

TEST BORING / PROBE LOG

CODE: SP-12

Site Location:	Brooklyn	Installer:	Impact Environmental			
Job Number:	97-070	Installation Method:	Geoprobe			
Client:	NPV	Date Begin/End:	5/7/97			
Client Contact:	Charles Voorhis	Surface Elevation:				
Boring Code:	SP-12	Depth to Water:				
Location Description:		Total Depth:	10 feet			
Geologist:	James Mulvey	Page #:	1			
Depth Below Grade [feet]	Color Recovery [Munsell]	FID Reading [ppm]	Description [USCS]	Lithology	Description	Sample
0	10YR 5/6 Yellowish Brown				Asphalt Brick Fines	
2	10YR 5/6 Yellowish Brown				Brick Fines	
3	10YR 5/6 Yellowish Brown				Brick Fines	
4	10YR 5/6 Yellowish Brown				Brick Fines	
5	10YR 5/6 Yellowish Brown				Brick Fines	
6	10YR 4/8 Red				Hard Red Clay	
7	10YR 2/2 Very Dark Brown				Fine to Medium Strong Odor	
8	10YR 2/1 Black				Fine to Medium Strong Odor	
9	10YR 2/1 Black				Fine to Medium Strong Odor	
10	10YR 2/2 Very Dark Brown				Fine to Medium Strong Odor	

Note: USCS (Unified Soil Classification System)

TEST BORING / PROBE LOG

CODE: SP-13

Site Location:	Brooklyn	Installer:	Impact Environmental
Job Number:	97-070	Installation Method:	Geoprobe
Client:	NPV	Date Begin/End:	5/7/97
Client Contact:	Charles Voorhis	Surface Elevation:	
Boring Code:	SP-13	Depth to Water:	
Location Description:		Total Depth:	10 feet
Geologist:	James Mulvey	Page #:	1
Depth Below Grade [feet]	Color [Munsell]	FID Reading [ppm]	Description Lithology Description Sample
0	10YR 5/6 Yellowish Brown		Asphalt Brick Fines
2	10YR 5/6 Yellowish Brown		Brick Fines
3	10YR 5/6 Yellowish Brown		Brick Fines
4	10YR 5/6 Yellowish Brown		Brick Fines
5	10YR 5/6 Yellowish Brown		Brick Fines
6	10YR 4/8 Red		Hard Red Clay
7	10YR 2/2 Very Dark Brown		Fine to Medium Strong Odor
8	10YR 2/1 Black		Fine to Medium Strong Odor
9	10YR 2/1 Black		Fine to Medium Strong Odor
10	10YR 2/2 Very Dark Brown		Fine to Medium Strong Odor

Note: USCS (Unified Soil Classification System)

TEST BORING / PROBE LOG

CODE: SP-16

Site Location:	Brooklyn	Installer:	Impact Environmental
Job Number:	97-070	Installation Method:	Geoprobe
Client:	Brooklyn	Date Begin/End:	5/5/97
Client Contact:	Charles Voorhis	Surface Elevation:	
Boring Code:	SP-16	Depth to Water:	
Location Description:		Total Depth:	8 feet
Geologist:	James Mulvey	Page #:	1
Depth Below Grade [feet]	Color Recovery [Munsell]	FID Reading [ppm]	Description Lithology Description Sample
0	10YR 2/2 Very Dark Brown		Asphalt Fine to Medium
2	10YR 2/2 Very Dark Brown		Fine to Medium
3	10YR 2/1 Black		Fine to Medium Strong Odor
4	10YR 2/1 Black		Fine to Medium Strong Odor
5	10YR 2/1 Black		Fine to Medium Strong Odor
6	10YR 2/1 Black		Fine to Medium Strong Odor
7	10YR 2/1 Black		Fine to Medium Strong Odor
8	10YR 2/1 Black		

Note: USCS (Unified Soil Classification System)

