530 West 19 Development LLC

SOIL-GAS SAMPLING REPORT

at

530 West 19th Street

New York, NY 10011

July 2001

Prepared By

ESPL *ENVIRONMENTAL CONSULTANTS CORP.*

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REPORT SPECIFICATIONS

This report contains (5) pages of text.

Copies and circulation of this report are as follows:

(2) ..... Bound copies to 530 West 19 Development LLC

(1) .....Copy in the confidential client file at ESPL

This report is prepared for the exclusive use of the principal noted above and is considered private and confidential. ESPL shall not release this report or any of the findings of this report to any person or agency except with the authorization of the named principal.

1.0 Introduction

ESPL Environmental Consultants was retained by 530 West 19 Development LLC to conduct a soil-gas survey at the property located at 530 West 19th Street, New York, NY (See Figure 1 Area Map).

The facility is currently used as a parking lot for commercial trucks (Metropolitan International Trucks, Inc.) and consists of an irregular lot of approximately 25,000 square feet improved with a one-story concrete building.

2.0 Field Observations

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During the investigation a partially exposed underground storage tank located near the south wall of the building was identified. The condition of the tank walls was unknown. Additionally, on the northeast corner of the building, surficial oil spill from storage of drums was observed. It was recommended by ESPL representative for the Metropolitan International Trucks to clean up the oil spill using absorbent pads to prevent it from enlarging. During the soil gas survey, discolored soil was observed and odors associated with petroleum products were detected (See Appendix B, Photo 4).

3.0 Soil Investigation

The purpose of the soil investigation was to identify all on-site areas that might have been impacted by past site activities and which may in turn be impacting the groundwater. The soil investigation included a soil-gas survey and the collection of soil samples from the boring holes.

4.0 Soil Geology & Hydrogeology

The subject site is located in a commercial/residential section of Manhattan. A

visual inspection of the soil in the location of the partially excavated underground storage tank and the mid section floor of the building was conducted to identify any gross sign of chemical contamination and to classify the soil. Soil gradation classification was made in accordance with the unified soil classification system.
In general, the natural soil of the subject building was found to consist of a brown, medium sand with trace amount of gravel. There were no overt indications of contamination noted in the exposed area, however, apparent indication of contamination associated with discoloration in several areas of the boreholes was observed.

Depth to water beneath the site typically ranges from 5 to 6 feet below grade surface. The localized groundwater flow direction is generally towards the west river.

5.0 Soil-Gas Survey

Soil-gas survey and analysis were conducted to establish the geographic location of sampling grid, identify target-sampling depths, and estimate the variability of the soil vapor survey was conducted in a grid pattern throughout the garage area. Soil gas can be analyzed in the field with a portable analyzer. The advantage of analyzing the soil-gas on-site is the rapid turnaround time technique provides. The immediate availability data permits the definition of the contaminated areas without waiting for laboratory results. This capability makes for a more flexible field program.

Protocols used in this soil-gas survey are as follows:

1. Sampling grid was 120 by 180 feet irregular area and was divided into 6 columns and eight rows, producing 45 regular grid pattern of twenty (20) by twenty (20) feet sampling cell across the floor as shown on Figure 2.

Each identified samples was analyzed by soil-gas methods were investigated to confirm that each grid exhibited chemical concentrations and soil texture characteristics that met criteria set for sampling plan.

