



## SITE ASSESSMENT REPORT

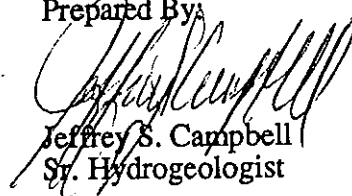
Merit Ralph  
1885 Atlantic Avenue  
Brooklyn, New York

November 2, 1994

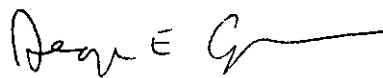
Prepared for:

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MERIT RALPH  
1885 ATLANTIC AVENUE, BROOKLYN, NEW YORK

**SITE ASSESSMENT REPORT  
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## 1.0 INTRODUCTION

Groundwater and Environmental Services, Inc. (GES) was contracted by Merit Oil of New York, Inc. (Merit) to conduct an investigation of subsurface soils at its gasoline station located at 1885 Atlantic Avenue in Brooklyn, New York (see Figure 1) and to prepare this Site Assessment Report.

On 23 March 1993, five soil borings were advanced around the former tank field, which consisted of four 4,000-gallon and two 2,000-gallon underground storage tanks (UST). The investigation was initiated after one of the 4,000-gallon gasoline tanks failed a pressure integrity test. One subsurface soil sample was collected from each boring for laboratory analysis of total petroleum hydrocarbons (TPH). The samples contained petroleum hydrocarbon concentrations ranging from 35,800 ppb to 71,000 ppb. The 21 April 1993 Site Investigation Report prepared by GES summarizes these activities.

In June 1993, GES geologist Donald Griffin performed oversight during closure activities involving all of the UST's on site. During these activities, ten previously unknown 550-gallon tanks were discovered and also removed. The 27 June 1994 Underground Storage Tank Closure Site Investigation Report, prepared by GES, summarizes these UST removal activities.

The station is currently active and distributes gasoline from five 4,000 gallon double-walled fiberglass UST's, double-walled fiberglass piping, and four dispensers. A 550-gallon double-walled fiberglass UST is used to store waste water. The site is relatively flat and is completely covered with asphalt or concrete. It is drained by storm sewer inlets located on site (see Figure 2).

Additional subsurface drilling was performed on 14 October 1993 by Summit Drilling Company, Inc. (Summit) of Bridgewater, New Jersey for the purpose of determining if subsurface soils and groundwater had been impacted from the use of the underground storage tanks that were removed in June 1993. The objective of this activity was to install groundwater monitoring wells at the site. However, groundwater was not encountered during drilling of the first boring, which was advanced to a depth of 55 feet, and therefore monitoring wells were not installed.



On 21 and 22 March 1994 Summit drilled nine soil borings around the former tank fields to determine if the soils had been impacted from the prior use of the tanks, and to delineate hydrocarbon impact, if present. GES representatives Jeff Campbell and Donald Griffin were present to oversee drilling activities and to collect subsurface soil samples for laboratory analysis.

## **2.0 HEALTH AND SAFETY**

A Health and Safety Plan (HASP) was prepared for the site investigation activities. The HASP outlines required monitoring equipment, protective clothing, action levels, anticipated compounds, and emergency procedures. Based on an evaluation of potential hazards on site, the level of personal protection worn by GES personnel was designated as level "D". Air monitoring was conducted during the field activities using a photoionization detector (PID). All GES field personnel are Occupational Health and Safety Administration (OSHA) health and safety trained and certified.

## **3.0 SOIL SAMPLING AND ANALYSIS**

On 14 October 1993, one boring (B1) was drilled to install a monitoring well (see Figure 2). The total depth of this boring was 53 feet (see Appendix I). Since groundwater was not encountered at this depth, a well was not installed. One soil sample was collected for laboratory analysis from a depth of 22.5 to 23 feet during advancement of the boring and submitted to ANALab, Inc., (New York State DEC certification number 11104) of Edison, New Jersey for analysis of TPH via USEPA method 418.1 and volatile organic compounds (BTEX via USEPA method 8020). Chain-of-custody documentation and one field blank accompanied the sample from the time of collection to the time of receipt by the laboratory.

On 21 and 22 March 1994, a total of 18 subsurface soil samples were collected from 9 soil borings advanced around the former locations of the known and the unknown tanks (see Figure 2). Each boring was stratigraphically logged and monitored for PID vapors by GES hydrogeologist Jeff Campbell (see Appendix I). A shallow sample was collected from each soil boring at approximately 20 feet below grade and a deep sample was collected from each soil boring at approximately 30 feet below grade and were submitted to ANALab for analysis. Chain-of-custody documentation accompanied all samples from the time of collection to the time of receipt at ANALab.

