLIEGMAN BROTHERS BUILDING

CONCRETE PADS

GARAGE ENTRANCE

UTILITY POLE

T

BAY DOORS

UTILITY POLE

WV

E

4' x 3' VAULT ACCESS

SPRINKLER VALVE

UTILITY POLE

76TH ST.

78TH ST.

77TH AVE.

SIGN

4.5' x 4.5' VAULT

UTILITY POLE

3.3' x 4.1' ELECT. VAULT

GAS VALVE

T

Legend

- Manhole
- Electric Manhole
- Telephone Manhole
- Light Pole
- Catch Basin
- Water Valve
- Hydrant
- Fence
- Gate
- Small Tree
- Valve

All site features were surveyed by GEOD Corp.

40 0 40 Feet

KLIEGMAN BROTHERS, INC.
SITE PLAN

URS Greiner Woodward Clyde

FIGURE 2

J:\35787.00\db\GIS\chemical.apr SITEPLAN
7/24/2000

N

SG-03 (6')
1,1,1-Trichloroethane, 10800
Tetrachloroethene, 5620000
Trichloroethene, 1700
cis-1,2-Dichloroethene, 500
trans-1,2-Dichloroethene, 1250

SG-03 (10')
1,1,1-Trichloroethane, 19800
Tetrachloroethene, 20240000
Trichloroethene, 1780
cis-1,2-Dichloroethene, 750
trans-1,2-Dichloroethene, 750

SG-02 (6')
1,1,1-Trichloroethane, 2590
Tetrachloroethene, 2450000
Trichloroethene, 2150
cis-1,2-Dichloroethene, 250

SG-02 (10')
1,1,1-Trichloroethane, 4280
Tetrachloroethene, 2830000
Trichloroethene, 2280
cis-1,2-Dichloroethene, 250

SG-04 (6')
1,1,1-Trichloroethane, 63600
Tetrachloroethene, 23900000
Trichloroethene, 2850
cis-1,2-Dichloroethene, 2400

SG-04 (10')
Tetrachloroethene, 777000

SG-17/PZ-03 (6')
1,1,1-Trichloroethane, 1650
Tetrachloroethene, 5442000
Trichloroethene, 113000
trans-1,2-Dichloroethene, 7020

SG-17/PZ-03 (10')
Tetrachloroethene, 173000
Trichloroethene, 1300

SG-17/PZ-03 (14')
Tetrachloroethene, 339000
Trichloroethene, 3520

SG-01 (6')
1,1,1-Trichloroethane, 1370
Tetrachloroethene, 1088000
Trichloroethene, 2110

SG-01 (10')
1,1,1-Trichloroethane, 2130
Tetrachloroethene, 1146000
Trichloroethene, 3400
cis-1,2-Dichloroethene, 250

SB-02

SB-01

SB-05

2 STORY
BRICK BUILDINGS

78-07

78-09

SG-16 (6')
1,1,1-Trichloroethane, 21400
1,1-Dichloroethene, 250
1,2-Dichloroethane, 5890
Tetrachloroethene, 5600000
Toluene, 260
Trichloroethene, 28100
Vinyl chloride, 385
cis-1,2-Dichloroethene, 750
trans-1,2-Dichloroethene, 115000

SG-16 (10')
1,1,1-Trichloroethane, 17300
1,2-Dichloroethane, 5890
Tetrachloroethene, 5000000
Toluene, 260
Trichloroethene, 32000
Vinyl chloride, 385
cis-1,2-Dichloroethene, 750
trans-1,2-Dichloroethene, 83000

SG-14 (6')
Tetrachloroethene, 3520

SG-14 (10')
Tetrachloroethene, 2350

SG-14 (14')
1,1,1-Trichloroethane, 5270
Tetrachloroethene, 282000
Trichloroethene, 944
cis-1,2-Dichloroethene, 6500

SG-13 (6')
Tetrachloroethene, 2640

SG-13 (10')
Ethylbenzene, 230
Tetrachloroethene, 35500
Toluene, 260
Xylene (total), 230

SG-15 (6')
Tetrachloroethene, 7630

SG-15 (8')
1,1,1-Trichloroethane, 660
Tetrachloroethene, 46100
Trichloroethene, 2400

SG-12/SB-04 (6')
Tetrachloroethene, 45500
Trichloroethene, 8330
trans-1,2-Dichloroethene, 7270

SG-12/SB-04 (10')
Tetrachloroethene, 85700
Trichloroethene, 8510
trans-1,2-Dichloroethene, 5260

SG-11 (6')
1,1,1-Trichloroethane, 22600
Tetrachloroethene, 42700
Trichloroethene, 39400

SG-11 (10')
1,1,1-Trichloroethane, 6755
Tetrachloroethene, 53100
Trichloroethene, 5920
trans-1,2-Dichloroethene, 500

SG-11 (14')
1,1-Dichloroethene, 1250
Tetrachloroethene, 682000
Trichloroethene, 4260
trans-1,2-Dichloroethene, 6010

SG-10 (6')
Tetrachloroethene, 29600

SG-10 (10')
Tetrachloroethene, 58200
cis-1,2-Dichloroethene, 500

SG-09 (6')
Tetrachloroethene, 57500

SG-09 (10')
1,1,1-Trichloroethane, 165
Tetrachloroethene, 157000
Trichloroethene, 550
trans-1,2-Dichloroethene, 750

SG-08 (6')
Tetrachloroethene, 98273

SG-08 (10')
Tetrachloroethene, 4390000
Toluene, 260
Trichloroethene, 19000
cis-1,2-Dichloroethene, 250
trans-1,2-Dichloroethene, 1000

SG-08 (14')
1,1,1-Trichloroethane, 4940
Tetrachloroethene, 5130000
Trichloroethene, 13900
cis-1,2-Dichloroethene, 250
trans-1,2-Dichloroethene, 1000

SG-05 (6')
1,1,1-Trichloroethane, 607
Tetrachloroethene, 1350000
Trichloroethene, 1280

SG-05 (10')
1,1,1-Trichloroethane, 758
Tetrachloroethene, 1440000
Trichloroethene, 1700

SG-06 (6')
1,1,1-Trichloroethane, 165
Tetrachloroethene, 403000
Trichloroethene, 900
trans-1,2-Dichloroethene, 1350

SG-06 (10')
1,1,1-Trichloroethane, 330
Tetrachloroethene, 664000
Trichloroethene, 1520
trans-1,2-Dichloroethene, 3680

SG-07 (6')
1,1-Dichloroethene, 500
Tetrachloroethene, 2930000
Trichloroethene, 27000
Vinyl chloride, 8390
cis-1,2-Dichloroethene, 1000
trans-1,2-Dichloroethene, 220000

SG-07 (10')
1,1-Dichloroethene, 250
Tetrachloroethene, 2770000
Trichloroethene, 19000
Vinyl chloride, 5700
cis-1,2-Dichloroethene, 500
trans-1,2-Dichloroethene, 142000

SG-07 (14')
Tetrachloroethene, 3110000
Trichloroethene, 18900
Vinyl chloride, 4230
cis-1,2-Dichloroethene, 500
trans-1,2-Dichloroethene, 134000

EDSALL AVE.

76TH ST.

77TH AVE.

78TH ST.

Legend

- ■ Soil Boring
- ⊙ Soil Gas Probe
- ▲ Soil Gas Probe/Piezometer

SG-14 (6')
Tetrachloroethene, 3520

Location ID (Sample Depth) | Parameter | Concentration

All results are reported in ppbv.