2. At each sampling point, the soil probes were installed using a Geoprobe hydraulically powered soil-probing tool. Mechanized, vehicle mounted soil probing systems apply both static force and hydraulically powered percussion hammers for tool placement (static down forces up to 3,000 pounds combined with percussion hammers of eight horsepower continuous output). The borehole was advanced to approximately 6 feet below grade.
3. The soil-probing tool was then removed and a polyethylene tube was inserted in the borehole with dedicated Teflon tubing.
4. The Teflon tubing was then attached to a battery-operated Hnu for approximately 5 minutes to collect and read a representative sample. Hnu detector senses the presence of a component other than those inside the building.
5. The sampling rods were decontaminated between soil-gas survey sampling and new polyethylene tube was used at each borehole. The rods were scrubbed using brush and "Liquinox" laboratory detergent, and rinsed with distilled water.
6. At the start of each day and at various points throughout the day, the Hnu was calibrated with known concentration of VOCs.
7. Blank samples collected from inside new and/or sampling equipment prior to its use and analyzed to monitor the background or ambient air quality.
8. Results of the soil-gas survey were documented (Table 1), and used to adjust the sampling and analysis program to yield the most accurate and representative results. The sampling results and locations are presented on Figures 3 & 4.

Table 1
Vapor Results

Soil Boring #	Background(ppm)	High Readings (ppm)	Low Readings (ppm)	Depth (ft)
1	4.6	56.1	14.0	3
2	4.6	191.0	14.9	8
3	4.6	86.0	20.3	5.5
4	4.6	28.3	9.9	5.5
5	4.6	69.0	49.1	5.5
6	4.6	59.2	9.0	5.5
7	4.6	87.3	27.0	5.5
8	4.6	79.2	18.1	5.5
9	4.6	43.6	14.0	5.5
10	4.6	39.3	11.6	5.5
11	4.6	69.1	18.2	5.5
12	4.6	36.1	13.1	5.5
13	4.6	28.6	8.1	5.5
14	4.6	16.6	6.4	5
15	4.6	10.8	4.5	5
16	4.6	11.7	4.0	5
17	4.6	15.3	5.9	5
18	4.6	18.1	5.7	5
19	4.6	9.2	4.0	5
20	4.6	25.8	4.2	5
21	4.6	14.9	6.3	5
22	4.6	10.0	5.8	5
23	4.6	9.2	4.8	5
24	4.5	2.8	0.6	5.5
25	4.5	1.6	0.3	5.5
26	4.5	3.6	2.5	5.5
27	4.5	125.0	122.0	5.5
28	4.5	6.3	4.4	3.8
29	4.5	568.0	550.0	5.5
30	4.5	530.0	500.0	3
31	4.5	16.8	5.6	3
32	4.5	5.9	4.5	4
33	4.5	3.6	2.5	5.5
34	4.5	8.5	3.4	5.5
35	4.5	37.9	9.4	4.5
36	4.5	10.6	4.3	5.5
37	4.5	56.0	31.9	5.5
38	4.5	37.8	33.1	5.5
39	4.5	28.4	17.2	4
40	4.5	17.4	10.6	5.5
41	4.5	20.6	12.6	3
42	4.5	8.3	5.6	5
43	4.5	5.7	4.4	4
44	4.5	5.6	4.3	5
45	4.5	6.3	4.4	5.5

