Remedial Action Report – Former Halsted Corporation Property (AOC HSD-1A) Soil Garfield Avenue Group PPG, Jersey City, New Jersey

Appendix E

Boring Logs

Boring logs for the sample locations representing remaining-in-place soil in Halsted collected via soil core are included in this appendix. Logs were not generated for grab samples collected during excavation activities, typically designated by "PB", "EX" (except where samples were collected via boring or soft dig methods), or "SW" in the Location ID.

Boring ID: CAR-PDI-AA19A

Project Project						Drilling Method: direct puch	Coordinates (NI ICDN	AD83) v. 611350.01					
	t Number:			2.20.00 ^ 4		Drilling Method: direct push	Coordinates (NJSPN						
				3:30:00 AM		Rig Type:	Coordinates (NJSPNA						
		illing:	0/13/2016	9:30:00 AM		Core Size: 3.0 in	Boring Total Depth:						
	d By: ES	m. A-1	ual 045.	וחו		Project Manager: Scott Mikaelian	Depth to Water: NA						
rnysic	ai Locatio	ıı: Act	ual - CAR I	וטי			1						
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							
_			dry	FILL	XXXX	ASH, some coal, trace glass, (7.5YR 4/1) dark gray looso	CAR-PDI-AA19A-0.5-1.0					
-1 - -2	4.5		ury	FILL		dry, no odor, no staining.) dark gray, loose,	CAR-PDI-AA19A-2.0-2.5					
-3 -4			dry	FILL		fine to medium SAND, little to trace ash, (7.5YR 6/3) light brown, medium dense, staining.		CAR-PDI-AA19A-4.0-4.5					
_				NR	XXXXX	NO RECOVERY							
-5		0.0	wot	FILL	 		h (5VD 4/2)						
_	-	0.0	wet			fine silty SAND, little fine gravel, trace as reddish brown, medium dense, wet, no o							
-6- - -			wet	FILL		\text{water at 5.0 feet.} \text{ASH, some silt and fine sand, trace wood black, medium dense, wet, no odor, no sile.}	d, (7.5YR 2.5/1) taining.	CAR-PDI-AA19A-6.0-6.5					
-8	3.5		wet	FILL		fine silty SAND, fine little gravel, (5YR 4/- medium dense, wet, no odor, no staining		CAR-PDI-AA19A-8.0-8.5					
-9				NR	XXXX	NO RECOVERY							
40													
-10 — -11— -12—		0.0	wet	FILL		fine silty SAND, little organics, trace fine reddish brown, medium dense, wet, no o		CAR-PDI-AA19A-10.0-10.					
-13 -14	. 5												CAR-PDI-AA19A-12.0-12.
' -					\bowtie			CAR-PDI-AA19A-14.0-14.					
-1 <i>E</i>					\bowtie			CAR-PDI-AA19A-14.7-15.					
-15		0.0	wet	FILL	<u> </u>	fine silty SAND, trace metal, (5YR 4/3) re		CAR-PDI-AA19A-15.2-15.					
4.5]		dry	PT	1, 11,	medium dense, wet, no odor, no staining PEAT (degraded vegetated material), 75°	. // organic fibore						
-16	1					25% organic silt, (5YR 3/3) dark reddish	brown stiff dry no						
-	1		dry	OL	<u> </u>	odor, no staining. Soils consistent with M	M. /						
-17	1				<u> </u>	Organic SILT, 75% organic silt, 25% organic	anic fibers, (7.5YR						
_	5				<u> </u>	4/3) brown, medium stiff, dry, no odor, no consistent with UNDorg.	o staining. Soils						
-18	1					Onisistent with Olyporg.							
_													
10					ļ	· -							
-19					H	-							
			moist	SM		fine to medium silty SAND, (5Y 5/1) gray moist, no odor, no staining. Soils consiste	, medium dense, ent with UNDno.						
					essing re	esidue UNDno - non-organic undisturbed native d	leposits MGP - manuf	factured gas plant omate chemical production w					
ivi - me	eadow mat		GGM - gree	n grey mua		UNDorg - organic undisturbed native depo	isiis CCPVV - Chro	imale chemical production w					

A E C O M

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: CAR-PDI-CC20A

Designated Diffusion (INSPANDAS) is 611393.78 (Segregate Designation of the Started Office) (INSPANDAS) is 611393.78 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started Office) (INSPANDAS) is 69736.13 (Segregate Designation of the Started O	Project Name	· PPG G	arfield Ave			Drilling Company: SGS North America		Page
Date Started Drilling: 61/02016 9:10:00 AM Rig Type: Coordinates (NSPRAD83) y: 682755.13 Date Finished Drilling: 61/02016 9:40:00 AM Physical Located By: ES Project Manager: Sout Mikaelian Dorth to Water: NA Physical Location: Actual - CAR PDI Depth Right Recovery Right Recovery Right Recovery Right Recovery Right Right Recovery							Coordinates (NJSPN	IAD83) x: 611393 78
Deate Finished Drilling: 61/02/016 94/500 AM Core Size: 3.0 in Boring Total Depth: 15 fst (Dougled By: E5 Physical Location: Actual CAR PDI Depth (Drilling) (Prilling) (Prillin				9·10·00 AM				
Depth to Water: NA Name Project Manager: Scott Mikeelian Depth to Water: NA Name								
Physical Location: Adual - CAR PDI Sample Range, Roovery (port) 0.0 ASPHALT Asphalt and gravel sub-base Sample Income of the Income of the Income of the Income of			0/10/2010	3.43.00 AW				
Sample (1997) PiD (porm) Moisture (porm)			tual - CAR	PDI		Froject Manager. Scott Mikacilan	Deptil to water. NA	
Surface Cover and Thickness: Seature Surface Cover and Thickness: Seature D		ition. Ac	ituai - OAIX					
dry FILL fine to medium SAND, some fine gravel, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining. NR NO RECOVERY In the to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, moist to wet, slight petroleum odor and staining, water at 6.0 feet. Wet FILL fine sity SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. NR NO RECOVERY In the sity SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. NR NO RECOVERY In the sity SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. OAR POLCEZOA-180-1 In the sity SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. OAR POLCEZOA-180-1 In the sity SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. OAR POLCEZOA-180-1 In the sity SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. OAR POLCEZOA-180-1 OAR POLCEZOA-180-1 NO RECOVERY NO RECOVERY And POLCEZOA-180-1 OAR POLCEZ	Range Recov			USCS		Surface Cover and Thickr	ness:	
medium dense, dry, no odor, no staining. NR NO RECOVERY 12.2 moist for each staining of the	-	0.0		ASPHALT		Asphalt and gravel sub-base		
12.2 moist to wet slight petroleum odor and staining, water at 6.0 feet. The slity SAND, little fine gravel, (5Y 6/1) gray, moist to wet, slight petroleum odor and staining, water at 6.0 feet. Wet FILL fine slity SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. NR NO RECOVERY 1.4 wet FILL fine slity SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. CAR-PDI-CC20A-10.0-1 medium dense, wet, no odor, no staining. PEAT (degraded vegetated material), 80% organic fibers, 20% organic slit, (5YR 3/3) dark reddish brown, stiff, dry, 20% organic slit, 20% organic slit, 5YR 3/3 dark reddish brown, stiff, dry, 4/2; brown, sort, moist, slight organic odor, no staining. Soils consistent with UNIDorg. NR NO RECOVERY NO RECOVERY MGP - manufactured gas plant	3.5		dry	FILL		fine to medium SAND, some fine gravel, medium dense, dry, no odor, no staining.	(7.5YR 4/2) brown,	
fine to coarse SAND, some fine to medium gravel, (SY S/1) wet FILL fine sity SAND, little fine gravel, (SYR 4/3) reddish brown, medium dense, wet, no odor, no staining, NR NO RECOVERY 1.4 wet FILL fine sity SAND, little fine gravel, (SYR 4/3) reddish brown, medium dense, wet, no odor, no staining. CAR-PDI-CC20A-10.0-1 The pear of the pe	-4			NR		NO RECOVERY		
medium dense, wet, no odor, no staining. NR NO RECOVERY In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. In the silty SAND, little fine gravel, (5YR 4/3) gravel fill siltle fill siltl		12.2	to	FILL		gray, moist to wet, slight petroleum odor		
10 1.4 wet FILL fine sity SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. CAR-PDI-CC20A-10.0-1 CAR-PDI-CC20A-10.0-1 CAR-PDI-CC20A-12.0-1 CAR-PDI-CC20A-12.0-1 CAR-PDI-CC20A-12.0-1 CAR-PDI-CC20A-12.0-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-12.5-1 CAR-PDI-CC20A-13.0-1 CAR-PDI-CC2			wet	FILL				
fine sitty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. 12	-9-			NR	XXXX	NO RECOVERY		
dry PT	-11 -12	1.4	wet	FILL				CAR-PDI-CC20A-10.0-10.9
moist OL 20% organic silt, (SYR 3/3) dark reddish brown, stiff, dry, slight petroleum odor, no staining. Soils consistent with MM. Organic SILT, 80% organic silt, 20% organic fibers, (7.5 YR 4/2) brown, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg. NR NO RECOVERY Detes: ps - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant	_ 5		-1	DT	XXX	(DEAT (de sue de desenetate desentation) 200)/	
slight petroleum odor, no staining. Soils consistent with MM. Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg. NR NR NR NR NR NR NR NR NO RECOVERY MGP - manufactured gas plant	-13				<u> </u>	TEAT (acgraaca vegetatea material), oo	% organic fibers,	
NR NO RECOVERY	_ +		moist	OL		\slight petroleum odor, no staining. Soils of Organic SILT, 80% organic silt, 20% organic 4/2) brown, soft, moist, slight organic odo	consistent with MM. / anic fibers, (7.5YR	CAR-PDI-CC20A-13.0-13.9
gs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant	-15			NR		NO RECOVERY		
gs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant								
M - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production	gs - below surfa		COPR - chr GGM - aree	romite ore proc	essing re		leposits MGP - manu	ofactured gas plant

Boring ID: CAR-PDI-DD20A

Page: 1

Project	t Name: F	PPG Ga	rfield Ave			Drilling Company: SGS North America		raye.	
	t Number:					Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611415.46		
				9:40:00 AM		Rig Type:		AD83) y: 682721.33	
		illing:	6/13/2016	3 10:40:00 AN		Core Size: 3.0 in	Boring Total Depth:		
	d By: ES al Locatio	n: Act	ual - CAR	DUI		Project Manager: Scott Mikaelian	Depth to Water: NA		
Depth Range ft bgs)	Recovery (ft/ft)		Moisture	USCS	Graphic Log	Surface Cover and Thickn	ess:	Sample ID	
		23.0	dry	ASPHALT		Asphalt and gravel sub-base.			
 -1 -2 	5	20.0	dry	FILL		fine to medium SAND, little ash, trace woo black, dense, dry, slight solvent odor, no s			
-4 -4 -5		3.0	wet	FILL		ASH, some fine to medium sand, (5Y 5/1)	gray, medium	CAR-PDI-DD20A-4.0-4.5	
-6 -7			wet wet	FILL		dense, wet, slight solvent odor, no staining SILT, (5Y 5/1) gray, soft, wet, no odor, no fine silty SAND, some fine gravel, (5YR 4.	g, water at 5.0 feet.	CAR-PDI-DD20A-6.0-6.5	
-8-	3.5					medium dense, wet, no odor, no staining.	o) roddion brown,	CAR-PDI-DD20A-8.0-8.5	
-9 -				NR		NO RECOVERY			
-10 -11 -12		5.0	wet	FILL		fine to medium silty SAND, little fine grave (5YR 4/4) reddish brown, medium dense, odor and black staining.		CAR-PDI-DD20A-10.0-10.5 CAR-PDI-DD20A-12.0-12.5	
_	4.5							CAR-PDI-DD20A-12.5-13.0	
-13 - - -14			dry	PT	\(\lambda \lambda \lambd	20% organic silt, (5YR 3/3) dark reddish t	prown, stiff, dry,	CAR-PDI-DD20A-13.0-13.5	
_ _15				NR		NO RECOVERY			
	low surface eadow mat		COPR - chr GGM - gree			esidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos	eposits MGP - manu its CCPW - chr	l ufactured gas plant omate chemical production was	

PPG - 2012-09 RA PPG_LOGS_A.GDT - 9/20/16 16:55

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: EF-11**

Date Started Driftling: Sey2011 Sign		Name: F Number:					Drilling Company: SGS North America Drilling Method: Geoprobe	Coordinates (N.ISP	NAD83) x: 611714 402	
Determined Drilling: 50/2011 Core Size: 12 in Boring Total Depth: 251 Depth Recovery Cores C										
Depth to Water: NA Mediciner Project Manager: Soott Mikeelien Depth to Water: NA Mediciner Na Me										
Surface Elevation 15.0 ft NAVDR8 Sample 15.0 ft NAVDR8 Sampl										
Sample Recovery (Hirt) (ppm) Moisture (ppm) Moisture (ppm) Moisture (ppm) Moisture (ppm) Moisture (ppm) Moisture (ppm) Moist Fill. 1				M. Merding	jer					
Surface Cover and Thickness: Surface Cover and Thickness: Sample	Physica	I Locatio	n:					Surface Elevation:	15.0 ft NAVD88	
Moist Fill Dark Brown (7:5/R 3/2) SILT and fine to coarse SAND, little Fill Nate Fill Nate from Circle, coal size, ash), trace fine Gravel and Fill Coarse Fill Fill Coarse Fill Coarse Fill Coarse Fill Fill Coarse Fill Fill Coarse Fill	Range ^r				USCS		Surface Cover and Thicknes	SS:		
Moist FILL Dark Brown (7:5/R 32) SILT and fine to coarse SAND, little Fill 14.6 file (finek, coat, siag, ash)) trace fine Gravel and Fill 2.6 Fill 14.6 file (finek, coat, siag, ash)) trace fine Gravel and Fill 2.6 Fill 14.6 Fill	-+			alm.	TODCOIL	317. 31	Disale Tanasii aanaa Onnaniaa dhe laasa N	la adam		
Section Fill Dark Gray (7.5YR 4/1) ASH, some Cinders, trace Coal fragments, moist, loose. Strong coal tar odor. EF-811-8.0	-1						Dark Brown (7.5YR 3/3) SILT and fine to co Fill Material (brick, coal, slag, ash), trace fin	parse SAND, little		
moist FILL Dark Gray (7.5YR 4/1) ASH, some Cinders, trace Coal fragments, moist, loose. Strong coal tar odor. NR No Recovery Wet FILL Same as above, wet. Strong coal tar and napthalene odors. NR No Recovery 1.2 1.2 1.2 1.5 NR No Recovery Same as above, wet. Strong coal tar and napthalene odors. EF-811-10.5 NR No Recovery EF-811-10.5 PT Dark Brown (10YR 4/4) PEAT (PT), Organics, little Silt, semi-cohesive, moist. Sulfur odor. EF-811-17.5 EF-811-17.5 FF-811-17.5 NR No Recovery Gray (Cley1 6/0) fine SAND (SM), little Silt, wet, moderately dense. No odor. SW Wet SW No Recovery PT Dark Brown (10YR 4/4) PEAT (PT), Organics, little Silt, semi-cohesive, moist. Sulfur odor. EF-811-17.5 EF-811-17.5 EF-811-17.5 EF-811-17.5 EF-811-17.5 FF-811-17.5 NR No Recovery PT Dark Brown (10YR 4/4) PEAT (PT), Organics, little Silt, wet, moderately dense. No odor. EF-811-17.5 EF-811-17.5 EF-811-17.5 EF-811-12.20 No Recovery	-3-	5								
fragments, moist, loose. Strong coal tar odor. FB-811-4.0 NR	-4- -								EF-11-4.0	
wet FILL Same as above, wet. Strong coal tar and napthalene odors. NR No Recovery 12 13 14 15 wet FILL Same as above, wet. Strong coal tar and napthalene odors. BF-811-10.5 NR No Recovery 15 wet FILL Same as above, wet. Strong coal tar and napthalene odors. Dark Brown (10'VR 4/4) PEAT (PT), Organics, little Silt, semi-cohesive, moist. Sulfur odor. PF-811-17.5 RF-811-17.5 EF-811-17.5 EF-811-17.5 FF-811-17.5 Reddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor. PReddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor. EF-811-22.0 NR No Recovery EF-811-22.0	-6-			moist	FILL		Dark Gray (7.5YR 4/1) ASH, some Cinders fragments, moist, loose. Strong coal tar od	, trace Coal or.	EF-B11-6.0	
wet FILL Same as above, wet. Strong coal tar and napthalene odors. Same as above, wet. Strong coal tar and napthalene odors.	-7 	1.6			NR	*****	No Recovery			
Same as above, wet. Strong coal tar and napthalene odors. EF-811-10.5	-9									
12 1.2 13 14 15 wet FILL Same as above, wet. Strong coal tar and napthalene odors. 16 moist PT Mark Same as above, wet. Strong coal tar and napthalene odors. 17 2.7 Dark Brown (10'R 4/4) PEAT (PT), Organics, little Silt, semi-cohesive, moist. Sulfur odor. 18 NR No Recovery 19 Cray (Gley1 6/0) fine SAND (SM), little Silt, wet, moderately wet SW dense. No odor. 20 Reddish Brown (2.5'VR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor. 21 25 NR No Recovery EF-811-12.0 EF-811-22.0	-			wet	FILL		Same as above, wet. Strong coal tar and na	apthalene odors.	EF-B11-10.5	
wet FILL Same as above, wet. Strong coal far and naphalene odors. Dark Brown (10YR 4/4) PEAT (PT), Organics, little Silt, semi-cohesive, moist. Sulfur odor. EF-B11-17.5 EF-B11-17.5 EF-B11-17.5 EF-B11-17.5 EF-B11-17.5 INR SW	13 -	1.2			NR		No Recovery			
moist PT Dark Brown (10YR 4/4) PEAT (PT), Organics, little Silt, semi-cohesive, moist. Sulfur odor. Problem Pro	-15				F" 1	XXXX	0		FF-R11-15 0	
The second secon	-					<u> </u>	Dark Brown (10YR 4/4) PEAT (PT), Organi semi-cohesive, moist. Sulfur odor.			
NR No Recovery wet SM Gray (Gley1 6/0) fine SAND (SM), little Silt, wet, moderately dense. No odor. Reddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor. EF-B11-17.5 Property Silt, wet, moderately dense. No odor. Reddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor. EF-B11-22.0 Otes:	17-	2.7							_	
wet SM Gray (Gley1 6/0) fine SAND (SM), little Silt, wet, moderately dense. No odor. Reddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor. PEF-B11-22.0 No Recovery	-				NR				EF-B11-17.5	
wet SW wet SW classe. No odor. Reddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor. Personal Reddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor. Personal Reddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor. Personal Reddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor. Personal Reddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor. Personal Reddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor. Personal Reddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor.	-20-+			wot	CM		Gray (Clay1 6/0) fine SAND (SM) little Sit	wet moderately	_	
2.5 NR No Recovery 23	\dashv			-	SW		dense. No odor. Reddish Brown (2.5YR 4/3) fine to coarse of	- /		
24— 25 otes:	-	2.5			NR	******	No Recovery		EF-B11-22.0	
otes:	-									
	-25									
gs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant M - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production	gs - belo					essing re	esidue UNDno - non-organic undisturbed native dep UNDorg - organic undisturbed native denosit	osits MGP - man s CCPW - ch	ufactured gas plant fromate chemical production wa	

A=COM

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Boring ID: EF-99

ed Drilling: hed Drilling: /: .ocation: covery ft/ft) PID (ppm) 3 0.0	9/4/2012 Moisture	USCS ASPHALT	С	Rig Type: Core Size: 2 in Project Manager: Chris Martell Surface Cover and Thick ASPHALT ASH, and cinders little coal, (7.5YR 4/1) odor, Little slag.	Boring Total Depth: Depth to Water: NA Surface Elevation:	١
covery PID (ppm) 0.0	Moisture Content dry	USCS ASPHALT FILL	Graphic	Project Manager: Chris Martell Surface Cover and Thick ASPHALT ASH, and cinders little coal, (7.5YR 4/1)	Depth to Water: NA Surface Elevation:	10.8 ft NAVD88 Sample
covery PID (ppm) 0.0	dry	ASPHALT FILL	Graphic	Surface Cover and Thick ASPHALT ASH, and cinders little coal, (7.5YR 4/1)	Surface Elevation:	Sample ID
(ppm) 0.0	dry	ASPHALT FILL	Graphic Log	ASPHALT ASH, and cinders little coal, (7.5YR 4/1)		ID
3		FILL		ASH, and cinders little coal, (7.5YR 4/1)	dark gray, dry, no	EF-B099-0.5-1.0
3				ASH, and cinders little coal, (7.5YR 4/1) odor, Little slag.	dark gray, dry, no	EF-B099-0.5-1.0
	moist					
0.0	moist					
		FILL		silty SAND, little fine to medium gravel a moist, no odor, angular, Slag, brick, coa	ınd fill material, I, glass.	EF-B099-2.5-3.0
surface grade	COPR - chr GGM - gree	omite ore proc	essing res	sidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native dep	deposits MGP - manu	ufactured gas plant omate chemical producti
Si	urface grade	urface grade COPR - chr v mat GGM - gree	urface grade COPR - chromite ore proc	urface grade COPR - chromite ore processing res	urface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native rmat GGM - green grey mud UNDnorg - organic undisturbed native dep	urface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - man rinat GGM - green grey mud UNDnog - organic undisturbed native deposits CCPW - chr

- 2/9/17

A.GDT

RA PPG LOGS

2012-09

30 Knightsbridge Road, Piscataway, NJ 08854

Boring ID: EF-102

CCPW - chromate chemical production waste

732.564.3200 office telephone Project Name: PPG Garfield Ave Drilling Company: SGS North America Coordinates (NJSPNAD83) x: 611707.473637 Project Number: 60240739 Drilling Method: Soft Dig/Geoprobe Date Started Drilling: 9/6/2012 10:15:00 AM Coordinates (NJSPNAD83) y: 683020.913343 Rig Type: Date Finished Drilling: 9/7/2012 10:50:00 AM Core Size: 2 in Boring Total Depth: 25 ft Logged By: Ben Daniels Project Manager: Scott Mikaelian Depth to Water: NA Surface Elevation: 14.7 ft NAVD88 Physical Location: Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Content ΙĎ (ft/ft) (ppm) Log (ft bgs) 1.4 **FILL** silty SAND, some fine to coarse gravel little cobbles, (7.5YR dry 4/3) brown, dry, no odor, angular, Trace fill material (Brick, concrete, glass), trace organics. 5 61.8 dry **FILL** silty SAND, little fine to medium gravel and fill material, (7.5YR 4/2) brown, loose, dry, no odor, angular, (glass, brick, coal) 732 moist **FILL** FILL MATERIAL, (7.5YR 5/1) gray, medium dense, moist, moderate HC odor, Crushed fill. NR NO RECOVERY 1.9 260 moist **FILL** silty SAND, and fill material little fine to medium gravel, (7.5YR 5/1) gray, dense, moist, slight HC odor, angular, 569 wet FILL Crushed fill, slag, silty SAND, and crushed fill material little fine gravel, (7.5YR 5/1) gray, medium dense, wet, moderate HC odor, angular, wet at 10.5, slight sheen. 2.1 NR NO RECOVERY 0.5 wet FILL Crushed FILL MATERIAL, (7.5YR 3/1) very dark gray, dense, wet, no odor, Ceramic, wood fragments, debris, ОН -16 moist metal. Slight sheen. silty CLAY, (7.5YR 3/2) dark brown, stiff, moist, no odor 6.0 moist PT PEAT, with clay and organics, (7.5YR 3/2) dark brown, stiff, 1, 11, 1 moist, moderate sulfur odor 3.1 11, 11, EF-B102-17.6-18.1 0.2 clayey SILT, (10Y 6/1) greenish gray, medium stiff, moist, no moist ML NR NO RECOVERY 20 EF-B102-20.0-20.5 3.3 clayey SILT, (10Y 6/1) greenish gray, stiff, moist, no odor moist ML 28 wet SW fine to coarse SAND, little fine to coarse gravel, (2.5YR 2.5/3) dark reddish brown, medium dense, wet, moderate -22napthalene odor, angular 3.4 -23NR NO RECOVERY 25 MGP - manufactured gas plant

A E COM

PPG - 2012-09 RA PPG_LOGS_A.GDT - 2/9/17 12:56

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Boring ID: EF-103

Droine	Name: F	DDC Co	rfield Ave		n	rilling Company: SGS North America		Page: 1
	Number:					rilling Method: Soft Dig/Geoprobe	Coordinates (NISD)	NAD83) x: 611655.810589
				0:45:00 AM		ig Type:		IAD83) y: 683051.147657
				1:25:00 PM		ore Size: 2 in	Boring Total Depth:	
				1.23.00 FIVI		roject Manager: Scott Mikaelian	Depth to Water: NA	
	l By: Ben al Locatio		5		P	roject manager: Scott Mikaelian	•	
Physic	ai Locatio	n:			1 1		Surface Elevation:	14.2 ft NAVD88
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickn	ess:	Sample ID
 1			dry	FILL		silty SAND, some fine to coarse gravel litt (7.5YR 3/2) dark brown, dry, no odor, ang fragments, ash, cinders, coal)		EF-B103-0.5-1.0
2 	5	2.2	dry	FILL		silty SAND, and fill material little fine to co (7.5YR 4/2) brown, dry, no odor, angular, glass, wood fragments, debris, brick, coal	(Ash, cinders,	
 4 		21.1	moist	FILL		silty SAND, little fine to medium gravel an (7.5YR 4/1) dark gray, moist, moderate H (Ceramic, coal, glass, wood fragments, described.	C odor, angular,	
6		12.8	moist	FILL		silty SAND, and fill material little fine to m (7.5YR 4/1) dark gray, loose, moist, no oc (Glass, ash, cinder, brick, debris)		
-7- 8- 9- 	1.5			NR		NO RECOVERY		
10								
- ' -		1.1	wet	FILL		\sim silty SAND, and fill material, (7.5YR 3/1) v		-
11 12 13	1.7		wet	FILL NR		medium dense, wet, slight HC odor, Crusi sheen. FILL MATERIAL, (7.5YR 5/1) gray, mediu odor, Crushed fill. NO RECOVERY		EF-B103-11.0-11.5
14 15 16 16		0.2	wet moist	FILL PT		FILL MATERIAL, (7.5YR 5/1) gray, dense Crushed fill. PEAT, little organics, stiff, moist, moderat		EF-B103-15.0-15.5
17 18 19	2.6			NR	<u> </u>	NO RECOVERY		EF-B103-17.0-17.5
-20		5.3	wet	SP	 	fine SAND, trace medium gravel, (7.5YR)	6/1) gray. dense.	-
- – 21.						wet, slight napthalene odor, subrounded,	Gravel at 20.8.	
-Z I			wet	SP		fine SAND, little silt trace fine to coarse gr		EF-B103-21.0-21.5
22 23	3.1		wet	SW		reddish brown, dense, wet, slight napthale subrounded, Gravel at 21.4-21.5 fine to coarse SAND, little fine to medium 5/3) reddish brown, dense, wet, moderate	gravel, (2.5YR	EF-B103-22.6-23.1
 24 25				NR		angular NO RECOVERY		
Notes: bgs - bel MM - me Comments:	ow surface adow mat		COPR - chro GGM - gree		essing res	idue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos	eposits MGP - manu sits CCPW - chr	l ufactured gas plant romate chemical production waste

Boring ID: EF-122

Page: 1

	t Name: F					Orilling Company: SGS North America	O a surding stars. (N. 100)	raye. 1
	t Number:			8:30:00 AM		Orilling Method: Soft Dig Rig Type:		NAD83) x: 611555.753433 IAD83) y: 682869.897716
				2 8:55:00 AM		Core Size: 2 in	Boring Total Depth:	
	d By: Ben			2 0.00.00 /		Project Manager: Scott Mikaelian	Depth to Water: NA	
	al Locatio						Surface Elevation:	
Depth Range (ft bgs)	(ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickn	ess:	Sample ID
		0.0	moist	FILL		silty SAND, little fine to coarse gravel and (7.5YR 3/2) dark brown, moist, no odor, a		
		0.0	moist	FILL		coal, debris, wood fragments) silty SAND, and fill material, (7.5YR 3/2) no odor, (Ash, cinders, ceramic, glass, bri		EF-B122-1.0-1.5
 3-	5	2.8	moist	FILL		silty SAND, little fill material, (7.5YR 4/2) odor, (Ash, cinders, slag, wood fragments	brown, moist, no	
		2.2	moist	FILL		SILT, little fine to coarse sand trace fine to (7.5YR 2.5/2) very dark brown, moist, no	odor, angular, Little	EF-B122-3.0-3.5
 		1.2	moist	FILL		fill material (Ash, cinders, ceramic, coal, g silty SAND, little fine to coarse gravel and (7.5YR 2.5/2) very dark brown, moist, no glass, brick, ash, cinders)	fill material,	EF-B122-4.5-5.0
Notes:	elow surface	grade	COPR - chris	omite ore proc	essing residuals	sidue UNDno - non-organic undisturbed native de	anosits MGP a manu	ufactured gas plant
	eadow mat		GGM - gree		cooning res	UNDorg - organic undisturbed native depos	sits CCPW - chr	romate chemical production waste

PPG - 2012-09 RA PPG_LOGS_A.GDT - 2/9/17 12:56

Boring ID: EF-123

Page: 1

Projec	t Name: F	DDC Ca	rfield Ave		Г	Drilling Company: SGS North America		Page: 1
	t Number:					Orilling Method: Soft Dig	Coordinates (NJSP)	NAD83) x: 611614.688016
				2:45:00 PM		Rig Type:		IAD83) y: 682924.599428
				1:10:00 PM		Core Size: 2 in	Boring Total Depth:	
	d By: Ben					Project Manager: Scott Mikaelian	Depth to Water: NA	
	al Locatio						Surface Elevation:	
Depth							•	
Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID
 1-	-	0.0	dry	FILL		silty SAND, some fine to coarse gravel lit (7.5YR 4/2) brown, dry, no odor, angular		EF-B123-0.2-0.7
 2 	5.5	0.0	moist	FILL		SILT, little fine to medium sand and fine (7.5YR 2.5/2) very dark brown, moist, no Trace fill material (glass, debris, ceramic)	odor, angular,	
3- 4- 4	-	0.0	moist	FILL		silty SAND, little fine to coarse gravel and (7.5YR 3/2) dark brown, moist, no odor, brick, glass, metal, debris, wood fragmen	angular, (Ceramic,	EF-B123-3.0-3.5
5								EF-B123-5.0-5.5
Notes:								
	eadow mat		GGM - gree		cooning res	sidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	sits CCPW - chr	ufactured gas plant comate chemical production waste

PPG - 2012-09 RA PPG_LOGS_A.GDT - 2/9/17 12:56

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: H0**

	nber: 6	30240	739		- 1	Drilling Method: Geoprobe	Coordinates (N ISD)	NAD83) x: 611597.318189
				11:10:00 AM				<u> </u>
								AD83) y: 683013.991538
		ıng:	2/19/2014	4 2:00:00 PM			Boring Total Depth:	
ogged By:							Depth to Water: NA	
hysical Lo	cation:	Hal	sted - Insic	e building			Surface Elevation:	13.8 ft NAVD88
Depth Description								
Range (ft/		PID opm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thicknes	SS:	Sample ID
	_	0.0		CONODETE		A CONODETE A C. C.		H0-CT
0.		0.0		CONCRETE		3 0011011211, 110 0tailing.	4)	H0-CB
-1-		0.0	moist	FILL		medium SAND, with fine gravel, (7.5YR 3/1 non plastic, soft, moist, no odor, no staining		H0-0.5-1.0
-2		0.0	dry	FILL		fine to medium SAND, and ash, little fine gr grayish brown, non plastic, loose, dry, no or		H0-2.5-3.0
-3— 4. -4—	.5	0.0	moist	FILL		ASH, some fine sand and fine gravel, (7.5Y plastic, loose, moist, no odor, no staining.	(R 6/1) gray, non	
-5-		ļ			$\times\!\!\times\!\!\times\!\!\times$	X		H0-4.5-5.0
٠				NR	L	NO RECOVERY		
-6-		0.0	moist moist	FILL FILL		fine SAND, with ash and fine to medium grayish brown, non plastic, soft to loose, mo	avel, (10YR 5/2) oist, no odor, no	-
-7-						\staining. medium SAND, little fill material, (7.5YR 4/2	/	H0-6.5-7.0
3.	.5					plastic, soft, moist, no odor, no staining.	2) blown, non	
-9—		-				No Procure		H0-8.5-9.0
				NR		NO RECOVERY		
10-								
-								110 10 5 11 0
11—		0.0	wet	FILL		medium gravelly SAND, with fill material an 4/1) dark gray, non plastic, loose to soft, we staining.		H0-10.5-11.0
40 5	5				\bowtie	×		H0-12.5-13.0
13								
14—					\ggg			
🕇					\bowtie			H0-14.5-15.0
15—					\bowtie			
+		0.0	moist	FILL		medium SAND, with roots, some silt, (7.5Y	R 4/4) brown.	1
16—		6.3	moist	PT	<u> </u>	non plastic, soft, moist, no odor, no staining	g. ' ' /	1
17—			moiot		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	PEAT (degraded vegetated material), with 8 fibers, and 20% organic silt, (7.5YR 2.5/3) non plastic, stiff, moist, slight organic odor,	30% organic very dark brown,	H0-16.5-17.0
		-		NR	<u> </u>	NO RECOVERY		
19—								
\dashv								
20-								
-								
1								
				1				
otes:	ırface or:	ade (COPR - chr	romite ore proce	essina re	ssidue UNDno - non-organic undisturbed native den	nosits MGP - manu	ifactured das plant
				romite ore procen	essing re	esidue UNDno - non-organic undisturbed native dep UNDorg - organic undisturbed native deposit	posits MGP - manuts CCPW - chr	ufactured gas plant comate chemical production w

Boring ID: H0A

Page: 1

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Coordinates (NJSPNAD83) x: 611614.149617 Drilling Method: Geoprobe Date Started Drilling: 2/18/2014 1:00:00 PM Rig Type: Coordinates (NJSPNAD83) y: 682997.424519 Date Finished Drilling: 2/18/2014 2:00:00 PM Core Size: 3 in Boring Total Depth: 20.5 ft Logged By: EW Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Halsted - Inside building Surface Elevation: 13.9 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙĎ (ft/ft) (ppm) Content Log (ft bgs) H0A-CT 0.0 0.5 CONCRETE CONCRETE, no staining. H0A-CB 0.0 fine to medium SAND, trace fine gravel, (7.5YR 3/1) very moist FILL H0A-0.5-1.0 to dark gray, non plastic, soft, moist to wet, no odor, no 0.0 FILL wet staining. moist ASH, trace fine sand, (7.5YR 6/1) gray, non plastic, loose, 0.0 FILL moist, no odor, no staining dry H0A-2.5-3.0 medium SAND, with medium gravel and ash, (5YR 4/2) dark 4.5 0.0 reddish gray, non plastic, hard, dry, no odor, no staining dry FILL medium SAND, with ash and fine gravel, (10YR 5/4) 0.0 FILL yellowish brown, non plastic, loose, dry, no odor, no staining. dry medium SAND, with fill material and ash, (7.5YR 3/1) very to 0.0 **FILL** H0A-4.5-5.0 dark gray, non plastic, soft, dry to moist, no odor, no moist 0.0 staining. NR moist fine to medium SAND, little fill material, trace glass 0.0 **FILL** dry fragments, (7.5YR 3/1) very dark gray, non plastic, soft, to moist, no odor, no staining. moist H0A-6.5-7.0 NO RECOVERY medium SAND, and ash, trace fine gravel, (7.5YR 3/1) very dark gray, non plastic, soft, dry to moist, no odor, no 3.5 staining. H0A-8.5-9.0 0.0 NR NO RECOVERY H0A-10.5-11.0 0.0 **FILL** wet medium to coarse SAND, little fine gravel, some ash, (7.5YR 4/1) dark gray, non plastic, soft, wet, no odor, no staining. H0A-12.5-13.0 4.5 H0A-14.5-15.0 15 0.0 NO RECOVERY NR 0.0 FILL medium SAND, trace very fine gravel, (7.5YR 4/2) brown, dry 16 non plastic, soft, dry to moist, no odor, no staining. to moist H0A-16.5-17.0 8.6 PEAT (degraded vegetated material), 80% organic fibers, PT moist 20% organic silt, (7.5YR 2.5/3) very dark brown, non plastic, 1/ 1/ 1 stiff, moist, moderate organic odor, no staining. Soils 11, 11, 5 consistent with MM. 0.0 NR NO RECOVERY 20 MGP - manufactured gas plant CCPW - chromate chemical production waste

2012-09 RA PPG LOGS A.GDT - 2/9/17 12:56

ents: No COPR/GGM identified.

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: H0B**

	Name: F					Orilling Company: SGS North America	.	
	Number:					Orilling Method: Geoprobe	,	IAD83) x: 611632.297916
				9:10:00 AM		Rig Type:	•	AD83) y: 682979.071718
			2/19/2014	4 10:55:00 AN		Core Size: 3 in	Boring Total Depth:	
	I By: EW al Locatio		etad - Incir	de building		Project Manager: Scott Mikaelian	Depth to Water: NA Surface Elevation:	
_	ai LUCALIU	II. I Iai	steu - IIIsic	e building			Surface Elevation.	13.4 IL NAVDOO
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickn	ess:	Sample ID
	0.5	0.0		CONCRETE	PAR	CONCRETE, no staining.		H0B-CT
1		1.0	dry	FILL		fine SAND, trace silt with roots, (7.5YR 2		H0B-CB H0B-0.5-1.0
· _		0.0	to	FILL FILL	\bowtie	brown, non plastic, soft, dry to moist, slightstaining.	nt organic odor, no	
2		0.0	moist dry		\bowtie	ASH, with fine sand and fine gravel, (10Y	R 5/4) vellowish	
			dry	J	\bowtie	brown, non plastic, loose, dry, no odor, no	staining.	1100 0 5 0 0
-3	5		-		\bowtie	medium to coarse SAND, trace very fine	gravel and fill	H0B-2.5-3.0
· 4		0.0	dry	FILL	\bowtie	material, (7.5YR 3/4) dark brown, non pla	stic, loose to soft,	
-4			to		\bowtie	medium silty SAND, with medium gravel,	(7 5YR 3/1) verv	
· _			moist		\bowtie	dark gray, non plastic, loose, dry to moist,		H0B-4.5-5.0
-5					\bowtie	staining.		TUB-4.5-5.0
4		0.0		F., ,		fine to modify the CAND 1	.=1	
-6-		0.0		FILL	\bowtie	fine to medium silty SAND, trace fine grav	/ei.	
\dashv								H0B-6.5-7.0
-7-					\bowtie			1.02 0.0 7.0
\dashv					\bowtie			
-8-	3.5				\bowtie			
\dashv					\bowtie			H0B-8.5-9.0
-9—				NR	~~~	NO RECOVERY		
_ +								
-10								
,, 🕇		0.0	wet	FILL		medium to coarse gravelly SAND, trace fi	Il material, (7.5YR	H0B-10.5-11.0
-11					\bowtie	3/1) very dark gray, non plastic, soft to loc		
, T					\bowtie	no staining.	(= 5) (5 6	
-12		0.0	wet	FILL	\bowtie	medium, with fill material and fine gravel, dark gray, non plastic, loose, wet, no odor		
-13 	4.5				\bowtie	q — dark gray, Horr plastic, 100se, wet, 110 000f	, 110 Stailling.	H0B-12.5-13.0
13					\bowtie			
-14					\bowtie			
· 7 _					\bowtie			1105
-15					\bowtie			H0B-14.5-15.0
				NR		NO RECOVERY		
-16		0.0	dry	FILL	\bowtie	fine to medium SILT, trace fine gravel, tra	ce roots, (7.5YR	
4		6.3	to moist	PT	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	DEAT (de sus de de se sentete des et sécile e étile	80% organic	H0B-16.5-17.0
-17			moist	1	1/ N// N	fibers and 20% organic silt, (7.5YR 2.5/2)	very dark brown,	1100-10.0-17.0
\dashv					11/ 11/	non plastic, stiff, moist, moderate organic		
-18	2.5			NR	4-24-2	Soils consistent with MM. NO RECOVERY		
\dashv				INIX		I VOILOUVEIXI		
-19								
_								
-20								
7						'		
otes:	ow surface	arada	COPP ch	romite ore proc	occina ro	sidue LINDno - non-organic undisturbed native de	anneite MCD manu	ifactured das plant
gs - bel	ow surface adow mat			romite ore proce	essing re	sidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos		rfactured gas plant omate chemical production wa

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: H1**

roject Name: roject Number					Drilling Company: SGS North America Drilling Method: Geoprobe	Coordinates (NI ISDA	IAD83) x: 611566.044431
			1				
ate Started Dri					Rig Type:		AD83) y: 682990.412766
ate Finished D			11		Core Size: 2 in	Boring Total Depth:	
ogged By: M.					Project Manager: Scott Mikaelian	Depth to Water: NA	
hysical Location	n: Ins	ide building	q - 1st transec	ot		Surface Elevation:	13.6 ft NAVD88
epth Boower							<u>.</u> .
ange t bgs) Recovery (ft/ft)	(ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thi	ckness:	Sample ID
	0.0	Dry	CONCRETE		Concrete, no staining.		114.00
. 🗇		Dry	FILL]	Black SILT, little fine to medium Sand,	trace Coal fragments	H1-0.3
-1			NR		\and slag, loose. No odor.	/	
\dashv					No Recovery		
-2				1			
0.4				1			
-3-							
<u> </u>							
, 7							
-4				1			
\dashv							
5	0.0	Dni	FILL	XXXX	Provin (7 EVD 4/4) SILT and fine CAN	D. somo block Ach	H1-5.0
4	0.0	Dry	FILL	\bowtie	Brown (7.5YR 4/4) SILT and fine SAN and Cinders, little fine to medium Grav	u, sume diack ASM vel loose No odor	
-6			ND	-kxxxx		CI, IUUSC. INU UUUI.	
			NR	1	No Recovery		
.7							
0.9							
				1			
8				1			
\dashv				1			
9—				1			
10—							
10	0.0	Moist	FILL		Brown (7.5YR 4/4) SILT and fine SAN	D, some black Ash	H1-10.0
\dashv				$\otimes \otimes \otimes$	and Cinders, little fine to medium Grav	el, medium dense. No	
11—		\\/o+	EIII	****	odor.		
4		Wet	FILL	\bowtie	Black CINDERS and SILT, some Ash,	loose. No odor.	
12				_XXXX	8		
2			NR	1	No Recovery		
				1			
13				1			
\neg							
14—							
4							
15	0.0	NA=!=+	F	XXXX	Plack and Draws (7.5)/D 4/4) ON DES	O and Oll T. come	H1-15.0
4	0.0	Moist	FILL	\bowtie		ss and SILI, some	П I-13.U
16-		Moist	PEAT	1	Ash, medium dense. No odor.	raania aantant trass	
·				1	Dark Brown (7.5YR 3/4) PEAT, high o	ryanic content, trace	H1-16.0
7					Silty Clay, soft. Strong sulfur odor.		
17— 2.5			NR		No Recovery		
7 2.5			,	1			
18—				1			
\dashv				1			
19—							
1							
20							
20							
				1			
				1			
				1			
				1			
				1			
				1			
				1			
				1			
. 	1		L				<u> </u>
tes:					anial I INDuna	a denocite MCP manu	factured gas plant
s - below surface	grade	COPR - ch	romite ore proc	essing r	esique Undho - non-organic undisturbed nativ	e deposits - mant	ractured gas piant
ites: s - below surface ∕∕ - meadow mat	grade	COPR - ch	romite ore proc en grey mud	essing r	esidue UNDno - non-organic undisturbed nativ UNDorg - organic undisturbed native de	eposits CCPW - chr	nactured gas plant omate chemical production w

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: H1A**

Project	Number:	60240				Drilling Company: SGS North America Drilling Method: Geoprobe	NAD83) x: 611582.64262	
Date St	arted Drill	ling: _^	12/10/2011			Rig Type:	Coordinates (NJSPN	IAD83) y: 682968.141794
	nished Dr			11		Core Size: 2 in	Boring Total Depth:	
	I By: M. N					Project Manager: Scott Mikaelian	Depth to Water: NA	
Physica	al Locatio	n: Insi	de building	- 1st transect		1	Surface Elevation:	13.4 ft NAVD88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	ness:	Sample ID
		0.0	Dry	CONCRETE	P & 4 P	Concrete, no staining.		
-1 -2	_	0.0	Moist	FILL		Gray (7.5YR 5/1) ASH and CINDERS, d loose. No odor.	ry to moist at 2 ft,	H1A-0.5
-3 -4	2.4			NR	(XXXX)	No Recovery		
		0.0	Maiat	FILL.	XXXXX	Cray (7 FVD F/4) and Disal ACL and Cl	NDEDC	H1A-5.0
+		0.0	Moist	FILL		Gray (7.5YR 5/1) and Black ASH and Cl Black Silt and Coal fragments, loose. No		
-6		0.0				3		H1A-6.0
-7 -8	1.8			NR	<u> </u>	No Recovery		
_ -9								
-10		0.0	Moist	FILL	XXXXX			H1A-10.0
-11 -12 -13	0.2			NR		Black Silt and Coal fragments, loose, mo No odor. No Recovery	est to wet at 11 ft.	
-14 -15 -16		0.0	Wet	FILL NR	××××	Gray (7.5YR 5/1) and Black ASH and Cl Black Silt and Coal fragments, loose. No No Recovery	NDERS, some odor.	- H1A-15.0
-17 -18 -19	0.2							
20						1		
	ow surface			romite ore proce	essing re	sidue UNDno - non-organic undisturbed native o UNDorg - organic undisturbed native depo	deposits MGP - manu sits CCPW - chr	ufactured gas plant omate chemical production wa

30 Knightsbridge Road, Piscataway, NJ 08854

Boring ID: H1A3V

732.564.3200 office telephone

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Coordinates (NJSPNAD83) x: 611581.72778 Drilling Method: Geoprobe Date Started Drilling: 2/21/2014 9:05:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682962.014233 Date Finished Drilling: 2/21/2014 11:30:00 AM Core Size: 2.0 in Boring Total Depth: 20.2 ft Logged By: EW Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Halsted - H1A3V Surface Elevation: 13.4 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙĎ (ft/ft) (ppm) Content Log (ft bgs) H1A3V-CT CONCRETE CONCRETE, slight green staining 1.0 inch into core. 0.0 moist H1A3V-CM fine to medium SAND, trace silt, (7.5YR 2.5/3) very dark 0.0 FILL H1A3V-CB brown, non plastic, soft, moist, no odor, no staining. H1A3V-0.2-0.7 H1A3V-2.0-2.5 4.8 0.0 FILL fine SAND, with wood fragments and fill material, (7.5YR moist 2.5/3) very dark brown, non plastic, soft, moist, no odor, no dry H1A3V-3.0-3.5 0.0 FILL to medium SAND, little silt, some gravel, (7.5YR 2.5/3) very moist dark brown, non plastic, soft, dry to moist, no odor, no staining. NR NO RECOVERY H1A3V-5.0-5.5 dry fine to medium SAND, with ash and fine to medium gravel, FILL 0.0 dry FILL (5YR 4/2) dark reddish gray, non plastic, loose, dry, no odor, no staining. H1A3V-6.0-6.5 fine to medium SAND, with ash and fine to medium gravel, FILL 0.0 dry (5YR 4/2) dark reddish gray, non plastic, loose, dry, no odor, to moist 0.0 FILL 4.8 ASH, with fine gravel, little sand, (7.5YR 2.5/1) black, non moist plastic, loose, dry to moist, no odor, no staining, with fill material. H1A3V-8.0-8.5 fine to medium SAND, with medium gravel and fill material, (7.5YR 3/1) very dark gray, non plastic, loose, moist, no odor, no staining. NO RECOVERY NR H1A3V-10 0-10 5 moist silty SAND, some fine gravel, little ash, (7.5YR 2.5/1) black, 0.0 FILL moist non plastic, soft, moist, no odor, no staining silty SAND, some fine gravel, little ash, (7.5YR 2.5/1) black, non plastic, soft, moist, no odor, no staining. 12 H1A3V-12.0-12.5 4.5 13 H1A3V-14.0-14.5 NR NO RECOVERY 0.0 FILL fine to medium SAND, little fine gravel, (7.5YR 4/2) brown, moist FILL non plastic, soft, moist, no odor, no staining moist H1A3V-15 5-16 0 fine to medium SAND, little fine gravel, (7.5YR 4/2) brown, 16 16.7 moist PT non plastic, soft, moist, no odor, no staining. PEAT (degraded vegetated material), with 80% organic 1, 11, fibers and 20% organic silt, (7.5YR 2.5/3) very dark brown, 11, 11, non plastic, stiff, moist, moderate organic odor, no staining. 3.5 Soils consistent with MM. 1/ 1/1/ 1 11, 11, NR NO RECOVERY 19 20 Notes: MGP - manufactured gas plant

2012-09 RA PPG LOGS

22:1

- 2/28/17

A.GDT

CCPW - chromate chemical production waste

PPG - 2012-09 RA PPG_LOGS_A.GDT - 1/25/18 15:45

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: H1A3VR**

D	. N		telepriorie		-	OOO North Associa		Page: 1		
	Name: F					rilling Company: SGS North America rilling Method:	Coordinates (N ISP	NAD83) v· 611581 7		
				10:00:00 AN		tig Type:		ordinates (NJSPNAD83) x: 611581.7 ordinates (NJSPNAD83) y: 682962		
				7 1:30:00 PM		core Size: 2 in	Boring Total Depth:			
ogged						roject Manager: Scott Mikaelian	Depth to Water:			
Physic	al Locatio	n: PR	OPOSED				Surface Elevation:	13.4 ft NAVD88		
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	ness:	Sample ID		
			dry dry	CONCRETE FILL	F. S.F. F.	CONCRETE, dry, no odor, no staining medium to coarse NO RECOVERY, so 6/3) light brown, dry, no odor, no staini	me ash, (7.5YR			
-4				NR	××××	NO RECOVERY				
5 6 7 8				FILL		fine to medium SAND, trace ash, (5YR dry, no odor, no staining	4/1) dark gray,			
-9 -9				NR	*****	NO RECOVERY				
10			moist	FILL		fine to medium SAND, some ash, (5YF moist to wet, no odor, no staining		H1A3VR-18.0-18.5		
19 20 21				- Gi		reddish brown, moist, slight organic od Soils consistent with UNDno.	or, no staining.			
	ow surface ç eadow mat :	grade	COPR - chro GGM - gree	omite ore proce n grey mud	ssing resid	due UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos	posits MGP - manuits CCPW - chr	ufactured gas plant omate chemical production waste		

-		
Δ	ECON	
		-

Boring	ID:	H1	A3	VR
---------------	-----	-----------	-----------	----

Page: 2

Project	t Name: F	PPG Ga	arfield Ave			Orilling Company: SGS North America		
	t Number:					Orilling Method:	Coordinates (NJSPI	NAD83) x: 611581.7
				10:00:00 AM		Rig Type:	Coordinates (NJSPN	
				17 1:30:00 PN		Core Size: 2 in	Boring Total Depth:	25 ft
Logge	d By:				F	Project Manager: Scott Mikaelian	Depth to Water:	
Physic	al Locatio	n: PR	OPOSED	+		<u> </u>	Surface Elevation:	13.4 ft NAVD88
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	ness:	Sample ID
(ft bgs)		(Abiii)	Content		Log			
Notes: bgs - bel MM - me	low surface geadow mat	ırade	COPR - chr GGM - gree	omite ore proce: n grey mud	ssing resi	due UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos	posits MGP - manu its CCPW - chro	factured gas plant omate chemical production waste

PPG - 2012-09 RA PPG_LOGS_A.GDT - 1/25/18 15:45

Boring ID: H1B

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

Date Started Drilling: 12/10/2011 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 611610.047072

			12/10/2011			Rig Type:		AD83) y: 682942.780471	
			12/10/201	1		Core Size: 2 in	Boring Total Depth:		
	By: M. N			1 at transact		Project Manager: Scott Mikaelian	Depth to Water: NA		
nysica	II Locatio	n: ins	ae bullaing	- 1st transect		1	Surface Elevation:	13.4 Tt NAVD88	
Depth	Recovery	PID	Moisture		Graphic			Sample	
kange	(ft/ft)	(ppm)		USCS	Log	Surface Cover and Thickr	ness:	ID	
ft bgs)	(1211)	(/			3				
			Dry	CONCRETE	***	Concrete, no staining.		H1B-0.2	
. 1			Dry	FILL	\bowtie	Black fine to medium SAND, some Silt, to	race Glass, loose.	1110-0.2	
-1			Dry	VOID	****	No odor.			
			,			No Recovery			
-2-									
-3-									
. 1									
-4									
-5-			Moist	FILL		Black SILT, little fine to medium Sand, tra	ace Cinders and	H1B-5.0	
_ =					\bowtie	Ash, loose/soft. No odor.			
-6-					\bowtie				
_ 🖯			Moist	VOID		No Recovery			
-7-									
ูุ่่่									
-8-									
-9-									
40									
-10			Wet	FILL	$\times\!\!\times\!\!\times$	Black SILT, little fine to medium Sand, tra	ace Cinders and	H1B-10.0	
						Ash, moist to wet at 10.6 ft, loose/soft. N	o odor.		
-11			Wet	VOID		No Recovery			
-12									
12									
-13									
. '3 _									
-14									
. '									
-15								1140 450	
			Wet	FILL	\bowtie	Black SILT, little medium angular Gravel,	little fine to	H1B-15.0	
-16					\bowtie	medium Sand, trace Organics, soft/loose	. Slight oil odor.		
			Wet	VOID		No Recovery			
-17									
4									
-18									
4									
-19									
4									
-20			10/-4	CAND		Croy (Cloyd F/O) fine to medicine CAND	and CILT little to	H1B-20.0	
- 4			Wet	SAND AND		Gray (Gley1 5/0) fine to medium SAND a trace fine rounded Gravel, medium dense	anu SILT, IIIIIE 10 - Sliaht	1115 20.0	
-21				SILT		naphthalene odor.	J. Jilgi it		
4									
-22			Wet	SAND		Weak Red (2.5YR 5/2) fine to medium S	AND, little to trace		
\dashv			Wet	VOID		SILT, loose. Slight naphthalene odor.			
-23						No Recovery			
\dashv									
-24									
\dashv									
25			Wet	SAND		Reddish Brown (2.5YR 5/3) fine to mediu	ım SAND trace Silt	H1B-25.0	
\dashv			V V CL	OHNU		and coarse Sand, medium dense. Naphtl	nalene odor.		
otes:					l	1 2 2, 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<u> </u>	1	
	ow surface			omite ore proce	essing re	sidue UNDno - non-organic undisturbed native d	leposits MGP - manu	factured gas plant	
M - mea				n grey mud		UNDorg - organic undisturbed native depo		omate chemical production w	

Boring	ID:	H ₁ E	3
--------	-----	------------------	---

Page: 2 DDC Cartiala A D.:III: CCC Namb A

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611610.047072
Date Started Drilling: 12/10/2011	Rig Type:	Coordinates (NJSPNAD83) y: 682942.780471
Date Finished Drilling: 12/10/2011	Core Size: 2 in	Boring Total Depth: 35 ft
Logged By: M. Merdinger	Project Manager: Scott Mikaelian	Depth to Water: NA

Surface Elevation: 13.4 ft NAVD88 Physical Location: Inside building - 1st transect Depth Sample ID PID Moisture Graphic Recovery **USCS** Surface Cover and Thickness: Range (ft/ft) (ppm) Content Log (ft bgs) -27-Wet VOID No Recovery -28--29--30-H1B-30.0 Wet SAND Reddish Brown (2.5YR 5/4) fine to medium SAND graded to very fine SAND, medium dense. No odor. -31 -32-Wet VOID No Recovery -33--34--35-NULL End of boring at 35 ft.