40 0 40 Feet

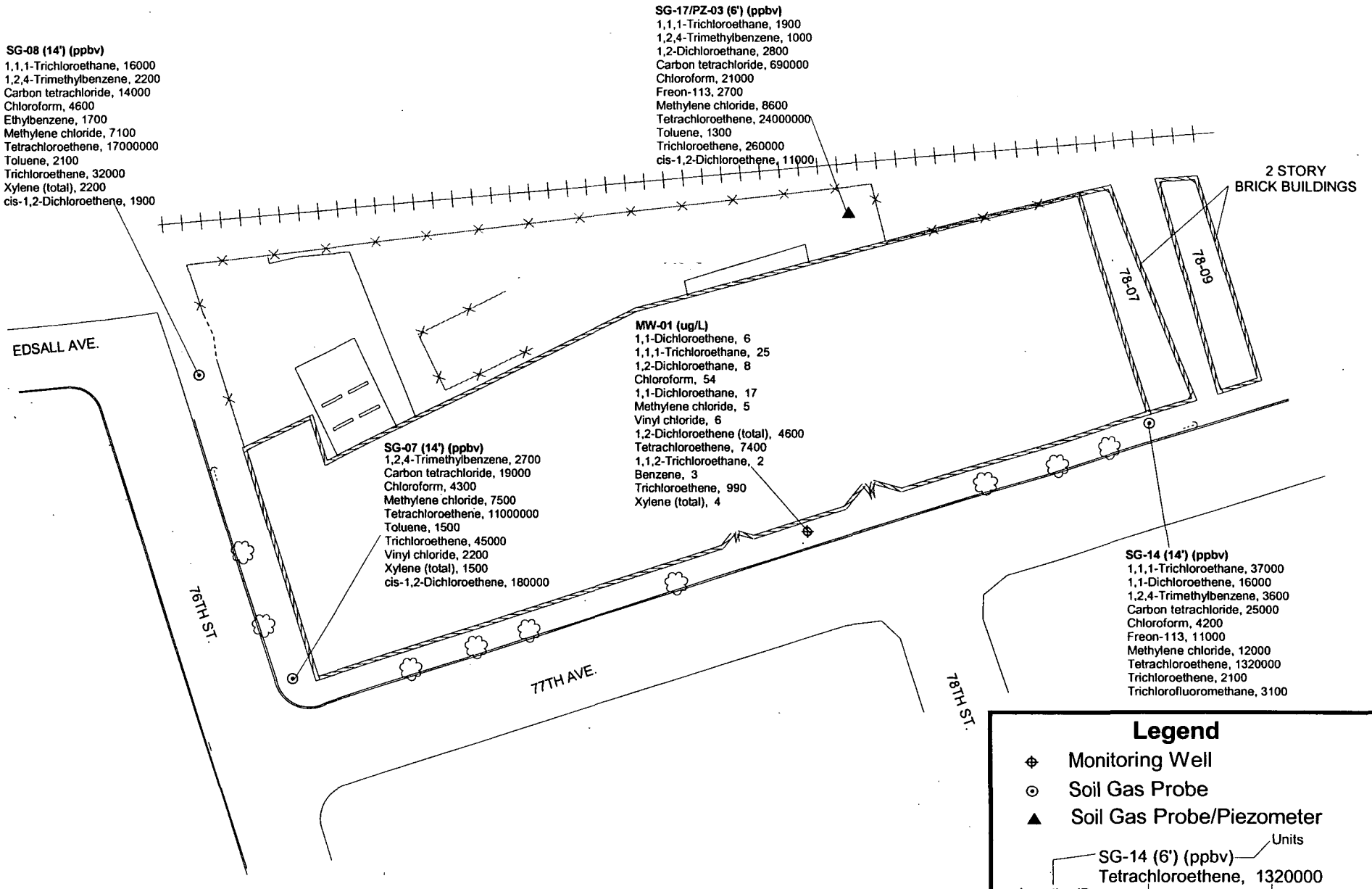
KLIEGMAN BROTHERS, INC.
ONSITE FIELD MEASUREMENTS - SAMPLE LOCATIONS AND DETECTIONS

URS Greiner Woodward Clyde

FIGURE 3

J:\35787.00\db\GIS\chemical.apr SOIL GAS ANALYTICAL RESULTS
7/17/2000

J:\35787.00\db\GIS\chemical.apr CONFIRMATORY SAMPLE RESULTS
7/13/2000



URS Greiner Woodward Clyde	KLIEGMAN BROTHERS, INC. OFFSITE CONFIRMATORY - SAMPLE LOCATIONS AND DETECTIONS	FIGURE 4

ATTACHMENT 1

BORING LOGS

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
GROUNDWATER:	

BORING NO:	SG-1
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/19/00
DATE FINISHED:	06/19/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		
				* POCKET PENETROMETER READING				

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	Moist
						Gray		3" concrete			
		1	2" MC		30	Black		Fine to coarse sand, asphalt, some silt, some gravel	Fill	0	Dry
						Brown		Fine to medium sand and silt, trace gravel	SM		
5		2	2" MC		45			Fine sand and silt			Moist
10		3	2" MC		60			Fine to coarse sand, trace fine angular gravel	SW		
								End of Boring @ 12' bgs			
15											
20											
25											
30											

COMMENTS:	Geoprobe 5400 using 2" macrocore to a depth of 12'bgs.	PROJECT NO.	35787.00
Soil gas samples at 6' and 10'.		BORING NO.	SG-1

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
BORING NO:	SG-2
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/19/00
DATE FINISHED:	06/19/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

GROUNDWATER:				CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE	Macrocore		
				DIA.	2"		
				WT.	--		
				FALL	--		
				* POCKET PENETROMETER READING			

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	Moist
						Gray		3" asphalt			
		1	2" MC		20	Black Dk Br.		Fill, Fine to coarse sand, some silt, ash, brick	Fill	0	Dry
										7	Moist
5		2	2" MC		25	Brown		Silt, some fine sand	ML	10	
								Fine to coarse sand, trace angular gravel, trace silt	SM	20	Dry
10		3	2" MC		40					0	
										0	
								End of Boring @ 12' bgs			
15											
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 12'bgs.
Soil gas samples at 6' and 10'.

PROJECT NO.	35787.00
BORING NO.	SG-2

URS Corporation

TEST BORING LOG

BORING NO:	SG-3
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/19/00
DATE FINISHED:	06/19/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

PROJECT: Kliegman Brothers, Inc.
CLIENT: NYSDEC
BORING CONTRACTOR: Zebra

GROUNDWATER:					CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		
				* POCKET PENETROMETER READING				

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS Moist
						Black		3" asphalt			
		1	2" MC		40	Brown		Fill, Fine to coarse sand, asphalt, ash, some gravel	Fill	300	Dry
								Silt, some Fine sand	ML	500	Moist
5		2	2" MC		55			Fine to coarse sand, some fine to coarse gravel	SW	100	
								Silt, some fine sand	SM	600	
		3	2" MC		50			Fine to coarse sand, some fine to coarse gravel	SW	150	
10										40	Dry
								End of Boring @ 12' bgs			
15											
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 12'bgs.
Soil gas samples at 6' and 10'.

PROJECT NO. 35787.00
BORING NO. SG-3

URS Corporation

TEST BORING LOG

BORING NO:	SG-4
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/19/00
DATE FINISHED:	06/19/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

PROJECT: Kliegman Brothers, Inc.
CLIENT: NYSDEC
BORING CONTRACTOR: Zebra

GROUNDWATER:				CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		
				* POCKET PENETROMETER READING				

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	Moist
						Black		3" asphalt			
		1	2" MC		30	Black		Fill, Fine to coarse sand, asphalt, ash, some gravel	Fill		Dry
									SW	300	
5		2	2" MC		60			Fine to coarse sand, trace fine gravel		750	
										800	
		3	2" MC		70			Silt, some fine sand	SM	950	
10										700	
								End of Boring @ 12' bgs			
15											
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 12'bgs.
Soil gas samples at 6' and 10'.

PROJECT NO.	35787.00
BORING NO.	SG-4

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
GROUNDWATER:	

	CAS.	SAMPLER	CORE	TUBE
TYPE		Macrocore		
DIA.		2"		
WT.		--		
FALL		--		

* POCKET PENETROMETER READING

DATE	TIME	LEVEL	TYPE

BORING NO:	SG-5
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/19/00
DATE FINISHED:	06/19/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS Moist
		1	2" MC		65	Black		3" asphalt Fill, fine to coarse sand, trace silt, asphalt, ash	Fill		Dry
						Brown		Fine sand and silt, trace cobble, trace fine to coarse gravel	SM	3	
5		2	2" MC		50					50	Moist
								Fine to coarse sand, some fine to coarse gravel, trace silt	SW	25	
		3	2" MC		60					10	Dry
10										0	
								End of Boring @ 12' bgs			
15											
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 12'bgs.
Soil gas samples at 6' and 10'.

PROJECT NO.	35787.00
BORING NO.	SG-5

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
BORING NO:	SG-6
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/19/00
DATE FINISHED:	06/19/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

GROUNDWATER:

DATE	TIME	LEVEL	TYPE

	CAS.	SAMPLER	CORE	TUBE
TYPE		Macrocore		
DIA.		2"		
WT.		--		
FALL		--		

* POCKET PENETROMETER READING

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS Moist
		1	2" MC		70	Black Brown		3" concrete Fill: Fine to coarse sand, ash, asphalt, some silt	Fill	0	Dry
5		2	2" MC		60			Fine sand and silt	SM		Moist
10		3	2" MC		30			Fine to coarse sand, trace silt, trace cobbles	SW		Dry
15								End of Boring @ 12' bgs			
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 12'bgs.
Soil gas samples at 6' and 10'.

