Remedial Action Report – Forrest Street (AOC FS-1A, AOC FS-1B, AOC FS-1C, AOC FS-2A, AOC FS-2B, and AOC FS-2C) Soil Garfield Avenue Group PPG, Jersey City, New Jersey

## **Appendix G**

## **Boring Logs**

Boring logs for the remaining sample locations in Forrest Street collected via soil core are included in this package. Logs were not generated for grab samples collected during excavation activities, typically designated by "PB" or "SW" in the Location ID.

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

## Boring ID: 114-MW24A

	t Name: [					Drilling Company: SGS North America		
	t Number:					Drilling Method: Hurricane	Coordinates (NJSPN	<u> </u>
	tarted Dril						Coordinates (NJSPN	
	inished Dr			1			Boring Total Depth:	
	<b>d By:</b> M. I						Depth to Water: NA	
Physic	al Locatio	n: For	rest St				Surface Elevation:	11.7 ft NAVD88
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickne	ess:	Sample ID
			dry	ASPHALT	XXXX	Asphalt and Gravel		MW24A-0.0
- 1- - 1-	-		dry	FILL		Very Dark Grayish Brown (10YR 3/2) fine and fine to medium rounded Gravel (5% C medium dense.		
-			dry	FILL	$\bowtie$	Dark Reddish Brown (5YR 3/2) fine to med		MW24A-2.0
3_	1		wet	CONCRETE		fine to medium rounded Gravel (10% COP medium dense. Green-stained CONCRETE, weathered.	PR), little Silt,	
Γ -	1		wet	FILL		Black SILT, little fine angular Gravel, loose	e. Coal tar odor.	
4 								
			wet	FILL	$\bowtie$	Black-stained medium to coarse crushed F		MW24A-5.0
6-6-			wet	VOID		glass, ceramics), little fine to coarse Sand Slight coal tar odor. No Recovery.	and Silt, loose.	
7 8 9	-							
10-	-			F	XXXXX	Disable states and asserting to the state of	-11.1. (11	MW24A-10.0
			wet	FILL		Black-stained medium to coarse crushed F glass, ceramics), little fine to coarse Sand sheen from 13.6 to 14.0 ft. Strong coal tail	and Silt, loose, rodor.	
L			moist	PEAT		Dark Reddish Brown (5YR 3/2) PEAT, high	h Organics, some	MW24A-14.0
			moist	SILT		Silt, stiff. Sulfur and coal tar odor.  Reddish Brown (2.5YR 5/4) SILT and fine	angular Gravel	
2012-09 RA PPG_LOGS_A.GDT - 12/15/16 22:33  Solve the second seco			THUIST	AND GRAVEL NULL		trace fine Sand, very dense. End of boring at 15 ft. Well set at 14 ft.	angular Gravel,	
Notes:	elow surface	grade	COPR - chr	romite ore proce	essing re	esidue UNDno - non-organic undisturbed native de	posits MGP - manu	factured gas plant
Comments	eadow mat :		GUNI - Gree	en grey mud		UNDorg - organic undisturbed native deposi	no CCPVV - CNIC	omate chemical production waste

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

## Boring ID: 114-P2B2-Y10B

Page: 1

	Name: F Number:					Drilling Company: SGS North America  Drilling Method: Geoprobe	Coordinates (NJSP)	NAD83) x: 611686.5
			2/25/2013 8	·40·00 AM		Rig Type:	Coordinates (NJSPN	
			2/25/2013		М	Core Size: 3 in	Boring Total Depth:	
	By: EW		2,20,2010	10.00.007		Project Manager: Scott Mikaelian	Depth to Water: NA	
			2 114 - Y10E	3		Ook Managori Cook Minacian	Surface Elevation:	
	ai Locatio	iii. Oite	7 114 110	·	1		Ouridee Elevation.	11.20 1(10.0000
Depth Range t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thick	kness:	Sample ID
_ -1	0			NR		NO RECOVERY		
-2— -3—	0			NR		NO RECOVERY		
-4— - -5—	2	0.0	moist	FILL		ASH, with fine to medium sand, (7.5YR plastic, loose, moist, no odor, no stainin		114-P2B2-Y10B-5.0-5.5
_ ¬		0.0	moist	FILL		fine to medium SAND, some ash, (7.5Y	R 5/1) gray, non	
-6	2	0.0	moist	FILL		plastic, loose, moist, no odor, no stainin ASH, with fine sand, (7.5YR 6/1) gray, i moist no odor no staining	g. non plastic loose,	114-P2B2-Y10B-6.5-7.0
٥-	1.6	0.0	moist	FILL		fine to medium SAND, some ash, trace gray, non plastic, soft, moist, no odor, n	o staining.	114-P2B2-Y10B-8.5-9.0
-9	1.0	0.0	moist	FILL NR		fine to medium silty SAND, with coarse dark gray, moist, sheen, oil-like odor and	gravel, (7.5YR 4/1) d material found at	_
10 -	2	24.7	moist	FILL		bottom 5" of spoon.  NO RECOVERY fine sandy SILT, some tar-like material a 3/1) very dark gray, non plastic, soft, mo sheen.		114-P2B2-Y10B-10.5-11.0
12		18.7	moist	FILL		fine sandy SILT, with tar-like material ar 2.5/1) black, non plastic, soft, moist, sh		114-P2B2-Y10B-12.2-12.7
-13  -14	2	1.9	moist	MH		UNDno SILT, trace organic fibers, (7.5\) plastic, soft, moist, slight organic odor, r consistent with UNDno.	'R 5/1) gray, non	114-P2B2-Y10B-12.7-13.2
M - me	adow mat		GGM - green	grey mud		esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native dep		ufactured gas plant romate chemical production wa

### **PSEG SC Former Halladay Street Gas Works Site** SCHOOR DEPALMA Remedial Investigation (Phase I) Page 1 of 2 **LOG OF SOIL BORING B901** AECOM Note: Ground surface elevation = 11.6 ft NAVD88 GROUND ELEVATION (FT. MSL) PROJECT NUMBER Halladay Street, Jersey City, New Jersey 14.0 020667601 DRILLING CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Advanced Drilling, Inc. Craig Jablonski 08/15/03 08/15/03 DRILLING EQUIPMENT COMPLETION DEPTH (FT BGS) ROCK DEPTH (FT) Geoprobe 16.0 Not Encountered TYPE BIT Direct Push Casing SIZE AND TYPE CORE BARREL DIST. NO. SAMPLES UNDIST. CORE CASING 2-inch diameter 2-in diam 4-ft acetate liner WATER DEPTH FIRST N/A 24HR COMPL. N/A CASING HAMMER WEIGHT N/A N/A DROP BORING LOCATION Northern portion of site, within footprint of former SAMPLER Direct Push Casing Coal shed area (AOC9) SAMPLER HAMMER WEIGHT N/A N/A INSPECTOR DROP John Karon PID READINGS Samples (PPM) Penetr DESCRIPTION Depth Recov Resist. Time Sample Ambier **REMARKS** Time Head Time (ft bgs) (ft) BL/6in Air Space Date 0.0-1.0' Reddish Brown (2.5YR 4/3) FILL: silty fine sand - 0 with brick, concrete and Chromate Ore Processing 0.0-0.5' Sample for SVOC, TAL 24 N/A 8:30 0.0 0.0 830 N/A Residual (COPR) pieces, firm, dry Metals, PCBs, Cyanide and Cr+6 at 08:40 0.0 1.0-1.5' FILL: Concrete 0.0 1.5-2.0' Sample for VOC at 0.0 1.5-5.0' Dark Brown (7.5YR 3/2) FILL: silty fine sand, 08:40 glass, root matter, COPR, firm, dry 2 1.9-2.4' Sample for TAL 0.0 Metals, PCBs and Cr\*5 at 10:40 3 4 2 3.0 N/A 8:50 0,0 0.0 850 0.0 0.0 5 5.0-5.8' Black (7.5YR 2.5/1) FILL: ash material (AM), 5.0-5.5' Sample for VOC, clinker material (CM), Coal pieces, firm, wet 0.0 SVOC, TAL Metals, PCBs, Cyanide and Cr+6 at 09:00 0.0 5.8-7.0' FILL: White AM, silty fine sand with concretions 6 5.8-6.3 Sample for TAL Metals up to 1/4", firm, wet 0.0 and Cr\*6 at 10:45 0.0 8 8.0-12.0' White and Yellow AM, silty fine sand and coal 3 2.0 N/A 900 0.0 0.0 900 0.0 pieces, loose, wet 0.0 9 0.0 0.0 10

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# PSEG SC Former Halladay Street Gas Works Site Remedial Investigation (Phase I)

SCHOOR DEPALMA Page 2 of 2

## LOG OF SOIL BORING B901

AECOM Note: Ground Surface	Εle	evat	ior	า = 1	1.6		IAVE	880					
PROJECT LOCATION Halladay Street, Jersey City, New Jersey							GROUN	D ELEVA 14	TION (FT 4,0	. MSL)	PROJEC	CT NUMB	DER 020667601
	Herval		appe		San	nples	-		PID	READI			
DESCRIPTION	Sample Ir	Dept (ft bg:	Water T	Number	Recov.	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	(PPM)	Head Space	Time Date	REMARKS
12.0-13.0' White and Yellow AM, silty fine sand and coal pieces, loose, wet		- 12	1	4	3.1	N/A	910	0.0	0.0	910	N/A		
		ļ.	-	, "	3.1	IVA	910	0.0	0.0	910	N/A		
13.0-15.1' Yellowish Brown (10YR 5/6) Silty Fine Sand,		- 13						0.0					13.0~13.5' Sample for VOC,
firm, wet								0.0					SVOC, TAL Metals, PCBs, Cyanide and Cr+6 at 0915
		-	-					0.0					Cyanide and Ci+6 at 0915
		- 14	-										
		-	-					0.0					
		- 15						0.0			l		
		- 13	1					0.0					
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End of boring at 16.0'		- 16	-										
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30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: EF-06** 

roject Nu			rfield Ave 1739			Drilling Company: SGS North America Drilling Method: Geoprobe	Coordinates (N.ISPA	NAD83) x: 611753.901
						Rig Type:		
			4/13/2011			<del> </del>		AD83) y: 683586.835
			4/13/2011			Core Size: 12 in	Boring Total Depth:	Π σΣ
			M. Merding	ger		Project Manager: Scott Mikaelian	Depth to Water: 5	
hysical L	.ocatio	n:			1	1	Surface Elevation:	10.3 ft NAVD88
epth B								
222	covery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	ness:	Sample ID
- 1						5		
4				ASPHALT		Black Asphalt		EF-B06-0.5
-1-				FILL	$\bowtie$	Very Dark Grey (Gley 1 3/N) Silty fine to		EF-B06-0.5
·		0.5				GRAVEL, little fine to medium Sand, tra	ce Fill Material	
					$\bowtie$	(brick, slag) and COPR (10%), loose, m	oist. Light Coal Tar	
-2-	5					odor.		EF-B06-2.0
7	ا "				$\bowtie$			EF-B06-2.5
-3	}	0.2						
4		0.2			$\bowtie$			
-4					$\bowtie$	*		FF D06 4.0
$\dashv$					$\bowtie$			EF-B06-4.0
-5								
J [	Ţ	0		FILL		Stained Black medium to coarse angula	GRAVEL, little Silt	
				FILL		and medium Sand, loose, wet, sheen. \	/ery string Coal Tar /	
-6				_	$\bowtie$	\odor.		EF-B06-6.0
$\dashv$					$\bowtie$	Black-stained to Light Olive Brown (2.5)	'R 5/3) SILT, little	
-7-				VOID		medium Sand, slightly mottled, soft to se	emi-firm, wet, sheen. 🗡	
$\dashv$	1.9			مان۰		Coal Tar odor.		
-8-						No Recovery		
١								
-9—								
$\dashv$								
10-					XXXX	Olive Descript (0.5)(5.5(5)	D (40)/D 5/4)	EF-B06-10.0
$\dashv$				FILL	$\bowtie$	Olive Brown (2.5YR 5/3) and Yellowish		
-11					$\bowtie$	mottled SILT, little fine Sand, semi-cohe	sive, semi-tirm, wet,	
''		0.6			$\bowtie$	slight sheen. Coal Tar odor.		
40 7					$\bowtie$	X X		
12	2.9			SP-SM	<u> ^^^^</u>	Reddish Brown (2.5YR 4/3) fine SAND	and SILT little fine	EF-B06-12.0
$\dashv$	۷.9	1		Or -Olvi		to medium rounded Gravel, loose, wet.		
13-		'		VOID	1	No Recovery		1
$\dashv$				עוטי		INO INCOUVELY		
-14								
45 7								
15				SP-SM		Reddish Brown (2.5YR 4/3) fine SAND	and SILT. little fine	1
$\dashv$				J	[:::]]	to medium rounded Gravel, loose, wet.		
16—	}	0.5						
$\dashv$		0.5			:::  H			
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	4.5					:		EF-B06-17.0
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$\dashv$		J		1,015	F1444	No December		
20				VOID	00000	No Recovery		
				SW-SM		Reddish Brown (2.5YR 4/3) fine to coars	se SAND and SILT,	
21_						loose, wet. No odor.		
Z	İ	0.6				•		
22-	ا ۔				֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓			EF-B06-22.0
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25					1.2.0.10.10.1	° End of boring at 25 ft.		
						End or borning at 25 ft.		
otes:			0000 '			aldus LINDas assessed to 1911 to 19	damasita \$400	afarah marah ara11
s - below	surtace	grade	COPR - chr	omite ore proc	essing re	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native dep	deposits MGP - manu	ıfactured gas plant omate chemical production w
				n grey mua		ONDOIG - Organic undisturbed native dep	usits CCPVV - CNI	omate chemical production w
imments: COPI	ı√ (10%) l¤el	milled IfOM	0.5-5.0 ft bgs.					

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: EF-07** 

Date Started Drilling: 4/14/2011   Rig Type:   Coordinates (NJSPNAD83) y: 683/429.385   Date Frished Drilling: 4/14/2011   Core Size: 12in   Sering total Depth: 25   Date By B. Daniels, M. Midrchnor   Project Manager: Scott Misaelian   Depth to Water: NA   Physical Location:   Surface Cover and Thickness:   Surface Elevation: 13.3 ft NAVD88   Sample (10)   Surface Cover and Thickness:   Surface Elevation: 13.3 ft NAVD88   Sample (10)   Surface Cover and Thickness:   Surface Cover and Thickne		Name: P					Orilling Company: SGS North America Orilling Method: Geoprobe	Coordinates (NJSPN	IAD83) x: 611907.006
Dete Finished Drilling: 41/4/2011   Ocre Size: 12 in   Boring Total Depth: 25 ft   Depth Clauded by 18 Depth Clauded by 18 Depth Clauded by 18 Depth Clauded by 19 D									
Surface Elevation: 13.3 ft NAVD88									
Depth								Depth to Water: NA	
Surface Cover and Thickness:    Surface Cover and Thickness:	Physica	al Location	ո։					Surface Elevation:	13.3 ft NAVD88
dry FILL	Range				USCS		Surface Cover and Thickne	ess:	
SAND, loose, dry, Slight Coal Tar odor.					ASPHALT		Black Asphalt		
wet SP-SM No Recovery  No Recovery  No Recovery  No Recovery  No Recovery  Wet SP-SM No Recovery  No Recovery  Wet SP-SM No Recovery  FF-807-11.0  EF-807-11.0  EF-807-12.0  EF-807-12.0	-1-			dry	FILL		Very Pale Brown (10YR 7/2) fine to mediu	m CLAYEY	EF-B07-0.6
to wet SP-SM SP-SM No Recovery  Test Pit EF-07-TP was conducted to 3' bgs at this location and no CCPW was observed.  Reddish Brown (2.5YR 4/3) very fine SAND interbedded with SiLT, wet, loose. No odor.  Reddish Gravel, wet, loose to moderately dense. No odor.  Wet SP Week Red (10YR 4/4) very fine to fine SAND, little Silt, trace fine angular Gravel, wet, loose to moderately dense. No odor.  EF-807-17.0  EF-807-17.0	-2-			moist	FILL		Very Dark Brown (10YR 2/2) CLAYEY SIL Material (coal, slag, wood) and COPR (10		
NR No Recovery Test Pit EF-07-TP was conducted to 3' bgs at this location and no CCPW was observed.  wet SP-SM Reddish Brown (2.5YR 4/3) very fine SAND interbedded with SILT, wet, loose. No odor.  PF-807-11.0  NR No Recovery  Wet SP Weak Red (10YR 4/4) very fine to fine SAND, little Silt, trace fine angular Gravel, wet, loose to moderately dense. No odor.  EF-807-17.0  EF-807-22.0  EF-807-22.0  INCOMPANY AND INTERBED SILT Trace fine angular Gravel, wet, loose to moderately dense. No odor.	-3 -4 -5			to	FILL		medium to fine Gravel, loose, moist to wet		EF-B07-4.0
to 3' bgs at this location and no CCPW was observed.  wet SP-SM Reddish Brown (2.5YR 4/3) very fine SAND interbedded with SILT, wet, loose. No odor.  NR No Recovery  Wet SP Weak Red (10YR 4/4) very fine to fine SAND, little Silt, trace fine angular Gravel, wet, loose to moderately dense. No odor.  EF-807-17.0  EF-807-22.0  EF-807-22.0  It to 3' bgs at this location and no CCPW was observed.  Wet SP SP Weak Red (10YR 4/3) very fine SAND interbedded with SILT, wet, loose to fine SAND, little Silt, trace fine angular Gravel, wet, loose to moderately dense. No odor.  EF-807-17.0	6				NR		•		
wet SP-SM   Reddish Brown (2.5YR 4/3) very fine SAND interbedded with SILT, wet, loose. No odor.    SP-807-11.0	-8						to 3' bgs at this location	on	a
The state of the s	_10 <u></u>			wet	SP-SM		Reddish Brown (2.5YR 4/3) very fine SAN		
NR No Recovery    No Recovery	_ -12						SILT, Wet, 100Se. INO 0001.		EF-B07-11.0
Wet SP	_ -14				NR	3	No Recovery		
-181920212223242525252525262728 -	1			wet	SP		fine angular Gravel, wet, loose to moderat		
21— -22— -23— -24— -25— Botes:									EF-B07-17.0
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lotes:	$\dashv$								EF-B07-22.0
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MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production of the processing residue of t	gs - bel					essing re	sidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos	posits MGP - manu its CCPW - chr	

A=COM

PPG - 2012-09 RA PPG\_LOGS\_A.GDT - 1/2/18 16:32

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Boring ID: EF-07-TP

Searced pulling: 11/15/2017   Sign Type:   Coordinates (NJSPAND83) x: 611906.7			2000						Page: 1
et Started Drilling: 11/15/2017 Coro Size: Coordinates (NLSPNA05) yr. 68430 Finished Drilling: 11/15/2017 Coro Size: Project Manager: Scott Mikaelian Depth to Water: Depth to Water: 13.3 ft NAVD88    Recovery PID   Moisture   USCS   Graphic   Log   Surface Cover and Thickness:   Surface Elevation: 13.3 ft NAVD88   Surface Cover and Thickness:   Surface Elevation: 13.3 ft NAVD88   Surface Cover and Thickness:   Surface Elevation: 13.3 ft NAVD88   Surface Cover and Thickness:   Surface Cover a							rilling Company: Badger	9 11 ( (1) 1001	VAR. 044000 7
e Finished Drilling: 11/15/2017									
Project Manager: Scott Mikaelan   Dopht to Water: Surface Elevation: 13.3 ft NAVDB8									
Starface Edvation: Forest St.  Recovery PID Moisture USCS Graphic Logic Surface Cover and Thickness: Sample IID  Apphalt Fill Recovery PID Moisture USCS Graphic Logic Surface Cover and Thickness: Sample IID  Apphalt Fill Recovery PID Moisture USCS Graphic Logic Surface Cover and Thickness: Sample IID  Apphalt Fill Recovery PID Moisture USCS Graphic Logic Surface Cover and Thickness: Sample IID  Apphalt Fill Recovery PID Moisture USCS Graphic Logic Surface Cover and Thickness: Sample IID  Apphalt Tab-brown file sand and silt, little to trace fill debris. No Visual CCPW  No Visual CCPW  End of test pit  End of test pit  COPR - chromite are processing residue UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chromate chemical protoctors was UNDon - non-organic undisturbed native deposits (CPW - chroma					/				3.167 π
Asphalt   Asph						PI	oject ivianager: Scott iviikaelian		13 3 ft NIA\/D00
Asphalt FILL Aspha				1681 31				Surface Elevation.	13.3 II NAVD66
Asphalt Asphalt FILL Asphalt FI	epth ange bgs)	Recovery (ft/ft)	PID (ppm)		USCS		Surface Cover and 1	Thickness:	Sample ID
Asphalt Asphalt FILL Asphalt FI					Asphalt	XXXXX	Asphalt		
Asphalt FILL Asphalt FILL Asphalt Fill Tan-brown silt, little fine to medium sand, trace fill debris.  No Visual CCPW End of test pit  End of test pit  End of test pit  End of test pit  MGP - manufactured gas plant COPR - dromite ore processing residue meadow mat GGM - green grey mud  LibDog - organic undisturbed native deposits LibDog - organic undisturbed native deposits LibDog - organic undisturbed native deposits LibDog - organic undisturbed native deposits COPPV - dromate chemical production was	-				FILL	-XXXXX	Road base		
Asphalt FILL Asphalt Tan-brown slit, little fine to medium sand, trace fill debris.  No Visual CCPW  End of test pit  End of test pit  Wilder - manufactured gas plant UNDno - non-organic undisturbed native deposits GGM- green grey mud  UNDno - non-organic undisturbed native deposits CCPW - chromate chemical production wast UNDno - non-organic undisturbed native deposits CCPW - chromate chemical production wast	-1				Asphalt		Asphalt		
Fil.L Tan-brown slit, little fine to medium sand, trace fill debris.  No Visual CCPW  End of test pit  End of test pit  UNDno - non-organic undisturbed native deposits CCPW - chromate chemical production was GGM - green grey mud  UNDno - non-organic undisturbed native deposits CCPW - chromate chemical production was UNDno - grapaic undisturbed native deposits CCPW - chromate chemical production was UNDno - grapaic undisturbed native deposits CCPW - chromate chemical production was UNDno - grapaic undisturbed native deposits CCPW - chromate chemical production was UNDno - grapaic undisturbed native deposits CCPW - chromate chemical production was undisturbed native deposits.		3 167				XXXXX		to trace fill debris. No	
Tan-brown sitult fine to medium sand, trace fill debris.  No Visual CCPW  End of test pit  End of test pit  End of test pit  White a construction was a constructed and the construction of the construction o	-2					<b>-</b>		//	
End of test pit  End of test pit  COPR - chromite ore processing residue below surface grade GGM - green gray mud  UNIDno - non-organic undisturbed native deposits UNIDno - gray mud UNIDno - gray mud Sturbed native deposits UNIDno - gray mud Sturbed native deposits UNIDno - gray mud Sturbed native deposits COPW - chromate chemical production was	-3				1122		Tan-brown silt, little fine to mediur	m sand, trace fill debris.	
below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production wast	-3						End of test pit		
below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production wast									
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	s - belo		grade			essing resid	ue UNDno - non-organic undisturbed nati	ive deposits MGP - manu	
			COPR/GGN			est pits	ordborg organic undisturbed hattive (	aoposits OOF VV - CIIIC	ornate orientical production waste

A E C O M

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Boring ID: EF-109

Date Started Date Finished Logged By: E Physical Local Depth Range If bgs)  Recove (ft/ft)	Drilling: den Daniel tion: For ry PID	9/11/2012 S rest Street Moisture Content  dry dry moist moist moist  moist  wet	2 9:25:00 AM	C	Core Size: 2 in Boring Total Depth: Project Manager: Scott Mikaelian Depth to Water: NA Surface Elevation:	1
Depth Recove (ft/ft)   Recove (ft/ft)	en Daniel tion: For ry PID (ppm)  0.0  0.0  1.3  15.8  2.5  83.4	Moisture Content  dry dry moist moist moist moist wet	-EF-109  USCS  ASPHALT FILL FILL GW SP ML ML	Graphic	ASPHALT fine to coarse SAND, some fine to coarse gravel little silt, (7.5YR 3/2) dark brown, dry, no odor, angular, (Little glass) SILT, little fine sand and fill material, (7.5YR 5/2) brown, dry, no odor, (Brick, ceramic, coal) SILT, trace coal, (2.5Y 6/4) light yellowish brown, moist, no odor fine SAND, and fine to coarse gravel, (2.5Y 6/4) light yellowish brown, moist, no odor, angular fine SAND, trace medium gravel and medium sand, (5YR 5/4) reddish brown, moist, moderate chemical odor, subangular fine silty SAND, (5YR 5/4) reddish brown, loose, moist to wet, moderate chemical odor, Wet at 5.8 fine SAND, and silt, (5YR 5/4) reddish brown, medium	13.5 ft NAVD88  Sample ID
Depth Range Recove (ft/ft)  -1	PID (ppm)  0.0  0.0  1.3  15.8  2.5  83.4	Moisture Content  dry dry moist moist moist wet	USCS  ASPHALT FILL FILL GW SP ML ML	Graphic	Surface Cover and Thickness:  ASPHALT fine to coarse SAND, some fine to coarse gravel little silt, (7.5YR 3/2) dark brown, dry, no odor, angular, (Little glass) SILT, little fine sand and fill material, (7.5YR 5/2) brown, dry, no odor, (Brick, ceramic, coal) SILT, trace coal, (2.5Y 6/4) light yellowish brown, moist, no odor fine SAND, and fine to coarse gravel, (2.5Y 6/4) light yellowish brown, moist, no odor, angular fine SAND, trace medium gravel and medium sand, (5YR 5/4) reddish brown, moist, moderate chemical odor, subangular fine silty SAND, (5YR 5/4) reddish brown, loose, moist to wet, moderate chemical odor, Wet at 5.8 fine SAND, and silt, (5YR 5/4) reddish brown, medium	13.5 ft NAVD88  Sample ID
Recove (ft/ft)  -1	0.0 0.0 0.0 1.3 15.8 2.5 83.4	dry dry moist moist moist wet	ASPHALT FILL FILL GW SP ML ML		ASPHALT fine to coarse SAND, some fine to coarse gravel little silt, (7.5YR 3/2) dark brown, dry, no odor, angular, (Little glass) SILT, little fine sand and fill material, (7.5YR 5/2) brown, dry, no odor, (Brick, ceramic, coal) SILT, trace coal, (2.5Y 6/4) light yellowish brown, moist, no odor fine SAND, and fine to coarse gravel, (2.5Y 6/4) light yellowish brown, moist, no odor, angular fine SAND, trace medium gravel and medium sand, (5YR 5/4) reddish brown, moist, moderate chemical odor, subangular fine silty SAND, (5YR 5/4) reddish brown, loose, moist to wet, moderate chemical odor, Wet at 5.8 fine SAND, and silt, (5YR 5/4) reddish brown, medium	ID
-3	0.0 0.0 1.3 15.8 2.5 83.4	dry moist moist moist moist wet	FILL FILL GW SP ML	•••	fine to coarse SAND, some fine to coarse gravel little silt, (7.5YR 3/2) dark brown, dry, no odor, angular, (Little glass) SILT, little fine sand and fill material, (7.5YR 5/2) brown, dry, no odor, (Brick, ceramic, coal) SILT, trace coal, (2.5Y 6/4) light yellowish brown, moist, no odor fine SAND, and fine to coarse gravel, (2.5Y 6/4) light yellowish brown, moist, no odor, angular fine SAND, trace medium gravel and medium sand, (5YR 5/4) reddish brown, moist, moderate chemical odor, subangular fine silty SAND, (5YR 5/4) reddish brown, loose, moist to wet, moderate chemical odor, Wet at 5.8 fine SAND, and silt, (5YR 5/4) reddish brown, medium	EF-B109-1.0-1.5
-3	0.0 1.3 15.8 2.5 83.4	moist moist moist moist wet	FILL FILL GW SP ML ML		(7.5YR 3/2) dark brown, dry, no odor, angular, (Little glass)  SILT, little fine sand and fill material, (7.5YR 5/2) brown, dry, no odor, (Brick, ceramic, coal)  SILT, trace coal, (2.5Y 6/4) light yellowish brown, moist, no odor  fine SAND, and fine to coarse gravel, (2.5Y 6/4) light yellowish brown, moist, no odor, angular  fine SAND, trace medium gravel and medium sand, (5YR 5/4) reddish brown, moist, moderate chemical odor, subangular  fine silty SAND, (5YR 5/4) reddish brown, loose, moist to wet, moderate chemical odor, Wet at 5.8  fine SAND, and silt, (5YR 5/4) reddish brown, medium	EF-B109-1.0-1.5
-3	1.3 15.8 2.5 83.4	moist moist wet	GW SP ML ML		SILT, trace coal, (2.5Y 6/4) light yellowish brown, moist, no odor  fine SAND, and fine to coarse gravel, (2.5Y 6/4) light yellowish brown, moist, no odor, angular  fine SAND, trace medium gravel and medium sand, (5YR 5/4) reddish brown, moist, moderate chemical odor, subangular fine silty SAND, (5YR 5/4) reddish brown, loose, moist to wet, moderate chemical odor, Wet at 5.8  fine SAND, and silt, (5YR 5/4) reddish brown, medium	
-6	15.8 2.5 83.4 0.8 0.9	moist moist wet	SP ML ML		fine SAND, and fine to coarse gravel, (2.5Y 6/4) light yellowish brown, moist, no odor, angular  fine SAND, trace medium gravel and medium sand, (5YR 5/4) reddish brown, moist, moderate chemical odor, subangular fine silty SAND, (5YR 5/4) reddish brown, loose, moist to wet, moderate chemical odor, Wet at 5.8  fine SAND, and silt, (5YR 5/4) reddish brown, medium	
-6 - 3.7 -8 - 3.7 -91011 - 3.1 -1314	2.5 83.4 0.8 0.9	moist	ML		5/4) reddish brown, moist, moderate chemical odor, subangular fine silty SAND, (5YR 5/4) reddish brown, loose, moist to wet, moderate chemical odor, Wet at 5.8 fine SAND, and silt, (5YR 5/4) reddish brown, medium	
-6 - 3.7 -8 - 3.7 -91011 - 3.1 -1314	83.4 0.8 0.9	wet	ML		fine silty SAND, (5YR 5/4) reddish brown, loose, moist to wet, moderate chemical odor, Wet at 5.8  fine SAND, and silt, (5YR 5/4) reddish brown, medium	
-8	0.8	$\overline{}$				
-10 11 	0.9	$\overline{}$	NR	+ $+$ $+$ $+$		
11— 	0.9	$\overline{}$			NO RECOVERY	
12— 3.1 13— 14—		,t	GW	• 7 🕓	fine to medium SAND, (5YR 5/4) reddish brown, dense, wet,	
12— 3.1 13— -14—	1.1	wet	ML		slight chemical odor	
-14 		wet	SW		SILT, some fine sand, (5YR 5/4) reddish brown, stiff, wet, slight chemical odor fine to medium SAND, (5YR 5/4) reddish brown, dense, wet, moderate chemical odor	
15			NR		NO RECOVERY	
-16	0.8	wet	SW		fine to medium SAND, (5YR 5/4) reddish brown, dense, wet, no odor	
17— 2.8	0.7	wet	SP		fine SAND, (5YR 5/4) reddish brown, dense, wet, no odor	
18— — 19—			NR	1.3.3.3.4%	NO RECOVERY	
20	0.3	wet	SW	******	fine to medium SAND, (5YR 5/4) reddish brown, dense, wet, no odor	EF-B109-21.0-21.5
22 3.9	1.6	wet	ML		SILT, and fine sand, (5YR 5/4) reddish brown, medium stiff, wet, no odor	-
-23	0.1	wet	SP		fine SAND, (5YR 5/4) reddish brown, wet, no odor	
-24			NR		NO RECOVERY	
25						
otes: gs - below surfa M - meadow ma		COPR - chr GGM - gree	omite ore proc	essing re	sidue UNDno - non-organic undisturbed native deposits MGP - manu UNDorg - organic undisturbed native deposits CCPW - chr	ufactured gas plant comate chemical production was

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## Boring ID: EF-110A/114-MW36A

	Number:			8:20:00 AM		Drilling Method: Geoprobe Rig Type:	Coordinates (NJSPN	NAD83) x: 611817.1 NAD83) y: 683551.8
				5 3:00:00 PM		Core Size: 2 in	Boring Total Depth:	
	By: EW					Project Manager: Scott Mikaelian	Depth to Water: NA	
	al Locatio						Surface Elevation:	
Conth	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thickr	=	Sample ID
		0.0		CONCRETE	P 4 4	CONCRETE, no staining		
$\dashv$		0.0	dry	FILL		GRAVEL, dry, no odor, no staining		
-1		0.0	dry	FILL		medium to coarse SAND, with fine grave	l. (7.5YR 3/2) dark /	EF110A-0.8-1.3
		0.0	dry	FILL	$\bowtie$	brown, drv. no odor, no staining		
۾ ا		0.0	slightly	FILL	$\bowtie$	medium SAND, with coal, (7.5YR 2.5/1)	black, dry, no odor, /	
-2— - -3—	3.5		moist			\no staining fine to medium SAND, trace fine gravel to yellowish brown, slightly moist, no odor, i		EF110A-2.0-2.5 EF110A-3.0-3.5
-4-				NR	XXXX	NO RECOVERY		
-5 <del></del> -6		0.0	wet	FILL		fine SAND, and silt, (10YR 5/2) grayish to no staining	prown, wet, no odor,	EF110A-5.0-5.5
-7-		0.0	moist	FILL		medium SAND, and gravel, (10YR 5/1) g	ray majet no odor	EF110A-7.0-7.5
_	4				$\bowtie$	nnedium SAND, and graver, (101R 5/1) g	ray, moist, no odor,	2
-8-		0.0	moist	SM		medium SAND, trace fine gravel, (5YR 4 moist, no odor, no staining, UNDno. Soils UNDno.	/3) reddish brown, s consistent with	EF110A-8.0-8.5
-9				NR		NO RECOVERY		
-10		0.0	moist	SM		medium SAND, trace fine gravel, (5YR 4	/3) reddich brown	EF110A-10.0-10.5
_ -11			moist	SIVI		moist, no odor, no staining, UNDno. Soils UNDno.		
-12 - -13	5	0.0	wet	SM		medium SAND, with fine to medium grav reddish brown, wet, no odor, no staining, consistent with UNDno.		EF110A-12.0-12.5
-14 <del></del>								EF110A-14.0-14.5
15		0.0	wet	SM		medium SAND, (5YR 4/3) reddish brown staining, UNDno. Soils consistent with U		-
-16 - -17	4.2							EF110A-16.0-16.5
-18								EF110A-18.0-18.5
-19 <del></del>				NR		NO RECOVERY		
-20		0.0	wet	SM		: medium SAND, (5YR 4/3) reddish brown	wet no odor no	EF110A-20.0-20.5
_ -21 -		0.0	wel	Sivi		staining, UNDno. Soils consistent with U		
otes: gs - bel	low surface	grade	COPR - chr	omite ore proce	essing re	:   esidue UNDno - non-organic undisturbed native c	leposits MGP - manu	l Ifactured gas plant

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## Boring ID: EF-110A/114-MW36A

Page: 2

roject Numi ate Started ate Finishe ogged By: hysical Loc epth	e: PPG Ga ber: 60240 Drilling: od Drilling:	0739			Drilling Company: SGS North America		
ate Started ate Finishe ogged By: nysical Loc epth	Drilling:				Drilling Method: Geoprobe	Coordinates (NJSP	NAD83) x: 611817.1
ogged By: nysical Loc	ed Drilling:	0/20/2013 (	3:20:00 AM		Rig Type:		NAD83) y: 683551.8
epth		6/19/2015	3:00:00 PM		Core Size: 2 in	Boring Total Depth:	
epth Book	EW				Project Manager: Scott Mikaelian	Depth to Water: N	A
epth Reco	cation:					Surface Elevation:	11.1 ft NAVD88
ange (ft/f	very PID (ppm)	Moisture Content	USCS	Graph Log	c Surface Cover and Thick	ness:	Sample ID
23—	j						EF110A-22.0-22.5
24— — 25———	0.0	wet	SM		medium SAND, (5YR 4/3) reddish browr	n wet no odor no	EF110A-24.0-24.5
26		Wet	OW		staining, UNDno. Soils consistent with U	INDno.	EF110A-26.0-26.5
27—	;						LI 1104-20.0-20.3
28— — 29— —							EF110A-28.0-28.5
30 — 31——	0.0	wet	SM		medium SAND, (5YR 4/3) reddish brown staining, UNDno. Soils consistent with U	n, wet, no odor, no INDno.	EF110A-30.0-30.5
32 5 33 	;						EF110A-32.0-32.5
35 <del> </del>	0.0	wet	SM		medium SAND, (5YR 4/3) reddish brown staining, UNDno. Soils consistent with U		EF110A-34.0-34.5
36 <u> </u>	;						EF110A-36.0-36.5
39—							EF110A-38.0-38.5
$\dashv$							EF110A-39.5-40.0

PPG - 2012-09 RA PPG\_LOGS\_A.GDT - 12/6/16 08:17

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## Boring ID: EF-111

ate St		ing: S	9/11/2012 9	9:50:00 AM		Drilling Method: Soft Dig/Geoprobe Rig Type:	Coordinates (NJSPNAD83) y:	: 611795.95763 683564.16692
				2 11:10:00 AM			Boring Total Depth: 30 ft	
	By: Ben			==		Project Manager: Scott Mikaelian	Depth to Water: NA	
nysica	Il Location	<b>1:</b> For	rest Street	-EF-111	ı	<u> </u>	Surface Elevation: 10.5 ft N/	4VD88
epth ange bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickne	ess:	Sample ID
-1		0.0	dry	ASPHALT FILL		silty SAND, little fine to coarse gravel and to (7.5YR 5/1) gray, dry, no odor, angular, (B		EF-B111-0.1-0.6
2-		0.0	dry	FILL		silty SAND, little fine to medium gravel and	d fill material	
.3-		2.0	moist	FILL		(7.5YR 4/1) dark gray, dry, no odor, angula		
4		0.0				silty SAND, little fine to medium gravel trace (7.5YR 3/2) dark brown, moist, slight HC c	ce fill material, odor, angular,	
		0.0	moist	FILL		(Brick, wood fragments) SILT, little fine sand trace fine gravel, (7.5)	YR 4/1) dark gray,	
5—		0.0	wet	ML		moist, no odor, subrounded, Trace coal.  SILT, and fine sand, (10Y 6/1) greenish gr wet, no odor	ray, medium soft,	F5 P444 0 0 0 5
7—	_	1.1	wet	ML		SILT, (10YR 5/4) yellowish brown, stiff, we	et, no odor	EF-B111-6.0-6.5
8—	3	0.0	wet	ML		SILT, little fine sand, (7.5YR 5/6) strong br	rown, stiff, wet, no	EF-B111-7.5-8.0
9—				NR		odor NO RECOVERY		
10		0.3	wet	SM		SILT, little fine sand and fine to medium gr	ravel, (7.5YR 5/4)	
11—		0.4	wet	ML		SILT, little fine to medium gravel, (2.5YR 4	I/4) reddish brown,	EF-B111-11.0-11.5
12-	3.9	0.2	wet	SW		soft, wet, slight HC odor, angular fine to medium SAND, little fine to coarse 5/4) reddish brown, dense, wet, slight HC		
13 <del></del> 14				NR		NO RECOVERY		EF-B111-13.0-13.5
				INIX		NO RECOVERY		
15 - 16		0.0	wet	SW		fine to coarse SAND, little silt and fine to c (2.5YR 5/4) reddish brown, dense, wet, sli	oaise gravei,	EF-B111-15.0-15.5
17—	2.9	0.3	wet	SW		fine to medium SAND, little fine to medium 5/4) reddish brown, dense, wet, no odor, a	ngular.	EF-B111-17.0-17.5
18	<u>2.0</u>	0.1	wet	SP NR	<u>********</u>	fine SAND, (2.5YR 5/4) reddish brown, de NO RECOVERY	nse, wet, no odor	
20		0.1	wet	SW	• • • • • • •	* fine to medium SAND, (2.5YR 5/4) reddish	n brown, medium	EF-B111-20.0-20.5
21—						dense, wet, slight HC odor	,	
22	2.9	0.0	wet	SP		fine SAND, (2.5YR 5/4) reddish brown, de	, ,	FF 0444 65 1 1 1 1
23-				NR		NO RECOVERY		EF-B111-22.4-22.9
24—								
25		0.0	wet	SP		fine SAND, (2.5YR 5/4) reddish brown, de	nse, wet, no odor	EF-B111-25.0-25.5
	ow surface		COPR - chr	omite ore proce	essing re	sidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native deposi	posits MGP - manufactured g	gas plant emical production v