PPG - 2012-09 RA PPG_LOGS_A.GDT - 2/9/17 12:57

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: H2**

	Name: F					Drilling Company: SGS North America	On and the state of the state o	NA DOO) 044500 000500		
	Number:					Drilling Method: Geoprobe		ordinates (NJSPNAD83) x: 611538.896539		
Date Started Drilling: 12/10/2011 Date Finished Drilling: 12/10/2011								NAD83) y: 682970.188243		
				11		Core Size: 2 in	Boring Total Depth:			
	1 By: M. I			0 11		Project Manager: Scott Mikaelian	Depth to Water: NA			
Physica	al Locatio	n: Insi	<u>ide building</u>	- 2nd transed	it I		Surface Elevation:	13.4 ft NAVD88		
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID		
			Dry	CONCRETE	P & 4 B	Concrete, no staining.				
-1-			Dry	FILL		Brown (7.5YR 5/3) ASH and CINDERS,	loose. No odor.	H2-0.6		
-2-			Dry	FILL		Brown (7.5YR 4/3) fine SAND and SILT,	little medium Sand	H2-2.0		
-3 -4			Dry	VOID		trace fine angular Gravel, loose. No odor. No Recovery				
-5 			Moist	FILL		Brown (7.5YR 4/3) fine SAND and SILT, Cinder, loose. No odor.	little Ash and	H2-5.0		
-6 -7 -8 -9			Moist	VOID	××××	No Recovery				
-10 -11			Wet	FILL		Brown (7.5YR 4/3) fine SAND and SILT, and fine angular to rounded Gravel, mois medium dense. No odor.		H2-10.0		
-12 -13 -13 -14						No Recovery				
-15 - -16			Wet	FILL		Black ASH, some Cinders, little Brown (7 Sand and Silt, loose. No odor.	.5YR 4/3) fine	H2-15.0 H2-16.0		
4			Maiat	FILL		Proum fine CAND and CILT topes for a	agular Crayal	112-10.0		
-17			Moist	FILL PEAT		Brown fine SAND and SILT, trace fine ar medium dense. No odor.	iyular Gravel,	+		
_ -18 _ _			Moist	PEAI		Dark Brown (7.5YR 3/4) PEAT, high organistic Clay, medium stiff. Sulfur odor.	anic content, little	H2-18.0		
-19 			Moist	VOID		No Recovery		-		
-20				NULL		End of boring at 20 ft.				
	adow mat			romite ore proce en grey mud	essing re	sidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	eposits MGP - manı sits CCPW - chı	ufactured gas plant romate chemical production wa		

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: H2A

Date Sta		60240 ling: 1			D	Orilling Company: SGS North America Orilling Method: Geoprobe Original Type: Ore Size: 2 in		NAD83) x: 611559.067739 NAD83) y: 682946.924356 20 ft
	By: M. f			<u> </u>		Project Manager: Scott Mikaelian	Depth to Water: N	
				- 2nd transe		Tojot Manager. Cook Minacilan	Surface Elevation:	
Donth	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thi		Sample ID
 1 2			Dry Dry	CONCRETE FILL		Concrete, no staining. Brown (7.5YR 4/2) ASH, some Cinder	's, loose. No odor.	H2A-0.4 H2A-2.0
-3- -4-			Dry	VOID		No Recovery		_
-5-			Moist	FILL		Brown (7.5YR 4/2) ASH, some Cinder	rs, loose. No odor.	H2A-5.0
6 			Moist	FILL		Black SILT and CINDERS, little Ash, rodor.	medium dense. No	H2A-6.0
 8 9			Moist	VOID		No Recovery		
10 			Moist	FILL		Black SILT and CINDERS, little Ash, r odor.	medium dense. No	H2A-10.0
11 12 13 14 14			Moist	VOID		No Recovery		
15 16 17 18 19			Wet Wet	VOID	****	Brown (7.5YR 4/2) PEAT, some Silt, I sulfur odor. No Recovery	ittle organics. Strong	H2A-15.0
				NULL		End of boring at 20 ft.		

PPG - 2012-09 RA PPG_LOGS_A.GDT - 2/9/17 12:57

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: H2B**

Project	Name: F Number: tarted Dril	60240	739			Orilling Company: SGS North America Orilling Method: Geoprobe Rig Type:		NAD83) x: 611591.997074 IAD83) y: 682925.800075	
	inished Dr			11		Core Size: 2 in	Boring Total Depth:		
	d By: M. I			- 2nd transed		Project Manager: Scott Mikaelian	Depth to Water: N/ Surface Elevation:		
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick		Sample ID	
<u> </u>			Dry Dry	CONCRETE VOID	2000	Concrete, no staining. No Recovery		-	
1 2 3			,	. 5.2		,			
4 <i></i> - 									
5			Dry	FILL		Black SILT, little fine to medium Sand, lit 5.2-5.3 ft, trace Coal fragments, loose. N		H2B-5.0	
6 7			Dry	VOID	****	No Recovery			
8 9									
10 11			Dry Wet	FILL VOID		Black SILT, little fine to medium Sand, tr and glass, loose. No odor. Water at 11 f No Recovery	ace coal fragments t.	H2B-10.0	
12 13 14									
 15			Wet	FILL	XXXX	Black fine to coarse SAND and SILT, tra	ce Fill (ceramics),	H2B-15.0	
16 17 18						No Recovery			
—19— — —									
20 21			Moist	PEAT		Black-stained to Dark Brown (7.5YR 3/4) organic content, some to little Silty Clay,) PEAT, high stiff. Sulfur odor.	H2B-20.0	
			Moist	SILTY SAND		Gray (Gley1 5/0) SILT and fine to medium angular Gravel, dense. No odor.	m SAND, trace fine		
23 			Moist	VOID		No Recovery			
25 -			Wet	SAND		Gray (Gley1 5/0) fine SAND, trace Silt, lo naphthalene odor.	oose. Slight	H2B-25.0	
Notes: bgs - bel MM - me Comments:	low surface eadow mat			omite ore proce n grey mud	essing res	sidue UNDno - non-organic undisturbed native of UNDorg - organic undisturbed native depo	deposits MGP - man sits CCPW - ch	ufactured gas plant romate chemical production waste	

Boring	ID:	H ₂ B
--------	-----	------------------

Page: 2 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 611591.997074 Date Started Drilling: 12/10/2011 Rig Type: Coordinates (NJSPNAD83) y: 682925.800075

Date Finis			2/10/2011 12/10/201	1		Rig Type: Core Size: 2 in	Boring Total Depth:	NAD83) y: 682925.800075 35 ft
Logged By						Project Manager: Scott Mikaelian	Depth to Water: N	
Physical L	ocation:	Insi	de building	- 2nd transe	çt	,	Surface Elevation:	
Depth Range ft bgs)	covery ft/ft) (p	PID ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and T	hickness:	Sample ID
_ _27			Wet	SAND		Weak Red (10YR 4/3) fine to coarse medium SAND, trace Silt, loose. Slig	e SAND graded to fine to ght naphthalene.	
-28 - -29			Wet	VOID		No Recovery		
30-								
31			Wet	VOID		No Recovery in this interval.		
32								
-33-								
-34								
35				NULL		End of boring at 35 ft.		
lotes: gs - below : IM - meado	surface gr w mat	ade (COPR - chro GGM - greer	omite ore prod	essing re	sidue UNDno - non-organic undisturbed na UNDorg - organic undisturbed native	tive deposits MGP - man deposits CCPW - ch	ufactured gas plant romate chemical production wa

PPG - 2012-09 RA PPG_LOGS_A.GDT - 2/9/17 12:57

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: H3**

			telephone					Page: 1
	t Name: F					Drilling Company: SGS North America		
	t Number:					Drilling Method: Geoprobe		NAD83) x: 611493.056623
	tarted Dril					Rig Type:		IAD83) y: 682917.980661
	inished Dr			<u> </u>		Core Size: 2 in	Boring Total Depth:	
	d By: M. N			- 3rd transec		Project Manager: Scott Mikaelian	Depth to Water: NA Surface Elevation:	
	ai Locatio	n: ms	ide bullaling	- siù transec			Surface Elevation:	13.6 IL NAVD00
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID
			Dry	CONCRETE	P & 4 P	Concrete, no staining.		
1 			Dry	FILL		Brown (7.5YR 4/3) SILT and ASH, little (fragments and glass, loose. No odor.	Cinders, coal	H3-0.5
3 4 			Dry	VOID		No Recovery		
—5— – – —6—			Dry	FILL		Brown (7.5YR 4/3) SILT and ASH, little of fragments and glass, loose. No odor.	Cinders, coal	H3-5.0 H3-6.0
			Dry	VOID		No Recovery		
10 11 12 13 14 14			Moist Wet	FILL VOID	****	Brown (7.5YR 4/3) SILT and ASH, little (fragments and glass, loose. No odor. Will No Recovery		H3-10.0
15 16 17 18 19 19			Wet Wet	PEAT VOID		Brown (7.5YR 4/3) SILT and ASH, little of fragments and glass, trace Peat, loose. No Recovery		
20				NULL		End of boring at 20 ft.		
Notes: bgs - be MM - me Comments:	low surface eadow mat	grade		omite ore proce n grey mud	essing re	undisturbed native of UNDorg - organic undisturbed native deposition of the undisturbed native deposition.	deposits MGP - manu osits CCPW - chi	ufactured gas plant romate chemical production waste

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: H3A**

	ne: PPG Ga nber: 60240	7739		lı lı	Drilling Method: Geoprobe	Coordinates (NISDA	NAD83) x: 611506.011502
	Drilling:				Rig Type:		
							AD83) y: 682893.463873
	ed Drilling:		1.1		Core Size: 2 in	Boring Total Depth:	
	M. Merding		g - 3rd transec		Project Manager: Scott Mikaelian	Depth to Water: NA	
riysical LO	cation: INS	ide building	- Siù transec	Ļ	1	Surface Elevation:	13.0 IL INAVDOO
Depth Range ft bgs)	overy PID (ft) (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thi	ickness:	Sample ID
		Dry	CONCRETE	P 14 P	Concrete, no staining.		
1		Dry	FILL		Dark Brown (7.5YR 3/4) SILT and FIL	L (Ash, Cinders, coal,	H3A-0.5
-					glass), loose. No odor.		
-2		Dry	VOID		No Recovery		
-3 -4							
-5-		Dry	FILL		Dark Brown (7.5YR 3/4) SILT and FIL	L (Ash, Cinders, coal,	H3A-5.0
-6-		Dry to	FILL		glass), loose. No odor. Black SILT, little Organics, trace Peat		
-7-		moist					H3A-7.0
-8-		Moist	FILL		Light Brown (7.5YR 6/3) ASH and CI	NDERS, loose. No	
-9		Moist	VOID		\odor. No Recovery	/	
		Meist	FILL	XXXXX	Dork Proum /7 5\/D 2//\ 01 T 1 51	I (Ash Cindors and —	H3A-10.0
_ -11		Moist Wet	VOID		Dark Brown (7.5YR 3/4) SILT and FIL glass), loose. No odor. Water at 11 ft No Recovery	LL (ASII, Clinders, coal,	1.6.7 (1.6.6
13							
-14 							
-15 -		Moist Moist	PEAT VOID		Dark Brown (7.5YR 3/4) PEAT, Organ medium stiff. Sulfur odor.	nics, little Silty Clay,	- H3A-15.0
-16 					No Recovery		
-1 <i>/</i> -18							
19							
20							
			NULL		End of boring at 20 ft.		
otes: gs - below su	urface grade	COPR - chr	romite ore proce	essing re	sidue LINDno - non-organic undicturbed petis	we denosits MCP - many	Ifactured das plant
js - below st M - meadow	mat	GGM - gree	en grey mud	essing re	sidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native d	ve deposits IVIGP - mant eposits CCPW - chr	ıfactured gas plant omate chemical production wa

PPG - 2012-09 RA PPG_LOGS_A.GDT - 2/9/17 12:57

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: H3B**

Project	t Name: F t Number:	60240	739		D	rilling Company: SGS North America rilling Method: Geoprobe		Fage. 1
	tarted Dril					ig Type:		AD83) y: 682883.038286
	inished Dr			11		ore Size: 2 in	Boring Total Depth:	
	d By: M. f			- 3rd transec		roject Manager: Scott Mikaelian	Depth to Water: NA Surface Elevation:	
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr		Sample ID
			Dry	CONCRETE		Concrete, no staining.		
├			Dry	FILL		Dark Brown (7.5YR 3/2) SILT, some Ash fine to medium Sand, loose. No odor.	, little Concrete and	H3B-1.5
2 3 4			Dry	VOID		No Recovery		
5 			Dry Dry	FILL VOID		Dark Brown (7.5YR 3/2) SILT, some Ash medium Sand and brick fragments, loose No Recovery		H3B-5.0
 7 8						,		
9 10			Wet	FILL	××××	─ Very Dark Gray (7.5YR 3/1) ASH and fin	e to medium SAND. /	H3B-10.0
			Wet	VOID		\little Silt, Cinders, and Wood, soft. No or No Recovery		
15-			Wet	FILL	XXXX	Very Dark Gray (7.5YR 3/1) ASH and fin		H3B-15.0
16 			Moist	PEAT		\little Silt, Cinders, and Wood, soft. No od Dark Brown (7.5YR 3/2) PEAT, high orga Silty Clay, medium stiff. Sulfur odor.	or/ anic content, little	
F''-								H3B-17.0
18 19 			Moist	VOID		No Recovery		
20	1		Moist	PEAT		Dark Brown (7.5YR 3/2) PEAT, high orga	anic content, little	H3B-20.0
21 			Wet	SAND AND SILT		Silty Clay, medium stiff. Sulfur odor. Gray (Gley1 5/0) fine SAND and SILT, tradense. Slight naphthalene odor.	/	
23 			Wet	VOID		No Recovery		
25 — — 25 —			Wet Wet	SAND AND		Gray (Gley1 5/0) fine SAND and SILT, tradense. Slight naphthalene odor.	ace coarse Sand,	H3B-25.0
	low surface eadow mat			omite ore proce on grey mud	essing res	idue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	leposits MGP - manusits CCPW - chr	offactured gas plant omate chemical production waste

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring	ID:	H ₃ B
--------	-----	------------------

Page: 2

Droing	t Name: F	DDC Co	rfield Ave		-	Drilling Company: SGS North America		Page: 2
	t Number:					Drilling Method: Geoprobe	Coordinates (N ISDI	NAD82) v. 611542 107552
	tarted Dril					Rig Type:		NAD83) x: 611542.107552 IAD83) y: 682883.038286
	inished Dri					Core Size: 2 in	Boring Total Depth:	
	d By: M. f					Project Manager: Scott Mikaelian	Depth to Water: NA	
				g - 3rd transec		10,000 manager. 0000 minacilan	Surface Elevation:	
_	ai Locatio	11. 1113	de ballallig	- ora transco	1		Ourrace Lievation.	13.2 1(14/4/2000
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID
				SILT		Weak Red (10YR 5/3) fine to medium S/		
				SAND		SILT, little coarse Sand, medium dense.	Naphthalene odor.	
 28			Wet	VOID		No Recovery		
<u> </u>	_							
29								
30 -			Wet	SAND		Weak Red (10YR 5/3) fine SAND, trace	Silt, loose. No odor.	H3B-30.0
31			Wet	VOID		No Recovery		
32								
- 33 - 33								
34 34								
 35								
				NULL		End of boring at 35 ft.		
1								
Notes: bgs - be	low surface	grade	COPR - chr	omite ore proc	essing re	sidue UNDno - non-organic undisturbed native o	leposits MGP - mani	ıfactured gas plant
MM - me	eadow mat	J	GGM - gree	en grey mud		UNDorg - organic undisturbed native depo	osits CCPW - chi	romate chemical production waste

PPG - 2012-09 RA PPG_LOGS_A.GDT - 2/9/17 12:57

PPG - 2012-09 RA PPG_LOGS_A.GDT - 2/9/17 12:57

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: H4**

	132.304.32							Page: 1
	t Name: F					Drilling Company: SGS North America		
	t Number:					Drilling Method: Geoprobe		NAD83) x: 611388.525101
	tarted Dril					Rig Type:		IAD83) y: 682829.094867
	inished Dr			<u> </u>		Core Size: 2 in	Boring Total Depth:	
	d By: M. M			- 4th transect		Project Manager: Scott Mikaelian	Depth to Water: NA Surface Elevation:	
	ai Locatio	11. 1115	ide bullding	- 4ui transec			Surface Elevation.	13.9 IL NAVD66
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphio Log	Surface Cover and Thickr	ness:	Sample ID
			Dry	CONCRETE	P 1 4	Concrete, no staining.		
_ 1 _ 1 			Dry	FILL		Black ASH and CINDERS, some Reddisl very fine Gravelly Sand, loose to medium		H4-0.5
2 3 4			Dry	VOID		No Recovery		
5			D	FILL	XXXXX	Plants AOLL and OINDEDO assess Daddie	- D (5)(D-5/4)	H4-5.0
- 6			Dry Dry	FILL CONCRETE		Black ASH and CINDERS, some Reddisl very fine Gravelly Sand, loose to medium Concrete, dry, no staining	dense. No odor.	
7			Moist	FILL		Black ASH and CINDERS, some Reddisl very fine Gravelly Sand, loose to medium		H4-7.0
8 9 9			Moist	VOID	****	No Recovery		
10			N 4 - 1 - 4	FILL	XXXX	Plants AOLL and OINDEDO assess Daddie	- D (5)(D.5(4)	- H4-10.0
 11 12 13			Moist Wet	VOID		Black ASH and CINDERS, some Reddisl very fine Gravelly Sand, loose to medium Water at 11 ft. No Recovery		- П4-10.0
14 			Wet Wet	FILL VOID		Black ASH and CINDERS, some Reddisivery fine Gravelly Sand, loose to medium No Recovery		H4-15.0
20				NULL		End of boring at 20 ft.		
Notes: bgs - be MM - me	low surface eadow mat	grade	COPR - chr GGM - gree	omite ore proce n grey mud	essing re	esidue UNDno - non-organic undisturbed native o UNDorg - organic undisturbed native depo	leposits MGP - manu sits CCPW - chr	ufactured gas plant comate chemical production waste

Boring ID: H4A

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: 611410.230438 Drilling Method: Geoprobe Date Started Drilling: 12/11/2011 Rig Type: Coordinates (NJSPNAD83) y: 682805.064076 Date Finished Drilling: 12/11/2011 Core Size: 2 in Boring Total Depth: 20 ft Logged By: M. Merdinger Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Inside building - 4th transect Surface Elevation: 13.6 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range (ft/ft) Content ΙĎ (ppm) Log (ft bgs) CONCRETE Concrete, no staining. Dry H4A-0.5 **FILL** Reddish Brown (5YR 5/3) very fine Gravelly SAND and Dry Black CINDERS, loose. No odor. H4A-2.0 Dry VOID No Recovery H4A-5.0 Dry **FILL** Reddish Brown (5YR 5/3) very fine Gravelly SAND and Black CINDERS, loose. No odor. FILL Black fine SAND and CINDERS, medium dense. No odor. Moist H4A-7.0 VOID Moist No Recovery $\times\!\!\times\!\!\times\!\!\times$ H4A-10.0 Black fine SAND and CINDERS, loose. No odor. Water at Moist FILL Wet VOID 11 ft. No Recovery 15 Black SILT, ASH and Ceramics, loose. No odor. Wet **FILL** Wet VOID No Recovery -16 -20-NULL End of boring at 20 ft.

2012-09 RA PPG LOGS A.GDT - 2/9/17 12:57

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

	Name: F					Orilling Company: SGS North America Orilling Method: Geoprobe	Coordinates (N ISD	NAD83) x: 611407.142769
				0.40.00 484				
				0:40:00 AM		Rig Type:		NAD83) y: 682813.568504
			3///2014	3:10:00 PM		Core Size: 3 in Project Manager: Scott Mikaelian	Boring Total Depth:	
	d By: EW al Location		etod 114^	4\/		Toject wanager: Scott iviikaeiian	Depth to Water: NA Surface Elevation:	
-	ai LUCATIO	ıı. ⊓al	sieu - M4A	(1 V			Surface Elevation:	10.9 ILINAVDOO
Depth Range t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Th	ickness:	Sample ID
	0.5	0.0		CONCRETE	P 1 4 P	CONCRETE		H4A4V-CT
-1- -		0.0	dry	FILL		ASH, with cinders and fine sand, (10' brown, non plastic, loose, dry, no odo material.		H4A4V-CB H4A4V-0.5-1.0
-2 - -3	3	3						H4A4V-2.0-2.5 H4A4V-3.0-3.5
-4- -				NR		NO RECOVERY		
-5— - -6—		0.0	slightly moist	FILL		fine to medium SAND, little fine to medium SAND, little fine to medium static fine sta		H4A4V-5.0-5.5
-7		0.0	slightly moist	FILL		staining. fine SAND, some silt, (7.5YR 4/3) bro slightly moist, no odor, no staining.	own, non plastic, soft,	
-8-	3.5	0.0	dry	FILL		ASH, with cinders and fine sand, (10' brown, non plastic, loose, dry, no odo material.	YR 3/4) dark yellowish r, no staining, with fill	H4A4V-7.0-7.5 H4A4V-8.0-8.5
-9— -9				NR		NO RECOVERY		П4M4V-0.U-0.3
-10 - -11		0.0	moist	FILL		fine to medium SAND, with fine to co (7.5YR 4/1) dark gray, non plastic, loo staining.		H4A4V-10.0-10.5
- 12	0.0 wet		FILL		medium SAND, with silt, (7.5YR 4/1) loose, wet, no odor, no staining.	dark gray, non plastic,	H4A4V-12.0-12.5	
13— — 14—	1.0	0.0	wet	FILL		medium to coarse SAND, with silt, litt (7.5YR 4/1) dark gray, non plastic, loo staining.		
' -								H4A4V-14.0-14.5
15 — — 16 —		0.0	wet	NR FILL		NO RECOVERY medium SAND, trace fine gravel, (7.5 non plastic, loose, wet, no odor, no st		
		0.0	moist	OL	<u> </u>	UNDorg SILT, some organic, (7.5YR	4/1) dark gray non /	H4A4V-16.0-16.5
17— — 18—	3	0.0	moist	PT	<u> </u>	plastic, soft, moist, slight organic odol consistent with UNDorg. PEAT (degraded vegetated material), fibers and 20% organic silt, (7.5YR 2.	with 80% organic .5/2) very dark brown,	-
-19						\non plastic, soft, moist, moderate org \Soils consistent with MM. NO RECOVERY	anic odor, no staining.	
	low surface adow mat			omite ore procen	essing res	sidue UNDno - non-organic undisturbed nati UNDorg - organic undisturbed native c	ve deposits MGP - man	lufactured gas plant
	1) MM/UND confi						icposits CCPVV - CN	romate onemical production W

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: H4B**

	Name: P Number:					Drilling Company: SGS North America Drilling Method: Geoprobe		NADQ2\ v. 611420 050700
								NAD83) x: 611428.059799
	arted Drill					Rig Type:		NAD83) y: 682783.35841
	nished Dri			<u> 11</u>		Core Size: 2 in	Boring Total Depth:	
ogged	I By: M. M.	1erding	er			Project Manager: Scott Mikaelian	Depth to Water: N	Α
Physica	al Location	ı: Insi	de building	- 4th transect			Surface Elevation:	13.6 ft NAVD88
Danth			_					
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphio Log	Surface Cover and Ti	hickness:	Sample ID
			Dry	CONCRETE	P & 4	Concrete, no staining.		
			Dry	FILL		Black SILT and Fill Material (Brick, c	oal ash concrete	H4B-0.5
-1			21,9			glass) little Brown (7.5YR 5/4) fine S		
-2-			Dry	VOID	~~~	No Recovery		
-3-								
_								
-4								
-5								
٦]			Dry	FILL	XXX	Black SILT and Fill Material (Brick, o		H4B-5.0
-6-			to		XXX	glass) little Brown (7.5YR 5/4) fine S	Sand, loose, dry to moist	
٠]			moist Moist	FILL		at 6.1 ft. High PID reading at 6.1-6.2 odor.	ii. Sirong Naphthalene	1
-7-					XXX	Brown (7.5YR 5/4) fine Gravelly SAN	ND, medium dense. No	H4B-7.0
\dashv			Moist	VOID	××××	× odor. No Recovery		1145-7.0
-8-								
-9-								
_								
-10			Wet	FILL	XXXX	Black ASH and CINDERS, little Silt,	moist to wet at 11 ft	H4B-10.0
					XXX	loose. No odor.		
1					XXX	8		
-12			Wet	VOID		No Recovery		
\dashv								
-13								
-14								
-								
-15			Wet	FILL	***	Gray (7.5YR 5/1) ASH and CINDER	S. some Silt. little fine	H4B-15.0
			Wet	VOID		Sand, loose. No odor.		
-16						No Recovery		
-17								
\dashv								
-18								
ا — قا								
20				.		<u> </u>		
				NULL		End of boring at 20 ft.		
otes:								
gs - belo	ow surface o		COPR - chr GGM - gree		essing re	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native	tive deposits MGP - man	ufactured gas plant romate chemical production wa



Boring ID: H5A

Project	Number:	60240	1730			Drilling Method: Geoprobe	Coordinates (NISP	NAD83) x: 611448.69961
				11:50:00 AM		Rig Type:		NAD83) y: 682841.948165
						0 7.		
		iiiing:	2/26/2014	4 12:25:00 PM		Core Size: 3.0 in	Boring Total Depth:	
	By: FM					Project Manager: Scott Mikaelian	Depth to Water: N	
nysic	al Locatio	n:		<u> </u>		1	Surface Elevation:	13.8 π ΝΑΥΔ88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphio Log	Surface Cover and Thic	kness:	Sample ID
	0.5	0.0		CONCRETE	P 5 4 7	CONCRETE competent		H5A-CT
-	0.5	0.0	4			OONONETE, competent.	VD C/4 dames to	H5A-CB
-1 			damp to moist	FILL		fine to coarse sandy GRAVEL, gray, 10 moist, trace gray silt, loose, no odor, no	staining.	H5A-0.5-1.0
-2— -3— -	4.5	0.0	damp	FILL		fine to coarse gravelly ASH, dark gray, including brick fragments and glass, co		H5A-2.0-2.5
-4 - -5		0.0		=			10/00/1	H5A-4.0-4.5
-6 -7 -	5	0.0		FILL		fine to coarse gravelly SAND, dark brownixed fill including glass and tile fragm		H5A-6.0-6.5
-8— -9—		0.0	damp	FILL		fine to coarse sandy ASH, dark gray to	black, some silt,	H5A-8.0-8.5
-10					$\times\!\!\times\!\!\times$	mixed fill including cinders, glass and ti	<u>'</u>	
-11 -12	5	0.0	moist	FILL		fine to coarse sandy ASH, gray, loose, material including coal slag and cinders staining.		H5A-10.0-10.5
-13 -14 - -15		0.0	wet	FILL		coarse poorly graded SAND, dark gray- gray silt, 10% fine gravel, wet, no odor fine to coarse silty SAND, gray with thir	or staining.	H5A-14.0-14.5
- 16 - -		0.0	moist	FILL		trace fine gravel, loose, poorly sorted, r staining.		H5A-16.0-16.5
-1 <i>/</i> - -18	5.5	0.0	damp	PT	<u> </u>	80% organic fibers, 20% organic silt, s	aterial), dark brown, ight sulfur odor,	1170 40 0 10 7
-19 		0.0	damp	PT	<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>		m-hard plastic-pliable	H5A-18.0-18.5
- -20			to moist		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	damp-moist, no odor or staining. Soils	consistent with	H5A-20.0-20.5
					, , , , ,	•		
otes:								
gs - bel	low surface adow mat	grade	COPR - chr	romite ore proce en grey mud	essing re	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native de	e deposits MGP - man	ufactured gas plant romate chemical production w



Boring	ID:	H ₅ B

Project	Number:	60240	739			Drilling Method: Geoprobe	Coordinates (NJSP	NAD83) x: 611468
				1:00:00 PM		Rig Type:	Coordinates (NJSP)	
				12:44:00 PM		Core Size: 3.0 in	Boring Total Depth:	
	By: FM	-				Project Manager: Scott Mikaelian	Depth to Water: N	
	al Locatio	n·				110jost managori Good Minaginari	Surface Elevation:	
	ai Locatio						Our lace Lievation.	10:7 1114 (1200
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thick	ness:	Sample ID
	0.5	0.0		CONCRETE	P 4 4	CONCRETE		H5B-CT
. –		0.0	damp	FILL		fine to coarse sandy ASH, dark gray, 10	YR 6/1 cinders and	H5B-CB
-1 - -2			to moist			mixed fill including glass and brick fragm no odor or staining.	ents, damp to moist,	H5B-0.5-1.0
-3	4.5					fine to come and ACII may be been a sinder a trace		
-4		0.0	damp to moist	FILL		fine to coarse sandy ASH, gray-brown, s silt, damp to moist, no odor or staining.	ome cinders, trace	H5B-4.0-4.5
-5-		0.0	damp	FILL		fine to coarse sandy CINDERS, gray to I and coal slag, loose, non-plastic, damp-r		_
-6— - -7—	5		moist			staining.		H5B-6.0-6.5
-8 -9 -							H5B-8.0-8.5	
-10 - -11		0.0	moist	FILL		fine to coarse sandy ASH, light gray, 10\ hard, ash, cinders and coal slag mix, trac fragments, no odor or staining, moist.		H5B-10.0-10.5
-12 -13	5 0.0 n		moist	FILL		fine to coarse sandy CINDERS, dark gra		H5B-12.0-12.5
14			to wet			slag, trace gray silt, moist to wet, no odo	r or staining.	H5B-14.0-14.5
-15		0.0	wet	FILL		fine to medium silty SAND, gray, 10YR (6/1, 20% ash and	_
16		0.0	to very wet			cinders, loose, non-plastic, wet to very w staining.		H5B-16.0-16.5
-17	5.5	0.0	damp			80% organic fibers, 20% organic silt, firr	n, brittle, damp,	
-18 - -19					<u> </u>	<u>v</u>		H5B-18.0-18.5
20					<u> </u>			H5B-20.0-20.5
					<u> </u>	۷		H5B-20.0-20.5
					essing r	esidue UNDno - non-organic undisturbed native o	deposits MGP - man	ufactured gas plant
M - me	adow mat		GGM - gree	n grey mud		UNDorg - organic undisturbed native depo	osits CCPW - ch	romate chemical production wa

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring I	D:	H6
----------	----	-----------

			telephone					Page: 1
	t Name: [Drilling Company: SGS North America		
	t Number:			- 40-00 DN4		Drilling Method: Geoprobe		AD83) x: 611378.892878
	Started Dril					Rig Type:		AD83) y: 682802.094058
			3/1/2014	3:10:00 PM		Core Size: 2 in	Boring Total Depth:	12 π
	d By: EW					Project Manager: Scott Mikaelian	Depth to Water: NA	2.0.# NAV/D00
Pilysic	al Locatio	11.				1	Surface Elevation: 1	13.9 IL INAVD66
Depth Range (ft bgs)		PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	ness:	Sample ID
	0.4	0.0		CONCRETE	P. 5.4.	CONCRETE, no staining.		H6-CT
一		0.0	wet	FILL	\bowtie	fine to medium SAND, with medium grav		H6-CB H6-0.4-0.9
1_ 						cinders, (7.5YR 4/2) brown, loose, wet, r	no odor, no staining.	
 	2.6	0.0	dry	FILL		fine to medium SAND, with ash, trace cir dark yellowish brown, non plastic, loose, staining.		H6-2.0-2.5
	-			NR		NO RECOVERY		
4-		0.0	dry	FILL		fine to medium SAND, with ash, trace cir	nders. (10YR 3/4)	H6-4.0-4.5
├ -	1	0.0	dry	FILL	₩₩	dark yellowish brown, non plastic, loose,		
5 	3	0.0	to moist	FILE		\staining. fine to medium SAND, (5YR 4/4) reddish		
 6-	3					soft to loose, dry to moist, no odor, no sta	aining.	H6-6.0-6.5
 8-				NR		NO RECOVERY		
Ļ	-	0.0	dry to	FILL		fine to medium SAND, (5YR 4/4) reddish soft to loose, dry to moist, no odor, no sta		H6-8.0-8.5
<u> </u>	1	0.0	moist	FILL		fine to medium SAND, with ash and cind		
- مر	2.6	0.0	moist moist	FILL		dark gray, non plastic, soft, moist, no odd	or, no staining.	
10	2.0	0.0	HIOISI	1 122		fine SAND, with ash and cinders, (7.5YF plastic, soft to loose, moist, no odor, no s		H6-10.0-10.5
 11	1			NR		NO RECOVERY	naming.	
	_							
12								
	elow surface eadow mat	grade	COPR - chr GGM - gree	romite ore procen grey mud	essing re	esidue UNDno - non-organic undisturbed native o UNDorg - organic undisturbed native depo	leposits MGP - manuf sits CCPW - chro	actured gas plant mate chemical production waste

PPG - 2012-09 RA PPG_LOGS_A.GDT - 2/9/17 12:57

Comments: No COPR/GGM identified.

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

	Boring	ID:	H ₆ A
--	---------------	-----	------------------

roicet	Number:	60240	1720			Drilling Method: Geoprobe	Coordinates (NJSP)	NADQ2) v. 611204
	tarted Dril			-00·00		Rig Type:	Coordinates (NJSPN	<u> </u>
				2:30:00 PM		Core Size: 2 in	Boring Total Depth:	
	d By: EW		3/1/2014	2.30.00 FIVI		Project Manager: Scott Mikaelian	Depth to Water: NA	
	al Locatio					Froject Manager. Scott Mikacilan	Surface Elevation:	
Hysic	ai Locatio						Surface Lievation.	13.9 11 14 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Depth Range It bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphio Log	Surface Cover and Thick	kness:	Sample ID
	0.4	0.0		CONCRETE	P 5 4 7	CONCRETE		H6A-CT
_	U. 4	0.0	slightly	FILL		fine to medium SAND, some fine to me	dium gravel little	H6A-CB
-1 -			moist			ash, (7.5YR 3/4) dark brown, loose, slig no staining.	htly moist, no odor,	H6A-0.4-0.9
-2 - -3	2.6	0.0	dry	FILL		fine to medium SAND, with ash and cin dark yellowish brown, non plastic, loose staining.		H6A-2.0-2.5
_				NR		NO RECOVERY		
-4		0.0	dn.	FILL	XXXX	fine to madium CAND, some seb little of	ainders (EVD 2/2)	H6A-4.0-4.5
-5 	4	0.0	dry	FILL		fine to medium SAND, some ash, little of dark reddish brown, non plastic, loose, of staining.		
-7— -7		0.0	dry to slight moist	FILL		medium SAND, (5YR 4/3) reddish brow dry to slightly moist, no odor, no staining		H6A-6.0-6.5
-8- -9		0.0	dry to	FILL		medium SAND, (5YR 4/3) reddish brow dry to slightly moist, no odor, no staining		H6A-8.0-8.5
9 - 10 	2.6	slight moist wet	moist	FILL		fine to medium SAND, trace ash and fir very dark gray, non plastic, soft to loose staining.		H6A-10.0-10.5
- 11 				NR	****	NO RECOVERY		
12 <u> </u>	2.5	0.0	wet	FILL		fine to medium SAND, with medium gra 3/1) very dark gray, non plastic, loose, v staining.		H6A-12.0-12.5
14—	2.5			NR		NO RECOVERY		H6A-14.0-14.5
15 <u> </u>								
16 <u> </u>		0.0	wet	FILL		fine to medium SAND, with medium gra 3/1) very dark gray, non plastic, loose, v staining.	avel and ash, (7.5YR vet, no odor, no	H6A-16.0-16.5
_ 18	4	4 2.3		OL		UNDorg, with fibers and organic silt, (7. brown, moist, moderate organic odor, no		H6A-18.0-18.5
- 19 - 20		8.6	moist	PT	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	consistent with UNDorg. PEAT (degraded vegetated material), wifibers and 20% organic silt, (7.5YR 2.5/non plastic, soft, moist, moderate organ	ith 80% organic 2) very dark brown,	102-10.0-10.3
						consistent with MM.		
	low surface			omite ore proce	essing re	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native dep	deposits MGP - manu	ufactured gas plant omate chemical production w

AECOM

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Boring ID: H6AR

	ne: PPG G				Drilling Company: SGS North America	Coordinates (N.103	NAD02) w. 044400 00		
	nber: 6024		2:30:00 PM		Drilling Method: Rig Type:	Coordinates (NJSP	NAD83) y: 682785.2		
			7 4:00:00 PN		Core Size: 2 in	Boring Total Depth:			
Logged By:		12/20/201	7 4.00.001 1		Project Manager: Scott Mikaelian	Depth to Water:	25 11		
Physical I c	cation: PF	OPOSED			Froject Manager. Ocott Mikaelian	Surface Elevation:	13.0 ft NAV/D88		
		OIOSED				Surface Lievation.	13.9 11 11 10 10 10 10 10 10 10 10 10 10 10		
Depth Range ft bgs)	overy PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thick	ness:	Sample ID		
		DRY	CONCRETE	PAR	CONCRETE, no odor, no staining				
1		DRY	FILL	P: \$1.5 : 1	fine to coarse SAND, (5YR 3/2) dark re loose, dry, no odor, no staining				
		DRY	FILL		medium to coarse SAND, (5YR 4/3) reloose, dry, no odor, no staining	uulsti DiOWII,	H6AR-20.0-20.5		
Notes:				MXXXX.	^				
notes: ogs - below su MM - meadow		COPR - chro	omite ore proce	ssing res	idue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native deposi	posits MGP - manu	ufactured gas plant omate chemical production waste		
<u>viivi - iiileauow</u>	mat	OOIN GICCI							

AECOM

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

В	oring	ID:	H6AR

Page: 2

Project	t Name:	DDC C	arfiold Avo		-	Orilling Company: SGS North America		Page: 2
	t Number:			!		Orilling Method:	Coordinates (N ISP	NAD83) x: 611402.02
Date S	tarted Dril	ling: 1	<u> </u>	2:30:00 PM		Rig Type:	Coordinates (NISP)	NAD83) y: 682785.2
				17 4:00:00 PM	<u>, </u>	Core Size: 2 in	Boring Total Depth:	
	d By: SP		12/20/20	17 4.00.0011		Project Manager: Scott Mikaelian	Depth to Water:	2011
Physic	al Locatio	n: PR	OPOSED			- 1,121 manageri Good Mindollari		13.9 ft NAVD88
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thic	kness:	Sample ID
├ -	1				\bowtie			
23					\bowtie			
L -	-				\bowtie			
24					\bowtie			
L = : _					\bowtie			
0.5					\bowtie			
25						•		
Notes:								•
bgs - bel	low surface (grade	COPR - chr	omite ore proce	ssing resi	due UNDno - non-organic undisturbed native d	leposits MGP - manu	ufactured gas plant
Comments	eadow mat		GGM - gree	n grey mua		UNDorg - organic undisturbed native depo	osits CCPVV - Chr	omate chemical production waste

PPG - 2012-09 RA PPG_LOGS_A.GDT - 1/25/18 15:45

Comments:

Project Name: PPG Garfield Ave

Boring ID: H6B

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Ground surface elevation = 9.8 ft NAVD88

Drilling Company: SGS North America

Date St		ling:	3/1/2014 1	1:45:00 AM		Drilling Method: Geoprobe Rig Type:	Coordinates (NJSPNAD83) y Coordinates (NJSPNAD83) y Boring Total Depth: 20 ft				
			3/1/2014	1:20:00 PM		Core Size: 2 in		20 ft			
	d By: EW al Locatio		sted - HAR			Project Manager: Scott Mikaelian	Depth to Water: NA				
.iyəlci	ui Localio	iii iidi	- 1 IOD				(Note I	ogs = below ground surface)			
Depth Range t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thick	ness:	Sample ID			
	0.4	0.0		CONCRETE	D 4 0	CONCRETE, no staining.		H6B-CT			
-1-		0.0	slightly moist	FILL		fine to medium SAND, and ash, trace fin light yellowish brown, loose, slightly mois staining.	ne gravel, (10YR 6/4) st, no odor, no	H6B-CB H6B-0.4-0.9			
-2	2.6	0.0	dry dry	FILL FILL		fine to medium SAND, with ash and cera dark yellowish brown, non plastic, loose,	amics, (10YR 4/6) dry, no odor, no	H6B-2.0-2.5			
-3				NR		\staining. medium SAND, with fill material, little cir dark reddish brown, non plastic, loose, d					
-4		0.0	dry	FILL		staining.	//	H6B-4.0-4.5			
5	3	0.0	dry to slight moist	FILL		NO RECOVERY medium SAND, with fill material, little cir dark reddish brown, non plastic, loose, d staining. fine to medium SAND, trace fine gravel,	ry, no odor, no (5YR 5/3) reddish	H6B-6.0-6.5			
7-				NR		brown, non plastic, loose, dry to slightly r staining. NO RECOVERY	moist, no odor, no	HOB-0.0-0.3			
-				1417							
-8 -9		0.0	dry	FILL		medium SAND, with fill material, little cir dark reddish brown, non plastic, loose, d staining.	nders, (5YR 3/4) iry, no odor, no	H6B-8.0-8.5			
10	3	0.0	slightly moist	FILL		ASH, with cinders, some fine to medium gray, loose, slightly moist, no odor, no st		H6B-10.0-10.5			
-11 -				NR	****	NO RECOVERY					
12		0.0	slightly moist	FILL		ASH, with cinders, some coal, fill materia gray, loose, slightly moist, no odor, no st		H6B-12.0-12.5			
-14 - -15 -	3							H6B-14.0-14.5			
16		0.0	slightly moist	FILL		ASH, with cinders, some coal, fill materia gray, loose, slightly moist, no odor, no st	al, (7.5YR 4/1) dark aining.	H6B-16.0-16.5			
17-		0.0	moist	FILL		SILT, little fine sand, trace roots, (7.5YR	4/2) brown, soft,				
-18 -	4	0.0	moist	PT	77 77 7 77 3 77	moist, no odor, no staining. PEAT (degraded vegetated material), 80 20% organic silt, (7.5YR 3/2) dark brown	% organic fibers n, stiff, moist, strong	H6B-18.0-18.5			
19 –				NR	<u> </u>	NO RECOVERY	IC WHEN IVIIVI.				
20											
Commer	nts: No COF	PR/GGM	1 identified.								

