FILE COPY

REMEDIAL INVESTIGATION RESULTS
124 -136 SECOND AVENUE
BROOKLYN, NEW YORK
SITE #V00405-2

Prepared For:

Forest City Ratner Companies

One Metrotech Center

Brooklyn, New York

Prepared By:

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Arnold F. Fleming, P.E. #[illegible]411

July 10, 2001

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INTRODUCTION

A manufactured gas plant occupied the southern portion of the site from before 1880 until the 1930's. Investigations conducted on the subject site by AKRF and others have indicated the presence of coal tar in the underground remains of former gasholder structures and in soil and groundwater at the site.

In February 2001, AKRF began an investigation of soil and groundwater conditions on the site in order to develop a remedial design. The aims of this remedial investigation were three-fold:

- Delineate zones of coal tar contamination, or "hotspots," in shallow soil above the peat/clay meadow mat layer, which underlies the surface fill on the site.
- Describe groundwater conditions at the site, including water quality, groundwater surface gradient, and flow direction.
- Assess levels of volatile and semivolatile organic compounds in near-surface soil gas on the site.

1. BACKGROUND

1.1 Location

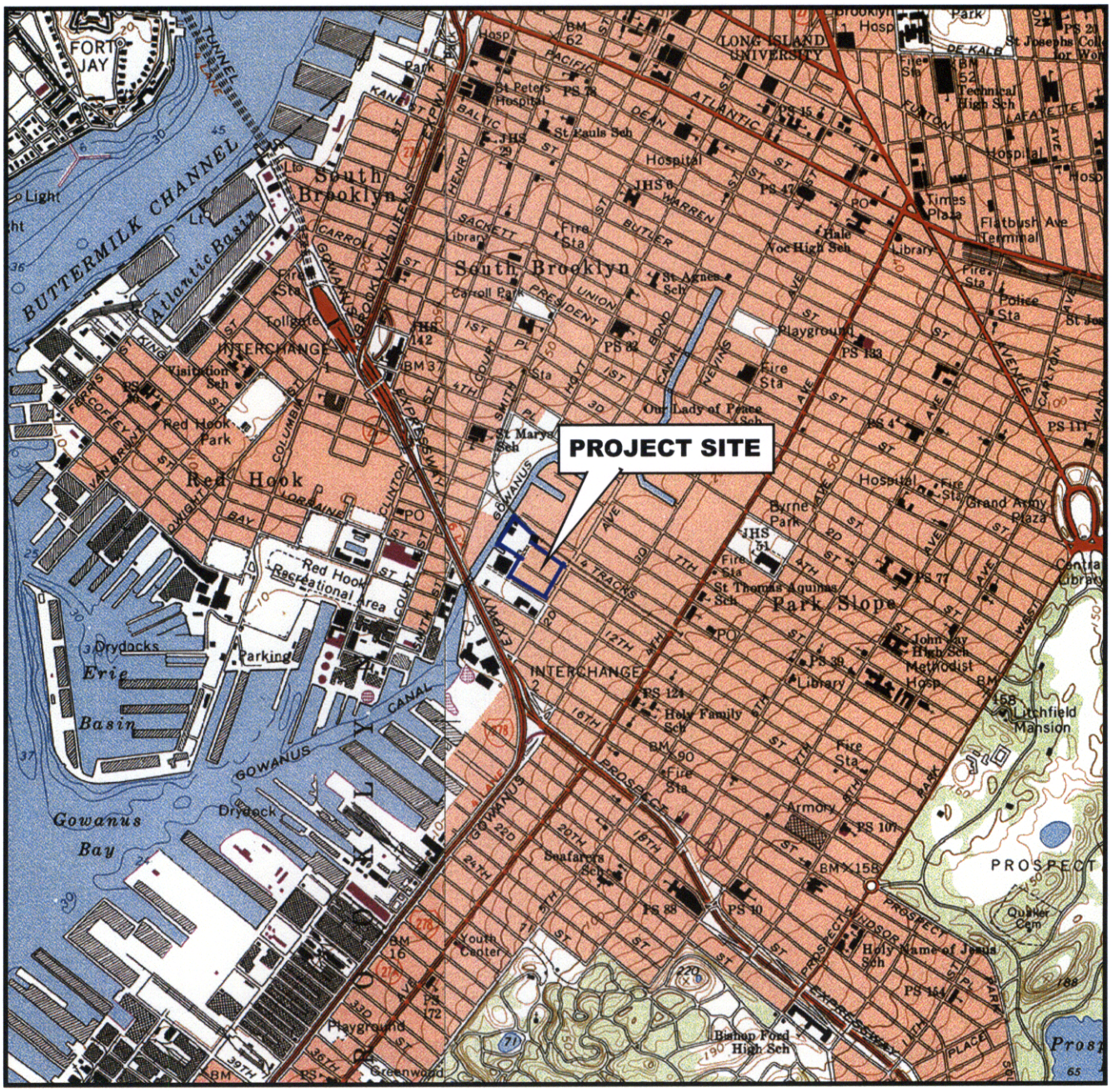
The site covers 9.4± acres and is located on the west side of Second Avenue between 10th Street and 12th Street in Brooklyn, New York (see Figure 1).

The southern portion of the site, between 11th and 12th Streets, is vacant and unpaved. (Previous remedial actions were conducted in this portion of the site and are discussed in Section 1.4.) The concrete frame of a partially demolished building, formerly occupied by the US Postal Service, occupies the northeast portion of the site between 10th and 11th Streets. The northwest portion of the site, between the former postal building and the Gowanus Canal, is vacant and paved with concrete in places. Piles of soil and debris are scattered over this portion of the site. The site is bordered by the Gowanus Canal to the west.

The area surrounding the site is primarily industrial/commercial and includes the Hamilton Plaza retail development, which directly borders the site to the northwest. The Plaza includes a restaurant, a supermarket, and other stores and offices.

1.2 Site History

This section briefly summarizes the historic uses of the subject site. For more detailed historic information, please refer to the Phase I Environmental Site Assessment completed by Nelson, Pope, & Voorhis in 1997.



SCALE IN FEET

0' 1000' 2000' 4000'

SCALE: 1"=2000'

QUADRANGLE LOCATION

SOURCE:

USGS TOPOGRAPHIC MAP - BROOKLYN, N.Y.
QUADRANGLE - DATED 1967, PHOTOREVISED 1979.

N

124-136 SECOND AVENUE

Brooklyn, New York

PROJECT SITE LOCATION

AKRF Engineering, P.C.

Environmental & Engineering Consultants

117 East 29th Street New York, N.Y. 10016

DATE 07.10.01

PROJECT No. 80030

FIGURE No. 1

Beginning sometime prior to 1880 and up until the 1930's, the southeast portion of the site—as well as adjacent properties to the south and west—were occupied by a manufactured gas plant (see Figure 2). The plant was originally operated by the Metropolitan Gas Light Company and later (ca. 1900) became the Metropolitan Works Branch of the Brooklyn Union Gas Company.

Sanborn insurance maps from 1880 and 1886 indicated a single gasholder on the subject site, as well as a coal shed and retorts in the area west of the site currently occupied by Hamilton Plaza. Sanborn maps from 1904 and 1915 indicated that two additional gasholders were constructed on the site, as well as a hydrogen tank, and three large oil tanks. Later Sanborn maps also noted that most of the gas plant structures—including the gasholders—had been removed by 1939. Other past uses on the site included an asphalt plant that occupied the northwest portion of the site, and a paint factory that was once located at the northeast corner of the site.

In the early 1950's, the US Postal Service took over the site and constructed two large buildings along Second Avenue: a vehicle maintenance facility on the southeast portion of the site, and a parcel post facility—known as the detached mail unit—on the northeast portion of the site. The northwest portion of the site was used for storage and parking. In 1992, the Postal Service vacated the site. The vehicle maintenance facility was demolished in 1999 and the detached mail unit building was partially demolished.

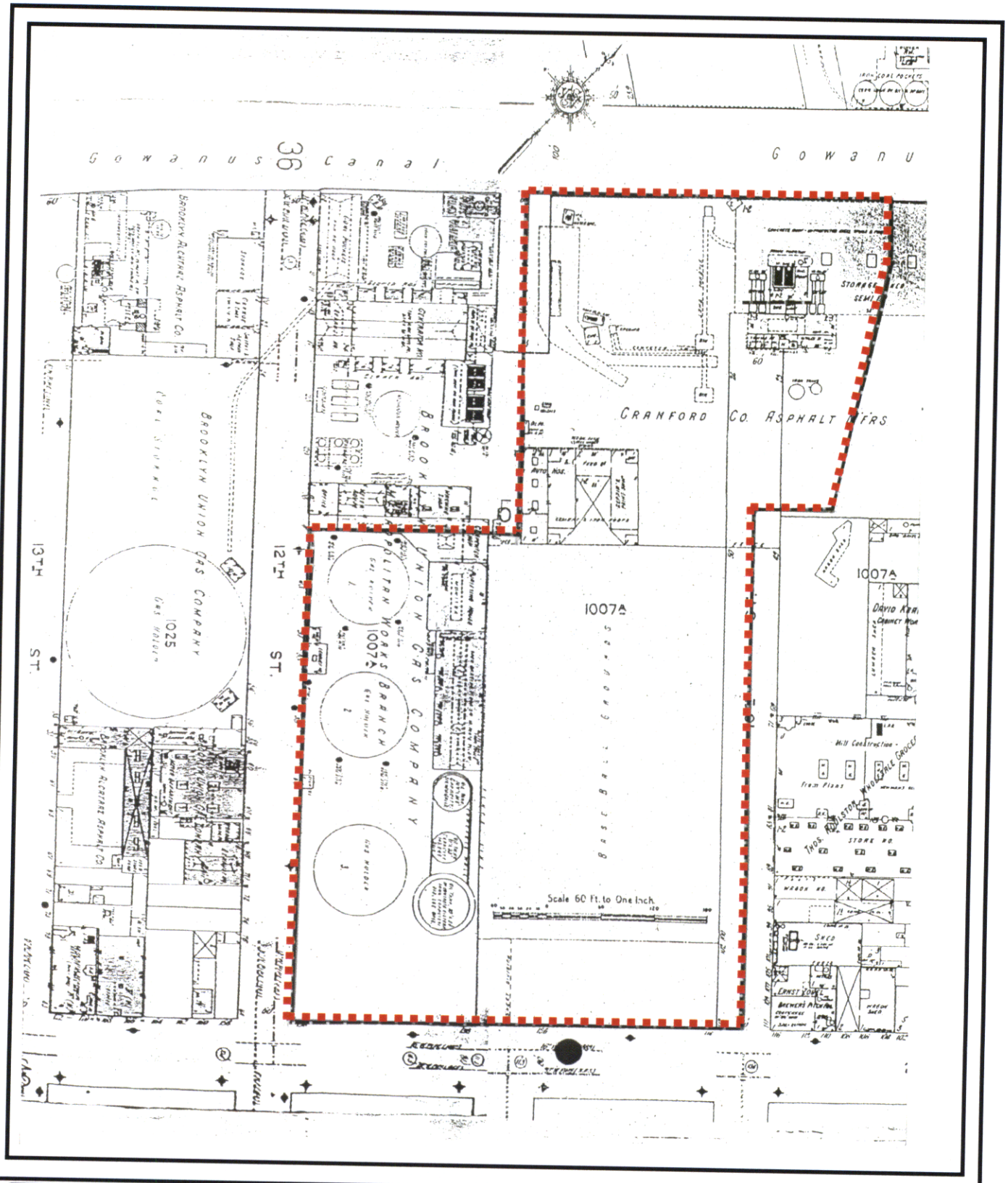
1.3 Subsurface Structures

Sanborn maps from 1915 indicated that three gasholder structures were located in on the southern portion of the site. The gasholder structures that remain on the site (Figure 3) can be briefly described as large cylindrical tubs extending 20 feet below grade to a brick or concrete base.

The following table summarizes the location and diameter of the gasholder structures.

Gasholder	Location	Diameter (ft.)
#1	Closest to Hamilton Plaza, near the western boundary of the site.	90
#2	Between Gasholder 1 and Gasholder 3.	100
#3	Closest to Second Avenue, near the eastern boundary of the site.	105

Borings and test pits performed for this study—as well as excavations performed for the prior remediation efforts noted in Section 1.4—indicated that the sidewalls of all three gasholders are intact and that the upper edges of their sidewalls are approximately four feet below current grade.



124-136 SECOND AVENUE

Brooklyn, New York

1915 SANBORN MAP

AKRF Engineering, P.C.

Environmental & Engineering Consultants
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DATE
07.10.01

PROJECT No.
80030

FIGURE No.
2

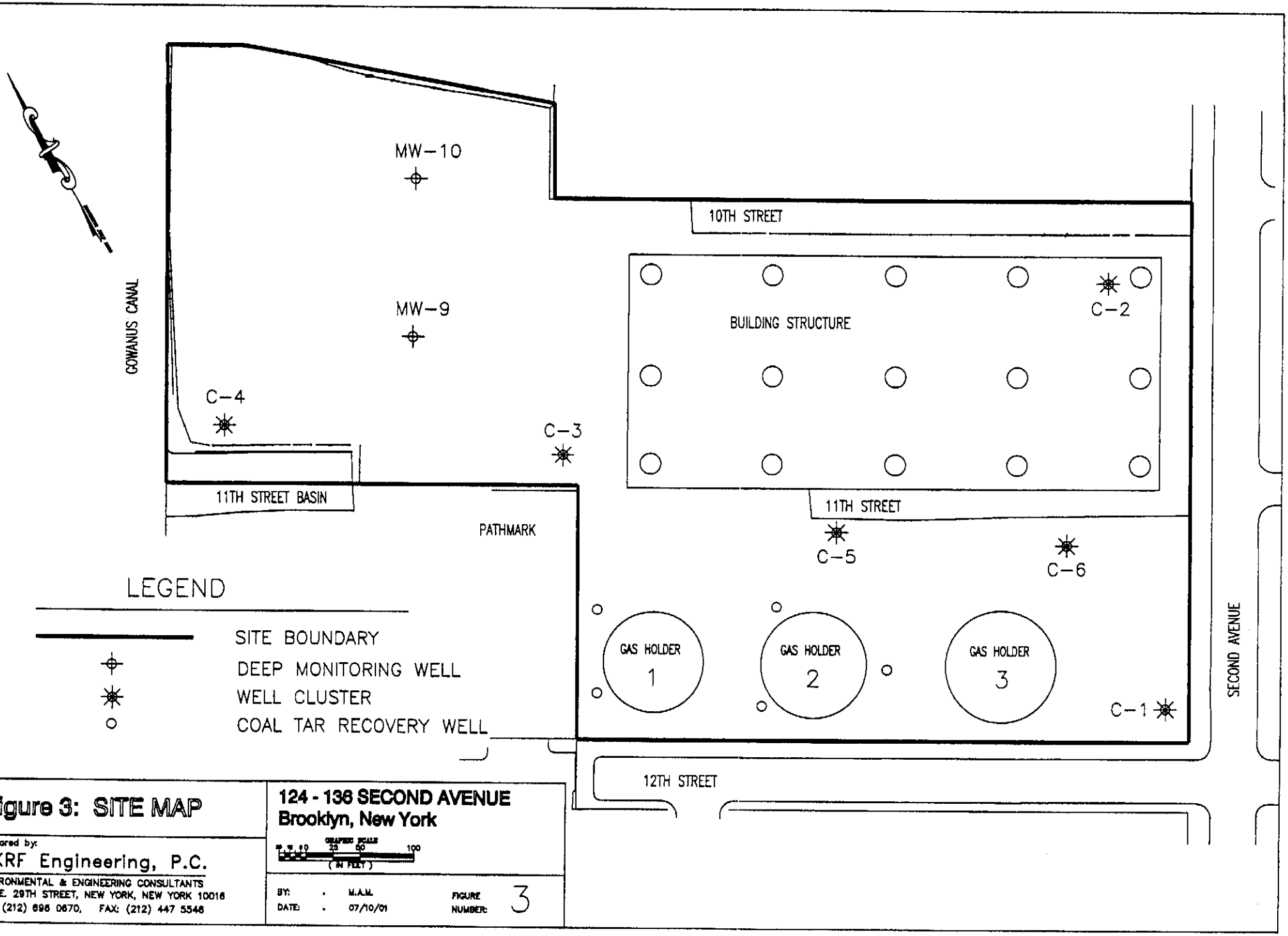

Figure 3: SITE MAP

124 - 136 SECOND AVENUE
Brooklyn, New York

GRAPHIC SCALE
0 10 25 50 100
(IN FEET)

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BY: M.A.M.
DATE: 07/10/01

FIGURE NUMBER: 3

The tops of Gasholder 1 and Gasholder 2 appear to be open. In Gasholder 3, the telescoping steel containment vessel—including portions of the domed steel roof—remains intact. Near the edges of the containment vessel, the vessel's roof also appears to be intact; near the center, however, the roof appears to be open, with only supporting beams spanning the void.

Two concrete blocks are located near the surface within Gasholder 2. These features appear to be the remains of footings for the former vehicle maintenance facility.

The subsurface remains of other structures may also be present on the north side of the gasholders, near 11th Street. Early Sanborn maps show a number of aboveground tanks, a purifier house, and other structures in this area. Drilling in the area north of Gasholder 3 indicated a buried layer of pea gravel several feet thick overlying a concrete slab at about 11 feet below grade. In the area north of Gasholder 2, wood was encountered between 12 and 25 feet below grade. This wood is most likely associated with piles that supported aboveground tanks noted on the Sanborn maps, or with other structures once located here.

Drilling on the site also noted wooden pile-like structures in borings near the gasholders and suspected heavy foundation structures in the northwest portion of the site, near the Gowanus Canal.

1.4 Prior Investigations and Remediation

In 1997, Phase I and Phase II Environmental Site Assessment reports were prepared by Nelson, Pope & Voorhis to identify and investigate a number of environmental concerns on the site, including: the presence of underground petroleum storage tanks, documented fuel spills, as well as the manufactured gas facility that formerly occupied the site.

A remediation plan (dated September 30, 1997) and a Corrective Action Plan (dated December 1, 1997) were prepared and approved by NYSDEC. A Stipulation Agreement was entered into with NYSDEC on December 19, 1997. In accordance with the terms of the Agreement, all remaining petroleum storage tanks were removed from the site. The vehicle maintenance facility was demolished and all contaminated soil under the building site was excavated down to the groundwater level—approximately four feet below grade—and removed off-site for proper disposal. Post-excavation testing reported in a Closure Report (Nelson, Pope & Voorhis, June 7, 1999) found elevated levels of volatile and semivolatile organic compounds remaining at the groundwater interface. The excavation on the former site of the vehicle maintenance facility was backfilled with demolition debris and clean fill.

Testing on the area currently occupied by the detached mail unit building, in the northeast portion of the site, showed much lower levels of volatile and semivolatile organic compounds than were detected in the former vehicle maintenance facility area to the south. Samples from this area were not analyzed for additional parameters.

In January 2000, AKRF conducted additional soil and groundwater sampling on the site. Soil samples from Gasholder 1 and 2 were heavily contaminated with coal tar and

exceeded the TCLP standard for benzene of 500 ppb. High levels of volatile and semivolatile organic compounds were also detected in samples from these two gasholders. Borings in Gasholder 3 were blocked by the gasholder's partially intact roof.

Coal tar was also observed below the meadow mat layer at locations north and west of the gasholders. Soil samples north of the gasholders exceeded the TCLP benzene standard and samples from a single location west of the gasholders had high levels of volatile and semivolatile organic compounds. A single sample collected from below the meadow mat layer north of the gasholders showed no evidence of coal tar contamination. In the northwest portion of the site, near the Gowanus Canal, a single location had elevated levels of benzene and ethylbenzene below the meadow mat layer.

Groundwater samples were collected from several monitoring wells installed at the site. Although these wells were constructed with screens that extended through the meadow mat layer, samples collected from these wells were primarily representative of conditions above the meadow mat. Elevated benzene levels were detected in groundwater in two areas: south of Gasholder 1 and east of Gasholder 3. Soil sampling indicated that coal tar was present in shallow soils in the area south of Gasholder 1.

2. SITE CHARACTERIZATION

2.1 Topography

The eastern part of the site is flat and lies at an elevation of about 10 feet above the Brooklyn Borough Datum (BBD). The BBD is approximately equal to mean high water in the area. To the west, the ground surface slopes downward to an elevation of 3 to 4 feet at the bulkhead bordering the Gowanus Canal.

2.2 Geology

The surface soil on the site is miscellaneous fill material that overlies a meadow mat layer of peat, clay, and silt, approximately 16 to 18 feet below the ground surface. The meadow mat is approximately 2 feet thick in the eastern part of the site, with the thickness increasing to approximately 10 feet near the Gowanus Canal. The meadow mat layer appears to be continuous across the site as well as with the layer that forms the bottom of the Canal. Sand silt and clay layers were noted below the meadow mat; however, none of these low-permeability layers appear to be continuous across the site. Bedrock is at approximately 180 feet below grade.

2.3 Hydrology

The meadow mat layer serves as a barrier between the upper aquifer (above the meadow mat) and the lower aquifer (below the meadow mat). In order to determine groundwater gradient and flow direction in the upper and lower aquifers, water surface elevations were calculated at each well location, based on an arbitrary surface datum.

Water surface elevations measured on March 2, 2001 indicated that there was a strong downward gradient between the upper and lower aquifers. Except for the location closest to the Gowanus Canal, water levels in wells screened in the upper aquifer were two to four feet higher than wells screened in the lower aquifer. In the upper aquifer, the flow was toward the northeast, and the groundwater surface sloped downward over six feet between the eastern boundary of the site at Second Avenue and the Gowanus Canal. In the lower aquifer, flow appeared to be in a more north-northeasterly direction. However, the groundwater surface gradient was very slight, with less than one foot of difference between the elevation near Second Avenue and the elevation near the Gowanus.

In order to establish whether groundwater levels at the site were influenced by tidal fluctuations in the nearby Gowanus Canal, tidal influence measurements were taken at two cluster well locations: C-4 (near the Gowanus Canal) and C-3 (approximately 350 feet east of the Canal). Hourly water surface depths in the upper and lower aquifers were recorded at each location during a 24-hour tidal cycle. Results were compared with known tidal records for New York Harbor at Battery Park, the nearest tidal recording station.

In the lower aquifer, water level fluctuations at both locations appeared to correlate well with tides in New York Harbor—with water levels fluctuating 0.5 feet at each location during a complete tidal cycle. In the upper aquifer, water levels at C-4 appeared to be tidally influenced, fluctuating nearly one foot during a complete cycle. At cluster location C-3, however, water levels in the upper aquifer showed no periodic fluctuations during the recording period.

Groundwater elevations, groundwater flow directions, and tidal fluctuation data for the shallow and deep aquifer are summarized in Appendix A.

3. RESULTS

3.1 Soil Hotspots

In order to identify zones of contaminated soil—or hotspots—above the meadow mat layer, soil sampling was performed at 35 locations arrayed in a 40-foot grid pattern in the area surrounding the gasholder structures (Figure 4). Boring logs for these 35 sampling locations are provided in Appendix B.

It should be noted that borings were not completed at several locations just south of 11th Street in the northeast corner of the grid. Borings in this area either met with shallow refusal at two to four feet below the surface, or met with refusal at 11 feet after being advanced through an anomalous gravel layer that occurs in this area.

Soil borings from 32 locations were analyzed for volatile and semivolatile organic compounds; these analytical results are summarized in Appendix C. Samples from 15 locations had high concentrations of volatile compounds, most notably benzene and naphthalene. Soil samples with high levels of volatile compounds were concentrated north of the gasholders, and in the area between Gasholder 2 and Gasholder 3. Benzene levels in soil at these locations ranged from 7 to 26,000 ppb. Naphthalene levels in this area ranged from 17 to 810,000 ppb.