Subsurface soil samples collected for investigation of the known tanks were analyzed for volatile organic compounds (VOC's) by USEPA-approved method 8021. Subsurface soil samples collected for investigation of the previously unknown tanks were analyzed for volatile organic compounds (VOC's) via USEPA method 8020.

#### 4.0 SOIL ANALYTICAL RESULTS

Toluene (4.3 ppb, estimated), ethylbenzene (5.75 ppb) and xylenes (15.7 ppb total) were detected in the sample collected on 14 October 1993 from boring B1 at a depth of 22.5 to 23 feet below grade. TPH was detected at 35,700 ppb. The method detection limit (MDL) for benzene was 5 ppb.

The analytical results for the subsurface soil samples collected on 21 and 22 March 1994 around the known and unknown tanks indicate the presence of VOC's in only the samples collected from soil borings SB1, SB6, SB7 and SB9. VOC's were not detected in any of the other borings (SB2, SB3, SB4, SB5 and SB8) that were advanced around this tank field (see Table 1).

In soil boring SB1, VOC's were detected in both the shallow and deep samples. Toluene (44,000 ppb), ethylbenzene (18,300 ppb), xylenes (80,000 ppb total), 1,2,4-trimethylbenzene (33,700 ppb), n-butylbenzene (46,000 ppb) and naphthalene (41,900 ppb) were detected in sample SB1-S. Toluene (79.5 ppb), xylenes (332 ppb total), 1,2,4-trimethylbenzene (434 ppb), n-butylbenzene (220 ppb) and naphthalene (459 ppb) were detected in sample SB1-D. Benzene was not detected in either the shallow or deep samples.

In soil boring SB9, VOC's were detected in the shallow sample only. Xylenes (27.1 ppb), 1,2,4-trimethylbenzene (69.2 ppb) and n-butylbenzene (83.7 ppb) were detected in sample SB9-S. Benzene was not detected in this sample.

In soil boring SB6, VOC's were detected in the shallow sample only. Toluene (10.4 ppb), ethylbenzene (10.8 ppb), xylenes (37.9 ppb total) were detected in sample SB6-S. Benzene was not detected in this sample.

In soil boring SB7, VOC's were detected in the shallow sample only. Only toluene (8.24 ppb) was detected in sample SB7-S. Other BTEX compounds were not detected in this sample.

## 5.0 SUMMARY AND CONCLUSIONS

On 14 October 1993 and 21 & 22 March 1994, a total of nineteen subsurface soil samples were collected from nine soil borings advanced at locations around the area of the known and unknown UST fields that were excavated and removed in June 1993 from the Merit gasoline station located at 1885 Atlantic Avenue, Brooklyn, New York. Laboratory analysis of these samples found total BTEX concentrations range from not detected to 142,300 ppb with benzene not being detected in any sample.

Under the NYSDEC August 1992 Petroleum-Contaminated Soil Guidance Policy Human Health Guidance Value, the maximum allowable concentration of benzene, toluene, ethylbenzene, and total xylenes to remain in soil is 24,000 ppb, 20,000,000 ppb, 8,000,000 ppb and 200,000,000 ppb, respectively. Maximum contaminant concentrations of benzene, toluene, ethylbenzene, and total xylenes in all of the subsurface soil samples collected and analyzed at the site were not detected, 44,000 ppb, 18,300 ppb, and 80,000 ppb, respectively all below the NYSDEC limits. As such, no further action concerning soils at the site is required for reducing or eliminating risk to human health.

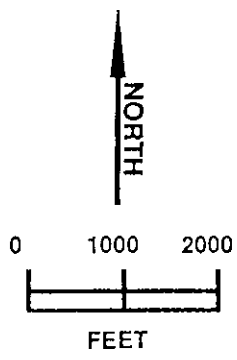
Under the NYSDEC August 1992 Petroleum Contaminated Soil Guidance Policy for protection of groundwater (TCLP Alternative Guidance Value), the maximum allowable concentration of benzene, toluene, ethylbenzene, xylene, naphthalene and MTBE to remain in soil is 14 ppb, 100 ppb, 100 ppb, 100 ppb, 200 ppb and 1,000 ppb, respectively. Concentrations which exceed these guidance values were found only in soil boring SB1 (at the north/northwest portion of the property). Also in SB1, concentrations of 1,2,4-trimethylbenzene and n-butylbenzene exceeded TCLP Alternative Guidance Values of 100 ppb. All other soil boring samples were non-detected or below the guidance values.