TEST BORING / PROBE LOG

CODE: SP-17

Site Location:	Brooklyn	Installer:	Impact Environmental		
Job Number:	97-070	Installation Method:	Geoprobe		
Client:	Brooklyn	Date Begin/End:	5/5/97		
Client Contact:	Charles Voorhis	Surface Elevation:			
Boring Code:	SP-17	Depth to Water:			
Location Description:		Total Depth:	7 feet		
Geologist:	James Mulvey	Page #:	1		
Depth Below Grade [feet]	Color [Munsell]	Recovery FID Reading [ppm]	Description Lithology	Description	Sample
0	10YR 2/2 Very Dark Brown			Asphalt	
2	10YR 3/3 Dark Brown			Fine to Medium	
3	10YR 2/1 Black			Brick Fines	
4	10YR 2/1 Black			Anthracite pieces	
5	2 Clay 3/1 Dark Bluish Gray			Anthracite pieces	
6	10R 4/6 Red			Fine to Medium	
7				Fine to Medium	

Note: USCS (Unified Soil Classification System)

TEST BORING / PROBE LOG

CODE: SP-18

Site Location:	Brooklyn	Installer:	Impact Environmental		
Job Number:	97-070	Installation Method:	Geoprobe		
Client:	Brooklyn	Date Begin/End:	5/5/97		
Client Contact:	Charles Voorhis	Surface Elevation:			
Boring Code:	SP-18	Depth to Water:			
Location Description:		Total Depth:	7 feet		
Geologist:	James Mulvey	Page #:	1		
Depth Below Grade (feet)	Color [Munsell]	FID Reading [USCS] (ppm)	Lithology	Description	Sample
0	10YR 2/2 Very Dark Brown			Asphalt Brick Fines	
2	10YR 2/1 Black			Brick Fines	
3	10YR 2/2 Very Dark Brown			Brick Fines	
4	10YR 2/2 Very Dark Brown			Brick Fines	
5	2 Clay 5/1 Bluish Gray			Clay	
6	10R 4/6 Red			Medium to coarse Gravel	
7					

Note: USCS (Unified Soil Classification System)

TEST BORING / PROBE LOG

CODE: SP-19

Site Location:	Brooklyn	Installer:	Impact Environmental		
Job Number:	97-070	Installation Method:	Geoprobe		
Client:	Brooklyn	Date Begin/End:	5/5/97		
Client Contact:	Charles Voorhis	Surface Elevation:			
Boring Code:	SP-19	Depth to Water:			
Location Description:		Total Depth:	7 feet		
Geologist:	James Mulvey	Page #:	1		
Depth Below Grade [feet]	Color Recovery [Munsell]	FID Reading [ppm]	Description Lithology	Description	Sample
0	10YR 6/2 Gray to Light Brown			Asphalt Brick Fines	
2	10YR 6/2 Gray to Light Brown			1/4" Blue Gravel Stone	
3	10YR 3/3 Dark Brown			Medium to fine	
4	10YR 4/6 Dark Yellowish Brown			Fine to Medium	
5	10YR 5/8 Yellowish Brown			Fine to Medium Sandy Material	
6	10YR 5/8 Yellowish Brown			Fine to Medium Sandy Material	
7					

Note: USCS (Unified Soil Classification System)

TEST BORING / PROBE LOG

CODE: SP-20

Site Location:	Brooklyn	Installer:	Impact Environmental	
Job Number:	97-070	Installation Method:	Geoprobe	
Client:	Brooklyn	Date Begin/End:	5/5/97	
Client Contact:	Charles Voorhis	Surface Elevation:		
Boring Code:	SP-20	Depth to Water:		
Location Description:		Total Depth:	4 feet	
Geologist:	James Mulvey	Page #:	1	
Depth Below Grade [feet]	Color Recovery [Munsell]	FID Reading [ppm]	Description [USCS]	Lithology Description Sample
0	10YR 1/1 Black			Asphalt 1/4 " Blue Gravel Stone
3	10YR 1/1 Black			Pieces of Anthracite
4	REFUSAL			

Note: USCS (Unified Soil Classification System)

TEST BORING / PROBE LOG

CODE: SP-21

Note: USCS (Unified Soil Classification System)

TEST BORING / PROBE LOG

CODE: SP-22

Site Location:	Brooklyn	Installer:	Impact Environmental
Job Number:	97-070	Installation Method:	Geoprobe
Client:	NPV	Date Begin/End:	5/5/97
Client Contact:	Charles Voorhis	Surface Elevation:	
Boring Code:	SP-22	Depth to Water:	
Location Description:		Total Depth:	7 feet
Geologist:	James Mulvey	Page #:	1
Depth Below Grade (feet)	Color (Munsell)	Recovery Reading (ppm)	Description [USCS] Lithology Description Sample
0	10YR 2/2 Very Dark Brown		Asphalt Very Coarse to Coarse Soil
3	10YR 2/2 Very Dark Brown		Fine to Medium Pieces of Anthracite
4	10YR 2/1 Black		Fine to Medium Pieces of Anthracite
5	10Y 6/3 Pale Brown		Very Fine to Fine Sandy Material
6	10YR 2/1 Black		Medium to Fine 1/2" Coke
7			