Borings from 19 locations showed high levels of semivolatile compounds. For each sample analyzed, the sum of semivolatile values—including that for naphthalene—was calculated in order to determine the amount of total target compound polynuclear aromatic hydrocarbons (PAH's). For the purposes of this investigation, soil hotspots were defined as areas containing more than 1000 parts per million of total target compound PAH's. Volatile and semivolatile analyses identified six sampling locations that exceeded this value:

Sample ID	Location	Total PAH (ppm)
GP32	NE of Gasholder 3.	90
GP15	NE of Gasholder 3.	100
GP22	NW of Gasholder 2.	105
GP23	N of Gasholder 2.	
GP2	N of Gasholder 1.	
GP54	Between Gasholder 1 and the Hamilton Plaza building	

Soil hotspots are also noted in Figure 5.

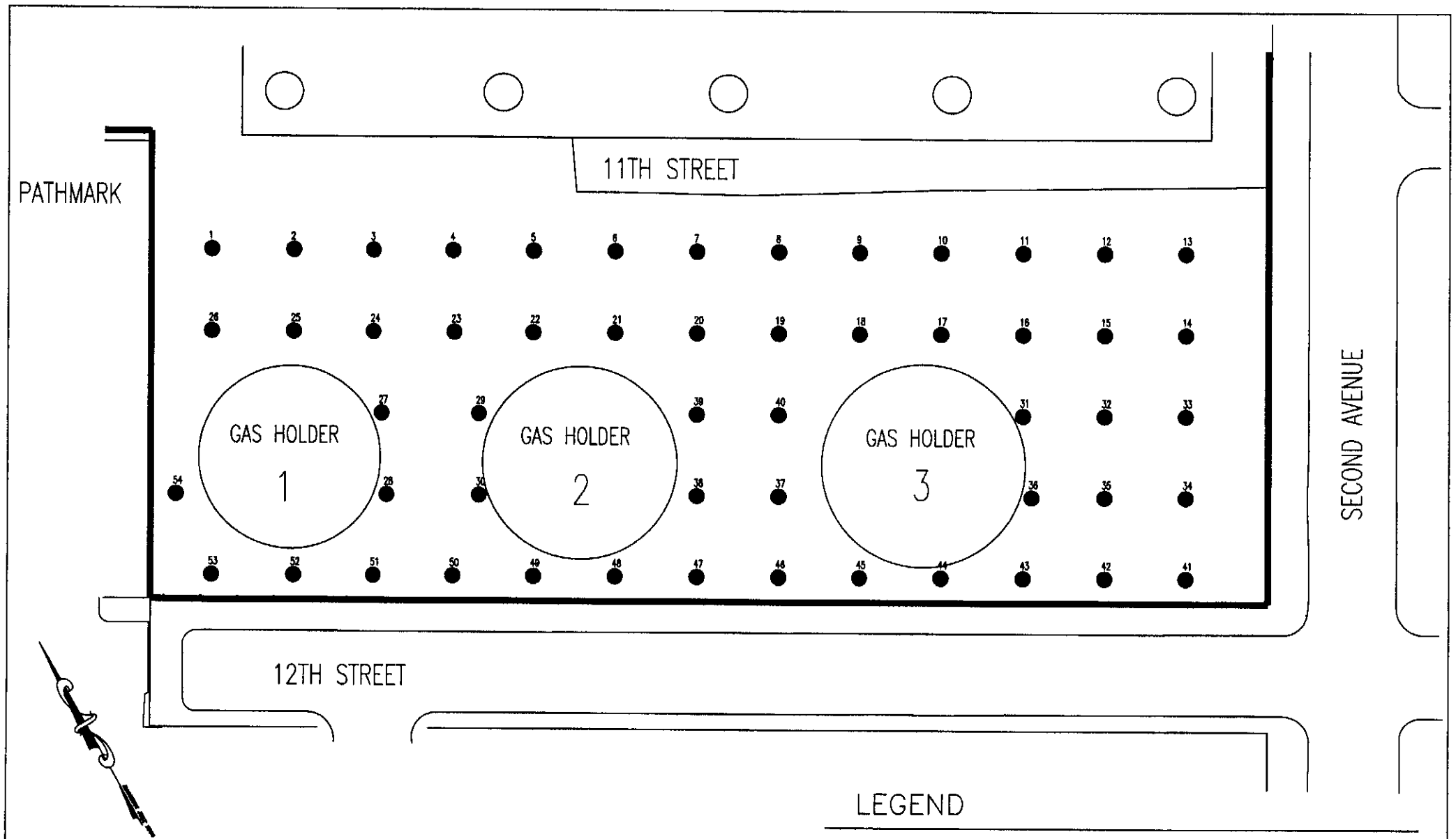

Figure 4: Geoprobe Locations

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124 - 136 SECOND AVENUE
Brooklyn, New York

GRAPHIC SCALE
25 15 5 0 25 50 100
(IN FEET)

DATE 07/10/01
PROJECT No. 80031-0002
FIGURE No. 4

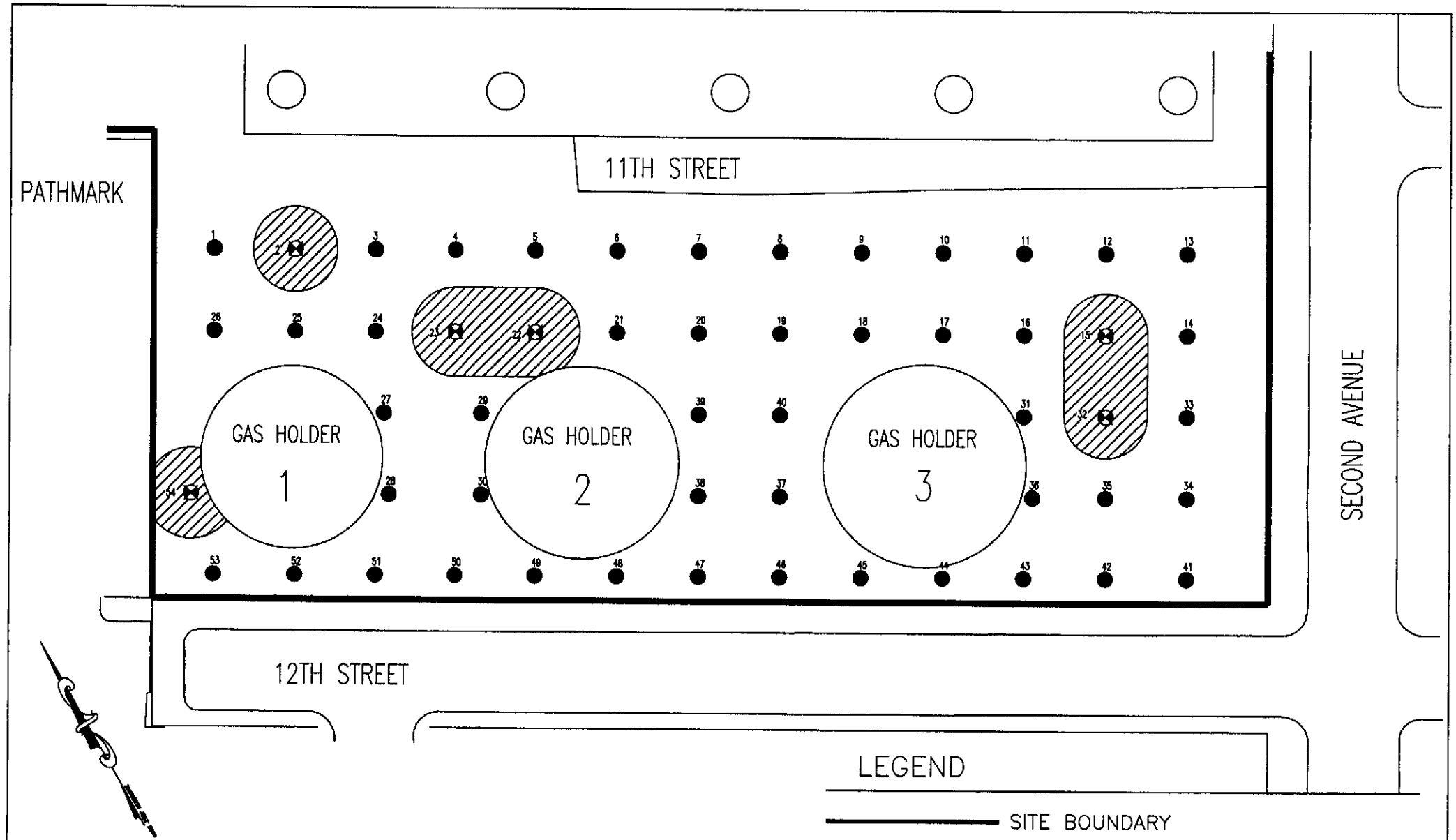

Figure 5: Soil Hotspots: <1,000 ppm PAH

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124 - 136 SECOND AVENUE
Brooklyn, New York

GRAPHIC SCALE
25 15 5 0 25 50 100
(IN FEET)

DATE 07/10/01

PROJECT No. 80031-0002

FIGURE No. 5

3.2 Impacts to Groundwater

Groundwater samples from the shallow and deep aquifers were analyzed for volatile and semivolatile compounds. Results are summarized in Appendix D.

In the deep aquifer, volatile and semivolatile compounds were detected in all eight samples. Benzene, ethylbenzene, and naphthalene concentrations in samples from the deep aquifer are shown in Figure 6. The highest levels of volatile and semivolatile organic compounds were detected at monitoring well C-5D, which is directly north and upgradient of the gasholder area. Contaminant concentrations in wells further to the north and west were lower by a factor of 50 to 500.

In the shallow aquifer, volatile and semivolatile compounds were detected in only three of the six samples collected, and at much lower levels than in the deeper aquifer. Benzene levels ranged from 80 ppb at C-5S to non-detect in the wells further to the north and east. Benzene, ethylbenzene, and naphthalene concentrations in samples from the shallow aquifer are shown in Figure 7.

Methyl tertiary butyl ether (MTBE), a gasoline additive, was detected in samples from monitoring wells C-1S, C-5S, and C-6D. This potentially indicates an impact from off-site petroleum releases.

3.3 Soil Gas Survey

In order to characterize soil gas conditions in the vadose zone, ten temporary soil gas sampling points were installed at the site in February 2001 (Figure 6). At the time the points were installed, accumulated snow and saturated soils prevented the collection of soil gas samples. Once weather conditions had improved so the surface soils were no longer saturated (three months later) the ten sampling points were screened for organic vapors using a photoionization detector (PID). At four locations, detectable levels of organic vapors were detected and soil gas samples were collected for further laboratory analysis. An additional sample was collected from location SG-4 even though the field screening detected no volatile organic compounds at this location. SG-4 is near an adjacent occupied building and is also close to one of the "hot spots" of shallow soil contamination outside the gasholders. Soil gas laboratory results are summarized in Appendix E.

Sample location SG-3, just south of Gasholder 2, had by far the highest levels of volatile organic compounds, including 6,700 parts per billion (ppb) of benzene, 3,000 ppb of toluene, 540 ppb of ethylbenzene, and 700 parts per billion of total xylenes. Concentrations of volatile organic compounds at the other sampling locations were much lower, with benzene concentrations ranging from 4.4 to 95 ppb. At all five sampling locations, semi-volatile compounds were either not detected or were present in trace amounts. Because groundwater on the site is only about four feet below the ground surface, it was necessary to collect the soil gas samples at a very shallow depth. The concentrations detected are therefore indicative of both the local contaminant levels and the degree of soil venting. The relatively high levels of contaminants detected at location SG-8, beneath the slab of the former parcel post building, reflects the trapping of vapors under the slab.

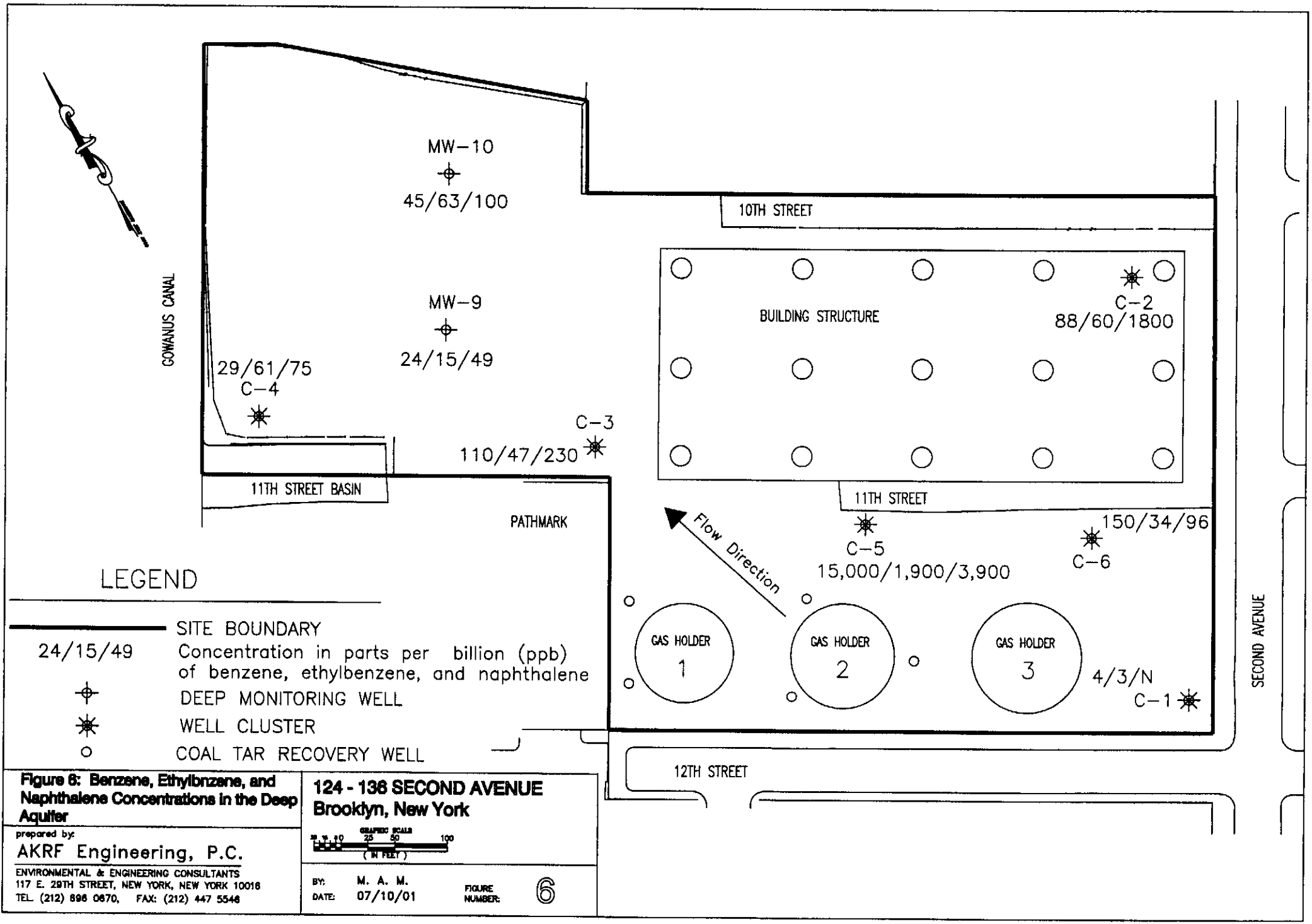

Figure 6: Benzene, Ethylbnzene, and Naphthalene Concentrations in the Deep Aquifer

124 - 136 SECOND AVENUE
Brooklyn, New York

GRAPHIC SCALE
0 25 50 100
(IN FEET)

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BY: M. A. M.
DATE: 07/10/01
FIGURE NUMBER: 6

4. CONCLUSIONS

Intensive soil sampling identified four **soil hotspots** in the areas north and east of the gasholders (see Figure 5), including areas:

- 40 feet east of Gasholder 3;
- Immediately north of Gasholder 2;
- Immediately to the west of Gasholder 1, and;
- 60 feet to the northeast of Gasholder 1.

In the **shallow aquifer**, volatile and semivolatile organic compounds were only detected at three locations in the immediate vicinity of the gasholders. A sample, collected from well C-5S, which is just north of Gasholder 2, contained 80 ppb benzene and 700 ppb of naphthalene. Benzene was detected in two other wells in the gasholder area at 4 and 13 ppb, respectively. Benzene was not detected in shallow groundwater samples from any of the downgradient wells on the western portion of the site, close to the Gowanus Canal.

In the **deep aquifer**, high levels of volatile and semivolatile organic compounds were detected in the monitoring well immediately to the north of the gasholders (C-5D). Much lower levels of volatile (benzene concentrations from 24 to 45 ppb) were detected in the wells on the western part of the site.

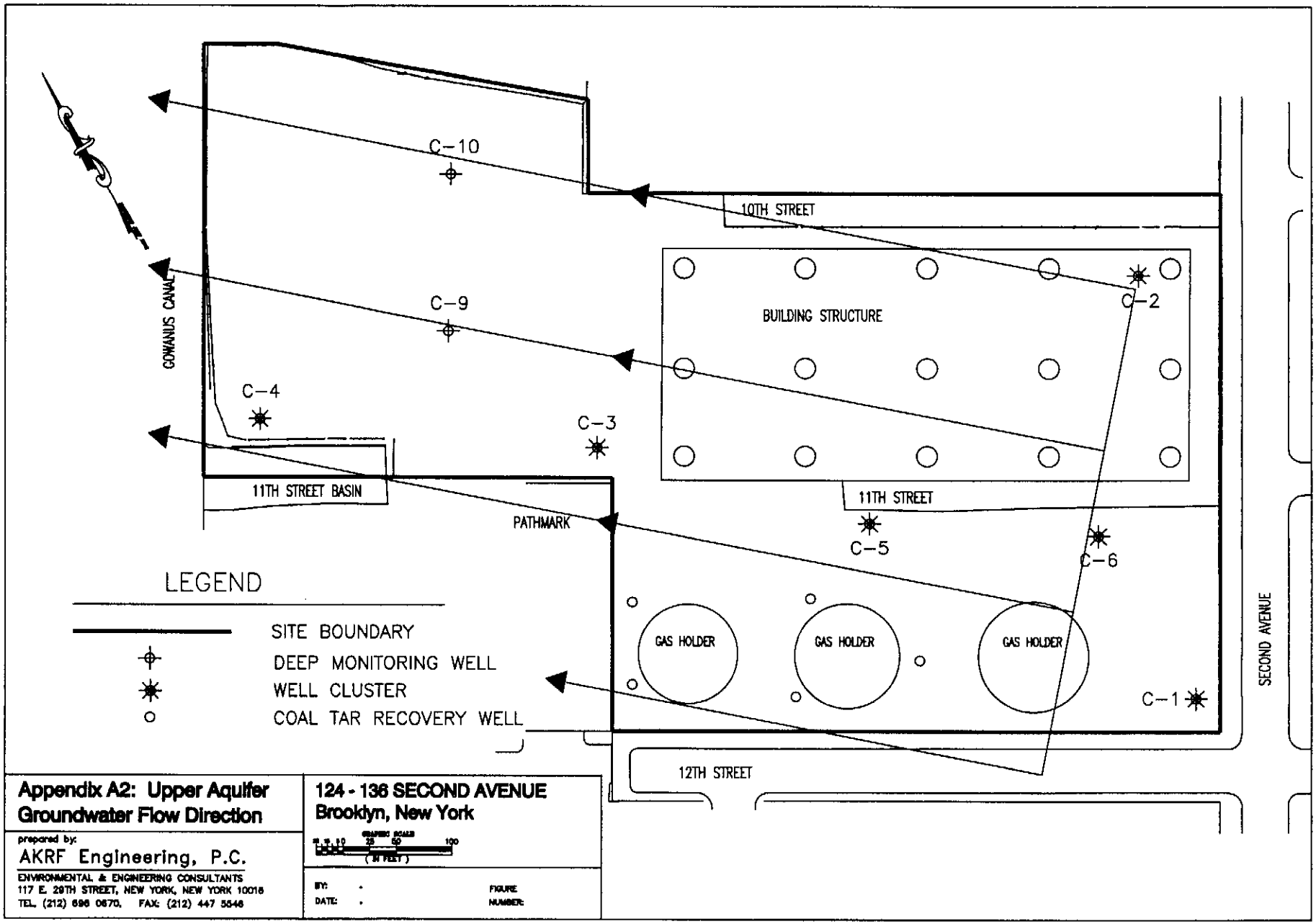
Water surface elevations in the deep aquifer indicated a very slight gradient flow to the north/northeast. Since the meadow mat layer that separates the upper and lower aquifers is also continuous with the bottom of the Gowanus Canal, any contaminants present in the lower aquifer would not be expected to have an impact on water quality in the Canal or in the adjacent Gowanus Bay. Hourly groundwater levels measured over a 24-hour period indicated that groundwater in the both the upper and lower aquifers is influenced by tides in the nearby Canal.

A **soil gas survey** detected high levels of volatile organic compounds above the upper aquifer at one location just south of Gasholder 2. Much lower levels were detected in the other samples, including two samples collected near the adjacent building just west of the gasholder.