The regional aquifer in this area is not developed for use as a potable water supply. Based on laboratory reports, soils exceeding TCLP Alternative Guidance Values were found only in soil boring SB1 and depth to the groundwater table is greater than 53 feet below grade. Therefore, impacted soils beneath the site are not a threat to potable groundwater and no further action is recommended regarding soils.

## FIGURES



**FIGURE 1**  
**SITE LOCATION MAP**  
**MERIT RALPH**  
**1885 ATLANTIC AVENUE & RALPH AVENUE**  
**BROOKLYN, NEW YORK**








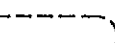




**SOURCE: USGS 7.5 MINUTE SERIES**  
**TOPOGRAPHIC QUADRANGLE 1979**  
**BROOKLYN, NEW YORK**  
**CONTOUR INTERVAL = 10'**





T.GEN2


- FORMER DISPENSER ISLAND 
- FENCE 
- FORMER 4,000 GAL UNDERGROUND STORAGE TANK 
- FORMER 2,000 GAL UNDERGROUND STORAGE TANK 
- FORMER 550 GAL UNDERGROUND STORAGE TANK 
- FORMER 550 GAL UNDERGROUND STORAGE TANK 
- ABANDONED 550 GAL UNDERGROUND STORAGE TANK 
- EXISTING UNDERGROUND STORAGE TANK 
- PROPERTY BOUNDARY 
- SOIL BORING LOCATION 