Note: USCS-(Unified Soil Classification System)

Third Party Sites with Historical Usage of PAHs and Tar

Figure A-1

Tar and PAHs Sources in Gowanus Canal



1. Fulton MGP
2. Citizens MGP
3. Metropolitan MGP
4. US Government Toluol Plant
5. US Government Toluol Plant
6. US Government Toluol Plant
7. Barrett Manufacturing
8. Warren Chemical & Manufacturing Co.
9. Cranford Asphalt Company
10. Brooklyn Alcatraz Asphalt Company
11. Coal Tar Product Company
12. New York City Asphalt Plant
13. New York City Incinerator and Dump
14. New York City Asphalt Plant
15. New York City Incinerator, Dump, and Marine Transfer Station
16. New York City Flushing Tunnel
17. New York City Transit related
18. Standard Asphalt Co.
19. David E. Kennedy, Inc. /Kentile, Inc. /Kentile Floors, Inc.
20. Uvalde Asphalt Paving Company
21. Moen's Asphaltic Cement Company
22. C.M Higgins & Co./Higgins Co./Higgins Ink Co., Inc.
23. Wm. J. Matheson & Co.
24. Commonwealth Color & Chemical Company
25. Ernest Zobel Co. Inc. /Ernest Zobel Chemical Corp.
26. Zobel, Stein & Campbell Company
27. Atlas Color
28. Iridescent Dyestuff & Color Company
29. Blythe Chemical Company
30. H. Koppers Co./Koppers Gas and Coke Co./Koppers Seaboard Coke Co.
31. New York City Power Plant and Coal Yard
32. Greason Son & Dazell, Inc.
33. Pittston Prospect Coal Company
34. Scranton & Lehigh Coal Co., Inc./Kelsey & Loughlin Co./Patterson Fuel Oil Co. Inc.
35. Burns Brothers
36. Eppinger & Russell Co.
37. SPX Corporation (O-Z Gedney Co. Inc.)
38. J.F. Schmadene Inc.
39. The Lidford Co.
40. Schroeder & Horstman
41. Thompson & Co./Nelsons Brothers
42. Somers & Conzen Coal, Co. Inc.
43. Verizon New York, Inc. (NYNEX Corp. and New York Telephone Co.)
44. NIC Holding Corp. (Northville Industries Corp., Premium Corp, Premium Coal & Oil Co.)
45. Bayside Fuel Oil Corp.
46. Chevron USA, Inc. (Union Oil Company of California, Pure Oil Co.)
47. ExxonMobil Corp. (Standard Oil of New York)
48. TDA Industries, Inc./Northeastern Plastics, Inc.
49. H.J. Baker & Bro., Inc. (Forrester Fertilizer Co.)
50. Consolidated Edison Company of New York, Inc. (Brooklyn Edison Co.)
51. Citigroup, Inc./MRC Holdings (American Can Co., Primerica Corp., Travelers Group, Inc.)
52. MCIZ Corp. (Fifteen Second Avenue LLC, 36-2nd-J Corp., 107 Sixth Street LLC)
53. Brink's Inc. (The Pittston Co., Metropolitan Petroleum Corp.)
54. Kraft Foods Global, Inc. (New York Tartar Co., Standard Brands, Nabisco)/Stauffer Management Company, LLC (Stauffer Chemical Co.)
55. CBS Corp. (H. Krantz Manufacturing Co., Inc. Westinghouse Electric Co.)
56. Hauck Manufacturing Co.
57. Brooklyn Improvement Company
58. John W. Masury and Son
59. U.S. Postal Service/U.S. General Service Administration
60. Chemtura Corp. (Argus Chemical Co., Witco Chemical Co., Crompton Corp.)
61. US Maritime Commission/U.S. Navy
62. Puget Sound Commerce Center, Inc.
63. Amerada Hess Corp. (Patchogue Oil, Ira Bushey & Sons)