Boring ID: HAL-EX-1+20-130R

	6057				Orilling Method: Direct Push		NAD83) x: 611499.85
Date Started Dri					Rig Type: Geoprobe		IAD83) y: 682812.32
Date Finished D					Core Size: 2 inch	Boring Total Depth:	
Logged By: Tyl	er Bond	1		F	Project Manager: Cameron Dixon	Depth to Water: N	
Physical Location	n: Ha	alsted Sample	es	1		Surface Elevation:	9.9 ft NAVD88
Depth Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Soil Description:		Sample ID
			FILL		DGA		
- -1-							
-2- 44					70		HAL-EX-1+20-130R-1.9-2.
-2 - 4.4 			SM		silty sand, SM		TIAL-LA-1120-1301(-1.5-2
-4-							HAL-EX-1+20-130R-3.9-4.4

Test Pit ID: HAL-EX-1+20-130R2

Project Number	PPG Ga				illing Company: ADT illing Method: Test Pit	Coordinates	(NJSPNAD83) x: 611500.8
Date Started Dr					g Type: Soft Dig		(NJSPNAD83) y: 682811.3
Date Finished D					ore Size: Test Pit		Depth: 2.5 ft
Logged By: JH		J, ., LOLL			oject Manager: Aimee Ruiter	Depth to Water	
Physical Location	on:			, , ,	- Janes I Miles	Surface Eleva	ation: 10 ft NAVD88
						,	
Depth Range (ft bgs)	(ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and	Thickness:	Sample ID
			ASPHALT		Asphalt		
			SM		Brown Silty sand		
— 1 — -							
-2-							HAL-EX-1+20-130R2-2.0-2

Boring ID: HAL-EX-1+49-130R

Page: 1

Projec	t Name: F	PPG Ga	rfield Ave		l r	Orilling Company: SGS		Page: 1
	t Number:					Orilling Method: Direct Push	Coordinates (N.	JSPNAD83) x: 611522.985
	tarted Dril					Rig Type: Geoprobe		JSPNAD83) y: 682834.121
	inished Dr			9		Core Size: 2 inch	Boring Total De	
Logge	d By: Tyle	er Bond			F	Project Manager: Cameron Dixon	Depth to Water:	NA
Physic	al Locatio	n: Hal	sted Samp	les	_		Surface Elevation	on: 9.4 ft NAVD88
Depth (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Soil Description	on:	Sample ID
 1 	2.8			FILL SM		DGA silty sand, SM		HAL-EX-1+49-130R-0.3-0.8
-								HAL-EX-1+49-130R-2.3-2.8
Notes:								
bas - be	eadow mat	grade	COPR - chi GGM - gree	romite ore proc en grey mud	essing res	sidue UNDno - non-organic undisturbed na UNDorg - organic undisturbed native	tive deposits MGP - deposits CCPW	manufactured gas plant - chromate chemical production waste

PPG - 2012-09 RA PPG_LOGS_A.GDT - 8/1/19 21:37

Boring ID: HAL-EX-2+10-130R

Project	Name: F Number:					Orilling Company: Somiting Method: Dir		Coordinates (NJSP	NAD83) x: 611565.218	
			5/23/2019			Rig Type: Geoprobe		Coordinates (NJSPNAD83) y: 682874.143		
			5/23/2019			Core Size: 2 inch		Boring Total Depth: 7.4 ft		
							Di			
∟ogged	I By: Tyle	n Roud	-110 '		IP.	Project Manager: C	ameron Dixon	Depth to Water: N		
rnysica	u Locatio	n: Hal	sted Sample	es				Surface Elevation:	10.7 π ΝΑΥΔ88	
Depth (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log		Soil Description:		Sample ID	
50/	()	(FF:'')		FILL	XXXX	DGA			.5	
-				r ILL		DGA				
-1 										
-2-	-			SM		silty sand, SM			HAL-EX-2+10-130R-1.7-2.2	
	5									
 -4-									HAL-EX-2+10-130R-3.7-4.2	
- 5									HAL-EX-2+10-130R-4.9-5.4	
-6-	2.4								HAL-EX-2+10-130R-5.7-6.2	
 -7-									HAL-EX-2+10-130R-6.9-7.4	

PPG - 2012-09 RA PPG_LOGS_A.GDT - 8/1/19 21:37

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HAL-EX-2+40-130R

Project	: Name: F		rfield Ave		D	rilling Company: SG			Page:		
						rilling Method: Direct		Coordinates (N ISI	DNAD83) v. 611586 381		
roject Number: 60577798 ate Started Drilling: 5/23/2019 ate Finished Drilling: 5/23/2019						g Type: Geoprobe		Coordinates (NJSPNAD83) x: 611586.381 Coordinates (NJSPNAD83) y: 682894.815			
)		ore Size: 2 inch	-	Boring Total Depth			
ogged	By: Tyle	r Bond			Pı	oject Manager: Can	neron Dixon	Depth to Water:			
nysic	al Locatio	n: Hal	sted Samp	les				Surface Elevation:	11.3 ft NAVD88		
epth bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log		Soil Description:		Sample ID		
				FILL		DGA					
-1 -1				SM		silty sand, SM			HAL-EX-2+40-130R-0.5-1.0		
-2— -3— -	5								HAL-EX-2+40-130R-2.0-2.5		
-4 - -5									HAL-EX-2+40-130R-4.0-4.5		
-6	1.5								HAL-EX-2+40-130R-6.0-6.5		
lotes: gs - bel	low surface	grade	COPR - chr GGM - gree	omite ore prod	essing resi	due UNDno - non-orgai	nic undisturbed native	e deposits MGP - ma	nufactured gas plant hromate chemical production was		

Boring ID: HAL-EX-2+82-130R

Project No	ame: P umber:	PG Ga 60577	rfield Ave 798			Orilling Company: SGS Orilling Method: Direct Push	Coord	dinates (NJSPNAD83) x: 611620.673
Date Start	ted Drill	ling: 5	5/23/2019		F	Rig Type: Geoprobe	Coord	dinates (NJSPNAD83) y: 682927.403
Date Finis	shed Dri	illing:	5/23/2019		C	Core Size: 2 inch		g Total Depth: 9.5 ft
Logged B	y: Tyle	r Bond			P	Project Manager: Cameron Dixor		n to Water: NA
Physical L	Location	n: Hal	sted Sample	es			Surfa	ce Elevation: 12.1 ft NAVD88
Depth (ft bgs)	ecovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Soil Des	scription:	Sample ID
(ft bgs)	(ft/ft) 5	(ppm)		FILL	Log	DGA silty sand, SM	scription:	HAL-EX-2+82-130R-5.0-5 HAL-EX-2+82-130R-7.0-7 HAL-EX-2+82-130R-9.0-9

Boring ID: HAL-EX-2+82-134R

Page: 1

Project Name: PPG Garfield Ave Drilling Company: Cascade Project Number: 60577798 Drilling Method: Hand Auger and Direct PushCoordinates (NJSPNAD83) x: 611620.6 Date Started Drilling: 3/24/2020 11:15:00 AM Rig Type: Geoprobe Coordinates (NJSPNAD83) y: 682921.1

e Finis	shed Dri	illina:	3/24/2020	12:15:00 PM		ore Size: 2 Inch	Boring Total Depth:	
	y: Tari			, , <u>_</u> ., 10.00 i iv		roject Manager: Cameron Dixon	Depth to Water: 9.0	
				d Alleyway			Surface Elevation:	11.9 ft NAVD88
				, ,				
oth Regs) (ecovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Soil Description:		Sample ID
		0.0	NA	ASPHALT		Asphalt		
_			Dry to Moist	FILL		fine to medium SAND, some coarse gr (glass), (7.5YR 3/3) dark brown, loose to moist, no odor, no staining	avel, little fill debris to medium dense, dry	
			Dry to Moist	FILL		fine to medium SAND, little coarse grabrown, loose, dry to moist, no odor, no	vel, (7.5YR 6/3) light staining	_
_	5		Moist	FILL		fine to coarse SAND, some fill debris (gragments), (7.5YR 3/2) dark brown, lo dense, moist, no odor, no staining	glass, brick ose to medium	
								HAL-EX-2+82-134R-3.1-3.6
_								
		0.0						HAL-EX-2+82-134R-5.1-5.6
	5							HAL-EX-2+82-134R-7.1-7.6 HAL-EX-2+82-134R-7.1-7.6X
_								
			Wet	FILL		fine to coarse SAND, some coarse gra fragments, (5YR 6/1) gray, loose, wet,	vel, ash and glass no odor, no staining	HAL-EX-2+82-134R-9.1-9.6

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

A E C O M

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-BB17A

Project	Name: F	PPG Ga	rfield Ave			Drilling Company: SGS North America		Page Page
	Number:					Drilling Method: direct push	Coordinates (NJSP)	NAD83) x: 611404.1
				11:30:00 AM		Rig Type:		IAD83) y: 682827.5
				3 12:30:00 PM		Core Size: 3.0 in	Boring Total Depth:	
	By: ES	g.	0/2//2010	72.00.0011		Project Manager: Scott Mikaelian	Depth to Water: NA	
		n. Vot	ual - HSD I	PDI			Surface Elevation:	
	ui Locatio		uai - 110D i	Di	İ		Ourrace Lievation.	10.5 11 14 14 15 16
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	C Surface Cover and Thick	kness:	Sample ID
		0.0		CONCRETE	P 4 4	Concrete		
-1-			dry	FILL		ASH, little cinders, trace wood, (5Y 5/1) odor, no staining.	gray, loose, dry, no	-
-3	5							
-4		0.0	dry	FILL		ASH, little cinders, trace wood, (5Y 5/1)	gray, loose, dry, no	
-6 -7						odor, no staining.		
-8-	3.5		moist to wet	FILL		fine silty SAND, little ash, trace fill debris brown, medium dense, moist to wet, no water at 8.0 feet.		
-9 - -10				NR		NO RECOVERY		
-11 -12 -13	4	0.0	saturated	FILL		fine silty SAND, some ash, little fill debri gray, medium dense, saturated, no odor		
-14 -				NR		NO RECOVERY		_
15		0.0	saturated	FILL		ASH, some fine to medium sand, trace	fill debris (5Y 5/1)	+
_ _16 _ _17		-	wet	FILL		gray, loose, saturated, no staining, sligh black staining. fine sitty SAND, little coarse gravel, trace 4/3) reddish brown, medium dense, wet staining	t petroleum odor, e organics, (5YR	HSD-PDI-BB17A-16.5-17.0
-18 	5		dry		71/ 71/ 7 7 // 11/	PEAT (degraded vegetated material), 80 20% organic silt, (5YR 3/2) dark reddish slight organic odor, no staining. Soils co	n brown, stiff, dry, nsistent with MM.	HSD-PDI-BB17A-17.0-17.5
-19 -			moist	OL		Organic SILT, 80% organic silt, 20% organic 4/2) brown, soft, moist, no odor, no stair with UNDorg.	ganic fibers, (7.5YR ning. Soils consistent	
20						- !		
	low surface		COPR - chr GGM - gree		essing re	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native dep		ufactured gas plant
					med to be 1	ft thick 3) No CCPW (COPR or GGM) present in any interval of this bori		

A E C O M

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-BB18A

Project N	lame: 🗆	PPG Ga	arfield Ave			Drilling Company: SGS North America		Page:
Project N Project N						Drilling Method: direct push	Coordinates (N.ISP	NAD83) x: 611390.6
				D:15:00 AM		Rig Type:		IAD83) y: 682777.4
				11:15:00 AM		Core Size: 3.0 in	Boring Total Depth:	
Logged E		ıy.	5/ 1/20 TO			Project Manager: Scott Mikaelian	Depth to Water: NA	
		n: Act	ual - HSD I	PDI			Surface Elevation:	
-		/ 100	11001				Januaro Elevation.	0.0 10 10 10 000
	ecovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	C Surface Cover and Thick	kness:	Sample ID
		0.0		CONCRETE	P 1 1	Concrete		
-1 2	2		moist	FILL		fine to medium SAND, little ash, fine gra (5YR 4/3) reddish brown, medium dens staining.		
-3				NR		NO RECOVERY		
-4 -5	0.5	0.0	moist	FILL		fine silty SAND, trace fine gravel and fill reddish brown, medium dense, moist, n		
-6-	2.5		wot	FILL		fine to medium SAND, little ash, trace w	rood (7.5VD 4/1)	+
-7-			wet	NR	****	dark gray, loose, wet, no odor, no staini NO RECOVERY		-
-8 		0.0	saturated	FILL		fine to medium SAND, trace ash and fir dark gray, loose, saturated, no odor, no		-
-10 -11 -	1			NR		NO RECOVERY		
-12		0.0	wet	FILL		fine silty SAND, trace ash, (5YR 4/3) re		_
			wet	FILL		medium dense, wet, no odor, no stainin	g	HSD-PDI-BB18A-12.5-13.0
13	2		dry	PT	<u> </u>	dark gray, medium dense, wel, no odor,	no staining. 0% organic fibers,	HSD-PDI-BB18A-13.0-13.5
-14 -15 				NR		odor, no staining. Soils consistent with I NO RECOVERY	MM.	
-16 -17 -		0.0	moist	OL		Organic SILT, 80% organic silt, 20% organic silt	ganic fibers, (7.5YR ning. Soils consistent	
18	4							
-19 - -20								
20								
lotes: gs - below IM - mead			COPR - chr GGM - gree		essing r	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native dep		ufactured gas plant romate chemical production wa
omments: 1) 3	3 attempts we	re made to	obtain best recov	ery 2) MM/UND confir	med to be 1	ft thick 3) No CCPW (COPR or GGM) present in any interval of this bor	ing.	

AECOM

A.GDT

2012-09 RA PPG LOGS

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-BB18AR

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611399.8 Date Started Drilling: 7/22/2016 7:35:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682784.1 Date Finished Drilling: 7/22/2016 10:30:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft Project Manager: Scott Mikaelian Depth to Water: NA Logged By: ES Physical Location: Actual - HSD PDI Surface Elevation: 13.9 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙĎ (ft/ft) (ppm) Content Log (ft bgs) 0.0 CONCRETE Concrete FILL medium to coarse SAND, some ash, trace metal debris, dry (5YR 4/3) reddish brown, medium dense, dry, no odor, no dry **FILL** CINDERS, some ash, (5YR 2.5/1) black, loose, dry, no odor, 3 no staining. NO RECOVERY NR 0.0 FILL dry fine to medium SAND, trace fine gravel, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining. 3.5 FILL fine to medium SAND, some ash, little cinders, (5YR 3/3) dry dark reddish brown, medium dense, dry to moist, no odor, no moist staining. NO RECOVERY NR 0.0 **FILL** fine to medium SAND, little ash, trace cinders and wood, moist to (5YR 4/3) reddish brown, medium dense, moist to wet, no wet odor, no staining, water at 8.5 feet. **FILL** fine to medium SAND, some ash, little fine gravel, trace coal, wet (5Y 5/1) gray, medium dense, wet, no odor, no staining. 2.5 NR NO RECOVERY 0.0 **FILL** fine to medium SAND, some fine gravel, little ash, (2.5Y 4/1) wet dark gray, medium dense, wet, no odor, no staining. 13 NR NO RECOVERY 16 0.0 wet FILL fine to medium GRAVEL, some ash, little fine sand and fill debris, (2.5Y 4/1) dark gray, loose, wet, no odor, no staining. HSD-PDI-BB18AR-16.5-17.0 wet **FILL** fine silty SAND, trace fine gravel and fill debris, (5YR 4/3) HSD-PDI-BB18AR-17.0-17.5 РТ slightly reddish brown, medium dense, wet, no odor, no staining. moist PEAT (degraded vegetated material), 80% organic fibers, 12 <u>11/ 1</u> 3 20% organic silt, (5YR 3/3) dark reddish brown, firm, slightly 11, 11, moist, slight organic odor, no staining. Soils consistent with 1/ 1/1/ 1 NO RECOVERY NR COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits GGM - green grey mud UNDorg - organic undisturbed native deposits MGP - manufactured gas plant bgs - below surface grade MM - meadow mat CCPW - chromate chemical production waste nts: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring

Boring ID: HSD-PDI-BB19A

Dunings Al I		arfield Ave			Drilling Company: SGS North America	Coordinates (N. 1001)	ND03) w. 614070
Project Numb			0.05.00.11.			Coordinates (NJSPN/	
Date Started						Coordinates (NJSPNA	
		6/3/2016	11:50:00 AM			Boring Total Depth:	20 ft
ogged By:					Project Manager: Scott Mikaelian	Depth to Water: NA	
hysical Loca	ation: Ac	tual - HSD	PDI				
Depth							2 :
and Recov		Moisture	USCS	Graphi	Surface Cover and Thickne	ss:	Sample
t bgs) (ft/ft) (ppm)	Content		Log			ID
. 5 - /							
	0.0	moist	ASPHALT		Asphalt and gravel sub-base	1 -1 (7.5)/5	HSD-PDI-BB19A-0.2-0.7
		1110101	FILL	\bowtie	ASH, some silt, trace fine gravel, coal and		
-1				\bowtie	4/2) brown, medium dense, moist, no odo	or, no staining.	
_				\bowtie			
				\bowtie			
-2-				\bowtie			HSD-PDI-BB19A-2.0-2.5
4.5				\bowtie			
-3				\bowtie			
<u> </u>				\bowtie			
\neg		wet	FILL		fine SAND, trace silt, (5YR 4/3) reddish b	rown, medium	
-4				\bowtie	dense, wet, no odor, no staining.		HSD-PDI-BB19A-4.0-4.5
\perp				\bowtie	, , , , , , , , , , , , , , , , , , ,		1100-FDF0018A-4.0-4.3
_			NR		NO RECOVERY		
-5-	0.0	wet	FILL		fine SAND, trace silt, (5YR 4/3) reddish b	rown, medium	
4	5.5			\bowtie	dense, wet, no odor, no staining.		
-6-		wet	FILL	\bowtie	SILT, little fine gravel, trace fine sand and	d metal debris.	
١		to		\bowtie	(5Y 5/1) gray, medium dense, wet to satu	rated, water at	HSD-PDI-BB19A-6.0-6.5
\dashv		saturated saturated		*****	6.0 feet.		
-7				\bowtie	SILT, trace wood, (5Y 2.5/1) black, soft, s	saturated, no	
4		wet	FILL	\bowtie	odor, no staining.		
_ 7 .				\bowtie	fine SAND, little silt, (5YR 4/3) reddish br	own, medium	
-8				\bowtie	dense, wet, no odor, no staining.	<u> </u>	HSD-PDI-BB19A-8.0-8.5
\dashv				\bowtie	5	100/	
-0		moist	FILL	\bowtie	Disturbed Organic SILT, 90% organic silt	, 10% organic	
9			NR		fibers, (7.5YR 4/2) brown, medium dense	e, moist, slight	
\dashv					\organic odor, no staining.		
10-		.			NO RECOVERY	L (E)(D (10)	HSD-PDI-BB19A-10.0-10.5
	0.0	moist	FILL	$\otimes \otimes \otimes$	fine SAND, trace silt, fine gravel and woo		19A-10.0-10.5 מפווער-עפח
7				\bowtie	reddish brown, medium dense, moist, no	odor, no	
-11				\bowtie	staining.		
\dashv				\bowtie			
12_				\bowtie			
-12				\bowtie		Γ	HSD-PDI-BB19A-12.0-12.5
_ 4.5				\bowtie			
-13				\bowtie			
				\bowtie			
7				\bowtie		Γ	HSD-PDI-BB19A-13.5-14.0
14		dry	PT	<u> </u>	PEAT (degraded vegetated material), 80°	% organic fibers	HSD-PDI-BB19A-14.0-14.5
4		ury			20% organic silt, (5YR 3/3) dark reddish b		
15			NR		stiff dry moderate organic odor, no stain		
10	0.0	dry	PT	71/ 71/	\consistent with MM.	//	
\dashv				1/ 1//	NO RECOVERY	/	
16					PEAT (degraded vegetated material), 80°	% organic fibers,	
				71/ 71/	20% organic silt, (5YR 3/4) dark reddish t	brown, dry,	
]				1/ 1/1/	slight organic odor, no staining. Soils con	sistent with MM.	
17—				11/ 11/			
2.5				 			
19			NR		NO RECOVERY		
13							
\dashv							
19							
7							
20					1		
1							
otes:					CALLED THE PROPERTY OF THE PRO		
otes: ls - below surfa M - meadow m		COPR - chr	omite ore proce	essing res	idue UNDno - non-organic undisturbed native depos UNDorg - organic undisturbed native deposits		actured gas plant mate chemical production wa

Boring ID: HSD-PDI-CC13A

Project Project	Number:	60240	739			Drilling Method: direct push	Coordinates (NJSP	NAD83) x: 611490.7
				11:30:00 AM		Rig Type:		NAD83) y: 682923.2
				6 12:00:00 PM		Core Size: 3.0 in	Boring Total Depth:	
	d By: ES	g.	0/10/2010	3 12.00.00 T W		Project Manager: Scott Mikaelian	Depth to Water: N	
Physic:	al Locatio	n: Act	ual - HSD	PDI			Surface Elevation:	
	ui Looutio	7.00	adi 110D				Carrace Elevation.	10.01(14/1000
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thick	kness:	Sample ID
		0.0		CONCRETE	P & 4	Concrete		
-1 -1			dry	FILL		ASH, little cinders, (5YR 4/1) dark gray, no staining.	loose, dry, no odor,	
-3	3.5			NID		NO RECOVERY		-
-4— -				NR		NO RECOVERY		
-5 -6 -7 -	3	0.0	moist to wet	FILL		ASH, trace wood, (5Y 4/1) dark gray, loo odor, no staining, water at 7.5 feet.	ose, moist to wet, no	
-8 - -9				NR	****	NO RECOVERY		
10 - 11 - 12 - 13 -	4	0.0	wet	FILL		fine to medium SAND, some ash, (5Y 5 dense, wet, no odor, no staining.	/1) gray, medium	
-14				NR	~~XXX	NO RECOVERY		1
, <u> </u>								
15		0.0	wet	FILL		ASH, (5Y 5/1) gray, loose, wet, no odor,	no staining.	7
16			wet	FILL		fine silty SAND, (5YR 4/3) reddish brow wet, no odor, no staining.		HSD-PDI-CC13A-16.0-16.
-17 - -18	5		dry			20% organic silt, (5YR 3/3) dark reddish moderate organic odor, no staining. Soil MM.	n brown, stiff, dry,	HSD-PDI-CC13A-16.5-17.
-19 			mois!		<u> </u>	<u>v</u>	ronio fiboro (EV 5/4)	
20			moist	OL		Organic SILT, 80% organic silt, 20% organic silt	oils consistent with	
	low surface			romite ore proce en grey mud	essing re	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native dep		oufactured gas plant promate chemical production w

Boring ID: HSD-PDI-CC14A

				8:25:00 AM		Rig Type:	Coordinates (NJSPN	
			5/26/2016	9:50:00 AM			Boring Total Depth:	
	IBy: HBE					, , , , , , , , , , , , , , , , , , , ,	Depth to Water: NA	
hysic	al Location	n: Act	ual - HSD	PDI		ļ.	Surface Elevation:	14.1 ft NAVD88
Depth lange t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thicknes	SS:	Sample ID
		0.0		CONCRETE	P 4 7	Concrete		
-1 -1			dry	FILL		CINDERS, trace ash and wood, (5YR 2.5/1 dry, no odor, no staining.) black, loose,	HSD-PDI-CC14A-0.5-1.0
- -3 -4	4.5							HSD-PDI-CC14A-2.0-2.5 HSD-PDI-CC14A-4.0-4.5
-				NR	XXXX	NO RECOVERY		
-5-		0.0	dry	FILL		CINDERS, trace ash, (5YR 2.5/1) black, loc	nee dry no odor	
\dashv		0.0	,			no staining.	Joe, ury, HU UUUI,	
-6 - -7	3.5		moist	FILL		ASH, trace glass and coal, (7.5YR 4/2) browdense, moist, no odor, no staining.	wn, medium	HSD-PDI-CC14A-6.0-6.5
-8-	0.0		saturated	FILL		CINDERS, trace silt, (5Y 5/1) gray, loose, s odor, no staining, water at 8.5 feet.	aturated, no	HSD-PDI-CC14A-8.0-8.5
-9				NR		NO RECOVERY		
-10		0.0						LICD DDI CC14A 40.0 40.0
- 11		0.0	saturated	FILL		CINDERS, trace ash and wood, (5Y 5/1) gr saturated, no odor, no staining.	ay, loose,	HSD-PDI-CC14A-10.0-10.
13	4.5							HSD-PDI-CC14A-12.0-12.
14					\bowtie	×		HSD-PDI-CC14A-14.0-14.
, <u> </u>				NR		NO RECOVERY		
15		0.0	saturated	FILL		CINDERS, trace ash, wood and metal debri gray, loose, saturated, no odor, no staining.		
16 -								HSD-PDI-CC14A-16.0-16.
17	4.5		wet	FILL		fine SAND, little silt, trace fine gravel, (7.5Y		HSD-PDI-CC14A-17.0-17.
18-			dry	PT	<u> </u>	\ \staining. PEAT (degraded vegetated material), 80% of	organic fibers,	HSD-PDI-CC14A-17.5-18.
19					71/ 71/	20% organic silt, (5YR 3/2) dark reddish bro moderate organic odor, no staining. Soils co		
			moist	OL	<u> </u>	⊢ ∖MM.		
20				NR		Organic SILT, 90% organic silt, 10% organi gray, medium stiff, moist, no odor, no staini consistent with UNDorg. NO RECOVERY	c fibers, (5Y 5/1) ng. Soils	
							<i></i> ,	
	ow surface			omite ore proc	essing re	esidue UNDno - non-organic undisturbed native dep UNDorg - organic undisturbed native deposit		factured gas plant omate chemical production w

Boring ID: HSD-PDI-CC15A

	Number:					Drilling Method: Direct Push	Coordinates (NJSP	<u> </u>
				12:00:00 PM		Rig Type:		NAD83) y: 682867.8
			5/26/2016	3 12:45:00 PM		Core Size: 3.0 in	Boring Total Depth:	
	By: HBE					Project Manager: Scott Mikaelian	Depth to Water: NA	
Physica	al Locatio	n: Act	ual - HSD	PDI			Surface Elevation:	13.5 ft NAVD88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thickn	ess:	Sample ID
		0.0		CONCRETE	P & 4	Concrete		
-1-			dry	FILL		medium to coarse SAND, little fine to med 4/2) brown, loose, dry, no odor, no stainin		HSD-PDI-CC15A-0.5-1.0
-2 -3 -4	4.5		dry	FILL		ASH, trace cinders, coal and fill debris, (7 medium dense, dry, no odor, no staining.	.5YR 4/2) brown,	HSD-PDI-CC15A-2.0-2.5
·					\bowtie			HSD-PDI-CC15A-4.0-4.5
]				NR		NO RECOVERY		
-5 - -6		0.0	moist to wet	FILL		ASH, trace coal and fill debris, (7.5YR 4/2 dense, moist to wet, no odor, no staining,		HSD-PDI-CC15A-6.0-6.5
-7 - -8	3.5							HSD-PDI-CC15A-8.0-8.5
-9				NR		NO RECOVERY		_
-10 <u> </u>		0.0	saturated	FILL		ASH, trace coal and fill debris, (7.5YR 4/2 dense, saturated, no odor, no staining.	2) brown, medium	HSD-PDI-CC15A-10.0-10.5
-11 -12 -13	4.5		saturated	FILL		CINDERS, trace ash, coal and fill debris, loose, saturated, no odor, no staining.	(5YR 2.5/1) black,	HSD-PDI-CC15A-12.0-12.5
-14					\bowtie			HSD-PDI-CC15A-14.0-14.5
4					XXXX	10.550015511		1100100107-14.0-14.0
-15				NR		NO RECOVERY		1
		0.0	saturated	FILL		CINDERS, trace coal and fill debris, (5YR	2.5/1) black,	
-16			wet	FILL		loose, saturated, no odor, no staining. fine to medium SAND, little silt, trace fine	gravel, (7.5YR _	HSD-PDI-CC15A-15.5-16.0
-17 -17 -	4.5		dry	PT	<u> </u>	PEAT (degraded vegetated material), 80% 20% organic silt, (5YR 3/2) dark reddish t stiff, dry, no odor, no staining.	no staining. 6 organic fibers,	HSD-PDI-CC15A-16.0-16.5
-18 -			moist	OL	<u>'' </u>	Organic SILT, 90% organic silt, 10% organic silt, moist, no odor, no stai		_
-19						consistent with UNDorg.	-	
\dashv				NR		NO RECOVERY		+
-20								
l otes:	low surface	orade	COPR - chr	omite ore proc	essing r	esidue UNDno - non-organic undisturbed native de	eposits MGP - man	ufactured gas plant

AECOM

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-CC16A

Date Finis Logged By Physical L Depth Range fft bgs) 12	ted Drill shed Dri y: ES	ing: 5	5/27/2016	9:40:00 AM 6 10:40:00 AM PDI USCS	1	Rig Type: Core Size: 3.0 in Project Manager: Scott Mikaelian	Coordinates (NJSPN Coordinates (NJSPN Boring Total Depth: Depth to Water: NA	AD83) y : 682844 20 ft
Date Finis Logged By Physical L Depth Range fft bgs) 12	shed Dri y: ES Location ecovery (ft/ft)	n: Act PID (ppm)	5/27/2016 ual - HSD Moisture	6 10:40:00 AM	1	Core Size: 3.0 in Project Manager: Scott Mikaelian	Boring Total Depth: Depth to Water: NA	20 ft
Depth Range ft bgs)	y: ES Location ecovery (ft/ft)	n: Act PID (ppm)	ual - HSD Moisture	PDI		Project Manager: Scott Mikaelian	Depth to Water: NA	
Physical L Depth Range ff bgs) -1 -2 -	ecovery (ft/ft)	PID (ppm)	Moisture					
Depth Range (ft bgs)	ecovery (ft/ft)	PID (ppm)	Moisture					1.7 O ++ VIVI/LJOD
Range (ft bgs) ((ft/ft)	(ppm)		USCS	l		Surface Elevation:	13.0 IL INAVUÖÖ
_	4	0.0			Graphi Log	Surface Cover and Thickne	ess:	Sample ID
_	4			CONCRETE	P & 4	Concrete		
_	4		dry	FILL		CINDERS, little ash and fine gravel, (2.5YI reddish gray, loose, dry, no odor, no stainir		
-3			dry	FILL		ASH, some coal, (2.5Y 4/1) dark gray, loos no staining.	se, dry, no odor,	
-4				NR		NO RECOVERY		
-5	3.5	0.0	dry	FILL		ASH, trace glass, (7.5YR 4/2) brown, loose staining.	e, dry, no odor, no	
-8-			wet	FILL		fine to medium SAND, little ash, (5YR 3/1)	very dark grav	
			Wet	NR	XXXX	loose, wet, no odor, no staining, water at 8 NO RECOVERY		
-9 -10						NO RECOVERY		
	4	0.0	wet	FILL		ASH, some fine sand, (7.5YR 4/1) dark gra odor, no staining.	ay, loose, wet, no	
4				FIL.		fine silt CAND little cab (EV E/A) gray re	- di danak	
-14			wet	FILL	\bowtie	fine silty SAND, little ash, (5Y 5/1) gray, m no odor, no staining.	eaium aense, wet,	
-				NR		NO RECOVERY		
15		0.0	wet	FILL		ASH, (5Y 5/1) gray, loose, wet, slight petro	oleum odor, black	
-16			moist	FILL		staining. fine silty SAND, little coarse gravel, trace of 4/3) reddish brown, medium dense, moist,	organics, (5YR no odor, no	HSD-PDI-CC16A-16.0-16.5
-17	5		dry	PT	<u> </u>	PEAT (degraded vegetated material), 80% 20% organic silt, (5YR 3/4) dark reddish bi	rown, stiff, dry,	HSD-PDI-CC16A-16.5-17.0
-18 -19			dry	OL		Organic SILT, 80% organic silt, 20% organ 4/2) brown, soft, dry, slight organic odor, n consistent with UNDorg.	nic fibers, (7.5YR o staining. Soils	
20								
otes: gs - below M - meado				omite ore proce	essing re	esidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native deposi		factured gas plant omate chemical production wa

Boring ID: HSD-PDI-CC17A

	Number:					Drilling Method: Direct push	Coordinates (Noor	NAD83) x: 611431.2
Date St	arted Dril	ling: 5	5/31/2016	12:30:00 PM		Rig Type:	Coordinates (NJSPN	NAD83) y: 682813
Date Fi	nished Dr	illing:	5/31/2016	6 1:45:00 PM		Core Size: 3.0 in	Boring Total Depth:	
	By: ES					Project Manager: Scott Mikaelian	Depth to Water: NA	
	al Locatio	n: Act	ual - HSD	PDI			Surface Elevation:	
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thickne	ess:	Sample ID
		0.0		CONCRETE		Concrete		
-1-			dry	FILL		fine to medium SAND, some ash, little cin reddish brown, medium dense, dry, no odo		
-2 -	4.5							
-3— - -4—								HSD-PDI-CC17A-4.0-4.5
\dashv				NR	XXXX	NO RECOVERY		1
-5 		0.0		FILL		ASH, some fine to medium sand, trace fill gray, loose, dry, no odor, no staining.	debris, (2.5Y 5/1)	-
-6 -7 -	3.5							HSD-PDI-CC17A-6.0-6.5
-8-				NR		NO RECOVERY		HSD-PDI-CC17A-8.0-8.5
-9 -10				, and		NONEGOVERN		
_ 		0.0	wet	FILL		fine to coarse SAND, little silt and ash, (2. medium dense, wet, no odor, no staining,		HSD-PDI-CC17A-10.0-10.5
-12 - -13	4.5							HSD-PDI-CC17A-12.0-12.8
-14 				NID		NO DECOVEDY		HSD-PDI-CC17A-14.0-14.
-15				NR		NO RECOVERY		4
-		0.0	wet wet	FILL FILL		SILT, little ash, trace glass, (5YR 2.5/1) bl no odor, no staining. fine silty SAND, trace ash and organics, (7		HSD-PDI-CC17A-15.5-16.0
-16			wet	OL		medium dense, wet, no odor, no staining.	7.31K 4/2) DIOWII,	HSD-PDI-CC17A-16.0-16.5
-17 	0.5		ew of soil des er is meadow	criptions indicates mat (MM)		Organic SILT, 70% organic silt, 30% organ 4/2) brown, wet, slight organic odor, no sta consistent with UNDorg.		HSD-PDI-CC17A-16.5-17.0
-18	3.5				 			
_ -19				NR		NO RECOVERY		-
					essing r	esidue UNDno - non-organic undisturbed native de		ufactured gas plant
	adow mat		GGM - gree		_	UNDorg - organic undisturbed native depos		romate chemical production wa

Project Number: 60240739

Project Name: PPG Garfield Ave

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-CC18A

Date Started Drilling: 5/31/2016 8:30:00 AM

Page: 1 Drilling Company: SGS North America Coordinates (NJSPNAD83) x: 611417.6 Coordinates (NJSPNAD83) y: 682786.3

		illing:	5/31/2016	9:30:00 AM		Core Size: 3.0 in	Boring Total Depth:	
	I By: ES al Locatio	n: Act	ual HeD	DUI		Project Manager: Scott Mikaelian	Depth to Water: No. Surface Elevation:	
	ai Locatio	n: ACI	uai - nod	יוטו		1	Surface Elevation:	13.9 IL NAVD00
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and	Thickness:	Sample ID
		0.0		CONCRETE	P & 4	Concrete		
-1			dry	FILL		fine to medium SAND, some cinder black, dry, no odor, no staining.	s, trace ash, (5YR 2.5/1)	
-2	4.5		dry	FILL		ASH, trace ceramics, (2.5Y 5/1) gra	ay, loose, dry, no odor, no	
-3 -4	0		dry	FILL		staining. fine to medium SAND, little fine gra brown, medium dense, dry, no odor		HSD-PDI-CC18A-4.0-4.5
-				NR	****	NO RECOVERY		
-5 - -6- -		0.0	dry	FILL		fine to medium SAND, some ash, (medium dense, dry, no odor, no sta	5YR 4/3) reddish brown, ining.	HSD-PDI-CC18A-6.0-6.5
-7 -8	3.5		dry	FILL		fine to medium SAND, some wood, (5YR 2.5/1) black, loose, dry, no od		-
_				ND	XXX	NO DECOVEDY		HSD-PDI-CC18A-8.0-8.5
-9 				NR		NO RECOVERY		
-10 -11 - -12 -	4.5	0.0	wet	FILL		ASH, some fine to medium sand, lit gray, loose, wet, no odor, no stainin		HSD-PDI-CC18A-12.0-12.5
-13 - -14								HSD-PDI-CC18A-14.0-14.5
-15				NR		NO RECOVERY		
.5		0.0	wet	FILL		ASH, (2.5Y 5/1) gray, loose, wet, no	o odor, no staining.	
-16			moist	FILL		fine silty SAND, little wood, trace fir	ne gravel, (5YR 4/3)	HSD-PDI-CC18A-16.0-16.5
					\bowtie	reddish brown, medium dense, moi	st, no odor, no staining.	HSD-PDI-CC18A-16.5-17.0
-17 - -18	3.5		dry	PT		20% organic silt, (5YR 3/2) dark red	ddish brown, stiff, dry, no	HSD-PDI-CC18A-17.0-17.5
_ -19				NR		NO RECOVERY		1
ĬM - me	adow mat		GGM - gree	n grey mud		esidue UNDno - non-organic undisturbed n UNDorg - organic undisturbed native ft thick 3) No CCPW (COPR or GGM) present in any interval of	e deposits CCPW - ch	ufactured gas plant romate chemical production wa

Drilling Method: direct push

Rig Type:

A=COM

A.GDT

2012-09 RA PPG LOGS

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-CC19A

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: direct push Coordinates (NJSPNAD83) x: 611410.8 Date Started Drilling: 6/1/2016 8:30:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682763.3 Date Finished Drilling: 6/1/2016 10:30:00 AM Core Size: Boring Total Depth: 20 ft Depth to Water: NA Logged By: ES Project Manager: Scott Mikaelian Physical Location: Actual - HSD PDI Surface Elevation: 9.8 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range (ft/ft) Content ΙĎ (ppm) Log (ft bgs) 0.0 CONCRETE % Concrete dry **FILL** fine to medium SAND, some ash, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining. 4 0.0 fine to medium SAND, little fine gravel, (5YR 4/3) reddish dry **FILL** brown, medium dense, moist, no odor, no staining. 2 NR NO RECOVERY 0.0 **FILL** fine to medium SAND, little fine gravel, trace ash, (2.5Y wet 4/1) dark gray, medium dense, wet, no odor, no staining, water at 8.0 feet. 2 NR NO RECOVERY 0.0 wet FILL silty SAND, little fine gravel, trace ash, (5YR 4/1) dark gray, wet, no odor, no staining. HSD-PDI-CC19A-12.5-13.0 HSD-PDI-CC19A-13.0-13.5 PT PEAT (degraded vegetated material), 80% organic fibers, dry 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM. Organic SILT, 75% organic silt, 25% organic fibers, (5YR moist OL 5/1) gray, soft, moist, no odor, no staining. Soils consistent with UNDorg. NR NO RECOVERY 16 0.0 moist OL Organic SILT, 90% organic silt, 10% organic fibers, (2.5Y 5/1) gray, soft, moist, no odor, no staining. Soils consistent with UNDorg. 19 bgs - below surface grade MM - meadow mat COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant CCPW - chromate chemical production waste GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

A E C O M

A.GDT - 1/6/17 14:

2012-09 RA PPG LOGS

Project Name: PPG Garfield Ave

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-DD10A

Page: 1

Coordinates (NJSPNAD83) x: 611554.6

Project Number: 60240739 Drilling Method: Direct Push Date Started Drilling: 5/23/2016 12:30:00 PM Rig Type: Coordinates (NJSPNAD83) y: 682989.7 Date Finished Drilling: 5/23/2016 1:00:00 PM Core Size: 3.0 in Boring Total Depth: 20 ft Project Manager: Scott Mikaelian Depth to Water: NA Logged By: ES Physical Location: ACTUAL - HSD PDI Surface Elevation: 13.6 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Content ΙĎ (ft/ft) (ppm) Log (ft bgs) 0.0 CONCRETE Concrete FILL Ash, some to little cinders, (2.5Y 5/2) grayish brown, loose, dry dry, no odor, no staining. HSD-PDI-DD10A-2.0-2.5 4.5 HSD-PDI-DD10A-4.0-4.5 NR NO RECOVERY 0.0 **FILL** Ash, little coal, (7.5YR 5/1) gray, loose, dry, no odor, no dry staining. HSD-PDI-DD10A-6.0-6.5 **FILL** fine to medium SAND, some cinders, little ash, (7.5YR 4/2) dry brown, medium dense to loose, dry to moist, no odor, no 4.5 moist staining. HSD-PDI-DD10A-8.0-8.5 **FILL** fine to medium SAND, some wood, little ash, trace ceramics, wet (7.5YR 2.5/2) very dark brown, loose, wet, no odor, no NR staining, water at 9.0 feet. NO RECOVERY 0.0 FILL wet Ash, trace fill debris, (2.5Y 5/1) gray, loose, wet, no odor, no staining. 12 HSD-PDI-DD10A-12.0-12.5 4.5 13 HSD-PDI-DD10A-14.0-14.5 **FILL** SILT, little wood, trace ash, (7.5YR 2.5/2) very dark brown, wet soft, wet, no odor, no staining. NR NO RECOVERY HSD-PDI-DD10A-15.0-15.5 2.0 FILL sandy SILT, some organics, little ash, (5YR 4/3) reddish moist brown, soft, moist, no odor, no staining.
PEAT (degraded vegetated material), 80% organic fibers, HSD-PDI-DD10A-15.5-16.0 PT dry 16 1/ 1/1/ V 20% organic silt, (5YR 3/2) dark reddish brown, firm, dry, slight organic odor, no staining. Soils consistent with MM. 11, 11, 1/ 1/1/ 1 1/ マン OL Organic SILT, 80% organic SILT, 20% organic fibers, moist (7.5YR 4/2) brown, soft, moist, slight organic odor, no NR staining. Soils consistent with UNDorg. NO RECOVERY UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits bgs - below surface grade MM - meadow mat COPR - chromite ore processing residue MGP - manufactured gas plant CCPW - chromate chemical production waste GGM - green grey mud

Drilling Company: SGS North America

Boring ID: HSD-PDI-DD11A

late Started Drivate Finished Expression of the property of th	Orilling: S on: Act	5/26/2016	6 9:30:00 AM	Graphic Log	Core Size: 3.0 in Project Manager: Scott Mikaelian Surface Elevation: Surface Cover and Thickness: Concrete ASH, little cinders, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, little wood, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining. fine to medium SAND, some fine gravel, little ash, (7.5YR 4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet. NO RECOVERY	A
Second Recover (ft/ft) Rec	on: Act y PID (ppm) 0.0	dry moist to wet	PDI USCS CONCRETE FILL NR FILL NR	Graphic Log	Project Manager: Scott Mikaelian Surface Elevation: Surface Cover and Thickness: Concrete ASH, little cinders, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, little wood, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining. fine to medium SAND, some fine gravel, little ash, (7.5YR 4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet. NO RECOVERY	A 13.4 ft NAVD88 Sample ID HSD-PDI-DD11A-0.4-0.9 HSD-PDI-DD11A-4.0-4.5
Recover (ft/ft)	y PID (ppm) 0.0	dry moist to wet	USCS CONCRETE FILL NR FILL NR	Graphic Log	Surface Cover and Thickness: Concrete ASH, little cinders, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, little wood, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining. fine to medium SAND, some fine gravel, little ash, (7.5YR 4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet. NO RECOVERY	HSD-PDI-DD11A-4.0-4.5 HSD-PDI-DD11A-6.0-6.5
Depth leading to both	y PID (ppm) 0.0	dry moist to wet	USCS CONCRETE FILL NR FILL NR	Log	Surface Cover and Thickness: Concrete ASH, little cinders, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, little wood, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining. fine to medium SAND, some fine gravel, little ash, (7.5YR 4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet. NO RECOVERY	HSD-PDI-DD11A-4.0-4.5 HSD-PDI-DD11A-6.0-6.5
Recover Reco	0.0 0.0	dry dry moist to wet	NR FILL FILL	Log	Concrete ASH, little cinders, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, little wood, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining. fine to medium SAND, some fine gravel, little ash, (7.5YR 4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet. NO RECOVERY	HSD-PDI-DD11A-4.0-4.5 HSD-PDI-DD11A-6.0-6.5
- 4.5 -3 - 4.5 -3	0.0	dry moist to wet	NR FILL NR		ASH, little cinders, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, little wood, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining. fine to medium SAND, some fine gravel, little ash, (7.5YR 4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet. NO RECOVERY	HSD-PDI-DD11A-4.0-4.5
- 4.5 -3 - 4.5 -3		dry moist to wet	NR FILL FILL		NO RECOVERY ASH, little wood, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining. fine to medium SAND, some fine gravel, little ash, (7.5YR 4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet. NO RECOVERY	HSD-PDI-DD11A-4.0-4.5
-6 - 3.5 -8 - 3.5 -8 - 1012 - 4.5 -1314		moist to wet	FILL FILL NR		ASH, little wood, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining. fine to medium SAND, some fine gravel, little ash, (7.5YR 4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet. NO RECOVERY	HSD-PDI-DD11A-6.0-6.5
-6 - 3.5 -8 - 3.5 -8 - 1012 - 4.5 -1314		moist to wet	FILL FILL NR		ASH, little wood, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining. fine to medium SAND, some fine gravel, little ash, (7.5YR 4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet. NO RECOVERY	
-6 - 3.5 -8 - 3.5 -8 - 1012 - 4.5 -1314		moist to wet	FILL FILL NR		ASH, little wood, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining. fine to medium SAND, some fine gravel, little ash, (7.5YR 4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet. NO RECOVERY	
-8— -9— -10— -11— -12— -4.5 13— -14— -	0.0	to wet	NR		4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet. NO RECOVERY	
-8— -9— -10— -11— -12— -13— -14— -14—	0.0	to wet	NR		4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet. NO RECOVERY	HSD-PDI-DD11A-8.0-8.5
	0.0	wet				HSD-PDI-DD11A-8.0-8.5
	0.0	wet		××××		
	0.0	wet	FILI	 		
	0.0	wet	FILI	XXXX	A	⊣
4.5 13— 14—					fine to medium SAND, some fine gravel, trace ash, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining.	1100 000 000 000
		wet	FILL		ASH, little fine to medium sand, (2.5Y 5/2) grayish brown, loose, wet, no odor, no staining.	HSD-PDI-DD11A-12.0-12.5
15						HSD-PDI-DD11A-14.0-14.5
15			NR	T X X X X	NO RECOVERY	
16	0.0	wet	FILL		fine SAND, trace ash and glass, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining.	
-16					8	HSD-PDI-DD11A-16.0-16.5
_ 7		wet	FILL		fine silty SAND, some coarse gravel, (5YR 4/3) reddish	HSD-PDI-DD11A-16.5-17.0
17—		dry	PT	<u> </u>	brown, medium dense, wet, no odor, no staining.	HSD-PDI-DD11A-17.0-17.5
18 -				// V// V	moderate organic odor, no staining. Soils consistent with	
19—		moist	OL	 	Organic SILT, 80% organic SILT, 20% organic fibers, (2.5Y	+
20			<u> </u>	===	5/1) gray, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg.	
20						
surfac	e grade	COPR - chr	romite ore proc	essing re	esidue UNDno - non-organic undisturbed native deposits MGP - mar	nufactured gas plant nromate chemical production wa

Boring ID: HSD-PDI-DD12A

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Page: 1

Project Project	Number:		739			Drilling Method: direct push	Coordinates (N.ISPI	NAD83) x: 611526.6
				9:30:00 AM		Rig Type:		NAD83) y: 682935.9
				6 10:55:00 AM		Core Size: 3 in	Boring Total Depth:	
	By: ES	iiiiig.	3/23/2010	3 10.33.00 AIV		Project Manager: Scott Mikaelian	Depth to Water: NA	
		n: Act	ual - HSD	PDI		i roject manager. Scott Mikaelidii	Surface Elevation:	
пузіса	ii Locatio	II. ACI	uai - 110D	i Di			Surface Lievation.	19.0 11 11 11 1000
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thic	kness:	Sample ID
		0.0		CONCRETE	P 4 4	Concrete		
-1-			dry	FILL		ASH, little fine to medium sand, trace f 4/2) brown, medium dense, dry, no odo	or, no staining.	HSD-PDI-DD12A-0.4-0.9
-2 -3 -4	4.5		dry	FILL		ASH, little coal, (2.5Y 4/2) dark grayish odor, no staining.	brown, loose, dry, no	HSD-PDI-DD12A-2.0-2.5
· _l					XXX	8		HSD-PDI-DD12A-4.0-4.5
_ ٦				NR		NO RECOVERY		
-5 - -6		0.0	dry	FILL		ASH, little coal, (2.5Y 4/2) dark grayish odor, no staining.	brown, loose, dry, no	HSD-PDI-DD12A-6.0-6.5
-7— - -8—	3.5		moist	FILL		ASH, some fine to medium sand, little (5YR 2.5/1) black, loose, moist, no odd		HSD-PDI-DD12A-8.0-8.5
4					$\times\!\!\times\!\!\times\!\!\times$			1100 1 01 00 12/1 0:0 0:0
-9 -10				NR		NO RECOVERY		
-11		0.0	moist	FILL		ASH, some fine to medium sand, little (5YR 2.5/1) black, loose, wet, no odor, 10.0 feet.	no staining, water at	HSD-PDI-DD12A-10.0-10.5
	4.5		saturated	FILL		fine to coarse sandy GRAVEL, (2.5Y 4 saturated, no odor, no staining.	/1) dark gray, loose,	HSD-PDI-DD12A-12.0-12.5
-14					XXX	8		HSD-PDI-DD12A-14.0-14.5
\dashv				NR	XXXX	NO RECOVERY		-
15		0.0	wet	FILL		ASH, little fine gravel, (2.5Y 4/1) dark godor, no staining.	gray, loose, wet, no	-
-16			wet	FILL		SILT, little fine gravel, trace ash and fill	debris, (7.5YR 4/2)	HSD-PDI-DD12A-16.0-16.5
-17 -18	3.5		dry			PEAT (degraded vegetated material), 8 20% organic silt, (5YR 3/2) dark reddis odor, no staining. Soils consistent with	h brown, stiff, drv. no	HSD-PDI-DD12A-16.5-17.0
\dashv				NR		NO RECOVERY		1
-19 -				1417		TO NEOVEN		
20								
					essing re	esidue UNDno - non-organic undisturbed native		ufactured gas plant
ııvı - mea	adow mat		שטט - gree	en grey mud		UNDorg - organic undisturbed native de	posits CCPW - ch	romate chemical production wa

AECOM

Boring ID: HSD-PDI-DD13A

732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Coordinates (NJSPNAD83) x: 611510.5 Drilling Method: direct push Date Started Drilling: 5/25/2016 10:55:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682908.8 Date Finished Drilling: 5/25/2016 12:00:00 PM Core Size: 3 in Boring Total Depth: 20 ft Depth to Water: NA Logged By: ES Project Manager: Scott Mikaelian Physical Location: Actual - HSD PDI Surface Elevation: 13.6 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Content ΙD (ft/ft) (ppm) Log (ft bgs) 0.0 CONCRETE Concrete HSD-PDI-DD13A-0.5-1.0 FILL ASH, little fine sand, trace glass, (5Y 5/1) gray, loose, dry, dry no odor, no staining FILL fine to medium SAND, some wood, little ash, (7.5YR 4/2) dry brown, medium dense, dry, no odor, no staining. HSD-PDI-DD13A-2.0-2.5 4.5 dry FILL CINDERS, some fine to medium gravel, little ash, (5YR 3/2) dark reddish brown, loose, dry, no odor, no staining. HSD-PDI-DD13A-4.0-4.5 NR NO RECOVERY 0.0 **FILL** ASH, trace coal, (5Y 5/1) gray, loose, dry to moist, no odor, dry no staining. to moist HSD-PDI-DD13A-6.0-6.5 3.5 HSD-PDI-DD13A-8.0-8.5 **FILL** CINDERS, little ash, trace coal, (2.5Y 3/1) very dark gray, moist loose, moist, no odor, no staining. NR NO RECOVERY HSD-PDI-DD13A-10 0-10 5 0.0 FILL CINDERS, little ash, (2.5Y 3/1) very dark gray, loose, wet, wet no odor, no staining, water at 10.0 feet. FILL wet ASH, (5Y 5/1) gray, loose, wet, no odor, no staining. 12 HSD-PDI-DD13A-12.0-12.5 4.5 13 HSD-PDI-DD13A-14.0-14.5 NO RECOVERY NR 0.0 FILL CINDERS, little ash, (2.5Y 3/1) very dark gray, loose, wet, wet no odor, no staining. **FILL** wet fine silty SAND, some fine gravel, trace organics, (5YR 4/4) 16 HSD-PDI-DD13A-16.0-16.5 reddish brown, medium dense, wet, no odor, no staining. HSD-PDI-DD13A-16.5-17.0 PT PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 2.5/2) dark reddish brown, stiff, dry, 1/ 1/1/ V slight organic odor, no staining. Soils consistent with MM. <u>/// ///</u> 1, 11, 1 OL Organic SILT, 80% organic SILT, 20% organic fibers, moist 19 (7.5YR 4/2) brown, soft, moist, slight organic odor, no NR staining. Soils consistent with UNDorg. NO RECOVERY 20

Notes

A.GDT - 1/6/17 14:

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) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Boring ID: HSD-PDI-DD14A

	Number:			0.25.00 444		Drilling Method: direct push	Coordinates (NJSPN	<u> </u>
				9:35:00 AM 6 10:45:00 AM		Rig Type: Core Size: 3.0 in	Coordinates (NJSPN Boring Total Depth:	
	I By: ES	ming.	JIZUIZU 11	7 10.79.00 AIV		Project Manager: Scott Mikaelian	Depth to Water: NA	
	al Locatio	n: Act	ual - HSD	PDI			Surface Elevation:	
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thickno	ess:	Sample ID
		0.0		CONCRETE	P 4 4	Concrete		
-1-			dry	FILL		CINDERS, some ash, (2.5Y 5/2) grayish t no odor, no staining.	brown, loose, dry,	HSD-PDI-DD14A-0.5-1.0
-2 -3 -4	4.5		dry	FILL		ASH, trace coal, (2.5Y 5/1) gray, loose, dr staining.	ry, no odor, no	HSD-PDI-DD14A-2.0-2.5 HSD-PDI-DD14A-4.0-4.5
_					XXXX			1130-1 01-00 14A-4.0-4.3
-5-				NR		NO RECOVERY		
-6-		0.0	moist	FILL		ASH, some wood, (5Y 5/1) gray, loose, mostaining.	oist, no odor, no	100 00 00
					\bowtie			HSD-PDI-DD14A-6.0-6.5
-7- -	3.5		dry to moist	FILL		CINDERS, some ash, little coal and wood gray, loose, dry to moist, no odor, no stain		
-8-			wet	FILL		ASH, some wood, little glass, (5YR 2.5/1)	black, loose, wet,	HSD-PDI-DD14A-8.0-8.5
-				NR	XXXX	no odor, no staining, water at 8.0 feet. NO RECOVERY		
-10 - -11 -		0.0	wet	FILL		ASH, some fine sand, little fine gravel, tracgray, loose, wet, no odor, no staining.	ce glass, (5Y 5/1)	
-12 -13 -14	4.5							HSD-PDI-DD14A-12.0-12.5 HSD-PDI-DD14A-14.0-14.5
╛				NR	XXXXX	NO RECOVERY		
-15		0.0	wet	FILL		ASH, some fine to medium sand, little fine	e gravel, (5Y 5/1)	
\dashv			wet	FILL		gray, loose, wet, no odor, no staining.		HSD-PDI-DD14A-15.5-16.0
-16			dry	PT	<u> </u>			HSD-PDI-DD14A-16.0-16.5
	2.5				<u> </u>	\staining.	organic fibers,	
\dashv	3.5		moist	OL		moderate organic odor, no staining. Soils		
-18					<u> </u>	MM. Organic SILT, 80% organic SILT, 20% org	gania fibora	
_ -19				NR		(7.5YR 4/2) brown, soft, moist, slight organistation. Soils consistent with UNDorg.		
_ +						NO RECOVERY		
-20						•		
otes:	ow surface	grade	COPR - chi	omite ore proc	essing re	esidue UNDno - non-organic undisturbed native de	eposits MGP - manu	factured gas plant

AECOM

Boring ID: HSD-PDI-DD15A

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: 611483.4 Date Started Drilling: 5/26/2016 10:00:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682851.7 Date Finished Drilling: 5/26/2016 11:40:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft Logged By: HBB Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual - HSD PDI Surface Elevation: 13.9 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙĎ (ft/ft) (ppm) Content Log (ft bgs) 0.0 CONCRETE Concrete fine to medium SAND, little fine to medium gravel, (7.5YR FILL dry 4/2) brown, loose, dry, no odor, no staining. HSD-PDI-DD15A-1.6-2.1 moist **FILL** ASH, trace cinders, coal and wood, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining. 4.5 HSD-PDI-DD15A-3.5-4.0 NR NO RECOVERY NR NO RECOVERY HSD-PDI-DD15A-5.5-6.0 0.0 FILL moist ASH, trace cinders, coal and glass, (7.5YR 4/2) brown, medium dense, moist to saturated, water at 9.0 feet. to saturated HSD-PDI-DD15A-7.5-8.0 4.5 HSD-PDI-DD15A-9.5-10.0 0.0 FILL saturated ASH, trace cinders, coal and glass, (7.5YR 4/2) brown, medium dense, saturated, no odor, no staining. **FILL** CINDERS, trace coal, glass and metal debris, (5Y 5/1) gray, saturated loose, saturated, no odor, no staining. HSD-PDI-DD15A-11 5-12 0 12 4.5 13 HSD-PDI-DD15A-13.5-14.0 NR NO RECOVERY 0.0 FILL CINDERS, trace coal, (5Y 5/1) gray, loose, saturated, no saturated odor, no staining. HSD-PDI-DD15A-15 5-16 0 **FILL** moist fine SAND, little silt, trace fine gravel, (7.5YR 4/2) brown, 16 HSD-PDI-DD15A-16.0-16.5 dry PT medium dense, moist, slight petroleum odor, slight black staining. PEAT (degraded vegetated material), 80% organic fibers, 11, 11, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, 4.5 slight organic odor, no staining. Soils consistent with MM. moist OL Organic SILT, 90% organic silt, 10% organic fibers, (5Y 5/1) gray, medium stiff, moist, no odor, no staining. Soils consistent with UNDorg. NR NO RECOVERY 20

Notes

A.GDT

2012-09 RA PPG LOGS

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

A E C O M

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-DD16A

	Name: F Number:					Drilling Company: SGS North America Drilling Method: direct push	Coordinates (NJSPN	AD83) x: 611469.8
				10:50:00 AM		Rig Type:	Coordinates (NJSPN	<u> </u>
				3 11:50:00 AM	1	Core Size: 3.0 in	Boring Total Depth:	
	By: ES					Project Manager: Scott Mikaelian	Depth to Water: NA	
		n: Act	ual - HSD I	PDI			Surface Elevation:	
_								
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thick	ness:	Sample ID
		0.0		CONCRETE	P	Concrete		
. 7			dry	FILL		fine to coarse GRAVEL, (5Y 5/1) gray, d	rv. no odor. no	
-1			dry	FILL		staining.		
\dashv			,		>>>>	ASH, little cinders, trace fill debris, (2.5Y	5/2) grayish brown,	
-2-					>>>>	loose, dry, no odor, no staining.		
_	4				\bowtie			
-3-					\bowtie			
-3-					\bowtie			
					\bowtie			
-4				NR	XXXX	NO RECOVERY		
\dashv				INIX		THO INCOVERY		
-5-		0.0	dn.	EII I		ASH some fine to medium and trace fi	III dobrie (7 EVD	
4		0.0	dry	FILL	\bowtie	ASH, some fine to medium sand, trace fi 4/2) brown, loose, dry, no odor, no staini		
-6-					\bowtie		·· ɔ ·	
_					\bowtie	8		
_ 7					\bowtie	8		
-7-	<u>, </u>				\bowtie	8		
4	3.5				\bowtie	×		
-8-				F.: .	XXX	A 211 1111 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
			wet	FILL	\bowtie	ASH, little fine to medium sand, (5Y 5/1)	gray, loose, moist,	
9				NR		no odor, no staining NO RECOVERY	/	
9 —								
16								
-10		0.0	wet	FILL		ASH, little fine to medium sand, trace wo	ood, (5Y 5/1) grav.	
\dashv					XXX	wet, no odor, no staining, water at 10.0 f		
-11					>>>>	×		
_					>>>>	×		
-12					>>>>	×		
·	4				>>>>	×		
7					XXX	×		
-13					\bowtie	×		
\dashv					\bowtie	×		
-14				NR	XXXX	NO RECOVERY		
_ +				',''`				
15		0.0	wet	FILL		ASH, (5Y 5/1) gray, loose, wet, slight per	roleum odor, black	
_16 7			moist	FILL		staining. fine silty SAND, little coarse gravel, trace	organics (5YR	
-16					\bowtie	4/3) reddish brown, medium dense, mois	st, no odor, no	HSD-PDI-DD16A-16.0-16.5
_ 7			dry	PT	<u> </u>		N annual of th	HSD-PDI-DD16A-16.5-17.0
-17	_		-		1, 11,	PEAT (degraded vegetated material), 80° 20% organic silt, (5YR 3/2) dark reddish		
\dashv	5				<u> </u>			
-18				01		<u> </u>		
			moist	OL	<u> </u>	Organic SILT, 80% organic silt, 20% org 4/2) brown, soft, moist, no odor, no stain	anic siit, (7.5YK	
-19					<u> </u>	with UNDorg.	g. 00113 001131310111	
.5					<u> </u>	<u>-</u>		
					<u> </u>	-		
20						-		
otos:								
otes:	ow surface	grade			essing r	esidue UNDno - non-organic undisturbed native o		factured gas plant
12 - DEIC				en grey mud	J .	UNDorg - organic undisturbed native depo		omate chemical production wa

AECOM

Boring ID: HSD-PDI-DD17A

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: 611456.8 Drilling Method: direct push Date Started Drilling: 5/31/2016 10:30:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682799 Date Finished Drilling: 5/31/2016 11:30:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft Logged By: ES Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual - HSD PDI Surface Elevation: 13.6 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙĎ (ft/ft) (ppm) Content Log (ft bgs) 0.0 CONCRETE Concrete HSD-PDI-DD17A-0 7-1 2 **FILL** CINDERS, little fine gravel, (7.5YR 2.5/1) black, loose, dry, dry no odor, no staining. FILL ASH, little fine to medium sand, (2.5Y 5/1) gray, loose, dry, dry no odor, no staining. HSD-PDI-DD17A-2.0-2.5 4.5 HSD-PDI-DD17A-4.0-4.5 NR NO RECOVERY ASH, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no 0.0 **FILL** drv staining. HSD-PDI-DD17A-6.0-6.5 3.5 **FILL** CINDERS, little coal, trace ash, (7.5YR 2.5/1) black, loose, dry dry, no odor, no staining. HSD-PDI-DD17A-8.0-8.5 NO RECOVERY NR HSD-PDI-DD17A-10 0-10 5 0.0 FILL CINDERS, trace ash, (7.5YR 2.5/1) black, loose, dry, no dry odor, no staining. **FILL** dry CINDERS, some ash, little fine to medium sand, (2.5Y 5/2) grayish brown, loose, wet, no odor, no staining, water at 11.0 feet. 12 HSD-PDI-DD17A-12.0-12.5 4.5 13 FILL ASH, (5Y 5/1) gray, loose, wet, no odor, no staining. wet HSD-PDI-DD17A-14.0-14.5 **FILL** CINDERS, (5YR 2.5/1) black, loose, wet, no odor, no wet staining. NO RECOVERY NR 0.0 FILL wet CINDERS, some ash, (5YR 2.5/1) black, loose, wet, no odor, no staining. HSD-PDI-DD17A-15 5-16 0 FILL wet SILT, little cinders, trace organics, (5YR 4/3) reddish brown, 16 HSD-PDI-DD17A-16.0-16.5 PΤ dry soft, wet, no odor, no staining. PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, firm, dry, OL moist slight organic odor, no staining. Soils consistent with MM. 3 Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, no odor, no staining. Soils consistent NR with UNDorg NO RECOVERY 19 20

Notes

A.GDT - 1/6/17 14:

2012-09 RA PPG LOGS

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.

