

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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611350.91
Date Started Drilling: 6/13/2016 8:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682789.21
Date Finished Drilling: 6/13/2016 9:30:00 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 - CAR PDI		

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base	
1	4.5		dry	FILL		ASH, some coal, trace glass, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining.	CAR-PDI-AA19A-0.5-1.0
2							CAR-PDI-AA19A-2.0-2.5
3			dry	FILL		fine to medium SAND, little to trace ash, trace coarse gravel, (7.5YR 6/3) light brown, medium dense, dry, no odor, no staining.	
4							CAR-PDI-AA19A-4.0-4.5
5	3.5	0.0		NR		NO RECOVERY	
6			wet	FILL		fine silty SAND, little fine gravel, trace ash, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining, water at 5.0 feet.	
7			wet	FILL		ASH, some silt and fine sand, trace wood, (7.5YR 2.5/1) black, medium dense, wet, no odor, no staining.	CAR-PDI-AA19A-6.0-6.5
8			wet	FILL		fine silty SAND, fine little gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining.	CAR-PDI-AA19A-8.0-8.5
9	5	0.0		NR		NO RECOVERY	
10			wet	FILL		fine silty SAND, little organics, trace fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	CAR-PDI-AA19A-10.0-10.5
11							CAR-PDI-AA19A-12.0-12.5
12							CAR-PDI-AA19A-14.0-14.5
13	5	0.0	wet	FILL		fine silty SAND, trace metal, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	CAR-PDI-AA19A-14.7-15.2
14			dry	PT		PEAT (degraded vegetated material), 75% organic fibers, 25% organic silt, (5YR 3/3) dark reddish brown, stiff, dry, no odor, no staining. Soils consistent with MM.	CAR-PDI-AA19A-15.2-15.7
15			dry	OL		Organic SILT, 75% organic silt, 25% organic fibers, (7.5YR 4/3) brown, medium stiff, dry, no odor, no staining. Soils consistent with UNDorg.	
16							
17	5	0.0					
18							
19							
20			moist	SM		fine to medium silty SAND, (5Y 5/1) gray, medium dense, moist, no odor, no staining. Soils consistent with UNDno.	

Notes:

bgs - below surface grade
MM - meadow mat

COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611393.78
Date Started Drilling: 6/10/2016 9:10:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682735.13
Date Finished Drilling: 6/10/2016 9:45:00 AM	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - CAR PDI		

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	3.5	0.0		ASPHALT		Asphalt and gravel sub-base	
2			dry	FILL		fine to medium SAND, some fine gravel, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	
3				NR		NO RECOVERY	
4	3	12.2					
5			moist to wet	FILL		fine 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.	
6			wet	FILL		fine silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	
7	5	1.4		NR		NO RECOVERY	
8							
9							
10	5	1.4	wet	FILL		fine silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	CAR-PDI-CC20A-10.0-10.5
11							
12							CAR-PDI-CC20A-12.0-12.5
13			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/3) dark reddish brown, stiff, dry, slight petroleum odor, no staining. Soils consistent with MM.	CAR-PDI-CC20A-12.5-13.0
14			moist	OL			CAR-PDI-CC20A-13.0-13.5
15				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.









Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611415.46
Date Started Drilling: 6/13/2016 9:40:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682721.33
Date Finished Drilling: 6/13/2016 10:40:00 AM	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - CAR PDI		

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	23.0	dry	ASPHALT		Asphalt and gravel sub-base.	
			dry	FILL		fine to medium SAND, little ash, trace wood, (5Y 2.5/1) black, dense, dry, slight solvent odor, no staining.	
2	3.5	3.0					CAR-PDI-DD20A-4.0-4.5
3							
4							
5							
6	3.5	3.0	wet	FILL		ASH, some fine to medium sand, (5Y 5/1) gray, medium dense, wet, slight solvent odor, no staining, water at 5.0 feet.	CAR-PDI-DD20A-6.0-6.5
7			wet	FILL		SILT, (5Y 5/1) gray, soft, wet, no odor, no staining.	
8			wet	FILL		fine silty SAND, some fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	
9				NR		NO RECOVERY	CAR-PDI-DD20A-8.0-8.5
10	4.5	5.0	wet	FILL		fine to medium silty SAND, little fine gravel, trace wood, (5YR 4/4) reddish brown, medium dense, wet, slight solvent odor and black staining.	CAR-PDI-DD20A-10.0-10.5
11							CAR-PDI-DD20A-12.0-12.5
12							CAR-PDI-DD20A-12.5-13.0
13			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/3) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	CAR-PDI-DD20A-13.0-13.5
14				NR		NO RECOVERY	
15							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNOrg - organic undisturbed native deposits 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.


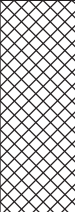

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611714.402
Date Started Drilling: 5/9/2011	Rig Type:	Coordinates (NJSPNAD83) y: 683033.785
Date Finished Drilling: 5/9/2011	Core Size: 12 in	Boring Total Depth: 25 ft
Logged By: B. Daniels, M. Merdinger	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location:		Surface Elevation: 15.0 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5		dry	TOPSOIL		Black Topsoil, some Organics, dry, loose. No odor.	
2			moist	FILL		Dark Brown (7.5YR 3/3) SILT and fine to coarse SAND, little Fill Material (brick, coal, slag, ash), trace fine Gravel and Organics, moist, loose. No odor.	EF-11-0.5
3							EF-11-2.0
4							EF-11-2.5
5							EF-11-4.0
6	1.6		moist	FILL		Dark Gray (7.5YR 4/1) ASH, some Cinders, trace Coal fragments, moist, loose. Strong coal tar odor.	EF-B11-6.0
7				NR		No Recovery	
8							
9							
10							
11	1.2		wet	FILL		Same as above, wet. Strong coal tar and naphthalene odors.	EF-B11-10.5
12				NR		No Recovery	
13							
14							
15							
16	2.7		wet	FILL		Same as above, wet. Strong coal tar and naphthalene odors.	EF-B11-15.0
17			moist	PT		Dark Brown (10YR 4/4) PEAT (PT), Organics, little Silt, semi-cohesive, moist. Sulfur odor.	EF-B11_17.5
18				NR		No Recovery	EF-B11-17.5
19							
20							
21	2.5		wet	SM		Gray (Gley1 6/0) fine SAND (SM), little Silt, wet, moderately dense. No odor.	
22			wet	SW		Reddish Brown (2.5YR 4/3) fine to coarse graded SAND (SW), trace Silt, wet, loose. No odor.	EF-B11-22.0
23				NR		No Recovery	
24							
25							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDo - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDo - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) No CCPW (COPR or GGM) present in any interval of this boring.



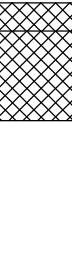
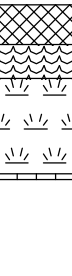

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Soft Dig/Geoprobe	Coordinates (NJSPNAD83) x: 611413.128
Date Started Drilling: 9/4/2012 10:25:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682723.521
Date Finished Drilling: 9/4/2012 10:55:00 AM	Core Size: 2 in	Boring Total Depth: 3 ft
Logged By:	Project Manager: Chris Martell	Depth to Water: NA
Physical Location:		Surface Elevation: 10.8 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
				ASPHALT		ASPHALT	
1	3	0.0	dry	FILL		ASH, and cinders little coal, (7.5YR 4/1) dark gray, dry, no odor, Little slag.	EF-B099-0.5-1.0
2		0.0	moist	FILL		silty SAND, little fine to medium gravel and fill material, moist, no odor, angular, Slag, brick, coal, glass.	EF-B099-2.5-3.0
3							

Notes:
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Comments:












Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Soft Dig/Geoprobe	Coordinates (NJSPNAD83) x: 611707.473637
Date Started Drilling: 9/6/2012 10:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683020.913343
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
Physical Location:		Surface Elevation: 14.7 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	1.4	dry	FILL		silty SAND, some fine to coarse gravel little cobbles, (7.5YR 4/3) brown, dry, no odor, angular, Trace fill material (Brick, concrete, glass), trace organics.	
2							
3							
4							
5							
6	1.9	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)	
7		732	moist	FILL		FILL MATERIAL, (7.5YR 5/1) gray, medium dense, moist, moderate HC odor, Crushed fill.	
8				NR		NO RECOVERY	
9							
10							
11	2.1	260	moist	FILL		silty SAND, and fill material little fine to medium gravel, (7.5YR 5/1) gray, dense, moist, slight HC odor, angular, Crushed fill, slag,	
12		569	wet	FILL		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.	
13				NR		NO RECOVERY	
14							
15							
16	3.1	0.5	wet	FILL		Crushed FILL MATERIAL, (7.5YR 3/1) very dark gray, dense, wet, no odor, Ceramic, wood fragments, debris, metal. Slight sheen.	
17		6.0	moist	PT		silty CLAY, (7.5YR 3/2) dark brown, stiff, moist, no odor	
18						PEAT, with clay and organics, (7.5YR 3/2) dark brown, stiff, moist, moderate sulfur odor	
19		0.2	moist	ML		clayey SILT, (10Y 6/1) greenish gray, medium stiff, moist, no odor	EF-B102-17.6-18.1
20				NR		NO RECOVERY	
21	3.4	3.3	moist	ML		clayey SILT, (10Y 6/1) greenish gray, stiff, moist, no odor	EF-B102-20.0-20.5
22		2.8	wet	SW		fine to coarse SAND, little fine to coarse gravel, (2.5YR 2.5/3) dark reddish brown, medium dense, wet, moderate naphthalene odor, angular	
23							
24				NR		NO RECOVERY	
25							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:

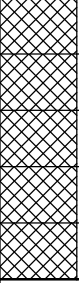
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Project Number: 60240739	Drilling Method: Soft Dig/Geoprobe	Coordinates (NJSPNAD83) x: 611655.810589
Date Started Drilling: 9/6/2012 10:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683051.147657
Date Finished Drilling: 9/6/2012 1:25:00 PM	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: Ben Daniels	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location:		Surface Elevation: 14.2 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5		dry	FILL		silty SAND, some fine to coarse gravel little fill material, (7.5YR 3/2) dark brown, dry, no odor, angular, (wood fragments, ash, cinders, coal)	EF-B103-0.5-1.0
2		2.2	dry	FILL		silty SAND, and fill material little fine to coarse gravel, (7.5YR 4/2) brown, dry, no odor, angular, (Ash, cinders, glass, wood fragments, debris, brick, coal)	
3		21.1	moist	FILL		silty SAND, little fine to medium gravel and fill material, (7.5YR 4/1) dark gray, moist, moderate HC odor, angular, (Ceramic, coal, glass, wood fragments, debris, metal), slight sheen.	
4	1.5	12.8	moist	FILL		silty SAND, and fill material little fine to medium gravel, (7.5YR 4/1) dark gray, loose, moist, no odor, angular, (Glass, ash, cinder, brick, debris)	
5							
6				NR		NO RECOVERY	
7	1.7	1.1	wet	FILL		silty SAND, and fill material, (7.5YR 3/1) very dark gray, medium dense, wet, slight HC odor, Crushed fill. Slight sheen.	EF-B103-11.0-11.5
8			wet	FILL		FILL MATERIAL, (7.5YR 5/1) gray, medium dense, wet, no odor, Crushed fill.	
9				NR		NO RECOVERY	
10	2.6	0.2	wet	FILL		FILL MATERIAL, (7.5YR 5/1) gray, dense, wet, no odor, Crushed fill.	EF-B103-15.0-15.5
11		8.5	moist	PT		PEAT, little organics, stiff, moist, moderate sulfur odor	EF-B103-17.0-17.5
12				NR		NO RECOVERY	
13	3.1	5.3	wet	SP		fine SAND, trace medium gravel, (7.5YR 6/1) gray, dense, wet, slight naphthalene odor, subrounded, Gravel at 20.8.	EF-B103-21.0-21.5
14			wet	SP		fine SAND, little silt trace fine to coarse gravel, (2.5YR 5/3) reddish brown, dense, wet, slight naphthalene odor, subrounded, Gravel at 21.4-21.5	
15			wet	SW		fine to coarse SAND, little fine to medium gravel, (2.5YR 5/3) reddish brown, dense, wet, moderate naphthalene odor, angular	EF-B103-22.6-23.1
16				NR		NO RECOVERY	
17							
18							
19							
20							
21							
22							
23							
24							
25							

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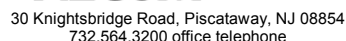
Comments:

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Soft Dig	Coordinates (NJSPNAD83) x: 611555.753433
Date Started Drilling: 9/10/2012 8:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682869.897716
Date Finished Drilling: 9/10/2012 8:55:00 AM	Core Size: 2 in	Boring Total Depth: 5 ft
Logged By: Ben Daniels	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location:		Surface Elevation: 10.3 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	0.0	moist	FILL		silty SAND, little fine to coarse gravel and fill material, (7.5YR 3/2) dark brown, moist, no odor, angular, (Glass, coal, debris, wood fragments)	EF-B122-1.0-1.5
2		0.0	moist	FILL		silty SAND, and fill material, (7.5YR 3/2) dark brown, moist, no odor, (Ash, cinders, ceramic, glass, brick, coal)	
3		2.8	moist	FILL		silty SAND, little fill material, (7.5YR 4/2) brown, moist, no odor, (Ash, cinders, slag, wood fragments, coal)	EF-B122-3.0-3.5
4		2.2	moist	FILL		SILT, little fine to coarse sand trace fine to medium gravel, (7.5YR 2.5/2) very dark brown, moist, no odor, angular, Little fill material (Ash, cinders, ceramic, coal, glass, metal)	
5		1.2	moist	FILL		silty SAND, little fine to coarse gravel and fill material, (7.5YR 2.5/2) very dark brown, moist, no odor, (Metal wire, glass, brick, ash, cinders)	EF-B122-4.5-5.0

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Comments:



Page: 1










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Project Number: 60240739	Drilling Method: Soft Dig	Coordinates (NJSPNAD83) x: 611614.688016
Date Started Drilling: 9/7/2012 12:45:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 682924.599428
Date Finished Drilling: 9/7/2012 1:10:00 PM	Core Size: 2 in	Boring Total Depth: 5.5 ft
Logged By: Ben Daniels	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location:		Surface Elevation: 12.0 ft NAVD88

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:

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











Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611597.318189
Date Started Drilling: 2/19/2014 11:10:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683013.991538
Date Finished Drilling: 2/19/2014 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: 13.8 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
	0.5	0.0		CONCRETE		CONCRETE, no staining.	H0-CT
1	4.5	0.0	moist	FILL		medium SAND, with fine gravel, (7.5YR 3/1) very dark gray, non plastic, soft, moist, no odor, no staining.	H0-CB
2		0.0	dry	FILL		fine to medium SAND, and ash, little fine gravel, (10YR 5/2) grayish brown, non plastic, loose, dry, no odor, no staining.	H0-0.5-1.0
3		0.0	moist	FILL		ASH, some fine sand and fine gravel, (7.5YR 6/1) gray, non plastic, loose, moist, no odor, no staining.	H0-2.5-3.0
4							H0-4.5-5.0
5				NR		NO RECOVERY	
6	3.5	0.0	moist	FILL		fine SAND, with ash and fine to medium gravel, (10YR 5/2) grayish brown, non plastic, soft to loose, moist, no odor, no staining.	H0-6.5-7.0
7		0.0	moist	FILL		medium SAND, little fill material, (7.5YR 4/2) brown, non plastic, soft, moist, no odor, no staining.	
8							H0-8.5-9.0
9				NR		NO RECOVERY	
10							
11	5	0.0	wet	FILL		medium gravelly SAND, with fill material and ash, (7.5YR 4/1) dark gray, non plastic, loose to soft, wet, no odor, no staining.	H0-10.5-11.0
12							H0-12.5-13.0
13							
14							H0-14.5-15.0
15							
16	2.7	0.0	moist	FILL		medium SAND, with roots, some silt, (7.5YR 4/4) brown, non plastic, soft, moist, no odor, no staining.	H0-16.5-17.0
17		6.3	moist	PT		PEAT (degraded vegetated material), with 80% organic fibers, and 20% organic silt, (7.5YR 2.5/3) very dark brown, non plastic, stiff, moist, slight organic odor, no staining. Soils consistent with MM.	
18							
19				NR		NO RECOVERY	
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: No COPR/GGM identified.








Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611614.149617
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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
	0.5	0.0		CONCRETE		CONCRETE, no staining.	H0A-CT
1	4.5	0.0	moist	FILL		fine to medium SAND, trace fine gravel, (7.5YR 3/1) very dark gray, non plastic, soft, moist to wet, no odor, no staining.	H0A-CB
2		0.0	to wet	FILL		ASH, trace fine sand, (7.5YR 6/1) gray, non plastic, loose, moist, no odor, no staining.	H0A-0.5-1.0
3		0.0	moist dry	FILL		medium SAND, with medium gravel and ash, (5YR 4/2) dark reddish gray, non plastic, hard, dry, no odor, no staining.	H0A-2.5-3.0
4		0.0	dry	FILL		medium SAND, with ash and fine gravel, (10YR 5/4) yellowish brown, non plastic, loose, dry, no odor, no staining.	H0A-4.5-5.0
5		0.0	dry to moist	FILL		medium SAND, with fill material and ash, (7.5YR 3/1) very dark gray, non plastic, soft, dry to moist, no odor, no staining.	H0A-4.5-5.0
6		0.0	moist	NR		NO RECOVERY	
7	3.5	0.0	dry to moist	FILL		fine to medium SAND, little fill material, trace glass fragments, (7.5YR 3/1) very dark gray, non plastic, soft, moist, no odor, no staining.	H0A-6.5-7.0
8						medium SAND, and ash, trace fine gravel, (7.5YR 3/1) very dark gray, non plastic, soft, dry to moist, no odor, no staining.	
9		0.0		NR		NO RECOVERY	H0A-8.5-9.0
10							
11	4.5	0.0	wet	FILL		medium to coarse SAND, little fine gravel, some ash, (7.5YR 4/1) dark gray, non plastic, soft, wet, no odor, no staining.	H0A-10.5-11.0
12							H0A-12.5-13.0
13							
14							
15		0.0		NR		NO RECOVERY	H0A-14.5-15.0
16	5	0.0	dry to moist	FILL		medium SAND, trace very fine gravel, (7.5YR 4/2) brown, non plastic, soft, dry to moist, no odor, no staining.	
17		8.6	moist	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (7.5YR 2.5/3) very dark brown, non plastic, stiff, moist, moderate organic odor, no staining. Soils consistent with MM.	H0A-16.5-17.0
18		0.0		NR		NO RECOVERY	
19							
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: No COPR/GGM identified.











Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611632.297916
Date Started Drilling: 2/19/2014 9:10:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682979.071718
Date Finished Drilling: 2/19/2014 10:55:00 AM	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: 13.4 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID		
	0.5	0.0		CONCRETE		CONCRETE, no staining.	H0B-CT		
1	5	1.0	dry to moist	FILL		fine SAND, trace silt with roots, (7.5YR 2.5/3) very dark brown, non plastic, soft, dry to moist, slight organic odor, no staining.	H0B-CB		
		0.0		FILL			H0B-0.5-1.0		
2		0.0		FILL					
3		0.0	dry dry	FILL		ASH, with fine sand and fine gravel, (10YR 5/4) yellowish brown, non plastic, loose, dry, no odor, no staining. medium to coarse SAND, trace very fine gravel and fill material, (7.5YR 3/4) dark brown, non plastic, loose to soft, dry, no odor, no staining. medium silty SAND, with medium gravel, (7.5YR 3/1) very dark gray, non plastic, loose, dry to moist, no odor, no staining.	H0B-2.5-3.0		
4									
5									
6	3.5	0.0		FILL		fine to medium silty SAND, trace fine gravel.			
7								H0B-6.5-7.0	
8									
9								H0B-8.5-9.0	
10				NR		NO RECOVERY			
11	4.5	0.0	wet	FILL		medium to coarse gravelly SAND, trace fill material, (7.5YR 3/1) very dark gray, non plastic, soft to loose, wet, no odor, no staining.	H0B-10.5-11.0		
12		0.0	wet	FILL			H0B-12.5-13.0		
13				NR		NO RECOVERY			
14								H0B-14.5-15.0	
15				NR		NO RECOVERY			
16	2.5	0.0	dry to moist	FILL		fine to medium SILT, trace fine gravel, trace roots, (7.5YR 3/2) dark brown, dry to moist, no odor, no staining. PEAT (degraded vegetated material), with 80% organic fibers and 20% organic silt, (7.5YR 2.5/2) very dark brown, non plastic, stiff, moist, moderate organic odor, no staining. Soils consistent with MM.	H0B-16.5-17.0		
17		6.3		PT					
18						NR		NO RECOVERY	
19									
20									

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: No COPR/GGM identified.






Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611566.044431
Date Started Drilling: 12/10/2011	Rig Type:	Coordinates (NJSPNAD83) y: 682990.412766
Date Finished Drilling: 12/10/2011	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 - 1st transect		Surface Elevation: 13.6 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	0.4	0.0	Dry	CONCRETE		Concrete, no staining.	H1-0.3
			Dry	FILL NR		Black SILT, little fine to medium Sand, trace Coal fragments and slag, loose. No odor. No Recovery	
2	0.9	0.0					
3							
4	0.9	0.0	Dry	FILL		Brown (7.5YR 4/4) SILT and fine SAND, some black Ash and Cinders, little fine to medium Gravel, loose. No odor.	H1-5.0
5				NR		No Recovery	
6	2	0.0					
7							
8	2	0.0	Moist	FILL		Brown (7.5YR 4/4) SILT and fine SAND, some black Ash and Cinders, little fine to medium Gravel, medium dense. No odor.	H1-10.0
9			Wet	FILL		Black CINDERS and SILT, some Ash, loose. No odor.	
10	2.5	0.0		NR		No Recovery	
11							
12	2.5	0.0	Moist	FILL		Black and Brown (7.5YR 4/4) CINDERS and SILT, some Ash, medium dense. No odor.	H1-15.0
13			Moist	PEAT		Dark Brown (7.5YR 3/4) PEAT, high organic content, trace Silty Clay, soft. Strong sulfur odor.	H1-16.0
14	2.5	0.0		NR		No Recovery	
15							
16	2.5	0.0					
17							
18	2.5	0.0					
19							
20	2.5	0.0					
21							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNdno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) MM/UND confirmed to be 1 ft thick 2) No CCPW (COPR or GGM) present in any interval of this boring.






Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611582.64262
Date Started Drilling: 12/10/2011	Rig Type:	Coordinates (NJSPNAD83) y: 682968.141794
Date Finished Drilling: 12/10/2011	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 - 1st transect		Surface Elevation: 13.4 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	2.4	0.0	Dry	CONCRETE		Concrete, no staining.	
		0.0	Moist	FILL		Gray (7.5YR 5/1) ASH and CINDERS, dry to moist at 2 ft, loose. No odor.	H1A-0.5
		0.0					
2							
3				NR		No Recovery	H1A-2.0
4							
5	1.8	0.0	Moist	FILL		Gray (7.5YR 5/1) and Black ASH and CINDERS, some Black Silt and Coal fragments, loose. No odor.	H1A-5.0
6		0.0					H1A-6.0
7				NR		No Recovery	
8							
9							
10	0.2	0.0	Moist	FILL		Gray (7.5YR 5/1) and Black ASH and CINDERS, some Black Silt and Coal fragments, loose, moist to wet at 11 ft. No odor.	H1A-10.0
11				NR		No Recovery	
12							
13							
14							
15	0.2	0.0	Wet	FILL		Gray (7.5YR 5/1) and Black ASH and CINDERS, some Black Silt and Coal fragments, loose. No odor.	H1A-15.0
16				NR		No Recovery	
17							
18							
19							
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNdno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNdorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) No CCPW (COPR or GGM) present in any interval of this boring.






Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611581.72778
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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.8	0.0	moist	CONCRETE		CONCRETE, slight green staining 1.0 inch into core. fine to medium SAND, trace silt, (7.5YR 2.5/3) very dark brown, non plastic, soft, moist, no odor, no staining.	H1A3V-CT
		0.0		FILL			H1A3V-CM
2							H1A3V-CB
3							H1A3V-0.2-0.7
4	4.8	0.0	moist	FILL		fine SAND, with wood fragments and fill material, (7.5YR 2.5/3) very dark brown, non plastic, soft, moist, no odor, no staining. medium SAND, little silt, some gravel, (7.5YR 2.5/3) very dark brown, non plastic, soft, dry to moist, no odor, no staining.	H1A3V-2.0-2.5
5		0.0	dry to moist	FILL			H1A3V-3.0-3.5
6							
7							
8	4.8			NR		NO RECOVERY fine to medium SAND, with ash and fine to medium gravel, (5YR 4/2) dark reddish gray, non plastic, loose, dry, no odor, no staining. fine to medium SAND, with ash and fine to medium gravel, (5YR 4/2) dark reddish gray, non plastic, loose, dry, no odor, no staining. ASH, with fine gravel, little sand, (7.5YR 2.5/1) black, non plastic, loose, dry to moist, no odor, no staining, with fill material. 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.	H1A3V-5.0-5.5
9		0.0	dry dry	FILL			H1A3V-6.0-6.5
10		0.0	dry to moist	FILL			H1A3V-8.0-8.5
11							
12	4.5	0.0	moist moist	NR		NO RECOVERY silty SAND, some fine gravel, little ash, (7.5YR 2.5/1) black, 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.	H1A3V-10.0-10.5
13							H1A3V-12.0-12.5
14							
15							
16	3.5	0.0	moist moist	FILL		fine to medium SAND, little fine gravel, (7.5YR 4/2) brown, non plastic, soft, moist, no odor, no staining. fine to medium SAND, little fine gravel, (7.5YR 4/2) brown, non plastic, soft, moist, no odor, no staining. PEAT (degraded vegetated material), with 80% organic fibers and 20% organic silt, (7.5YR 2.5/3) very dark brown, non plastic, stiff, moist, moderate organic odor, no staining. Soils consistent with MM.	H1A3V-15.5-16.0
17		16.7	moist	PT			
18							
19							
20				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDo - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDo - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) No CCPW (GGM or COPR) was observed in this boring. 2) UNDo/MM was confirmed to be 1" thick.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method:	Coordinates (NJSPNAD83) x: 611581.7
Date Started Drilling: 12/28/2017 10:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682962
Date Finished Drilling: 12/28/2017 1:30:00 PM	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By:	Project Manager: Scott Mikaelian	Depth to Water:
Physical Location: PROPOSED		Surface Elevation: 13.4 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1			dry	CONCRETE		CONCRETE, dry, no odor, no staining	
2			dry	FILL		medium to coarse NO RECOVERY, some ash, (7.5YR 6/3) light brown, dry, no odor, no staining	
3							
4				NR		NO RECOVERY	
5				FILL		fine to medium SAND, trace ash, (5YR 4/1) dark gray, dry, no odor, no staining	
6							
7							
8				NR		NO RECOVERY	
9							
10			moist	FILL		fine to medium SAND, some ash, (5YR 4/1) dark gray, moist to wet, no odor, no staining	
11							
12							
13							
14							
15							
16							
17							
18				SP		fine to medium SAND, trace gravels, trace silt, (5YR 4/3) reddish brown, moist, slight organic odor, no staining. Soils consistent with UNDno.	H1A3VR-18.0-18.5
19							
20							
21							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste






Comments:

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method:	Coordinates (NJSPNAD83) x: 611581.7
Date Started Drilling: 12/28/2017 10:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682962
Date Finished Drilling: 12/28/2017 1:30:00 PM	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By:	Project Manager: Scott Mikaelian	Depth to Water:
Physical Location: PROPOSED		Surface Elevation: 13.4 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
23							
24							
25							

Notes: bgs - below surface grade MM - meadow mat	COPR - chromite ore processing residue GGM - green grey mud	UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits	MGP - manufactured gas plant CCPW - chromate chemical production waste
Comments:			

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
Physical Location: Inside building - 1st transect		Surface Elevation: 13.4 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1			Dry	CONCRETE		Concrete, no staining.	H1B-0.2
			Dry	FILL		Black fine to medium SAND, some Silt, trace Glass, loose.	
			Dry	VOID		No odor. No Recovery	
2							
3							
4							
5			Moist	FILL		Black SILT, little fine to medium Sand, trace Cinders and Ash, loose/soft. No odor.	H1B-5.0
6			Moist	VOID		No Recovery	
7							
8							
9							
10			Wet	FILL		Black SILT, little fine to medium Sand, trace Cinders and Ash, moist to wet at 10.6 ft, loose/soft. No odor.	H1B-10.0
11			Wet	VOID		No Recovery	
12							
13							
14							
15			Wet	FILL		Black SILT, little medium angular Gravel, little fine to medium Sand, trace Organics, soft/loose. Slight oil odor.	H1B-15.0
16			Wet	VOID		No Recovery	
17							
18							
19							
20			Wet	SAND AND SILT		Gray (Gley1 5/0) fine to medium SAND and SILT, little to trace fine rounded Gravel, medium dense. Slight naphthalene odor.	H1B-20.0
21			Wet	SAND		Weak Red (2.5YR 5/2) fine to medium SAND, little to trace SILT, loose. Slight naphthalene odor.	
22			Wet	VOID		No Recovery	
23							
24							
25			Wet	SAND		Reddish Brown (2.5YR 5/3) fine to medium SAND, trace Silt and coarse Sand, medium dense. Naphthalene odor.	H1B-25.0

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:








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
Physical Location: Inside building - 1st transect		Surface Elevation: 13.4 ft NAVD88

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

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:


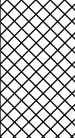




Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611538.896539
Date Started Drilling: 12/10/2011	Rig Type:	Coordinates (NJSPNAD83) y: 682970.188243
Date Finished Drilling: 12/10/2011	Core Size: 2 in	Boring Total Depth: 20 ft
Logged By: M. Merdinger	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Inside building - 2nd transect		Surface Elevation: 13.4 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1			Dry	CONCRETE		Concrete, no staining.	
2			Dry	FILL		Brown (7.5YR 5/3) ASH and CINDERS, loose. No odor.	H2-0.6
3			Dry	FILL		Brown (7.5YR 4/3) fine SAND and SILT, little medium Sand, trace fine angular Gravel, loose. No odor.	H2-2.0
4			Dry	VOID		No Recovery	
5			Moist	FILL		Brown (7.5YR 4/3) fine SAND and SILT, little Ash and Cinder, loose. No odor.	H2-5.0
6			Moist	VOID		No Recovery	
7							
8							
9							
10			Wet	FILL		Brown (7.5YR 4/3) fine SAND and SILT, little Ash, Cinder, and fine angular to rounded Gravel, moist to wet at 10.8 ft, medium dense. No odor.	H2-10.0
11			Wet	VOID		No Recovery	
12							
13							
14							
15			Wet	FILL		Black ASH, some Cinders, little Brown (7.5YR 4/3) fine Sand and Silt, loose. No odor.	H2-15.0
16							H2-16.0
17			Moist	FILL		Brown fine SAND and SILT, trace fine angular Gravel, medium dense. No odor.	
18			Moist	PEAT		Dark Brown (7.5YR 3/4) PEAT, high organic content, little Silty Clay, medium stiff. Sulfur odor.	H2-18.0
19							
20			Moist	VOID		No Recovery	
				NULL		End of boring at 20 ft.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDo - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDo - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611559.067739
Date Started Drilling: 12/10/2011	Rig Type:	Coordinates (NJSPNAD83) y: 682946.924356
Date Finished Drilling: 12/10/2011	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 - 2nd transect		Surface Elevation: 13.7 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1			Dry	CONCRETE		Concrete, no staining.	H2A-0.4
2			Dry	FILL		Brown (7.5YR 4/2) ASH, some Cinders, loose. No odor.	H2A-2.0
3			Dry	VOID		No Recovery	
4							
5			Moist	FILL		Brown (7.5YR 4/2) ASH, some Cinders, loose. No odor.	H2A-5.0
6			Moist	FILL		Black SILT and CINDERS, little Ash, medium dense. No odor.	H2A-6.0
7			Moist	VOID		No Recovery	
8							
9							
10			Moist	FILL		Black SILT and CINDERS, little Ash, medium dense. No odor.	H2A-10.0
11			Moist	VOID		No Recovery	
12							
13							
14							
15			Wet	FILL		Brown (7.5YR 4/2) PEAT, some Silt, little organics. Strong sulfur odor.	H2A-15.0
16			Wet	VOID		No Recovery	
17							
18							
19							
20				NULL		End of boring at 20 ft.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:

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 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
Physical Location: Inside building - 2nd transect		Surface Elevation: 13.4 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1			Dry	CONCRETE		Concrete, no staining.	
2			Dry	VOID		No Recovery	
3							
4							
5			Dry	FILL		Black SILT, little fine to medium Sand, little Concrete at 5.2-5.3 ft, trace Coal fragments, loose. No odor.	H2B-5.0
6			Dry	VOID		No Recovery	
7							
8							
9							
10			Dry	FILL		Black SILT, little fine to medium Sand, trace coal fragments and glass, loose. No odor. Water at 11 ft.	H2B-10.0
11			Wet	VOID		No Recovery	
12							
13							
14							
15			Wet	FILL		Black fine to coarse SAND and SILT, trace Fill (ceramics), loose. Strong naphthalene odor.	H2B-15.0
16			Wet	VOID		No Recovery	
17							
18							
19							
20			Moist	PEAT		Black-stained to Dark Brown (7.5YR 3/4) PEAT, high organic content, some to little Silty Clay, stiff. Sulfur odor.	H2B-20.0
21			Moist	SILTY SAND		Gray (Gley1 5/0) SILT and fine to medium SAND, trace fine angular Gravel, dense. No odor.	
22			Moist	VOID		No Recovery	
23							
24							
25			Wet	SAND		Gray (Gley1 5/0) fine SAND, trace Silt, loose. Slight naphthalene odor.	H2B-25.0

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDo - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDo - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:





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 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
Physical Location: Inside building - 2nd transect		Surface Elevation: 13.4 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
27			Wet	SAND		Weak Red (10YR 4/3) fine to coarse SAND graded to fine to medium SAND, trace Silt, loose. Slight 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.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:







Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611493.056623
Date Started Drilling: 12/11/2011	Rig Type:	Coordinates (NJSPNAD83) y: 682917.980661
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 - 3rd transect		Surface Elevation: 13.8 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
			Dry	CONCRETE		Concrete, no staining.	
1			Dry	FILL		Brown (7.5YR 4/3) SILT and ASH, little Cinders, coal fragments and glass, loose. No odor.	H3-0.5
2							
3			Dry	VOID		No Recovery	
4							
5			Dry	FILL		Brown (7.5YR 4/3) SILT and ASH, little Cinders, coal fragments and glass, loose. No odor.	H3-5.0
6							H3-6.0
7			Dry	VOID		No Recovery	
8							
9							
10							
11			Moist Wet	FILL VOID		Brown (7.5YR 4/3) SILT and ASH, little Cinders, coal fragments and glass, loose. No odor. Water at 11 ft. No Recovery	H3-10.0
12							
13							
14							
15							
16			Wet Wet	PEAT VOID		Brown (7.5YR 4/3) SILT and ASH, little Cinders, coal fragments and glass, trace Peat, loose. No odor. No Recovery	
17							
18							
19							
20				NULL		End of boring at 20 ft.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:






Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611506.011502
Date Started Drilling: 12/11/2011	Rig Type:	Coordinates (NJSPNAD83) y: 682893.463873
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 - 3rd transect		Surface Elevation: 13.6 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1			Dry	CONCRETE		Concrete, no staining.	
2			Dry	FILL		Dark Brown (7.5YR 3/4) SILT and FILL (Ash, Cinders, coal, glass), loose. No odor.	H3A-0.5
3			Dry	VOID		No Recovery	
4							
5			Dry	FILL		Dark Brown (7.5YR 3/4) SILT and FILL (Ash, Cinders, coal, glass), loose. No odor.	H3A-5.0
6			Dry to moist	FILL		Black SILT, little Organics, trace Peat, soft. No odor.	
7							H3A-7.0
8			Moist	FILL		Light Brown (7.5YR 6/3) ASH and CINDERS, loose. No odor.	
9			Moist	VOID		No Recovery	
10			Moist	FILL		Dark Brown (7.5YR 3/4) SILT and FILL (Ash, Cinders, coal, glass), loose. No odor. Water at 11 ft.	H3A-10.0
11			Wet	VOID		No Recovery	
12							
13							
14							
15			Moist	PEAT		Dark Brown (7.5YR 3/4) PEAT, Organics, little Silty Clay, medium stiff. Sulfur odor.	H3A-15.0
16			Moist	VOID		No Recovery	
17							
18							
19							
20				NULL		End of boring at 20 ft.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611542.107552
Date Started Drilling: 12/11/2011	Rig Type:	Coordinates (NJSPNAD83) y: 682883.038286
Date Finished Drilling: 12/11/2011	Core Size: 2 in	Boring Total Depth: 35 ft
Logged By: M. Merdinger	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Inside building - 3rd transect		Surface Elevation: 13.2 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1			Dry	CONCRETE		Concrete, no staining.	
2			Dry	FILL		Dark Brown (7.5YR 3/2) SILT, some Ash, little Concrete and fine to medium Sand, loose. No odor.	H3B-1.5
3			Dry	VOID		No Recovery	
4							
5			Dry	FILL		Dark Brown (7.5YR 3/2) SILT, some Ash, little fine to medium Sand and brick fragments, loose. No odor.	H3B-5.0
6			Dry	VOID		No Recovery	
7							
8							
9							
10			Wet	FILL		Very Dark Gray (7.5YR 3/1) ASH and fine to medium SAND, little Silt, Cinders, and Wood, soft. No odor.	H3B-10.0
11			Wet	VOID		No Recovery	
12							
13							
14							
15			Wet	FILL		Very Dark Gray (7.5YR 3/1) ASH and fine to medium SAND, little Silt, Cinders, and Wood, soft. No odor.	H3B-15.0
16			Moist	PEAT		Dark Brown (7.5YR 3/2) PEAT, high organic content, little Silty Clay, medium stiff. Sulfur odor.	
17							H3B-17.0
18			Moist	VOID		No Recovery	
19							
20			Moist	PEAT		Dark Brown (7.5YR 3/2) PEAT, high organic content, little Silty Clay, medium stiff. Sulfur odor.	H3B-20.0
21			Wet	SAND AND SILT		Gray (Gley1 5/0) fine SAND and SILT, trace coarse Sand, dense. Slight naphthalene odor.	
22							
23			Wet	VOID		No Recovery	
24							
25			Wet	SAND AND		Gray (Gley1 5/0) fine SAND and SILT, trace coarse Sand, dense. Slight naphthalene odor.	H3B-25.0
			Wet				

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDo - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDo - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:








Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611542.107552
Date Started Drilling: 12/11/2011	Rig Type:	Coordinates (NJSPNAD83) y: 682883.038286
Date Finished Drilling: 12/11/2011	Core Size: 2 in	Boring Total Depth: 35 ft
Logged By: M. Merdinger	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Inside building - 3rd transect		Surface Elevation: 13.2 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
27				SILT SAND		Weak Red (10YR 5/3) fine to medium SAND, little to trace SILT, little coarse Sand, medium dense. Naphthalene odor.	
28			Wet	VOID		No Recovery	
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							
34							
35				NULL		End of boring at 35 ft.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNOrg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:







Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611388.525101
Date Started Drilling: 12/11/2011	Rig Type:	Coordinates (NJSPNAD83) y: 682829.094867
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: 13.9 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1			Dry	CONCRETE		Concrete, no staining.	
2			Dry	FILL		Black ASH and CINDERS, some Reddish Brown (5YR 5/4) very fine Gravelly Sand, loose to medium dense. No odor.	H4-0.5
3			Dry	VOID		No Recovery	
4							
5			Dry	FILL		Black ASH and CINDERS, some Reddish Brown (5YR 5/4) very fine Gravelly Sand, loose to medium dense. No odor.	H4-5.0
6			Dry	CONCRETE		Concrete, dry, no staining	
7			Moist	FILL		Black ASH and CINDERS, some Reddish Brown (5YR 5/4) very fine Gravelly Sand, loose to medium dense. No odor.	H4-7.0
8			Moist	VOID		No Recovery	
9							
10			Moist	FILL		Black ASH and CINDERS, some Reddish Brown (5YR 5/4) very fine Gravelly Sand, loose to medium dense. No odor.	H4-10.0
11			Wet	VOID		Water at 11 ft. No Recovery	
12							
13							
14							
15			Wet	FILL		Black ASH and CINDERS, some Reddish Brown (5YR 5/4) very fine Gravelly Sand, loose to medium dense. No odor.	H4-15.0
16			Wet	VOID		No Recovery	
17							
18							
19							
20				NULL		End of boring at 20 ft.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:












Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611410.230438
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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
			Dry	CONCRETE		Concrete, no staining.	
1			Dry	FILL		Reddish Brown (5YR 5/3) very fine Gravelly SAND and Black CINDERS, loose. No odor.	H4A-0.5
2							
3			Dry	VOID		No Recovery	H4A-2.0
4							
5			Dry	FILL		Reddish Brown (5YR 5/3) very fine Gravelly SAND and Black CINDERS, loose. No odor.	H4A-5.0
6							
7			Moist	FILL		Black fine SAND and CINDERS, medium dense. No odor.	H4A-7.0
8			Moist	VOID		No Recovery	
9							
10			Moist	FILL		Black fine SAND and CINDERS, loose. No odor. Water at 11 ft.	H4A-10.0
11			Wet	VOID		No Recovery	
12							
13							
14							
15			Wet	FILL		Black SILT, ASH and Ceramics, loose. No odor.	
16			Wet	VOID		No Recovery	
17							
18							
19							
20				NULL		End of boring at 20 ft.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:







Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611407.142769
Date Started Drilling: 3/7/2014 10:40:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682813.568504
Date Finished Drilling: 3/7/2014 3:10:00 PM	Core Size: 3 in	Boring Total Depth: 20 ft
Logged By: EW	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Halsted - H4A4V		Surface Elevation: 13.9 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
	0.5	0.0		CONCRETE		CONCRETE	H4A4V-CT
1	3	0.0	dry	FILL		ASH, with cinders and fine sand, (10YR 3/4) dark yellowish brown, non plastic, loose, dry, no odor, no staining, with fill material.	H4A4V-CB
2							H4A4V-0.5-1.0
3							H4A4V-2.0-2.5
4				NR		NO RECOVERY	H4A4V-3.0-3.5
5	3.5	0.0	slightly moist	FILL		fine to medium SAND, little fine to medium gravel, (7.5YR 4/1) dark gray, non plastic, loose, slightly moist, no odor, no staining.	H4A4V-5.0-5.5
6		0.0	slightly moist	FILL		fine SAND, some silt, (7.5YR 4/3) brown, non plastic, soft, slightly moist, no odor, no staining.	
7		0.0	dry	FILL		ASH, with cinders and fine sand, (10YR 3/4) dark yellowish brown, non plastic, loose, dry, no odor, no staining, with fill material.	H4A4V-7.0-7.5
8				NR		NO RECOVERY	H4A4V-8.0-8.5
9	4.5						
10		0.0	moist	FILL		fine to medium SAND, with fine to coarse gravel, little silt, (7.5YR 4/1) dark gray, non plastic, loose, moist, no odor, no staining.	H4A4V-10.0-10.5
11							
12		0.0	wet	FILL		medium SAND, with silt, (7.5YR 4/1) dark gray, non plastic, loose, wet, no odor, no staining.	H4A4V-12.0-12.5
13	3	0.0	wet	FILL		medium to coarse SAND, with silt, little coarse gravel, (7.5YR 4/1) dark gray, non plastic, loose, wet, no odor, no staining.	
14				NR		NO RECOVERY	H4A4V-14.0-14.5
15		0.0	wet	FILL		medium SAND, trace fine gravel, (7.5YR 3/1) very dark gray, non plastic, loose, wet, no odor, no staining.	
16		0.0	moist	OL		UNDorg SILT, some organic, (7.5YR 4/1) dark gray, non plastic, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg.	H4A4V-16.0-16.5
17		0.0	moist	PT		PEAT (degraded vegetated material), with 80% organic fibers and 20% organic silt, (7.5YR 2.5/2) very dark brown, non plastic, soft, moist, moderate organic odor, no staining. Soils consistent with MM.	
18				NR		NO RECOVERY	
19							
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) MM/UND confirmed to be 1 ft thick 2) No CCPW (COPR or GGM) present in any interval of this boring.











Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611428.059799
Date Started Drilling: 12/11/2011	Rig Type:	Coordinates (NJSPNAD83) y: 682783.35841
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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1			Dry	CONCRETE		Concrete, no staining.	
2			Dry	FILL		Black SILT and Fill Material (Brick, coal, ash, concrete, glass) little Brown (7.5YR 5/4) fine Sand, loose. No odor.	H4B-0.5
3			Dry	VOID		No Recovery	
4							
5			Dry to moist	FILL		Black SILT and Fill Material (Brick, coal, ash, concrete, glass) little Brown (7.5YR 5/4) fine Sand, loose, dry to moist at 6.1 ft. High PID reading at 6.1-6.2 ft. Strong Naphthalene odor.	H4B-5.0
6			Moist	FILL		Brown (7.5YR 5/4) fine Gravelly SAND, medium dense. No odor.	H4B-7.0
7			Moist	VOID		No Recovery	
8							
9							
10			Wet	FILL		Black ASH and CINDERS, little Silt, moist to wet at 11 ft, loose. No odor.	H4B-10.0
11			Wet	VOID		No Recovery	
12							
13							
14							
15			Wet	FILL		Gray (7.5YR 5/1) ASH and CINDERS, some Silt, little fine Sand, loose. No odor.	H4B-15.0
16			Wet	VOID		No Recovery	
17							
18							
19							
20				NULL		End of boring at 20 ft.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDo - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDo - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611448.699616
Date Started Drilling: 2/26/2014 11:50:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682841.948165
Date Finished Drilling: 2/26/2014 12:25:00 PM	Core Size: 3.0 in	Boring Total Depth: 20.5 ft
Logged By: FM	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location:		Surface Elevation: 13.8 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
	0.5	0.0		CONCRETE		CONCRETE, competent.	H5A-CT
1	4.5	0.0	damp to moist damp	FILL		fine to coarse sandy GRAVEL, gray, 10YR 6/1, damp to moist, trace gray silt, loose, no odor, no staining.	H5A-CB H5A-0.5-1.0
2		0.0		FILL		fine to coarse gravelly ASH, dark gray, 10YR 6/1, mixed fill including brick fragments and glass, coal slag, damp.	H5A-2.0-2.5
3							
4							H5A-4.0-4.5
5	5	0.0		FILL		fine to coarse gravelly SAND, dark brownish gray, 10YR 6/1, mixed fill including glass and tile fragments, coal slag.	
6							H5A-6.0-6.5
7							
8							H5A-8.0-8.5
9		0.0	damp	FILL		fine to coarse sandy ASH, dark gray to black, some silt, mixed fill including cinders, glass and tile, damp.	
10	5	0.0	moist	FILL		fine to coarse sandy ASH, gray, loose, trace silty mixed fill material including coal slag and cinders, moist, no odor or staining.	H5A-10.0-10.5
11							
12							H5A-12.0-12.5
13							
14		0.0	wet	FILL		coarse poorly graded SAND, dark gray-black, loose, some gray silt, 10% fine gravel, wet, no odor or staining.	H5A-14.0-14.5
15	5.5	0.0	moist	FILL		fine to coarse silty SAND, gray with thin brown layers of silt, trace fine gravel, loose, poorly sorted, moist, no odor or staining.	
16							H5A-16.0-16.5
17		0.0	damp	PT		fine silty PEAT (degraded vegetated material), dark brown, 80% organic fibers, 20% organic silt, slight sulfur odor, damp. Soils consistent with UNDorg.	
18							H5A-18.0-18.5
19		0.0	damp to moist	PT		fine clayey SILT, dark gray to black, firm-hard, plastic-pliable, damp-moist, no odor or staining. Soils consistent with UNDno.	
20							H5A-20.0-20.5

Notes:

Notes:
bgs - below surface grade
MM - meadow mat









COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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









Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611468
Date Started Drilling: 2/26/2014 1:00:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 682823
Date Finished Drilling: 2/26/2014 12:44:00 PM	Core Size: 3.0 in	Boring Total Depth: 20.5 ft
Logged By: FM	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location:		Surface Elevation: 13.7 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
	0.5	0.0		CONCRETE		CONCRETE	H5B-CT
1	4.5	0.0	damp to moist	FILL		fine to coarse sandy ASH, dark gray, 10YR 6/1, cinders and mixed fill including glass and brick fragments, damp to moist, no odor or staining.	H5B-CB
2							H5B-0.5-1.0
3							H5B-2.0-2.5
4		0.0	damp to moist	FILL		fine to coarse sandy ASH, gray-brown, some cinders, trace silt, damp to moist, no odor or staining.	H5B-4.0-4.5
5	5	0.0	damp to moist	FILL		fine to coarse sandy CINDERS, gray to brown, mixed fill, ash and coal slag, loose, non-plastic, damp-moist, no odor or staining.	H5B-6.0-6.5
6							
7							
8							H5B-8.0-8.5
9							
10	5	0.0	moist	FILL		fine to coarse sandy ASH, light gray, 10YR 6/2, loose and hard, ash, cinders and coal slag mix, trace glass and brick fragments, no odor or staining, moist.	H5B-10.0-10.5
11							
12							H5B-12.0-12.5
13		0.0	moist to wet	FILL		fine to coarse sandy CINDERS, dark gray, ash and coal slag, trace gray silt, moist to wet, no odor or staining.	H5B-14.0-14.5
14							
15	5.5	0.0	wet to very wet	FILL		fine to medium silty SAND, gray, 10YR 6/1, 20% ash and cinders, loose, non-plastic, wet to very wet, no odor or staining.	H5B-16.0-16.5
16							
17		0.0	damp	PT			H5B-18.0-18.5
18							
19							
20							H5B-20.0-20.5

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNdno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNdorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) MM/UND confirmed to be 1 ft thick 2) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611378.892878
Date Started Drilling: 3/1/2014 2:40:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 682802.094058
Date Finished Drilling: 3/1/2014 3:10:00 PM	Core Size: 2 in	Boring Total Depth: 12 ft
Logged By: EW	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location:		Surface Elevation: 13.9 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	0.4	0.0	wet	CONCRETE		CONCRETE, no staining.	H6-CT
2	2.6	0.0	dry	FILL		fine to medium SAND, with medium gravel, little ash, cinders, (7.5YR 4/2) brown, loose, wet, no odor, no staining.	H6-CB
3							H6-0.4-0.9
4		0.0	dry	FILL		fine to medium SAND, with ash, trace cinders, (10YR 3/4) dark yellowish brown, non plastic, loose, dry, no odor, no staining.	H6-2.0-2.5
5				NR		NO RECOVERY	
6	3	0.0	dry	FILL		fine to medium SAND, with ash, trace cinders, (10YR 3/4) dark yellowish brown, non plastic, loose, dry, no odor, no staining.	H6-4.0-4.5
7		0.0	dry to moist	FILL		fine to medium SAND, (5YR 4/4) reddish brown, non plastic, soft to loose, dry to moist, no odor, no staining.	H6-6.0-6.5
8				NR		NO RECOVERY	
9	2.6	0.0	dry to moist	FILL		fine to medium SAND, (5YR 4/4) reddish brown, non plastic, soft to loose, dry to moist, no odor, no staining.	H6-8.0-8.5
10		0.0	moist	FILL		fine to medium SAND, with ash and cinders, (7.5YR 4/1) dark gray, non plastic, soft, moist, no odor, no staining.	
11		0.0	moist	FILL		fine SAND, with ash and cinders, (7.5YR 2.5/1) black, non plastic, soft to loose, moist, no odor, no staining.	H6-10.0-10.5
12				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDOrg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: No COPR/GGM identified.






















Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611394
Date Started Drilling: 3/1/2014 9:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682783
Date Finished Drilling: 3/1/2014 2:30:00 PM	Core Size: 2 in	Boring Total Depth: 20 ft
Logged By: EW	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location:		Surface Elevation: 13.9 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
	0.4	0.0		CONCRETE		CONCRETE	H6A-CT
1	2.6	0.0	slightly moist	FILL		fine to medium SAND, some fine to medium gravel, little ash, (7.5YR 3/4) dark brown, loose, slightly moist, no odor, no staining.	H6A-CB
2		0.0	dry	FILL		fine to medium SAND, with ash and cinders, (10YR 4/4) dark yellowish brown, non plastic, loose, dry, no odor, no staining.	H6A-0.4-0.9
3				NR		NO RECOVERY	H6A-2.0-2.5
4	4	0.0	dry	FILL		fine to medium SAND, some ash, little cinders, (5YR 3/2) dark reddish brown, non plastic, loose, dry, no odor, no staining.	H6A-4.0-4.5
5		0.0	dry to slight moist	FILL		medium SAND, (5YR 4/3) reddish brown, non plastic, loose, dry to slightly moist, no odor, no staining.	H6A-6.0-6.5
6							
7	2.6	0.0	dry to slight moist wet	FILL		medium SAND, (5YR 4/3) reddish brown, non plastic, loose, dry to slightly moist, no odor, no staining.	H6A-8.0-8.5
8				FILL		fine to medium SAND, trace ash and fine gravel, (7.5YR 3/1) very dark gray, non plastic, soft to loose, wet, no odor, no staining.	H6A-10.0-10.5
9				NR		NO RECOVERY	
10	2.5	0.0	wet	FILL		fine to medium SAND, with medium gravel and ash, (7.5YR 3/1) very dark gray, non plastic, loose, wet, no odor, no staining.	H6A-12.0-12.5
11							
12				NR		NO RECOVERY	H6A-14.0-14.5
13	4	0.0	wet	FILL		fine to medium SAND, with medium gravel and ash, (7.5YR 3/1) very dark gray, non plastic, loose, wet, no odor, no staining.	H6A-16.0-16.5
14		2.3	moist	OL		UNDorg, with fibers and organic silt, (7.5YR 2.5/2) very dark brown, moist, moderate organic odor, no staining. Soils consistent with UNDorg.	H6A-18.0-18.5
15		8.6	moist	PT		PEAT (degraded vegetated material), with 80% organic fibers and 20% organic silt, (7.5YR 2.5/2) very dark brown, non plastic, soft, moist, moderate organic odor. Soils consistent with MM.	
16							
17							
18							
19							
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: No COPR/GGM identified.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method:	Coordinates (NJSPNAD83) x: 611402.02
Date Started Drilling: 12/28/2017 2:30:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 682785.2
Date Finished Drilling: 12/28/2017 4:00:00 PM	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: SP	Project Manager: Scott Mikaelian	Depth to Water:
Physical Location: PROPOSED		Surface Elevation: 13.9 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1			DRY	CONCRETE		CONCRETE, no odor, no staining	
2			DRY	FILL		fine to coarse SAND, (5YR 3/2) dark reddish brown, loose, dry, no odor, no staining	
3							
4							
5							
6							
7							
8			DRY	FILL		medium to coarse SAND, (5YR 4/3) reddish brown, loose, dry, no odor, no staining	
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
							H6AR-20.0-20.5

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method:	Coordinates (NJSPNAD83) x: 611402.02
Date Started Drilling: 12/28/2017 2:30:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 682785.2
Date Finished Drilling: 12/28/2017 4:00:00 PM	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: SP	Project Manager: Scott Mikaelian	Depth to Water:
Physical Location: PROPOSED		Surface Elevation: 13.9 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
23							
24							
25							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:

Ground surface elevation = 9.8 ft NAVD88

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611412
Date Started Drilling: 3/1/2014 11:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682764
Date Finished Drilling: 3/1/2014 1:20:00 PM	Core Size: 2 in	Boring Total Depth: 20 ft
Logged By: EW	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Halsted - H6B		



(Note bgs = below ground surface)

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
0.4	0.0			CONCRETE		CONCRETE, no staining.	H6B-CT
1	2.6	0.0	slightly moist	FILL		fine to medium SAND, and ash, trace fine gravel, (10YR 6/4) light yellowish brown, loose, slightly moist, no odor, no staining.	H6B-CB H6B-0.4-0.9
2		0.0	dry	FILL		fine to medium SAND, with ash and ceramics, (10YR 4/6) dark yellowish brown, non plastic, loose, dry, no odor, no staining.	H6B-2.0-2.5
3		0.0	dry	FILL		medium SAND, with fill material, little cinders, (5YR 3/4) dark reddish brown, non plastic, loose, dry, no odor, no staining.	
4				NR			
5	3	0.0	dry	FILL		NO RECOVERY	H6B-4.0-4.5
6		0.0	dry to slight moist	FILL		medium SAND, with fill material, little cinders, (5YR 3/4) dark reddish brown, non plastic, loose, dry, no odor, no staining.	
7				NR		fine to medium SAND, trace fine gravel, (5YR 5/3) reddish brown, non plastic, loose, dry to slightly moist, no odor, no staining.	H6B-6.0-6.5
8				NR		NO RECOVERY	
9	3	0.0	dry	FILL		medium SAND, with fill material, little cinders, (5YR 3/4) dark reddish brown, non plastic, loose, dry, no odor, no staining.	H6B-8.0-8.5
10		0.0	slightly moist	FILL		ASH, with cinders, some fine to medium gravel, (7.5YR 5/1) gray, loose, slightly moist, no odor, no staining.	H6B-10.0-10.5
11				NR		NO RECOVERY	
12	3	0.0	slightly moist	FILL		ASH, with cinders, some coal, fill material, (7.5YR 4/1) dark gray, loose, slightly moist, no odor, no staining.	H6B-12.0-12.5
13							H6B-14.0-14.5
14							
15	4	0.0	slightly moist	FILL		ASH, with cinders, some coal, fill material, (7.5YR 4/1) dark gray, loose, slightly moist, no odor, no staining.	H6B-16.0-16.5
16		0.0	moist	FILL		SILT, little fine sand, trace roots, (7.5YR 4/2) brown, soft, moist, no odor, no staining.	
17		0.0	moist	PT		PEAT (degraded vegetated material), 80% organic fibers 20% organic silt, (7.5YR 3/2) dark brown, stiff, moist, strong organic odor, no staining. Soils consistent with MM.	H6B-18.0-18.5
18				NR		NO RECOVERY	
19							
20							

Comments: No COPR/GGM identified.



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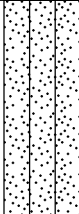
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1	4.4			FILL		DGA	
2				SM		silty sand, SM	HAL-EX-1+20-130R-1.9-2.4
3							
4							HAL-EX-1+20-130R-3.9-4.4

Comments:

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



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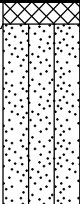
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
				ASPHALT		Asphalt	
1				SM		Brown Silty sand	
2							HAL-EX-1+20-130R2-2.0-2.5

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

Notes: bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste			
Comments:			



Page: 1

Depth (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Soil Description:	Sample ID
1 2	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

Comments:

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



Page: 1



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Comments:

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



Page: 1

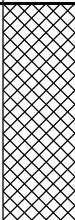

Depth (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Soil Description:	Sample ID
	5			FILL		DGA	
1			SM		silty sand, SM	HAL-EX-2+40-130R-0.5-1.0	
2						HAL-EX-2+40-130R-2.0-2.5	
3						HAL-EX-2+40-130R-4.0-4.5	
4							
5	1.5						
6						HAL-EX-2+40-130R-6.0-6.5	

Comments:

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






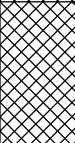

Page: 1

Depth (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Soil Description:	Sample ID
1	5			FILL		DGA	
2				SM		silty sand, SM	HAL-EX-2+82-130R-3.0-3.5
3							HAL-EX-2+82-130R-5.0-5.5
4							HAL-EX-2+82-130R-7.0-7.5
5	4.5						HAL-EX-2+82-130R-9.0-9.5
6							
7							
8							
9							

Comments:

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

Project Name: PPG Garfield Ave	Drilling Company: Cascade	
Project Number: 60577798	Drilling Method: Hand Auger and Direct Push	Coordinates (NJSPNAD83) x: 611620.6
Date Started Drilling: 3/24/2020 11:15:00 AM	Rig Type: Geoprobe	Coordinates (NJSPNAD83) y: 682921.1
Date Finished Drilling: 3/24/2020 12:15:00 PM	Core Size: 2 Inch	Boring Total Depth: 10 ft
Logged By: Tarique Islam	Project Manager: Cameron Dixon	Depth to Water: 9.0
Physical Location: Former Halsted Alleyway		Surface Elevation: 11.9 ft NAVD88










Depth (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Soil Description:	Sample ID
		0.0	NA	ASPHALT		Asphalt	
1			Dry to Moist	FILL		fine to medium SAND, some coarse gravel, little fill debris (glass), (7.5YR 3/3) dark brown, loose to medium dense, dry to moist, no odor, no staining	
2			Dry to Moist	FILL		fine to medium SAND, little coarse gravel, (7.5YR 6/3) light brown, loose, dry to moist, no odor, no staining	
3	5		Moist	FILL		fine to coarse SAND, some fill debris (glass, brick fragments), (7.5YR 3/2) dark brown, loose to medium dense, moist, no odor, no staining	
4							HAL-EX-2+82-134R-3.1-3.6
5		0.0					
6							HAL-EX-2+82-134R-5.1-5.6
7	5						HAL-EX-2+82-134R-7.1-7.6 HAL-EX-2+82-134R-7.1-7.6X
8							
9			Wet	FILL		fine to coarse SAND, some coarse gravel, ash and glass fragments, (5YR 6/1) gray, loose, wet, no odor, no staining	HAL-EX-2+82-134R-9.1-9.6

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:

PPG - 2012-09 RA PPG LOGS A.GDT - 4/23/20 13:10

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611404.1
Date Started Drilling: 5/27/2016 11:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682827.5
Date Finished Drilling: 5/27/2016 12:30:00 PM	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: 13.9 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	0.0		CONCRETE		Concrete	
2			dry	FILL		ASH, little cinders, trace wood, (5Y 5/1) gray, loose, dry, no odor, no staining.	
3							
4							
5	3.5	0.0	dry	FILL		ASH, little cinders, trace wood, (5Y 5/1) gray, loose, dry, no odor, no staining.	
6							
7			moist to wet	FILL		fine silty SAND, little ash, trace fill debris, (5YR 4/3) reddish brown, medium dense, moist to wet, no odor, no staining, water at 8.0 feet.	
8							
9				NR		NO RECOVERY	
10	4	0.0	saturated	FILL		fine silty SAND, some ash, little fill debris, (5YR 4/1) dark gray, medium dense, saturated, no odor, no staining.	
11							
12							
13							
14				NR		NO RECOVERY	
15	5	0.0	saturated	FILL		ASH, some fine to medium sand, trace fill debris, (5Y 5/1) gray, loose, saturated, no staining, slight petroleum odor, black staining.	
16			wet	FILL		fine silty SAND, little coarse gravel, trace organics, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	HSD-PDI-BB17A-16.5-17.0
17			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-BB17A-17.0-17.5
18							
19			moist	OL		Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, no odor, no staining. Soils consistent with UNDorg.	
20							

Notes:

bgs - below surface grade
MM - meadow mat



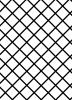






COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611390.6
Date Started Drilling: 6/1/2016 10:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682777.4
Date Finished Drilling: 6/1/2016 11:15:00 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: 9.9 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-2	2	0.0		CONCRETE		Concrete	
			moist	FILL		fine to medium SAND, little ash, fine gravel and fill debris, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.	
				NR		NO RECOVERY	
4-6	2.5	0.0	moist	FILL		fine silty SAND, trace fine gravel and fill debris, (5YR 4/4) reddish brown, medium dense, moist, no odor, no staining.	
			wet	FILL		fine to medium SAND, little ash, trace wood, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining, water at 6.0 feet.	
				NR		NO RECOVERY	
8-10	1	0.0	saturated	FILL		fine to medium SAND, trace ash and fine gravel, (7.5YR 4/1) dark gray, loose, saturated, no odor, no staining.	
				NR		NO RECOVERY	
12-14	2	0.0	wet	FILL		fine silty SAND, trace ash, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	HSD-PDI-BB18A-12.5-13.0
			wet	FILL		fine to coarse SAND, some ash, trace fill debris, (5Y 4/1) dark gray, medium dense, wet, no odor, no staining.	HSD-PDI-BB18A-13.0-13.5
			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 25% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, no odor, no staining. Soils consistent with MM.	
				NR		NO RECOVERY	
16-18	4	0.0	moist	OL		Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, no odor, no staining. Soils consistent with UNDorg.	

