



APPENDIX C – BORING LOGS: NOTES

- (1) The term “Petro Products” as used in the boring logs refers to the detection of a petroleum-like product. This detection was made using field screening methods consisting of visual, olfactory and screening with a photoionization detector. The term “Petro Products” includes wastes associated with the former manufactured gas plant operations former conduct on the Site.

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB01 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 6/10/05						
Observer: Jeff Diamond					Date Completed:						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in.				Type:			
				Core Barrel:				Core Bit:			
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	3 4	S1) Lt. grey f-m sand, tr. silt, occ. shell frags. (SP)				5				
		6 5									
S2	10-12	3 4	S2) Grey f-m sand, tr. silt, occ. shell frags (SP)				10				
		3 4									
S3	15-17	13 18	S3) Lt. grey "Do S2"				15				
		19 23									
S4	20-22	11 15	S4) Grey f-m sand, tr. f gravel, tr. c sand, tr. silt, occ.				20				
		18 21	shell frags. (SP)								
S5	25-27	14 21	S5) Grey f-m sand, tr. f gravel, tr. c sand, tr. silt (SP)				25				
		22 25									
PLATE NO: 3.1											

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB01 Sheet: 2 of 2 Job No.: 2522.014.004		

Boring No.: RPGSB01
Sheet: 2 of 2
Job No.: 2522.014.004

PLATE NO.: 3.1A

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB02 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 6/13/05						
Observer: Jeff Diamond/ M. Senglaub					Date Completed: 6/13/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 15 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)					Split Spoon Sampler: 2" OD						
					U-Tube Sampler: Dia. in. Type:						
					Core Barrel: Core Bit:						
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks						
SAMPLE		SAMPLE DESCRIPTION			DEPTH	STR ATA	REMARKS				
NO.	DEPTH (FT)									BLOWS/6"	
S1	5-7	3	4	S1) Lt. grey br. f-m sand, tr. silt (SP)	5	S	S1-S5: Occ. shell frags.				
		5	6								
S2	10-12	2	2	S2) Med. grey "Do S1"	10		S	S2-S3: Slight Naphthalene-like odor			
		3	3								
S3	15-17	9	16	S3) Grey m-f sand, tr. f gravel, tr. c sand, tr. silt (SP)	15			S	S4-S5: Moderate Naphthalene-like odor		
		19	24								
S4	20-22	10	19	S4) "Do S3"	20	S			S4-S5: Moderate Naphthalene-like odor		
		22	25								
S5	25-27	9	16	S5) "Do S3"	25		S				
		24	24								
PLATE NO: 3.2											

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB02
Sheet: 2 of 2
Job No.: 2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S6	30-32	12 14	S6) Grey f-m-c sand, tr. f gravel, tr. silt (SP)	30	S	S6: Slight Naphthalene-like odor S6-S12: Occ. shell frags.
		17 25				
S7	35-37	12 19	S7) Lt. grey f-m sand, tr. silt (SP)	35		
		25 28				
S8	40-42	11 20	S8) "Do S7	40		
		22 25				
S9	45-47	13 16	S9) Lt. grey f-m sand, tr. c sand, occ. f gravel, tr. silt	45		
		23 25	(SP)			
S10	50-52	8 12	S10) "Do S9"	50		
		18 17				
S11	55-57	10 13	S11) "Do S9"	55		
		11 13				
S12	60-62	6 10	S12) "Do S9" grading to tan br. f-m sand, tr. silt (SP)	60		
		12 15				
			Completion Depth = 62.0ft			
				65		
				70		

PLATE NO.: 3.2A

BORING LOG													
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB03 Sheet: 1 of 2 Job No.: 2522.014.004								
Project: Rockaway Park Former MGP					Elevation:								
Project Location: Rockaway Park, NY					Date Started: 6/14/05								
Observer: M. Senglaub					Date Completed: 6/14/05								
Contractor: ADT Drilling													
Driller: Terry Herbert					Helper: Rashid Malyukov								
Type of Rig: CME 55													
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.								
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.								
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD									
				U-Tube Sampler: Dia. in. Type:									
				Core Barrel: Core Bit:									
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.								
WATER LEVEL OBSERVATIONS													
Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks								
SAMPLE		SAMPLE DESCRIPTION			DEPTH	STR ATA	REMARKS						
NO.	DEPTH (FT)									BLOWS/6"			
S1	5-7	8	5	S1A) Wood frags. (FILL)	5	F	S1B: very strong noxious odor (chemical)						
		3	5	S1B) Br. bec. dk grey f-m sand tr. silt (SP)(FILL)									
S2	10-12	4	5	S2) Blk. slag and cinders (FILL)	10	S	S2: gravel size slag and cinders predomiant, coated w/ petro product- noxious odor						
		3	5										
S3	15-17	6	12	S3) Br. & blk. f-m sand, tr. silt (SP)	15					S	S3-S7: coated with petro product noxious odor throughout		
		13	16										
S4	20-22	11	13	S4) Br. grey, blk. "Do S3"	20	S							
		17	22										
S5	25-27	9	14	S5) Br. grey f-m sand, little f gravel, tr. c sand, tr. silt	25	S							
		21	23	(SP)									
PLATE NO: 3.3													

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB03
Sheet: 2 of 2
Job No.: 2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STRATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S6	30-32	10 16 18 27	S6) Br. grey f-m sand, tr. silt (SP)	30	S	
S7	35-37	11 17 18 27	S7) "Do S6"	35		
			Completion Depth = 37.0ft			
				40		
				45		
				50		
				55		
				60		
				65		
				70		

PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB04 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 6/20/05						
Observer: Jeff Diamond					Date Completed: 6/20/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	6 6	S1) Lt. grey f sand, tr. silt, occ. shell frags. (SP)(FILL)				5	F	S2B: Coated with petro product- noxious odor		
		4 6									
S2A	10-12	2 6	S2A) Lt. grey f-m sand, tr. silt (SP)				10	S	S3-S5: occ. shell frags.		
S2B		14 13	S2B) Blk. slag & cinders (FILL)								
S3	15-17	5 12	S3) Grey f-m sand, tr. f gravel, tr. silt (SP)				15	S	S3-S5: occ. shell frags.		
		17 21									
S4	20-22	11 26	S4) "Do S3"				20	S			
		26 26									
S5	25-27	11 16	S5) Lt. grey f sand, tr. silt (SP)				25	S			
		21 21									
PLATE NO: 3.4											

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB04
Sheet: 2 of 2
Job No.: 2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STRATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S6	30-32	12 19 19 25	S6) Lt. grey f-m sand, tr. f gravel, tr. silt (SP)	30	S	
S7	35-37	10 13 16 19	S7) Lt. grey f sand, tr. silt (SP)	35		
			Completion Depth = 37.0ft			
				40		
				45		
				50		
				55		
				60		
				65		
				70		

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB05
Sheet: 1 of 4
Job No.: 2522.014.004

Project: Rockaway Park Former MGP		Elevation:	
Project Location: Rockaway Park, NY		Date Started: 6/21/05	
Observer: Jeff Diamond/ M. Senglaub		Date Completed: 6/24/05	
Contractor: ADT Drilling			
Driller: Terry Herbert		Helper: Rashid	
Type of Rig: CME 55			
Casing Dia.: 4 in.	From: 0 to 75 ft.	Auger Dia.: ID in.	OD in.
Drilling Mud Utilized: Yes Type: Bentonite		Rotary Bit Diameter: 3 7/8 in.	
SAMPLING EQUIPMENT (type and size)		Split Spoon Sampler: 2" OD	
		U-Tube Sampler: Dia. in. Type:	
		Core Barrel: Core Bit:	
Sampler Hammer Weight: 140 Lbs.		Average Drop: 30 in.	

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STRATA	REMARKS
NO.	DEPTH (FT)	BLOWS/6"				
S1	5-7	4 2	S1) Dk. grey m-f sand tr. silt, occ. slag & cinders (SP-SM FILL)	5	F	S1: Strong petro. odor
S2	7-9	1 WH	S2) Blk. slag & cinders (FILL)			
		WH WH				
S3	9-11	WH 4	S3) "Do S2"			
		1 2		10	S	S3-S4: coated w/ petro. product, noxious odor
S4	11-13	1 2	S4) "Do S2"			
		1 1				
S5	13-15	4 7	S5) Lt. grey f ⁺ -m sand, tr. silt (SP)			S5-S13: coated w/ petro. product, noxious odor
		9 13				
S6	15-17	3 6	S6) "Do S5"	15		
		12 14				
S7	17-19	8 10	S7) "Do S5"			
		12 14				
S8	19-21	8 11	S8) "Do S5"			
		13 14		20		
S9	21-23	7 12	S9) "Do S5"			
		12 13				
S10	23-25	6 8	S10) Lt. grey & br. f-m sand, tr. f gravel, tr. silt, occ. shell frags (SP)			
		10 11				
S11	25-27	6 9	S11) Lt. grey f ⁺ -m sand, tr. silt (SP)	25		
		11 11				
S12	27-29	5 5	S12) Lt. grey f-m sand, little f gravel, tr. silt (SP)			
		7 7				
S13	29-31	4 7	S13) Grey f sand, tr. silt (SP)			

PLATE NO:

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB05
Sheet: 2 of 4
Job No.: 2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
		7 7		30		
S14	31-33	5 6	S14) Br. grey f sand, tr. silt (SP)			S14-S20: coated w/ petro. product, noxious odor
		9 10				
S15	33-35	5 7	S15) "Do S14"			
		10 8				
S16	35-37	2 5	S16) Grey f ⁺ -m sand, tr. silt (SP)	35		
		7 7				
S17	37-39	4 5	S17) Lt. grey f sand, tr. silt (SP)			
		5 7				
S18	39-41	5 6	S18) "Do S17"			
		7 9		40		
S19	41-43	4 5	S19) "Do S17"			
		6 8				
S20	43-45	5 5	S20) "Do S17"			
		7 9				
S21	45-47	4 5	S21) "Do S17"	45		S21-S22: mod. petro odor
		6 6				
S22	47-49	5 6	S22) "Do S17"			
		6 8				
S23	49-51	4 4	S23) Lt. grey f-m sand, tr. silt (SP)			
		4 6		50		
S24	51-53	5 4	S24) "Do S23" occ. shell frags			
		6 8				
S25	53-55	3 3	S25) Grey m-f sand, tr. silt, occ. shell frags (SP)			S25-S32: coated w/ petro. product, strong odor
		4 4				
S26	55-57	4 4	S26) "Do S25"	55		
		6 6				
S27	57-59	3 2	S27) "Do S25"			
		2 3				
S28	59-61	2 2	S28) Grey f ⁺ -m sand, tr. silt (SP)			S28-S35: occ. mica flakes
		2 3		60		
S29	61-63	WH 1	S29) "Do S28"			
		WH 1				
S30	63-65	WH 1	S30) "Do S28"			
		WH 1				
S31	65-67	WH WH	S31) "Do S28"	65		
		1 2				
S32	67-69	1 2	S32) "Do S28"			
		2 3				
S33	69-71	1 2	S33) Olive grey f sand, tr. silt (SP-SM)			S33-S34: petro odor
		2 3		70		
S34	71-73	2 2	S34) "Do S33"			
		1 2				
S35	73-75	WH WH	S35) Grey "Do 33"			
		1 1				

PLATE NO.:

Boring Log				Boring No.:		RPGSB05	
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059				Sheet:		3 of 4	
				Job No.:		2522.014.004	
SAMPLE			SAMPLE DESCRIPTION	DEPTH	STRATA	REMARKS	
NO.	DEPTH	BLOWS/6"					
S36	75-77	1 1	S36) Olive br. grey f sand, tr. silt, num layer of f ⁻ -m sand (SP)	75	S	S36-S37: slight odor S36-S43: occ. mica flakes	
S37	77-79	WH WH	S37) "Do S36"				
		WH 1					
S38	79-81	WH WH	S38) "Do S36"			S38-S40: coated w/ petro. product, strong odor	
		1 WH		80			
S39	81-83	WH WH	S39) "Do S36"				
		2 4					
S40	83-85	4 4	S40) "Do S36"				
		6 10					
S41	85-87	1 1	S41) "Do S36"	85		S41-S43: slight to mod. petro. odor, black staining noted	
		4 5					
S42	87-89	1 3	S42) "Do S36"				
		4 4					
S43	89-91	WH WH	S43) "Do S36"				
		1 2		90			
S44	91-93	1 2	S44) "Do S36" occ. f gravel			S44-S49: coated w/ petro. product, strong odor	
		2 4					
S45	93-95	WH 1	S45) Br. grey f ⁻ -m sand, tr. silt				
		2 2					
S46	95-97	4 5	S46) "Do S45"	95			
		4 3					
S47	97-99	3 4	S47) "Do S45"				
		3 6					
S48	99-101	3 8	S48) "Do S45"				
		4 5		100			
S49	101-103	6 9	S49) Grey f sand, tr. silt (SP)				
		12 16					
S50	103-105	7 15	S50) Olive grey f sand, little to some silt (SM)			S51: petro. odor, black staining noted	
		19 27					
S51	105-107	14 23	S51) Lt. tan grey f ⁻ -m sand, tr. silt (SP)	105			
		24 26					
S52	107-109	10 20	S52) Grey br. f ⁻ -m sand, tr. silt (SP)		S52-S55: coated w/ petro product, strong odor		
		24 23					
S53	109-111	10 13	S53) "Do S52"				
		14 14		110			
S54	111-113	12 19	S54) Grey f sand, little silt (SM)				
		20 22					
S55	113-115	8 11	S55) Br. grey f-m sand, tr. silt (SP)				
		12 14					
S56	115-117	9 15	S56) "Do S55"	115			
		18 19					
S57	117-119	5 8	S57) Br. m-f sand, tr. f gravel, tr. c sand, tr. silt (SP)		S57-S58: coated w/ petro product, strong odor		
		19 19					
S58	119-121	10 14	S58) Grey br. f ⁻ -m sand, tr silt (SP-SM)				

PLATE NO.:

Boring No.:
Sheet:
Job No.:

RPGSB05
3 of 4
2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS	
NO.	DEPTH	BLOWS/6"					
S36	75-77	1 1	S36) Olive br. grey f sand, tr. silt, num layer of f ⁺ -m sand (SP)	75	S	S36-S37: slight odor S36-S43: occ. mica flakes	
		WH 1					
S37	77-79	WH WH	S37) "Do S36"				
		WH 1					
S38	79-81	WH WH	S38) "Do S36"				S38-S40: coated w/ petro. product, strong odor
		1 WH		80			
S39	81-83	WH WH	S39) "Do S36"				
		2 4					
S40	83-85	4 4	S40) "Do S36"				
		6 10					
S41	85-87	1 1	S41) "Do S36"	85			S41-S43: slight to mod. petro. odor, black staining noted
		4 5					
S42	87-89	1 3	S42) "Do S36"				
		4 4					
S43	89-91	WH WH	S43) "Do S36"				
		1 2		90			
S44	91-93	1 2	S44) "Do S36" occ. f gravel				S44-S49: coated w/ petro. product, strong odor
		2 4					
S45	93-95	WH 1	S45) Br. grey f ⁺ -m sand, tr. silt				
		2 2					
S46	95-97	4 5	S46) "Do S45"	95			
		4 3					
S47	97-99	3 4	S47) "Do S45"				
		3 6					
S48	99-101	3 8	S48) "Do S45"				
		4 5		100			
S49	101-103	6 9	S49) Grey f sand, tr. silt (SP)				
		12 16					
S50	103-105	7 15	S50) Olive grey f sand, little to some silt (SM)				
		19 27					
S51	105-107	14 23	S51) Lt. tan grey f ⁺ -m sand, tr. silt (SP)	105			S51: petro. odor, black staining noted
		24 26					
S52	107-109	10 20	S52) Grey br. f ⁺ -m sand, tr. silt (SP)			S52-S55: coated w/ petro product, strong odor	
		24 23					
S53	109-111	10 13	S53) "Do S52"				
		14 14		110			
S54	111-113	12 19	S54) Grey f sand, little silt (SM)				
		20 22					
S55	113-115	8 11	S55) Br. grey f-m sand, tr. silt (SP)				
		12 14					
S56	115-117	9 15	S56) "Do S55"	115			
		18 19					
S57	117-119	5 8	S57) Br. m-f sand, tr. f gravel, tr. c sand, tr. silt (SP)			S57-S58: coated w/ petro product, strong odor	
		19 19					
S58	119-121	10 14	S58) Grey br. f ⁺ -m sand, tr silt (SP-SM)				
PLATE NO.:							

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB05
Sheet: 4 of 4
Job No.: 2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
		15 16		120	S	S59-S60: slight petro odor
S59	121-123	9 10	S59: Grey br. f-m sand, tr. c sand, tr. silt (SP)			
		11 14				
S60	123-125	10 14	S60) "Do S59"			
		17 19				
S61	125-127	10 13	S61) "Do S59"	125		
		16 16				
S62	127-129	10 12	S62) "Do S59"			
		12 14				
S63	129-131	6 8	S63) "Do S59"			
		10 13		130		
			Completion Depth = 131.0ft			
				135		
				140		
				145		
				150		
				155		
				160		

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB06 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 6/21/05						
Observer: Jeff Diamond					Date Completed: 6/21/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
									S1,S2: gravel through sand size cinders, slag & coal, coated with petro. product, noxious odor		
S1	5-7	3 3	S1) Blk. cinders, slag & coal (FILL)				5				
		8 9									
S2	10-12	5 3	S2) "Do S1" with c-f gravel				10				
		2 1									
S3	15-17	WH 1	S3) Lt. grey f-m sand, tr. f gravel, tr. silt (SP)				15				
		2 4									
S4	20-22	13 24	S4) Lt. grey f-m sand, tr. silt (SP)				20				
		27 34									
S5	25-27	15 21	S5) Lt grey f-m-c sand, tr. silt, occ. f gravel (SP)				25				
		23 23									
PLATE NO:											

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB06 Sheet: 2 Job No.: 2522.014.004	of	2

Boring No.: RPGSB06
Sheet: 2 of 2
Job No.: 2522.014.004

[illegible]

PLATE NO.:

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB07
Sheet: 1 of 2
Job No.: 2522.014.004

Project: Rockaway Park Former MGP		Elevation:	
Project Location: Rockaway Park, NY		Date Started: 6/14/05	
Observer: Jeff Diamond/ M. Senglaub		Date Completed: 6/15/05	
Contractor: ADT Drilling			
Driller: Terry Herbert		Helper: Rashid	
Type of Rig: CME 55			
Casing Dia.: 4 in.	From: 0 to 10 ft.	Auger Dia.: ID in.	OD in.
Drilling Mud Utilized: Yes Type: Bentonite		Rotary Bit Diameter: 3 7/8 in.	
SAMPLING EQUIPMENT (type and size)		Split Spoon Sampler: 2" OD	
		U-Tube Sampler: Dia. in. Type:	
		Core Barrel: Core Bit:	
Sampler Hammer Weight: 140 Lbs.		Average Drop: 30 in.	

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH (FT)	BLOWS/6"				
S1	5-7	3 3	S1) Lt. tan grey & orange br. f sand, tr. silt (SP)	5	F	S2-S13: slight to mod. petro. odor S3: occ. blk staining noted S4: coated w/ petro product
		4 5				
S2	7-9	3 3	S2) Orange br. f sand, tr. silt (SP)			
		3 3				
S3	9-11	2 WR	S3) Lt. tan grey f sand, tr. silt (SP)		S	
		1 3		10		
S4	11-13	1 1	S4) Dk. grey f sand, tr. silt (SP)			
		3 3				
S5	13-15	2 5	S5) Br/ Dk grey f ⁺ -m sand, tr. f gravel, tr. silt, occ. shell frags. (SP)			
		12 15				
S6	15-17	6 10	S6) Lt. grey f ⁺ -m sand, tr. silt, occ. shell frags (SP)	15		
		15 14				
S7	17-19	2 8	S7) "Do S6"			
		16 16				
S8	19-21	9 11	S8) "Do S6"			
		14 14		20		
S9	21-23	8 12	S9) "Do S6", tr. f gravel			
		10 15				
S10	23-25	3 12	S10) "Do S6"			
		19 21				
S11	25-27	3 12	S11) "Do S6"	25		S11-S12: occ. black staining noted
		19 21				
S12	27-29	9 18	S12) "Do S6"			
		23 25				
S13	29-31	10 22	S13) "Do S6", tr. f gravel			

PLATE NO:

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB07 Sheet: 2 Job No.: 2522.014.004	of	2

Boring No.: RPGSB07
Sheet: 2 of 2
Job No.: 2522.014.004

SAMPLE				SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"					
		24	26		30	S	S14-S22: mod. petro odor
S14	31-33	8	17	S14) Lt. grey f ⁺ -m sand, tr. silt (SP)			
		22	21				
S15	33-35	9	13	S15) "Do S14"			
		16	17				
S16	35-37	7	11	S16) "Do S14"	35		
		17	21				
S17	37-39	10	15	S17) Lt. grey f sand, tr. silt (SP)			
		17	22				
S18	39-41	6	10	S18) "Do S17"			
		16	17		40		
S19	41-43	10	11	S19) "Do S17"			
		12	12				
S20	43-45	7	8	S20) "Do S17"			
		11	14				
S21	45-47	4	9	S21) Lt. grey f ⁺ -m sand, tr. silt (SP)	45		
		10	14				
S22	47-49	5	8	S22) Lt. grey f sand, tr. silt (SP)			
		12	13				
S23	49-51	13	12	S23) "Do S22"			
		20	17		50		
S24	51-53	5	12	S24) "Do S22"			
		12	20				
S25	53-55	9	7	S25) Lt. grey m-f sand, tr. silt, occ. shell frags (SP)			
		10	10				
S26	55-57	3	4	S26) Grey/ lt. grey m-f sand, tr. f gravel, tr. silt (SP)	55		
		9	10				
S27	57-59	5	8	S27) "Do S27"			
		13	17				
S28	59-61	10	17	S28) Lt. grey f+-m sand, tr. silt (SP)			
		34	40		60		
				Completion Depth =61.0ft			
					65		
					70		
PLATE NO.:							

PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB08 Sheet: 1 of 4 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 7/12/05						
Observer: Jeff Diamond					Date Completed: 7/15/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	5	6	S1) Br. grey f-m sand, little silt, tr. f gravel, occ. cinder & slag frags (SM FILL)				5	F	S1-S8: mod to strong petro odor	
S2	7-9	4	8	S2) Dk. grey f-c sand, little silt, tr. f gravel, num. slag& cinder frags (SM FILL)							
S3	9-11	5	5	S3) Black cinders & slag, frags, some c-f sand, little silt (FILL)							
		3	4					10			
S4	11-13	2	2	S4) Grey f ⁺ -m sand, tr. silt, occ. shell frags (SP)					S	S3: wet, coated w/ petro product	
		7	15								
S5	13-15	4	12	S5) Lt. grey m-f sand, tr. silt, occ. shell frags. (SP)							
		17	18								
S6	15-17	2	3	S6) "Do S5", tr. c sand				15			
		8	9								
S7	17-19	12	12	S7) Lt. grey f-m ⁺ -c sand, tr. f gravel, tr. silt, occ shell frags							
		19	21								
S8	19-21	5	10	S8) "Do S7"							
		15	20					20			
S9	21-23	10	18	S9) Lt. grey m-f sand, tr. silt, occ shell frags (SP)						S10: coated w/ petro product, strong odor S11-S13: Slightly coated w/ petro product, strong odor	
		24	28								
S10	23-25	9	19	S10) Br. grey f-m ⁺ -c sand, tr. silt (SP)							
		24	24								
S11	25-27	13	17	S11) Lt grey f sand, tr. silt (SP)				25			
		20	24								
S12	27-29	6	12	S12) "Do S11"							
		15	18								
S13	29-31	12	18	S13) "Do S11"							
PLATE NO:											