Boring ID: HSD-PDI-DD18A

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: 611444.5 Date Started Drilling: 6/2/2016 10:30:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682774 Date Finished Drilling: 6/2/2016 11:30:00 AM Core Size: 3.0 in Boring Total Depth: 15 ft

	d By: HBE					Project Manager: Scott Mikaelian	1	
Physic	al Locatio	n: Act	ual - HSD	PDI		Surface Elevation:		10.7 ft NAVD88
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thickne	ess:	Sample ID
		0.0		CONCRETE	P 4 4	Asphalt and gravel sub-base		
—1— —1—			dry	FILL		fine to coarse SAND, some to little mediun 4/2) brown, medium dense, dry, no odor, i	m gravel, (7.5YR no staining.	HSD-PDI-DD18A-0.5-1.0
	4.5		dry	FILL		ASH, little wood, trace glass, (2.5Y 5/2) gloose, dry, no odor, no staining.	rayish brown,	HSD-PDI-DD18A-2.0-2.5
			dry	FILL		fine to medium SAND, little fine gravel, tra reddish brown, medium dense, dry, no od	ace ash, (5YR 4/3) or, no staining.	
4			dry	FILL		ASH, little wood and coal, (7.5YR 3/1) ver dry, no odor, no staining.	y dark gray, loose,	HSD-PDI-DD18A-4.0-4.5
5 		0.0	moist to	NR FILL		NO RECOVERY ASH, some fine to coarse sand, trace coa loose, moist to wet, no odor, no staining, v	I, (2.5Y 5/1) gray, vater at 6.0 feet.	
6 7 7	3.5		wet					HSD-PDI-DD18A-6.0-6.5
8					\bowtie			HSD-PDI-DD18A-8.0-8.5
9				NR		NO RECOVERY		
—10— — —11—		0.0	wet	FILL		ASH, (2.5Y 5/1) gray, loose, wet, no odor,	no staining.	HSD-PDI-DD18A-10.0-10.5
			wet	FILL		fine silty SAND, little fine gravel, trace org	anics, (5YR 4/3)	
12-	4					reddish brown, medium dense, wet, no od	lor, no staining.	HSD-PDI-DD18A-12.0-12.5
Γ.,] '				\bowtie			HSD-PDI-DD18A-12.5-13.0
13 14			dry		<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	20% organic silt, (5YR 3/2) dark reddish b	prown, stiff, dry,	HSD-PDI-DD18A-13.0-13.5
-				NR		NŎ REČOVERY		
15								

PPG - 2012-09 RA PPG_LOGS_A.GDT - 1/6/17 14:55

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

Boring ID: HSD-PDI-DD19A

Page: 1

	Name: F					Drilling Company: SGS North America	Coordinates (N ISD	NAD23) v. 611421								
	Number:			15:00 414		Drilling Method: Direct Push	SPNAD83) x: 611431									
			6/3/2016 9:			Rig Type: Coordinates (NJSP										
			0/3/2016	10:20:00 AM		Core Size: 3.0 in	Boring Total Depth:									
	By: HBE		ual - HSD F	וכונ		Project Manager: Scott Mikaelian	Depth to Water: N									
riysica	II LOCATIO	ıı. ACt	uai - HSD F	וט־		1	Surface Elevation:	IU./ IL INAVDOO								
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—	5		dry	FILL		fine to coarse SAND, trace medium grave (7.5YR 2.5/3) very dark brown, loose, dry staining.	el and fill debris, v, no odor, no	HSD-PDI-DD19A-1.0-1.5 HSD-PDI-DD19A-2.0-2.5								
-3 -4			moist	FILL		ASH, trace cinders and fill debris (7.5YR	3/2) dark brown.	HSD-PDI-DD19A-4.0-4.5								
-5-		0.0				medium dense, moist, no odor, no stainir	ng.									
-6- -		0.0	0.0	0.0	0.0	0.0	0.0	0.0	moist	FILL		ASH, little silt, trace cinders and glass, (7 brown, medium dense, moist, no odor, no		HSD-PDI-DD19A-6.0-6.5		
-7 - -8	3.5															
-9				NR	XXXX	NO RECOVERY										
-10		0.0	saturated	FILL		fine to medium GRAVEL, trace cinders, a (5Y 5/1) gray, loose, saturated, no odor, i	no staining.	HSD-PDI-DD19A-10.0-10.5								
-			wet	FILL		SILT, little fine sand, trace fine gravel, (7 brown, medium dense, wet, no odor, no	staining.	HSD-PDI-DD19A-11.3-11.8								
-12 - -13	3.5		dry	PT	<u> </u>	20% organic silt, (5YR 3/2) dark reddish moderate organic odor, no staining. Soils	brown, stiff, dry,	NSD-FDI-DD 19A-11.0-12.3								
14-			moist	OL NR		MM. Organic SILT, 90% organic silt, 10% orgary, soft, moist, slight organic odor, no sconsistent with UNDorg. NO RECOVERY	anic fibers, (5Y 5/1) staining. Soils									
15						NO NEGOVERI										
	ow surface		COPR - chro		essing r	esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo		ufactured gas plant romate chemical production wa								
					med to be	1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring										

Test Pit ID: HSD-PDI-DD19A-R

Page: 1

Project	t Name: F	PPG Ga	rfield Ave			Drilling Company:					
	Number:					Drilling Method: Te	est Pit		NAD83) x: 611432.2		
	tarted Dril					Rig Type: Soft Dig		Coordinates (NJSPN			
	inished Dr					Core Size: Test Pit		Boring Total Depth:			
	d By: JH					Project Manager: A	imee Ruiter	Depth to Water: NA			
Physic	al Locatio	n:						Surface Elevation:			
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	s	ourface Cover and Thic		Sample ID		
				ASPHALT		Asphalt					
 1			Dry	FILL		fine to coarse SA	AND, trace medium grayy dark brown, loose, o	avel and fill debris,			
						staining	ry dark brown, loose, (ary, no odor, no	HSD-PDI-DD19A-R-1.8-2.3 HSD-PDI-DD19A-R-1.8-2.3X		
—2—									1130-1 01-00 1974-(-1.0-2.37		
Notes: bas - be	low surface	grade	COPR - chr	omite ore proce	essina re	esidue UNDno - non-or	raanic undisturbed native	e deposits MGP - manı	ufactured gas plant		
MM - me	eadow mat	J. 240	GGM - gree	n grey mud	- Joig 10	esidue UNDno - non-or UNDorg - organ	ic undisturbed native de	posits CCPW - chr	ufactured gas plant comate chemical production waste		

PPG - 2012-09 RA PPG_LOGS_A.GDT - 12/2/22 15:07

Boring ID: HSD-PDI-EE8A

Project !	Number:	60240	730			Drilling Method: Direct Push	Coordinates (N ISDN	AD83) v. 611606 2	
				11:00:00 AM		Rig Type:	PNAD83) x: 611606.2		
			5/23/2016			Core Size: 2.0 in	Coordinates (NJSPN/ Boring Total Depth:		
	By: HBE		J12J12U10	,		Project Manager: Scott Mikaelian	Depth to Water: NA		
			TUAL - HS	D PDI		1. 10 Jost Manager. Ocott Minacilan	Surface Elevation:		
	554110	,\0	. J. L. 110	51			Januaro Elevationi.	.5.5 1(14.14.000	
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thick	ness:	Sample ID	
		0.0		CONCRETE		Concrete			
-			moist	FILL		fine to coarse SAND, little silt, trace fine	to medium gravel	HSD-PDI-EE8A-0.5-1.0	
-1-			moist	FILL	$\Rightarrow \Rightarrow \Rightarrow$	and fill debris, (7.5YR 4/2) brown, mediu	m dense, moist, no		
-2	3		moist			\odor, no staining. ASH, trace coal, (7.5YR 4/2) brown, med no odor, no staining.	dium dense, moist,	HSD-PDI-EE8A-2.5-3.0	
-3-				NR	***	NO RECOVERY		1105 1 51 223/(2.0 0.0	
-4		0.0			~~~				
4		0.0	moist	FILL	\ggg	ASH, trace coal and fill debris, (7.5YR 4/ dense, moist, no odor, no staining.	2) brown, medium	HSD-PDI-EE8A-4.5-5.0	
-5-					XXX			1100-F DI-LEOM-4.0-0.U	
-6	3		moist	FILL		fine to medium SAND, some fine gravel, glass, (5Y 5/1) gray, medium dense, moi staining.	trace cinders and ist, no odor, no	HSD-PDI-EE8A-6.5-7.0	
-7-				NR	XXXX	NO RECOVERY			
-8		1.0	moist to wet	FILL		fine to medium SAND, little fine gravel ar ash, (5Y 5/1) gray, loose, moist to wet, n water at 9.0 feet.	nd cinders, trace o odor, no staining,	HSD-PDI-EE8A-8.5-9.0	
-10	3							HSD-PDI-EE8A-10.5-11.0	
11—				NR	XXX.	NO RECOVERY			
-12		0.0	moist	FILL		fine to coarse SAND, little fine gravel and	d cinders, trace ash		
-13 -14	3					and coal, (5YR 2.5/1) black, loose, moist staining.	r, no odor, no	HSD-PDI-EE8A-12.5-13.0	
\dashv					\ggg			HSD-PDI-EE8A-14.5-15.0	
-15 -				NR	(XXX)	NO RECOVERY			
16		0.4	wet	FILL		fine to medium SAND, little silt, (5YR 4/3	3) reddish brown,	HSD-PDI-EE8A-16.0-16.5	
-17			dry	PT	<u> </u>	PEAT (degraded vegetated material), 80° 20% organic silt, (5YR 2.5/2) dark reddis	sh brown, medium	HSD-PDI-EE8A-16.5-17.0	
-18	2.5		wet	ML		consistent with MM. fine to medium sandy SILT, (5Y 5/1) grav	y, medium dense,		
-19				NR		wet, no odor, no staining. Soils consister NO RECOVERY	nt with UNDno.		
20									
otes:	ow surface	grade	COPR - chr	omite ore proce	ssina r	esidue UNDno - non-organic undisturbed native o	deposits MGP - manu	factured gas plant	
	adow mat			n grey mud	···· · · ·	UNDorg - organic undisturbed native depo		omate chemical production wa	

Boring ID: HSD-PDI-EE9A

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: 611593.3 Drilling Method: direct push Date Started Drilling: 5/24/2016 7:50:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683002.1 Date Finished Drilling: 5/24/2016 8:50:00 AM Core Size: 2 in Boring Total Depth: 20 ft Logged By: ES Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual - HSD PDI Surface Elevation: 13.9 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Content ΙD (ft/ft) (ppm) Log (ft bgs) 0.0 CONCRETE Concrete HSD-PDI-EE9A-0.4-0.9 Ash, little coal, (5Y 5/1) gray, loose, dry, no odor, no dry **FILL** staining. 4 HSD-PDI-EE9A-2.0-2.5 HSD-PDI-EE9A-4.0-4.5 0.0 FILL dry Ash, (7.5YR 5/1) gray, loose, dry, no odor, no staining. FILL fine to medium SAND, little ash, (7.5YR 4/2) brown, loose, moist moist, no odor, no staining. HSD-PDI-EE9A-6.0-6.5 moist FILL Ash, trace coal, (2.5Y 5/1) gray, loose, moist, no odor, no staining. 0.0 HSD-PDI-EE9A-8.0-8.5 **FILL** Ash, some fine to medium sand, (2.5Y 5/2) grayish brown, moist loose, moist, no odor, no staining. **FILL** fine to medium SAND, trace wood, (7.5YR 3/4) dark brown, wet medium dense, wet, no odor, no staining, water at 9.0 feet. HSD-PDI-FF9A-10 0-10 5 HSD-PDI-EE9A-12.0-12.5 0.0 HSD-PDI-EE9A-14.0-14.5 FILL fine to medium SAND, trace ash and fill debris, (7.5YR 3/2) wet dark brown, medium dense, wet, no odor, no staining. 16 HSD-PDI-EE9A-16.0-16.5 0.0 fine silty SAND, some fine gravel, trace wood, (5YR 4/3) wet **FILL** HSD-PDI-EE9A-16.5-17.0 dry reddish brown, medium dense, wet, no odor, no staining. PEAT (degraded vegetated material), 80% organic fibers, HSD-PDI-EE9A-17.0-17.5 OL moist 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM. Organic SILT, 80% organic SILT, 20% organic fibers, 1.7 NR (7.5YR 4/2) brown, soft, moist, no odor, no staining. Soils consistent with UNDorg. 19 NO RECOVERY

A.GDT - 1/6/17

2012-09 RA PPG LOGS

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

A E C O M

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-EE11A

Project	Name: F Number:	60240	730			Drilling Company: SGS North America Drilling Method: direct push	Coordinates (NJSPN	IAD83) v. 611567.0								
				12:10:00 PM		Rig Type:										
								dinates (NJSPNAD83) y: 682949.8								
		iiiing:	5/24/2016	3 2:00:00 PM		Core Size: 3 in	Boring Total Depth:									
	IBy: ES			DDI		Project Manager: Scott Mikaelian	Depth to Water: NA									
nysica	al Locatio	n: Act	uaı - HSD	רטו			Surface Elevation:	13.7 π NAVD88								
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thickn	ess:	Sample ID								
		0.0		CONCRETE	p 15. 4	Concrete										
_ _1			dry	FILL		fine to medium SAND, some ash, (7.5YR medium dense, dry, no odor, no staining.	4/2) brown,									
-2 -3 -4	_ 5	dry	FILL		ASH, little cinders, (2.5Y 5/1) gray, loose, staining.	dry, no odor, no										
-5-			dry	FILL		fine to medium SAND, little ash, (7.5YR 3	3/4) dark brown.									
-6	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	dry to moist	FILL		medium dense, dry, no odor, no staining. ASH, some cinders, (2.5Y 4/1) dark gray, no odor, no staining.		
-8-			wet	FILL		fine SAND, some wood, (5YR 2.5/1) black	k soft wet no	HSD-PDI-EE11A-8.0-8.5								
-			WCI	NR	XXXXX	odor, no staining, water at 8.0 feet.	k, sort, wet, no									
-9 - -10		0.0	wet	FILL		NO RECOVERY ASH, little fill debris, (2.5Y 4/1) dark gray, odor, no staining.	loose, wet, no									
-11 -12 -13 -	5					odor, no stairing.		HSD-PDI-EE11A-12.0-12.5								
-14					\bowtie	8		HSD-PDI-EE11A-14.0-14.5								
\dashv					XXX	8										
-15		0.0	wot	FILL	XXX	ACH (EV 4/4) dark arou loops with the se	dor no atainina									
4		0.0	wet			ASH, (5Y 4/1) dark gray, loose, wet, no or	<u> </u>	HQD DDI EE14A 45 5 40 0								
-16			wet	FILL		fine silty SAND, trace ash and wood, (5YF		HSD-PDI-EE11A-15.5-16.0								
10			dry	PT	717 711	brown, medium dense, wet, no odor, no s PEAT (degraded vegetated material), 80%	dulling.	HSD-PDI-EE11A-16.0-16.5								
٦					1, 11,	20% organic silt, (5YR 3/2) dark reddish b	prown, stiff. drv. no									
-17					<u> </u>											
4	4					•										
_18																
					71 71	<u>'</u>										
			moist	OL		Organic SILT, 80% organic SILT, 20% org	ganic fibers,									
-19				NR		(7.5YR 4/2) brown, soft, moist, slight orga										
4				'*'`		staining. Soils consistent with UNDorg.										
-20						NO RECOVERY										
otes:																
					essing r	esidue UNDno - non-organic undisturbed native de		factured gas plant								
	adow mat		GGM - gree		_	UNDorg - organic undisturbed native depos		omate chemical production wa								

Project Name: PPG Garfield Ave

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-EE12A

Page: 1

Date Started Drilling: 5/24/2016 1:20:00 PM						Drilling Method: direct push Rig Type:	PNAD83) x: 611552.3 PNAD83) y: 682921.2																			
				6 8:30:00 AM		Core Size: 3 in	n: 20 ft NA																			
	d By: ES					Project Manager: Scott Mikaelian																				
hysic	al Locatio	n: Act	ual - HSD	PDI			Surface Elevation:	13.6 ft NAVD88																		
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thick	xness:	Sample ID																		
_		0.0		CONCRETE		Concrete																				
-1 -2 -3 -4	4.5		dry	FILL		fine to medium SAND, some ash, (2.5Y brown, medium dense, dry, no odor, no	4/2) dark grayish staining.	HSD-PDI-EE12A-0.6-1.1 HSD-PDI-EE12A-2.0-2.5																		
· _					$\times\!\!\times\!\!\times$	8		HSD-PDI-EE12A-4.0-4.5																		
-5				NR		NO RECOVERY]																		
-6 		0.0	dry to moist	FILL		fine to medium SAND, little ash, trace or very dark brown, medium dense, dry to r staining.		HSD-PDI-EE12A-6.0-6.5																		
-7 - -8	4																HSD-PDI-EE12A-8.0-8.5									
_			wet	FILE	XXX	CINIDEDS (EVD 3 E/1) block loses we	t no odor no	_																		
-9			wet	FILL	\bowtie	CINDERS, (5YR 2.5/1) black, loose, we staining, water at 8.5 feet.	t, no odor, no	1																		
_				NR		NO RECOVERY																				
-10 — - -11— -	-	6.2	wet	FILL		fine to medium SAND, some fine gravel, wood, ash and fill debris, (2.5Y 3/1) very dense, wet, no odor, no staining.	, little cinders, trace y dark gray, medium	HSD-PDI-EE12A-10.0-10.5																		
-12 -13 -	4.5																									HSD-PDI-EE12A-12.0-12.5
-14			wet	FILL	XXX	fine silty SAND, some wood, (5YR 2.5/1) black, soft, wet, no	HSD-PDI-EE12A-14.0-14.5																		
-15				NR		odor, no staining. NO RECOVERY]																		
13		0.0	wet	FILL	\bowtie	Cinders, (5YR 2.5/1) black, loose, wet, r	no odor, no staining.																			
-16					\bowtie			HSD-PDI-EE12A-15.5-16.0																		
-17 -18	3.5										dry		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	odor, no staining. Soils consistent with MM.	brown, stiff, dry, no	HSD-PDI-EE12A-16.0-16.5										
_10				NR		NO RECOVERY		1																		
-																										
-20						•																				
					essing re	esidue UNDno - non-organic undisturbed native	deposits MGP - man	ufactured gas plant																		
	eadow mat			en grey mud		UNDorg - organic undisturbed native depo	osits CCPW - chi	romate chemical production wa																		

Drilling Company: SGS North America

732.564.3200 office telephone

Boring ID: HSD-PDI-EE13A

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: 611541 Date Started Drilling: 5/25/2016 8:45:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682895.9 Date Finished Drilling: 5/25/2016 9:30:00 AM Core Size: 3 in Boring Total Depth: 20 ft

Logged By: HBB Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual HSD - PDI Surface Elevation: 13.2 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙD (ft/ft) (ppm) Content Log (ft bgs) 0.0 CONCRETE Concrete HSD-PDI-EE13A-0.5-1.0 FILL fine to coarse SAND, trace fine to medium gravel, ash and moist coal, (7.5YR 4/2) brown, medium dense, moist no odor no staining HSD-PDI-EE13A-2.0-2.5 **FILL** fine to medium SAND, trace fine gravel and ash, (7.5YR 4/2) moist 4.5 brown, medium dense, moist, no odor, no staining. HSD-PDI-EE13A-4.0-4.5 NR NO RECOVERY 0.2 moist **FILL** fine to medium SAND, some fine to medium gravel, trace ash, cinders and wood, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining. HSD-PDI-EE13A-6.0-6.5 **FILL** fine to coarse SAND, little fine to medium gravel, trace ash moist and wood, (7.5YR 3/4) dark brown, medium dense, moist, 3.5 no odor, no staining. HSD-PDI-EE13A-8.0-8.5 **FILL** CINDERS, (7.5YR 4/1) dark gray, loose, wet, no odor, no wet staining, water at 8.0 feet. NR NO RECOVERY 43.0 FILL fine to coarse SAND, little silt, trace medium gravel and saturated wood, (5Y 4/1) dark gray, soft, saturated, slight petroleum odor and staining. 12 HSD-PDI-EE13A-12.0-12.5 4.5 saturated **FILL** CINDERS, little metal debris, (5YR 2.5/1) black, loose, 13 saturated, slight petroleum odor and staining.

NR NO RECOVERY 4.8 saturated FILL CINDERS, trace metal debris, (5YR 2.5/1) black, loose, saturated, slight petroleum odor and staining. **FILL** wet fine SAND, little silt, (7.5YR 4/2) brown, medium dense, wet, 16 dry PT no odor, no staining. PEAT (degraded vegetated material), 80% organic fibers, 1/ 1/1/ 1 20% organic silt, (5YR 3/2) dark reddish brown, medium 11, 11, stiff, dry, slight organic odor, no staining. Soils consistent with MM V 77 7 11, 11,

1/ 1/1/ 1

NR

NO RECOVERY

HSD-PDI-FE13A-15 5-16 0 HSD-PDI-EE13A-16.0-16.5

HSD-PDI-EE13A-14.0-14.5

2012-09 RA PPG LOGS

A.GDT - 1/6/17 14:

19

20

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

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: HSD-PDI-EE14A

Project	t Number:	60240	1139			Drilling Method: Direct Push	NAD83) x: 611526		
				11:00:00 AM		Rig Type:	· · · · · · · · · · · · · · · · · · ·	IAD83) y: 682868.5	
				3 12:30:00 PM		Core Size: 3.0 in	Boring Total Depth:		
	d By: ES	iiiiig.	3/20/2010	7 12.50.00 1 10		Project Manager: Scott Mikaelian	Depth to Water: N		
	al Locatio	n: ^c+	ud LICD	DDI		i roject manager. Scott mikacilan	Surface Elevation:		
nysic	ai LUCALIO	ii. ACT	uai - 115D	וטו		_	Juliace Elevation:	13.3 IL INAVDOO	
Depth Range It bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:		Sample ID	
		0.0		CONCRETE	P 14 4	Concrete			
-1 - -2	4.5		dry	FILL		CINDERS, little ash, (5YR 2.5/1) black, lono staining.	oose, dry, no odor,	HSD-PDI-EE14A-0.4-0.9 HSD-PDI-EE14A-2.0-2.5	
-3 -4		dry FILL ASH, little cinders, (5Y 4/1) dark gray, loose, dry, no odor, r staining.				ose, dry, no odor, no	HSD-PDI-EE14A-4.0-4.5		
-	-			NR	(XXXX	NO RECOVERY		1	
-5— - -6—		0.0	dry	FILL		ASH, some wood, little fine to medium sa (2.5Y 5/2) grayish brown, loose, dry, no o	ind, trace glass, dor, no staining.	HSD-PDI-EE14A-6.0-6.5	
-7— - -8—	3.5		ma alak	FILL		fine to modium CANID comment will	ook and fill dake:	HSD-PDI-EE14A-8.0-8.5	
_			moist	FILL	$\times\!\!\times\!\!\times$	fine to medium SAND, some wood, little a		1.05 5 22 17/-0.0-0.3	
-9— - -10—				NR		staining, water at 8.5 feet. NO RECOVERY	st, no odor, no		
-11 -12		0.0	wet	FILL		ASH, little fine sand and wood, (2.5Y 4/1 wet, no odor, no staining.) dark gray, loose,	HSD-PDI-EE14A-10.0-10.5	
13— 13— 14—	. 5							HSD-PDI-EE14A-12.0-12.9	
_								HSD-PDI-EE14A-14.0-14.	
15		0.0	wet	FILL		ASH, little fine sand, (5Y 4/1) dark gray, l	oose, wet, no odor,		
٦	1		moist	FILL		no staining.		HSD-PDI-EE14A-15.5-16.0	
16-	1			PT		fine silty SAND, little coarse gravel, (2.5Y		HSD-PDI-EE14A-16.0-16.5	
_ 17—	5		slightly moist		<u> </u>	PEAT (degraded vegetated material), 80% 20% organic silt, (5YR 3/4) dark reddish moist, moderate organic odor, no staining	% organic fibers, brown, stiff, slightly	3.22.137.10.0-10.0	
- 18 - -			moist	OL		with MM. Organic SILT, 80% organic silt, 20% orga 5/1) gray, soft, moist, slight organic odor, consistent with UNDorg.	anic fibers, (2.5Y no staining. Soils		
-19									
-						4			
-20						1			
	low surface		COPR - chr GGM - gree	omite ore proce	essing re	esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo		ufactured gas plant	

Boring ID: HSD-PDI-EE15A

Page: 1

	e: PPG Ga				Drilling Company: SGS North America	Coordinates (N ISD	NAD93) v. 611515 2
Project Num			20.00 414		Drilling Method: Direct Push	· · · · · · · · · · · · · · · · · · ·	NAD83) x: 611515.3
Date Started					Rig Type: Core Size: 3.0 in		NAD83) y: 682838.8
Date Finishe Logged By:		0/2/2010	J.ZU.UU AIVI		Project Manager: Scott Mikaelian	Boring Total Depth: Depth to Water: NA	
.ogged By: Physical Loc		tual - USD I	וחכ		Froject Manager. Scott Mikaelian	Surface Elevation:	
	ALIOII. AC	tuai - HOD I	וט			Gui lace Elevation.	J.0 IL INAV DOO
Reco Range ft bgs)		Moisture Content	USCS	Graph Log	ic Surface Cover and Thickr	ness:	Sample ID
	3.0		ASPHALT		Asphalt and gravel sub-base		
-1- -		dry	FILL		fine to coarse SAND, little fine to medium trace ash, (7.5YR 4/2) brown, medium do no staining.		HSD-PDI-EE15A-0.5-1.0
5							HSD-PDI-EE15A-2.0-2.5
-5		dry	FILL		fine to medium SAND, little ash, (7.5YR brown, medium dense, dry, no odor, no s	2.5/3) very dark staining.	HSD-PDI-EE15A-4.0-4.5
-6	0.0	moist	FILL		ASH, some fine to medium sand, little fill reddish brown, medium dense, moist, no	odor, no staining.	LICE DELECTION OF CO.
-7— 4.8	5	wet	FILL		ASH, little fine gravel, trace wood, (5Y 4/ wet, no odor, no staining, water at 6.0 fee		HSD-PDI-EE15A-6.0-6.5
-8— - -9—			ND		NO PECCUEPY		HSD-PDI-EE15A-8.0-8.5
10	0.0		NR	XXXX	NO RECOVERY		HSD-PDI-EE15A-10.0-10.5
-11	0.0	wet	FILL		ASH, little fine gravel, (7.5YR 4/1) dark g odor, no staining. fine silty SAND, little wood, trace organic		пор-грнее 19A-10.0-10.5
-12		VVCt			reddish brown, medium dense, wet, no o	dor, no staining.	HSD-PDI-EE15A-11.5-12.0
-12 4 -13		dry	PT	77 77 77 77 77 77	20% organic silt, (5YR 3/2) dark reddish odor, no staining. Soils consistent with M	brown, stiff, dry, no	HSD-PDI-EE15A-12.0-12.5
-14 			NR		NO RECOVERY		_
15							
otes: gs - below sui M - meadow		COPR - chr GGM - gree		essing r	residue UNDno - non-organic undisturbed native o UNDorg - organic undisturbed native depo		ufactured gas plant romate chemical production wa

Boring ID: HSD-PDI-EE16A

Page: 1

	Number: arted Drill			1:15:00 AM		Drilling Method: Direct Push Rig Type:	Coordinates (NJSPN Coordinates (NJSPN																			
				12:15:00 PM		Core Size: 3.0 in	Boring Total Depth:																			
	By: SC/					Project Manager: Scott Mikaelian	Depth to Water: NA																			
Physica	al Location	n: Act	ual - HSD I	PDI	1		Surface Elevation:	10.0 ft NAVD88																		
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickne	ess:	Sample ID																		
		0 ppm		ASPHALT		Asphalt and gravel sub-base																				
. 7			dry	FILL		medium to coarse SAND, trace fine to me		HSD-PDI-EE16A-0.5-1.0																		
-1			dry	FILL		(7.5YR 3/2) dark brown, loose, dry, no odd																				
\exists					\bowtie	fine to coarse SAND, trace fine gravel, (7. gray, loose, dry, no odor, no staining.	ofR 4/1) dark																			
-2	5							HSD-PDI-EE16A-2.0-2.5																		
\neg	5				\bowtie																					
-3																										
\dashv			dry	FILL		ASH, trace coal and cinders, (7.5YR 2.5/1) black, loose, dry.																			
-4			G. y		\bowtie	no odor, no staining.	, black, locoo, aly,	HSD-PDI-EE16A-4.0-4.5																		
\dashv																										
-5-		0 ppm	dry	FILL	\bowtie	ASH, trace fine gravel and cinders, (7.5YF	2 3/3) dark brown																			
-		о ррии	to	FILL		loose, dry to moist, no odor, no staining.	(3/3) dark brown,																			
-6			moist			¥		HSD-PDI-EE16A-6.0-6.5																		
4								1105 1 51 22 101 1 0.0 0.0																		
-7				F	\bowtie	SAND (S	Р .																			
4	4.5		saturated	FILL		medium to coarse SAND, trace fine to med (7.5YR 4/1) dark gray, loose, saturated, no																				
-8					\bowtie	water at 9.0 feet.	odor, no stanning,	UOD DDI EE40A 0 0 0 5																		
Ĭ					\bowtie			HSD-PDI-EE16A-8.0-8.5																		
-9			0.000				×																			
Ĭ				mag 0	0 mag 0	0 ppm	0 ppm	mag 0	0 ppm	0 ppm	0 ppm									-			\bowtie			
-10													NR		NO RECOVERY											
		0 ppm	saturated	FILL		medium to coarse SAND, trace fine gravel		HSD-PDI-EE16A-10.0-10.5																		
_11				-	-				\bowtie	3/3) dark brown, loose, saturated, slight pe staining.	etroleum odor, no															
'']													-			moist	FILL		SILT trace fine gravel (2.5Y 5/1) grav so	ft, moist, no odor,	HSD-PDI-EE16A-11.0-11.5					
-12					dry	PT	<u> </u>	DEAT (degraded vegetated meterial) 900/	organic fibers	HSD-PDI-EE16A-11.5-12.0																
12	3.5				1/ 1/ Y	20% organic silt, (2.5YR 2.5/4) dark reddis	sh brown, stiff, dry,																			
42					<u> </u>	_	MM.																			
13					1/ 1/1/	<u>N</u>																				
_,				NR		NO RECOVERY																				
-14																										
, T																										
15																										
otes:																										
s - bel					essing re	esidue UNDno - non-organic undisturbed native de	posits MGP - manu	factured gas plant omate chemical production wa																		
vı - me	adow mat		שטוטט - gree	n grey mud		UNDorg - organic undisturbed native depos	us GCPVV - chr	omale chemical production wa																		

Boring ID: HSD-PDI-EE17A

Page: 1

roject	t Name: F t Number: tarted Dril	60240		40:00 AM		Drilling Company: SGS North America Drilling Method: Direct Push Rig Type:	Coordinates (NJSPN	AD83) y: 682794.5
			6/2/2016	10:40:00 AM		Core Size: 3.0 in	Boring Total Depth:	
	By: HBE			201		Project Manager: Scott Mikaelian	Depth to Water: NA	
nysic	al Locatio	n: Act	ual - HSD F	וטי		_	Surface Elevation:	10.1 ft NAVD88
Depth Range It bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thickr	ness:	Sample ID
		0 ppm		ASPHALT		Asphalt and gravel sub-base		
. –			dry	FILL	XXX	medium to coarse SAND, trace fine to m		HSD-PDI-EE17A-0.5-1.0
-1			dry	FILL		4/1) dark gray, loose, dry, no odor, no sta fine to coarse SAND, trace ash, coal and	nining.	
					\bowtie	(7.5YR 3/4) dark brown, loose, dry, no oc		
-2	4.5				\bowtie	(· · · · · , · · · · , · · · · , · · · · , · · · · · ,	3	HSD-PDI-EE17A-2.0-2.5
_	4.5				\bowtie			
-3								
_					\bowtie			
-4			dni	FILL		ASH, trace coal, wood and fill debris, (7.5	IVD 4/1) dork grov	HSD-PDI-EE17A-4.0-4.5
_			dry		\bowtie	loose, dry, no odor, no staining.	ork 4/1) dark gray,	
-5		0 000		NR	 	NO RECOVERY		
_		0 ppm	moist	FILL	\bowtie	ASH, trace coal and cinders, (7.5YR 4/1) moist, no odor, no staining.	dark gray, loose,	
-6					\bowtie	moist, no odor, no stairing.		HSD-PDI-EE17A-6.0-6.5
_					\bowtie	8		HSD-PDI-EE17A-6.0-6.5
-7					\bowtie			
′	4.5							
_			saturated	FILL		medium to coarse SAND, trace fine grave		
-8					\bowtie	loose, saturated, no odor, no staining, wa	ter at 8.5 feet.	HSD-PDI-EE17A-8.0-8.5
_					\bowtie			
-9					\bowtie			
_				NR	/XXXX	NO RECOVERY		
-10		0 ppm	saturated	FILL		medium to coarse SAND, trace fine to m	edium gravel and	HSD-PDI-EE17A-10.0-10.5
_					\bowtie	silt, (2.5Y 4/1) dark gray, loose, saturated		
11			moist	FILL		staining. SILT, trace fine sand and gravel, (2.5Y 5.	/1) gray soft moist	
_					\bowtie	no odor, no staining.	r) gray, sort, moist,	HSD-PDI-EE17A-11.5-12.0
-12			dry	PT	<u> </u>	PEAT (degraded vegetated material), 80°	% organic fibers	HSD-PDI-EE17A-12.0-12.5
_	3.5		",		1, 11,	20% organic silt, (2.5YR 2.5/3) dark redo	lish brown, stiff, dry,	
13					<u> </u>	moderate organic odor, no staining. Soils	consistent with	
_				NR		MM. NO RECOVERY		
-14				INIX		NO RECOVERT		
_								
15								
otes:	I				I			
ıs - bel	low surface eadow mat		COPR - chro		essing r	esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo		factured gas plant omate chemical production wa
					mad to be 1	ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring		omate chemical production wa

PPG - 2012-09 RA PPG_LOGS_A.GDT - 1/6/17 14:55

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-EE18A

			C. 1.1.A			D !!!!		Page: 1
	Name: F					Drilling Company: SGS North America	Coandinates (NICD)	NA DO2) C44 405 O
	Number:			10:00 DM		Drilling Method: Direct Push		NAD83) x: 611465.2
			6/1/2016 1:			Rig Type: Core Size: 3.0 in	Coordinates (NJSPN	
	i By : HBE		0/1/2010	1:40:00 PM		Project Manager: Scott Mikaelian	Boring Total Depth: Depth to Water: NA	
			ual - HSD F	וח		Froject Manager. Scott Mikacilan	Surface Elevation:	
_	ui Looutio	7.00	dai 110D I	<u>Di</u>			Ouridoc Lievation.	10.0 1(14/4)200
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thickne	ess:	Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base		
-1	5		dry	FILL		fine to medium SAND, some ash, little fine reddish brown, medium dense, dry, no od		
-3 4 			moist	FILL		Ash, some cinders, (2.5Y 5/2) grayish bro no odor, no staining.	wn, loose, moist,	
-5 - -6		0.0	moist	FILL		Cinders, some ash, (2.5Y 5/2) grayish brono odor, no staining.		
-7— —	3.5		moist	FILL		Ash, (2.5Y 5/1) gray, loose, moist, no odo		
-8			wet	FILL	\bowtie	fine silty SAND, some wood, (5Y 2.5/1) bl		
-0-			wet	FILL	\bowtie	dense, wet, no odor, no staining, water at ASH, (2.5Y 5/1) gray, loose, wet, no odor,		HSD-PDI-EE18A-8.0-8.5
-9 -10		0.0	wet	NR FILL		ASH, trace fill debris, (5Y 4/1) dark gray, I no staining.	oose, wet, no odor,	
-11					\bowtie	a Tio Stairing.		1100 001 55400 44 0 44 5
			wet	FILL		fine silty SAND, trace ash, fill debris and o	organics. (5YR 4/3)	HSD-PDI-EE18A-11.0-11.5
-12 - -13	3		dry	PT		reddish brown, medium dense, wet, no od PEAT (degraded vegetated material), 80% 20% organic silt, (5YR 3/2) dark reddish b slight organic odor, no staining. Soils cons	or, no staining. organic fibers, orown, stiff, dry,	HSD-PDI-EE18A-11.5-12.0
-14 -15				NR		NO RECOVERY		
M - me	adow 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.	its CCPW - chr	ufactured gas plant romate chemical production waste

A.GDT - 1/6/17 14:

2012-09 RA PPG LOGS

732.564.3200 office telephone

Boring ID: HSD-PDI-FF5A

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Coordinates (NJSPNAD83) x: 611679.44 Drilling Method: direct push Date Started Drilling: 5/19/2016 8:00:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683098.67 Date Finished Drilling: 5/19/2016 10:15:00 AM Core Size: 3 in Boring Total Depth: 20 ft Depth to Water: NA Logged By: HBB Project Manager: Scott Mikaelian Physical Location: Actual - HSD PDI Surface Elevation: 14.6 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Content ΙĎ (ft/ft) (ppm) Log (ft bgs) 0.0 CONCRETE Concrete and brick, trace fine to medium sand, (7.5YR 4/2) brown, loose, dry, no odor, no staining. HSD-PDI-FF5A-1.0-1.5 dry **FILL** fine to medium SAND, trace ash and fill debris, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining. 3.5 HSD-PDI-FF5A-3.0-3.5 moist **FILL** ASH, (5Y 5/1) gray, loose, moist, no odor, no staining. NR NO RECOVERY HSD-PDI-FF5A-5.0-5.5 606 moist FILL ASH, (5Y 5/1) gray, loose, moist, slight petroleum odor, no staining. FILL CINDERS, trace ash and fill debris, (5YR 2.5/1) black, moist medium dense, moist, moderate petroleum odor, no staining. HSD-PDI-FF5A-7.0-7.5 FILL SILT, trace fine sand and ash, (7.5YR 3/4) dark brown, soft, wet 4.5 wet, no odor, no staining, water at 8.0 feet. HSD-PDI-FF5A-9.0-9.5 NR NO RECOVERY 14.2 FILL SILT, trace fine to medium sand and ash, (7.5YR 3/4) dark wet brown, soft, wet, no odor, no staining. HSD-PDI-FF5A-11.0-11.5 FILL saturated fine to coarse SAND, some silt, trace fine gravel, (5Y 5/1) 12 gray, soft, saturated, no odor, no staining. 3.5 13 HSD-PDI-FF5A-13.0-13.5 NO RECOVERY NR HSD-PDI-FF5A-15.0-15.5 0.0 FILL fine to medium SAND, some silt, trace fine gravel and ash, wet (5Y 5/1) gray, soft, wet, no odor, no staining. 16 wet FILL fine SAND, some silt, trace glass, (5YR 4/3) reddish brown, HSD-PDI-FF5A-16.3-16.8 soft, wet, no odor, no staining. HSD-PDI-FF5A-16.8-17.3 PT PEAT (degraded vegetated material), 80% organic fibers, dry 20% organic silt, (5YR 3/3) dark reddish brown, medium 45 1/ 1/1/ 1/ stiff, dry, moderate organic odor no staining. Soils consistent 11, 11, OL Organic SILT (90% organic silt, 10% organic fibers), trace moist 19 fine sand and gravel, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining. Soils consistent with UNDorg. NR NO RECOVERY 20 COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits GGM - green grey mud UNDorg - organic undisturbed native deposits bgs - below surface grade MM - meadow mat 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.