Appendix A Groundwater Flow and Tidal Information

	Location	Well Elev.	GW Depth	WS Elevation
Shallow Aquifer	CS1s	10.34	4.25	6.09
	CS2s	9.53	4.10	5.43
	CS5s	10.09	4.23	5.86
	CS3s	9.13	4.15	4.98
	CS4s	3.84	4.50	-0.66
Deep Aquifer	CS1d	10.25	8.95	1.30
	CS2d	9.72	8.70	1.01
	CS5d	10.42	10.10	0.32
	CS3d	9.13	4.15	0.26
	CS4d	3.92	3.75	0.17

Appendix A1: Groundwater Surface Elevations



Appendix A2: Upper Aquifer Groundwater Flow Direction

124 - 136 SECOND AVENUE
Brooklyn, New York

prepared by:
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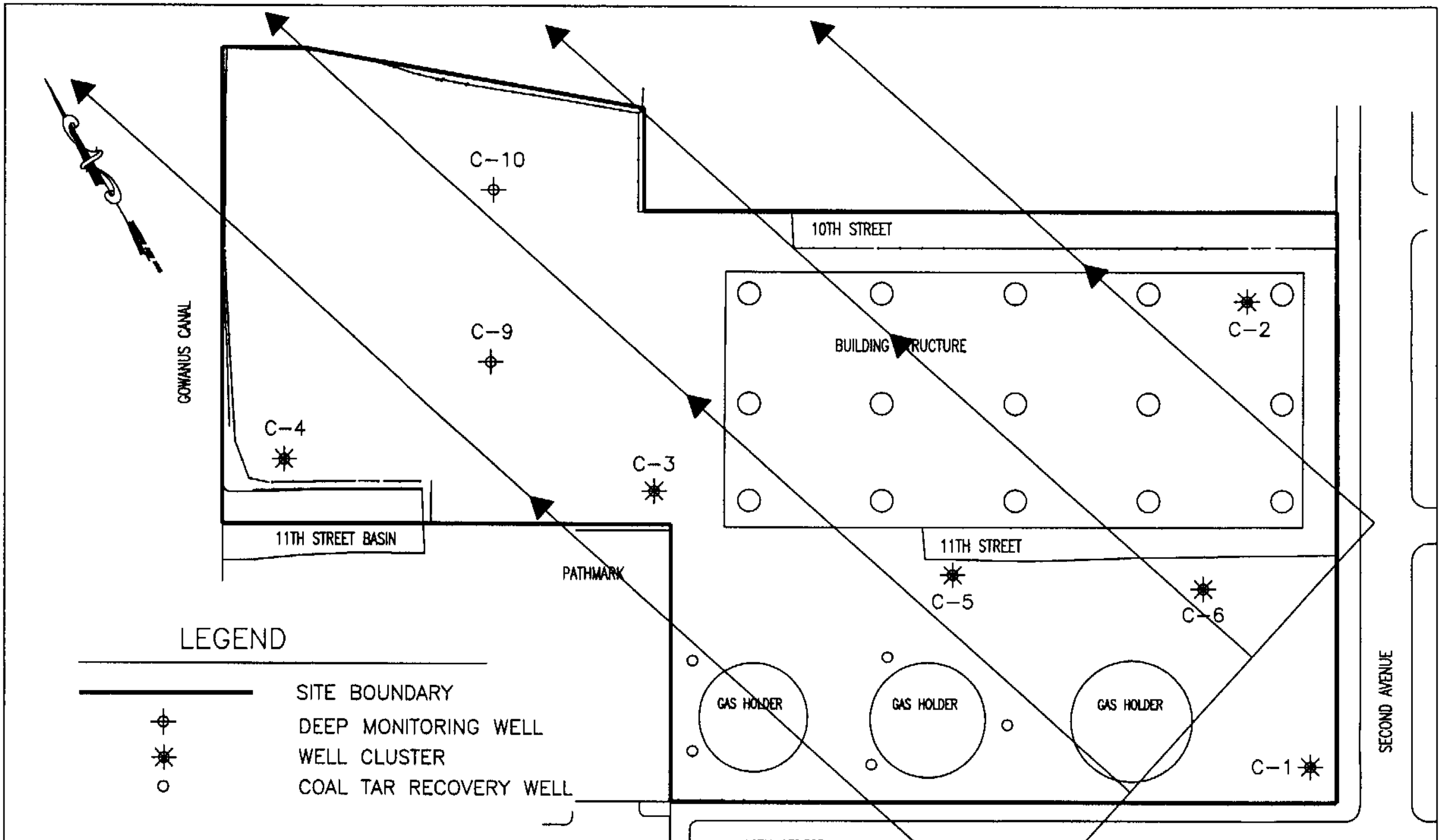
GRAPHIC SCALE
IN FEET

BY:
DATE:
FIGURE NUMBER:

FILE LOCATION: C:/FILES/AUTOCAD/GOWANUS2.DWG



Appendix A3: Lower Aquifer Groundwater Flow Direction

prepared by:
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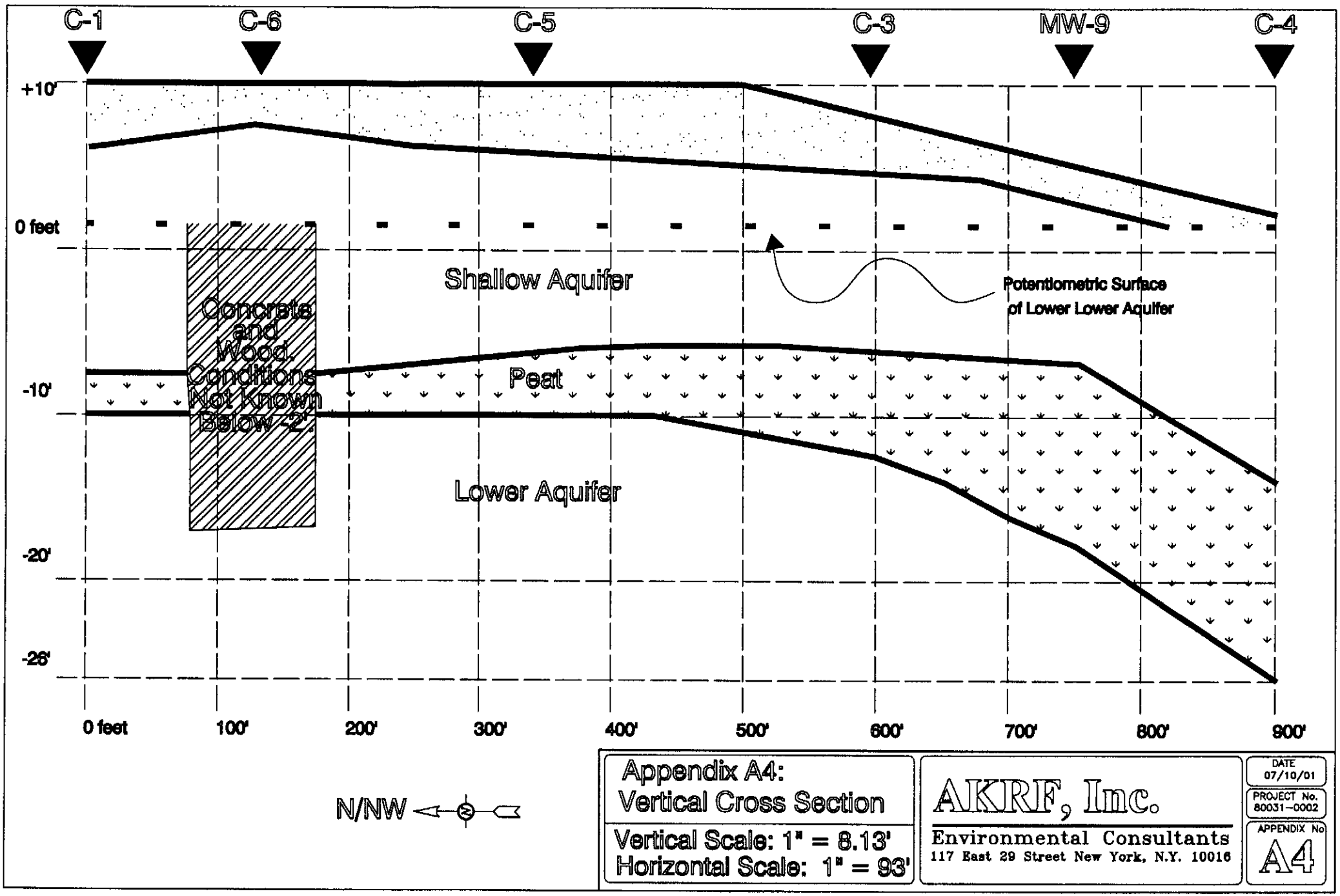
124 - 136 SECOND AVENUE
Brooklyn, New York

GRAPHIC SCALE 25 50 100 (IN FEET)

BY: .
DATE: .
FIGURE NUMBER:

FILE LOCATION: C:/FILES/AUTOCAD/GOWANUS2.DWG


C-1
C-6
C-5
C-3
MW-9
C-4
+10'
0 feet
-10'
-20'
-26'
Shallow Aquifer
Concrete and Wood. Conditions Not Known Below -2'
Peat
Lower Aquifer
Potentiometric Surface of Lower Lower Aquifer
0 feet
100'
200'
300'
400'
500'
600'
700'
800'
900'
N/NW
Appendix A4:
Vertical Cross Section
Vertical Scale: 1" = 8.13'
Horizontal Scale: 1" = 93'
AKRF, Inc.
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DATE
07/10/01
PROJECT No.
80031-0002
APPENDIX No
A4

Appendix B Soil Boring Logs

AKRF, INC.
Environmental Consultants

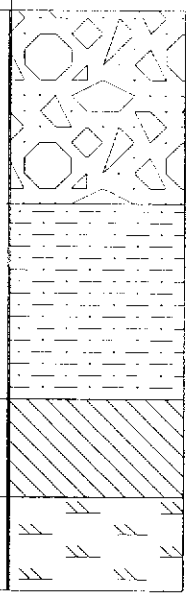
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-1

PROJECT NUMBER:	**80030-0003**	START TIME	**0930**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**1045**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/16/01** DATE COMPLETED: **02/16/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/42	ND		fill: red bricks and concrete fragments; brownish red silty sand	
8.0	GP1	48/48	17		silt: dark gray to reddish brown silt; wet at -8ft.	
12.0		48/36	ND		clay: dark gray clay	
					peat	
16.0						

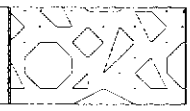


AKRF, INC. Environmental Consultants	FIELD BOREHOLE LOG	BOREHOLE NUMBER GP-2

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **02/16/01** DATE COMPLETED: **02/16/01**

START TIME **1115**
END TIME **1125**
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0				refusal at -8 ft.; location moved two times; third attempt was 20 ft towards 11th St.	fill, not sampled	
4.0		48/24				
	GP2		197	FREE PRODUCT	fill: free product, fill, brick fragments, black silty sand	
8.0						
12.0						
16.0						

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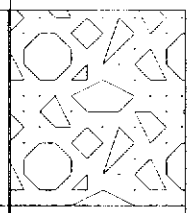
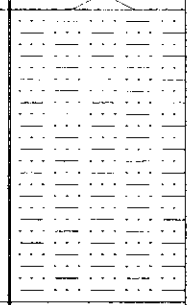
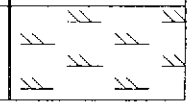
FIELD BOREHOLE LOG

BOREHOLE NUMBER
GP-3

PROJECT NUMBER:	**80030-0003**	START TIME	**1130**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**1220**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/16/01** DATE COMPLETED: **02/16/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0				refusal at -12 ft.; location moved 12 ft. towards 11th St.	fill, not sampled	
4.0		48/24	15.3		fill: black sandy silt, odor	
8.0	GP3	48/15	218	FREE PRODUCT	silty sand: dark black silty sand, free product	
12.0		48/30	36	FREE PRODUCT	peat	
16.0						

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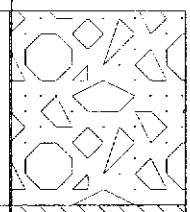
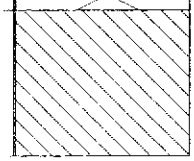
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-4

PROJECT NUMBER:	**80030-0003**	START TIME	**1130**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**1315**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/16/01** DATE COMPLETED: **02/16/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0						
4.0	GP4	48/	27		fill: glass, reddish brown sandy silt; wet at -6ft.	
8.0		48/	2		clay: dark brown silty clay; refusal at -11ft.	
12.0						
16.0						

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FIELD BOREHOLE LOG

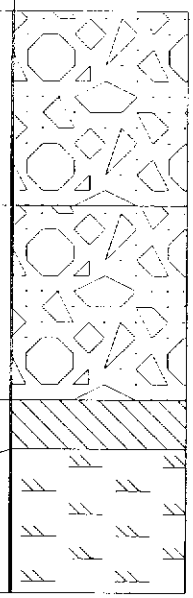
BOREHOLE NUMBER: GP-5

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **02/16/01** DATE COMPLETED: **02/16/01**

START TIME: **1315**
END TIME:
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0				refusal at 12 ft. at 3 locations (sample taken ~15ft towards 12th St.)	fill, not sampled	
4.0		48/36	130	sheen	fill: black silty sand, sheen, dense black silt at tip of sampler	
8.0	GP5	48/36	132	sheen	fill: black silty sand, sheen, dense black silt at tip of sampler	
12.0		48/44	ND		clay: dense clay	
					peat	
16.0						



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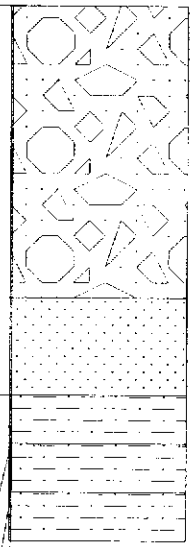
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-6

PROJECT NUMBER:	80030-0003	START TIME	0850
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	0925
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/21/01	DATE COMPLETED:	02/21/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0	GP6	0.5		refusal at -11 ft.; three attempts made; refusal at 7 ft. and 4 ft.; sampling location 5 ft. SE of flag	fill: light brown medium coarse sand and gravel	
4.0					sand: black/dark brown medium sand and silt; wet at -6 ft.	
8.0					silt: black/dark brown silt and medium coarse sand with small cobbles	
					silt: brown/tan silt and medium coarse sand with small cobbles	
12.0		1.9			silt: black silt and medium coarse sand with small cobbles	
16.0						



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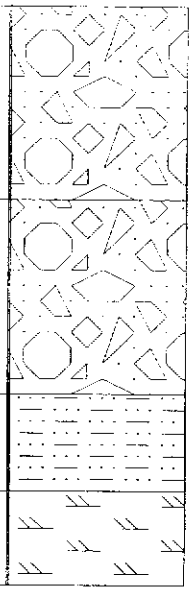
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-15

PROJECT NUMBER:	80030-0003	START TIME	0900
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	0930
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/22/01	DATE COMPLETED:	02/22/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY (in) [driven/recovered]	PID (ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/36	8.0	FREE PRODUCT	fill: coal fragments, loose, stained with free product	
8.0	GP15	48/12	21.0	FREE PRODUCT	fill: coal fragments, loose, stained with free product	
12.0		48/24	9.0	FREE PRODUCT	silty sand: fill, black silty sand, loose, free product	
					peat: dark brown peat	
16.0						



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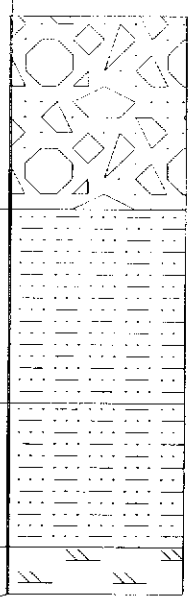
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-16

PROJECT NUMBER:	**80030-0003**	START TIME	**0945**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**1030**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/22/01** DATE COMPLETED:	**02/22/01**	

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/32	3.5	stained with FREE PRODUCT	fill: dark black silty sand, stained with free product	
8.0	GP16	48/48	12.5	FREE PRODUCT	silty sand: black silty sand, dense free product	
12.0		48/24	63.0	FREE PRODUCT	silty sand: black silty sand, free product	
					peat	
16.0						



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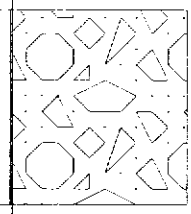
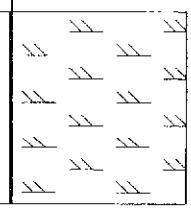
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-17

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **02/22/01** DATE COMPLETED:

START TIME: **1045**
END TIME: **1130**
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/4	8		fill: ash, brick fragments	
8.0		48/0		no recovery	(no recovery)	
12.0	GP17	48/36			peat: dark brown peat	
16.0						

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FIELD BOREHOLE LOG

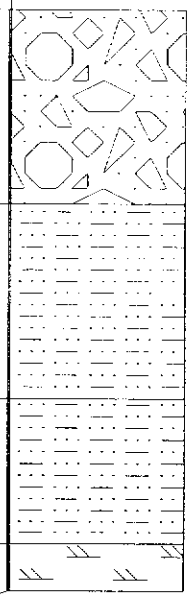
BOREHOLE NUMBER: GP-18

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **02/22/01** DATE COMPLETED: **02/22/01**

START TIME: **1135**
END TIME: **1215**
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/42	16.0		fill: red bricks, coal fragments, ash, black silty sand	
8.0	GP18	48/20	2.5	FREE PRODUCT	silty sand: black silty sand, free product	
12.0		48/24	7.0	FREE PRODUCT	silty sand: brownish gray silty sand	
					peat	
16.0						



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FIELD BOREHOLE LOG

BOREHOLE NUMBER
GP-19

PROJECT NUMBER:	**80030-0003**	START TIME	**1330**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**1415**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/22/01** DATE COMPLETED: **02/22/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/40	3.0		fill: ash, coal fragments, red bricks, black to brownish gray silty sand	
8.0		48/36	2.5			
12.0	GP19	48/36	3.0			
16.0					peat	

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FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-20

PROJECT NUMBER:	**80030-0003**	START TIME	**1420**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**1515**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/22/01** DATE COMPLETED: **02/22/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0						
4.0		48/48			fill: coal fragments, ash, red bricks, black silty sand	
8.0		48/36			silty sand: brownish gray silty sand, dense, peat at tip of sampler	
12.0	GP20	48/48			clay and peat: dense peat and clay	
16.0						

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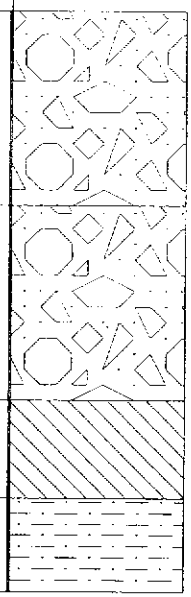
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-21

PROJECT NUMBER:	**80030-0003**	START TIME	**0815**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**0830**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/27/01** DATE COMPLETED: **02/27/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/46	2		fill: red brick fragments, ash, coal fragments	
8.0		48/24	12		fill: red brick fragments, ash, coal fragments, free product in lower 6 in.	
	GP21			FREE PRODUCT		
12.0		48/42	9		clay: very dense gray clay	
					silt: dense brownish grey silt, peat at tip of liner	
16.0						



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FIELD BOREHOLE LOG

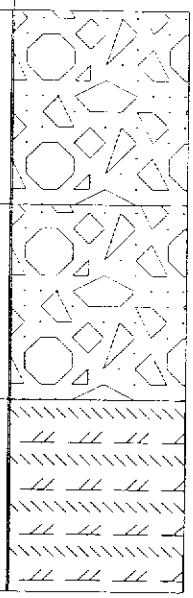
BOREHOLE NUMBER
GP-22

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **02/27/01** DATE COMPLETED: **02/27/01**

START TIME **0835**
END TIME **0850**
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0	GP22	48/42	65	FREE PRODUCT	fill: ash, coal fragments, black silty sand, loose, free product	
8.0		48/36	11	FREE PRODUCT	fill: ash, coal fragments, black silty sand, loose, free product	
12.0		48/48	ND		clay and peat: very dense clay and peat	
16.0						



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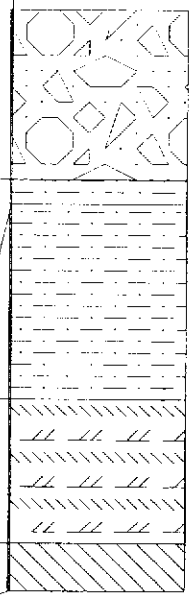
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-23

PROJECT NUMBER:	**80030-0003**	START TIME	**0852**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**0905**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/27/01** DATE COMPLETED: **02/27/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0	GP23	48/44	173	FREE PRODUCT	fill: brick and concrete fragments	
8.0		48/46	118	FREE PRODUCT	silt: brownish gray dense silty sand with free product	
					silt: light gray dense silt with free product	
12.0		48/48	60		clay and peat: dense clay and peat	
16.0					clay: dense clay	



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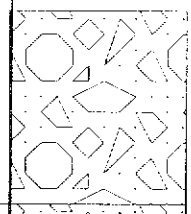
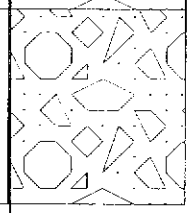
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-24

PROJECT NUMBER:	**80030-0003**	START TIME	**0915**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**0950**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/27/01** DATE COMPLETED: **02/27/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill; not sampled	
4.0	GP24	48/46	36	FREE PRODUCT	fill: red bricks, wood, silty sand, free product	
8.0		48/10	57	FREE PRODUCT	fill: red bricks, wood, silty sand, free product	
12.0		48/0		no recovery		
16.0				refusal		

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FIELD BOREHOLE LOG

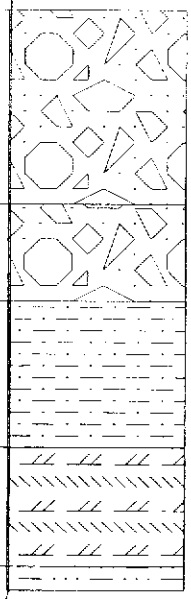
BOREHOLE NUMBER
GP-25

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **02/27/01** DATE COMPLETED: **02/27/01**

START TIME **1000**
END TIME **1045**
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/46	55	FREE PRODUCT	fill: ash, coal fragments, wood, black silty sand stained with free product	
8.0		48/36	22	FREE PRODUCT	fill: ash, coal fragments, wood, black silty sand stained with free product	
12.0	GP25	48/48	76		silt: brownish gray dense silt	
				FREE PRODUCT	clay and peat: dense clay and peat	
16.0					silty sand: black silty sand with free product	



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FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-26

PROJECT NUMBER:	**80030-0003**	START TIME	**1050**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**1120**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/27/01** DATE COMPLETED: **02/27/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/40	61	FREE PRODUCT	fill: ash, wood, black silty sand with free product	
8.0		48/47	14	FREE PRODUCT	silt: dense dark black silt with free product	
12.0		48/48	109		clay and peat: dense clay and peat	
	GP26			FREE PRODUCT	silty sand: black silty sand with free product	
16.0						

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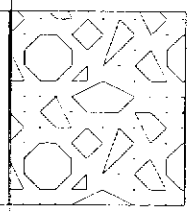
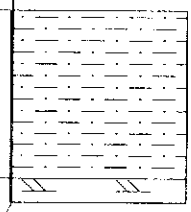
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-27

PROJECT NUMBER:	**80030-0003**	START TIME	**1130**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**1215**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/27/01**	DATE COMPLETED:	**02/2701**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/24	ND		fill: red bricks, concrete [and] coal fragments, ash	
8.0		48/0		no recovery	(no recovery, void)	
12.0		48/48	ND		silt: light gray dense silt; peat at tip of sampler	
16.0					peat	

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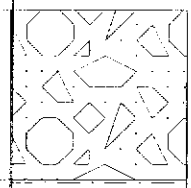
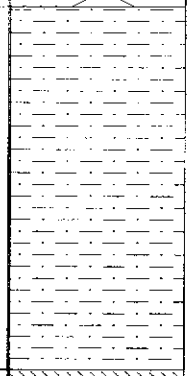
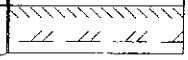
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-28

PROJECT NUMBER:	**80030-0003**	START TIME	**1230**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**1255**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/27/01** DATE COMPLETED:	**02/27/01**	

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/46	ND		fill: red brick, concrete, ash, wood;	
8.0		48/48	ND		silt: brownish gray to light gray dense silt	
12.0		48/48	14			
	GP28				clay and peat: dense clay and peat	
16.0						

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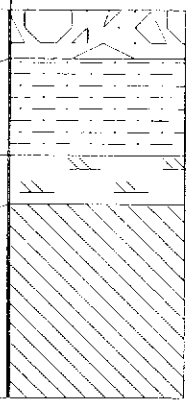
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-29

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **02/27/01** DATE COMPLETED: **02/27/01**

START TIME: **1330**
END TIME: **1345**
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0	GP29	48/48	25		fill: ash, concrete fragments, wood silt: dark black to gray silt	
8.0		48/48	ND		peat: dense layer of peat clay: dense clay	
12.0				end of boring		
16.0						

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FIELD BOREHOLE LOG

BOREHOLE NUMBER
GP-30

PROJECT NUMBER:	**80030-0003**	START TIME	**1305**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**1320**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**02/27/01** DATE COMPLETED: **02/27/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/48	ND		fill: brick, concrete, wood	
					clay and peat: dense clay and peat	
8.0		48/46	ND		clay and peat	
12.0				end of boring		
16.0						

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FIELD BOREHOLE LOG

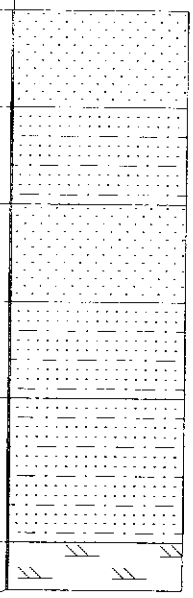
BOREHOLE NUMBER: GP-31

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **02/21/01** DATE COMPLETED: **02/21/01**