PROJECT NO.	35787.00
BORING NO.	SG-6

URS Corporation

TEST BORING LOG

BORING NO:	SG-7
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/19/00
DATE FINISHED:	06/19/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

PROJECT: Kliegman Brothers, Inc.
CLIENT: NYSDEC
BORING CONTRACTOR: Zebra

GROUNDWATER:				CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		
				* POCKET PENETROMETER READING				

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS Moist
								4" concrete			
		1	2" MC		50	Brown		Fill: Fine to coarse sand, trace Fine to coarse gravel, trace silt	Fill	0	Dry
5		2	2" MC		65						
10		3	2" MC		80			Fine sand and silt, trace F-C gravel	SM		Moist
		4	2"MC								
15								End of Boring @ 14' bgs			
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 14'bgs.
Soil gas samples at 6' , 10' and 14'.

PROJECT NO.	35787.00
BORING NO.	SG-7

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
BORING NO:	SG-8
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/20/00
DATE FINISHED:	06/20/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

GROUNDWATER:				CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		
				* POCKET PENETROMETER READING				

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	Moist
								3" concrete			
		1	2" MC		40	Brown		Fill: Fine sand and silt, some F-C gravel	Fill	23	Dry
5		2	2" MC		30					18	
										20	
									SM/SW		
		3	2" MC		50			Fine sand, some fine to coarse gravel, trace silt		22	
10										15	
		4	2"MC								
15								End of boring @ 14' bgs			
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 14'bgs.
Soil gas samples at 6', 10', and 14 feet.

PROJECT NO.	35787.00
BORING NO.	SG-8

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
GROUNDWATER:	

DATE	TIME	LEVEL	TYPE

	CAS.	SAMPLER	CORE	TUBE
TYPE		Macrocore		
DIA.		2"		
WT.		--		
FALL		--		

* POCKET PENETROMETER READING

BORING NO:	SG-9
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/20/00
DATE FINISHED:	06/20/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS Moist
								3" concrete			
		1	2" MC		80	Grav Brown		Fine sand, some silt	SM	0	Dry
								Silt, some fine sand			Moist
								Fine to medium sand, some silt			Dry
5		2	2" MC		70						
								Fine to coarse sand, trace silt	SW		
10		3	2" MC		75						
								End of Boring @ 12' bgs			
15											
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 12'bgs.
Soil gas samples at 6' and 10'.

PROJECT NO.	35787.00
BORING NO.	SG-9

URS Corporation

TEST BORING LOG

BORING NO:	SG-10
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/20/00
DATE FINISHED:	06/20/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

PROJECT: Kliegman Brothers, Inc.
CLIENT: NYSDEC
BORING CONTRACTOR: Zebra
GROUNDWATER:

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
				DIA.		2"		
				WT.		--		
				FALL		--		
				* POCKET PENETROMETER READING				

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	Moist
						Gray		3" concrete			
		1	2" MC		50	Brown		Fill: Fine to medium sand, trace silt, trace gravel	Fill	0	Dry
5		2	2" MC		90			Fine to coarse sand	SW		
10		3	2" MC		35			Fine to medium sand, trace silt, trace cobbles			
								End of Boring @ 12' bgs			
15											
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 12'bgs.
Soil gas samples at 6' and 10'.

PROJECT NO.	35787.00
BORING NO.	SG-10

URS Corporation

TEST BORING LOG

BORING NO:	SG-11
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/20/00
DATE FINISHED:	06/20/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

PROJECT: Kliegman Brothers, Inc.
CLIENT: NYSDEC
BORING CONTRACTOR: Zebra

GROUNDWATER:				CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2"		
				WT.		–		
				FALL		–		
				* POCKET PENETROMETER READING				

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS Moist
						Gray		3" concrete			
		1	2" MC		85	Brown		Fill: Fine sand, some silt	Fill	0	Dry
5		2	2" MC		90			Fine to coarse sand, trace silt	SW		
								Fine sand, some silt	SM		Moist
10		3	2" MC		85						
								Silt, some fine sand			
		4	2" MC		5						
15								End of boring @ 14' bgs			
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 14'bgs.
Soil gas samples at 6', 10', and 14 feet.

PROJECT NO.	35787.00
BORING NO.	SG-11

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
GROUNDWATER:	

	CAS.	SAMPLER	CORE	TUBE
TYPE		Macrocore		
DIA.		2"		
WT.		140 lb.		
FALL		30"		

DATE	TIME	LEVEL	TYPE

* POCKET PENETROMETER READING

BORING NO:	SG-12/ SB-4
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/20/00
DATE FINISHED:	06/20/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS Moist
						Gray		3" concrete			
		1	2" MC		65	Brown		Fine to coarse sand, trace silt	SM		Dry
										0	
5											Moist
		2	2" MC		85			Fine sand and silt		0	
											Wet
								Fine to coarse sand	SW	0	
10		3	2" MC		75					0	
										0	
											Moist
		4	2" MC		85			Fine sand and silt	SM	0	
15											
								Fine to coarse sand, trace silt		0	
								Fine sand and silt, some cobbles,		3	Dry
		5	2" MC		60			trace fine to coarse gravel		3	
20											
		6	2" MC		50					0	
25								End of boring @ 24' bgs - refusal			
								Note: standing water at curb 3' south of boring location indicating poor drainage			
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 12', using a closed piston macro to a depth of 24' bgs

Soil gas samples at 6' and 10 feet.

PROJECT NO.	35787.00
BORING NO.	SG-12/ SB-4

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
BORING NO:	SG-13
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/20/00
DATE FINISHED:	06/20/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

GROUNDWATER:				CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		
				* POCKET PENETROMETER READING				

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	Moist
						Gray		3" concrete			
		1	2" MC		85	Brown		Fine sand, some silt	SM	0	Dry
5		2	2" MC		85			Fine to medium sand, trace silt	SW		
									SM		Moist
10		3	2" MC		90			Silt, some fine sand			
								End of Boring @ 12' bgs			
15											
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 12'bgs.
Soil gas samples at 6' and 10'.

PROJECT NO.	35787.00
BORING NO.	SG-13

URS Corporation

TEST BORING LOG

BORING NO:	SG-14
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	
GROUND ELEVATION:	
DATE STARTED:	06/20/00
DATE FINISHED:	06/20/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

PROJECT: Kliegman Brothers, Inc.
CLIENT: NYSDEC
BORING CONTRACTOR: Zebra

GROUNDWATER:					CAS.	SAMPLER	CORE	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		
				* POCKET PENETROMETER READING				

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	Moist
								3" concrete			
		1	2" MC		90	Gray Brown		Fine sand and silt	SM	0	Dry
5								Fine to medium sand, trace silt	SW		
		2	2" MC		85			Fine sand and silt	SM		Moist
10		3	2" MC		70						
								Silt, some fine sand			
		4	2" MC								
15								End of boring @ 14' bgs			
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 14'bgs.
Soil gas samples at 6', 10', and 14 feet.

PROJECT NO.	35787.00
BORING NO.	SG-14

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
BORING NO:	SG-15
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/20/00
DATE FINISHED:	06/20/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Jeffrey Vought
REVIEWED BY:	Duane Lenhardt

GROUNDWATER:

DATE	TIME	LEVEL	TYPE

	CAS.	SAMPLER	CORE	TUBE
TYPE		Macrocore		
DIA.		2"		
WT.		--		
FALL		--		

* POCKET PENETROMETER READING

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS Moist
		1	2" MC		75	Gray Brown		3" concrete Fill: Fine to medium sand, some silt	Fill	0	Dry
5		2	2" MC		70			Fine sand and silt	SM		Moist
10		3	2" MC		70			Fine to coarse sand, trace silt			Wet @ 8'
15								End of Boring @ 12' bgs			
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 12'bgs. Soil gas samples at 6' and 8'. No sample was collected at 10' due to soil saturation.

PROJECT NO.	35787.00
BORING NO.	SG-15

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
GROUNDWATER:	

DATE	TIME	LEVEL	TYPE

	CAS.	SAMPLER	CORE	TUBE
TYPE		Macrocore		
DIA.		2"		
WT.		--		
FALL		--		

* POCKET PENETROMETER READING

BORING NO:	SG-16
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/21/00
DATE FINISHED:	06/21/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Joel Siegel
REVIEWED BY:	Duane Lenhardt

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS Moist
								3" concrete			
		1	2" MC		50	Black/ Brown	Loose	Sand with some silt, medium to fine gravel	SM	1,000	Wet Zone 3.5-4.5'
5		2	2" MC		70	Brown	Medium Dense			300	Moist
		3	2" MC		70			Medium to coarse sand , some fine silty sand, and medium gravel	SW/SM	150	
10											
								End of Boring @ 12' bgs			
15											
20											
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 12'bgs.
Soil gas samples at 6' and 10'.