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<b>Boring</b>	ID:	EF-	.1	11	
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Date Finished Dri Logged By: Ben Physical Location Depth Recovery	Illing: 9/11/2 rilling: 9/11 n Daniels on: Forrest S	1/2012 9:50:00 AM 11/2012 11:10:00 A	D   R   AM   C	rilling Company: SGS North America rilling Method: Soft Dig/Geoprobe ig Type: ore Size: 2 in roject Manager: Scott Mikaelian  Surface Cover and Thi  NO RECOVERY	Coordinates (NJSP Boring Total Depth Depth to Water: N Surface Elevation:	IA .
Date Finished Dri Logged By: Ben Physical Location Depth Range (ft bgs)	rilling: 9/11 n Daniels on: Forrest S	t Street -EF-111  Disture ontent  USCS	AM C	ore Size: 2 in roject Manager: Scott Mikaelian  Surface Cover and Thi	Boring Total Depth Depth to Water: N Surface Elevation:	1: 30 ft  NA  10.5 ft NAVD88  Sample
Depth Range (ft/ft) R-272829	Daniels  PID Mois	t Street -EF-111  Disture ontent  USCS	Graphic	roject Manager: Scott Mikaelian  Surface Cover and Thi	Depth to Water: N Surface Elevation:	JA 10.5 ft NAVD88 Sample
Physical Location Depth Range ff bgs)  Recovery (ft/ft)  -27 - 3.1  -28	PID Mois	Disture ontent USCS	Graphic	Surface Cover and Thi	Surface Elevation:	10.5 ft NAVD88 Sample
Depth Range (ft/ft)  -27 - 3.1 -28	PID Mois	Disture ontent USCS	Graphic Log			Sample
Range (ft/ft)	PID (ppm) Cor	ontent 03C3	Graphic Log		ickness:	
3.1		NR		NO RECOVERY		
				NO REGOVERI		
			1			
otes: gs - below surface o M - meadow mat		PR - chromite ore pro	ocessing res	idue UNDno - non-organic undisturbed nativ UNDorg - organic undisturbed native de	ve deposits MGP - ma	nufactured gas plant hromate chemical production wa

### A E C O M

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

## Boring ID: EF-111A/114-MW36B

Date Sta Date Fin Logged Physical Depth Range	nished Dr By: EW	ling: (	6/27/2015 8	3:30:00 AM				NAD83) x: 611795.9		
Date Fin Logged   Physical Depth Range	nished Dr By: EW							JSPNAD83) y: 683573.2		
Physical Depth Range	By: EW	miliy.	6/2//2014	2.45.00 DN			Boring Total Depth:			
Physical Depth Range			5/2//2015	<u> </u>			Depth to Water: NA			
Depth Range	11 0004! -		root Ctrast	EE 444A						
Range   r	I LOCATIO	n: For	rest street	- <u>-</u> 111A		<u> </u>	Surface Elevation:	10.4 TLINAVD88		
ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thicknes	ss:	Sample ID		
-		0.0		FILL	XXXX	CONCRETE.				
4		0.0	alm .		<b>****</b>			EF-111A-0.4-0.9		
.			dry	FILL	-₩₩	medium to coarse SAND,trace fine gravel,tr		21 111/( 0.4 0.5		
-1		0.0	dry	FILL		\ceramics,(5YR 3/1)very dark gray,dry,no od fine to medium SAND,with ash and cinders, 4/1) dark gray,dry,no odor,no staining.	trace coal,(5YR			
-2-		0.0	dry	FILL	$\times\!\!\times\!\!\times$	fine SAND, trace silt little medium gravel, (7.	5YR 3/2) dark	55.4444.00.05		
-3-	3.5		,			brown,slightly moist,no odor,no staining.	.o m o z y dank	EF-111A-2.0-2.5		
								EF-111A-3.0-3.5		
-4-				NR		NO RECOVERY.				
-5		0.0					T) (T) (2(2))	EF-111A-5.0-5.5		
-6		0.0	wet	FILL		fine SAND,trace silt,little medium gravel,(7.5 brown,wet,no odor,no staining.	5YR 3/2) dark	EF-111A-0.0-0.0		
-7—	5							EF-111A-7.0-7.5		
-8-		0.0	wet	SM		UNDno fine to medium SAND,trace fine gra reddish brown,wet,no odor,no staining.Soils	avel,(5YR 4/3) consistent with	EF-111A-8.0-8.5		
-9						UNDno.				
10 +		0.0	wet	SM		UNDno fine to medium SAND,trace fine gra reddish brown,wet,no odor,no staining. Soils UNDno.	avel,(5YR 4/3) s consistent with	EF-111A-10.0-10.5		
11—		0.0	wet	SM		UNDno medium SAND,with fine gravel,(5YF brown,wet,no odor,no staining. Soils consist	R 4/3) reddish tent with UNDno.			
12-	3.5	0.0	wet	SM		UNDno medium SAND,trace fine gravel,(5Y brown,wet,no odor,no staining. Soils consist	(R 4/3) reddish tent with UNDno.	EF-111A-12.0-12.5		
13								EF-111A-13.0-13.5		
14-				NR		NO RECOVERY.				
15		0.0	wet	SM		UNDno medium SAND,with fine to medium reddish brown,wet,no odor,no staining. Soils UNDno.	gravel,(5YR 4/3) s consistent with	EF-111A-15.0-15.5		
-17	3.5							EF-111A-17.0-17.5		
18—								EF-111A-18.0-18.5		
19				NR		NO RECOVERY.				
20		0.0		01:	<u> </u>	LINDay madis CAND (EVE 10)		EF-111A-20.0-20.5		
-21 -		0.0	wet	SM		UNDno medium SAND, (5YR 4/3) reddish to odor, no staining. Soils consistent with UNDn	orown,wet,no no.	LI-111A-20.0-20.0		
	ow surface		COPR - chro GGM - greei		cessing re	sidue UNDno - non-organic undisturbed native depo UNDorg - organic undisturbed native deposite		l ufactured gas plant comate chemical production w		

### A E C O M

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

## Boring ID: EF-111A/114-MW36B

Project	Name: F Number:	60240	739			Drilling Company: SGS North America Drilling Method: Geoprobe		NAD83) x: 611795.9
			6/27/2015 8			Rig Type:	Coordinates (NJSPN	
			6/27/2015	2:45:00 PM		Core Size: 2 in	Boring Total Depth:	
	IBy: EW		root Stroot	CC 1111		Project Manager: Scott Mikaelian	Depth to Water: NA Surface Elevation:	
	ai Locatio	ıı: For	rest Street	- <u>-</u>	1		Surface Elevation:	10.4 π ΝΑΥΔδδ
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thick	ness:	Sample ID
	3.5					3		EF-111A-22.0-22.5
-23						1		
-23								EF-111A-23.0-23.5
				NR		NO RECOVERY.		
-24								
_								
-25		0.0	wet	SM	(N) (N)	: UNDno medium SAND,(5YR 4/3) reddis	h brown,wet,no	EF-111A-25.0-25.5
$\dashv$		_				odor,no staining.Soils consistent with UN	IDno.	
-26				NR		NO RECOVERY.		
4								
-27								
4	8.0							
-28								
4								
_29								
30								
30		0.0	wet	SM		UNDno medium SAND,(5YR 4/3) reddis	h brown,wet,no	EF-111A-30.0-30.5
, T						odor,no staining.Soils consistent with UN	IDno.	
-31								
_						1		
-32	3.5					4		EF-111A-32.0-32.5
$\dashv$	ა.ა					.}		
-33						4		EF-111A-33.0-33.5
-				NR	1 11 11	NO RECOVERY.		1
-34								
4								
35		0.0	)A/Qt	SM	- Language -	: UNDno medium SAND,(5YR 4/3) reddis	h brown wet no	EF-111A-35.0-35.5
4		5.0	wet	SIVI		odor,no staining. Soils consistent with UI		
-36								
4						4		
-37						:1		EF-111A-37.0-37.5
_	5					· <del>1</del>		EF-117A-37.U-37.5
-38						#		
						1		
39								_
J _						.}		EF-111A-39.0-39.5
						4		EF-111A-39.5-40.0
40								
1 - 4								
l <b>otes:</b> gs - belo	ow surface	grade	COPR - chro	omite ore prod	cessina re	esidue UNDno - non-organic undisturbed native o UNDorg - organic undisturbed native depo	leposits MGP - manı	ıfactured gas plant omate chemical production wa

PPG - 2012-09 RA PPG\_LOGS\_A.GDT - 11/30/16 23:34

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Boring ID: FS1

Project	t Name: F	PPG Ga	rfield Ave			Drilling Company: SGS North America		rage.
Project	Number:	60240	739			Drilling Method: Geoprobe	Coordinates (NJSPNA	<b>AD83) x:</b> 611754.9
				0:00:00 AM		Rig Type:	Coordinates (NJSPNA	
			4/1/2014	12:15:00 PM		Core Size: 3 in	Boring Total Depth:	40 ft
	d By: EW al Locatio		root Stroot	EQ1		Project Manager: Scott Mikaelian	Depth to Water: NA Surface Elevation: 10	2 # NIAN/D00
	ai Localio	II. FUI	rest street	- [3]			Surface Elevation.	U.Z II INAVDOO
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphio Log	Surface Cover and Thickn	ess:	Sample ID
L _		0.0	dry	ASPHALT		ASPHALT		FS1-0.3-0.8
L-1		0.0	,	FILL		fine to medium SAND, little cinders, trace dark grayish brown, non plastic, loose, dr		
 		0.0	slightly moist	FILL		staining. medium SAND, trace very fine gravel, (7.	5YR 4/3) brown,	504000
Ļ <sup>−</sup> −	2.5				$\bowtie$	non plastic, soft, slightly moist, no odor, n	o staining.	FS1-2.0-2.5
3  4 				NR		NO RECOVERY		
<del></del> 5		0.0		- FILL	XXXX	fine to readily as althy CANID agreed and division		FS1-5.0-5.5
 6  7		0.0	wet	FILL		fine to medium silty SAND, some medium 5/2) grayish brown, non plastic, soft, wet, staining.		FS1-7.0-7.5
<u> </u>	4.5	0.0	4			Size to see divine OAND little fire a see of 15	\(\(\mathbb{D}\) \(\delta\) \(\de	131-7.0-7.3
8 		0.0	wet	FILL		fine to medium SAND, little fine gravel, (5 brown, non plastic, soft to loose, wet, no		
<del></del> 9						8	<u> </u>	FS1-9.0-9.5
├ <b>-</b>				NR		NO RECOVERY		
10-		0.0	wet	FILL		fine to medium SAND, little fine gravel, (5	YR 4/3) reddish	
11 12 12	4.6					brown, non plastic, soft to loose, wet, no		FS1-11.0-11.5
—13— — — —14—		0.0	wet	SM		medium SAND, little fine gravel, (5YR 4/3 non plastic, soft to loose, wet, no odor, no sands. Soils consistent with UNDno.		FS1-13.0-13.5
15 16 17 17		0.0	wet	NR SM		NO RECOVERY  medium to coarse SAND, little very fine g reddish brown, non plastic, loose, wet, no red fine sands. Soils consistent with UND	odor, no staining,	FS1-15.0-15.5 FS1-17.0-17.5
├ <sup>-</sup>	. 3							
18-				NR	1	NO RECOVERY		
- <sub>۱</sub> ړ ا								
19								
20  21 		0.0	wet	SM		medium to coarse SAND, little very fine g reddish brown, non plastic, loose, wet, no red fine sands. Soils consistent with UND	odor, no staining,	FS1-20.0-20.5
22						:1		FS1-22.0-22.5
<u> </u>	2.8					<u> </u>		
23 				NR		NO RECOVERY		
					essing re	esidue UNDno - non-organic undisturbed native de	eposits MGP - manufa	actured gas plant
	No COPR/GGM		GGM - gree	n grey mud		UNDorg - organic undisturbed native depos	sits CCPW - chror	mate chemical production waste
comments:	IN OUTNUGUN	werkinea.						

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

<b>Boring</b>	ID: FS1

Page: 2

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611754.9
Date Started Drilling: 4/1/2014 10:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683549.1
Date Finished Drilling: 4/1/2014 12:15:00 PM	Core Size: 3 in	Boring Total Depth: 40 ft
Logged By: EW	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Forrest Street - ES1		Surface Flevation: 10.2 ft NAVD88

	d By: EW		1.01 1	F0.4		Project Manager: Scott Mikaelian	Depth to Water: NA	
	al Locatio	n: For	rest Street	- FS1	1		Surface Elevation:	10.2 ft NAVD88
epth inge bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thick	kness:	Sample ID
		0.0	moist to wet	SM		fine to medium SAND, some silt, trace f reddish brown, non plastic, soft, moist to staining, red fine sands. Soils consisten	o wet, no odor, no	FS1-25.0-25.5
- 27	5		wet			taning, realine cando conocció		FS1-27.0-27.5
.8— — !9—		0.0	moist	SM		fine SAND, (5YR 4/3) reddish brown, no moist, no odor, no staining, red fine san with UNDno.	on plastic, soft, ds. Soils consistent	FS1-29.0-29.5
- 80 <del></del>	-	0.0	moist	SM		fine SAND, (5YR 4/3) reddish brown, no	on plastic. soft.	1 31-23.0-23.3
_		-		2		moist, no odor, no staining, red fine san	ds. Soils consistent	
2 - - - 3	3.9					with UNDno.		FS1-31.0-31.5 FS1-33.0-33.5
4 <del></del>				NR		NO RECOVERY		
65 — 66 — —		0.0	moist	SM		fine SAND, (5YR 4/3) reddish brown, no moist, no odor, no staining, red fine san with UNDno.	on plastic, soft, ds. Soils consistent	FS1-35.0-35.5
37—— — 38——	3							FS1-37.0-37.5
- 19				NR		NO RECOVERY		
10								
es:	low surface eadow mat	grade	COPR - chro	omite ore prod	cessing re	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native dep	deposits MGP - manuf	factured gas plant omate chemical production

PPG - 2012-09 RA PPG\_LOGS\_A.GDT - 11/30/16 23:15

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: FS2** 

			telepriorie				T	Page: 1
	t Name: F					Drilling Company: SGS North America	0 11 ( (1)100)	14 500)
	Number:			14.55.00 ANA		Drilling Method: Geoprobe	Coordinates (NJSP)	
				11:55:00 AM		Rig Type: Core Size: 3 in	Coordinates (NJSPN	
	d <b>By</b> : EW		3/24/2014	1 2:00:00 PM		Project Manager: Scott Mikaelian	Boring Total Depth: Depth to Water: NA	
	al Locatio		rest Street	- FS2		Froject Manager. Scott Mikaellan	Surface Elevation:	
	ai Locatio	11. 10	TCSI Oli CCI	-102			Ouriace Lievation.	TOTETANDOO
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	C Surface Cover and Thickn	ess:	Sample ID
1	0			FILL		DENSE GRADE AGGREGATE, fill mater	ial used for FSTP2.	
5 6 		0.0	moist moist	FILL		fine to medium SAND, with fine to mediun 4/1) dark gray, non plastic, loose, moist, r staining.  fine SAND, with silt, (10YR 4/2) dark gray	no odor, no	
7-  8-	3.8					plastic, soft, moist, no odor, no staining.		FS2-8.0-8.5
—9— — —				NR		NO RECOVERY		
10  11 		0.0	moist	FILL		fine SAND, with silt, (10YR 4/2) dark gray plastic, soft, moist, no odor, no staining.	yish brown, non	FS2-10.0-10.5
12  13	3.2	0.0	wet	SM		fine to medium SAND, with fine to mediun reddish brown, non plastic, soft to loose, staining, red fine sands. Soils consistent	wet, no odor, no	FS2-12.0-12.5
 14 				NR		NO RECOVERY		
15  16 		0.0	wet	SM		fine to medium SAND, with fine to mediun reddish brown, non plastic, soft to loose, staining, red fine sands. Soils consistent	wet, no odor, no	FS2-15.0-15.5
_ '' _ 18	3.6							FS2-17.0-17.5
- 19 19 				NR		NO RECOVERY		FS2-18.0-18.5
20  21		0.0	wet	SM		fine SAND, little silt, (5YR 4/3) reddish br soft, wet, no odor, no staining, red fine sa consistent with UNDno.	inds. Soils	FS2-20.0-20.5
		0.0	wet	SM		fine to medium SAND, with fine to mediun reddish brown, non plastic, soft to loose,		
MM - me	low surface eadow mat		COPR - chr GGM - gree	omite ore prod n grey mud	essing r	esidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depor	eposits MGP - manu sits CCPW - chr	ufactured gas plant omate chemical production waste

Boring ID: FS2

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

	Name: F					Drilling Company: SGS North America		
	Number:			4.55.00.414		Drilling Method: Geoprobe	Coordinates (NJSPI	
				1:55:00 AM		Rig Type:	Coordinates (NJSPN	
			3/24/2014	2:00:00 PM		Core Size: 3 in Project Manager: Scott Mikaelian	Boring Total Depth:	
	d By: EW		rest Street	ESS	<u> </u>	Project Manager: Scott Mikaellan	Depth to Water: NA Surface Elevation:	
	ai LUCALIU	11. 10	rest Street	-132			Surface Elevation.	TO IL NAVDOO
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickn	ess:	Sample ID
	4.6					\staining, red fine sands. Soils consistent medium SAND, trace fine gravel, (5YR 4/	3) reddish brown,	FS2-22.0-22.5
-23 		0.0	moist	SM		non plastic, loose, wet, no odor, no stainir Soils consistent with UNDno. medium SAND, with medium gravel, (5YF brown, non plastic, loose, moist, no odor, fine sands. Soils consistent with UNDno.	R 4/3) reddish	FS2-24.0-24.5
				NR		NO RECOVERY		
-25 		0.0	wet	SM		medium SAND, trace fine gravel, (5YR 4/ non plastic, loose, wet, no odor, no stainir Soils consistent with UNDno.		
	4							FS2-26.0-26.5
-28 - -								FS2-28.0-28.5
<del>-29 -</del>				NR	Leviler, Jee.	NO RECOVERY		
-30 - -31		0.0	wet	SM		medium SAND, trace very fine gravel, (5\ brown, non plastic, loose, wet, no odor, no sands. Soils consistent with UNDno.		FS2-30.0-30.5
-32 - -33	5							FS2-32.0-32.5
34 -								FS2-34.0-34.5
35		0.0	wet	SM		medium SAND, trace very fine gravel, (5\) brown, non plastic, loose, wet, no odor, no sands. Soils consistent with UNDno.		
-36 - - -37 - -	5							FS2-36.0-36.5
-38 <u> </u>								FS2-38.0-38.5
40						-]		
	low surface		COPR - chro		essing re	sidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	eposits MGP - manu	ufactured gas plant romate chemical production wa
	No COPR/GGM		GGIVI - gree	n grey mud		UNDOIG - organic undisturbed native depos	SIIS CCPVV - Chr	omate chemical production wa

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: FS3** 

Project						Drilling Method: Geoprobe	Coordinates (NJSP	
				12:20:00 PM		Rig Type:		NAD83) y: 683580.5
			3/20/2014	4 2:35:00 PM		Core Size: 3 in	Boring Total Depth:	
	By: EW					Project Manager: Scott Mikaelian	Depth to Water: N	
hysica	al Locatio	n: For	rest Street	- FS3			Surface Elevation:	10.1 ft NAVD88
Depth Range It bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphio Log	Surface Cover and Thicl	kness:	Sample ID
_		0.0		CONCRETE		CONCRETE, no staining.		
-1 <del></del> - -2		0.0	slightly moist	FILL		fine to medium SAND, some fine gravel gray, non plastic, loose, slightly moist, n		FS3-1.0-1.5
-	4	0.0	dry	FILL		fine SAND, some silt, (7.5YR 2.5/3) ver		
-3		0.0	to slight moist	FILL		plastic, stiff, dry to slightly moist, no odc SILT, trace fine sand, (7.5YR 3/1) very plastic, soft, moist, no odor, no staining	dark gray, non	FS3-3.0-3.5
4 -			moist	NR		NO RECOVERY		
-5 - -6		0.0	wet	FILL		fine SAND, with silt, (10YR 5/4) yellowing plastic, soft, wet, no odor, no staining.	sh brown, non	FS3-5.0-5.5
-7 - -8 -	5							FS3-7.0-7.5
-9		0.0	wet	FILL		fine SILT, and fine sand, (10YR 6/6) bro plastic, soft, wet, no odor, no staining.	ownish yellow, non	FS3-9.0-9.5
-10 - -11		0.0	wet	FILL		fine SILT, and fine sand, (10YR 6/6) broplastic, soft, wet, no odor, no staining.	ownish yellow, non	FS3-11.0-11.5
-12	4	0.0	moist	SM		fine to medium SAND, some fine gravel brown, non plastic, loose, moist, no odo	I, (5YR 4/3) reddish	
13	7					fine sands. Soils consistent with UNDno		FS3-13.0-13.5
-14 <del></del>				NR		NO RECOVERY		
-15  -16		0.0	moist	SM		fine to medium SAND, some fine gravel brown, non plastic, loose, moist, no odo fine sands. Soils consistent with UNDno	r, no staining, red	FS3-15.0-15.5
-17	_			NR		NO RECOVERY		
18	1							
-19								
-20 - -21		0.0	wet	SM		medium SAND, trace fine gravel, (5YR non plastic, soft, wet, no odor, no stainii Soils consistent with UNDno.		FS3-20.0-20.5
	ow surface		COPR - chi GGM - gree		essing re	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native deg		nufactured gas plant nromate chemical production w

Boring ID: FS3

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

	Number:			2:20:00 PM		Drilling Method: Geoprobe Rig Type:		dinates (NJSPNAD83) x: 611787.1 dinates (NJSPNAD83) y: 683580.5		
				2:35:00 PM		Core Size: 3 in	Boring Total Depth:			
	By: EW		0/20/2014	2.00.00 T W		Project Manager: Scott Mikaelian	Depth to Water: N			
			rest Street	- FS3		- Continuous	Surface Elevation:			
Donth	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID		
23 	5							FS3-22.0-22.5		
-25  -26		0.0	wet	SM		medium SAND, trace fine gravel, (5YR 4 non plastic, soft, wet, no odor, no staining Soils consistent with UNDno.	/4) reddish brown, g, red fine sands.	FS3-26.0-26.5		
27 28	5							FS3-28.0-28.5		
-30  -31 - -32	3	0.0	wet	SM		medium SAND, trace fine gravel, (5YR 4 non plastic, soft, wet, no odor, no staining Soils consistent with UNDno.	/4) reddish brown, g, red fine sands.	FS3-32.0-32.5		
-33  -34 -				NR		NO RECOVERY				
35 — — 36 — —		0.0	wet	SM		medium SAND, trace fine gravel, (5YR 4 non plastic, soft, wet, no odor, no staining Soils consistent with UNDno.	/4) reddish brown, g, red fine sands.	FS3-35.0-35.5		
-37 - -38	3			NR		NO RECOVERY		FS3-37.0-37.5		
39  				1417		NO NEGOVERNI				
	ow surface		COPR - chro	omite ore prod	cessing re	esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	eposits MGP - man	nufactured gas plant romate chemical production w		

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Boring ID: FS4

	arted Dril					Rig Type:			
			3/21/2014	4 9:00:00 AM		Core Size: 3 in	Boring Total Depth:		
	By: EW					Project Manager: Scott Mikaelian	Depth to Water: NA		
hysic	al Locatio	n: For	rest Street	- FS4	1		Surface Elevation:	10.1 ft NAVD88	
epth ange bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID	
_		0.0		CONCRETE		CONCRETE, no staining.			
-1— -2— -3—	5	0.0	dry to slight moist	FILL		fine to medium SAND, some fine to medicoal, (10YR 2/2) very dark brown, non plaslightly moist, no odor, no staining.		FS4-1.0-1.5 FS4-3.0-3.5	
4		0.0	slightly moist	FILL		fine SAND, some silt, (10YR 4/2) dark gr plastic, medium stiff, slightly moist, no od			
5		0.0		EII I				FS4-5.0-5.5	
6- <del></del>		0.0	slightly moist moist to wet	FILL		fine SAND, some silt, (10YR 4/2) dark gr plastic, medium stiff, slightly moist, no od fine silty SAND, (10YR 5/2) grayish brow moist to wet, no odor, no staining.	lor, no staining.		
7— - 8—	5	0.0	wet	FILL		fine silty SAND, (7.5YR 4/3) brown, non stiff, wet, no odor, no staining.	plastic, medium	FS4-7.0-7.5	
9— –		0.0	slightly moist	FILL		SILT, trace fine sand, (10YR 5/4) yellowing plastic, medium stiff, slightly moist, no oc		FS4-9.0-9.5	
10 <u> </u>		0.0	moist to wet	FILL		fine to medium SAND, trace silt, some m gravel, (10YR 8/2) very pale brown, non p stiff, moist to wet, no odor, no staining.		FS4-11.0-11.5	
- 12 <del></del>	1.5			NR	XXXX	NO RECOVERY			
13 <u> </u>									
15 <u> </u>		0.0	moist	SM		UNDno fine to medium SAND, (5YR 4/4) loose, moist, no odor, no staining, red fin		FS4-15.0-15.5	
16— — 17—				NR		\consistent with UNDno.  NO RECOVERY			
- 18 — - 19 —	0.5								
_									
20— - 21— -		0.0	wet	SM		UNDno medium SAND, with medium gra reddish brown, non plastic, loose, wet, no red fine sands. Soils consistent with UND	odor, no staining,	FS4-20.0-20.5	
tes: s - bel // - me	ow surface	grade	COPR - chr	romite ore proc	essing re	esidue UNDno - non-organic undisturbed native d	eposits MGP - man	ufactured gas plant	

Boring ID: FS4

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

	t Number:		0739 3/21/2014 9	).OO.OO A N #		Drilling Method: Geoprobe	Coordinates (NJSP)	NAD83) y: 683584.9		
				9:00:00 AM		Rig Type: Core Size: 3 in				
	d By: EW		3/2 1/20 14	9.00.00 AW		Project Manager: Scott Mikaelian	Boring Total Depth: Depth to Water: NA			
			rest Street	FS/		Project Manager. Scott Mikaelian	Surface Elevation:			
	ai Localio	II. FUI	rest Street	- 134			Surface Elevation.	TU. I IL NAVDOO		
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickne	ess:	Sample ID		
	5							FS4-22.0-22.5		
25 — -26 — -27 —	4	0.0	wet	SM		fine to medium SAND, (5YR 4/3) reddish I soft to medium stiff, wet, no odor, no stain sands. Green water identified at 26.0-28.0 consistent with UNDno.	ing, red fine	FS4-26.0-26.5		
_28 				NR		NO RECOVERY		FS4-28.0-28.5		
-30 -31 -		0.0	saturated	SM		medium SAND, (5YR 4/3) reddish brown, medium stiff, saturated, red fine sands. So UNDno.	non plastic, soft to oils consistent with	FS4-30.0-30.5		
-32  -33  -34 	3			NR		NO RECOVERY		FS4-32.0-32.5		
0.5										
35		0.0	wet	SM		medium SAND, (5YR 3/4) dark reddish br	own, non plastic,	FS4-35.0-35.5		
-36 - -37		0.0	saturated	SM		soft to medium stiff, wet, no odor, no stain sands. Soils consistent with UNDno. medium SAND, (5YR 4/3) reddish brown, medium stiff, saturated, red fine sands. So UNDno.	ing, red fine non plastic, soft to	FS4-37.0-37.5		
38 — 38 — 39 — 40 —	2.6			NR		NO RECOVERY				
70										
Notes: ogs - bel VIM - me	eadow mat		COPR - chro GGM - gree		essing re	esidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos	posits MGP - man	ufactured gas plant romate chemical production wa		

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: FS5** 

<u>Project</u>	Number:	<u>6024</u> 0	1139			Drilling Method: Air Rotary	Coordinates (NJSPI	NADOS) X: 011/20.2
				3:35:00 AM		Rig Type:		IAD83) y: 683577.9
				10:05:00 AN		Core Size: 3 in	Boring Total Depth:	
	By: EW		<b></b>			Project Manager: Scott Mikaelian	Depth to Water: NA	
			rest Street	- FS5			Surface Elevation:	
		1 01	. 501 511 661				Carrage Elevation	
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickne	ess:	Sample ID
		0.0		ASPHALT		ASPHALT		
-1		0.0	dry	FILL		fine to coarse SAND, little gravel, (10YR 4 brown, non plastic, loose, dry, no odor, no		FS5-0.3-0.8 FS5-1.0-1.5
-2		0.0	dry	FILL		fine to medium SAND, some ash and grav reddish brown, loose, dry, no odor, no stai		
_	3.5	0.0	dry	FILL		BRICK, some trace fine sand, (2.5YR 3/6)	dark red. non	
-3		0.0	dry	FILL		plastic, loose, dry, no odor, no staining. medium to coarse GRAVEL, some brick, s	some ash, (5YR	FS5-3.0-3.5
-4 <del></del>		NR  3/4) dark reddish brown, non plastic, loose, dry, no odor, no staining.  NO RECOVERY						
-5		0.0	wet	FILL		fine to medium SAND, some gravel, some reddish brown, non plastic, soft, wet, no or		FS5-5.0-5.5
-6		0.0	moist	FILL		fine SAND, some ash, some gravel, (10YF brown, non plastic, loose, moist, no odor, i		-
-7-	2.5							FS5-7.0-7.5
-8— - -9—				NR		NO RECOVERY		
_ -10		0.0	wet	FILL		fine to medium silty SAND, trace fine grav		FS5-10.0-10.5
-11 -12	5					brown, non plastic, soft, wet, no odor, no s	staining.	FS5-12.0-12.5
-13 -14	Č	0.0	wet	SM		UNDno medium SAND, (5YR 4/3) reddish plastic, soft, wet, no odor, no staining, red consistent with UNDno.		FS5-14.0-14.5
_								F30-14.0-14.0
15		0.0	moist	SM		UNDno medium SAND, and coarse gravel reddish brown, non plastic, loose, moist, n staining, red fine sand. Soils consistent wi	o odor, no	
-16  -17	3.5					staining, red fine Sand. Solis Consistent Wi	ит ОМИЛО.	FS5-16.0-16.5
18								FS5-18.0-18.5
-19				NR		NO RECOVERY		
20		0.0	wet	SM	 	: UNDno medium silty SAND, (5YR 4/3) rec	ddieh brown non	FS5-20.0-20.5
- -21 -		5.0	wci	OIVI		plastic, soft, wet, no odor, no staining, red consistent with UNDno.	fine sand. Soils	
	ow surface		COPR - chr GGM - gree		essing re	esidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos		ufactured gas plant romate chemical production w

**Boring ID: FS5** 

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 2 Project Name: PPG Garfield Ave Drilling Company: SGS North America Coordinates (NJSPNAD83) x: 611728.2 Project Number: 60240739 Drilling Method: Air Rotary Date Started Drilling: 3/28/2014 8:35:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683577.9 Date Finished Drilling: 3/28/2014 10:05:00 AM Core Size: 3 in Boring Total Depth: 40 ft Logged By: EW Project Manager: Scott Mikaelian Depth to Water: NA Surface Elevation: 9.7 ft NAVD88 Physical Location: Forrest Street - FS5 Depth PID Recovery Moisture Graphic Sample USCS Surface Cover and Thickness: Range ΙĎ (ft/ft) (ppm) Content Log (ft bgs) FS5-22.0-22.5 5 -23 0.0 SM UNDno medium SAND, (5YR 4/3) reddish brown, non wet 24 plastic, soft, wet, no odor, no staining, red fine sand. Soils FS5-24.0-24.5 consistent with UNDno. 25 0.0 UNDno medium SAND, and fine gravel, (5YR 4/3) reddish wet SM brown, non plastic, soft, wet, no odor, no staining, red fine sand. Soils consistent with UNDno. -26 FS5-26.0-26.5 5 28 FS5-28.0-28.5 0.0 SM UNDno medium silty SAND, and fine gravel, (5YR 4/3) wet reddish brown, non plastic, soft, wet, no odor, no staining, red fine sand. Soils consistent with UNDno. -29 -30 0.0 FS5-30.0-30.5 UNDno medium silty SAND, and fine gravel, (5YR 4/3) SM wet reddish brown, non plastic, soft, wet, no odor, no staining, red fine sand, 31.0-31.6ft bgs trace of green water. Soils -31 consistent with UNDno. 32 FS5-32 0-32 5 4 -33 0.0 FS5-33.0-33.5 UNDno medium SAND, and fine gravel, (5YR 4/3) reddish wet SM brown, non plastic, soft, wet, no odor, no staining, red fine sand. Soils consistent with UNDno. 34 NR NO RECOVERY -35 0.0 FS5-35.0-35.5 SM UNDno medium silty SAND, (5YR 4/3) reddish brown, non wet plastic, soft, wet, no odor, no staining, red fine sand. Soils consistent with UNDno. 36 37 FS5-37.0-37.5 5 38 -39 FS5-39.0-39.5 0.0 SM wet UNDno medium SAND, and fine gravel, (5YR 4/3) reddish brown, non plastic, soft, wet, no odor, no staining, red fine sand. Soils consistent with UNDno.