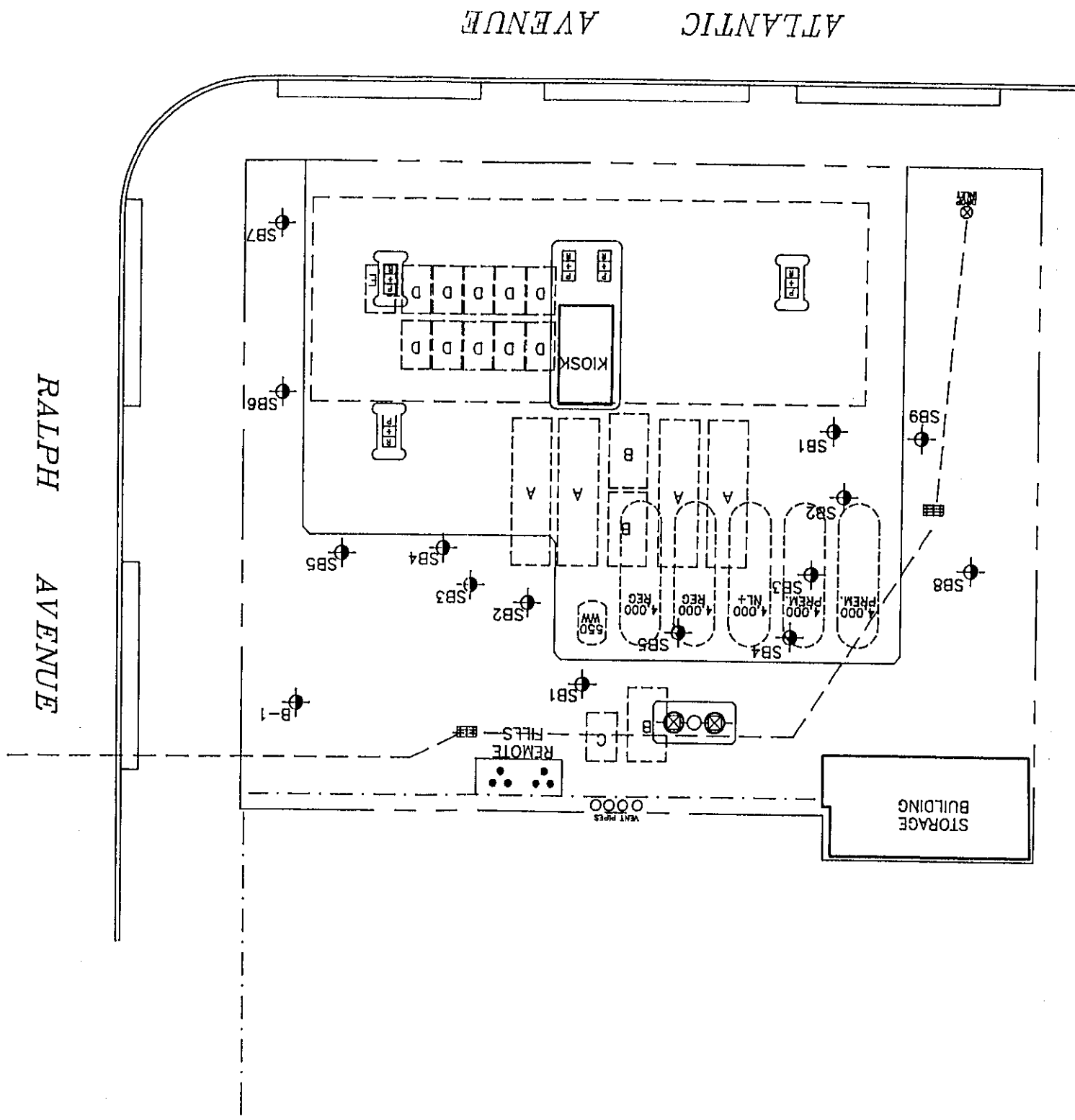
SITE PLAN

EXISTING CONDITIONS

MERIT RALPH  
1885 ATLANTIC AVENUE & RALPH AVENUE  
BROOKLYN, NEW YORK

DATE 11-9-94 SOURCE B  
SCALE IN FEET 1" = 20'  
DWG # RS0011 FIGURE 2

NORTH 



## TABLES

**TABLE 1**  
**KNOWN TANK FIELD**  
**SUMMARY OF ANALYTICAL RESULTS OF SUBSURFACE SOIL SAMPLES**  
**MERIT "RALPH"**  
**1885 ATLANTIC AVENUE, BROOKLYN, NEW YORK**  
 (All results reported in parts per billion)

GES Sample Identification	TPH	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	1,2,4-tri methylbenzene	n-butyl benzene	MTBE	Napthalene
B1-2	35,700	ND	4.3 J	5.75	15.7	25.75 J	NA	NA	NA	NA
SB1-S	NA	ND	44,000	18,300	80,000	142,300	33,700	46,000	ND	41,900
SB1-D	NA	ND	79.5	ND	332	411.5	434	220	ND	459
FB (3/21/94)	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB2-S	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB2-D	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB3-S	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB3-D	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB4-S	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB4-D	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
FB (3/22/94)	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB8-S	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB8-D	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB9-S	NA	ND	ND	ND	27.1	27.1	69.2	83.7	ND	ND
SB9-D	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
<hr/>										
<i>HUMAN HEALTH GUIDANCE</i>	NG	24,000	20,000,000	8,000,000	200,000,000	NG	NG	NG	NG	300,000
<hr/>										
<i>TCLP ALTERNATIVE GUIDANCE VALUES</i>	NG	14	100	100	100	NG	100	100	1,000	200

BTEX: Benzene, Toluene, Ethylbenzene, Xylenes

NG: No guidance given

ND: Not Detected, MDL 5 ppb for all constituents in all samples except SB2-S, MDL 500 ppb

NA: Not analyzed

Sample B1-2 was collected on 10/14/93. All others were collected on 3/21 & 3/22/94.

NYSDEC Guidance are from NYSDEC Bureau of Spill Prevention and Response Spill Technology and Remediation

Series Memo #1: Petroleum Contaminated Soil Guidance Policy, 8/92



**TABLE 2**  
**UNKNOWN TANK FIELD**  
**SUMMARY OF ANALYTICAL RESULTS OF SUBSURFACE SOIL SAMPLES BY METHOD 8020**  
**MARCH 21 AND 22, 1994**  
**MERIT "RALPH"**  
**1885 ATLANTIC AVENUE, BROOKLYN, NEW YORK**  
 (All results reported in parts per billion)

GES Sample Identification	Benzene	Chloro benzene	Total Dichloro benzene	Toluene	Ethyl benzene	Total Xylenes
SB5-S	ND	ND	ND	ND	ND	ND
SB5-D	ND	ND	ND	ND	ND	ND
SB6-S	ND	ND	ND	10.4	10.8	37.9
SB6-D	ND	ND	ND	ND	ND	ND
SB7-S	ND	ND	ND	8.24	ND	ND
SB7-D	ND	ND	ND	ND	ND	ND
<i>HUMAN HEALTH NYDEC GUIDELINE</i>	24,000	NG	NG	20,000,000	8,000,000	200,000,000
<i>TCLP ALTERNATIVE GUIDANCE VALUES</i>	14	NG	NG	100	100	100

ND= Not detected, MDL 5 ppb for all constituents in all samples

NG= No guidance given

*NYSDEC Guidelines are TCLP Alternative Guidance Values, from NYSDEC Bureau of Spill Prevention and Response  
 Spill Technology and Remediation Series Memo #1: Petroleum Contaminated Soil Guidance Policy 8/92*