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB08
Sheet: 2 of 4
Job No.: 2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
		19 21		30		
S14	31-33	7 10	S14) Lt. grey f sand, tr. silt (SP)			S14-S15: mod to strong petro odor
		13 15				
S15	33-35	8 12	S15) "Do S15"			
		14 14				
S16	35-37	6 8	S16) Lt. grey br. f sand, tr. silt (SP)	35		S16: heavy coating of petro product, strong odor
		11 18				
S17	37-39	11 16	S17) Lt. grey f sand, tr. silt (SP)			S17-S35: occ. petro product staining noted.
		19 25				
S18	39-41	11 14	S18) "Do S17"			strong to mod petro odor
		19 19		40		
S19	41-43	8 12	S19) "Do S17"			
		17 26				
S20	43-45	14 16	S20) "Do S17"			
		21 21				
S21	45-47	6 5	S21) "Do S17"	45		
		15 14				
S22	47-49	5 9	S22) "Do S17"			
		17 22				
S23	49-51	8 15	S23) Lt. grey f-m sand, tr. silt (SP)		S	
		11 17		50		
S24	51-53	6 9	S24) Lt grey f-m-c sand, tr. silt, occ. shell frags (SP)			
		9 15				
S25	53-55	6 6	S25) Lt grey m-f sand, tr. silt (SP)			
		10 12				
S26	55-57	5 6	S26) "Do S25"	55		
		7 8				
S27	57-59	6 9	S27) Grey f-m sand, tr. silt (SP)			
		15 12				
S28	59-61	5 5	S28) Dk. grey f sand, tr. silt (SP)			
		5 5		60		
S29	61-63	4 7	S29) Grey br. f sand, tr. silt (SP)			
		11 19				
S30	63-65	8 12	S30) "Do S29"			
		16 19				
S31	65-67	8 13	S31) "Do S29"	65		
		15 15				
S32	67-69	7 11	S32) "Do S29"			
		15 9				
S33	69-71	8 12	S33) "Do S29"			
		16 13		70		
S34	71-73	4 4	S34) "Do S29"			
		5 8				
S35	73-75	8 12	S35) "Do S29"			
		14 12				

PLATE NO.:

BORING LOG				Boring No.:	RPGSB08	
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059				Sheet:	3	of
				Job No.:	2522.014.004	4
SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S36	75-77	4 6	S36) Br. grey f sand, tr. silt (SP)	75	S	S36-S39: slight petro. odor
		17 14				
S37	77-79	6 12	S37) "Do S36"			
		16 12				
S38	79-81	5 6	S38) "Do S36"			
		8 10		80		
S39	81-83	10 17	S39) "Do S36"			
		18 16				
S40	83-85	6 7	S40) "Do S36"			
		8 14				
S41	85-87	9 10	S41) "Do S36"	85		
		11 11				
S42	87-89	8 14	S42) "Do S36"			
		15 19				
S43	89-91	11 13	S43) "Do S36"			
		15 19		90		
S44	91-93	11 13	S44) "Do S36"			
		15 13				
S45	93-95	5 8	S45) Br. f sand, tr. silt (SP)			
		9 11				
S46	95-97	5 7	S46) Br. grey "Do S45"	95		
		10 12				
S47	97-99	9 13	S47) "Do S46" grading to yellow tan f-m sand, tr. silt			
		17 27	(SP)			
S48	99-101	17 26	S48) Yellow tan grey f-m sand tr. silt (SP)			
		31 32		100		
S49	101-103	12 25	S49) Yellow tan grey f-m sand, tr. silt (SP)			
		36 45				
S50	103-105	13 26	S50) "Do S49"			
		31 39				
S51	105-107	10 23	S51) Yellow tan grey f sand, tr. silt (SP)	105		
		31 34				
S52	107-109	17 27	S52) "Do S51" occ. f gravel			
		31 29				
S53	109-111	13 23	S53) Br. grey f sand, tr. silt			
		21 26		110		
S54	111-113	5 16	S54) Grey br. f sand, little silt (SM)			
		13 17				
S55	113-115	11 14	S55) "Do S54" occ. lenses of f sand, some silt		M	
		14 16			S	
S56A	115-115.5	7 15	S56A) Br. grey silt, some f sand (ML)	115		
S56B	115.5-117	16 16	S56B) Br. f-m sand, tr. f gravel, tr. silt (SP)			
S57	117-119	8 12	S57) Br. grey f-m sand, tr. silt (SP)			
		16 18				
S58	119-121	5 11	S58) Br. grey f-m sand, tr. silt (SP)			

PLATE NO.:

Boring No.:
Sheet:
Job No.:

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2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S36	75-77	4 6	S36) Br. grey f sand, tr. silt (SP)	75	S	S36-S39: slight petro. odor
		17 14				
S37	77-79	6 12	S37) "Do S36"			
		16 12				
S38	79-81	5 6	S38) "Do S36"			
		8 10		80		
S39	81-83	10 17	S39) "Do S36"			
		18 16				
S40	83-85	6 7	S40) "Do S36"			
		8 14				
S41	85-87	9 10	S41) "Do S36"	85		
		11 11				
S42	87-89	8 14	S42) "Do S36"			
		15 19				
S43	89-91	11 13	S43) "Do S36"			
		15 19		90		
S44	91-93	11 13	S44) "Do S36"			
		15 13				
S45	93-95	5 8	S45) Br. f sand, tr. silt (SP)			
		9 11				
S46	95-97	5 7	S46) Br. grey "Do S45"	95		
		10 12				
S47	97-99	9 13	S47) "Do S46" grading to yellow tan f-m sand, tr. silt (SP)			
		17 27				
S48	99-101	17 26	S48) Yellow tan grey f-m sand tr. silt (SP)			
		31 32		100		
S49	101-103	12 25	S49) Yellow tan grey f-m sand, tr. silt (SP)			
		36 45				
S50	103-105	13 26	S50) "Do S49"			
		31 39				
S51	105-107	10 23	S51) Yellow tan grey f sand, tr. silt (SP)	105		
		31 34				
S52	107-109	17 27	S52) "Do S51" occ. f gravel			
		31 29				
S53	109-111	13 23	S53) Br. grey f sand, tr. silt			
		21 26		110		
S54	111-113	5 16	S54) Grey br. f sand, little silt (SM)			
		13 17				
S55	113-115	11 14	S55) "Do S54" occ. lenses of f sand, some silt		M	
		14 16				
S56A	115-115.5	7 15	S56A)Br. grey silt, some f sand (ML)	115	S	
S56B	115.5-117	16 16	S56B) Br. f-m sand, tr. f gravel, tr. silt (SP)			
S57	117-119	8 12	S57) Br. grey f ⁻ -m sand, tr. silt (SP)			
		16 18				
S58	119-121	5 11	S58) Br. grey f-m sand, tr. silt (SP)			
PLATE NO.:						

BORING LOG				
Paulus, Sokolowski and Sartor	Boring No.:	RPGSB08		
Consulting Engineers	Sheet:	4	of	4
Warren, New Jersey 07059	Job No.:	2522.014.004		

Boring No.:
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Job No.:

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2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
		13 18		120		S59-S63: slight petro. odor
S59	121-123	11 14	S59) Br. grey f-m sand, tr. silt (SP)			
		13 19				
S60	123-125	8 15	S60) "Do S59"			
		14 22				
S61	125-127	9 9	S61) "Do S59" tr. f gravel, tr. c sand	125		
		16 22				
S62	127-129	15 15	S62) Br. f-m ⁺ -c sand, little f gravel, tr. silt (SP)			
		14 15				
S63	129-131	8 11	S63) Br. grey f-m ⁺ -c sand, tr. f gravel, tr. silt			
		13 12		130		
			Completion Depth = 131.0ft			
				135		
				140		
				145		
				150		
				155		
				160		

PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB09 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 6/24/05						
Observer: Jeff Diamond					Date Completed: 6/24/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	4 3	S1) Blk/ grey br. cinders & slag (FILL)				5	F	S1: predominantly gravel size cinders & slag; coated with petro. product		
		3 4									
S2A	10-11	5 7	S2A) Med. grey f sand, tr. silt, occ. cinder frags. (SP)				10	S	S2A: blk. staining noted		
S2B	11-12	13 17	(FILL)								
			S2B) Grey f-m sand, tr. silt, occ. shell frags (SP)						S2A, S2B: mod. petro odor		
S3	15-17	7 9	S3) Lt. grey m-f sand, tr. f gravel, tr. silt, occ. shell frags. (SP)				15		S3,S4: slight petro odor		
		10 13									
S4	20-22	15 16	S4) "Do S3"				20				
		18 17									
S5	25-27	12 12	S5) "Do S4" grading to grey f-m sand, tr. silt (SP)				25	S5: coated with strong petro odor			
		16 15									
PLATE NO: 3.9											

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB09 Sheet: 2 Job No.: 2522.014.004	of	2

Boring No.: RPGSB09
Sheet: 2 of 2
Job No.: 2522.014.004

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BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB10 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 6/27/05						
Observer: Jeff Diamond					Date Completed: 6/27/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	3 4 7 6	S1) Blk. cinders & slag, little f-c sand (FILL)				5	F	S1: heavy petro. coating & odor		
S2	10-12	4 9 14 15	S2A)Dk. grey f-m sand, tr. silt, occ. cinders (SP-SM) (FILL)				10	---	S2A-S3: slight petro. coating with moderate odor.		
			S2B) Grey f-m sand, tr. silt (SP)								
S3	15-17	5 8 11 12	S3) "Do S2B"				15	S			
S4	20-22	10 15 15 21	S4) Grey f-m sand, tr. silt, occ. shell frags (SP)				20		S4,S5: slight to moderate petro. odor		
S5	25-27	7 10 12 15	S5) "Do S4"				25				
PLATE NO:											

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB10 Sheet: 2 Job No.: 2522.014.004	of	2

Boring No.: RPGSB10
Sheet: 2 of 2
Job No.: 2522.014.004

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PLATE NO.:

Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB11 Sheet: 1 of 2 Job No.: 2522.014.004							
Project: Rockaway Park Former MGP					Elevation:							
Project Location: Rockaway Park, NY					Date Started: 6/30/05							
Observer: Jeff Diamond					Date Completed: 6/30/05							
Contractor: ADT Drilling												
Driller: Terry Herbert					Helper: Rashid Malyukov							
Type of Rig: CME 55												
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.							
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.							
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD								
				U-Tube Sampler: Dia. in.				Type:				
				Core Barrel:				Core Bit:				
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.							
WATER LEVEL OBSERVATIONS												
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks		
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STRATA	REMARKS			
NO.	DEPTH (FT)	BLOWS/6"										
S1	5-7	4 5	S1) Lt. brown grey f-m sand, tr. silt, occ. shell frags				5	S	S1-S5: Strong petro. odor			
		4 4	(SP)									
S2	10-12	8 10	S2) Lt. grey f sand, tr. silt (SP)				10					
		14 16										
S3	15-17	8 10	S3) Lt. br. grey f-m sand, tr. c sand, tr. silt (SP)				15		S3: occ. black stains- discolorations			
		12 14										
S4	20-22	10 15	S4) Grey "Do S3"				20					
		20 22										
S5	25-27	10 16	S5) Lt. grey "Do S3"				25					
		20 22										

PLATE NO:

BORING LOG			
Paulus, Sokolowski and Sartor	Boring No.:	RPGSB11	
Consulting Engineers	Sheet:	2	of 2
Warren, New Jersey 07059	Job No.:	2522.014.004	

Boring No.: RPGSB11
Sheet: 2 of 2
Job No.: 2522.014.004

[illegible]

PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB12 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 7/12/05						
Observer: Jeff Diamond					Date Completed: 7/12/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	8 12	S1) Lt. tan grey f sand, tr. silt (SP)				5	S	S1-S2: Strong petro odor		
		16 20									
S2	10-12	12 12	S2) Grey f sand, tr. silt (SP)				10		S2-S3: occasional black staining		
		15 22									
S3	15-17	13 22	S3) Lt. grey f-m sand, tr. f gravel, tr. silt (SP)				15		S3-S4: occasional shell frags.		
		26 30									
S4	20-22	12 19	S4) Grey f-m sand, tr. silt (SP)				20				
		17 23									
S5	25-27	15 20	S5) Lt. grey f sand, tr. silt (SP)				25				
		22 26									
PLATE NO:											

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB12
Sheet: 2 of 2
Job No.: 2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S6	30-32	15 12	S6) Lt. grey f sand, tr. silt (SP)	30	S	
		15 20				
S7	35-37	15 19	S7) "Do S6"	35		
		24 29				
			Completion Depth = 37.0ft			
				40		
				45		
				50		
				55		
				60		
				65		
				70		

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB13 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 6/29/05						
Observer: Jeff Diamond					Date Completed: 6/29/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE				SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS	
NO.	DEPTH (FT)	BLOWS/6"									
S1A	5-6	2	2	S1A) Black cinders & slag (FILL)				5	F	S1A, S1B: Samples coated with petro product, strong odor	
S1B	6-7	3	5	S1B) Dk. grey f-m sand, little silt, tr. f gravel, occ. slag (SM)(FILL)							
S2	10-12	5	5	S2) Lt. grey f-m sand, tr. silt (SP)				10	S	S2-S5: Slight/ moderate petro. odor black stains/ discolorations	
		4	7								
S3	15-17	4	7	S3) Grey "Do S2"				15			
		7	9								
S4	20-22	9	18	S4) Dk. grey m-f sand, tr. c sand, tr. silt, occ. shell frags (SP)				20			
		24	30								
S5	25-27	6	8	S5) Lt. br. grey f-m sand, tr. silt (SP)				25			
		11	14								
PLATE NO:											