2012-09 RA PPG LOGS A.GDT - 10/18/16 10:53 bgs - below surface grade MM - meadow mat

COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: FS15** 

	Number:							NAD83) x: 611741.6
Date St	tarted Dril	ling:	3/27/2014	8:35:00 AM			Coordinates (NJSPN	IAD83) y: 683564.4
ate Fi	nished Dr	illing:	3/27/2014	1:00:00 PM		Core Size: 3 in	<b>Boring Total Depth:</b>	40 ft
.ogged	By: MI					Project Manager: Scott Mikaelian	Depth to Water: NA	<b>\</b>
hysica	al Locatio	n: For	rest Street	- FS15			Surface Elevation:	9.9 ft NAVD88
Depth Range It bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickne	SS:	Sample ID
		0.0		ASPHALT	~~~	ASPHALT		
$\dashv$		0.0	dry	FILL	₩₩	fine to medium SAND, some fine gravel, (1	0YR 3/2) verv	FS15-0.3-0.8
-1		0.0	dry	FILL	$\bowtie$	dark gravish brown, non plastic, loose, dry,		1
		0.0	dry	FILL		\\staining.	· //	
_		0.0			$\bowtie$	medium SAND, with ash, trace cinders, (10	OYR 4/2) dark	
-2	3.2				$\bowtie$	\grayish brown, non plastic, loose, dry, no o	dor, no staining.	FS15-2.0-2.5
-	3.2				$\bowtie$	fine to medium SAND, some gravel, (7.5YF		
-3					$\bowtie$	plastic, medium stiff, dry, no odor, no stain	ing.	
-				NR		NO RECOVERY		
-4								
-								
$_{\perp}$ $\neg$								
-5-		0.0	wet	FILL		fine SAND, (10YR 4/2) dark grayish brown	. non plastic, soft	FS15-5.0-5.5
-6 -7	3.5		ot	1 122		wet, no odor, no staining.	, 116.1 placeto, 667.	FS15-7.0-7.5
-	3.5	0.0	wet	FILL		fine to medium SAND, (5YR 4/3) reddish b	rown non plastic	-
-8-		0.0	WCI	''	$\bowtie$	soft, wet, no odor, no staining.	TOWIT, HOIT plastic,	FS15-8.0-8.5
_					$\bowtie$	· · · · · · · · · · · · · · · · · · ·		1 0 10 0.0 0.0
-9				NR		NO RECOVERY		
ا "								
$ egin{array}{cccccccccccccccccccccccccccccccccccc$								
-10		0.0	wet	FILL		fine to medium SAND, (5YR 4/3) reddish b	rown non plastic	FS15-10.0-10.5
$\dashv$					$\bowtie$	soft, wet, no odor, no staining.	. o , o piaotio,	
-11		0.0	4	CNA		· · · · · · · · · · · · · · · · · · ·	VD 4/2) == ddiab	FS15-11.0-11.5
-12 -13	3.6	0.0	wet	SM		UNDno medium SAND, with fine gravel, (5 brown, non plastic, wet, no odor, no stainin Soils consistent with UNDno.		
								FS15-13.0-13.5
				NR		NO RECOVERY		1
14—						THE TRESOVERY		
$\dashv$								
15		0.0	wot	CM	104000	LINDag modium CAND, with fine group! (F	VD 4/2) roddiob	FS15-15.0-15.5
4		0.0	wet	SM		UNDno medium SAND, with fine gravel, (5 brown, non plastic, wet, no odor, no stainin	red fine sand	
16-						Soils consistent with UNDno.	g, red fine sand.	
.		0.0	wet	SM		UNDno medium SAND, (5YR 4/3) reddish	brown, non	FS15-16.0-16.5
,, ]					:  :  :	plastic, soft, wet, no odor, no staining, red	fine sand. Soils	
17	3.7					consistent with UNDno.		
$\dashv$	3.1					·		
18					:   :   :   : 	1		FS15-18.0-18.5
$\dashv$								1 2 10 10.0 10.0
19				NR		NO RECOVERY		1
7								
20		0.0	wet	SM		UNDno medium SAND, (5YR 4/3) reddish	brown, non	FS15-20.0-20.5
$\dashv$		• •		5		plastic, soft, wet, no odor, no staining, red		
21-						consistent with UNDno.		
22						1		
-22	_	0.0	wet	SM		UNDno medium SAND, with fine gravel, (5	YR 4/3) reddish	FS15-22.0-22.5
$\dashv$	5					brown, non plastic, wet, no odor, no stainin		
-23						Soils consistent with UNDno.	-	
4						.]		
otes:								
s - bel	low surface			omite ore procen	essing re	sidue UNDno - non-organic undisturbed native dep UNDorg - organic undisturbed native deposi	oosits MGP - manu	ufactured gas plant comate chemical production w

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

**Boring ID: FS15** 

Page: 2

Surface Cover and Thickness:    Surface Cover and Thickness:	Duele	Mower 5	DC C-	ofiold A.v.			Duilling Company CCC North Associate		Page: 2
Date Started Drilling: 39/27/2014 835:00 AM Rig Type: Coordinates (NJSPNADDS3) y: 685/694.4 bits Finished Drilling: 39/27/2014 0000 PM Core Size: 3 in Soring Total Depth: 40 ft congeet Bry Milling: 39/27/2014 0000 PM Protect Manager. Sold Miladellan Depth to Water. NA Depth to Water. NA Depth to Water. NA Surface Elevation: 9 ft NAVD68 Surface Cover and Thickness: Sample ID Cover to the Size of Cover and Thickness: Sample ID Cover and Thickness ID Cover and Thickness ID Cover and Thickness ID Cover and Thickness ID Cover and Thickness ID Cover and Thickness ID Cover and Thickness ID Cover and Thickness ID Cover and Thickness ID Cover and Thickness ID Cover and Thickness ID Cover and Thickness ID Cover and Thickness ID Cover and Thickn								Casudinates (NICD	NA D02\ C44744 C
Part   Principal Location: Forces Street   FS15   Project Manager: Soolt Mikaelien   Depth to Water: NA					0.05.00 414				<u> </u>
Project Manager: Sold Mikaelian   Seph to Water: NA   Project Manager: Sold Mikaelian   Surface Elevation: 9   NAVD88									
Physical Location: Forcest Street, FS15   Surface Elevation: 9,9 ft NAVD88			illing:	3/27/2014	1:00:00 PM				
Pipe   Moisture   USCS   Graphic   Surface Cover and Thickness:   Sample   D							Project Manager: Scott Mikaelian		
Surface Cover and Thickness:    Surface Cover and Thickness:	Physic	al Locatio	n: For	rest Street	- FS15			Surface Elevation:	9.9 ft NAVD88
UNDno medium SAND, come fine gravet, (SYR 4/3) roddeh brown no repassible, spirit, well no oddr, no staining, red fine spirit, spirit, spirit, spirit, well no oddr, no staining, red fine spirit, spirit, spirit, spirit, well no oddr, no staining, red fine spirit, spirit, spirit, spirit, well no oddr, no staining, red fine spirit, spi	Depth Range (ft bgs)				USCS		Surface Cover and Thickne	ess:	
26									FS15-24.0-24.5
27	—25 — –		0.0	wet	SM				_
soft, slightly moist, no odor, no staining, red fine sand. Soils consistent with UNDno.    Soil	<del>26 -</del> 						sand. Soils consistent with UNDno.		FS15-26.0-26.5
29 - 0.0 slightly moist soft, slightly moist, no odor, no staining, red fine sand. Solls consistent with UNDno.  30 - 0.0 wet SM UNDno medium SAND, some fine gravel, (5YR 4/3) reddish brown, non plastic, soft, slightly moist, no odor, no staining, red fine sand. Solls consistent with UNDno.  30 - 0.0 moist SM UNDno medium SAND, some medium to coarse gravel, (6YR 4/3) reddish brown, non plastic, medium stiff, moist no odor, no staining. Solls consistent with UNDno.  30 - 0.0 wet SM UNDno fine to medium SAND, some medium to coarse gravel, (6YR 4/3) reddish brown, non plastic, medium stiff, moist no odor, no staining. Solls consistent with UNDno.  30 - 0.0 moist SM SM Solls consistent with UNDno.  30 - 0.0 slightly SM moist no odor, no staining, cer fine sand.  30 - 0.0 slightly SM UNDno medium SAND, some fine gravel, (5YR 4/3) reddish brown, non plastic, soft moist, no odor, no staining, cer fine sand.  30 - 0.0 wet SM UNDno medium SAND, some slit, (5YR 4/3) reddish brown, non plastic, soft moist. No odor, no staining, solls consistent with UNDno.  30 - 0.0 wet SM UNDno medium SAND, some slit, (5YR 4/3) reddish brown, non plastic, medium stiff, wet, no odor, no staining.  30 - 0.0 wet SM UNDno fine to medium SAND, some slit, (5YR 4/3) reddish brown, non plastic, medium stiff, wet, no odor, no staining.  30 - 0.0 wet SM UNDno fine to medium SAND, some slit, (5YR 4/3) reddish brown, non plastic, medium stiff, wet, no odor, no staining.  30 - 0.0 wet SM UNDno fine to medium SAND, some slit, (5YR 4/3) reddish brown, non plastic, medium stiff, wet, no odor, no staining.  30 - 0.0 wet SM UNDno fine to medium SAND, some slit, (5YR 4/3) reddish brown, non plastic, medium stiff, wet, no odor, no staining.  30 - 0.0 wet SM UNDno fine to medium SAND, some slit, (5YR 4/3) reddish brown, non plastic, medium stiff, wet, no odor, no staining.  30 - 0.0 wet SM UNDno fine to medium SAND, some slit, (5YR 4/3) reddish brown, non plastic, medium stiff, wet, no odor, no staining.  30 - 0.0 wet SM UNDno fine to medium SAND, some slit,		5	0.0		SM		soft, slightly moist, no odor, no staining, re		
Output SMD (SYR 4/3) reddish brown, non plastic, soft, sightly most, no odor, no staining, red fine sand. Soils consistent with UNDno.  Output SMD UNDno fine to medium SAND, some medium to coarse gravel, (SYR 4/3) reddish brown, non plastic, soft, wel, no odor, no staining. Soils consistent with UNDno.  Output SMD UNDno fine to medium SAND, some medium to coarse gravel, (SYR 4/3) reddish brown, non plastic, medium stiff, most, no odor, red staining, Soils consistent with UNDno.  Output SMD UNDno fine to medium SAND, some fine gravel, (SYR 4/3) reddish brown, non plastic, soft, well, no odor, no staining, soils consistent with UNDno.  UNDno fine to medium SAND, some fine gravel, (SYR 4/3) reddish brown, non plastic, soft, most, no odor, no staining, red fine sand.  Output SMD Individual SMD	 <del>- 29 -</del> 								FS15-28.0-28.5
brown, non plastic, soft, wet, no odor, no staining. Soils  33  34  30  0.0 moist SM UNDno fine to medium SAND, some medium to coarse gravel. (SYR 4/3) reddish brown, non plastic, medium stiff, moist, no odor, no staining, Soils consistent with UNDno.  35  0.0 wet SM UNDno fine to medium SAND, (SYR 4/3) reddish brown, non plastic, medium stiff, moist, no odor, no staining, Soils consistent with UNDno.  UNDno fine to medium SAND, (SYR 4/3) reddish brown, non plastic, soft, wet, no odor, no staining, Soils consistent with UNDno.  UNDno fine to medium SAND, some fine gravel, (SYR 4/3) reddish brown, non plastic, soft, moist, no odor, no staining, soft moist no odor, no staining, soft moist no odor, no staining, soils consistent with UNDno.  UNDno fine to medium SAND, some silt, (SYR 4/3) reddish brown, non plastic, medium stiff, wet, no odor, no staining, soils consistent with UNDno.  UNDno fine to medium SAND, some silt, (SYR 4/3) reddish brown, non plastic, medium stiff, wet, no odor, no staining, soils consistent with UNDno.  Soils consistent with UNDno.  FS15-38.0-36.5					SM		soft, slightly moist, no odor, no staining, re		FS15-30.0-30.5
gravel, (SYR 4/3) reddish brown, non plastic, medium stiff, moist, no odor, no staining, Soils consistent with UNDno.  35		5	0.0	wet	SM		brown, non plastic, soft, wet, no odor, no s		FS15-32.0-32.5
35	 34		0.0	moist	SM		gravel, (5YR 4/3) reddish brown, non plas	tic, medium stiff,	FS15-34.0-34.5
UNDno fine to medium SAND, some fine gravel, (5YR 4/3) reddish brown, non plastic, soft under the fine sand. Soils consistent with UNDno.  UNDno medium SAND, some silt, (5YR 4/3) reddish brown, non plastic, end time stiff, slightly moist, no odor, no staining.  Soils consistent with UNDno.  UNDno fine to medium SAND, some silt, (5YR 4/3) reddish brown, non plastic, medium stiff, slightly moist, no odor, no staining.  FS15-38.0-38.5	 35 -						UNDno fine to medium SAND, (5YR 4/3)	reddish brown,	
UNDno medium SAND, some silt, (5YR 4/3) reddish brown, non plastic, medium stiff, slightly moist, no odor, no staining.   FS15-38.0-38.5	 - 36 - 		0.0	-P-l-th	OM		UNDno fine to medium SAND, some fine reddish brown, non plastic, soft, moist, no	odor, no staining,	FS15-36.0-36.5
lotes: gs - below surface grade ggs - below surface grade Mr - meadow mat  COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits UNDno - non-organic undisturbed native deposits GGM - green grey mud  UNDno - non-organic undisturbed native deposits CCPW - chromate chemical production waste		. 5	0.0	, , ,	SIVI		UNDno medium SAND, some silt, (5YR 4 non plastic, medium stiff, slightly moist, no	/3) reddish brown,	
brown, non plastic, medium stiff, wet, no odor, no staining.  Soils consistent with UNDno.  Iotes:  gs - below surface grade gs - below surface grade GGM- green grey mud  UNDno - non-organic undisturbed native deposits UNDnog - organic undisturbed native deposits CCPW - chromate chemical production waster	<del>38</del>						Solis consistent with ondrio.		FS15-38.0-38.5
Iotes:  So - below surface grade GGM - green grey mud  COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits  MGP - manufactured gas plant CCPW - chromate chemical production waste			0.0	wet	SM		brown, non plastic, medium stiff, wet, no o		
gs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste	<del>4</del> 0 <del></del>						Colls consistent with orderio.		
gs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste									
gs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste									
gs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste									
gs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste									
gs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste	Notes:								
	bgs - be MM - me	eadow mat				essing r			

PPG - 2012-09 RA PPG\_LOGS\_A.GDT - 11/30/16 23:34

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: FS16** 

Project Project	Number:	60240	739		I	Drilling Method: Geoprobe	Coordinates (NJSPI	NAD83) x: 611707.6
			1/2/2014 9:	MA 00:00		Rig Type:	Coordinates (NJSPN	
				11:20:00 AM		Core Size: 3 in	Boring Total Depth:	
	By: MI	iiiiig.	4/2/2014	11.20.00 AW		Project Manager: Scott Mikaelian	Depth to Water: NA	
		n. For	rest Street	EC16		Project Manager. Scott Mikaelian		
riysica	ai Locatio	n: FOI	rest Street	- F310	1		Surface Elevation:	10.11LINAVD66
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thic	kness:	Sample ID
		0.0		ASPHALT		ASPHALT	_	5040.000
-		0.0	dry	FILL	$\bowtie$	medium SAND, some medium to coars	e gravel, (7.5YR 4/1)	FS16-0.3-0.8
-1		0.0	dry	FILL		dark gray, non plastic, loose, dry, no od		FS16-1.0-1.5
		0.0	dry	FILL	₩₩	BRICK, some trace fine sand, (2.5YR 3	/6) dark red, non /	
_2			,		$\bowtie$	\plastic, loose, dry, no odor, no staining.		
-3-	4	29.0	dry	FILL		fine to medium SAND, with medium gray gray, non plastic, loose, dry, no odor, no fine to medium SAND, some fine to me	staining. dium gravel, (7.5YR	
ا ۲					$\bowtie$	2.5/1) black, non plastic, medium stiff,	dry, strong	FS16-3.0-3.5
		29.0	slightly	FILL		hydrocarbon odor, hydrocarbon staining		1
-4			moist		$\sim$	medium to coarse SAND, some fine to		1
_				NR		(2.5YR 3/1) dark reddish gray, non plas	tic, loose, slightly	
-5-					L	moist, strong hydrocarbon odor, hydroc	arbon staining, MGP $/$ $_{-}$	
٦		29.0	wet	FILL	$\bowtie$	\like material.		FS16-5.0-5.5
-6-						\NO RECOVERY fine to medium SAND, with fine to med 2.5/1) black, non plastic, loose, wet, str	ong hydrocarbon	
_		0.0	dry	FILL	$\bowtie$	odor, hydrocarbon staining, MGP like m	aterial.	
-7	0.5		,		$\bowtie$	fine to medium silty SAND, trace fine gi		FS16-7.0-7.5
-	2.5			NR	<b>/</b>	dark gray, non plastic, soft, dry, no odor	r, no staining.	1
-8-				INK		NO RECOVERY		
-9-								
-10		0.0	moist	FILL		fine to medium silty SAND, (10YR 4/3)	brown non plastic	FS16-10.0-10.5
-11 -		0.0	moist	T ILL		soft, moist, no odor, no staining.	orown, non plastic,	
-12		0.0			$\bowtie$	" OAND " (40) (7 - 40)		FS16-12.0-12.5
_ -13	5	0.0	slightly moist	FILL		medium SAND, some silt, (10YR 5/6) y plastic, soft, slightly moist, no odor, no	staining.	1 3 10-12.0-12.3
. ]		0.0	slightly	SM		fine to medium SAND, some fine to me		
			moist		:: :: ::	3/4) dark reddish brown, non plastic, lo		
-14						odor, no staining, red fine sand. Soils o	onsistent with	FS16-14.0-14.5
-						: UNDno.		
-15								5040.45.0.45.5
-16 — -16 —		0.0	dry	SM		fine to medium SAND, some fine to me 4/3) reddish brown, non plastic, loose, o staining, red fine sand. Soils consistent	dry, no odor, no	FS16-15.0-15.5
-17					:: :: :	.1		FS16-17.0-17.5
4	4.5					`{		101017.0-17.0
-18						.}		
10					[:: :: :	:1		
$\neg$					:   :   :	1		
19—						:{		FS16-19.0-19.5
$\dashv$				NID.	-:1::[-	NO DECOVERY		-
20				NR		NO RECOVERY		4
		0.0	dry	SM		fine to medium SAND, some fine to me		
੍ਰ, $ eg $					:: :: ::	4/3) reddish brown, non plastic, loose, o		
-21						staining, red fine sand. Soils consistent	with UNDno.	FS16-21.0-21.5
$\dashv$					:: :: :	4		
-22						.}		
	4					:1		
_ 7	'				:   :   :	1		
-23 - -								FS16-23.0-23.5
otes:	low surface	arada	COPP ohr	omite ore proc	accina r	esidue UNDno - non-organic undisturbed native	denosite MCD mon	ufactured gas plant
43 - NGI					cooning It	UNDorg - organic undisturbed native dep	uchosite CCDM epi	romate chemical production w
	eadow mat		GGIVI - dree	n grey mud		UNDOIG - Organic undisturbed native det	OSIIS CCPW - CIII	omate chemical production w

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: FS16** 

Project	t Number:	60240	1730			Drilling Method: Geoprobe	Coordinates (NJSP	NAD83) v. 611707 6
				00.00 414				
			4/2/2014 9:0			Rig Type:		NAD83) y: 683608.3
		IIIIng:	4/2/2014 1	11:20:00 AM		Core Size: 3 in	Boring Total Depth:	
	d By: MI			=0.15		Project Manager: Scott Mikaelian	Depth to Water: N	
Physic	al Locatio	n: For	rest Street	- FS16	1	<u> </u>	Surface Elevation:	10.1 ft NAVD88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thio	ckness:	Sample ID
				NR		NO RECOVERY		
-25 - 26 - 		0.0	dry	SM		fine to medium SAND, some coarse gr reddish brown, non plastic, loose, dry, red fine sand. Soils consistent with UN	no odor, no staining,	FS16-25.0-25.5
-27 - 28 - 29	3			NR		NO RECOVERY		F\$16-27.0-27.5
30 — 30 — 31—		0.0	dry	SM		fine SAND, some silt, some fine gravel brown, non plastic, loose, dry, no odor, sand. Soils consistent with UNDno.	, (5YR 4/3) reddish no staining, red fine	FS16-30.0-30.5
-32 -33 - -34	5							FS16-32.0-32.5
- -35		0.0						FS16-34.0-34.5
- -36		0.0	dry	SM		fine SAND, some silt, some fine gravel brown, non plastic, loose, dry, no odor, sand. Soils consistent with UNDno.	, (5YR 4/3) reddish no staining, red fine	FS16-35.0-35.5
	. 1			NR		NO RECOVERY, refusal at 36 feet.		
.5								
<b>Notes:</b> ogs - bel MM - me	low surface	grade	COPR - chro	omite ore proc n grey mud	essing re	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native de	e deposits MGP - man posits CCPW - ch	ufactured gas plant romate chemical production wa

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

**Boring ID: FS16A** 

Page: 1

	Name: F					Drilling Company: SGS North America Drilling Method: Geoprobe	Coordinates (NJSPN	AD83) x 611724 3
				3:00:00 AM		Rig Type:	Coordinates (NJSPN	
						Core Size: 2 in		
			0/19/2015	3:00:00 PM		Core Size: 2 in Proiect Manager: Scott Mikaelian	Boring Total Depth:	
	By: EW		rest Street	_EQ16A		rioject inanager. Scott ivilkaelian	Depth to Water: NA Surface Elevation:	
	ai LUCALIO	ii. FU	1621 21166[	-1 3 10A			Surface Elevation:	IU IL INAVDOO
oth ige gs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and T	hickness:	Sample ID
		0.0		ASPHALT		ASPHALT.		
1— - 2—		45.0 dry FILL				fine SAND, with tar-like material som black, dry to slightly moist, strong tar of		
- 3 1	4	23.0 Moist Fill			fine to medium SAND,with ash and dark grayish brown,moist,slight tar-lii			
<u> </u>				NR		NO RECOVERY.		
5— — 6—		28.0	moist	FILL		fine to medium SAND,with ash and dark grayish brown,moist, slight tar-l	ike odor,no staining.	
J _		85.0	wet	FILL		ASH,little fine sand, (7.5YR 4/1) dar	k gray,wet, strong	
7— - 8—	3.9	4.2	moist	FILL		\petroleum-like odor,sheen. fine SAND,trace silt,(7.5YR 4/1) darl odor,slight sheen.		
_		5.3	moist	FILL		fine SAND,trace silt,(10YR 5/2) gray napthalene-like odor,slight sheen.	rish brown,moist,slight	
9— -				NR		NO RECOVERY.		
10 <u> </u>		5.5	moist	FILL		fine SAND,trace silt,(10YR 5/2) gray napthalene-like odor,slight sheen.	rish brown,moist,slight	
11— - 12— - 13—	5	0.0	slightly moist	SM		UNDno fine SAND,some silt,(5YR 5, moist,no odor,no staining. Soils cons		
14—		0.0	moist	SM		UNDno medium to coarse SAND,tra gravel,(5YR 4/3) reddish brown,mois		
15— 16— 17— 17— 18—	4	0.0	moist	SM		Soils consistent with UNDno. UNDno medium to coarse SAND,wit gravel,(5YR 4/3) reddish brown,mois staining.Soils consistent with UNDno	st,no odor,no	
19 <del></del>		0.0		NR		NO RECOVERY.		
21— - 21— - 22—	4	0.0	moist	SM		UNDno medium to coarse SAND, wi gravel, (5YR 4/3) reddish brown, mo Soils consistent with UNDno.		
23 <del></del> -		0.0	dry	SM		UNDno fine SAND,with silt,(5YR 4/3 odor,no staining. Soils consistent with		

PPG - 2012-09 RA PPG\_LOGS\_A.GDT - 12/1/16 00:52

COPR - chromite ore processing residue GGM - green grey mud UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits bgs - below surface grade MM - meadow mat

MGP - manufactured gas plant CCPW - chromate chemical production waste

PPG - 2012-09 RA PPG\_LOGS\_A.GDT - 12/1/16 00:52

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: FS16A** 

	132.304.32					1	[	Page: 2
	t Name: F					Drilling Company: SGS North America	0 " 4 (1100)	NA DOD.
	t Number:			0.00.00 414		Drilling Method: Geoprobe		NAD83) x: 611724.3
				8:00:00 AM		Rig Type:	Coordinates (NJSPN	
			6/19/2018	5 3:00:00 PM		Core Size: 2 in	Boring Total Depth:	
	d By: EW al Locatio		roct Stroot	EQ16A		Project Manager: Scott Mikaelian	Depth to Water: NA Surface Elevation:	
	ai Lucatio	11. 10	lest Street	-1-310A			Surface Elevation.	TO IT NAVDOS
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graph Log		ess:	Sample ID
				NR		NO RECOVERY.		
2526272829	5	0.0	dry	SM		UNDno fine SAND,with silt,(5YR 4/3) red odor,no staining. Soils consistent with UN		
30				NR	<u> 1911</u>	NO RECOVERY.		
35 36 37 38 38 39 39	5	0.0	wet	SM		UNDno fine to medium SAND, trace fine (5YR 4/3) reddish brown, wet, no odor no Soils consistent with UNDno.	gravel trace silt, staining, UNDno.	FS16A-36.0-36.5 FS16A-38.0-38.5
40 41 42 43 44	6	0.0	wet	SM		UNDno fine to medium SAND,trace silt,(5 brown,wet,no odor,no staining. Soils cons		FS16A-42.0-42.5
— 45 — 45 — — 46								FS16A-44.0-44.5 FS16A-45.5-46.0
MM - me	eadow mat		GGM - gree	n grey mud		residue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos	eposits MGP - mani sits CCPW - chi	ufactured gas plant romate chemical production waste

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Boring ID: FS17

	tarted Drill							IAD83) y: 683634.5
		illing:	3/31/2014	1:30:00 PM	(		otal Depth:	_40 ft
	d By: MI			====	F	Project Manager: Scott Mikaelian Depth to		40.0 % 141 / 1700
hysic	al Locatio	<b>n:</b> For	rest Street	: - FS17	1	Surface E	levation:	10.2 ft NAVD88
Depth lange t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:		Sample ID
		0.0		ASPHALT	~~~~			FS17-0.3-0.8
_		0.0	dry	FILL		medium to coarse SAND, some gravel, some ash, — 4/2) dark reddish gray, non plastic, loose, dry, no c		F317-0.3-0.6
-1		0.0	dry	FILL		no staining, trace COPR nodules.	Juoi, /_	FS17-1.0-1.5
-		15.0	dry	FILL	$\bowtie$	ASH, (10YR 3/1) very dark gray, non plastic, loose	e, dry,	
-2-		29.0		- FILL		no odor, no staining.		_
-3- <del></del>	3.5	29.0	moist	FILL		ASH, cinders, trace medium to coarse gravel, (10\ very dark gray, (5Y 3/1) very dark gray, non plastic loose, dry, slight hydrocarbon odor, no staining. medium to coarse GRAVEL, USCS_700, (7.5YR 2	;,	FS17-3.0-3.5
-4- <del></del>				NR		black, non plastic, medium stiff, moist, strong hydrocarbon odor, hydrocarbon staining, MGP. NO RECOVERY		
-5 -6 -		29.0	moist	FILL		fine SAND, some fine gravel, (7.5YR 2.5/1) black, plastic, medium stiff, moist, strong hydrocarbon ochydrocarbon staining, MGP like material.		FS17-5.0-5.5
-7-	2.5							FS17-7.0-7.5
-	2.5			NR		NO RECOVERY		-
-8 -9 -								
-10		0.0	wet	FILL		fine silty SAND, (10YR 7/3) very pale brown, low		FS17-10.0-10.5
 -11 - -12						plasticity, soft, wet, no odor, no staining.		FS17-12.0-12.5
-	5	0.0	oliab#h.	CM	$\bowtie$	LINDno fine CAND with fine ground (EVD 4/4) and	dioh	-
13		0.0	slightly moist	SM SM		UNDno fine SAND, with fine gravel, (5YR 4/4) redo brown, non plastic, soft, slightly moist, no odor, no		-
_		0.0	slightly	SIVI		staining, some red fine sand. Soils consistent with		
1,			moist			\UNDno.	/	
14						UNDno fine to medium SAND, trace fine gravel, (5		FS17-14.0-14.5
_						4/3) reddish brown, non plastic, soft, slightly moist odor, no staining, red fine sand. Soils consistent w		
15		0.0	dry	SM		UNDno.		-
$\dashv$			"',	J.111		UNDno fine to medium SAND, some medium to co		
16						gravel, (5YR 4/3) reddish brown, non plastic, medi		FS17-16.0-16.5
_						stiff, dry, no odor, no staining, red fine sands. Soils consistent with UNDno.	•	1 017-10.0-10.3
17		0.0		014			5\/D	-
''	3.5	0.0	dry	SM		UNDno fine to medium SAND, some fine gravel, (44/3) reddish brown, non plastic, loose, dry, no odo		
, 7						staining, red fine sands. Soils consistent with UND	no.	
18						G,		FS17-18.0-18.5
$\dashv$				NR	1.11.11.1	NO RECOVERY		1
19								
-								
20		0.0	المالم المال	CN/	্র্যান্ত্রনার ব্যাহনার	fine to modium CAND with medition to see	, ol	FS17-20.0-20.5
_ 21—		0.0	slightly moist	SM		fine to medium SAND, with medium to coarse grave trace ceramics, (5YR 4/3) reddish brown, non plas loose, slightly moist, no odor, no staining, red fine Salls consistent with UNDno.	tic,	FS17-21.0-21.5
$\dashv$				NR		Soils consistent with UNDno.  NO RECOVERY		-
otes:								1
	ow surface o	ırada	CODD obr	mite ore proce	!	due UNDno - non-organic undisturbed native deposits	MGP - mani	ıfactured gas plant

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Boring ID: FS17

Project Date St Date Fi	Number: arted Drill nished Dr	6024 ing: 3	3/31/2014	10:00:00 AM 1:30:00 PM	1	Drilling Company: SGS North America Drilling Method: Geoprobe Rig Type: Core Size: 3 in	Coordinates (NJSPI Boring Total Depth:	PNAD83) x: 611680.8 NAD83) y: 683634.5 : 40 ft
	By: MI	n: Fo	rrest Street	· EQ17		Project Manager: Scott Mikaelian	Depth to Water: Surface Elevation:	10.2 ft NAV/D88
	Recovery		Moisture	USCS	Graphi Log	C Surface Cover and Thick		Sample ID
23	1.5							
-25 - -26 -		0.0	wet	SM		medium SAND, trace very fine gravel, brown, non plastic, soft to loose, wet, staining, red fine sands. Soils consiste	no odor, no	FS17-25.0-25.5
-27 - -28 - -29	5							FS17-27.0-27.5
								FS17-29.0-29.5
-30 — -31— -		0.0	wet	SM		medium SAND, trace silt, (5YR 4/3) re plastic, soft to loose, wet, no odor, no sands. Soils consistent with UNDno.		FS17-30.0-30.5
-32 <u>-</u> -	3							FS17-32.0-32.5
-33 <u> </u>				NR		NO RECOVERY		_
35		0.0	dry	SM		UNDno fine to medium SAND, some f	ine gravel (5VP	FS17-35.0-35.5
-36 - -		0.0	diy	SIVI		4/3) reddish brown, non plastic, loose, staining, red fine sands. Soils consiste	dry, no odor, no	
-37 -	5							FS17-37.0-37.5
-38 - - -39 -		0.0	dry	SM		UNDno fine to medium SAND, and silt brown, non plastic, loose, dry, no odor fine sands. Soils consistent with UNDr	, no staining, red	FS17-39.0-39.5
40								1 011-05.0-05.0
	ow surface g	grade		omite ore proce	essing res	sidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos		ufactured gas plant
omments:			GGM - gree	r grey muu		onvoorg - organic unuisturbed native depos	oito CCPVV - CNI	romate chemical production was

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: FS23** 

roject	t Name: _  t Number:					Drilling Company: Drilling Method: Geoprobe Coor	dinates (NJSPI	NAD83) x: 611840
				8:50:00 AM				AD83) y: 683526.3
				5 2:30:00 PM			ng Total Depth:	
			1/11/201	3 2.30.00 FIVE				
	d By: EW		+ O1 ·	F000			h to Water: NA	
nysic	al Location	n: For	rest Street	- FS23	1	Surfa	ace Elevation:	11.3 π NAVD88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:		Sample ID
		0.0		CONCRETE		CONCRETE,no staining.		5000.00
$\dashv$	1	0.0	slightly	FILL	<b>1</b>	medium SAND, with coal and cinders, (5YR 2.5/	1)	FS23-0.3-0.8
-1	1	0.0	moist	FILL		black,slightly moist,no odor,no staining.	<i>'</i>	
		0.0	slightly	FILL	Ⅸ──	medium SAND,trace fine gravel,(5YR 3/4) dark i	reddish /_	
			moist	FILL	₩₩	\brown,slightly moist,no odor,no staining.	//	
-2	1	0.0	slightly		$\bowtie$	fine SAND,trace silt, (10YR 3/1)very dark gray,s	lightly	FS23-2.0-2.5
$\dashv$	3.5		moist			moist,no odor,no staining.	, ,	
			moist			medium SAND, with silt, (10YR 5/2) grayish brov	vn.moist.no	
3					$\bowtie$	odor,no staining.	,,	FS23-3.0-3.5
$\dashv$	1	0.0		NR		NO RECOVERY.		1
-4	4	0.0		INIX		NO RECOVERT.		
.								
٦								
-5-		0.0	moist	FILL		medium SAND,with silt,(10YR 5/2) grayish brow	n moiet no	FS23-5.0-5.5
-6 -		0.0	moist	FILL		odor,no staining.	H,MOIST,NO	. 525 5,5 5,5
-/-	1 _							FS23-7.0-7.5
$\dashv$	5	0.0	wet	SM		UNDno medium SAND, with medium gravel, (5YF	2 4/2)	1
-8	1	0.0	wet	Sivi		reddish brown, wet,no odor,no staining. Soils co		
						UNDno.	ISISTELLI WILLI	
$\neg$						UNDIIO.		
-9	1							FS23-9.0-9.5
	4					1		1 320 3.0-3.3
10						1		
-10		0.0	wet	SM		UNDno medium to coarse SAND,(5YR 4/3) redo	lish	FS23-10.0-10.5
$\dashv$	-		Wet	Oivi		brown, wet, no odor, no staining. Soils consistent		
-11					1: 1: 1::	brown, wet, no odor, no stairing. Sons consistent	viai Olabilo.	
''								
$\dashv$	1					4		
-12	-					1		FS23-12.0-12.5
	2.5							1 020-12.0-12.0
		0.0		NR		NO RECOVERY.		
-13								
$\dashv$	1							
-14	1							
''								
$\dashv$	1							
15		0.0	4	014		LIND	Pala la servicia	FS23-15.0-15.5
	4	0.0	wet	SM	[::]:: ::	UNDno medium to coarse SAND,(5YR 4/3) redo	IIDDO	. 525 .5.5 10.0
10						wet,no odor,no staining. Soils consistent with UN	4D110.	
16-					医抗脓	1		
$\dashv$	1					1		
-17	4			[		1		F000 47.0 47.5
	3.5			[	[::]::\*	1		FS23-17.0-17.5
$\neg$	]			[	-   -   -	1		
-18	†					1		FS23-18.0-18.5
4	4	L		l		10.05001/50:		1
_10	]	0.0		NR		NO RECOVERY.		
19-								
$\dashv$	1							
20		-						F000 00 0 00 5
		0.0	wet	SM	:   :   :   :   :   :   :   :   :   :	UNDno medium SAND, (5YR 4/3) reddish brown	ı,wet,no	FS23-20.0-20.5
				[	:: :: ::	odor no staining. Soils consistent with UNDno.		
	†			[	1:1:1:	1		
21-				[		]		
21-	1				1:4:1:	]		
-			1			1		FS23-22.0-22.5
-21 - -22	<u> </u>			t contract of the contract of	1: 4: 1:	1		
-	5				1. 1			
_ <del>-22 _</del> _	5							
-	5							
_ -22 -	5							
-22 - -23 -	5							
		arado	COPP ch	romite ore proc	assing r	sidue. LINDno - non-organic undisturbed native descrite	MGP many	ifactured gas plant
				romite ore procen grey mud	essing re	sidue UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits	MGP - manu CCPW - chr	ufactured gas plant omate chemical production w

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Boring ID: FS23

	t Name: F t Number:					Orilling Company: Orilling Method: Geoprobe	Coordinates (NJSP	NΔD83) v· 611840
				3:50:00 AM		Rig Type:		NAD83) y: 683526.3
				2:30:00 AW		Core Size: 3.0 in	Boring Total Depth:	
	d <b>By</b> : EW		111112013	2.30.00 FIVI		Project Manager: Scott Mikaelian	Depth to Water: N	
			rest Street	- FS23		Tojout manager. Ocott Minacilan	Surface Elevation:	
_		101	. 551 511 661	. 0_0			Carraco Elevationi	
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Th	ickness:	Sample ID
								FS23-24.0-24.5
-25		0.0	wet	SM		UNDno medium SAND, (5YR 4/3) red	ddish brown wet no	
				<b>5</b>		odor no staining. Soils consistent with	u UNDno.	
_								FS23-26.0-26.5
-27 -	5							
28								FS23-28.0-28.5
_								
-30 <u> </u>		0.0	wet	SM		UNDno medium SAND, (5YR 4/3) recodor, no staining. Soils consistent with	ddish brown,wet,no	FS23-30.0-30.5
-31						Journal Staining. Sons Consistent Will	I GINDIIU.	
-32 								FS23-32.0-32.5
_	5							1 323-32.0-32.3
<del>-33 -</del> -								
-34								FS23-34.0-34.5
35		0.0	) Mot	SM		LINDno modium CAND /5VD 4/2\	ddiab brown wat so	_
		0.0	wet	SIVI		UNDno medium SAND, (5YR 4/3) red odor,no staining. Soils consistent with	i UNDno.	
-36 <u> </u>								FS23-36.0-36.5
<del>-</del> 37	5							
-38								FS23-38.0-38.5
_								FS23-39.5-40.0
40					11-11-11-11-11-11-11-11-11-11-11-11-11-	I		
lotes:								
as - bel	low surface eadow mat	grade	COPR - chro	omite ore prod n grey mud	essing re	sidue UNDno - non-organic undisturbed native dundorg - organic undisturbed native d	ve deposits MGP - man leposits CCPW - ch	ufactured gas plant iromate chemical production wa
					no= 'Undisturbe	ed native deposits, Non-Organic'.		