Notes:

bgs - below surface grade
MM - meadow mat

COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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

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
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 13.9 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-3	3	0.0		CONCRETE		Concrete	
			dry	FILL		medium to coarse SAND, some ash, trace metal debris, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	
			dry	FILL		CINDERS, some ash, (5YR 2.5/1) black, loose, dry, no odor, no staining.	
4				NR		NO RECOVERY	
5-7	3.5	0.0	dry	FILL		fine to medium SAND, trace fine gravel, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	
			dry to moist	FILL		fine to medium SAND, some ash, little cinders, (5YR 3/3) dark reddish brown, medium dense, dry to moist, no odor, no staining.	
				NR		NO RECOVERY	
8-10	2.5	0.0	moist to wet	FILL		fine to medium SAND, little ash, trace cinders and wood, (5YR 4/3) reddish brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet.	
			wet	FILL		fine to medium SAND, some ash, little fine gravel, trace coal, (5Y 5/1) gray, medium dense, wet, no odor, no staining.	
				NR		NO RECOVERY	
12-14	2	0.0	wet	FILL		fine to medium SAND, some fine gravel, little ash, (2.5Y 4/1) dark gray, medium dense, wet, no odor, no staining.	
				NR		NO RECOVERY	
16-19	3	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) reddish brown, medium dense, wet, no odor, no staining.	HSD-PDI-BB18AR-17.0-17.5
			slightly moist	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/3) dark reddish brown, firm, slightly moist, slight organic odor, no staining. Soils consistent with MM.	
				NR		NO RECOVERY	
20							

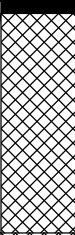

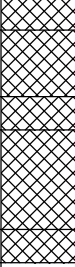
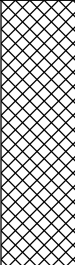


Notes:

bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611370
Date Started Drilling: 6/3/2016 10:35:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682770.3
Date Finished Drilling: 6/3/2016 11:50:00 AM	Core Size:	Boring Total Depth: 20 ft
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA









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			
1	4.5	0.0	moist	ASPHALT FILL		Asphalt and gravel sub-base ASH, some silt, trace fine gravel, coal and glass, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	HSD-PDI-BB19A-0.2-0.7			
2							HSD-PDI-BB19A-2.0-2.5			
3			wet	FILL		fine SAND, trace silt, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	HSD-PDI-BB19A-4.0-4.5			
4							NO RECOVERY			
5	4	0.0	wet	FILL		fine SAND, trace silt, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	HSD-PDI-BB19A-6.0-6.5			
6			wet to saturated	FILL		SILT, little fine gravel, trace fine sand and metal debris, (5Y 5/1) gray, medium dense, wet to saturated, water at 6.0 feet.				
7			saturated	FILL		SILT, trace wood, (5Y 2.5/1) black, soft, saturated, no odor, no staining.	HSD-PDI-BB19A-8.0-8.5			
8			wet	FILL		fine SAND, little silt, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.				
9			moist	FILL		Disturbed Organic SILT, 90% organic silt, 10% organic fibers, (7.5YR 4/2) brown, medium dense, moist, slight organic odor, no staining.				
10				NR			NO RECOVERY			
11	4.5	0.0	moist	FILL		fine SAND, trace silt, fine gravel and wood, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.	HSD-PDI-BB19A-10.0-10.5			
12										HSD-PDI-BB19A-12.0-12.5
13										
14			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/3) dark reddish brown, medium stiff, dry, moderate organic odor, no staining. Soils consistent with MM.	HSD-PDI-BB19A-14.0-14.5			
15	2.5	0.0	dry	PT		NO RECOVERY				
16						PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/4) dark reddish brown, dry, slight organic odor, no staining. Soils consistent with MM.				
17										
18			NR		NO RECOVERY					
19										
20										

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611490.7
Date Started Drilling: 6/10/2016 11:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682923.2
Date Finished Drilling: 6/10/2016 12:00:00 PM	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: 13.8 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	3.5	0.0		CONCRETE		Concrete	
2			dry	FILL		ASH, little cinders, (5YR 4/1) dark gray, loose, dry, no odor, no staining.	
3							
4	3	0.0		NR		NO RECOVERY	
5							
6			moist to wet	FILL		ASH, trace wood, (5Y 4/1) dark gray, loose, moist to wet, no odor, no staining, water at 7.5 feet.	
7	4	0.0					
8				NR		NO RECOVERY	
9							
10	5	0.0	wet	FILL		fine to medium SAND, some ash, (5Y 5/1) gray, medium dense, wet, no odor, no staining.	
11							
12				NR		NO RECOVERY	
13	5	0.0					
14							
15			wet	FILL		ASH, (5Y 5/1) gray, loose, wet, no odor, no staining.	
16			wet	FILL		fine silty SAND, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	HSD-PDI-CC13A-16.0-16.5
17			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/3) dark reddish brown, stiff, dry, moderate organic odor, no staining. Soils consistent with MM.	HSD-PDI-CC13A-16.5-17.0
18	5	0.0					
19							
20			moist	OL		Organic SILT, 80% organic silt, 20% organic fibers, (5Y 5/1) gray, soft, moist, no odor, no staining. Soils consistent with UNDorg.	

Notes:

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











Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611478
Date Started Drilling: 5/26/2016 8:25:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682900.6
Date Finished Drilling: 5/26/2016 9:50:00 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: 14.1 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.5	0.0		CONCRETE		Concrete	
2			dry	FILL		CINDERS, trace ash and wood, (5YR 2.5/1) black, loose, dry, no odor, no staining.	HSD-PDI-CC14A-0.5-1.0
3							HSD-PDI-CC14A-2.0-2.5
4							HSD-PDI-CC14A-4.0-4.5
5	3.5	0.0		NR		NO RECOVERY	
6			dry	FILL		CINDERS, trace ash, (5YR 2.5/1) black, loose, dry, no odor, no staining.	
7			moist	FILL		ASH, trace glass and coal, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	HSD-PDI-CC14A-6.0-6.5
8			saturated	FILL		CINDERS, trace silt, (5Y 5/1) gray, loose, saturated, no odor, no staining, water at 8.5 feet.	HSD-PDI-CC14A-8.0-8.5
9	4.5	0.0		NR		NO RECOVERY	
10			saturated	FILL		CINDERS, trace ash and wood, (5Y 5/1) gray, loose, saturated, no odor, no staining.	HSD-PDI-CC14A-10.0-10.5
11							HSD-PDI-CC14A-12.0-12.5
12							HSD-PDI-CC14A-14.0-14.5
13	4.5	0.0		NR		NO RECOVERY	
14			saturated	FILL		CINDERS, trace ash, wood and metal debris, (2.5Y 5/1) gray, loose, saturated, no odor, no staining.	HSD-PDI-CC14A-16.0-16.5
15							HSD-PDI-CC14A-17.0-17.5
16			wet	FILL		fine SAND, little silt, trace fine gravel, (7.5YR 4/3) brown, medium dense, wet, slight petroleum odor, slight black staining.	HSD-PDI-CC14A-17.5-18.0
17	4.5	0.0	dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, moderate organic odor, no staining. Soils consistent with MM.	
18							
19			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.	
20				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.












Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611458.3
Date Started Drilling: 5/26/2016 12:00:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 682867.8
Date Finished Drilling: 5/26/2016 12:45:00 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: 13.5 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Concrete	
1	4.5		dry	FILL		medium to coarse SAND, little fine to medium gravel, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	HSD-PDI-CC15A-0.5-1.0
2			dry	FILL		ASH, trace cinders, coal and fill debris, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	HSD-PDI-CC15A-2.0-2.5
3							
4							
5				NR		NO RECOVERY	
6	3.5	0.0	moist to wet	FILL		ASH, trace coal and fill debris, (7.5YR 4/2) brown, medium dense, moist to wet, no odor, no staining, water at 8.5 feet.	HSD-PDI-CC15A-6.0-6.5
7							
8							
9				NR		NO RECOVERY	
10		0.0	saturated	FILL		ASH, trace coal and fill debris, (7.5YR 4/2) brown, medium dense, saturated, no odor, no staining.	HSD-PDI-CC15A-10.0-10.5
11	4.5		saturated	FILL		CINDERS, trace ash, coal and fill debris, (5YR 2.5/1) black, loose, saturated, no odor, no staining.	HSD-PDI-CC15A-12.0-12.5
12							
13							
14							
15		0.0	saturated	FILL		CINDERS, trace coal and fill debris, (5YR 2.5/1) black, loose, saturated, no odor, no staining.	HSD-PDI-CC15A-15.5-16.0
16	4.5		wet	FILL		fine to medium SAND, little silt, trace fine gravel, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining.	HSD-PDI-CC15A-16.0-16.5
17			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, medium stiff, dry, no odor, no staining.	
18							
19			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.	
20				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611448.6
Date Started Drilling: 5/27/2016 9:40:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682844
Date Finished Drilling: 5/27/2016 10:40:00 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: 13.8 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4	0.0		CONCRETE		Concrete	
2			dry	FILL		CINDERS, little ash and fine gravel, (2.5YR 4/1) dark reddish gray, loose, dry, no odor, no staining.	
3			dry	FILL		ASH, some coal, (2.5Y 4/1) dark gray, loose, dry, no odor, no staining.	
4				NR		NO RECOVERY	
5	3.5	0.0	dry	FILL		ASH, trace glass, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	
6							
7							
8	4	0.0	wet	FILL		fine to medium SAND, little ash, (5YR 3/1) very dark gray, loose, wet, no odor, no staining, water at 8.0 feet.	
9				NR		NO RECOVERY	
10							
11	5	0.0	wet	FILL		ASH, some fine sand, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining.	
12							
13							
14			wet	FILL		fine silty SAND, little ash, (5Y 5/1) gray, medium dense, wet, no odor, no staining.	
15	5	0.0		NR		NO RECOVERY	
16			wet	FILL		ASH, (5Y 5/1) gray, loose, wet, slight petroleum odor, black staining.	
17			moist	FILL		fine silty SAND, little coarse gravel, trace organics, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.	HSD-PDI-CC16A-16.0-16.5
18			dry	PT		PEAT (degraded vegetated material), 80% organic fiber, 20% organic silt, (5YR 3/4) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-CC16A-16.5-17.0
19	5	0.0					
20			dry	OL		Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, soft, dry, slight organic odor, no staining. Soils consistent with UNDorg.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct push	Coordinates (NJSPNAD83) x: 611431.2
Date Started Drilling: 5/31/2016 12:30:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 682813
Date Finished Drilling: 5/31/2016 1:45:00 PM	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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1 2 3 4	4.5	0.0		CONCRETE		Concrete	
			dry	FILL		fine to medium SAND, some ash, little cinders, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	
				NR		NO RECOVERY	HSD-PDI-CC17A-4.0-4.5
5 6 7 8	3.5	0.0		FILL		ASH, some fine to medium sand, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining.	
				NR		NO RECOVERY	HSD-PDI-CC17A-6.0-6.5
				NR		NO RECOVERY	HSD-PDI-CC17A-8.0-8.5
10 11 12 13 14	4.5	0.0	wet	FILL		fine to coarse SAND, little silt and ash, (2.5Y 5/1) gray, medium dense, wet, no odor, no staining, water at 10.0 feet.	
				NR		NO RECOVERY	HSD-PDI-CC17A-10.0-10.5
				NR		NO RECOVERY	HSD-PDI-CC17A-12.0-12.5
15 16 17	3.5	0.0	wet	FILL		SILT, little ash, trace glass, (5YR 2.5/1) black, very soft, wet, no odor, no staining.	
			wet	FILL		fine silty SAND, trace ash and organics, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining.	
			wet	OL		Organic SILT, 70% organic silt, 30% organic fibers, (7.5YR 4/2) brown, wet, slight organic odor, no staining. Soils consistent with UNDorg.	
18 19 20				NR		NO RECOVERY	
				NR		NO RECOVERY	
				NR		NO RECOVERY	

Re-review of soil descriptions indicates this layer is meadow mat (MM)

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611417.6
Date Started Drilling: 5/31/2016 8:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682786.3
Date Finished Drilling: 5/31/2016 9:30:00 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: 13.9 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1 2 3 4	4.5	0.0		CONCRETE		Concrete	
			dry	FILL		fine to medium SAND, some cinders, trace ash, (5YR 2.5/1) black, dry, no odor, no staining.	
			dry	FILL		ASH, trace ceramics, (2.5Y 5/1) gray, loose, dry, no odor, no staining.	
			dry	FILL		fine to medium SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	
				NR		NO RECOVERY	HSD-PDI-CC18A-4.0-4.5
5 6 7 8	3.5	0.0	dry	FILL		fine to medium SAND, some ash, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	HSD-PDI-CC18A-6.0-6.5
			dry	FILL		fine to medium SAND, some wood, little ash, trace fill debris, (5YR 2.5/1) black, loose, dry, no odor, no staining.	
				NR		NO RECOVERY	HSD-PDI-CC18A-8.0-8.5
10 11 12 13 14	4.5	0.0	wet	FILL		ASH, some fine to medium sand, little fine gravel, (5Y 5/1) gray, loose, wet, no odor, no staining, water at 10.0 feet.	
							HSD-PDI-CC18A-12.0-12.5
							HSD-PDI-CC18A-14.0-14.5
				NR		NO RECOVERY	
15 16 17 18 19	3.5	0.0	wet	FILL		ASH, (2.5Y 5/1) gray, loose, wet, no odor, no staining.	
			moist	FILL		fine silty SAND, little wood, trace fine gravel, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.	HSD-PDI-CC18A-16.0-16.5
			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, no odor, no staining. Soils consistent with MM.	HSD-PDI-CC18A-17.0-17.5
				NR		NO RECOVERY	
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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-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
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 9.8 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4	0.0		CONCRETE		Concrete	
2			dry	FILL		fine to medium SAND, some ash, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	
3							
4							
5	2	0.0	dry	FILL		fine to medium SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.	
6				NR		NO RECOVERY	
7							
8							
9	2	0.0	wet	FILL		fine to medium SAND, little fine gravel, trace ash, (2.5Y 4/1) dark gray, medium dense, wet, no odor, no staining, water at 8.0 feet.	
10				NR		NO RECOVERY	
11							
12							
13	3	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
14			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-CC19A-13.0-13.5
15			moist	OL		Organic SILT, 75% organic silt, 25% organic fibers, (5YR 5/1) gray, soft, moist, no odor, no staining. Soils consistent with UNDorg.	
16				NR		NO RECOVERY	
17	4	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.	
18							
19							
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

PPG - 2012-09 RA PPG LOGS - A.GDT - 8/2/16 12:59

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611554.6
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
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: ACTUAL - HSD PDI		Surface Elevation: 13.6 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.5	0.0		CONCRETE		Concrete	
2			dry	FILL		Ash, some to little cinders, (2.5Y 5/2) grayish brown, loose, dry, no odor, no staining.	HSD-PDI-DD10A-2.0-2.5
3							
4				NR		NO RECOVERY	HSD-PDI-DD10A-4.0-4.5
5	4.5	0.0	dry	FILL		Ash, little coal, (7.5YR 5/1) gray, loose, dry, no odor, no staining.	HSD-PDI-DD10A-6.0-6.5
6							
7			dry to moist	FILL		fine to medium SAND, some cinders, little ash, (7.5YR 4/2) brown, medium dense to loose, dry to moist, no odor, no staining.	HSD-PDI-DD10A-8.0-8.5
8							
9	4.5	0.0	wet	FILL		fine to medium SAND, some wood, little ash, trace ceramics, (7.5YR 2.5/2) very dark brown, loose, wet, no odor, no staining, water at 9.0 feet.	
10				NR		NO RECOVERY	
11			wet	FILL		Ash, trace fill debris, (2.5Y 5/1) gray, loose, wet, no odor, no staining.	
12							HSD-PDI-DD10A-12.0-12.5
13							
14			wet	FILL		SILT, little wood, trace ash, (7.5YR 2.5/2) very dark brown, soft, wet, no odor, no staining.	HSD-PDI-DD10A-14.0-14.5
15	4	2.0		NR		NO RECOVERY	
16			moist	FILL		sandy SILT, some organics, little ash, (5YR 4/3) reddish brown, soft, moist, no odor, no staining.	HSD-PDI-DD10A-15.0-15.5
17			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, firm, dry, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-DD10A-15.5-16.0
18							
19			moist	OL		Organic SILT, 80% organic SILT, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg.	
20				NR		NO RECOVERY	

Notes:

bgs - below surface grade
MM - meadow mat











COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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











Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611540.5
Date Started Drilling: 5/26/2016 8:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682963.1
Date Finished Drilling: 5/26/2016 9:30:00 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: 13.4 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Concrete	
1	4.5		dry	FILL		ASH, little cinders, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining.	HSD-PDI-DD11A-0.4-0.9
2							
3							
4							
5	3.5	0.0		NR		NO RECOVERY	HSD-PDI-DD11A-4.0-4.5
6			dry	FILL		ASH, little wood, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining.	HSD-PDI-DD11A-6.0-6.5
7			moist to wet	FILL		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.	
8							
9	4.5	0.0		NR		NO RECOVERY	HSD-PDI-DD11A-8.0-8.5
10			wet	FILL		fine to medium SAND, some fine gravel, trace ash, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining.	
11							
12							HSD-PDI-DD11A-12.0-12.5
13	5	0.0	wet	FILL		ASH, little fine to medium sand, (2.5Y 5/2) grayish brown, loose, wet, no odor, no staining.	
14							
15				NR		NO RECOVERY	HSD-PDI-DD11A-14.0-14.5
16			wet	FILL		fine SAND, trace ash and glass, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining.	HSD-PDI-DD11A-16.0-16.5
17			wet	FILL		fine silty SAND, some coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	HSD-PDI-DD11A-16.5-17.0
18			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, moderate organic odor, no staining. Soils consistent with MM.	HSD-PDI-DD11A-17.0-17.5
19							
20			moist	OL		Organic SILT, 80% organic SILT, 20% organic fibers, (2.5Y 5/1) gray, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611526.6
Date Started Drilling: 5/25/2016 9:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682935.9
Date Finished Drilling: 5/25/2016 10:55:00 AM	Core Size: 3 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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1 2 3 4 5	4.5	0.0		CONCRETE		Concrete	
			dry	FILL		ASH, little fine to medium sand, trace fine gravel, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	HSD-PDI-DD12A-0.4-0.9
			dry	FILL		ASH, little coal, (2.5Y 4/2) dark grayish brown, loose, dry, no odor, no staining.	HSD-PDI-DD12A-2.0-2.5
				NR		NO RECOVERY	HSD-PDI-DD12A-4.0-4.5
			dry	FILL		ASH, little coal, (2.5Y 4/2) dark grayish brown, loose, dry, no odor, no staining.	
6 7 8 9	3.5	0.0		NR		NO RECOVERY	
			moist	FILL		ASH, some fine to medium sand, little cinders and fill debris, (5YR 2.5/1) black, loose, moist, no odor, no staining.	HSD-PDI-DD12A-6.0-6.5
				NR		NO RECOVERY	HSD-PDI-DD12A-8.0-8.5
			moist	FILL		ASH, some fine to medium sand, little cinders and fill debris, (5YR 2.5/1) black, loose, wet, no odor, no staining, water at 10.0 feet.	HSD-PDI-DD12A-10.0-10.5
10 11 12 13 14	4.5	0.0	saturated	FILL		fine to coarse sandy GRAVEL, (2.5Y 4/1) dark gray, loose, saturated, no odor, no staining.	HSD-PDI-DD12A-12.0-12.5
				NR		NO RECOVERY	
			wet	FILL		ASH, little fine gravel, (2.5Y 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-DD12A-16.0-16.5
			wet	FILL		SILT, little fine gravel, trace ash and fill debris, (7.5YR 4/2) brown, soft, wet, no odor, no staining.	HSD-PDI-DD12A-16.5-17.0
15 16 17 18 19	3.5	0.0	dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, no odor, no staining. Soils consistent with MM.	
				NR		NO RECOVERY	
				NR		NO RECOVERY	
20							

Notes:

bgs - below surface grade
MM - meadow mat













COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611510.5
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
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 13.6 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		CONCRETE		Concrete		
1	4.5		dry	FILL		ASH, little fine sand, trace glass, (5Y 5/1) gray, loose, dry, no odor, no staining.	HSD-PDI-DD13A-0.5-1.0	
2			dry	FILL		fine to medium SAND, some wood, little ash, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	HSD-PDI-DD13A-2.0-2.5	
3			dry	FILL		CINDERS, some fine to medium gravel, little ash, (5YR 3/2) dark reddish brown, loose, dry, no odor, no staining.		
4								
5					NR		NO RECOVERY	HSD-PDI-DD13A-4.0-4.5
6	3.5	0.0	dry to moist	FILL		ASH, trace coal, (5Y 5/1) gray, loose, dry to moist, no odor, no staining.		
7								HSD-PDI-DD13A-6.0-6.5
8			moist	FILL		CINDERS, little ash, trace coal, (2.5Y 3/1) very dark gray, loose, moist, no odor, no staining.	HSD-PDI-DD13A-8.0-8.5	
9				NR		NO RECOVERY		
10								
11	4.5	0.0	wet	FILL		CINDERS, little ash, (2.5Y 3/1) very dark gray, loose, wet, no odor, no staining, water at 10.0 feet.	HSD-PDI-DD13A-10.0-10.5	
12			wet	FILL		ASH, (5Y 5/1) gray, loose, wet, no odor, no staining.		HSD-PDI-DD13A-12.0-12.5
13								
14								HSD-PDI-DD13A-14.0-14.5
15					NR		NO RECOVERY	
16	4	0.0	wet	FILL		CINDERS, little ash, (2.5Y 3/1) very dark gray, loose, wet, no odor, no staining.		
17			wet	FILL		fine silty SAND, some fine gravel, trace organics, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining.	HSD-PDI-DD13A-16.0-16.5	
18			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 2.5/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-DD13A-16.5-17.0	
19			moist	OL		Organic SILT, 80% organic SILT, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg.		
20					NR		NO RECOVERY	

Notes:

bgs - below surface grade
MM - meadow mat

COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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



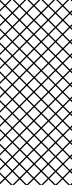


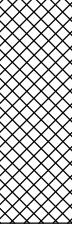




Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611500.6
Date Started Drilling: 5/26/2016 9:35:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682883.2
Date Finished Drilling: 5/26/2016 10:45:00 AM	Core Size: 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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Concrete	
1	4.5		dry	FILL		CINDERS, some ash, (2.5Y 5/2) grayish brown, loose, dry, no odor, no staining.	HSD-PDI-DD14A-0.5-1.0
2			dry	FILL		ASH, trace coal, (2.5Y 5/1) gray, loose, dry, no odor, no staining.	HSD-PDI-DD14A-2.0-2.5
3							
4							
5				NR		NO RECOVERY	
6	3.5	0.0	moist	FILL		ASH, some wood, (5Y 5/1) gray, loose, moist, no odor, no staining.	HSD-PDI-DD14A-6.0-6.5
7			dry to moist	FILL		CINDERS, some ash, little coal and wood, (5Y 3/1) very dark gray, loose, dry to moist, no odor, no staining.	
8			wet	FILL		ASH, some wood, little glass, (5YR 2.5/1) black, loose, wet, no odor, no staining, water at 8.0 feet.	HSD-PDI-DD14A-8.0-8.5
9				NR		NO RECOVERY	
10	4.5	0.0	wet	FILL		ASH, some fine sand, little fine gravel, trace glass, (5Y 5/1) gray, loose, wet, no odor, no staining.	
11							
12							HSD-PDI-DD14A-12.0-12.5
13							
14							HSD-PDI-DD14A-14.0-14.5
15				NR		NO RECOVERY	
16	3.5	0.0	wet	FILL		ASH, some fine to medium sand, little fine gravel, (5Y 5/1) gray, loose, wet, no odor, no staining.	HSD-PDI-DD14A-15.5-16.0
17			dry	PT		fine silty SAND, little fine gravel, little to trace ash and wood, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining.	HSD-PDI-DD14A-16.0-16.5
18			moist	OL		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, firm, dry, moderate organic odor, no staining. Soils consistent with MM.	
19				NR		Organic SILT, 80% organic SILT, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg.	
20						NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.











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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1 2 3 4 5	4.5	0.0		CONCRETE		Concrete	
			dry	FILL		fine to medium SAND, little fine to medium gravel, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	
			moist	FILL		ASH, trace cinders, coal and wood, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	HSD-PDI-DD15A-1.6-2.1
				NR		NO RECOVERY	
				NR		NO RECOVERY	
6 7 8 9 10	4.5	0.0	moist to saturated	FILL		ASH, trace cinders, coal and glass, (7.5YR 4/2) brown, medium dense, moist to saturated, water at 9.0 feet.	HSD-PDI-DD15A-5.5-6.0
							HSD-PDI-DD15A-7.5-8.0
							HSD-PDI-DD15A-9.5-10.0
11 12 13 14	4.5	0.0	saturated	FILL		ASH, trace cinders, coal and glass, (7.5YR 4/2) brown, medium dense, saturated, no odor, no staining.	
			saturated	FILL		CINDERS, trace coal, glass and metal debris, (5Y 5/1) gray, loose, saturated, no odor, no staining.	HSD-PDI-DD15A-11.5-12.0
				NR		NO RECOVERY	
							HSD-PDI-DD15A-13.5-14.0
15 16 17 18 19	4.5	0.0	saturated	FILL		CINDERS, trace coal, (5Y 5/1) gray, loose, saturated, no odor, no staining.	HSD-PDI-DD15A-15.5-16.0
			moist	FILL		fine SAND, little silt, trace fine gravel, (7.5YR 4/2) brown, medium dense, moist, slight petroleum odor, slight black staining.	HSD-PDI-DD15A-16.0-16.5
			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, 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:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611469.8
Date Started Drilling: 5/27/2016 10:50:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682825.4
Date Finished Drilling: 5/27/2016 11:50:00 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: 13.7 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	4	0.0		CONCRETE		Concrete	
			dry	FILL		fine to coarse GRAVEL, (5Y 5/1) gray, dry, no odor, no staining.	
			dry	FILL		ASH, little cinders, trace fill debris, (2.5Y 5/2) grayish brown, loose, dry, no odor, no staining.	
				NR		NO RECOVERY	
5-8	3.5	0.0	dry	FILL		ASH, some fine to medium sand, trace fill debris, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	
			wet	FILL		ASH, little fine to medium sand, (5Y 5/1) gray, loose, moist, no odor, no staining	
				NR		NO RECOVERY	
10-14	4	0.0	wet	FILL		ASH, little fine to medium sand, trace wood, (5Y 5/1) gray, wet, no odor, no staining, water at 10.0 feet.	
				NR		NO RECOVERY	
15-19	5	0.0	wet	FILL		ASH, (5Y 5/1) gray, loose, wet, slight petroleum odor, black staining.	HSD-PDI-DD16A-16.0-16.5 HSD-PDI-DD16A-16.5-17.0
			moist	FILL		fine silty SAND, little coarse gravel, trace organics, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.	
			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	
			moist	OL		Organic SILT, 80% organic silt, 20% organic silt, (7.5YR 4/2) brown, soft, moist, no odor, no staining. Soils consistent with UNDorg.	
20							

Notes:

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










Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611456.8
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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Concrete	
1	4.5		dry	FILL		CINDERS, little fine gravel, (7.5YR 2.5/1) black, loose, dry, no odor, no staining.	HSD-PDI-DD17A-0.7-1.2
2			dry	FILL		ASH, little fine to medium sand, (2.5Y 5/1) gray, loose, dry, no odor, no staining.	HSD-PDI-DD17A-2.0-2.5
3							
4							
5				NR		NO RECOVERY	
6	3.5	0.0	dry	FILL		ASH, trace fill debris, (2.5Y 5/1) gray, loose, dry, no odor, no staining.	HSD-PDI-DD17A-6.0-6.5
7							
8			dry	FILL		CINDERS, little coal, trace ash, (7.5YR 2.5/1) black, loose, dry, no odor, no staining.	HSD-PDI-DD17A-8.0-8.5
9				NR		NO RECOVERY	
10		0.0	dry	FILL		CINDERS, trace ash, (7.5YR 2.5/1) black, loose, dry, no odor, no staining.	HSD-PDI-DD17A-10.0-10.5
11	4.5		dry	FILL		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.	HSD-PDI-DD17A-12.0-12.5
12							
13							
14			wet	FILL		ASH, (5Y 5/1) gray, loose, wet, no odor, no staining.	
15			wet	FILL		CINDERS, (5YR 2.5/1) black, loose, wet, no odor, no staining.	HSD-PDI-DD17A-14.0-14.5
16				NR		NO RECOVERY	
17	3	0.0	wet	FILL		CINDERS, some ash, (5YR 2.5/1) black, loose, wet, no odor, no staining.	HSD-PDI-DD17A-15.5-16.0
18			wet	FILL		SILT, little cinders, trace organics, (5YR 4/3) reddish brown, soft, wet, no odor, no staining.	HSD-PDI-DD17A-16.0-16.5
19			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, firm, dry, slight organic odor, no staining. Soils consistent with MM.	
20			moist	OL		Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, no odor, no staining. Soils consistent with UNDorg.	
				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNdno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

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
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 10.7 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Asphalt and gravel sub-base	
1	4.5		dry	FILL		fine to coarse SAND, some to little medium gravel, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	HSD-PDI-DD18A-0.5-1.0
2			dry	FILL		ASH, little wood, trace glass, (2.5Y 5/2) grayish brown, loose, dry, no odor, no staining.	HSD-PDI-DD18A-2.0-2.5
3			dry	FILL		fine to medium SAND, little fine gravel, trace ash, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	
4			dry	FILL		ASH, little wood and coal, (7.5YR 3/1) very dark gray, loose, dry, no odor, no staining.	HSD-PDI-DD18A-4.0-4.5
5				NR		NO RECOVERY	
6	3.5	0.0	moist to wet	FILL		ASH, some fine to coarse sand, trace coal, (2.5Y 5/1) gray, loose, moist to wet, no odor, no staining, water at 6.0 feet.	HSD-PDI-DD18A-6.0-6.5
7							
8							
9				NR		NO RECOVERY	HSD-PDI-DD18A-8.0-8.5
10	4	0.0	wet	FILL		ASH, (2.5Y 5/1) gray, loose, wet, no odor, no staining.	HSD-PDI-DD18A-10.0-10.5
11							
12			wet	FILL		fine silty SAND, little fine gravel, trace organics, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	HSD-PDI-DD18A-12.0-12.5
13							HSD-PDI-DD18A-12.5-13.0
14			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-DD18A-13.0-13.5
15				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611431
Date Started Drilling: 6/3/2016 9:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682747.1
Date Finished Drilling: 6/3/2016 10:20:00 AM	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 10.7 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	0.0		ASPHALT		Asphalt and gravel sub-base	
2			dry	FILL		fine to coarse SAND, trace medium gravel and fill debris, (7.5YR 2.5/3) very dark brown, loose, dry, no odor, no staining.	HSD-PDI-DD19A-1.0-1.5
3							HSD-PDI-DD19A-2.0-2.5
4			moist	FILL		ASH, trace cinders and fill debris (7.5YR 3/2) dark brown, medium dense, moist, no odor, no staining.	HSD-PDI-DD19A-4.0-4.5
5	3.5	0.0	moist	FILL		ASH, little silt, trace cinders and glass, (7.5YR 3/2) dark brown, medium dense, moist, no odor, no staining.	
6							HSD-PDI-DD19A-6.0-6.5
7			wet to saturated	FILL		fine to medium GRAVEL, little cinders, trace ash and glass, (5Y 5/1) gray, loose, wet to saturated, no odor, no staining, water at 8.0 feet.	
8				NR		NO RECOVERY	HSD-PDI-DD19A-8.0-8.5
9	3.5	0.0					
10			saturated	FILL		fine to medium GRAVEL, trace cinders, ash and fill debris, (5Y 5/1) gray, loose, saturated, no odor, no staining.	HSD-PDI-DD19A-10.0-10.5
11			wet	FILL		SILT, little fine sand, trace fine gravel, (7.5YR 3/2) dark brown, medium dense, wet, no odor, no staining.	HSD-PDI-DD19A-11.3-11.8
12			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, moderate organic odor, no staining. Soils consistent with MM.	HSD-PDI-DD19A-11.8-12.3
13			moist	OL		Organic SILT, 90% organic silt, 10% organic fibers, (5Y 5/1) gray, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg.	
14				NR		NO RECOVERY	
15							

Notes:

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













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Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1 <							

Comments:

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

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611606.2
Date Started Drilling: 5/23/2016 11:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683028.4
Date Finished Drilling: 5/23/2016	Core Size: 2.0 in	Boring Total Depth: 20 ft
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: ACTUAL - HSD PDI		Surface Elevation: 13.8 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Concrete	
1	3		moist	FILL		fine to coarse SAND, little silt, trace fine to medium gravel and fill debris, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	HSD-PDI-EE8A-0.5-1.0
2			moist	FILL		ASH, trace coal, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	
3				NR		NO RECOVERY	HSD-PDI-EE8A-2.5-3.0
4		0.0	moist	FILL		ASH, trace coal and fill debris, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	HSD-PDI-EE8A-4.5-5.0
5	3		moist	FILL		fine to medium SAND, some fine gravel, trace cinders and glass, (5Y 5/1) gray, medium dense, moist, no odor, no staining.	
6				NR		NO RECOVERY	HSD-PDI-EE8A-6.5-7.0
7				NR		NO RECOVERY	
8		1.0	moist to wet	FILL		fine to medium SAND, little fine gravel and cinders, trace ash, (5Y 5/1) gray, loose, moist to wet, no odor, no staining, water at 9.0 feet.	HSD-PDI-EE8A-8.5-9.0
9	3						
10				NR		NO RECOVERY	HSD-PDI-EE8A-10.5-11.0
11				NR		NO RECOVERY	
12		0.0	moist	FILL		fine to coarse SAND, little fine gravel and cinders, trace ash and coal, (5YR 2.5/1) black, loose, moist, no odor, no staining.	HSD-PDI-EE8A-12.5-13.0
13	3						
14				NR		NO RECOVERY	HSD-PDI-EE8A-14.5-15.0
15				NR		NO RECOVERY	
16		0.4	wet	FILL		fine to medium SAND, little silt, (5YR 4/3) reddish brown, soft, wet, no odor, no staining.	HSD-PDI-EE8A-16.0-16.5
17			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 2.5/2) dark reddish brown, medium stiff, dry, moderate organic odor, no staining. Soils consistent with MM.	HSD-PDI-EE8A-16.5-17.0
18	2.5		wet	ML		fine to medium sandy SILT, (5Y 5/1) gray, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
19				NR		NO RECOVERY	
20							