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB13 Sheet: 2 Job No.: 2522.014.004	of	2

Boring No.: RPGSB13
Sheet: 2 of 2
Job No.: 2522.014.004

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PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB14 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 6/29/05						
Observer: Jeff Diamond					Date Completed: 6/29/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE				SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS	
NO.	DEPTH (FT)	BLOWS/6"									
S1A	5-6	WH	1	S1A) Dk. grey f-m sand, tr. f gravel, tr. silt, tr. slag &				5	F	S1A: coated with petro. product, strong odor S1B-S5: slight to moderate petro. odor	
S1B	6-7	3	6	cinder frags (SP-SM)(FILL)							
				S1B) Lt. br. grey f-m sand, tr. silt (SP)							
S2	10-12	4	4	S2) "Do S1B"				10	S		
		5	5								
S3	15-17	5	8	S3) Dk. grey/ blk m-f sand, tr. f gravel, tr. silt (SP)				15			
		12	16								
S4	20-22	6	13	S4) "Do S3"				20			
		18	18								
S5	25-27	8	10	S5) Grey/ br. grey f-m sand, tr. silt (SP)				25	S5: Numerous black discolorations		
		14	16								
PLATE NO:											

BORING LOG			
Paulus, Sokolowski and Sartor	Boring No.:	RPGSB14	
Consulting Engineers	Sheet:	2	of 2
Warren, New Jersey 07059	Job No.:	2522.014.004	

Boring No.: RPGSB14
Sheet: 2 of 2
Job No.: 2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STRATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S6	30-32	11 16 20 26	S6) Lt. grey f-m sand, tr. f gravel, tr. silt (SP)	30	S	S6-S7: slight petro odor
S7	35-37	10 10 13 21	S7) Med. grey f sand, tr. silt (SP)	35		
			Completion Depth = 37.0ft			
				40		
				45		
				50		
				55		
				60		
				65		
				70		

PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB15 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 6/30/05						
Observer: Jeff Diamond					Date Completed: 6/30/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE				SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS	
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	4	8	S1) Lt. br. grey f-m sand, tr. silt (SP)				5		S1-S4: Moderate/strong petro odor	
		10	12								
S2	7-9	9	12	S2) "Do S1"							
		16	17								
S3	9-11	9	12	S3) "Do S1"						S5-S6: numerous black discolorations/ stains, moderate "hydrocarbon" odor	
		10	10					10			
S4	11-13	6	9	S4) "Do S1"							
		12	12								
S5	13-15	3	5	S5) Lt. grey & tan m-f sand, tr. f gravel, tr. silt (SP)						S7: Occ. black stains/ discolorations, slight petro odor	
		9	10								
S6	15-17	6	13	S6) Tan "Do S5"				15			
		17	20								
S7	17-19	5	15	S7) Dk. olive grey f-m-c sand, tr. f gravel, tr. silt, occ. shell frags. (SP)						S8-S9: slight petro odor S9: occasional black stains	
		17	22								
S8	19-21	9	18	S8) Lt. tan grey f sand, tr. silt (SP)							
		24	24					20			
S9	21-23	13	14	S9) "Do S8"							
		16	17								
S10	23-25	10	15	S10) "Do S8"							
		20	20								
S11	25-27	9	12	S11) Lt. grey f-m sand, tr. f gravel, tr. silt, occ. shell frags. (SP)				25			
		17	24								
S12	27-29	10	14	S12) Lt. grey f sand, tr. silt (SP)							
		18	29								
S13	29-31	10	18	S13) "Do S12"							
PLATE NO:											

BORING LOG						
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059			Boring No.: RPGSB15 Sheet: 2 of 2 Job No.: 2522.014.004			
SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
		20 24		30	S	S14: petro odor
S14	31-33	8 13	S14) Lt. grey f sand, tr. silt (SP)			
		15 20				
S15	33-35	13 18	S15) "Do S14"			
		28 36				
			Completion Depth = 35.0ft	35		
				40		
				45		
				50		
				55		
				60		
				65		
				70		
PLATE NO.:						

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB16 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 7/7/05						
Observer: Jeff Diamond					Date Completed: 7/7/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	3 3	S1) Tan bec. lt. grey f sand, tr. silt (SP FILL)				5	F	S1: coated w/ petro product, num. black stained pockets, noxious odor		
		4 6									
S2	10-12	5 4	S2) Lt. grey f-m sand, tr. silt (SP)				10	S	S2-S3: strong petro. odor		
		7 8									
S3	15-17	7 17	S3) Dk. grey f-m ⁺ -c sand, tr. f gravel, tr. silt (SP)				15	S	S4-S5: slight petro. odor		
		24 22									
S4	20-22	11 17	S4) Grey f ⁺ -m sand, tr. silt (SP)				20	S	S4-S5: slight petro. odor		
		22 24									
S5	25-27	4 19	S5) Lt. grey "Do S4"				25	S			
		24 29									
PLATE NO:											

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB16 Sheet: 2 Job No.: 2522.014.004	of	2

Boring No.: RPGSB16
Sheet: 2 of 2
Job No.: 2522.014.004

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PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB17 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 7/7/05						
Observer: Jeff Diamond					Date Completed: 7/11/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	8 9	S1) Lt. grey f ⁺ -m sand, tr. silt (SP)				5	S	S1-S3: strong petro odor		
		12 15									
S2	10-12	7 12	S2) Lt. br. grey f sand, tr. silt (SP)				10		S2: black staining throughout		
		13 15									
S3	15-17	12 14	S3) Lt. grey m ⁺ -f sand, tr. silt, occ. shell frags (SP)				15				
		16 15									
S4	20-22	13 15	S4) Lt. grey f ⁺ -m sand, tr. f gravel, tr. silt (SP)				20				
		12 17									
S5	25-27	14 18	S5) Lt. grey f ⁺ -m sand, tr. silt (SP)				25				
		21 22									
PLATE NO:											

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB17 Sheet: 2 of 2 Job No.: 2522.014.004		

Boring No.: RPGSB17
Sheet: 2 of 2
Job No.: 2522.014.004

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PLATE NO.:

BORING LOG															
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB18 Sheet: 1 of 2 Job No.: 2522.014.004										
Project: Rockaway Park Former MGP					Elevation:										
Project Location: Rockaway Park, NY					Date Started: 7/11/05										
Observer: Jeff Diamond					Date Completed: 7/11/05										
Contractor: ADT Drilling															
Driller: Terry Herbert					Helper: Rashid Malyukov										
Type of Rig: CME 55															
Casing Dia.: 4 in. From: 0 to 15 ft.					Auger Dia.: ID in. OD in.										
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.										
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD											
				U-Tube Sampler: Dia. in. Type:											
				Core Barrel: Core Bit:											
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.										
WATER LEVEL OBSERVATIONS															
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks					
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS						
NO.	DEPTH (FT)	BLOWS/6"													
S1	5-7	9 3	S1) Br. grey f-m sand, tr. silt, occ. wood frags (SP)				5	F	S1-S3: occ. black stains; strong petro. odor						
		4 5	(FILL)												
S2	10-12	7 9	S2) Lt. br. grey f-m sand, tr. silt (SP)				10	S							
		11 12													
S3	15-17	5 7	S3) Grey f sand, tr. silt (SP)				15								
		8 9													
S4	20-22	14 23	S4) Dk grey f-m sand, tr. f gravel, tr. silt, occ. shell				20					S	S4-S5: Moderate petro. odor		
		22 29	frags. (SP)												
S5	25-27	14 18	S5) Lt. grey f sand, tr. silt (SP)				25	S	S5) occ. black stains						
		22 22													
PLATE NO:															

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB18 Sheet: 2 Job No.: 2522.014.004	of	2

Boring No.: RPGSB18
Sheet: 2 of 2
Job No.: 2522.014.004

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PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB19 Sheet: 1 of 3 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 7/15/05						
Observer: Jeff Diamond					Date Completed: 7/15/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1A	5-6	5	5	S1A) Br. grey f-m sand, tr. silt, occ. slag & cinders frags. (SP FILL)				5	F		
S1B	6-7	5	7	S1B) Lt. tan grey f-m sand tr. silt (SP)							
S2	10-12	6	7	S2) Br. grey "Do S1B"				10	S		
		9	8								
S3	15-17	4	5	S3) Lt. grey f sand, tr. silt (SP)				15			
		6	7								
S4	20-22	7	8	S4) Grey f ⁺ -m sand, tr. silt, occ. shell frags. (SP)				20			
		7	4								
S5	25-27	14	17	S5) "Do S4" tr. f gravel				25			
		19	21								

PLATE NO:

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB19
Sheet: 2 of 3
Job No.: 2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S6	30-32	11 14	S6) Lt. grey f ⁺ -m sand, tr. silt, occ. shell frags (SP)	30	S	S7-S9: Slight petro odor
		17 20				
S7	35-37	12 21	S7) "Do S6"	35		
		24 27				
S8	40-42	13 16	S8) "Do S6"	40		S9: Occ. black staining noted
		17 19				
S9	45-47	9 11	S9) "Do S6"	45		
		13 16				
S10	50-52	10 12	S10) Lt. grey f-m sand, tr. silt, occ. shell frags (SP)	50		
		13 13				
S11	55-57	9 9	S11) "Do S11"	55		
		8 8				
S12	60-62	7 8	S12) Br. grey f sand, tr. silt (SP)	60		
		7 9				
S13	65-67	6 7	S13) "Do S12"	65		
		9 10				
S14	70-72	13 10	S14) "Do S12"	70		
		10 12				

PLATE NO.:

BORING LOG					Boring No.:	RPGSB19		
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Sheet:	3	of	3
					Job No.:	2522.014.004		
SAMPLE			SAMPLE DESCRIPTION	DEPTH	STRATA	REMARKS		
NO.	DEPTH	BLOWS/6"						
S15	75-77	11 11	S15) Br. grey f sand, tr. silt (SP-SM)	75	S			
		11 13						
S16	80-82	7 8	S16) "Do S15"	80				
		11 12						
			Completion Depth = 82.0ft					
				85				
				90				
				95				
				100				
				105				
				110				
				115				

PLATE NO.:

PLATE NO.:

BORING LOG									
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB20 Sheet: 1 of 2 Job No.: 2522.014.004				
Project: Rockaway Park Former MGP					Elevation:				
Project Location: Rockaway Park, NY					Date Started: 6/28/05				
Observer: Jeff Diamond					Date Completed: 6/28/05				
Contractor: ADT Drilling									
Driller: Terry Herbert					Helper: Rashid Malyukov				
Type of Rig: CME 55									
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.				
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.				
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD					
				U-Tube Sampler: Dia. in. Type:					
				Core Barrel: Core Bit:					
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.				
WATER LEVEL OBSERVATIONS									
Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks				
SAMPLE		SAMPLE DESCRIPTION			DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)								
S1	5-7	2	3	S1) Dk. br. becoming dk. grey/ blk. f-m sand, tr. silt (SP-SM)(FILL)	5	F	S1: coated with petro product, very strong noxious odor		
S2	10-12	6	14	S2) Lt. grey f-m sand, tr. silt (SP)	10	S	S2-S3: slight to moderate petro odor		
S3	15-17	9	11	S3) Grey "Do S2"	15	S	S4-S5: Slight petro. odor		
S4	20-22	21	25	S4) "Do S2"	20	S	S4-S5: Slight petro. odor		
S5	25-27	11	15	S5) "Do S2"	25	S	S4-S5: Slight petro. odor		
PLATE NO:									

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB20 Sheet: 2 Job No.: 2522.014.004	of	2

Boring No.: RPGSB20
Sheet: 2 of 2
Job No.: 2522.014.004

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PLATE NO.:

BORING LOG												
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB21 Sheet: 1 of 2 Job No.: 2522.014.004							
Project: Rockaway Park Former MGP					Elevation:							
Project Location: Rockaway Park, NY					Date Started: 7/1/05							
Observer: Jeff Diamond					Date Completed: 7/1/05							
Contractor: ADT Drilling												
Driller: Terry Herbert					Helper: Rashid Malyukov							
Type of Rig: CME 55												
Casing Dia.: 4 in. From: 0 to 10 ft.					Auger Dia.: ID in. OD in.							
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.							
SAMPLING EQUIPMENT (type and size)					Split Spoon Sampler: 2" OD							
					U-Tube Sampler: Dia. in. Type:							
					Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.							
WATER LEVEL OBSERVATIONS												
Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks							
SAMPLE		SAMPLE DESCRIPTION			DEPTH	STR ATA	REMARKS					
NO.	DEPTH (FT)									BLOWS/6"		
S1	5-7	3	3	S1) Br. becoming grey f sand, tr. silt, numerous slag, cinder & asphalt frags (SP-SM)(FILL)	5	F	S1: Strong petro odor, coated					
S2	10-12	13	14	S2) Grey f-m sand, tr. silt (SP)	10	S	S2: Strong petro. odor, slight coating					
S3	15-17	9	14	S3) Lt. grey f-m sand, tr. f gravel, tr. silt (SP)	15	S	S3-S5: Slight petro. odor					
S4	20-22	11	17	S4) "Do S3"	20	S						
S5	25-27	20	30	S5) Lt. grey m-f sand, tr. c sand, tr. silt, occ. shell frags. (SP)	25	S						
PLATE NO:												

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB21 Sheet: 2 Job No.: 2522.014.004	of	2

Boring No.: RPGSB21
Sheet: 2 of 2
Job No.: 2522.014.004

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PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB22 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 7/6/05						
Observer: M. Senglaub					Date Completed: 7/6/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: to ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-6.8	36 17	S1) Dk. br. grey f ⁺ -m sand, little silt, tr. f gravel, occ. slag & cinders, occ. roots (SM FILL)				5	F	S2) Wet, low recovery, poss. wash mud loss relocated boring 10' North. S3) Coated w/ petro product, strong noxious odor. S4-S7) Petro odor		
S2	7-7.2	7 64/4"	S2) Dk. grey/ blk f gravel, some clayey silt, little f-c sand, tr. misc. debris, occ. roots (GM FILL)								
S3	9-11	7 6	S3) Dk. grey f ⁺ -m sand tr. silt (SP)								
		7 9									
S4	11-13	11 13	S4) "Do S3"								
		12 12									
S5	13-15	5 8	S5) Lt. grey "Do S3"					S	S8-S13) Slight petro odor		
		8 8									
S6	15-17	2 3	S6) Dk. grey f-m+-c sand, tr. silt (SP)				15				
		4 7									
S7	17-19	4 9	S7) "Do S6" occ. shell fragments								
		13 14									
S8	19-21	9 9	S8) Lt. grey f ⁺ -m sand, tr. silt (SP)								
		15 17					20				
S9	21-23	11 18	S9) "Do S8"								
		23 32									
S10	23-25	20 23	S10) Lt. grey f-m ⁺ -c sand, tr. f gravel, tr. silt (SP)								
		30 43									
S11	25-27	14 40	S11) "Do S10"				25				
		44 41									
S12	27-29	22 22	S12) "Do S10"								
		21 25									
S13	29-31	16 27	S13) Grey f sand, tr. silt (SP)								
PLATE NO:											

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB22 Sheet: 2 Job No.: 2522.014.004	of	2

Boring No.: RPGSB22
Sheet: 2 of 2
Job No.: 2522.014.004

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PLATE NO.:

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB23
Sheet: 1 of 2
Job No.: 2522.014.004

Project: Rockaway Park Former MGP		Elevation:	
Project Location: Rockaway Park, NY		Date Started: 6/27/05	
Observer: Jeff Diamond		Date Completed: 6/28/05	
Contractor: ADT Drilling			
Driller: Terry Herbert		Helper: Rashid Malyukov	
Type of Rig: CME 55			
Casing Dia.: 4 in.	From: 0 to 10 ft.	Auger Dia.: ID in.	OD in.
Drilling Mud Utilized: Yes Type: Bentonite		Rotary Bit Diameter: 3 7/8 in.	
SAMPLING EQUIPMENT (type and size)		Split Spoon Sampler: 2" OD	
		U-Tube Sampler: Dia. in. Type:	
		Core Barrel: Core Bit:	
Sampler Hammer Weight: 140 Lbs.		Average Drop: 30 in.	

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH (FT)	BLOWS/6"				
S1	5-7	1 WH	S1) Dk. grey/ blk f-m sand, little silt (SM)(FILL)	5	F	S1: Heavy coating of petro product, very strong noxious odor
		1 1				
S2	10-12	7 10	S2) Grey f-m sand, tr. silt (SP)	10	S	S2-S5: moderate to strong petro odor
		11 10				
S3	15-17	6 5	S3) Dk. grey m-f sand, tr. silt, occ. shell frags (SP)	15		
		4 3				
S4	20-22	15 20	S4) Lt. grey "Do S3"	20		
		20 24				
S5	25-27	12 15	S5) Lt. grey f-m sand, tr. silt (SP)	25		
		15 23				

PLATE NO:

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB23 Sheet: 2 Job No.: 2522.014.004	of	2

Boring No.: RPGSB23
Sheet: 2 of 2
Job No.: 2522.014.004

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PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB24 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 7/1/05						
Observer: Jeff Diamond					Date Completed: 7/1/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: to ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	13 9	S1) Dk. grey/ blk f-m sand, little silt, occ. cinder frags (SM)(FILL)				5	F	S1-S4: coated with petro. product, strong noxious odor		
		7 5									
S2	10-12	6 9	S2) Dk. grey f sand, tr. silt (SP-SM)				10				
		12 17									
S3	15-17	10 16	S3) Grey f sand, tr. silt (SP)				15	S			
		16 17									
S4	20-22	9 12	S4) Grey/ dk. grey m-f sand, tr. f gravel, occ. shell				20				
		20 25	fragments (SP)								
S5	25-27	14 26	S5) Lt. grey f-m sand, tr. silt, occasional shell frags				25		S5: slight petro. odor		
		31 47	(SP)								
PLATE NO:											

BORING LOG			
Paulus, Sokolowski and Sartor	Boring No.:	RPGSB24	
Consulting Engineers	Sheet:	2	of 2
Warren, New Jersey 07059	Job No.:	2522.014.004	

Boring No.: RPGSB24
Sheet: 2 of 2
Job No.: 2522.014.004

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PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB25 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 7/5/05						
Observer: Jeff Diamond					Date Completed: 7/5/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 9 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1A	5-6	10 15	S1A) Dk. br. f sand, and clayey silt (SM FILL)				5	F	S2-S5: coated w/ petro product, mod./ strong odor		
S1B	6-7	84 75	S1B) Brick frags, little m-f sand (FILL)								
S2	10-12	4 7 7 9	S2) Dk. grey br. f sand, tr. silt (SP-SM)				10				
S3	15-17	5 10 15 19	S3) Lt. & dark grey f sand, tr. silt (SP-SM)				15	S			
S4	20-22	12 18 20 25	S4) Grey f sand, tr. silt, occ. shell frags (SP)				20				
S5	25-27	18 30 32 28	S5) Grey f ⁺ -c sand, tr. f gravel, tr. silt, occ. shell frags (SP)				25				
PLATE NO:											

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB25 Sheet: 2 Job No.: 2522.014.004	of	2

Boring No.: RPGSB25
Sheet: 2 of 2
Job No.: 2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STRATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S6	30-32	17 22 25 31	S6) Lt. grey f sand, tr. silt (SP)	30	S	S6-S7: slight petro odor
S7	35-37	14 22 20 21	S7) Lt. grey f-m sand, tr. silt (SP)	35		
			Completion Depth = 37.0ft			
				40		
				45		
				50		
				55		
				60		
				65		
				70		

PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB26 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 7/5/05						
Observer: Jeff Diamond					Date Completed: 7/5/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 0 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
								F	1-3ft: drilled through concrete-possible tank pad. Unable to set casing		
								Conc			
								F			
S1	5-7	11 14	13 14	S1) Dk. grey bec. br. f-m sand, tr. silt, occ. cinders & slag (SP-SM)(FILL)			5		S1-S2: coated with petro product strong odor		
S2	10-12	4 7	17 20	S2) Br. grey f sand, tr. silt (SP)			10		S3-S5: slight petro odor		
S3	15-17	11 14	19 22	S3) Lt grey f-m sand, tr. silt, occ. c sand, occ shell frags. (SP)			15	S	S3-S5: slight petro odor		
S4	20-22	6 8	14 22	S4) "Do S3"			20		S3-S5: slight petro odor		
S5	25-27	15 22	27 25	S5) "Do S3"			25		S3-S5: slight petro odor		
PLATE NO:											

BORING LOG									
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB26 Sheet: 2 of 2 Job No.: 2522.014.004				
SAMPLE				SAMPLE DESCRIPTION	DEPTH	STRATA	REMARKS		
NO.	DEPTH	BLOWS/6"							
S6	30-32	11	16	S6) Lt. grey f-m sand, tr. f gravel, tr. silt, occ shell	30	S			
		20	19	frags. (SP)					
S7	35-37	15	23	S7) Lt. grey f sand, tr. silt (SP)	35				
		24	26						
				Completion Depth = 37.0ft					
					40				
					45				
					50				
					55				
					60				
					65				
					70				
PLATE NO.:									

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB27 Sheet: 1 of 4 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 6/16/05						
Observer: Jeff Diamond					Date Completed: 6/17/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 17 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STRATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	3 4	S1) Lt. grey f ⁺ -m sand, tr. silt, occ. shell frags (SP)				5	S	S1-S5: Slight petro odor		
		4 7									
S2	10-12	1 1	S2) "Do S1"				10		S2-S3: Occ. staining noted		
		2 2									
S3	15-17	3 10	S3) "Do S1"				15				
		12 15									
S4	20-22	13 14	S4) Lt. grey m-f sand, tr. silt (SP)				20				
		17 19									
S5	25-27	11 16	S5) "Do S4"				25				
		17 21									
PLATE NO:											

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB027
Sheet: 2 of 4
Job No.: 2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S6	30-32	9 12 15 18	S6) Lt. grey f-m sand, tr. silt (SP)	30	S	S6-S14: Slight petro odor
S7	35-37	8 12 15 17	S7) Lt. grey f sand, tr. silt (SP)	35		S8-S9: Occ. black staining noted
S8	40-42	9 11 12 16	S8) "Do S7"	40		
S9	45-47	14 17 21 24	S9) Lt. grey f-m sand, tr. silt (SP)	45		
S10	50-52	9 11 11 13	S10) "Do S9"	50		
S11	55-57	8 9 9 13	S11) Grey m-f sand, tr. f gravel, tr. silt, occ. shell frags (SP)	55		
S12	60-62	7 11 11 11	S12) Br. grey f sand, tr. silt	60		
S13	65-67	8 10 21 31	S13) "Do S12"	65		
S14	70-72	10 13 14 18	S14) "Do S12"	70		

PLATE NO.:

BORING LOG						
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059			Boring No.: Sheet: Job No.:		RPGSB27 3 of 4 2522.014.004	
SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S15	75-77	15 20	S15) Grey br. f sand, tr. silt (SP)	75	S	S15-S18: slight petro odor
		22 23				
S16	80-82	6 7	S16) "Do S15"	80		
		12 10				
S17	85-87	7 8	S17) Br. f sand, tr. silt (SP-SM)	85		
		12 11				
S18	90-92	11 11	S18) "Do S17"	90		
		14 26				
S19	95-97	20 28	S19) Br. f ^r -m sand, tr. silt (SP)	95		
		24 24				
S20	100-102	8 15	S20) "Do S19"	100		
		20 21				
S21	105-107	21 23	S21) Olive br. f sand, little silt (SP-SM)	105		
		24 28				
S22	110-112	13 18	S22) Br. grey f ^r -m sand, tr. silt (SP)	110		
		23 26				
S23	115-117	9 13	S23) "Do S22"	115		
		14 26				

PLATE NO.:

PLATE NO.:

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.:
Sheet:
Job No.:

RPGSB27
4 of 4
2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S24	120-122	11 14 15 16	S24) Br. f-m sand, tr. silt (SP)	120	S	
S25	125-127	15 13 17 19	S25) "Do S24"	125		
S26	130-132	7 8 10 12	S26) Br. f sand, tr. silt (SP)	130		
			Completion Depth = 132.0 ft			
				135		
				140		
				145		
				150		
				155		
				160		