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring	ID:	FS1	<b>P2</b>
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Page: 1

Project	t Namo: E	DDC Co	orfiold Avo			Drilling Company: ENTACT		Page: 1	
Project Name: PPG Garfield Ave Project Number: 60240739								NAD83) x: 611782.751586	
Date Started Drilling: 3/5/2014 9:30:00 AM								NAD83) y: 683570.674301	
Date Finished Drilling: 3/5/2014 2:30:00 PM Core Size: Boring Total Depth									
Logged By: EW Project Manager: Scott Mikaelian Depth to Water: NA									
	al Locatio		rest Street	- FSTP2			Surface Elevation:		
_									
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID	
	0.3	0.0		ASPHALT		ASPHALT			
1	4.7	0.0	dry to moist	FILL		gray, dry to moist, no odor, no staining. F	um to coarse GRAVEL, little sand, (7.5YR 4/1) dark dry to moist, no odor, no staining. FSTP2 comprised ly of quarry process stone. No visible CCPW/green ing.		
								FSTP2-4.3-4.8 (Water Line)	
								(Water Ellie)	
Notes:								ufactured gas plant	
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant COPW - chromate chemical production waste									

PPG - 2012-09 RA PPG\_LOGS\_A.GDT - 12/2/16 09:27

**Boring ID: FSTP3** 

Page: 1 Project Name: PPG Garfield Ave Drilling Company: ENTACT Project Number: 60240739

Date Started Drilling: 3/6/2014 10:18:00 AM Coordinates (NJSPNAD83) x: 611769.573669 Coordinates (NJSPNAD83) v: 683584 160905 Drilling Method:

: 3/6/2014 3:20:00 PM  orrest Street - FSTP3  Moisture Content USCS Graph Log  dry to FILL moist	Core Size: Project Manager: Scott Mikaelian  Surface Cover and Thicknet  ASPHALT fine to medium GRAVEL, little sand, (7.5Y gray, dry to moist, no odor, no staining, FS mostly of quarry process stone. No visible staining.	(R 3/1) very dark	A
Moisture Content USCS Graph Log  ASPHALT dry to FILL	ASPHALT fine to medium GRAVEL, little sand, (7.5) gray, dry to moist, no odor, no staining, FS mostly of quarry process stone. No visible	ess:  (R 3/1) very dark ETP3 comprised	10.2 ft NAVD88 Sample
Moisture Content USCS Graph Log  ASPHALT dry to FILL	ASPHALT fine to medium GRAVEL, little sand, (7.5) gray, dry to moist, no odor, no staining, FS mostly of quarry process stone. No visible	ess:  (R 3/1) very dark  STP3 comprised	Sample
Content USCS Log  ASPHALT  dry FILL to	ASPHALT fine to medium GRAVEL, little sand, (7.5) gray, dry to moist, no odor, no staining, FS mostly of quarry process stone. No visible	(R 3/1) very dark	
dry FILL to	fine to medium GRAVEL, little sand, (7.5) gray, dry to moist, no odor, no staining, FS mostly of quarry process stone. No visible	STP3 comprised	
to	gray, dry to moist, no odor, no staining, FS mostly of quarry process stone. No visible	STP3 comprised	
			FSTP3-4.6-5.1 (Water Line)
			FSTP3-6.8-7.3 (Sewer Line)

## **Boring ID: NFS-PDI-DD11B**

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611828.7 Date Started Drilling: 9/9/2016 10:30:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683539.8 Date Finished Drilling: 9/9/2016 11:30:00 AM Core Size: 3.0 in Boring Total Depth: 21 ft Logged By: ES Depth to Water: 3.5 Project Manager: Scott Mikaelian Physical Location: Actual - Forrest St Properties - PDI Surface Elevation: 11.01 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range (ft/ft) Content ΙĎ (ppm) Log (ft bgs) 0.0 CONCRETE Concrete and gravel sub-base, no staining. NFS-PDI-DD11B-1.0-1.5 dry FILL CINDERS, (5YR 2.5/1) black, loose, dry, no odor, no FILL moist fine silty SAND, trace ash, (7.5YR 4/3) brown, moist to wet, to no odor, no staining, water at 3.5 feet. wet NFS-PDI-DD11B-3.0-3.5 NO RECOVERY NR NFS-PDI-DD11B-5.0-5.5 0.0 wet **FILL** fine silty SAND, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining. FILL fine silty SAND, little coarse gravel, (5YR 4/3) reddish wet brown, medium dense, wet, no odor. NFS-PDI-DD11B-7.0-7.5 5 NFS-PDI-DD11B-9.0-9.5 NFS-PDI-DD11B-9.5-10.0 SP fine to medium SAND, trace silt, (5YR 4/4) reddish brown, wet medium dense, wet, no odor, no staining. Soils consistent NFS-PDI-DD11B-10.0-10.5 0.0 with UNDno. NFS-PDI-DD11B-11.0-11.5 12 5 13 NFS-PDI-DD11B-13.0-13.5 NFS-PDI-DD11B-15.0-15.5 0.0 SP fine to coarse SAND, trace fine to medium gravel, (5YR 4/4) wet reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno. 16 NFS-PDI-DD11B-17.0-17.5 5 19 NFS-PDI-DD11B-19.0-19.5 NFS-PDI-DD11B-20.0-20.5 0.0 1 -21

Notes

A.GDT - 12/7/16 23:

2012-09 RA PPG LOGS

bgs - below surface grade bgs - below surface grade GGM - green grey mud UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

## **Boring ID: NFS-PDI-V12B**

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611637.5 Date Started Drilling: 8/30/2016 7:30:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683687.2 Date Finished Drilling: 8/30/2016 9:00:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft Logged By: Eric Stone Project Manager: Scott Mikaelian Depth to Water: 9 Physical Location: Actual - Forrest St Properties - PDI Surface Elevation: 14.3 ft NAVD88 Depth PID Recovery Moisture Graphic Sample USCS Surface Cover and Thickness: Range ΙD (ft/ft) (ppm) Content Log (ft bgs) 10 FILL medium to coarse GRAVEL, (5Y 5/1) gray, loose, dry, no dry odor, no staining. NFS-PDI-V12B-0.4-0.9 dry **FILL** fine to medium SAND, some asphalt, little ash slag, (5YR FILL dry 4/4) reddish brown, medium dense, dry, no odor, no ASPHALT MILLINGS, (5Y 2.5/1) black, loose, dry, no odor, NFS-PDI-V12B-2.0-2.5 no staining. 5 FILL fine to medium SAND, some fill debris, (7.5YR 4/3) brown, drv medium dense, dry, no odor, no staining. NFS-PDI-V12B-4.0-4.5 FILL dry Concrete debris, dry, no odor, no staining. 16 **FILL** fine to medium SAND, some ash slag, (5YR 4/4) reddish dry brown, medium dense, dry, no odor, no staining. NFS-PDI-V12B-6.0-6.5 FILL fine to medium SAND, some fine gravel, little fill debris, dry (7.5YR 4/3) brown, medium dense, dry, no odor, no staining. FILL CINDERS, some fine to medium sand, (5YR 2.5/1) black, wet 5 loose, wet, moderate MGP-like odor and staining, water at 9 0 feet NFS-PDI-V12B-8.0-8.5 NES-PDI-V12B-10 0-10 5 19.5 FILL CINDERS, (5YR 2.5/1) black, loose, wet, moderate wet MGP-like odor, product soaked. 12 NFS-PDI-V12B-12.0-12.5 5 13 NFS-PDI-V12B-14.0-14.5 NFS-PDI-V12B-15.0-15.5 9.5 NES-PDI-V12B-15 5-16 0 dry PT PEAT (degraded vegetated material), 80% organic fibers, 16 20% organic silt, (5YR 3/3) dark reddish brown, stiff, dry, 11, slight MGP-like odor, no staining. Soils consistent with MM. SM SILT, trace organics, (7.5YR 6/4) light brown, soft, wet, no wet odor, no staining. Soils consistent with UNDorg. 5 SP fine to coarse SAND, some fine to medium gravel, (5YR 4/3) wet 19 reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno. 20

Notes

A.GDT - 12/7/16 23:

2012-09 RA PPG LOGS

MGP - manufactured gas plant CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

30 Knightsbridge Road, Piscataway, NJ 08854

## **Boring ID: NFS-PDI-W12BR**

732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611663.271 Date Started Drilling: 11/11/2016 8:50:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683673.419 Date Finished Drilling: 11/11/2016 9:30:00 AM Core Size: 3.0 in Boring Total Depth: 21 ft Logged By: ES Project Manager: Scott Mikaelian Depth to Water: 5 Physical Location: Actual - Forrest St Properties - PDI Surface Elevation: 11.38 ft NAVD88 Depth PID Recovery Moisture Graphic Sample USCS Surface Cover and Thickness: Range (ft/ft) Content ΙD (ppm) Log (ft bgs) 1.5 **FILL** fine to coarse SAND, some fine to medium gravel, little fill dry debris, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining. 5 FILL fine to medium SAND, little ash, trace cinders, (7.5YR 3/3) dry to dark brown, medium dense, dry to moist, slight MGP-like moist odor, no staining. FILL CINDERS, (7.5YR 2.5/1) black, loose, wet, moderate wet MGP-like odor, no staining, sheen, water at 5.0 feet. 24 0 NFS-PDI-W12BR-6.0-6.5 4 NFS-PDI-W12BR-8.0-8.5 NR NO RECOVERY 2.0 FILL CINDERS, (5Y 2.5/1) black, loose, wet, moderate MGP-like wet odor, no staining, sheen. wet **FILL** fine silty SAND, little fine gravel, concrete and fill debris, (7.5YR 6/3) light brown, medium dense, wet, no odor, no staining. 12 NFS-PDI-W12BR-12.0-12.5 5 wet SP fine to coarse SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno. NFS-PDI-W12BR-14.0-14.5 0.0 16 NFS-PDI-W12BR-16.0-16.5 A.GDT - 12/7/16 23: NFS-PDI-W12BR-18.0-18.5 NFS-PDI-W12BR-20.0-20.5 0.0 2012-09 RA PPG LOGS 1 -21

Notes:

bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

nts: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

30 Knightsbridge Road, Piscataway, NJ 08854

## **Boring ID: P4-FOR-AA11B**

732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611754.64 Date Started Drilling: 6/16/2016 10:40:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683589.94 Date Finished Drilling: 6/16/2016 11:50:00 AM Core Size: 3.0 in Boring Total Depth: 15 ft Depth to Water: NA Logged By: HBB Project Manager: Scott Mikaelian Surface Elevation: 10.28 ft NAVD88 Physical Location: Actual - Forrest PDI

F	Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
			0.0		ASPHALT		Asphalt and gravel sub-base.	
	-1 <del></del>			dry to moist	FILL		fine to coarse SAND, trace fine to medium gravel and fill debris, (7.5YR 4/2) brown, loose, dry to moist, no odor, no staining.	
	-3	4		moist	FILL		ASH, trace fine to medium sand and coal, (7.5YR 3/4) dark brown, loose, moist, no odor, no staining.	
ŀ	- -				NR		NO RECOVERY	
	-5		0.0	saturated	FILL		ASH, trace fine to medium sand, (7.5YR 3/4) dark brown,	
	-6 -			wet	FILL		loose, saturated, no odor, no staining, water at 5.0 feet. SILT, trace ash, (5Y 5/1) gray, medium stiff, wet, no odor, no staining.	P4-FOR-AA11B-6.5-7.0
-	-8 -9	4.5		wet	OL		SILT, trace fine sand, (10Y 4/2) dark grayish olive, medium stiff, wet, no odor, no staining. Soils consistent with UNDno.	
					NR		NO RECOVERY	
-	-10 -11 -12	. 5	0.0	wet	OL		SILT, trace fine sand, (7.5YR 6/3) light brown, medium stiff, wet, no odor, no staining. Soils consistent with UNDno.	
-	-13 -14 -15			saturated	SM		fine silty SAND, (5YR 4/4) reddish brown, soft, saturated, no odor, no staining. Soils consistent with UNDno.	
SS_A.GDT - 10/18/16 10:34	13							
SS_A.GD								

2012-09 RA PPG LOGS

bgs - below surface grade MM - meadow mat COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

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# Boring ID: P4-FOR-AA11BR

<u>Project</u>	Number:	<u>60240</u>	1739			Drilling Method: DIRECT PUSH	Coordinates (NJSPI	PNAD83) x: 611755.146		
Date St	arted Drill	ling: _1	10/19/2016	<u> </u>		Rig Type:	Coordinates (NJSPN	IAD83) y: 683591.009		
Date Fi	nished Dr	illing:	10/19/201	6		Core Size: 3.0	Boring Total Depth:	20 ft		
Logged	By: SP					Project Manager: Scott Mikaelian	Depth to Water: NA			
	al Locatio	n: Act	ual - Forres	st PDI			Surface Elevation:			
Donth	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thickn	ess:	Sample ID		
		0.0		ASPHALT		ASPHALT				
-1 -2 -3	5	0.0	dry	FILL		fine to coarse SAND, trace fine to mediur cinders, (5YR 4/1) dark gray, loose, dry, r staining.				
-4 -5 -6		0.0	moist to wet	FILL		SILT, trace ash and coal, (7.5YR 4/2) browet, no odor, no staining, water at 6.0 fee	wn, soft, moist to t.			
-7-	E							P4-FOR-AA11BR-7.0-7.5		
-8 -9 -10 -11	5	0.0	wet	SM		SILT, trace fine gravel, (7.5YR 6/1) gray, no staining. Soils consistent with UNDno.	soft, wet, no odor,			
-12 -13 -14 -	5		wet	SP		medium to coarse SAND, trace fine to medium to coarse SAND, trace fine to media (4/3) reddish brown, dense, wet, no odor, consistent with UNDno.	edium gravel, (5YR no staining. Soils	P4-FOR-AA11BR-14.0-14.5		
-15		0.0				:1				
-16 -17 -18 -19	5	3.0								
20										
	ow surface		COPR - chr GGM - gree		essing r	esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	eposits MGP - man	ufactured gas plant comate chemical production wa		

# Boring ID: P4-FOR-AA12B

Project	t Name: F t Number: tarted Dril	60240	0739	10:10:00 AM		Drilling Company: SGS North America Drilling Method: Direct Push Rig Type: Geoprobe	Coordinates (NJSPN	IAD83) x: 611755.62 AD83) v: 683605.98
				3 11:25:00 AN		Core Size: 3.0 in	Boring Total Depth:	
	d By: HBE		0/22/2010	3 11. <u>L</u> 0.00 7 III		Project Manager: Scott Mikaelian	Depth to Water: NA	
	al Locatio		ual - Forre	șt PDI			Surface Elevation:	
Conth	Recovery (ft/ft)	PID (ppm)	Moisture	USCS	Graphic Log	Surface Cover and Thickn	ess:	Sample ID
_		0.0	dry	ASPHALT FILL		Asphalt and gravel sub-base. fine to medium SAND, trace fine gravel, (	5Y 4/1) dark gray,	P4-FOR-AA12B-0.2-0.7
-1 -2 -3	4.5		moist to wet	FILL		loose, dry, no odor, no staining. fine silty SAND, little ash, trace fine grave reddish brown, medium dense, moist to w staining.	el, (2.5YR 3/3) dark	P4-FOR-AA12B-2.0-2.5
-4			wet	FILL		fine sandy SILT, (5YR 6/1) gray, medium odor, no staining.	dense, wet, no	P4-FOR-AA12B-4.0-4.5
-	-			NR	$\bowtie$	NO RECOVERY		
-5		0.0	14/-4		XXXXX		v madium daraa	
_ -6 <del></del>		0.0	wet	FILL		SILT, trace fine sand, (2.5Y 4/1) dark gra wet, no odor, no staining, water at 5.0 fee		
0								P4-FOR-AA12B-6.0-6.5
-7 -8 -9	4.5		wet	ML		SILT, (5YR 6/3) light reddish brown, med odor, no staining. Soils consistent with Ut		P4-FOR-AA12B-6.5-7.0
		0.0	wet	NR		NO RECOVERY	ium danaa wat na	
- -11 -		0.0	wet	ML		SILT, (5YR 6/3) light reddish brown, med odor, no staining. Soils consistent with Ut		
-12 - -13 -	4		moist	SW		medium to coarse SAND, some medium trace silt, (5YR 5/3) reddish brown, mediu no odor, no staining. Soils consistent with	ım dense, moist,	
-14 -				NR		NO RECOVERY		
15								
ĬM - me	eadow mat		GGM - gree	en grey mud		sidue UNDno - non-organic undisturbed native do UNDorg - organic undisturbed native depos ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring	sits CCPW - chro	factured gas plant omate chemical production wa

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# **Boring ID: P4-FOR-AA12BR**

Project	Mumper.	DUZ						
				10:05:00 AM		Drilling Method: Direct Push Rig Type:		NAD83) x: 611757.378 NAD83) y: 683607.037
				6 11:00:00 Aiv		Core Size: 3.0 in	Boring Total Depth:	
	inisnea br I <b>By</b> : ES	ming:	10/20/201	0 11.00.00 A		Project Manager: Scott Mikaelian	Depth to Water: N	
		n: ^a+	ual Earra	st St - Supplei			Surface Elevation:	
nysic	ai LUCALIO	ii. ACL	uai - FULLES	sı 3ı - Supplei	niciilai F	ы 	Surface Elevation:	5.0/   ILINAVD00
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and <sup>1</sup>	Thickness:	Sample ID
		0.0		ASPHALT		ASPHALT and gravel sub-base		
-1 -2 -2	3		dry to moist	FILL		fine to medium SAND, some cinder fill debris, (5YR 2.5/1) black, loose, staining.		
-3 -4 -5				NR		No Recovery		
-6		0.0	moist to wet	FILL		fine to medium SAND, little fill debr dense, moist to wet, no odor, no sta	aining, water at 6.0 feet.	
-7 - -8	5		wet	OL		Organic SILT, 80% organic silt, 20% 2.5/1) black, stiff, wet, moderate organic soils consistent with UNDorg.	ganic odor, no staining.	
-9 -9 -10			moist	ML		SILT, trace fine sand, (5YR 4/3) rec moist, no odor, no staining. Soils co		P4-FOR-AA12BR-8.0-8.5
11— - 12—	5	0.0						P4-F0R-AA12BR-10.0-10.
13 <u> </u>			wet	SW		fine to coarse silty SAND, trace fine 4/3) reddish brown, dense, wet, no consistent with UNDno.		P4-FOR-AA12BR-14.0-14.
15 — — 16 —		0.0	wet	SW		fine to coarse SAND, little fine to co reddish brown, dense, wet, no odor consistent with UNDno.	parse gravel, (5YR 4/3) r, no staining. Soils	P4-FOR-AA12BR-16.0-16.
17— — 18—	5							P4-F0R-AA12BR-18.0-18.
_ 19 <del></del> _								50.700.2500-10.0-10.
-20		0.0						P4-FOR-AA12BR-20.0-20.
_ -21 <del></del>	1							
	low surface		COPR - chr GGM - gree		essing re	sidue UNDno - non-organic undisturbed n UNDorg - organic undisturbed native		ufactured gas plant romate chemical production was

## Boring ID: P4-FOR-BB9B

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct push Coordinates (NJSPNAD83) x: 611759.17 Date Started Drilling: 6/29/2016 9:40:00 AM Rig Type: Geoprobe Coordinates (NJSPNAD83) y: 683532.08 Date Finished Drilling: 6/29/2016 11:20:00 AM Core Size: 3.0 in Boring Total Depth: 15 ft

			0,20,20.0	5 11:20:00 Al		Core Size: 3.0 in	Boring Total Depth:				
	By: KW			+ DDI		Project Manager: Scott Mikaelian	Depth to Water: N				
nysica	I Location	n: Act	ual - Forres	ST PDI	_		Surface Elevation:	10.75 ft NAVD88			
Depth Range It bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	ness:	Sample ID			
, -		0.0		FILL		DGA					
-2	4		dry	FILL		ASH, some fine sand, trace coal, (7.5YR dry, no odor, no staining.	R 5/1) gray, loose,	P4-FOR-BB9B-1.0-1.5			
$\dashv$	4		dry	FILL		fine silty SAND, trace fine gravel, (5YR 4	1/3) reddish brown				
-3			to moist			medium dense, dry to moist, no odor, no	staining.	P4-FOR-BB9B-3.0-3.5			
,			moist	FILL		sandy SILT, (5Y 4/2) olive gray, dense, r	noist, no odor, no				
-4				NR		staining. NO RECOVERY					
-5 -6 -		0.3	moist to saturated	FILL		SILT, trace fine sand, (5Y 5/2) olive gray saturated, moderate MGP-like odor, slight sheen, water at 5.5 feet.	r, dense, moist to nt product staining,	P4-FOR-BB9B-5.0-5.5			
-7	4.5							P4-FOR-BB9B-7.0-7.5			
9—			saturated	FILL		fine silty SAND, (5YR 4/3) reddish brown no odor, no staining.	n, dense, saturated,	P4-FOR-BB9B-9.0-9.5			
7				NR	1	NO RECOVERY					
10		0.0	saturated	FILL		sandy SILT, (5YR 4/3) reddish brown, do odor, no staining.	ense, saturated, no	P4-FOR-BB9B-10.5-11.0			
-11 -12 -13	3.5					saturated	SP-SM	***	fine SAND, trace silt, (5YR 4/3) reddish dense, saturated, no odor, no staining. S UNDno.	brown, medium Soils consistent with	P4-FOR-BB9B-11.0-11.5
14				NR		NO RECOVERY					
M - mea	adow mat		GGM - gree	n grey mud		esidue UNDno - non-organic undisturbed native o UNDorg - organic undisturbed native depo ft thick 3) No CCPW (COPR or GGM) present in any interval of this borin	osits CCPW - ch	nufactured gas plant nromate chemical production wa			

## Boring ID: P4-FOR-BB9BR

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Coordinates (NJSPNAD83) x: 611759.9 Drilling Method: direct push Date Started Drilling: 10/21/2016 9:30:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683531.503 Date Finished Drilling: 10/21/2016 10:30:00 AM Core Size: 3.0 in Boring Total Depth: 21 ft Logged By: ES Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual - Forrest PDI Surface Elevation: 10.518 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙĎ (ft/ft) (ppm) Content Log (ft bgs) 0.0 **FILL** fine to coarse SAND, some fine to medium gravel, (5Y 5/1) dry gray, medium dense, dry, no odor, no staining. FILL dry fine to medium SAND, little fine gravel, trace ash, (5YR 6/3) light reddish brown, medium dense, dry, no odor, no fine to medium SAND, some fine gravel, (5YR 4/4) reddish **FILL** moist brown, medium dense, moist, no odor, no staining. fine SAND, some silt, (7.5YR 4/3) brown, medium dense, **FILL** moist moist, no odor, no staining. NR NO RECOVERY 3.0 wet **FILL** fine silty SAND, (7.5YR 6/4) light brown, medium dense, wet, slight fuel oil-like odor, product staining, sheen, water at 5.5 feet. 5 P4-FOR-BB9BR-8.5-9.0 P4-FOR-BB9BR-9.0-9.5 SM fine silty SAND, (5YR 4/4) reddish brown, medium dense, wet wet, very slight fuel oil-like odor, no staining, sheen. Soils consistent with UNDno. 0.5 SM fine silty SAND, (5YR 4/4) reddish brown, medium dense, wet wet, no odor, no staining. Soils consistent with UNDno. 12 P4-FOR-BB9BR-12.0-12.5 5 SP fine to medium SAND, (5YR 4/4) reddish brown, medium wet 13 dense, wet, no odor, no staining. Soils consistent with UNDno P4-FOR-BB9BR-14.0-14.5 0.0 SM fine silty SAND, (5YR 4/4) reddish brown, medium dense, wet wet, no odor, no staining. Soils consistent with UNDno. 16 P4-FOR-BB9BR-16.0-16.5 5 SP fine to medium SAND, some fine gravel, little silt, (5YR 4/4) wet A.GDT - 11/30/16 22 reddish brown, medium dense, wet, no odor, no staining. P4-FOR-BB9BR-18.0-18.5 Soils consistent with UNDno. 19 P4-FOR-BB9BR-20.0-20.5 0.0 2012-09 RA PPG LOGS 1

Notes:

-21

MGP - manufactured gas plant CCPW - chromate chemical production waste

nts: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

# Boring ID: P4-FOR-BB10B

Page: 1

Project N	lame: P	PG Ga	rfield Ave			Drilling Company: SGS North America		
Project N						Drilling Method: Direct Push	Coordinates (NJSPN	AD83) x: 611768.31
				7:35:00 AM		Rig Type: Geoprobe	Coordinates (NJSPN/	
				8:10:00 AM		Core Size: 3.0 in	Boring Total Depth:	
_ogged E						Project Manager: Scott Mikaelian	Depth to Water: NA	
Physical	Location	n: Act	ual - Forres	st PDI			Surface Elevation:	
Depth <sub>R</sub>	ecovery	PID	Moisture		Graphi	c		Sample
	(ft/ft)	(ppm)	Content	USCS	Log	Surface Cover and Thick	ness:	ID
		0.0		ASPHALT		Asphalt and gravel sub-base.		
-1 -2 -3	4		moist	FILL		fine to medium SAND, trace fine to medi wood, (7.5YR 4/2) brown, medium dense staining.		D4.FOD PD40D 2.0.2.5
· -			wet	FILL		fine to medium silty SAND, trace fine to	modium gravel and	P4-FOR-BB10B-3.0-3.5
-4-			wet	NR	XXXX	coal, (5YR 2.5/1) black, medium dense, oil-like odor and staining, water at 3.5 fee	wet, slight fuel /	
-5		0.0	saturated	FILL		NO RECOVERY  fine SAND, (5YR 4/3) reddish brown, me saturated, no odor, no staining.	edium dense,	
-6-			saturated	FILL		ASH, (2.5Y 4/2) dark grayish brown, loos	se, saturated, no	P4-FOR-BB10B-6.0-6.5
-7-			saturated	OL		odor, no staining. SILT, trace fine sand, (7.5YR 4/2) brown	, medium dense,	P4-FOR-BB10B-6.5-7.0
-8-	3.5					saturated, no odor, no staining. Soils con	sistent with UNDno.	
-9				NR		NO RECOVERY		
10								
Notes:	v surface	grade	COPR - chro	omite ore proce	essing r	esidue UNDno - non-organic undisturbed native o	leposits MGP - manu	actured gas plant
/IM - mead	low mat		GGM - gree	n grey mud		UNDorg - organic undisturbed native depo	sits CCPW - chro	mate chemical production was

# Boring ID: P4-FOR-BB10BR

Project Project	Number:					Drilling Company: SGS North America Drilling Method: DIRECT PUSH	Coordinates (N ISD	NAD83) x: 611767.039																
			10/19/2016	<u> </u>		Rig Type:		NAD83) y: 683555.427																
			10/19/2010			Core Size: 3.0	Boring Total Depth:																	
	<b>By:</b> SP	ıy.	10/13/201			Project Manager: Scott Mikaelian	Depth to Water: N																	
		n: Act	ual - Forres	st PDI		110jour manager. Ocolt iviinaciian	Surface Elevation:																	
-		, ιοι		!			, Jan. 100 Elovation.																	
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thick	kness:	Sample ID																
		0.0	dnı	ASPHALT	XXXX	ASPHALT																		
-1 -1 2			dry	FILL		fine to coarse SAND, trace fine to medicash, (5YR 6/3) light reddish brown, loos staining.	e, dry, no odor, no																	
	3.5		dry to moist	FILL		SILT, trace ash, (7.5YR 4/2) brown, sof odor, no staining.	t, dry to moist, no																	
-4- <del>-</del>		0.2		NR		NO RECOVERY																		
-5 - -6		0.2	moist to wet	FILL		SILT, trace ash and coal, (7.5YR 6/1) g wet, no odor, no staining, water at 6.0 fe	ray, soft, moist to eet.																	
-7 -8	5	0.0	0.0									wet	ML		SILT, (5YR 6/1) gray, soft, wet, no odor consistent with UNDno.	, no staining. Soils								
-9 -10 -11		0.0	wet	SP		fine to medium SAND, trace fine gravel, brown, medium dense, wet, no odor, no consistent with UNDno.	(5YR 4/3) reddish staining. Soils	_																
-12 -13 -14	5																							
-15						1																		
-16 — -16 — -17—	5	0.0																						
_ _18																								
-19 -						•		P4-FOR-BB10BR-19.0-19.																
-20						-1																		
l <b>otes:</b> gs - bel	low surface	grade	COPR - chr	omite ore proc	essing re	esidue UNDno - non-organic undisturbed native	deposits MGP - man	ufactured gas plant romate chemical production wa																
ııvı - me	auow mat		GGM - gree			UNDorg - organic undisturbed native dep ft thick 3) No CCPW (COPR or GGM) present in any interval of this bor		romate chemical production wa																

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# Boring ID: P4-FOR-BB11B

Project Name:         PPG Garfield Ave           Project Number:         60240739           Date Started Drilling:         6/21/2016 11:00:00 AM           Date Finished Drilling:         6/21/2016 12:00:00 PM						Drilling Company: SGS North America Drilling Method: DIRECT PUSH Rig Type:		IAD83) x: 611781.12 AD83) y: 683575.06
						Core Size: 3.0 in	Boring Total Depth:	
Logged	IBy: KW					Project Manager: Scott Mikaelian	Depth to Water: NA	
Physica	al Locatio	n: Act	ual - Forre	st PDI		+	Surface Elevation:	10.13 ft NAVD88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thickr	ness:	Sample ID
_		0.0		ASPHALT		Asphalt and gravel sub-base.		
-1 -2 -3	3.5		dry to moist	FILL		fine to coarse SAND, little silt and mediun debris, (7.5YR 3/2) dark brown, medium no odor, no staining.	m gravel, trace fill dense, dry to moist,	
-4				NR		NO RECOVERY		
-5 - -6 - -7	,	0.0	moist to saturated	FILL		fine to coarse SAND, little medium grave debris, (7.5YR 3/2) dark brown, medium saturated, no odor, no staining, water at	dense, moist to	P4-FOR-BB11B-7.0-7.5
-8- <del>-</del>	4		saturated	ML		SILT, trace fine angular gravel, (2.5YR 3. gray, dense, saturated, no odor, no staini with UNDno.	/1) dark reddish ng. Soils consistent	P4-FOR-BB11B-7.5-8.0
-9				NR		NO RECOVERY		
-10  -11 - -12 - -13	5	0.0	saturated	ML		SILT, little fine sand and medium angular dark reddish gray, dense, saturated, no c Soils consistent with UNDno.	gravel, (2.5YR 3/1) dor, no staining.	
-14 -15			wet	SP		medium to coarse SAND, some medium dark reddish brown, medium dense, wet, staining. Soils consistent with UNDno.		
	ow surface		COPR - chr GGM - gree		essing re	esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	leposits MGP - manu	ufactured gas plant omate chemical production w
					rmed to be 1	ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring		P.Oddolloff We

PPG - 2012-09 RA PPG\_LOGS\_A.GDT - 11/30/16 23:49

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# **Boring ID: P4-FOR-CC9B**

	t Name: F					Orilling Company:		America	Coordinates (N ISPI	NAD83) x: 611788.14
				9:45:00 AM		Rig Type: Geopro				IAD83) y: 683512.56
				3 10:40:00 AN		ore Size: 3.0 in			Boring Total Depth:	
ogge	d By: HBE	3				Project Manager:		an	Depth to Water: NA	A
hysic	al Locatio	n: Act	ual - Forres	st PDI					Surface Elevation:	10.48 ft NAVD88
epth ange bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log		Surface Cove	er and Thickn	ess:	Sample ID
_		0.0	dry	ASPHALT		Asphalt and g	ravel sub-base.	-		
-1— -2— -3—	4		dry to wet	FILL					coal, (7.5YR 4/2) no staining, water	P4-FOR-CC9B-2.0-2.5
-4- <del>-</del> -				NR		NO RECOVE	RY			
-5		0.0	saturated	FILL		ASH, (5Y 5/1)	gray, loose, sa	aturated, no c	dor, no staining.	_
-			dry	FILL		, ,	<u> </u>		vn, soft, dry to wet,	†
6			to		$\bowtie$	no odor, no sta		_,	,, - <b>,</b>	P4-FOR-CC9B-6.0-6.5
_			wet							P4-FOR-CC9B-6.5-7.0
-7— - -8— -	4		saturated	OL	×××× 	SILT, (5YR 4/odor, no staini	3) reddish brov ing. Soils consi	vn, medium s stent with UN	tiff, saturated, no IDno.	P4-FOR-CC9B-7.0-7.5
-9— —				NR		NO RECOVE	RY			
	low surface		COPR - chr GGM - gree	omite ore proc			n-organic undistu ganic undisturbe			ufactured gas plant comate chemical production was

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# Boring ID: P4-FOR-CC9BR

Date St	Number:	ing:	10/19/2016			Drilling Method: DIRECT PUSH Rig Type:	Coordinates (NJSPN	AD83) x: 611788.617 AD83) y: 683513.669
	nished Dr	illing:	10/19/20	16		Core Size: 3.0	Boring Total Depth:	
	l By: SP al Locatio	a. Act	ual - Forre	et PNI		Project Manager: Scott Mikaelian	Depth to Water: NA Surface Elevation:	
	ai Locatio	i	uai - i oi ie	SUI DI			Surface Lievation.	10.410 10 10 10 10 10 10 10 10 10 10 10 10 1
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphio Log	Surface Cover and Thickr	ness:	Sample ID
		0.0	dry	CONCRETE FILL		CONCRETE fine to medium SAND, trace ash and cinc	Here (7.5VP 2.5/1)	
-1-			dry	FILL		black, loose, dry no odor no staining  SILT, little fine gravel, trace coal and bric		
_			ury	1166		reddish brown, stiff, dry no odor no staini	ng	
	5							P4-FOR-CC9BR-2.5-3.0
-3			moist	ML		SILT, (5YR 4/3) reddish brown, soft, moi:	st to wet no odor no	P4-FOR-CC9BR-3.0-3.5
-4- <del>-</del>			moist	IVIE		staining, water at 6.0 feet. Soils consister		
-5-		0.0						
-6								
-7—			14/04	CN#		fine city CAND trace fine are all /EVD 4	/2) roddieb brown	
-8	5		wet	SM		fine silty SAND, trace fine gravel, (5YR 4 dense, wet no odor no staining. Soils con UNDno.	sistent with	
-								
-9								
-10		0.0						P4-FOR-CC9BR-10.0-10.5
-11			wet	SP		fine to medium SAND, trace fine gravel, of brown, dense, wet no odor no staining. S		
-12						UNDno.		
-	5							P4-FOR-CC9BR-12.0-12.5
-13								
-14								
-15		0.0						
-		0.0						
-16 <del></del>								P4-FOR-CC9BR-16.0-16.5
-17	5							
	J							P4-FOR-CC9BR-18.0-18.5
								F4-FUR-CU9BR-18.0-18.5
-19								
20	,	0.0						P4-FOR-CC9BR-20.0-20.5
-21	1							
					essing re	sidue UNDno - non-organic undisturbed native d	eposits MGP - manu	ıfactured gas plant
	adow mat			en grey mud	med to be 4	UNDorg - organic undisturbed native depo ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring		omate chemical production wa

## **Boring ID: P4-FOR-CC10B**

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611793.06 Date Started Drilling: 6/23/2016 9:20:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683534.95

ogged By: Hi hysical Locati epth ange (ft/ft)  -1 -2 -4 -3 -4 -3 -4 -5 -6 -6 -7 - 4.5 -8 -9 -10 -11 -12 -11 -12 -14 -13 -14 -14	on: Ac	Moisture	USCS  ASPHALT  FILL  NR  FILL	Graphic	Surface Cover and Thi  Asphalt and gravel sub-base.  fine to medium SAND, trace ash, (7.5 medium dense, moist, no odor, no state)  SILT, trace clay, (5YR 4/3) reddish browet, no odor, no staining.  NO RECOVERY	YR 4/2) brown, ining.	
Recover (ft/ft)	y PID (ppm)	Moisture Content moist	USCS  ASPHALT  FILL  FILL  NR		Asphalt and gravel sub-base.  fine to medium SAND, trace ash, (7.5 medium dense, moist, no odor, no state state of the sta	YR 4/2) brown, ining.	Sample ID P4-FOR-CC10B-1.0-1.5
4 -3		wet	FILL FILL NR		fine to medium SAND, trace ash, (7.5 medium dense, moist, no odor, no state SILT, trace clay, (5YR 4/3) reddish browet, no odor, no staining.	ining.	
4 -3	0.0	wet	FILL NR		medium dense, moist, no odor, no sta SILT, trace clay, (5YR 4/3) reddish browet, no odor, no staining.	ining.	
6	0.0		NR		wet, no odor, no staining.	own, medium dense,	P4-FOR-CC10B-3.0-3.5
6	0.0	saturated			NO RECOVERY		
6	0.0	saturated	FILL				
4.5 -8 — 4.5 -9 — 10 — 11 — 12 — 4 13 — 4					fine SAND, some silt, (5YR 4/3) reddired dense, saturated, no odor, no staining		P4-FOR-CC10B-5.0-5.5
- 10 - 11- - 12- - 4		saturated	FILL		fine SAND, (7.5YR 4/2) brown, mediu fuel oil-like odor, black staining, sheen		P4-FOR-CC10B-7.0-7.5
- 10 - 11- - 12- - 4		saturated	FILL		medium to coarse GRAVEL, trace fine loose, saturated, no odor, no staining.		
- 11— - 12— - 4 13—			NR		NO RECOVERY		P4-FOR-CC10B-9.0-9.5
12 4	0.0	saturated	FILL		medium to coarse GRAVEL, little silt, 5/1) gray, loose, saturated, no odor, no		
14			SM		fine silty SAND, (5YR 4/3) reddish bro no odor, no staining. Soils consistent v	own, medium dense,	P4-FOR-CC10B-10.5-11.0 P4-FOR-CC10B-11.0-11.5
15			NR		NO RECOVERY		
otes: gs - below surfac M - meadow mat		COPR - chr GGM - gree	omite ore proc	essing re	esidue UNDno - non-organic undisturbed nativ UNDorg - organic undisturbed native de	ve deposits MGP - manu	factured gas plant omate chemical production wa

# **Boring ID: P4-FOR-CC11B**

Project Name:					Drilling Company: SGS North America	O
Project Number Date Started Dri			10·15·00 ΔM		Drilling Method: Direct Push Rig Type:	Coordinates (NJSPNAD83) x: 611804.74 Coordinates (NJSPNAD83) y: 683562.34
Date Finished D					Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: HE					Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location		tual - Forre	șt PDI			Surface Elevation: 10.57 ft NAVD88
Depth Range (ft bgs)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thickr	ness: Sample ID
	0.0	·	CONCRETE		OONONLIL	
7		moist	FILL	$\bowtie$	ASH, (5Y 5/1) gray, loose, moist, no odor	r, no staining.
-1— -2— -3— -3—		moist to wet	FILL		SILT, trace fine gravel, (5YR 4/3) reddish dense, moist to wet, no odor, no staining.	brown, medium
-4			NR		NO RECOVERY	
-5 -6- -7- - 4 -8-	0.0	wet to saturated	FILL		SILT, trace fine gravel, (5YR 4/3) reddish dense, wet to saturated, no odor, no stair feet.	
-9	0.0	saturated	NR SM		NO RECOVERY  fine SAND, some silt, trace fine gravel, (5)	5YR 4/3) reddish
-11 -12 -13					brown, medium dense, saturated, no odo consistent with UNDno.	r, no staining. Soils
-14 <del>-</del> - -15			NR		NO RECOVERY	
lotes: logs - below surface		COPR - chi		essing r	esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	

# Boring ID: P4-FOR-CC11BR

			10/19/2016			Drilling Method: DIRECT PUSH Rig Type:	Coordinates (NJSPNAD83) x: 611801.161 Coordinates (NJSPNAD83) y: 683562.89 Boring Total Depth: 15 ft		
	nished Dr	illing:	10/19/20	16		Core Size: 3.0	Boring Total Depth:		
	IBy: SP	n. Act	ual Earra	ot DDI		Project Manager: Scott Mikaelian	Depth to Water: NA Surface Elevation:		
Sonth	Recovery (ft/ft)	PID (ppm)	Moisture	USCS	Graphic Log	Surface Cover and Thickne		Sample ID	
		0.6	dry	CONCRETE		CONCRETE CINDERS, trace coal and fill debris, (5YR	6/1) gray loose		
-1-			dry	FILL		dry, no odor, no staining. fine to medium silty SAND, trace coal and	, , ,		
-2 -	5		,			4/3) reddish brown, dense, dry, no odor, n			
-3 -4			moist	FILL		SILT, trace coal, (7.5YR 4/1) dark gray, so no staining.	oft, moist, no odor,		
								P4-FOR-CC11BR-4.5-5.0	
-5 - -6 - -7		0.0	moist to wet	ML		SILT, trace coarse gravel, (7.5YR 6/3) ligh moist to wet, no odor, no staining, water a consistent with UNDno.		P4-FOR-CC11BR-5.0-5.5	
-8 -9 -	5		wet	SM		fine to medium silty SAND, trace fine to m (5YR 4/3) reddish brown, dense, wet, no c Soils consistent with UNDno.	nedium gravel, odor, no staining.	P4-FOR-CC11BR-8.0-8.5	
10		0.0						P4-FOR-CC11BR-10.0-10.5	
-11 -12 -13 -14 -15	5		wet	SP		medium SAND, trace medium to coarse greddish brown, dense, wet, no odor, no staconsistent with UNDno.	ravel, (5YR 4/3) aining. Soils		
	ow surface adow mat			romite ore proce	essing re	sidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos	eposits MGP - manu	factured gas plant omate chemical production wa	

## **Boring ID: P4-FOR-DD9B**

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611808.41 Date Started Drilling: 6/17/2016 10:50:00 AM Rig Type: Geoprobe Coordinates (NJSPNAD83) y: 683497.56 Date Finished Drilling: 6/17/2016 Core Size: 3.0 in Boring Total Depth: 10 ft Logged By: HBB Project Manager: Scott Mikaelian Depth to Water: NA Surface Elevation: 10.78 ft NAVD88 Physical Location: Actual - Forrest PDI Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range (ft/ft) Content ΙĎ (ppm) Log (ft bgs) 0.0 **ASPHALT** Asphalt and gravel sub-base. P4-FOR-DD9B-0.8-1.3 FILL SILT, little fine to medium sand, trace medium gravel, (5Y moist 5/1) gray, medium dense, moist, no odor, no staining. FILL SILT, (7.5YR 4/2) brown, medium dense, saturated, no odor, saturated no staining, water at 4.0 feet. P4-FOR-DD9B-2.0-2.5 4.5 P4-FOR-DD9B-4.0-4.5 NR NO RECOVERY P4-FOR-DD9B-5.0-5.5 0.0 saturated **FILL** SILT, trace fine sand, (7.5YR 4/2) brown, medium dense, saturated, no odor, no staining. P4-FOR-DD9B-5.5-6.0 saturated SM fine silty SAND, trace fine gravel, (5YR 4/3) reddish brown, medium dense, saturated, no odor, no staining. Soils consistent with UNDno. OL saturated fine silty SAND, (5YR 4/3) reddish brown, medium dense, saturated, no odor, no staining. Soils consistent with UNDno. 3.5 NO RECOVERY NR

Notes

2012-09 RA PPG LOGS A.GDT - 11/30/16 23:49

bgs - below surface grade bgs - below surface grade GGM - green grey mud UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

A.GDT - 11/30/16 09:

2012-09 RA PPG LOGS

732.564.3200 office telephone

## **Boring ID: P4-FOR-DD9BR**

Page: 1

30 Knightsbridge Road, Piscataway, NJ 08854

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: DIRECT PUSH Coordinates (NJSPNAD83) x: 611807.651 Date Started Drilling: 10/18/2016 11:55:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683497.165 Date Finished Drilling: 10/18/2016 12:45:00 PM Core Size: 3.0 Boring Total Depth: 21 ft Depth to Water: NA Logged By: KW Project Manager: Scott Mikaelian Surface Elevation: 10.676 ft NAVD88 Physical Location: Actual - Forrest St - Supplemental PDI Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙD (ft/ft) (ppm) Content Log (ft bgs) 0.0 **ASPHALT** ASPHALT and gravel sub-base SILT, little brick, (5YR 2.5/1) black, dense, dry, no odor, no FILL dry **FILL** fine silty SAND, trace coal, (7.5YR 4/2) brown, dense, dry to dry to moist, no odor, no staining. moist NR No Recovery 0.0 wet **FILL** SILT, trace coal, (7.5YR 6/3) light brown, medium dense, wet, no odor, no staining, water at 5.5 feet. P4-FOR-DD9BR-5.5-6.0 P4-FOR-DD9BR-6.0-6.5 SP fine SAND, trace fine gravel, (5YR 4/3) reddish brown, wet dense, wet, no odor, no staining. Soils consistent with UNDno. 4 P4-FOR-DD9BR-8.0-8.5 NR No Recovery P4-FOR-DD9BR-10 0-10 5 0.0 SP fine SAND, trace fine gravel, (5YR 4/3) reddish brown, wet dense, wet, no odor, no staining. Soils consistent with UNDno. 12 P4-FOR-DD9BR-12.0-12.5 5 13 P4-FOR-DD9BR-14.0-14.5 0.0 SP fine SAND, (5YR 4/3) reddish brown, dense, wet, no odor, wet no staining. Soils consistent with UNDno. 16 P4-FOR-DD9BR-16.0-16.5 wet SW fine to coarse SAND, trace fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. 5 Soils consistent with UNDno. P4-FOR-DD9BR-18.0-18.5 19 SP fine SAND, trace silt, (5YR 4/3) reddish brown, dense, wet, wet no odor, no staining. Soils consistent with UNDno. P4-FOR-DD9BR-20.0-20.5 0.0 1 -21 Notes: bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits MGP - manufactured gas plant CCPW - chromate chemical production waste nts: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# Boring ID: P4-FOR-DD10B

Project	t Number:	60240				Drilling Company: SGS North America Drilling Method: Direct Push		NAD83) x: 611822.73
				11:10:00 AM		Rig Type:		IAD83) y: 683523.09
	inisnea Dr d <b>By</b> : HBE		6/20/2016	6 12:05:00 PM		Core Size: 3.0 in Project Manager: Scott Mikaelian	Boring Total Depth: Depth to Water: NA	
	al Locatio		ual - Forre	st PDI		Project Manager: Scott Mikaelian	Surface Elevation:	
Depth Range ft bgs)	Recovery	PID (ppm)	Moisture	USCS	Graphic Log	Surface Cover and Thickr		Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base.		
-1 <del></del>			moist	FILL		fine SAND, some silt, little fine gravel, tra 3/1) very dark gray, medium dense, mois staining.	ce fill debris, (2.5Y t, no odor, no	P4-FOR-DD10B-0.5-1.0
-2	3.5		dry	FILL	$\bowtie$	SILT, trace coal, (5Y 5/1) gray, medium o	lense, dry, no odor,	P4-FOR-DD10B-2.0-2.5
-3			moist	ML		no staining.  SILT, (10Y 5/2) grayish olive, soft, moist, staining. Soils consistent with UNDno.	no odor, no	P4-FOR-DD10B-2.5-3.0
-4- <del>-</del>				NR		NO RECOVERY		
-5 - -6		0.0	saturated	ML		SILT, (5YR 4/3) reddish brown, medium on odor, no staining, water at 5.0 feet. So UNDno.		-
-7 -8	4							P4-FOR-DD10B-6.5-7.0
-9 -				NR		NO RECOVERY		
-10  -11 - -12 -13	3.5	0.0	saturated	SM		fine to medium SAND, trace fine gravel, (brown, loose, saturated, no odor, no stair consistent with UNDno.	5YR 4/3) reddish ing. Soils	
 14  15	-			NR	11. 41.	NO RECOVERY		
	elow surface		COPR - chr GGM - gree		essing re	esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	eposits MGP - manu	ufactured gas plant romate chemical production w
					rmed to be 1	ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring		

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# **Boring ID: P4-FOR-EE8B**

	t Name: F t Number:					Drilling Company: SGS North America Drilling Method: direct push	Coordinates (N ISD	NAD83) x: 611833.9
				10:50:00 AM		Rig Type: Geoprobe		NAD83) y: 683463.37
Date Fi	inished Dr	illing:	6/17/2016	3 11:20:00 AM		Core Size: 3.0 in	Boring Total Depth:	
	d By: ES					Project Manager: Scott Mikaelian	Depth to Water: N	
	al Locatio	n: Act	ual - Forres	st PDI			Surface Elevation:	
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ess:	Sample ID
_		0.0		ASPHALT		Asphalt and gravel sub-base.		
-1 -2 -3	5		dry	FILL		fine to medium SAND, some fine gravel, fill debris, (7.5YR 4/3) brown, medium de no staining.		P4-FOR-EE8B-1.0-1.5
-4								P4-FOR-EE8B-3.0-3.5
-5				_	$\bowtie$			
-6 -7 -8	4	0.0	moist to wet	SP		fine to coarse SAND, some fine to mediu reddish brown, medium dense, moist to v staining, water at 6.5 feet. Soils consister	et, no odor, no	P4-FOR-EE8B-5.0-5.5
-9 <del></del>				NR	1	NO RECOVERY		
-10 — — — — — — — — — — — — — — — — — — —	5	0.0	moist to wet	SP		fine to coarse SAND, some fine to mediu reddish brown, medium dense, moist to v staining. Soils consistent with UNDno.	m gravel, (5YR 4/4) vet, no odor, no	
	low surface eadow mat		COPR - chr GGM - gree		essing re	esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo		ufactured gas plant romate chemical production wa
					rmed to be 1	ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring		

## **Boring ID: P4-FOR-EE8BR**

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: DIRECT PUSH Coordinates (NJSPNAD83) x: 611833.738 Date Started Drilling: 10/17/2016 12:45:00 PM Rig Type: Coordinates (NJSPNAD83) y: 683464.915 Date Finished Drilling: 10/17/2016 1:30:00 PM Core Size: 3.0 Boring Total Depth: 21 ft Logged By: ES Depth to Water: NA Project Manager: Scott Mikaelian Physical Location: Actual - Forrest St - Supplemental PDI Surface Elevation: 11.851 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range (ft/ft) Content ΙD (ppm) Log (ft bgs) 0.0 **FILL ASPHALT** slightly FILL fine to medium SAND, little silt, brick and fine gravel, (2.5Y 4/2) dark grayish brown, medium dense, slightly moist, no moist FILL odor, no staining. dry fine to medium SAND, little concrete, (5YR 6/3) light reddish 5 brown, medium dense, dry, no odor, no staining. 0.0 wet fine to coarse SAND, little fine gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining, water at 6.5 feet. Soils consistent with UNDno. P4-FOR-EE8BR-6.0-6.5 3.5 P4-FOR-EE8BR-8.0-8.5 NO RECOVERY NR P4-F0R-FF8BR-10 0-10 5 0.0 SP wet fine to coarse SAND, trace fine to coarse gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno. 12 P4-FOR-EE8BR-12.0-12.5 5 13 P4-FOR-EE8BR-14.0-14.5 0.0 SP fine to coarse SAND, trace fine gravel, (5YR 4/4) reddish wet brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno. 16 P4-FOR-EE8BR-16.0-16.5 5 P4-FOR-EE8BR-18.0-18.5 19 0.0 1 -21 bgs - below surface grade bgs - below surface grade GGM - green grey mud UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits

2012-09 RA PPG LOGS

A.GDT - 11/30/16 09:

nts: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

MGP - manufactured gas plant CCPW - chromate chemical production waste

## **Boring ID: P4-FOR-EE9B**

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611835.75 Date Started Drilling: 6/22/2016 8:05:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683483.67

		6/22/2016	9:45:00 AM		Core Size: 3.0 in	Boring Total Depth:  Depth to Water: NA	
.ogged By: H Physical Locat	ion: Δc	tual - Forre	et PNI		Project Manager: Scott Mikaelian	Surface Elevation:	
	ion. Ac	iuai - i oi ie:	SLFDI			Surface Elevation.	10.90 IL INAVDO0
Depth Range ft bgs)	y PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and	Thickness:	Sample ID
_	0.0		ASPHALT		Asphalt and gravel sub-base.		
-1		dry	FILL		fine SAND, (2.5Y 6/4) light yellowis odor, no staining.	sh brown, loose, dry, no	P4-FOR-EE9B-1.0-1.5
3.5		moist	FILL		fine SAND, some silt, trace fine gra medium dense, moist, no odor, no	avel, (7.5YR 4/2) brown, staining.	P4-FOR-EE9B-3.0-3.5
-4			NR	****	NO RECOVERY		
-5- <del>-</del> -6- <del>-</del>	0.0	moist to wet	FILL		SILT, little fine gravel, trace clay, (5 slight fuel oil-like odor, no staining,		P4-FOR-EE9B-5.0-5.5
-7— 4.5 -8— 	0.0	saturated	FILL		medium to coarse GRAVEL, trace 5/1) gray, loose, saturated, no odor	fine to medium sand, (5Y , no staining.	P4-FOR-EE9B-7.0-7.5
_				$\bowtie$			P4-FOR-EE9B-9.0-9.5
-10			NR	×××	NO RECOVERY		P4-FOR-EE9B-10.0-10.5
_	0.0	saturated saturated	FILL SM	$\bowtie$	medium to coarse GRAVEL, little fi 5/1) gray, loose, saturated, no odor		P4-FOR-EE9B-10.5-11.0
-11 -12 -13					fine SAND, (5YR 4/3) reddish brow saturated, no odor, no staining. Soi		
-14		saturated	SW		fine to coarse SAND, trace fine to reddish brown, medium dense, satistaining. Soils consistent with UND	urated, no odor, no	
15			NR		NO RECOVERY		
otes: gs - below surfa M - meadow ma	t	GGM - gree			esidue UNDno - non-organic undisturbed n UNDorg - organic undisturbed nativ ft thick 3) No CCPW (COPR or GGM) present in any interval of	e deposits CCPW - ch	ufactured gas plant romate chemical production wa

# **Boring ID: P4-FOR-EE10B**

Page: 1

D	4 NI F	200.0-	of alal Acce			National Octobries Associate		Page: 1
	t Name: F					Orilling Company: SGS North America	Coandinates (NICD)	IA D02) C14055 4
	t Number:					Orilling Method: Direct Push	Coordinates (NJSPN	
				9:08:00 AM		Rig Type: Geoprobe	Coordinates (NJSPN	
			6/24/2016	6 10:05:00 AM		Core Size: 3.0 in	Boring Total Depth:	
	d By: HBE				F	Project Manager: Scott Mikaelian	Depth to Water: NA	
Physic	al Locatio	n: Act	ual - Forre	st PDI			Surface Elevation:	11.98 ft NAVD88
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickn	ness:	Sample ID
		0.0		CONCRETE		CONCRETE		
_1-				FILL		ASH, trace fine to medium gravel, (7.5YF loose, moist, no odor, no staining.		P4-FOR-EE10B-0.6-1.1
2 3 	4.5		moist to wet	FILL		SILT, trace fine gravel and ash, (2.5Y 5/2 medium dense, moist to wet, no odor, no		P4-FOR-EE10B-2.0-2.5
	_			NR		NO RECOVERY		P4-FOR-EE10B-4.0-4.5
——5— ——6—	-	0.0	wet to saturated	FILL		SILT, trace fine gravel, (2.5Y 5/2) grayish dense, wet to saturated, no odor, no stain feet.		
ľ								P4-FOR-EE10B-6.0-6.5
	4		saturated	SM		fine SAND, some silt, (5YR 4/3) reddish l dense, saturated, no odor, no staining. So UNDno.		P4-FOR-EE10B-6.5-7.0
F -	1		saturated	SW		medium to coarse SAND, trace fine to me	edium gravel (5YR	
9 	-		Saturated	NR	<u> </u>	4/3) reddish brown, saturated, no odor, no consistent with UNDno. NO RECOVERY		
	low surface			omite ore proce	essing res	sidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	eposits MGP - manu sits CCPW - chro	factured gas plant production waste

PPG - 2012-09 RA PPG\_LOGS\_A.GDT - 11/30/16 23:49

GGM - green grey mud UNDorg - organic undisturbed native deposits MM - meadow mat

**Boring ID: P4-FOR-EE10BR** 30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Project Name: PPG Garfield Ave **Drilling Company:** SGS North America Project Number: 60240739 Drilling Method: DIRECT PUSH **Coordinates (NJSPNAD83) x:** 611856.116 Date Started Drilling: 10/18/2016 9:30:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683508.245 Date Finished Drilling: 10/18/2016 10:10:00 AM Core Size: 3.0 Boring Total Depth: 21 ft Project Manager: Scott Mikaelian Logged By: KW Depth to Water: NA Physical Location: Actual - Forrest St - Supplemental PDI Surface Elevation: 12.085 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range (ft/ft) Content ΙD (ppm) Log (ft bgs) 0.0 CONCRETE CONCRETE and gravel sub-base CINDERS, little ash, (5YR 2.5/1) black, loose, dry, no odor, FILL dry no staining. FILL SILT, trace cinders, ash and coal, (7.5YR 5/2) brown, dense, dry dry to moist, no odor, no staining. 4.5 moist NR No Recovery 0.0 moist **FILL** SILT, trace brick and coal, (7.5YR 4/2) brown, dense, moist to wet, no odor, no staining, water at 5.5 feet. to wet SP fine to medium SAND, trace fine gravel, (5YR 4/3) reddish wet brown, dense, wet, no odor, no staining. Soils consistent 3.5 with UNDno. P4-FOR-EE10BR-8.0-8.5 NR No Recovery P4-F0R-FF10BR-10 0-10 5 0.0 SW wet fine to coarse SAND, trace fine gravel, (5YR 4/3) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.

11— 12— 5 — P4-FOR-EE10BR-12.0-12.5

fine to medium SAND, trace silt, (5YR 4/3) reddish brown,

dense, wet, no odor, no staining. Soils consistent with

P4-FOR-EE10BR-14.0-14.5

UNDno.

P4-FOR-EE10BR-16.0-16.5

P4-FOR-EE10BR-18.0-18.5

P4-FOR-EE10BR-20.0-20.5

Notes

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A.GDT - 11/30/16 09:

2012-09 RA PPG LOGS

16

5

1

0.0

0.0

wet

bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

SP

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# **Boring ID: P4-FOR-FF8B**

Project Number: @2240738   Orilling Method: DIRECT PUSH   Coordinates (NLSPNAD83) x: @11851.48   Date Standard Drilling: @212016 92500 AM   Rig Type: Geogrope   Coordinates (NLSPNAD83) x: @18345.8   Date Finished Drilling: @212016 92500 AM   Rig Type: Geogrope   Coordinates (NLSPNAD83) x: @18345.8   Date Finished Drilling: @212016 92500 AM   Rig Type: Geograph   Coordinates (NLSPNAD83) x: @18345.8   Date Finished Drilling: @212016 92500 AM   Core Size: 3.0 in   Depth Not Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth to Water: NA   Depth Road   Project Manager: Scott Mikaelian   Depth Road   Depth R	Droinct	Namo: [	DDC Ca	rfield Ave			Drilling Company: SGS North America		Page:
Date Started Driffling: 62/12/016 9 25:00 AM Rig Type: Geogrobe Coordinates (NBAPADS3) yr. 683445.8 Depth Driffling: 62/12/016 0 15:00 AM Core Size: 3.0 in Boring Total Depth: 15 ff Core Size: 3.0 in Depth to Water: NA Physical Location: Actual -Forrest PDI Surface Cover and Thickness: Surface Elevation: 12.4.3 ft NAVD88 (ft t) 0.0 ASPHALT Asphalt and graves sub-base.								Coordinates (N ISDI	NAD83) v. 611851 /0
Deter Finished Drillings: 62(12016 10:1500 AM) Core Size: 30 in Boring Total Depth: 15 ft (Copped by HBB)					9:25:00 AM				
Depth to Water   NA   Project Manager: Scott Mikeelian   Depth to Water   NA   Surface Elevation:   12.43 in NAVD88   Surface Elevation:   12.43 in NAVD88   Surface Elevation:   12.43 in NAVD88   Sample   Recovery   PID   Moisture   USCS   Graphic   Log   Surface Cover and Thickness:   Sample   ID									
PAPER PROPRIES S.  The convey proper to the				0/21/2010	7 10.10.00 7 11				
Depth (Phyth) PID Moisture (ppm) Moisture (Log Surface Cover and Thickness: Sample (ppm) Moist (https://doi.org/10.1001/10.100				ual - Forres	st PDI		- reject manager: esse minasian		
Asphalt and gravel sub-base.  dry FILL SILT, (7.5YR 4/2) brown, dense, dry, no odor, no staining.  PA FOR FEBS 10  PA FOR FEBS	Depth Range	Recovery	PID	Moisture			Surface Cover and Thick		Sample
moist FilL Sil.T, trace coal (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.    The properties of th			0.0		ASPHALT		Asphalt and gravel sub-base.		
SILT, trace coal, (SYR 4/3) readish brown, medium dense, moist, no odor, no staining.  P4.FOR.FF88-30  P4.FOR.FF88-30  P4.FOR.FF88-45  P4.FOR.	-1-			dry	FILL		SILT, (7.5YR 4/2) brown, dense, dry, no	odor, no staining.	P4-F0R-FF8B-1.0-1.5
moist SM Interpretation of the part of the	-2-	_		moist	FILL		SILT. trace coal. (5YR 4/3) reddish brow	n. medium dense.	_
moist SM fine to medium SAND, little fine gravel, (7.5YR 4/2) brown, loose, moist, no odor, no staining. Soils consistent with UNDno.  6	- 3 - 3 	5						.,,	P4-F0R-FF8B-3.0-3.5
SM Cooke, molst, no odor, no staining. Sols consistent with UNDno.  NR NO RECOVERY  MR NO RECOVERY  MR NO RECOVERY  NR NO RECOVERY  MR NO RECOVERY  NR NO RECOVERY	-4-								P4-FOR-FF8B-4.0-4.5
NR NO RECOVERY  10	_ ٦			moist	SM		fine to medium SAND, little fine gravel, (	7.5YR 4/2) brown,	P4-FOR-FF8B-4.5-5.0
9 0.0 moist SM medium to coarse SAND, little fine to medium gravel, (7.5YR 4/2) brown, loose, saturated, no odor, no staining. Soils consistent with UNDno.  NR NO RECOVERY	-6 -7	3.5	0.0	to	SM		<ul> <li>UNDno.</li> <li>fine to coarse SAND, little fine to mediun</li> <li>4/2) brown, loose, moist to saturated, no</li> </ul>	n gravel, (7.5YR odor no staining,	
medium to coarse SAND, little fine to medium gravel, (7.5YR 4/2) brown, loose, saturated, no odor, no staining. Soils consistent with UNDno.  NR NO RECOVERY					NR	1	NO RECOVERY		
	-11 -12 -13	4.5	0.0	moist	SM		4/2) brown, loose, saturated, no odor, no		
					NR	1. 1. 1.	NO RECOVERY		1
votes: ogs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant UNDorg - organic undisturbed native deposits CCPW - chromate chemical producti comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.	⁄IМ - me	adow mat		GGM - gree	n grey mud		UNDorg - organic undisturbed native depo	osits CCPW - chi	ufactured gas plant romate chemical production wa

A.GDT - 11/30/16 09:

2012-09 RA PPG LOGS

30 Knightsbridge Road, Piscataway, NJ 08854

## **Boring ID: P4-FOR-FF8BR**

732.564.3200 office telephone

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: DIRECT PUSH Coordinates (NJSPNAD83) x: 611851.486 Date Started Drilling: 10/17/2016 11:50:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683446.333 Date Finished Drilling: 10/17/2016 12:40:00 PM Core Size: 3.0 Boring Total Depth: 21 ft Logged By: ES Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual - Forrest St - Supplemental PDI Surface Elevation: 12.308 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range (ft/ft) Content ΙD (ppm) Log (ft bgs) 0.0 **ASPHALT ASPHALT** fine to medium SAND, little coarse gravel, trace fill debris, dry FILL (2.5Y 4/2) dark grayish brown, medium dense, dry, no odor, FILL dry no staining. fine SAND, trace fine gravel and fill debris, (5YR 6/3) light 5 reddish brown, medium dense, dry, no odor, no staining. SP moist fine to coarse SAND, some medium gravel, (5YR 4/4) reddish brown, loose, moist to wet, no odor, no staining, to 0.0 wet water at 7.0 feet. Soils consistent with UNDno. P4-FOR-FF8BR-6.0-6.5 3.5 P4-FOR-FF8BR-8.0-8.5 NO RECOVERY NR P4-F0R-FF8BR-10 0-10 5 0.0 fine to coarse SAND, trace fine gravel, (5YR 4/4) reddish SP wet brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno. 12 P4-FOR-FF8BR-12.0-12.5 5 13 P4-FOR-FF8BR-14.0-14.5 0.0 SP fine to coarse SAND, little fine gravel, (5YR 4/4) reddish wet brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno. 16 P4-FOR-FF8BR-16.0-16.5 5 P4-FOR-FF8BR-18.0-18.5 19 SP fine SAND, little silt, (5YR 4/4) reddish brown, medium wet dense, wet, no odor, no staining. Soils consistent with UNDno. P4-FOR-FF8BR-20.0-20.5 0.0 1 -21 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits MGP - manufactured gas plant CCPW - chromate chemical production waste

nts: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Number: 60240739

Project Name: PPG Garfield Ave

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

## **Boring ID: P4-FOR-FF9B**

Page: 1 Drilling Company: SGS North America Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611859.09

				7:50:00 AM		Rig Type:		IAD83) y: 683467.13
	<u>nished Dr</u> I <b>By</b> : HBE		6/23/2016	8:50:00 AM		Core Size: 3.0 in Project Manager: Scott Mikaelian	Boring Total Depth:  Depth to Water: NA	
			ual - Forres	st PDI		Project Manager. Scott Mikaelian	Surface Elevation:	
	ar Eddatio	7.00	uai i oire	)			Odridoc Elevation.	12.10 1010
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thick	ness:	Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base.		
-1			dry	FILL		fine to medium SAND, (7.5YR 4/2) brow odor, no staining.	n, loose, dry, no	P4-FOR-FF9B-1.0-1.5
-2 -3	4		moist to wet	FILL		fine to medium SAND, little fine gravel, to (5Y 5/1) gray, medium dense, moist to w staining.	race ash and coal, /et, no odor, no	P4-FOR-FF9B-3.0-3.5
-4				NR		NO RECOVERY		
$\dashv$						1101120012111		
-5 -6 -7	4.5	7.8	wet to saturated	FILL		fine to medium SAND, little fine gravel, to dark gray, medium dense, wet to saturat gasoline-like odor, black staining, sheen,	ed, slight	P4-F0R-FF9B-5.0-5.5
-8-	4.5		saturated	FILL		fine SAND, trace fine gravel, (7.5YR 4/2	hrown medium	-
-9			Saturated	I FILE		dense, saturated, no odor, no staining.	) brown, medium	P4-FOR-FF9B-9.0-9.5
40				NR		NO RECOVERY		1
-10 <u> </u>		8.2	saturated	FILL		fine SAND, trace fine gravel, (7.5YR 4/2 dense, saturated, no odor, no staining.	) brown, medium	
-11			saturated	FILL		medium to coarse GRAVEL, little fine to	medium sand, (5Y	P4-FOR-FF9B-11.0-11.5
-12 - - -13 - -	4		saturated	SW		5/1) gray, loose, saturated, slight solvent staining. fine to medium SAND, (5YR 4/4) reddish dense, saturated, slight solvent-like odor consistent with UNDno.	n brown, medium	P4-FOR-FF9B-11.5-12.0
-14 -				NR	*****	NO RECOVERY		_
-15 <del></del>								
ĭM − me	adow mat		GGM - gree	en grey mud		esidue UNDno - non-organic undisturbed native of UNDorg - organic undisturbed native depo	osits CCPW - ch	ufactured gas plant romate chemical production wa

## **Boring ID: P4-FOR-FF10B**

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611872.93 Date Started Drilling: 6/21/2016 8:00:00 AM Rig Type: Geoprobe Coordinates (NJSPNAD83) y: 683492.82 Date Finished Drilling: 6/21/2016 8:55:00 AM Core Size: 3.0 in Boring Total Depth: 15 ft Logged By: HBB Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual - Forrest PDI Surface Elevation: 12.27 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range (ft/ft) Content ΙD (ppm) Log (ft bgs) 0.0 **ASPHALT** Asphalt and gravel sub-base. **FILL** ASH, trace fine gravel, (7.5YR 4/2) brown, loose, dry, no dry odor, no staining. moist **FILL** SILT, little fine gravel, trace coal and ash, (7.5YR 4/2) brown, moist, no odor, no staining. P4-FOR-FF10B-2.0-2.5 P4-FOR-FF10B-2.5-3.0 SILT, (7.5YR 4/2) brown, medium stiff, moist to wet, no moist MI to odor, no staining. Soils consistent with UNDno. wet NO RECOVERY NR 0.0 ML SILT, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with SM saturated fine SAND some SILT, (5YR 4/3) reddish brown, medium dense, saturated, no odor, no staining, water at 6.0 feet. Soils consistent with UNDno. 4 NR NO RECOVERY P4-FOR-FF10B-10 0-10 5 0.0 SM fine to medium SAND, some SILT, (5YR 4/3) reddish brown, saturated medium dense, saturated, no odor, no staining. Soils consistent with UNDno. NR NO RECOVERY 15

2012-09 RA PPG LOGS A.GDT - 11/30/16 23:49

COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits bgs - below surface grade MM - meadow mat

MGP - manufactured gas plant CCPW - chromate chemical production waste

## **Boring ID: P4-FOR-FF10BR**

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Project Name: PPG Garfield Ave **Drilling Company:** SGS North America Project Number: 60240739 Drilling Method: DIRECT PUSH Coordinates (NJSPNAD83) x: 611872.876 Date Started Drilling: 10/18/2016 8:40:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683493.136 Date Finished Drilling: 10/18/2016 9:15:00 AM Core Size: 3.0 Boring Total Depth: 21 ft Project Manager: Scott Mikaelian Logged By: KW Depth to Water: NA Physical Location: Actual - Forrest St - Supplemental PDI Surface Elevation: 12.090 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range (ft/ft) Content ΙD (ppm) Log (ft bgs) 0.0 **ASPHALT** ASPHALT and gravel sub-base FILL CINDERS, some ash, (5YR 2.5/1) black, loose, dry, no odor, dry no staining. dry FILL SILT, trace coal and fine gravel, (5YR 6/1) gray, dense, dry to moist, no odor, no staining. moist 4.5 NR No Recovery P4-FOR-FF10BR-5.0-5.5 0.0 moist **FILL** SILT, trace coarse gravel, (5YR 6/1) gray, dense, moist, no odor, no staining, water at 5.0 feet. P4-FOR-FF10BR-5.5-6.0 SP fine to medium SAND, trace fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno. 2.5 NR No Recovery 0.0 SP wet fine to medium SAND, trace fine to medium gravel and silt, (5YR 4/3) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno. 12 P4-FOR-FF10BR-12.0-12.5 5 13 P4-FOR-FF10BR-14.0-14.5 0.0 SP fine SAND, little silt, (5YR 4/3) reddish brown, dense, wet, wet no odor, no staining. Soils consistent with UNDno. 16 P4-FOR-FF10BR-16.0-16.5 5 P4-FOR-FF10BR-18.0-18.5 19 P4-FOR-FF10BR-20.0-20.5 0.0 1 -21

A.GDT - 11/30/16 09:

bgs - below surface grade bgs - below surface grade GGM - green grey mud UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

### **AECOM**

PPG - 2012-09 RA PPG\_LOGS\_A.GDT - 11/30/16 23:49

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# **Boring ID: P4-FOR-GG8B**

Page: 1

	t Name: F					Drilling Company: SGS North America Drilling Method: Direct Push		NAD83) x: 611875.44
				11:48:00 AM		Rig Type: Geoprobe		NAD83) y: 683430.86
Date F	inished Dr	illing:		3 12:15:00 PN	1 (	Core Size: 3.0 in	Boring Total Depth:	10 ft
	d By: HBE				F	Project Manager: Scott Mikaelian	Depth to Water: N/	
Physic	cal Locatio	n: Act	ual - Forre	st PDI		1	Surface Elevation:	12.86 ft NAVD88
Depth Range (ft bgs)	(ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and T	hickness:	Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base.		
 1 			moist	FILL		SILT, trace ash and glass, (5Y 5/1) moist, no odor, no staining	gray, medium dense,	P4-FOR-GG8B-0.5-1.0 P4-FOR-GG8B-2.0-2.5
 3 	4		moist to wet	SP	****	fine SAND, trace silt, (5YR 4/3) redo dense, moist to wet, no odor, no sta with UNDno.		P4-FOR-GG8B-2.5-3.0
4 				NR		NO RECOVERY		
—5— 6—  —7—	4	0.0	moist to wet	SP		fine SAND, trace silt, (5YR 4/3) redoction dense, moist to wet, no odor, no state Soils consistent with UNDno.	dish brown, medium ining, water at 6.0 feet.	
8  9	- - -		saturated	SM		SILT, trace fine sand, (5YR 4/3) red dense, saturated, no odor, no stainir UNDno.  NO RECOVERY	dish brown, medium ng. Soils consistent with	
 10						NO NEGOVERN		
Notes:	alow surface	grade	COPR - cha	omite ore pro-	posing re	sidue UNDno - non-organic undisturbed na	tive denosits MGP - man	ufactured has plant
gs - be	elow surface eadow mat		COPR - chr GGM - gree	omite ore proc n grey mud	essing res	sidue UNDno - non-organic undisturbed na UNDorg - organic undisturbed native		ufactured gas plant romate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# Boring ID: P4-FOR-GG8BR

Project	Number:	60240	1739		- 1	Drilling Method: DIRECT PUSH	Coordinates (N.ISP	NAD83) x: 611874.764
				11:05:00 AM		Rig Type:		NAD83) y: 683431.143
				16 11:55:00 A		Core Size: 3.0	Boring Total Depth:	
	By: ES	y.	. 5. 15/201			Project Manager: Scott Mikaelian	Depth to Water: N	
		n: Act	ual - Forres	st St - Supple			Surface Elevation:	
							, , , , , , , , , , , , , , , , , , , ,	,
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	kness:	Sample ID
		0.0		ASPHALT		ASPHALT and gravel sub-base		
-1 - -2	4.5		dry to moist	FILL		SILT, trace coal and ash, (7.5YR 4/2) by moist, no odor, no staining.	rown, dense, dry to	
-3 -4			moist	SP		fine SAND, (5YR 4/3) reddish brown, m no odor, no staining. Soils consistent wi		P4-FOR-GG8BR-4.0-4.5
$\dashv$				NR	<u> </u>	No Recovery		1
-5 - -6		0.0	moist to wet	SP		fine SAND, (5YR 4/3) reddish brown, m to wet, no odor, no staining, water at 6.5 consistent with UNDno.		D4 FOD CCOPD A A A A
-7 -8	3.5							P4-FOR-GG8BR-6.0-6.5
-9 -				NR		No Recovery		
-10 11 12 13 	5	0.0	wet	SP		fine SAND, little silt, (5YR 4/3) reddish l no odor, no staining. Soils consistent wi	orown, dense, wet, th UNDno.	P4-FOR-GG8BR-10.0-10.5
-14 - -15		0.0	wet	SP		fine SAND, little silt, (5YR 4/3) reddish l	prown dense wet	P4-FOR-GG8BR-14.0-14.5
-16 - -17	5			-		no odor, no staining. Soils consistent wi	th UNDno.	P4-FOR-GG8BR-16.0-16.5
-18 <del></del>  -19								P4-FOR-GG8BR-18.0-18.5
_20 _ _21	. 1	0.0						P4-FOR-GG8BR-20.0-20.5
	low surface		COPR - chr GGM - gree		essing re	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native dep	deposits MGP - man	ufactured gas plant romate chemical production wa

# **Boring ID: P4-FOR-GG9B**

Page: 1

Project Name:					Drilling Company: SGS North America	On and 1 4 - 41 10 -	NA DOO) 044000 70
Project Number:					Drilling Method: Direct Push		NAD83) x: 611886.76
Date Started Dri					Rig Type: Geoprobe	· · · · · · · · · · · · · · · · · · ·	NAD83) y: 683451.99
Date Finished D		6/24/2016	11:23:00 AM	1	Core Size: 3.0 in	Boring Total Depth:	
ogged By: HB	ъ. ^ · ·		ot DDi		Project Manager: Scott Mikaelian	Depth to Water: N	
Physical Location	n: Act	uai - Forres	SI PUI		1	Surface Elevation:	13.14 π ΝΑΥΔ88
Depth Range ft bgs) Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thick	ness:	Sample ID
_	2.4		ASPHALT		Asphalt and gravel sub-base.		
-1  -2 - 5		moist	FILL		SILT, trace fine gravel and ash, (2.5Y 4/3 medium stiff, moist, no odor, no staining.	3) olive brown,	P4-FOR-GG9B-2.0-2.5
-3		wet	FILL		fine SAND, some silt, (5YR 4/3) reddish	brown, medium	_
7				$\bowtie$	dense, wet, moderate, solvent-like odor,	no staining.	P4-FOR-GG9B-4.0-4.5
-5-	1.5	wet	SM		SILT, (5YR 4/3) reddish brown, medium saturated, slight solvent-like odor, no stai feet. Soils consistent with UNDno.		P4-FOR-GG9B-4.5-5.0
-6— -7— _ 3.5		saturated	SP		fine SAND, trace silt, (5YR 4/3) reddish l dense, saturated, no odor, no staining. S UNDno.		
_ 			NR		NO RECOVERY		
10							
MM - meadow mat		GGM - gree	n grey mud		esidue UNDno - non-organic undisturbed native c UNDorg - organic undisturbed native depo If t thick 3) No CCPW (COPR or GGM) present in any interval of this borin	osits CCPW - ch	oufactured gas plant promate chemical production wa

# **Boring ID: P4-FOR-GG9BR**

	Number:		rfield Ave 1739			Drilling Method: DIRECT PUSH	Coordinates (NJSP	NAD83) x: 611889.796
				3 10:15:00 AM		Rig Type:	· · · · · · · · · · · · · · · · · · ·	NAD83) y: 683451.494
				16 11:05:00 Al		Core Size: 3.0	Boring Total Depth:	
	By: KW					Project Manager: Scott Mikaelian	Depth to Water: NA	
			ual - Forre	st St - Suppler			Surface Elevation:	
				2.500.01				
Depth Range It bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thick	ness:	Sample ID
		0.0		CONCRETE	P 14.4	CONCRETE and gravel sub-base		
$\dashv$			dry	FILL		SILT, trace coal, (7.5YR 4/2) brown, den	se dry to moist no	-
-1-			to	1 122	$\bowtie$	odor, no staining.	30, dry to moist, no	
_			moist		$\bowtie$	9		
-2-					$\bowtie$	8		
-2-	4.5				$\bowtie$	<b>X</b>		
-	4.5				$\bowtie$			
-3-					$\bowtie$			
					$\bowtie$	×		
,					$\bowtie$			
4					$\bowtie$	8		
$\dashv$			moist	SP		fine SAND, (5YR 4/3) reddish brown, me	dium dense moist	†
-5-		0.0		SP		no odor, no staining. Soils consistent with	n UNDno.	-
4		0.0	moist to	35		fine to medium SAND, (5YR 4/3) reddish	brown, dense,	
-6-			wet			moist to wet, no odor, no staining, water	at 6.5 feet. Soils	D. ====================================
~						consistent with UNDno.		P4-FOR-GG9BR-6.0-6.5
_ 7								
-7—					::::::	1		
$\dashv$	4				: ;;; ;; <del>;</del>	1		
-8-								D4 500 00000 0005
						3		P4-FOR-GG9BR-8.0-8.5
-9—				NR		No Recovery		
$\dashv$						,		
10		0.0	wot	SW	*****	fine to coarse SAND trace fine to medic	m graval (5VD 4/2)	P4-FOR-GG9BR-10.0-10.5
4		0.0	wet	SVV		fine to coarse SAND, trace fine to mediu reddish brown, loose, wet, no odor, no st		1 1 2 1 2 2 2 2 1 1 2 1 2 1 2 1 2 1 2 1
-11						consistent with UNDno.	ammig. Cono	
`` _						•		
40			wet	SP		fine SAND, trace silt, (5YR 4/3) reddish l		
-12	5					no odor, no staining. Soils consistent with	n UNDno.	P4-FOR-GG9BR-12.0-12.5
	3							
13						<del>`</del>		
4						:]		
-14						<b>1</b>		D. 500 2000
						:]		P4-FOR-GG9BR-14.0-14.5
<u>,  </u>						1		
15		0.0	wet	SP		fine SAND, little silt, (5YR 4/3) reddish b	rown, dense, wet,	
$\dashv$						no odor, no staining. Soils consistent with	n UNDno.	
16						:]		P4-FOR-GG9BR-16.0-16.5
4						<b>†</b>		
-17						:]		
	5					<b>†</b>		
_10						:1		
-18						4		P4-FOR-GG9BR-18.0-18.5
$\exists$						:1		
19—						4		
$\dashv$						4		
20						4		D4 500 00000
	1	0.0				:		P4-FOR-GG9BR-20.0-20.5
$\Box$	·					₩		
21-+						1		
o <b>tes:</b> ıs - belo	ow surface	grade	COPR - chr	omite ore proce	essina r	esidue UNDno - non-organic undisturbed native o	eposits MGP - man	ufactured gas plant
, , , , , , ,			GGM - gree		ssoming II	UNDorg - organic undisturbed native depo		romate chemical production w

# Boring ID: P4-FOR-HH8B

Droject Name:	DDC Co	rfiold Avo			Drilling Company: SGS North America		Page	
Project Name:					Drilling Method: Direct Push	Coordinates (NISP	NAD83) x: 611901.6	
Project Number:         60240739           Date Started Drilling:         6/27/2016 10:25:00 AM           Date Finished Drilling:         6/27/2016 11:00:00 AM							IAD83) y: 683414.07	
						Boring Total Depth:		
Logged By: KV		0/2//2010	7 11.00.00741		Project Manager: Scott Mikaelian	Depth to Water: N/		
Physical Locati		ual - Forres	st PDI		110juut managuri Cook iyimadiiari	Surface Elevation:		
Depth Range		Moisture Content	USCS	Graphi Log	Surface Cover and Thick		Sample ID	
ft bgs) (1011)	0.0		ASPHALT		Asphalt and gravel sub-base			
4 '	0.0			XXXXX		(7.5) (D.0(0)   1.1	_	
-1-		dry	FILL		fine to medium SAND, trace fine gravel, brown, loose, dry, no odor, no staining.	(7.5YR 3/2) dark		
-2- -3- -4- -4-		moist	FILL		SILT, (7.5YR 6/3) light brown, medium dense, moist, no odor, no staining.			
			NR		NO RECOVERY			
-5 6 7 5	5 0.0	moist to saturated	FILL		SILT, (2.5YR 5/1) reddish gray, dense, no odor, no staining, water at 9.0 feet.			
-8 - -9 -10		saturated	SP-SM		fine to medium silty SAND, trace fine gr	oval (SVD 4/2)	P4-FOR-HH8B-8.0-8.5 P4-FOR-HH8B-9.5-10.0 P4-FOR-HH8B-10.0-10.5	
-11 -12 - 3	0.0	Saturateu	3F-3IVI		reddish brown, medium dense, saturated, no odor, no staining. Soils consistent with UNDno.			
-13			NR		NO RECOVERY		1	
-14								
-15								
lotes:	e grade	COPR - chr	omite ore proc	essing r	esidue UNDno - non-organic undisturbed native	deposits MGP - man	ufactured gas plant	
/IM - meadow mat		GGM - gree			UNDorg - organic undisturbed native dep ft thick 3) No CCPW (COPR or GGM) present in any interval of this bori		romate chemical production wa	