START TIME: **1345**
END TIME: **1425**
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/30	1.8		sand: medium coarse brown sand	
					sand and silt: fine to medium sand [with] some silt; lt. red/tan/brown	
8.0	GP31	48/24	74.1	odor, staining	sand: black fine to medium sand some silt; odor staining	
					sand and silt: dark brown fine to medium sand some silt	
12.0		48/42	0.3		sand and silt: dark brown sand and silt	
					peat: dark brown tan peat	
16.0						



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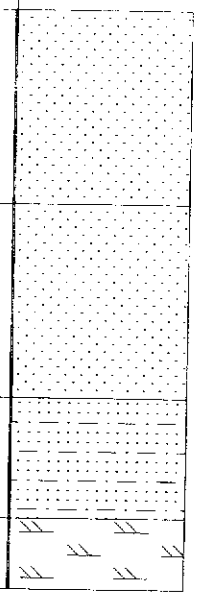
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-32

PROJECT NUMBER:	**80030-0003**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**
LOCATION:	**Brooklyn, NY**
DRILLING CO:	
DRILLING METHOD:	**GeoProbe**
FIELD PARTY:	
GEOLOGIST:	**MOHAMED AHMED**
DATE BEGUN:	**02/21/01** DATE COMPLETED: **02/21/01**
START TIME	**1255**
END TIME	**1345**
GROUND SURFACE ELEVATION:	**0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY (in) [driven/recovered]	PID (ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0				2 ft. NW of flag--refusal at -4 ft.; [sampling location] 3 ft. SW of flag	fill, not sampled	
4.0	GP32	48/42	382	odor; sheen on liner	sand: black sand--strong odor, some dark brown sand and silt at -4 ft., fine gravel at -8 ft.; sheen on liner	
8.0		48/12	63.8	odor	sand: black sand--odor	
12.0		48/48	0		sand and silt: silt and fine to medium sand, black	
					peat: tan peat	
16.0						



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FIELD BOREHOLE LOG

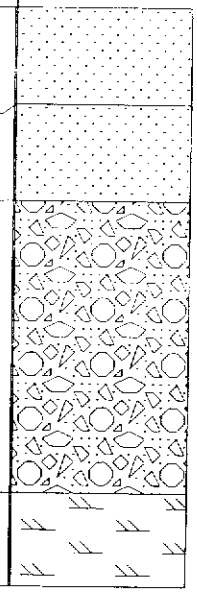
BOREHOLE NUMBER: GP-33

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **02/21/01** DATE COMPLETED: **02/21/01**

START TIME: **1215**
END TIME: **1250**
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0				[sampling location] 3 ft. SE of flag	fill, not sampled	
4.0	GP33	48/48	14	staining	sand: dark brown sand; some staining at 6 ft.; 2 in of wet peat or other organic at -6 ft.	
					sand: medium coarse sand and fine gravel	
8.0		48/12	4.4		gravel: gray/black fine gravel and sand	
12.0		48/30	1.9		peat: brown/tan peat	
16.0						



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FIELD BOREHOLE LOG

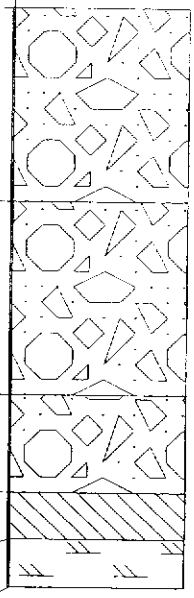
BOREHOLE NUMBER: GP-34

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **03/01/01** DATE COMPLETED: **03/01/01**

START TIME: **1105**
END TIME: **1130**
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/46	ND		fill: black silty sand, ash, wood, red brick	
8.0		48/42	ND	sheen	fill: cinders, wood, shell fragments; sheen	
12.0		48/40	ND		fill: cinders, coal fragments, wood	
					clay: dense clay	
16.0					peat	



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FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-35

PROJECT NUMBER:	**80030-0003**	START TIME	**1140**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**1245**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**03/01/01** DATE COMPLETED: **03/01/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0	GP35	48/42	9.00	sheen	fill: cinders, ash, coal fragments, glass, black silty sand, sheen at low[er] 6 in.	
8.0		48/36	ND		fill: cinders, coal fragments, bricks, gray silty sand	
12.0		48/40	4.0		fill: cinders, coal fragments, bricks, gray silty sand; wood mixed with black silty sand at tip [-12 ft.]	
16.0		48/48	ND		sand and silt: gray silty sand	
					clay and peat	
20.0					peat	

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FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-36

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **02/21/01** DATE COMPLETED: **02/21/01**

START TIME: **1430**
END TIME:
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0				[location] 2 ft. N of flag	fill, not sampled	
4.0	GP36	48/30	7.4	stained	sand and silt: black/dark brown stained fine to medium sand and silt	
8.0		48/24	0.8			
12.0		48/18	0.3			
16.0					peat: brown/red peat	

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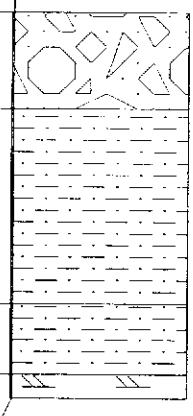
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-37

PROJECT NUMBER:	80030-0003	START TIME	0935
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	1015
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	03/01/01	DATE COMPLETED:	03/01/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY (in) [driven/recovered]	PID (ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/0		no recovery		
8.0		48/42	ND		fill: red bricks, black silty sand	
					silt: reddish brown dense silt	
12.0		48/48	ND			
					silt: loose gray silt; peat at tip of liner	
16.0					peat	



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FIELD BOREHOLE LOG

BOREHOLE NUMBER
GP-38

PROJECT NUMBER:	**80030-0003**	START TIME	**1040**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**1100**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**03/01/01** DATE COMPLETED: **03/01/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/0	ND	no recovery		
8.0		48/30	83		peat	
	GP38			FREE PRODUCT	sand and silt: dark black silty sand; free product	
12.0		48/40	ND		peat	
					clay	
16.0					peat	

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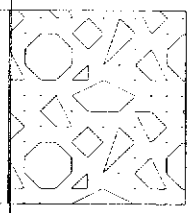
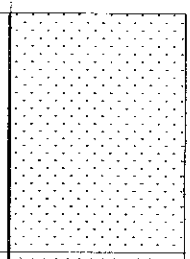
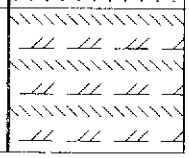
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-39

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **02/27/01** DATE COMPLETED: **02/27/01**

START TIME: **1400**
END TIME:
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/36	ND		fill: ash, bricks, glass, wood, gray silty sand	
8.0		48/0	ND	(no recovery)		
12.0	GP39	48/24	10		sand: gray loose silty sand	
16.0		48/48	ND		clay and peat: dense clay and peat	
20.0						

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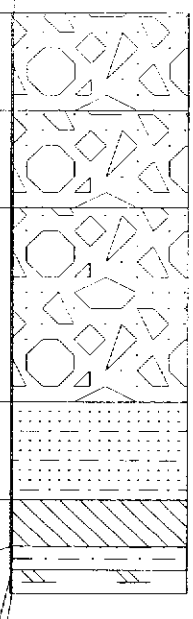
FIELD BOREHOLE LOG

BOREHOLE NUMBER: GP-40

PROJECT NUMBER:	**80030-0003**	START TIME	**0845**
PROJECT NAME:	**124-136 Second Ave. (Gowanus)**	END TIME	**0930**
LOCATION:	**Brooklyn, NY**	GROUND SURFACE ELEVATION:	**0**
DRILLING CO:			
DRILLING METHOD:	**GeoProbe**		
FIELD PARTY:			
GEOLOGIST:	**MOHAMED AHMED**		
DATE BEGUN:	**03/01/01** DATE COMPLETED: **03/01/01**		

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/48	ND	sheen	fill: ash, concrete, gray silty sand	
					fill: black silty sand with sheen	
8.0		48/46	ND		fill: red brick, concrete, wood, ash, black silty sand	
12.0		48/46	ND		sand and silt: reddish brown silty sand	
					clay: dense clay	
16.0					silt: dense loose silt; peat at tip of sampler	
					peat	



AKRF, INC. Environmental Consultants	FIELD BOREHOLE LOG	BOREHOLE NUMBER GP-41

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **03/01/01** DATE COMPLETED: **03/01/01**

START TIME **1300**
END TIME **1345**
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/36	ND		fill: red brick, gray silty sand	
8.0		48/48	ND		fill: cinders, ash, coal fragments, black silty sand	
12.0		48/24	ND		silt: reddish briown dense silt	
16.0		48/40	ND		clay and peat: dense clay and peat	
					peat	
20.0						

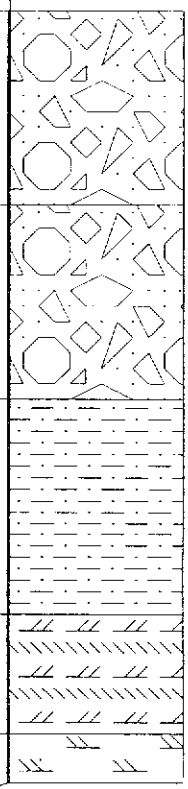
AKRF, INC. Environmental Consultants	FIELD BOREHOLE LOG	BOREHOLE NUMBER GP-42

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **03/01/01** DATE COMPLETED: **03/01/01**

START TIME **1400**
END TIME **1405**
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/24	ND		fill: cinders, ash, coal fragments	
8.0		48/24	ND		fill: black silty sand, red bricks	
12.0		48/10	ND		silt: reddish brown loose silt	
16.0		48/40	ND		clay and peat	
					peat	
20.0						



AKRF, INC.
Environmental Consultants

FIELD BOREHOLE LOG

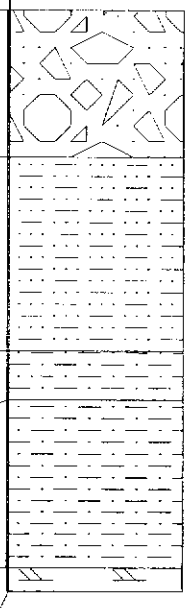
BOREHOLE NUMBER: GP-44

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **03/01/01** DATE COMPLETED: **03/01/01**

START TIME: **1440**
END TIME:
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/20	9.0		fill: red brick, glass, ash, gray silty sand	
8.0	GP44	48/46		FREE PRODUCT	silty sand: black silty sand, free product	
			30	FREE PRODUCT		
12.0		48/46	1.6	FREE PRODUCT	silt: gray loose silt silt: reddish brown silt, free product; peat at tip of liner	
16.0					peat	



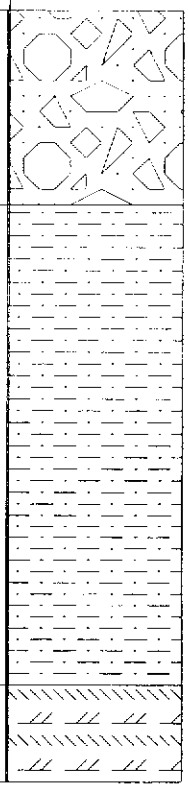
AKRF, INC. Environmental Consultants	FIELD BOREHOLE LOG	BOREHOLE NUMBER GP-45

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **03/02/01** DATE COMPLETED: **03/02/01**

START TIME
END TIME
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/44	ND		fill: ash, red bricks, gray silty sand	
8.0		48/42	ND		silt: reddish brown loose silt	
12.0		48/48	ND			
16.0		48/48	ND		clay and peat	
20.0						



AKRF, INC.
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FIELD BOREHOLE LOG

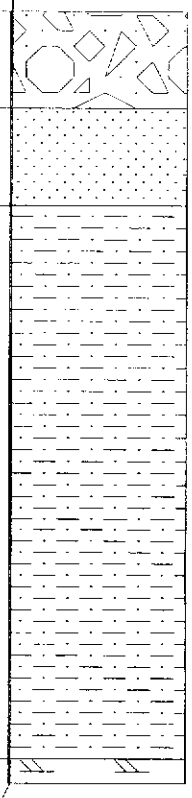
BOREHOLE NUMBER: GP-46

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **03/01/01** DATE COMPLETED: **03/01/01**

START TIME
END TIME
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0	GP46	48/46	46		fill, not sampled	
4.0		48/42	ND		fill: concrete, ash , red bricks	
8.0		48/24	ND		sand: black to reddish gray silty sand	
12.0		48/24	ND		silt: reddish brown loose silt; peat at lower 3 in.	
16.0					peat	
20.0						



AKRF, INC.
Environmental Consultants

FIELD BOREHOLE LOG

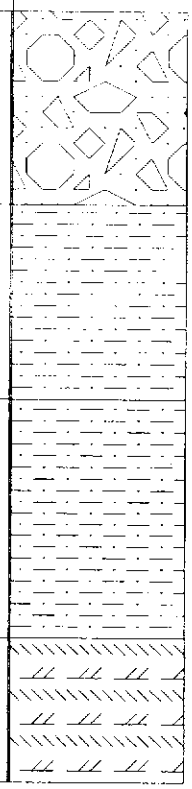
BOREHOLE NUMBER: GP-47

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **03/02/01** DATE COMPLETED: **03/02/01**

START TIME
END TIME
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/42	ND		fill: concrete, ash, red brick, yellow silt	
8.0		48/30	ND		silt: gray loose silt	
12.0		48/15	ND		silt: reddish brown loose silt	
16.0		48/48	ND		clay and peat	
20.0						



AKRF, INC.
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FIELD BOREHOLE LOG

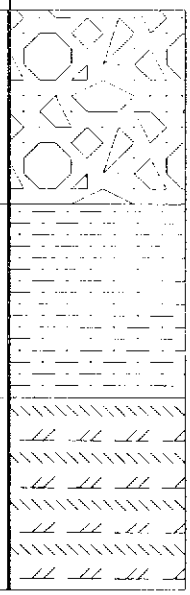
BOREHOLE NUMBER
GP-48

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **03/02/01** DATE COMPLETED: **03/02/01**

START TIME
END TIME
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/46	ND		fill: cinders, ash, wood, red bricks, concrete chips	
8.0		48/46	ND		silt: reddish brown loose silt	
12.0		48/44	ND		clay and peat	
16.0						



AKRF, INC. Environmental Consultants	FIELD BOREHOLE LOG	BOREHOLE NUMBER GP-49

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **03/02/01** DATE COMPLETED: **03/02/01**

START TIME
END TIME
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/48	ND		fill: concrete chips, ash, gray silty sand	
					clay: dense clay; peat at tip of sampler	
8.0		48/48	ND		clay and peat	
12.0						

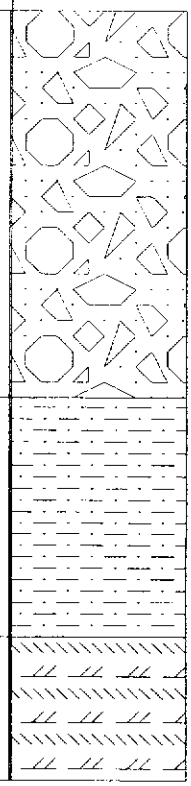
AKRF, INC. Environmental Consultants	FIELD BOREHOLE LOG	BOREHOLE NUMBER GP-50

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: DATE COMPLETED:

START TIME
END TIME
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/30	ND		fill: concrete, red brick, black silty sand	
8.0		48/36	ND			
12.0		48/36	ND		silt: reddish/brown loose silt	
16.0		48/40	ND		clay and peat	
20.0						



AKRF, INC.
Environmental Consultants

FIELD BOREHOLE LOG

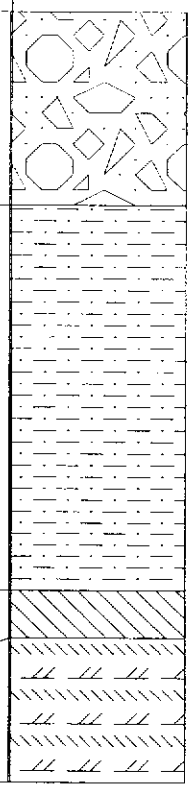
BOREHOLE NUMBER: GP-51

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **03/02/01** DATE COMPLETED: **03/02/01**

START TIME
END TIME
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY (in) [driven/recovered]	PID (ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/36	ND		fill: concrete, red brick, ash, gray silty sand	
8.0		48/48	ND		silt: reddish brown loose silt	
12.0		48/24	ND			
16.0		48/48	ND		clay: dense clay	
					clay and peat	
20.0						



AKRF, INC.
Environmental Consultants

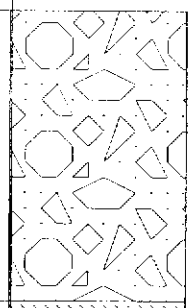
FIELD BOREHOLE LOG

BOREHOLE NUMBER
GP-53

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: DATE COMPLETED:

START TIME
END TIME
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0		48/48	ND		fill: concrete chips, cinder, ash, gray silty sand	
8.0		48/48	ND		clay and peat	
12.0						
16.0						

AKRF, INC. Environmental Consultants	FIELD BOREHOLE LOG	BOREHOLE NUMBER GP-54

PROJECT NUMBER: **80030-0003**
PROJECT NAME: **124-136 Second Ave. (Gowanus)**
LOCATION: **Brooklyn, NY**
DRILLING CO:
DRILLING METHOD: **GeoProbe**
FIELD PARTY:
GEOLOGIST: **MOHAMED AHMED**
DATE BEGUN: **03/02/01** DATE COMPLETED: **03/02/01**

START TIME
END TIME
GROUND SURFACE ELEVATION: **0**

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	
4.0	GP54	48/46	324	FREE PRODUCT	silty sand: dark black silty sand, fill, red brick, free product	
8.0		48/24	159	FREE PRODUCT	silty sand: dark black silty sand, fill, red brick, free product	
12.0		48/24	227	FREE PRODUCT	silty sand: dark black silty sand, fill, red brick, free product	
16.0						

Appendix C Soil Analytical Results

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		GP-1 [8-12']	GP-2 [6-8']	GP-3 [8-12']	GP-4 [4-8']	GP-5 [8-11']	GP-6 [8-11']
Laboratory ID:		0016727	0016728	0016729	0016730	0016731	0016732
Sampling Date:		02/26/01	02/26/01	02/26/01	02/26/01	02/26/01	02/26/01
Units:		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
EPA 8021 (STARS)							
PARAMETER	CAS No.	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
MTBE	1634-04-4	<5	<5	<5	<5	<5	<5
Benzene	71-43-2	280	17,000	3,100	26	<5	9
n-Butylbenzene	104-51-8	<5	<5	<5	<5	<5	<5
sec-Butylbenzene	135-98-8	<5	<5	<5	<5	<5	<5
tert-Butylbenzene	98-06-8	<5	<5	<5	<5	<5	<5
Isopropylbenzene	98-82-8	74	2,700	1,400	52	<5	<5
p-Isopropyltoluene	99-87-6	13	1,400	2,200	25	<5	<5
n-Propylbenzene	103-65-1	26	1,100	620	27	13	<5
Ethylbenzene	100-41-4	100	37,000	14,000	460	16	<5
Naphthalene	91-20-3	4,400	325,000	210,000	10,000	600	38
Toluene	108-88-3	<5	14,000	170	110	<5	<5
1,2,4-Trimethylbenzene	95-63-6	15	5,000	2,200	160	<5	<5
1,3,5-Trimethylbenzene	108-67-8	79	35,000	6,400	460	8	<5
Xylenes (total)	1330-20-7	92	45,000	8,200	790	25	<15

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		GP-10 [8-12']	GP-15 [8-12']	GP-16 [12-16']	GP-17 [12-16']	GP-18 [4-8']	GP-19 [12-16']
Laboratory ID:		0016733	0016734	0016735	0016736	0016737	0016738
Sampling Date:		02/26/01	02/26/01	02/26/01	02/26/01	02/26/01	02/26/01
Units:		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
EPA 8021 (STARS)							
PARAMETER	CAS No.	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
MTBE	1634-04-4	<5	<5	<5	<5	<5	<5
Benzene	71-43-2	640	500	110	8	<5	<5
n-Butylbenzene	104-51-8	<5	<5	<5	<5	<5	<5
sec-Butylbenzene	135-98-8	<5	<5	<5	<5	<5	<5
tert-Butylbenzene	98-06-8	<5	<5	<5	<5	<5	<5
Isopropylbenzene	98-82-8	4,200	1,700	170	9	<5	<5
p-Isopropyltoluene	99-87-6	98	180	39	<5	<5	<5
n-Propylbenzene	103-65-1	3,400	92	72	<5	<5	<5
Ethylbenzene	100-41-4	28,000	11,000	2,300	<5	<5	<5
Naphthalene	91-20-3	350,000	220,000	37,000	<5	<5	<5
Toluene	108-88-3	1,100	52	17	<5	<5	<5
1,2,4-Trimethylbenzene	95-63-6	5,600	3,200	720	<5	<5	<5
1,3,5-Trimethylbenzene	108-67-8	7,800	5,700	870	<5	<5	<5
Xylenes (total)	1330-20-7	19,000	4,800	600	<15	<15	<15

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		GP-20 [12-16']	FB	TB	GP-21 [8-12']	GP-22 [4-8']	GP-23 [6-8']
Laboratory ID:		0016743	0016744	0016745	0016808	0016809	0016810
Sampling Date:		02/26/01	02/26/01	02/26/01	03/02/01	03/02/01	03/02/01
Units:		ug/kg	ug/L	ug/L	ug/kg	ug/kg	ug/kg
EPA 8021 (STARS)							
PARAMETER	CAS No.	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
MTBE	1634-04-4	<5	<1	<1	<25	<25	<25
Benzene	71-43-2	91	<1	<1	150	200	26,000
n-Butylbenzene	104-51-8	<5	<1	<1	<25	<25	<25
sec-Butylbenzene	135-98-8	<5	<1	<1	<25	<25	<25
tert-Butylbenzene	98-06-8	<5	<1	<1	<25	<25	<25
Isopropylbenzene	98-82-8	<5	<1	<1	220	220	16,000
p-Isopropyltoluene	99-87-6	<5	<1	<1	110	85	980
n-Propylbenzene	103-65-1	<5	<1	<1	82	89	790
Ethylbenzene	100-41-4	<5	<1	<1	540	600	140,000
Naphthalene	91-20-3	<5	<1	<1	82,000	63,000	810,000
Toluene	108-88-3	<5	<1	<1	<25	44	73,000
1,2,4-Trimethylbenzene	95-63-6	<5	<1	<1	1,000	1,200	68,000
1,3,5-Trimethylbenzene	108-67-8	<5	<1	<1	190	170	23,000
Xylenes (total)	1330-20-7	<15	<3	<3	140	300	170,000

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		GP-24 [10-12']	GP-25 [12-16']	GP-26 [15-16']	GP-28 [15-16']	GP-29 [4-5']	GP-31 [8-12']
Laboratory ID:		0016811	0016812	0016813	0016814	0016815	0016739
Sampling Date:		03/02/01	03/02/01	03/02/01	03/02/01	03/02/01	02/26/01
Units:		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
EPA 8021 (STARS)							
PARAMETER	CAS No.	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
MTBE	1634-04-4	<25	<25	<25	<5	<5	<5
Benzene	71-43-2	330	1,900	<25	1,100	120	49
n-Butylbenzene	104-51-8	<25	<25	<25	<5	<5	<5
sec-Butylbenzene	135-98-8	<25	<25	<25	<5	<5	<5
tert-Butylbenzene	98-06-6	<25	<25	<25	<5	<5	<5
Isopropylbenzene	98-82-8	710	200	97	52	60	870
p-Isopropyltoluene	99-87-6	240	83	58	<5	27	160
n-Propylbenzene	103-65-1	260	33	38	18	19	130
Ethylbenzene	100-41-4	16,000	1,600	1,000	9	860	2,900
Naphthalene	91-20-3	260,000	58,000	110,000	1,700	9,700	55,000
Toluene	108-88-3	600	49	<25	<5	5	5
1,2,4-Trimethylbenzene	95-63-6	14,000	1,400	650	6	710	1,000
1,3,5-Trimethylbenzene	108-67-8	4,800	380	190	<5	35	810
Xylenes (total)	1330-20-7	12,000	2,400	1,200	<15	94	140