Notes:

bgs - below surface grade
MM - meadow mat

COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611593.3
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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Concrete	
1	4		dry	FILL		Ash, little coal, (5Y 5/1) gray, loose, dry, no odor, no staining.	HSD-PDI-EE9A-0.4-0.9
2							HSD-PDI-EE9A-2.0-2.5
3							
4		0.0	dry	FILL		Ash, (7.5YR 5/1) gray, loose, dry, no odor, no staining.	HSD-PDI-EE9A-4.0-4.5
5	4		moist	FILL		fine to medium SAND, little ash, (7.5YR 4/2) brown, loose, moist, no odor, no staining.	
6							HSD-PDI-EE9A-6.0-6.5
7			moist	FILL		Ash, trace coal, (2.5Y 5/1) gray, loose, moist, no odor, no staining.	
8		0.0	moist	FILL		Ash, some fine to medium sand, (2.5Y 5/2) grayish brown, loose, moist, no odor, no staining.	HSD-PDI-EE9A-8.0-8.5
9	4		wet	FILL		fine to medium SAND, trace wood, (7.5YR 3/4) dark brown, medium dense, wet, no odor, no staining, water at 9.0 feet.	
10							HSD-PDI-EE9A-10.0-10.5
11							
12		0.0					HSD-PDI-EE9A-12.0-12.5
13	4						
14							HSD-PDI-EE9A-14.0-14.5
15			wet	FILL		fine to medium SAND, trace ash and fill debris, (7.5YR 3/2) dark brown, medium dense, wet, no odor, no staining.	
16		0.0					HSD-PDI-EE9A-16.0-16.5
17			wet	FILL		fine silty SAND, some fine gravel, trace wood, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	HSD-PDI-EE9A-16.5-17.0
18	1.7		dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	
19			moist	OL		Organic SILT, 80% organic SILT, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, no odor, no staining. Soils consistent with UNDorg.	HSD-PDI-EE9A-17.0-17.5
20				NR		NO RECOVERY	

Notes:

bgs - below surface grade
MM - meadow mat












COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611567.2
Date Started Drilling: 5/24/2016 12:10:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 682949.8
Date Finished Drilling: 5/24/2016 2:00:00 PM	Core Size: 3 in	Boring Total Depth: 20 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 13.7 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	0.0		CONCRETE		Concrete	
			dry	FILL		fine to medium SAND, some ash, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	
			dry	FILL		ASH, little cinders, (2.5Y 5/1) gray, loose, dry, no odor, no staining.	
2	5	0.0					
3							
4							
5	3.5	0.0	dry	FILL		fine to medium SAND, little ash, (7.5YR 3/4) dark brown, medium dense, dry, no odor, no staining.	
6			dry to moist	FILL		ASH, some cinders, (2.5Y 4/1) dark gray, loose, dry to moist, no odor, no staining.	
7							
8	3.5	0.0	wet	FILL		fine SAND, some wood, (5YR 2.5/1) black, soft, wet, no odor, no staining, water at 8.0 feet.	HSD-PDI-EE11A-8.0-8.5
9				NR		NO RECOVERY	
10							
11	5	0.0	wet	FILL		ASH, little fill debris, (2.5Y 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-EE11A-12.0-12.5
12							
13							
14	4	0.0					HSD-PDI-EE11A-14.0-14.5
15							
16							
17	4	0.0	wet	FILL		ASH, (5Y 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-EE11A-15.5-16.0
18			wet	FILL		fine silty SAND, trace ash and wood, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	
19			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, no odor, no staining. Soils consistent with MM.	
20	4	0.0					HSD-PDI-EE11A-16.0-16.5
21							
22							
23	4	0.0	moist	OL		Organic SILT, 80% organic SILT, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg.	
24				NR		NO RECOVERY	
25							

Notes:

bgs - below surface grade
MM - meadow mat

COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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












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Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611552.3
Date Started Drilling: 5/24/2016 1:20:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 682921.2
Date Finished Drilling: 5/25/2016 8:30:00 AM	Core Size: 3 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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Concrete	
1	4.5		dry	FILL		fine to medium SAND, some ash, (2.5Y 4/2) dark grayish brown, medium dense, dry, no odor, no staining.	HSD-PDI-EE12A-0.6-1.1
2							HSD-PDI-EE12A-2.0-2.5
3							
4							HSD-PDI-EE12A-4.0-4.5
5	4	0.0		NR		NO RECOVERY	
6			dry to moist	FILL		fine to medium SAND, little ash, trace coal, (7.5YR 2.5/2) very dark brown, medium dense, dry to moist, no odor, no staining.	HSD-PDI-EE12A-6.0-6.5
7							
8							HSD-PDI-EE12A-8.0-8.5
9			wet	FILL		CINDERS, (5YR 2.5/1) black, loose, wet, no odor, no staining, water at 8.5 feet.	
10				NR		NO RECOVERY	
11							HSD-PDI-EE12A-10.0-10.5
12							HSD-PDI-EE12A-12.0-12.5
13	4.5	6.2	wet	FILL		fine to medium SAND, some fine gravel, little cinders, trace wood, ash and fill debris, (2.5Y 3/1) very dark gray, medium dense, wet, no odor, no staining.	
14							
15							
16			wet	FILL		fine silty SAND, some wood, (5YR 2.5/1) black, soft, wet, no odor, no staining.	HSD-PDI-EE12A-14.0-14.5
17	3.5	0.0		NR		NO RECOVERY	
18			wet	FILL		Cinders, (5YR 2.5/1) black, loose, wet, no odor, no staining.	HSD-PDI-EE12A-15.5-16.0
19			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, no odor, no staining. Soils consistent with MM.	HSD-PDI-EE12A-16.0-16.5
20							
				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
	4.5	0.0		CONCRETE		Concrete		
1			moist	FILL		fine to coarse SAND, trace fine to medium gravel, ash and coal, (7.5YR 4/2) brown, medium dense, moist no odor no staining	HSD-PDI-EE13A-0.5-1.0	
2			moist	FILL		fine to medium SAND, trace fine gravel and ash, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	HSD-PDI-EE13A-2.0-2.5	
3								
4								HSD-PDI-EE13A-4.0-4.5
5	3.5	0.2		NR		NO RECOVERY		
6			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.		
7			moist	FILL		fine to coarse SAND, little fine to medium gravel, trace ash and wood, (7.5YR 3/4) dark brown, medium dense, moist, no odor, no staining.	HSD-PDI-EE13A-6.0-6.5	
8			wet	FILL		CINDERS, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining, water at 8.0 feet.	HSD-PDI-EE13A-8.0-8.5	
9				NR		NO RECOVERY		
10	4.5	43.0	saturated	FILL		fine to coarse SAND, little silt, trace medium gravel and wood, (5Y 4/1) dark gray, soft, saturated, slight petroleum odor and staining.		
11								
12								HSD-PDI-EE13A-12.0-12.5
13			saturated	FILL		CINDERS, little metal debris, (5YR 2.5/1) black, loose, saturated, slight petroleum odor and staining.		
14								HSD-PDI-EE13A-14.0-14.5
15	4	4.8		NR		NO RECOVERY		
16			saturated	FILL		CINDERS, trace metal debris, (5YR 2.5/1) black, loose, saturated, slight petroleum odor and staining.	HSD-PDI-EE13A-15.5-16.0	
17			wet	FILL		fine SAND, little silt, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining.	HSD-PDI-EE13A-16.0-16.5	
18			dry	PT		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 with MM.		
19								
20				NR		NO RECOVERY		

Notes:

bgs - below surface grade
MM - meadow mat


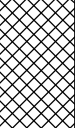
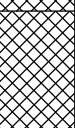
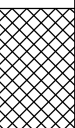
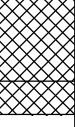

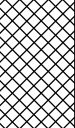



COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611526
Date Started Drilling: 5/26/2016 11:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682868.5
Date Finished Drilling: 5/26/2016 12:30:00 PM	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: 13.5 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	4.5	0.0		CONCRETE		Concrete	
			dry	FILL		CINDERS, little ash, (5YR 2.5/1) black, loose, dry, no odor, no staining.	HSD-PDI-EE14A-0.4-0.9
			dry	FILL		ASH, little cinders, (5Y 4/1) dark gray, loose, dry, no odor, no staining.	HSD-PDI-EE14A-2.0-2.5
				NR		NO RECOVERY	HSD-PDI-EE14A-4.0-4.5
5-9	3.5	0.0	dry	FILL		ASH, some wood, little fine to medium sand, trace glass, (2.5Y 5/2) grayish brown, loose, dry, no odor, no staining.	HSD-PDI-EE14A-6.0-6.5
			moist	FILL		fine to medium SAND, some wood, little ash and fill debris, (5YR 3/3) dark reddish brown, loose, moist, no odor, no staining, water at 8.5 feet.	HSD-PDI-EE14A-8.0-8.5
				NR		NO RECOVERY	
10-15	5	0.0	wet	FILL		ASH, little fine sand and wood, (2.5Y 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-EE14A-10.0-10.5
							HSD-PDI-EE14A-12.0-12.5
							HSD-PDI-EE14A-14.0-14.5
16-20	5	0.0	wet	FILL		ASH, little fine sand, (5Y 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-EE14A-15.5-16.0
			moist	FILL		fine silty SAND, little coarse gravel, (2.5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.	HSD-PDI-EE14A-16.0-16.5
			slightly moist	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/4) dark reddish brown, stiff, slightly moist, moderate organic odor, no staining. Soils consistent with MM.	
			moist	OL		Organic SILT, 80% organic silt, 20% organic fibers, (2.5Y 5/1) gray, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611515.3
Date Started Drilling: 6/2/2016 8:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682838.8
Date Finished Drilling: 6/2/2016 9:20:00 AM	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 9.6 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		3.0		ASPHALT		Asphalt and gravel sub-base	
1	5		dry	FILL		fine to coarse SAND, little fine to medium gravel and wood, trace ash, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	HSD-PDI-EE15A-0.5-1.0
2							HSD-PDI-EE15A-2.0-2.5
3							
4			dry	FILL		fine to medium SAND, little ash, (7.5YR 2.5/3) very dark brown, medium dense, dry, no odor, no staining.	HSD-PDI-EE15A-4.0-4.5
5	4.5	0.0	moist	FILL		ASH, some fine to medium sand, little fill debris, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.	
6			wet	FILL		ASH, little fine gravel, trace wood, (5Y 4/1) dark gray, loose, wet, no odor, no staining, water at 6.0 feet.	HSD-PDI-EE15A-6.0-6.5
7							HSD-PDI-EE15A-8.0-8.5
8							
9	4	0.0		NR		NO RECOVERY	
10			wet	FILL		ASH, little fine gravel, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-EE15A-10.0-10.5
11			wet	FILL		fine silty SAND, little wood, trace organics, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	HSD-PDI-EE15A-11.5-12.0
12			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, no odor, no staining. Soils consistent with MM.	HSD-PDI-EE15A-12.0-12.5
13							
14				NR		NO RECOVERY	
15							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNdno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNdorg - organic undisturbed native deposits 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.


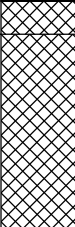

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611498.3
Date Started Drilling: 6/2/2016 11:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682814
Date Finished Drilling: 6/2/2016 12:15:00 PM	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: SC/HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 10.0 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0 ppm		ASPHALT		Asphalt and gravel sub-base	
1	5		dry	FILL		medium to coarse SAND, trace fine to medium gravel, (7.5YR 3/2) dark brown, loose, dry, no odor, no staining.	HSD-PDI-EE16A-0.5-1.0
2			dry	FILL		fine to coarse SAND, trace fine gravel, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining.	
3							HSD-PDI-EE16A-2.0-2.5
4			dry	FILL		ASH, trace coal and cinders, (7.5YR 2.5/1) black, loose, dry, no odor, no staining.	HSD-PDI-EE16A-4.0-4.5
5	4.5	0 ppm	dry to moist	FILL		ASH, trace fine gravel and cinders, (7.5YR 3/3) dark brown, loose, dry to moist, no odor, no staining.	
6							HSD-PDI-EE16A-6.0-6.5
7			saturated	FILL		medium to coarse SAND, trace fine to medium gravel, (7.5YR 4/1) dark gray, loose, saturated, no odor, no staining, water at 9.0 feet.	
8							HSD-PDI-EE16A-8.0-8.5
9				NR		NO RECOVERY	
10	3.5	0 ppm	saturated	FILL		medium to coarse SAND, trace fine gravel and silt, (7.5YR 3/3) dark brown, loose, saturated, slight petroleum odor, no staining.	HSD-PDI-EE16A-10.0-10.5
11			moist	FILL		SILT, trace fine gravel, (2.5Y 5/1) gray, soft, moist, no odor, no staining.	HSD-PDI-EE16A-11.0-11.5
12			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (2.5YR 2.5/4) dark reddish brown, stiff, dry, no odor, no staining. Soils consistent with MM.	HSD-PDI-EE16A-11.5-12.0
13							
14				NR		NO RECOVERY	
15							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNdno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNdorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611478.8
Date Started Drilling: 6/2/2016 9:40:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682794.5
Date Finished Drilling: 6/2/2016 10:40:00 AM	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 10.1 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1 2 3 4 5	4.5	0 ppm		ASPHALT		Asphalt and gravel sub-base	
			dry	FILL		medium to coarse SAND, trace fine to medium gravel, (2.5Y 4/1) dark gray, loose, dry, no odor, no staining. fine to coarse SAND, trace ash, coal and metal debris, (7.5YR 3/4) dark brown, loose, dry, no odor, no staining.	HSD-PDI-EE17A-0.5-1.0
			dry	FILL			HSD-PDI-EE17A-2.0-2.5
			dry	FILL			HSD-PDI-EE17A-4.0-4.5
			NR	NO RECOVERY			
			6 7 8 9 10	4.5	0 ppm	moist	FILL
saturated	FILL	HSD-PDI-EE17A-8.0-8.5					
NR	NO RECOVERY						
saturated	FILL	medium to coarse SAND, trace fine to medium gravel and silt, (2.5Y 4/1) dark gray, loose, saturated, no odor, no staining.				HSD-PDI-EE17A-10.0-10.5	
moist	FILL					HSD-PDI-EE17A-11.5-12.0	
dry	PT						HSD-PDI-EE17A-12.0-12.5
NR	NO RECOVERY						
15							

Notes:

bgs - below surface grade
MM - meadow mat











COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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













Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611465.2
Date Started Drilling: 6/1/2016 1:10:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 682778.7
Date Finished Drilling: 6/1/2016 1:40:00 PM	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 10.5 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
	5	0.0	dry	ASPHALT		Asphalt and gravel sub-base	
1				FILL		fine to medium SAND, some ash, little fine gravel, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	
2			moist	FILL		Ash, some cinders, (2.5Y 5/2) grayish brown, loose, moist, no odor, no staining.	
3							
4	3.5	0.0	moist	FILL		Cinders, some ash, (2.5Y 5/2) grayish brown, loose, moist, no odor, no staining.	HSD-PDI-EE18A-8.0-8.5
5			moist	FILL		Ash, (2.5Y 5/1) gray, loose, moist, no odor, no staining.	
6			wet	FILL		fine silty SAND, some wood, (5Y 2.5/1) black, medium dense, wet, no odor, no staining, water at 7.5 feet.	
7			wet	FILL		ASH, (2.5Y 5/1) gray, loose, wet, no odor, no staining.	
8				NR		NO RECOVERY	
9	3	0.0	wet	FILL		ASH, trace fill debris, (5Y 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-EE18A-11.0-11.5
10			wet	FILL		fine silty SAND, trace ash, fill debris and organics, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	HSD-PDI-EE18A-11.5-12.0
11			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	
12				NR		NO RECOVERY	
13							
14							
15							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

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



Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611679.44
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
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 14.6 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	3.5	0.0		CONCRETE		Concrete and brick, trace fine to medium sand, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	
2			dry	FILL		fine to medium SAND, trace ash and fill debris, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	HSD-PDI-FF5A-1.0-1.5
3			moist	FILL		ASH, (5Y 5/1) gray, loose, moist, no odor, no staining.	HSD-PDI-FF5A-3.0-3.5
4				NR		NO RECOVERY	
5	4.5	606	moist	FILL		ASH, (5Y 5/1) gray, loose, moist, slight petroleum odor, no staining.	HSD-PDI-FF5A-5.0-5.5
6			moist	FILL		CINDERS, trace ash and fill debris, (5YR 2.5/1) black, medium dense, moist, moderate petroleum odor, no staining.	
7			wet	FILL		SILT, trace fine sand and ash, (7.5YR 3/4) dark brown, soft, wet, no odor, no staining, water at 8.0 feet.	HSD-PDI-FF5A-7.0-7.5
8							
9	3.5	14.2		NR		NO RECOVERY	HSD-PDI-FF5A-9.0-9.5
10			wet	FILL		SILT, trace fine to medium sand and ash, (7.5YR 3/4) dark brown, soft, wet, no odor, no staining.	
11							
12			saturated	FILL		fine to coarse SAND, some silt, trace fine gravel, (5Y 5/1) gray, soft, saturated, no odor, no staining.	HSD-PDI-FF5A-11.0-11.5
13	4.5	0.0		NR		NO RECOVERY	HSD-PDI-FF5A-13.0-13.5
14			wet	FILL		fine to medium SAND, some silt, trace fine gravel and ash, (5Y 5/1) gray, soft, wet, no odor, no staining.	HSD-PDI-FF5A-15.0-15.5
15			wet	FILL		fine SAND, some silt, trace glass, (5YR 4/3) reddish brown, soft, wet, no odor, no staining.	HSD-PDI-FF5A-16.3-16.8
16			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/3) dark reddish brown, medium stiff, dry, moderate organic odor no staining. Soils consistent with MM.	HSD-PDI-FF5A-16.8-17.3
17	4.5	0.0	moist	OL		Organic SILT (90% organic silt, 10% organic fibers), trace fine sand and gravel, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining. Soils consistent with UNDorg.	
18				NR		NO RECOVERY	
19							
20							

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










Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611660.81
Date Started Drilling: 5/16/2016 9:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683068.51
Date Finished Drilling: 5/16/2016 10:30:00 AM	Core Size: 3.0 in	Boring Total Depth: 20 ft
Logged By: HBB/ES	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSN PDI		Surface Elevation: 14.4 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1			dry	FILL		fine to medium SAND, some gravel, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	HSD-PDI-FF6A-0.0-0.5
2			dry	FILL		ASH, trace coal, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	
3			moist	FILL		CINDERS, trace ash, coal and wood, (5YR 4/1) dark gray, medium dense, moist, no odor, no staining.	HSD-PDI-FF6A-2.0-2.5
4							HSD-PDI-FF6A-4.0-4.5
5			moist	FILL		CINDERS, trace ash, coal and wood, (5YR 4/1) dark gray, medium dense, moist, no odor, no staining.	
6			moist	FILL		fine to medium SAND, some silt, little wood, trace ash, (5YR 2.5/1) black, soft, moist, moderate gasoline-like odor, no staining.	HSD-PDI-FF6A-6.0-6.5
7							
8							HSD-PDI-FF6A-8.0-8.5
9				NR		NO RECOVERY	
10							
11			wet	FILL		CINDERS, trace glass, trace coal, trace ash, (5YR 2.5/1) black, loose, wet, no odor, no staining, water at 10.0 feet bgs.	HSD-PDI-FF6A-10-10.5
12							HSD-PDI-FF6A-12.0-12.5
13							
14			saturated	FILL		ASH, (5Y 5/1) gray, loose, saturated, no odor, no staining.	HSD-PDI-FF6A-14.0-14.5
15				NR		NO RECOVERY	
16			wet	FILL		ASH, trace wood and coal, (5Y 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-FF6A-15.7-16.2
17			moist	FILL		Re-worked Organic Silt, trace coal, (7.5YR 4/2) brown, medium dense, moist, slight organic odor, no staining.	HSD-PDI-FF6A-16.2-16.7
18			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consist with MM.	
19			moist	OL		Organic SILT, 80% organic silt, 10% organic fibers, (7.5YR 4/2) brown, medium dense, moist, slight organic odor, no staining. Soils consist with UNDorg.	
20				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNdno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNdorg - organic undisturbed native deposits 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.

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
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 13.9 ft NAVD88


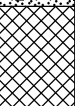

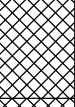
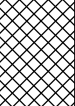
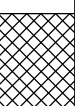



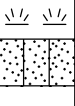

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.6	0.0	dry	FILL		fine to coarse SAND, little cinders, (7.5YR 3/4) dark brown, loose, dry, no odor, no staining.	HSD-PDI-FF7A-0.0-0.5
2			moist	FILL		CINDERS, some ash, trace fine to medium sand, brick, concrete and glass, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	HSD-PDI-FF7A-2.0-2.5
3							
4			moist	FILL		ASH, little wood, trace glass, (7.5YR 3/1) very dark gray, loose, moist, no odor, no staining.	HSD-PDI-FF7A-4.0-4.5
5	3.7	2.5		NR		NO RECOVERY	
6			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
7							
8							
9				NR		NO RECOVERY	HSD-PDI-FF7A-8.0-8.5
10	3.7	0.0	saturated	FILL		ASH, trace ceramics, glass and coal, (2.5Y 5/1) gray, loose, saturated, no odor, no staining.	HSD-PDI-FF7A-10.0-10.5
11							
12							
13							
14				NR		NO RECOVERY	HSD-PDI-FF7A-13.0-13.5
15	3.8	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, (2.5Y 4/2) dark grayish brown, soft, moist, no odor, no staining.	HSD-PDI-FF7A-16.2-16.7
17			dry	PT		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 with MM.	
18							
19			wet	SM		fine to medium SAND, little silt, trace gravel, (5Y 5/1) gray, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
20				NR		NO RECOVERY	

Notes:

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









Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611633.07
Date Started Drilling: 5/18/2016 8:50:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683014.31
Date Finished Drilling: 5/18/2016 9:55:00 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: 13.7 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.5	0.1		CONCRETE		Concrete slab	
2			dry	FILL		CINDERS and ASH, (5YR 4/3) reddish brown, dense, dry, no odor, no staining.	HSD-PDI-FF8A-1.8-2.3
3							HSD-PDI-FF8A-3.0-3.5
4			moist	FILL		ASH, little fine sand, trace wood and glass, (5YR 3/1) very dark gray, medium dense, moist, no odor, no staining.	
5	4.7	0.2		NR		NO RECOVERY	
6			moist	FILL		ASH, little fine sand, trace wood, glass and coal, (5YR 4/1) dark gray, medium dense, moist, no odor, no staining.	HSD-PDI-FF8A-5.0-5.5
7			wet	FILL		ASH, trace wood, glass and coal, (2.5Y 5/1) gray, loose, wet, no odor, no staining, water at 6.5 feet bgs.	HSD-PDI-FF8A-7.0-7.5
8							
9	3.6	0.0		NR		NO RECOVERY	HSD-PDI-FF8A-9.0-9.5
10			saturated	FILL		ASH, trace wood, glass and coal, (2.5Y 5/1) gray, loose, saturated, no odor, no staining.	
11							HSD-PDI-FF8A-11.0-11.5
12							
13	3.7	1.4	moist	FILL		SILT, trace wood, glass and organics (grass), (7.5YR 4/3) brown, soft, moist, no odor, no staining.	HSD-PDI-FF8A-13.0-13.5
14			moist	FILL		fine silty SAND, trace gravel and organics (grass), (7.5YR 4/3) brown, soft, moist, no odor, no staining.	
15				NR		NO RECOVERY	
16			moist	FILL		silty fine SAND, trace gravel and organics (grass), (7.5YR 4/3) brown, medium dense, moist, no odor, no staining.	HSD-PDI-FF8A-15.0-15.5
17	3.7	1.4					HSD-PDI-FF8A-16.0-16.5
18			dry	PT		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 with MM.	HSD-PDI-FF8A-16.5-17.0
19			wet	SM		fine SAND, trace silt, (5Y 5/1) gray, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
20				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611614.1
Date Started Drilling: 5/25/2016 12:50:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 682997.4
Date Finished Drilling: 5/25/2016 1:50:00 PM	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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Concrete	
1	4		dry	FILL		Ash, some fine sand, (2.5Y 5/2) grayish brown, loose, dry, no odor, no staining.	
2			dry	FILL		CINDERS, trace coal, (2.5Y 5/2) grayish brown, loose, dry, no odor, no staining.	
3							
4			dry	FILL		ASH, little cinders and fine sand, trace wood, (2.5Y 5/2) grayish brown, loose, dry, no odor, no staining.	
5		0.0					
6	4						
7			moist	FILL		fine to medium SAND, some wood, trace fill debris, (5YR 2.5/1) black, medium dense, moist, no odor, no staining.	
8							
9		0.0	wet	FILL		Ash, little fine sand, (5Y 5/1) gray, loose, wet, no odor, no staining, water at 8.0 feet.	
10	4						
11							
12		0.0					
13							
14	4						
15							
16		0.0	dry	PT		PEAT (degraded vegetated material), 75% organic fibers, 25% organic silt, (5YR 3/2) dark reddish brown, firm, dry, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-FF9A-15.5-16.0
17				NR		NO RECOVERY	HSD-PDI-FF9A-16.0-16.5
18	1.3						
19							
20							

Notes:

bgs - below surface grade
MM - meadow mat










COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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

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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	4	0.0		CONCRETE		Concrete	
			moist	FILL		fine to medium GRAVEL, some fine to medium sand, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining. fine to coarse SAND, little fine to medium gravel, trace silt, ash, coal and wood, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	HSD-PDI-FF10A-0.6-1.1
			moist	FILL			HSD-PDI-FF10A-2.0-2.5
							HSD-PDI-FF10A-3.0-3.5
				NR		NO RECOVERY	
5-10	4.5	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-5.0-5.5
			wet to saturated	FILL		medium to coarse SAND, little silt, trace cinders and fill debris, (5YR 2.5/1) black, soft, wet to saturated, no odor, no staining, water at 9.5 feet.	HSD-PDI-FF10A-7.0-7.5
							HSD-PDI-FF10A-9.0-9.5
				NR		NO RECOVERY	
11-15	4.5	0.0	saturated	FILL		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
							HSD-PDI-FF10A-13.0-13.5
				NR		NO RECOVERY	
16-20	3.5	0.0	moist	FILL		fine to medium SAND, little silt, trace fine gravel and glass, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	HSD-PDI-FF10A-15.0-15.5
			dry	PT		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 with MM.	HSD-PDI-FF10A-15.5-16.0
			moist	SM		fine to medium sandy SILT, trace organics, (5Y 5/1) gray, medium stiff, moist, no odor, no staining. Soils consistent with UNDorg.	HSD-PDI-FF10A-16.0-16.5
				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDo - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.





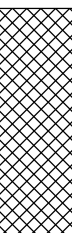

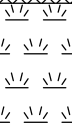
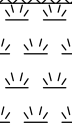
Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611592.1
Date Started Drilling: 5/24/2016 9:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682934.6
Date Finished Drilling: 5/24/2016 11:15:00 AM	Core Size: 3 in	Boring Total Depth: 20 ft
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 13.4 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Concrete	
1	4.5		moist	FILL		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-0.5-1.0
2							HSD-PDI-FF11A-2.0-2.5
3							
4			moist	FILL		fine to medium SAND, some silt, trace fine gravel, ash and wood, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	HSD-PDI-FF11A-4.0-4.5
5	3.5	0.0		NR		NO RECOVERY	
6			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
7							
8			moist to wet	FILL		fine to medium SAND, some silt, trace wood, (7.5YR 3/4) dark brown, soft, moist to wet, no odor, no staining, water at 8.5 feet.	HSD-PDI-FF11A-8.0-8.5
9	4.5	0.0		NR		NO RECOVERY	
10			wet	FILL		fine to medium SAND, some silt, trace wood, (7.5YR 3/4) dark brown, soft, wet, no odor, no staining.	
11							
12							HSD-PDI-FF11A-12.0-12.5
13	4	0.0	saturated	FILL		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
14				NR		NO RECOVERY	
15			saturated	FILL		fine to medium GRAVEL, some fine to coarse sand, trace fill debris, (7.5YR 2.5/1) black, loose, saturated, no odor, no staining.	HSD-PDI-FF11A-15.5-16.0
16			wet	FILL		brown, medium stiff, wet, no odor, no staining.	HSD-PDI-FF11A-16.0-16.5
17	4	0.0	dry	PT		SILT, little fine sand, trace ash and organics, (7.5YR 4/2) brown, medium stiff, wet, no odor, no staining.	
18						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 with MM.	
19			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.	
20				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDo - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDo - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611573.2
Date Started Drilling: 6/6/2016 10:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682918.6
Date Finished Drilling: 6/6/2016 12:30:00 PM	Core Size: 3.0 in	Boring Total Depth: 25 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 13.2 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Concrete	
1	4.5		dry to moist	FILL		fine to medium SAND, some to little ash, trace coal, (7.5YR 3/2) dark brown, dry to moist, no odor, no staining.	HSD-PDI-FF12A-0.7-1.2
2							HSD-PDI-FF12A-2.0-2.5
3							
4							HSD-PDI-FF12A-4.0-4.5
5	3.5	0.0	dry to moist	NR		NO RECOVERY	
6				FILL		fine to medium SAND, little coal, trace ash, (7.5YR 2.5/3) very dark brown, medium dense, dry to moist, no odor, no staining.	HSD-PDI-FF12A-6.0-6.5
7							
8							HSD-PDI-FF12A-8.0-8.5
9	4.5	0.0	wet	NR		NO RECOVERY	
10				FILL		fine silty SAND, trace coal and wood, (2.5Y 4/2) dark grayish brown, medium dense, wet, no odor, no staining, water at 10.0 feet.	HSD-PDI-FF12A-10.0-10.5
11							
12							HSD-PDI-FF12A-12.0-12.5
13	5	0.0	saturated	FILL		ASH, little fill debris, (5YR 2.5/1) black, loose, saturated, no odor, no staining.	HSD-PDI-FF12A-14.0-14.5
14							
15				FILL		fine silty SAND, some coarse gravel, trace ash, (5YR 4/3) reddish brown, soft, wet, no odor, no staining.	HSD-PDI-FF12A-16.0-16.5
16							
17	5	0.0	wet	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, soft, wet, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-FF12A-18.0-18.5
18							
19				PT			HSD-PDI-FF12A-19.5-20.0
20							
21							HSD-PDI-FF12A-20.0-20.5

Notes:

bgs - below surface grade
MM - meadow mat

COPR - chromite ore processing residue
GGM - green grey mud

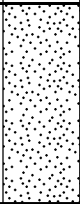
UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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












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Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
— 23 24 25	5		wet	SP		fine to medium silty SAND, (5Y 5/1) gray, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	

Notes: bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.			

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

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611565.5488
Date Started Drilling: 6/1/2016 10:10:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682880.9336
Date Finished Drilling: 6/1/2016 10:45:00 AM	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: SC/HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 10.9 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.5	0 ppm		CONCRETE		Asphalt and Concrete	
2			dry	FILL		medium to coarse SAND, trace concrete, fine gravel and ash, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining.	HSD-PDI-FF13A-1.5-2.0
3			dry	FILL		coarse SAND, trace ash, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining.	
4			dry	FILL		fine to medium SAND, trace ash, cinders and brick, (5Y 4/1) dark gray, loose, dry, no odor, no staining.	
5	3.5	0 ppm		NR		NO RECOVERY	
6			dry	FILL		fine to medium SAND, trace fine gravel and ash, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining.	HSD-PDI-FF13A-6.0-6.5
7			wet	FILL		CINDERS, trace ash, coal and metal debris, (7.5YR 2.5/1) black, loose, wet to saturated, slight petroleum odor, no staining, water at 8.0 feet.	HSD-PDI-FF13A-8.0-8.5
8				NR		NO RECOVERY	
9	3.5	0 ppm		NR		NO RECOVERY	
10			saturated	FILL		CINDERS, trace ash and coal, (7.5YR 2.5/1) black, loose, saturated, slight petroleum odor, no staining.	HSD-PDI-FF13A-10.0-10.5
11			moist	FILL		fine to medium silty SAND, trace fine gravel, (7.5YR 3/4) dark brown, soft, moist, no odor, no staining.	HSD-PDI-FF13A-11.0-11.5
12			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (2.5YR 3/3) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-FF13A-11.5-12.0
13				NR		NO RECOVERY	
14				NR		NO RECOVERY	
15				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611547.2
Date Started Drilling: 6/1/2016 11:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682859
Date Finished Drilling: 6/1/2016 12:00:00 PM	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: SC/HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 9.9 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0 ppm		ASPHALT		Asphalt and gravel sub-base	
1	4.5		dry	FILL		coarse SAND, trace ash, fine gravel and glass, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining.	HSD-PDI-FF14A-0.5-1.0
2							HSD-PDI-FF14A-2.0-2.5
3			slightly moist	FILL		ASH, trace cinders and coal, (5YR 4/1) dark gray, loose, slightly moist, no odor, no staining.	
4							HSD-PDI-FF14A-4.0-4.5
5	4	0 ppm		NR		NO RECOVERY	
6			moist	FILL		fine to medium SAND, trace ash and cinders, (7.5YR 3/2) dark brown, loose, moist, no odor, no staining.	
7			wet to saturated	FILL		ASH, trace cinders and glass, (7.5YR 3/2) dark brown, loose, wet to saturated, no odor, no staining, water at 8.0 feet.	HSD-PDI-FF14A-6.0-6.5
8							HSD-PDI-FF14A-8.0-8.5
9	3.5	0 ppm		NR		NO RECOVERY	
10			wet	FILL		fine to medium SAND, trace fine gravel and fill debris, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-FF14A-10.0-10.5
11			moist	FILL		fine silty SAND, little fine gravel, (7.5YR 3/3) dark brown, soft, moist, no odor, no staining.	HSD-PDI-FF14A-11.0-11.5
12			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (2.5YR 2.5/4) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-FF14A-11.5-12.0
13							
14				NR		NO RECOVERY	
15							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.











Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611531.5
Date Started Drilling: 6/3/2016 8:05:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682843.7
Date Finished Drilling: 6/3/2016 9:00:00 AM	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 9.6 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base	
1	4.5		dry	FILL		medium to coarse SAND, some fine gravel, trace ash, (7.5YR 3/2) dark brown, loose, dry, no odor, no staining.	HSD-PDI-FF15A-0.5-1.0
2							HSD-PDI-FF15A-2.0-2.5
3			moist	FILL		fine SAND, trace ash, (2.5Y 5/1) gray, loose, moist, no odor, no staining.	
4			moist	FILL		fine to coarse SAND, trace fine to medium gravel, cinders and coal, (5Y 4/1) dark gray, medium dense, moist, no odor, no staining.	HSD-PDI-FF15A-4.0-4.5
5				NR		NO RECOVERY	
6	3.5	0.0	wet	FILL		ASH, trace cinders and glass, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining.	HSD-PDI-FF15A-6.0-6.5
7							
8			wet to saturated	FILL		fine to medium GRAVEL, little silt, trace ash and fill debris, (5Y 2.5/1) black, loose, wet to saturated, no odor, no staining, water at 8.0 feet.	HSD-PDI-FF15A-8.0-8.5
9				NR		NO RECOVERY	
10	3.5	0.0	wet to saturated	FILL		fine to medium GRAVEL, little silt, trace ash and fill debris, (5Y 2.5/1) black, loose, wet to saturated, no odor, no staining.	HSD-PDI-FF15A-10.0-10.5
11			wet	FILL			HSD-PDI-FF15A-10.7-11.2
12			dry	PT		SILT, trace fine sand, gravel and coal, (7.5YR 4/1) dark gray, soft, wet, no odor, no staining.	HSD-PDI-FF15A-11.2-11.7
13						PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/3) dark reddish brown, medium stiff, dry, moderate organic odor, no staining. Soils consistent with MM.	
14			moist	OL		Organic SILT, 90% organic silt, 10% organic fibers, (5Y 5/1) gray, soft, moist, no odor, no staining. Soils consistent with UNDorg.	
15				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.











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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.7	2.5	dry	FILL		fine to medium SAND, some gravel, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	HSD-PDI-GG5A-0.5-1.0
2			dry	FILL		fine to medium SAND, little ash, trace cinders, coal and ceramics, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	HSD-PDI-GG5A-2.0-2.5
3							
4							HSD-PDI-GG5A-4.0-4.5
5	3.7	0.0	moist	NR FILL		NO RECOVERY 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
6							
7							
8							HSD-PDI-GG5A-8.0-8.5
9	4.5	0.0		NR		NO RECOVERY	
10			wet	FILL		ASH, trace coal, glass and ceramics, (5YR 5/1) gray, medium dense, wet, no odor.	HSD-PDI-GG5A-10.0-10.5
11							
12							HSD-PDI-GG5A-12.0-12.5
13	4	0.0	wet	FILL		fine to medium SAND, trace wood, (5YR 4/1) dark gray, soft, wet, no odor, no staining.	HSD-PDI-GG5A-14.0-14.5
14			wet	FILL		coarse GRAVEL, (5Y 5/1) gray, loose, wet, no odor, no staining.	
15			wet	FILL		fine to medium SAND, trace silt and ash, (7.5YR 4/2) brown, soft, wet, no odor, no staining.	
16				NR		NO RECOVERY	
17	4	0.0	wet	FILL		fine sandy SILT, trace organic fibers and brick, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining.	HSD-PDI-GG5A-15.5-16.0
18			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 with MM.	HSD-PDI-GG5A-16.0-16.5
19			moist	SM		fine SAND, trace silt, (5YR 3/2) dark reddish brown, medium dense, moist, no odor, no staining. Soils consistent with UNDno.	
20				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611686.56
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
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 14.8 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.6	0.0		FILL		fine to medium SAND, little gravel, trace brick, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	HSD-PDI-GG6A-0.0-0.5
2			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
3							
4			moist	FILL		CINDERS, some medium to coarse sand, trace ash, (7.5YR 3/3) dark brown, loose, moist, no odor, no staining.	HSD-PDI-GG6A-4.0-4.5
5	3.7	0.0		NR		NO RECOVERY	
6			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
7							
8							
9	5	0.0		NR		NO RECOVERY	
10			wet	FILL		ASH, little cinders, trace wood and glass, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-GG6A-10.0-10.5
11							
12							
13	3.4	0.0					
14							
15			wet	FILL		ASH, trace cinders, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-GG6A-15.5-16.0
16			moist	FILL		Re-worked organic SILT, trace ceramics, (7.5YR 3/2) dark brown, soft, moist, slight organic odor, no staining.	HSD-PDI-GG6A-16.0-16.5
17			moist	PT		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 with MM.	
18			moist	ML		Organic SILT, 70% organic silt, 30% organic fibers, (5YR 4/4) reddish brown, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg.	
19			wet	SM		fine silty SAND, trace organic fibers, (5YR 4/1) dark gray, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
20				NR		NO RECOVERY	

Notes:

bgs - below surface grade
MM - meadow mat

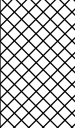








COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611673.43
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
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 14.4 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.6	2.5	dry	FILL		fine to coarse SAND, trace ash and debris, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	HSD-PDI-GG7A-0.0-0.5
2			dry	FILL		Ash and cinders, (7.5YR 4/1) dark gray, loose, dry, slight solvent odor, no staining.	HSD-PDI-GG7A-2.0-2.5
3			moist	FILL		CINDERS, trace wood, (5Y 4/1) dark gray, loose, moist, no odor, no staining.	HSD-PDI-GG7A-4.0-4.5
4				NR		NO RECOVERY	
5	3.5	205	moist	FILL		CINDERS, some ash, trace brick and ceramics, (5Y 4/1) dark gray, loose, moist, moderate solvent odor, no staining.	HSD-PDI-GG7A-6.0-6.5
6			wet	FILL		ASH, (5Y 5/1) gray, loose, wet, slight solvent odor, no staining, water at 7.0 feet bgs.	
7				NR		NO RECOVERY	HSD-PDI-GG7A-8.0-8.5
8				NR		NO RECOVERY	
9	4.5	0.0	saturated	FILL		ASH, trace ceramics and coal, (5Y 5/1) gray, loose, saturated, no odor, no staining.	HSD-PDI-GG7A-10.0-10.5
10				NR		NO RECOVERY	HSD-PDI-GG7A-12.0-12.5
11				NR		NO RECOVERY	
12				NR		NO RECOVERY	HSD-PDI-GG7A-14.0-14.5
13	2.3	0.0	saturated	FILL		ASH, trace wood and coal, (5Y 5/1) gray, loose, saturated, no odor, no staining.	HSD-PDI-GG7A-15.7-16.2
14			moist	FILL		Re-worked organic SILT, little organics (grass), (7.5YR 4/2) brown, soft, moist, no odor, no staining.	HSD-PDI-GG7A-16.2-16.7
15			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 with MM.	
16				NR		NO RECOVERY	
17							
18							
19							
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDo - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDOrg - organic undisturbed native deposits 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.









Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611658.41
Date Started Drilling: 5/19/2016 10:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683000.24
Date Finished Drilling: 5/19/2016 12:15:00 PM	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: 13.7 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Concrete	
1	5		dry to moist	FILL		fine to coarse SAND, trace silt and fill debris, (7.5YR 4/2) brown, medium dense, dry to moist, no odor, no staining.	HSD-PDI-GG8A-0.5-1.0
2							
3							HSD-PDI-GG8A-2.5-3.0
4							
5	3.5	0.0		FILL		fine to coarse SAND, trace silt and fill debris, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	HSD-PDI-GG8A-4.5-5.0
6							
7			wet	FILL		ASH, trace cinders and glass, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining, water at 7.0 feet.	HSD-PDI-GG8A-6.0-6.5
8							
9				NR		NO RECOVERY	HSD-PDI-GG8A-8.0-8.5
10	4.5	0.0	wet	FILL		CINDERS, (5YR 2.5/1) black, loose, wet, no odor, no staining.	HSD-PDI-GG8A-10.0-10.5
11							
12							HSD-PDI-GG8A-12.0-12.5
13							
14			wet	FILL		silty fine SAND, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining.	HSD-PDI-GG8A-14.0-14.5
15				NR		NO RECOVERY	
16	3.5	0.0	wet	FILL		silty fine SAND, trace fine gravel and organics, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining.	HSD-PDI-GG8A-15.0-15.5
17			dry	PT			HSD-PDI-GG8A-15.5-16.0
18						PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/4) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	
19			moist	SP		silty fine SAND, trace organics, (5Y 5/1) gray, medium dense, moist, no odor, no staining. Soils consistent with UNDorg.	
20				NR		NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611646.3
Date Started Drilling: 5/23/2016 9:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682974.5
Date Finished Drilling: 5/23/2016 10:40:00 AM	Core Size: 2.0 in	Boring Total Depth: 20 ft
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: ACTUAL - HSD PDI		Surface Elevation: 13.4 ft NAVD88






Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-2	2	0.0		CONCRETE		Concrete	HSD-PDI-GG9A-0.5-1.0
			moist	FILL		fine to medium SAND, little silt, trace ash, (7.5YR 4/2) brown, loose, moist, no odor, no staining.	
				NR		NO RECOVERY	
4-5	1	2.1	moist	FILL		fine to coarse SAND, some silt, trace ash and fill debris, (7.5YR 4/3) brown, soft, moist, no odor, no staining.	
				NR		NO RECOVERY	
8-9	1	15.6	moist	FILL		fine to coarse SAND, little fine to medium gravel, trace silt, wood and coal, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	
			saturated	FILL		fine to medium SAND, some silt, trace fill debris, (5YR 2.5/1) black, soft, saturated, slight petroleum odor product staining, water at 9.0 feet.	
				NR		NO RECOVERY	
12-13	0.5	44.8	saturated	FILL		fine to medium SAND, some silt, trace fine gravel and wood, (5YR 2.5/1) black, soft, saturated, moderate petroleum odor, hydrocarbon staining.	
				NR		NO RECOVERY	
16-17	2	22.7	wet	FILL		fine to medium SAND, little silt, trace fine gravel, glass and organics, (5YR 2.5/1) black, soft, wet, slight petroleum odor, no staining.	HSD-PDI-GG9A-16.5-17.0
			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 2.5/2) dark reddish brown, medium stiff, dry, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-GG9A-17.0-17.5
				NR		NO RECOVERY	
20							

Notes:

bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) MM/UND confirmed to be 1 ft thick 2) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct push	Coordinates (NJSPNAD83) x: 611632.8
Date Started Drilling: 6/6/2016 8:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682947.8
Date Finished Drilling: 6/6/2016 9:30:00 AM	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 11.7 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	0.0	dry to moist	FILL		fine to medium SAND, little concrete, trace ash, coal and glass, (7.5YR 2.5/2) very dark brown, medium dense, dry to moist, no odor, no staining.	HSD-PDI-GG10A-0.0-0.5
2							HSD-PDI-GG10A-2.0-2.5
3							
4							HSD-PDI-GG10A-4.0-4.5
5	3.5	0.0	moist to wet	FILL		fine to medium SAND, little wood, trace ash and fill debris, (7.5YR 2.5/2) very dark brown, medium dense, moist to wet, slight organic odor, no staining, water at 7.5 feet.	HSD-PDI-GG10A-6.0-6.5
6							
7							
8							HSD-PDI-GG10A-8.0-8.5
9				NR		NO RECOVERY	
10	3.5	0.0	saturated	FILL		SILT, little wood and ash, (5Y 2.5/1) black, very loose, saturated, no odor, no staining.	HSD-PDI-GG10A-10.0-10.5
11			wet	FILL			
12			moist	PT		PEAT (degraded vegetated material), 75% organic fibers, 25% organic silt, (5YR 4/4) reddish brown, medium stiff, moist, slight organic odor, no staining. Soils consistent with MM.	HSD-PDI-GG10A-11.5-12.0
13			wet	SP			HSD-PDI-GG10A-12.0-12.5
14				NR		fine to medium SAND, trace fine gravel and silt, (5Y 5/1) gray, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	HSD-PDI-GG10A-12.5-13.0
15						NO RECOVERY	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct push	Coordinates (NJSPNAD83) x: 611617.3
Date Started Drilling: 6/3/2016 8:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682924.4
Date Finished Drilling: 6/3/2016 10:00:00 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: 12.0 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base	
1	5		dry	FILL		fine to medium SAND, little wood, trace ash and fill debris, (7.5YR 3/2) dark brown, medium dense, dry, slight gasoline odor, no staining.	HSD-PDI-GG11A-1.0-1.5
2			dry	FILL		fine to medium SAND, some wood and concrete, (5Y 2.5/1) black, medium dense, dry, slight gasoline odor, no staining.	HSD-PDI-GG11A-3.0-3.5
3							
4							
5	4.5	5.5	moist	FILL		fine to medium SAND, little wood, trace silt, (5Y 2.5/1) black, medium dense, moist, slight gasoline odor, no staining.	HSD-PDI-GG11A-5.0-5.5
6			moist	FILL		fine to medium SAND, some ash, little wood, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.	
7			moist to wet	FILL		fine to medium SAND, some wood, little concrete, trace brick, (7.5YR 3/2) dark brown, medium dense, moist to wet, no odor, no staining, water at 9.0 feet.	HSD-PDI-GG11A-7.0-7.5
8							
9							HSD-PDI-GG11A-9.0-9.5
10				NR		NO RECOVERY	
11	5	0.0	wet	FILL		ASH, some fine to coarse sand, little fine gravel, (5YR 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-GG11A-11.0-11.5
12							
13							HSD-PDI-GG11A-13.0-13.5
14			wet	FILL		fine to medium SAND, some ash, little wood, (7.5YR 2.5/3) very dark brown, medium dense, wet, no odor, no staining.	
15			moist	FILL		fine silty SAND, little fine gravel, trace ash and organics, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.	HSD-PDI-GG11A-14.5-15.0
16	4	0.0	dry	PT		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-GG11A-15.0-15.5
17							
18			moist	OL		Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, no odor, no staining. Soils consistent with UNDorg.	
19				NR		NO RECOVERY	
20							

Notes:

bgs - below surface grade
MM - meadow mat

COPR - chromite ore processing residue
GGM - green grey mud


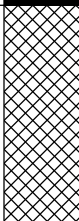
UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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














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Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1				ASPHALT		Asphalt	
			Dry	FILL		fine to medium SAND, little wood, trace ash and fill debris, (7.5YR 3/2) dark brown, medium dense, dry, slight gasoline odor, no staining	
2							HSD-PDI-GG11A-R-1.5-2.0

Comments:

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

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611600
Date Started Drilling: 6/3/2016 10:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682908.3
Date Finished Drilling: 6/3/2016 12:00:00 PM	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: 11.7 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base	
1	5		dry	FILL		fine to coarse SAND, some ash, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	HSD-PDI-GG12A-0.5-1.0
2							
3			dry	FILL		fine to coarse SAND, some concrete, little ash and wood, (7.5YR 3/3) dark brown, medium dense, dry, no odor, no staining.	HSD-PDI-GG12A-2.5-3.0
4							
5	4	0.0	moist	FILL		fine to coarse SAND, little ash, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	
6			moist to wet	FILL		ASH, some fine sand, little fill debris, (2.5Y 5/1) gray, loose, moist to wet, no odor, no staining, water at 7.5 feet.	HSD-PDI-GG12A-4.5-5.0
7							
8							
9	5		wet	FILL		fine silty SAND, some ash, little fine gravel and wood, (7.5YR 2.5/1) black, medium dense, wet, no odor, no staining.	HSD-PDI-GG12A-6.5-7.0
10				NR		NO RECOVERY	
11		2.0					
12			wet	FILL		ASH, some fine gravel, little fill debris, (5YR 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-GG12A-8.5-9.0
13	5						
14			moist	FILL		fine SAND, (7.5YR 3/2) dark brown, very dense, moist, slight petroleum odor, black tar-like staining.	HSD-PDI-GG12A-10.5-11.0
15							
16							
17	3.5	0.0	wet	FILL		SILT, trace ash, fill debris and organics, (7.5YR 4/2) brown, soft, wet, no odor, no staining.	HSD-PDI-GG12A-12.5-13.0
18			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 4/3) reddish brown, stiff, dry, no odor, no staining. Soils consistent with MM.	HSD-PDI-GG12A-14.5-15.0
19							
20			moist	OL		Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, no odor, no staining. Soils consistent with UNDorg.	HSD-PDI-GG12A-15.0-15.5
				NR		NO RECOVERY	HSD-PDI-GG12A-15.5-16.0

Notes:

bgs - below surface grade
MM - meadow mat








COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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

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
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSN PDI		Surface Elevation: 15.0 ft NAVD88








Depth (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Soil Description:	Sample ID
1	4	5.0	dry	FILL		fine to medium SAND, some gravel, trace glass, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	
2			moist	FILL		CINDERS, some ASH, little wood, trace glass, (7.5YR 4/2) brown, medium dense, moist, slight solvent odor, no staining.	
3							
4				NR		NO RECOVERY	
5	4	664	wet to saturated	FILL		CINDERS, some ash, little wood, trace fill debris, (5Y 5/1) gray, medium dense, wet to saturated, strong solvent odor, no staining.	HSD-PDI-HH6A-8.0-8.5
6							
7							
8				NR		NO RECOVERY	
9	4.5	10.0	wet to saturated	FILL		CINDERS, some ash, little wood, trace glass, (5Y 5/1) gray, medium dense, wet to saturated, strong solvent odor, no staining, water at 10.0 feet bg.s	HSD-PDI-HH6A-12.0-12.5
10							
11							
12				NR		NO RECOVERY	
13	3.5	3.0	wet	FILL		ASH, trace silt, wood and organic fibers, (5Y 5/1) gray, medium dense, wet, slight solvent odor, no staining.	HSD-PDI-HH6A-15.0-15.5
14			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (7.5YR 4/2) brown, medium stiff, dry, slight organic odor, no staining. Soils consist with MM.	HSD-PDI-HH6A-15.5-16.0
15							
16							
17			moist	OL		Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, medium stiff, moist, no odor, no staining. Soils consist with UNDorg.	
18				NR		NO RECOVERY	
19							

Notes:

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

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	Rig Type:	Coordinates (NJSPNAD83) y: 683041.42
Date Finished Drilling: 11/2/2017	Core Size: 3.0 in	Boring Total Depth: 20 ft
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSN PDI		Surface Elevation: 15.0 ft NAVD88

Depth (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Soil Description:	Sample ID
1	4	5.0	dry	FILL		fine to medium SAND, some gravel, trace glass, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	
2			moist	FILL		CINDERS, some ASH, little wood, trace glass, (7.5YR 4/2) brown, medium dense, moist, slight solvent odor, no staining.	
3							
4				NR		NO RECOVERY	
5	4	664	wet to saturated	FILL		CINDERS, some ash, little wood, trace fill debris, (5Y 5/1) gray, medium dense, wet to saturated, strong solvent odor, no staining.	
6							
7							
8							
9				NR		NO RECOVERY	
10	4.5	10.0	wet to saturated	FILL		CINDERS, some ash, little wood, trace glass, (5Y 5/1) gray, medium dense, wet to saturated, strong solvent odor, no staining, water at 10.0 feet bgs.	
11							
12							
13							
14	3.5	3.0	wet	FILL		ASH, trace silt, wood and organic fibers, (5Y 5/1) gray, medium dense, wet, slight solvent odor, no staining.	HSD-PDI-HH6AR-15.5-16.0
15			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (7.5YR 4/2) brown, medium stiff, dry, slight organic odor, no staining. Soils consistet with MM.	
16							
17			moist	OL		Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, medium stiff, moist, no odor, no staining. Soils consistet with UNDorg.	
18							
19				NR		NO RECOVERY	

Notes:

bgs - below surface grade
MM - meadow mat









COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromate chemical production waste

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

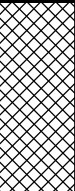
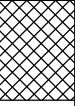
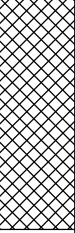
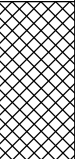
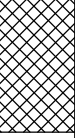



Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611700.29
Date Started Drilling: 5/18/2016 10:05:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683014.42
Date Finished Drilling: 5/18/2016 11:10:00 AM	Core Size: 3.0 in	Boring Total Depth: 20 ft
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 14.7 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	4.7	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
			moist	FILL		fine to coarse SAND, trace gravel, ash and brick, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	HSD-PDI-HH7A-2.0-2.5
							HSD-PDI-HH7A-4.0-4.5
5-8	4	513	wet	NR FILL		NO RECOVERY ASH, trace coal, (2.5Y 5/1) gray, medium dense, wet, no staining, strong gasoline odor, water table at 8.5 ft. bgs.	HSD-PDI-HH7A-6.0-6.5
							HSD-PDI-HH7A-8.0-8.5
				NR		NO RECOVERY	
10-14	4.7	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
							HSD-PDI-HH7A-12.0-12.5
							HSD-PDI-HH7A-14.0-14.5
15-19	4	6.5	wet	NR FILL		NO RECOVERY 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.	HSD-PDI-HH7A-16.0-16.5
			moist	FILL		Re-worked SILT, little organic fibers, trace ash, (7.5YR 4/2) brown, soft, moist, no odor, no staining.	HSD-PDI-HH7A-16.5-17.0
			dry	PT		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 with MM.	
			moist	SM		silty SAND, (2.5Y 5/2) grayish brown, medium dense, moist, no odor, no staining. Soils consistent with UNDno.	
				NR		NO RECOVERY	
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.









Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611683.08
Date Started Drilling: 5/16/2016 11:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682987.5
Date Finished Drilling: 5/16/2016 12:45:00 PM	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: 13.5 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.5	5	dry	FILL		fine to medium SAND, trace organics (roots) and concrete, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	HSD-PDI-HH8A-0.0-0.5
2							HSD-PDI-HH8A-2.0-2.5
3			dry	FILL		fine to medium SAND, some coal fragments, trace concrete, (2.5Y 4/2) dark grayish brown, medium dense, dry, slight solvent odor, no staining.	HSD-PDI-HH8A-4.0-4.5
4				NR		NO RECOVERY	
5	3.5	704	moist to wet	FILL		Ash, some to little cinders, (2.5Y 5/1) gray, loose, moist to wet, strong solvent odor, no staining, water at 8.5 feet bgs.	HSD-PDI-HH8A-6.0-6.5
6							HSD-PDI-HH8A-8.0-8.5
7				NR		NO RECOVERY	
8							
9	4.5	20	wet	FILL		Ash, some fine to medium sand, little cinders, (2.5Y 5/2) grayish brown, wet, slight solvent odor, no staining.	HSD-PDI-HH8A-10.0-10.5
10							HSD-PDI-HH8A-12.0-12.5
11			wet	FILL		fine silty SAND, little wood, (7.5YR 4/2) brown, medium dense, wet, slight solvent odor, black staining at 12.5-13.5 ft bgs.	HSD-PDI-HH8A-14.0-14.5
12				NR		NO RECOVERY	
13	2.5	5	wet	FILL		fine to medium SAND, little silt, trace brick and glass, (5YR 4/3) reddish brown, medium dense, wet, slight solvent odor, no staining.	HSD-PDI-HH8A-15.2-15.7
14			slightly moist	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, slightly moist, slight organic odor, no staining. Soils consist of MM.	HSD-PDI-HH8A-15.7-16.2
15			wet	OL		fine to medium SAND, little silt, little organics, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining. Soils consist of UNDorg.	HSD-PDI-HH8A-16.2-16.7
16				NR		NO RECOVERY	
17							
18							
19							
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDo - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.







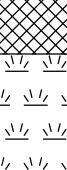


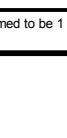
Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611662.7
Date Started Drilling: 5/31/2016 11:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682967.2
Date Finished Drilling: 5/31/2016 12:45:00 PM	Core Size: 3.0 in	Boring Total Depth: 20 ft
Logged By: SC/BB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSD PDI		Surface Elevation: 12.5 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.5	0 ppm	dry	FILL		fine SAND, trace fine to coarse gravel and silt, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	HSD-PDI-HH9A-0.0-0.5
2			dry	FILL		fine to medium SAND, trace fine gravel, ash and coal, (7.5YR 4/1) dark gray, loose, dry, no odor, no staining.	HSD-PDI-HH9A-2.0-2.5
3							
4				NR		NO RECOVERY	HSD-PDI-HH9A-4.0-4.5
5	4.5	0 ppm	moist	FILL		ASH, trace cinders and fill debris, (7.5YR 4/1) dark gray, loose, moist, no odor, no staining.	HSD-PDI-HH9A-6.0-6.5
6							
7			moist	FILL		medium to coarse SAND, trace medium gravel, ash and cinders, (7.5YR 3/4) dark brown, loose, moist, no odor, no staining, water at 9.5 feet.	HSD-PDI-HH9A-8.0-8.5
8				NR		NO RECOVERY	
9	5	0 ppm					
10			wet	FILL		fine to medium SAND, trace fine gravel, ash and cinders, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-HH9A-10.0-10.5
11							
12							HSD-PDI-HH9A-12.0-12.5
13	5	0 ppm					
14							
15			wet	FILL		fine to medium SAND, trace fine gravel, ash and cinders, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining.	HSD-PDI-HH9A-15.0-15.5
16			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
17	5	0 ppm					
18			dry	OL		Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 3/4) dark brown, dry, no odor, no staining. Soils consistent with UNDorg.	
19							
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.








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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.5	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
2							
3			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-PDI-II6A-2.0-2.5
4				NR		NO RECOVERY	HSD-PDI-II6A-4.0-4.5
5	4	220 ppm	dry	FILL		medium to coarse SAND, trace silt, brick and wood, (5YR 4/3) reddish brown, loose, dry, no odor, no staining.	
6			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			moist	FILL		ASH, trace cinders, wood and metal debris, (5YR 4/1) dark gray, loose, moist, strong solvent odor, no staining.	
8				NR		NO RECOVERY	HSD-PDI-II6A-8.0-8.5
9	4.5	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
10			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.	
11			saturated	FILL		medium to coarse SAND, little fine gravel, trace silt (2.5Y 5/2) grayish brown, loose, saturated, moderate solvent odor, no staining.	HSD-PDI-II6A-12.0-12.5
12				NR		NO RECOVERY	HSD-PDI-II6A-14.0-14.5
13	4	2.2 ppm	moist	FILL		fine to medium SAND, (7.5YR 3/4) dark brown, loose, moist, no odor, no staining.	
14			dry	PT		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-15.5-16.0
15			moist	OL		Organic SILT, 90% organic silt, 10% organic fibers, (7.5YR 4/1) dark gray, dense, moist, no odor, no staining. Soils consistent with UNDorg.	
16				NR		NO RECOVERY	HSD-PDI-II6A-16.0-16.5
17							
18							
19							
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611675.66
Date Started Drilling: 5/19/2016	Rig Type:	Coordinates (NJSPNAD83) y: 683004.3
Date Finished Drilling: 5/19/2016	Core Size: 3 in	Boring Total Depth: 10 ft
Logged By: HBB	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location:		Surface Elevation: 13.67 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0	dry	CONCRETE		CONCRETE, dry, no odor, no staining.	
1	4		dry	FILL		fine to coarse SAND, little fine to medium gravel, trace silt, ash, and fill debris, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	HSD-SI-GG8A-B4B-0.5-1.0
2							
3			moist	FILL		ASH, trace brick and wood, (7.5YR 4/1) dark gray, loose, moist, no odor, no staining.	
4			dry	FILL		CINDERS, trace ash, (7.5YR 2.5/1) black, loose, dry, no odor, no staining.	
5				NR		NO RECOVERY	
6	3.5	480	moist	FILL		CINDERS, trace ash, (7.5YR 2.5/1) black, loose, moist, no odor, no staining.	HSD-SI-GG8A-B4B-5.5-6.0
7			moist	FILL		ASH, trace fill debris, (7.5YR 4/1) dark gray, medium dense, moist, slight petroleum odor, no staining.	
8			moist to wet	FILL		CINDERS, trace ash and wood, (7.5YR 2.5/1) black, loose, moist to wet, moderate petroleum odor, no staining, water at 8.0 feet.	HSD-SI-GG8A-B4B-7.5-8.0
9				NR		NO RECOVERY	
10							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNOrg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring.



30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: P4-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
Physical Location: Carteret Avenue		

(Note bgs = below ground surface)

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		ASPHALT		ASPHALT.	
1	5	0.0	slightly moist	FILL		fine SAND,(10YR 5/8) yellowish brown,loose to medium dense,slightly moist,no odor,no staining.	P4-CC20A-0.5-1.0
2							P4-CC20A-2.0-2.5
3		0.0	slightly moist	FILL		fine to coarse SAND,some ash,trace gravel,trace coal,(10YR 4/2) dark grayish brown,loose,slightly moist,no odor,no staining.	P4-CC20A-4.0-4.5
4							
5	5	0.0	slightly moist	FILL		fine to medium SAND,trace gravel,trace ash,(2.5YR 2.5/2) very dusky red,medium dense,slightly moist,no odor,no staining.	P4-CC20A-6.0-6.5
6		0.0	moist saturated	FILL		fine to medium SAND,some gravel,trace ash,(2.5YR 2.5/2) very dusky red,loose,saturated,no odor,no staining.	P4-CC20A-8.0-8.5
7							
8							
9							
10							

Comments: 1) Three attempts were made to obtain best recovery 2) No COPR or GGM present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60314351.GA.DE.PDI.FOR	Drilling Method: macrocores	Coordinates (NJSPNAD83) x: 611371.09
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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	4	0.0		ASPHALT		Asphalt, gravel sub-base and concrete.	
			dry	FILL		fine to medium SAND, little ash, trace glass, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	
				NR		NO RECOVERY	
5-7	5	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.	P4-HSN-AA17A-9.0-9.5
			wet	FILL		Ash, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining, light sheen, water at 7.0 feet bgs.	
10-12	5	2.0	wet	FILL		Ash, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining, light sheen.	P4-HSN-AA17A-12.0-12.5
			dry	FILL		sandy SILT, trace wood, (7.5YR 4/2) brown, soft, dry, no odor, no staining.	
			wet	FILL		silty SAND, trace brick and concrete, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	
15-20	5	0.0	wet	FILL		silty SAND, trace brick and concrete, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	P4-HSN-AA17A-15.0-15.5
			slightly moist	OL		Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, medium stiff, slightly moist, slight organic odor, no staining. Soils consistent with UNDorg.	P4-HSN-AA17A-15.5-16.0
			dry	PT		PEAT, 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, no odor, no staining. Soils consistent with MM.	
			moist	OL		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.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNdno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60314351.GA.DE.PDI.FOR	Drilling Method: macrocore	Coordinates (NJSPNAD83) x: 611353.59
Date Started Drilling: 5/5/2016 9:50:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682814.29
Date Finished Drilling: 5/5/2016 10:30:00 AM	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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4	0.0	dry	FILL		Asphalt, (5Y 2.5/1) black, dry, no odor, no staining.	
2			dry	FILL		fine to coarse SAND, some ash, brick and concrete, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	
3			dry to moist	FILL		fine to coarse SAND, little gravel, glass and ash, (5YR 4/3) reddish brown, medium dense, dry to moist, no odor, no staining.	
4				NR		NO RECOVERY	P4-HSN-AA18A-3.5-4.0
5	5	0.0	moist to wet	FILL		fine SAND, some wood, (5YR 4/3) reddish brown, medium dense, moist to wet, no odor, no staining, water at 5.7 feet bgs.	P4-HSN-AA18A-5.5-6.0
6			wet	FILL		Cinders, some silt, little ceramics, little wood, (5Y 2.5/1) black, loose, wet, no odor, no staining.	P4-HSN-AA18A-7.5-8.0
7						Ash, little wood, trace glass, (5YR 4/1) dark gray, loose, wet, no odor, no staining.	
8							
9	4	0.0	wet	FILL		Ash, little wood, trace glass, (5YR 4/1) dark gray, loose, wet, no odor, no staining.	P4-HSN-AA18A-9.5-10.0
10			wet	FILL		Silt, (7.5YR 4/2) brown, soft, wet, no odor, no staining, sheen.	P4-HSN-AA18A-12.5-13.0
11							
12							
13	5	0.0	wet	FILL		silty SAND, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	P4-HSN-AA18A-15.0-15.5
14				NR		NO RECOVERY	
15			dry	PT		Silt, some organics, trace fine sand, ash and fill debris, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining.	P4-HSN-AA18A-15.5-16.0
16			dry	OL		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 with MM.	P4-HSN-AA18A-16.0-16.5
17						Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, medium stiff, dry, slight organic odor, no staining. Soils consistent with UNDorg.	
18			dry	PT		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 with MM.	
19			moist	OL		Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, medium stiff, moist, slight organic odor, no staining. Soils consistent with UNDorg.	
20							

Notes:

bgs - below surface grade
MM - meadow mat

COPR - chromite ore processing residue
GGM - green grey mud

UNDno - non-organic undisturbed native deposits
UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant
CCPW - chromium 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.