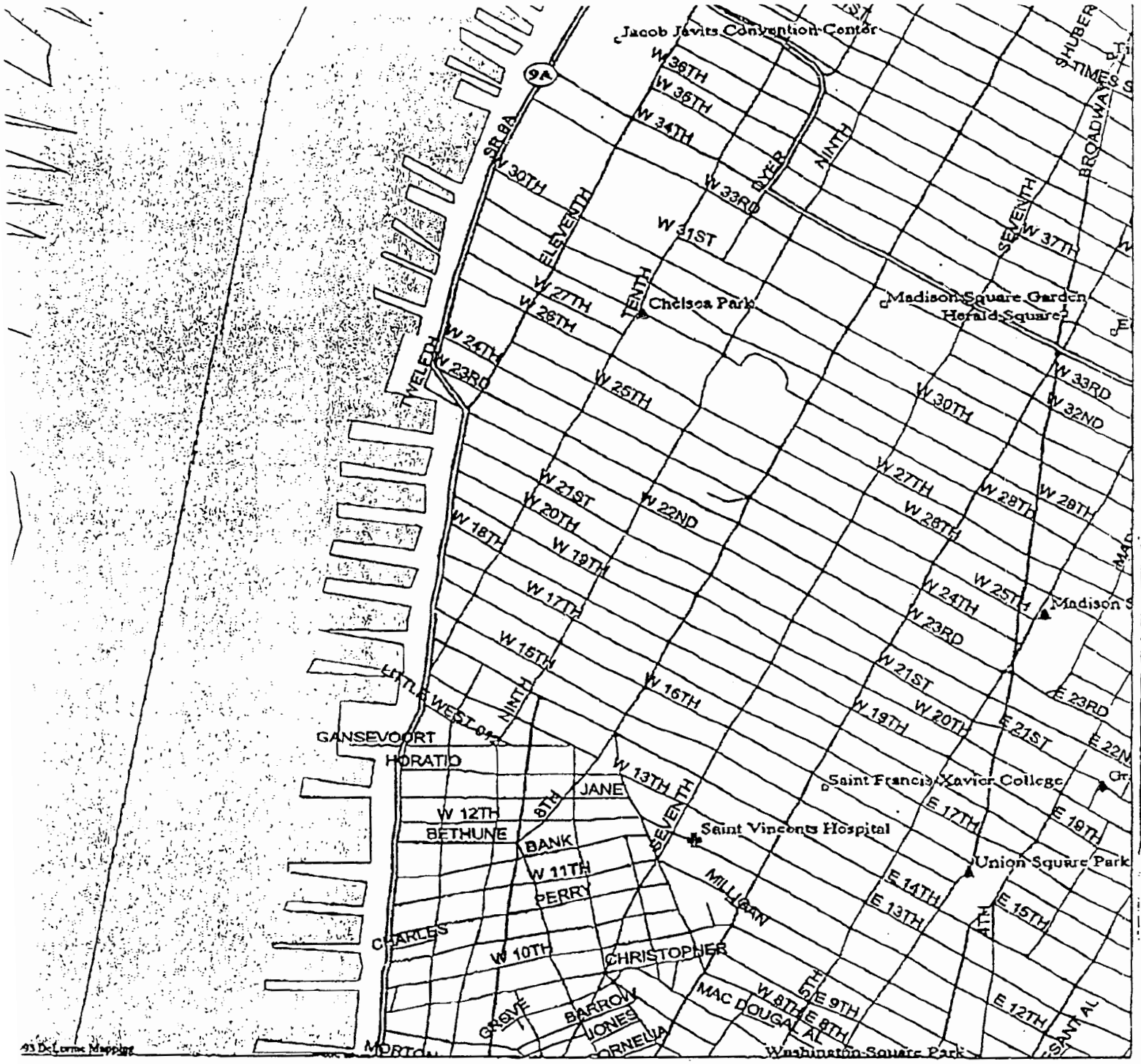
6.0 Conclusion & Recommendations

Samples collected had Hnu readings ranging from 1.6 to 568 parts per million (ppm). It should be noted that the Hnu detector was used to measure volatile organic vapors as they evolve from the soil samples. The readings are not exact determination of the true volatile organic content of the samples, but instead provide qualitative indications of the degree of volatile organic contamination. Soil and groundwater sampling plan shall be established to identify the contaminants and their horizontal and vertical extent.

7.0 Disclaimer

This subsurface investigation report was prepared for the use of 530 West 19th Street LLC. Reasonable due diligence was exercised by ESPL staff in conducting this investigation. The conclusion provided in this report is based solely on the information reported in this document. Future investigative site information, which was not available to ESPL at the time of this report, may result in modification of the conclusions stated above. This subsurface investigation and report have been conducted in accordance with generally accepted practices. No other warranty, expressed or implied, is made.