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB28 Sheet: 1 of 3 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 6/6/05						
Observer: Jeff Diamond					Date Completed: 6/7/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 7 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	11	6	S1) Dk. grey f-c sand, little f gravel, little silt, num.			5	F			
		3	2	brick & cinder frags. (SM)(FILL)							
S2	7-9	2	2	S2) Dk. grey br. f-c sand, little silt, tr. f gravel, num.							
		2	2	slag & cinder frags. (SM)(FILL)							
S3	9-11	1	2	S3) Dk. grey m-f sand, little silt, tr. f gravel, occ.							
		3	5	cinder & shell frags. (SM)(FILL)			10				
S4	11-13	6	5	S4) Dk. br. f-m sand, little silt, tr. f gravel, numerous							
		7	8	slag & wood frags. (SM)(FILL)							
S5	13-15	3	5	S5) Lt. grey f-m sand, tr. silt, occ. slag frags.(SP)							
		8	8	(FILL)							
S6	15-17	4	6	S6) Lt. grey f-m sand, tr. silt (SP)(FILL)			15				
		7	8								
S7	17-19	4	3	S7) "Do S6"							
		4	2								
S8	19-21	3	4	S8) "Do S6" occ. shell frags.							
		6	5				20				
S9	21-23	4	5	S9) "Do S6" occ. coal frags.							
		6	6								
S10	23-25	3	4	S10) Grey f sand, tr. silt, numerous slag& glass frags.							
		4	6	(SP-SM)(FILL)							
S11	25-27	2	3	S11) Black cinders & wood little f-c sand, little silt			25				
		4	4	(FILL)							
S12	27-29	3	2	S12)Dk. grey/ blk f-m sand, some clayey silt, numerous							
		2	1	cinders (SM)(FILL)							
S13	29-31	3	3	S13) Dk. grey f-m sand, some clayey silt, occ slag &							
PLATE NO:											

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB28
Sheet: 2 of 3
Job No.: 2522.014.004

SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
		7 11	shells (SM)(FILL)	30	F	
S14	31-33	3 5	S14) Lt. grey f-m sand, tr. silt, occ. shell frags. (SP)			
		5 6				
S15	33-35	3 4	S15) "Do S14"			
		4 6				
S16	35-37	3 7	S16) "Do S14"	35		
		6 6				
S17	37-39	4 8	S17) "Do S14", tr. f gravel, tr. c sand			
		11 19				
S18	39-41	8 13	S18) Grey f-m sand, tr. silt, occ. shell fragments (SP)			
		18 20		40		
S19	41-43	11 15	S19) Lt. grey f sand, tr. silt. occ. shell frags.			
		17 20				
S20	43-45	8 13	S20) "Do S19			
		17 22				
S21	45-47	4 10	S21) "Do S19	45		
		14 13				
S22	47-49	8 14	S22) Lt. grey f-m sand, tr. silt, occ. shell frags.(SP)		S	
		17 19				
S23	49-51	8 14	S23) Lt. grey f-m sand, tr. silt, occ shell frags (SP)			
		15 18		50		
S24	51-53	8 13	S24) "Do S23"			
		18 22				
S25	53-55	9 13	S25) Lt. grey f-m sand, tr. silt, occ c sand, occ. shell			
		12 10	frags (SP)			
S26	55-57	5 7	S26) "Do S25"	55		
		8 11				
S27	57-59	5 6	S27) Grey f-m-c sand, tr. f gravel, tr. silt, occ. shell			
		6 7	frags (SP)			
S28	59-61	4 6	S28) "Do S27"			S28: low recovery
		7 9		60		
S29	61-63	4 6	S29) Grey f-m sand, tr. f gravel, tr. silt, occ. shell frags.			
		6 7	(SP)			
S30	63-65	4 6	S30) Br. grey f sand, tr. silt (SP)			S30-S35: Slight petro odor
		7 7				S30: Occ. back odor
S31	65-67	2 3	S31) "Do S30"	65		
		5 6				
S32	67-69	4 6	S32) "Do S30"			
		6 8				
S33	69-71	4 5	S33) "Do S30"			
		7 10		70		
S34	71-73	7 14	S34) "Do S30"			
		12 13				
S35	73-75	8 9	S35) Grey br. f sand, tr. silt (SP-SM)			
		11 12				

PLATE NO.:

BORING LOG				
Paulus, Sokolowski and Sartor	Boring No.:	RPGSB28		
Consulting Engineers	Sheet:	3	of	3
Warren, New Jersey 07059	Job No.:	2522.014.004		

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SAMPLE				SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"					
S36	75-77	8	8	S36) Olive grey br. f sand, tr. silt (SP-SM)	75	S	S36-S37: slight petro odor, occ. mica flakes
		11	13				
S37	77-79	6	9	S37) "Do S26"			
		12	11				
S38	79-81	7	7	S38) Br. grey f sand, tr. silt (SP)			
		11	11		80		
				Completion Depth = 81.0ft			
					85		
					90		
					95		
					100		
					105		
					110		
					115		

PLATE NO.:

BORING LOG									
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB29 Sheet: 1 of 3 Job No.: 2522.014.004				
Project: Rockaway Park Former MGP					Elevation:				
Project Location: Rockaway Park, NY					Date Started: 6/8/05				
Observer: Jeff Diamond					Date Completed: 6/9/05				
Contractor: ADT Drilling									
Driller: Terry Herbert					Helper: Rashid				
Type of Rig: CME 55									
Casing Dia.: 4 in. From: 0 to 24 ft.					Auger Dia.: ID in. OD in.				
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.				
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD					
				U-Tube Sampler: Dia. in. Type:					
				Core Barrel: Core Bit:					
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.				
WATER LEVEL OBSERVATIONS									
Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks				
SAMPLE			SAMPLE DESCRIPTION		DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"							
S1	5-7	4	34	5	F				
		35	22						
S2	7-9	7	4	5					
		3	5						
S3	9-11	3	1	10					
		3	3						
S4	11-13	3	2						
		2	2						
S5	13-15	1	2						
		WH	3						
S6	15-17	1	2	15					
		1	1						
NR7	17-19	1	1						
		1	1						
S8	19-21	2	1						
		1	1	20					
S9	21-23	2	1						
		1	1						
S10	23-25	1	WH						
		1	2						
S11	25-27	1	4	25	S	S11-S12: petro odor			
		4	7						
S12	27-29	4	5						
		7	8						
S13	29-31	6	8						
PLATE NO:									

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPGSB29
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SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
		11 15		30		
S14	31-33	8 11	S14) Lt. grey m ⁺ -f sand, tr. c sand, tr. silt (SP)			
		15 15				
S15	33-35	7 9	S15) Lt. grey f ⁻ -m sand, tr. silt (SP)			
		9 14				
S16	35-37	5 10	S16) Lt. grey f sand, tr. silt (SP)	35		
		13 15				
S17	37-39	5 7	S17) "Do S16"			
		14 15				
S18	39-41	6 12	S18) "Do S16"			
		14 18		40		
S19	41-43	9 13	S19) "Do S16"			
		20 30				
S20	43-45	6 10	S20) "Do S16"			
		20 27				
S21	45-47	9 15	S21) "Do S16"	45		
		19 25				
S22	47-49	7 17	S22) "Do S16"			
		19 23				
S23	49-51	10 14	S23) Lt. grey f ⁻ -m sand, tr. silt (SP)		S	S23: occ. black staining noted
		20 26		50		
S24	51-53	16 22	S24) Lt grey f sand, tr. silt (SP)			
		22 25				
S25	53-55	8 14	S25) "Do S24"			S25: occ. black staining noted
		18 18				
S26	55-57	5 9	S26) Lt. grey f ⁻ -m sand, tr. silt, occ. shell frags (SP)	55		
		12 15				
S27	57-59	8 8	S27) "Do S26"			
		8 7				
S28	59-61	3 5	S28) Br. grey f sand, tr. silt (SP)			S28-S34: occ. black staining noted
		6 8		60		
S29	61-63	5 7	S29) "Do S28"			
		9 10				
S30	63-65	4 4	S30) "Do S28"			
		6 8				
S31	65-67	4 5	S31) "Do S28"	65		
		6 9				
S32	67-69	4 5	S32) "Do S28"			
		5 10				
S33	69-71	3 5	S33) "Do S28"			
		6 11		70		
S34	71-73	7 8	S34) "Do S28"			
		16 20				
S35	73-75	10 18	S35) Dk. olive br. f sand, tr. silt (SP-SM)			S35: slight hydrocarbon odor
		15 12				

PLATE NO.:

BORING LOG				
Paulus, Sokolowski and Sartor	Boring No.:	RPGSB29		
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SAMPLE				SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"					
S36	75-77	5	4	S36) Olive br. grey f sand, tr. silt (SP)	75	S	S36-S38: slight hydrocarbon odor
		7	8				
S37	77-79	6	8	S37) Olive br. f sand, tr. silt (SP)			
		14	14				
S38	79-81	5	5	S38) "Do S37" bec. dk. grey f sand, tr. silt, occ. lenses			
		9	9	of blk silt (SP)	80		
				Completion Depth = 81.0ft			
					85		
					90		
					95		
					100		
					105		
					110		
					115		

PLATE NO.:

BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB30 Sheet: 1 of 2 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 6/17/05						
Observer: Jeff Diamond					Date Completed: 6/20/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 15 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	3 7 11 8	S1) Lt. tan/ red br. f sand, tr. silt (SP)(FILL)				5	F	S2: wet		
S2	10-12	1 1 1 1	S2) Blk/br. f-m sand, tr. f gravel, tr. silt, occ. cinder frags (SP)(FILL)				10				
S3	15-17	1 1 3 4	S3) Br. grey f sand, tr. silt (SP)(FILL)				15	So	S3: black staining noted		
S4A	20-22	2 4	S4A) Dk. grey f sand, and organic clayey silt, occ shell frags. occ. peat/ root fibers (SM)				20				
S4B		3 4	S4B) Dk. grey f-m sand, little to some organic clayey silt, occ. shell frags (SM)								
S5A	25-27	2 1	S5A) Dk grey f sand, and organic clayey silt (SM)				25	O			
S5B		2 3	S5B) Dk. grey/ blk organic clayey silt num. lenses of decayed peat, little f sand (OL)					S			
PLATE NO:											

BORING LOG			
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059	Boring No.: RPGSB30 Sheet: 2 Job No.: 2522.014.004	of	2

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Sheet: 2 of 2
Job No.: 2522.014.004

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BORING LOG											
Paulus, Sokolowski and Sartor Consulting Engineers Warren, New Jersey 07059					Boring No.: RPGSB31 Sheet: 1 of 3 Job No.: 2522.014.004						
Project: Rockaway Park Former MGP					Elevation:						
Project Location: Rockaway Park, NY					Date Started: 7/18/05						
Observer: M. Senglaub					Date Completed: 7/18/05						
Contractor: ADT Drilling											
Driller: Terry Herbert					Helper: Rashid Malyukov						
Type of Rig: CME 55											
Casing Dia.: 4 in. From: 0 to 30 ft.					Auger Dia.: ID in. OD in.						
Drilling Mud Utilized: Yes Type: Bentonite					Rotary Bit Diameter: 3 7/8 in.						
SAMPLING EQUIPMENT (type and size)				Split Spoon Sampler: 2" OD							
				U-Tube Sampler: Dia. in. Type:							
				Core Barrel: Core Bit:							
Sampler Hammer Weight: 140 Lbs.					Average Drop: 30 in.						
WATER LEVEL OBSERVATIONS											
Date		Time		Depth of Hole		Depth of Casing		Depth to Water		Remarks	
SAMPLE			SAMPLE DESCRIPTION				DEPTH	STR ATA	REMARKS		
NO.	DEPTH (FT)	BLOWS/6"									
S1	5-7	3 3	S1) Br. grey f sand, tr. silt, occ. slag frags (SP FILL)				5	F	S1: mod. petro odor		
		3 3									
S2	10-12	3 3	S2) Dk. grey f sand, tr. silt (SP FILL)				10		S2-S3: coated w/ petro product, med-strong odor		
		3 3									
S3	15-17	2 1	S3) "Do S2" occ. wood, glass frags				15				
		WR 1									
S4	20-22	1 2	S4) Black cinders, slag & coal, little f -c sand, little silt				20	S4-S5: wet, gravel though sand size cinders, slag & coal. Heavy petro product coating, strong odor			
		1 2	(FILL)								
S5	25-27	2 2	S5) Black cinders, slag & coal (FILL)				25				
		1 3									
PLATE NO:											