## **APPENDIX I**

### **LITHOLOGIC LOGS**



# Groundwater & Environmental Services, Inc.

# Boring Log

Project: Merit Ralph

Owner: Merit

Location: 1885 Atlantic & Ralph Aves.  
Brooklyn, NY

Permit No.:  
Total Depth: 53' Diameter: 6"

Soil Boring #: B-1

Sample Method: Split spoon

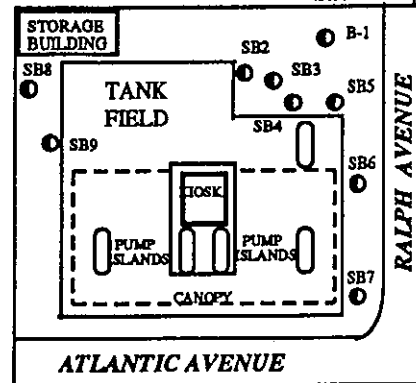
Drilling Method: Air Rotary

Log By: Don Griffin

Driller: Summit Drilling, Inc.

Date: 10/14/93

Sketch Map



Depth (feet)	Sample No.	PID (units)	Blow Count	Lithology
0 - 6"				Asphalt
6" - 1'				Brown fine to coarse sand and silt with some rounded gravel.
1' - 15'		0		Brown fine to coarse sand and silt with some rounded gravel.
15' - 17'	B1-1	0	23-20-24-19	Brown fine to coarse sand and silt. Trace fine gravel.
17' - 21'				Brown fine to coarse sand and silt with some rounded gravel.
21' - 23'	B1-2	270	20-28-30-31	Brown fine to coarse sand and silt with some rounded gravel. Sample collected from 22.5' to 23'.
23' - 30'				Same.
30' - 35'				Brown fine to coarse sand. Some fine to medium subangular gravel.
35' - 47'				Brown fine to medium sand. Some silt and some fine subangular gravel.
47' - 53'				Brown fine to coarse sand. Dry. Hole collapsing.
End boring @ 53'. Groundwater not encountered.				



# Groundwater & Environmental Services, Inc.

# Boring Log

Project: Merit Ralph

Owner: Merit

Location: 1885 Atlantic & Ralph Aves. Permit No.:  
Brooklyn, NY

Total Depth: 32' Diameter: 6"

Soil Boring #: SB-1

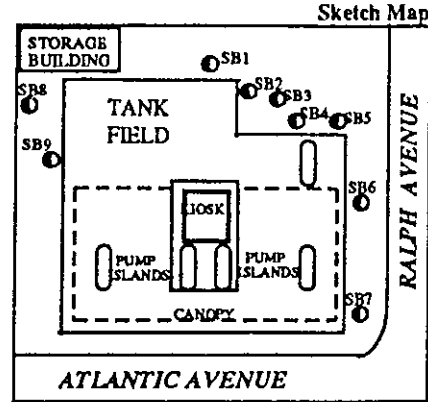
Sample Method: Split spoon

Drilling Method: Air Rotary

Log By: Jeff Campbell

Driller: Summit Drilling Co.

Date: 3/21/94



Depth (feet)	Sample No.	PID (units)	Blow Count	Lithology
1				0'-6" Asphalt
2				6"-3' Sand size angular fill.
3				
4		25		15' Brown gravelly fmc SAND. Some subrounded gravel.
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21	SB1-S	1200+	14-25-30-50	20'-22' Brown cmF SAND, little to some Silt. Micaceous. Dry.
22				
23				
24		20		20'-30' Silty, gravelly SAND.
25				
30	SB1-D	160	45-54-67-59	30'-32' Very resistant reddish brown stratified sandy gravelly SILT and CLAY. Moist.
35				End boring @ 32'



# Groundwater & Environmental Services, Inc.

# Boring Log

Project: Merit Ralph

Owner: Merit

Location: 1885 Atlantic & Ralph Aves. Permit No.:  
Brooklyn, NY

Total Depth: 37' Diameter: 6"

Soil Boring #: SB-2

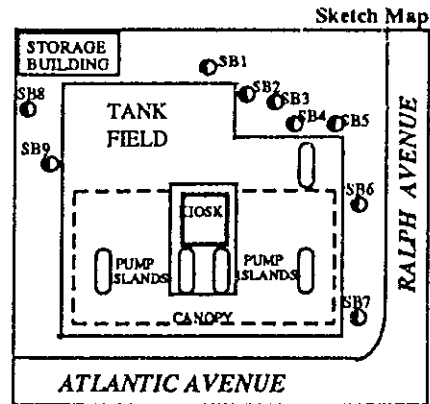
Sample Method: Split spoon

Drilling Method: Air Rotary

Log By: Jeff Campbell

Driller: Summit Drilling Co.