## **Boring ID: P4-FOR-HH8BR**

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: DIRECT PUSH Coordinates (NJSPNAD83) x: 611901.563 Date Started Drilling: 10/17/2016 11:00:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683412.555 Date Finished Drilling: 10/17/2016 11:45:00 AM Core Size: 3.0 Boring Total Depth: 21 ft Depth to Water: NA Logged By: ES Project Manager: Scott Mikaelian Physical Location: Actual - Forrest St - Supplemental PDI Surface Elevation: 13.287 ft NAVD88 Depth Recovery PID Moisture Graphic Sample Surface Cover and Thickness: **USCS** Range (ft/ft) Content ΙD (ppm) Log (ft bgs) 0.0 **ASPHALT** ASPHALT, (5Y 2.5/1) black, dry no odor no staining moist **FILL** fine SAND, little silt, trace concrete and fill debris, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining. 5 0.0 moist **FILL** fine to medium SAND, little fill debris, (7.5YR 6/3) light brown, medium dense, moist to wet, no odor, no staining, to wet water at 9.0 feet. 5 0.0 SP fine to medium silty SAND, (5YR 4/4) reddish brown, wet medium dense, wet, no odor, no staining. Soils consistent with UNDno. 12 P4-FOR-HH8BR-12.0-12.5 5 P4-FOR-HH8BR-14.0-14.5 0.0 SP fine SAND, (5YR 4/4) reddish brown, medium dense, wet, wet no odor, no staining. Soils consistent with UNDno. 16 P4-FOR-HH8BR-16.0-16.5 5 P4-FOR-HH8BR-18.0-18.5 P4-FOR-HH8BR-20.0-20.5 0.0 1 -21

A.GDT - 11/30/16 09:

2012-09 RA PPG LOGS

bgs - below surface grade MM - meadow mat COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# Boring ID: P4-FOR-HH9B

	Number:					Drilling Company: SGS North America Drilling Method: Direct Push	NAD83) x: 611916.55	
				9:45:00 AM		Rig Type: Geoprobe		IAD83) y: 683443.85
			6/28/2016	6 10:20:00 AN		Core Size: 3.0 in	Boring Total Depth:	
	IBy: KW			-+ DDI		Project Manager: Scott Mikaelian	Depth to Water: NA	
nysica	ai Locatio	n: Act	ual - Forre	St PDI	1	1	Surface Elevation:	14.13 ft NAVD88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickne	ess:	Sample ID
		0.0		CONCRETE	4 4	Concrete		
٦			dry	FILL		ASH, some fine to medium sand and grav	el, (7.5YR 2.5/1)	P4-FOR-HH9B-0.5-1.0
-1			dry	FILL		black, loose, dry, no odor, no staining.	· /	-
$\dashv$			to		$\bowtie$	SILT, (7.5YR 4/2) brown, dense, dry to mostaining.	oist, no odor, no	
-2-			moist			stairiirig.		
-	5							P4-FOR-HH9B-2.5-3.0
-3								14101111022.00.0
_1_					$\bowtie$			
<b>"</b> _					$\bowtie$			
						*		P4-FOR-HH9B-4.5-5.0
-5-		0.0	moist	SW-SM		fine SAND, (5YR 4/3) reddish brown, med		P4-FOR-HH9B-5.0-5.5
			to saturated			to saturated, no odor, no staining, water a consistent with UNDno.	t 6.0 feet. Soils	
-6			Saluraleu			Consistent with ondire.		
⊣								
-7						•		
$\dashv$	3.5					•		
-8-								
4						, , , , , , , , , , , , , , , , , , ,		_
-9				NR		NO RECOVERY		
-10					*. * . # *!.*!			
		0.4	saturated	SP-SM		fine SAND, (5YR 4/3) reddish brown, med		
						saturated, no odor, no staining. Soils cons	sistent with UNDno.	
-11								
7								
-12	5		saturated	ML		SILT, (5YR 4/3) reddish brown, dense, sa		
	3					solvent-like odor, no staining. Soils consis	tent with UNDno.	
-13								
-			saturated	SP		fine to medium SAND, (5YR 4/3) reddish	brown, medium	_
-14						dense, saturated, no odor, no staining. So		
-						UNDno.		
15					1	<u>'1</u>		
otco:			I .	1	1			<u> </u>
otes:								
gs - belo	ow surface adow mat			romite ore proc en grey mud	essing re	esidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos	eposits MGP - manu	ufactured gas plant romate chemical production wa

### A E C O M

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# **Boring ID: P4-FOR-HH9BR**

Project Project	Number:	60240	739			Drilling Method: DIRECT PUSH	NAD83) x: 611917.542	
				3 10:10:00 AM		Rig Type:		NAD83) y: 683443.043
				16 10:55:00 A		Core Size: 3.0	Boring Total Depth:	
	By: ES	ıy.	10/11/20	. 5 10.00.00 A		Project Manager: Scott Mikaelian	Depth to Water: NA	
		n. Vct	ual - Forre	st St - Suppler			Surface Elevation:	
_	Localio	/٦٠١	uai 1 011 C	or - Ouppier	nontai f	Ť	Juliuce Lievation.	
Depth Range it bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphio Log	Surface Cover and Thick	kness:	Sample ID
		0.0		CONCRETE	P 1 1	CONCRETE		
$\dashv$			slightly	FILL		fine to medium SAND, some silt, trace of	2001 (5VD 4/4)	-
-1 - -2 -	5	moist reddish brown, medium dense, slightly moist, no odor, no staining.						
-3 <del></del> -4 -5								
-5 -6 -		0.0	moist to wet	SP		fine SAND, (5YR 4/3) reddish brown, m to wet, water at 8.5 feet. Soils consisten		
-7— -8— -9—	4.5							P4-FOR-HH9BR-7.0-7.5
$\dashv$				NR		NO RECOVERY		_
10-		0.0	,	SP	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		(4) raddials become	+
- 11 - 12 -	5	0.0	wet	3r		fine to medium SAND, little silt, (5YR 4/medium dense, wet, no odor, no staining with UNDno.		P4-FOR-HH9BR-11.0-11.6
13 <u> </u>			wet	SP		fine to coarse SAND, (5YR 4/4) reddish dense, wet, no odor, no staining. Soils c UNDno.	brown, medium consistent with	P4-FOR-HH9BR-13.0-13.8
15 — - 16 — -		0.0	wet	SP		fine to coarse SAND, (5YR 4/4) reddish dense, wet, no odor, no staining. Soils c UNDno.	brown, medium consistent with	P4-FOR-HH9BR-15.0-15.8
-17  -18 	5							P4-FOR-HH9BR-17.0-17.5
19—			wet	SP		fine SAND, trace silt, (5YR 4/4) reddish dense, wet, no odor, no staining. Soils c		P4-FOR-HH9BR-19.0-19.8
20 - 21	1	0.0				. Grapho.		P4-FOR-HH9BR-20.0-20.5
otes:								
gs - bel M - me	low surface adow mat  1) 3 attempts we	_	GGM - gree	omite ore proce on grey mud	essing re	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native dep		ufactured gas plant romate chemical production wa

### **AECOM**

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# Boring ID: P4-FOR-W11B

Date Finished Drilling: 6/16/2016 10:30:00 AM	Coordinates (NJSPNAD83) x: 61165 Coordinates (NJSPNAD83) y: 683652			
hysical Location: Actual - Forrest PDI lepth arring (furft) (ppm) Moisture (content to use of (furft)) Moisture (furft) (ppm) Moisture (f	Boring Total Depth: 20 ft			
Pepth large (fufft) (ppm) Content USCS Graphic Surface Cover and Tourist (fufft) (ppm) Content USCS Graphic Log Surface Cover and Tourist (fufft) (ppm) Content USCS Graphic Log Surface Cover and Tourist (fufft) (ppm) Content (fufft) (ppm) Con	Depth to Water: NA			
targe (furth) (ppm) Moderate (ppm) (content (ppm) (content (ppm) (content (ppm) (ppm) (content (ppm) (ppm) (content (ppm) (ppm) (content (ppm) (	Surface Elevation: 10.57 ft NAVD88			
moist FILL fine to case SAND, little fine to medium SAND, trace fine gray moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, no staining.  2.1 saturated FILL ASH, some sit, (5Y 4/1) dark gray, moderate MGP-like odor, product st NO RECOVERY  3.5 saturated FILL ASH, some sit, (5Y 4/1) dark gray, moderate MGP-like odor, product st NO RECOVERY  3.6 saturated FILL SILT, trace fine sand, (5Y 4/1) dark moderate MGP-like odor, product st NO RECOVERY  3.6 saturated SM SILT, trace fine sand and organics, brown, stiff, wet, no odor, no staining UNDno.  NR NR NO RECOVERY  3.7 saturated SM fine to medium SAND, trace fine gray brown, medium dense, saturated, nonsistent with UNDno.  NO RECOVERY  4. NR NO RECOVERY  NR NO RECOVERY  NO RECOVERY  NO RECOVERY	d Thickness: Samp			
moist FILL fine to carse SAND, little fine to medium SAND, little fine to medium silty SAND, some as dark brown, medium dense, wet, not medium dense, saturated fine to medium silty SAND, some as dark brown, medium dense, wet, not medium dense, saturated, slight MC sheen, water at 5.0 feet.    Augustian	medium gravel. (7.5YR			
dark brown, medium dense, wet, no  NR NO RECOVERY  40.5 saturated FILL fine to medium SAND, little silt and medium dense, saturated, slight MC sheen, water at 5.0 feet.  ASH, some silt, (5Y 4/1) dark gray, moderate MGP-like odor, product st NO RECOVERY  2.1 saturated FILL ASH, trace fine sand, (5Y 4/1) dark moderate MGP-like odor, product st NO RECOVERY  wet ML SILT, trace fine sand and organics, brown, stiff, wet, no odor, no stainin UNDno.  Saturated SM Inno medium SAND, trace fine gray brown, medium dense, saturated, n consistent with UNDno.  NO RECOVERY  0.0 saturated SM fine to coarse SAND, little fine to medium dense, saturated, n consistent with UNDno.  NO RECOVERY	o staining. medium gravel, trace fill nedium dense, moist, no	ID 0 0 0 5		
40.5 saturated FILL fine to medium SAND, little silt and medium dense, saturated, slight MC sheen, water at 5.0 feet.    Saturated   FILL   ASH, some silt, (5Y 4/1) dark gray, moderate MGP-like odor, product st NO RECOVERY	asii, (7.511\ 2.5/5) very	16-2.0-2.3		
saturated FILL fine to medium SAND, little sit and medium dense, saturated, slight MC sheen, water at 5.0 feet.    Saturated				
saturated FILL ASH, some silt, (5Y 4/1) dark gray, moderate MGP-like odor, product st NO RECOVERY  2.1 saturated FILL ASH, trace fine sand, (5Y 4/1) dark moderate MGP-like odor, product st NO RECOVERY  wet ML SILT, trace fine sand and organics, brown, stiff, wet, no odor, no staining UNDno.  saturated SM Interest of the sand and organics, brown, stiff, wet, no odor, no staining UNDno.  NR NR NO RECOVERY   0.0 saturated SM fine to coarse SAND, little fine to medium dense, saturated, nonsistent with UNDno.  NO RECOVERY  NR NO RECOVERY		IB-6.0-6.5		
NR Moderate MGP-like odor, product st NO RECOVERY  2.1 saturated FILL ASH, trace fine sand, (5Y 4/1) dark moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st moderate MGP-like odor, product st no RELATION SILT, trace fine sand and organics, brown, stiff, wet, no odor, no stainin UNDno.  NR NR NR NO RECOVERY  NR SILT, trace fine sand, (5Y 4/1) dark moderate MGP-like odor, product st no RELATION SILT, trace fine sand, store, product st no RELATION SILT, trace fine sand, store, product st no RELATION SILT, trace fine sand, store, product st no RELATION SILT, trace fine sand, store, product st no RELATION SILT, trace fine sand, store, product st no RELATION SILT, trace fine sand, store, product st no RELATION SILT, trace fine sand, store, product st no RELATION SILT	v loose saturated P4-FOR-W11	IB-8.0-8.5		
asturated FILL ASH, trace fine sand, (5Y 4/1) dark moderate MGP-like odor, product st wet ML SILT, trace fine sand and organics, brown, stiff, wet, no odor, no stainin UNDno.  saturated SM fine to medium SAND, trace fine graph brown, medium dense, saturated, nonsistent with UNDno.  NO RECOVERY  15  0.0 saturated SM fine to coarse SAND, little fine to make the moderate MGP-like odor, product st mode				
wet ML SILT, trace fine sand and organics, brown, stiff, wet, no odor, no stainin UNDno. saturated SM fine to medium SAND, trace fine grater brown, medium dense, saturated, no consistent with UNDno. NO RECOVERY  15  0.0 saturated SM fine to coarse SAND, little fine to medium dense, saturated, no consistent with UNDno. NO RECOVERY  17  4  18  NR NO RECOVERY		3-10.0-10.5		
brown, stiff, wet, no odor, no stainin UNDno.  saturated SM fine to medium SAND, trace fine gra brown, medium dense, saturated, nonsistent with UNDno.  NO RECOVERY  15  0.0 saturated SM fine to coarse SAND, little fine to mareddish brown, medium dense, saturated staining. Soils consistent with UNDno.  NO RECOVERY  NO RECOVERY	<u> </u>			
saturated SM fine to medium SAND, trace fine grabrown, medium dense, saturated, n consistent with UNDno.  NO RECOVERY  15  0.0 saturated SM fine to coarse SAND, little fine to median saturated, n consistent with UNDno.  NO RECOVERY  4  18  NR NO RECOVERY	ning. Soils consistent with	7 1110 1110		
NR NO RECOVERY  15 0.0 saturated SM fine to coarse SAND, little fine to moredish brown, medium dense, saturating. Soils consistent with UNDriving 19 NR NO RECOVERY				
saturated SM fine to coarse SAND, little fine to moredish brown, medium dense, saturated staining. Soils consistent with UNDs staining. Soils consistent with UNDs				
NR NO RECOVERY	aturated, no odor, no			
NR NO RECOVERY				
otes: gs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed na M - meadow mat GGM - green grey mud UNDorg - organic undisturbed native		duction :		

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# Boring ID: P4-FOR-X11B

Project !	Name: F	PPG Ga	rfield Ave			Drilling Company: SGS North America		Page
	Number:					Drilling Method: Direct Push	Coordinates (N.ISPI	NAD83) x: 611677.03
				3:04:00 AM		Rig Type: Geoprobe		IAD83) y: 683634.53
				9:05:00 AM		Core Size: 3.0 in	Boring Total Depth:	
	By: HBE		3,23,2010			Project Manager: Scott Mikaelian	Depth to Water: 4.0	
			ual - Forres	st PDI			Surface Elevation:	
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thick	iness:	Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base.		
-1-			dry to moist	FILL		medium to coarse SAND, little fine to medium dense, dry to moist staining.	, no odor, no	
-3- -4-	4.5		moist to saturated	FILL		CINDERS, trace wood, (5Y 2.5/1) black saturated, slight oil-like odor, no staining	, loose, moist to g, water at 4.0 feet.	
٦				NR		NO RECOVERY		1
-5 6  -7	3.5	0.0		FILL		CINDERS, trace clinkers, (5Y 2.5/1) bla very slight oil-like odor, no staining.	ck, loose, saturated,	
-8-								P4-FOR-X11B-7.5-8.0
0			saturated	ML		SILT, (5Y 5/1) gray, soft, saturated, no o	odor, no staining.	P4-FOR-X11B-8.0-8.5
-9-				NR		Soils consistent with UNDno. NO RECOVERY		
-10 - -11		0.0	saturated	ML		SILT, (5Y 5/1) gray, medium dense, sati staining. Soils consistent with UNDno.	urated, no odor, no	
-12 -13 -14	4.5		wet	SM		fine silty SAND, little fine gravel, (5YR 4, medium dense, wet, no odor, no staining with UNDno.		
٦				NR		NO RECOVERY		1
-15 -16 -17	4.5	0.0	saturated	SM		fine to medium silty SAND, some medium (5YR 4/3) reddish brown, medium dense no staining. Soils consistent with UNDno	e, saturated, no odor,	
-18-								
-19						1		
20				NR		NO RECOVERY		
lotes: as - belo					essing re	esidue UNDno - non-organic undisturbed native		l ufactured gas plant
ЙМ - mea			GGM - gree			UNDorg - organic undisturbed native dep	acita CODIA/ -I-	romate chemical production wa

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# Boring ID: P4-FOR-Y11B

	Name: F					Drilling Company: SGS Drilling Method: Direct Push	Coordinates (NJSPN	IAD83) x: 611700.04		
				11:30:00 AM		Rig Type: Geoprobe	Coordinates (NJSPN			
Date Fi	nished Dr	illing:	6/22/2016	6 12:15:00 PM	/	Core Size: 3.0 in	Boring Total Depth:			
	IBy: WC					Project Manager: Scott Mikaelian	Depth to Water: 4.0			
Physica	al Locatio	n: Act	ual - Forre	st PDI		1	Surface Elevation:	10.43 ft NAVD88		
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickn	ness:	Sample ID		
		0.0		ASPHALT		Asphalt and gravel sub-base.				
-1-				FILL		SILT, some fine sand, little fine gravel, (7 dry, no odor, no staining.	,			
-2— - -3—	3.5		moist to wet	FILL		ASH, trace clinkers, (2.5Y 4/1) dark gray, wet, no odor, no staining.	loose, moist to			
-4				NR		NO RECOVERY				
-5- <del>-</del>		0.0	saturated	FILL		ASH, trace clinkers, (2.5Y 4/1) dark gray, no odor, no staining, water at 5.0 feet.	loose, saturated,			
-7	3.5		wet	FILL		sandy SILT, little fine gravel, (5Y 5/1) grawet, no odor, no staining.	y, medium dense,	P4-FOR-Y11B-7.5-8.0		
-8-			moist	OL	<u> </u>	Organic SILT, 80% organic silt, 20% orga	anic fibers (2.5V	P4-FOR-Y11B-8.0-8.5		
4			IIIOISI	NR		4/1) dark gray, soft, moist, slight organic				
-9 -10				NIX		Soils consistent with UNDorg. NO RECOVERY	/			
_ _11  _12  13	4	0.0	wet	ML		SILT, trace organic fibers, (7.5YR 4/2) bridense, wet, no odor, no staining. Soils co UNDno.				
_,			wet	SW						
-14 - -15				NR		reddish brown, medium dense, wet, no od Soils consistent with UNDno. NO RECOVERY	dor, no staining.			
ĬM - me	adow mat		GGM - gree	en grey mud		esidue UNDno - non-organic undisturbed native di UNDorg - organic undisturbed native depos ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring	sits CCPW - chro	factured gas plant omate chemical production wa		

### A E C O M

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# Boring ID: P4-FOR-Y11BR

Project			10/19/2016			Drilling Method: DIRECT PUSH Rig Type:	Coordinates (N ISDN)	AD83) x: 611701.244 AD83) y: 683617.532
			10/19/2010	6		Core Size: 3.0	Boring Total Depth:	
	d By: SP	y.	. 5. 15/201	-		Project Manager: Scott Mikaelian	Depth to Water: NA	
		n: Act	ual - Forreș	t PDI			Surface Elevation:	
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID
-1	5	0.2	dry	FILL		fine to coarse SAND, some cinders, trace (5YR 6/3) light reddish brown, loose, dry odor, no staining.		
-5 -6 -7 -8	5	0.0	wet	FILL		SILT, trace ash and fine gravel, (7.5YR 6 soft, wet slight MGP-like odor, no staining SILT, trace organics, (7.5YR 3/2) dark br	g, water at 6.0 feet.	
-9 -10 -11 -12	5	0.0	wet	SM		slight MGP-like odor, no staining. Soils of UNDno.  fine to medium SAND, trace fine gravel, dense, wet, no odor, no staining. Soils country UNDno.	(7.5YR 6/1) gray,	
-13 -14 -15 -16 -17		0.0	wet	SP		medium to coarse SAND, some fine to coarse SAND, some fine to coarse sand, reddish brown, dense, wet, no odor, consistent with UNDno.	oarse gravel, (5YR no staining. Soils	
-18 -19 -20	5	0.0						P4-FOR-Y11BR-20.0-20.5
	low surface		COPR - chro		cessing re	esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	leposits MGP - manu	factured gas plant omate chemical production wa

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

## **Boring ID: P4-FOR-Y12B**

Project Nar	no. D	PC Ca	rfield Ave			Drilling Company: SGS North America		Page:
Project Nur						Drilling Method: Direct Push	Coordinates (NJSP	NAD83) x: 611711.7
				10:50:00 AM		Rig Type: Geoprobe		NAD83) y: 683638.06
				11:55:00 AM		Core Size: 3.0 in	Boring Total Depth:	
Logged By:						Project Manager: Scott Mikaelian	Depth to Water: 4.	
Physical Lo			ual - Forres	st PDI			Surface Elevation:	
Depth Range ft bgs)		PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thick	Sample ID	
		0.0		ASPHALT		Asphalt and gravel sub-base.		
 -1		0.0	moist to	FILL		ASH, trace fine sand and coal, (7.5YR 3 loose, moist to saturated, no odor, no sta	/3) dark brown, aining, water at 4.5	P4-FOR-Y12B-0.5-1.0
-2	4.5		saturated			feet.		P4-FOR-Y12B-2.0-2.5
-4-					XXX	8		P4-FOR-Y12B-4.0-4.5
7				NR	~~~	NO RECOVERY		1
-5		0.0	saturated	FILL		ASH, trace fine sand and coal, (5Y 3/1) loose, saturated, no odor, no staining.	very dark gray,	-
-6-					$\ggg$	8		P4-FOR-Y12B-6.0-6.5
$\dashv$					$\bowtie$			P4-FOR-Y12B-6.5-7.0
-7-	4		wet	ML		SILT, (7.5YR 4/3) brown, medium stiff, v	wet no odor no	P4-FOR-Y12B-7.0-7.5
-8 -9 -10				NR		staining. Soils consistent with UNDno.  NO RECOVERY		_
-11 -12	3.5	0.0	wet	ML		SILT, (7.5YR 4/3) brown, stiff, wet, no o Soils consistent with UNDno.	dor, no staining.	
_ -14 <del></del>				NR		NO RECOVERY		_
_ -15								
lotes: ogs - below s //M - meadov	urface g	grade	COPR - chro GGM - gree	omite ore proce	essing re	esidue UNDno - non-organic undisturbed native uNDorg - organic undisturbed native dep	deposits MGP - man	l ufactured gas plant romate chemical production wa
				ery 2) MM/UND confin				

Project Number: 60240739

Project Name: PPG Garfield Ave

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

## Boring ID: P4-FOR-Y12BR2

Date Started Drilling: 10/20/2016 9:15:00 AM

Page: 1 Drilling Company: SGS Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611709.212 **Coordinates (NJSPNAD83) y:** 683636.552

ato Fini				16 9:50:00 AM	1 C	ore Size: 3.0 in	Boring Total Depth:	21 ff
	By: ES	g.	10/20/20	10 0.00.00 7 41		oject Manager: Scott Mikaelian	Depth to Water: N	
		n: Act	ual - Forre	st St - Suppler			Surface Elevation:	
	Locatio	7.00	dai 1 oite	реос опрры	Tierreal F		Curiace Elevation.	10.440 1014/10/200
	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and T	hickness:	Sample ID
		0.0		ASPHALT		ASPHALT and gravel sub-base		
2	4		dry to moist	FILL		CINDERS, some ash, little coal, bric 2.5/1) black, loose, dry to moist, no o		
				NR	*****	No Recovery		1
; <del></del>		0.0	moist to wet	FILL		CINDERS, some ash little coal and f black, loose, moist to wet, slight fuel staining, water at 6.0 feet.		
	4.5		wet	OL		Organic SILT, 80% organic silt, 20% 4/1) dark gray, stiff, wet, moderate o Soils consistent with UNDorg.		
7				NR		No Recovery		P4-FOR-Y12BR2-9.0-9.5
) - 		0.0	wet	OL		Organic SILT, 80% organic silt, 20% 6/1) gray, stiff, wet, slight organic od consistent with UNDorg.		P4-FOR-Y12BR2-11.0-11.5
	5		moist	ML		SILT, trace fine sand, (5YR 6/3) ligh dense, moist, no odor, no staining. S UNDno.	t reddish brown, very Soils consistent with	
3								P4-FOR-Y12BR2-13.0-13.5
$\vdash$			wet	SP		fine silty SAND, (5YR 4/3) reddish b odor, no staining. Soils consistent wi		
- - - -		0.0	wet	SW		fine to coarse SAND, little fine to coa (5YR 4/3) reddish brown, dense, we Soils consistent with UNDno.	arse gravel, trace silt, t, no odor, no staining.	P4-FOR-Y12BR2-15.0-15.5
- - 3	5							P4-FOR-Y12BR2-17.0-17.5
<b>-</b>								P4-FOR-Y12BR2-19.0-19.5
		0.0						P4-FOR-Y12BR2-20.0-20.5

Rig Type:

bgs - below surface grade MM - meadow mat COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits nts: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

MGP - manufactured gas plant CCPW - chromate chemical production waste

### A E C O M

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# Boring ID: P4-FOR-Z10B

Project I	Name: F	PPG Ga	rfield Ave			Drilling Company: SGS North America		
	Number:					Drilling Method: Direct Push	Coordinates (NJSP	NAD83) x: 611715.54
				3:20:00 AM		Rig Type: Geoprobe		NAD83) y: 683578.45
				8:50:00 AM		Core Size: 3.0 in	Boring Total Depth:	
	By: KW		0/20/2010	0.00.007411		Project Manager: Scott Mikaelian	Depth to Water: N	
			ual - Forres	st PDI	'	Troject managerr Cook mikacikari	Surface Elevation:	
Donth	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	Sample ID	
		0.0	dn/	FILL		medium GRAVEL, little fine sand, (N 5/)	gray loogo dry no	
		0.0	dry		$\times\!\!\times\!\!\times$	odor, no staining.	gray, loose, dry, no	
-1-				ASPHALT		Asphalt and gravel sub-base		
· _			dry	FILL	$\bowtie$	fine to medium silty SAND, (7.5YR 3/2)	dark brown, medium	
			dry	FILL	$\bowtie$	dense, dry, no odor, no staining.  ASH, (2.5YR 6/3) light reddish brown, lo	ana druta maiat na	
-2-	3		to		$\bowtie$	odor, no staining.	ose, dry to moist, no	
-	3		moist moist	FILL		fine to medium SAND, some ash, (N 7/)	light gray, loose,	
-3-			1110101	NR	<b>XXXX</b>	moist, no odor, no staining.	<b>3 - 3 - 3</b> ,	
-4				TWX		NO RECOVERY		
-5		0.0	saturated	FILL		fine to medium SAND, some ash, (N 5/) saturated, no odor, no staining, water at	5.0 feet.	
-7-	3		saturated	FILL		SILT, some fine gravel, trace clay (5YR 3 brown, medium dense, saturated, slight I staining.		
-9-				NR		NO RECOVERY		
10		0.0	saturated	FILL		SILT, (5YR 6/3) light reddish brown, den odor, no staining.	se, saturated, no	_
12-	3.5		saturated	SP		fine to medium SAND, trace silt and fine	gravel. (5YR 4/3)	P4-FOR-Z10B-12.5-13.0
13			Januar Grand	NR		reddish brown, medium dense, saturated staining. Soils consistent with UNDno.	I, no odor, no	_
-14				NK		NO RÉCOVERY		
15 -						•		
								1
	w surface		COPR - chro		essing re	esidue UNDno - non-organic undisturbed native o	deposits MGP - man	ufactured gas plant romate chemical production wa

30 Knightsbridge Road, Piscataway, NJ 08854

## Boring ID: P4-FOR-Z11B

732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611725.12 Date Started Drilling: 6/17/2016 8:25:00 AM Rig Type: Geoprobe Coordinates (NJSPNAD83) y: 683603.86 Date Finished Drilling: 6/17/2016 9:10:00 AM Core Size: 3.0 in Boring Total Depth: 10 ft Depth to Water: 4.0 Logged By: HBB Project Manager: Scott Mikaelian Physical Location: Actual - Forrest PDI Surface Elevation: 10.02 ft NAVD88 Depth Recovery PID Moisture Graphic Sample Surface Cover and Thickness: **USCS** Range (ft/ft) Content ΙĎ (ppm) Log (ft bgs) 0.0 **ASPHALT** Asphalt and gravel sub-base. dry FILL SILT, (5YR 4/1) dark gray, medium dense, dry, no odor, no moist FILL ASH, trace clinkers, (5Y 5/1) gray, loose, moist to saturated, to P4-FOR-Z11B-2.0-2.5 no odor no staining, water at 4.0 feet. 4.5 saturated P4-FOR-Z11B-4.0-4.5 NR NO RECOVERY 0.0 moist **FILL** ASH, some silt, trace clinkers, (5Y 5/1) gray, loose, moist to saturated, no odor, no staining. to saturated P4-FOR-Z11B-6.0-6.5 P4-FOR-Z11B-6.5-7.0 SILT, (2.5Y 5/2) grayish brown, soft, wet, no odor, no OL wet staining. Soils consistent with UNDno. 4 NR NO RECOVERY

2012-09 RA PPG LOGS A.GDT - 11/30/16 23:49

bgs - below surface grade bgs - below surface grade GGM - green grey mud UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

## **Boring ID: P4-FOR-Z11BR**

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611724.029 Date Started Drilling: 10/20/2016 9:35:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683603.342 Date Finished Drilling: 10/20/2016 10:20:00 AM Core Size: 3.0 in Boring Total Depth: 21 ft Depth to Water: NA Logged By: ES Project Manager: Scott Mikaelian Physical Location: Actual - Forrest St - Supplemental PDI Surface Elevation: 10.077 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙD (ft/ft) (ppm) Content Log (ft bgs) 0.0 **ASPHALT** ASPHALT and gravel sub-base fine to medium SAND, little fill debris, (5YR 2.5/1) black, FILL dry to dense, dry to moist, no odor, no staining. moist **FILL** CINDERS, some ash, little coal, wood and fill debris, (5YR moist 2.5/1) black, loose, moist, no odor, no staining. NR No Recovery 0.0 wet **FILL** CINDERS, some ash, little coal and fill debris, (5YR 2.5/1) black, loose, wet, slight fuel oil-like odor, no staining, water at 5.5 feet. OL Organic SILT, 80% organic silt, 20% organic fibers, (5YR wet 2.5/1) black, stiff, wet, moderate organic odor, no staining. 4.5 Soils consistent with UNDorg. P4-FOR-Z11BR-9.0-9.5 NR No Recovery 0.0 OL Organic SILT, 90% organic silt, 10% organic fibers, (5YR wet 6/1) gray, stiff, wet, slight organic odor, no staining. Soils moist ML consistent with UNDorg. SILT, trace fine sand, (5YR 6/3) light reddish brown, very dense, moist, no odor, no staining. Soils consistent with UNDno. 12 P4-FOR-Z11BR-12.0-12.5 4.5 SW fine to coarse SAND, little fine to coarse gravel, (5YR 4/3) wet reddish brown, dense, wet, no odor, no staining. Soils 13 consistent with UNDno. P4-FOR-Z11BR-14.0-14.5 NR No Recovery 0.0 SW fine to coarse SAND, little fine to coarse gravel, trace silt, wet (5YR 6/3) light reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno. 16 P4-FOR-Z11BR-16.0-16.5 5 A.GDT - 11/30/16 22 P4-FOR-Z11BR-18.0-18.5 P4-FOR-Z11BR-20.0-20.5 0.0 2012-09 RA PPG LOGS 1 -21

bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

30 Knightsbridge Road, Piscataway, NJ 08854

## Boring ID: P4-FOR-Z12B

732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611736.31 Date Started Drilling: 6/20/2016 9:44:00 AM Rig Type: Geoprobe Coordinates (NJSPNAD83) y: 683629.04 Date Finished Drilling: 6/20/2016 10:45:00 AM Core Size: 3.0 in Boring Total Depth: 15 ft Depth to Water: 5.0 Logged By: KW Project Manager: Scott Mikaelian Physical Location: Actual - Forrest PDI Surface Elevation: 9.68 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Content ΙĎ (ft/ft) (ppm) Log (ft bgs) 0.0 **ASPHALT** Asphalt and gravel sub-base. P4-FOR-Z12B-1.0-1.5 moist **FILL** fine to medium SAND, some ash, trace cinders and fill debris, (7.5YR 4/2) brown, medium dense, moist, no odor, P4-FOR-Z12B-3.0-3.5 moist **FILL** CINDERS, (2.5Y 2.5/1) black, loose, moist, no odor, no staining. NO RECOVERY NR 0.0 wet **FILL** CINDERS, (2.5Y 2.5/1) black, loose, wet, no odor, no staining, water at 5.0 feet. FILL saturated SILT, trace wood, (5Y 5/1) gray, medium dense, saturated, P4-FOR-Z12B-6.0-6.5 no odor, no staining. P4-FOR-Z12B-6.5-7.0 MLSILT, (5Y 5/1) gray, medium dense, saturated, no odor, no saturated staining. Soils consistent with UNDno. 4.5 SILT, trace fine sand, (7.5YR 4/2) brown, medium dense, ML wet wet, no odor, no staining. Soils consistent with UNDno. NO RECOVERY NR 10 0.0 ML SILT, trace fine sand, (5YR 4/3) reddish brown, medium wet dense, wet, no odor, no staining. Soils consistent with UNDno. 12 SM fine to medium silty SAND, trace fine to medium gravel, wet 4 (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno. 13 NR NO RECOVERY 15

2012-09 RA PPG LOGS A.GDT - 11/30/16 23:49

bgs - below surface grade bgs - below surface grade GGM - green grey mud UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

# Boring ID: P4-FOR-Z12BR

Project	Number:	<u> </u>	1139			Drilling Method: Direct Push	NAD83) x: 611736.676			
				8:30:00 AM		Rig Type:		NAD83) y: 683629.648		
				16 9:15:00 AN		Core Size: 3.0 in	Boring Total Depth:			
	By: ES	iiiiig.	10/20/201	10 3.13.00 AN		Project Manager: Scott Mikaelian	Depth to Water: N			
		n: ^ - 1	uol Com	of Ct Committee			Surface Elevation:			
nysic	ai LUCATIO	ii. ACT	uai - FOTTES	st St - Supple	nenai F	יט 	Juriace Elevation:	5.100 IL INAVDOS		
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID		
		0.0		ASPHALT		ASPHALT and gravel sub-base				
-1-			moist	FILL		SILT, some ash and cinders, trace coal a 2.5/1) black, medium dense, moist, no oc		_		
-2 -	4.5						,			
-3 - -4								P4-FOR-Z12BR-4.0-4.5		
$\dashv$				NR	XXXX	No Recovery		+		
-5-		0.0			<b></b>	,		4		
-6- <del></del>		0.0	wet	FILL		CINDERS, some ash, (5YR 2.5/1) black, odor, no staining, water at 5.5 feet.	loose, wet, no			
-7— —	5		wet	OL		Organic SILT, 80% organic silt, 20% organic silt	anic fibers, (5YR ganic odor, no			
-8— - -9—								P4-FOR-Z12BR-8.0-8.5		
40					<u> </u>	1				
-10		0.0				1		P4-FOR-Z12BR-10.0-10.5		
- -11 -			moist	ML		SILT, trace fine sand, (5YR 6/3) light red stiff, moist, no odor, no staining. Soils co UNDno.				
-12	_							P4-FOR-Z12BR-12.0-12.5		
- -13	5			SP		fine to medium SAND, little fine to mediu (5YR 4/3) reddish brown, dense, wet, no Soils consistent with UNDno.	m gravel, trace silt, odor, no staining.	-		
-14						]		P4-FOR-Z12BR-14.0-14.5		
4					:::::::::::::::::::::::::::::::::::::	1				
-15 -		0.0	wet	SW		fine to coarse SAND, little fine to coarse reddish brown, dense, saturated, no odor		1		
-16					<b></b>	consistent with UNDno.	, ota	D4 F0D 74077 12 2 2 2		
.					<b>\````</b> ``	•		P4-FOR-Z12BR-16.0-16.5		
					b	•				
-17						•				
$\dashv$	5				<b>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</b>	<b>Ĭ</b>				
_12						•				
10						•		P4-FOR-Z12BR-18.0-18.5		
-					<b>\````</b>	•				
-19						•				
						•				
7						<b>⋄</b>				
20		0.0				•		P4-FOR-Z12BR-20.0-20.5		
	1	0.0				• •				
						•				
-21						**				
otes:						ather UNDer a second of the second		. Carlo and a		
	low surface adow mat				essing re	sidue UNDno - non-organic undisturbed native of	eposits MGP - man	ufactured gas plant romate chemical production w		
				n grey mud		UNDorg - organic undisturbed native depo	SIIS LLPVV - cn	romate chemical broduction w		

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

## Boring ID: P4-HSN-HH7B

	t Name: F t Number:		4351.GA.DE	E.PDI.FOR		Drilling Company: SGS Drilling Method: 9822	Coordinates (NJSP	NAD83) x: 611898.62
			4/27/2016 8			Rig Type:	,	NAD83) y: 683386.57
				10:00:00 AN		Core Size: 3.5 in	Boring Total Depth:	
	d By: ES					Project Manager: Scott Mikaelian	Depth to Water: N	
			ual - HSN F	PDI			Surface Elevation:	
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickn	ess:	Sample ID
_		0.0		ASPHALT		ASPHALT and gravel sub-base.		
-1 <del></del>	_		dry	FILL		ASH, some cinders, trace asphalt, (5YR 2 brown, medium dense, dry, no odor, no st		P4-HSN-HH7B-1.1-1.6
-2 3	3.7		moist	FILL		silty fine SAND, (10YR 5/4) yellowish bro no odor, no staining.	wn, loose, moist,	P4-HSN-HH7B-3.0-3.5
-4- <del>-</del>	-			NR		NO RECOVERY		-
-5 -6 -			moist	FILL		silty fine SAND, (10YR 5/4) yellowish bro no odor, no staining.	wn, loose, moist,	P4-HSN-HH7B-5.0-5.5
-7 -	5							P4-HSN-HH7B-7.0-7.5 P4-HSN-HH7B-7.5-8.0
-8 <del></del> -9			moist to wet	SP-SM	***	fine SAND, trace silt, (5YR 4/3) reddish b no odor, no staining, water at 8.0 feet bgs with UNDno.		P4-HSN-HH7B-8.0-8.5
-10 — — — — — — — — — — — — — — — — — — —	5		moist to wet	SP-SM		fine to medium SAND, (5YR 4/3) reddish wet, no odor, no staining. Soils consistent	brown, moist to with UNDno.	
-15 - - -16 - -	-		moist to wet	SP		fine to medium SAND, (5YR 3/2) dark recomposit to wet, no odor, no staining. Soils country UNDno.		
-17 - -18 -	5		wet to saturated	SP-SM		fine SAND, (5YR 4/4) reddish brown, mer saturated, no odor, no staining. Soils cons		-
-19 -20	-							
-20 - -21	. 1		wet to saturated	SP-SM		fine SAND, (5YR 4/4) reddish brown, med saturated, no odor, no staining. Soils constaining.		
ĬM - me	eadow mat		GGM - gree	n grey mud		esidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring	sits CCPW - ch	ufactured gas plant romate chemical production w