APPENDIX A



LEGEND

- State Route
- Geo Feature
- Hospital
- Park
- County Boundary
- Population Center
- Street, Road
- Major Street/Road
- State Route
- US Highway
- Railroad
- River
- Open Water

Scale 1:15,625 (at center)

1000 Feet

500 Meters

530 West 19th Street, New York, NY
Mag 15.00
Fri Jul 13 11:50:28 2001

Figure 1

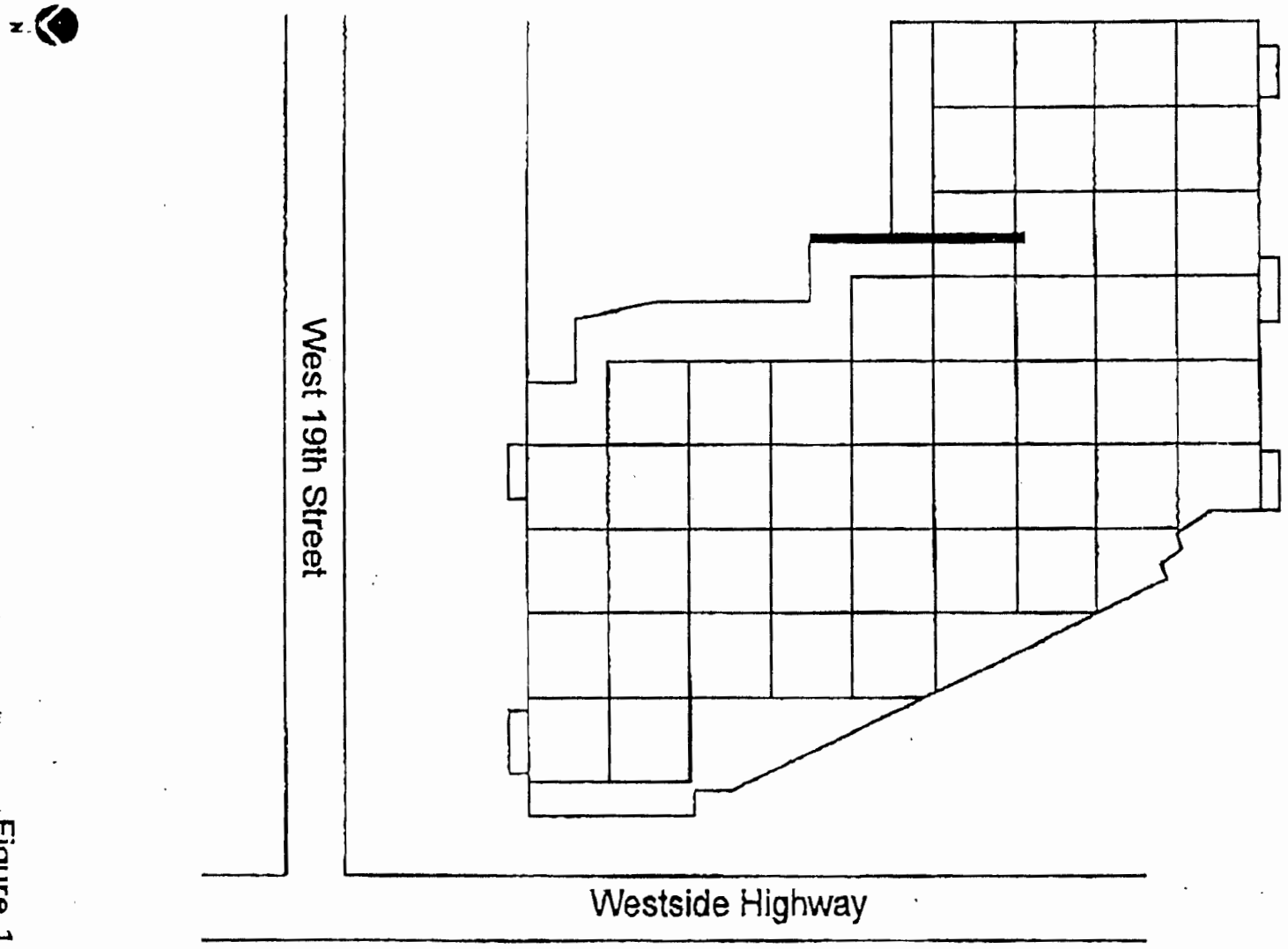


Figure 1

ESPL ENVIRONMENTAL CONSULTANTS CORP. 29 BROADWAY 15TH FLOOR, NEW YORK, NY 10006 Phone (212) 363-3778 Fax (212) 363-1296	FACILITY