PROJECT NO.	35787.00
BORING NO.	SG-16

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
BORING NO:	SG-17/PZ-3
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/21/00
DATE FINISHED:	06/21/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Joel Siegel
REVIEWED BY:	Duane Lenhardt

GROUNDWATER:

DATE	TIME	LEVEL	TYPE

	CAS.	SAMPLER	CORE	TUBE
TYPE		Macrocore		
DIA.		2"		
WT.		--		
FALL		--		

* POCKET PENETROMETER READING

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS Moist
		1	2" MC		50	Black Brown	Medium Dense	Fine to medium sand, some silt (posssible shallow perched zone 3.5-4.5')	SM	1,000	Wet
5		2	2" MC		60			Medium to coarse sand with medium gravel Stains and odors noted	SW	4,000	Moist
10		3	2" MC		80		Dense	Fine to medium sand, over sandy silt	SM	40	
15		4	2" MC		100			Fine to medium sand with fine to medium gravel	SW	40	
20		5	2" MC		60					65	
		6	2" MC		40					80	
25								End of Boring @ 22' bgs -refusal			
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 22'bgs.
Soil gas samples at 6', 10', and 14'.

PROJECT NO.	35787.00
BORING NO.	SG-17/ PZ-3

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
BORING NO:	SB-1
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/21/00
DATE FINISHED:	06/21/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Joel Siegel
REVIEWED BY:	Duane Lenhardt

GROUNDWATER:

DATE	TIME	LEVEL	TYPE

	CAS.	SAMPLER	CORE	TUBE
TYPE		Macrocore		
DIA.		2"		
WT.		--		
FALL		--		

* POCKET PENETROMETER READING

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS Moist
								3" concrete			
		1	2" MC		30	Brown	Medium Dense	Fine to medium sand, some silt, and medium gravel Odor	SM	700	Moist
5		2	2" MC		50			Strong odor		1,000	
10		3	2" MC		100			Medium sand w/ fine to medium gravel grading to fine sand with medium to fine gravel Odor	SW	1,000	
15		4	2" MC		70		Medium Dense to Loose	Layer of broken rock 14.5-15.5' Odor		75 300	
20								End of Boring @ 16' bgs -refusal			
25											
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 16'bgs.
No soil gas samples collected.

PROJECT NO.	35787.00
BORING NO.	SB-1

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
GROUNDWATER:	

DATE	TIME	LEVEL	TYPE

	CAS.	SAMPLER	CORE	TUBE
TYPE		Macrocore		
DIA.		2"		
WT.		--		
FALL		--		

* POCKET PENETROMETER READING

BORING NO:	SB-2
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/21/00
DATE FINISHED:	06/21/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Joel Siegel
REVIEWED BY:	Duane Lenhardt

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	Moist
		1	2" MC		60	Brown	Medium Dense	Silt with some sand, fine to medium gravel Odor	SM	950	Moist
5		2	2" MC		70	Orange Brown		Fine sand with some silt over medium coarse sand, some M-F gravel Odor		950	
10		3	2" MC		20	Brown		Fine sand, some silt		350	
15		4	2" MC		40			Medium-coarse sand with medium to fine gravel	SW	900	
20		5	2" MC		60		Dense	Strong odor		1,000	
		6	2" MC		50					1,000	
25		7	2" MC		70		Loose	- (medium to coarse gravel)		50	
30		8	2" MC		80		Medium Dense			800	Very Moist
								End of Boring @ 32' bgs			

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 32'bgs.
No soil gas samples collected.

PROJECT NO.	35787.00
BORING NO.	SB-2

URS Corporation

TEST BORING LOG

PROJECT:	Kliegman Brothers, Inc.
CLIENT:	NYSDEC
BORING CONTRACTOR:	Zebra
GROUNDWATER:	

DATE	TIME	LEVEL	TYPE

	CAS.	SAMPLER	CORE	TUBE
TYPE		Macrocore		
DIA.		2"		
WT.		--		
FALL		--		

* POCKET PENETROMETER READING

BORING NO:	SB-5
SHEET:	1 of 1
JOB NO.:	35787.00
BORING LOCATION:	NA
GROUND ELEVATION:	NA
DATE STARTED:	06/21/00
DATE FINISHED:	06/21/00
DRILLER:	Shawn Tibbets
GEOLOGIST:	Joel Siegel
REVIEWED BY:	Duane Lenhardt

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	BLOWS PER 6"	REC% ROD%	DESCRIPTION COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS PID	Moist
		1	2" MC		50	Brown & Black	Loose	Medium sand grades to medium gravel	Fill	400	Moist
5		2	2" MC		50	Brown	Medium Dense	Medium-coarse sand with fine to coarse gravel	SW	180	
10		3	2" MC		100		Loose			160	
15		4	2" MC		100		Loose to Medium Dense			30	
20		5	2" MC		70		Loose			40	
		6	2" MC		30		Medium Dense			30	
25								End of boring @ 22' bgs - refusal.			
30											

COMMENTS: Geoprobe 5400 using 2" macrocore to a depth of 22'bgs.
No soil gas samples collected.

PROJECT NO.	35787.00
BORING NO.	SB-5

ATTACHMENT 2

DAILY DRILLING RECORDS/CONSTRUCTION REPORTS

DAILY DRILLING RECORD

URS-Greiner Woodward Clyde

PROJECT TITLE: Klingman Brothers DATE: 6/19/00

CLIENT: NYSDEC CONTRACTOR: Zebra

FROM	TO	PRODUCTIVE HOURS	ACTIVITIES/COMMENTS
7:00	9:00	1	Set up Geoprobe 5400 /
9:00	10:00	1	Sampled SG-1
10:00	11:00	1	Sampled SG-2
11:00	12:00	1	Sampled SG-3
12:00	1:00	1	Sampled SG-4
1:00	2:00	1	Sampled SG-5
2:00	3:00	1	Sampled SG-6
3:00	4:00	1	Sampled SG-7
4:00	4:30	.5	Set down Geoprobe / patched concrete
TOTAL PRODUCTIVE HOURS		8.5	LEVEL B / LEVEL C / (LEVEL D) (CIRCLE ONE SELCTION)

LABOR:

UNITS	
21	Macro Cores
	3/8" Poly Tubing
14	Soil Gas Samples
84	Total Footage

MATERIALS / SUPPLIES:

UNITS	

WEATHER:

Jeffrey Vought
URS ONSITE COORDINATOR

CONTRACTOR REPRESENTATIVE

DAILY DRILLING RECORD

URS-Greiner Woodward Clyde

PROJECT TITLE: Kleigman Brothers DATE: 6/20/00

CLIENT: NYSDEC CONTRACTOR: Zebra

FROM	TO	PRODUCTIVE HOURS	ACTIVITIES/COMMENTS
7:00	8:30	.5	Set up Geoprobe 5400 1/2" macro on SG-8
8:30	9:30	1	Sampled soil/gas on SG-8 8-6 9:00a SG-8 8-10 9:15a
9:30	10:30	1	Sampled soil/gas on SG-9
10:30	11:30	1	Sampled soil/gas on SG-10
11:30	12:30	1	Sampled soil/gas on SG-12
12:30	1:30	1	Sampled soil/gas on SG-13
1:30	2:30	1	Sampled soil/gas on SG-14
2:30	3:30	1	Sampled soil/gas on SG-15
3:30	4:30	1	Sampled soil/gas on SG-11
4:30	5:30	1	Set down Geoprobe
TOTAL PRODUCTIVE HOURS		(9.5)	LEVEL B / LEVEL C / (LEVEL D) patched concrete (CIRCLE ONE SELCTION)

LABOR:

UNITS	
24	Macro Cores
	3/8" Poly Tubing
	Total Footage
8	Points
17	Soil Gas

MATERIALS / SUPPLIES:

UNITS	

WEATHER: 80°, sunny

URS ONSITE COORDINATOR

CONTRACTOR REPRESENTATIVE

DAILY DRILLING RECORD

URS-Greiner Woodward Clyde

PROJECT TITLE: Kliegman Brothers DATE: 6/21/00

CLIENT: NYSDEC CONTRACTOR: Zebra

(pg 1 of 2)

FROM	TO	PRODUCTIVE HOURS	ACTIVITIES/COMMENTS
8:00	9:00	1	Set up Geoprobe on SG-16
9:00	10:00	1	Sampled soil/gas on SG-16
10:00	11:00	1	Sampled soil/gas on SG-17
11:00	11:30	.5	Set piezometer PZ-3/SG-17
11:30	12:00	.5	Sampled SB-8 at 14'
12:00	12:30	.5	Sampled SB-7 at 14'
12:30	1:00	.5	Sampled SB-14 at 14'
1:00	2:30	1.5	Sampled soil at PZ-2 to 30'
2:30	3:30	1	Sampled soil at PZ-1
TOTAL PRODUCTIVE HOURS			LEVEL B / LEVEL C / LEVEL D (CIRCLE ONE SELCTION)

LABOR:

UNITS	

MATERIALS / SUPPLIES:

UNITS	

WEATHER:

Jeffrey Vought
URS ONSITE COORDINATOR

CONTRACTOR REPRESENTATIVE

DAILY DRILLING RECORD

URS-Greiner Woodward Clyde

PROJECT TITLE: Kliegman Brothers DATE: 6/21/00

CLIENT: NYSDEC CONTRACTOR: Zebra

(pg 2 of 2)

FROM	TO	PRODUCTIVE HOURS	ACTIVITIES/COMMENTS
3:30	4:30	1	Sampled soil at PZ-4
4:30	5:30	1	Set down Geoprobe/patched concrete
5:30	6:00	.5	Set down Decon pad/loading
TOTAL PRODUCTIVE HOURS		(10)	LEVEL B / LEVEL C / LEVEL D (CIRCLE ONE SELCTION)

LABOR:

UNITS	
8	Soil Gas
27	Macro Cores

MATERIALS / SUPPLIES:

UNITS	

WEATHER:

Jeffrey Vaught
URS ONSITE COORDINATOR

CONTRACTOR REPRESENTATIVE

URS-Greiner Woodward Clyde

282 Delaware Avenue
Buffalo, New York 14202
Telephone: (716)-856-5636
Fax: (716)-856-2545

DATE 6/19/00

DAY	S	M	T	W	TH	F	S
		X					

DAILY CONSTRUCTION REPORT

WEATHER	Bright Sun	Clear	Overcast X	Rain	Snow
TEMP	To 32	32-50	50-70	70-85 X	85 and up
WIND	Still	Moder X	High	Report No.	
HUMIDITY	Dry X	Moder	Humid		

PROJECT: Klingman Brothers
CONTRACTOR Zebra
URS JOB No. 05000357767.00
URS PROJECT MANAGER: Chuck Duval

AVERAGE FIELD FORCE

Name of Contractor	Non-manual	Manual	Remarks

VISITORS

Time	Representing	Representing	Remarks

EQUIPMENT AT THE SITE: Geoprobe 5400

CONSTRUCTION ACTIVITIES:

Charles Green 7
Shawn Tibbetts 3 Zebra
Kevin McHale - 3 Horizon
Aris Kangavis - owner
Ben Barker - BL analytical
Ellis Ballard - BL analytical

(See Co Daily Drilling Record for activites performed)

SHEET 1 OF 1

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BY: Jeffrey Vaught Title: Geologist
REVIEWED BY: _____ Project Manager: _____

URS-Greiner Woodward Clyde

282 Delaware Avenue
Buffalo, New York 14202
Telephone: (716)-856-5636
Fax: (716)-856-2545

DATE 6/20/00

DAY	S	M	T	W	TH	F	S
			X				

DAILY CONSTRUCTION REPORT

WEATHER	Bright Sun	Clear X	Overcast	Rain	Snow
TEMP	To 32	32-50	50-70	70-85 X	85 and up
WIND	Still	Moder X	High	Report No.	
HUMIDITY	Dry X	Moder	Humid		

PROJECT: Kleinman Brothers
CONTRACTOR Zebra
URS JOB No. 050035.787.00
URS PROJECT MANAGER: Chuck Duel

AVERAGE FIELD FORCE

Name of Contractor	Non-manual	Manual	Remarks

VISITORS

Time	Representing	Representing	Remarks

EQUIPMENT AT THE SITE:

CONSTRUCTION ACTIVITIES:

Shawn Tibbetts - 7 Zebra
Charles Green - 3
Greg Martin
Jerome Giddings 3 Good.
Brian DeGrandt 3

(See Daily Drilling Record for activities performed)

SHEET 1 OF 1

☐ X - designates info on backside of page

BY: Jeffrey Vaught Title: Geologist
REVIEWED BY: _____ Project Manager: _____

URS-Greiner Woodward Clyde

282 Delaware Avenue
Buffalo, New York 14202
Telephone: (716)-856-5636
Fax: (716)-856-2545

DATE 6-21-00

DAY	S	M	T	W	TH	F	S
				X			

DAILY CONSTRUCTION REPORT

	Bright Sun	Clear	Overcast	Rain	Snow
WEATHER		X			
TEMP	To 32	32-50	50-70	70-85 X	85 and up
WIND	Still X	Moder	High	Report No.	
HUMIDITY	Dry X	Moder	Humid		

PROJECT: Klevgman Brothers
CONTRACTOR Zebra
URS JOB No. 05000577.00
URS PROJECT MANAGER: ~~Richard Murphy~~ Chuck Durel

AVERAGE FIELD FORCE

Name of Contractor	Non-manual	Manual	Remarks
Shawn Tibbetts 3 Zebra Charles Green 3 Ellias Ballard - BL analytical Kevin McCole - consultant			

VISITORS

Time	Representing	Representing	Remarks
	Dave Harrington Joe McConnell	3 NYSDEC	

EQUIPMENT AT THE SITE: Geoprobe 5400

CONSTRUCTION ACTIVITIES: performing soil borings / installing piezometers

* Note: PZ-1 becomes B-1 due to refusal at cobble at 16'

* Note: PZ-5 added to dilineate western size of site as per Dave Harrington (NYSDEC)
PZ-1 was performed adjacent to tanker car per Dave Harrington (NYSDEC)

* Note: Draeger Tube monitoring for vinyl chloride yields 0ppm background and PPE upgrade

(See daily drilling Record for activities performed)

SHEET 1 OF 1

☐ X - designates info on backside of page

BY: Jeffrey Vaught Title: Geologist
REVIEWED BY: _____ Project Manager: _____

URS
CONSULTANTS, INC.
282 Delaware Avenue
Buffalo, New York 14202
(716) 856-5636

DAILY CONSTRUCTION REPORT

DATE 6/23/00

DAY: S M T W TH **F** S

WEATHER: Bright Sun / **Clear** / Overcast / Rain / Snow

TEMP: To 32 / 32-50 / 50-70 / **70-85** / 85 up

WIND: Still / **Moder.** / High

HUMIDITY: Dry / **Moder.** / Humid

Report No.

CLIENT DEC

CONTRACTOR —

URS PROJECT MANAGER Bitka

URS JOB No. 05000 35787

AVERAGE FIELD FORCE

Name of Contractor	Non-manual	Manual	Remarks
—			

VISITORS

Time	Representing	Representing	Remarks
—	—		

EQUIPMENT AT THE SITE

CONSTRUCTION ACTIVITIES

Check PZ-3 for water Dry

Measure, purge and sample MW-1

Note TOC to grade is 0.8'

SHEET 1 OF 1

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BY Joel Siegel TITLE Geologist

REVIEWED BY: ______ PROJECT ENGINEER

ATTACHMENT 3

VALIDATED ANALYTICAL RESULTS

TABLE 1
ON-SITE ANALYTICAL SOIL GAS SAMPLE RESULTS
KLIEGMAN BROTHERS, INC.

Location ID		SG-01	SG-01	SG-02	SG-02	SG-03
Sample ID		SG-01 (6')	SG-01 (10')	SG-02 (6')	SG-02 (10')	SG-03 (6')
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft.)		6.0-6.0	10.0-10.0	6.0-6.0	10.0-10.0	6.0-6.0
Date Sampled		06/19/00	06/19/00	06/19/00	06/19/00	06/19/00
Parameter	***Units***					
Volatiles						
1,1,1-Trichloroethane	PPBV	1370	2130	2590	4280	10800
1,1-Dichloroethene	PPBV	1250 U	1250 U	1250 U	1250 U	1250 U
1,2-Dichloroethane	PPBV	1220 U	1220 U	1220 U	1220 U	1220 U
cis-1,2-Dichloroethene	PPBV	1250 U	250 J	250 J	250 J	500 J
trans-1,2-Dichloroethene	PPBV	1250 U	1250 U	1250 U	1250 U	1250
Ethylbenzene	PPBV	1140 U	1140 U	1140 U	1140 U	1140 U
Xylene (total)	PPBV	1140 U	1140 U	1140 U	1140 U	1140 U
Tetrachloroethene	PPBV	1088000	1146000	2450000	2830000	5620000
Toluene	PPBV	1300 U	1300 U	1300 U	1300 U	1300 U
Trichloroethene	PPBV	2110	3400	2150	2280	1700
Vinyl chloride	PPBV	1950 U	1950 U	1950 U	1950 U	1950 U

Flags assigned during chemistry validation are shown.

U - Not detected at reported quantitation limit.
J - Estimated concentration detected below quantitation limit.

Detection Limits shown are PQL

J:\35787.00\db\Program\program.mde
Printed: 7/24/00 9:37:40 AM
[LABCODE] = 'BL'

TABLE 1
ON-SITE ANALYTICAL SOIL GAS SAMPLE RESULTS
KLIEGMAN BROTHERS, INC.