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		GP-32 [4-8']	GP-33 [4-8']	GP-35 [6-8']	GP-36 [4-8']	GP-38 [10-12']	GP-39 [12-16']
Laboratory ID:		0016740	0016741	0016818	0016742	0016816	0016817
Sampling Date:		02/26/01	02/26/01	03/02/01	02/26/01	03/02/01	03/02/01
Units:		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
EPA 8021 (STARS)							
PARAMETER	**CAS No.**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**
MTBE	1634-04-4	<5	<5	<5	<5	<5	<5
Benzene	71-43-2	3,800	<5	7	<5	1,700	<5
n-Butylbenzene	104-51-8	<5	<5	<5	<5	<5	<5
sec-Butylbenzene	135-98-8	<5	<5	6	<5	<5	<5
tert-Butylbenzene	98-06-8	<5	<5	<5	<5	<5	<5
Isopropylbenzene	98-82-8	7,200	<5	41	<5	9,900	<5
p-Isopropyltoluene	99-87-6	190	<5	<5	<5	550	<5
n-Propylbenzene	103-65-1	180	<5	10	<5	870	<5
Ethylbenzene	100-41-4	48,000	<5	<5	<5	53,000	<5
Naphthalene	91-20-3	560,000	<5	17	<5	200,000	<5
Toluene	108-88-3	100	<5	<5	<5	120	<5
1,2,4-Trimethylbenzene	95-63-6	10,000	<5	<5	<5	30,000	<5
1,3,5-Trimethylbenzene	108-67-8	28,000	<5	<5	<5	8,600	<5
Xylenes (total)	1330-20-7	29,000	<15	<15	<15	10,000	<15

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		GP-44 [9-11']	GP-46 [6-7']	GP-52 [6-8']	GP-54 [5-8']	FB	TB
Laboratory ID:		0016819	0016820	0016821	0016822	0016823	0016824
Sampling Date:		03/02/01	03/02/01	03/02/01	03/02/01	03/02/01	03/02/01
Units:		ug/kg	ug/kg	ug/kg	ug/kg	ug/L	ug/L
EPA 8021 (STARS)							
PARAMETER	**CAS No.**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**
MTBE	1634-04-4	<25	<25	<5	<25	<1	<1
Benzene	71-43-2	120	63	80	22,000	<1	<1
n-Butylbenzene	104-51-8	<25	<25	<5	<25	<1	<1
sec-Butylbenzene	135-98-8	<25	<25	<5	<25	<1	<1
tert-Butylbenzene	98-06-8	<25	<25	<5	<25	<1	<1
Isopropylbenzene	98-82-8	380	900	48	1,100	<1	<1
p-Isopropyltoluene	99-87-6	110	410	22	660	<1	<1
n-Propylbenzene	103-65-1	150	990	21	860	<1	<1
Ethylbenzene	100-41-4	1,000	2,800	190	67,000	<1	<1
Naphthalene	91-20-3	29,000	38,000	5,500	670,000	<1	<1
Toluene	108-88-3	47	59	17	50,000	<1	<1
1,2,4-Trimethylbenzene	95-63-6	980	7,200	200	39,000	<1	<1
1,3,5-Trimethylbenzene	108-67-8	440	2,200	54	13,000	<1	<1
Xylenes (total)	1330-20-7	900	3,000	130	84,000	<3	<3

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		GP-1 [8-12']	GP-2 [6-8']	GP-3 [8-12']	GP-4 [4-8']	GP-5 [8-11']	GP-6 [8-11']
Laboratory ID:		0016727	0016728	0016729	0016730	0016731	0016732
Sampling Date:		02/26/01	02/26/01	02/26/01	02/26/01	02/26/01	02/26/01
Units:		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
EPA 8270 (STARS)							
PARAMETER	**CAS No.**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**
Acenaphthene	83-32-9	500	640,000	120,000	9,600	650	820
Fluorene	86-73-7	63	360,000	55,000	12,000	700	860
Phenanthrene	85-01-8	130	1,100,000	180,000	38,000	3,100	1,600
Anthracene	120-12-7	<40	430,000	76,000	10,000	850	630
Fluoranthene	206-44-0	270	330,000	54,000	13,000	2,600	1,200
Pyrene	129-00-0	290	580,000	100,000	20,000	3,800	1,600
Benzo-(a)Anthracene	56-55-3	220	130,000	27,000	6,500	1,000	510
Chrysene	218-01-9	240	160,000	27,000	6,500	1,000	590
Benzo(b)Fluoranthene	205-99-2	400	93,000	12,000	3,900	690	530
Benzo(k)Fluoranthene	207-08-9	240	41,000	5,600	2,500	<400	260
Benzo(a)Pyrene	50-32-8	390	120,000	21,000	6,000	660	530
Indeno(1,2,3-cd)Pyrene	193-39-5	430	47,000	6,800	2,600	390	360
Dibenzo(a,h)Anthracene	53-70-3	<40	<2000	<800	<400	<400	<160
Benzo (g,h,i)Perylene	191-24-2	470	50,000	7,300	3,000	500	490
Naphthalene	91-20-3	4,400	325,000	210,000	10,000	600	38
Total PAH		**8,043**	**4,406,000**	**901,700**	**143,600**	**16,540**	**10,018**

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		GP-10 [8-12']	GP-15 [8-12']	GP-16 [12-16']	GP-17 [12-16']	GP-18 [4-8']	GP-19 [12-16']
Laboratory ID:		0016733	0016734	0016735	0016736	0016737	0016738
Sampling Date:		02/26/01	02/26/01	02/26/01	02/26/01	02/26/01	02/26/01
Units:		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
EPA 8270 (STARS)							
PARAMETER	**CAS No.**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**
Acenaphthene	83-32-9	9,400	310,000	21,000	4,300	5,000	<40
Fluorene	86-73-7	22,000	140,000	12,000	2,600	6,000	<40
Phenanthrene	85-01-8	41,000	460,000	42,000	2,400	19,000	<40
Anthracene	120-12-7	17,000	180,000	16,000	490	5,200	<40
Fluoranthene	206-44-0	28,000	150,000	14,000	790	5,300	<40
Pyrene	129-00-0	49,000	300,000	24,000	900	9,500	<40
Benzo-(a)Anthracene	56-55-3	15,000	72,000	7,300	340	3,100	<40
Chrysene	218-01-9	20,000	74,000	7,000	420	3,500	<40
Benzo(b)Fluoranthene	205-99-2	10,000	36,000	3,700	340	1,500	<40
Benzo(k)Fluoranthene	207-08-9	5,100	30,000	2,300	240	600	<40
Benzo(a)Pyrene	50-32-8	10,000	56,000	5,000	340	2,400	<40
Indeno(1,2,3-cd)Pyrene	193-39-5	5,600	22,000	2,300	230	940	<40
Dibenzo(a,h)Anthracene	53-70-3	2,600	<2000	<200	<200	<200	<40
Benzo (g,h,I)Perylene	191-24-2	6,400	23,000	2,900	280	1,100	<40
Naphthalene	91-20-3	350,000	220,000	37,000	<5	<5	<5
Total PAH		**591,100**	**2,073,000**	**196,500**	**13,670**	**63,140**	**0**

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		GP-20 [12-16']	FB	GP-21 [8-12']	GP-22 [4-8']	GP-23 [6-8']	GP-24 [10-12']
Laboratory ID:		0016743	0016744	0016808	0016809	0016810	0016811
Sampling Date:		02/26/01	02/26/01	03/02/01	03/02/01	03/02/01	03/02/01
Units:		ug/kg	ug/L	ug/kg	ug/kg	ug/kg	ug/kg
EPA 8270 (STARS)							
PARAMETER	**CAS No.**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**
Acenaphthene	83-32-9	<40	<5	89,000	210,000	110,000	64,000
Fluorene	86-73-7	<40	<5	34,000	88,000	66,000	32,000
Phenanthrene	85-01-8	48	<5	100,000	250,000	210,000	98,000
Anthracene	120-12-7	<40	<5	33,000	82,000	60,000	29,000
Fluoranthene	206-44-0	54	<5	36,000	82,000	79,000	33,000
Pyrene	129-00-0	110	<5	56,000	120,000	110,000	54,000
Benzo-(a)Anthracene	56-55-3	<40	<5	18,000	41,000	37,000	16,000
Chrysene	218-01-9	43	<5	18,000	42,000	37,000	18,000
Benzo(b)Fluoranthene	205-99-2	<40	<5	11,000	22,000	22,000	8,300
Benzo(k)Fluoranthene	207-08-9	<40	<5	6,000	12,000	10,000	6,500
Benzo(a)Pyrene	50-32-8	<40	<5	15,000	33,000	28,000	13,000
Indeno(1,2,3-cd)Pyrene	193-39-5	<40	<5	5,200	12,000	10,000	4,500
Dibenzo(a,h)Anthracene	53-70-3	<40	<5	<4000	4,000	<4000	<4000
Benzo (g,h,I)Perylene	191-24-2	<40	<5	6,800	14,000	11,000	5,700
Naphthalene	91-20-3	<5	<1	82,000	63,000	810,000	260,000
Total PAH		**255**	**0**	**510,000**	**1,075,000**	**1,600,000**	**642,000**

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		GP-25 [12-16']	GP-26 [15-16']	GP-28 [15-16']	GP-29 [4-5']	GP-31 [8-12']	GP-32 [4-8']
Laboratory ID:		0016812	0016813	0016814	0016815	0016739	0016740
Sampling Date:		03/02/01	03/02/01	03/02/01	03/02/01	02/26/01	02/26/01
Units:		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
EPA 8270 (STARS)							
PARAMETER	**CAS No.**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**
Acenaphthene	83-32-9	18,000	70,000	200	63,000	2,300	90,000
Fluorene	86-73-7	8,300	34,000	<120	29,000	990	44,000
Phenanthrene	85-01-8	26,000	95,000	<120	94,000	3,200	140,000
Anthracene	120-12-7	8,000	32,000	<120	28,000	1,100	52,000
Fluoranthene	206-44-0	4,800	30,000	<120	31,000	970	45,000
Pyrene	129-00-0	8,400	49,000	<120	48,000	1,500	81,000
Benzo-(a)Anthracene	56-55-3	1,800	14,000	<120	15,000	410	19,000
Chrysene	218-01-9	1,800	14,000	<120	17,000	430	23,000
Benzo(b)Fluoranthene	205-99-2	880	5,600	<120	9,300	200	9,500
Benzo(k)Fluoranthene	207-08-9	400	5,000	<120	5,300	97	9,100
Benzo(a)Pyrene	50-32-8	1,200	11,000	<120	12,000	330	16,000
Indeno(1,2,3-cd)Pyrene	193-39-5	400	<4000	<120	4,400	100	6,200
Dibenzo(a,h)Anthracene	53-70-3	<80	<4000	<120	<4000	<40	<2000
Benzo (g,h,I)Perylene	191-24-2	470	4,200	<120	5,300	120	7,500
Naphthalene	91-20-3	58,000	110,000	1,700	9,700	55,000	560,000
Total PAH		**138,450**	**473,800**	**1,900**	**371,000**	**66,747**	**1,102,300**

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		GP-33 [4-8']	GP-35 [6-8']	GP-36 [4-8']	GP-38 [10-12']	GP-39 [12-16']	GP-44 [9-11']
Laboratory ID:		0016741	0016818	0016742	0016816	0016817	0016819
Sampling Date:		02/26/01	03/02/01	02/26/01	03/02/01	03/02/01	03/02/01
Units:		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
EPA 8270 (STARS)							
PARAMETER	CAS No.	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
Acenaphthene	83-32-9	7,100	1,300	190	110,000	<40	91,000
Fluorene	86-73-7	3,200	470	180	46,000	<40	50,000
Phenanthrene	85-01-8	12,000	900	490	150,000	66	160,000
Anthracene	120-12-7	4,700	460	190	53,000	<40	50,000
Fluoranthene	206-44-0	5,800	<400	400	50,000	170	44,000
Pyrene	129-00-0	9,100	400	560	69,000	190	68,000
Benzo-(a)Anthracene	56-55-3	2,600	<400	160	33,000	98	23,000
Chrysene	218-01-9	3,000	<400	180	34,000	110	24,000
Benzo(b)Fluoranthene	205-99-2	2,100	<400	110	13,000	110	10,000
Benzo(k)Fluoranthene	207-08-9	1,100	<400	63	6,500	85	3,800
Benzo(a)Pyrene	50-32-8	2,800	<400	120	22,000	110	18,000
Indeno(1,2,3-cd)Pyrene	193-39-5	1,100	<400	59	6,700	81	6,300
Dibenzo(a,h)Anthracene	53-70-3	<400	<400	<40	<800	<40	2,600
Benzo (g,h,I)Perylene	191-24-2	1,600	<400	72	7,900	95	7,600
Naphthalene	91-20-3	<5	17	<5	200,000	<5	29,000
Total PAH		**56,200**	**3,547**	**2,774**	**801,100**	**1,115**	**587,300**

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		GP-46 [6-7']	GP-52 [6-8']	GP-54 [5-8']	FB
Laboratory ID:		0016820	0016821	0016822	0016823
Sampling Date:		03/02/01	03/02/01	03/02/01	03/02/01
Units:		ug/kg	ug/kg	ug/kg	ug/L
EPA 8270 (STARS)					
PARAMETER	**CAS No.**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**
Acenaphthene	83-32-9	1,100	36,000	290,000	<5
Fluorene	86-73-7	620	22,000	390,000	<5
Phenanthrene	85-01-8	2,000	74,000	1,100,000	<5
Anthracene	120-12-7	610	27,000	330,000	<5
Fluoranthene	206-44-0	610	22,000	320,000	<5
Pyrene	129-00-0	950	36,000	550,000	<5
Benzo-(a)Anthracene	56-55-3	330	12,000	170,000	<5
Chrysene	218-01-9	350	13,000	170,000	<5
Benzo(b)Fluoranthene	205-99-2	180	5,300	83,000	<5
Benzo(k)Fluoranthene	207-08-9	58	3,700	38,000	<5
Benzo(a)Pyrene	50-32-8	230	10,000	130,000	<5
Indeno(1,2,3-cd)Pyrene	193-39-5	94	3,400	49,000	<5
Dibenzo(a,h)Anthracene	53-70-3	<40	1,300	20,000	<5
Benzo (g,h,l)Perylene	191-24-2	100	4,000	57,000	<5
Naphthalene	91-20-3	38,000	5,500	670,000	<1
Total PAH		**45,232**	**275,200**	**4,367,000**	0

Appendix D Groundwater Analytical Results

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		C-1S	C-2S	C-3S	C-4S	C-5S	C-6S
Laboratory ID:		0016892	0016894	0016896	0016898	0016900	0016902
Sampling Date:		03/08/01	03/08/01	03/08/01	03/08/01	03/08/01	03/08/01
Units:		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EPA 8021 (STARS)							
PARAMETER	**CAS No.**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**
MTBE	1634-04-4	1	<1	<1	<1	64	<1
Benzene	71-43-2	4	<1	<1	<1	80	13
n-Butylbenzene	104-51-8	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	135-98-8	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	98-06-8	<1	<1	<1	<1	<1	<1
Isopropylbenzene	98-82-8	<1	<1	<1	<1	9	<1
p-Isopropyltoluene	99-87-6	<1	<1	<1	<1	4	<1
n-Propylbenzene	103-65-1	<1	<1	<1	<1	7	<1
Ethylbenzene	100-41-4	<1	<1	<1	<1	71	<1
Naphthalene	91-20-3	<1	<1	<1	<1	700	<1
Toluene	108-88-3	2	<1	<1	<1	70	<1
1,2,4-Trimethylbenzene	95-63-6	<1	<1	<1	<1	100	<1
1,3,5-Trimethylbenzene	108-67-8	<1	<1	<1	<1	28	<1
Xylenes (total)	1330-20-7	<3	<3	<3	<3	170	<3

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		C-1D	C-2D	C-3D	C-4D	C-5D	C-6D
Laboratory ID:		0016893	0016895	0016897	0016899	0016901	0016903
Sampling Date:		03/08/01	03/08/01	03/08/01	03/08/01	03/08/01	03/08/01
Units:		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EPA 8021 (STARS)							
PARAMETER	CAS No.	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
MTBE	1634-04-4	<1	<1	<1	<1	<1	15
Benzene	71-43-2	4	88	110	29	15,000	150
n-Butylbenzene	104-51-8	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	135-98-8	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	98-06-8	<1	<1	<1	<1	<1	<1
Isopropylbenzene	98-82-8	<1	2	2	4	69	26
p-Isopropyltoluene	99-87-6	<1	<1	<1	<1	54	3
n-Propylbenzene	103-65-1	<1	<1	<1	2	5	12
Ethylbenzene	100-41-4	3	60	47	61	1,900	34
Naphthalene	91-20-3	<1	1,800	230	75	3,900	96
Toluene	108-88-3	<1	47	3	2	110	6
1,2,4-Trimethylbenzene	95-63-6	<1	15	9	8	400	22
1,3,5-Trimethylbenzene	108-67-8	<1	4	3	1	100	2
Xylenes (total)	1330-20-7	3	80	43	22	3,500	26

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		MW-9	MW-10	FB	TB
Laboratory ID:		0016904	0016905	0016906	0016907
Sampling Date:		03/08/01	03/08/01	03/08/01	03/08/01
Units:		ug/L	ug/L	ug/L	ug/L
EPA 8021 (STARS)					
PARAMETER	**CAS No.**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**
MTBE	1634-04-4	<1	<1	<1	<1
Benzene	71-43-2	24	45	<1	<1
n-Butylbenzene	104-51-8	<1	<1	<1	<1
sec-Butylbenzene	135-98-8	<1	<1	<1	<1
tert-Butylbenzene	98-06-6	<1	<1	<1	<1
Isopropylbenzene	98-82-8	<1	2	<1	<1
p-Isopropyltoluene	99-87-6	<1	<1	<1	<1
n-Propylbenzene	103-65-1	<1	<1	<1	<1
Ethylbenzene	100-41-4	15	63	<1	<1
Naphthalene	91-20-3	49	140	<1	<1
Toluene	108-88-3	<1	4	<1	<1
1,2,4-Trimethylbenzene	95-63-6	3	9	<1	<1
1,3,5-Trimethylbenzene	108-67-8	5	2	<1	<1
Xylenes (total)	1330-20-7	15	54	<3	<3

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		C-1S	C-2S	C-3S	C-4S	C-5S	C-6S
Laboratory ID:		0016892	0016894	0016896	0016898	0016900	0016902
Sampling Date:		03/08/01	03/08/01	03/08/01	03/08/01	03/08/01	03/08/01
Units:		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EPA 8270 (STARS)							
PARAMETER	CAS No.	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS	RESULTS
Acenaphthene	83-32-9	<5	<5	<5	<5	8	<5
Fluorene	86-73-7	<5	<5	<5	<5	6	<5
Phenanthrene	85-01-8	<5	<5	<5	<5	7	<5
Anthracene	120-12-7	<5	<5	<5	<5	<5	<5
Fluoranthene	206-44-0	<5	<5	<5	<5	<5	<5
Pyrene	129-00-0	<5	<5	<5	<5	<5	<5
Benzo-(a)Anthracene	56-55-3	<5	<5	<5	<5	<5	<5
Chrysene	218-01-9	<5	<5	<5	<5	<5	<5
Benzo(b)Fluoranthene	205-99-2	<5	<5	<5	<5	<5	<5
Benzo(k)Fluoranthene	207-08-9	<5	<5	<5	<5	<5	<5
Benzo(a)Pyrene	50-32-8	<5	<5	<5	<5	<5	<5
Indeno(1,2,3-cd)Pyrene	193-39-5	<5	<5	<5	<5	<5	<5
Dibenzo(a,h)Anthracene	53-70-3	<5	<5	<5	<5	<5	<5
Benzo (g,h,I)Perylene	191-24-2	<5	<5	<5	<5	<5	<5
Total PAH		<5	<5	<5	<5	21	<5

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		C-1D	C-2D	C-3D	C-4D	C-5D	C-6D
Laboratory ID:		0016893	0016895	0016897	0016899	0016901	0016903
Sampling Date:		03/08/01	03/08/01	03/08/01	03/08/01	03/08/01	03/08/01
Units:		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EPA 8270 (STARS)							
PARAMETER	**CAS No.**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**	**RESULTS**
Acenaphthene	83-32-9	<5	<5	11	13	12	12
Fluorene	86-73-7	<5	<5	<5	<5	<5	7
Phenanthrene	85-01-8	<5	<5	<5	<5	<5	8
Anthracene	120-12-7	<5	<5	<5	<5	<5	<5
Fluoranthene	206-44-0	<5	<5	<5	<5	<5	<5
Pyrene	129-00-0	<5	<5	<5	<5	<5	<5
Benzo-(a)Anthracene	56-55-3	<5	<5	<5	<5	<5	<5
Chrysene	218-01-9	<5	<5	<5	<5	<5	<5
Benzo(b)Fluoranthene	205-99-2	<5	<5	<5	<5	<5	<5
Benzo(k)Fluoranthene	207-08-9	<5	<5	<5	<5	<5	<5
Benzo(a)Pyrene	50-32-8	<5	<5	<5	<5	<5	<5
Indeno(1,2,3-cd)Pyrene	193-39-5	<5	<5	<5	<5	<5	<5
Dibenzo(a,h)Anthracene	53-70-3	<5	<5	<5	<5	<5	<5
Benzo (g,h,I)Perylene	191-24-2	<5	<5	<5	<5	<5	<5
Total PAH		**<5**	**<5**	**11**	**13**	**12**	**27**

AKRF Inc.
Site: 124-136 Second Ave. - Gowanus Site

Sample ID:		MW-9	MW-10	FB
Laboratory ID:		0016904	0016905	0016906
Sampling Date:		03/08/01	03/08/01	03/08/01
Units:		ug/L	ug/L	ug/L
EPA 8270 (STARS)				
PARAMETER	CAS No.	RESULTS	RESULTS	RESULTS
Acenaphthene	83-32-9	6	<5	<5
Fluorene	86-73-7	<5	<5	<5
Phenanthrene	85-01-8	<5	<5	<5
Anthracene	120-12-7	<5	<5	<5
Fluoranthene	206-44-0	<5	<5	<5
Pyrene	129-00-0	<5	<5	<5
Benzo-(a)Anthracene	56-55-3	<5	<5	<5
Chrysene	218-01-9	<5	<5	<5
Benzo(b)Fluoranthene	205-99-2	<5	<5	<5
Benzo(k)Fluoranthene	207-08-9	<5	<5	<5
Benzo(a)Pyrene	50-32-8	<5	<5	<5
Indeno(1,2,3-cd)Pyrene	193-39-5	<5	<5	<5
Dibenzo(a,h)Anthracene	53-70-3	<5	<5	<5
Benzo (g,h,i)Perylene	191-24-2	<5	<5	<5
Total PAH		**6**	**<5**	**<5**

Appendix E Soil Gas Results

Performance Analytical Inc.
Air Quality Laboratory
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-3
PAI Sample ID : P2100946-001

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister
Canister ID : #00015

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Analyzed : 5/3/01
Volume(s) Analyzed : 0.010 Liter(s)