NAME: 530 WEST 19 LLC ADDRESS: 530 W 19TH ST., NEW YORK,NY DESCRIPTION: SITE PLAN	DWG # 1	DATE JUNE 2001	SCALE N.T.S.	JOB No ESA-2113	REMARKS:
		DWG BY: J.Q.			SHEET 1 of 3	

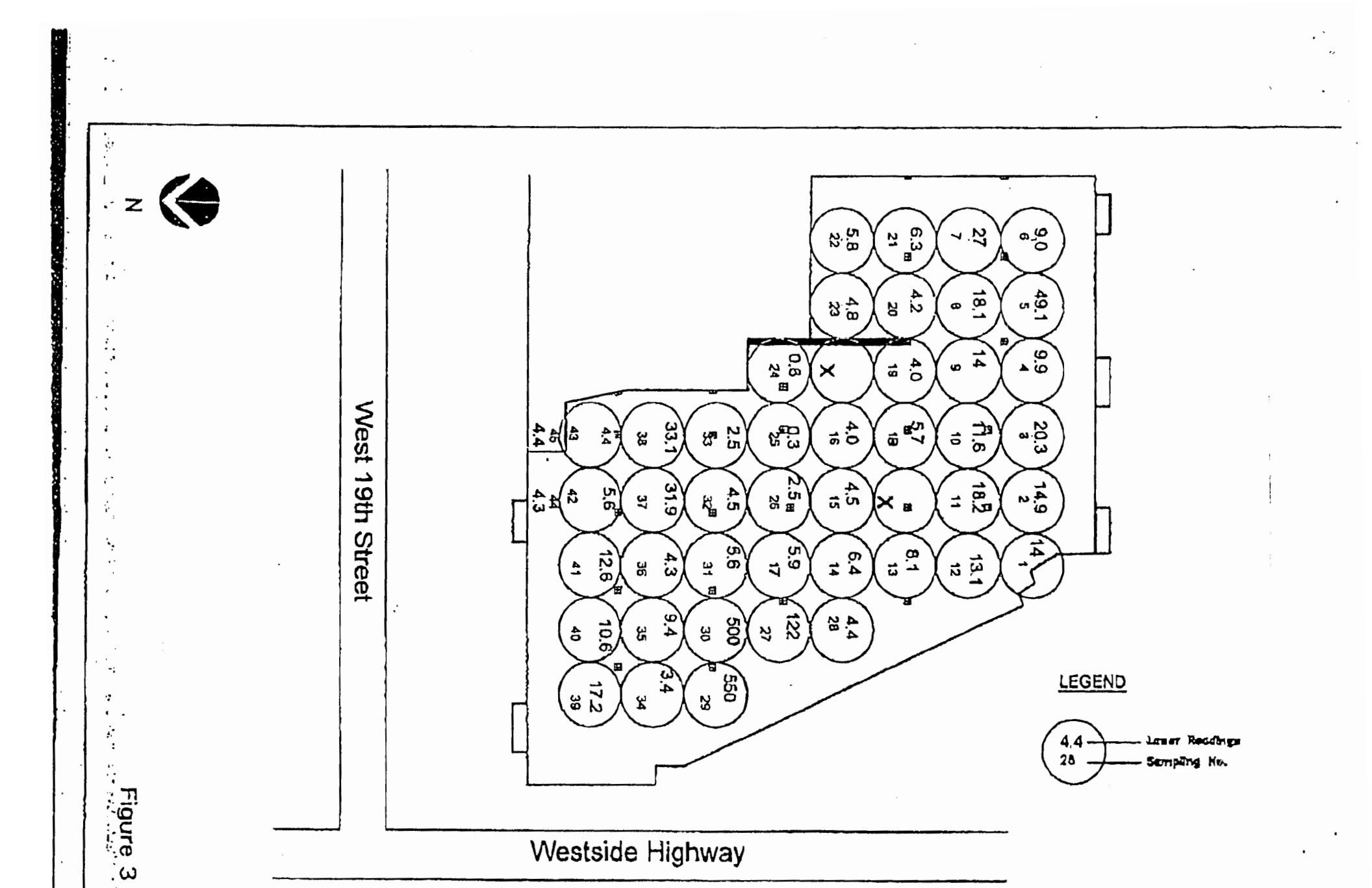
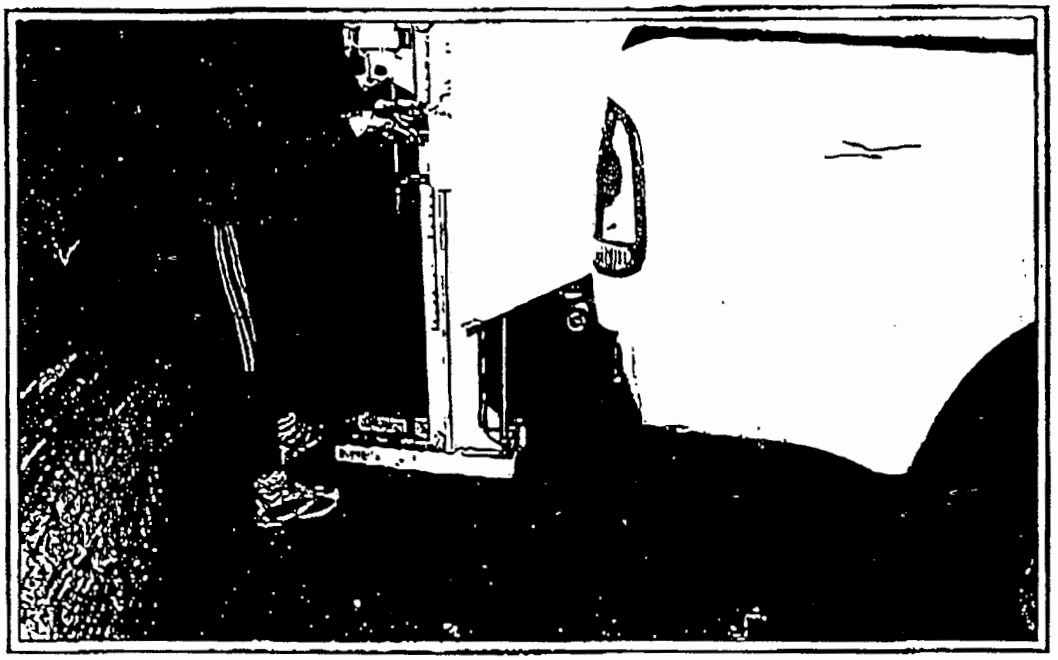