Location ID		SG-03	SG-04	SG-04	SG-05	SG-05
Sample ID		SG-03 (10')	SG-04 (6')	SG-04 (10')	SG-05 (6')	SG-05 (10')
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft.)		10.0-10.0	6.0-6.0	10.0-10.0	6.0-6.0	10.0-10.0
Date Sampled		06/19/00	06/19/00	06/19/00	06/19/00	06/19/00
Parameter	Units					
Volatiles						
1,1,1-Trichloroethane	PPBV	19800	63600	820 U	607 J	758 J
1,1-Dichloroethene	PPBV	1250 U	1250 U	1250 U	1250 U	1250 U
1,2-Dichloroethane	PPBV	1220 U	1220 U	1220 U	1220 U	1220 U
cis-1,2-Dichloroethene	PPBV	750 J	2400	1250 U	1250 U	1250 U
trans-1,2-Dichloroethene	PPBV	750 J	1250 U	1250 U	1250 U	1250 U
Ethylbenzene	PPBV	1140 U	1140 U	1140 U	1140 U	1140 U
Xylene (total)	PPBV	1140 U	1140 U	1140 U	1140 U	1140 U
Tetrachloroethene	PPBV	20240000	23900000	777000	1350000	1440000
Toluene	PPBV	1300 U	1300 U	1300 U	1300 U	1300 U
Trichloroethene	PPBV	1780	2850	925 U	1280	1700
Vinyl chloride	PPBV	1950 U	1950 U	1950 U	1950 U	1950 U

Flags assigned during chemistry validation are shown.

U - Not detected at reported quantitation limit.
J - Estimated concentration detected below quantitation limit.

Detection Limits shown are PQL

TABLE 1
ON-SITE ANALYTICAL SOIL GAS SAMPLE RESULTS
KLIEGMAN BROTHERS, INC.

Location ID		SG-06	SG-06	SG-07	SG-07	SG-07
Sample ID		SG-06 (6')	SG-06 (10')	SG-07 (6')	SG-07 (10')	SG-07 (14')
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft.)		6.0-6.0	10.0-10.0	6.0-6.0	10.0-10.0	14.0-14.0
Date Sampled		06/19/00	06/19/00	06/19/00	06/19/00	06/21/00
Parameter	Units					
Volatiles						
1,1,1-Trichloroethane	PPBV	165 J	330 J	820 U	820 U	820 U
1,1-Dichloroethene	PPBV	1250 U	1250 U	500 J	250 J	1250 U
1,2-Dichloroethane	PPBV	1220 U	1220 U	1220 U	1220 U	1220 U
cis-1,2-Dichloroethene	PPBV	1250 U	1250 U	1000 J	500 J	500 J
trans-1,2-Dichloroethene	PPBV	1350	3680	220000	142000	134000
Ethylbenzene	PPBV	1140 U	1140 U	1140 U	1140 U	1140 U
Xylene (total)	PPBV	1140 U	1140 U	1140 U	1140 U	1140 U
Tetrachloroethene	PPBV	403000	664000	2930000	2770000	3110000
Toluene	PPBV	1300 U	1300 U	1300 U	1300 U	1300 U
Trichloroethene	PPBV	900 J	1520	27000	19000	18900
Vinyl chloride	PPBV	1950 U	1950 U	8390	5700	4230

Flags assigned during chemistry validation are shown.

U - Not detected at reported quantitation limit.
J - Estimated concentration detected below quantitation limit.

Detection Limits shown are PQL

TABLE 1
ON-SITE ANALYTICAL SOIL GAS SAMPLE RESULTS
KLIEGMAN BROTHERS, INC.

Location ID		SG-08	SG-08	SG-08	SG-09	SG-09
Sample ID		SG-08 (6')	SG-08 (10')	SG-08 (14')	SG-09 (6')	SG-09 (10')
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft.)		6.0-6.0	10.0-10.0	14.0-14.0	6.0-6.0	10.0-10.0
Date Sampled		06/20/00	06/20/00	06/21/00	06/20/00	06/20/00
Parameter	Units					
Volatiles						
1,1,1-Trichloroethane	PPBV	820 U	820 U	4940	820 U	165 J
1,1-Dichloroethene	PPBV	1250 U	1250 U	1250 U	1250 U	1250 U
1,2-Dichloroethane	PPBV	1220 U	1220 U	1220 U	1220 U	1220 U
cis-1,2-Dichloroethene	PPBV	1250 U	250 J	250 J	1250 U	1250 U
trans-1,2-Dichloroethene	PPBV	1250 U	1000 J	1000 J	1250 U	750 J
Ethylbenzene	PPBV	1140 U	1140 U	1140 U	1140 U	1140 U
Xylene (total)	PPBV	1140 U	1140 U	1140 U	1140 U	1140 U
Tetrachloroethene	PPBV	98300	4390000	5130000	57500	157000
Toluene	PPBV	1300 U	260 J	1300 U	1300 U	1300 U
Trichloroethene	PPBV	925 U	19000	13900	925 U	550 J
Vinyl chloride	PPBV	1950 U	1950 U	1950 U	1950 U	1950 U

Flags assigned during chemistry validation are shown.

U - Not detected at reported quantitation limit.
J - Estimated concentration detected below quantitation limit.

Detection Limits shown are PQL

TABLE 1
ON-SITE ANALYTICAL SOIL GAS SAMPLE RESULTS
KLIEGMAN BROTHERS, INC.

Location ID		SG-10	SG-10	SG-11	SG-11	SG-11
Sample ID		SG-10 (6')	SG-10 (10')	SG-11 (6')	SG-11 (10')	SG-11 (14')
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft.)		6.0-6.0	10.0-10.0	6.0-6.0	10.0-10.0	14.0-14.0
Date Sampled		06/20/00	06/20/00	06/20/00	06/20/00	06/20/00
Parameter	Units					
Volatiles						
1,1,1-Trichloroethane	PPBV	820 U	820 U	22600	6755	820 U
1,1-Dichloroethene	PPBV	1250 U	1250 U	1250 U	1250 U	1250
1,2-Dichloroethane	PPBV	1220 U	1220 U	1220 U	1220 U	1220 U
cis-1,2-Dichloroethene	PPBV	1250 U	500 J	1250 U	1250 U	1250 U
trans-1,2-Dichloroethene	PPBV	1250 U	1250 U	1250 U	500 J	6010
Ethylbenzene	PPBV	1140 U	1140 U	1140 U	1140 U	1140 U
Xylene (total)	PPBV	1140 U	1140 U	1140 U	1140 U	1140 U
Tetrachloroethene	PPBV	29600	58200	42700	53100	682000
Toluene	PPBV	1300 U	1300 U	1300 U	1300 U	1300 U
Trichloroethene	PPBV	925 U	925 U	39400	5920	4260
Vinyl chloride	PPBV	1950 U	1950 U	1950 U	1950 U	1950 U

Flags assigned during chemistry validation are shown.

U - Not detected at reported quantitation limit.
J - Estimated concentration detected below quantitation limit.

Detection Limits shown are PQL

TABLE 1
ON-SITE ANALYTICAL SOIL GAS SAMPLE RESULTS
KLIEGMAN BROTHERS, INC.

Location ID		SG-12/SB-4	SG-12/SB-4	SG-13	SG-13	SG-14
Sample ID		SG-12 (6')	SG-12 (10')	SG-13 (6')	SG-13 (10')	SG-14 (6')
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft.)		6.0-6.0	10.0-10.0	6.0-6.0	10.0-10.0	6.0-6.0
Date Sampled		06/20/00	06/20/00	06/20/00	06/20/00	06/20/00
Parameter	Units					
Volatiles						
1,1,1-Trichloroethane	PPBV	820 U	820 U	820 U	820 U	820 U
1,1-Dichloroethene	PPBV	1250 U	1250 U	1250 U	1250 U	1250 U
1,2-Dichloroethane	PPBV	1220 U	1220 U	1220 U	1220 U	1220 U
cis-1,2-Dichloroethene	PPBV	1250 U	1250 U	1250 U	1250 U	1250 U
trans-1,2-Dichloroethene	PPBV	7270	5260	1250 U	1250 U	1250 U
Ethylbenzene	PPBV	1140 U	1140 U	1140 U	230 J	1140 U
Xylene (total)	PPBV	1140 U	1140 U	1140 U	230 J	1140 U
Tetrachloroethene	PPBV	45500	85700	2640	35500	3520
Toluene	PPBV	1300 U	1300 U	1300 U	260 J	1300 U
Trichloroethene	PPBV	8330	8510	925 U	925 U	925 U
Vinyl chloride	PPBV	1950 U	1950 U	1950 U	1950 U	1950 U

Flags assigned during chemistry validation are shown.

U - Not detected at reported quantitation limit.
J - Estimated concentration detected below quantitation limit.