Pi 1 = -7.0 Pf 1 = 3.5
D.F. = 2.36

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
74-87-3	Chloromethane	ND	200	ND	97
75-01-4	Vinyl Chloride	ND	200	ND	78
74-83-9	Bromomethane	ND	200	ND	52
75-00-3	Chloroethane	ND	200	ND	76
67-64-1	Acetone	ND	200	ND	84
75-69-4	Trichlorofluoromethane	240	200	42	36
75-35-4	1,1-Dichloroethene	ND	200	ND	50
75-09-2	Methylene chloride	ND	200	ND	58
76-13-1	Trichlorotrifluoroethane	ND	200	ND	26
75-15-0	Carbon Disulfide	ND	200	ND	64
156-60-5	trans-1,2-Dichloroethene	ND	200	ND	50
75-34-3	1,1-Dichloroethane	ND	200	ND	49
1634-04-4	Methyl tert-Butyl Ether	ND	200	ND	55
108-05-4	Vinyl Acetate	ND	200	ND	57
78-93-3	2-Butanone	ND	200	ND	68
156-59-2	cis-1,2-Dichloroethene	ND	200	ND	50
67-66-3	Chloroform	ND	200	ND	41
107-06-2	1,2-Dichloroethane	ND	200	ND	49
71-55-6	1,1,1-Trichloroethane	ND	200	ND	37
71-43-2	Benzene	21,000	200	6,700	63
56-23-5	Carbon Tetrachloride	ND	200	ND	32
78-87-5	1,2-Dichloropropane	ND	200	ND	43

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By: RG Date: 5/16/01

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Performance Analytical Inc.
Air Quality Laboratory
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-3
PAI Sample ID : P2100946-001

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister
Canister ID : #00015

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Analyzed : 5/3/01
Volume(s) Analyzed : 0.010 Liter(s)

Pi 1 = -7.0 Pf 1 = 3.5
D.F. = 2.36

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	200	ND	30
79-01-6	Trichloroethene	ND	200	ND	37
10061-01-5	cis-1,3-Dichloropropene	ND	200	ND	44
108-10-1	4-Methyl-2-pentanone	ND	200	ND	49
10061-02-6	trans-1,3-Dichloropropene	ND	200	ND	44
79-00-5	1,1,2-Trichloroethane	ND	200	ND	37
108-88-3	Toluene	11,000	200	3,000	53
591-78-6	2-Hexanone	ND	200	ND	49
124-48-1	Dibromochloromethane	ND	200	ND	23
106-93-4	1,2-Dibromoethane	ND	200	ND	26
127-18-4	Tetrachloroethene	ND	200	ND	30
108-90-7	Chlorobenzene	ND	200	ND	43
100-41-4	Ethylbenzene	2,400	200	540	46
136777-61-2	*m,p*-Xylenes	2,000	200	460	46
75-25-2	Bromoform	ND	200	ND	19
100-42-5	Styrene	ND	200	ND	47
95-47-6	o-Xylene	1,100	200	240	46
79-34-5	1,1,2,2-Tetrachloroethane	ND	200	ND	29
541-73-1	1,3-Dichlorobenzene	ND	200	ND	33
106-46-7	1,4-Dichlorobenzene	ND	200	ND	33
95-50-1	1,2-Dichlorobenzene	ND	200	ND	33

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

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Performance Analytical Inc.
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-4
PAI Sample ID : P2100946-002

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister
Canister ID : #00557

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Analyzed : 5/2/01
Volume(s) Analyzed : 1.00 Liter(s)

Pi 1 = 0.9 Pf 1 = 3.5
D.F. = 1.17

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
74-87-3	Chloromethane	ND	1.0	ND	0.48
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
74-83-9	Bromomethane	ND	1.0	ND	0.26
75-00-3	Chloroethane	ND	1.0	ND	0.38
67-64-1	Acetone	18	1.0	7.4	0.42
75-69-4	Trichlorofluoromethane	1.6	1.0	0.29	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	1.3	1.0	0.38	0.29
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	5.8	1.0	1.6	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	5.9	1.0	2.0	0.34
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
67-66-3	Chloroform	ND	1.0	ND	0.20
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18
71-43-2	Benzene	14	1.0	4.4	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-4
PAI Sample ID : P2100946-002

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister
Canister ID : #00557

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Analyzed : 5/2/01
Volume(s) Analyzed : 1.00 Liter(s)

Pi 1 = 0.9 Pf 1 = 3.5
D.F. = 1.17

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18
108-88-3	Toluene	39	1.0	10	0.27
591-78-6	2-Hexanone	ND	1.0	ND	0.24
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	3.4	1.0	0.50	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	34	1.0	7.8	0.23
136777-61-2	*m,p*-Xylenes	61	1.0	14	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	4.0	1.0	0.94	0.23
95-47-6	o-Xylene	32	1.0	7.4	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	2.9	1.0	0.48	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-5
PAI Sample ID : P2100946-003

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister
Canister ID : #00486

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Analyzed : 5/3/01
Volume(s) Analyzed : 0.25 Liter(s)

Pi 1 = -7.3 Pf 1 = 3.5
D.F. = 2.46

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
74-87-3	Chloromethane	ND	8.0	ND	3.9
75-01-4	Vinyl Chloride	ND	8.0	ND	3.1
74-83-9	Bromomethane	ND	8.0	ND	2.1
75-00-3	Chloroethane	ND	8.0	ND	3.0
67-64-1	Acetone	250	8.0	110	3.4
75-69-4	Trichlorofluoromethane	1,000	8.0	180	1.4
75-35-4	1,1-Dichloroethene	ND	8.0	ND	2.0
75-09-2	Methylene chloride	12	8.0	3.3	2.3
76-13-1	Trichlorotrifluoroethane	ND	8.0	ND	1.0
75-15-0	Carbon Disulfide	ND	8.0	ND	2.6
156-60-5	trans-1,2-Dichloroethene	ND	8.0	ND	2.0
75-34-3	1,1-Dichloroethane	ND	8.0	ND	2.0
1634-04-4	Methyl tert-Butyl Ether	92	8.0	26	2.2
108-05-4	Vinyl Acetate	ND	8.0	ND	2.3
78-93-3	2-Butanone	22	8.0	7.4	2.7
156-59-2	cis-1,2-Dichloroethene	11	8.0	2.8	2.0
67-66-3	Chloroform	ND	8.0	ND	1.6
107-06-2	1,2-Dichloroethane	32	8.0	8.0	2.0
71-55-6	1,1,1-Trichloroethane	86	8.0	16	1.5
71-43-2	Benzene	200	8.0	62	2.5
56-23-5	Carbon Tetrachloride	ND	8.0	ND	1.3
78-87-5	1,2-Dichloropropane	ND	8.0	ND	1.7

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

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RESULTS OF ANALYSIS

PAGE 2 OF 2

Client : AKRF, Inc.

Client Sample ID : SG-5
PAI Sample ID : P2100946-003

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister
Canister ID : #00486

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Analyzed : 5/3/01
Volume(s) Analyzed : 0.25 Liter(s)

Pi 1 = -7.3 Pf 1 = 3.5

D.F. = 2.46

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	8.0	ND	1.2
79-01-6	Trichloroethene	83	8.0	15	1.5
10061-01-5	cis-1,3-Dichloropropene	ND	8.0	ND	1.8
108-10-1	4-Methyl-2-pentanone	ND	8.0	ND	2.0
10061-02-6	trans-1,3-Dichloropropene	ND	8.0	ND	1.8
79-00-5	1,1,2-Trichloroethane	ND	8.0	ND	1.5
108-88-3	Toluene	110	8.0	30	2.1
591-78-6	2-Hexanone	ND	8.0	ND	2.0
124-48-1	Dibromochloromethane	ND	8.0	ND	0.94
106-93-4	1,2-Dibromoethane	ND	8.0	ND	1.0
127-18-4	Tetrachloroethene	96	8.0	14	1.2
108-90-7	Chlorobenzene	ND	8.0	ND	1.7
100-41-4	Ethylbenzene	90	8.0	21	1.8
136777-61-2	*m,p*-Xylenes	100	8.0	23	1.8
75-25-2	Bromoform	ND	8.0	ND	0.77
100-42-5	Styrene	ND	8.0	ND	1.9
95-47-6	o-Xylene	150	8.0	34	1.8
79-34-5	1,1,2,2-Tetrachloroethane	ND	8.0	ND	1.2
541-73-1	1,3-Dichlorobenzene	ND	8.0	ND	1.3
106-46-7	1,4-Dichlorobenzene	ND	8.0	ND	1.3
95-50-1	1,2-Dichlorobenzene	ND	8.0	ND	1.3

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

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00946VOA CY1 - Sample (3)

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-6
PAI Sample ID : P2100946-004

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister
Canister ID : #01522

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Analyzed : 5/2/01
Volume(s) Analyzed : 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = -6.0 Pf 1 = 3.5
D.F. = 2.09

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
74-87-3	Chloromethane	ND	2.0	ND	0.97
75-01-4	Vinyl Chloride	ND	2.0	ND	0.78
74-83-9	Bromomethane	ND	2.0	ND	0.52
75-00-3	Chloroethane	ND	2.0	ND	0.76
67-64-1	Acetone	100	2.0	43	0.84
75-69-4	Trichlorofluoromethane	ND	2.0	ND	0.36
75-35-4	1,1-Dichloroethene	ND	2.0	ND	0.50
75-09-2	Methylene chloride	ND	2.0	ND	0.58
76-13-1	Trichlorotrifluoroethane	ND	2.0	ND	0.26
75-15-0	Carbon Disulfide	ND	2.0	ND	0.64
156-60-5	trans-1,2-Dichloroethene	ND	2.0	ND	0.50
75-34-3	1,1-Dichloroethane	ND	2.0	ND	0.49
1634-04-4	Methyl tert-Butyl Ether	160	2.0	44	0.55
108-05-4	Vinyl Acetate	ND	2.0	ND	0.57
78-93-3	2-Butanone	12	2.0	4.1	0.68
156-59-2	cis-1,2-Dichloroethene	ND	2.0	ND	0.50
67-66-3	Chloroform	ND	2.0	ND	0.41
107-06-2	1,2-Dichloroethane	ND	2.0	ND	0.49
71-55-6	1,1,1-Trichloroethane	ND	2.0	ND	0.37
71-43-2	Benzene	53	2.0	17	0.63
56-23-5	Carbon Tetrachloride	ND	2.0	ND	0.32
78-87-5	1,2-Dichloropropane	ND	2.0	ND	0.43

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By: RG Date: 5/16/01

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Performance Analytical Inc.
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-6
PAI Sample ID : P2100946-004

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister
Canister ID : #01522

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Analyzed : 5/2/01
Volume(s) Analyzed : 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = -6.0 Pf 1 = 3.5
D.F. = 2.09

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	2.0	ND	0.30
79-01-6	Trichloroethene	ND	2.0	ND	0.37
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ND	0.44
108-10-1	4-Methyl-2-pentanone	ND	2.0	ND	0.49
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ND	0.44
79-00-5	1,1,2-Trichloroethane	ND	2.0	ND	0.37
108-88-3	Toluene	160	2.0	42	0.53
591-78-6	2-Hexanone	ND	2.0	ND	0.49
124-48-1	Dibromochloromethane	ND	2.0	ND	0.23
106-93-4	1,2-Dibromoethane	ND	2.0	ND	0.26
127-18-4	Tetrachloroethene	3.7	2.0	0.54	0.30
108-90-7	Chlorobenzene	ND	2.0	ND	0.43
100-41-4	Ethylbenzene	230	2.0	54	0.46
136777-61-2	*m,p*-Xylenes	140	2.0	32	0.46
75-25-2	Bromoform	ND	2.0	ND	0.19
100-42-5	Styrene	4.2	2.0	0.98	0.47
95-47-6	o-Xylene	82	2.0	19	0.46
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ND	0.29
541-73-1	1,3-Dichlorobenzene	ND	2.0	ND	0.33
106-46-7	1,4-Dichlorobenzene	8.0	2.0	1.3	0.33
95-50-1	1,2-Dichlorobenzene	ND	2.0	ND	0.33

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By: RG Date: 5/16/01

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Performance Analytical Inc.
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-8
PAI Sample ID : P2100946-005

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister
Canister ID : #00183

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Analyzed : 5/2/01
Volume(s) Analyzed : 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = -1.5 Pf 1 = 3.5
D.F. = 1.38

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
74-87-3	Chloromethane	ND	1.0	ND	0.48
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
74-83-9	Bromomethane	ND	1.0	ND	0.26
75-00-3	Chloroethane	ND	1.0	ND	0.38
67-64-1	Acetone	19	1.0	8.2	0.42
75-69-4	Trichlorofluoromethane	1.9	1.0	0.34	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
75-15-0	Carbon Disulfide	1.5	1.0	0.49	0.32
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	4.8	1.0	1.3	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	4.4	1.0	1.5	0.34
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
67-66-3	Chloroform	3.2	1.0	0.65	0.20
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18
71-43-2	Benzene	300	1.0	95	0.31
56-23-5	Carbon Tetrachloride	1.6	1.0	0.25	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By: RC Date: 5/16/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-8
PAI Sample ID : P2100946-005

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister
Canister ID : #00183

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Analyzed : 5/2/01
Volume(s) Analyzed : 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = -1.5 Pf 1 = 3.5
D.F. = 1.38

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	3.1	1.0	0.57	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18
108-88-3	Toluene	390	1.0	100	0.27
591-78-6	2-Hexanone	ND	1.0	ND	0.24
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	7.6	1.0	1.1	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	160	1.0	36	0.23
136777-61-2	*m,p*-Xylenes	160	1.0	36	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	11	1.0	2.5	0.23
95-47-6	o-Xylene	93	1.0	21	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	2.6	1.0	0.44	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By: RG Date: 5/16/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : TB
PAI Sample ID : P2100946-006

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister
Canister ID : #00199

Date Sampled : NA
Date Received : 5/2/01
Date Analyzed : 5/2/01
Volume(s) Analyzed : 1.00 Liter(s)

Pi 1 = -14.3 Pf 1 = 3.5
D.F. = 1.00

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
74-87-3	Chloromethane	ND	1.0	ND	0.48
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
74-83-9	Bromomethane	ND	1.0	ND	0.26
75-00-3	Chloroethane	ND	1.0	ND	0.38
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
67-66-3	Chloroform	ND	1.0	ND	0.20
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By: RG Date: 5/16/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : TB
PAI Sample ID : P2100946-006

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister
Canister ID : #00199

Date Sampled : NA
Date Received : 5/2/01
Date Analyzed : 5/2/01
Volume(s) Analyzed : 1.00 Liter(s)

Pi 1 = -14.3 Pf 1 = 3.5
D.F. = 1.00

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18
108-88-3	Toluene	ND	1.0	ND	0.27
591-78-6	2-Hexanone	ND	1.0	ND	0.24
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
136777-61-2	*m,p*-Xylenes	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By: RG Date: 5/16/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : Method Blank
PAI Sample ID : P010502-MB

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister

Date Sampled : NA
Date Received : NA
Date Analyzed : 5/02/01
Volume(s) Analyzed : 1.00 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
74-87-3	Chloromethane	ND	1.0	ND	0.48
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
74-83-9	Bromomethane	ND	1.0	ND	0.26
75-00-3	Chloroethane	ND	1.0	ND	0.38
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
67-66-3	Chloroform	ND	1.0	ND	0.20
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By: RG Date: 5/16/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : Method Blank
PAI Sample ID : P010502-MB

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister

Date Sampled : NA
Date Received : NA
Date Analyzed : 5/02/01
Volume(s) Analyzed : 1.00 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18
108-88-3	Toluene	ND	1.0	ND	0.27
591-78-6	2-Hexanone	ND	1.0	ND	0.24
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
136777-61-2	*m,p*-Xylenes	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By: RG Date: 5/16/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : Method Blank
PAI Sample ID : P010503-MB

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister

Date Sampled : NA
Date Received : NA
Date Analyzed : 5/03/01
Volume(s) Analyzed : 1.00 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
74-87-3	Chloromethane	ND	1.0	ND	0.48
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
74-83-9	Bromomethane	ND	1.0	ND	0.26
75-00-3	Chloroethane	ND	1.0	ND	0.38
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
67-66-3	Chloroform	ND	1.0	ND	0.20
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By: RG Date: 5/16/01

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Performance Analytical Inc.
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : Method Blank
PAI Sample ID : P010503-MB

Test Code : EPA TO-15
Instrument : HP5972/Tekmar AUTOCan Elite
Analyst : Cindy Yoon
Matrix : Summa Canister

Date Sampled : NA
Date Received : NA
Date Analyzed : 5/03/01
Volume(s) Analyzed : 1.00 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/m³	REPORTING LIMIT µg/m³	RESULT ppbV	REPORTING LIMIT ppbV
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18
108-88-3	Toluene	ND	1.0	ND	0.27
591-78-6	2-Hexanone	ND	1.0	ND	0.24
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
136777-61-2	*m,p*-Xylenes	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By: RG Date: 5/16/01

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Performance Analytical Inc.
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-3
PAI Sample ID : P2100946-001B

Test Code : Modified EPA TO-13A/8270C
Instrument : HP5890II/MSD
Analyst : Nelyn Quitoviera
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
62-75-9	n-Nitroso-di-methylamine	< 4.0 I	ND, I	17	ND, I	5.5
108-95-2	Phenol	< 2.0 I	ND, I	8.3	ND, I	2.2
111-44-4	Bis(2-Chloroethyl)ether	< 2.0 I	ND, I	8.3	ND, I	1.4
95-57-8	2-Chlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.6
541-73-1	1,3-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
106-46-7	1,4-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
95-50-1	1,2-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
95-48-7	2-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.9
106-44-5	4-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.9
108-60-1	Bis(2-Chloroisopropyl)ether	< 2.0 I	ND, I	8.3	ND, I	1.2
621-64-7	n-Nitrosodi-n-propylamine	< 2.0 I	ND, I	8.3	ND, I	1.6
67-72-1	Hexachloroethane	< 2.0 I	ND, I	8.3	ND, I	0.86
98-95-3	Nitrobenzene	< 2.0 I	ND, I	8.3	ND, I	1.7
78-59-1	Isophorone	< 2.0 I	ND, I	8.3	ND, I	1.5
88-75-5	2-Nitrophenol	< 2.0 I	ND, I	8.3	ND, I	1.5
105-67-9	2,4-Dimethylphenol	< 2.0 I	ND, I	8.3	ND, I	1.7
111-91-1	Bis(2-Chloroethoxy)methane	< 2.0 I	ND, I	8.3	ND, I	1.2
65-85-0	Benzoic Acid	< 20 I	ND, I	83	ND, I	17
120-83-2	2,4-Dichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.3
120-82-1	1,2,4-Trichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.1
91-20-3	Naphthalene	42 I, J	170 I, J	8.3	33 I, J	1.6
106-47-8	4-Chloroaniline	< 4.0 I	ND, I	17	ND, I	3.2

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.
J = The associated numerical value is considered estimated.

Verified By: RG Date: 5/29/01

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Performance Analytical Inc.
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-3
PAI Sample ID : P2100946-001B

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
87-68-3	Hexachlorobutadiene	< 2.0 I	ND, I	8.3	ND, I	0.78
59-50-7	4-Chloro-3-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.4
91-57-6	2-Methylnaphthalene	< 2.0 I	ND, I	8.3	ND, I	1.4
77-47-4	Hexachlorocyclopentadiene	< 2.0 I	ND, I	8.3	ND, I	0.75
88-06-2	2,4,6-Trichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.0
95-95-4	2,4,5-Trichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.0
91-58-7	2-Chloronaphthalene	< 2.0 I	ND, I	8.3	ND, I	1.3
88-74-4	2-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
131-11-3	Dimethylphthalate	< 2.0 I	ND, I	8.3	ND, I	1.0
208-96-8	Acenaphthylene	< 2.0 I	ND, I	8.3	ND, I	1.3
606-20-2	2,6-Dinitrotoluene	< 2.0 I	ND, I	8.3	ND, I	1.1
99-09-2	3-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
83-32-9	Acenaphthene	< 2.0 I	ND, I	8.3	ND, I	1.3
51-28-5	2,4-Dinitrophenol	< 4.0 I	ND, I	17	ND, I	2.2
100-02-7	4-Nitrophenol	< 4.0 I	ND, I	17	ND, I	2.9
192-65-4	Dibenzofuran	< 2.0 I	ND, I	8.3	ND, I	0.67
121-14-2	2,4-Dinitrotoluene	< 2.0 I	ND, I	8.3	ND, I	1.1
84-66-2	Diethylphthalate	31 I, J	130 I, J	8.3	14 I, J	0.92
86-73-7	Fluorene	< 2.0 I	ND, I	8.3	ND, I	1.2
7005-72-3	4-Chlorophenyl-phenylether	< 2.0 I	ND, I	8.3	ND, I	1.00
100-01-6	4-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
534-52-1	4,6-Dinitro-2-methylphenol	< 4.0 I	ND, I	17	ND, I	2.1

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.
J = The associated numerical value is considered estimated.

Verified By: RG Date: 5/29/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-3
PAI Sample ID : P2100946-001B

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
103-33-3	Azobenzene	< 2.0 I	ND, I	8.3	ND, I	1.1
86-30-6	n-Nitrosodiphenylamine	< 2.0 I	ND, I	8.3	ND, I	1.0
101-55-3	4-Bromophenyl-phenylether	< 2.0 I	ND, I	8.3	ND, I	0.82
118-74-1	Hexachlorobenzene	< 2.0 I	ND, I	8.3	ND, I	0.72
87-86-5	Pentachlorophenol	< 4.0 I	ND, I	17	ND, I	1.5
85-01-8	Phenanthrene	< 2.0 I	ND, I	8.3	ND, I	1.1
120-12-7	Anthracene	< 2.0 I	ND, I	8.3	ND, I	1.1
84-74-2	Di-n-butylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.73
206-44-0	Fluoranthene	< 2.0 I	ND, I	8.3	ND, I	1.0
129-00-0	Pyrene	< 2.0 I	ND, I	8.3	ND, I	1.0
85-68-7	Butylbenzylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.65
56-55-3	Benzo(a)anthracene	< 2.0 I	ND, I	8.3	ND, I	0.89
91-94-1	3,3'-Dichlorobenzidine	< 4.0 I	ND, I	17	ND, I	1.3
218-01-9	Chrysene	< 2.0 I	ND, I	8.3	ND, I	0.89
117-81-7	Bis(2-ethylhexyl)phthalate	2.6 I, J	11 I, J	8.3	0.68 I, J	0.52
205-99-2	Benzo(b)fluoranthene	< 2.0 I	ND, I	8.3	ND, I	0.81
207-08-9	Benzo(k)fluoranthene	< 2.0 I	ND, I	8.3	ND, I	0.81
50-32-8	Benzo(a)pyrene	< 2.0 I	ND, I	8.3	ND, I	0.81
193-39-5	Indeno(1,2,3-cd)pyrene	< 2.0 I	ND, I	8.3	ND, I	0.74
53-70-3	Dibenz(a,h)anthracene	< 2.0 I	ND, I	8.3	ND, I	0.73
191-24-2	Benzo(g,h,i)perylene	< 2.0 I	ND, I	8.3	ND, I	0.74

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.
J = The associated numerical value is considered estimated.