Figure 3

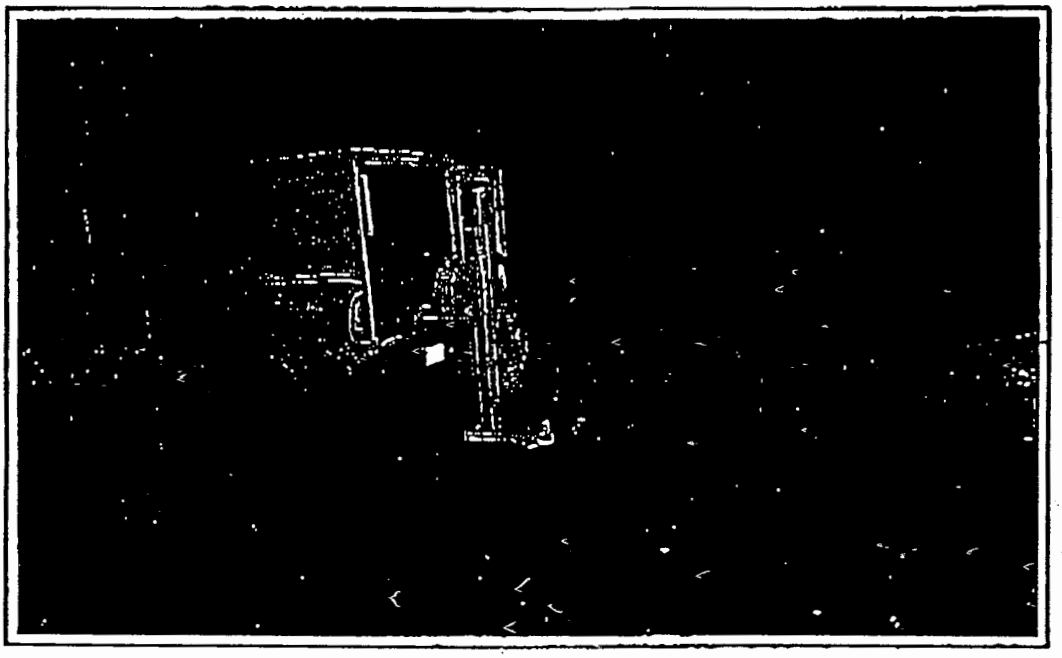
ESPL ENVIRONMENTAL CONSULTANTS CORP. 29 BROADWAY 15th Floor, NEW YORK, NY 10006 Phone (212) 363-3778 Fax (212) 363-1208	FACILITY NAME: 530 West 19 Development LLC ADDRESS: 530 West 19th Street, New York, NY DESCRIPTION: Soil Gas Survey Lower Results	DWG # 1 DWG BY: J.D.	DATE JUNE 2001	SCALE N.T.S.	JOB No. ESA-2113 SHEET 3 OF 5	REMARKS: All readings are parts per million (ppm)

LEGEND
Higher Readings
Sampling No.
4.4
28
59.2
6
69
5
28.3
4
86
3
191
2
56.1
1
87.3
7
79.2
8
43.6
9
39.3
10
69.1
11
36.1
12
14.9
21
25.6
20
9.2
19
18.1
18
28.6
13
10
22
9.2
23
11.7
16
10.8
15
16.6
14
6.3
28
2.8
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1.6
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125
27
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42
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41
17.4
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28.4
39
45
6.3
44
5.6
Westside Highway
West 19th Street
N
FACILITY NAME: 530 West 19 Development LLC
ADDRESS: 530 West 19th Street, New York, NY
DESCRIPTION: Soil Gas Survey Higher Results
DWG #: 1
DWG BY:
DATE: JUNE 2001
J.O.
SCALE: N.T.S.
JOB No.: ESA-2113
SHEET 3 OF 3
REMARKS: All readings are parts per million (ppm)
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Phone (212) 363-3778 Fax (212) 363-1258