PPG - 2012-09 RA PPG_LOGS_A.GDT - 1/6/17 14:55

Project Name: PPG Garfield Ave

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-FF6A

Page: 1

Project Num		IN739			Drilling Method: Direct Push	Coordinates (N ISD)	NAD83) x: 611660.81
Date Started			9.20.00 ΔΜ		Rig Type:		IAD83) y: 683068.51
			3.20.00 AW 3 10:30:00 AW	./	Core Size: 3.0 in	Boring Total Depth:	
Logged By:		3/10/2010	5 10.50.00 An	VI	Project Manager: Scott Mikaelian	Depth to Water: NA	
Physical Lo		rtual - HSN	PDI		Troject Manager. Ocott Wilkaciian	Surface Elevation:	
Depth Range Reco	overy PID (ft) (ppm	Moisture	USCS	Graphi Log	c Surface Cover and Thickn		Sample ID
(ft bgs)	тт) (рргт	Content		Log			
		dry	FILL		fine to medium SAND, some gravel, (7.5' loose, dry, no odor, no staining.		HSD-PDI-FF6A-0.0-0.5
		dry	FILL		ASH, trace coal, (7.5YR 4/2) brown, loose staining.		
3-		moist	FILL		CINDERS, trace ash, coal and wood, (5Y medium dense, moist, no odor, no stainin		HSD-PDI-FF6A-2.0-2.5
4 							HSD-PDI-FF6A-4.0-4.5
L "		moist	FILL		CINDERS, trace ash, coal and wood, (5Y medium dense, moist, no odor, no stainin		_
6 7 7		moist	FILL		fine to medium SAND, some silt, little wor 2.5/1) black, soft, moist, moderate gasolir staining.	od, trace ash, (5YR	HSD-PDI-FF6A-6.0-6.5
8-							HSD-PDI-FF6A-8.0-8.5
9-			NR		NO RECOVERY		
10 11 		wet	FILL		CINDERS, trace glass, trace coal, trace a black, loose, wet, no odor, no staining, wabgs.		HSD-PDI-FF6A-10-10.5
12 13 							HSD-PDI-FF6A-12.0-12.5
14		saturated	FILL		ASH, (5Y 5/1) gray, loose, saturated, no o	odor, no staining.	HSD-PDI-FF6A-14.0-14.5
			NR		NO RECOVERY		
15 		wet	FILL		ASH, trace wood and coal, (5Y 4/1) dark odor, no staining.	gray, loose, wet, no	
16		moist	FILL		Re-worked Organic Silt, trace coal, (7.5Y)	R 4/2) brown,	HSD-PDI-FF6A-15.7-16.2
 17		dry	PT	77 77 7 77	medium dense, moist, slight organic odor PEAT (degraded vegetated material), 80% 20% organic silt, (5YR 3/2) dark reddish l	, no staining. 6 organic fibers, prown, stiff, dry,	HSD-PDI-FF6A-16.2-16.7
18		moist	OL		Organic SILT, 80% organic silt, 10% orga 4/2) brown, medium dense, moist, slight of		
19			NR		staining. Soils consistet with UNDorg. NO RECOVERY		
20							
MM - meadow	mat	GGM - gree	en grey mud		esidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native deposit thick 3) No CCPW (COPR or GGM) present in any interval of this boring	sits CCPW - chr	ufactured gas plant comate chemical production waste

Drilling Company: SGS North America

Boring ID: HSD-PDI-FF7A

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: 611646.97 Date Started Drilling: 5/17/2016 10:25:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683041.64 Date Finished Drilling: 5/17/2016 11:45:00 AM Core Size: 3 in Boring Total Depth: 20 ft Depth to Water: NA Logged By: HBB Project Manager: Scott Mikaelian Physical Location: Actual - HSD PDI Surface Elevation: 13.9 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Content ΙĎ (ft/ft) (ppm) Log (ft bgs) HSD-PDI-FF7A-0.0-0.5 0.0 **FILL** fine to coarse SAND, little cinders, (7.5YR 3/4) dark brown, dry loose, dry, no odor, no staining. moist **FILL** CINDERS, some ash, trace fine to medium sand, brick, concrete and glass, (7.5YR 4/2) brown, medium dense, HSD-PDI-FF7A-2.0-2.5 moist, no odor, no staining. 4.6 HSD-PDI-FF7A-4.0-4.5 FILL ASH, little wood, trace glass, (7.5YR 3/1) very dark gray, moist loose, moist, no odor, no staining. NR NO RECOVERY 25 moist **FILL** CINDERS, some ash, trace wood, glass and brick, (5YR 5/1) gray, medium dense, moist, no odor, no staining, water at 8.5 feet bgs. HSD-PDI-FF7A-6.0-6.5 3.7 HSD-PDI-FF7A-8.0-8.5 NR NO RECOVERY HSD-PDI-FF7A-10 0-10 5 0.0 FILL ASH, trace ceramics, glass and coal, (2.5Y 5/1) gray, loose, saturated saturated, no odor, no staining. 12 3.7 13 HSD-PDI-FF7A-13.0-13.5 NO RECOVERY NR 0.0 saturated FILL ASH, trace glass and wood, (2.5Y 5/1) gray, medium dense, saturated, no odor, no staining. HSD-PDI-FF7A-15.7-16.2 16 moist FILL Re-worked organic SILT, little organics (grass), trace wood, HSD-PDI-FF7A-16.2-16.7 (2.5Y 4/2) dark grayish brown, soft, moist, no odor, no dry staining. PEAT (degraded vegetated material), 80% organic fibers, 11/ 11/ 38 20% organic silt, (5YR 3/2) dark reddish brown, medium stiff, dry, slight organic odor, no staining. Soils consistent 1, 11, wet SM fine to medium SAND, little silt, trace gravel, (5Y 5/1) gray, medium dense, wet, no odor, no staining. Soils consistent 19 NR with UNDno. NO RECOVERY 20

Notes

A.GDT - 1/6/17 14:

2012-09 RA PPG LOGS

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

Boring ID: HSD-PDI-FF8A

Project	Name: F Number:		739			Drilling Method: Direct Push	Coordinates (N.ISPI	NAD83) x: 611633.07		
				8:50:00 AM				IAD83) y: 683014.31		
				6 9:55:00 AM			Boring Total Depth:			
			3/10/2010	9.55.00 AIVI						
	By: HBE		ual - HSD I	DDI			Depth to Water: NA Surface Elevation:			
riiysica	LOCALIO	n. Act	uai - NSD i	וטו			Surface Elevation.	13.7 IL NAVD88		
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thickne	Surface Cover and Thickness:			
-1-		0.1		CONCRETE		Concrete slab				
-2 - -3	4.5		dry	FILL		CINDERS and ASH, (5YR 4/3) reddish bro no odor, no staining.	wn, dense, dry,	HSD-PDI-FF8A-1.8-2.3 HSD-PDI-FF8A-3.0-3.5		
-4			moist	FILL		ASH, little fine sand, trace wood and glass, dark gray, medium dense, moist, no odor, i				
				NR		NO RECOVERY				
-5- -		0.2	moist	FILL		ASH, little fine sand, trace wood, glass and dark gray, medium dense, moist, no odor, i	no staining.	HSD-PDI-FF8A-5.0-5.5		
-7 - -8 -	4.7		wet	FILL		ASH, trace wood, glass and coal, (2.5Y 5/1 no odor, no staining, water at 6.5 feet bgs.) gray, loose, wet,	HSD-PDI-FF8A-7.0-7.5		
-9 - -10		0.0 saturate		NR FILL		NO RECOVERY ASH, trace wood, glass and coal, (2.5Y 5/1) gray, loose,	HSD-PDI-FF8A-9.0-9.5		
-11 - -12	3.6					saturated, no odor, no staining.		HSD-PDI-FF8A-11.0-11.5		
-13			moist	FILL		SILT, trace wood, glass and organics (gras	s). (7.5YR 4/3)			
13					XXX	brown, soft, moist, no odor, no staining.	-,, (HSD-PDI-FF8A-13.0-13.5		
-14 -15			moist	FILL NR	XXXX	fine silty SAND, trace gravel and organics (4/3) brown, soft, moist, no odor, no staining NO RECOVERY	(grass), (7.5YR g.			
-15 - -16		1.4	moist	FILL		silty fine SAND, trace gravel and organics 4/3) brown, medium dense, moist, no odor		HSD-PDI-FF8A-15.0-15.5		
.5					XXX	8		HSD-PDI-FF8A-16.0-16.5		
-17 -18	3.7		dry	PT	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	20% organic silt, (5YR 3/2) dark reddish br stiff, dry, slight organic odor, no staining. S with MM.	own, medium oils consistent	HSD-PDI-FF8A-16.5-17.0		
.]			wet	SM		fine SAND, trace silt, (5Y 5/1) gray, mediul				
-19				NR		odor, no staining. Soils consistent with UNI NO RECOVERY	UIIU.	1		
20										
	ow surface		COPR - chr GGM - gree		ssing r	esidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native deposi	posits MGP - manu	ufactured gas plant romate chemical production wa		

Project Number: 60240739

Project Name: PPG Garfield Ave

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-FF9A

Page: 1 Coordinates (NJSPNAD83) x: 611614.1

Project				12:50:00 PM		Rig Type:	direct push	Coordinates (NJSPN	
				3 1:50:00 PM		Core Size: 2 in		Boring Total Depth:	
	By: ES	iiiiig.	3/23/2010	7 1.30.00 FIVI		Project Manager:	Coott Mikaalian	Depth to Water: NA	
		n. A ot	uel LICD	DDI		Project Manager:	Scott iviikaeiiari	Surface Elevation:	
nysica	II LOCATIO	n: ACI	ual - HSD	PDI		1		Surface Elevation:	13.9 II NAVD88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	С	Surface Cover and	Thickness:	Sample ID
		0.0		CONCRETE	p 4.4	Concrete			
\dashv			dry	FILL		X	e sand (2.5Y 5/2) gra	ayish brown, loose, dry,	
-1					\bowtie	no odor, no sta		zylen brown, 1888, dry,	
·			dry	FILL	\bowtie	CINDERS, tra	ce coal, (2.5Y 5/2) gr	ayish brown, loose, dry,	
	4				\bowtie	no odor, no sta	aining.		
-2-	٠ ا				\bowtie	8			
\dashv					\bowtie	8			
-3-				-	XXX	1011 1111 1	1. 1.6. 1.4	1 (0.5)(.5(0)	
4			dry	FILL	\bowtie	ASH, little cinc	ders and fine sand, tra , loose, dry, no odor, i	ace wood, (2.5Y 5/2)	
,					\bowtie	y grayish brown,	, 100se, dry, 110 0dor, 1	no stairing.	
-4		0.0			\bowtie	X			
-					\bowtie				
-5-					\bowtie	8			
4					\bowtie	8			
	4				\bowtie	8			
0	•				\bowtie	8			
-			moist	FILL		fine to medium	SAND some wood	trace fill debris, (5YR	
-7-			moiot		\bowtie			no odor, no staining.	
4					\bowtie	8 ′ ′		,	
-8-					\bowtie	8			
١		0.0	wet	FILL	\bowtie			oose, wet, no odor, no	
٦					\bowtie	staining, water	at 8.0 feet.		
-9-					\bowtie	8			
-					\bowtie	X			
-10	4				\bowtie	X			
.					\bowtie	X			
					\bowtie	X			
-11					\bowtie				
-					\bowtie				
-12		0.0			\bowtie	8			
		0.0			\bowtie	8			
40					\bowtie	8			
-13					\bowtie	8			
\dashv					\bowtie	Š			
-14	4				\bowtie	Ŕ			
4					\bowtie	8			
-15					\bowtie	Ä			
					\bowtie	×			
,, 7					\bowtie	×			HSD-PDI-FF9A-15.5-16.0
-16		0.0	dry	PT	<u> </u>		ed vegetated material), 75% organic fibers,	HSD-PDI-FF9A-16.0-16.5
\dashv					1, 11,	25% organic s	ilt, (5YR 3/2) dark red	ddish brown, firm, dry,	
-17					\\\\	slight organic	odor, no staining. Soil	Is consistent with MM.	
				NR	. ,	NO RECOVER	RY		
_10	1.3			'*'`			••		
-18	-								
\dashv									
-19									
4									
20									
20									
lotes:	0144 0f	arada	CODD -1-	omito oro	nooin-	oriduo IINDes es	organia undiatumb a des	ative deposits MOD	factured ass sleet
	ow surface adow mat			romite ore proce en grey mud	essing re	siaue UNDno - non- UNDora - ora	organic undisturbed na anic undisturbed native	ative deposits MGP - manu e deposits CCPW - chr	factured gas plant omate chemical production wa
				J - J				,	

Drilling Company: SGS North America

Drilling Method: direct push

AECOM

Boring ID: HSD-PDI-FF10A

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: 611603.4 Date Started Drilling: 5/24/2016 8:10:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682961.4 Date Finished Drilling: 5/24/2016 9:05:00 AM Core Size: 2 in Boring Total Depth: 20 ft Logged By: HBB Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual - HSD PDI Surface Elevation: 13.4 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙĎ (ft/ft) (ppm) Content Log (ft bgs) 0.0 CONCRETE Concrete FILL fine to medium GRAVEL, some fine to medium sand, HSD-PDI-FF10A-0.6-1.1 moist (7.5YR 4/2) brown, medium dense, moist, no odor, no moist **FILL** fine to coarse SAND, little fine to medium gravel, trace silt, HSD-PDI-FF10A-2.0-2.5 ash, coal and wood, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining. HSD-PDI-FF10A-3.0-3.5 NO RECOVERY NR HSD-PDI-FF10A-5.0-5.5 0.0 moist **FILL** fine to coarse SAND, little fine to medium gravel and ash, trace coal and wood, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining. HSD-PDI-FF10A-7.0-7.5 FILL medium to coarse SAND, little silt, trace cinders and fill wet 4.5 debris, (5YR 2.5/1) black, soft, wet to saturated, no odor, no to saturated staining, water at 9.5 feet. HSD-PDI-FF10A-9.0-9.5 NO RECOVERY NR 0.0 FILL saturated medium to coarse SAND, some medium gravel, little cinders, trace fill debris, (5YR 2.5/1) black, loose, saturated, no odor, no staining. HSD-PDI-FF10A-11.0-11.5 12 4.5 13 HSD-PDI-FF10A-13.0-13.5 NR NO RECOVERY HSD-PDI-FF10A-15.0-15.5 0.0 FILL fine to medium SAND, little silt, trace fine gravel and glass, moist (7.5YR 4/2) brown, medium dense, moist, no odor, no HSD-PDI-FF10A-15 5-16 0 staining. 16 HSD-PDI-FF10A-16.0-16.5 PEAT (degraded vegetated material), 80% organic fibers, dry PT 20% organic silt, (5YR 3/2) dark reddish brown, medium stiff, dry, slight organic odor, no staining. Soils consistent 11, 11, with MM. 3.5 fine to medium sandy SILT, trace organics, (5Y 5/1) gray, moist medium stiff, moist, no odor, no staining. Soils consistent with UNDorg NR NO RECOVERY 19 20

Notes

A.GDT - 1/6/17

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) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

AECOM.

Boring ID: HSD-PDI-FF11A

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: 611592.1 Date Started Drilling: 5/24/2016 9:15:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682934.6 Date Finished Drilling: 5/24/2016 11:15:00 AM Core Size: 3 in Boring Total Depth: 20 ft Logged By: HBB Depth to Water: NA Project Manager: Scott Mikaelian Physical Location: Actual - HSD PDI Surface Elevation: 13.4 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙD (ft/ft) (ppm) Content Log (ft bgs) 0.0 CONCRETE Concrete HSD-PDI-FF11A-0.5-1.0 **FILL** moist fine to coarse SAND, trace medium gravel, ash and coal, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining HSD-PDI-FF11A-2.0-2.5 4.5 **FILL** fine to medium SAND, some silt, trace fine gravel, ash and moist wood, (7.5YR 4/2) brown, medium dense, moist, no odor, no HSD-PDI-FF11A-4.0-4.5 staining. NO RECOVERY NR 0.0 moist **FILL** fine to medium SAND, some fine gravel, trace ash and wood, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining. HSD-PDI-FF11A-6.0-6.5 FILL fine to medium SAND, some silt, trace wood, (7.5YR 3/4) moist 3.5 dark brown, soft, moist to wet, no odor, no staining, water at to wet 8.5 feet. HSD-PDI-FF11A-8.0-8.5 NO RECOVERY NR 10 0.0 FILL wet fine to medium SAND, some silt, trace wood, (7.5YR 3/4) dark brown, soft, wet, no odor, no staining. 12 HSD-PDI-FF11A-12.0-12.5 4.5 13 **FILL** saturated medium to coarse GRAVEL, some fine to coarse sand, trace debris, (7.5YR 2.5/1) black, loose, saturated, no odor, no staining. HSD-PDI-FF11A-14.0-14.5 NO RECOVERY NR 0.0 FILL fine to medium GRAVEL, some fine to coarse sand, trace fill saturated debris, (7.5YR 2.5/1) black, loose, saturated, no odor, no HSD-PDI-FF11A-15 5-16 0 **FILL** wet staining 16 HSD-PDI-FF11A-16.0-16.5 dry PT SILT, little fine sand, trace ash and organics, (7.5YR 4/2) brown, medium stiff, wet, no odor, no staining. PEAT (degraded vegetated material), 80% organic fibers, 11, 11, 20% organic silt, (5YR 3/3) dark reddish brown, medium 1/ /1/ / stiff, dry, slight organic odor, no staining. Soils consistent with MM. wet OL Organic SILT, 90% organic silt, 10% organic fibers, (5Y 5/1) gray, medium stiff, wet, no odor, no staining. Soils consistent with UNDorg 19 NR NO RECOVERY 20

Notes

A.GDT - 1/6/17

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) 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: HSD-PDI-FF12A

	Number:			0:00:00 AM		Drilling Method: direct push Rig Type:		NAD83) x: 611573.2 NAD83) y: 682918.6
				12:30:00 PM		Core Size: 3.0 in	Boring Total Depth:	
	By: ES	iiiiig.	0/0/2010	12.30.00 1 101		Project Manager: Scott Mikaelian	Depth to Water: N/	
	al Locatio	n: Act	ual - HSD	PDI			Surface Elevation:	
Depth Range It bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thickn		Sample ID
		0.0		CONCRETE		Concrete		
-1 -2 -3	4.5		dry to moist	FILL		fine to medium SAND, some to little ash, 3/2) dark brown, dry to moist, no odor, no		HSD-PDI-FF12A-0.7-1.2
-4- -				ND		NO DECOVEDY		HSD-PDI-FF12A-4.0-4.5
-5		0.0	al.a. :	NR	 	NO RECOVERY	h /7 EVD 0 E/0\	_
-6 -7 -8	3.5	0.0	dry to moist	FILL		fine to medium SAND, little coal, trace as very dark brown, medium dense, dry to m staining.		HSD-PDI-FF12A-6.0-6.5
-0					\bowtie	8		HSD-PDI-FF12A-8.0-8.5
-9— -				NR		NO RECOVERY		
-10 -11 -12	4.5	0.0	wet	FILL		fine silty SAND, trace coal and wood, (2.5 brown, medium dense, wet, no odor, no s 10.0 feet.		HSD-PDI-FF12A-10.0-10.5
-13 - -14 -				NR		NO RECOVERY		HSD-PDI-FF12A-14.0-14.5
15		0.0	saturated	FILL		ASH, little fill debris, (5YR 2.5/1) black, lo	ose, saturated no	1
- -16 - -17 -	5		3.00			odor, no staining.	,	HSD-PDI-FF12A-16.0-16.5
-18								HSD-PDI-FF12A-18.0-18.5
- -19			wet	FILL		fine silty SAND, some coarse gravel, trac reddish brown, soft, wet, no odor, no stail	e ash, (5YR 4/3) ning.	LIOD DOLETICO
20						8		HSD-PDI-FF12A-19.5-20.0
20 -21		0.0	wet	PT	<u> </u>	20% organic silt, (5YR 3/2) dark reddish i slight organic odor, no staining. Soils con	orown, soft, wet,	HSD-PDI-FF12A-20.0-20.5
	low surface eadow mat			omite ore procen		esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo		ufactured gas plant romate chemical production w

Boring ID: HSD-PDI-FF12A

Projec	t Name: F	PPG Ga	rfield Ave		Di	illing Company:	SGS North America		. ago. 2
	t Number:					rilling Method:		Coordinates (NJSPI	NAD83) x: 611573.2
				0:00:00 AM		g Type:	•	Coordinates (NJSPN	
Date F	inished Dr	illina:	6/6/2016	12:30:00 PM		ore Size: 3.0 in		Boring Total Depth:	
	d By: ES	g.				oject Manager:		Depth to Water: NA	
Physic	al Locatio	n: Act	ual - HSD	PDI	,,,,,			Surface Elevation:	
	ui Locatio	7.00	dai 110D					Carrace Elevation.	10.2 1(10.40.00
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log		Surface Cover and Thic	kness:	Sample ID
	. 5		wet	SP		fine to mediun	n silty SAND, (5Y 5/1) gra	ıy, medium dense,	
F -	3					wet, no odor, r	no staining. Soils consiste	nt with UNDno.	
23-	1								
L -									
24-									
24									
F -	1								
25					<u> </u>				
1			1						
1			1						
1			1						
			1						
1			1						
			1						
			1						
1			1						
1			1						
			1						
1									
:			1						
			1						
:[1						
			1						
1			1						
3			1						
N .									
[1						
Notes:	1		1	l	1				1
bgs - be	low surface	grade	COPR - chr	romite ore proc	essing resi	due UNDno - non	organic undisturbed native	deposits MGP - manu	ufactured gas plant

PPG - 2012-09 RA PPG_LOGS_A.GDT - 1/6/17 14:55

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

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. MM - meadow mat

CCPW - chromate chemical production waste

Boring ID: HSD-PDI-FF13A

Page: 1

Project N	Number:	60240	739			Drilling Method: Direct Push	Coordinates (NJSP)	NAD83) x: 611565.5488
				0:10:00 AM		Rig Type:		NAD83) y: 682880.9336
				10:45:00 AM		Core Size: 3.0 in	Boring Total Depth:	
	By: SC/		0/ 1/2010	10.10.00 / 441		Project Manager: Scott Mikaelian	Depth to Water: NA	
			ual - HSD	PDI			Surface Elevation:	
		7.00						10.0 10.10
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thick	ness:	Sample ID
-1		0 ppm		CONCRETE		Asphalt and Concrete		
· 4			dry	FILL		medium to coarse SAND, trace concrete	. fine gravel and	HSD-PDI-FF13A-1.5-2.0
-2-	4 E		dry	FILL		ash, (7.5YR 4/1) dark gray, loose, dry, no	o odor, no staining.	-
-3-	4.5		•			coarse SAND, trace ash, (7.5YR 4/1) da no odor, no staining.	rk gray, loose, dry,	
-4-			dry	FILL		fine to medium SAND, trace ash, cinders dark gray, loose, dry, no odor, no staining		
				NR		NO RECOVERY		
-6		0 ppm	dry	FILL		fine to medium SAND, trace fine gravel a dark gray, loose, dry, no odor, no staining		
								HSD-PDI-FF13A-6.0-6.5
-7	3.5		wet	FILL		CINDERS, trace ash, coal and metal det black, loose, wet to saturated, slight petro staining, water at 8.0 feet.		
					\bowtie	NO DECOMEDIA		HSD-PDI-FF13A-8.0-8.5
-9				NR		NO RECOVERY		
10		0 ppm	saturated	FILL		CINDERS, trace ash and coal, (7.5YR 2 saturated, slight petroleum odor, no stair		HSD-PDI-FF13A-10.0-10.5
11—			moist	FILL		fine to medium silty SAND, trace fine gra		HSD-PDI-FF13A-11.0-11.5
12	3.5		dry	PT		slight organic odor, no staining. Soils cor	% organic fibers, sh brown, stiff, dry,	HSD-PDI-FF13A-11.5-12.0
14				NR		NO RECOVERY		-
15								
otes:	ow surface	grade	COPR - chr	romite ore proc	essina r	sidue UNDno - non-organic undisturbed native o	deposits MGP - man	ufactured gas plant romate chemical production wa

Boring ID: HSD-PDI-FF14A

Page: 1

Project	Number:	60240		1.00.00 444		Drilling Company: SGS North America Drilling Method: Direct Push		NAD83) x: 611547.2	
				1:00:00 AM 12:00:00 PM		Rig Type: Core Size: 3.0 in	Coordinates (NJSPN Boring Total Depth:		
	d By: SC/		0/1/2010	12.00.00 1 101		Project Manager: Scott Mikaelian	Depth to Water: NA		
	al Locatio		ual - HSD I	PDI			Surface Elevation:		
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thickn	ness:	Sample ID	
		0 ppm		ASPHALT		Asphalt and gravel sub-base			
-1 -2	4.5		dry	FILL		coarse SAND, trace ash, fine gravel and dark gray, loose, dry, no odor, no staining		HSD-PDI-FF14A-0.5-1.0 HSD-PDI-FF14A-2.0-2.5	
-3 - -4			slightly moist	FILL		ASH, trace cinders and coal, (5YR 4/1) disslightly moist, no odor, no staining.	ark gray, loose,	HSD-PDI-FF14A-4.0-4.5	
-				NR		NO RECOVERY		1	
-5		0 ppm	moist	FILL		fine to medium SAND, trace ash and cinc dark brown, loose, moist, no odor, no stai		-	
-6 -7 - -8	4		wet to saturated	FILL		ASH, trace cinders and glass, (7.5YR 3/2 loose, wet to saturated, no odor, no staini feet.	e) dark brown, ng, water at 8.0	HSD-PDI-FF14A-6.0-6.5	
-9 				NR		NO RECOVERY		_	
-10 -		0 ppm	wet	FILL		fine to medium SAND, trace fine gravel a (7.5YR 4/1) dark gray, loose, wet, no odo		HSD-PDI-FF14A-10.0-10.5	
-11			moist	FILL		fine silty SAND, little fine gravel, (7.5YR 3	3/3) dark brown,	HSD-PDI-FF14A-11.0-11.5	
-12 - -13	3.5		dry	PT		PEAT (degraded vegetated material), 80% 20% organic silt, (2.5YR 2.5/4) dark redd slight organic odor, no staining. Soils con:	ish brown, stiff, dry,	HSD-PDI-FF14A-11.5-12.0	
-14 -15				NR		NO RECOVERY			
ĭM − me	eadow mat		GGM - gree	n grey mud		esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depos ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring	sits CCPW - chr	ufactured gas plant romate chemical production wa	

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-FF15A

	Number:					Drilling Method: Direct Push	Coordinates (NJSP)	NAD83) x: 611531.5
Date St	tarted Dril	ling: _6	3/3/2016 8:	05:00 AM		Rig Type:	Coordinates (NJSPN	AD83) y: 682843.7
Date Fi	nished Dr	illing:	6/3/2016 9	9:00:00 AM		Core Size: 3.0 in	Boring Total Depth:	15 ft
	By: HBE					Project Manager: Scott Mikaelian	Depth to Water: NA	\
			ual - HSD F	PDI			Surface Elevation:	
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 -2	4.5		dry	FILL		medium to coarse SAND, some fine gra (7.5YR 3/2) dark brown, loose, dry, no o		HSD-PDI-FF15A-0.5-1.0 HSD-PDI-FF15A-2.0-2.5
-	4.5		moist	FILL	\bowtie	fine SAND, trace ash, (2.5Y 5/1) gray, k	nose moist no odor	
-3 - -4			moist	FILL		no staining. fine to coarse SAND, trace fine to mediu and coal, (5Y 4/1) dark gray, medium de no staining.	ım gravel, cinders	HSD-PDI-FF15A-4.0-4.5
\dashv				NR	XXXXX	NO RECOVERY		
-5 -6 -7		0.0	wet	FILL		ASH, trace cinders and glass, (7.5YR 4/dense, wet, no odor, no staining.	2) brown, medium	HSD-PDI-FF15A-6.0-6.5
-7 - -8	3.5		wet to saturated	FILL		fine to medium GRAVEL, little silt, trace (5Y 2.5/1) black, loose, wet to saturated staining, water at 8.0 feet.		HSD-PDI-FF15A-8.0-8.5
-9 -10				NR		NO RECOVERY		HSD-PDI-FF15A-10.0-10.5
-11		0.0	wet to saturated wet	FILL		fine to medium GRAVEL, little silt, trace (5Y 2.5/1) black, loose, wet to saturated staining. SILT, trace fine sand, gravel and coal, (7)	, no odor, no	HSD-PDI-FF15A-10.7-11.2 HSD-PDI-FF15A-11.2-11.7
-12 -12	3.5		dry	PT	77 77 77 77 77 77 77 77 77 77 77 77 77	\(\sqray\), soft, wet, no odor, no staining. PEAT (degraded vegetated material), 80 20% organic silt, (5YR 3/3) dark reddish	% organic fibers, brown, medium	HSD-PDI-FF15A-11.2-11.7
-13 - -14			moist	OL NR		stiff, dry, moderate organic odor, no stai consistent with MM. Organic SILT, 90% organic silt, 10% org gray, soft, moist, no odor, no staining. S UNDorg. NO RECOVERY	panic fibers, (5Y 5/1)	
otes:								
gs - belo 1M - me	low surface adow mat		GGM - greei	n grey mud		esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native dep		ufactured gas plant omate chemical production wa

Boring ID: HSD-PDI-GG5A

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: 611698.43 Date Started Drilling: 5/18/2016 11:25:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683078.95 Date Finished Drilling: 5/18/2016 12:25:00 PM Core Size: 3.0 in Boring Total Depth: 20 ft Logged By: HBB Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual - HSD PDI Surface Elevation: 15.1 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Content ΙĎ (ft/ft) (ppm) Log (ft bgs) 2.5 **FILL** fine to medium SAND, some gravel, (7.5YR 4/2) brown, dry loose, dry, no odor, no staining. HSD-PDI-GG5A-0.5-1.0 fine to medium SAND, little ash, trace cinders, coal and dry **FILL** ceramics, (7.5YR 4/2) brown, medium dense, dry, no odor, HSD-PDI-GG5A-2.0-2.5 no staining. 4.7 HSD-PDI-GG5A-4.0-4.5 NO RECOVERY NR 0.0 moist FILL ASH, trace coal, glass and ceramics, (7.5YR 4/2) brown, medium dense, moist, no odor, water at 8.0 feet bgs. HSD-PDI-GG5A-6.0-6.5 3.7 HSD-PDI-GG5A-8.0-8.5 NR NO RECOVERY HSD-PDI-GG5A-10 0-10 5 0.0 ASH, trace coal, glass and ceramics, (5YR 5/1) gray, FILL wet medium dense, wet, no odor. 12 HSD-PDI-GG5A-12.0-12.5 4.5 **FILL** fine to medium SAND, trace wood, (5YR 4/1) dark gray, soft, wet 13 wet, no odor, no staining **FILL** wet coarse GRAVEL, (5Y 5/1) gray, loose, wet, no odor, no HSD-PDI-GG5A-14.0-14.5 **FILL** fine to medium SAND, trace silt and ash, (7.5YR 4/2) brown, wet soft, wet, no odor, no staining. NR NO RECOVERY 0.0 FILL fine sandy SILT, trace organic fibers and brick, (7.5YR 4/2) wet brown, medium dense, wet, no odor, no staining. HSD-PDI-GG5A-15 5-16 0 16 HSD-PDI-GG5A-16.0-16.5 dry PT PEAT (degraded vegetated material) 80% organic fibers, 20% organic silt, (5YR 3/3) dark reddish brown, medium stiff, dry, slight organic odor, no staining. Soils consistent 11, 11, 11/ moist SM fine SAND, trace silt, (5YR 3/2) dark reddish brown, medium dense, moist, no odor, no staining. Soils consistent with UNDno. NR NO RECOVERY 20

A.GDT - 1/6/17 14:

2012-09 RA PPG LOGS

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

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: HSD-PDI-GG6A

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: 611686.56 Drilling Method: direct push Date Started Drilling: 5/17/2016 7:55:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683055.67 Date Finished Drilling: 5/17/2016 9:00:00 AM Core Size: 3 in Boring Total Depth: 20 ft Depth to Water: NA Logged By: HBB Project Manager: Scott Mikaelian Physical Location: Actual - HSD PDI Surface Elevation: 14.8 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙĎ (ft/ft) (ppm) Content Log (ft bgs) HSD-PDI-GG6A-0.0-0.5 0.0 **FILL** fine to medium SAND, little gravel, trace brick, (7.5YR 4/2) brown, loose, dry, no odor, no staining. moist FILL fine to medium SAND, little silt, trace coal, glass, brick and cinders, (7.5YR 3/3) dark brown, medium dense, moist, no odor, no staining. HSD-PDI-GG6A-2.0-2.5 4.6 HSD-PDI-GG6A-4.0-4.5 FILL moist CINDERS, some medium to coarse sand, trace ash, (7.5YR 3/3) dark brown, loose, moist, no odor, no staining NR NO RECOVERY 0.0 wet **FILL** ASH, some cinders, little wood, trace debris, (2.5Y 4/2) dark grayish brown, loose, wet, no odor, no staining, water at 8.0 feet bgs. HSD-PDI-GG6A-6.0-6.5 3.7 HSD-PDI-GG6A-8.0-8.5 NR NO RECOVERY HSD-PDI-GG6A-10 0-10 5 0.0 FILL ASH, little cinders, trace wood and glass, (7.5YR 4/1) dark wet gray, loose, wet, no odor, no staining. 12 HSD-PDI-GG6A-12.0-12.5 5 13 HSD-PDI-GG6A-14.0-14.5 0.0 FILL ASH, trace cinders, (7.5YR 4/1) dark gray, loose, wet, no wet odor, no staining. HSD-PDI-GG6A-15 5-16 0 moist FILL Re-worked organic SILT, trace ceramics, (7.5YR 3/2) dark 16 HSD-PDI-GG6A-16.0-16.5 moist PT brown, soft, moist, slight organic odor, no staining. PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, medium stiff, moist, slight organic odor, no staining. Soils consistent 34 ML moist with MM. SM Organic SILT, 70% organic silt, 30% organic fibers, (5YR wet 4/4) reddish brown, soft, moist, slight organic odor, no NR staining. Soils consistent with UNDorg. fine silty SAND, trace organic fibers, (5YR 4/1) dark gray, 19 medium dense, wet, no odor, no staining. Soils consistent with UNDno.

Notes

20

A.GDT - 1/6/17 14:

2012-09 RA PPG LOGS

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

NO RECOVERY

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.

Boring ID: HSD-PDI-GG7A

732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Coordinates (NJSPNAD83) x: 611673.43 Drilling Method: direct push Date Started Drilling: 5/17/2016 9:00:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683028.16 Date Finished Drilling: 5/17/2016 10:00:00 AM Core Size: 3 in Boring Total Depth: 20 ft Depth to Water: NA Logged By: HBB Project Manager: Scott Mikaelian Physical Location: Actual - HSD PDI Surface Elevation: 14.4 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range (ft/ft) Content ΙĎ (ppm) Log (ft bgs) HSD-PDI-GG7A-0.0-0.5 2.5 **FILL** fine to coarse SAND, trace ash and debris, (7.5YR 4/2) dry brown, medium dense, dry, no odor, no staining. Ash and cinders, (7.5YR 4/1) dark gray, loose, dry, slight HSD-PDI-GG7A-2.0-2.5 **FILL** dry 4.6 solvent odor, no staining. moist FILL CINDERS, trace wood, (5Y 4/1) dark gray, loose, moist, no odor, no staining. HSD-PDI-GG7A-4.0-4.5 NO RECOVERY NR 205 moist FILL CINDERS, some ash, trace brick and ceramics, (5Y 4/1) dark gray, loose, moist, moderate solvent odor, no staining. ASH, (5Y 5/1) gray, loose, wet, slight solvent odor, no HSD-PDI-GG7A-6.0-6.5 FILL wet staining, water at 7.0 feet bgs. 3.5 HSD-PDI-GG7A-8.0-8.5 NO RECOVERY NR HSD-PDI-GG7A-10 0-10 5 0.0 FILL ASH, trace ceramics and coal, (5Y 5/1) gray, loose, saturated saturated, no odor, no staining. 12 HSD-PDI-GG7A-12.0-12.5 4.5 13 HSD-PDI-GG7A-14.0-14.5 NO RECOVERY NR 0.0 FILL saturated ASH, trace wood and coal, (5Y 5/1) gray, loose, saturated, no odor, no staining. HSD-PDI-GG7A-15.7-16.2 16 Re-worked organic SILT, little organics (grass), (7.5YR 4/2) moist **FILL** HSD-PDI-GG7A-16.2-16.7 brown, soft, moist, no odor, no staining.
PEAT (degraded vegetated material), 80% organic fibers, dry 20% organic silt, (5YR 3/3) dark reddish brown, medium 2.3 NR stiff, dry, slight organic odor, no staining. Soils consistent with MM NO RECOVERY 19 20

Notes

A.GDT - 1/6/17 14:

2012-09 RA PPG LOGS

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.

Boring ID: HSD-PDI-GG8A

Project N	lumber:		739			Drilling Method: Direct Push	Coordinates (N ISDI	NAD83) x: 611658.41
				10:45:00 AM		Rig Type:		AD83) y: 683000.24
			J/ 19/2016	3 12:15:00 PM	I	Core Size: 3 in	Boring Total Depth:	
	By: HBE		ual - HSD I	DDI		Project Manager: Scott Mikaelian	Depth to Water: NA	
riysical	Location	n: Act	uai - HSD i	וטו		_	Surface Elevation:	13./ Π ΝΑΥΔΙΟ
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thickr	ness:	Sample ID
		0.0		CONCRETE	P 1 4	Concrete		
-1-			dry to	FILL		fine to coarse SAND, trace silt and fill del brown, medium dense, dry to moist, no o		HSD-PDI-GG8A-0.5-1.0
-2-			moist				•	
-3-	5							HSD-PDI-GG8A-2.5-3.0
-4								HSD-PDI-GG8A-4.5-5.0
-5		0.0		FILL		fine to coarse SAND, trace silt and fill del brown, medium dense, moist, no odor, no		-
-6-				F" 1				HSD-PDI-GG8A-6.0-6.5
-7	3.5		wet	FILL		ASH, trace cinders and glass, (7.5YR 4/2 dense, wet, no odor, no staining, water at	z) brown, medium : 7.0 feet.	
-8				NR		NO RECOVERY		HSD-PDI-GG8A-8.0-8.5
-9								
-10 - -11		0.0	wet	FILL		CINDERS, (5YR 2.5/1) black, loose, wet, staining.	no odor, no	HSD-PDI-GG8A-10.0-10.5
-12 -13	4.5							HSD-PDI-GG8A-12.0-12.5
-14			wet	FILL		silty fine SAND, (7.5YR 4/2) brown, med	um dense, wet, no	HSD-PDI-GG8A-14.0-14.5
-15				NR		NO RECOVERÝ		HOD DD/ CCCA 45.6 : 5.5
		0.0	wet dry	FILL PT	$\underset{\underline{M}}{\underbrace{\otimes}}$	🗸 I - 🚿 prown. meaium dense, wet, no odor, no s	staining.	HSD-PDI-GG8A-15.0-15.5 HSD-PDI-GG8A-15.5-16.0
-16 			,		<u> </u>	slight organic odor, no staining. Soils con	brown, stiff, dry,	
-18	3.5		moist	SP	<u> </u>	silty fine SAND, trace organics, (5Y 5/1) dense, moist, no odor, no staining. Soils	gray, medium	
-19				NR		UNDorg. NO RECOVERY	CONSISTENT WILL	_
-								
20								
otes: gs - belov	w surface	grade	COPR - chr	omite ore proce	essing r	esidue UNDno - non-organic undisturbed native d		ufactured gas plant
	dow mat			n grey mud	-	UNDorg - organic undisturbed native depo		romate chemical production wa

Boring ID: HSD-PDI-GG9A

	Name: F Number:					Drilling Company: SGS North America Drilling Method: Direct Push	Coordinates (NJSPI	NAD83) x: 611646.3
				9:15:00 AM		Rig Type:	Coordinates (NJSPN	<u> </u>
				6 10:40:00 AM		Core Size: 2.0 in	Boring Total Depth:	
	By: HBE		0/20/20 1			Project Manager: Scott Mikaelian	Depth to Water: NA	
			TUAL - HS	D PDI			Surface Elevation:	
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thickn	ess:	Sample ID
		0.0		CONCRETE	P	Concrete		
7			moist	FILL		fine to medium SAND, little silt, trace ash.	(7.5YR 4/2)	HSD-PDI-GG9A-0.5-1.0
-1				NR	CXXXX	brown, loose, moist, no odor, no staining.		-
\dashv						NO RECOVERY		
-2-	2							
4								
-3-								
3								
\exists								
-4-		2.1	moist	FILL		fine to coarse SAND, some silt, trace ash	and fill debris	-
\dashv				,	XXX	(7.5YR 4/3) brown, soft, moist, no odor, n		
-5-				ND	$\times\!\!\times\!\!\times\!\!\times$	X		-
				NR		NO RECOVERY		
-6-	1							
0	•							
\exists								
-7—								
\dashv								
-8-		4= -						_
_		15.6	moist	FILL		fine to coarse SAND, little fine to medium	gravel, trace silt,	
			saturated	FILL	XXX	wood and coal, (7.5YR 4/2) brown, mediu	rri aense, moist, no	
-9—				NR		fine to medium SAND, some silt, trace fill	debris, (5YR	1
-	,					\ 2.5/1) black, soft, saturated, slight petrole		
-10	1					staining, water at 9.0 feet.		
\dashv						NO RECOVERY		
-11								
_12								
12		44.8	saturated	FILL	XXX	fine to medium SAND, some silt, trace fin		
\exists				NR	XXXX	(5YR 2.5/1) black, soft, saturated, moderated	ate petroleum odor, /	1
13-						\hydrocarbon staining. NO RECOVERY	/	
4						INO RECOVERT		
14	0.5							
45_								
15								
7								
16		22.7	wet	FILL		fine to medium SAND, little silt, trace fine	gravel, glass and	†
\dashv				'	XXX	organics, (5YR 2.5/1) black, soft, wet, slig		HSD-PDI-GG9A-16.5-17.0
-17				5.7	$\underset{1}{\overset{\vee}{\overset{\vee}{\overset{\vee}{\overset{\vee}{\overset{\vee}{\overset{\vee}{\overset{\vee}{\overset$	no staining.		HSD-PDI-GG9A-17.0-17.5
			dry	PT		FEAT (degraded vegetated material), 60%	organic fibers,	110D-FDI-009A-17.0-17.5
-18	2				<u> </u>	20% organic silt, (5YR 2.5/2) dark reddish stiff, dry, slight organic odor, no staining.		
10				NR		with MM.		
						NO RECOVERY		
19—								
\dashv								
20								
otes:				<u> </u>				1
	w surface	grade	COPR - chr	omite ore proce	essina r	esidue UNDno - non-organic undisturbed native de	eposits MGP - mani	ufactured gas plant comate chemical production wa

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-GG10A

Project	Number:	60240	730			Drilling Method: Direct push	Coordinates (NI ISDA	ΛΩΠΧ3) Α· Ε11Ε30 Β
				20.00 414			Coordinates (NJSPN	<u> </u>
			6/6/2016 8:2 6/6/2016 9			Rig Type: Core Size: 3.0 in	Coordinates (NJSPN Boring Total Depth:	
		iiiing:	6/6/2016 9	1:30:00 AW				
_ogged	By: ES	· ^ - ·	ual 1100 5	חח		Project Manager: Scott Mikaelian	Depth to Water: NA	
-nysica	u Locatio	n: Act	ual - HSD P	וטי	1	_	Surface Elevation:	I I. / II NAVDÖÖ
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	C Surface Cover and Thic	kness:	Sample ID
 -1 -2		0.0	dry to moist	FILL		fine to medium SAND, little concrete, to glass, (7.5YR 2.5/2) very dark brown, r moist, no odor, no staining.		HSD-PDI-GG10A-0.0-0.5
-3 -4	5							HSD-PDI-GG10A-4.0-4.5
-5 		0.0	moist to wet	FILL		fine to medium SAND, little wood, trace (7.5YR 2.5/2) very dark brown, mediun slight organic odor, no staining, water a	n dense, moist to wet,	
-7 -8	3.5							HSD-PDI-GG10A-6.0-6.5
-9-				NR		NO RECOVERY		HSD-PDI-GG10A-8.0-8.5
		0.0	saturated	FILL	XXXX	SILT, little wood and ash, (5Y 2.5/1) bla	ack very loose	HSD-PDI-GG10A-10.0-10.5
\dashv		0.0			$\times\!\!\times\!\!\times$	saturated, no odor, no staining.	ack, very loose,	-
-11 			wet	FILL		fine silty SAND, little wood and organic brown, medium dense, wet, no odor, sl	s, (5YR 4/3) reddish ight black staining.	HSD-PDI-GG10A-11.5-12.0
-12			int	DT	<u> </u>	/ DEAT (de sure de d. ve sente te d. se et a viel). 7	TO/ average file and	HSD-PDI-GG10A-12.0-12.5
_ -13	3.5		moist wet	PT SP		25% organic silt, (5YR 4/4) reddish bromoist, slight organic odor, no staining.	own, medium stiff,	HSD-PDI-GG10A-12.5-13.0
_ _14				NR		; \MM. fine to medium SAND, trace fine grave gray, medium dense, wet, no odor, no consistent with UNDno.		
- 15						NO RECOVERY		
	ow surface adow mat		COPR - chro		essing re	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native de	e deposits MGP - manu	ufactured gas plant romate chemical production wa

Boring ID: HSD-PDI-GG11A

Project Project	Number:		739			Drilling Method: Direct push	Coordinates (NJSP)	NAD83) x: 611617.3
	arted Dril			MA 00:00:		Rig Type:	Coordinates (NJSPN	
				10:00:00 AM		Core Size: 3.0 in	Boring Total Depth:	
		iiiiig.	0/3/2010	10.00.00 AIVI			Depth to Water: NA	
	IBy: ES al Locatio	n: ^c+	nd Lich i	DDI		Project Manager: Scott Mikaelian		
riysica	ai LOCATIO	ii: ACT	udi - 115D	רטו			Surface Elevation:	12.U IL INAVDOS
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thickne	ess:	Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base		
-1 -1			dry	FILL		fine to medium SAND, little wood, trace as (7.5YR 3/2) dark brown, medium dense, d odor, no staining.	ry, slight gasoline	HSD-PDI-GG11A-1.0-1.5
-3 -4	5		dry	FILL		fine to medium SAND, some wood and co black, medium dense, dry, slight gasoline		HSD-PDI-GG11A-3.0-3.5
-5		5.5	moist	FILL		fine to medium SAND, little wood, trace sil medium dense, moist, slight gasoline odor		HSD-PDI-GG11A-5.0-5.5
-6			moist	FILL		fine to medium SAND, some ash, little woo reddish brown, medium dense, moist, no c		
-7 -8 -	4.5		moist to wet	FILL		fine to medium SAND, some wood, little control brick, (7.5YR 3/2) dark brown, medium de no odor, no staining, water at 9.0 feet.		HSD-PDI-GG11A-7.0-7.5
-9 -10		0.0		NR		NO RECOVERY	1 (5)(5) 1(4)	HSD-PDI-GG11A-9.0-9.5
-11 -12 -13	5	0.0	wet	FILL		ASH, some fine to coarse sand, little fine of dark gray, loose, wet, no odor, no staining.		HSD-PDI-GG11A-11.0-11.5
-14			wet	FILL		fine to medium SAND, some ash, little woo very dark brown, medium dense, wet, no control of the		
\dashv			moist	FILL		fine silty SAND, little fine gravel, trace ash	and organics.	HSD-PDI-GG11A-14.5-15.0
-15 -16 -17	4	0.0	dry	PT		(5YR 4/3) reddish brown, medium dense, staining. PEAT (degraded vegetated material), 80% 20% organic silt, (5YR 4/3) reddish brown organic odor, no staining. Soils consistent	moist, no odor, no organic fibers, stiff, dry, slight	HSD-PDI-GG11A-15.0-15.5
-18			moist	OL		Organic SILT, 80% organic silt, 20% organic 4/2) brown, soft, moist, no odor, no stainin with UNDorg.		
-19 - -20				NR		NO RECOVERY		
Notes:								
gs - belo 1M - me	adow mat		GGM - gree	en 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.		ufactured gas plant omate chemical production wa

Test Pit ID: HSD-PDI-GG11A-R

Page: 1

Project Name: PPG Garfield Ave	Drilling Company: ADT	
Project Number: 60577798	Drilling Method: Test Pit	Coordinates (NJSPNAD83) x: 611619.0
Date Started Drilling: 3/1/2022	Rig Type: Soft Dig	Coordinates (NJSPNAD83) y: 682922.5
Date Finished Drilling: 3/1/2022	Core Size: Test Pit	Boring Total Depth: 2 ft
Logged By: JH	Project Manager: Aimee Ruiter	Depth to Water: NA
	Froject Manager. Aimee Nuite	Surface Elevation: 11.8 ft NAVD88
Physical Location:		Surface Elevation: 11.6 It NAVD00
Depth Range (ft bgs) Recovery (ft/ft) PID Moisture Content USCS Grap Log	nic Surface Cover and Thickney	ess: Sample ID
ASPHALT	Asphalt	
Dry FILL	fine to medium SAND, little wood, trace as (7.5YR 3/2) dark brown, medium dense, o odor, no staining	sh and fill debris, dry, slight gasoline
		HSD-PDI-GG11A-R-1.5-2.0
Notes:		
Notes:	regidue. LINDres, per erregie undintumbend und 1	monito MCD manufactured and -1t
bgs - below surface grade COPR - chromite ore processing MM - meadow mat GGM - green grey mud	residue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos	posits MGP - manufactured gas plant its CCPW - chromate chemical production waste

PPG - 2012-09 RA PPG_LOGS_A.GDT - 12/2/22 15:07

Boring ID: HSD-PDI-GG12A

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: 611600 Drilling Method: direct push Date Started Drilling: 6/3/2016 10:15:00 AM Coordinates (NJSPNAD83) y: 682908.3 Rig Type: Date Finished Drilling: 6/3/2016 12:00:00 PM Core Size: 3.0 in Boring Total Depth: 20 ft Project Manager: Scott Mikaelian Depth to Water: NA Logged By: ES Physical Location: Actual - HSD PDI Surface Elevation: 11.7 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 HSD-PDI-GG12A-0.5-1.0 FILL fine to coarse SAND, some ash, (5YR 4/3) reddish brown, dry medium dense, dry, no odor, no staining. **FILL** fine to coarse SAND, some concrete, little ash and wood, dry 5 (7.5YR 3/3) dark brown, medium dense, dry, no odor, no HSD-PDI-GG12A-2.5-3.0 staining. HSD-PDI-GG12A-4 5-5 0 fine to coarse SAND, little ash, (7.5YR 4/2) brown, medium 0.0 moist **FILL** dense, moist, no odor, no staining. FILL moist ASH, some fine sand, little fill debris, (2.5Y 5/1) gray, loose, to moist to wet, no odor, no staining, water at 7.5 feet. wet HSD-PDI-GG12A-6.5-7.0 4 **FILL** fine silty SAND, some ash, little fine gravel and wood, wet (7.5YR 2.5/1) black, medium dense, wet, no odor, no HSD-PDI-GG12A-8.5-9.0 staining NR NO RECOVERY 2.0 FILL ASH, some fine gravel, little fill debris, (5YR 4/1) dark gray, wet loose, wet, no odor, no staining. HSD-PDI-GG12A-10.5-11.0 12 5 HSD-PDI-GG12A-12.5-13.0 moist **FILL** fine SAND, (7.5YR 3/2) dark brown, very dense, moist, 13 slight petroleum odor, black tar-like staining. HSD-PDI-GG12A-14.5-15.0 HSD-PDI-GG12A-15.0-15.5 0.0 FILL SILT, trace ash, fill debris and organics, (7.5YR 4/2) brown, wet soft, wet, no odor, no staining. HSD-PDI-GG12A-15 5-16 0 PT dry PEAT (degraded vegetated material), 80% organic fibers, 16 1/ 1/ V 20% organic silt, (5YR 4/3) reddish brown, stiff, dry, no odor, no staining. Soils consistent with MM. 11, 11, 1/ 1/1/ 1 3.5 OL Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR) moist 4/2) brown, soft, moist, no odor, no staining. Soils consistent A.GDT - 1/6/17 14: with UNDorg NR NO RECOVERY 19

2012-09 RA PPG LOGS

20

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

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.