Verified By: RG Date: 5/29/01

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Performance Analytical Inc.
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-4
PAI Sample ID : P2100946-002B

Test Code : Modified EPA TO-13A/8270C
Instrument : HP5890II/MSD
Analyst : Nelyn Quitoviera
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
62-75-9	n-Nitroso-di-methylamine	< 4.0 I	ND, I	17	ND, I	5.5
108-95-2	Phenol	< 2.0 I	ND, I	8.3	ND, I	2.2
111-44-4	Bis(2-Chloroethyl)ether	< 2.0 I	ND, I	8.3	ND, I	1.4
95-57-8	2-Chlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.6
541-73-1	1,3-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
106-46-7	1,4-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
95-50-1	1,2-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
95-48-7	2-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.9
106-44-5	4-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.9
108-60-1	Bis(2-Chloroisopropyl)ether	< 2.0 I	ND, I	8.3	ND, I	1.2
621-64-7	n-Nitrosodi-n-propylamine	< 2.0 I	ND, I	8.3	ND, I	1.6
67-72-1	Hexachloroethane	< 2.0 I	ND, I	8.3	ND, I	0.86
98-95-3	Nitrobenzene	< 2.0 I	ND, I	8.3	ND, I	1.7
78-59-1	Isophorone	< 2.0 I	ND, I	8.3	ND, I	1.5
88-75-5	2-Nitrophenol	< 2.0 I	ND, I	8.3	ND, I	1.5
105-67-9	2,4-Dimethylphenol	< 2.0 I	ND, I	8.3	ND, I	1.7
111-91-1	Bis(2-Chloroethoxy)methane	< 2.0 I	ND, I	8.3	ND, I	1.2
65-85-0	Benzoic Acid	< 20 I	ND, I	83	ND, I	17
120-83-2	2,4-Dichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.3
120-82-1	1,2,4-Trichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.1
91-20-3	Naphthalene	9.3 I, J	39 I, J	8.3	7.4 I, J	1.6
106-47-8	4-Chloroaniline	< 4.0 I	ND, I	17	ND, I	3.2

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.
J = The associated numerical value is considered estimated.

Verified By: RG Date: 5/29/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-4
PAI Sample ID : P2100946-002B

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
87-68-3	Hexachlorobutadiene	< 2.0 I	ND, I	8.3	ND, I	0.78
59-50-7	4-Chloro-3-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.4
91-57-6	2-Methylnaphthalene	< 2.0 I	ND, I	8.3	ND, I	1.4
77-47-4	Hexachlorocyclopentadiene	< 2.0 I	ND, I	8.3	ND, I	0.75
88-06-2	2,4,6-Trichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.0
95-95-4	2,4,5-Trichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.0
91-58-7	2-Chloronaphthalene	< 2.0 I	ND, I	8.3	ND, I	1.3
88-74-4	2-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
131-11-3	Dimethylphthalate	< 2.0 I	ND, I	8.3	ND, I	1.0
208-96-8	Acenaphthylene	< 2.0 I	ND, I	8.3	ND, I	1.3
606-20-2	2,6-Dinitrotoluene	< 2.0 I	ND, I	8.3	ND, I	1.1
99-09-2	3-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
83-32-9	Acenaphthene	< 2.0 I	ND, I	8.3	ND, I	1.3
51-28-5	2,4-Dinitrophenol	< 4.0 I	ND, I	17	ND, I	2.2
100-02-7	4-Nitrophenol	< 4.0 I	ND, I	17	ND, I	2.9
192-65-4	Dibenzofuran	< 2.0 I	ND, I	8.3	ND, I	0.67
121-14-2	2,4-Dinitrotoluene	< 2.0 I	ND, I	8.3	ND, I	1.1
84-66-2	Diethylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.92
86-73-7	Fluorene	< 2.0 I	ND, I	8.3	ND, I	1.2
7005-72-3	4-Chlorophenyl-phenylether	< 2.0 I	ND, I	8.3	ND, I	1.00
100-01-6	4-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
534-52-1	4,6-Dinitro-2-methylphenol	< 4.0 I	ND, I	17	ND, I	2.1

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.
J = The associated numerical value is considered estimated.

Verified By: RG Date: 5/29/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-4
PAI Sample ID : P2100946-002B

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
103-33-3	Azobenzene	< 2.0 I	ND, I	8.3	ND, I	1.1
86-30-6	n-Nitrosodiphenylamine	< 2.0 I	ND, I	8.3	ND, I	1.0
101-55-3	4-Bromophenyl-phenylether	< 2.0 I	ND, I	8.3	ND, I	0.82
118-74-1	Hexachlorobenzene	< 2.0 I	ND, I	8.3	ND, I	0.72
87-86-5	Pentachlorophenol	< 4.0 I	ND, I	17	ND, I	1.5
85-01-8	Phenanthrene	< 2.0 I	ND, I	8.3	ND, I	1.1
120-12-7	Anthracene	< 2.0 I	ND, I	8.3	ND, I	1.1
84-74-2	Di-n-butylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.73
206-44-0	Fluoranthene	< 2.0 I	ND, I	8.3	ND, I	1.0
129-00-0	Pyrene	< 2.0 I	ND, I	8.3	ND, I	1.0
85-68-7	Butylbenzylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.65
56-55-3	Benzo(a)anthracene	< 2.0 I	ND, I	8.3	ND, I	0.89
91-94-1	3,3'-Dichlorobenzidine	< 4.0 I	ND, I	17	ND, I	1.3
218-01-9	Chrysene	< 2.0 I	ND, I	8.3	ND, I	0.89
117-81-7	Bis(2-ethylhexyl)phthalate	3.6 I, J	15 I, J	8.3	0.94 I, J	0.52
205-99-2	Benzo(b)fluoranthene	< 2.0 I	ND, I	8.3	ND, I	0.81
207-08-9	Benzo(k)fluoranthene	< 2.0 I	ND, I	8.3	ND, I	0.81
50-32-8	Benzo(a)pyrene	< 2.0 I	ND, I	8.3	ND, I	0.81
193-39-5	Indeno(1,2,3-cd)pyrene	< 2.0 I	ND, I	8.3	ND, I	0.74
53-70-3	Dibenz(a,h)anthracene	< 2.0 I	ND, I	8.3	ND, I	0.73
191-24-2	Benzo(g,h,i)perylene	< 2.0 I	ND, I	8.3	ND, I	0.74

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.
J = The associated numerical value is considered estimated.

Verified By: RG Date: 5/29/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-5
PAI Sample ID : P2100946-003B

Test Code : Modified EPA TO-13A/8270C
Instrument : HP5890II/MSD
Analyst : Nelyn Quitoviera
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
62-75-9	n-Nitroso-di-methylamine	< 4.0 I	ND, I	17	ND, I	5.5
108-95-2	Phenol	< 2.0 I	ND, I	8.3	ND, I	2.2
111-44-4	Bis(2-Chloroethyl)ether	< 2.0 I	ND, I	8.3	ND, I	1.4
95-57-8	2-Chlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.6
541-73-1	1,3-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
106-46-7	1,4-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
95-50-1	1,2-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
95-48-7	2-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.9
106-44-5	4-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.9
108-60-1	Bis(2-Chloroisopropyl)ether	< 2.0 I	ND, I	8.3	ND, I	1.2
621-64-7	n-Nitrosodi-n-propylamine	< 2.0 I	ND, I	8.3	ND, I	1.6
67-72-1	Hexachloroethane	< 2.0 I	ND, I	8.3	ND, I	0.86
98-95-3	Nitrobenzene	< 2.0 I	ND, I	8.3	ND, I	1.7
78-59-1	Isophorone	< 2.0 I	ND, I	8.3	ND, I	1.5
88-75-5	2-Nitrophenol	< 2.0 I	ND, I	8.3	ND, I	1.5
105-67-9	2,4-Dimethylphenol	< 2.0 I	ND, I	8.3	ND, I	1.7
111-91-1	Bis(2-Chloroethoxy)methane	< 2.0 I	ND, I	8.3	ND, I	1.2
65-85-0	Benzoic Acid	< 20 I	ND, I	83	ND, I	17
120-83-2	2,4-Dichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.3
120-82-1	1,2,4-Trichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.1
91-20-3	Naphthalene	< 2.0 I	ND, I	8.3	ND, I	1.6
106-47-8	4-Chloroaniline	< 4.0 I	ND, I	17	ND, I	3.2

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.

Verified By: RG Date: 5/29/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-5
PAI Sample ID : P2100946-003B

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
87-68-3	Hexachlorobutadiene	< 2.0 I	ND, I	8.3	ND, I	0.78
59-50-7	4-Chloro-3-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.4
91-57-6	2-Methylnaphthalene	< 2.0 I	ND, I	8.3	ND, I	1.4
77-47-4	Hexachlorocyclopentadiene	< 2.0 I	ND, I	8.3	ND, I	0.75
88-06-2	2,4,6-Trichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.0
95-95-4	2,4,5-Trichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.0
91-58-7	2-Chloronaphthalene	< 2.0 I	ND, I	8.3	ND, I	1.3
88-74-4	2-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
131-11-3	Dimethylphthalate	< 2.0 I	ND, I	8.3	ND, I	1.0
208-96-8	Acenaphthylene	< 2.0 I	ND, I	8.3	ND, I	1.3
606-20-2	2,6-Dinitrotoluene	< 2.0 I	ND, I	8.3	ND, I	1.1
99-09-2	3-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
83-32-9	Acenaphthene	< 2.0 I	ND, I	8.3	ND, I	1.3
51-28-5	2,4-Dinitrophenol	< 4.0 I	ND, I	17	ND, I	2.2
100-02-7	4-Nitrophenol	< 4.0 I	ND, I	17	ND, I	2.9
192-65-4	Dibenzofuran	< 2.0 I	ND, I	8.3	ND, I	0.67
121-14-2	2,4-Dinitrotoluene	< 2.0 I	ND, I	8.3	ND, I	1.1
84-66-2	Diethylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.92
86-73-7	Fluorene	< 2.0 I	ND, I	8.3	ND, I	1.2
7005-72-3	4-Chlorophenyl-phenylether	< 2.0 I	ND, I	8.3	ND, I	1.00
100-01-6	4-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
534-52-1	4,6-Dinitro-2-methylphenol	< 4.0 I	ND, I	17	ND, I	2.1

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.

Verified By: RG Date: 5/29/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-5
PAI Sample ID : P2100946-003B

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
103-33-3	Azobenzene	< 2.0 I	ND, I	8.3	ND, I	1.1
86-30-6	n-Nitrosodiphenylamine	< 2.0 I	ND, I	8.3	ND, I	1.0
101-55-3	4-Bromophenyl-phenylether	< 2.0 I	ND, I	8.3	ND, I	0.82
118-74-1	Hexachlorobenzene	< 2.0 I	ND, I	8.3	ND, I	0.72
87-86-5	Pentachlorophenol	< 4.0 I	ND, I	17	ND, I	1.5
85-01-8	Phenanthrene	< 2.0 I	ND, I	8.3	ND, I	1.1
120-12-7	Anthracene	< 2.0 I	ND, I	8.3	ND, I	1.1
84-74-2	Di-n-butylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.73
206-44-0	Fluoranthene	< 2.0 I	ND, I	8.3	ND, I	1.0
129-00-0	Pyrene	< 2.0 I	ND, I	8.3	ND, I	1.0
85-68-7	Butylbenzylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.65
56-55-3	Benzo(a)anthracene	< 2.0 I	ND, I	8.3	ND, I	0.89
91-94-1	3,3'-Dichlorobenzidine	< 4.0 I	ND, I	17	ND, I	1.3
218-01-9	Chrysene	< 2.0 I	ND, I	8.3	ND, I	0.89
117-81-7	Bis(2-ethylhexyl)phthalate	< 2.0 I	ND, I	8.3	ND, I	0.52
205-99-2	Benzo(b)fluoranthene	< 2.0 I	ND, I	8.3	ND, I	0.81
207-08-9	Benzo(k)fluoranthene	< 2.0 I	ND, I	8.3	ND, I	0.81
50-32-8	Benzo(a)pyrene	< 2.0 I	ND, I	8.3	ND, I	0.81
193-39-5	Indeno(1,2,3-cd)pyrene	< 2.0 I	ND, I	8.3	ND, I	0.74
53-70-3	Dibenz(a,h)anthracene	< 2.0 I	ND, I	8.3	ND, I	0.73
191-24-2	Benzo(g,h,i)perylene	< 2.0 I	ND, I	8.3	ND, I	0.74

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.

Verified By: RG Date: 5/29/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-6
PAI Sample ID : P2100946-004B

Test Code : Modified EPA TO-13A/8270C
Instrument : HP5890II/MSD
Analyst : Nelyn Quitoviera
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
62-75-9	n-Nitroso-di-methylamine	< 4.0 I	ND, I	17	ND, I	5.5
108-95-2	Phenol	< 2.0 I	ND, I	8.3	ND, I	2.2
111-44-4	Bis(2-Chloroethyl)ether	< 2.0 I	ND, I	8.3	ND, I	1.4
95-57-8	2-Chlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.6
541-73-1	1,3-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
106-46-7	1,4-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
95-50-1	1,2-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
95-48-7	2-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.9
106-44-5	4-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.9
108-60-1	Bis(2-Chloroisopropyl)ether	< 2.0 I	ND, I	8.3	ND, I	1.2
621-64-7	n-Nitrosodi-n-propylamine	< 2.0 I	ND, I	8.3	ND, I	1.6
67-72-1	Hexachloroethane	< 2.0 I	ND, I	8.3	ND, I	0.86
98-95-3	Nitrobenzene	< 2.0 I	ND, I	8.3	ND, I	1.7
78-59-1	Isophorone	< 2.0 I	ND, I	8.3	ND, I	1.5
88-75-5	2-Nitrophenol	< 2.0 I	ND, I	8.3	ND, I	1.5
105-67-9	2,4-Dimethylphenol	< 2.0 I	ND, I	8.3	ND, I	1.7
111-91-1	Bis(2-Chloroethoxy)methane	< 2.0 I	ND, I	8.3	ND, I	1.2
65-85-0	Benzoic Acid	< 20 I	ND, I	83	ND, I	17
120-83-2	2,4-Dichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.3
120-82-1	1,2,4-Trichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.1
91-20-3	Naphthalene	36 I, J	150 I, J	8.3	29 I, J	1.6
106-47-8	4-Chloroaniline	< 4.0 I	ND, I	17	ND, I	3.2

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.
J = The associated numerical value is considered estimated.

Verified By: RLS Date: 5/29/01

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Performance Analytical Inc.
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-6
PAI Sample ID : P2100946-004B

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
87-68-3	Hexachlorobutadiene	< 2.0 I	ND, I	8.3	ND, I	0.78
59-50-7	4-Chloro-3-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.4
91-57-6	2-Methylnaphthalene	< 2.0 I	ND, I	8.3	ND, I	1.4
77-47-4	Hexachlorocyclopentadiene	< 2.0 I	ND, I	8.3	ND, I	0.75
88-06-2	2,4,6-Trichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.0
95-95-4	2,4,5-Trichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.0
91-58-7	2-Chloronaphthalene	< 2.0 I	ND, I	8.3	ND, I	1.3
88-74-4	2-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
131-11-3	Dimethylphthalate	< 2.0 I	ND, I	8.3	ND, I	1.0
208-96-8	Acenaphthylene	< 2.0 I	ND, I	8.3	ND, I	1.3
606-20-2	2,6-Dinitrotoluene	< 2.0 I	ND, I	8.3	ND, I	1.1
99-09-2	3-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
83-32-9	Acenaphthene	< 2.0 I	ND, I	8.3	ND, I	1.3
51-28-5	2,4-Dinitrophenol	< 4.0 I	ND, I	17	ND, I	2.2
100-02-7	4-Nitrophenol	< 4.0 I	ND, I	17	ND, I	2.9
192-65-4	Dibenzofuran	< 2.0 I	ND, I	8.3	ND, I	0.67
121-14-2	2,4-Dinitrotoluene	< 2.0 I	ND, I	8.3	ND, I	1.1
84-66-2	Diethylphthalate	2.0 I, J	8.5 I, J	8.3	0.94 I, J	0.92
86-73-7	Fluorene	< 2.0 I	ND, I	8.3	ND, I	1.2
7005-72-3	4-Chlorophenyl-phenylether	< 2.0 I	ND, I	8.3	ND, I	1.00
100-01-6	4-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
534-52-1	4,6-Dinitro-2-methylphenol	< 4.0 I	ND, I	17	ND, I	2.1

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.
J = The associated numerical value is considered estimated.

Verified By: RG Date: 5/29/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-6
PAI Sample ID : P2100946-004B

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
103-33-3	Azobenzene	< 2.0 I	ND, I	8.3	ND, I	1.1
86-30-6	n-Nitrosodiphenylamine	< 2.0 I	ND, I	8.3	ND, I	1.0
101-55-3	4-Bromophenyl-phenylether	< 2.0 I	ND, I	8.3	ND, I	0.82
118-74-1	Hexachlorobenzene	< 2.0 I	ND, I	8.3	ND, I	0.72
87-86-5	Pentachlorophenol	< 4.0 I	ND, I	17	ND, I	1.5
85-01-8	Phenanthrene	< 2.0 I	ND, I	8.3	ND, I	1.1
120-12-7	Anthracene	< 2.0 I	ND, I	8.3	ND, I	1.1
84-74-2	Di-n-butylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.73
206-44-0	Fluoranthene	< 2.0 I	ND, I	8.3	ND, I	1.0
129-00-0	Pyrene	< 2.0 I	ND, I	8.3	ND, I	1.0
85-68-7	Butylbenzylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.65
56-55-3	Benzo(a)anthracene	< 2.0 I	ND, I	8.3	ND, I	0.89
91-94-1	3,3'-Dichlorobenzidine	< 4.0 I	ND, I	17	ND, I	1.3
218-01-9	Chrysene	< 2.0 I	ND, I	8.3	ND, I	0.89
117-81-7	Bis(2-ethylhexyl)phthalate	< 2.0 I	ND, I	8.3	ND, I	0.52
205-99-2	Benzo(b)fluoranthene	< 2.0 I	ND, I	8.3	ND, I	0.81
207-08-9	Benzo(k)fluoranthene	< 2.0 I	ND, I	8.3	ND, I	0.81
50-32-8	Benzo(a)pyrene	< 2.0 I	ND, I	8.3	ND, I	0.81
193-39-5	Indeno(1,2,3-cd)pyrene	< 2.0 I	ND, I	8.3	ND, I	0.74
53-70-3	Dibenz(a,h)anthracene	< 2.0 I	ND, I	8.3	ND, I	0.73
191-24-2	Benzo(g,h,i)perylene	< 2.0 I	ND, I	8.3	ND, I	0.74

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.
J = The associated numerical value is considered estimated.

Verified By: RG Date: 5/29/01

00946SVM RD1 - Sample (4)

Page No.:

Performance Analytical Inc.
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-8
PAI Sample ID : P2100946-005B

Test Code : Modified EPA TO-13A/8270C
Instrument : HP5890II/MSD
Analyst : Nelyn Quitoviera
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
62-75-9	n-Nitroso-di-methylamine	< 4.0 I	ND, I	17	ND, I	5.5
108-95-2	Phenol	< 2.0 I	ND, I	8.3	ND, I	2.2
111-44-4	Bis(2-Chloroethyl)ether	< 2.0 I	ND, I	8.3	ND, I	1.4
95-57-8	2-Chlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.6
541-73-1	1,3-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
106-46-7	1,4-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
95-50-1	1,2-Dichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.4
95-48-7	2-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.9
106-44-5	4-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.9
108-60-1	Bis(2-Chloroisopropyl)ether	< 2.0 I	ND, I	8.3	ND, I	1.2
621-64-7	n-Nitrosodi-n-propylamine	< 2.0 I	ND, I	8.3	ND, I	1.6
67-72-1	Hexachloroethane	< 2.0 I	ND, I	8.3	ND, I	0.86
98-95-3	Nitrobenzene	< 2.0 I	ND, I	8.3	ND, I	1.7
78-59-1	Isophorone	< 2.0 I	ND, I	8.3	ND, I	1.5
88-75-5	2-Nitrophenol	< 2.0 I	ND, I	8.3	ND, I	1.5
105-67-9	2,4-Dimethylphenol	< 2.0 I	ND, I	8.3	ND, I	1.7
111-91-1	Bis(2-Chloroethoxy)methane	< 2.0 I	ND, I	8.3	ND, I	1.2
65-85-0	Benzoic Acid	< 20 I	ND, I	83	ND, I	17
120-83-2	2,4-Dichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.3
120-82-1	1,2,4-Trichlorobenzene	< 2.0 I	ND, I	8.3	ND, I	1.1
91-20-3	Naphthalene	< 2.0 I	ND, I	8.3	ND, I	1.6
106-47-8	4-Chloroaniline	< 4.0 I	ND, I	17	ND, I	3.2

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.

Verified By: RG Date: 5/29/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-8
PAI Sample ID : P2100946-005B

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
87-68-3	Hexachlorobutadiene	< 2.0 I	ND, I	8.3	ND, I	0.78
59-50-7	4-Chloro-3-Methylphenol	< 2.0 I	ND, I	8.3	ND, I	1.4
91-57-6	2-Methylnaphthalene	< 2.0 I	ND, I	8.3	ND, I	1.4
77-47-4	Hexachlorocyclopentadiene	< 2.0 I	ND, I	8.3	ND, I	0.75
88-06-2	2,4,6-Trichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.0
95-95-4	2,4,5-Trichlorophenol	< 2.0 I	ND, I	8.3	ND, I	1.0
91-58-7	2-Chloronaphthalene	< 2.0 I	ND, I	8.3	ND, I	1.3
88-74-4	2-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
131-11-3	Dimethylphthalate	< 2.0 I	ND, I	8.3	ND, I	1.0
208-96-8	Acenaphthylene	< 2.0 I	ND, I	8.3	ND, I	1.3
606-20-2	2,6-Dinitrotoluene	< 2.0 I	ND, I	8.3	ND, I	1.1
99-09-2	3-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
83-32-9	Acenaphthene	< 2.0 I	ND, I	8.3	ND, I	1.3
51-28-5	2,4-Dinitrophenol	< 4.0 I	ND, I	17	ND, I	2.2
100-02-7	4-Nitrophenol	< 4.0 I	ND, I	17	ND, I	2.9
192-65-4	Dibenzofuran	< 2.0 I	ND, I	8.3	ND, I	0.67
121-14-2	2,4-Dinitrotoluene	< 2.0 I	ND, I	8.3	ND, I	1.1
84-66-2	Diethylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.92
86-73-7	Fluorene	< 2.0 I	ND, I	8.3	ND, I	1.2
7005-72-3	4-Chlorophenyl-phenylether	< 2.0 I	ND, I	8.3	ND, I	1.00
100-01-6	4-Nitroaniline	< 4.0 I	ND, I	17	ND, I	3.0
534-52-1	4,6-Dinitro-2-methylphenol	< 4.0 I	ND, I	17	ND, I	2.1

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.