Detection Limits shown are PQL

TABLE 1
ON-SITE ANALYTICAL SOIL GAS SAMPLE RESULTS
KLIEGMAN BROTHERS, INC.

Location ID		SG-14	SG-14	SG-15	SG-15	SG-16
Sample ID		SG-14 (10')	SG-14 (14')	SG-15 (6')	SG-15 (8')	SG-16 (6')
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft.)		10.0-10.0	14.0-14.0	6.0-6.0	8.0-8.0	6.0-6.0
Date Sampled		06/20/00	06/21/00	06/20/00	06/20/00	06/21/00
Parameter	Units					
Volatiles						
1,1,1-Trichloroethane	PPBV	820 U	5270	820 U	660 J	21400
1,1-Dichloroethene	PPBV	1250 U	1250 U	1250 U	1250 U	250 J
1,2-Dichloroethane	PPBV	1220 U	1220 U	1220 U	1220 U	5890
cis-1,2-Dichloroethene	PPBV	1250 U	6500	1250 U	1250 U	750 J
trans-1,2-Dichloroethene	PPBV	1250 U	1250 U	1250 U	1250 U	115000
Ethylbenzene	PPBV	1140 U	1140 U	1140 U	1140 U	1140 U
Xylene (total)	PPBV	1140 U	1140 U	1140 U	1140 U	1140 U
Tetrachloroethene	PPBV	2350	282000	7630	46100	5600000
Toluene	PPBV	1300 U	1300 U	1300 U	1300 U	260 J
Trichloroethene	PPBV	925 U	944	925 U	2400	28100
Vinyl chloride	PPBV	1950 U	1950 U	1950 U	1950 U	385 J

Flags assigned during chemistry validation are shown.

U - Not detected at reported quantitation limit.
J - Estimated concentration detected below quantitation limit.

Detection Limits shown are PQL

TABLE 1
ON-SITE ANALYTICAL SOIL GAS SAMPLE RESULTS
KLIEGMAN BROTHERS, INC.

Location ID		SG-16	SG-17	SG-17	SG-17
Sample ID		SG-16 (10')	SG-17 (6')	SG-17 (10')	SG-17 (14')
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft.)		10.0-10.0	6.0-6.0	10.0-10.0	14.0-14.0
Date Sampled		06/21/00	06/21/00	06/21/00	06/21/00
Parameter	Units				
Volatiles					
1,1,1-Trichloroethane	PPBV	17300	1650	820 U	820 U
1,1-Dichloroethene	PPBV	1250 U	1250 U	1250 U	1250 U
1,2-Dichloroethane	PPBV	5890	1220 U	1220 U	1220 U
cis-1,2-Dichloroethene	PPBV	750 J	1250 U	1250 U	1250 U
trans-1,2-Dichloroethene	PPBV	83000	7020	1250 U	1250 U
Ethylbenzene	PPBV	1140 U	1140 U	1140 U	1140 U
Xylene (total)	PPBV	1140 U	1140 U	1140 U	1140 U
Tetrachloroethene	PPBV	5000000	5442000	173000	339000
Toluene	PPBV	260 J	1300 U	1300 U	1300 U
Trichloroethene	PPBV	32000	113000	1300	3520
Vinyl chloride	PPBV	385 J	1950 U	1950 U	1950 U

Flags assigned during chemistry validation are shown.

U - Not detected at reported quantitation limit.
J - Estimated concentration detected below quantitation limit.

Detection Limits shown are PQL

TABLE 2
OFF-SITE ANALYTICAL SOIL GAS SAMPLE RESULTS
KLIEGMAN BROTHERS, INC.

Location ID		SG-07	SG-08	SG-14	SG-17
Sample ID		SG-07 (14')	SG-08 (14')	SG-14 (14')	SG-17 (6')
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft.)		14.0-14.0	14.0-14.0	14.0-14.0	6.0-6.0
Date Sampled		06/21/00	06/21/00	06/21/00	06/21/00
Parameter	Units				
Volatiles					
1,1,1-Trichloroethane	PPBV	1000 U	16000	37000	1900
1,1,2,2-Tetrachloroethane	PPBV	1000 U	1000 U	1000 U	1000 U
1,1,2-Trichloroethane	PPBV	1000 U	1000 U	1000 U	1000 U
1,1-Dichloroethane	PPBV	1000 U	1000 U	1000 U	1000 U
1,1-Dichloroethene	PPBV	1000 U	1000 U	16000	1000 U
1,2,4-Trichlorobenzene	PPBV	1000 U	1000 U	1000 U	1000 U
1,2,4-Trimethylbenzene	PPBV	2700	2200	3600	1000
1,2-Dibromoethane	PPBV	1000 U	1000 U	1000 U	1000 U
1,2-Dichlorobenzene	PPBV	1000 U	1000 U	1000 U	1000 U
1,2-Dichloroethane	PPBV	1000 U	1000 U	1000 U	2800
1,2-Dichloropropane	PPBV	1000 U	1000 U	1000 U	1000 U
1,2-Dichlorotetrafluoroethane	PPBV	1000 U	1000 U	1000 U	1000 U
1,3,5-Trimethylbenzene	PPBV	1000 U	1000 U	1000 U	1000 U
1,3-Dichlorobenzene	PPBV	1000 U	1000 U	1000 U	1000 U
1,4-Dichlorobenzene	PPBV	1000 U	1000 U	1000 U	1000 U
3-Chloropropene	PPBV	1000 U	1000 U	1000 U	1000 U
4-Ethyltoluene	PPBV	1000 U	1000 U	1000 U	1000 U
Benzene	PPBV	1000 U	1000 U	1000 U	1000 U
Benzyl chloride	PPBV	1000 U	1000 U	1000 U	1000 U
Bromomethane	PPBV	1000 U	1000 U	1000 U	1000 U
Carbon tetrachloride	PPBV	19000	14000	25000	690000 E
Chlorobenzene	PPBV	1000 U	1000 U	1000 U	1000 U
Chloroethane	PPBV	1000 U	1000 U	1000 U	1000 U
Chloroform	PPBV	4300 B	4600 B	4200 B	21000 B

Flags assigned during chemistry validation are shown.

U - Not detected at reported quantitation limit.
J - Estimated concentration detected below quantitation limit.
E - Sample concentration exceeded the range of calibration, and should be considered an estimated value.
B - Also detected in laboratory blank.

Detection Limits shown are PQL

TABLE 2
OFF-SITE ANALYTICAL SOIL GAS SAMPLE RESULTS
KLIEGMAN BROTHERS, INC.

Location ID		SG-07	SG-08	SG-14	SG-17
Sample ID		SG-07 (14')	SG-08 (14')	SG-14 (14')	SG-17 (6')
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft.)		14.0-14.0	14.0-14.0	14.0-14.0	6.0-6.0
Date Sampled		06/21/00	06/21/00	06/21/00	06/21/00
Parameter	Units				
Volatiles					
Chloromethane	PPBV	1000 U	1000 U	1000 U	1000 U
cis-1,2-Dichloroethene	PPBV	180000	1900	1000 U	11000
trans-1,2-Dichloroethene	PPBV	1000 U	1000 U	1000 U	1000 U
cis-1,3-Dichloropropene	PPBV	1000 U	1000 U	1000 U	1000 U
Dichlorodifluoromethane	PPBV	1000 U	1000 U	1000 U	1000 U
Ethylbenzene	PPBV	1000 U	1700	1000 U	1000 U
Freon-113	PPBV	1000 U	1000 U	11000	2700 J
Hexahloro-1,3-butadiene	PPBV	1000 U	1000 U	1000 U	1000 U
Methylene chloride	PPBV	7500 B	7100 B	12000 B	8600 B
Xylene (total)	PPBV	1500	2200	1000 U	1000 U
Styrene	PPBV	1000 U	1000 U	1000 U	1000 U
Tetrachloroethene	PPBV	11000000 E	17000000 E	1320000 E	24000000 E
Toluene	PPBV	1500	2100	1000 U	1300
trans-1,3-Dichloropropene	PPBV	1000 U	1000 U	1000 U	1000 U
Trichloroethene	PPBV	45000	32000	2100	260000 E
Trichlorofluoromethane	PPBV	1000 U	1000 U	3100	1000 U
Vinyl chloride	PPBV	2200	1000 U	1000 U	1000 U

Flags assigned during chemistry validation are shown.

U - Not detected at reported quantitation limit.
J - Estimated concentration detected below quantitation limit.
E - Sample concentration exceeded the range of calibration, and should be considered an estimated value.
B - Also detected in laboratory blank.

Detection Limits shown are PQL

TABLE 3
ANALYTICAL GROUNDWATER SAMPLE RESULTS
KLIEGMAN BROTHERS, INC.