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
Logged By: Eric Stone	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: Actual - HSN PDI		Surface Elevation: 11.5 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base.	
1	5		dry	FILL		Ash, little fine to medium sand, trace coal and ceramics, (2.5Y 5/1) gray, loose, dry to slightly moist, no odor, no staining.	P4-HSN-CC12A-0.7-1.2
2							
3							P4-HSN-CC12A-2.5-3.0
4							P4-HSN-CC12A-4.5-5.0
5	4	0.0	moist to wet	FILL		Ash, little fine to medium sand, trace wood, (2.5Y 5/1) gray, loose, moist to wet, no odor, no staining, water at 6.0 feet bgs.	
6			wet	FILL		fine to medium SAND, trace ash, (2.5Y 6/4) light yellowish brown, medium dense, wet, no odor, no staining.	P4-HSN-CC12A-6.5-7.0
7			wet	FILL		Ash, little wood, (2.5Y 6/3) light yellowish brown, loose, wet, no odor, no staining.	
8			wet	FILL		Cinders, some to little wood, trace ash, (5Y 2.5/1) black, loose, wet, no odor, no staining.	
9				NR		NO RECOVERY	P4-HSN-CC12A-8.5-9.0
10	5	1.2	wet	FILL		fine to medium SAND, some cinders, little wood and medium gravel, trace glass, (5Y 2.5/1) black, loose, wet, no odor, no staining.	P4-HSN-CC12A-10.5-11.0
11			wet	FILL		Ash, little wood, (2.5Y 5/1) gray, loose, wet, no odor, no staining.	
12			wet	FILL		fine to medium SAND, little organic fibers, trace wood, (5Y 5/1) gray, medium dense, wet, no odor, no staining.	P4-HSN-CC12A-12.5-13.0
13			wet	FILL		silty SAND, little fine gravel, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining.	
14	5	2.0					P4-HSN-CC12A-14.5-15.0
15			wet	FILL		silty SAND, little fine gravel, trace ash, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	P4-HSN-CC12A-15.0-15.5
16			dry	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	P4-HSN-CC12A-15.5-16.0
17							
18							
19			moist	SM		silty SAND, little organics, (2.5Y 5/2) grayish brown, medium dense, moist, no odor, no staining. Soils consistent with UNDorg.	
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits 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.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60314351.GA.DE.PDI.FOR	Drilling Method: Macrocore	Coordinates (NJSPNAD83) x: 611476.78
Date Started Drilling: 5/4/2016 8:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682929.62
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 Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	3.5	0.0	dry	ASPHALT FILL		Asphalt	
2			dry	FILL		fine to coarse SAND, little gravel, trace (5%) COPR, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	
3			moist	FILL		Ash, (2.5Y 5/1) gray, dry, no odor, minor black staining.	
4				NR		fine to medium silty SAND, little ash, trace glass, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	
5	3.5	0.0				NO RECOVERY	
6			moist to wet	FILL		Ash, some silty sand, trace coal fragments, (2.5Y 5/1) gray, loose, moist to wet, no odor, no staining, water at 6.5 feet bgs.	
7			saturated	FILL		Ash and fine SAND, (2.5Y 5/1) gray, saturated, no odor, no staining.	
8	4	0.0		NR		NO RECOVERY	
9							
10			wet	FILL		Ash, (2.5Y 5/1) gray, loose, wet, no odor, no staining.	
11			wet	FILL		silty SAND, trace ash, (2.5Y 2.5/1) black, soft, wet, no odor, no staining.	
12	5	0.0	wet	FILL		silty SAND, some gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	
13				NR		NO RECOVERY	
14							
15			wet	FILL		Ash, (2.5Y 5/1) gray, loose, wet, no odor, no staining.	P4-HSN-CC13A-15.5-16.0
16			wet	FILL		SILT, little ash, trace fine sand, (7.5YR 4/2) brown, soft, wet, no odor, no staining.	P4-HSN-CC13A-16.0-16.5
17	5	0.0	dry	PT		PEAT, 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	
18							
19							
20			moist	OL		Organic SILT, 80% organic silt, 20% organic fibers, (2.5Y 5/2) grayish brown, soft, moist, no odor, no staining. Soils consistent with UNDorg.	

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDo - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDo - organic undisturbed native deposits CCPW - chromate chemical production waste

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

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60314351.GA.DE.PDI.FOR	Drilling Method: Macrocore	Coordinates (NJSPNAD83) x: 611564.84
Date Started Drilling: 5/3/2016 9:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683013.2
Date Finished Drilling: 5/3/2016 10:30:00 AM	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: 12.6 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base.	
1	4.5		dry	FILL		fine to coarse SAND, little COPR (10%) and medium gravel, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	P4-HSN-DD9A-1.0-1.5
2			dry	FILL		fine to medium SAND, some ash, little fine gravel, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	P4-HSN-DD9A-2.0-2.5
3			dry	FILL		Ash, little coal fragments, (9.5/N) white, loose, dry, no odor, no staining.	
4			moist	FILL		fine SAND, some wood, little coal fragments, (7.5YR 2.5/2) very dark brown, medium dense, moist, no odor, no staining.	P4-HSN-DD9A-4.0-4.5
5				NR		NO RECOVERY	
6	4.5	0.0	slightly moist	FILL		fine to medium SAND, some to little ash, (7.5YR 4/2) brown, medium dense, slightly moist, no odor, no staining.	P4-HSN-DD9A-6.0-6.5
7			slightly moist	FILL		Ash, trace ceramics, (2.5Y 5/1) gray, loose, slightly moist to wet, no odor, no staining, water at 7.5 feet bgs.	
8			saturated	FILL		Ash, little cinders and fine gravel, (7.5YR 4/1) dark gray, loose, saturated, no odor, hydrocarbon staining, sheen 8.0-8.5 ft bgs.	P4-HSN-DD9A-8.0-8.5
9				NR		NO RECOVERY	
10	5	0.0	wet	FILL		Ash, some silty sand, little wood, (2.5Y 5/1) gray, medium dense, wet, no odor, no staining.	P4-HSN-DD9A-10.0-10.5
11							
12			saturated	FILL		sandy SILT, trace ash, (7.5YR 4/1) dark gray, very soft, saturated, no odor, no staining.	P4-HSN-DD9A-12.0-12.5
13			saturated	FILL		sandy SILT, (7.5YR 4/2) brown, very soft, saturated, no odor, no staining.	
14							P4-HSN-DD9A-14.0-14.5
15	5	0.0	saturated	FILL		sandy SILT, (7.5YR 4/2) brown, non plastic very soft, saturated, no odor, no staining.	P4-HSN-DD9A-15.5-16.0
16		2.0	dry	PT		PEAT, 80% organic fibers, 20% organic silt, (5YR 3/2) dark reddish brown, stiff, dry, slight organic odor, no staining. Soils consistent with MM.	P4-HSN-DD9A-16.0-16.5
17							
18							
19		0.0	wet	SM		fine to coarse SAND, some silt, little organics, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDorg.	
20							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDo - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNOrg - organic undisturbed native deposits CCPW - chromate chemical production waste










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

PPG - 2012-09 RA PPG LOGS A.GDT - 10/4/16 09:25

LOG OF SOIL BORING SB-26

AECOM Note: Ground Surface Elevation = 14.80 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey			GROUND ELEVATION (FT. MSL) 16.07		PROJECT NUMBER 020667601	
DRILLING CONTRACTOR Advanced Drilling, Inc.		FOREMAN R. Empson	DATE STARTED 04/15/04		DATE COMPLETED 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'	
TYPE BIT N/A		SIZE AND TYPE CORE BARREL	NO. SAMPLES 35	DIST. 35	UNDIST. 0	CORE 0
CASING Augers to 48", then double casing		N/A	WATER DEPTH FIRST 9.0'	COMPL. N/A	24HR N/A	N/A
CASING HAMMER	WEIGHT N/A	DROP N/A	BORING LOCATION			
SAMPLER 2" diameter 2' split-spoon			Eastern border of parking lot, north of Halstead building.			
SAMPLER HAMMER	WEIGHT 140 lbs.	DROP 30"	INSPECTOR E. Gaulin			

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
0.0'-2.0' FILL: Fine to medium SILTY SAND (SM), some brick fragments, trace clinker material (CM), occasional coal fragments. Slightly moist.		0 -										Boring through grass.	
		- -	1	2.0	5	13:23	0.0	0.0	13:23	n/a	n/a		
		- 1 -			10		0.0						
		- -			11		0.0						
2.0-2.3' FILL: crushed concrete		2 -										Fuel oil odors	
		- -	2	1.0	9	13:25	0.0	0.0	13:25	n/a	n/a		
2.3-3.0' FILL: Soil, coal fragments, trace CM		- 3 -											
		- -			11		0.0						
4.0-4.5' FILL: Soil, trace crushed concrete, trace CM		- 4 -										Fuel oil odors	
		- -			6								
		- 5 -			8								
		- -			5		8.5						
6.0-14.0' FILL: wood, coal and ceramic fragments, some gravel		- 6 -										Heavy odors, dye test positive	
		- -			4	13:39	70.0	0.0	13:39	n/a	n/a		
		- 7 -			3		115.0						
		- -			4		70.0						
Trace fine to medium sand		- 8 -										13:40 Collected sample SB-26 (9.0-9.5) for TCL VOC, TCL SVOC, TAL Metals, CN and GC fingerprint analysis.	
		- -			5	13:40	50.0	0.0	13:40	n/a	n/a		
		- 9 -			5		68.0						
		- -			3								
		- 10 -										Fuel oil odors and staining.	
		- -			1	13:51	78.0	0.0	13:51	n/a	n/a		
		- 11 -			1		12.0						
		- -			1		13.0						
		- 12 -										Fuel oil odors and staining.	
		- -			1	13:55	30.0	0.0	13:55	n/a	n/a		
		- 13 -			2		12.0						
		- -			2								
		- 14 -											

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

PROJECT LOCATION Halladay Street, Jersey City, New Jersey				GROUND ELEVATION (FT. MSL) 16.07				PROJECT NUMBER 020667601																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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CASING Augers to 48', then double casing				N/A				WATER DEPTH		FIRST 9.0'		COMPL. N/A		24HR N/A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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14.0-16.3' FILL: wood, coal and ceramic fragments, some gravel, trace sand			-	14	-	8	0.5	1	13:59	30.0	0.0	13:59	n/a	n/a																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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LOG OF SOIL BORING SB-26

AECOM Note: Ground Surface Elevation = 14.80 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey				GROUND ELEVATION (FT. MSL) 16.07				PROJECT NUMBER 020667601								
DRILLING CONTRACTOR Advanced Drilling, Inc.				FOREMAN R. Empson				DATE STARTED 04/15/04				DATE COMPLETED 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'				
TYPE BIT N/A				SIZE AND TYPE CORE BARREL N/A				NO. SAMPLES 35		DIST. 35		UNDIST. 0		CORE 0		
CASING Augers to 48', then double casing				N/A				WATER DEPTH FIRST 9.0'		COMPL. N/A		24HR N/A				
CASING HAMMER N/A				WEIGHT N/A				DROP N/A				BORING LOCATION Eastern border of parking lot, north of Halstead building.				
SAMPLER 2" diameter 2' split-spoon								INSPECTOR E. Gaulin								
SAMPLER HAMMER N/A				WEIGHT 140 lbs.				DROP 30"								
DESCRIPTION				Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
							Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
28.0-29.0' Reddish brown (2.5YR 4/4) SILTY FINE SAND (SM), loose				-	28 -		15	1.5	10	10:02	0.0	0.0	10:02	n/a	n/a	Slight unidentifiable odor.
29.0-31.0' Reddish brown (2.5YR 4/4) FINE SANDY SILT (ML), little clay, trace (<2%) coarse sand, tight.				-	29 -				12		0.0					
31.0-32.3' Reddish brown (2.5YR 4/4) thinly laminated SILTY CLAY and CLAYEY SILT (CL)				-	30 -		16	2.0	11	10:31	0.0	0.0	10:31	n/a	n/a	No odors, staining.
32.3-34.5' Reddish brown (2.5YR 4/4) FINE SANDY SILT (ML)				-	31 -				10		0.0					
34.5-39.0' Reddish brown (2.5YR 4/4) laminated FINE SANDY SILT and SILTY CLAY (CL), firm				-	32 -		17	1.5	13	10:37	0.0	0.0	10:37	n/a	n/a	
39.0-42.0' Reddish brown (2.5YR 4/4) SILT (ML) and SILTY CLAY (CL), laminated				-	33 -				13		0.0					
Becoming more silt and silty clay in this spoon.				-	34 -		18	2.0	9	10:43	0.0	0.0	10:43	n/a	n/a	10:45 Collected sample SB-26 (35.5 -36.0) for TCL VOC, TCL SVOC, TAL Metals, CN
39.0-42.0' Reddish brown (2.5YR 4/4) SILT (ML) and SILTY CLAY (CL), laminated				-	35 -				20							
Becoming more silt and silty clay in this spoon.				-	36 -		19	2.0	9	10:55	0.0	0.0	10:55	n/a	n/a	
39.0-42.0' Reddish brown (2.5YR 4/4) SILT (ML) and SILTY CLAY (CL), laminated				-	37 -				10		0.0					
Becoming more silt and silty clay in this spoon.				-	38 -		20	2.0	10	11:02	0.0	0.0	11:02	n/a	n/a	Firm
39.0-42.0' Reddish brown (2.5YR 4/4) SILT (ML) and SILTY CLAY (CL), laminated				-	39 -				12		0.0					
Becoming more silt and silty clay in this spoon.				-	40 -		21	2.0	10	11:15	0.0	0.0	11:15	n/a	n/a	
39.0-42.0' Reddish brown (2.5YR 4/4) SILT (ML) and SILTY CLAY (CL), laminated				-	41 -				11		0.0					
Becoming more silt and silty clay in this spoon.				-	42 -				12		0.0					

LOG OF SOIL BORING SB-26

AECOM Note: Ground Surface Elevation = 14.80 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey			GROUND ELEVATION (FT. MSL) 16.07			PROJECT NUMBER 020667601								
DRILLING CONTRACTOR Advanced Drilling, Inc.		FOREMAN R. Empson		DATE STARTED 04/15/04		DATE COMPLETED 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'								
TYPE BIT N/A		SIZE AND TYPE CORE BARREL N/A		NO. SAMPLES	DIST. 35	UNDIST. 0	CORE 0							
CASING Augers to 48', then double casing		N/A		WATER DEPTH FIRST 9.0'		COMPL. N/A	24HR N/A							
CASING HAMMER	WEIGHT N/A	DROP N/A		BORING LOCATION Eastern border of parking lot, north of Halstead building.										
SAMPLER 2" diameter 2' split-spoon				INSPECTOR E. Gaulin										
SAMPLER HAMMER	WEIGHT 140 lbs.	DROP 30"												
DESCRIPTION		Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
					Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
42.0-44.0' Reddish brown (2.5YR 4/4) SILT (ML) and SILTY CLAY (CL), laminated		-	42 -		22	2.0	12	11:21	0.0	0.0	11:21	n/a	n/a	No odors, staining.
Becoming a mix of silt, fine sand, trace clay, little (10%) subangular to subrounded gravel (0.25"-0.5" in diameter)		-	44 -		23	0.5	17	11:40	0.0	0.0	11:40	n/a	n/a	Till. Gravel is gray siltstone, red siltstone, argillite.
44.0-46.5 TILL: Reddish brown (2.5YR 4/4) SILTY SAND (SM), trace clay and subangular to subrounded siltstone and argillite fragments (0.25"-0.5" diameter)		-	45 -						0.0					
		-	46 -		24	0.5	100/2"	11:42	0.0	0.0	11:42	n/a	n/a	
48.0-49.5' Boulder. No spoon collected.		-	48 -		25	0.0						n/a	n/a	Boulder at approximately 48'. Could not auger through, switched to mud rotary. Possibly granite based on fragments observed in the drilling mud.
50.0-53.5' Reddish brown FINE SAND and SILTY FINE SAND (SM), very firm		-	50 -		26	1.5	18	14:30	0.0	0.0	14:30	n/a	n/a	Slight odor, natural organic.
		-	51 -											
52.0-54.0' Reddish brown (2.5YR 4/4) SILTY SAND and SANDY SILT (SM), very firm		-	52 -		27	1.5	10	14:35	0.0	0.0	14:35	n/a	n/a	
		-	53 -											
54.0-56.0' Reddish brown (2.5YR 4/4) SILTY SAND and SANDY SILT (SM), very firm		-	54 -		28	1.0	21	14:51	0.0	0.0	14:51	n/a	n/a	
		-	55 -											
		-	56 -											

LOG OF SOIL BORING SB-26

AECOM Note: Ground Surface Elevation = 14.80 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey				GROUND ELEVATION (FT. MSL) 16.07				PROJECT NUMBER 020667601							
DRILLING CONTRACTOR Advanced Drilling, Inc.				FOREMAN R. Empson				DATE STARTED 04/15/04				DATE COMPLETED 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'			
TYPE BIT N/A				SIZE AND TYPE CORE BARREL				NO. SAMPLES		DIST. 35		UNDIST. 0		CORE 0	
CASING Augers to 48', then double casing				N/A				WATER DEPTH		FIRST 9.0'		COMPL. N/A		24HR N/A	
CASING HAMMER				WEIGHT N/A				DROP N/A				BORING LOCATION			
SAMPLER 2" diameter 2' split-spoon								Eastern border of parking lot, north of Halstead building.							
SAMPLER HAMMER				WEIGHT 140 lbs.				DROP 30"				INSPECTOR E. Gaulin			
DESCRIPTION			Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
						Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
56.0-59.0' Reddish brown (2.5YR 4/4) SILTY SAND and SANDY SILT (SM), very firm			-	56	-	29	1.5	39	15:10	0.0	0.0	15:10	n/a	n/a	15:10 Collected sample SB-26 (56.5 -57.0) for TCL VOC, TCL SVOC, TAL Metal, CN
60.0-61.0' Reddish brown SILTY CLAY and CLAYEY SILT (CL), laminated			-	57	-	30	1.0	33	15:24	0.0	0.0	15:24	n/a	n/a	Slight odor
62.0-68.3' TILL: GRAVEL (GW). 20% fine subrounded gravel (argillite, grayish siltstone, some reddish brown siltstone), some silty sand, trace clay, tight.			-	58	-	31	1.0	42	15:41	0.0	0.0	15:41	n/a	n/a	61-62' Boulder of some type, slow drilling.
Becoming coarser with depth			-	59	-	32	0.5	100/5"	9:20	0.0	0.0	9:20	n/a	n/a	Start drilling 4/16/2004
			-	60	-	33	0.3	100/5"	9:29	0.0	0.0	9:29	n/a	n/a	Till
			-	61	-	34	0.3	100/4"	10:02	0.0	0.0	10:02	n/a	n/a	
			-	62	-	35	0.3	100/2"	10:21	0.0	0.0	10:21	n/a	n/a	Decided to drill deeper because of poor recovery.
			-	63	-										
			-	64	-										
			-	65	-										
			-	66	-										
			-	67	-										
			-	68	-										
			-	69	-										
			-	70	-										

AECOM Note: Ground Surface Elevation = 14.80 ft NAVD88

N:\project\2002\0206676\01\5-Reports\2007-11 RIR\Appendices\Appendix D - Boring Logs\IDS#1 - Boring Logs SB23-SB26.xls\SB-26 (6 of 6) Printed: 11/29/2007 14:16

LOG OF SOIL BORING SB-30
AECOM Note: Ground Surface Elevation = 11.1 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER 020667601	
DRILLING CONTRACTOR Advanced Drilling, Inc.		FOREMAN Jeremy Logel	DATE STARTED 04/26/05		DATE COMPLETED 04/27/05	
DRILLING EQUIPMENT Hollow Stem Auger Rig, 4.25" Augers to 44'; mud rotary with 3 7/8" roller bit to 78'			COMPLETION DEPTH (FT BGS) 78'		ROCK DEPTH (FT) not encountered	
TYPE BIT N/A		SIZE AND TYPE CORE BARREL	NO. SAMPLES	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 LOCATION			
SAMPLER 2" diameter, 2' long split-spoon			East of Halstead Building, Alleyway (Former Railroad ROW)			
SAMPLER HAMMER	WEIGHT 140 lbs.	DROP 30"	INSPECTOR Eric Gaulin			

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
0.0-1.3' FILL: black brown fine to medium SAND, trace SILT concrete fragments, wood, clinker, roots		0											Boring advanced through gravel
		-	1	1.3	7	0947	0.0	0.0	0947	N/A	N/A		
		-			21		0.0						
		- 1 -			8		0.0						
2.0-4.0' No recovery		-			9								
		- 2 -	2	0.0	8	0948	N/A	N/A	0948	N/A	N/A		
		-			9								
		- 3 -			9								
4.0-4.5' FILL: Brown fine to medium SAND, some silt, trace gravel		-			10								
		- 4 -	3	0.5	6	0952	0.0	0.0	0952	N/A	N/A		
		-			5								
		- 5 -			4								
6.0-8.0' No recovery		-			3								
		- 6 -	4	0.0	3	0954	N/A	N/A	0954	N/A	N/A		
		-			3								
		- 7 -			2								
8.0-8.5' FILL: Dark brown to black fine to medium SAND, some silt, trace gravel, pieces of glass and ceramic		-	▽			3							
		- 8 -	5	0.5	7	0956	N/A	N/A	0956	N/A	N/A		
		-			3								
		- 9 -			2								
		-			2								
		- 10 -											

LOG OF SOIL BORING SB-30

AECOM Note: Ground Surface Elevation = 11.1 ft NAVD88

PROJECT LOCATION			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER	
Halladay Street, Jersey City, New Jersey					020667601	
DRILLING CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED	
Advanced Drilling, Inc.		Jeremy Logel	04/26/05		04/27/05	
DRILLING EQUIPMENT			COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)	
Hollow Stem Auger Rig, 4.25" Augers to 44'; mud rotary with 3 7/8" roller bit to 78'			78'		not encountered	
TYPE BIT N/A		SIZE AND TYPE CORE BARREL	NO. SAMPLES	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 LOCATION			
SAMPLER 2" diameter, 2' long split-spoon			East of Halstead Building, Alleyway (Former Railroad ROW)			
SAMPLER HAMMER	WEIGHT 140 lbs.	DROP 30"	INSPECTOR Eric Gaulin			

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
10.0-14.0' Hydropunch driven		10										1036 Sample SB-30-W (10-14) for TCL VOC, TCL SVOC, TAL Metals	
		-											
		-											
		11											
14.0-17.0' Brown fibrous PEAT (PT)		-											
		-											
		-											
		-											
		-											
		-											
		-											
		-											
		-											
		-											
		-											
		-											
		-											
18.0-18.25' Grey (2.5Y4/1) fine SAND, some SILT (SP)		14		6	1.0	1	1050	0.0	0.0	1050	N/A	N/A	
		-											
		-											
		-											
18.25-18.75' Grey (GLEY1 5/5 6Y) fine SAND, SANDY SILT (SM)		15				2		0.0					
		-											
		-											
		-											
18.75-19.0' Grey (2.5Y4/1) fine SAND, some SILT (SP)		16				2							
		-											
		-											
		-											
		17				2							
		-											
		-											
		-											
		18				2	1100	0.0	0.0	1100	N/A	N/A	1102 Sample SB-30 (18.0-18.5) for TCL VOC, TCL SVOC, TAL Metals, total and amendable CN
		-											
		-											
		-											
		19				3		0.0					
		-											
		-											
		-											
		20				4							
		-											
		-											
		-											
		20				6							
		-											
		-											
		-											

LOG OF SOIL BORING SB-30

AECOM Note: Ground Surface Elevation = 11.1 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER 020667601	
DRILLING CONTRACTOR Advanced Drilling, Inc.		FOREMAN Jeremy Logel	DATE STARTED 04/26/05		DATE COMPLETED 04/27/05	
DRILLING EQUIPMENT Hollow Stem Auger Rig, 4.25" Augers to 44'; mud rotary with 3 7/8" roller bit to 78'			COMPLETION DEPTH (FT BGS) 78'		ROCK DEPTH (FT) not encountered	
TYPE BIT N/A		SIZE AND TYPE CORE BARREL N/A	NO. SAMPLES 29	DIST. 29	UNDIST. N/A	CORE N/A
CASING N/A		N/A	WATER DEPTH FIRST 7.5	COMPL. N/A	24HR N/A	N/A
CASING HAMMER	WEIGHT N/A	DROP N/A	BORING LOCATION East of Halstead Building, Alleyway (Former Railroad ROW)			
SAMPLER 2" diameter, 2' long split-spoon						
SAMPLER HAMMER	WEIGHT 140 lbs.	DROP 30"	INSPECTOR Eric Gaulin			

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
20.0-22.75' Grey (2.5Y4/1) fine to medium SAND, trace SILT (SW)		20		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
		-			8		0.0						
		21			6		0.0						
		-			7		0.0						
22.75-23.25' Grey (2.5Y4/1) fine to medium SAND, some SILT (SW)		22		10	2.0	5	1108	0.0			N/A	N/A	Faint naphthalene odors, no staining or sheen up to 23.5'
		-			6		0.0						
		23			8		0.0						
		-			7		0.0						
23.25-23.5' Grey (2.5Y4/1) SANDY SILT (SM)													
23.5-24.0' Reddish brown (5YR4/4) SILTY SAND (SM)													
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 1123 Sample SB-30 (25.0-25.5) for TCL VOC, TCL SVOC, TAL Metals
		-			6		0.0						
		25			6		0.0						
		-			5								
		26		12	1.9	5	1132	0.0			N/A	N/A	Faint naphthalene odors, no staining or sheen
		-			8		0.0						
		27			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 lack of sample
		-			6								
		29			5								
		-			5								
		30											

LOG OF SOIL BORING SB-30

AECOM Note: Ground Surface Elevation = 11.1 ft NAVD88

PROJECT LOCATION			GROUND ELEVATION (FT. MSL)			PROJECT NUMBER							
Halladay Street, Jersey City, New Jersey						020667601							
DRILLING CONTRACTOR		FOREMAN		DATE STARTED			DATE COMPLETED						
Advanced Drilling, Inc.		Jeremy Logel		04/26/05			04/27/05						
DRILLING EQUIPMENT				COMPLETION DEPTH (FT BGS)			ROCK DEPTH (FT)						
Hollow Stem Auger Rig, 4.25" Augers to 44'; mud rotary with 3 7/8" roller bit to 78'				78'			not encountered						
TYPE BIT		N/A		SIZE AND TYPE CORE BARREL		NO. SAMPLES	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 LOCATION			
SAMPLER						2" diameter, 2' long split-spoon		East of Halstead Building, Alleyway (Former Railroad ROW)					
SAMPLER HAMMER		WEIGHT		140 lbs.		DROP		30"		INSPECTOR			Eric Gaulin

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	(PPM)					
								Sample	Ambient Air	Time	Head Space	Time Date	
28.0-32.0' Hydropunch driven		- 30 -			4								
		- - -			6								
		- 31 -			5								
		- - -			4								
32.0-35.3' Reddish brown (5YR4/4) SILTY SAND (SM) with 5% sub-rounded gravel		- 32 -		13	1.8	3	1324	0.0	0.0	1324	N/A	N/A	Strong naphthalene odors, no staining or sheen
		- - -			4		2.2						
		- 33 -			3		2.3						
		- - -			3		0.0						
35.3-47.0' Reddish brown (5YR4/4) silty FINE SAND (SM)		- 34 -		14	1.5	3	1334	0.0	0.0	1334	N/A	N/A	Strong odors
		- - -			4		0.0						
		- 35 -			3		0.0						
		- - -			5								
		- 36 -		15	0.2	5	1337	0.0	0.0	1337	N/A	N/A	Less odors
		- - -			7								
		- 37 -			6								
		- - -			8								
		- 38 -		16	1.75	6	1356	0.0	0.0	1356	N/A	N/A	Slight but noticeable naphthalene-like odors
		- - -			7		0.0						
		- 39 -			9		0.0						
		- - -			10		0.0						
		- 40 -											

LOG OF SOIL BORING SB-30

AECOM Note: Ground Surface Elevation = 11.1 ft NAVD88

PROJECT LOCATION			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER	
Halladay Street, Jersey City, New Jersey					020667601	
DRILLING CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED	
Advanced Drilling, Inc.		Jeremy Logel	04/26/05		04/27/05	
DRILLING EQUIPMENT			COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)	
Hollow Stem Auger Rig, 4.25" Augers to 44'; mud rotary with 3 7/8" roller bit to 78'			78'		not encountered	
TYPE BIT N/A		SIZE AND TYPE CORE BARREL	NO. SAMPLES	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 LOCATION			
SAMPLER 2" diameter, 2' long split-spoon			East of Halstead Building, Alleyway (Former Railroad ROW)			
SAMPLER HAMMER	WEIGHT 140 lbs.	DROP 30"	INSPECTOR Eric Gaulin			

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
35.3-47.0' Reddish brown (5YR4/4) silty FINE SAND (SM)		- 40 -		17	2.0	6	1404	0.0	0.0	1404	N/A	N/A	No odors
		- -			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	Switched to mud-rotary
		- -			7								
		- 43 -			7								
		- -			8								
		- 44 -		19	1.0	12	1534	0.0	0.0	1534	N/A	N/A	1545 Sample SB-30(46.75-47.25) for TCL VOC, TCL SVOC, TAL Metals, CN
		- -			13		0.0						
	- 45 -			14									
	- -			16									
47.0-47.25' Reddish brown (5YR4/4) 1/8" bands of SILTY CLAY (CL)		- 46 -		20	1.25	15	1539	0.0	0.0	1539	N/A	N/A	
	- -			17			0.0						
	- 47 -			16			0.0						
	- -			18									
48.0-63.75' Reddish brown (5YR4/4) thinly interlaminated CLAY and SILTY CLAY (CL)		- 48 -		21	1.5	11	1542	0.0	0.0	1542	N/A	N/A	
		- -				12		0.0					
		- 49 -				13		0.0					
		- -				15							
		- 50 -											

LOG OF SOIL BORING SB-30

AECOM Note: Ground Surface Elevation = 11.1 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER 020667601		
DRILLING CONTRACTOR Advanced Drilling, Inc.		FOREMAN Jeremy Logel		DATE STARTED 04/26/05		DATE COMPLETED 04/27/05	
DRILLING EQUIPMENT Hollow Stem Auger Rig, 4.25" Augers to 44'; mud rotary with 3 7/8" roller bit to 78'				COMPLETION DEPTH (FT BGS) 78'		ROCK DEPTH (FT) not encountered	
TYPE BIT N/A		SIZE AND TYPE CORE BARREL N/A		NO. SAMPLES 29	DIST. 29	UNDIST. N/A	CORE N/A
CASING N/A		N/A		WATER DEPTH 7.5	FIRST 7.5	COMPL. N/A	24HR N/A
CASING HAMMER	WEIGHT N/A	DROP N/A		BORING LOCATION East of Halstead Building, Alleyway (Former Railroad ROW)			
SAMPLER 2" diameter, 2' long split-spoon							
SAMPLER HAMMER	WEIGHT 140 lbs.	DROP 30"		INSPECTOR Eric Gaulin			

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	(PPM)					
								Sample	Ambient Air	Time	Head Space	Time Date	
48.0-63.75' Reddish brown (5YR4/4) thinly interlaminated CLAY and SILTY CLAY (CL)	- 50 -			22	2.0	12	1610	0.0	0.0	1610	N/A	N/A	
	- -					14		0.0					
	- 51 -					15		0.0					
	- -					15		0.0					
	- 52 -			23	1.75	16	1618	0.0	0.0	1618	N/A	N/A	
	- -					17		0.0					
	- 53 -					15		0.0					
	- -					16		0.0					
	- 54 -												
	- -												
54.0-58.0' No sample collected	- 55 -												
	- -												
	- 56 -												
	- -												
	- 57 -												
	- -												
	- 58 -			24	2.0	12	1648	0.0	0.0	1648	N/A	N/A	
	- -					13		0.0					
	- 59 -					15		0.0					
	- -					16		0.0					
- 60 -													