AECOM

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-HH6A

av N.I 08854

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611713.33 Date Started Drilling: 5/16/2016 10:45:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683041.42 Date Finished Drilling: 5/16/2016 11:45:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft Depth to Water: NA Logged By: HBB Project Manager: Scott Mikaelian Physical Location: Actual - HSN PDI Surface Elevation: 15.0 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Soil Description: (ft/ft) ΙĎ (ft bgs) (ppm) Content Log 5.0 **FILL** fine to medium SAND, some gravel, trace glass, (7.5YR 4/2) dry brown, loose, dry, no odor, no staining. FILL CINDERS, some ASH, little wood, trace glass, (7.5YR 4/2) moist brown, medium dense, moist, slight solvent odor, no staining. NO RECOVERY NR 664 FILL wet CINDERS, some ash, little wood, trace fill debris, (5Y 5/1) gray, medium dense, wet to saturated, strong solvent odor, to saturated no staining. HSD-PDI-HH6A-8.0-8.5 NR NO RECOVERY 10.0 **FILL** wet CINDERS, some ash, little wood, trace glass, (5Y 5/1) gray, medium dense, wet to saturated, strong solvent odor, no to saturated staining, water at 10.0 feet bg.s HSD-PDI-HH6A-12.0-12.5 4.5 13 HSD-PDI-HH6A-14.0-14.5 NR NO RECOVERY HSD-PDI-HH6A-15.0-15.5 3.0 wet **FILL** ASH, trace silt, wood and organic fibers, (5Y 5/1) gray, medium dense, wet, slight solvent odor, no staining. PEAT (degraded vegetated material), 80% organic fibers, HSD-PDI-HH6A-15.5-16.0 PT 16 11/ 20% organic silt, (7.5YR 4/2) brown, medium stiff, dry, slight organic odor, no staining. Soils consistet with MM. 11, 11, 3.5 11, Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR moist OL 4/2) brown, medium stiff, moist, no odor, no staining. Soils consistet with UNDorg. NR NO RECOVERY

2012-09

A.GDT - 5/

RA PPG LOGS

bgs - below surface grade COPR - chi MM - meadow mat GGM - gree

COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits GGM - green grey mud 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

Boring ID: HSD-PDI-HH6AR

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611713.33 Date Started Drilling: 11/2/2017 Coordinates (NJSPNAD83) y: 683041.42 Rig Type: Date Finished Drilling: 11/2/2017 Core Size: 3.0 in Boring Total Depth: 20 ft Project Manager: Scott Mikaelian Logged By: HBB Depth to Water: NA Physical Location: Actual - HSN PDI Surface Elevation: 15.0 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Soil Description: (ft/ft) ΙĎ (ft bgs) (ppm) Content Log 5.0 **FILL** fine to medium SAND, some gravel, trace glass, (7.5YR 4/2) dry brown, loose, dry, no odor, no staining. FILL CINDERS, some ASH, little wood, trace glass, (7.5YR 4/2) moist brown, medium dense, moist, slight solvent odor, no staining. NO RECOVERY NR 664 FILL wet CINDERS, some ash, little wood, trace fill debris, (5Y 5/1) gray, medium dense, wet to saturated, strong solvent odor, to saturated no staining. NR NO RECOVERY 10.0 **FILL** wet CINDERS, some ash, little wood, trace glass, (5Y 5/1) gray, medium dense, wet to saturated, strong solvent odor, no to saturated staining, water at 10.0 feet bg.s 4.5 13 NR NO RECOVERY 3.0 wet **FILL** ASH, trace silt, wood and organic fibers, (5Y 5/1) gray, medium dense, wet, slight solvent odor, no staining. PEAT (degraded vegetated material), 80% organic fibers, HSD-PDI-HH6AR-15.5-16.0 PT 16 11/ 20% organic silt, (7.5YR 4/2) brown, medium stiff, dry, slight organic odor, no staining. Soils consistet with MM. 11, 11, 3.5 11, Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR moist OL 4/2) brown, medium stiff, moist, no odor, no staining. Soils consistet with UNDorg. NR NO RECOVERY

2012-09

A.GDT - 5/15/20

RA PPG LOGS

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

Project Number: 60240739

Logged By: HBB

Project Name: PPG Garfield Ave

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-HH7A Page: 1 Drilling Company: SGS North America Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611700.29 Date Started Drilling: 5/18/2016 10:05:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683014.42 Date Finished Drilling: 5/18/2016 11:10:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft Project Manager: Scott Mikaelian Depth to Water: NA Surface Elevation: 14.7 ft NAVD88 Physical Location: Actual - HSD PDI

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.2	dry	FILL		fine to medium SAND, some gravel, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	HSD-PDI-HH7A-0.0-0.5
<u> </u>			moist	FILL		fine to coarse SAND, trace gravel, ash and brick, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	
	4.7						HSD-PDI-HH7A-2.0-2.5
-4-							HSD-PDI-HH7A-4.0-4.5
				NR		NO RECOVERY	
		513	wet	FILL		ASH, trace coal, (2.5Y 5/1) gray, medium dense, wet, no staining, strong gasoline odor, water table at 8.5 ft. bgs.	
6 7							HSD-PDI-HH7A-6.0-6.5
-8-	4						HSD-PDI-HH7A-8.0-8.5
9				NR		NO RECOVERY	
—10— —11—		435	saturated	FILL		ASH, little fine to coarse sand, trace coal and glass, (2.5Y 5/2) grayish brown, medium dense, saturated, strong gasoline odor, product staining, sheen.	HSD-PDI-HH7A-10.0-10.5
12 13	4.7						HSD-PDI-HH7A-12.0-12.5
—14— — —				NR		— NO RECOVERY	HSD-PDI-HH7A-14.0-14.5
—15 — —		6.5	wet	FILL		ASH, trace fine to coarse sand, coal, glass and wood, (7.5YR 3/4) dark brown, medium dense, wet, slight gasoline odor, no staining, sheen.	
16 -			moist	FILL		Re-worked SILT, little organic fibers, trace ash, (7.5YR 4/2)	HSD-PDI-HH7A-16.0-16.5
17—	4		dry	PT	71/71/ 71/71/ 71/71/	brown, soft, moist, no odor, no staining. PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, medium stiff, dry, slight organic odor, no staining. Soils consistent	HSD-PDI-HH7A-16.5-17.0
18			moist	SM		with MM. silty SAND, (2.5Y 5/2) grayish brown, medium dense, moist, no odor, no staining. Soils consistent with UNDno.	
20-				NR		NO RECOVERY	
18—18—19—19—19—19—19—19—19—19—19—19—19—19—19—							

2012-09 Notes:

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

ents: 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: HSD-PDI-HH8A

	Name: F					Drilling Company: SGS North America		
	Number:					Drilling Method: direct push		IAD83) x: 611683.08
				1:45:00 AM		Rig Type:	Coordinates (NJSPN	
		illing:	5/16/2016	12:45:00 PM		Core Size: 3.0 in	Boring Total Depth:	
	IBy: ES					Project Manager: Scott Mikaelian	Depth to Water: NA	
Physic	al Locatio	n: Act	ual - HSN F	PDI		1	Surface Elevation:	13.5 ft NAVD88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thickn	ess:	Sample ID
 -1 		5	dry	FILL		fine to medium SAND, trace organics (roc (7.5YR 4/2) brown, medium dense, dry, n		HSD-PDI-HH8A-0.0-0.5
-3 -4	4.5		dry	FILL		fine to medium SAND, some coal fragmer concrete, (2.5Y 4/2) dark grayish brown, r slight solvent odor, no staining.	nts, trace medium dense, dry,	HSD-PDI-HH8A-4.0-4.5
_				NR		NO RECOVERY		
-5 - -6 - -7	3.5	704	moist to wet	FILL		Ash, some to little cinders, (2.5Y 5/1) gray wet, strong solvent odor, no staining, water		HSD-PDI-HH8A-6.0-6.5
-8-					\bowtie			HSD-PDI-HH8A-8.0-8.5
-9 				NR		NO RECOVERY		
-10		20			XXXX	Ash same fine to madi una sand little sine	lana (0.5)(5(0)	HSD-PDI-HH8A-10.0-10.5
-11 -12	4.5	20	wet	FILL		Ash, some fine to medium sand, little cinc grayish brown, wet, slight solvent odor, no		HSD-PDI-HH8A-12.0-12.5
-13 -14	4.5		wet	FILL		fine silty SAND, little wood, (7.5YR 4/2) b dense, wet, slight solvent odor, black stair bgs.		
· · _					\bowtie	×		HSD-PDI-HH8A-14.0-14.5
ر _ا ا			T	NR		NO RECOVERY		
-15		5	wet	FILL		fine to medium SAND, little silt, trace bricl		HSD-PDI-HH8A-15.2-15.7
٦			p		XXX	4/3) reddish brown, medium dense, wet, s	slight solvent odor,	HSD-PDI-HH8A-15.7-16.2
-16			slightly	PT	1 2 27	no staining. PEAT (degraded vegetated material), 80%	organic fibore	
_			moist wet	OL	H	20% organic silt, (5YR 3/2) dark reddish b	prown. stiff slightly	HSD-PDI-HH8A-16.2-16.7
_17			******		<u> </u>	moist, slight organic odor, no staining. So		
	2.5					\MM.		
-18 -				NR		fine to medium SAND, little silt, little orgar grayish brown, medium dense, wet, no od Soils consistet with UNDorg. NO RECOVERY	nics, (2.5Y 5/2) lor, no staining.	
-19						NO ILLOOVEIVI		
-20								
	ow surface		COPR - chro		essing re	esidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos		factured gas plant omate chemical production wa
	auow iiial							

Boring ID: HSD-PDI-HH9A

roject Number ate Started Di ate Started Di ate Finished I ogged By: St hysical Locati lepth ange (ft/ft) -12 - 4.5 -345 4.5 -31515111	rilling: 5 Drilling: C/BB ion: Act	5/31/2016 1 5/31/2016	12:45:00 P	1 PM	Rig Type: Coordinates (NJSPI Core Size: 3.0 in Boring Total Depth: Project Manager: Scott Mikaelian Depth to Water: N Surface Elevation:	Α
ate Finished I ogged By: So hysical Location (ft/ft) Pepth ange it bgs) -1	Drilling: C/BB ion: Act y PID (ppm) 0 ppm	5/31/2016 ual - HSD P Moisture Content dry dry moist	USCS FILL NR FILL	PM Graphic	Core Size: 3.0 in Project Manager: Scott Mikaelian Surface Elevation: Surface Cover and Thickness: fine SAND, trace fine to coarse gravel and silt, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining. fine to medium SAND, trace fine gravel, ash and coal, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, trace cinders and fill debris, (7.5YR 4/1) dark gray, loose, moist, no odor, no staining. medium to coarse SAND, trace medium gravel, ash and cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no	: 20 ft A 12.5 ft NAVD88 Sample ID HSD-PDI-HH9A-0.0-0.5 HSD-PDI-HH9A-2.0-2.5 HSD-PDI-HH9A-4.0-4.5
Septemble Sept	C/BB ion: Act y PID (ppm) 0 ppm	Moisture Content dry dry moist	USCS FILL FILL NR FILL	Graphi	Project Manager: Scott Mikaelian Surface Elevation: Surface Cover and Thickness: fine SAND, trace fine to coarse gravel and silt, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining. fine to medium SAND, trace fine gravel, ash and coal, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, trace cinders and fill debris, (7.5YR 4/1) dark gray, loose, moist, no odor, no staining. medium to coarse SAND, trace medium gravel, ash and cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no	12.5 ft NAVD88 Sample ID HSD-PDI-HH9A-0.0-0.5 HSD-PDI-HH9A-2.0-2.5 HSD-PDI-HH9A-4.0-4.5
hysical Location hysica	ion: Act y PID (ppm) 0 ppm	Moisture Content dry dry moist	USCS FILL FILL NR FILL	Graphi	Surface Cover and Thickness: fine SAND, trace fine to coarse gravel and silt, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining. fine to medium SAND, trace fine gravel, ash and coal, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, trace cinders and fill debris, (7.5YR 4/1) dark gray, loose, moist, no odor, no staining. medium to coarse SAND, trace medium gravel, ash and cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no	12.5 ft NAVD88 Sample ID HSD-PDI-HH9A-0.0-0.5 HSD-PDI-HH9A-2.0-2.5 HSD-PDI-HH9A-4.0-4.5
Recover (ft/ft) 1	y PID (ppm) O ppm O ppm	Moisture Content dry dry moist	USCS FILL FILL NR FILL		Surface Cover and Thickness: fine SAND, trace fine to coarse gravel and silt, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining. fine to medium SAND, trace fine gravel, ash and coal, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, trace cinders and fill debris, (7.5YR 4/1) dark gray, loose, moist, no odor, no staining. medium to coarse SAND, trace medium gravel, ash and cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no	HSD-PDI-HH9A-4.0-4.5 HSD-PDI-HH9A-6.0-6.5
ange (ft/ft) -1 -2 -4 -5 -6 -7 - 4.5 -8 -9 -10 -11 -12 - 5	(ppm) O ppm O ppm	dry dry moist	FILL FILL NR FILL		fine SAND, trace fine to coarse gravel and silt, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining. fine to medium SAND, trace fine gravel, ash and coal, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, trace cinders and fill debris, (7.5YR 4/1) dark gray, loose, moist, no odor, no staining. medium to coarse SAND, trace medium gravel, ash and cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no	HSD-PDI-HH9A-2.0-2.5 HSD-PDI-HH9A-4.0-4.5 HSD-PDI-HH9A-6.0-6.5
-4.5 -34574.5 -891011125	0 ppm	dry	FILL NR FILL		brown, medium dense, dry, no odor, no staining. fine to medium SAND, trace fine gravel, ash and coal, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, trace cinders and fill debris, (7.5YR 4/1) dark gray, loose, moist, no odor, no staining. medium to coarse SAND, trace medium gravel, ash and cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no	HSD-PDI-HH9A-4.0-4.5 HSD-PDI-HH9A-6.0-6.5
-4.5 -34574.5 -891011125		moist	NR FILL		(7.5YR 4/1) dark gray, loose, dry, no odor, no staining. NO RECOVERY ASH, trace cinders and fill debris, (7.5YR 4/1) dark gray, loose, moist, no odor, no staining. medium to coarse SAND, trace medium gravel, ash and cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no	HSD-PDI-HH9A-4.0-4.5 HSD-PDI-HH9A-6.0-6.5
-6			FILL		ASH, trace cinders and fill debris, (7.5YR 4/1) dark gray, loose, moist, no odor, no staining. medium to coarse SAND, trace medium gravel, ash and cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no	HSD-PDI-HH9A-6.0-6.5
-6			FILL		ASH, trace cinders and fill debris, (7.5YR 4/1) dark gray, loose, moist, no odor, no staining. medium to coarse SAND, trace medium gravel, ash and cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no	
-6					loose, moist, no odor, no staining. medium to coarse SAND, trace medium gravel, ash and cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no	
-8— -9— -10— -11— -12— 5	0 nnm	moist	FILL		cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no	
-8— -9— -10— -11— -12— 5	0 nnm	moist	FILL		cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no	HSD-PDI-HH9A-8.0-8.5
-11— -12— - 5	0 nnm					1100 1 0111110/1 0.0 0.0
- 11— - 12— - 5	0 nnm					
- 11— - 12— - 5	0 nnm		NR		NO RECOVERY	+
12—		wet	FILL		fine to medium SAND, trace fine gravel, ash and cinders,	HSD-PDI-HH9A-10.0-10.5
		wet	112		(7.5YR 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-HH9A-12.0-12.5
11						
14—						HSD-PDI-HH9A-14.0-14.5
15	0 ppm	wet	FILL		fine to medium SAND, trace fine gravel, ash and cinders,	HSD-PDI-HH9A-15.0-15.5
16— - 17—		dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (2.5YR 2.5/4) dark reddish brown, stiff, dry, strong organic odor, no staining. Soils consistent with MM.	HSD-PDI-HH9A-15.5-16.0
_ 5		dry	OL	 	Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR	+
18—		ui y	OL		3/4) dark brown, dry, no odor, no staining. Soils consistent with UNDorg.	
19—				<u> </u>	 	
20						
otes: gs - below surfac M - meadow ma		COPR - chro		cessing re		nufactured gas plant

Boring ID: HSD-PDI-II6A 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: 611733.6 Date Started Drilling: 6/1/2016 9:00:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683034.8 Date Finished Drilling: 6/1/2016 10:00:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft Logged By: SC Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual - HSD PDI Surface Elevation: 15.2 ft NAVD88 Depth Recovery PID Moisture Sample Graphic **USCS** Surface Cover and Thickness: Range (ft/ft) (ppm) Content ΙD Log

bgs) (II	VII)	(ppm)	Content		Log		טו
1		0 ppm	dry	FILL		fine to medium SAND, little fine to medium gravel, trace ash, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	HSD-PDI-II6A-0.0-0.5
3—	l.5		dry	FILL		medium to coarse SAND, some brick and coal, trace silt (7.5YR 3/2) dark brown, loose, dry, no odor, no staining.	HSD-PDHI6A-2.0-2.5
4							HSD-PDI-II6A-4.0-4.5
				NR		NO RECOVERY	
		220 ppm	dry	FILL		medium to coarse SAND, trace silt, brick and wood, (5YR 4/3) reddish brown, loose, dry, no odor, no staining.	
5—			moist	FILL		ASH, some coal, (7.5YR 4/2) brown, loose, moist, strong solvent odor, no staining.	HSD-PDI-II6A-6.0-6.5
7	4		moist	FILL		ASH, trace cinders, wood and metal debris, (5YR 4/1) dark gray, loose, moist, strong solvent odor, no staining.	
<u> </u>							HSD-PDI-II6A-8.0-8.5
'				NR	*****	NO RECOVERY	
		183 ppm	moist	FILL		ASH, trace cinders and wood, (7.5YR 4/1) dark gray, loose, moist, moderate solvent odor, no staining.	HSD-PDI-II6A-10.0-10.5
2 4	l.5		saturated	FILL		medium to coarse SAND, some fine to medium gravel, trace cinders, (2.5Y 5/2) grayish brown, loose, saturated, moderate solvent odor, no staining, water at 11.0 feet.	HSD-PDI-II6A-12.0-12.5
3			saturated	FILL		medium to coarse SAND, little fine gravel, trace silt (2.5Y 5/2) grayish brown, loose, saturated, moderate solvent odor, no staining.	
					XXXX		HSD-PDI-II6A-14.0-14.5
; —		2.2		NR	- XXXX	NO RECOVERY	
4		2.2 ppm	moist	FILL		fine to medium SAND, (7.5YR 3/4) dark brown, loose, moist, no odor, no staining.	HSD-PDI-II6A-15.5-16.0
	4		dry	PT	77 77 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 4/3) reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-II6A-16.0-16.5
3					<u> </u>		
9			moist	OL NR	 	Organic SILT, 90% organic silt, 10% organic fibers, (7.5YR 4/1) dark gray, dense, moist, no odor, no staining. Soils consistent with UNDorg.	

2012-09 RA

Notes: bgs - below surface grade bgs - 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

nents: 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: HSD-SI-GG8A-B4B

Page: 1

	Name: F					Drilling Company: SGS North America	Coordinates (NICE	MAD02) v. 644675.00
	Number:					Drilling Method: Direct Push		NAD83) x: 611675.66
	arted Dril					Rig Type:	Coordinates (NJSPN	
			5/19/2016	<u> </u>		Core Size: 3 in	Boring Total Depth:	
	By: HBE					Project Manager: Scott Mikaelian	Depth to Water: NA	
nysica	al Locatio	n:				1	Surface Elevation:	13.6/ π NAVD88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thickr	ness:	Sample ID
		0.0	dry	CONCRETE	p 14 4	CONCRETE, dry, no odor, no staining.		
-1 -2	4		dry	FILL		fine to coarse SAND, little fine to medium ash, and fill debris, (7.5YR 4/2) brown, m no odor, no staining.		HSD-SI-GG8A-B4B-0.5-1.0
			moist	FILL	$\times\!\!\times\!\!\times$	ASH, trace brick and wood, (7.5YR 4/1)	dark gray, loose,	1
-3			dry	FILL		moist, no odor, no staining. CINDERS, trace ash, (7.5YR 2.5/1) black odor, no staining.	k, loose, dry, no	
-4				NR	~~~	NO RECOVERY		
-5		480	moist	FILL		CINDERS, trace ash, (7.5YR 2.5/1) black odor, no staining.	k, loose, moist, no	Hen el con a papa a se
-6			moist	FILL		ASH, trace fill debris, (7.5YR 4/1) dark gi	ray, medium dense	HSD-SI-GG8A-B4B-5.5-6.0
-7 -8	3.5		moist to wet	FILL		moist, slight petroleum odor, no staining. CINDERS, trace ash and wood, (7.5YR 2 moist to wet, moderate petroleum odor, n 8.0 feet.	2.5/1) black, loose,	HSD-SI-GG8A-B4B-7.5-8.0
_ -9—				NR		NO RECOVERY		
ĭM - me	adow mat		GGM - gree	en grey mud		esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	leposits MGP - manı sits CCPW - chı	ufactured gas plant omate chemical production wa



Boring ID: P4-CC20A

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America

Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611391.808 **Date Started Drilling:** 12/11/2014 9:15:00 AM Rig Type: Geoprobe Coordinates (NJSPNAD83) y: 682734.17

Date Finished Drilling: 12/11/2014 10:15:00 AM Core Size: 3.0 in Boring Total Depth: 10 ft Logged By: SP Project Manager: Scott Mikaelian Depth to Water: N/A

weice	al Location	n. Ca	rtarat Avar	מווב					
ySiC	ai Locatioi	II. Ca	teret Aver	iue					(Note bgs = below ground surface)
pth nge ogs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	2	Surface Cover and Th	ickness:	Sample ID
		0.0		ASPHALT		ASPHALT.			
1	۔	0.0	slightly moist	FILL		fine SAND,(10 dense,slightly	OYR 5/8) yellowish bro moist,no odor,no stai	wn,loose to medium ning.	P4-CC20A-0.5-1.0 P4-CC20A-2.0-2.5
3 4	5	0.0	slightly moist	FILL		fine to coarse coal,(10YR 4/ moist,no odor	SAND,some ash,trac 2) dark grayish brown, ,no staining.	e gravel,trace loose,slightly	
5		0.0	slightly	FILL		fine to mediur	m SAND,trace gravel,t	race ash (2 5YR	P4-CC20A-4.0-4.5
\exists		0.0	moist	FILL		2.5/2) very du	sky red, medium dense	e,slightly moist,no	\overline{A}
6— - 7— -	5	0.0	saturated	112		odor,no staini fine to mediur 2.5/2) very du staining.	ng. n SAND,some gravel, sky red,loose,saturate	trace ash,(2.5YR d,no odor,no	P4-CC20A-6.0-6.5
3— - 9—						× × × × × × × ×			P4-CC20A-8.0-8.5
0						Υ			
				1	1				

Boring ID: P4-HSN-AA17A

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Coordinates (NJSPNAD83) x: 611371.09 Project Number: 60314351.GA.DE.PDI.FOR Drilling Method: macrocores Date Started Drilling: 5/4/2016 11:55:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682841.74 Date Finished Drilling: 5/4/2016 12:30:00 PM Core Size: 3.0 in Boring Total Depth: 20 ft Logged By: Eric Stone Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual - HSN PDI Surface Elevation: 11.0 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, gravel sub-base and concrete. **FILL** fine to medium SAND, little ash, trace glass, (5YR 4/3) dry reddish brown, medium dense, dry, no odor, no staining. NO RECOVERY NR 0.0 moist **FILL** fine to medium SAND, some ash, little wood, (2.5Y 4/2) dark grayish brown, medium dense, moist, no odor, no staining. FILL Ash, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining, wet 5 light sheen, water at 7.0 feet bgs. P4-HSN-AA17A-9.0-9.5 2.0 FILL Ash, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining, wet dry **FILL** sandy SILT, trace wood, (7.5YR 4/2) brown, soft, dry, no odor, no staining. 12 P4-HSN-AA17A-12.0-12.5 **FILL** silty SAND, trace brick and concrete, (5YR 4/3) reddish wet 5 brown, medium dense, wet, no odor, no staining. 13 P4-HSN-AA17A-14.0-14.5 P4-HSN-AA17A-15.0-15.5 0.0 FILL silty SAND, trace brick and concrete, (5YR 4/3) reddish wet brown, medium dense, wet, no odor, no staining. P4-HSN-AA17A-15 5-16 0 slightly OL Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 16 moist 4/2) brown, medium stiff, slightly moist, slight organic odor, no staining. Soils consistent with UNDorg. 5 PT PEAT, 80% organic fibers, 20% organic silt, (5YR 3/2) dark dry reddish brown, stiff, dry, no odor, no staining. Soils OL moist consistent with MM. Organic SILT, 60% organic silt, 5% organic fibers, some fine sand, trace organics, (5Y 5/1) gray, medium dense, moist, no odor, no staining. Soils consistent with UNDorg

A.GDT - 10/4/16 09:

2012-09 RA PPG LOGS

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

AECOM

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: P4-HSN-AA18A

	Name: F					Drilling Company: SGS North America	a " , "	A D.O.O.
			1351.GA.DE			Drilling Method: macrocore	Coordinates (NJSPN	
			5/5/2016 9:			Rig Type:	Coordinates (NJSPN/	
			5/5/2016 1	0:30:00 AM		Core Size: 3.0 in	Boring Total Depth:	
	I By: Eric		,			Project Manager: Scott Mikaelian	Depth to Water: NA	
nysic	ai Locatio	n: Act	ual - HSN F	וטי	1	1	Surface Elevation:	11.0 ft NAVD88
Depth Lange t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickn	ess:	Sample ID
		0.0	dry	FILL		Asphalt, (5Y 2.5/1) black, dry, no odor, no		
-1			dry	FILL		fine to coarse SAND, some ash, brick and 4/2) brown, medium dense, dry, no odor,		
-2 -3	4		dry to moist	FILL		fine to coarse SAND, little gravel, glass ar reddish brown, medium dense, dry to moi staining.		
-4				NR		NO RECOVERY		P4-HSN-AA18A-3.5-4.0
-5-		0.0			****			
		0.0	moist to	FILL		fine SAND, some wood, (5YR 4/3) reddist dense, moist to wet, no odor, no staining,		P4-HSN-AA18A-5.5-6.0
-6			wet wet	FILL		bgs. Cinders, some silt, little ceramics, little wo black, loose, wet, no odor, no staining.	ood, (5Y 2.5/1)	
-7 -8 -9	5		wet	FILL		Ash, little wood, trace glass, (5YR 4/1) da no odor, no staining.	rk gray, loose, wet,	P4-HSN-AA18A-7.5-8.0
9 – 10—		0.0		FILL		Ach little word trace place (FVD 4/4) de	who are a local a such	P4-HSN-AA18A-9.5-10.0
_		0.0	wet	FILL	\bowtie	Ash, little wood, trace glass, (5YR 4/1) da no odor, no staining.	irk gray, loose, wet,	
11— - 12— -	4		wet	FILL		Silt, (7.5YR 4/2) brown, soft, wet, no odor sheen.	r, no staining,	P4-HSN-AA18A-12.5-13.0
13 <u> </u>			wet	FILL		silty SAND, (5YR 4/3) reddish brown, med no odor, no staining.	dium dense, wet,	
14				NR		NO RECOVERY		
15 <u> </u>		0.0	wet	FILL		Silt, some organics, trace fine sand, ash a		P4-HSN-AA18A-15.0-15.8 P4-HSN-AA18A-15.5-16.0
16			dry	PT	 	staining.	/	
17— — 18—	5		dry	OL		PEAT (degraded vegetated material), 80% 20% organic silt, (5YR 3/2) dark reddish the stiff, dry, slight organic odor, no staining with MM. Organic SILT, 80% organic silt, 20% organic silt, 20% organic silt, 20% organic silt, 30% organic silt, 30	orown, medium Soils consistent unic fibers, (7.5YR nic odor, no	P4-HSN-AA18A-16.0-16.
10			dry	PT	7/ 7/	i LAT (degraded vegetated material), 00 /		
-			moist	OL		20% organic silt, (5YR 3/2) dark reddish t stiff, dry, slight organic odor, no staining. with MM.	Soils consistent	
20—						Organic SILT, 80% organic silt, 20% orga 4/2) brown, medium stiff, moist, slight org staining. Soils consistent with UNDorg.	nic fibers, (7.5YR ganic odor, no	
	adow mat		COPR - chro		cessing re	esidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos		factured gas plant

Boring ID: P4-HSN-CC12A

Page: 1

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60314351.GA.DE.PDI.FOR Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611495.67 Date Started Drilling: 5/9/2016 9:45:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682949.35 Date Finished Drilling: 5/9/2016 10:30:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft

Date Finished D		5/9/2016	10:30:00 AM		Core Size: 3.0 in	Boring Total Depth:						
ogged By: Eric					Project Manager: Scott Mikaelian	Depth to Water: NA						
hysical Location	n: Act	ual - HSN	PDI			Surface Elevation:	11.5 ft NAVD88					
Depth 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 - -2- -		dry	FILL		Ash, little fine to medium sand, trace coal (2.5Y 5/1) gray, loose, dry to slightly mois staining.		P4-HSN-CC12A-0.7-1.2					
5 -3— -4—												
-5-	0.0					1 (0.5)(5(4)	P4-HSN-CC12A-4.5-5.0					
-6	0.0	moist to wet	FILL		Ash, little fine to medium sand, trace woo loose, moist to wet, no odor, no staining, bgs.	water at 6.0 feet						
_		wet	FILL	\bowtie	fine to medium SAND, trace ash, (2.5Y 6)		D4 HCN CC424 6 5 7 0					
-7—		wet	FILL	\bowtie	brown, medium dense, wet, no odor, no s Ash, little wood, (2.5Y 6/3) light yellowish	brown, loose, wet, —	P4-HSN-CC12A-6.5-7.0					
-8		wet	FILL		\no odor, no staining. Cinders, some to little wood, trace ash, (5 loose, wet, no odor, no staining.		P4-HSN-CC12A-8.5-9.0					
-9			NR		NO RECOVERY		- 4-130-00124-0.5-9.0					
10	1.2	wet	FILL		fine to medium SAND, some cinders, little	e wood and medium						
11—					gravel, trace glass, (5Y 2.5/1) black, loose staining.	e, wet, no odor, no	P4-HSN-CC12A-10.5-11.0					
]		wet	FILL	\bowtie	Ash, little wood, (2.5Y 5/1) gray, loose, we	et, no odor, no						
125		wet	FILL		staining. fine to medium SAND, little organic fibers 5/1) gray, medium dense, wet, no odor, no							
13— — 14—		wet	FILL		silty SAND, little fine gravel, (2.5Y 5/2) gramedium dense, wet, no odor, no staining.	ayish brown,	P4-HSN-CC12A-12.5-13.0					
45							P4-HSN-CC12A-14.5-15.0					
15	2.0	wet	FILL		silty SAND, little fine gravel, trace ash, (5'	YR 4/3) reddish	P4-HSN-CC12A-15.0-15.5					
16—		dry	PT	77 77 77 77 77 77 77 77 77 77 77 77 77	PEAT (degraded vegetated material), 80% 20% organic silt, (5YR 3/2) dark reddish t slight organic odor, no staining. Soils cons	6 organic fibers, prown, stiff, dry,	P4-HSN-CC12A-15.5-16.0					
18 -				<u> </u>								
19—————————————————————————————————————		moist	SM		silty SAND, little organics, (2.5Y 5/2) gray dense, moist, no odor, no staining. Soils ounDorg.							
otes:												
gs - below surface	grade		romite ore proc en grey mud	essing re	esidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos	eposits MGP - manu sits CCPW - chr	ufactured gas plant romate chemical production w					
/IM - meadow mat		GGM - gree	en grey mud			sits CCPW - chr	ufactured gas plant romate chemical produc					

A E C O M

A.GDT - 1/17/17

2012-09 RA PPG LOGS

nts: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: P4-HSN-CC13A

J

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Coordinates (NJSPNAD83) x: 611476.78 Project Number: 60314351.GA.DE.PDI.FOR Drilling Method: Macrocore Date Started Drilling: 5/4/2016 8:30:00 AM Coordinates (NJSPNAD83) y: 682929.62 Rig Type: Date Finished Drilling: 5/4/2016 9:20:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft Logged By: ES Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual - HSN PDI Surface Elevation: 11.7 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Content ΙĎ (ft/ft) (ppm) Log (ft bgs) 0.0 ASPHAL⁻ Asphalt dry FILL fine to coarse SAND, little gravel, trace (5%) COPR, (5YR 4/3) reddish brown, medium dense, dry, no odor, no dry FILL Ash, (2.5Y 5/1) gray, dry, no odor, minor black staining. **FILL** fine to medium silty SAND, little ash, trace glass, (7.5YR moist 3.5 4/2) brown, medium dense, moist, no odor, no staining. NR NO RECOVERY Ash, some silty sand, trace coal fragments, (2.5Y 5/1) gray, 0.0 moist **FILL** loose, moist to wet, no odor, no staining, water at 6.5 feet to wet saturated FILL Ash and fine SAND, (2.5Y 5/1) gray, saturated, no odor, no staining. 3.5 NO RECOVERY NR 0.0 FILL wet Ash, (2.5Y 5/1) gray, loose, wet, no odor, no staining. **FILL** wet silty SAND, trace ash, (2.5Y 2.5/1) black, soft, wet, no odor, 12 4 **FILL** silty SAND, some gravel, (5YR 4/3) reddish brown, medium wet 13 dense, wet, no odor, no staining. NR NO RECOVERY 0.0 FILL Ash, (2.5Y 5/1) gray, loose, wet, no odor, no staining. wet P4-HSN-CC13A-15 5-16 0 **FILL** SILT, little ash, trace fine sand, (7.5YR 4/2) brown, soft, wet, wet 16 no odor, no staining. P4-HSN-CC13A-16.0-16.5 dry PT PEAT, 80% organic fibers, 20% organic silt, (5YR 3/2) dark 1/ 1/1/ 1 reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM. 11, 11, 5 71 V 11, 11, 11/1 OL Organic SILT, 80% organic silt, 20% organic fibers, (2.5Y moist 5/2) grayish brown, soft, moist, no odor, no staining. Soils consistent with UNDorg COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits GGM - green grey mud UNDorg - organic undisturbed native deposits bgs - below surface grade MM - meadow mat MGP - manufactured gas plant CCPW - chromate chemical production waste

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: P4-HSN-DD9A

Page: 1

O:30:00 AM O:30:00 AM DI USCS Graph Log ASPHALT FILL FILL FILL FILL NR	Core Size: 3.0 in Bc Project Manager: Scott Mikaelian De Surface Cover and Thickness:	medium gravel, , no odor, no P4-HSN-DD9A-1.0- avel, (7.5YR staining. P4-HSN-DD9A-2.0-	
USCS Graph Log ASPHALT FILL FILL FILL	Asphalt and gravel sub-base. fine to coarse SAND, little COPR (10%) and r (5YR 4/3) reddish brown, medium dense, dry, staining. fine to medium SAND, some ash, little fine gr 4/2) brown, medium dense, dry, no odor, no s Ash, little coal fragments, (9.5/N) white, loose	epth to Water: NA urface Elevation: 12.6 ft NAVD88 Sample ID medium gravel, , no odor, no P4-HSN-DD9A-1.0- avel, (7.5YR staining. P4-HSN-DD9A-2.0-	
USCS Graph Log ASPHALT FILL FILL FILL FILL	Asphalt and gravel sub-base. fine to coarse SAND, little COPR (10%) and r (5YR 4/3) reddish brown, medium dense, dry staining. fine to medium SAND, some ash, little fine gr 4/2) brown, medium dense, dry, no odor, no s Ash, little coal fragments, (9.5/N) white, loose	medium gravel, no odor, no avel, (7.5YR staining. P4-HSN-DD9A-1.0-	
ASPHALT FILL FILL FILL FILL	Asphalt and gravel sub-base. fine to coarse SAND, little COPR (10%) and r (5YR 4/3) reddish brown, medium dense, dry staining. fine to medium SAND, some ash, little fine gr 4/2) brown, medium dense, dry, no odor, no s Ash, little coal fragments, (9.5/N) white, loose	medium gravel, , no odor, no P4-HSN-DD9A-1.0- avel, (7.5YR staining. P4-HSN-DD9A-2.0-	
FILL FILL FILL	fine to coarse SAND, little COPR (10%) and r (5YR 4/3) reddish brown, medium dense, dry staining. fine to medium SAND, some ash, little fine gr 4/2) brown, medium dense, dry, no odor, no s Ash, little coal fragments, (9.5/N) white, loose	, no odor, no P4-HSN-DD9A-1.0- ravel, (7.5YR staining. P4-HSN-DD9A-2.0-	
FILL FILL	(5YR 4/3) reddish brown, medium dense, dry staining. fine to medium SAND, some ash, little fine gr 4/2) brown, medium dense, dry, no odor, no s Ash, little coal fragments, (9.5/N) white, loose	, no odor, no P4-HSN-DD9A-1.0- ravel, (7.5YR staining. P4-HSN-DD9A-2.0-	4.5
FILL	staining. fine to medium SAND, some ash, little fine gr 4/2) brown, medium dense, dry, no odor, no s Ash, little coal fragments, (9.5/N) white, loose	ravel, (7.5YR staining. P4-HSN-DD9A-2.0-	
FILL	4/2) brown, medium dense, dry, no odor, no s Ash, little coal fragments, (9.5/N) white, loose	staining. P4-HSN-DD9A-2.0-	-1.5
KXXX	\otimes	e, dry, no odor,	-2.5
NR XXX	fine SAND, some wood, little coal fragments,	(7.5YR 2.5/2) P4-HSN-DD9A-4.0-	-4.5
	very dark brown, medium dense, moist, no od		
FILL XX	NO RECOVERY fine to medium SAND, some to little ash, (7.5	YR 4/2) brown	
1122	medium dense, slightly moist, no odor, no sta		
		P4-HSN-DD9A-6.0-	-6.5
FILL	Ash, trace ceramics, (2.5Y 5/1) gray, loose, s wet, no odor, no staining, water at 7.5 feet bg	s.	
FILL	Ash, little cinders and fine gravel, (7.5YR 4/1) loose, saturated, no odor, hydrocarbon stainir 8.0-8.5 ft bgs.) dark gray, P4-HSN-DD9A-8.0- ng, sheen	-8.5
NR	NO RECOVERY		
FILL	Ash, some silty sand, little wood, (2.5Y 5/1) g dense, wet, no odor, no staining.		-10.5
FILL	sandy SILT, trace ash, (7.5YR 4/1) dark gray,	•	
FILL	saturated, no odor, no staining. sandy SILT, (7.5YR 4/2) brown, very soft, sat odor, no staining.	P4-HSN-DD9A-12.0-	-12.5
		P4-HSN-DD9A-14.0-	-14.5
FILL	sandy SILT, (7.5YR 4/2) brown, non plastic vi saturated, no odor, no staining.	ery soft, P4-HSN-DD9A-15.5-	-16.0
PT V	×		
77 77 77 77	reddish brown, stiff, dry, slight organic odor, r Soils consistent with MM.	JIN 3/2) dark	
SM			
	<u> </u>	Soils consistent with MM.	Soils consistent with MM. Soils consistent with MM. Soils consistent with MM. If the to coarse SAND, some silt, little organics, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining.

AECOM Note: Ground Surface	^_			OF S					3				
PROJECT LOCATION Halladay Street, Jersey City, New Jersey	<u> </u>	LICV	а	tion .	_ 17.	.00 1	GROUND	ELEVATION	ر N (FT. MSL) 5.07		PROJECT		020667601
DRILLING CONTRACTOR		FOREMAN					DATE STA	RTED			DATE CON		
Advanced Drilling, Inc. DRILLING EQUIPMENT		R. Empso	on				COMPLET	04/1 ION DEPTH	15/04 I (FT BGS)		ROCK DEF	PTH (FT)	04/19/04
Gefco SS 25 Auger Rig; 4.25" Hollow Stem Augers; 3" Span	de								'8'				72'
TYPE BIT N/A CASING Augers to 48', then double casing		SIZE AND T	YPE N/		RREL		NO. SAMP		DIST. FIRST	35 9.0'	UNDIST.	N/A	0 CORE 0 24HR N/A
CASING HAMMER WEIGHT N/A		DROP	N/				BORING L			0.0	001111 2.		2000
SAMPLER 2" diameter 2' split-spoon		1									of Halste	ead buildi	ng.
SAMPLER HAMMER WEIGHT 140 lbs.	<u>~</u>	DROP	1	30"	Com	ples	INSPECTO)R	E. Gauli	n READIN	uce		<u> </u>
	Interv		Table		Jan	Penetr.			1 11	(PPM)	NGO		
DESCRIPTION	Sample	Depth (ft bgs)	Water	Number	Recov.	Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	REMARKS
0.0'-2.0' FILL: Fine to medium SILTY SAND (SM), some brick fragments, trace clinker material (CM), occasional coal fragments. Slightly moist.		- 0 -		1	2.0	5	13:23	0.0	0.0	13:23	n/a	n/a	Boring through grass.
						11		0.0					
2.0-2.3' FILL: crushed concrete		- 2 -		2	1.0	9	13:25	0.0	0.0	13:25	n/a	n/a	Fuel oil odors
2.3-3.0' FILL: Soil, coal fragments, trace CM		- 3 -				11 6		0.0					
		- 4 -				8							
4.0-4.5' FILL: Soil, trace crushed concrete, trace CM				3	0.5	8 5	13:36	9.0	0.0	13:36	n/a	n/a	Fuel oil odors
		- 5 -				4		6.5					
6.0-14.0' FILL: wood, coal and ceramic		- 6 -				4							
fragments, some gravel				4	1.0	3	13:39	70.0 115.0	0.0	13:39	n/a	n/a	Heavy odors, dye test positive
		- 7 -				4		70.0					
		- 8 -				5							
Trace fine to medium sand		- 0 -		5	1.0	4	13:40	50.0	0.0	13:40	n/a	n/a	13:40 Collected sample SB-26 (9.0-
		- 9 -				5		68.0					9.5) for TCL VOC, TCL SVOC, TAL Metals, CN and GC
						2							fingerprint analysis.
		- 10 -		6	1.0	1	13:51	78.0	0.0	13:51	n/a	n/a	Fuel oil odors and staining.
		- 11 -				1		12.0					
						1		13.0					
		- 12 -		7	0.5	1 1	13:55	12.0 30.0	0.0	13:55	n/a	n/a	Fuel oil odors and
		- 13 -				2		12.0					staining.
		- 13 -				2							
		- 14 -				1							

LOG OF SOIL BORING SB-26 AECOM Note: Ground Surface Elevation = 14.80 ft NAVD88

PROJECT LOCATION
Halladay Street, Jersey City, New Jersey
DRILLING CONTRACTOR
Advanced Drilling, Inc. GROUND ELEVATION (FT. MSL) PROJECT NUMBER 16.07 020667601 FOREMAN R. Empson 04/15/04 04/19/04 DRILLING EQUIPMENT Gefco SS 25 Auger Rig; 4.25" Hollow Stem Augers; 3" Spade Bit; 3.75" Roller Bit COMPLETION DEPTH (FT BGS) 78' ROCK DEPTH (FT) 72' 35 TYPE BIT N/A SIZE AND TYPE CORE BARREL NO. SAMPLES JNDIST. 0 CORE 0 Augers to 48', then double casing N/A 9.0' N/A N/A CASING WATER DEPTH FIRST COMPL

CASING HAMMER WEIGHT N/A		DROP	N/	Ά			BORING LO	OCATION					ļ -
SAMPLER 2" diameter 2' split-spoon				00"						lot, north	of Halste	ad buildi	ng.
SAMPLER HAMMER WEIGHT 140 lbs.	al	DROP	Ι.	30"	Sam	nples	INSPECTO	R	E. Gauli	n READIN	IGS		
	Interv		Table		Odii	Penetr.			1 12	(PPM)			
DESCRIPTION	Sample	Depth	Vater	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
	Sa	(ft bgs)			(ft)	BL/6in			Air		Space	Date	
14.0-16.3' FILL: wood, coal and ceramic		- 14 -		8	0.5	1	13:59	30.0	0.0	13:59	n/a	n/a	
fragments, some gravel, trace sand				0	0.5	'	13.39	30.0	0.0	13.39	II/a	II/a	
						2		2.0					
		- 15 -											
						2							
						1							
		- 16 -	∇										
			-	9	0.3	5	14:02	10.0	0.0	14:02	n/a	n/a	Estimated peat at
						3							approximately 17'
		- 17 -				3							
						3							
		40				3							
18.0-20.5' Peat (PT). Greenish gray (GLEY1		- 18 -		10	2.0	3	14:05	0.0	0.0	14:05	n/a	n/a	Peat is clean, no
6/1) clay, trace silt, firm				10	2.0		14.00	0.0	0.0	14.00	11/4	11/4	odors or staining.
						3		0.0					14:10 Collected
		- 19 -											sample SB-26 (19.5
						3		0.0					-20.0) for TCL
						3		0.0					VOC, TCL SVOC,
		- 20 -											TAL Metals, CN
				11	1.5	3	9:26	0.0	0.0	9:26	n/a	n/a	Started drilling
20.5-23.9' Reddish brown (2.5YR 5/3) fine to	١					4		0.0					4/16/2004
coarse SILTY SAND (SM), little (10%)		- 21 -				_		0.0					
subrounded to subangular gravel						12		0.0					
		- 22 -				13							
		22		12	2.0	21	9:30	0.0	0.0	9:30	n/a	n/a	No staining.
													140 Stairing.
						19		0.0					
		- 23 -				29		0.0					Faint naphthalene
23.9-24.5' Reddish brown (2.5YR 5/3) fine to						23		0.0					odors, but no
medium SAND (SW), little silt, firm, wet						29		0.0					staining from 23.0- 24.0'.
	٢	- 24 -											24.0.
	\			13	1.0	5	9:50	0.0	0.0	9:50	n/a	n/a	
24.5-26.5' Reddish brown (2.5YR 5/3) FINE						8		0.0					No odors.
SANDY SILT (ML), dense		- 25 -											
						10							
						11							
		- 26 -											0000
Few silty clay lenses from 26.0-26.5'.				14	1.5	9	10:00	0.0	0.0	10:00	n/a	n/a	Slight organic odors.
26.5-28.0' Reddish brown (2.5YR 4/4) SILTY		- 27 -				9		0.0					10:01 Collected
FINE SAND (SM), loose						10		0.0					sample SB-26 (27.0 -27.5) for TCL
													VOC, TCL SVOC,
		00				11							TAL Metals, CN
		- 28 -											

AECOM Note: Ground Surface Elevation = 14.80 ft NAVD88 ROUND ELEVATION (FT. MSL) PROJECT NUMBER Halladay Street, Jersey City, New Jersey 16.07 020667601 04/15/04 04/19/04 Advanced Drilling, Inc. R. Empson DRILLING FOUIPMENT COMPLETION DEPTH (FT BGS ROCK DEPTH (FT) Gefco SS 25 Auger Rig; 4.25" Hollow Stem Augers; 3" Spade Bit; 3.75" Roller Bit TYPE BIT N/A SIZE AND TYPE CORE BARREL O. SAMPLES 35 JNDIST. 0 CORE 0 N/A CASING Augers to 48', then double casing N/A VATER DEPTH FIRST 9.0' COMPL N/A N/A CASING HAMMER WEIGHT DROP SAMPLER 2" diameter 2' split-spoon Eastern border of parking lot, north of Halstead building. SAMPLER HAMMER WEIGHT 140 lbs 30" E. Gaulin DROP INSPECTOR Samples PID READINGS (PPM) Penetr **DESCRIPTION** Depth Time Sample Ambient Time Time REMARKS (ft bgs) BL/6in (ft) Space Date 28 28.0-29.0' Reddish brown (2.5YR 4/4) SILTY 15 1.5 10 10:02 0.0 0.0 10:02 n/a n/a Slight unidentifiable FINE SAND (SM), loose odor. 12 29 29.0-31.0' Reddish brown (2.5YR 4/4) FINE 17 0.0 SANDY SILT (ML), little clay, trace (<2%) coarse sand, tight. 17 30 10:31 2.0 0.0 10:31 16 11 0.0 n/a n/a No odors, staining. 10 0.0 31 31.0-32.3' Reddish brown (2.5YR 4/4) thinly 8 0.0 laminated SILTY CLAY and CLAYEY SILT (CL) 10 0.0 32 17 1.5 13 10:37 0.0 0.0 10:37 n/a n/a 32.3-34.5' Reddish brown (2.5YR 4/4) FINE SANDY SILT (ML) 13 0.0 33 13 0.0 20 34 2.0 9 10:43 0.0 0.0 10:43 18 n/a 34.5-39.0' Reddish brown (2.5YR 4/4) 10:45 Collected 8 0.0 laminated FINE SANDY SILT and SILTY sample SB-26 (35.5 35 CLAY (CL), firm -36.0) for TCL 0.0 8 VOC, TCL SVOC, TAL Metals, CN 11 0.0 36 10:55 10:55 19 2.0 9 0.0 0.0 n/a 10 0.0 37 10 0.0 13 0.0 38 11:02 11:02 20 2.0 10 0.0 0.0 n/a n/a Firm Becoming more silt and silty clay in this spoon. 10 0.0 39 39.0-42.0' Reddish brown (2.5YR 4/4) SILT 12 0.0 (ML) and SILTY CLAY (CL), laminated 13 0.0

42

40

21

2.0

10

11

11

12

11:15

0.0

0.0

0.0

0.0

0.0

11:15

n/a

n/a

15

13

10

21

28

30 48 14:51

0.0

0.0

0.0

0.0

0.0

14:51

n/a

n/a

53

54

55

28

1.0

54.0-56.0' Reddish brown (2.5YR 4/4) SILTY

SAND and SANDY SILT (SM), very firm

PSEG SC Former Halladay Street Gas Works Site SCHOOR DEPALMA Supplemental Remedial Investigation Page 6 of 6 **LOG OF SOIL BORING SB-26** AECOM Note: Ground Surface Elevation = 14.80 ft NAVD88 PROJECT NUMBER Halladay Street, Jersey City, New Jersey 16.07 020667601 04/15/04 04/19/04 Advanced Drilling, Inc. R. Empson DRILLING EQUIPMENT COMPLETION DEPTH (FT BGS) ROCK DEPTH (FT) Gefco SS 25 Auger Rig; 4.25" Hollow Stem Augers; 3" Spade Bit; 3.75" Roller Bit TYPE BIT N/A SIZE AND TYPE CORE BARREL NO. SAMPLES 35 JNDIST. 0 CORE 0 N/A CASING Augers to 48', then double casing N/A WATER DEPTH FIRST 9.0' COMPL N/A N/A CASING HAMMER WEIGHT SAMPLER 2" diameter 2' split-spoon Eastern border of parking lot, north of Halstead building. 30" SAMPLER HAMMER WEIGHT 140 lbs. DROP INSPECTOR E. Gaulin Samples PID READINGS (PPM) Penetr **DESCRIPTION REMARKS** Depth Ambient Time (ft bgs) (ft) BL/6in Date Air Space 70 70.0-72.0' TILL: GRAVEL (GW), trace sand, No spoons silt and clay, tight. collected 71 72 72' Suspected bedrock, mud appeared to be 72.0-78.0' Black/dark gray argillite 73 same dark gray to black argillite material based on mud screening. 74

75

76

77

78

79

80

81

82

83

Fracture zone with limestone deposits at 77.0-

78.0'

End of boring at 78'

77' Loose fractures based on behavior of drill rig.

Fractures appeared to have limestone

End of boring at 78'. Drilling became slow based on drill rig behavior.

in them.