Date: 3/21/94



Depth (feet)	Sample No.	PID (units)	Blow Count	Lithology
1				0'-6" Asphalt
2				6"-3' Dark brown fine sand and silt. Moist.
3				
4				3'-8' Dark brown fine sand and silt. Moist.
5				
6				
7				
8				
9				
10				8'-20' Brown cmF sand, little to some silt. Micaceous. Dry, little f subrounded gravel.
11				
12				
13				
14				
15				
16				
17				
18				
19				20'-22' Brown cmF sand, little to some silt. Micaceous. Dry, little f subrounded gravel. Wet.
20				
21	SB2-S	2000+		20'-30' Sand size angular fill.
22				29' Cobbles and boulders.
23				30'-32' Very dense reddish brown SILT and CLAY, little Fine sand and gravel. Appears to be stratified. Moist to wet.
24		20		
25				33'-34.5' Boulder.
30	SB2-I	160		
35	SB2-D	800	44-100/3"	35'-37' Brown very dense, silty, gravelly, fmc SAND. Little silt. Little to some subangular gravel. Moist.
40				
45				End boring @ 37'





# Groundwater & Environmental Services, Inc.

# Boring Log

Project: Merit Ralph

Owner: Merit

Location: 1885 Atlantic & Ralph Aves. Permit No.:  
Brooklyn, NY

Total Depth: 42' Diameter: 6"

Soil Boring #: SB-3

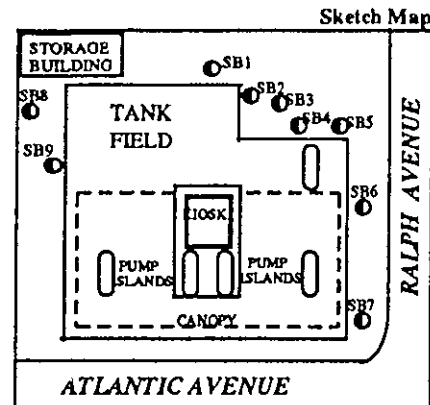
Sample Method: Split spoon

Drilling Method: Air Rotary

Log By: Jeff Campbell

Driller: Summit Drilling Co.

Date: 3/21/94



Depth (feet)	Sample No.	PID (units)	Blow Count	Lithology
1				0'-6" Asphalt
2				6"-9' Brown fine SAND and SILT. Little angular gravel. Dry.
3				
4				
5				9'-10.5' Boulder.
6				
7				
8				
9				
10				
11				
12				
13				
14				Cuttings. Brown fine SAND, little silt. Little subrounded gravel
15				
16				
17				
18				
19				
20				
21	SB3-S	380+	20-23-38-46	20'-22' Brown silty, gravelly, fine SAND. Little silt. Little to some subrounded gravel. Stratified. Dry.
22				
23				
24				
25				
30				
35				
40	SB3-D	1000	65-85-Refusal	35'-37' Brown SAND and GRAVEL.
45				End boring @ 42'



# Groundwater & Environmental Services, Inc.

# Boring Log

Project: Merit Ralph

Owner: Merit

Location: 1885 Atlantic & Ralph Aves. Permit No.:  
Brooklyn, NY

Total Depth: 30' Diameter: 6"

Soil Boring #: SB-4

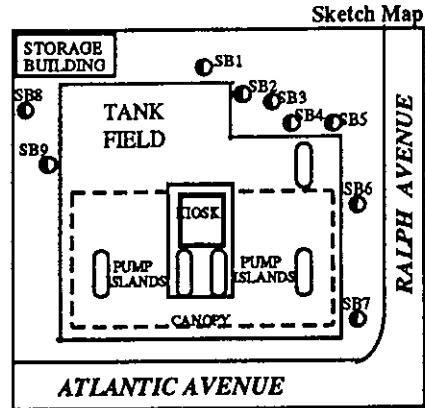
Sample Method: Split spoon

Drilling Method: Air Rotary

Log By: Jeff Campbell

Driller: Summit Drilling Co.