AECOM Note: Ground Surfa								TION (FT.		PROJEC	TNUMBE	R
Halladay Street, Jersey City, New Jersey												020667601
RILLING CONTRACTOR		FOREMAN				DATE ST	ARTED			DATE G	OMPLETE	D
dvanced Drilling, Inc.		Jeremy Logel				04/1	14/05				04/14/05	
RILLING EQUIPMENT						COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT)	)
ollow Stem Auger Rig, 4.25" Augers							55'				55'	
YPE BIT N/A		SIZE AND T	PE CORE	BARR	EL	NO. SAN	1PLES	DIST.	24	UNDIST.	N/A	core N/A
ASING N/A		N	'A			WATER	DEPTH	FIRST	4'	COMPL.	N/A	24HR N/A
ASING HAMMER WEIGHT N/A		DROP N	/A			BORING	LOCATIO	N				
AMPLER 2" diameter, 2' long split-spoon								side, w		lalladay	Street	
SAMPLER HAMMER WEIGHT 140 lbs.	$\blacksquare$	DROP	30"			INSPEC	FOR	Eric Ga				
	erval	eld		Sar	nples			PID	READI	NGS		
DECORPTION	pte tnt	Iter Ta			Penetr.	_		I	(PPM)	I	I _	DEMARKS
DESCRIPTION	Sam	Depth s	Number		Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
	+	(ft bgs)		(ft)	BL/6in			Air		Space	Date	
0.0-2.0 No spoon collected, augered; 3"		- 0 -			l							,
asphalt, 8" crushed stone												
		- 1 -										
							ĺ					
2.0-2.2' Crushed stone		- 2 -										
2.0-2.2 Grushed stone			1	1.6	5	1002	0.0	0.0	1002	N/A	N/A	
2.2-2.6' Reddish brown (2.5YR4/4) fine	М		·								, ,	
SANDY SILT (SM)	М				5		0.0					
2.6-3.6' Reddish brown (2.5YR4/4) fine to		- 3 -										
medium SAND (SW)					5		0.0					
					5		0.0					
		- 4 - 💆										
4.0-9.0' Reddish brown (2.5YR4/3) fine to			2	1.0	3	1009	0.0	0.0	1009	N/A	N/A	
medium SAND, trace silt, occassional 1" band of fine gravel (1/8") gravel	M											
band of fine graver (170 ) graver					3		0.0					
		- 5 -										
					3							
					3							
		- 6 -										
			3	1.5	3	1010	0.0	0.0	1010	N/A	N/A	
	М											
	N				4		0.0					
		- 7 -										
					4		0.0					
					3							
		- 8 -							ļ :			
			4	1.0	4	1011	0.0	0.0	1011	N/A	N/A	
					3		0.0					
	F	- 9 -										
					3							
					4							
		- 10 -		L	1		L	1	L :	1		

4500MM			LOG											. 190 2 0.0
	<u>ite: Ground Surfac</u>	e t	=lev	aı	tion	= 1	1.8					1		
PROJECT LOCATION								GROUNI	D ELEVAT	ΓΙΟΝ (FT.	MSL)	PROJEC	T NUMBE	
Halladay Street, Jersey	City, New Jersey													020667601
DRILLING CONTRACTOR			FOREMAI	V				DATE ST	TARTED			DATE CO	OMPLETE	ED
Advanced Drilling, Inc.			Jeremy	Lo	gel				04/1	4/05				04/14/05
DRILLING EQUIPMENT								COMPLE	ETION DE	PTH (FT	BGS)	ROCK D	EPTH (FT	n
Hollow Stem Auger Rig,	4.25" Augers								55'				55'	
TYPE BIT N/A			SIZE AND	TY	PE CORE	BARRE	EL	NO. SAN	//PLES	DIST.	24	UNDIST.	N/A	CORE N/A
CASING N/A				N/	/A			WATER	DEPTH	FIRST	4'	COMPL.	N/A	24HR N/A
CASING HAMMER	weight N/A		DROP	N	Ά.			BORING	LOCATIO	ON				
SAMPLER 2" diame	eter, 2' long split-spoon							Forres	t Street,	side, w	est of H	łalladay	Street	
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPEC*	TOR	Eric G	aulin			
		rai		_		Sar	nples			PID	READI	NGS		
		interval		Table			Penetr.				(PPM)			
DE	SCRIPTION	Sample	Depth	Vater	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		Sa	(ft bgs)	^		(ft)	BL/6in			Air		Space	Date	
medium SILTY SA	h brown (2.5YR4/3) fine to AND, trace fine gravel		- 10 -		 5	1.25		1020	0.0	0.0	1020	N/A	N/A	
(1/8") gravel (SW)	1		- 11 -				5		0.0					
							7		0.0					
			- 12 -				7 	4004			4004			
					6	1.0	7	1021	0.0	0.0	1021	N/A	N/A	
			- 13 -				9		0.0					
							8							
			- 14 -		 7	1.5	 6	1034	0.0	0.0	1034	N/A	 N/A	
							7		0.0					
15.1'-17.5 Dark re- fine SILTY SAND	ddish brown (2.5YR3/4) (SM)		- 15 -				7		0.0					
Timo oie i i oviito	(OM)		- 16 -				6							
			- 16 -		8	1.7	7	1040	0.0	0.0	1040	N/A	N/A	
			- 17 -				7		0.0					1041 Sample SB-24 (18.0- 18.5) for TCL VOC, TCL
17.5-17.7' Dark re	ddish brown (2.5YR3/4)						7		0.0					SVOC, TAL Metals, Total and amenable CN
fine SANDY SILT	(SM)		- 18 -				7 		0.0		 		 	
fine SAND (SP)	ddish brown (2.5YR3/4)				9	2.0	10	1041	0.0	0.0	1041	N/A	N/A	
			- 19 -				11		0.0					
							13		0.0					
			- 20 -											

45001411			LOG								_				
	lote: Ground Surfa	<u>ce</u>	Ele	٧á	atior	<u>) =</u>	11.8					T			
PROJECT LOCATION								GROUNI	ELEVAT	ION (FT.	MSL)	PROJEC	T NUMBE		
Halladay Street, Jersey	City, New Jersey	-												020667601	_
DRILLING CONTRACTOR			FOREMAI	V				DATE ST	ARTED			DATE CO	OMPLETE		
Advanced Drilling, Inc.			Jeremy	Lo	gel				04/1	4/05				04/14/05	
DRILLING EQUIPMENT								COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (F1	T)	
Hollow Stem Auger Rig,	4.25" Augers		ı						55'				55'		
TYPE BIT N/A			SIZE AND	TY	PE CORE	BARRE	EL	NO. SAM	1PLES	DIST.	24	UNDIST.	N/A	CORE N/A	
casing N/A	1			N/	Ά			WATER	DEPTH	FIRST	4'	COMPL.	N/A	24HR N/A	
CASING HAMMER	weight N/A		DROP	N/	Ά			BORING	LOCATIO	Ν					
SAMPLER 2" diame	eter, 2' long split-spoon							Forrest	Street,	side, w	est of H	lalladay	Street		
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPEC <sup>-</sup>	OR	Eric Ga	aulin				
		vai		Θ		Sar	nples			PID	READI	NGS			
		e fritei		r Tab			Penetr.				(PPM)				
DE	ESCRIPTION	Sample	Depth	Wate	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS	
		ŝ	(ft bgs)			(ft)	BL/6in			Air		Space	Date		
18.0-20.8' Dark re fine SAND (SP)	ddish brown (2.5YR3/4)		- 20 -		 10	1.5	6	1055	0.0	0.0	1055	N/A	 N/A		
20.8-21.2' Dark re fine SANDY SILT	ddish brown (2.5YR3/4) (SM)						8		0.0						
21.2-23.0' Dark red fine SILT SAND (S	ddish brown (2.5YR3/4) 6M)		- 21 -				9		0.0						
23.0-25.7' Dark red fine SANDY SILT	ddish brown (2.5YR3/4) (SM)						9								
			- 22 -		11	2.0	9	1058	0.0	0.0	1058	N/A	N/A		
							8		0.0						
			- 23 -				10		0.0						
			- 24 -				11		0.0						
					12	2.0	4	1120	0.0	0.0	1120	N/A	N/A		
	ı brown (5YR4/3) SILTY		- 25 -				6		0.0						
CLAY (CL)							6		0.0						
SILTY SAND (SM)			- 26 -				6		0.0						
26.1-33.75' Reddis SANDY SILT (SM)	sh brown (5YR4/3) fine )				13	2.0	9	1122	0.0	0.0	1122	N/A	N/A		
			- 27 -				12		0.0						
							12		0.0						
			- 28 -		14	2.0	12  9	1125	0.0	0.0	1125	 N/A	 N/A	<u> </u>	
					1 1 7	0	12		0.0	5.0	.120		, was		
			- 29 -				9		0.0						
							8		0.0						
			- 30 -												

			LOG											
	lote: Ground Surfa	се	Ele	٧ć	atior	<u> </u>	11.8					1		
PROJECT LOCATION								GROUN	D ELEVAT	ΓΙΟΝ (FT.	MSL)	PROJEC	T NUMBE	
Halladay Street, Jersey	City, New Jersey													020667601
DRILLING CONTRACTOR			FOREMA					DATE ST				DATE G	OMPLETE	
Advanced Drilling, Inc.			Jeremy	Lo	gel					14/05				04/14/05
DRILLING EQUIPMENT	A OST Assess							COMPLE		PTH (FT E	BGS)	ROCK D	EPTH (FT	)
Hollow Stem Auger Rig, TYPE BIT N/A	, 4.25" Augers		SIZE AND	77/	DE CODE	DADDI	,	NO. SAM	55'	DIST.	24	UNDIST.	55' N/A	CORE N/A
CASING N/A			SIZE AND	N/		BARRI	-L	WATER		FIRST	4'	COMPL.	N/A	
CASING HAMMER	WEIGHT N/A		DROP	N/					LOCATIO			GOIVIPE.	IN/A	24fin 197A
	eter, 2' long split-spoon		DNOF	13/				Ì			est of H	lalladay	Street	
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPEC <sup>-</sup>		Eric G		ranaday	Olloot	
		a,				Sar	nples				READI	NGS		
		Interval		Table			Penetr.				(PPM)			
DE	ESCRIPTION	Sample	Depth	Nater	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		Se	(ft bgs)	1		(ft)	BL/6in			Air		Space	Date	
26.1-33.75' Dark I fine SANDY SILT	reddish brown (5YR4/3) (SM)		- 30 -		 15	1.0	4	1137	0.0	0.0	1137	N/A	N/A	
			- 31 -				5		0.0					
							6							
			- 32 -				8			ļ - , <b></b>		ļ		
					16	2.0	9	1141	0.0	0.0	1141	N/A	N/A	
			- 33 -				11		0.0					
							14		0.0					
33.75-34.2' Reddi and SILTY CLAY	ish brown (5YR5/4) SILT (CL)		- 34 -				17		0.0					
	h brown (5YR5/4) fine occassional 1/2" band of				17	1.7	14 15	1158	0.0	0.0	1158	N/A	N/A	
SILT (SM)			- 35 -				18		0.0					
							20		0.0					
			- 36 -		18	2.0	15	1159	0.0	0.0	1159	N/A	N/A	
37.0-39.0' Reddis	h brown (5YR5/4) fine		- 37 -				<b>1</b> 5		0.0					
SANDY SILT (SM							<b>1</b> 5		0.0					
			- 38 -				17 		0.0					
					19	2.0	9	1203		0.0	1203	N/A	N/A	1208 Sample SB-24 (38.0- 38.5) for TCL VOC, TCL SVOC, TAL Metals, Total
	h brown (2.5YR4/4)		- 39 -				10		0.0					and amenable CN
interlaminated SIL 1" to 2" thick (CL)	T and SILTY CLAY, layers						11		0.0					
			- 40 -											

ROJECT LOCATION							GROUNI	ELEVAT	TION (FT.	MSL)	PROJEC	T NUMBE	ER
alladay Street, Jersey City, New Jersey													020667601
ILLING CONTRACTOR		FOREMAN					DATE ST	ARTED			DATE CO	OMPLETE	ED
dvanced Drilling, Inc.		Jeremy l	_ogel						4/05				04/14/05
ILLING EQUIPMENT							COMPLE		PTH (FT E	BGS)	ROCK D	EPTH (FT	)
ollow Stem Auger Rig, 4.25" Augers								55'				55'	N/A
PE BIT N/A SING N/A		SIZE AND		ORE	BARRE	L	NO. SAM		DIST.	24 4'	UNDIST.		
			N/A				WATER	LOCATIO	FIRST	4	COMPL.	N/A	24HR N/A
SING HAMMER WEIGHT N/A  MPLER 2" diameter, 2' long split-spoon		DROP	N/A						את side, w	roct of H	lalladay	Stroot	
SAMPLER HAMMER WEIGHT 140 lbs.		DROP	30'				INSPEC		Eric Ga		alladay	Jueer	
ONLY DESCRIPTION OF THE PROPERTY OF THE PROPER	76	DITO	T		San	nples	IIVOI LO			READI	NGS		
	Interv		Table			Penetr.				(PPM)			
DESCRIPTION	Sample	Depth	Valer Nn	mber	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
	Sa	(ft bgs)			(ft)	BL/6in			Air		Space	Date	
0.0.40 Et Doddiek harring (0.5VD4/4)	П	- 40 -											
9.0-40.5' Reddish brown (2.5YR4/4) nterlaminated SILT and SILTY CLAY, layers			2	20	1.25	14	1325	0.0	0.0	1325	N/A	N/A	
" to 2" thick (CL)			1										
						52		0.0					
0.5-47.0' TILL: consisting of 60% angular		- 41 -											
nedium grained black argillite and gray rock agments, with dark reddish gray (2.5YR4/1)			1			47		0.0					
agments, with dark reddish gray (2.5 Y H4/T) ILTY CLAY, CLAYEY SAND			1										
			1			51							
		- 42 -											
	M		2	21	1.0	28	1329	0.0	0.0	1329	N/A	N/A	
						46		0.0					
	П	- 43 -											Consum material
						100/5"							Spoon refusal
		- 44 -											
		- 44		22	1.5	25	1355	0.0	0.0	1355	N/A	N/A	
	М		'		1.0	20	1000	0.0	0.0	1000	IW/A	IN/A	
						47		0.0					
		- 45 -											
						63		0.0					
						28							
		- 46 -			,			ļ		ļ	<b> </b>		
			2	23	1.0	51	1402	0.0	0.0	1402	N/A	N/A	
			1			4		0.0					
		- 47 -											
			1			100/4"							Spoon refusal
			1										
			1										
8.0-52.0' No spoons collect; augered to		- 48 -	[										
8.0-52.0 No spoons collect, augered to lear hole			1										
		- 49 -											
			1										
		- 50 -	[							<b> </b>			<b>.</b>

## AECOM Note: Ground Surface Elevation = 11.8 ft NAVD88

AECOM No	ote: Ground Surfac	се	EľĕŸ	ă	tion	<b>=</b> 1	17.8	ft N	ΑVI	D88				
PROJECT LOCATION								GROUN	D ELEVA	TION (FT.	MSL)	PROJEC	TNUMBE	ER
Halladay Street, Jersey	City, New Jersey													020667601
DRILLING CONTRACTOR			FOREMA					DATE ST				DATE CO	OMPLETE	
Advanced Drilling, Inc.			Jeremy	Lc	gel					14/05				04/14/05
DRILLING EQUIPMENT								COMPLE		PTH (FT	BGS)	ROCK D	EPTH (FT	ח
Hollow Stem Auger Rig	ı, 4.25" Augers		I						55'	I			55'	1 1/4
TYPE BIT N/A			SIZE AND		PE CORE	BARR	EL	NO. SAN		DIST.	24	UNDIST.		
CASING N/A	T				/A			WATER		FIRST	4'	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT N/A		DROP	N.	/A			t	LOCATIO					
	neter, 2' long split-spoon		L		00"					, side, w		lalladay	Street	
SAMPLER HAMMER	WEIGHT 140 lbs.	1	DROP	Π	30"	C = 1		INSPEC*	TOR	Eric G		NOO		
		interval		aple	-	Sai	nples Penetr.			PID	READI			
Di	ESCRIPTION	the fr	Depth	ater T	Number	Passu	Penetr. Resist.	Time	Comple	Ambient	(PPM) Time	Head	Time	REMARKS
D	LOCITII TION	Sample	(ft bgs)	Š	Mullipel	(ft)	BL/6in	IIIIe	Sample	Air	IIIIIe	Space	Date	TILIMATINO
		+	- 50 -	t			DE OIL			AII				,
									1					
			- 51 -											
			]											
				ĺ										
E0.0 E0 E TILL		l	- 52 -											,
	onsisting of 60% angular black argillite and gray rock				24	0.5	100/6"	1428	0.0	0.0	1428	N/A	N/A	Spoon refusal
	ark reddish gray (2.5YR4/1)													
SILTY CLAY, CLA	AYEY SAND													
			- 53 -											
55 0 Auger refus	al, possibly bedrock; end of													
boring	an, possion, sourcent, ema en													
			- 54 -				ļ							
				ĺ										
			- 55 -	ĺ										
				ĺ										
			- 56 -				<del> </del>		l		· · · · ·		l	
			- 57 -											
				ĺ										
			- 58 -		l	ļ	†····	l	l	1	ļ	l	ļ · · · ·	l
				ĺ										
				ĺ										
			- 59 -	ĺ										
				ĺ										
				1										
			- 60 -		I	r	1	1		1	r	1		

# LOG OF SOIL BORING SB-35

ROJECT LOCATION								GROUNI	ELEVAT	ΓΙΟΝ (FT.	MSL)	PROJEC	TNUMBE	:R
alladay Street, Jersey	City, New Jersey													020667601
LLING CONTRACTOR			FOREMAI	N				DATE ST	ARTED			DATE CO	OMPLETE	D
anced Drilling, Inc.			Jeremy	Loç	gel				04/1	15/05				04/15/05
LING EQUIPMENT								COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT)	)
low Stem Auger Rig	, 4.25" Augers								50.0				not end	countered
BIT N/A			SIZE AND	TYF	PE CORE	BARRE	ΞL	NO. SAM	1PLES	DIST.	24	UNDIST.	N/A	core N/A
NG N/A				N/A	Ą			WATER	DEPTH	FIRST	4'	COMPL.	N/A	24HR N/A
NG HAMMER	WEIGHT N/A		DROP	N/A	Ą			BORING	LOCATIO	ON				
PLER 2" diam	eter, 2' long split-spoon							Forrest	Street,	side, w	est of H	alladay	Street	
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPEC	FOR	Eric Ga	aulin			
		arvai		90		Sar	nples			PID	READI	NGS		
		le Inte		ər Tat			Penetr.				(PPM)			
D	ESCRIPTION	Sample	Depth	Wat	Number		Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		Ļ.	(ft bgs)	Н		(ft)	BL/6in			Air		Space	Date	
3-2.0 No spoon phalt, 8" crush	n collected, augered; 3" ed stone		- 0 - - 1 - - 1 -											
	nsisting of rust colored fine D, SILT, trace gravel		- 2 -  - 3 -		1	1.0	4 6 7	0826	0.0	0.0	0826	N/A	N/A	
0-6.2' FILL: Da and gravel	rk reddish brown (5YR3/4)		- 4 -  5 -	YI-	2	0.25	5 4 4	0835	0.0	0.0	0835	N/A	N/A	
			- <u>-</u>				3							
			- 0 -		3	1.2	3	0837	0.0	0.0	0837	N/A	N/A	
	dish brown (5YR3/4) fine //) with slight lubricating oil				S	1.2	1	0637	1.2	0.0	0007	IN/A	IN/A	
	-						1 2		3.5					
									0.0					
		1	- 8 -	IJ	4	10	3	0000	0.0	0.0	0000	NI/A	NI/A	
ddish brown (2	n yellow (5YR6/8) and .5YR5/4) thinly LT and SILTY CLAY (CL)		9 -		4	1.2	3 4 5	0838	0.0	0.0	0838	N/A	N/A	
				IJ			5		0.0					
			l -	IJ										
		1		IJ			6		0.0					
			- 10 -				6		0.0					

### Supplemental Remedial Investigation **LOG OF SOIL BORING SB-35**

AFCOM No	ote: Ground Surfac		LOG Flev											
PROJECT LOCATION	Croaria Cariao		_,,,,,	<u> </u>			<u> </u>			TION (FT.	MSL)	PROJEC	T NUMBE	ER
Halladay Street, Jersey	City New Jersey							anoon	J LLLVA	11011 (1 1.	14102)	HOOLO	TOURD	020667601
DRILLING CONTRACTOR	Ony, New delacy		FOREMA	V				DATE ST	TARTED			DATE CO	OMPLETE	
Advanced Drilling, Inc.			Jeremy		വലി			JATE 0		15/05		J. (12 00	TII EE IE	04/15/05
DRILLING EQUIPMENT			Jeremy	LO	gei			COMBLE		PTH (FT I	200)	BOCK D	EPTH (FT	
	4 OF" Augoro							COMPLE	50.0	PIH (FII	545)	HOUK D	,	ountered
Hollow Stem Auger Rig, TYPE BIT N/A	4.25 Augers		SIZE AND		DE CODE	DADDI		NO. SAN		DIST.	24	UNDIST.	N/A	
CASING N/A			SIZE AND	N.		BARRI	EL .	WATER		FIRST	4'	COMPL.	N/A	
	N/A									1	-	COMPL	IV/A	24fin IN/A
CASING HAMMER	WEIGHT N/A		DROP	N	'A			t	LOCATIO				044	
	eter, 2' long split-spoon									, side, w		ialiaday	Street	
SAMPLER HAMMER	WEIGHT 140 lbs.	Т	DROP		30"			INSPEC*	TOR	Eric G				
		erval		elq		Sar	nples	ľ		PID	READI			
De	CODIDTION	ole Int		ter Ta			Penetr.			ı	(PPM)		l	DEMARKO
DE	ESCRIPTION	Samp	Depth	Wa	Number		Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		+	(ft bgs)	L		(ft)	BL/6in			Air		Space	Date	
			- 10 -			ļ	l			1			 	• • • • • • • • • • • • • • • • • • • •
	yellow (5YR6/8) and				5	1.0	4	0840	0.0	0.0	0840	N/A	N/A	
reddish brown (2.5	Tand SILTY CLAY (CL)		l											
no odors	. I and SILT I OLAT (OL)						5		0.0					
		f	- 11 -											
							25							
							6							
			- 12 -											
					6	2.0	5	0845	0.0	0.0	0845	N/A	N/A	
		ı												
		ı					6		0.0					
12 0 14 0' Vallovi	sh red (5YR4/6) fine SILTY		- 13 -											
SAND and fine SA							4		0.0					
OAND and line of	AND (OIN)													
							3		0.0					
			- 14 -											
					7	2.0	12	0856	0.0	0.0	0856	N/A	N/A	
		ı					13		0.0					
			- 15 -											
14.0-17.0' Brown	(7.5YR4/4) fine to coarse		'				15		0.0					
	SW), with occassional 1-2"		l <u>.</u>				'`		0.0					
bands of subround			l -				18		0.0					
			- 16 -			L	l '°	l	0.0	L	L	l	L	
		Γ	- 10 -			2.0	10	0050		0.0	0859	N/A	NI/A	
					8	2.0	18	0859	0.0	0.0	U859	N/A	N/A	
			-											
							19		0.0					
			- 17 -											
17 0-20 6' Brown	(7.5YR4/4) fine to medium						22		0.0					
	ubrounded gravel, trace silt		-											
(SW)	and a graver, have one						21		0.0					
•		٢	- 18 -		l	·	l		l	1	l			
		1			9	1.0	12	0918	0.0	0.0	0918	N/A	N/A	
							15		0.0					
			- <b>1</b> 9 -											
							17							
							21							
			- 20 -	L			<u> </u>	<u> </u>		<u> </u>		<u> </u>		

Supplemental Demodial Investigation	311	ıe											Page 3 of 5
Supplemental Remedial Investigation		LOG		)F SC	)II E	ROR	ING :	SB-3	5				Page 3 of 5
AECOM Note: Ground Surface													
PROJECT LOCATION		iev	<b>a</b> II	On :	= 11	J. I			TION (FT.	MCIV	BBO IEC	T NUMBE	
Halladay Street, Jersey City, New Jersey							GROOM	DELEVA	HON (FT.	IVIOL)	FROJEC	) INDIVIDE	020667601
DRILLING CONTRACTOR		FOREM <i>A</i>	. N.I				DATE C	TARTED			DATE O	OMPLETE	
							DATES		15/05		DATEG	JIVIPLETE	
Advanced Drilling, Inc.		Jeremy	LO	gei			COMPL		15/05	200	DOOK D		04/15/05
DRILLING EQUIPMENT							COMPLE		PTH (FT I	BGS)	ROCK D	EPTH (FT	
Hollow Stem Auger Rig, 4.25" Augers	_						NO 011	50.0	2107	24	I IN I D Io =		countered CORE N/A
TYPE BIT N/A CASING N/A		SIZE AN	N/	PE CORE	BARRI	=L	NO. SAN		DIST. FIRST	24 4'	UNDIST.		
	_						WATER			4	COMPL.	N/A	. 24HR N/A
CASING HAMMER WEIGHT N/A		DROP	N/	Α			1	LOCATIO				0	
SAMPLER 2" diameter, 2' long split-spoon									, side, w		ialiaday	Street	
SAMPLER HAMMER WEIGHT 140 lbs.	П	DROP	П	30"			INSPEC	TOR	Eric G				
	terval		able		Sar	nples			PID	READI			
DECODIDATION	nle In	D	ter Ta			Penetr.	_			(PPM) _		Ι_	DEMARKS
DESCRIPTION	Sam	Depth	-	Number		Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
	Н	(ft bgs	Ή		(ft)	BL/6in		1	Air		Space	Date	
17.0-20.6' Brown (7.5YR4/4) fine to medium		- 20	Ш	40		40							0000 CI- CD 05
SAND with 75% subrounded gravel, trace silt	N			10	1.6	18	0934	0.0	0.0	0934	N/A	N/A	0936 Sample SB-35 (21.0-21.5) for TCL VOC,
(SW)	١		Ш										TCL SVOC, TAL Metals,
20.6-21.2' Reddish brown (2.5YR4/4) fine						17		0.0					Total and amenable CN
SILTY SAND (SM)		- 21	Ш										
01.0.01.01 Daddish brews (0.5VD4/4) fine to						19		0.0					
21.2-21.6' Reddish brown (2.5YR4/4) fine to medium SAND (SW), trace SILT													
mediam CAND (OVV), hade the						20							
22.0-24.0' Reddish brown (2.5YR4/4) fine		- 22	Ш										
SANDY SILT (SM)				11	2.0	15	0941	0.0	0.0	0941	N/A	N/A	
, ,													
	١					14		0.0					
		- 23	1										
						13		0.0					
			Ш										
						12		0.0					
04.0.05.01.D. 11.1.1		- 24	-										
24.0-25.0' Reddish brown (2.5YR4/4) fine SANDY SILT (SM) with trace of subangular	M			12	1.0	4	0956	0.0	0.0	0956	N/A	N/A	
to subrounded 1" gravel	١												
to confounded 1 graver						11		0.0					
		- 25	Ш										
						12							
						14							
		- 26	Ш										
26.0-29.0' Reddish brown (2.5YR4/4) fine				13	2.0	14	0958	0.0	0.0	0958	N/A	N/A	
SILTY SAND (SM) with trace of subangular			Ш										
to subrounded 1" gravel	N					15		0.0					
	١	- 27	Ш					0.0					
						15		0.0					
			Ш			15		0.0					
		-				17		0.0					
		00				''		0.0					
	П	- 28		14	2.0		1006	0.0	0.0	1006	N/A	N/A	<u> </u>
	N			14	2.0	21	1006	0.0	0.0	1006	IN/A	IN/A	
	اا					4.0		0.0					
						18		0.0					
29.0-30.0' Reddish brown (2.5YR4/4) fine to		- 29											
medium SILTY SAND (SM)						17		0.0					
						16		0.0					
		- 30	Ш	<u> </u>		<u> </u>		<u> </u>	1		1	<u> </u>	

# LOG OF SOIL BORING SR-35

AFCOM No	ote: Ground Surface	e	LOG Flev											
PROJECT LOCATION		_							ELEVAT		MSL)	PROJEC	T NUMBE	:R
Halladay Street, Jersey	City New Jersey							u	,,			11.0020		020667601
DRILLING CONTRACTOR	0.19,, 11011 00.009		FOREMA	N				DATE ST	ARTED			DATE CO	MPLETE	
Advanced Drilling, Inc.			Jeremy		ael			5711201		5/05		5,112 00		04/15/05
DRILLING EQUIPMENT			colonity	LO	901			COMPLE	TION DE		BGS)	ROCK D	EPTH (FT)	
Hollow Stem Auger Rig,	4.25" Augers								50.0		,			countered
TYPE BIT N/A			SIZE AND	TYI	PE CORE	BARRI	ΞL	NO. SAM		DIST.	24	UNDIST.	N/A	core N/A
casing N/A				N/	Ά			WATER	DEPTH	FIRST	4'	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT N/A		DROP	N/.	Ά			BORING	LOCATIO	DN .				
	eter, 2' long split-spoon							Forrest	Street,	side, w	est of H	alladay	Street	
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPECT		Eric Ga				
		ai				Sar	nples			PID	READII	NGS		
		Interv		Table			Penetr.				(PPM)			
DE	ESCRIPTION	mple	Depth	Vater	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		Sa	(ft bgs)			(ft)	BL/6in			Air		Space	Date	
	n brown (2.5YR4/4) fine to	\	- 30 -		 15	1.0	4	1031	0.0	0.0	1031	 N/A	N/A	
medium SILTY SA	ND (SM), with <5%						7		0.0					
			- 31 -				9		5.5					
			- 32 -				13							
			- 32 -		16	2.0	8	1037	0.0	0.0	1037	N/A	N/A	
					16	2.0	٥	1037	0.0	0.0	1037	IN/A	IN/A	
		١					10		0.0					
			00				10		0.0					
	sh brown (2.5YR4/4) and		- 33 -											
reddish gray (2.5Y and SILTY CLAY	'R5/1) interlaminated SILT						12		0.0					
and SILTY CLAY									0.0					
			- 34 -				11		0.0					
33.75-34.7' Reddis	sh brown (2.5YR4/4) fine		- 34 -		17	1.5	8	1059	0.0	0.0	1059	N/A	N/A	
SILTY SAND (SM)	)	١			''	1.5	٥	1009	0.0	0.0	1059	IN/A	IN/A	
		١	-				9		0.0					
	n brown (2.5YR4/4) fine	١	- 35 -				_							
SANDY SILT, trac	e siii (Sivi)						9		0.0					
							9		0.0					
							11							
			- 36 -											
			00		18	2.0	13	1103	0.0	0.0	1103	N/A	N/A	
								1.00	0.0	0.0	1100	1477	14.71	
		١					15		0.0					
		١	- 37 -											
							16		0.0					
							17		0.0					
			- 38 -											
					19	2.0	12	1109	0.0	0.0	1109	N/A	N/A	1110 Sample SB-35
														(38.0-38.5) TCL VOC,
							10		0.0					TCL SVOC, TAL Metals,
			- 39 -											Total and amenable CN
							8		0.0					
							6		0.0					
			- 40 -		<u> </u>	<u></u> -	<u> </u>		<u> </u>	<u> </u>	<u> </u>			

### **LOG OF SOIL BORING SB-35**

	· ·		LOG											Ū
AECOM No	<u>ote: Ground Surfac</u>	e l	Elev	a	<u>tion</u>	<u>= 1</u>	0.1	ft N	AVI	<u> 88C</u>				
PROJECT LOCATION								GROUNI	D ELEVAT	TION (FT.	MSL)	PROJEC	TNUMBE	ER
Halladay Street, Jersey	City, New Jersey	1												020667601
DRILLING CONTRACTOR			FOREMAI	N				DATE ST	TARTED			DATE CO	OMPLETE	
Advanced Drilling, Inc.			Jeremy	Lo	gel				04/1	15/05				04/15/05
DRILLING EQUIPMENT								COMPLE		PTH (FT	BGS)	ROCK D	EPTH (FT	)
Hollow Stem Auger Rig	4.25" Augers								50.0	_				countered
TYPE BIT N/A			SIZE AND			BARRE	EL	NO. SAN		DIST.	24	UNDIST.		
casing N/A	I			N/				WATER		FIRST	4'	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT N/A		DROP	N/	/A			ľ	LOCATIO					
	eter, 2' long split-spoon										est of H	lalladay	Street	
SAMPLER HAMMER	WEIGHT 140 lbs.	L	DROP		30"	Con		INSPEC*	TOR	Eric G		NOO		
		terva		able		Sar	nples Penetr.			PID	(DDM)	NGS		
Di	ESCRIPTION	pte tr	Depth	ater T	Number	Paccu	Resist.	Time	Sample	Ambient	(PPM)	Head	Time	REMARKS
	-SOMI HON	Sample	(ft bgs)	Μ	Mullipel	(ft)	BL/6in	HITTE	Sample	Air	Hille	Space	Date	TILIMATINO
34.7-41.3' Reddisl SANDY SILT, trac	n brown (2.5YR4/4) fine e silt (SM)		- 40 -		20	2.0	18	1129	0.0	0.0	1129	N/A	N/A	
	n brown (2.5YR4/4) and 'R5/1) interlaminated SILT		- 41 -				20		0.0					
	n brown (2.5YR4/4) loose						21		0.0					
			- 42 -				24		0.0					
42.5-42.9' Reddisl	n brown (2.5YR4/4) fine				21	1.5	23	1131	0.0	0.0	1131	N/A	N/A	
SANDY SILT, trac			- 43 -				25		0.0					
	ace gravel, trace SILT						27		0.0					
44.0-48.5' Reddis	h brown (2.5YR4/4) and		- 44 -				32							
	(R5/1) interlaminated SILT				22	1.75		1150	0.0	0.0	1150	N/A	N/A	1206 SB-35 (44.5-45.0) and SB-35 (44.5-45.0)D
			- 45 -				45		0.0					for TCL VOC, TCL SVOC, TAL Metals, Total and amendable
							43		0.0					CN
			- 46 -				46		0.0					
					23	2.0	40 52	1153	0.0	0.0	1153	N/A	N/A	
			- 47 -				54		0.0					
							49		0.0					
			- 48 -		24	2.0	38	1156	0.0	0.0	1156	N/A	N/A	
consisting of 90%	eddish brown (2.5YR4/4) gravel 1/8" with some s black argillite, angular to		- 49 -				53		0.0					
subangular							51		0.0					
End of boring at 5			- 50 -				41		0.0					

Note that PPG Cr+6 samples collected as part of this boring are not included in this boring log.