BORING LOG

Paulus, Sokolowski and Sartor
Consulting Engineers
Warren, New Jersey 07059

Boring No.: RPSB31
Sheet: 2 of 3
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SAMPLE			SAMPLE DESCRIPTION	DEPTH	STR ATA	REMARKS
NO.	DEPTH	BLOWS/6"				
S6	30-32	2 1 1 3	S6) Dk. grey cinders & slag (FILL)	30	F	S6: wet, low rec. w/ petro coating & odor possible wash
S7	35-37	4 4 6 5	S7) Dk. grey f sand, tr. silt (SP FILL)	35	F	S7: wood in spoon tip
S8	40-42	3 2 1 1	S8) Black f ⁺ -m sand, little silt, occ. wood frags. (SM FILL)	40		S8: wet, heavy petro. coating odor
S9	45-47	9 11 12 19	S9) Lt. grey f sand, tr. silt (SP)	45		S9-S14: slight petro odor
S10	50-52	8 9 10 11	S10) Grey m-f sand, tr. silt, occ. shell frags (SP)	50		
S11	55-57	7 7 9 7	S11) "Do S10" tr. f gravel	55	S	
S12	60-62	4 4 4 6	S12) Br. grey f sand, tr. silt (SP)	60		S12: Black staining noted
S13	65-67	6 6 8 10	S13) "Do S12"	65		
S14	70-72	5 8 9 11	S14) "Do S12"	70		

PLATE NO.:

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PLATE NO.:

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-01	
PROJECT NUMBER:	2522.014.004			WEATHER:	Overcast, H 50's to L 60s
PROJECT NAME:	Rockaway Park Former MGP site			TOTAL DEPTH:	10 ft.
LOCATION:	Rockaway Park, Queens County, NY			GROUND SURFACE ELEVATION:	
DRILLING CO:	Aquifer Drilling & Testing, Inc.			DATE BEGUN:	6/1/05
DRILLING METHOD:	GeoProbe			DATE COMPLETED: 6/1/05	
DRILLER / HELPER:	Chris Stratton/ Ed Selman				
ENVIRONMENTAL SCIENTIST:	J. Diamond				

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		28				Light brown & dark yellowish orange m-vc SAND, f & c gravel.	SP			
2			0			Medium light gray & pale yellowish brown, m-f SAND, little f. gravel				
			0.2							
			0							
			0.3							
4	32					Pale yellowish brown & grayish orange, m-f SAND, some f. gravel.				
			0							
6			0			Light gray f-m SAND, f-c gravel.				
			0							
			0							
			0		▼	Pale yellowish brown & light brown, m-c SAND, wet				
8	24					Medium gray m-f micaceous SAND, wet.				
			0							
			0							
			0.2							
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-02	
PROJECT NUMBER:	2522.014.004			WEATHER:	Overcast, H 50's to L 60s
PROJECT NAME:	Rockaway Park Former MGP site			TOTAL DEPTH:	10 ft.
LOCATION:	Rockaway Park, Queens County, NY			GROUND SURFACE ELEVATION:	
DRILLING CO:	Aquifer Drilling & Testing, Inc.			DATE BEGUN:	6/1/05
DRILLING METHOD:	GeoProbe			DATE COMPLETED: 6/1/05	
DRILLER / HELPER:	Chris Stratton/ Ed Selman				
ENVIRONMENTAL SCIENTIST:	J. Diamond				

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		30				Grayish black & light brown Fill Material, clinkers.	FILL			
2			0.1							
			0.1							
			0			Grayish orange & dark yellowish orange f-c SAND.	SP			
4		35	0			Grayish orange, pale yellowish brown & dark yellowish orange, f-m SAND				
6			0							
			0							
					▼	Medium gray, m-c SAND, shell fragments, wet.				
8		24	0			Medium gray f-m SAND, shell fragments, wet.				
			0							
			0							
			0			Pale yellowish brown, f-m SAND, shell fragments, wet.				
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-03	
PROJECT NUMBER: 2522.014.004			WEATHER: Overcast,Temp.: 50s to 60s		
PROJECT NAME: Rockaway Park Former MGP site			TOTAL DEPTH: 10 ft.		
LOCATION: Rockaway Park, Queens County, NY			GROUND SURFACE ELEVATION:		
DRILLING CO: Aquifer Drilling & Testing, Inc.			DATE BEGUN: 6/2/05		
DRILLING METHOD: GeoProbe			DATE COMPLETED: 6/2/05		
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		29				Asphalt and base material	ASPH			
						Fill material consisting of dusky yellowish brown, m-vc silty SAND, clinkers, coal fragments.	FILL			
			0							
2			0							
			0			Pale yellowish orange m-f SAND	SP			
			0							
			0.8			Light brown & yellowish orange, m-c SAND.				
4	24					Pale & dark yellowish orange m-f SAND, shale fragments and clinkers.	FILL			
6			0							
			0							
			0		☞	Moderate brown, m-f SAND, shale fragments, wet.			Petroleum-like odor	
			0							
8	20					Moderate brown, m-f SAND, wet.	SP		Petroleum-like odor	
			79.1							
			35.9			Medium dark gray, m-vc SAND, wet.			Slight Naphthalene-like odor	
			37.5			Dark gray, m-c SAND, wet.			Petroleum-like odor	
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-04	
PROJECT NUMBER: 2522.014.004			WEATHER: Sunny, Temp.:60s-70s, Windy		
PROJECT NAME: Rockaway Park Former MGP site			TOTAL DEPTH: 10 ft.		
LOCATION: Rockaway Park, Queens County, NY			GROUND SURFACE ELEVATION:		
DRILLING CO: Aquifer Drilling & Testing, Inc.			DATE BEGUN: 6/3/05		
DRILLING METHOD: GeoProbe			DATE COMPLETED: 6/3/05		
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		34				Asphalt and base material	ASPH			
						Fill consisting of clinkers,coal fragments, and m-vc silty sand.	FILL		Petroleum-like odor	
			6.9							
			21.2							
2			14.9			Grayish black tar-like material			Grayish-black Tar-like material, Moderate Naphthalene-like odor	
			136							
			80.1							
			93.1							
4		27				Moderate yellowish brown, m-c SAND.	SP			
6			0			Grayish black, m-vc silty SAND. Dark yellowish orange & grayish orange m-f SAND.	SM SP			
			3.0							
			1.7			Dark to dusky brown, m-vc SAND, f, gravel, clinkers.				
			5.5		▼	Grayish black, vc Sand-f. gravel.	GP		Saturated, Slight Naphthalene -like odor	
8						Grayish black, m-vc SAND, some f. gravel, wood chips	SP		Saturated, Moderate Naphthalene-like odor, purifer material (wood chips)	
			25.1							
			110							
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-05	
PROJECT NUMBER: 2522.014.004			WEATHER: Sunny, Temp.: 60s-70s, Windy		
PROJECT NAME: Rockaway Park Former MGP site			TOTAL DEPTH: 10 ft.		
LOCATION: Rockaway Park, Queens County, NY			GROUND SURFACE ELEVATION:		
DRILLING CO: Aquifer Drilling & Testing, Inc.			DATE BEGUN: 6/3/05		
DRILLING METHOD: GeoProbe			DATE COMPLETED: 6/3/05		
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		30				Asphalt and base material	ASPH			
						Moderate & dusky brown, m-vc SAND, f. gravel.	SP			
			0							
2			0			Dark yellowish orange, grayish orange & light brown, m-vc SAND, some f. gravel.				
			14.9							
			0							
4	38					Grayish black, silty f. SAND, tar -like material, wood chips.	SM		Black Tar-like material, Slight - Moderate Naphthalene-like odor, purifier material (wood-chips)	
			38.2							
			1.1							
6			11.4							
			18.9							
			21.5							
			98.4							
8	18				▼	Grayish black, m-c SAND, f. gravel, clinkers, wet.	SP		Saturated, Moderate Naphthalene-like odor	
			13.9							
			21.9							
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-06	
PROJECT NUMBER: 2522.014.004		WEATHER: Overcast, T.: 50s-60s, Windy			
PROJECT NAME: Rockaway Park Former MGP site		TOTAL DEPTH: 10 ft.			
LOCATION: Rockaway Park, Queens County, NY		GROUND SURFACE ELEVATION:			
DRILLING CO: Aquifer Drilling & Testing, Inc.		DATE BEGUN: 6/2/05			
DRILLING METHOD: GeoProbe		DATE COMPLETED: 6/2/05			
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		28	0			Fill consisting of dusky yellowish brown, m-c silty SAND, f. & C. gravel, bricks, light gray m-c sand	FILL			
			0							
			2.2							
2			0.2			Very pale orange & yellowish gray m-f SAND.	SP			
4	27					Pale yellowish brown, m-f SAND				
			0							
			0							
			0							
6			0							
						☹ Pale yellowish brown, m-c SAND, wet				
8	12					Pale yellowish brown, m-vc SAND, wet.				
			0							
			0							
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-08	
PROJECT NUMBER: 2522.014.004			WEATHER: Overcast, Temp.: H 50s-60s		
PROJECT NAME: Rockaway Park Former MGP site			TOTAL DEPTH: 10 ft.		
LOCATION: Rockaway Park, Queens County, NY			GROUND SURFACE ELEVATION:		
DRILLING CO: Aquifer Drilling & Testing, Inc.			DATE BEGUN: 6/1/05		
DRILLING METHOD: GeoProbe			DATE COMPLETED: 6/1/05		
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		26				Pale Brown, m-c silty SAND, top soil and organic material	SM			
						Dark yellowish brown & moderate yellowish brown, m-c SAND, ash	FILL			
2			0.5							
			0.2							
			1.2			Dusky yellowish brown, m-c silty SAND, some f. gravel	SM		Slight Naphthalene-like odor	
			1.1			Yellowish gray, m-c SAND.	SP			
4	39									
						Moderate to dark yellowish brown, m-c SAND, some f. gravel. wet.				
			0.2							
			1.0							
6			0		▼	Medium gray, m-c SAND, some f. gravel, wet.			Strong Naphthalene-like odor	
			153							
			440							
			706							
8	24					Medium gray,m-c SAND, wet.			Strong Naphthalene-like odor	
			1943							
			485						Strong Naphthalene-like odor	
			884			Pale yellowish brown, m-c SAND wet.			Strong Naphthalene-like odor	
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-09	
PROJECT NUMBER: 2522.014.004		WEATHER: Overcast, Temp.: H 50s-60s			
PROJECT NAME: Rockaway Park Former MGP site		TOTAL DEPTH: 10 ft.			
LOCATION: Rockaway Park, Queens County, NY		GROUND SURFACE ELEVATION:			
DRILLING CO: Aquifer Drilling & Testing, Inc.		DATE BEGUN: 6/1/05			
DRILLING METHOD: GeoProbe		DATE COMPLETED: 6/1/05			
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		33				Grayish black m-c silty SAND, topsoil	SM			
			1.2			Dark yellowish orange c-vc SAND, some f. gravel	SP			
			0.3			Moderate yellowish brown m-c clayey SAND, f. gravel	SC			
			0.6			Grayish black, f-c silty SAND, f. gravel	SM			
2			0			Pale yellowish brown f-m, micaceous SAND	SP			
			0.3							
										
										
4		30				Yellowish gray, m-f SAND.				
										
										
										
										
6			0			Moderate yellowish brown, m-c SAND, wet.				
			0			Medium gray, m-c micaceous SAND, wet.				
										
			0			Light gray, m-c micaceous SAND, shell fragments, wet.				
			0							
8		24								
			0							
			0			Medium gray m-c SAND, wet.				
			0.3							
10						Grayish black m-f SAND, some silt, wet.				