Date: 3/21/94



Depth (feet)	Sample No.	PID (units)	Blow Count	Lithology
1				0'-6" Asphalt
2				
3				
4				
5				6"-9' Brown fine SAND and SILT. Little angular gravel. Dry.
6				
7				
8				
9				
10				
11				Cuttings Brown fine SAND and SILT. Little angular gravel. Dry.
12				
13				
14				
15				
16				
17				
18				
19				
20				
21	SB4-S	250	20-26-32-30	20'-22' Reddish-brown stratified silty, gravelly, fine SAND. Little silt. Some subrounded gravel. Moist. Very dense.
22				
23				
24				
25				
28	SB4-D	0.0	29-26-14-22	28'-30' Reddish-brown fine SAND. Some subrounded gravel.
30				End boring @ 30'
35				
40				
45				



# Groundwater & Environmental Services, Inc.

# Boring Log

Project: Merit Ralph

Owner: Merit

Location: 1885 Atlantic & Ralph Aves. Permit No.:  
Brooklyn, NY

Total Depth: 30' Diameter: 6"

Soil Boring #: SB-5

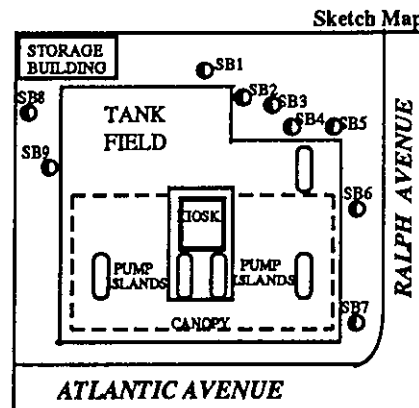
Sample Method: Split spoon

Drilling Method: Air Rotary

Log By: Jeff Campbell

Driller: Summit Drilling Co.

Date: 3/21/94



Depth (feet)	Sample No.	PID (units)	Blow Count	Lithology
1				0'-6" Asphalt
2				6" - 5' Orange-brown silty gravelly SAND. Fill.
3				
4				
5				
6				
7				Cuttings. Brown silty gravelly SAND. Little silt. Some fm subrounded gravel.
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21	SB5-S	0.0	38-55-45-47	20'-22' Reddish-brown stratified silty, gravelly, fine SAND. Little silt. Some subrounded gravel. Moist.
22				
23				
24				
25				
28	SB5-D	0.0	63-100/5"	28'-30' Reddish-brown cg GRAVEL and fine SAND. Little silt and clay. Stratified. Dry.
30				
35				End boring @ 30'
40				
45				



# Groundwater & Environmental Services, Inc.

# Boring Log

Project: Merit Ralph

Owner: Merit

Location: 1885 Atlantic & Ralph Aves. Permit No.:  
Brooklyn, NY

Total Depth: 30' Diameter: 6"

Soil Boring #: SB-6

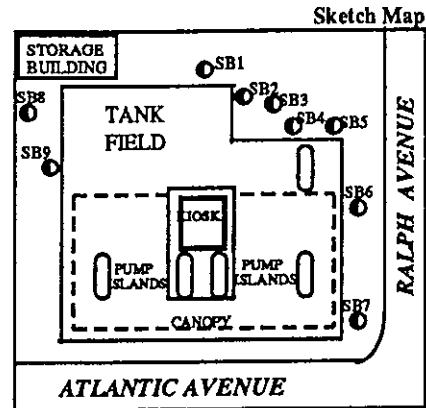
Sample Method: Split spoon

Drilling Method: Air Rotary

Log By: Jeff Campbell

Driller: Summit Drilling Co.

Date: 3/21/94



Depth (feet)	Sample No.	PID (units)	Blow Count	Lithology
1				0'-6" Asphalt
2				
3				
4				
5				
6				
7				
8				6"-9' Fill. Coarse gravel, bricks, little concrete. Water trapped in fill.
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21	SB6-S	1000	14-41-33-40	20'-22' Reddish-brown stratified silty, gravelly, fine SAND. Little silt. Some subrounded gravel. Moist.
22				
23				
24				
25				
28	SB6-D	0.0	52-47-60-51	28'-30' Light brown mC SAND. Some subangular to subrounded fine gravel. Little silt. Moist. Very dense.
30				End boring @ 30'
35				
40				
45				



# Groundwater & Environmental Services, Inc.

# Boring Log

Project: Merit Ralph

Owner: Merit

Location: 1885 Atlantic & Ralph Aves. Permit No.:  
Brooklyn, NY

Total Depth: 30' Diameter: 6"

Soil Boring #: SB-7

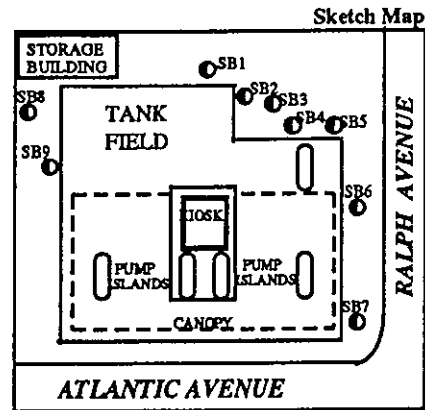
Sample Method: Split spoon

Drilling Method: Air Rotary

Log By: Jeff Campbell

Driller: Summit Drilling Co.