ΔECOM N	lote: Ground Surfac	_	LOG								2			· ·
PROJECT LOCATION	ote. Ordana Sanat	,,,	LIC	v c	atioi	<u>' </u>	11.					DDO IEO	T NUMBE	:n
Halladay Street, Jersey	City Now Jorgov							GROUNL	ELEVAT	ION (F1.	MSL)	PROJEC	I NUMBE	020667601
DRILLING CONTRACTOR	Oity, New Jersey		FOREMAI	NI.				DATE ST	ADTED			DATE CO	OMPLETE	
					aol			DAILSI		26/05		DATE O	JIVII ELTE	04/27/05
Advanced Drilling, Inc. DRILLING EQUIPMENT			Jeremy	LO	gei			COMBLE	TION DE		200)	DOCK D	EPTH (FT	
	, 4.25" Augers to 44'; mud rotary with	3 7/	'8" roller	hit	to 78'			COMPLE	78'	r i n (r i c	503)	NOCK D		countered
TYPE BIT N/A	, 4.20 Augers to 44 , mud rotary with	0 1/	SIZE AND			BARRE	1	NO. SAM		DIST.	29	UNDIST.		
CASING N/A				N/				WATER		FIRST	7.5	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT N/A		DROP	N/					LOCATIO					<u> </u>
	eter, 2' long split-spoon	_									lina. Alle	evwav (I	Former	Railroad ROW)
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPECT		Eric Ga		, ., (,
		П				San	nples	ı			READI	NGS		
		Interva		Table			Penetr.				(PPM)			
DE	ESCRIPTION	Sample	Depth	Vater	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		Sa	(ft bgs)	>		(ft)	BL/6in		·	Air		Space	Date	
	ck brown fine to medium concrete fragments, wood,		- 0 -		1	1.3	7	0947	0.0	0.0	0947	N/A	N/A	Boring advanced through
clinker, roots	concrete fragments, wood,						21		0.0					gravel
			- 1 -				8		0.0					
							9							
2.0-4.0' No recov	2.0-4.0' No recovery				2	0.0	8	0948	N/A	N/A	0948	 N/A	N/A	
							9							
			- 3 -				9							
							10							
4.0-4.5' FILL: Bro	wn fine to medium SAND,		- 4 -		3	0.5	6	0952	0.0	0.0	0952	 N/A	N/A	
g.							5							
			- 5 -				4							
							3							
6.0-8.0' No recove	ery		- 6 -		4	0.0	3	0954	N/A	N/A	0954	N/A	N/A	
							3							
			- 7 -				2							
				¥			3							
medium SAND, s	rk brown to black fine to some silt, trace gravel,		- 8 -		5	0.5	7	0956	N/A	N/A	0956	N/A	N/A	
pieces of glass ar	ни сегаппс						3							
							2							
			- 10 -				2							
			- 10 -			<u> </u>			T	1	r	1	r ·	1

OJECT LOCATION							ft N		ION (FT.	MSL)	PROJEC	T NUMBE	ER .
alladay Street, Jersey City, New Jersey													020667601
RILLING CONTRACTOR		FOREMA	.N				DATE ST	ARTED			DATE CO	OMPLETE	D
dvanced Drilling, Inc.		Jeremy	Lo	gel				04/2	26/05				04/27/05
RILLING EQUIPMENT							COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT))
ollow Stem Auger Rig, 4.25" Augers to 44'; mud rotary with	th 3 7	/8" roller	bit	to 78'				78'				not end	countered
PE BIT N/A		SIZE AND) TY	PE CORE	BARRE	L	NO. SAN	IPLES	DIST.		UNDIST.	N/A	
ISING N/A			N/	Α			WATER	DEPTH	FIRST	7.5	COMPL.	N/A	24HR N/A
SING HAMMER WEIGHT N/A		DROP	N/	Α			BORING						
MPLER 2" diameter, 2' long split-spoon											eyway (I	Former I	Railroad ROW)
SAMPLER HAMMER WEIGHT 140 lbs.		DROP	1	30"			INSPECT	TOR	Eric Ga				<u> </u>
	Interval		aple		San	nples			PID	(DDM)	NGS		
DESCRIPTION	ple In	Darth	iter Ta			Penetr.	_	C: :		(PPM)		_	REMARKS
DESCRIPTION	Sample	Depth (ft bgs)	We	Number	Recov.	Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time	NEWIANS
	+	- 10	+		(11)	DL/0111		l	All			Date	
0.0-14.0' Hydropunch driven		- 11 -	-										1036 Sample SB-30-W (10-14) for TCL VOC, TCL SVOC, TAL Metals
		- 12 · · · · · · · · · · · · · · · · · ·	-										
4.0-17.0' Brown fibrous PEAT (PT)		- 14	-	6	1.0	1	1050	0.0	0.0	1050	N/A	N/A	
	1												
		- 15	-			2		0.0					
		- 16				1							
	1			7	1.0	2	1052	0.0	0.0	1052	N/A	N/A	
						2		0.0					
		- 17	-			2							
						2							
8.0-18.25' Grey (2.5Y4/1) fine SAND, some ILT (SP)		- 18		8	1.0	2	1100	0.0	0.0	1100	N/A	N/A	1102 Sample SB-30 (18.0-18.5) for TCL VOC
8.25-18.75' Grey (GLEY1 5/5 6Y) fine AND, SANDY SILT (SM)		- 19				3		0.0					TCL SVOC, TAL Metals total and amendable CN
8.75-19.0' Grey (2.5Y4/1) fine SAND, some ILT (SP)						4							
		l	1		l	6	l	Ī	I	l	l	1	l e e e e e e e e e e e e e e e e e e e

AFOOM Nates Oursel Overface		LOG											
AECOM Note: Ground Surface) <u>F</u>	<u>leva</u>	at	ion :	= 1	1.1							
PROJECT LOCATION							GROUNI	D ELEVAT	ΠΟΝ (FT.	MSL)	PROJEC	T NUMBE	
Halladay Street, Jersey City, New Jersey	-1												020667601
DRILLING CONTRACTOR		FOREMAN					DATE ST	ARTED			DATE CO	OMPLETE	
Advanced Drilling, Inc.		Jeremy	Lo	gel				04/2	26/05				04/27/05
DRILLING EQUIPMENT							COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT)
Hollow Stem Auger Rig, 4.25" Augers to 44'; mud rotary with	3 7/	8" roller	bit	to 78'				78'	1				countered
TYPE BIT N/A		SIZE AND	ΤY	PE CORE	BARRE	L	NO. SAM	IPLES	DIST.	29	UNDIST.	N/A	
casing N/A			N/	Α			WATER	DEPTH	FIRST	7.5	COMPL.	N/A	24HR N/A
CASING HAMMER WEIGHT N/A		DROP	N/	Α			BORING	LOCATIO	ON				
SAMPLER 2" diameter, 2' long split-spoon							East of	Halste	ad Build	ing, Alle	eyway (I	ormer	Railroad ROW)
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPEC [*]	TOR	Eric Ga	aulin			T
	ıval		е		San	nples			PID	READI	NGS		
	lnterval		r Tab			Penetr.				(PPM)			
DESCRIPTION	Sample	Depth (ft bgs)	Wate	Number	Recov.	Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	REMARKS
00 0 00 751 0 (0 5)/4/4) (1 1		- 20 -											
20.0-22.75' Grey (2.5Y4/1) fine to medium SAND, trace SILT (SW)				9	2.0	7	1105	0.0	0.0	1105	N/A	N/A	21.0-22.0' faint naphthalene odors, no staining or sheen
		- 21 -				8		0.0					
						6		0.0					
		- 22 -				7		0.0					
22.75-23.25' Grey (2.5Y4/1) fine to medium SAND, some SILT (SW)				10	2.0	5	1108	0.0			N/A	N/A	Faint naphthalene odors, no staining or sheen up to 23.5'
23.25-23.5' Grey (2.5Y4/1) SANDY SILT (SM)		- 23 -				8		0.0					
23.5-24.0' Reddish brown (5YR4/4) SILTY SAND (SM)						7		0.0					
24.0-27.9' Reddish brown (5YR4/4) SILTY SAND (SM) with 5% sub-rounded gravel		- 24 -		11	1.5	7	1121	0.0			N/A	N/A	Faint naphthalene odors, no staining or sheen
		- 25 -				6		0.0					1123 Sample SB-30
						6		0.0					(25.0-25.5) for TCL VOC, TCL SVOC, TAL Metals
		- 26 -				5							
				12	1.9	5	1132	0.0			N/A	N/A	Faint naphthalene odors, no staining or sheen
		- 27 -				8		0.0					
						9		0.0					
						10		0.0					
28.0-32.0' Hydropunch driven		- 28 -				7							1310 Sample SB-30-W (28-32) for TCL VOC and TCL SVOC only, due to
		- 29 -				5							lack of sample
						5							

AECOM Note: Ground Surface									ION (FT.	MSL)	PROJEC	T NUMBE	ER
Halladay Street, Jersey City, New Jersey													020667601
RILLING CONTRACTOR		FOREMAI	N				DATE ST	ARTED			DATE CO	OMPLETE	:D
dvanced Drilling, Inc.		Jeremy	Log	jel				04/2	26/05				04/27/05
RILLING EQUIPMENT							COMPLE	TION DE	PTH (FT E	BGS)	ROCK DI	EPTH (FT)
ollow Stem Auger Rig, 4.25" Augers to 44'; mud rotary wit	h 3 7/	/8" roller	bit t	to 78'				78'				not end	countered
YPE BIT N/A		SIZE AND	TYP	E CORE	BARRE	EL	NO. SAN	IPLES	DIST.	29	UNDIST.	N/A	CORE N/A
ASING N/A			N/A	A			WATER	DEPTH	FIRST	7.5	COMPL.	N/A	24HR N/A
ASING HAMMER WEIGHT N/A		DROP	N/A	A			BORING	LOCATIO	ON				
AMPLER 2" diameter, 2' long split-spoon							East of	Halste	ad Build	ling, Alle	eyway (F	ormer	Railroad ROW)
SAMPLER HAMMER WEIGHT 140 lbs.		DROP	;	30"			INSPECT	FOR	Eric Ga	aulin			1
	ıval		<u>e</u>		San	nples			PID	READI	NGS		
	le Inte		ər Tab			Penetr.			1	(PPM)	1	1	
DESCRIPTION	Sample Interval	Depth	Wate	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
	- 57	(ft bgs)	H		(ft)	BL/6in			Air		Space	Date	
28.0-32.0' Hydropunch driven		- 30 -											
, , , , , , , , , , , , , , , , , , , ,						4							
						6							
		- 31 -											
						5							
						4							
32.0-35.3' Reddish brown (5YR4/4) SILTY		- 32 -											Other and the state of the stat
SAND (SM) with 5% sub-rounded gravel				13	1.8	3	1324	0.0	0.0	1324	N/A	N/A	Strong naphthalene odors, no staining or
	1												sheen
						4		2.2					
		- 33 -											
						3		2.3					
						3		0.0					
		- 34 -											
				14	1.5	3	1334	0.0	0.0	1334	N/A	N/A	Strong odors
	۱												
						4		0.0					
		- 35 -											
			$\ \ $			3		0.0					
35.3-47.0' Reddish brown (5YR4/4) silty		-	$\ \ $					ĺ					
FINE SAND (SM)			$\ \ $			5		ĺ					
		- 36 -											
				15	0.2	5	1337	0.0	0.0	1337	N/A	N/A	Less odors
			$\ \ $			7							
		- 37 -	$\ \ $										
						6							
						8							
		- 38 -	$\ \ $					l					
				16	1.75	6	1356	0.0	0.0	1356	N/A	N/A	Slight but noticeable
													napthalene-like odors
						7		0.0					
		- 39 -											
						9		0.0					
			$\ \ $										
						10		0.0					
		- 40 -				<u> </u>		l			l		.

AECOM Not	te: Ground Surface	E	Eleva	ıti	ion =	= 11	1.1	ft N	AVD)88				
PROJECT LOCATION										TION (FT.	MSL)	PROJEC	T NUMBE	ER
Halladay Street, Jersey	City, New Jersey													020667601
DRILLING CONTRACTOR			FOREMA	V				DATE ST	TARTED			DATE CO	OMPLETE	ED .
Advanced Drilling, Inc.			Jeremy	Lo	gel				04/2	26/05				04/27/05
DRILLING EQUIPMENT								COMPLE	ETION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT	
Hollow Stem Auger Rig,	4.25" Augers to 44'; mud rotary with	3 7	/8" roller	bit	to 78'				78'				not en	countered
TYPE BIT N/A			SIZE AND	TY	PE CORE	BARRE	L	NO. SAM	MPLES	DIST.	29	UNDIST.	N/A	CORE N/A
CASING N/A				N	/A			WATER	DEPTH	FIRST	7.5	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT N/A		DROP	N	/A			BORING	LOCATIO	ON				
SAMPLER 2" diame	eter, 2' long split-spoon							East of	f Halste	ad Build	ling, Alle	eyway (I	ormer	Railroad ROW)
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPEC	TOR	Eric Ga	aulin			
		<u>ia</u>				San	nples	•		PID	READI	NGS		
		Sample Interval		Table			Penetr.				(PPM)			
DE	SCRIPTION	nple	Depth	Vater	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		Sa	(ft bgs)	>		(ft)	BL/6in			Air		Space	Date	1
05.0.47.015. 1.11	(E)(D4/4) 'II		- 40 -											
FINE SAND (SM)	h brown (5YR4/4) silty				17	2.0	6	1404	0.0	0.0	1404	N/A	N/A	No odors
I INC OAND (ON)		۱												
							7		0.0					
			- 41 -											
							8		0.0					
							9		0.0					
			- 42 -		18	0.5	7	1410	0.0	0.0	1410	N/A	N/A	
							7							
			- 43 -				l ′							
			- 45 -				7							
							'							Switched to mud-rotary
			-				8							
			44				0							
		١	- 44 -		40	4.0	40	4504	0.0		4504	NI/A	NI/A	
		۱			19	1.0	12	1534	0.0	0.0	1534	N/A	N/A	
			-				40		0.0					
			45				13		0.0					
			- 45 -											
							14							
							16							
		1	- 46 -											
		1			20	1.25	15	1539	0.0	0.0	1539	N/A	N/A	1545 Sample SB-
														30(46.75-47.25) for TCL VOC, TCL SVOC, TAL
							17		0.0					Metals, CN
47.0-47.25' Reddi	sh brown (5YR4/4) 1/8"		- 47 -											,,
bands of SILTY C							16		0.0					
							18							
48 0-63 75' Reddis	sh brown (5YR4/4) thinly		- 48 -											
	AY and SILTY CLAY (CL)	١			21	1.5	11	1542	0.0	0.0	1542	N/A	N/A	
	,													
							12		0.0					
			- 49 -											
							13		0.0					
			-											
							15							
										 	ļ	 		

Supplemental Remedial Investigation LOG OF SOIL BORING SB-30

			LOG								_				
AECOM Note: 0	Ground Surfac	Ele	٧a	ation	11. ⁻										
PROJECT LOCATION	lavaeu							GROUNI	D ELEVAT	TION (FT.	MSL)	PROJEC	T NUMBE	er 02066760	14
Halladay Street, Jersey City, New DRILLING CONTRACTOR	Jersey		FOREMAN					DATE ST	ADTED			DATE CO	OMPLETE)
Advanced Drilling, Inc.			Jeremy		aol			DATEST		26/05		DATE CO	JIVIFLETE	04/27/05	
DRILLING EQUIPMENT			Jerenny	LO	gei			COMPLE		PTH (FT E	368)	BOCK D	EPTH (FT		,
Hollow Stem Auger Rig, 4.25" Aug	ners to 44': mud rotary with	3 7/	/8" roller	bit	to 78'			001111 22	78'	(300)	1100112		countered	
TYPE BIT N/A	goro to TT, maa rotary mar	0 .,	SIZE AND			BARRE	L.	NO. SAM		DIST.	29	UNDIST.			N/A
CASING N/A				N/	A			WATER	DEPTH	FIRST	7.5	COMPL.	N/A	24HR	N/A
CASING HAMMER WEIGHT	N/A		DROP	N/	A			BORING	LOCATIO	ON					
SAMPLER 2" diameter, 2' lor	ng split-spoon							East of	Halste	ad Build	ling, Alle	eyway (I	ormer	Railroad ROW)
SAMPLER HAMMER WEIGHT	140 lbs.		DROP		30"			INSPEC	TOR	Eric Ga	aulin				
		val		ď)		San	nples			PID	READI	NGS			
		Sample Interval		. Table			Penetr.				(PPM)				
DESCRIP	TION	ample	Depth	Wate	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	RE	MARKS
		S	(ft bgs)			(ft)	BL/6in			Air		Space	Date		
48.0-63.75' Reddish brow	n (5YR4/4) thinly		- 50 -												
interlaminated CLAY and	SILTY CLAY (CL)				22	2.0	12	1610	0.0	0.0	1610	N/A	N/A		
							14		0.0						
			- 51 -												
							15		0.0						
							15		0.0						
						4 75	40	4040			4040	NI/A	NI/A		
						1.75	16	1618	0.0	0.0	1618	N/A	N/A		
							17		0.0						
			- 53 -				15		0.0						
							13		0.0						
			_				16		0.0						
			- 54 -						0.0						
54.0-58.0' No sample coll	ected		04												
			- 55 -												
			- 56 -												
			- 57 -												
			- 58 -						l ·					 	
					24	2.0	12	1648	0.0	0.0	1648	N/A	N/A		
			- 59 -				13		0.0						
							15		0.0						
									١.						
							16		0.0						
		- 60 -	Ц		<u> </u>			<u> </u>	1	<u> </u>	1	<u> </u>	<u> </u>		

	_	LOG											
AECOM Note: Ground Surface	<u> E</u>	-leva	ati	ion :	= 1	1.1	tt N	<u>AVD</u>	880				
PROJECT LOCATION							GROUNI	D ELEVAT	ΓΙΟΝ (FT.	MSL)	PROJEC	T NUMBE	
Halladay Street, Jersey City, New Jersey		ı											020667601
DRILLING CONTRACTOR		FOREMAN	٧				DATE ST	FARTED			DATE CO	OMPLETE	ED
Advanced Drilling, Inc.		Jeremy	Lo	gel				04/2	26/05		-		04/27/05
DRILLING EQUIPMENT							COMPLE		PTH (FT E	BGS)	ROCK D	EPTH (FT	
Hollow Stem Auger Rig, 4.25" Augers to 44'; mud rotary with	3 7							78'					countered
TYPE BIT N/A		SIZE AND			BARRE	L	NO. SAM		DIST.	29	UNDIST.		
CASING N/A			N/				WATER		FIRST	7.5	COMPL.	N/A	24HR N/A
CASING HAMMER WEIGHT N/A		DROP	N/	Ά				LOCATIO				_	- "
SAMPLER 2" diameter, 2' long split-spoon				00"						-	eyway (I	-ormer	Railroad ROW)
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPEC	TOR	Eric Ga				<u> </u>
	Interval		aple		San	nples		•	PID	READI	NGS		
DESCRIPTION	ple In	Depth	ter Ta	l		Penetr.	_			(PPM)		I _	DEMARKS
DESCRIPTION	Sample		Wa	Number	Recov.	Resist.	Time	Sample		Time	Head	Time	REMARKS
	-	(ft bgs)	H		(ft)	BL/6in			Air		Space	Date	
48.0-63.75' Reddish brown (5YR4/4) thinly interlaminated CLAY and SILTY CLAY (CL)		00 -		25	2.0	19	1648	0.0	0.0	1648	N/A	N/A	
						15		0.0					
		- 61 -											
						17		0.0					
						18		0.0					
	Г	- 62 -											47040 1 00 00 (00 0
				26	2.0	19	1700	0.0	0.0	1700	N/A	N/A	1704 Sample SB-30 (62.0 62.5) for TCL VOC, TCL
													SVOC, TAL Metals, Total
						20		0.0					and amenable CN
		- 63 -				00							
22.75.24.21.75.21.7						23		0.0					
63.75-64.0' Reddish brown (5YR4/4) SILT and SANDY SILT (SM)		-				25		0.0					Final and 4/00/05
and OAND I SIET (SIVI)		- 64 -				20		0.0]		<u></u>		End on 4/26/05
64.0-66.75' TILL: Reddish brown (5YR4/4)		- 04 -		27	1.0	21	0844	0.0	0.0	0844	N/A	N/A	Start on 4/27/05
SILT, SAND, SILTY CLAY, gravel, well				۲,	1.0	۱ ۲	0044	0.0	0.0	0044	IN/A	19/74	
compacted (GC)						23		0.0					
		- 65 -											
						25							
						26							
		- 66 -				 				 	ļ	 	
				28	1.0	24	0854	0.0	0.0	0854	N/A	N/A	
						24		0.0					
		- 67 -											
						25							
66.75-69.0' TILL: Reddish brown (5YR4/4)						27							
SILTY SAND, fine gravel well compacted (GC)		- 68 -							 		 		
(40)				29	1.0	28	0905	0.0	0.0	0905	N/A	N/A	
						30		0.0					
		- 69 -											
						31							
						30							
	1	- 70 -		I	L	l	1	L	J	L	1	L	L

### COM Note: Ground Surface Elevation = 11.1 ft NAVD88	AECOM NA	oto: Ground Surfac	_	LOG											
Standard Charge Column C		ole. Ground Sunac	C	Liev	<u>a</u>	lion	_	<u> </u>					PROJEC	T NUMBE	TR .
Martin M		City New Jersey							GHOON	J LLL VA	11014 (1 1.	WOL)	THOOLO	THOMBL	
Advanced Offling, Inc. Service Deciring and Play 1257 August 100 41 Find Play 1257 August 100 41 Find Play 1257 Finder bit to 78" Play 1257	<u> </u>		FOREMAN	J				DATE ST	ARTED			DATE CO	MPI FTF		
Column The Property The Proper						nel			B/(12 0 1		26/05		5,112 01	,,,,,,	
Martin				ocioniy		901			COMPLE			BGS)	BOCK D	EPTH (ET	
Section No. Section No		4 25" Augers to 44" mud rotary with	3.7	/8" roller	hit	to 78'			001111 22		(300)			
No.	4.20 August to 44, mud rotary war	0 11				BARRE	=1.	NO. SAM		DIST.	29	UNDIST.			
Manufacture Market Marke													1		
Substitution Part		WEIGHT N/A													
Secretary March				DITO	. 4/							lina Alla	evway (I	ormer l	Bailroad BOW)
DESCRIPTION				DR∩P		30"							syrray (i	Officer	rtainoda rtovv)
DESCRIPTION 2	SAMPLENTIAMMEN	WEIGHT 140 IDS.	L	DNOF		1	San	nnlos	INSPEC	ION			NGS		
70.0-78.0' No Sample Collected 1			terva		able		Jai				טו ו		INGS		
70.0-78.0' No Sample Collected 1 70	DE	SCRIPTION	ple Ir	Donth	ater T	Niconstruction	D		T	0	A b : A		11	T	DEMVBK6
70.0-78.0' No Sample Collected - 70		2001111 11014	San		M	Number			Time	Sample		Time			TILIMATINO
70.0-78.0' No Sample Collected							(11)	DL/0III		l	All		орасе	Date	
	70.0-78.0' No Sar	nple Collected		- 70 -											
				74											
- 73				- /1 -											
- 73															
- 73															
- 73				70											
End of boring at 78'				- /2 -											
End of boring at 78'															
End of boring at 78'															
End of boring at 78'															
End of boring at 78'				- 73 -											
End of boring at 78'															
End of boring at 78'															
End of boring at 78'															
End of boring at 78' End of boring at 78' Bedrock encountered at 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78' - 78				- 74 -											
End of boring at 78' End of boring at 78' Bedrock encountered at 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78' - 78															
End of boring at 78' End of boring at 78' Bedrock encountered at 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78' - 78															
End of boring at 78' End of boring at 78' Bedrock encountered at 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78' - 78															
End of boring at 78' Bedrock encountered at 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78' - 78				- 75 -											
End of boring at 78' Bedrock encountered at 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78' - 78															
End of boring at 78' Bedrock encountered at 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78' - 78															
End of boring at 78' Bedrock encountered at 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78' - 78															
End of boring at 78' End of boring at 78' 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78' - 78				- 76 -											
End of boring at 78' End of boring at 78' 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78' - 78															
End of boring at 78' End of boring at 78' 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78' - 78															
End of boring at 78' End of boring at 78' 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78' - 78															Dodgook construct
End of boring at 78' End of boring at 78' Screening of mud; black argillite fragments; drilled to 78' - 78				- 77 -											
End of boring at 78' End of boring at 78' - 78															
End of boring at 78' - 78															argillite fragments; drilled
End of boring at 78'															
- 79				- 78 -				ļ		ļ		ļ ·	ļ		
	End of boring at 7	'8'													
				- 79 -											
				- 80 -		 	 	 		ļ	ļ	ļ	ļ		

			LOG	0	F SC	DIL E	3OR	ING S	SB-3	1					
AECOM No	te: Ground Surface) E	Eleva	ati	on	= 1	4.8	ft N	AVE	880					
PROJECT LOCATION								GROUNI	ELEVA	ΓΙΟΝ (FT. I	MSL)	PROJEC	T NUMBE	ER	
Halladay Street, Jersey	City, New Jersey													020667601	
DRILLING CONTRACTOR			FOREMA	1				DATE ST	ARTED			DATE CO	MPLETE	:D	
Advanced Drilling, Inc.			Jeremy	Log	jel				04/0	08/05				04/08/05	
DRILLING EQUIPMENT								COMPLE	TION DE	PTH (FT B	BGS)	ROCK DE	EPTH (FT)	
Hollow Stem Auger Rig,	4.25" Augers								44'				not end	countered	
TYPE BIT N/A			SIZE AND	TYP	E CORE	BARRE	ΞL	NO. SAM	IPLES	DIST.	20	UNDIST.	N/A	CORE	N/A
CASING N/A				N/A	A			WATER	DEPTH	FIRST	10'	COMPL.	N/A	24HR	N/A
CASING HAMMER	WEIGHT N/A		DROP	N/A	A			BORING	LOCATIO	ON					
SAMPLER 2" diame	ter, 2' long split-spoon							North o	of Halste	ead Build	ding, P	arking A	rea		
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPEC ⁻	FOR	Eric Ga	aulin			_	
		ıval		ө		San	nples			PID	READI	NGS			
		e Interval		r Tab			Penetr.				(PPM)	1			
DE	SCRIPTION	Sample	Depth	Wate	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REN	MARKS
		0)	(ft bgs)			(ft)	BL/6in			Air		Space	Date		
0.0-4.0' Cleared vi silty sand, trace si	a hand dig; soil was brown t, gravel		- 0 -											Boring throuarea	igh grassy
			- 1 -												

4.0-5.01	FII I ·	enil	wood	fragments	clinkor

6.0-8.5' FILL: soil, wood fragments, clinker, coal fragments, black staining, glass pieces

	- 2 -										
	- 3 -										
	- 4 -										
		1	1.0	2	0932	10.0	0.0	0932	N/A	N/A	slight gasoline odors noted, no staining
	- 5 -			1		10.0					
	Ü			1							
				2							
١	- 6 -	2	1.0	2	0925	118.0	0.0	0925	N/A	N/A	Heavy gasoline like
				2		228.0					odors, staining
	- 7 -			2							
l	- 8 -			2							
		3	0.5	1	0938	220.0	0.0	0938	N/A	N/A	0927 Sample SB-31 (6.5-7.0) collected for TCL
	- 9 -			2							VOC, TCL SVOC, TAL Metals
				2							
				3							

LOG OF SOIL BORING SB-31

AECOM Note: Ground Surface Elevation = 14.8 ft NAVD88

ALCON NO	te. Gibuila Sullace	<u>, </u>		z u	UII	<u> </u>	·.U	IL INA	1 V L	/00						
PROJECT LOCATION								GROUND E	LEVAT	ION (FT. N	MSL)	PROJECT	NUMBER			
Halladay Street, Jersey	City, New Jersey													02066760	1	
DRILLING CONTRACTOR			FOREMAN	1				DATE STAF	RTED			DATE COM	MPLETED			
Advanced Drilling, Inc.			Jeremy	Log	gel				04/0	8/05				04/08/05	j	
DRILLING EQUIPMENT						<u> </u>		COMPLETION	ON DE	PTH (FT BO	GS)	ROCK DE	PTH (FT)	•		
Hollow Stem Auger Rig,	4.25" Augers								44'			r	not encou	ıntered		
TYPE BIT N/A			SIZE AND	TYF	PE CORE	BARREL		NO. SAMPL	LES	DIST.	20	UNDIST.	N/A	CORE	N/A	
CASING N/A				N/A	Ą			WATER DE	PTH	FIRST	10'	COMPL.	N/A	24HR	N/A	
CASING HAMMER	WEIGHT N/A		DROP	N/A	Ą			BORING LC	OCATIO	N				•		
SAMPLER 2" diame	eter, 2' long split-spoon							North of I	Halste	ad Build	ling, P	arking Ar	ea			
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPECTO	R	Eric Ga	ulin					
	•	/al		•		Samp	oles			PID I	READI	NGS				
		nterval		able			Ponotr				(PPM)					

SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPECT	TOR	Eric Ga	aulin			
		/al		•		San	nples			PID	READII	NGS		
		Inten		Table			Penetr.				(PPM)			
DI	ESCRIPTION	mple	Depth	/ater	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		Sa	(ft bgs)	>		(ft)	BL/6in		·	Air		Space	Date	
		П	- 10 -											
	soil, wood fragments,	۱	. •		4	1.0	3	0945	3.2	0.0	0945	N/A	N/A	No staining noted
	ments, glass pieces, trace	۱			_	1.0	o	0040	0.2	0.0	0040	14/71	14//	No staining noted
ash material (AM observed at 12'), clam shell fragment						•							
observed at 12							2		0.0					
		П	- 11 -											
		l					2							
		l												
		l					2							
		l	- 12 -											
		۱			5	2.0	2	0950	0.0	0.0	0950	N/A	N/A	Staining, gasoline like
		۱												odors from 12.5-13.0; no odors or staining noted in
		۱					5		60.0					clay / peat
			- 13 -											, , , , , , , , , , , , , , , , , , ,
	consisting of disturbed dark YR4/2) PEAT and organic						2		0.0					
CLAY (PT)	(1H4/2) FEAT and organic													
OLAT (I I)							2		0.0					
			- 14 -											
	Dark gray (10YR4/1) fine to	۱			6	1.0	2	0955	0.0	0.0	0955	N/A	N/A	
	ace clay and trace silt, 10% gravel with some brick and	۱												
	rom 17.0-17.5 feet						2		0.0					
giaco naginomo n			- 15 -				_		0.0					
		l	15				3							
		l					3							
		l					0							
							3							
		۱	- 16 -											
		۱			7	1.5	5	0957	0.0	0.0	0957	N/A	N/A	
		۱												
		٨					4		0.0					
			- 17 -											
							5		0.0					
		l					6							
18 1-20 25' Venu	dark gray (7.5YR3/1) PEAT		- 18 -			ļ								
	r, fibers in peat <1/4" length	١I			8	0.8	5	1011	0.0	0.0	1011	N/A	N/A	1000 Sample SB-31
	, pour <1/7 longth													(16.5-17.0) collected for
							5		0.0					TCL VOC, TCL SVOC,
		П	- 19 -											TAL Metals, Total and
							6							amenable CN
		i l												
		H					6							
		l					υ							

Supplemental Rer	nedial Investigation		LOG	· C)FS(ו ווכ	ROR	ING 9	SB-3	1				Page 3 of 5
AECOM No	te: Ground Surface	e E		_			_	-						
PROJECT LOCATION								GROUNI	D ELEVA	TION (FT.	MSL)	PROJEC	T NUMBE	ER
Halladay Street, Jersey	City, New Jersey	-	1											020667601
DRILLING CONTRACTOR			FOREMA	N				DATE ST	TARTED			DATE CO	OMPLETE	ED
Advanced Drilling, Inc.			Jeremy	Lo	gel				04/0	08/05				04/08/05
DRILLING EQUIPMENT								COMPLE	ETION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT	T)
Hollow Stem Auger Rig,	4.25" Augers		1						44'	ı			not en	countered
TYPE BIT N/A			SIZE AND			BARRI	EL	NO. SAN		DIST.	20	UNDIST.	N/A	
CASING N/A				N,				WATER	DEPTH	FIRST	10'	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT N/A		DROP	N,	/A				LOCATIO					
	eter, 2' long split-spoon											arking A	Area	
SAMPLER HAMMER	WEIGHT 140 lbs.	T	DROP		30"			INSPEC	TOR	Eric G				1
		Interval		ple		Sar	nples	1		PID	READI	NGS		
		ole Int		er Ta			Penetr.			1	(PPM)		1	
DE	ESCRIPTION	Sample	Depth	Wat	Number		Resist.	Time	Sample		Time	Head	Time	REMARKS
		+	(ft bgs)	-		(ft)	BL/6in			Air		Space	Date	
	ark gray (7.5YR3/1) PEAT		- 20 -											
trace organic clay,	fibers in peat <1/4" length	M			9	1.25	7	1031	0.0	0.0	1031	N/A	N/A	
	gray (5YR4/1) fine SILTY						14		0.0					
- ,	iameter subrounded		- 21 -											
gravel, trace clay (SP)						8		0.0					
20.75-21.25' Redo	lish brown (2.5YR5/3) fine													
to medium SAND,	trace silt (SW)						8							
22 0-24 0' Reddis	h brown (2.5YR5/3) fine to	Ш	- 22 -											
	ace silt, with occasional 1"-				10	2.0	8	1036	0.0	0.0	1036	N/A	N/A	
	e sand and fine gravel	М												
(SW)							12		0.0					
			- 23 -											1039 Positive dye test at
							12		0.0					23.75' - OM staining and
														naphthalene odors from 23.75-25.25'
							11		0.0					20.70-20.20
	sh brown (2.5YR5/3) fine to	Н	- 24 -											
	ace silt, with occasional 1"-				11	2.0	5	1044	7.4	0.0	1044	N/A	N/A	
	thin brown oil material	M												
(OM)							7		9.0					10510 1 05 01 (01 5
			- 25 -											1051 Sample SB-31 (24.5 25.0) for GC Fingerprint,
25.25-26.0' Reddis	sh brown (2.5YR5/3) fine						8		0.0					TCL VOC, TCL SVOC,
SILTY SAND, no s	staining or OM (SM)													TAL Metals, Total and
							9		0.0					Amenable CN
26 0-27 5' Daddiah	hrown (2 5VD5/2) fina	П	- 26 -		 -									l
	brown (2.5YR5/3) fine asional 1" band of fine to				12	1.5	8	1058	0.0	0.0	1058	N/A	N/A	No odors or staining
medium sand, dry														
, , ,	, ,						10		0.0					1059 Sample SB-31 (27.0-
			- 27 -											27.5) for TCL VOC, TCL
							11		0.0					SVOC, TAL Metals, Total
		F												and Amenable CN
							12		0.0					
28 N-29 5' Red (2.1	5YR4/6) fine SILTY SAND,		- 28 -	1			ļ					 		
occasional 1" band	•				13	1.5	8	1112	0.0	0.0	1112	N/A	N/A	
and a supplied to the supplied	()													
							9		0.0					
			- 29 -											
							8		0.0					
							9							
			- 30 -		l	L	L	l		1		1	L	

AECOM Note: Ground Surface		LOG											: 3 3 3 . 3 . 3
PROJECT LOCATION	<u>ا ز</u>	_1676	וט	1011	_ '	7.0		O ELEVAT		MSI)	PBO.IEC	T NUMBE	TR
Halladay Street, Jersey City, New Jersey							GHOONE	JELEVAI	ION (I I.	WIOL)	HOJEC	TNOWIDE	020667601
DRILLING CONTRACTOR		FOREMAN	J.				DATE ST	ARTED			DATE CO	OMPLETE	
Advanced Drilling, Inc.		Jeremy		nel					8/05				04/08/05
DRILLING EQUIPMENT	!	ociciny		goi			COMPLE	TION DE		RGS)	BOCK DI	EPTH (FT)	
Hollow Stem Auger Rig, 4.25" Augers							OOMI EE	44'	(,00)	TIOOK DI		countered
TYPE BIT N/A		SIZE AND	TY	PE CORE	BARRE	EL	NO. SAN		DIST.	20	UNDIST.	N/A	CORE N/A
CASING N/A			N/	Ά			WATER	DEPTH	FIRST	10'	COMPL.	N/A	24HR N/A
CASING HAMMER WEIGHT N/A		DROP	N/	Ά				LOCATIO					<u> </u>
SAMPLER 2" diameter, 2' long split-spoon										ding, P	arking A	rea	
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPECT		Eric Ga				
•	al				San	nples	•		PID	READI	NGS		
	Interval		Table			Penetr.				(PPM)			
DESCRIPTION		Depth	Vater	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
	Sa	(ft bgs)	^		(ft)	BL/6in			Air		Space	Date	
30.0-31.4' Red (2.5YR4/6) fine SILTY SAND, little fine sandy silt (SM)		- 30 -		14	1.4	9	1128	0.0	0.0	1128	N/A	N/A	
		- 31 -				12		0.0					
						14		0.0					
32.0-34.0' Red (2.5YR4/6) fine SILTY SAND, little fine sandy silt, occasional 1/4" lens of		- 32 -		15	2.0	10	1131	0.0	0.0	1131	N/A	N/A	
silty clay (SM)		- 33 -				14		0.0					
						15		0.0					
32.0-40.0' Red (2.5YR4/6) fine SILTY SAND,		- 34 -		16	1.5	9	1155	0.0	0.0	1155	N/A	N/A	
little fine sandy silt (SM)						13		0.0					
		- 35 -				14		0.0					
		- 36 -				15							
				17	2.0	12	1151	0.0	0.0	1151	N/A	N/A	
		- 37 -				16		0.0					
						15		0.0					
		- 38 -		18	1.5	8	1210	0.0	0.0	1210	N/A	N/A	
		- 39 -				12		0.0					
						10		0.0					
		- 40 -				9							

PROJECT LOCATION							GROUNI	D ELEVAT	ΠΟΝ (FT.	MSL)	PROJEC	T NUMBE	ER .
alladay Street, Jersey City, New Jersey													020667601
RILLING CONTRACTOR		FOREMAI	N				DATE ST	ARTED			DATE CO	OMPLETE	:D
dvanced Drilling, Inc.		Jeremy	Lo	gel				04/0	08/05				04/08/05
RILLING EQUIPMENT							COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT)
ollow Stem Auger Rig, 4.25" Augers								44'					countered
/PE BIT N/A		SIZE AND			BARRE	EL	NO. SAM		DIST.	20	UNDIST.		
ASING N/A			N/				WATER		FIRST	10'	COMPL.	N/A	24HR N/A
ASING HAMMER WEIGHT N/A		DROP	N/	Ά				LOCATIO					
AMPLER 2" diameter, 2' long split-spoon				00"					ead Buil		arking A	Area	
SAMPLER HAMMER WEIGHT 140 lbs.	T^{\dagger}	DROP		30"	0		INSPEC	TOR	Eric Ga		NOC		
	Sample Interval		able		Sar	nples Penetr.			PID	READI (PPM)	NGS		
DESCRIPTION	nple Ir	Depth	Vater T	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
DECOIL FICH	San	(ft bgs)	W	Number	(ft)	BL/6in	Time	Sample	Air	Tillie	Space	Date	TILIWIN II II CO
		- 40 -											
40.0-42.0' Reddish brown (2.5YR4/3) fine				19	2.0	10	1224	0.0	0.0	1224	N/A	N/A	
SILTY SAND, little fine sandy silt, occasional silty clay lens (SM)													
	М					11		0.0					
		- 41 -											
						11		0.0					
						10		0.0					
12.0-44.0' Reddish brown (2.5YR4/4)	П	- 42 -											
nterlaminated SILT and SILTY CLAY, layers				20	2.0	14	1229	0.0	0.0	1229	N/A	N/A	1230 Sample SB-31
I" to 2" thick (CL)													(42.0-42.5) for TCL VO
	М					14		0.0					TCL SVOC, TAL Metals Total and Amenable CN
		- 43 -											Total and Ameriable Of
						15		0.0					
						16		0.0					
End of Boring at 44'		- 44 -											
-													
		45											
		- 45 -											
		- 46 -											
		- 46 -							1				
		_											
		- 47 -											
		- 48 -											
		- 49 -											
		- 50 -		l	L			I					ĺ

Interim Data Subr	nittal No.4			_	- CC				CD 4	_				Page 1 of 6
AFOONANI	- 1		LOG											
	ote: Ground Surfac	e.	⊨ıe\	<u>a</u>	tion	= '	10.8					L		
PROJECT LOCATION	Oir MI							GROUNI		TION (FT.	MSL)	PROJEC	T NUMBE	
Halladay Street , Jersey	City, NJ			_				DATE 07		2.12		DATE 00		020667601
			FOREMAI					DATE ST				DATE CO	OMPLETE	
Advanced Drilling, Inc.			Roger L	.oge	el					21/06				/22/06
DRILLING EQUIPMENT								COMPLE		PTH (FT E	BGS)	ROCK D	EPTH (FT	
	urning 4.25-inch hollow-stem augers	1							56	1				countered
	stem auger		SIZE AND			BARRE	EL	NO. SAM		DIST.	27	UNDIST.		
CASING N/A				N/				WATER		FIRST	4.5	COMPL.	N/A	24HR N/A
CASING HAMMER	weight N/A		DROP		N/A									treet, 30 ft NE from the
	eter, 2' long split-spoon	1										reet / Ca	rteret Av	enue intersection.
SAMPLER HAMMER	WEIGHT 140 lbs.	\vdash	DROP		30"			INSPEC	TOR	Eric Ga				<u> </u>
		Interval		ple		San	nples			PID	READI	NGS		
		le Int		er Ta			Penetr.			1	(PPM)	1	1	
DE	ESCRIPTION	Sample	Depth	Wat	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		Ľ	(ft bgs)			(ft)	BL/6in			Air		Space	Date	
through asphalt; F red sandy fill with processing residue	isting of reddish brown		- 1	Ŋι	1	0.9	3 4 6	1249	0.0	0.0	1249	N/A	N/A	No odors or other evidence of contamination
6.0-8.0 FILL: consi	isting of clinkers and gravel		- 6 - 7 -		2	0.7	3	1252	0.0	0.0	1252	N/A	N/A	No odors or other evidence of contamination
							2							
			- 8 -		3	0.9	2	1255	0.0	0.0	1255	N/A	N/A	No odors or other
	sisting of grayish black fine sh, some organic matter													evidence of
Sinty Sand, Some as	on, some organic maller						2		0.0	0.0				contamination
			- 9 -				3							
							3							
			- 10 -											

Interim Data Subr	nittal No.4			_	- C	\ r	200	INIC (CD 4	^				Page 2 of 6
A ECOM NA	oto: Cround Surface		LOG											
PROJECT LOCATION	ote: Ground Surfac	е	⊏iev	a	uon	= 1	0.9			TION (FT.	MCL	BBO IEO	T NUMBE	-n
Halladay Street , Jersey	City N.I.							GHOUNI		2.12	MSL)	PROJEC	INUMBE	020667601
DRILLING CONTRACTOR	Oity, No		FOREMA	N				DATE ST		12		DATE CO	OMPLETE	
Advanced Drilling, Inc.			Roger L		el			B/(12 0)		21/06		5,112 01		/22/06
DRILLING EQUIPMENT			riogor z	.09	<u>. </u>			COMPLE		PTH (FT E	BGS)	BOCK D	EPTH (FT	
	urning 4.25-inch hollow-stem augers								56	(,			countered
	stem auger		SIZE AND	TY	PE CORE	BARRE	L	NO. SAM		DIST.	27	UNDIST.	N/A	
CASING N/A	-			N/	Α			WATER	DEPTH	FIRST	4.5	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT N/A		DROP		N/A			BORING	LOCATIO	ON: Easte	rn shoul	der of Ha	ılladay S	treet, 30 ft NE from the
SAMPLER 2" diame	eter, 2' long split-spoon	•						eastern	corner c	of the Ha	lladay St	reet / Ca	rteret Av	renue intersection.
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPEC ⁻	TOR	Eric Ga	aulin			
		/al		•		San	nples			PID	READI	NGS		
		Interval		. Table			Penetr.				(PPM)			
DE	ESCRIPTION	Sample	Depth	Water	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		Š	(ft bgs)			(ft)	BL/6in			Air		Space	Date	
10.0-10.3 FILL: sa	ame as above (SAA), with		- 10 -											Sample SB-40(10.0-
black staining and	, ,	M			4	1.0	2	1304	0.1	0.0	1304	N/A	N/A	10.5) collected at 1305
														for TCL VOC, TCL
10.3-14.8 Weak r	red (2.5YR4/2) fine SILTY						1		0.0	0.0				SVOC, TAL Metals,
SAND (SM)	(======================================		- 11 -											Total and Amenable CN.
, ,							2							Positive dye test from 10.0 to 10.5; tar-like
														odors
							2							
		W	- 12 -											
		N			5	1.0	2	1306	0.0	0.0	1306	N/A	N/A	
							1		0.0	0.0				
			- 13 -											
							1							
							2							
			- 14 -											
					6	1.0	2	1314	0.1	0.0	1314	N/A	N/A	Anaerobic, swampy
														odors
14.8-16.0 brownis	sh PEAT (PT), very fibrous						2		0.1	0.0				
	, ,,		- 15 -											
							2							
							2							
160-103500 6	ecoming higher in dark		- 16 -											
	EY 1 4/1 GY) CLAY (OH)				7	1.5	2	1316	10.2	0.0	1316	N/A	N/A	Anaerobic, swampy
content (50%) at b														odors
							1		10.5	0.0				
			- 17 -											
							2		22.3	0.0				
							2							
			- 18 -											
19 3-20 6 Grav (G	GLEY1 5/N) SILTY CLAY				8	1.7	1	1320	14.0	0.0	1320	N/A	N/A	Anaerobic, swampy
(CL)	ALL I I O/IN) OIL I I OLA I													odors
							2		8.5	0.0				
			- 19 -											
							1		4.7	0.0				
		П					2		4.0	0.0				
			- 20 -											

ROJECT LOCATION								GROUNI	DELEVAT	TION (FT. I	MSL)	PROJEC	T NUMBE	ER .
Halladay Street , Jersey C	ity, NJ								12	.12				020667601
RILLING CONTRACTOR			FOREMA	N				DATE ST	ARTED			DATE CO	OMPLETE	ED
dvanced Drilling, Inc.			Roger L	.og	el				11/2	21/06			11/	/22/06
RILLING EQUIPMENT								COMPLE	TION DE	PTH (FT B	(GS)	ROCK DI	EPTH (FT)
	ning 4.25-inch hollow-stem augers		l						56	1				countered
PE BIT Hollow-ste	m auger		SIZE AND			BARRI	EL	NO. SAN		DIST.	27	UNDIST.	N/A	
ASING N/A	/EIGHT N/A		DROP	N/	N/A			WATER		FIRST	4.5	COMPL.	N/A	24HR N/A Street, 30 ft NE from the
	er, 2' long split-spoon		DROP		IN/A									venue intersection.
	/EIGHT 140 lbs.		DROP		30"			INSPEC		Eric Ga		ieet / Oa	iteret Av	reflue intersection.
		B				Sar	nples				READII	NGS		
		Interv		Table			Penetr.				(PPM)			
DES	CRIPTION	Sample Interval	Depth	Water	Number	Recov	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		Sa	(ft bgs)			(ft)	BL/6in			Air		Space	Date	
9.3-20.6 Gray (GL CL)	EY1 5/N) SILTY CLAY		- 20 -		9	1.4	2	1331	1.0	0.1	1331	N/A	N/A	Anaerobic, swampy odors
0.6-23.1 Gray (GL ILTY SAND (SM),	EY1 5/N) fine to medium		- 21 -				3		0.8	0.0				
ILI I OAND (SIVI),	naoc olay						5		0.1	0.0				
			- 22 -				5							
					10	1.9	5	1334	0.4	0.2	1334	N/A	N/A	Anaerobic, swampy odors
3.1-24.0 fine to me ngular to subangul	edium SAND (SW), 10% ar gravel		- 23 -				7		1.0	0.0				
							7		1.4	0.0				
1 0-26 0 Raddish k	prown (2.5YR4/4) fine to		- 24 -				8		0.3	0.0				
), trace coarse sand,				11	2.0	5	1350	2.1	0.0	1350	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product;
			- 25 -				5		0.4	0.0				odors on groundwater
							7		0.4	0.0				
6.0-26.8 Reddish b nedium SAND (SW	prown (2.5YR4/4) fine to (), trace silt		- 26 -		12	1.5	6	1400	1.3	0.0	1400	N/A	N/A	Faint naphthalene-like
	prown (2.5YR4/4) fine						6		4.8	0.0				odors, no sheen, no staining, no product; odors on groundwater
ILTY SAND (SM)			- 27 -				7		1.4	0.0				
							6							
			- 28 -		13	0.8	3	1416	1.0	0.0	1416	N/A	N/A	Faint naphthalene-like odors, no sheen, no
			- 29 -				4		3.0	0.0				staining, no product; odors on groundwater
							4							
			- 20				4							
		1	ou -											•

AECOM Note: Ground Surfac		LOG	_			_		_	-				rage 4 or c
PROJECT LOCATION	,C L	-10 00	<i>.</i> (1	011	<u> </u>	0.0			TION (FT.	MSL)	PROJEC	T NUMBE	=R
Halladay Street , Jersey City, NJ							anoon.		2.12				020667601
DRILLING CONTRACTOR		FOREMA	N				DATE ST				DATE CO	OMPLETE	
Advanced Drilling, Inc.		Roger L		el					21/06				/22/06
DRILLING EQUIPMENT		- 9 -	- 3				COMPLE		PTH (FT E	BGS)	ROCK D	EPTH (FT	
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem auger	'S							56	•	,			countered
TYPE BIT Hollow-stem auger		SIZE AND	TY	PE CORE	BARRE	ΞL	NO. SAN	MPLES	DIST.	27	UNDIST.	N/A	CORE N/A
CASING N/A			N/	A			WATER	DEPTH	FIRST	4.5	COMPL.	N/A	24HR N/A
CASING HAMMER WEIGHT N/A		DROP		N/A			BORING	LOCATIO	ON: Easte	rn shoul	der of Ha	alladay S	Street, 30 ft NE from the
SAMPLER 2" diameter, 2' long split-spoon							eastern	corner o	of the Ha	lladay St	reet / Ca	rteret Av	venue intersection.
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPEC	TOR	Eric Ga	aulin			
·	val		m		San	nples			PID	READI	NGS		
	Interval		Tabl			Penetr.				(PPM)			
DESCRIPTION	Sample	Depth	Water	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
	ű	(ft bgs)			(ft)	BL/6in			Air		Space	Date	
26.8-34.4 Reddish brown (2.5YR4/4) fine SILTY SAND (SM)		- 30 -		14	1.1	4	1431	2.2	0.0	1431	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product; odors on groundwater;
		- 31 -				5		4.5	0.0				sample SB-40(30.5-31.0) collected at 1433 for TCL VOC, TCL SVOC, TAL Metals, Total and
		- 32 -				4		8.0	0.0				Amenable CN
				15	1.5	3 5	1450	0.0	0.0	1450	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product; odors on groundwater
		- 33 -				5		0.0	0.0				odoro on groundwater
		- 34 -				7							
34.4-36.0 Reddish brown (2.5YR4/4) fine SANDY SILT (ML)				16	1.2	5	1453	1.4	0.0	1453	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product;
		- 35 -				6		0.0	0.0				odors on groundwater
						6							
36.0-44.1 Reddish brown (2.5YR4/4) fine SANDY SILT (ML) and fine silty sand		- 36 -		17	1.6	5	1455	0.0	0.0	1455	N/A	N/A	Faint naphthalene-like odors, no sheen, no
		- 37 -				6		0.0	0.0				staining, no product; odors on groundwater
						6		0.0	0.0				
		- 38 -		18	0.9	5 4	1459	2.1	0.0	1459	N/A	 N/A	No odors noted in this
						5		3.1	0.0				spoon
		- 39 -				5							
		- 40 -				6							Drilling ended here 11 21-06

		LOG	0	F SC	IL E	BOR	NG S	SB-40	0				
AECOM Note: Ground Surfac	e	Elev	ıa	tion	= '	10.9) ft N	VAV	D88	3			
PROJECT LOCATION							GROUNI	D ELEVAT	ION (FT.	MSL)	PROJEC	T NUMBE	R
Halladay Street , Jersey City, NJ								12	.12				020667601
DRILLING CONTRACTOR		FOREMAN	1				DATE ST	ARTED			DATE CO	MPLETE	D
Advanced Drilling, Inc.		Roger L	oge	el				11/2	21/06			11/	/22/06
DRILLING EQUIPMENT							COMPLE	TION DE	PTH (FT E	BGS)	ROCK DE	EPTH (FT))
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers	- 1							56	1				countered
TYPE BIT Hollow-stem auger		SIZE AND			BARRE	L	NO. SAM		DIST.	27	UNDIST.	N/A	CORE N/A
CASING N/A			N/				WATER		FIRST	4.5	COMPL.	N/A	24HR N/A
CASING HAMMER WEIGHT N/A		DROP		N/A								-	treet, 30 ft NE from the
SAMPLER 2" diameter, 2' long split-spoon	1										reet / Ca	rteret Av	enue intersection.
SAMPLER HAMMER WEIGHT 140 lbs.		DROP	1	30"			INSPECT	TOR	Eric Ga				
	Interval		aple		San	nples		ł	PID	READI	NGS		
DESCRIPTION	ple In	Danath	Vater Ta			Penetr.	_		l	(PPM)	l	_	REMARKS
DESCRIPTION	Sample	Depth (ft bgs)	Wa	Number	Recov.	Resist. BL/6in	Time	Sample	Ambient	Time	Head	Time	NEWANNO
		- 40 -			(ft)	BL/6III			Air		Space	Date	
36.0-44.1 Reddish brown (2.5YR4/4) fine		40		19	1.5	4	0829	0.0	0.0	0829	N/A	N/A	Drilling resumed here on
SANDY SILT (ML) and fine silty sand	١			10	1.0		0020	0.0	0.0	0020	14/71	14// (11-22-06
	١					5		0.0	0.0				
		- 41 -				o		0.0	0.0				Black brown oil material
						4		4.0	0.0				(OM) from 41.3 to 44.1;
						•			0.0				positive dye test at 42.5-
						4							43.0
		- 42 -											
				20	1.0	3	0835	63	0.0	0835	N/A	N/A	Sample SB-40(42.5-43.0)
	١												collected at 850 for TCL
						4		72	0.0				SVOC, TCL VOC, TAL
		- 43 -											Metals, Total and Amenable CN
						4							Amenable CN
						4							
44.1-47.2 Reddish brown (2.5YR4/4) fine		- 44 -											
SILTY SAND (SM)				21	1.1	2	913	1.2	0.0	913	N/A	N/A	
	١												
						2		0.6	0.0				
		- 45 -											
						2							
						2							
		- 46 -											- Heavy black brown OM
				22	1.3	2	0918	0.0	0.0	0918	N/A	N/A	sheen and odors from
	\												46.9 to 47.2
						2		0.0	0.0				Sample SB-40(47.0-47.5)
		- 47 -											collected at 0926 for TCL
47.2-48.3 Reddish brown (2.5YR4/4) fine						3		0.0	0.0				SVOC, TCL VOC, TAL
SANDY SILT (ML)													Metals, Total and
48.3-55.4 Reddish brown (2.5YR4/4) and						3							Amenable CN
occassionally thinly interlaminated SILT (ML)		- 48 -											
and SILT CLAY (CL), with a 1" band of fine				23	1.0	3	0930	0.0	0.0	0930	N/A	N/A	No odors this spoon
sand at 48.5													
						3		0.0	0.0				
		- 49 -											
						3							
		F.0				4							