LOG OF SOIL BORING SB-30

AECOM Note: Ground Surface Elevation = 11.1 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER 020667601			
DRILLING CONTRACTOR Advanced Drilling, Inc.		FOREMAN Jeremy Logel		DATE STARTED 04/26/05		DATE COMPLETED 04/27/05		
DRILLING EQUIPMENT Hollow Stem Auger Rig, 4.25" Augers to 44'; mud rotary with 3 7/8" roller bit to 78'				COMPLETION DEPTH (FT BGS) 78'		ROCK DEPTH (FT) not encountered		
TYPE BIT N/A		SIZE AND TYPE CORE BARREL N/A		NO. SAMPLES 29	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 LOCATION East of Halstead Building, Alleyway (Former Railroad ROW)				
SAMPLER 2" diameter, 2' long split-spoon								
SAMPLER HAMMER	WEIGHT 140 lbs.	DROP 30"		INSPECTOR Eric Gaulin				

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
48.0-63.75' Reddish brown (5YR4/4) thinly interlaminated CLAY and SILTY CLAY (CL)		- 60 -		25	2.0	19	1648	0.0	0.0	1648	N/A	N/A	
		- -				15		0.0					
		- 61 -				17		0.0					
		- -				18		0.0					
63.75-64.0' Reddish brown (5YR4/4) SILT and SANDY SILT (SM)		- 62 -		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 and amenable CN
		- -				20		0.0					
		- 63 -				23		0.0					
		- -				25		0.0					End on 4/26/05
64.0-66.75' TILL: Reddish brown (5YR4/4) SILT, SAND, SILTY CLAY, gravel, well compacted (GC)		- 64 -		27	1.0	21	0844	0.0	0.0	0844	N/A	N/A	Start on 4/27/05
		- -				23		0.0					
		- 65 -				25							
		- -				26							
66.75-69.0' TILL: Reddish brown (5YR4/4) SILTY SAND, fine gravel well compacted (GC)		- 66 -		28	1.0	24	0854	0.0	0.0	0854	N/A	N/A	
		- -				24		0.0					
		- 67 -				25							
		- -				27							
		- 68 -		29	1.0	28	0905	0.0	0.0	0905	N/A	N/A	
		- -				30		0.0					
		- 69 -				31							
		- -				30							
		- 70 -											

LOG OF SOIL BORING SB-30

AECOM Note: Ground Surface Elevation = 11.1 ft NAVD88

PROJECT LOCATION				GROUND ELEVATION (FT. MSL)		PROJECT NUMBER					
Halladay Street, Jersey City, New Jersey						020667601					
DRILLING CONTRACTOR			FOREMAN		DATE STARTED		DATE COMPLETED				
Advanced Drilling, Inc.			Jeremy Logel		04/26/05		04/27/05				
DRILLING EQUIPMENT					COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)				
Hollow Stem Auger Rig, 4.25" Augers to 44'; mud rotary with 3 7/8" roller bit to 78'					78'		not encountered				
TYPE BIT N/A			SIZE AND TYPE CORE BARREL		NO. SAMPLES	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 LOCATION					
SAMPLER 2" diameter, 2' long split-spoon						East of Halstead Building, Alleyway (Former Railroad ROW)					
SAMPLER HAMMER		WEIGHT 140 lbs.		DROP 30"		INSPECTOR Eric Gaulin					

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
70.0-78.0' No Sample Collected		- 70 -											
		- - -											
		- 71 -											
		- - -											
		- 72 -											
		- - -											
		- 73 -											
		- - -											
		- 74 -											
		- - -											
		- 75 -											
		- - -											
		- 76 -											
		- - -											
		- 77 -											Bedrock encountered at 77' based on drilling rate, screening of mud; black argillite fragments; drilled to 78'
		- - -											
		- 78 -											
End of boring at 78'		- - -											
		- 79 -											
		- - -											
		- 80 -											

LOG OF SOIL BORING SB-31

AECOM Note: Ground Surface Elevation = 14.8 ft NAVD88

PROJECT LOCATION				GROUND ELEVATION (FT. MSL)		PROJECT NUMBER	
Halladay Street, Jersey City, New Jersey						020667601	
DRILLING CONTRACTOR		FOREMAN		DATE STARTED		DATE COMPLETED	
Advanced Drilling, Inc.		Jeremy Logel		04/08/05		04/08/05	
DRILLING EQUIPMENT				COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)	
Hollow Stem Auger Rig, 4.25" Augers				44'		not encountered	
TYPE BIT		N/A		SIZE AND TYPE CORE BARREL		NO. SAMPLES	
						DIST. 20	
CASING		N/A		WATER DEPTH		UNDIST. N/A	
				FIRST 10'		CORE N/A	
CASING HAMMER		WEIGHT N/A		DROP N/A		COMPL. N/A	
						24HR N/A	
SAMPLER				BORING LOCATION			
2" diameter, 2' long split-spoon				North of Halstead Building, Parking Area			
SAMPLER HAMMER		WEIGHT 140 lbs.		DROP 30"		INSPECTOR Eric Gaulin	

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS		
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date			
0.0-4.0' Cleared via hand dig; soil was brown silty sand, trace silt, gravel		- 0 -											Boring through grassy area		
		- -													
		- 1 -													
		- -													
		- 2 -													
		- -													
		- 3 -													
		- -													
		- 4 -													
		- -													
4.0-5.0' FILL: soil, wood fragments, clinker		- 4 -		1	1.0	2	0932	10.0	0.0	0932	N/A	N/A	slight gasoline odors noted, no staining		
		- -				1		10.0							
		- 5 -				1									
		- -				2									
		- 6 -													
6.0-8.5' FILL: soil, wood fragments, clinker, coal fragments, black staining, glass pieces		- 6 -		2	1.0	2	0925	118.0	0.0	0925	N/A	N/A	Heavy gasoline like odors, staining		
		- -				2		228.0							
		- 7 -				2									
		- -				2									
		- 8 -													
		- -				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 VOC, TCL SVOC, TAL Metals
		- -				2									
		- 9 -				2									
		- -				2									
		- 10 -				3									

LOG OF SOIL BORING SB-31

AECOM Note: Ground Surface Elevation = 14.8 ft NAVD88

PROJECT LOCATION			GROUND ELEVATION (FT. MSL)			PROJECT NUMBER		
Halladay Street, Jersey City, New Jersey						020667601		
DRILLING CONTRACTOR		FOREMAN		DATE STARTED		DATE COMPLETED		
Advanced Drilling, Inc.		Jeremy Logel		04/08/05		04/08/05		
DRILLING EQUIPMENT			COMPLETION DEPTH (FT BGS)			ROCK DEPTH (FT)		
Hollow Stem Auger Rig, 4.25" Augers			44'			not encountered		
TYPE BIT		N/A		SIZE AND TYPE CORE BARREL		NO. SAMPLES		DIST.
						20		
UNDIST.		N/A		CORE				N/A
CASING		N/A		WATER DEPTH		FIRST		10'
COMPL.		N/A		24HR				N/A
CASING HAMMER		WEIGHT		N/A		DROP		N/A
BORING LOCATION								
SAMPLER			2" diameter, 2' long split-spoon		North of Halstead Building, Parking Area			
SAMPLER HAMMER		WEIGHT		140 lbs.		DROP		30"
						INSPECTOR		Eric Gaulin

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS					REMARKS	
				Number	Recov. (ft)	Penetr. BL/6in	Time	(PPM)						
								Sample	Ambient Air	Time	Head Space	Time Date		
10.0-13.25' FILL: soil, wood fragments, clinker, coal fragments, glass pieces, trace ash material (AM), clam shell fragment observed at 12'		- 10 -		4	1.0	3	0945	3.2	0.0	0945	N/A	N/A	No staining noted	
		- - -			2		0.0							
		- 11 -			2									
		- - -			2									
		- 12 -		5	2.0	2	0950	0.0	0.0	0950	N/A	N/A		Staining, gasoline like odors from 12.5-13.0; no odors or staining noted in clay / peat
		- - -			5		60.0							
		- 13 -			2		0.0							
		- - -			2		0.0							
13.25-14.0' FILL: consisting of disturbed dark grayish brown (10YR4/2) PEAT and organic CLAY (PT)		- 14 -		6	1.0	2	0955	0.0	0.0	0955	N/A	N/A		
		- - -			2		0.0							
		- 15 -			3									
		- - -			3									
14.0-18.1' FILL: Dark gray (10YR4/1) fine to medium SAND, trace clay and trace silt, 10% fine angular black gravel with some brick and glass fragments from 17.0-17.5 feet		- 16 -		7	1.5	5	0957	0.0	0.0	0957	N/A	N/A		
		- - -			4		0.0							
		- 17 -			5		0.0							
		- - -			6									
18.1-20.25' Very dark gray (7.5YR3/1) PEAT trace organic clay, fibers in peat <1/4" length		- 18 -		8	0.8	5	1011	0.0	0.0	1011	N/A	N/A	1000 Sample SB-31 (16.5-17.0) collected for TCL VOC, TCL SVOC, TAL Metals, Total and amenable CN	
		- - -			5		0.0							
		- 19 -			6									
		- - -			6									
		- 20 -												
		- - -												

LOG OF SOIL BORING SB-31

AECOM Note: Ground Surface Elevation = 14.8 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey				GROUND ELEVATION (FT. MSL)				PROJECT NUMBER 020667601									
DRILLING CONTRACTOR Advanced Drilling, Inc.			FOREMAN Jeremy Logel			DATE STARTED 04/08/05			DATE COMPLETED 04/08/05								
DRILLING EQUIPMENT Hollow Stem Auger Rig, 4.25" Augers					COMPLETION DEPTH (FT BGS) 44'			ROCK DEPTH (FT) not encountered									
TYPE BIT N/A			SIZE AND TYPE CORE BARREL			NO. SAMPLES		DIST. 20		UNDIST. N/A		CORE N/A					
CASING N/A			N/A			WATER DEPTH		FIRST 10'		COMPL. N/A		24HR N/A					
CASING HAMMER		WEIGHT N/A		DROP N/A		BORING LOCATION											
SAMPLER 2" diameter, 2' long split-spoon					North of Halstead Building, Parking Area												
SAMPLER HAMMER		WEIGHT 140 lbs.		DROP 30"		INSPECTOR Eric Gaulin											
DESCRIPTION				Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS					REMARKS	
							Number	Recov. (ft)	Penetr. BL/6in	Time	(PPM)						
											Sample	Ambient Air	Time	Head Space	Time Date		
18.0-20.25' Very dark gray (7.5YR3/1) PEAT trace organic clay, fibers in peat <1/4" length				- 20 -			9	1.25	7	1031	0.0	0.0	1031	N/A	N/A		
20.25-20.75' Dark gray (5YR4/1) fine SILTY SAND, little 1/2" diameter subrounded gravel, trace clay (SP)				- 21 -					14			0.0					
20.75-21.25' Reddish brown (2.5YR5/3) fine to medium SAND, trace silt (SW)				- -					8			0.0					
22.0-24.0' Reddish brown (2.5YR5/3) fine to medium SAND, trace silt, with occasional 1"-2" bands of coarse sand and fine gravel (SW)				- 22 -					8								
				- -			10	2.0	8	1036	0.0	0.0	1036	N/A	N/A		
				- 23 -					12			0.0					1039 Positive dye test at 23.75' - OM staining and naphthalene odors from 23.75-25.25'
				- -					12			0.0					
				- -					11			0.0					
24.0-25.25' Reddish brown (2.5YR5/3) fine to medium SAND, trace silt, with occasional 1"-2" bands of coarse sand and fine gravel (SW), stained with thin brown oil material (OM)				- 24 -			11	2.0	5	1044	7.4	0.0	1044	N/A	N/A		
				- -					7			9.0					
25.25-26.0' Reddish brown (2.5YR5/3) fine SILTY SAND, no staining or OM (SM)				- 25 -					8			0.0					1051 Sample SB-31 (24.5-25.0) for GC Fingerprint, TCL VOC, TCL SVOC, TAL Metals, Total and Amenable CN
				- -					9			0.0					
26.0-27.5' Reddish brown (2.5YR5/3) fine SILTY SAND, occasional 1" band of fine to medium sand, dry and firm (SM)				- 26 -			12	1.5	8	1058	0.0	0.0	1058	N/A	N/A		No odors or staining
				- -					10			0.0					
				- 27 -					11			0.0					1059 Sample SB-31 (27.0-27.5) for TCL VOC, TCL SVOC, TAL Metals, Total and Amenable CN
				- -					12			0.0					
28.0-29.5' Red (2.5YR4/6) fine SILTY SAND, occasional 1" band of silt (SM)				- 28 -			13	1.5	8	1112	0.0	0.0	1112	N/A	N/A		
				- -					9			0.0					
				- 29 -					8			0.0					
				- -					9								
				- 30 -													

LOG OF SOIL BORING SB-31

AECOM Note: Ground Surface Elevation = 14.8 ft NAVD88

PROJECT LOCATION			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER					
Halladay Street, Jersey City, New Jersey					020667601					
DRILLING CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED					
Advanced Drilling, Inc.		Jeremy Logel	04/08/05		04/08/05					
DRILLING EQUIPMENT			COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)					
Hollow Stem Auger Rig, 4.25" Augers			44'		not encountered					
TYPE BIT	N/A	SIZE AND TYPE CORE BARREL	NO. SAMPLES	DIST.	20	UNDIST.	N/A	CORE	N/A	
CASING	N/A	N/A	WATER DEPTH	FIRST	10'	COMPL.	N/A	24HR	N/A	
CASING HAMMER	WEIGHT	N/A	DROP	N/A	BORING LOCATION					
SAMPLER				2" diameter, 2' long split-spoon						
					North of Halstead Building, Parking Area					
SAMPLER HAMMER	WEIGHT	140 lbs.	DROP	30"	INSPECTOR					Eric Gaulin

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time 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	
		- -				12		0.0					
		- 31 -				13		0.0					
		- -				14							
32.0-34.0' Red (2.5YR4/6) fine SILTY SAND, little fine sandy silt, occasional 1/4" lens of silty clay (SM)		- 32 -		15	2.0	10	1131	0.0	0.0	1131	N/A	N/A	
		- -				14		0.0					
		- 33 -				15		0.0					
		- -				16		0.0					
32.0-40.0' Red (2.5YR4/6) fine SILTY SAND, little fine sandy silt (SM)		- 34 -		16	1.5	9	1155	0.0	0.0	1155	N/A	N/A	
		- -				13		0.0					
		- 35 -				14		0.0					
		- -				15							
		- 36 -		17	2.0	12	1151	0.0	0.0	1151	N/A	N/A	
		- -				16		0.0					
		- 37 -				15		0.0					
		- -				17		0.0					
		- 38 -		18	1.5	8	1210	0.0	0.0	1210	N/A	N/A	
		- -				12		0.0					
		- 39 -				10		0.0					
		- -				9							
		- 40 -											

LOG OF SOIL BORING SB-31
AECOM Note: Ground Surface Elevation = 14.8 ft NAVD88





PROJECT LOCATION				GROUND ELEVATION (FT. MSL)		PROJECT NUMBER						
Halladay Street, Jersey City, New Jersey						020667601						
DRILLING CONTRACTOR			FOREMAN		DATE STARTED		DATE COMPLETED					
Advanced Drilling, Inc.			Jeremy Logel		04/08/05		04/08/05					
DRILLING EQUIPMENT					COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)					
Hollow Stem Auger Rig, 4.25" Augers					44'		not encountered					
TYPE BIT		N/A		SIZE AND TYPE CORE BARREL		NO. SAMPLES	DIST.	20	UNDIST.	N/A	CORE	N/A
CASING		N/A		N/A		WATER DEPTH	FIRST	10'	COMPL.	N/A	24HR	N/A
CASING HAMMER		WEIGHT N/A		DROP N/A		BORING LOCATION						
SAMPLER 2" diameter, 2' long split-spoon						North of Halstead Building, Parking Area						
SAMPLER HAMMER		WEIGHT 140 lbs.		DROP 30"		INSPECTOR Eric Gaulin						

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
40.0-42.0' Reddish brown (2.5YR4/3) fine SILTY SAND, little fine sandy silt, occasional silty clay lens (SM)		- 40 -		19	2.0	10	1224	0.0	0.0	1224	N/A	N/A	
		- -				11		0.0					
		- 41 -				11		0.0					
		- -				10		0.0					
42.0-44.0' Reddish brown (2.5YR4/4) interlaminated SILT and SILTY CLAY, layers 1" to 2" thick (CL)		- 42 -		20	2.0	14	1229	0.0	0.0	1229	N/A	N/A	1230 Sample SB-31 (42.0-42.5) for TCL VOC, TCL SVOC, TAL Metals, Total and Amenable CN
		- -				14		0.0					
		- 43 -				15		0.0					
		- -				16		0.0					
End of Boring at 44'		- 44 -											
		- -											
		- 45 -											
		- -											
		- 46 -											
		- -											
		- 47 -											
		- -											
		- 48 -											
		- -											
	- 49 -												
	- -												
	- 50 -												

LOG OF SOIL BORING SB-40

AECOM Note: Ground Surface Elevation = 10.9 ft NAVD88

PROJECT LOCATION			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER	
Halladay Street , Jersey City, NJ			12.12		020667601	
DRILLING CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED	
Advanced Drilling, Inc.		Roger Logel	11/21/06		11/22/06	
DRILLING EQUIPMENT			COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)	
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers			56		not encountered	
TYPE BIT		Hollow-stem auger	SIZE AND TYPE CORE BARREL		NO. SAMPLES	DIST.
					27	UNDIST.
CASING		N/A	N/A		N/A	CORE
					N/A	N/A
CASING HAMMER		WEIGHT	N/A	DROP	N/A	BORING LOCATION: Eastern shoulder of Halladay Street, 30 ft NE from the
SAMPLER		2" diameter, 2' long split-spoon				eastern corner of the Halladay Street / Carteret Avenue intersection.
SAMPLER HAMMER		WEIGHT	140 lbs.	DROP	30"	INSPECTOR
						Eric Gaulin

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
Cleared via hand digging to 4'; boring through asphalt; Fill consisted of brownish red sandy fill with visible red chromate ore processing residue (COPR) pellets		- 0 -											
		- -											
		- 1 -											
		- -											
		- 2 -											
		- -											
		- 3 -											
		- -											
		- 4 -											
		- -											
4.0-6.0 FILL: consisting of reddish brown gravel, clay, black clinker		- 4 -		1	0.9	3	1249	0.0	0.0	1249	N/A	N/A	No odors or other evidence of contamination
		- -											
		- 5 -											
		- -											
		- 6 -											
6.0-8.0 FILL: consisting of clinkers and gravel		- 6 -		2	0.7	3	1252	0.0	0.0	1252	N/A	N/A	No odors or other evidence of contamination
		- -											
		- 7 -											
		- -											
		- 8 -											
8.0-10.0 FILL: consisting of grayish black fine silty sand, some ash, some organic matter		- 8 -		3	0.9	2	1255	0.0	0.0	1255	N/A	N/A	No odors or other evidence of contamination
		- -											
		- 9 -											
		- -											
		- 10 -											

LOG OF SOIL BORING SB-40

AECOM Note: Ground Surface Elevation = 10.9 ft NAVD88

PROJECT LOCATION			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER									
Halladay Street , Jersey City, NJ			12.12		020667601									
DRILLING CONTRACTOR		FOREMAN		DATE STARTED		DATE COMPLETED								
Advanced Drilling, Inc.		Roger Logel		11/21/06		11/22/06								
DRILLING EQUIPMENT				COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)								
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers				56		not encountered								
TYPE BIT		Hollow-stem auger		SIZE AND TYPE CORE BARREL		NO. SAMPLES	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		BORING LOCATION: Eastern shoulder of Halladay Street, 30 ft NE from the eastern corner of the Halladay Street / Carteret Avenue intersection.								
SAMPLER		2" diameter, 2' long split-spoon												
SAMPLER HAMMER		WEIGHT		140 lbs.		DROP		30"					INSPECTOR	Eric Gaulin

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS	
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date		
10.0-10.3 FILL: same as above (SAA), with black staining and oil-like odors		- 10 -		4	1.0	2	1304	0.1	0.0	1304	N/A	N/A	Sample SB-40(10.0-10.5) collected at 1305 for TCL VOC, TCL SVOC, TAL Metals, Total and Amenable CN. Positive dye test from 10.0 to 10.5; tar-like odors	
		- -				1		0.0	0.0					
10.3-14.8 Weak red (2.5YR4/2) fine SILTY SAND (SM)		- 11 -				2								
		- -				2								
		- 12 -		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 brownish PEAT (PT), very fibrous		- -				2		0.1	0.0					
		- 15 -				2								
		- -				2								
		- 16 -		7	1.5	2	1316	10.2	0.0	1316	N/A	N/A	Anaerobic, swampy odors	
16.0-19.3 SAA, becoming higher in dark greenish gray (GLEYS 1 4/1 GY) CLAY (OH) content (50%) at bottom		- -				1		10.5	0.0					
		- 17 -				2		22.3	0.0					
		- -				2								
		- 18 -		8	1.7	1	1320	14.0	0.0	1320	N/A	N/A	Anaerobic, swampy odors	
19.3-20.6 Gray (GLEYS 1 5/N) SILTY CLAY (CL)		- -				2		8.5	0.0					
		- 19 -				1		4.7	0.0					
		- -				2		4.0	0.0					
		- 20 -												

LOG OF SOIL BORING SB-40
AECOM Note: Ground Surface Elevation = 10.9 ft NAVD88

PROJECT LOCATION				GROUND ELEVATION (FT. MSL)		PROJECT NUMBER		
Halladay Street , Jersey City, NJ				12.12		020667601		
DRILLING CONTRACTOR			FOREMAN		DATE STARTED		DATE COMPLETED	
Advanced Drilling, Inc.			Roger Logel		11/21/06		11/22/06	
DRILLING EQUIPMENT					COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)	
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers					56		not encountered	
TYPE BIT Hollow-stem auger			SIZE AND TYPE CORE BARREL		NO. SAMPLES	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 LOCATION: Eastern shoulder of Halladay Street, 30 ft NE from the eastern corner of the Halladay Street / Carteret Avenue intersection.			
SAMPLER 2" diameter, 2' long split-spoon								
SAMPLER HAMMER		WEIGHT 140 lbs.	DROP 30"		INSPECTOR Eric Gaulin			

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
19.3-20.6 Gray (GLEY1 5/N) SILTY CLAY (CL)		- 20 -		9	1.4	2	1331	1.0	0.1	1331	N/A	N/A	Anaerobic, swampy odors
		- -				3		0.8	0.0				
20.6-23.1 Gray (GLEY1 5/N) fine to medium SILTY SAND (SM), trace clay		- 21 -				5		0.1	0.0				
		- -				5							
		- 22 -		10	1.9	5	1334	0.4	0.2	1334	N/A	N/A	Anaerobic, swampy odors
		- -				7		1.0	0.0				
23.1-24.0 fine to medium SAND (SW), 10% angular to subangular gravel		- 23 -				7		1.4	0.0				
		- -				8		0.3	0.0				
		- 24 -		11	2.0	5	1350	2.1	0.0	1350	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product; odors on groundwater
24.0-26.0 Reddish brown (2.5YR4/4) fine to medium SAND (SW), trace coarse sand, trace silt		- -				5		1.0	0.0				
		- 25 -				5		0.4	0.0				
		- -				7		0.4	0.0				
		- 26 -		12	1.5	6	1400	1.3	0.0	1400	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product; odors on groundwater
26.0-26.8 Reddish brown (2.5YR4/4) fine to medium SAND (SW), trace silt		- -				6		4.8	0.0				
26.8-34.4 Reddish brown (2.5YR4/4) fine SILTY 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 staining, no product; odors on groundwater
		- -				4		3.0	0.0				
		- 29 -				4							
		- -				4							
		- 30 -											

LOG OF SOIL BORING SB-40
AECOM Note: Ground Surface Elevation = 10.9 ft NAVD88

PROJECT LOCATION Halladay Street , Jersey City, NJ		GROUND ELEVATION (FT. MSL) 12.12		PROJECT NUMBER 020667601	
DRILLING CONTRACTOR Advanced Drilling, Inc.		FOREMAN Roger Logel		DATE STARTED 11/21/06	
DATE COMPLETED 11/22/06		COMPLETION DEPTH (FT BGS) 56		ROCK DEPTH (FT) not encountered	
DRILLING EQUIPMENT GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers		TYPE BIT Hollow-stem auger		SIZE AND TYPE CORE BARREL N/A	
CASING N/A		NO. SAMPLES 27		DIST. 4.5	
CASING HAMMER N/A		WEIGHT N/A		DROP N/A	
SAMPLER 2" diameter, 2' long split-spoon		BORING LOCATION: Eastern shoulder of Halladay Street, 30 ft NE from the eastern corner of the Halladay Street / Carteret Avenue intersection.		INSPECTOR Eric Gaulin	
SAMPLER HAMMER N/A		WEIGHT 140 lbs.		DROP 30"	

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time 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; sample SB-40(30.5-31.0) collected at 1433 for TCL VOC, TCL SVOC, TAL Metals, Total and Amenable CN
		- -			4		13.1	0.0					
		- 31 -			5		4.5	0.0					
		- -			4		8.0	0.0					
34.4-36.0 Reddish brown (2.5YR4/4) fine SANDY SILT (ML)		- 32 -		15	1.5	3	1450	0.0	0.0	1450	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product; odors on groundwater
		- -			5		0.0	0.0					
		- 33 -			5		0.0	0.0					
		- -			7								
36.0-44.1 Reddish brown (2.5YR4/4) fine SANDY SILT (ML) and fine silty sand		- 34 -		16	1.2	5	1453	0.0	0.0	1453	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product; odors on groundwater
		- -			5		1.4	0.0					
		- 35 -			6		0.0	0.0					
		- -			6								
		- 36 -		17	1.6	5	1455	0.0	0.0	1455	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product; odors on groundwater
		- -			6		0.0	0.0					
		- 37 -			6		0.0	0.0					
		- -			5								
		- 38 -		18	0.9	4	1459	2.1	0.0	1459	N/A	N/A	No odors noted in this spoon
		- -			5		3.1	0.0					
		- 39 -			5								
		- -			6								
		- 40 -											Drilling ended here 11-21-06

LOG OF SOIL BORING SB-40

AFCOM Note: Ground Surface Elevation = 10.9 ft NAVD88

PROJECT LOCATION			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER				
Halladay Street , Jersey City, NJ			12.12		020667601				
DRILLING CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED				
Advanced Drilling, Inc.		Roger Logel	11/21/06		11/22/06				
DRILLING EQUIPMENT			COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)				
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers			56		not encountered				
TYPE BIT	Hollow-stem auger	SIZE AND TYPE CORE BARREL	NO. SAMPLES	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 LOCATION: Eastern shoulder of Halladay Street, 30 ft NE from the eastern corner of the Halladay Street / Carteret Avenue intersection.					
SAMPLER 2" diameter, 2' long split-spoon									
SAMPLER HAMMER		WEIGHT 140 lbs.	DROP 30"	INSPECTOR Eric Gaulin					

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
36.0-44.1 Reddish brown (2.5YR4/4) fine SANDY SILT (ML) and fine silty sand		- 40 -		19	1.5	4	0829	0.0	0.0	0829	N/A	N/A	Drilling resumed here on 11-22-06
		- -				5		0.0	0.0				
		- 41 -				4		4.0	0.0				Black brown oil material (OM) from 41.3 to 44.1; positive dye test at 42.5-43.0
		- -				4							
		- 42 -		20	1.0	3	0835	63	0.0	0835	N/A	N/A	Sample SB-40(42.5-43.0) collected at 850 for TCL SVOC, TCL VOC, TAL Metals, Total and Amenable CN
		- -				4		72	0.0				
		- 43 -				4							
		- -				4							
		- 44 -		21	1.1	2	913	1.2	0.0	913	N/A	N/A	
		- -				2		0.6	0.0				
44.1-47.2 Reddish brown (2.5YR4/4) fine SILTY SAND (SM)		- 45 -				2							
		- -				2							
		- 46 -		22	1.3	2	0918	0.0	0.0	0918	N/A	N/A	Heavy black brown OM sheen and odors from 46.9 to 47.2
		- -				2		0.0	0.0				
		- 47 -				3		0.0	0.0				Sample SB-40(47.0-47.5) collected at 0926 for TCL SVOC, TCL VOC, TAL Metals, Total and Amenable CN
		- -				3							
		- 48 -		23	1.0	3	0930	0.0	0.0	0930	N/A	N/A	No odors this spoon
		- -				3		0.0	0.0				
		- 49 -				3							
		- -				4							
47.2-48.3 Reddish brown (2.5YR4/4) fine SANDY SILT (ML)		- 50 -											
		- -											
		- 48 -											
		- -											
		- 49 -											
		- -											
		- 50 -											
		- -											
		- 51 -											
		- -											
48.3-55.4 Reddish brown (2.5YR4/4) and occasionally thinly interlaminated SILT (ML) and SILT CLAY (CL), with a 1" band of fine sand at 48.5		- 52 -											
		- -											
		- 53 -											
		- -											
		- 54 -											
		- -											
		- 55 -											
		- -											
		- 56 -											
		- -											

LOG OF SOIL BORING SB-40
AECOM Note: Ground Surface Elevation = 10.9 ft NAVD88

PROJECT LOCATION			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER	
Halladay Street , Jersey City, NJ			12.12		020667601	
DRILLING CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED	
Advanced Drilling, Inc.		Roger Logel	11/21/06		11/22/06	
DRILLING EQUIPMENT			COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)	
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers			56		not encountered	
TYPE BIT Hollow-stem auger		SIZE AND TYPE CORE BARREL	NO. SAMPLES	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 LOCATION: Eastern shoulder of Halladay Street, 30 ft NE from the eastern corner of the Halladay Street / Carteret Avenue intersection.		
SAMPLER 2" diameter, 2' long split-spoon						
SAMPLER HAMMER		WEIGHT 140 lbs.	DROP 30"	INSPECTOR Eric Gaulin		

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
48.3-55.4' Reddish brown (2.5YR4/4) and occasionally thinly interlaminated SILT (ML) and SILT CLAY (CL), with a 1" band of fine sand at 48.5		- 50 -											
			25	0.9	4	0951	0.0	0.0	0951	N/A	N/A		
					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) collected at 1020 for TCL SVOC, TCL VOC, TAL Metals, Total and Amenable CN
					4		0.0	0.0					
		- 53 -			4								
					3								
		- 54 -		27	1.4	3	1018	0.0	0.0	1018	N/A	N/A	
					3		0.0	0.0					
		- 55 -			4								
				4									
	- 56 -												
	- 57 -												
	- 58 -												
	- 59 -												
	- 60 -												
End of Boring at 56'													

PSEG SC Former Halladay Street Gas Works Interim Data Submittal No.4						SCHOOR DEPALMA Page 1 of 6											
LOG OF SOIL BORING SB-54																	
PROJECT LOCATION Halladay Street , Jersey City, NJ						GROUND ELEVATION (FT. MSL) 11.40		PROJECT NUMBER 020667601									
DRILLING CONTRACTOR Advanced Drilling, Inc.				FOREMAN Roger Logel		DATE STARTED 11/27/06		DATE COMPLETED 11/28/06									
DRILLING EQUIPMENT GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers						COMPLETION DEPTH (FT BGS) 56		ROCK DEPTH (FT) not encountered									
TYPE BIT Hollow-stem auger				SIZE AND TYPE CORE BARREL N/A		NO. SAMPLES DIST. 26		UNDIST. N/A		CORE N/A							
CASING N/A				N/A		WATER DEPTH FIRST 4.8		COMPL. N/A		24HR N/A							
CASING HAMMER		WEIGHT N/A		DROP N/A		BORING LOCATION: Eastern shoulder of Carteret Avenue, 95 ft SE from the eastern corner of the Halladay Street / Carteret Avenue intersection.											
SAMPLER 2" diameter, 2' long split-spoon				DROP 30"		INSPECTOR Eric Gaulin											
SAMPLER HAMMER				WEIGHT 140 lbs.		DROP 30"											
DESCRIPTION				Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)				REMARKS		
Cleared via hand digging to 4'; boring through asphalt; Fill consisted of brownish yellow (10YR6/8) fine to medium sand				- 0 -	- 0 -	- 0 -	Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	REMARKS	
4.0-4.2 FILL: black fill, silt, wood				- 4 -	- 4 -	- 4 -	1	0.8	1	1455	0.0	0.0	1455	N/A	N/A	No odors or other evidence of contamination	
4.2-6.0 FILL: white gray ash material (AM), clinker				- 5 -	- 5 -	- 5 -	1	0.8	1	1455	0.0	0.0	1455	N/A	N/A	No odors or other evidence of contamination	
6.0-6.9 Black fine SAND with silty clay, highly plastic (SP)				- 6 -	- 6 -	- 6 -	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 organic matter				- 7 -	- 7 -	- 7 -	1	0.7	1	1503	0.0	0.0	1503	N/A	N/A	No odors or other evidence of contamination	
8.4-10.0 Reddish grayish SILTY SANDY CLAY (CL)				- 8 -	- 8 -	- 8 -	3	0.7	1	1503	0.0	0.0	1503	N/A	N/A	No odors or other evidence of contamination	
- 9 -				- 9 -	- 9 -	- 9 -	1	0.7	1	1503	0.0	0.0	1503	N/A	N/A	No odors or other evidence of contamination	
- 10 -				- 10 -	- 10 -	- 10 -	1	0.7	1	1503	0.0	0.0	1503	N/A	N/A	No odors or other evidence of contamination	