Date: 3/21/94



Depth (feet)	Sample No.	PID (units)	Blow Count	Lithology
1				0'-6" Asphalt
2				
3				
4				
5				
6				
7				
8				6"-9' Brown fine SAND and SILT. Little angular gravel. Dry.
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21	SB7-S	0.0	33-27-38-41	20'-22' Reddish-brown stratified silty, gravelly, fine SAND. Little silt. Some subrounded gravel. Moist.
22				
23				
24				
25				
28				
29				
30	SB7-D	0.0	26-21-20-30	28'-30' Brown silty, gravelly, fine SAND. Little angular to subangular /c gravel. Dry. Very dense.
35				End boring @ 30'
40				
45				



# Groundwater & Environmental Services, Inc.

# Boring Log

Project: Merit Ralph

Owner: Merit

Location: 1885 Atlantic & Ralph Aves. Permit No.:  
Brooklyn, NY

Total Depth: 30' Diameter: 6"

Soil Boring #: SB-8

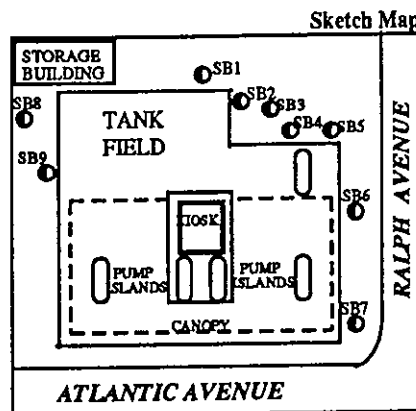
Sample Method: Split spoon

Drilling Method: Air Rotary

Log By: Jeff Campbell

Driller: Summit Drilling Co.

Date: 3/21/94



Depth (feet)	Sample No.	PID (units)	Blow Count	Lithology
1				0'-6" Asphalt
2				
3				
4				
5				
6				
7				
8				6"-8' Fill material, concrete, bricks, soil, etc. Water trapped in fill at contact.
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21	SB8-S	0.0	54-63-75-	20'-22' Reddish-brown stratified silty, gravelly, fine SAND. Little silt. Some subrounded gravel. Moist.
22				
23				
24				
25				
28	SB8-D	0.0	36-41-35-37	28'-30' Reddish-brown stratified silty, gravelly, fine SAND. Little silt. Some subrounded gravel. Moist.
30				End boring @ 30'
35				
40				
45				



# Groundwater & Environmental Services, Inc.

# Boring Log

Project: Merit Ralph

Owner: Merit

Location: 1885 Atlantic & Ralph Aves. Permit No.:  
Brooklyn, NY

Total Depth: 30' Diameter: 6"

Soil Boring #: SB-9

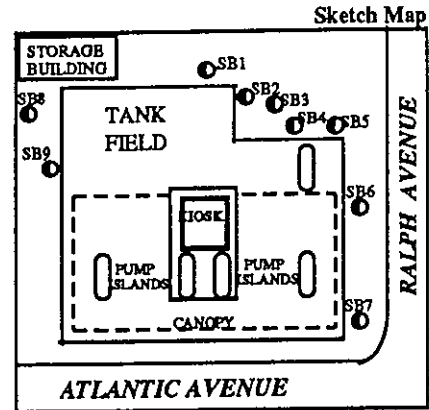
Sample Method: Split spoon

Drilling Method: Air Rotary

Log By: Jeff Campbell

Driller: Summit Drilling Co.

Date: 3/21/94



Depth (feet)	Sample No.	PID (units)	Blow Count	Lithology
1				0'-6" Asphalt
2				
3				
4				
5				
6				
7				
8				6"-2' Fill material.
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21	SB9-S	0.0	30-25-42-35	20'-22' Reddish-brown stratified silty, gravelly, fine SAND. Little silt. Some subrounded gravel. Moist.
22				
23				
24				
25				
28	SB9-D	0.0	30-25-42-35	28'-30' Reddish-brown stratified silty, gravelly, fine SAND. Little silt. Some subrounded gravel. Moist.
30				
35				End boring @ 30'
40				
45				