Location ID		MW-01
Sample ID		MW-01
Matrix		Ground Water
Depth Interval (ft.)		-
Date Sampled		06/24/00
Parameter	**Units**	
Volatiles		
1,1,1-Trichloroethane	UG/L	25
1,1,2,2-Tetrachloroethane	UG/L	10 U
1,1,2-Trichloroethane	UG/L	2 J
1,1-Dichloroethane	UG/L	17
1,1-Dichloroethene	UG/L	6 J
1,2-Dichloroethene (total)	UG/L	4600 D
1,2-Dichloroethane	UG/L	8 J
1,2-Dichloropropane	UG/L	10 U
2-Butanone	UG/L	10 U
2-Hexanone	UG/L	10 U
4-Methyl-2-pentanone	UG/L	10 U
Acetone	UG/L	10 U
Benzene	UG/L	3 J
Bromoform	UG/L	10 U
Bromodichloromethane	UG/L	10 U
Bromomethane	UG/L	10 U
Carbon disulfide	UG/L	10 U
Carbon tetrachloride	UG/L	10 U
Chlorobenzene	UG/L	10 U
Chloroethane	UG/L	10 U
Chloroform	UG/L	54
Chloromethane	UG/L	10 U
cis-1,3-Dichloropropene	UG/L	10 U
Dibromochloromethane	UG/L	10 U

Flags assigned during chemistry validation are shown.

U - Not detected at reported quantitation limit.
J - Estimated concentration detected below quantitation limit.
D - Result reported from a diluted analysis.

Detection Limits shown are PQL

TABLE 3
ANALYTICAL GROUNDWATER SAMPLE RESULTS
KLIEGMAN BROTHERS, INC.

Location ID		MW-01
Sample ID		MW-01
Matrix		Ground Water
Depth Interval (ft.)		-
Date Sampled		06/24/00
Parameter	**Units**	
Volatiles		
Ethylbenzene	UG/L	10 U
Methylene chloride	UG/L	5 J
Xylene (total)	UG/L	4 J
Styrene	UG/L	10 U
Tetrachloroethene	UG/L	7400 D
Toluene	UG/L	10 U
trans-1,3-Dichloropropene	UG/L	10 U
Trichloroethene	UG/L	990 D
Vinyl chloride	UG/L	6 J

Flags assigned during chemistry validation are shown.

U - Not detected at reported quantitation limit.
J - Estimated concentration detected below quantitation limit.
D - Result reported from a diluted analysis.

Detection Limits shown are PQL

ATTACHMENT 4

PIEZOMETER CONSTRUCTION DETAIL

DRILLING SUMMARY

Geologist: Jeffrey Vought

Contractor: Zebra

Operator: Shawn Tibbetts

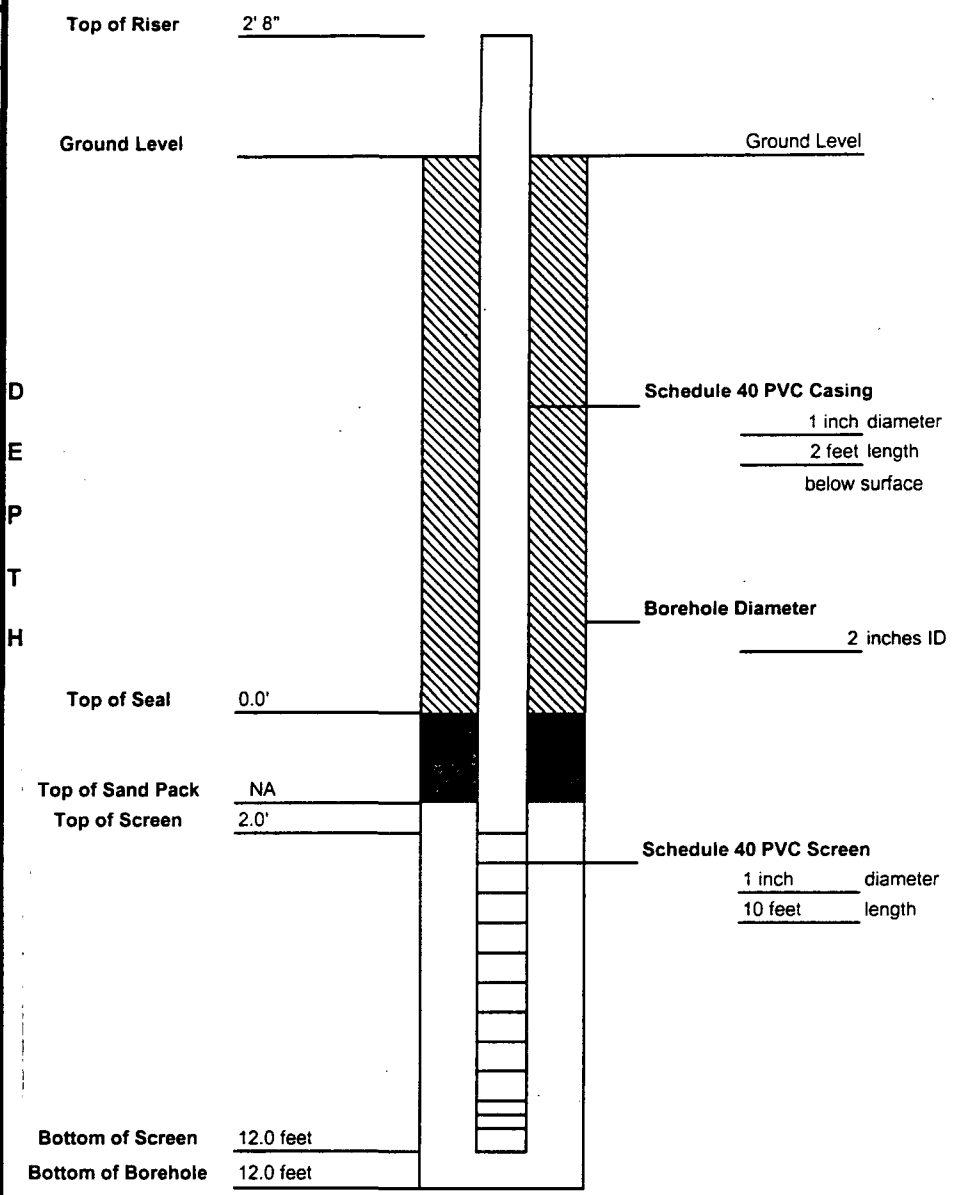
Model: Geoprobe 5400

Date: 21-Jun-00

GEOLOGIC LOG

Depth(ft.)	Description
0.0-4.0	Brown fine to medium sand, some silt
4.0-8.0	Brown medium to coarse sand with medium gravel
8.0-12.0	Fine to medium sand, over sandy silt
12.0-22.0	Fine to medium sand, with fine to medium gravel

WELL DESIGN



CASING MATERIAL		SCREEN MATERIAL		FILTER MATERIAL
Surface:	No surface protective casing	**Type:**	1" Schedule 40 PVC	**Type:** None **Setting:**
Monitor:	1" Schedule 40 PVC	**Slot Size:**	0.020"	**SEAL MATERIAL** **Type 1:** Bentonite chips **Setting** Surface **Type 2:** **Setting:**

COMMENTS:

Note: + - there was not enough annular space between the core wall and PVC for sand or grout to be used.

Total casing length was 4' 8" including the portion above ground

LEGEND

- Cement Grout +
- Bentonite Seal
- Sand Pack +

Client:	NYSDEC	**Location:**	Kliegman Brothers, Inc.	**Project No.:**	35787
URS Corporation		**PIEZOMETER CONSTRUCTION DETAILS**		**Well Number:**	PZ-3

ATTACHMENT 5

PURGE LOG

WELL PURGING LOG

URS Greine

PROJECT TITLE: Eleisman Brothers Site WELL NO.: MW-1

PROJECT NO.: 05000357.00

STAFF: Joel Siegel

DATE(S): 6/23/00

			WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	19.44	1"	0.04
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	11.22	2"	0.17
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	8.22	3"	0.38
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.66	(4")	0.66
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	5.42	5"	1.04
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x _____)	=		6"	1.50
7. VOLUME OF WATER ACTUALLY REMOVED (GAL.)	=	15 gallons	8"	2.60

OR

$V = 0.0408 \times (\text{CASING DIAMETER})^2$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	5	10	15								
pH	9.7	7.9	7.8								
SPEC. COND. mV/cm (µmhos)	.290	.300	.324								
TURBIDITY	cloudy	cloudy	cloudy								
TEMPERATURE (°C)	17	15	15								

COMMENTS: well dry after 5 gallons - slow recharge
dry again after 5
dry again after 5 - Purge 3 well volumes before
allowing to recover 80% before sampling
(Sheen was observed on first 5 gallons)

TOC to surface is 0.8'

URSF-113/1 OF 1/WPUGCM

END

OF

DOCUMENT