Interim Data Submittal No.4			_	- 04				OD 4	_				Page 6 of 6
AECOM Note: Ground Surface	e I	Log Eleva											
PROJECT LOCATION									ΓΙΟΝ (FT.	MSL)	PROJEC	T NUMBE	ER
Halladay Street , Jersey City, NJ								12	2.12				020667601
DRILLING CONTRACTOR		FOREMAN	١				DATE ST	TARTED			DATE CO	OMPLETE	:D
Advanced Drilling, Inc.		Roger L	.og	el				11/2	21/06			11/	/22/06
DRILLING EQUIPMENT							COMPLE	ETION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT)
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers								56	,	,			countered
TYPE BIT Hollow-stem auger		SIZE AND	TY	PE CORE	BARRE	EL.	NO. SAN	MPLES .	DIST.	27	UNDIST.		
casing N/A			N/	A			WATER	DEPTH	FIRST	4.5	COMPL.	N/A	24HR N/A
CASING HAMMER WEIGHT N/A		DROP		N/A			BORING	LOCATIO	N: Easte	rn shoul	der of Ha	alladay S	Street, 30 ft NE from the
SAMPLER 2" diameter, 2' long split-spoon							eastern	corner o	of the Hal	lladay St	reet / Ca	rteret Av	venue intersection.
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPEC [*]		Eric Ga				
	al				San	nples			PID	READI	NGS		
	Interval		Table			Penetr.				(PPM)			
DESCRIPTION	Sample	Depth	/ater	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
	Sa	(ft bgs)	>		(ft)	BL/6in		•	Air		Space	Date	
40.0 FF 41.D		- 50 -											
48.3-55.4' Reddish brown (2.5YR4/4) and	١			25	0.9	4	0951	0.0	0.0	0951	N/A	N/A	
occassionally thinly interlaminated SILT (ML) and SILT CLAY (CL), with a 1" band of fine	١												
sand at 48.5						4		0.0	0.0				
		- 51 -											
		-				4		0.0	0.0				
						4							
		- 52 -											
		-		26	1.2	3	1000	0.0	0.0	1000	N/A	N/A	Sample SB-40(55.0-55.5)
	١												collected at 1020 for TCL
						4		0.0	0.0				SVOC, TCL VOC, TAL
		- 53 -						0.0	0.0				Metals, Total and
		- 55 -				4							Amenable CN
						4							
						3							
		E4				3							
		- 54 -		07	4.4		4040	0.0		4040	NI/A	NI/A	
	1			27	1.4	3	1018	0.0	0.0	1018	N/A	N/A	
	١												
						3		0.0	0.0				
		- 55 -											
						4							
						4							
		- 56 -											
End of Boring at 56'													
		- 57 -											
		- 58 -											
		- 59 -											
		- 60 -			L	<u> </u>]				
N-\project\2002\0206676\01\5	. ,		Ч			\!IDO	,	<u>r</u>	1		de1SB /I	D	11/20/2007 14:23

PSEG SC Former Halladay Street Gas Work Interim Data Submittal No.4	S			_									SCHOOR DEPALM Page 1 o
		LOG	C	F S	OIL I	3OR	ING S	SB-5	4				
PROJECT LOCATION							GROUNE	D ELEVA	TION (FT.	MSL)	PROJEC	T NUMBE	ER
Halladay Street , Jersey City, NJ									1.40				020667601
RILLING CONTRACTOR		FOREM	λN				DATE ST	TARTED			DATE CO	OMPLETE	ED.
Advanced Drilling, Inc.		Roger	Log	el				11/2	27/06			11.	/28/06
PRILLING EQUIPMENT							COMPLE	TION DE	EPTH (FT E	BGS)	ROCK D	EPTH (FT)
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers	3							56				not end	countered
YPE BIT Hollow-stem auger		SIZE AN	D TY	PE COR	E BARRI	ΞL	NO. SAM	IPLES	DIST.	26	UNDIST.	N/A	CORE N/A
asing N/A			N/	/A			WATER	DEPTH	FIRST	4.8	COMPL.	N/A	24HR N/A
ASING HAMMER WEIGHT N/A		DROP		N/A			BORING	LOCATIO	ON: Easte	ern shoul	der of Ca	arteret A	venue, 95 ft SE from the
AMPLER 2" diameter, 2' long split-spoon							eastern	corner o	of the Ha	lladay St	reet / Ca	rteret Av	renue intersection.
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPECT		Eric Ga				
	a				Sar	nples				READI	NGS		
	Interval		Table			Penetr.		1		(PPM)	-		
DESCRIPTION	Sample I	Depth	Nater 7	Number	Recov.	Resist.	Time	Sample	Ambient		Head	Time	REMARKS
	Sar	(ft bgs	-		(ft)	BL/6in		Lampio	Air	1	Space	Date	
	\top	- 0 -	T		(-1)				1		- F-100	- = 10	
Cleared via hand digging to 4'; boring													
through asphalt; Fill consisted of brownish													
yellow (10YR6/8) fine to medium sand													
		- 1 -											
		- , -											
		- 2 -											
		- 2 -											
		- 3 -											
		-											
4.0.4.0 Ell Lyblock fill all was-1	-	- 4 -		 -					1		1		N
4.0-4.2 FILL: black fill, silt, wood				1	0.8	1	1455	0.0	0.0	1455	N/A	N/A	No odors or other evidence of
4.2-6.0 FILL: white gray ash material (AM),													contamination
clinker			\blacksquare			1		0.0	0.0				55
		- 5 -											
						1							
						1							
6.0-6.9 Black fine SAND with silty clay, highly		- 6 -											
plastic (SP)				2	1.1	1	1457	0.0	0.0	1457	N/A	N/A	No odors or other
													evidence of contamination
6.9-8.4 Disturbed brownish peat (PT) and						1		0.0	0.0				Contamination
organic matter		- 7 -											
						1		0.0	0.0				
						1							
		- 8 -											
	\setminus			3	0.7	1	1503	0.0	0.0	1503	N/A	N/A	No odors or other
3.4-10.0 Reddish grayish SILTY SANDY													evidence of
CLAY (CL)						1		0.0	0.0				contamination
		- 9 -											
						1		0.0	0.0				
									"				
						1							
		- 10		.	L	L	l	l					

PSEG SC Former	Halladay Street Gas Work	s												SCHOOR DEPALM
Interim Data Subm	nittal No.4		100	: C)F S()II F	ROR	ING S	SR-5	4				Page 2 of
			LOC		<i>7</i> 1 30	<i>)</i> L L	JOIL	iiva .	JD-J.	•				
PROJECT LOCATION								GROUNE	D ELEVAT	ΠΟΝ (FT.	MSL)	PROJEC	T NUMBE	ER
Halladay Street , Jersey	City, NJ								11	.40				020667601
DRILLING CONTRACTOR			FOREMA	AN				DATE ST	ARTED			DATE CO	OMPLETE	:D
Advanced Drilling, Inc.			Roger	Log	el				11/2	27/06			11.	/28/06
DRILLING EQUIPMENT								COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT)
	rning 4.25-inch hollow-stem augers								56					countered
	tem auger		SIZE AN		PE CORI	BARRE	EL	NO. SAM		DIST.	26	UNDIST.		
ASING N/A				N/				WATER		FIRST	4.8	COMPL.	N/A	
	WEIGHT N/A		DROP		N/A			1						venue, 95 ft SE from the
	ter, 2' long split-spoon		DDOD		30"							reet / Ca	rteret Av	renue intersection.
SAMPLER HAMMER	WEIGHT 140 lbs.	П	DROP	Τ	30	San	nples	INSPECT	IOR	Eric Ga	READI	NGS		
		Interval		Table		San	Penetr.			FID	(PPM)	INGS		
DE	SCRIPTION	Sample I	Depth	/ater	Number	Recov.	Resist.	Time	Sample	Ambient		Head	Time	REMARKS
		Sar	(ft bgs	1-	- Nambo	(ft)	BL/6in		Gampio	Air	10	Space	Date	
10 0 14 0 Daddiah	graviah CILTV CANDV	\top	- 10	-										
	grayish SILTY SANDY ed, trace wood, trace fine				4	1.0	2	1512	0.0	0.0	1512	N/A	N/A	Sample SB-54(10.0-
gravel	,			-										10.5) collected at for TCL VOC, TCL SVOC,
							2		0.0	0.0				TAL Metals, Total and
			- 11	-										Amenable CN
							2							
				-										
							3							
			- 12	-										
		\setminus			5	0.7	2	1512	0.0	0.0	1512	N/A	N/A	
				-										
			40				3		0.0	0.0				
			- 13				2							
							3							
			- 14											
	k greenish gray (GLEY1	Ш			6	2.0	1	1525	3.7	0.0	1525	N/A	N/A	Anaerobic, swampy
1.01	CLAY (OH), less than 1%				۱	0	'		J.,		.525		,,,	odors
peat fibers							1		3.0	0.0				
			- 15	-										
							1		1.0					
				-										
							1		0.0					
		Н	- 16	-										
					7	2.0	1	1526	1.0	0.0	1526	N/A	N/A	Anaerobic, swampy
				-										odors
							1		3.2	0.0				
			- 17	-										
							1		0.0	0.0				
				-					_					
							1		5.2	0.0				
		П	- 18	1	8	2.0	1	1500	0 1	1	1500	NI/A	N/A	A
					8	2.0	1	1533	8.1	0.0	1533	N/A	N/A	Anaerobic, swampy odors
			-				1		9.7	0.0				53010
			- 19				'		5.7	0.0				
			- 18				1		4.2	0.0				
							'		7.4	0.0				
							1		1.0	0.0				
			- 20		I	L						l		

PSEG SC Former Halladay Street Gas W Interim Data Submittal No.4	orks														SCHOOR DEPALI Page 3 o
		ı	LOG	0	F S	OIL E	3OR	ING S	SB-5	4					•
PROJECT LOCATION								GROUNI	D ELEVAT	TION (FT.	MSL)	PROJEC	T NUMBE	ER .	
Halladay Street , Jersey City, NJ									11	1.40				02	20667601
RILLING CONTRACTOR		F	OREMAN					DATE ST	TARTED			DATE CO	OMPLETE	:D	
dvanced Drilling, Inc.		F	Roger Lo	ge	əl				11/2	27/06			11.	/28/06	
RILLING EQUIPMENT				_				COMPLE	TION DE	PTH (FT E	BGS)	ROCK DI	EPTH (FT)	
SEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem au	ugers								56				not end		red
YPE BIT Hollow-stem auger		S	SIZE AND T	ΓYF	PE CORI	BARRE	ΞL	NO. SAM	IPLES	DIST.	26	UNDIST.	N/A		CORE N/A
ASING N/A		T	١	V/	A			WATER	DEPTH	FIRST	4.8	COMPL.	N/A		24HR N/A
ASING HAMMER WEIGHT N/A		D	ROP		N/A			BORING	LOCATIO	ON: Easte	rn shoul	der of Ca	arteret A	venue, 9	95 ft SE from the
AMPLER 2" diameter, 2' long split-spoon								eastern	corner o	of the Ha	lladay St	reet / Ca	rteret Av	enue int	tersection.
SAMPLER HAMMER WEIGHT 140 lbs.		С	ROP		30"			INSPEC*		Eric Ga					
-	-	75				Sar	nples				READI	NGS			
	evretu	iller		aple			Penetr.		1		(PPM)				
DESCRIPTION	Sample		Depth	Nater	Number	Recov.	Resist.	Time	Sample	Ambient		Head	Time	1	REMARKS
2233	S.	og O	(ft bgs)	<		(ft)	BL/6in	716	23ріс	Air		Space	Date	1	
		Ť	- 20 -	1											
14.0-20.7 Very dark greenish gray (GLEY			_0		9	1.7	1	1541	3.3	0.0	1541	N/A	N/A	۸۰۰	orobio owores:
3/1 10Y), organic CLAY (OH), less than 19 peat fibers	/0						Ι΄.		0.0	0.0			''''	odor	erobic, swampy rs
pode iidoro		ľ	-				3		n/a	0.0					-
			- 21 -				3		II/a	0.0					
			- 21 -	١			3		2/2	0.0					
20.7-24.8 Light gray fine SILTY SAND, 10	1%			١			3		n/a	0.0					
rounded gravel (SP)	, , , 0	1							l						
		1	00				4		4.4	0.0					
			- 22 -											1	
					10	1.6	4	1544	1.3	0.0	1544	N/A	N/A		
		. -													
							5		4.0	0.0					
			- 23 -												
							5		0.0	0.0					
				١										Dril	lling ended here 11
							5							27-	06
			- 24 -												
					11	1.2	2	0835	0.0	0.0	0835	N/A	N/A	Drill	ing resumed here
04.9.06.0 Doddich hroun (0.5)/D4/4\ "		1.													28-06
24.8-26.0 Reddish brown (2.5YR4/4) fine t medium SAND (SW), trace silt	.O						2		16.4	0.0					
HEGIUH SAND (SW), HACE SIIL		\setminus	- 25 -												
							2		5.5	0.0					
		1.													
							2								
			- 26 -				ļ						 	.	
26.0-27.2 Greyish red fine to coarse SANI			_0		12	1.9	2	0843	12.7	0.0	0843	N/A	N/A	Evtr	emely faint
(SW), trace silt		1				1.5	-	0040	12.7	0.0	0040	17/7	13//		emely fam. nthalene-like odors,
			-				3		21.1	0.0					heen, no staining, n
			- 27				٦		21.1	0.0				prod	
			- 27 -				_								
							2		8.6	0.0					
		1													
							2		11.4	0.0					
27.2-32.6 Dark reddish gray (5YR4/2) fine	to		- 28 -												
medium SAND (SW), trace silt					13	1.6	2	0855	10.6	0.0	0855	N/A	N/A		emely faint
		-													nthalene-like odors,
		Ш					2		21.4	0.0				no s prod	heen, no staining, n luct
			- 29 -											Piou	iuot
							2		20.0	0.0					
		1					2								
			- 30 -			L	L	l	l					L	

PSEG SC Former Halladay Street Gas Wor nterim Data Submittal No.4	ks	1.01		\E ^			INIC 1	SD -	4					SCHOOR DEPAL Page 4 o
		LOC	à C	OF SO	OIL E	BOR	ING S	SB-5	4					
ROJECT LOCATION							GROUNI	D ELEVAT	TION (FT.	MSL)	PROJEC	T NUMBE	ER .	
Halladay Street , Jersey City, NJ								11	1.40				020	0667601
RILLING CONTRACTOR		FOREM	AN				DATE ST	TARTED			DATE CO	OMPLETE	D	
dvanced Drilling, Inc.		Roger	Log	jel				11/2	27/06			11.	/28/06	
RILLING EQUIPMENT							COMPLE	TION DE	PTH (FT E	BGS)	ROCK DI	EPTH (FT)	
EFCO SS 5 Drill Rig turning 4.25-inch hollow-stem auge	ers							56					countere	ed
YPE BIT Hollow-stem auger		SIZE AN	ND TY	PE COR	E BARRE	EL	NO. SAM	IPLES	DIST.	26	UNDIST.	N/A	. (CORE N/A
ASING N/A			N.	/A			WATER	DEPTH	FIRST	4.8	COMPL.	N/A	. 2	24HR N/A
ASING HAMMER WEIGHT N/A		DROP		N/A			BORING	LOCATIO	ON: Easte	rn shoul	der of Ca	arteret A	venue, 95	ft SE from the
AMPLER 2" diameter, 2' long split-spoon		•					eastern	corner o	of the Ha	lladay St	reet / Ca	rteret Av	enue inte	ersection.
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPEC		Eric Ga					
	a				Sar	nples			PID	READI	NGS			
	Interval		Table			Penetr.		1		(PPM)				
DESCRIPTION	Sample I	Deptl	Vater L	Number	Recov.	Resist.	Time	Sample	Ambient		Head	Time	1	REMARKS
	Sar	(ft bgs	-		(ft)	BL/6in			Air		Space	Date	1	
	\dashv	- 30	-											
27.2-32.6 Dark reddish gray (5YR4/2) fine to		33		14	1.0	2	0908	11.8	0.0	0908	N/A	N/A		naphthalene-like
medium SAND (SW), trace silt		_				-		****	0.0			''''		s, no sheen, no
						1		20.3	0.0				staini	ing, no product
		- 31				'		20.3	0.0					
		- 31	-											
						2								
		-	-											
						2								
		- 32	-						1					
				15	1.6	2	0913	4.6	0.0	0913	N/A	N/A		naphthalene-like
		-	-											s, no sheen, no
32.6-32.7 Reddish brown (2.5YR5/4) fine						3		7.9	0.0				staini	ing, no product
SANDY SILT (ML)		- 33	-											
32.7-36.0 Reddish brown (2.5YR5/4) fine						2		8.3	0.0					
SILTY SAND (SM)		-	-											
						2		0.0	0.0					
		- 34	-											
				16	0.8	2	0922	3.2	0.0	0922	N/A	N/A	Faint	naphthalene-like
		-	-											s, no sheen, no
						2		7.0	0.0					ing, no product
		- 35	-											
						2								
		_	_			_								
						2							1	
		- 36											L	
36.0-38.0 Reddish brown (2.5YR5/4) fine		- 30	1	17	1.2	2	0924	10.6	0.0	0924	N/A	N/A	Stron	ger naphthalene-li
SAND (SP), trace silt				17	1.2	-	0924	10.6	0.0	0924	IN/A	IN/A		, no sheen, no
- (-, ,)		-	-					01.5	0.0					ng, no product
						2		21.5	0.0				Sam-	No CD E4/00 E 07
		- 37	-										collec	ole SB-54(36.5-37. cted at 0928 for TC
						2		8.3	0.0					C, TCL VOC, TAL
		-	-											s, Total and
						2								nable CN
88.0-42.0 Reddish brown (2.5YR5/4) fine		- 38	-										 	
SANDY SILT (ML)				18	1.1	2	0933	10.2	0.0	0933	N/A	N/A		thalene-like odors
		-	-										no sh	neen, no staining, i
						1		15.3	0.0				produ	uct
		- 39	-											
						2		33.2	0.0					
		-	-											
					1	2								
		- 40	-		.L	ļ		.	1	L		 	.	

PSEG SC Former Halladay Street Gas Work Interim Data Submittal No.4	(S	LOG	i C)FS(OIL I	BOR	ING S	SB-5	4					SCHOOR DEPALM Page 5 o
PROJECT LOCATION							GROUNI	D ELEVAT	TION (FT.	MSL)	PROJEC	T NUMBE	ER.	
Halladay Street , Jersey City, NJ								11	1.40	,			0	20667601
DRILLING CONTRACTOR		FOREMA	N				DATE ST	TARTED			DATE CO	OMPLETE	D	
Advanced Drilling, Inc.		Roger	_og	el				11/2	27/06			11.	/28/06	
PRILLING EQUIPMENT							COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT)	
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem auger	s							56				not end	counter	red
YPE BIT Hollow-stem auger		SIZE AN) TY	PE CORI	E BARRE	EL	NO. SAM	IPLES	DIST.	26	UNDIST.	N/A		CORE N/A
ASING N/A			N	/A			WATER	DEPTH	FIRST	4.8	COMPL.	N/A		24HR N/A
ASING HAMMER WEIGHT N/A		DROP		N/A			BORING	LOCATIO	ON: Easte	ern shoul	der of Ca	arteret A	venue, 9	95 ft SE from the
AMPLER 2" diameter, 2' long split-spoon							eastern	corner o	of the Ha	lladay St	reet / Ca	rteret Av	enue in	tersection.
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPEC ⁻	TOR	Eric Ga	aulin				
·	val		0		San	nples			PID	READI	NGS			
	Interval		Table			Penetr.				(PPM)				
DESCRIPTION	Sample	Depth	Water	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time		REMARKS
	Š	(ft bgs	1-		(ft)	BL/6in			Air		Space	Date		
20.0.40.0.D.		- 40			ļ ·	ļ			ļ				ļ	
38.0-42.0 Reddish brown (2.5YR5/4) fine SANDY SILT (ML)				19	0.4	2	0955	0.3	0.0	0955	N/A	N/A	odoi	nt naphthalene-like rs, no sheen, no ning, no product
		- 41	-			2								3, 1, 1111
		- 42				3								
42.0-42.6 Reddish brown (2.5YR5/4) fine SILTY SAND (SM)		- 42		20	1.4	2	1006	12.9	0.0	1006	N/A	N/A	odoi	nt naphthalene-like rs, no sheen, no
42.6-46.3 Reddish brown (2.5YR5/4) fine SANDY SILT (ML)		- 43				2		0.3	0.0				Sam	ning, no product
						2		4.6	0.0				SVC Meta	ected at 1100 for TC DC, TCL VOC, TAL als, Total and enable CN
		- 44		21	1.1	2	1036	0.0	0.0	1036	N/A	N/A	No	odors this spoon
		- 45				2		0.0	0.0					
						2		0.0	0.0					
		- 46				3								
46.3-48.0 Reddish brown (2.5YR5/4) SILTY				22	0.8	2	1047	0.0	0.0	1047	N/A	N/A	No	odors this spoon
CLAY (CL), trace fine sand		- 47				3		0.0	0.0					
						3		0.0	0.0					
		- 48				3								
18.0-52.0 Reddish brown (2.5YR5/4) fine SAND (SP), trace silt				23	1.1	3	1100	0.0	0.0	1100	N/A	N/A	No	odors his spoon
· "		- 49				3		0.0	0.0					
						3		0.0	0.0					
		- 50				3								

	Halladay Street Gas Work	s												SCHOOR DEPALM
Interim Data Subn	nittal No.4		LOG	0	F SC	OIL E	BOR	ING S	SB-5	4				Page 6 of
PROJECT LOCATION								GROUNE	ELEVA	TION (FT.	MSL)	PROJEC	T NUMBE	ER
Halladay Street , Jersey	City, NJ	- 1								.40				020667601
DRILLING CONTRACTOR			FOREMAN					DATE ST				DATE CO	OMPLETE	
Advanced Drilling, Inc.			Roger Lo	oge	el					27/06				/28/06
DRILLING EQUIPMENT		_						COMPLE		PTH (FT E	BGS)	ROCK DI	EPTH (FT	
	ırning 4.25-inch hollow-stem auger stem auger		SIZE AND	TVI	PE CORE	BARRE	:1	NO. SAM	56	DIST.	26	UNDIST.	not end	countered CORE N/A
CASING N/A	nom dagor			N/		DAITHE		WATER I		FIRST	4.8	COMPL.	N/A	
CASING HAMMER	WEIGHT N/A		DROP		N/A									venue, 95 ft SE from the
	eter, 2' long split-spoon	٠,						eastern	corner o	of the Ha	lladay St	reet / Ca	rteret Av	renue intersection.
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPECT		Eric Ga				
	•	val		Ф		San	nples			PID	READI	NGS		
		e Interval	l l	r Table			Penetr.			ı	(PPM)			
DE	SCRIPTION	Sample	Depth	Wate	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		0)	(ft bgs)	4		(ft)	BL/6in			Air		Space	Date	
48.0-52.0 Reddish	brown (2.5YR5/4) fine		- 50 -											
SAND (SP), trace					24	0.9	3	1123	0.0	0.0	1123	N/A	N/A	
							_							
			E1				3		0.0	0.0				
			- 51 -				2							
							_							
							3							
			- 52 -											
	brown (2.5YR5/4) fine to				25	2.0	2	1125	0.0	0.0	1125	N/A	N/A	
medium SAND (S)	vv)													
							3		0.0	0.0				
			- 53 -											
							3		0.0					
							3		0.0					
			- 54 -					1107			1107	N1/A	h1/4	Sample SB-54(55.5-56.0)
					26	2.0	3	1127	0.0	0.0	1127	N/A	N/A	collected at 1127 for TCL
							3		0.0	0.0				VOC, TCL SVOC, TAL
			- 55 -						0.0	0.0				Metals, Total and Amenable CN
							3		0.0	0.0				AITICHADIE ON
							3		0.0	0.0				
			- 56 -						ļ					
End of Boring at 56)'													
			- 57 -											
			50											
			- 58 -			[Ī]	[]		
			- 59 -											
			- 60 -	1					l					.

AECOM Noto: Cround Surface F						ORIN			5						r ago r or c
AECOM Note: Ground Surface E	<u> iev</u>	/alio	<u>rı =</u>	11.	<i>/</i> II				TION (FT.	MSI)	PROJEC	T NUMBE	-R		
Halladay Street, Jersey City, New Jersey						GAC	JUND	12.		IVIOL)	FROJEC	, I NOIVIBE		2066760	01
DRILLING CONTRACTOR	F	OREMAN				DAT	TE ST	ARTED			DATE CO	OMPLETE			
Advanced Drilling, Inc.	F	R. Emps	on					04/1	3/04					04/15/04	1
DRILLING EQUIPMENT						CON	MPLE	TION DE	PTH (FT	BGS)	ROCK D	EPTH (FT)		
Hollow Stem Auger								95'				92.5'		ı	
TYPE BIT 4.25" diameter	S	IZE AND		ORE BA	ARREL	_			DIST.	43	UNDIST.		0	CORE	0
CASING N/A CASING HAMMER WEIGHT N/A			N/A N/A						FIRST	6.0'	COMPL.	N/A		24HR	N/A
CASING HAMMER WEIGHT N/A SAMPLER 2" diameter 2' split-spoon	D	ROP	IN/A					of Hale		uildina	east si	de of H	allada	v St	
SAMPLER HAMMER WEIGHT 140 lbs.	D	ROP	30"				PECT		E. Gau		ouot or	00 01 11	иници	<i>y</i> 0ι.	
			Ф		Sampl		Ī			READI	NGS				
	Interval		Тар		Pe	enetr.				(PPM)					
DESCRIPTION		Depth	Nate nuN	nber Re	cov. R	esist. Ti	me	Sample	Ambient	Time	Dust	Time		RE	MARKS
	ගී (t	ft bgs)	1_	(ft) B	L/6in			Air			Date			
0-0.5' FILL: Black GRAVEL (GW), fine to	-	. 0 -		: :									 H02	·····	affecting PID;
medium sand, asphalt fragments.			'	' 1	.0	26 13	:12	N/A	N/A		N/A	N/A		not us	-
0.5.4.0(5)(1.5.0)(2.5.0)		-				28							د، ا		
0.5-1.0' FILL: Black, gray and tan SAND (SP),		. 1 -													
mottled		·				19									
	-														
						12									
2.0-10.5' FILL: Gray to black SAND (SP), firm.	\	- 2 -													
Trace coal and glass fragments			2	2 1	.0	3 13	:21	N/A	N/A		N/A	N/A			
	-	-													
		۾ ا				2									
		· 3 -				,									
						2									
	$ ^{-}$					2									
	11-	- 4 -													
			(3 1	.0	3 13	:23	N/A	N/A		N/A	N/A			
0.2' layer of black fine silty sand. Trace	1 -	-											Org	janic o	dors noted
Clinker Material (CM) from 4.0'						3									
	_	- 5 -													
						3									
		-				3									
		. 6 -	d			<u> </u>]		 	.	<u> </u>				
		Ĭ	=	4 1	.0	3 13	:25	N/A	N/A		N/A	N/A		_	
Black cinders and clinker material (CM), some				']		No	odors,	loose, wet.
white ash material (AM).						1									
, ,	-	- 7 -													
						2									
	-	-				_									
		٩				3									
	1	- 8 -		 5 1	.0	2 13	:36	N/A	N/A	l	N/A	N/A			
	11.		•	´ ˈ	ا ٥.	2 13	.50	IN/A	IN/A		IN/A	IN/A			
						2									
	_	. 9 -													
						2									
	-														
						1									
	\	10 -													
			6	3 1	.0	6 13	:40	N/A	N/A		N/A	N/A	Suc	nected	I native soil at
10.5-11.0' Grayish brown (10YR 5/2) fine to		-													tely 10.5'.
medium SAND (SW), little silt.		11 -				8							ωρρ	. Janiia	,
	П	'']				13									
	.					-									
						15									

AECOM Note: Ground Surface E	Elev	<u>atior</u>					SB-2 88							
PROJECT LOCATION Halladay Street, Jersey City, New Jersey						GROUNI	ELEVAT	TION (FT. .91	MSL)	PROJEC	T NUMBE		2066760	1
DRILLING CONTRACTOR	F	OREMAN				DATE ST		.91		DATE CO	OMPLETE		2000700	1
Advanced Drilling, Inc.		R. Emps	on			5,112 01		3/04		D/112 01	J.W. EE.E		04/15/04	
DRILLING EQUIPMENT						COMPLE	TION DE	PTH (FT I	BGS)	ROCK D	EPTH (FT)		
Hollow Stem Auger							95'				92.5'		ı	
YPE BIT 4.25" diameter	s		YPE COR	E BARF	REL	NO. SAM		DIST.	43	UNDIST.		0	CORE	0
ASING N/A	-		V/A			WATER		FIRST	6.0'	COMPL.	N/A		24HR	N/A
ASING HAMMER WEIGHT N/A AMPLER 2" diameter 2' split-spoon	D	ROP I	N/A			1	LOCATIO		به منامانی	anat al	مام ملا ا ا	ماممام	C4	
AMPLER 2" diameter 2' split-spoon SAMPLER HAMMER WEIGHT 140 lbs.	Ь	ROP	30"			INSPEC		E. Gau		east si	ue oi n	allaua	y St.	
SAIVII EEITTAIVIIVIETT WEIGITI 140 IDS.	<u>_</u>	1101		Sar	nples	IIVOI LO			READI	NGS				
	Inten	1	a a		Penetr.				(PPM)					
DESCRIPTION	Sample	Depth	Number	Recov	. Resist.	Time	Sample	Ambient	Time	Dust	Time		REI	MARKS
	Sa (ft bgs)	5	(ft)	BL/6in			Air			Date			
2.0.12.2' Fragment of roddish brown	M	- 12 -												
2.0-12.2' Fragment of reddish brown iltstone			7	0.5	13	13:45	N/A	N/A		N/A	N/A	Org	anic od	ors noted.
2.2-12.6' Light reddish brown (5YR 6/3) fine		· -]			1.									
SILTY SAND (SM)		_ 10			11									
, ,		- 13 -			9									
]												
			1		3									
4.0-14.5' Gray (GLEY1 6/N) SILTY CLAY		- 14 -												
CL)			8	1.5	1	13:52	N/A	N/A		N/A	N/A			
	-	· -												
4.5-18.7' Peat (PT) with coarse plant					1									
ragments.		- 15 -												
					1									
	П				1									
		- 16 -			L .									
	M	- 10 -	9	1.5	3	13:57	N/A	N/A		N/A	N/A			
	\ .		ľ			. 0.07	, .	,, .		14,71	,, .			
ess organic material from 16.0'					5									
		- 17 -												
					5									
	-													
					3									
	М	- 18 -												
	М		10	1.4	4	14:07	N/A	N/A		N/A	N/A			
9.7.00.01 Croonich area: (CLEV0.5/4) CLAV	1	-	1		_									
8.7-20.2' Greenish gray (GLEY2 5/1) CLAY CL), trace fine sand at top of spoon.		- 19 -			5									
OL), trace fille saffu at top of Spoots.		- 18 -			4									
	-		1		-									
					5									
		- 20 -												
00.0.01.01.Dark groonish ====: (CLEV0.4/4)			11	1.0	5	14:15	N/A	N/A		N/A	N/A			nthalene-like
0.2-21.0' Dark greenish gray (GLEY2 4/1) SILTY SAND and fine to medium SAND (SM),		· -										odo	r at 21.	Uʻ.
poorly sorted, little (10%) subrounded gravel.	1	_]			7									
oony sorted, intio (10/6) subtoutided gravet.		- 21 -			_									
]			9									
		1			9									
		- 22 -			J			l						
		££ -	12	2.0	7	14:20	N/A	N/A		N/A	N/A	l		
2.0-23.7' Dark greenish gray (GLEY2 4/1)			'-	2.0	′	17.20	14/73	13/73		13/73	13/73			ne-like odors,
ne to medium SAND (SW), little silt.					8									ndications of
3.7-24.0' Reddish brown (2.5YR 4/4) fine to		- 23 -										stai	ning.	
nedium SAND (SW), trace silt.					11									
	-													
					17									
		- 24 -			 									

AECOM Note: Ground Surface I	ı Ele،	₋oc (∕atio	OF S (n = 1	0IL 1.7	BOR ft N	ING : AVD	SB-2 188	5						
PROJECT LOCATION							D ELEVAT		MSL)	PROJEC	T NUMBI			
Halladay Street, Jersey City, New Jersey								.91					20667601	
DRILLING CONTRACTOR		OREMAN				DATE ST		0/04		DATE C	OMPLETE		04/45/04	
Advanced Drilling, Inc. DRILLING EQUIPMENT	Į.	R. Emps	on			COMPLE	U4/I	3/04	DCC)	DOCK D	EPTH (F1		04/15/04	
Hollow Stem Auger						COMPLE	95'	PIH (FI	BGS)	HOCK D	92.5'	1)		
TYPE BIT 4.25" diameter	S	SIZE AND	TYPE COF	RE BARF	REL	NO. SAM		DIST.	43	UNDIST.		0	CORE	0
CASING N/A			N/A			WATER	DEPTH	FIRST	6.0'	COMPL.	N/A		24HR	N/A
CASING HAMMER WEIGHT N/A	D	DROP I	N/A			BORING	LOCATIO	ON						
SAMPLER 2" diameter 2' split-spoon										east si	de of H	allada	y St.	
SAMPLER HAMMER WEIGHT 140 lbs.		OROP	30"			INSPEC	TOR	E. Gau		1100				
	Interval	:	appe	Sar	nples			PID	READI (PPM)					
DESCRIPTION	n eld	Depth	Numbe	r Recov	Penetr. Resist.	Time	Sample	Ambient	Time	Dust	Time	•	REM	ARKS
DECOM HON		(ft bgs)	Number N	(ft)	BL/6in	Time	Sample	Air	Time	Dust	Date		1 (11)	
24.0-36.0' Reddish brown (2.5YR 4/4) fine to	\rightarrow	- 24 -												
medium SAND (SW), trace silt	M		13	1.0	3	14:28	N/A	N/A		N/A	N/A			
(= /, = ================================	 													
					5									
		- 25 -			١.									ed sample
					6									26.0) forTCL
		_			6								als, CN	/OC, TAL
		- 26 -		l	ļ								ais, Giv	
	M		14	1.0	5	15:11	N/A	N/A		N/A	N/A			
	- 											Sligh	ht odors	
					5									
		- 27 -												
					6									
	-													
		00			7									
	Ш	- 28 -	15	2.0	3	15:15	N/A	N/A		N/A	N/A	Eirm	i, wet. O	dore etill
	M.		13	2.0	3	13.13	IN/A	IN/A		IN/A	IN/A			ciated with
	М				4								ındwater.	cialca with
	М	- 29 -										9.00		
	М				4									
					5									
	П	- 30 -												
	M		16	1.0	1	15:28	N/A	N/A		N/A	N/A	Odo	rs.	
		_ [2									
		- 31 -			_									
					3									
	-			1										
					3									
	М	- 32 -												
	М		17	1.5	3	15:35	N/A	N/A		N/A	N/A	Nap	hthalene-	like odors.
	 				A									
		- 33 -			4									
		55 -			4									
	.				'									
					5									
		- 34 -						ļ ·						
			18	1.0	5	15:45	N/A	N/A		N/A	N/A	Odo	rs.	
	<u> </u> -			1										
		.			3									
		- 35 -			_									
					3									
		-			3									
		- 36 -			ļ		l	ļ	ļ	ļ	ļ			
			-	<u> </u>	 									

AECOM Note: Ground Surface E		<u>atio</u>															
PROJECT LOCATION							GROUNI	D ELEVA		MSL)	PROJECT NUMBER						
Halladay Street, Jersey City, New Jersey									.91		020667601						
DRILLING CONTRACTOR		FOREMAI		_			DATE ST		0/04		DATE COMPLETED						
Advanced Drilling, Inc. DRILLING EQUIPMENT		R. Emp	SO	n			COMPLE	U4/ I	3/04	DCC)	04/15/04						
Hollow Stem Auger							COMPLE	95'	PIH (FI	BGS)	ROCK DEPTH (FT) 92.5'						
TYPE BIT 4.25" diameter	I	SIZE AND	TY	PE COR	E BARR	REL	NO. SAM		DIST.	43	UNDIST.		0	CORE 0			
CASING N/A			N/				WATER		FIRST	6.0'	COMPL.	N/A		24HR N/A			
CASING HAMMER WEIGHT N/A		DROP	N/	Ά			BORING	LOCATIO	ON								
SAMPLER 2" diameter 2' split-spoon							In front	t of Hal	stead b	uilding,	east si	de of H	alladay	St.			
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPEC	NSPECTOR		ılin							
	Interval		əle		Sar	nples			PID	READI	NGS						
DECODIDETION	e Inte		ər Tal			Penetr.				(PPM)		1		DEMARKO			
DESCRIPTION	Sample	Depth	Wate	Number		. Resist.	Time	Sample	Ambient	Time	Dust	Time		REMARKS			
	S	(ft bgs)	Н		(ft)	BL/6in			Air			Date					
36.0-38.5 Reddish brown (2.5YR 4/4) fine to		- 36 -		19	2.0	3	15:50	N/A	N/A		N/A	N/A	Odo	rs. Groundwater had			
medium SAND (SW), trace silt, grading to fine				19	2.0	3	13.30	IN/A	IN/A		IN/A	IN/A		nish tinge.			
SILTY SAND (SM)	N					4							gree	niisii tinge.			
(5)		- 37 -				'											
		-				4							15:5	9 Collected sample			
													SB-2	25 (36.0-36.5)			
						4											
		- 38 -															
				20	1.5	3	15:58	N/A	N/A		N/A	N/A					
38.5-44.7' Reddish brown (2.5YR 4/4) SILTY	N																
FINE SAND and FINE SANDY SILT (SM),						4											
tight.		- 39 -															
						5											
						5											
		- 40 -		21	1.0	2	8:40	N/A	N/A		N/A	N/A	Star	t drilling on 4/14/2004;			
				21	1.0	2	8:40	N/A	IN/A		IN/A	IN/A		ID readings due to			
						2								and humidity			
		- 41 -				_											
		• • •				3							Oda	ra. Oran maharatar bad			
														rs. Groundwater had			
						3							HOUG	cable greenish tinge.			
		- 42 -															
				22	2.0	3	8:45	N/A	N/A		N/A	N/A	Odo	rs. Green tinge to			
Becoming coarser with more silty fine sand.	М												grou	ındwater.			
						4											
		- 43 -															
						6											
						8					I	I					
		- 44 -			~ ~ ~		0.01	N1/A	h:/A		 _{N1/A}	 _{NI/A}	Odo	rs and oil material			
				23	2.0	5	9:01	N/A	N/A		N/A	N/A) 44.0-44.8'. Positive			
44.7-45.1' Reddish brown (2.5YR 4/4) FINE		-				6								ophobic dye test.			
SILTY SAND (SM)		- 45 -											_				
		70				7								Collected sample SB-			
45.1-63.5' SILTY FINE SAND (SM)						'								44.0-44.5) for TCL			
						6								C, TCL SVOC, TAL			
		- 46 -				ļ					• 		Meta	als, CN			
				24	2.0	5	9:07	N/A	N/A		N/A	N/A	No s	sheen but slight odors			
													note	-			
47 E 49 0' Doddiob grov (0 EVD E/1) CLAV						5											
47.5-48.0' Reddish gray (2.5YR 5/1) CLAY (CL) with interbedded reddish brown (2.5YR		- 47 -											9:10	Collected sample SB-			
4/4) SILTY CLAY (CL).						8								47.0-47.5) for TCL			
THE TOLKT (OL).														C, TCL SVOC, TAL			
						9					I	I		als, CN			
N:\nraiget\2002\0206676\01\5-Reports\2007-11 RIR\Appe		- 48 -	Ш		<u> </u>									11/20/2007 14:16			

AECOM Note: Ground Surface	Licvati	UII	= 1	1./	IT IN											
PROJECT LOCATION Halladay Street, Jersey City, New Jersey	GHOUNE		TION (FT. .91	MSL)	PROJECT NUMBER 020667601											
RILLING CONTRACTOR	FOREM	IAN				DATE ST		.01		DATE COMPLETED						
dvanced Drilling, Inc.	R. Em		n					3/04					14/15/04			
RILLING EQUIPMENT	ı					COMPLE	TION DE	PTH (FT I	BGS)	ROCK D	EPTH (FT					
ollow Stem Auger		95'				92.5'										
YPE BIT 4.25" diameter	SIZE AI	ND TY	PE COR	E BARR	EL	NO. SAM	IPLES	DIST.	43	UNDIST.		0	CORE 0			
ASING N/A		N/				WATER I		FIRST	6.0'	COMPL.	N/A		24HR N/A			
ASING HAMMER WEIGHT N/A	DROP							ON					01			
AMPLER 2" diameter 2' split-spoon SAMPLER HAMMER WEIGHT 140 lbs.	DROP		30"			IN Tront		E. Gau		east si	ae of H	alladay	St.			
SAMPLER HAMMER WEIGHT 140 lbs.	- DHOP		30	Sar	nples	INSPECT	UR		READI	NGS						
	Interv	Table			Penetr.				(PPM)							
DESCRIPTION	Dept (ft bg:	>	Number	Recov	Resist.	Time	Sample	Ambient Air	Time	Dust	Time Date		REMARKS			
8.0-54.0' Reddish gray (2.5YR 5/1) CLAY	- 48	-														
CL), some lenses of reddish brown (2.5YR			25	1.5	3	9:20	N/A	N/A		N/A	N/A					
/4) silty clay, very firm, low plasticity	-	-														
, .,, ,, p					5								Collected sample			
	- 49	-										SB-2	25 (49.5-50.0) for			
					4								VOC, TCL SVOC, Metals, CN			
		-			5							IAL	iviciais, UN			
	- 50		 		<u></u>		l	 	.		.	.				
			26	1.5	2	10:33	N/A	N/A		N/A	N/A	C:1	ohod to mud "ata":			
0.0' Some lenses of silty fine sand	-	-											ched to mud rotary. ers set at 49.0'			
					2							Auge	513 351 dl 43.U			
	- 51	-														
					4											
	-	-			_											
					5											
	- 52	11	27	2.0	4	10:48	N/A	N/A		N/A	N/A					
		_	21	2.0	+	10.40	IN/A	IN/A		IN/A	IN/A					
Mostly reddish brown, thinly laminated clay					4							No o	odors			
nd silty clay	- 53	-										INO C	JUU15			
·, -·,					6											
	-	-														
					6											
	- 54	-														
			28	2.0	4	11:01	N/A	N/A		N/A	N/A	No c	odors			
4.0-60.0' Reddish gray (2.5YR 5/1) and		-			4											
eddish brown (2.5YR 4/4) CLAY (CL), some	- 55				-											
ed (2.5YR 5/6) silty clay lenses, more plastic					4											
	-	-														
					7											
	- 56	-														
			29	2.0	5	11:07	N/A	N/A		N/A	N/A	No c	odors			
	-	-			_											
One de maior authorius (1871), horror	- 57				5											
Predominantly reddish brown from 57.0'					6											
	_	-														
					6											
	- 58	-														
secoming mostly clay, highly plastic			30	2.0	6	11:10	N/A	N/A		N/A	N/A	PID	could not be used			
3 3 3 3 1	-	-											to rain; no odors			
					6							note				
	- 59	11														
					5											
					6											
		1	Ī		ı			Ī	Ī		1					

AECOM Note: Ground Surface I	L Flev	OG C	OF SO) L 1 7	BOR	ING S	SB-2	5						r age o or o		
PROJECT LOCATION	LICV	alloi	<u>' </u>	1.7	ILIN	1		TION (FT.	MSL)	PROJECT NUMBER						
Halladay Street, Jersey City, New Jersey							12	.91		020667601						
DRILLING CONTRACTOR		OREMAN				DATE ST				DATE COMPLETED						
Advanced Drilling, Inc.	F	R. Empso	n					3/04		04/15/04						
DRILLING EQUIPMENT Hollow Stem Auger						COMPLE	TION DE 95'	PTH (FT	BGS)	ROCK D	EPTH (FT 92.5')				
TYPE BIT 4.25" diameter	s	IZE AND T	YPE COR	E BARR	REL	NO. SAM		DIST.	43	UNDIST.		0	CORE	0		
CASING N/A	Ť		/A			WATER		FIRST	6.0'	COMPL.	N/A		24HR	N/A		
CASING HAMMER WEIGHT N/A	D	ROP N	l/A			BORING	LOCATIO	ON		_			•			
SAMPLER 2" diameter 2' split-spoon						In front	of Hal	stead b	uilding,	east si	de of Ha	allada	y St.			
SAMPLER HAMMER WEIGHT 140 lbs.	D	ROP	30"			INSPEC	TOR	E. Gau								
DESCRIPTION	terva	appe	-	Sar	nples	I		PID	(PPM)							
	ple l	Depth 를	Number	Recov	Penetr. Resist.	Time	Sample	Ambient	T	Dust	Time		RFI	MARKS		
BEGONIII MON		ft bgs)	Namber	(ft)	BL/6in	11110	Campic	Air	111110	Dust	Date					
Becoming firmer with more lenses of silty		- 60 -														
clay	М		31	2.0	6	11:35	N/A	N/A		N/A	N/A	No	odors			
60.0-63.5' Reddish gray (2.5YR 5/1) and	-	-														
reddish brown (2.5YR 4/4) CLAY and SILTY					8											
CLAY (CL), laminated, firm		- 61 -			9											
					9											
					10											
		- 62 -			ļ											
	М		32	2.0	10	11:36	N/A	N/A		N/A	N/A	No	odors			
	1 -	-														
	М				9											
63.5-63.7' Reddish brown (2.5YR 4/4) FINE	11.	- 63 -														
SILTY SAND and FINE SAND (SM)					8											
OILT TO THE WIND THE OTHER (OIM)		-			13											
63.7-64.5' Gray (GLEY 1 6/N) CLAY and		- 64 -														
SILTY CLAY (CL), laminated			33	2.0	8	11:51	N/A	N/A		N/A	N/A	No	odors			
	1 -											INO	ouois			
65.5-65.0' Reddish gray (2.5YR 5/1) FINE	М				7											
SILTY SAND (SM)	11	- 65 -														
65.0-72.0' Gray (5YR 5/1) and red (2.5YR 5/6)) 				9											
SILTY CLAY and CLAY (CL), laminated		-														
		- 66 -			11											
			34	2.0	10	11:54	N/A	N/A		N/A	N/A	No	odors			
	-]]							INO	ouois			
					11											
More frequent reddish brown (2.5YR 4/4) silty		- 67 -														
clay layers.					11											
	-	-			10											
		- 68 -			13]										
		- 00	35	2.0	10	12:10	N/A	N/A		N/A	N/A	No	odors			
	-				'		,,,	,, .		. 4//	,, ,					
Occasional thin lenses of reddish brown					9											
(2.5YR 4/4) silty sand.		- 69 -														
, , , ,					9											
	-	-														
		70			10											
December 1997		- 70 -	36	2.0	7	13:50	N/A	N/A	1	N/A	N/A					
Becoming coarser with trace silty fine sand	11.		30	2.0	′	13.30	IN/A	IN/A		IN/A	IN/A	No	odors			
and sandy fine silt from 71.0-72.0'.					5											
	.	- 71 -														
					7											
		-														
		_			7											
		- 72 -		<u> </u>					<u> </u>	<u> </u>	+					

AECOM Note: Ground Surface B		.OG C						5								
PROJECT LOCATION	_1C V	atioi	<u>. – .</u>	1.7	1011			ΓΙΟΝ (FT.	MSL)	PROJECT NUMBER						
Halladay Street, Jersey City, New Jersey							12	.91		020667601						
DRILLING CONTRACTOR		OREMAN R. Empso				DATE ST				DATE COMPLETED						
Advanced Drilling, Inc.				3/04		04/15/04										
DRILLING EQUIPMENT							ETION DE	PTH (FT I	BGS)	ROCK D	EPTH (FT	Γ)				
Hollow Stem Auger TYPE BIT 4.25" diameter	c	IZE AND T	VDE COD	E DADE) F.I	29.0 NO. SAM	4DL EC	95' DIST.	43	UNDIST.	92.5'	0	CORE	0		
CASING N/A	51		/A	E DARF	1EL	WATER		FIRST	6.0'	COMPL.	N/A		24HR	N/A		
CASING HAMMER WEIGHT N/A	D		/A				LOCATION		0.0	OOMI L.	14/71		241111	14/71		
SAMPLER 2" diameter 2' split-spoon			,			1			uilding,	east si	de of H	allada	y St.			
SAMPLER HAMMER WEIGHT 140 lbs.	D	ROP	30"			INSPEC	TOR	E. Gau	ılin				-			
	ıval	<u> </u>		Sar	mples			PID	READ	NGS						
	Interval	rTab			Penetr.			_	(PPM)							
DESCRIPTION		Depth #	Number	Recov	. Resist.	Time	Sample	Ambient	Time	Dust	Time		RE	MARKS		
		ft bgs) >		(ft)	BL/6in			Air			Date					
72.0-80.0' Reddish brown (2.5YR 4/4)	11-	· 72 -														
CLAYEY SAND (SC), few lenses of silty sand,			37	2.0	5	13:52	N/A	N/A		N/A	N/A	No	odors			
	11	-			6											
	11.	- 73 -			ľ											
	М	, 0			6											
	11-	-														
					7											
	.	- 74 -														
			38	2.0	8	14:10	N/A	N/A		N/A	N/A	No	odors			
	1 -	-														
	М				9											
	-	- 75 -														
					10											
		-			۱.,											
		76			11											
	П	76 -	39	2.0	9	14:20	N/A	N/A		N/A	N/A					
	11.	_	33	2.0		14.20	IN/A	IN/A		IN/A	IN/A	No	odors			
	M				9											
December alltica from 77 Fl	11.	. 77 -														
Becoming siltier from 77.5'.	N				11											
	-	-														
					13											
	H -	- 78 -														
			40	2.0	14	14:35	N/A	N/A		N/A	N/A	No	odors			
	11-	-			40											
	М	79 -			13											
Trace (<5%) fine gravel from 79.8-80.0'.	N.	. 79 -			22											
	11-	-														
					25											
	<u> </u>	- 80 -														
80.0-80.7' TILL: GRAVEL (GW), subangular			41	0.7	17	14:55	N/A	N/A		N/A	N/A			sisted of some		
to subrounded GRAVEL, some silty clay and	-	-												wn sandstone		
silty sand.		_	l	1	19									ne pieces,		
	-	81 -	l	1	1.							argi	iiite.			
					22											
	-	-	l	1	4.4											
		82 -		1	14		l		l	<u> </u>	L	L				
		02 -	l	[[Ī		[[l				
	$\ \ _{-}$	_	I									Swit	tched to	collecting		
			I									spoo	on ever	y 5' as per		
	-	83 -	I											with Marlene		
			l	1								Lind	lhardt.			
	-	-	I	1												
			l	1												
N:\project\2002\0206676\01\5-Reports\2007-11 RIR\Appe	<u> </u>	84 -		<u></u>	<u> </u>			Ļ		<u> </u>	<u> </u>			11/20/2007 14:1		

AECOM Note: Ground Surface		LOG evation							5									
PROJECT LOCATION									TION (FT.	MSL)	PROJECT NUMBER							
Halladay Street, Jersey City, New Jersey									.91		020667601							
DRILLING CONTRACTOR		FOREMAI					DATE S		0/04		DATE COMPLETED							
Advanced Drilling, Inc. R. Empson DRILLING EQUIPMENT									3/04	200	04/15/04 ROCK DEPTH (FT)							
Hollow Stem Auger							COMPLE	ETION DE	95'	BGS)	HOCK D	92.5')					
TYPE BIT 4.25" diameter		SIZE AND	TY	PE CORI	E BARR	REL	NO. SAN	//PLES	DIST.	43	UNDIST.		0	CORE	0			
CASING N/A			N				WATER		FIRST	6.0'	COMPL.	N/A		24HR	N/A			
CASING HAMMER WEIGHT N/A		DROP	N	/A			BORING	LOCATIO	ON									
SAMPLER 2" diameter 2' split-spoon							In fron	t of Hal			east si	de of H	allada	y St.				
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPEC	TOR	E. Gau									
DESCRIPTION	terva		able		Sar	nples Penetr.	ı		PID	READI (PPM)								
	ple In	Depth	ter T	Number	Recov	Resist.	Time	Sample	Ambient	Time	Dust	Time		RF	MARKS			
	Sample	(ft bgs)	Wa		(ft)	BL/6in			Air			Date						
		- 84 -																
85.0-85.2' TILL: GRAVEL (GW), subangular to subrounded GRAVEL, some silty clay and silty sand.		- 85 86 87 88 89 -		42	0.2	38 50/3"	15:21	N/A	N/A		N/A	N/A						
90.0-90.2' TILL: GRAVEL (GW), subangular to subrounded GRAVEL, some silty clay and silty sand. 92.5-95.0' Black/dark gray argillite, weathered.		- 90 91 92 93 94 -		43	0.2	100/5'	15:37	N/A	N/A		N/A	N/A	end conf a sc conf fragr black mate that to be	of rod I irm bed reen at irm bed ments which kidark erial. Details rode more	continue ength (95' drock. Als mud tube drock. Roc were same gray argilli brillers note k here se weathered rillig progra) to o put to ck e te ed emed		
End of boring at 95.0'		- 95 - - 96 -																