D050 00 5	_												OOULOOD DEDALMA
PSEG SC Former Halladay Street Gas Work	S												SCHOOR DEPALMA
Interim Data Submittal No.4		LOG		E S	וור	RAB	INIC 9	SB-4	e .				Page 1 of 4
<b>AECOM Note: Ground Surface</b>	<u>.</u>												
	,,,	LICV	aı			7.50	T T				DD0 150	T	-n
PROJECT LOCATION							GROUNI	D ELEVAT		MSL)	PROJEC	T NUMBE	
Halladay Street , Jersey City, NJ		FOREMA	N				DATE OF		.13		DATE O	OMBI ETE	020667601
DRILLING CONTRACTOR				al			DATE ST		80/06		DATE CO	OMPLETE	/01/06
Advanced Drilling, Inc.  DRILLING EQUIPMENT		Roger I	_og	еі			COMPLE	ETION DE		200)	BOCK D	EPTH (FT	
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem auger:	e						COMPLE	36	rin (ri i	503)	HOUK D		ountered
TYPE BIT Hollow-stem auger		SIZE AND	) TY	PE COR	E BARR	EL	NO. SAN		DIST.	16	UNDIST.		CORE N/A
CASING N/A			N/				WATER	DEPTH	FIRST	4	COMPL.	N/A	24HR N/A
CASING HAMMER WEIGHT N/A		DROP		N/A			BORING	LOCATIO	N: 375 ft	projecte	d NW ald	ong the o	enter of Forrest Street from the
SAMPLER 2" diameter, 2' long split-spoon							intersec	ction with	Hallada	y Street,	approx.	30 ft bey	rond end of Forrest Street.
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPEC	TOR	Eric Ga	aulin			
·	val		m		Sar	nples			PID	READI	NGS		
	Sample Interval		Table			Penetr.				(PPM)			
DESCRIPTION	ample	Depth	Wate	Numbe	r Recov	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
	S	(ft bgs)			(ft)	BL/6in			Air		Space	Date	
Cleared via hand digging to 41:		- 0 -											
Cleared via hand digging to 4';													
0.0-1.5 FILL: consisting of gravel, black silt													
1.5-2.0 FILL: Chromate ore processing													
residue (COPR) 2.0-4.0 FILL: Brick fragments		- 1 -											
2.0-4.0 FIEE. Blick fragments													
		- 2 -											
		- 3 -											
		- 3 -											
		- 4 -	$\nabla$										
4.0-8.5 FILL: consisting of fine gravel,	1		-	1	1.0	3	1435	0.0	0.0	1435	N/A	N/A	
clinker, coal fragments	Λ												
						4		0.0	0.0				
		- 5 -											
						2							
						1							
		- 6 -											
	1			2	0.9	1	1438	0.0	0.0	1438	N/A	N/A	
	۱												
	1					1		0.0	0.0				
	F	- 7 -											
						1							
						1							
		- 8 -			· <del> </del>								
				3	1.1	1	1453	0.0	0.0	1453	N/A	N/A	Oil material (OM) from
													8.0-8.5; postive dye
8.5-12.5 Brown PEAT (PT) containing little						1		0.0	0.0				test 1458
distinguishable fibers	F	- 9 -											
						1		0.0	0.0				No odors, or OM within
													the peat below 8.5 feet.
						1							
	- 1	- 10 -	-	<b> </b>		1		·		F	1		

### **LOG OF SOIL BORING SB-46**

AFCOM No	ote: Ground Surfac		LOG Fleva											
PROJECT LOCATION	oto. Crodina Guirao	<u>ا ر</u>		a۱		_ J	.50			TION (FT.	MSI )	PRO IFO	T NUMBE	:R
Halladay Street , Jersey	v City N.I							anounl		.13	IVIOL)	FROJEC	. MONBE	:н 020667601
DRILLING CONTRACTOR	y Ony, 140		FOREMAN	J				DATE ST		. 10		DATE CO	OMPLETE	
Advanced Drilling, Inc.			Roger L		el			2.11231		30/06		2,112 00		/01/06
DRILLING EQUIPMENT			. roger L	Jy	<u>.</u>			COMPLE		PTH (FT E	3GS)	BOCK D	EPTH (FT	
	turning 4.25-inch hollow-stem augers							30.011	36	(1 1 L	- 30,			countered
	estem auger		SIZE AND	TYI	PE CORE	BARRE	L	NO. SAM		DIST.	16	UNDIST.		
CASING N/A	· · · · · · · · · · · · · · · · · · ·			N/				WATER	DEPTH	FIRST	4	COMPL.	N/A	
CASING HAMMER	WEIGHT N/A		DROP		N/A			BORING	LOCATIO	ON: 375 ft	projecte	d NW ald	ong the c	enter of Forrest Street from the
SAMPLER 2" diam	eter, 2' long split-spoon							intersec	tion with	Hallada	y Street,	approx.	30 ft bey	rond end of Forrest Street.
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPEC <sup>-</sup>	TOR	Eric Ga	aulin			
	•	val		ď)		San	nples			PID	READI	NGS		
		Interval		. Table			Penetr.				(PPM)			
D	ESCRIPTION	Sample	Depth	Water	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		Š	(ft bgs)			(ft)	BL/6in			Air		Space	Date	
054055 -	.FAT (DT)		- 10 -						l					
8.5-12.5 Brown P distinguishable fit	EAT (PT) containing little pers				4	1.6	1	1455	0.0	0.0	1455	N/A	N/A	Sample SB-46(11.0- 11.5) collected at 1504 for TCL SVOC, TCL
			- 11 -				1		0.0	0.0				VOC, TAL Metals, Total and Amenable CN
							1		0.0	0.0				
12.5-14.0 Yellowi SILTY SAND (SM	sh brown (10YR5/4) fine I), trace clay		- 12 -				2	1500	0.0	0.0	1500	,		No odoro or otolologica
					5	1.5	2	1503	0.0	0.0	1503	N/A	N/A	No odors or staining in this spoon
			- 13 -				3		0.0	0.0				
							3		0.0	0.0				
	sh brown (10YR5/4) fine		- 14 -		6	1.2	2	1513	0.0	0.0	1513	N/A	N/A	No odors or staining in
	I), trace clay, >50% cobble sting of fine white/pepper ents						2		0.0	0.0				this spoon
			- 15 -				2		0.0	0.0				
							3							
	sh brown (10YR5/4) fine to		- 16 -		7	1.6	2	1516	0.0	0.0	1516	N/A	N/A	No odors or staining in this spoon
	SW), with small to large		- 17 -				2		0.0	0.0				
							3		0.0	0.0				
			- 18 -				3		0.0	0.0			 	
					8	1.0	2	1528	0.0	0.0	1528	N/A	N/A	No odors or staining in this spoon
			- 19 -				2		0.0	0.0				
							3		0.0	0.0				
			- 20 -				3							

### **LOG OF SOIL BORING SB-46**

AECOM No	te: Ground Surface		LOG Elevá											
PROJECT LOCATION	ic. Ordana danada	<i>,</i> L	_10 00	<i>_</i> 1	.1011	<u>– J</u>	.50			TION (FT.	MSL)	PROJEC	T NUMBE	:R
Halladay Street , Jersey	City, NJ							GI IOON		.13		1110020		020667601
DRILLING CONTRACTOR			FOREMAN	V.				DATE ST				DATE CO	MPLETE	
Advanced Drilling, Inc.			Roger L		ല			D/112 01		30/06		5,112 01		/01/06
DRILLING EQUIPMENT			riogor L	og	01			COMPLE		PTH (FT E	3GS)	BOCK D	EPTH (FT	
	urning 4.25-inch hollow-stem augers							OOWII EE	36		Jao,	HOOK B		countered
	stem auger		SIZE AND	TY	PE CORE	BARRE	=1	NO. SAM		DIST.	16	UNDIST.	N/A	
CASING N/A	stom dagor		OIZE AIND	N/		DAITI		WATER		FIRST	4	COMPL.	N/A	
CASING HAMMER	WEIGHT N/A		DDOD	1 14/	N/A									center of Forrest Street from the
	weight N/A eter, 2' long split-spoon	!	DROP		IN/A			1						
			2222		20"							approx.	зо п веу	rond end of Forrest Street.
SAMPLER HAMMER	WEIGHT 140 lbs.	П	DROP		30"	0		INSPEC	IOR	Eric G		NOO		
		Interval		aple		San	nples			PID	READI	NGS		
DI	CODIDTION	Sample In		ter Ta			Penetr.			1	(PPM)			DEMARKO
DE	DESCRIPTION		Depth	Wat	Number	Recov.	Resist.	Time	Sample		Time	Head	Time	REMARKS
		H	(ft bgs)	Н		(ft)	BL/6in			Air		Space	Date	
20.0-24.0 Red (2.	5YR4/6) fine to coarse		- 20 -											
SAND (SW), with	less than 1% fine gravel	M			9	1.5	2	N/A	0.0	0.0	N/A	N/A	N/A	No odors this spoon
		١												
							3		0.0	0.0				
			- 21 -											
							3		0.0	0.0				
							5							
			- 22 -											
					10	1.5	2	N/A	0.0	0.0	N/A	N/A	N/A	No odors this spoon
							2		0.0	0.0				
			- 23 -											
							2		0.0	0.0				
							3							
24 0-26 0 Reddish	n brown (2.5YR4/4) fine to		- 24 -											Naphthalene-like odors
medium SAND (S					11	1.2	2	N/A	0.0	0.0	N/A	N/A	N/A	and sheen in top 7" of
,	,,	N												this spoon; dye test negative from 24.0-24.5
							3		0.0	0.0				at 1545
			- 25 -											Sample SB-46(24.5-
							5		0.0	0.0				25.0) collected at 1546
														for TCL SVOC, TCL
							4							VOC, TAL Metals, Total
			- 26 -		<b> </b>		ļ					ļ		and Amenable CN
26.0-26.3 Reddis	h brown (2.5YR4/4) fine	M			12	0.9	4	N/A	0.0	0.0	N/A	N/A	N/A	No sheen noted in this
SILTY SAND (SN	<b>1</b> )								1					spoon
26.3-28.0 Reddis	h brown (5YR4/3) fine						5		0.0	0.0				
SANDY SILT (ML			- 27 -											
			,				4							
														Drilling ended here 11
							5							30-06
			- 28 -				L			ļ	<b> </b>	ļ		
28.0-31.0 Reddis	h brown (5YR4/3) fine	M	20 -		13	1.8	4	0755	0.1	0.0	0755	N/A	N/A	Drilling resumed have
SILTY SAND (SN					13	1.0	-	0,00	0.1	0.0	0,33	, w/A		Drilling resumed here 12-1-06
							4		0.8	0.0				
			- 29 -				-		0.0	0.0				No odors or sheen in this spoon
			- 29 -				_		0.0	0.0				and spoon
							5		0.0	0.0				
							_			0.0				
			00				5		0.0	0.0				
			- 30 -				1			1				

<b>AECOM Note: Ground Surfa</b>	ce E	Eleva	at	ion	= 9	.90	ft N	AVE	880		1		
PROJECT LOCATION							GROUNI	D ELEVAT		MSL)	PROJEC	T NUMBE	
Halladay Street , Jersey City, NJ		1							.13				020667601
PRILLING CONTRACTOR		FOREMA					DATE ST				DATE CO	OMPLETE	
Advanced Drilling, Inc.		Roger L	_og	el					80/06				/01/06
RILLING EQUIPMENT							COMPLE	ETION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT	
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem aug	ers	0.75 41.5		DE 000				36	DIOT	16	LINIBIOT		countered N/A
YPE BIT Hollow-stem auger ASING N/A		SIZE AND	N/		BARR	EL	NO. SAN		DIST. FIRST		UNDIST.	N/A N/A	
ASING IN/A ASING HAMMER WEIGHT N/A		DROP	IN/	N/A									center of Forrest Street from the
AMPLER 2" diameter, 2' long split-spoon		DROP		IN/A									yond end of Forrest Street.
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPEC		Eric Ga		арргох.	30 It bey	ond end of Forest Street.
SAWELLE TANINIER WEIGHT 140 105.	_	DNOF		50	Sar	nples	INSI EC	ION		READII	NGS		
	Interval		Fable		Oui	Penetr.			110	(PPM)	1100		
DESCRIPTION	Sample	Depth	ater -	Number	Recov	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
22001 1.0.1	Sar	(ft bgs)	>	ramboi	(ft)	BL/6in		Campio	Air	111110	Space	Date	
00 0 04 0 D ddid barry (CVD4/0) fire		- 30 -											
28.0-31.0 Reddish brown (5YR4/3) fine SILTY SAND (SM)				14	1.7	4	0800	0.0	0.0	0800	N/A	N/A	No odors or sheen noted
OILT TONING (OIN)													in this spoon
				ĺ		5		0.0	0.0				
		- 31 -		ĺ									
31.0-34.3 Reddish brown (5YR4/3) fine						6		0.0	0.0				
SANDY SILT (ML)													
						9		0.0	0.0				
	l	- 32 -											
				15	8.0	4	0818	0.0	0.0	0818	N/A	N/A	Sample SB-46(35.0-
	1												35.5) collected at 0821 for TCL VOC, TCL
						4		0.0	0.0				SVOC, TAL Metals,
		- 33 -											Total and Amenable CN
						4		0.0	0.0				
						4							
34.3-34.6 Reddish brown (5YR4/3) fine		- 34 -				<b> </b>							
SILTY SAND (SM)				16	1.5	4	0821	0.0	0.0	0821	N/A	N/A	
34.6-35.0 Reddish brown (5YR4/3) fine													
SANDY SILT (ML)						5		0.0	0.0				
35.0-35.5 Reddish brown (5YR4/3) fine		- 35 -											
SILTY SAND (SM)						4		0.0	0.0				
						6							
		- 36 -											
ND OF BORING AT 36'													
		- 37 -											
		- 38 -				<del> </del>							
		-											
		- 39 -											
		- 40 -				<b> </b>							1

Note that PPG Cr+6 samples collected as part of this boring are not included in this boring log.

**PSEG SC Former Halladay Street Gas Works SCHOOR DEPALMA** Interim Data Submittal No.4 Page 1 of 4 **LOG OF SOIL BORING SB-47** AECOM Note: Ground Surface Elevation = 9.90 ft NAVD88 GROUND ELEVATION (FT. MSL) PROJECT LOCATION PROJECT NUMBER Halladay Street , Jersey City, NJ 11.13 020667601 DRILLING CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Advanced Drilling, Inc. Roger Logel 11/29/06 COMPLETION DEPTH (FT BGS) DRILLING EQUIPMENT ROCK DEPTH (FT) GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers not encountered SIZE AND TYPE CORE BARREL N/A Hollow-stem auger NO. SAMPLES DIST. 16 JNDIST. N/A NA N/A WATER DEPTH FIRST COMPL 24HR CASING HAMMER WEIGHT DROP BORING LOCATION: West side of Forrest Street, 273 ft NW from the western corner SAMPLER 2" diameter, 2' long split-spoon of the Halladay Street / Forrest Street intersection SAMPLER HAMMER WEIGHT 140 lbs DROP Eric Gaulin PID READINGS Samples **DESCRIPTION REMARKS** Depth Ambien Time Time Resist Time Sample Head (ft bgs) BL/6ir Space Date - 0 Cleared via hand digging to 4'; boring through asphalt; Fill consisted of gravel, some ash material (AM), some clinker material (CM), some suspected pellets of chromate ore processing residue (COPR) 3 - 4 4.0-7.0 FILL: CM 1319 0.0 0.0 1319 N/A N/A 0.0 0.0 0.0 0.0 3 0.0 0.0 2 1.4 1322 0.0 0.0 1322 N/A N/A 3 Heavy naphthalene odors; dye test from 6.5 7.0 positive; brown oil 3 0.0 0.0 material (OM) from 6.0-7.0-8.0 Grayish brown SILT (MH), trace clay 0.0 0.0 8 8.0-9.1 Dark reddish gray (2.5YR 3/1) 3 1.5 2 1333 0.0 0.0 1333 N/A N/A organic SILT, CLAY (OL) 0.0 9.1-10.0 Yellowish brown (10YR5/4) 0.0 SILT (ML), trace clay 9 0.0 0.0

## LOG OF SOIL BORING SB-47

AECOM Note: Ground Surfac	e	LOG Elev											
PROJECT LOCATION		_,0 v	اما						TION (FT.	MSI )	PRO IFO	T NUMBE	
Halladay Street , Jersey City, NJ							GHOON		.13	WOL)	THOOLO	THOMBE	020667601
DRILLING CONTRACTOR		FOREMAN	٧				DATE ST				DATE CO	OMPLETE	
Advanced Drilling, Inc.		Roger L		el			3		29/06				/29/06
DRILLING EQUIPMENT		riogei L	Jy	υI			COMPLE		29/06 PTH (FT E	368)	BUCK D	EPTH (FT	
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers							JOINIFLE	36	. III(FIE	Jaoj	TOOK D		ountered
TYPE BIT Hollow-stem auger		SIZE AND	TY	PE CORE	BARRE	=1	NO. SAM		DIST.	16	UNDIST.	N/A	core N/A
CASING N/A		OIZE AIND	N/		DAITI		WATER		FIRST	10	COMPL.	N/A	
CASING HAMMER WEIGHT N/A		DROP	,	N/A						side of l			3 ft NW from the western corner
SAMPLER 2" diameter, 2' long split-spoon		DHOF		IN/A			i		Street / F				
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPECT		Eric Ga		ireet irite	i section.	
SAWFEEN TANKEN WEIGHT 140 IDS.	T	DHOF		00	San	nples	INSI LO	On		READI	NGS		
	Interval		able		Oan	Penetr.			1 10	(PPM)	NGO		
DESCRIPTION	Sample I	Depth	Vater T	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
DESCRIPTION		(ft bgs)	W	Number	(ft)	BL/6in	Time	Sample	Air	Tille	Space	Date	TILIMATINO
		- 10 -	Н		(11)	DE/OIII			All		Орасс	Date	
10.0-11.5 Light brownish gray (10YR 6/2)				4	1.7	1	1350	0.0	0.0	1350	N/A	N/A	No odors this spoon
SANDY SILT (ML)					'''	•	.550	3.0	0.0		,,	.,,,,	
						1		0.0	0.0				
		- 11 -				'		5.0	0.0				
11.5-13.1 Yellowish red (5YR4/6) fine		''				1		0.0	0.0				
SANDY SILT (ML), trace clay						'		5.0	0.0				
		•				1		0.0	0.0				
		- 12 -							0.0				
				5	2.0	1	1402	0.0	0.0	1402	N/A	N/A	No odors the spoon
	۱												
	۱					1		0.0	0.0				Sample SB-47(13.5-
	۱	- 13 -						0.0	0.0				14.0) collected at 1405
		10				1		0.0	0.0				for TCL VOC, TCL
13.1-14.1 Light brownish gray (10YR 6/2)						ļ '		0.0	0.0				SVOC, TAL Metals,
well compacted SILT (OL), trace clay						3		0.0	0.0				Total and Amenable CN
		- 14 -						0.0	0.0		l		
14.1-14.7 Reddish brown (2.5YR 5/4) fine	1	14		6	1.5	1	1410	0.0	0.0	1410	N/A	N/A	No odors this spoon
SAND (SP), trace silt					1.5	'	1.710	0.0	0.0	1.710	17/7	13/7	110 00010 11110 000011
						2		0.0	0.0				
14.7-16.2 Reddish brown (2.5YR 5/3) fine		- 15 -				-		5.0	0.0				
SILTY SAND (SM) and clay		.5 -				2		0.0	0.0				
						_		5.0	0.0				
						2							
		- 16 -			<u> </u>			[		<u> </u>	<u> </u>	<b>.</b>	
		10 -		7	1.9	2	1415	0.0	0.0	1415	N/A	N/A	No odors this spoon
16.2-18.0 Reddish brown (2.5YR 5/3) fine to				,	1.5		1713	0.0	0.0	1.713	17/7	13/7	110 00010 11110 000011
coarse SAND (SW), trace silt, silty clay, 50% gravel rounded to subrounded, up to 1"						2		0.0	0.0				
graver rounded to subrounded, up to 1		- 17 -						0.0	3.0				
		'' -				2		0.0	0.0				
						_		5.0	0.0				
						3		0.0	0.0				
	F	- 18 -						0.0	0.0				
18.0-20.0 Reddish brown (2.5YR 4/4) fine to		- 10 -		8	1.3	3	1417	0.0	0.0	1417	N/A	N/A	No odors this spoon
medium SAND (SW), little coarse sand,					1.5		'-''	5.0	0.0	1 /			110 odora tina apooti
trace silt, <5% fine gravel						5		0.0	0.0				
		- 19 -						0.0	0.0				
		- 13 -				7		0.0	0.0				
		]_				′		0.0	0.0				
		-				8							
		- 20 -				0							
		- 20 -	Ц						1	<u>                                     </u>		<u> </u>	

AECOM No	te: Ground Surface		LOG Eleva											1 290 0 01 1		
PROJECT LOCATION	alladay Street , Jersey City, NJ											PROJECT NUMBER				
Halladay Street , Jersey	City, NJ									.13				020667601		
DRILLING CONTRACTOR			FOREMAN	V				DATE ST	ARTED			DATE COMPLETED				
Advanced Drilling, Inc.			Roger L	.og	el				11/2	29/06			11.	/29/06		
DRILLING EQUIPMENT								COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT	)		
GEFCO SS 5 Drill Rig tu	urning 4.25-inch hollow-stem augers								36				not end	countered		
TYPE BIT Hollow-s	stem auger		SIZE AND	TY	PE CORE	BARRE	ΞL	NO. SAM	IPLES	DIST.	16	UNDIST.	N/A	core N/A		
casing N/A				N/	Α			WATER	DEPTH	FIRST		COMPL.	N/A	24HR <b>N/A</b>		
CASING HAMMER	weight N/A		DROP		N/A			BORING	LOCATIO	N: West	side of F	orrest S	treet, 27	3 ft NW from the western corner		
SAMPLER 2" diame	eter, 2' long split-spoon							of the H	alladay	Street / F	orrest S	treet inte	rsection.			
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPECT	TOR	Eric G	aulin					
		Interval		e		San	nples			PID	READI	NGS				
		e Inte		ər Tab			Penetr.				(PPM)	1	1			
DE	ESCRIPTION	Sample	Depth (ft bgs)	Wate	Number	Recov.	Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	REMARKS		
consisting of 75% pieces, trace silt, s	eddish brown (2.5YR4/4) gravel, large cobble some fine sand; gravel		- 20 -		9	1.0	7	1425	0.0	0.0	1425	N/A	N/A	No odors this spoon		
sandstone (GW)	iltstone, green and white		- 21 -				9		0.0	0.0						
							12									
			- 22 -		10	1.2	13	1433	0.0	0.0	1433	N/A	N/A	No odors this spoon		
							15		0.0	0.0				The Gaste and Speed		
SILTY SAND (SM)	n brown (2.5YR4/4) fine )		- 23 -				17		0.0	0.0						
							18									
_	nts of a white sandstone		- 24 -		11	1.2	12	1436	0.0	0.0	1436	N/A	N/A	No odors this spoon		
	brown (2.5YR4/4) fine		- 25 -				13		0.0	0.0						
SANDY SILT (ML)	, trace clay		- 25 -				13		0.0	0.0						
			- 26 -				15									
					12	1.8	11	1444	0.0	0.0	1444	N/A	N/A	No odors; green water observed in this spoon		
			- 27 -				12		0.0	0.0				Sample SB-47(26.0-		
							12		0.0	0.0				26.5) for TCL VOC, TCL VOC, TAL Metals, Total and Amenable CN		
			- 28 -		13	1.3	10	1450	0.0	0.0	1450	N/A	N/A	Faint naphthalene-like		
28 0-20 1 Doddich	hrown (2 5VP4/4) fino						10		0.0	0.0				odors noted throughout this spoon		
SILTY SAND (SM)	brown (2.5YR4/4) fine		- 29 -				11		0.0	0.0						
							12									
			- 30 -													

Interim Data Subn	nittal No.4		LOG	C	F SC	)IL F	BOR	ING 9	SB-4	7				Page 4 of 4		
AECOM No	te: Ground Surfac															
PROJECT LOCATION										TION (FT.	MSL)	PROJEC	T NUMBE	ER		
Halladay Street , Jersey	City, NJ								11	.13				020667601		
DRILLING CONTRACTOR			FOREMAN	٧				DATE ST	ARTED			DATE COMPLETED				
Advanced Drilling, Inc.			Roger L	.og	el				11/2	29/06			11	/29/06		
DRILLING EQUIPMENT								COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT	)		
GEFCO SS 5 Drill Rig tu	urning 4.25-inch hollow-stem augers								36				not end	countered		
TYPE BIT Hollow-s	stem auger		SIZE AND	TY	PE CORE	BARRE	L	NO. SAM	IPLES	DIST. 16		UNDIST.	N/A	CORE N/A		
casing N/A				N/	Ά			WATER	DEPTH	FIRST		COMPL.	N/A	24HR N/A		
CASING HAMMER	weight N/A		DROP		N/A			BORING	LOCATIO	N: West	side of I	orrest S	treet, 27	3 ft NW from the western corner		
SAMPLER 2" diame	eter, 2' long split-spoon							of the H	lalladay :	Street / F	orrest S	treet inte	rsection.			
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPEC <sup>*</sup>	TOR	Eric Ga	aulin					
	•	/al		•		San	nples			PID	READI	NGS				
		Interva		Table			Penetr.				(PPM)					
DE	SCRIPTION	Sample	Depth	Vater	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS		
		Sa	(ft bgs)	^		(ft)	BL/6in			Air		Space	Date			
30.0-30.2 Reddish medium SAND (S	n brown (2.5YR4/4) fine to W)		- 30 -		14	1.4	10	1510	0.0	0.0	1510	N/A	N/A	No odors; green ground		
30.2-30.3 Reddish SANDY SILT (ML)	n brown (2.5YR4/4) fine						11		0.0	0.0				water noted in this spoon		
30.3-30.7 Reddish SILTY SAND (SM)	brown (2.5YR4/4) fine		- 31 -				11		0.0	0.0						
30.7-32.6 Reddish SANDY SILT (ML)	brown (2.5YR4/4) fine		- 32 -				11									
			- 02		15	1.8	10	1513	0.0	0.0	1513	N/A	N/A	No odors this spoon		
22.6.22.0 Poddish	brown (2.5YR4/4) SILT						10		0.0	0.0						
(ML) and SILTY CI			- 33 -				11		0.0	0.0						
33.0-35.1 Reddish SANDY SILT (ML)	brown (5YR5/4) fine						13									
			- 34 -		16	1.1	10	1516	0.0	0.0	1516	N/A	N/A	Sample SB-47(34.5- 35.0) collected at 1517		
			- 35 -				12		0.0	0.0				for TCL VOC, TCL SVOC, TAL Metals,		
			- 35 -				13		0.0	0.0				Total and Amenable CN		
			- 36 -				12		0.0	0.0				No odors this spoon		
END OF BORING	AT 36'															
			- 37 -													
			- 38 -													
			- 39 -													
			- 40 -			<b> </b>										

Note that PPG Cr+6 samples collected as part of this boring are not included in this boring log.

PSEG SC Former Halladay Street Gas Worl	ks														SCHOOR DEPALM
Interim Data Submittal No.4															Page 1 of
								ING S			_				•
AECOM Note: Ground Surface	ce	ΕI	eva	ti	on	<u>= 1</u>	0.9	<u>0 ft l</u>	<u>VAV</u>	/D88	3				
PROJECT LOCATION								GROUNE	ELEVAT	TION (FT.	MSL)	PROJEC	T NUMBE		
Halladay Street , Jersey City, NJ		_								2.13					20667601
DRILLING CONTRACTOR			REMAN					DATE ST				DATE CO	OMPLETE		
Advanced Drilling, Inc.		Ro	ger Lo	gel	l .					28/06				/29/06	
PRILLING EQUIPMENT	¥0							COMPLE		PTH (FT E	BGS)	ROCK DI	EPTH (FT		a.d
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem auger  TYPE BIT Hollow-stem auger	rs	SIZ	E AND 1	YPI	F CORE	BARRE	=1::	NO. SAM	40 IPLES	DIST.	18	UNDIST.	99 19960	counter	core N/A
casing N/A		1012		V/A				WATER	22 190020155	FIRST	4	COMPL.	N/A		24HR N/A
CASING HAMMER WEIGHT N/A		DR		3////30	N/A				THE STREET	2 200,000	side of I	200000000000000000000000000000000000000	79000000 40		from the western corner
SAMPLER 2" diameter, 2' long split-spoon								of the H	alladay	Street / F	Forrest S	treet inte	rsection.		
SAMPLER HAMMER WEIGHT 140 lbs.		DR	OP	3	30"			INSPECT	OR	Eric G	aulin				
	la y	ਰ>		e _		San	nples			PID	READI	NGS			
	lotonyal		,	er I ab			Penetr.				(PPM)				
DESCRIPTION	Sample	D	epth	wate	Number	Recov.	Resist.	Time	Sample		Time	Head	Time		REMARKS
	+	(π	bgs)	╀		(ft)	BL/6in			Air		Space	Date	_	
Cleared via hand digging to 4'; boring		1	0 -												
through asphalt; Fill consisted of reddish		_													
brown sand, gravel		1													
		1-	1 -												
		-	-												
		-	2 -												
		-	-												
		-	3 -												
		L													
		-	4 -	Z.											
4.0-4.8 Dark grayish brown (10YR4/2)	1		ľ		1	0.9	2	1342	0.0	0.0	1342	N/A	N/A		
fine SAND (SP), trace silt		-	-												
		V					1		0.0	0.0					
4.8-6.8 Yellowish brown (10YR5/4) fine		-	5 -												
SANDY SILT (ML), trace clay							2		0.0	0.0					
		-	-												
			_				2		0.0	0.0					
		1 -	6 -	1	2	1.7	2	1352	0.0	0.0	1250	N/A	N/A	l	
6.8-8.8 Yellowish red (5YR4/6) fine SILTY SAND (SM), with some bands of					2	1./	2	1352	0.0	0.0	1352	IN/A	IN/A		
greenish gray (GLEY1 6/1 10Y)							1		0.0	0.0					
S			7 -				'		0.0	0.0					
							1		0.0	0.0					
		-	-												
	F						2								
		-	8 -	-										ļ	
					3	2.0	2	1355	0.0	0.0	1355	N/A	N/A	0.00	nt burnt odors noted
		-	-											on g	groundwater
8.8-12.5 Yellowish red (5YR4/6) fine to							2		0.0	0.0					
medium SAND (SW), trace silt		-	9 -				65%								
							1		0.0	0.0					
		-	-				_			0.0					
			10 -				2		0.0	0.0					
		100	10 -	Ŀ						1		1			

AECOM Note: Ground Surface	e l	LOG Elev								8			3 <b>3</b> 2 3 3 3
PROJECT LOCATION				ΓΙΟΝ (FT.		PROJECT NUMBER							
Halladay Street , Jersey City, NJ								12	2.13				020667601
DRILLING CONTRACTOR		FOREMAI	N				DATE ST	ARTED			DATE CO	OMPLETE	D
Advanced Drilling, Inc.		Roger L	.og	el				11/2	28/06			11/	/29/06
DRILLING EQUIPMENT							COMPLE	TION DE	PTH (FT E	BGS)	ROCK DI	EPTH (FT	)
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers	6							40				not end	countered
TYPE BIT Hollow-stem auger		SIZE AND	TY	PE CORE	BARRE	EL	NO. SAM	IPLES	DIST.	18	UNDIST.	N/A	core N/A
CASING N/A			N/	Ά			WATER	DEPTH	FIRST	4	COMPL.	N/A	24HR N/A
CASING HAMMER WEIGHT N/A		DROP		N/A			BORING	LOCATIO	ON: West	side of F	orrest S	treet, 15	8 ft NW from the western corner
SAMPLER 2" diameter, 2' long split-spoon							of the H	lalladay	Street / F	orrest S	treet inte	rsection.	
SAMPLER HAMMER WEIGHT 140 lbs.	_	DROP		30"			INSPECT	TOR	Eric Ga	aulin			
	Interval		le		San	nples			PID	READI	NGS		
	e Inte		r Tab			Penetr.				(PPM)			
DESCRIPTION	Sample	Depth	Water	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
	0)	(ft bgs)	L		(ft)	BL/6in			Air		Space	Date	
8.8-12.5 Yellowish red (5YR4/6) fine to medium SAND (SW), trace silt		- 10 -  - 11 -		4	1.5	2	1400	0.0	0.0	1400	N/A	N/A	Sample SB-48(10.0- 10.5) collected at 1405 for TCL VOC, TCL SVOC, TAL Metals, Total and Amenable CN
						2		0.0	0.0				Strong, burnt odors this spoon
12.5-14.4 Reddish brown (2.5YR4/4) fine		- 12 -		5	1.3	2	1410	0.0	0.0	1410	N/A	N/A	Strong, burnt odors this spoon
SANDY SILT (ML)		- 13 -				2		0.0	0.0				
14.4-16.0 GRAVEL, consisting of fine		- 14 -		6	0.7	2	1415	0.0	0.0	1415	N/A	N/A	
grained black angular rock fragments (1/4"), with streaks of grayish green throughout (GW)		- 15 -				2		0.0	0.0				
		- 16 -				5							
16.0-16.3 Reddish brown (2.5YR4/4) fine SANDY SILT (ML)				7	1.1	5	1415	0.0	0.0	1415	N/A	N/A	Faint unidentifiable odors
16.3-16.8 Reddish brown (2.5YR4/4) fine SANDY SILT (ML), with some black silt and 2" fragments of white fine grained sand stone, exhibiting some black weathering		- 17 -				5 7		0.0	0.0				
16.8-18.0 Reddish brown (2.5YR4/4) fine SANDY SILT (ML)						7							
18.0-21.6 Reddish brown (2.5YR4/4) fine SILTY SAND (SM)		- 18 -		8	1.4	4	1422	0.0	0.0	1422	N/A	N/A	
		- 19 -				3		0.0	0.0				
		- 20 -				3		0.0	0.0				

# LOG OF SOIL BORING SB-48 AECOM Note: Ground Surface Elevation = 10.90 ft NAVD88

AECOM Not	e: Ground Surfac	е	Log Elev	a	of So tion	OIL E = 1	0.9	ing s 0 ft 1	8B-48 NAV	3 /D88	3						
PROJECT LOCATION			GROUNI	GROUND ELEVATION (FT. MSL) PROJECT NUMBER													
Halladay Street , Jersey Ci	ity, NJ								12	2.13		020667601					
DRILLING CONTRACTOR			FOREMAN	1				DATE ST	TARTED			DATE CO	OMPLETE	ED .			
Advanced Drilling, Inc.			Roger L	oa	el				11/2	28/06			11.	/29/06			
DRILLING EQUIPMENT				- 3				COMPLE		PTH (FT E	3GS)	ROCK D	EPTH (FT	0.01000000			
and control of the co	ning 4.25-inch hollow-stem augers							0011111 22	40	(	300,	l look b		countered			
TYPE BIT Hollow-ste			SIZE AND	TY	PE CORE	BARREI		NO. SAM		DIST.	18	UNDIST.	N/A				
CASING N/A	4090			N/				WATER		FIRST	4	COMPL.	N/A	0 900			
5 (5.1 (1990-02.3)	reight N/A		DROP	- 10	N/A					100000000000000000000000000000000000000	8530		10/10/00	8 ft NW from the western corner			
	r, 2' long split-spoon		Brioi		14//			i		Street / F							
	reight 140 lbs.		DROP		30"			INSPEC		Eric Ga		treet inte	136011011.				
SAWIF LETT HAWWERT	LIGHT 140 lb3.	_	DHOI		00	Sam	ples	IIVOF EC	I		READI	NGS					
		Interval		able		Oan	Penetr.		ł	110	(PPM)	1100					
DES	CRIPTION	ıl əldı	Depth	ater T	Number	Recov.	Resist.	Time	Sample	Ambient	T T	Head	Time	REMARKS			
DEO	JOHN HON	Sample	(ft bgs)	W	Number	(ft)	BL/6in	Time	Sample	Air	Time	Space	Date	TILIVIATINO			
		H	- 20 -	-		(11)	BL/6III			All		Space	Date				
	prown (2.5YR4/4) fine		- 20 -		9	2.0	3	1436	0.0	0.0	1436	N/A	N/A				
SILTY SAND (SM)					3	2.0	"	1430	0.0	0.0	1430	19/7	IN/A				
		١					3		0.0	0.0							
			04				3		0.0	0.0							
			- 21 -														
							2		0.0	0.0				Drilling ended here 11			
	prown (2.5YR4/4) fine													28-06			
SANDY SILT (ML)			00				2		0.0	0.0				20 00			
22.0-27.2 Reddish I	brown (2.5YR4/4) fine	Γ	- 22 -					2004			0004						
SILTY SAND (SM)	0101111 (2.01111111) 11110	١			10	0.9	3	0904	0.0	0.0	0904	N/A	N/A	Drilling resumed here			
, ,														11-29-06			
							5		0.0	0.0							
		Г	- 23 -														
							5							No odors this spoon			
							6										
			- 24 -														
		١			11	1.0	5	0915	0.0	0.0	0915	N/A	N/A	No odors this spoon			
							5		0.0	0.0							
			- 25 -														
							7										
							10										
			- 26 -														
		١			12	1.6	6	0916	0.0	0.0	0916	N/A	N/A	No odors this spoon			
		١												Sample SB-48(26.5-			
		١					6		0.0	0.0				27.0) for TCL VOC, TCL			
A M. CONSISS ASSAULTS OF	brown (5YR5/4) SILTY		- 27 -											SVOC, TAL Metals,			
CLAY (CL)							7		0.0	0.0				Total and Amenable CN			
	brown (5YR5/4) fine						7		0.0	0.0							
SILTY SAND (SM)			- 28 -														
		١			13	1.3	5	0930	0.0	0.0	0930	N/A	N/A	No odors this spoon			
	brown (5YR5/4) SILTY								"	5.0			""	- 1.5 555.5 time opoon			
CLAY (CL)							6		0.0	0.0							
			- 29 -				ਁ			5.5							
	brown (5YR5/4) fine		20 -				6		0.0	0.0							
SANDY SILT (ML)									0.0	0.0							
							7										
			- 30 -				L.		L								
		$\perp$	- 30 -	Ш				1		1				1			

### **LOG OF SOIL BORING SB-48**

AECOM Note: Ground Surface							ING S			2					
PROJECT LOCATION	<u> </u>	ICVC	<u> </u>	1011	_	0.5			TION (FT.		PRO IEC	T NUMBE	:R		
Halladay Street , Jersey City, NJ							GHOON		2.13	IVIOL)	PHOSEC	INOMBE	020667601		
DRILLING CONTRACTOR	F	OREMAN					DATE ST				DATE CO	MPLETE			
Advanced Drilling, Inc.		Roger Lo		al.			DATE OF		28/06		11/29/06				
DRILLING EQUIPMENT		loger E	og				COMPLE		PTH (FT E	RGS)	BOCK DI	EPTH (FT			
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers							OOWII EE	40	(	, do,	I I OOK DI		countered		
TYPE BIT Hollow-stem auger	SI	IZE AND	TYI	PE CORE	BARRE	1	NO. SAM		DIST.	18	UNDIST.	N/A	000000000		
CASING N/A	1		N/		D) (( ( ( )		WATER	22 1001011101	FIRST	4	COMPL.	N/A	0.000		
CASING HAMMER WEIGHT N/A		ROP	,	N/A				Transfer Land	0 8000000		25910000 - 49	10,000,000	8 ft NW from the western corner		
SAMPLER 2" diameter, 2' long split-spoon	I	1101		14//1			i		Street / F						
SAMPLER HAMMER WEIGHT 140 lbs.	l <sub>D</sub>	ROP		30"			INSPECT	-	Eric Ga		ireet inte	i section.			
		T		00	San	nples	IIVOI LO			READI	NGS				
	Interval		able		Jan	Penetr.		i	1 10	(PPM)	1400				
DESCRIPTION	e	Depth	Vater T	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS		
DESCRIPTION (	San	ft bgs)	≥	Number	(ft)	BL/6in	Time	Sample	Air	Tille	Space	Date	TILIMATINO		
	-	- 30 -			(11)	DEJOIN					opuoc	Duic			
28.6-30.3 Reddish brown (5YR5/4) fine		"		14	1.2	6	0931	0.0	0.0	0931	N/A	N/A	No odors this spoon		
SANDY SILT (ML)	١   ١	ا ۔													
30.3-36.6 Reddish brown (5YR5/4) fine	M					7		0.0	0.0						
SILTY SAND (SM)	١.	- 31 -				′		0.0	0.0						
		-				6		0.0	0.0						
	<b>-</b>					"		0.0	0.0						
						6									
		- 32 -													
				15	1.3	6	0940	0.0	0.0	0940	N/A	N/A	No odors this spoon		
	\   _			10	1.0	ľ	0010	0.0	0.0	0010	13//3	1477	The edele time epoch		
	$\prod_{i=1}^{n}$					6		0.0	0.0						
	N	- 33 -				0		0.0	0.0						
		- 33 -				5		0.0	0.0						
						5		0.0	0.0						
	-					6									
		.,				ь									
	8   <sup>8</sup>	- 34 -		40	0.0		0055	0.0		0055	NI/A	NI/A	OI- OD 40/04 0		
				16	2.0	6	0955	0.0	0.0	0955	N/A	N/A	Sample SB-48(34.0- 34.5.0) collected at 1001		
	-	-				7		0.0	0.0				for TCL VOC, TCL		
	N.	ا ء				<b>'</b>		0.0	0.0				SVOC, TAL Metals,		
	11	- 35 -				_			0.0				Total and Amenable CN		
	N					7		0.0	0.0						
	-					_							No odors this spoon		
		.				7		0.0	0.0						
36.6-38.0 Reddish brown (5YR5/4) fine	1	- 36 -					4000			4000			No adam this areas		
SANDY SILT (ML)				17	2.0	6	1000	0.0	0.0	1000	N/A	N/A	No odors this spoon		
50 0 0 0 D	-	-						١.,							
38.0-38.8 Reddish brown (5YR5/4) fine SANDY SILT (ML), with some weak grey	Ш					8		0.0	0.0						
silty clay lenses, less than 1/4" thick	-	- 37 -				1000									
Sity stay terroos, 1655 than 177 thiok	N					9		0.0	0.0						
	-					2,000									
		2007				10		0.0	0.0						
38.8-38.9 Reddish brown (5YR5/4) SILTY	-	- 38 -													
CLAY (CL)				18	1.5	6	1012	0.0	0.0	1012	N/A	N/A	No odors this spoon		
. (/	-	-											Sample SB-48(39.0-		
						7		0.0	0.0				39.5) collected at 1015 for TCL VOC, TCL		
38.9-39.5 Reddish brown (5YR5/4) fine	-	- 39 -				,							SVOC, TAL Metals,		
SANDY SILT (ML), trace clay						7		0.0	0.0				Total and Amenable CN		
	-	-													
						8									
END OF BORING AT 40'	1-	- 40 -													