PSEG SC Former Halladay Street Gas Works
Interim Data Submittal No.4

SCHOOR DEPALMA
Page 2 of 6

LOG OF SOIL BORING SB-54

PROJECT LOCATION			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER	
Halladay Street , Jersey City, NJ			11.40		020667601	
DRILLING CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED	
Advanced Drilling, Inc.		Roger Logel	11/27/06		11/28/06	
DRILLING EQUIPMENT			COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)	
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers			56		not encountered	
TYPE BIT Hollow-stem auger		SIZE AND TYPE CORE BARREL	NO. SAMPLES	DIST. 26	UNDIST. N/A	CORE N/A
CASING N/A		N/A	WATER DEPTH	FIRST 4.8	COMPL. N/A	24HR N/A
CASING HAMMER		WEIGHT N/A	DROP N/A	BORING LOCATION: Eastern shoulder of Carteret Avenue, 95 ft SE from the eastern corner of the Halladay Street / Carteret Avenue intersection.		
SAMPLER 2" diameter, 2' long split-spoon						
SAMPLER HAMMER		WEIGHT 140 lbs.	DROP 30"	INSPECTOR Eric Gaulin		

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time Date	
10.0-14.0 Reddish grayish SILTY SANDY CLAY (CL), disturbed, trace wood, trace fine gravel		- 10 -		4	1.0	2	1512	0.0	0.0	1512	N/A	N/A	Sample SB-54(10.0-10.5) collected at for TCL VOC, TCL SVOC, TAL Metals, Total and Amenable CN
		- -			2		0.0	0.0					
		- 11 -			2								
		- -			3								
		- 12 -		5	0.7	2	1512	0.0	0.0	1512	N/A	N/A	
		- -			3		0.0	0.0					
		- 13 -			2								
		- -			3								
14.0-20.7 Very dark greenish gray (GLEY1 3/1 10Y), organic CLAY (OH), less than 1% peat fibers		- 14 -		6	2.0	1	1525	3.7	0.0	1525	N/A	N/A	Anaerobic, swampy odors
		- -			1		3.0	0.0					
		- 15 -			1		1.0						
		- -			1		0.0						
		- 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					
		- 18 -		8	2.0	1	1533	8.1	0.0	1533	N/A	N/A	Anaerobic, swampy odors
		- -			1		9.7	0.0					
		- 19 -			1		4.2	0.0					
		- -			1		1.0	0.0					
	- 20 -												

AECOM Note: Ground surface elevation = 10.28 ft NAVD88

PSEG SC Former Halladay Street Gas Works
Interim Data Submittal No.4

SCHOOR DEPALMA

Page 3 of 6

LOG OF SOIL BORING SB-54

PROJECT LOCATION Halladay Street , Jersey City, NJ				GROUND ELEVATION (FT. MSL) 11.40				PROJECT NUMBER 020667601							
DRILLING CONTRACTOR Advanced Drilling, Inc.			FOREMAN Roger Logel		DATE STARTED 11/27/06			DATE COMPLETED 11/28/06							
DRILLING EQUIPMENT GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers					COMPLETION DEPTH (FT BGS) 56			ROCK DEPTH (FT) not encountered							
TYPE BIT Hollow-stem auger			SIZE AND TYPE CORE BARREL N/A		NO. SAMPLES DIST. 26		UNDIST. N/A		CORE N/A						
CASING N/A			N/A		WATER DEPTH FIRST 4.8		COMPL. N/A		24HR N/A						
CASING HAMMER		WEIGHT N/A		DROP N/A		BORING LOCATION: Eastern shoulder of Carteret Avenue, 95 ft SE from the eastern corner of the Halladay Street / Carteret Avenue intersection.									
SAMPLER 2" diameter, 2' long split-spoon															
SAMPLER HAMMER		WEIGHT 140 lbs.		DROP 30"		INSPECTOR Eric Gaulin									
DESCRIPTION			Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS					REMARKS
						Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	(PPM)					
										Sample	Ambient Air	Time	Head Space	Time Date	
14.0-20.7 Very dark greenish gray (GLE Y1 3/1 10Y), organic CLAY (OH), less than 1% peat fibers			-	- 20 -		9	1.7	1	1541	3.3	0.0	1541	N/A	N/A	Anaerobic, swampy odors
20.7-24.8 Light gray fine SILTY SAND, 10% rounded gravel (SP)			-	-											
24.8-26.0 Reddish brown (2.5YR4/4) fine to medium SAND (SW), trace silt			-	-											Drilling ended here 11-27-06
26.0-27.2 Greyish red fine to coarse SAND (SW), trace silt			-	-											Drilling resumed here 11-28-06
27.2-32.6 Dark reddish gray (5YR4/2) fine to medium SAND (SW), trace silt			-	-											Extremely faint naphthalene-like odors, no sheen, no staining, no product
			-	-											Extremely faint naphthalene-like odors, no sheen, no staining, no product
			-	-											
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LOG OF SOIL BORING SB-54

PROJECT LOCATION			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER				
Halladay Street , Jersey City, NJ			11.40		020667601				
DRILLING CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED				
Advanced Drilling, Inc.		Roger Logel	11/27/06		11/28/06				
DRILLING EQUIPMENT			COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)				
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers			56		not encountered				
TYPE BIT	Hollow-stem auger	SIZE AND TYPE CORE BARREL	NO. SAMPLES	DIST.	26	UNDIST.	N/A	CORE	N/A
CASING	N/A	N/A	WATER DEPTH	FIRST	4.8	COMPL.	N/A	24HR	N/A
CASING HAMMER		WEIGHT N/A	DROP N/A	BORING LOCATION: Eastern shoulder of Carteret Avenue, 95 ft SE from the eastern corner of the Halladay Street / Carteret Avenue intersection.					
SAMPLER 2" diameter, 2' long split-spoon									
SAMPLER HAMMER		WEIGHT 140 lbs.	DROP 30"	INSPECTOR Eric Gaulin					

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	(PPM)					
								Sample	Ambient Air	Time	Head Space	Time Date	
27.2-32.6 Dark reddish gray (5YR4/2) fine to medium SAND (SW), trace silt		- 30 -		14	1.0	2	0908	11.8	0.0	0908	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product
		- -				1		20.3	0.0				
		- 31 -				2							
		- -				2							
32.6-32.7 Reddish brown (2.5YR5/4) fine SANDY SILT (ML)		- 32 -		15	1.6	2	0913	4.6	0.0	0913	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product
		- -				3		7.9	0.0				
		- 33 -				2		8.3	0.0				
		- -				2		0.0	0.0				
32.7-36.0 Reddish brown (2.5YR5/4) fine SILTY SAND (SM)		- 34 -		16	0.8	2	0922	3.2	0.0	0922	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product
		- -				2		7.0	0.0				
		- 35 -				2							
		- -				2							
36.0-38.0 Reddish brown (2.5YR5/4) fine SAND (SP), trace silt		- 36 -		17	1.2	2	0924	10.6	0.0	0924	N/A	N/A	Stronger naphthalene-like odors, no sheen, no staining, no product Sample SB-54(36.5-37.0) collected at 0928 for TCL SVOC, TCL VOC, TAL Metals, Total and Amenable CN
		- -				2		21.5	0.0				
		- 37 -				2		8.3	0.0				
		- -				2							
38.0-42.0 Reddish brown (2.5YR5/4) fine SANDY SILT (ML)		- 38 -		18	1.1	2	0933	10.2	0.0	0933	N/A	N/A	Naphthalene-like odors, no sheen, no staining, no product
		- -				1		15.3	0.0				
		- 39 -				2		33.2	0.0				
		- -				2							
		- 40 -											

LOG OF SOIL BORING SB-54

PROJECT LOCATION Halladay Street , Jersey City, NJ				GROUND ELEVATION (FT. MSL) 11.40				PROJECT NUMBER 020667601							
DRILLING CONTRACTOR Advanced Drilling, Inc.			FOREMAN Roger Logel		DATE STARTED 11/27/06			DATE COMPLETED 11/28/06							
DRILLING EQUIPMENT GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers					COMPLETION DEPTH (FT BGS) 56			ROCK DEPTH (FT) not encountered							
TYPE BIT Hollow-stem auger			SIZE AND TYPE CORE BARREL		NO. SAMPLES DIST. 26		UNDIST. N/A		CORE N/A						
CASING N/A			N/A		WATER DEPTH FIRST 4.8		COMPL. N/A		24HR N/A						
CASING HAMMER		WEIGHT N/A		DROP N/A		BORING LOCATION: Eastern shoulder of Carteret Avenue, 95 ft SE from the eastern corner of the Halladay Street / Carteret Avenue intersection.									
SAMPLER 2" diameter, 2' long split-spoon															
SAMPLER HAMMER		WEIGHT 140 lbs.		DROP 30"		INSPECTOR Eric Gaulin									
DESCRIPTION			Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS					REMARKS
						Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	(PPM)					
										Sample	Ambient Air	Time	Head Space	Time Date	
38.0-42.0 Reddish brown (2.5YR5/4) fine SANDY SILT (ML)			-	40 -		19	0.4	2	0955	0.3	0.0	0955	N/A	N/A	Faint naphthalene-like odors, no sheen, no staining, no product
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	Faint naphthalene-like odors, no sheen, no staining, no product
42.6-46.3 Reddish brown (2.5YR5/4) fine SANDY SILT (ML)			-	43 -				2		0.3	0.0				Sample SB-54(42.5-43.0) collected at 1100 for TCL SVOC, TCL VOC, TAL Metals, Total and Amenable CN
			-	44 -		21	1.1	2	1036	0.0	0.0	1036	N/A	N/A	No odors this spoon
46.3-48.0 Reddish brown (2.5YR5/4) SILTY CLAY (CL), trace fine sand			-	45 -				2		0.0	0.0				No odors this spoon
			-	46 -				2		0.0	0.0				
			-	47 -				3		0.0	0.0				
			-	48 -				3		0.0	0.0				
48.0-52.0 Reddish brown (2.5YR5/4) fine SAND (SP), trace silt			-	49 -		23	1.1	3	1100	0.0	0.0	1100	N/A	N/A	No odors his spoon
			-	50 -				3		0.0	0.0				

PSEG SC Former Halladay Street Gas Works
Interim Data Submittal No.4

SCHOOR DEPALMA
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LOG OF SOIL BORING SB-54

PROJECT LOCATION Halladay Street , Jersey City, NJ				GROUND ELEVATION (FT. MSL) 11.40				PROJECT NUMBER 020667601								
DRILLING CONTRACTOR Advanced Drilling, Inc.			FOREMAN Roger Logel		DATE STARTED 11/27/06			DATE COMPLETED 11/28/06								
DRILLING EQUIPMENT GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers					COMPLETION DEPTH (FT BGS) 56			ROCK DEPTH (FT) not encountered								
TYPE BIT Hollow-stem auger			SIZE AND TYPE CORE BARREL		NO. SAMPLES DIST. 26		UNDIST. N/A		CORE N/A							
CASING N/A			N/A		WATER DEPTH FIRST 4.8		COMPL. N/A		24HR N/A							
CASING HAMMER		WEIGHT N/A		DROP N/A		BORING LOCATION: Eastern shoulder of Carteret Avenue, 95 ft SE from the eastern corner of the Halladay Street / Carteret Avenue intersection.										
SAMPLER 2" diameter, 2' long split-spoon					INSPECTOR Eric Gaulin											
SAMPLER HAMMER		WEIGHT 140 lbs.		DROP 30"												
DESCRIPTION			Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS					REMARKS	
						Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	(PPM)						
										Sample	Ambient Air	Time	Head Space	Time Date		
48.0-52.0 Reddish brown (2.5YR5/4) fine SAND (SP), trace silt			- 50 -													
				24	0.9	3	1123	0.0	0.0	1123	N/A	N/A				
			- -			3		0.0	0.0							
			- 51 -			2										
			- -			3										
			- 52 -													
			52.0-56.0 Reddish brown (2.5YR5/4) fine to medium SAND (SW)				25	2.0	2	1125	0.0	0.0	1125	N/A	N/A	
						- -			3		0.0	0.0				
						- 53 -			3		0.0					
						- -			3		0.0					
End of Boring at 56'			- 54 -													
				26	2.0	3	1127	0.0	0.0	1127	N/A	N/A	Sample SB-54(55.5-56.0) collected at 1127 for TCL VOC, TCL SVOC, TAL Metals, Total and Amenable CN			
			- -			3		0.0	0.0							
			- 55 -			3		0.0	0.0							
- -			3		0.0	0.0										
			- 56 -													
			- -													
			- 57 -													
			- -													
			- 58 -													
			- -													
			- 59 -													
			- -													
			- 60 -													

LOG OF SOIL BORING SB-25

AECOM Note: Ground Surface Elevation = 11.7 ft NAVD88

PROJECT LOCATION				GROUND ELEVATION (FT. MSL)		PROJECT NUMBER								
Halladay Street, Jersey City, New Jersey				12.91		020667601								
DRILLING CONTRACTOR		FOREMAN		DATE STARTED		DATE COMPLETED								
Advanced Drilling, Inc.		R. Empson		04/13/04		04/15/04								
DRILLING EQUIPMENT				COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)								
Hollow Stem Auger				95'		92.5'								
TYPE BIT		4.25" diameter		SIZE AND TYPE CORE BARREL		NO. SAMPLES	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		DROP		N/A		BORING LOCATION				
SAMPLER				2" diameter 2' split-spoon		In front of Halstead building, east side of Halladay St.								
SAMPLER HAMMER		WEIGHT		140 lbs.		DROP		30"		INSPECTOR				E. Gaulin

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Dust	Time Date	
0-0.5' FILL: Black GRAVEL (GW), fine to medium sand, asphalt fragments.		0		1	1.0	26	13:12	N/A	N/A		N/A	N/A	Heavy rain affecting PID; PID not used
0.5-1.0' FILL: Black, gray and tan SAND (SP), mottled						28							
						19							
						12							
2.0-10.5' FILL: Gray to black SAND (SP), firm. Trace coal and glass fragments		2		2	1.0	3	13:21	N/A	N/A		N/A	N/A	
						2							
						2							
						2							
		4		3	1.0	3	13:23	N/A	N/A		N/A	N/A	Organic odors noted
						3							
						3							
0.2' layer of black fine silty sand. Trace Clinker Material (CM) from 4.0'						3							
						3							
						3							
		6		4	1.0	3	13:25	N/A	N/A		N/A	N/A	No odors, loose, wet.
						1							
						2							
Black cinders and clinker material (CM), some white ash material (AM).						3							
		8		5	1.0	2	13:36	N/A	N/A		N/A	N/A	
						2							
						2							
						1							
10.5-11.0' Grayish brown (10YR 5/2) fine to medium SAND (SW), little silt.		10		6	1.0	6	13:40	N/A	N/A		N/A	N/A	Suspected native soil at approximately 10.5'.
						8							
						13							
						15							
		12											

LOG OF SOIL BORING SB-25

AECOM Note: Ground Surface Elevation = 11.7 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey		GROUND ELEVATION (FT. MSL) 12.91		PROJECT NUMBER 020667601	
DRILLING CONTRACTOR Advanced Drilling, Inc.		FOREMAN R. Empson		DATE COMPLETED 04/15/04	
DRILLING EQUIPMENT Hollow Stem Auger		DATE STARTED 04/13/04		COMPLETION DEPTH (FT BGS) 95'	
TYPE BIT 4.25" diameter		SIZE AND TYPE CORE BARREL N/A		ROCK DEPTH (FT) 92.5'	
CASING N/A		NO. SAMPLES 43		UNDIST. 0	
CASING HAMMER N/A		WATER DEPTH 6.0'		CORE 0	
WEIGHT N/A		FIRST 6.0'		COMPL. N/A	
DROP N/A		BORING LOCATION In front of Halstead building, east side of Halladay St.		24HR N/A	
SAMPLER 2" diameter 2' split-spoon		INSPECTOR E. Gaulin			
SAMPLER HAMMER N/A		DROP 30"			
WEIGHT 140 lbs.					

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Dust	Time Date	
12.0-12.2' Fragment of reddish brown siltstone		- 12 -		7	0.5	13	13:45	N/A	N/A		N/A	N/A	Organic odors noted.
12.2-12.6' Light reddish brown (5YR 6/3) fine SILTY SAND (SM)		- 13 -				11							
		- 13 -				9							
		- 14 -				3							
14.0-14.5' Gray (GLE1 6/N) SILTY CLAY (CL)		- 14 -		8	1.5	1	13:52	N/A	N/A		N/A	N/A	
14.5-18.7' Peat (PT) with coarse plant fragments.		- 15 -				1							
		- 15 -				1							
		- 16 -				1							
Less organic material from 16.0'		- 16 -		9	1.5	3	13:57	N/A	N/A		N/A	N/A	
		- 17 -				5							
		- 17 -				5							
		- 18 -				3							
18.7-20.2' Greenish gray (GLE2 5/1) CLAY (CL), trace fine sand at top of spoon.		- 18 -		10	1.4	4	14:07	N/A	N/A		N/A	N/A	
		- 19 -				5							
		- 19 -				4							
		- 20 -				5							
20.2-21.0' Dark greenish gray (GLE2 4/1) SILTY SAND and fine to medium SAND (SM), poorly sorted, little (10%) subrounded gravel.		- 20 -		11	1.0	5	14:15	N/A	N/A		N/A	N/A	Slight naphthalene-like odor at 21.0'.
		- 21 -				7							
		- 21 -				9							
		- 22 -				9							
22.0-23.7' Dark greenish gray (GLE2 4/1) fine to medium SAND (SW), little silt.		- 22 -		12	2.0	7	14:20	N/A	N/A		N/A	N/A	Naphthalene-like odors, no visual indications of staining.
23.7-24.0' Reddish brown (2.5YR 4/4) fine to medium SAND (SW), trace silt.		- 23 -				8							
		- 23 -				11							
		- 24 -				17							

LOG OF SOIL BORING SB-25

AECOM Note: Ground Surface Elevation = 11.7 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey			GROUND ELEVATION (FT. MSL) 12.91		PROJECT NUMBER 020667601	
DRILLING CONTRACTOR Advanced Drilling, Inc.		FOREMAN R. Empson	DATE STARTED 04/13/04		DATE COMPLETED 04/15/04	
DRILLING EQUIPMENT Hollow Stem Auger			COMPLETION DEPTH (FT BGS) 95'		ROCK DEPTH (FT) 92.5'	
TYPE BIT 4.25" diameter		SIZE AND TYPE CORE BARREL	NO. SAMPLES	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	DROP N/A	BORING LOCATION			
SAMPLER 2" diameter 2' split-spoon			In front of Halstead building, east side of Halladay St.			
SAMPLER HAMMER	WEIGHT 140 lbs.	DROP 30"	INSPECTOR E. Gaulin			

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Dust	Time Date	
24.0-36.0' Reddish brown (2.5YR 4/4) fine to medium SAND (SW), trace silt		- 24 -		13	1.0	3	14:28	N/A	N/A		N/A	N/A	15:12 Collected sample SB-25 (25.5-26.0) forTCL VOC, TCL SVOC, TAL Metals, CN
					5								
		- 25 -			6								
				6									
		- 26 -		14	1.0	5	15:11	N/A	N/A		N/A	N/A	Slight odors
				5									
		- 27 -			6								
				7									
		- 28 -		15	2.0	3	15:15	N/A	N/A		N/A	N/A	Firm, wet. Odors still possibly associated with groundwater.
				4									
		- 29 -			4								
				5									
		- 30 -		16	1.0	1	15:28	N/A	N/A		N/A	N/A	Odors.
				2									
		- 31 -			3								
				3									
		- 32 -		17	1.5	3	15:35	N/A	N/A		N/A	N/A	Naphthalene-like odors.
				4									
		- 33 -			4								
				5									
	- 34 -		18	1.0	5	15:45	N/A	N/A		N/A	N/A	Odors.	
				3									
	- 35 -			3									
				3									
		- 36 -											

LOG OF SOIL BORING SB-25

AECOM Note: Ground Surface Elevation = 11.7 ft NAVD88

PROJECT LOCATION			GROUND ELEVATION (FT. MSL)		PROJECT NUMBER					
Halladay Street, Jersey City, New Jersey			12.91		020667601					
DRILLING CONTRACTOR		FOREMAN	DATE STARTED		DATE COMPLETED					
Advanced Drilling, Inc.		R. Empson	04/13/04		04/15/04					
DRILLING EQUIPMENT			COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)					
Hollow Stem Auger			95'		92.5'					
TYPE BIT	4.25" diameter	SIZE AND TYPE CORE BARREL	NO. SAMPLES	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	DROP	N/A	BORING LOCATION					
SAMPLER			2" diameter 2' split-spoon		In front of Halstead building, east side of Halladay St.					
SAMPLER HAMMER	WEIGHT	140 lbs.	DROP	30"	INSPECTOR					E. Gaulin

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. BL/6in	Time	Sample	Ambient Air	Time	Dust	Time Date	
36.0-38.5 Reddish brown (2.5YR 4/4) fine to medium SAND (SW), trace silt, grading to fine SILTY SAND (SM)		- 36 -		19	2.0	3	15:50	N/A	N/A		N/A	N/A	Odors. Groundwater had greenish tinge.
		- -			4								
		- 37 -			4							15:59 Collected sample SB-25 (36.0-36.5)	
		- -			4								
38.5-44.7' Reddish brown (2.5YR 4/4) SILTY FINE SAND and FINE SANDY SILT (SM), tight.		- 38 -		20	1.5	3	15:58	N/A	N/A		N/A	N/A	Start drilling on 4/14/2004; no PID readings due to rain and humidity
		- -			4								
		- 39 -			5								
		- -			5								
Becoming coarser with more silty fine sand.		- 40 -		21	1.0	2	8:40	N/A	N/A		N/A	N/A	Odors. Groundwater had noticeable greenish tinge.
		- -			2								
		- 41 -			3							Odors. Green tinge to groundwater.	
		- -			3								
44.7-45.1' Reddish brown (2.5YR 4/4) FINE SILTY SAND (SM)		- 42 -		22	2.0	3	8:45	N/A	N/A		N/A	N/A	Odors and oil material (OM) 44.0-44.8'. Positive hydrophobic dye test.
		- -			4								
	45.1-63.5' SILTY FINE SAND (SM)		- 43 -			6							9:03 Collected sample SB-25 (44.0-44.5) for TCL VOC, TCL SVOC, TAL Metals, CN
			- -			8							
47.5-48.0' Reddish gray (2.5YR 5/1) CLAY (CL) with interbedded reddish brown (2.5YR 4/4) SILTY CLAY (CL).		- 44 -		23	2.0	5	9:01	N/A	N/A		N/A	N/A	No sheen but slight odors noted.
		- -			6								
		- 45 -			7							9:10 Collected sample SB-25 (47.0-47.5) for TCL VOC, TCL SVOC, TAL Metals, CN	
		- -			6								
	- 46 -			24	2.0	5	9:07	N/A	N/A		N/A	N/A	
	- -				5								
	- 47 -				8								
	- -				9								
		- 48 -											

LOG OF SOIL BORING SB-25

AECOM Note: Ground Surface Elevation = 11.7 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey		GROUND ELEVATION (FT. MSL) 12.91		PROJECT NUMBER 020667601	
DRILLING CONTRACTOR Advanced Drilling, Inc.		FOREMAN R. Empson		DATE COMPLETED 04/15/04	
DRILLING EQUIPMENT Hollow Stem Auger		DATE STARTED 04/13/04		COMPLETION DEPTH (FT BGS) 95'	
TYPE BIT 4.25" diameter		SIZE AND TYPE CORE BARREL N/A		ROCK DEPTH (FT) 92.5'	
CASING N/A		NO. SAMPLES 43		UNDIST. 0	
CASING HAMMER N/A		WATER DEPTH 6.0'		CORE 0	
WEIGHT N/A		FIRST 6.0'		COMPL. N/A	
DROP N/A		BORING LOCATION In front of Halstead building, east side of Halladay St.		24HR N/A	
SAMPLER 2" diameter 2' split-spoon		INSPECTOR E. Gaulin			
SAMPLER HAMMER N/A		DROP 30"			
WEIGHT 140 lbs.					

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Dust	Time Date	
48.0-54.0' Reddish gray (2.5YR 5/1) CLAY (CL), some lenses of reddish brown (2.5YR 4/4) silty clay, very firm, low plasticity		- 48 -											9:27 Collected sample SB-25 (49.5-50.0) for TCL VOC, TCL SVOC, TAL Metals, CN
			25	1.5	3	9:20	N/A	N/A		N/A	N/A		
					5								
		- 49 -			4								
					5								
50.0' Some lenses of silty fine sand		- 50 -		26	1.5	2	10:33	N/A	N/A		N/A	N/A	Switched to mud rotary. Augers set at 49.0'
					2								
		- 51 -			4								
					5								
		- 52 -		27	2.0	4	10:48	N/A	N/A		N/A	N/A	
Mostly reddish brown, thinly laminated clay and silty clay						4							No odors
		- 53 -			6								
					6								
		- 54 -		28	2.0	4	11:01	N/A	N/A		N/A	N/A	
					4								
54.0-60.0' Reddish gray (2.5YR 5/1) and reddish brown (2.5YR 4/4) CLAY (CL), some red (2.5YR 5/6) silty clay lenses, more plastic		- 55 -				4							No odors
					7								
		- 56 -		29	2.0	5	11:07	N/A	N/A		N/A	N/A	
					5								
		- 57 -			6								
Predominantly reddish brown from 57.0'						6							No odors
		- 58 -		30	2.0	6	11:10	N/A	N/A		N/A	N/A	
					6								
		- 59 -			5								
					6								
Becoming mostly clay, highly plastic		- 60 -											PID could not be used due to rain; no odors noted.
		- 59 -											
		- 60 -											

LOG OF SOIL BORING SB-25

AECOM Note: Ground Surface Elevation = 11.7 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey			GROUND ELEVATION (FT. MSL) 12.91		PROJECT NUMBER 020667601	
DRILLING CONTRACTOR Advanced Drilling, Inc.		FOREMAN R. Empson	DATE STARTED 04/13/04		DATE COMPLETED 04/15/04	
DRILLING EQUIPMENT Hollow Stem Auger			COMPLETION DEPTH (FT BGS) 95'		ROCK DEPTH (FT) 92.5'	
TYPE BIT 4.25" diameter		SIZE AND TYPE CORE BARREL	NO. SAMPLES	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	DROP N/A	BORING LOCATION			
SAMPLER 2" diameter 2' split-spoon			In front of Halstead building, east side of Halladay St.			
SAMPLER HAMMER	WEIGHT 140 lbs.	DROP 30"	INSPECTOR E. Gaulin			

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS		
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Dust	Time			
												Date			
Becoming firmer with more lenses of silty clay 60.0-63.5' Reddish gray (2.5YR 5/1) and reddish brown (2.5YR 4/4) CLAY and SILTY CLAY (CL), laminated, firm		- 60 -		31	2.0	6	11:35	N/A	N/A		N/A	N/A	No odors		
		- -				8									
		- 61 -				9									
		- -				10									
		- 62 -		32	2.0	10	11:36	N/A	N/A		N/A	N/A		No odors	
		- -				9									
		- 63 -				8									
		- -				13									
	63.5-63.7' Reddish brown (2.5YR 4/4) FINE SILTY SAND and FINE SAND (SM)		- -												
	63.7-64.5' Gray (GLEYS 1 6/N) CLAY and SILTY CLAY (CL), laminated		- 64 -		33	2.0	8	11:51	N/A	N/A		N/A			N/A
	- -				7										
	- 65 -				9										
	- -				11										
65.5-65.0' Reddish gray (2.5YR 5/1) FINE SILTY SAND (SM)		- 66 -		34	2.0	10	11:54	N/A	N/A		N/A	N/A	No odors		
65.0-72.0' Gray (5YR 5/1) and red (2.5YR 5/6) SILTY CLAY and CLAY (CL), laminated		- -				11									
	- 67 -				11										
	- -				13										
More frequent reddish brown (2.5YR 4/4) silty clay layers.		- 68 -		35	2.0	10	12:10	N/A	N/A		N/A	N/A		No odors	
	- -				9										
	- 69 -				9										
	- -				10										
Occasional thin lenses of reddish brown (2.5YR 4/4) silty sand.		- 70 -		36	2.0	7	13:50	N/A	N/A		N/A	N/A			No odors
	- -				5										
	- 71 -				7										
	- -				7										
Becoming coarser with trace silty fine sand and sandy fine silt from 71.0-72.0'.		- 72 -													
	- -														
	- 71 -														
	- -														
	- 72 -														

LOG OF SOIL BORING SB-25

AECOM Note: Ground Surface Elevation = 11.7 ft NAVD88

PROJECT LOCATION				GROUND ELEVATION (FT. MSL)		PROJECT NUMBER	
Halladay Street, Jersey City, New Jersey				12.91		020667601	
DRILLING CONTRACTOR		FOREMAN		DATE STARTED		DATE COMPLETED	
Advanced Drilling, Inc.		R. Empson		04/13/04		04/15/04	
DRILLING EQUIPMENT				COMPLETION DEPTH (FT BGS)		ROCK DEPTH (FT)	
Hollow Stem Auger				29.0 95'		92.5'	
TYPE BIT 4.25" diameter		SIZE AND TYPE CORE BARREL		NO. SAMPLES	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		DROP N/A		BORING LOCATION	
SAMPLER 2" diameter 2' split-spoon				In front of Halstead building, east side of Halladay St.			
SAMPLER HAMMER		WEIGHT 140 lbs.		DROP 30"		INSPECTOR E. Gaulin	

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Dust	Time Date	
72.0-80.0' Reddish brown (2.5YR 4/4) CLAYEY SAND (SC), few lenses of silty sand, becoming more clayey, occasional 1/4" band		- 72 -											
			37	2.0	5	13:52	N/A	N/A		N/A	N/A	No odors	
					6								
		- 73 -			6								
					7								
		- 74 -		38	2.0	8	14:10	N/A	N/A		N/A	N/A	No odors
					9								
		- 75 -			10								
					11								
		- 76 -		39	2.0	9	14:20	N/A	N/A		N/A	N/A	No odors
Becoming siltier from 77.5'.					9								
		- 77 -			11								
					13								
		- 78 -		40	2.0	14	14:35	N/A	N/A		N/A	N/A	No odors
					13								
Trace (<5%) fine gravel from 79.8-80.0'.		- 79 -			22								
					25								
		- 80 -		41	0.7	17	14:55	N/A	N/A		N/A	N/A	Gravel consisted of some reddish brown sandstone and siltstone pieces, argillite.
80.0-80.7' TILL: GRAVEL (GW), subangular to subrounded GRAVEL, some silty clay and silty sand.					19								
		- 81 -			22								
					14								
		- 82 -											
	- 83 -											Switched to collecting spoon every 5' as per discussion with Marlene Lindhardt.	
	- 84 -												

LOG OF SOIL BORING SB-25

AECOM Note: Ground Surface Elevation = 11.7 ft NAVD88

PROJECT LOCATION Halladay Street, Jersey City, New Jersey		GROUND ELEVATION (FT. MSL) 12.91		PROJECT NUMBER 020667601	
DRILLING CONTRACTOR Advanced Drilling, Inc.		FOREMAN R. Empson		DATE COMPLETED 04/15/04	
DRILLING EQUIPMENT Hollow Stem Auger		DATE STARTED 04/13/04		COMPLETION DEPTH (FT BGS) 95'	
TYPE BIT 4.25" diameter		SIZE AND TYPE CORE BARREL N/A		ROCK DEPTH (FT) 92.5'	
CASING N/A		NO. SAMPLES 43		UNDIST. 0	
CASING HAMMER N/A		WATER DEPTH 6.0'		CORE 0	
WEIGHT N/A		FIRST 6.0'		COMPL. N/A	
DROP N/A		BORING LOCATION In front of Halstead building, east side of Halladay St.		24HR N/A	
SAMPLER 2" diameter 2' split-spoon		INSPECTOR E. Gaulin			
SAMPLER HAMMER N/A		DROP 30"			
WEIGHT 140 lbs.					

DESCRIPTION	Sample Interval	Depth (ft bgs)	Water Table	Samples				PID READINGS (PPM)					REMARKS
				Number	Recov. (ft)	Penetr. Resist. BL/6in	Time	Sample	Ambient Air	Time	Dust	Time	
85.0-85.2' TILL: GRAVEL (GW), subangular to subrounded GRAVEL, some silty clay and silty sand.	- 84 -												
	- 85 -	42	0.2	38	15:21	N/A	N/A		N/A	N/A			
	- 86 -			50/3"									
	- 87 -												
	- 88 -												
90.0-90.2' TILL: GRAVEL (GW), subangular to subrounded GRAVEL, some silty clay and silty sand.	- 89 -												
	- 90 -	43	0.2	100/5"	15:37	N/A	N/A		N/A	N/A			
	- 91 -												
	- 92 -												
	- 93 -												
92.5-95.0' Black/dark gray argillite, weathered.	- 94 -												
	- 95 -												
	- 96 -												
	- 97 -												
	- 98 -												
End of boring at 95.0'	- 95 -												
	- 96 -												