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-10	
PROJECT NUMBER: 2522.014.004			WEATHER: Overcast, Temp.: H 50s-60s		
PROJECT NAME: Rockaway Park Former MGP site			TOTAL DEPTH: 10 ft.		
LOCATION: Rockaway Park, Queens County, NY			GROUND SURFACE ELEVATION:		
DRILLING CO: Aquifer Drilling & Testing, Inc.			DATE BEGUN: 6/1/05		
DRILLING METHOD: GeoProbe			DATE COMPLETED: 6/1/05		
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		33	0			Moderate yellowish brown, c-vc SAND, some f. gravel, topsoil	SP			
			0							
			0			Grayish black, m-f silty SAND, some f. gravel.	SM			
			0.2							
2			0			Dark yellowish orange, m-c SAND.	SP			
			0							
4		35				Pale yellowish brown, m-vc SAND, wet.				
			0							
					▼					
			0.4			Medium dark gray, f-vc SAND, coal fragments.	SW			
6			0.5			Medium dark gray, m-f SAND, wet.	SP		Moderate Naphthalene-like odor	
			0.8							
			1.7							
			121							
8		24				Mediium gray, m-c SAND, wet.			Strong Naphthalene-like odor.	
			264							
			184							
			252							
10										

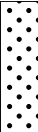
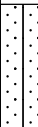
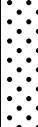
Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-11	
PROJECT NUMBER: 2522.014.004			WEATHER: Overcast, Temp.: H 50s-60s		
PROJECT NAME: Rockaway Park Former MGP site			TOTAL DEPTH: 10 ft.		
LOCATION: Rockaway Park, Queens County, NY			GROUND SURFACE ELEVATION:		
DRILLING CO: Aquifer Drilling & Testing, Inc.			DATE BEGUN: 6/2/05		
DRILLING METHOD: GeoProbe			DATE COMPLETED: 6/2/05		
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		28				Fill consisting of dusky yellowish brown, moderate to pale yellowish brown, m-f SAND, f & c gravel,some silt, brick fragments.	FILL			
			0							
			0							
			0							
2			0							
						Dark yellowish orange & pale yellowish brown, m-f SAND, some f. gravel, clinkers.				
4		23				Moderate yellowish brown, m-f SAND, some mica, moist	SP			
			0							
			0							
			0							
6					▼	Dark yellowish orange-moderate yellowish brown, m-c SAND, wet.				
						Dark to medium gray m-c SAND, wet.			Strong Naphthalene-like odor	
8		24							Strong Naphthalene-like odor.	
			64.9							
			769							
			14.4			Medium gray m-c SAND, some f. gravel, wet.			Moderate to Slight Naphthalene -like odor	
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-12	
PROJECT NUMBER: 2522.014.004			WEATHER: Overcast, Temp.: H 50s-60s		
PROJECT NAME: Rockaway Park Former MGP site			TOTAL DEPTH: 10 ft.		
LOCATION: Rockaway Park, Queens County, NY			GROUND SURFACE ELEVATION:		
DRILLING CO: Aquifer Drilling & Testing, Inc.			DATE BEGUN: 6/2/05		
DRILLING METHOD: GeoProbe			DATE COMPLETED: 6/2/05		
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		30				Grayish black, f-c SAND, f-c gravel	FILL			
						Dark & dusky yellowish brown, f-c SAND, f & c gravel	SP			
		9.5				Grayish black, m-vc SAND, some silt, some f. gravel				
2		0.4				Moderate yellowish brown & grayish orange, m-vc SAND				
		0.3								
		0.2								
		7.4								
4	24					Moderate and dark yellowish brown and moderate brown, m-f SAND, some vc sand - f. gravel.				
		1.8								
		1.8								
		0.2			☞	Moderate yellowish brown, m-f SAND, wet.				
		6.6								
8	24					Grayish black, f-m SAND, wet.	GP	☒	Saturated, Strong Naphthalene-like odor	
						Moderate & dusky yellowish brown, m-c SAND, vc sand - f. gravel, wet.		☒	Saturated, Strong Naphthalene-like odor	
		0.9				Grayish black, m-f SAND, wet.	SP	☒	Saturated, Strong Naphthalene-like odor	
		97.2								
		315				Medium dark gray, f-m SAND, wet.			Moderate Naphthalene-like odor	
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-13	
PROJECT NUMBER: 2522.014.004		WEATHER: Sunny, Temp.: H 50s-60s, Windy			
PROJECT NAME: Rockaway Park Former MGP site		TOTAL DEPTH: 10 ft.			
LOCATION: Rockaway Park, Queens County, NY		GROUND SURFACE ELEVATION:			
DRILLING CO: Aquifer Drilling & Testing, Inc.		DATE BEGUN: 6/2/05			
DRILLING METHOD: GeoProbe		DATE COMPLETED: 6/2/05			
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		26				Pale to dark yellowish brown, m-c SAND, some vc sand -f. gravel.	SP			
			0							
			0.7			Dusky yellowish brown, m-c silty SAND, some f. gravel.	SM			
			0.4							
2			0.4							
4	29					Pale and moderate yellowish brown and dark yellowish orange, m-c SAND, some silt and f. gravel, moist.	SP			
			0							
			0							
			0							
6			0							
			7.1							
						Dark gray and dark yellowish brown, m-f SAND, wet.				
8	24					Dark to medium gray, m-f SAND, wet.			Moderate Napthalene-like odor	
			51.4						Moderate Napthalene-like odor	
			67.1							
			237			Medium dark gray, m-f SAND, wet.			Strong Napthalene-like odor	
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-14	
PROJECT NUMBER: 2522.014.004		WEATHER: Sunny, Temp.: H 50s-60s, Windy			
PROJECT NAME: Rockaway Park Former MGP site		TOTAL DEPTH: 10 ft.			
LOCATION: Rockaway Park, Queens County, NY		GROUND SURFACE ELEVATION:			
DRILLING CO: Aquifer Drilling & Testing, Inc.		DATE BEGUN: 6/2/05			
DRILLING METHOD: GeoProbe		DATE COMPLETED: 6/2/05			
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		28				Dark yellowish brown m-c SAND, some silt, f.-c. gravel, topsoil.	SP			
			52.6			FILL Material consisting of concrete fragments, c. gravel, dusky yellowish brown, m-c silty sand and coal fragments	FILL			
			11.4							
			0.7							
2			0.4							
			0							
						Grayish orange, m-f SAND	SP			
4		30				Very pale yellowish brown m-f SAND				
			0.2							
			0							
			0.2							
6			1.3							
			77.9			Moderate yellowish brown, m-f SAND Moderate to dark yellowish brown m-f SAND, moist				
						Dark yellowish brown, m-f SAND, wet.				
8		24				Pale yellowish brown, m-c SAND, wet.				
			76.6			Grayish black m-f SAND, wet.			Stained, Moderate Naphthalene-like odor	
			51.0			Medium dark gray, m-c SAND, wet.			Strong Naphthalene-like odor	
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-16	
PROJECT NUMBER: 2522.014.004		WEATHER: Sunny, Temp.: H 50s-60s, Windy			
PROJECT NAME: Rockaway Park Former MGP site		TOTAL DEPTH: 10 ft.			
LOCATION: Rockaway Park, Queens County, NY		GROUND SURFACE ELEVATION:			
DRILLING CO: Aquifer Drilling & Testing, Inc.		DATE BEGUN: 6/2/05			
DRILLING METHOD: GeoProbe		DATE COMPLETED: 6/2/05			
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		27				FILL consisting of dusky yellowish brown, m-f silty sand, clinkers, f-c gravel and topsoil	FILL			
			0							
			0							
			0							
2			0			Very light gray to white, m-f micaceous SAND.	SP			
4		18				Pale and dark yellowish orange and light gray, m-c SAND, shell fragments.				
			0							
			0							
			0							
6										
8		19			▼	Pale to dark yellowish orange, m-f micaceous SAND, wet.				
			0							
			0							
			0			Medium light gray, m-c micaceous SAND, wet.				
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-17	
PROJECT NUMBER: 2522.014.004			WEATHER: Sunny, H 50s-H 60s, Windy		
PROJECT NAME: Rockaway Park Former MGP site			TOTAL DEPTH: 10 ft.		
LOCATION: Rockaway Park, Queens County, NY			GROUND SURFACE ELEVATION:		
DRILLING CO: Aquifer Drilling & Testing, Inc.			DATE BEGUN: 6/2/05		
DRILLING METHOD: GeoProbe			DATE COMPLETED: 6/2/05		
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		29				Dark yellowish brown, m-vc silty SAND	SM			
						f. GRAVEL	FILL		Black Tar-like material, Moderate Naphthalene-like odor	
2		122				Dusky yellowish brown, silty f. sand, wood chips			Purifer material (wood chips)	
		992				Grayish yellow & dark yellowish orange, m-c micaceous SAND.	SP			
		1.5								
		0.3								
4	21					Dark yellowish orange & medium light gray, m-f micaceous SAND.				
6		0								
		0								
		0								
		0								
8	24				▼	Dark yellowish orange, m-c micaceous SAND, wet.				
		11.1								
		0								
		0								
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-18	
PROJECT NUMBER:	2522.014.004	WEATHER:	Sunny, 50s-H 60s, Windy		
PROJECT NAME:	Rockaway Park Former MGP site	TOTAL DEPTH:	10 ft.		
LOCATION:	Rockaway Park, Queens County, NY	GROUND SURFACE ELEVATION:			
DRILLING CO:	Aquifer Drilling & Testing, Inc.	DATE BEGUN:	6/2/05		
DRILLING METHOD:	GeoProbe	DATE COMPLETED:	6/2/05		
DRILLER / HELPER:	Chris Stratton				
ENVIRONMENTAL SCIENTIST:	J. Diamond				

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		36				Moderate to dark yellowish brown, m-vc silty SAND, some f. gravel.	SM			
		5.1				f. GRAVEL.				
		302					Flll		Black Tar-like material, Strong Naphthalene-like odor	
2		228				Very pale yellowish brown, m-vc SAND, f. gravel, shell fragments.	SP			
		4.1								
		1.8								
		0								
4	35					Light gray, m-vc micaceous SAND, some f. gravel.				
		48.2								
6		21.8				Dark yellowish orange & light gray, m-f micaceous SAND.				
		1.3								
		1.3								
		0			☹	Light brown, m-c micaceous SAND, wet.				
8	15					Light brown & dark yellowish orange, m-c micaceous SAND, wet.				
		0								
		0				Medium light gray, m-f micaceous SAND, wet.				
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-19	
PROJECT NUMBER: 2522.014.004			WEATHER: Sunny, Temp.: H 50s-60s, Windy		
PROJECT NAME: Rockaway Park Former MGP site			TOTAL DEPTH: 10 ft.		
LOCATION: Rockaway Park, Queens County, NY			GROUND SURFACE ELEVATION:		
DRILLING CO: Aquifer Drilling & Testing, Inc.			DATE BEGUN: 6/2/05		
DRILLING METHOD: GeoProbe			DATE COMPLETED: 6/2/05		
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		33				Pale to dark yellowish brown, f-vc SAND, organic material	SW			
			0							
			0			Grayish black, m-f silty SAND, clinkers, tar -like material.	SM		Black Tar-like material, Strong Naphthalene-like odor	
2			10.2							
			68.4							
			3.4			Very pale orange, m-f micaceous SAND.	SP			
			0							
4		15				Light gray, very pale orange & grayish orange, m-f micaceous SAND.				
			0							
			0			Dark yellowish brown, m-c silty micaceous SAND.	SM			
8		12				Medium light gray, m-f SAND.	SP			
						Dark yellowish orange & pale yellowish brown, m-c micaceous SAND, wet.				
			0							
			0			Medium light gray, m-f SAND, wet.				
10										

Paulus, Sokolowski & Sartor		BORING LOG		BOREHOLE NUMBER - RPIGP-20	
PROJECT NUMBER: 2522.014.004		WEATHER: Sunny, Temp.: H 50s-60s, Windy			
PROJECT NAME: Rockaway Park Former MGP site		TOTAL DEPTH: 10 ft.			
LOCATION: Rockaway Park, Queens County, NY		GROUND SURFACE ELEVATION:			
DRILLING CO: Aquifer Drilling & Testing, Inc.		DATE BEGUN: 6/3/05			
DRILLING METHOD: GeoProbe		DATE COMPLETED: 6/3/05			
DRILLER / HELPER: Chris Stratton					
ENVIRONMENTAL SCIENTIST: J. Diamond					

DEPTH	SAMPLE NUMBER	RECOVERY (in)	PID (ppm)	HCN (ppm)	WATER LEVEL	SOIL DESCRIPTION	USCS SYMBOL	LITHOLOGY	ENVIRONMENTAL DESCRIPTIONS	VISUAL OBSERVATIONS
0		37				Moderate & pale yellowish brown, m-c silty SAND, topsoil	SM			
			34.4			FILL with f-m grayish black silty sand.	FILL		Strong Naphthalene-like odor	
			30.7							
2			4.6			Moderate brown, m-vc SAND, f. gravel.	SP			
			1.3							
			1.1							
			0.7							
4	28									
			3.6			Dark brown, m-c micaceous SAND.				
6			1.2			Moderate & pale yellowish brown, m-f micaceous SAND.				
			1.6							
			1.7			Dark brown, m-c SAND, some mica.			Moderate Petroleum-like and Naphthalene-like odor	
			92.3							
8	24				▼	Dark & dusky brown, m-f SAND, wet.			Slight to Moderate Naphthalene-like odor.	
			85.5							
			144							
			224							
10										