Figure 4

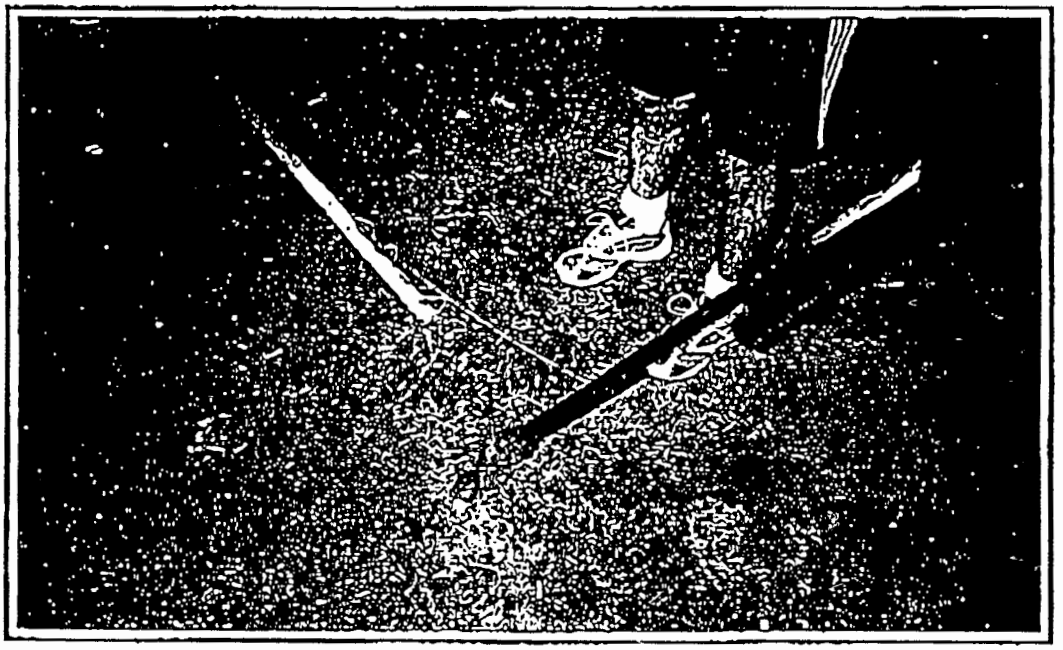


Photograph 1&2: View of the soil boring installation





Photograph 3: View of the boring preparation for poly tube installation



Photograph 4: View of the boring bottom material

LABORATORY ANALYTICAL RESULTS

Client: ESPL
Contact: Ray Kahn
Geoprobe: LIAL
Operator: Billy
Technician: Thomas
Site: 19th Street., Manhattan
Date: June 13-14 2001

Soil Vapor Results

Soil Boring	Background (PPM)	High Reading (PPM)	Low Reading (PPM)
#1	4.60	56.1	14.0
#2	4.60	191.0	14.90
#3	4.60	88.0	20.3
#4	4.60	28.3	9.90
#5	4.80	69.0	49.1
#6	4.60	59.2	9.00
#7	4.60	87.3	27.0
#8	4.60	79.2	18.1
#9	4.60	43.6	14.0
#10	4.60	39.3	11.6
#11	4.60	69.1	18.2
#12	4.60	36.1	13.1
#13	4.60	28.6	8.10
#14	4.60	16.6	6.40
#15	4.60	10.8	4.50
#16	4.60	11.7	4.00
#17	4.60	15.3	5.90
#18	4.80	18.1	5.70
#19	4.60	9.20	4.00
#20	4.60	25.8	4.20
#21	4.60	14.9	6.30
#22	4.60	10.0	5.80
#23	4.60	9.20	4.80
#24	4.50	2.80	0.60
#25	4.50	1.60	0.30
#26	4.50	3.60	2.50
#27	4.50	125.0	122.0
#28	4.50	6.3	4.40
#29	4.50	568.0	550.0
#30	4.50	530.0	500.0
#31	4.50	18.8	5.60
#32	4.50	5.90	4.50
#33	4.50	3.60	2.50
#34	4.50	8.50	3.40
#35	4.50	37.9	9.40

LONG ISLAND ANALYTICAL LABORATORIES INC.
101-4 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Soil Vapor Results

Soil Boring	Background (PPM)	High Reading (PPM)	Low Reading (PPM)
#36	4.50	10.6	4.30
#37	4.50	56.0	31.9
#38	4.50	37.8	33.1
#39	4.50	28.4	17.2
#40	4.50	17.4	10.6
#41	4.50	20.6	12.6
#42	4.50	8.30	5.60
#43	4.50	5.70	4.40
#44	4.50	5.60	4.30
#45	4.50	6.30	4.40

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