Verified By: RG Date: 5/29/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : SG-8
PAI Sample ID : P2100946-005B

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : 4/30/01
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : 240 Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
103-33-3	Azobenzene	< 2.0 I	ND, I	8.3	ND, I	1.1
86-30-6	n-Nitrosodiphenylamine	< 2.0 I	ND, I	8.3	ND, I	1.0
101-55-3	4-Bromophenyl-phenylether	< 2.0 I	ND, I	8.3	ND, I	0.82
118-74-1	Hexachlorobenzene	< 2.0 I	ND, I	8.3	ND, I	0.72
87-86-5	Pentachlorophenol	< 4.0 I	ND, I	17	ND, I	1.5
85-01-8	Phenanthrene	< 2.0 I	ND, I	8.3	ND, I	1.1
120-12-7	Anthracene	< 2.0 I	ND, I	8.3	ND, I	1.1
84-74-2	Di-n-butylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.73
206-44-0	Fluoranthene	< 2.0 I	ND, I	8.3	ND, I	1.0
129-00-0	Pyrene	< 2.0 I	ND, I	8.3	ND, I	1.0
85-68-7	Butylbenzylphthalate	< 2.0 I	ND, I	8.3	ND, I	0.65
56-55-3	Benzo(a)anthracene	< 2.0 I	ND, I	8.3	ND, I	0.89
91-94-1	3,3'-Dichlorobenzidine	< 4.0 I	ND, I	17	ND, I	1.3
218-01-9	Chrysene	< 2.0 I	ND, I	8.3	ND, I	0.89
117-81-7	Bis(2-ethylhexyl)phthalate	< 2.0 I	ND, I	8.3	ND, I	0.52
205-99-2	Benzo(b)fluoranthene	< 2.0 I	ND, I	8.3	ND, I	0.81
207-08-9	Benzo(k)fluoranthene	< 2.0 I	ND, I	8.3	ND, I	0.81
50-32-8	Benzo(a)pyrene	< 2.0 I	ND, I	8.3	ND, I	0.81
193-39-5	Indeno(1,2,3-cd)pyrene	< 2.0 I	ND, I	8.3	ND, I	0.74
53-70-3	Dibenz(a,h)anthracene	< 2.0 I	ND, I	8.3	ND, I	0.73
191-24-2	Benzo(g,h,i)perylene	< 2.0 I	ND, I	8.3	ND, I	0.74

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.

Verified By: RG Date: 5/29/01

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Performance Analytical Inc.
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : TB
PAI Sample ID : P2100946-006B

Test Code : Modified EPA TO-13A/8270C
Instrument : HP5890II/MSD
Analyst : Nelyn Quitoviera
Matrix : PUF/XAD-2

Date Sampled : NA
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : NA Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
62-75-9	n-Nitroso-di-methylamine	< 4.0 I	NA	NA	NA	NA
108-95-2	Phenol	< 2.0 I	NA	NA	NA	NA
111-44-4	Bis(2-Chloroethyl)ether	< 2.0 I	NA	NA	NA	NA
95-57-8	2-Chlorophenol	< 2.0 I	NA	NA	NA	NA
541-73-1	1,3-Dichlorobenzene	< 2.0 I	NA	NA	NA	NA
106-46-7	1,4-Dichlorobenzene	< 2.0 I	NA	NA	NA	NA
95-50-1	1,2-Dichlorobenzene	< 2.0 I	NA	NA	NA	NA
95-48-7	2-Methylphenol	< 2.0 I	NA	NA	NA	NA
106-44-5	4-Methylphenol	< 2.0 I	NA	NA	NA	NA
108-60-1	Bis(2-Chloroisopropyl)ether	< 2.0 I	NA	NA	NA	NA
621-64-7	n-Nitrosodi-n-propylamine	< 2.0 I	NA	NA	NA	NA
67-72-1	Hexachloroethane	< 2.0 I	NA	NA	NA	NA
98-95-3	Nitrobenzene	< 2.0 I	NA	NA	NA	NA
78-59-1	Isophorone	< 2.0 I	NA	NA	NA	NA
88-75-5	2-Nitrophenol	< 2.0 I	NA	NA	NA	NA
105-67-9	2,4-Dimethylphenol	< 2.0 I	NA	NA	NA	NA
111-91-1	Bis(2-Chloroethoxy)methane	< 2.0 I	NA	NA	NA	NA
65-85-0	Benzoic Acid	< 20 I	NA	NA	NA	NA
120-83-2	2,4-Dichlorophenol	< 2.0 I	NA	NA	NA	NA
120-82-1	1,2,4-Trichlorobenzene	< 2.0 I	NA	NA	NA	NA
91-20-3	Naphthalene	< 2.0 I	NA	NA	NA	NA
106-47-8	4-Chloroaniline	< 4.0 I	NA	NA	NA	NA

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.

Verified By: RG Date: 5/29/01

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Performance Analytical Inc.
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : TB
PAI Sample ID : P2100946-006B

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : NA
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : NA Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
87-68-3	Hexachlorobutadiene	< 2.0 I	NA	NA	NA	NA
59-50-7	4-Chloro-3-Methylphenol	< 2.0 I	NA	NA	NA	NA
91-57-6	2-Methylnaphthalene	< 2.0 I	NA	NA	NA	NA
77-47-4	Hexachlorocyclopentadiene	< 2.0 I	NA	NA	NA	NA
88-06-2	2,4,6-Trichlorophenol	< 2.0 I	NA	NA	NA	NA
95-95-4	2,4,5-Trichlorophenol	< 2.0 I	NA	NA	NA	NA
91-58-7	2-Chloronaphthalene	< 2.0 I	NA	NA	NA	NA
88-74-4	2-Nitroaniline	< 4.0 I	NA	NA	NA	NA
131-11-3	Dimethylphthalate	< 2.0 I	NA	NA	NA	NA
208-96-8	Acenaphthylene	< 2.0 I	NA	NA	NA	NA
606-20-2	2,6-Dinitrotoluene	< 2.0 I	NA	NA	NA	NA
99-09-2	3-Nitroaniline	< 4.0 I	NA	NA	NA	NA
83-32-9	Acenaphthene	< 2.0 I	NA	NA	NA	NA
51-28-5	2,4-Dinitrophenol	< 4.0 I	NA	NA	NA	NA
100-02-7	4-Nitrophenol	< 4.0 I	NA	NA	NA	NA
192-65-4	Dibenzofuran	< 2.0 I	NA	NA	NA	NA
121-14-2	2,4-Dinitrotoluene	< 2.0 I	NA	NA	NA	NA
84-66-2	Diethylphthalate	< 2.0 I	NA	NA	NA	NA
86-73-7	Fluorene	< 2.0 I	NA	NA	NA	NA
7005-72-3	4-Chlorophenyl-phenylether	< 2.0 I	NA	NA	NA	NA
100-01-6	4-Nitroaniline	< 4.0 I	NA	NA	NA	NA
534-52-1	4,6-Dinitro-2-methylphenol	< 4.0 I	NA	NA	NA	NA

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.

Verified By: RG Date: 5/29/01

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Performance Analytical Inc.
Air Quality Laboratory
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : TB
PAI Sample ID : P2100946-006B

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : NA
Date Received : 5/2/01
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : NA Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
103-33-3	Azobenzene	< 2.0 I	NA	NA	NA	NA
86-30-6	n-Nitrosodiphenylamine	< 2.0 I	NA	NA	NA	NA
101-55-3	4-Bromophenyl-phenylether	< 2.0 I	NA	NA	NA	NA
118-74-1	Hexachlorobenzene	< 2.0 I	NA	NA	NA	NA
87-86-5	Pentachlorophenol	< 4.0 I	NA	NA	NA	NA
85-01-8	Phenanthrene	< 2.0 I	NA	NA	NA	NA
120-12-7	Anthracene	< 2.0 I	NA	NA	NA	NA
84-74-2	Di-n-butylphthalate	< 2.0 I	NA	NA	NA	NA
206-44-0	Fluoranthene	< 2.0 I	NA	NA	NA	NA
129-00-0	Pyrene	< 2.0 I	NA	NA	NA	NA
85-68-7	Butylbenzylphthalate	< 2.0 I	NA	NA	NA	NA
56-55-3	Benzo(a)anthracene	< 2.0 I	NA	NA	NA	NA
91-94-1	3,3'-Dichlorobenzidine	< 4.0 I	NA	NA	NA	NA
218-01-9	Chrysene	< 2.0 I	NA	NA	NA	NA
117-81-7	Bis(2-ethylhexyl)phthalate	< 2.0 I	NA	NA	NA	NA
205-99-2	Benzo(b)fluoranthene	< 2.0 I	NA	NA	NA	NA
207-08-9	Benzo(k)fluoranthene	< 2.0 I	NA	NA	NA	NA
50-32-8	Benzo(a)pyrene	< 2.0 I	NA	NA	NA	NA
193-39-5	Indeno(1,2,3-cd)pyrene	< 2.0 I	NA	NA	NA	NA
53-70-3	Dibenz(a,h)anthracene	< 2.0 I	NA	NA	NA	NA
191-24-2	Benzo(g,h,i)perylene	< 2.0 I	NA	NA	NA	NA

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.

Verified By: RG Date: 5/29/01

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : Method Blank
PAI Sample ID : P010502-MB

Test Code : Modified EPA TO-13A/8270C
Instrument : HP5890II/MSD
Analyst : Nelyn Quitoviera
Matrix : PUF/XAD-2

Date Sampled : NA
Date Received : NA
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : NA Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
62-75-9	n-Nitroso-di-methylamine	< 4.0 I	NA	NA	NA	NA
108-95-2	Phenol	< 2.0 I	NA	NA	NA	NA
111-44-4	Bis(2-Chloroethyl)ether	< 2.0 I	NA	NA	NA	NA
95-57-8	2-Chlorophenol	< 2.0 I	NA	NA	NA	NA
541-73-1	1,3-Dichlorobenzene	< 2.0 I	NA	NA	NA	NA
106-46-7	1,4-Dichlorobenzene	< 2.0 I	NA	NA	NA	NA
95-50-1	1,2-Dichlorobenzene	< 2.0 I	NA	NA	NA	NA
95-48-7	2-Methylphenol	< 2.0 I	NA	NA	NA	NA
106-44-5	4-Methylphenol	< 2.0 I	NA	NA	NA	NA
108-60-1	Bis(2-Chloroisopropyl)ether	< 2.0 I	NA	NA	NA	NA
621-64-7	n-Nitrosodi-n-propylamine	< 2.0 I	NA	NA	NA	NA
67-72-1	Hexachloroethane	< 2.0 I	NA	NA	NA	NA
98-95-3	Nitrobenzene	< 2.0 I	NA	NA	NA	NA
78-59-1	Isophorone	< 2.0 I	NA	NA	NA	NA
88-75-5	2-Nitrophenol	< 2.0 I	NA	NA	NA	NA
105-67-9	2,4-Dimethylphenol	< 2.0 I	NA	NA	NA	NA
111-91-1	Bis(2-Chloroethoxy)methane	< 2.0 I	NA	NA	NA	NA
65-85-0	Benzoic Acid	< 20 I	NA	NA	NA	NA
120-83-2	2,4-Dichlorophenol	< 2.0 I	NA	NA	NA	NA
120-82-1	1,2,4-Trichlorobenzene	< 2.0 I	NA	NA	NA	NA
91-20-3	Naphthalene	< 2.0 I	NA	NA	NA	NA
106-47-8	4-Chloroaniline	< 4.0 I	NA	NA	NA	NA

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.

Verified By: RG Date: 5/29/01

00946SVM.RD1 - MBlank

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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : Method Blank
PAI Sample ID : P010502-MB

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : NA
Date Received : NA
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : NA Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
87-68-3	Hexachlorobutadiene	< 2.0 I	NA	NA	NA	NA
59-50-7	4-Chloro-3-Methylphenol	< 2.0 I	NA	NA	NA	NA
91-57-6	2-Methylnaphthalene	< 2.0 I	NA	NA	NA	NA
77-47-4	Hexachlorocyclopentadiene	< 2.0 I	NA	NA	NA	NA
88-06-2	2,4,6-Trichlorophenol	< 2.0 I	NA	NA	NA	NA
95-95-4	2,4,5-Trichlorophenol	< 2.0 I	NA	NA	NA	NA
91-58-7	2-Chloronaphthalene	< 2.0 I	NA	NA	NA	NA
88-74-4	2-Nitroaniline	< 4.0 I	NA	NA	NA	NA
131-11-3	Dimethylphthalate	< 2.0 I	NA	NA	NA	NA
208-96-8	Acenaphthylene	< 2.0 I	NA	NA	NA	NA
606-20-2	2,6-Dinitrotoluene	< 2.0 I	NA	NA	NA	NA
99-09-2	3-Nitroaniline	< 4.0 I	NA	NA	NA	NA
83-32-9	Acenaphthene	< 2.0 I	NA	NA	NA	NA
51-28-5	2,4-Dinitrophenol	< 4.0 I	NA	NA	NA	NA
100-02-7	4-Nitrophenol	< 4.0 I	NA	NA	NA	NA
192-65-4	Dibenzofuran	< 2.0 I	NA	NA	NA	NA
121-14-2	2,4-Dinitrotoluene	< 2.0 I	NA	NA	NA	NA
84-66-2	Diethylphthalate	< 2.0 I	NA	NA	NA	NA
86-73-7	Fluorene	< 2.0 I	NA	NA	NA	NA
7005-72-3	4-Chlorophenyl-phenylether	< 2.0 I	NA	NA	NA	NA
100-01-6	4-Nitroaniline	< 4.0 I	NA	NA	NA	NA
534-52-1	4,6-Dinitro-2-methylphenol	< 4.0 I	NA	NA	NA	NA

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.

Verified By: RG Date: 5/29/01

00946SVM.RD1 - MBlank

Page No.:

Performance Analytical Inc.
Air Quality Laboratory
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RESULTS OF ANALYSIS

Client : AKRF, Inc.

Client Sample ID : Method Blank
PAI Sample ID : P010502-MB

Test Code : Modified EPA TO-13A/8270C
Analyst : Nelyn Quitoviera
Instrument : HP5890II/MSD
Matrix : PUF/XAD-2

Date Sampled : NA
Date Received : NA
Date Extracted : 5/2/01
Date Analyzed : 5/11/01
Final Volume: 1.0 ml
Volume Sampled : NA Liter(s)

D.F. = 1.00

CAS #	COMPOUND	RESULT µg/Sample	RESULT µg/m3	REPORTING LIMIT µg/m3	RESULT ppbV	REPORTING LIMIT ppbV
103-33-3	Azobenzene	< 2.0 I	NA	NA	NA	NA
86-30-6	n-Nitrosodiphenylamine	< 2.0 I	NA	NA	NA	NA
101-55-3	4-Bromophenyl-phenylether	< 2.0 I	NA	NA	NA	NA
118-74-1	Hexachlorobenzene	< 2.0 I	NA	NA	NA	NA
87-86-5	Pentachlorophenol	< 4.0 I	NA	NA	NA	NA
85-01-8	Phenanthrene	< 2.0 I	NA	NA	NA	NA
120-12-7	Anthracene	< 2.0 I	NA	NA	NA	NA
84-74-2	Di-n-butylphthalate	< 2.0 I	NA	NA	NA	NA
206-44-0	Fluoranthene	< 2.0 I	NA	NA	NA	NA
129-00-0	Pyrene	< 2.0 I	NA	NA	NA	NA
85-68-7	Butylbenzylphthalate	< 2.0 I	NA	NA	NA	NA
56-55-3	Benzo(a)anthracene	< 2.0 I	NA	NA	NA	NA
91-94-1	3,3'-Dichlorobenzidine	< 4.0 I	NA	NA	NA	NA
218-01-9	Chrysene	< 2.0 I	NA	NA	NA	NA
117-81-7	Bis(2-ethylhexyl)phthalate	< 2.0 I	NA	NA	NA	NA
205-99-2	Benzo(b)fluoranthene	< 2.0 I	NA	NA	NA	NA
207-08-9	Benzo(k)fluoranthene	< 2.0 I	NA	NA	NA	NA
50-32-8	Benzo(a)pyrene	< 2.0 I	NA	NA	NA	NA
193-39-5	Indeno(1,2,3-cd)pyrene	< 2.0 I	NA	NA	NA	NA
53-70-3	Dibenz(a,h)anthracene	< 2.0 I	NA	NA	NA	NA
191-24-2	Benzo(g,h,i)perylene	< 2.0 I	NA	NA	NA	NA

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
I = Surrogate recovery not within specified limits.

Verified By: RG Date: 5/29/01

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Performance Analytical Inc.
Sample Acceptance Check Form

Client: AKRF, Inc. Work order: P2100946
Project: 124-136 2nd Ave. Brooklyn, NY / 80030-0001
Cooler/Samples received on: 5/2/01 Date opened: 5/2/01 by SM

		Yes	No	N/A
1	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? ______ Sealing Lid?	☐	☐	☒
	Were signature and date correct?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were **custody seals** on outside of sample container?	☐	☒	☐
	Location of seal(s)? ______ Sealing Lid?	☐	☐	☒
	Were signature and date correct?	☐	☐	☒
	Were seals intact?	☐	☐	☒
2	Were **sample containers** clearly marked with client sample ID and date of collection?	☐	☒	☐
3	Were **sample containers** checked for integrity and did they arrive in good condition?	☒	☐	☐
4	Were correct **sample containers** used for test(s) indicated?	☒	☐	☐
5	Were **chain-of-custody** papers properly used and filled out?	☒	☐	☐
6	Did **sample container labels** and/or tags agree with custody papers?	☐	☒	☐
7	Was adequate **sample volume** submitted?	☒	☐	☐
8	Are samples within specifide holding times?	☒	☐	☐
9	Was proper **temperature** of cooler at receipt adhered to?	☐	☐	☒

Cooler Temperature NA °C
Blank Temperature NA °C

		Yes	No	N/A
10	Is **preservation** necessary, according to sample type and Client specific information?	☐	☒	☐
	Were samples submitted preserved?	☐	☒	☐
	Did analyst preserve the samples at lab?	☐	☒	☐
	Were VOA vials checked for pressence/absence of air bubbles?	☐	☐	☒
	pH of samples checked by analyst?	☐	☐	☒

Lab Sample ID	Required pH	pH	Comply yes/no	Headspace (Presence/Absence)	Comply yes/no	Reagent Added (if necessary)	Volume Added
2100946-001				NA			
2100946-001B				NA			
P2100946-002				NA			
2100946-002B				NA			
2100946-003				NA			
P2100946-003B				NA			
P2100946-004				NA			
2100946-004B				NA			
2100946-005				NA			
P2100946-005B				NA			
2100946-006				NA			
2100946-006B				NA			

Explain any discrepancies: (include lab sample ID numbers): One can and one puf/XAD were unlabelled and resumed the TB samples by process of elimination.

Performance Analytical Inc.

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Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Chain of Custody Record
Analytical Services Request

Client / Address	Phone	Fax	ANALYSES	PAI Project No.
AKRF, INC. 117 East 29 Street, NY, NY 10016	(212) 340-9812	(212) 447-5546		PA100946
Client Project Name / Location	**Client Project No.**			
124-136 2nd Ave. Brooklyn, NY	80030-0001			
Contact	**Sampler (Signature)**	**P. O. No.**		
Mohamed Ahmed	mohamed ahmed			

240 Liter of Air in SVOCs samplers

Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Type of Sample	Container ID (Serial#)	Regulator ID (Serial#)	VOCs TO15	SVOCs TO13/8270			Expected Turnaround Time	Remarks
SG-3	4/30	2:15	-1	Air	15		X	X			2 WKS	
SG-4	4/30	1:45	-2	↓	557		X	X			↓	
SG-5	4/30	2:10	-3		486		X	X				
SG-6	4/30	2:05	-4		1522		X	X				
SG-8	4/30	2:30	-5	↓	183		X	X				
TB			-6		199		X	X			↓	

Relinquished by : (Signature)	Date	Time	Received by : (Signature)	Date	Time
mohamed ahmed	5/1/01	12:20	Sharon Malone	5/2/01	10:55
Relinquished by : (Signature)	Date	Time	Received by : (Signature)	Date	Time
Relinquished by : (Signature)	Date	Time	Received by : (Signature)	Date	Time

Appendix F Methods

Soil Sampling Methods:

Continuous soil sampling was performed in 4-foot vertical intervals at each location between 4 and below grade and the meadow mat layer using a Geoprobe soil probe. Soil sample columns were screened in the field for organic vapors using an Organic Vapor Meter (OVM). Within each soil column, the segment with the highest OVM reading was sent to the laboratory and analyzed for volatile and semi-volatile organic compounds as described in NYDEC Spill Technology And Remediation Series (STARS) Memo #1, 1992.

Monitoring Well Installation and Sampling Methods:

Monitoring wells were installed at eight locations on the site; six well clusters, and two in the deep aquifer. Wells were drilled using a hollow-stemmed auger and consisted of two-inch Schedule 40 PVC casing in a 6¼-inch augured hole and screened with 10 feet of 0.020-inch slot PVC screen material. At each cluster well location, two wells were installed: one screened above the meadow mat layer and the second screened between 35 and 45 feet below grade. Deep wells were screened from 35 to 45 feet below grade. A one-foot long sump of four-inch PVC casing forms the bottom of each well.

The annular area around the well casing was sealed with bentonite pellets for an interval of one to two feet above the filter pack. A cement/bentonite or anti-shrink grout was installed from the bentonite pellet seal to a level 0.5 feet below ground; the remaining annular space was sealed with a concrete cap. A well apron of expanding cement and a locking well cap were installed at each location.

Several days after the monitoring wells were drilled, they were developed (pumped) until the turbidity of the water sample, as measured by a nephelometer, was less than 50 Nephelometric Turbidity Units (NTU) or until at least 15 well volumes of groundwater have been pumped. To prevent cross-contamination, dedicated PVC tubing was used for each well.

Before sampling each well, the water level was measured using an electronic water level indicator. To prevent cross-contamination between samples, a dedicated bailer was used for sample collection. A minimum of three well volumes was purged from the well before sampling. Samples were not collected until the water is visually free of suspended materials and the pH, temperature, and conductivity readings had stabilized.

Tidal fluctuations in groundwater levels in the upper and lower aquifers were measured at two locations using a Levelogger™ automatic water level recorder. Water levels were recorded at one-hour intervals over a 24-hour period and compared against NOAA tidal records for New York Harbor at Battery Park.

Soil Gas Sampling

Ten temporary soil gas sampling points were installed at locations across the site. At each location, the sampling probe—a 4-foot long 5/8-inch diameter stainless steel shaft with a hardened point and slotted intakes—was driven to a depth of 3 feet using a Geoprobe unit. Once the probe had reached the desired depth, a vacuum was applied to the

sampling probe head and the system was purged to allow the collection of a representative soil gas sample. After purging, an organic vapor meter (OVM) was connected to the probe head to record the total organic vapor concentration in the soil. Locations at which organic vapors were detected were sampled for laboratory analysis using EPA Method TO15 (for volatiles) and EPA Method TL13A/8720C (for semi-volatiles).

Collection Well Installation and Sampling Methods:

Collection wells were constructed of 4-inch PVC, screened from 20 to 45 feet with 0.02' slotted screens, and included 2-foot sumps. Prior to developing the collection wells, preliminary baseline samples were collected manually using a bailer and the volume of coal tar in each sample was recorded.

In the future, collection wells will be developed using a truck-mounted vacuum rig. After development, collection wells will be continue to be sampled weekly using a bailer and the volume of coal tar will be recorded at each location. Once a coal tar accumulation rate has been calculated for a well, it will continue to be sampled using a schedule that ensures the volume of coal tar accumulated does not exceed the well's sump capacity. Any free product collected will be placed in a labeled DOT-approved 55-gallon drum and disposed of properly.

Quality Assurance/Quality Control:

NYSDEC standard Quality Assurance Guidelines for Voluntary Cleanup Sites specifies that analyses must be performed by an NYDOS ELAP certified laboratory and that results must be reported using the NYSDEC ASP Category B reporting level. These certification requirements and reporting protocols were not included in the work plan approved by the parties involved in this investigation; results included in this report did follow these standards.

Any subsequent analytical work for this project—including additional investigations, bench testing, and clean up confirmation—will be performed by an ELAP certified lab using Category B reporting standards.

Reports on Prior Investigations @ 124-136 Second

Work By:	Report Title:	Date:
NPV	Phase I Site Assessment	May-97
NPV	Phase II Site Assessment	Jun-97
NPV	Supplemental Phase II Assessment	Jul-99
NPV	Closure Report	Jun-99
NPV	Voluntary Clean Up Program SAP	Mar-00
AKRF	Voluntary Clean Up Program Site Assessment Report and Conceptual Remedial Workplan	Jan-01
AKRF	Voluntary Cleanup Program Remedial Workplan	Mar-01