

## ARM Group Inc.

**Engineers and Scientists** 

February 6, 2019

Ms. Barbara Brown Project Coordinator Maryland Department of the Environment 1800 Washington Boulevard Baltimore, MD 21230

Re: Parcel B6 Phase II Investigation Report

(Revision 2)

Response to MDE Comment

Area B: Parcel B6

Sparrows Point, MD 21219

Dear Ms. Brown:

On behalf of EnviroAnalytics Group, LLC (EAG), ARM Group Inc. (ARM) is pleased to provide the following response to a comment received from the Maryland Department of the Environment (MDE) via email on December 17, 2018. The MDE provided a comment regarding the previously submitted Phase II Investigation Report (Revision 2 dated March 16, 2018) for Parcel B6 (the Site) of the Tradepoint Atlantic property located in Sparrows Point, Maryland. The response to the MDE's comment is detailed below; the original comment is included in italics with the response following.

1. I noted that the boring log for B6-075-SB notes a sample collected at 1' and 5', however I cannot find a lab report or data in the tables that provide results for the 5' sample depth. There are also several results and associated sample ID's/depths provided in the tables that are not noted in the boring logs, including: B6-023-SB4, B6-023-SB10, B6-024-SB5, B6-026-SB4, B6-080-SB6, B6-081-SB5 Could ARM submit revised boring logs for replacement in the accepted Rev. 2 of the Phase II Report? Also, look into whether a sample was in fact collected from B6-075-SB at the 5' depth.

Revised boring logs showing corrected sample depths are included with this letter. ARM reviewed the Parcel B6 Phase II Investigation analytical data to confirm the recorded sample depths at each location. In some instances, samples were collected from the 9 to 10 foot depth interval but were held by the laboratory pending the analysis of the overlying intermediate samples and were only analyzed if Project Action Limit (PAL) exceedances were identified in the intermediate samples. Samples collected from the 9 to 10 foot depth interval that were not analyzed are not shown on the boring logs.

No sample was collected from the 4 to 5 foot depth interval at location B6-075-SB because large diameter slag aggregate was encountered in the specified sample interval. The 5-foot sample was improperly displayed and has been removed. The observation of the large-diameter slag aggregate is noted on the revised B6-075-SB boring log. Large diameter aggregate cannot be sampled under ARM's standard soil sampling procedures.

Based on the comprehensive review of the analytical data and boring logs, sample depths were corrected for the following locations: B6-002-SB, B6-014-SB, B6-023-SB, B6-024-SB, B6-026-SB, B6-041-SB, B6-043-SB, B6-055-SB, B6-059-SB, B6-063-SB, B6-075-SB, B6-080-SB, B6-081-SB, B6-084-SB, and B6-090-SB. The revised boring log set replaces **Appendix B** of the Parcel B6 Phase II Investigation Report (Revision 2 dated March 16, 2018). Analytical data tables included with the previous Phase II Investigation Report showed the correct sample depths and did not need to be revised. The enclosed CD provides a compiled PDF of the entire Phase II Investigation Report containing the replacement boring logs.

If you have any questions, or if we can provide any additional information at this time, please do not hesitate to contact ARM Group Inc. at 410-290-7775.

Respectfully submitted,

ARM Group Inc.

Ryan Clancy

Staff Engineer

T. Neil Peters, P.E.

Senior Vice President



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APPENDIX B

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Boring ID: B6-001-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 06/15/2016 Weather : 80s, Sunny

Northing (US ft) : 570846.35

Easting (US ft) : 1463282.66

			(page i	,		
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-				(0-3') SILT with GRAVEL, soft, light gray, dry, non plastic,		
		-	B6-001-SB-1	non cohesive		
						Small roots and grass at
						surface
		-			ML	
-						
	50	1.9				
				(3-3.3') SILTY SAND with GRAVEL. loose, brown, moist, non plastic, non cohesive	SM	
		11.5		(3.3-7') SLAG GRAVEL, loose, brown grading to gray, wet, non plastic, non cohesive	_	
_				non plastic, non concerve		
		0.80				
5-						
ŭ					GW	
		0.7				
-						
		1.1				
-	100			(7.0 El) CII T firm light grove and readish wallow readily decided		
		3.5		(7-8.5') SILT, firm, light gray and reddish yellow mottled, dry, cohesive		
		0.0			ML	
-						
		6.2	B6-001-SB-9	(8.5-9') SILT, soft, light gray and reddish yellow mottled, wet,	ML	Wet at 8.6' bgs
_				cohesive End of Boring	IVIL	
				Lind of Boiling		
40						
10 —						

Total Borehole Depth: 9' bgs.

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Boring terminated at 9' bgs due to water.



Boring ID: B6-002-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Repogle, E.I.T.

Drilling Company : Green Services, Inc.

Driller : Don Marchese
Drilling Equipment : Geoprobe 7822DT

Date : 06/15/2016 Weather : 70s, Cloudy

Northing (US ft) : 570873.04 Easting (US ft) : 1463331.70

10   10   10   10   10   10   10   10			1	(1 5	,		T T	T
TO 0.0  Be-002-SB-1  (1-3.5') SILTY SAND with GRAVEL, loose, brown, dry, non plastic, non cohesive  SP  0.0  Be-002-SB-4.5 plasticity  CL  (4.5-5') SLAG GRAVEL, loose, brown, wet, non plastic, non cohesive  (4.5-5') SLAG GRAVEL, loose, brown, wet, non plastic, non cohesive  (5-7-5') CLAY, very soft to soft, light grayish olive, wet, cohesive, high plasticity  CL  (7.5-10') CLAY, hard, reddish yellow and very pale brown mottling, dry, cohesive, high plasticity  CL  Boring terminated at 10' bgs due to water	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
- B6-002-SB-1  - 0.0  -	0-			1	I (0.41) CC	NICDETE lease white day		1
plastic, non cohesive  70 0.0  Re-002-SB-4.5 (3.5-4.5') CLAY, soft, very pale brown, moist, cohesive, high plasticity  CL  (4.5-5') SLAG GRAVEL, loose, brown, wet, non plastic, non cohesive (5-7.5') CLAY, very soft to soft, light grayish olive, wet, cohesive, high plasticity  CL  0.0  (7.5-10') CLAY, hard, reddish yellow and very pale brown mottling, dry, cohesive, high plasticity  CL  Boring terminated at 10' bgs due to water			-	B6-002-SB-1	(0-1) CC	NCRETE, loose, while, dry	-	
70 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	-		-		(1-3.5') S plastic, n	SILTY SAND with GRAVEL, loose, brown, dry, non on cohesive		
B6-002-SB-4.5   CLAY, soft, very pale brown, moist, cohesive, high plasticity   CL    (4.5-5') SLAG GRAVEL, loose, brown, wet, non plastic, non cohesive   (5-7.5') CLAY, very soft to soft, light grayish olive, wet, cohesive, high plasticity   CL    0.0   (7.5-10') CLAY, hard, reddish yellow and very pale brown mottling, dry, cohesive, high plasticity   CL    Boring terminated at 10' bgs due to water   CL    Boring terminated at 10' bgs due to	-	70	0.0				SP	
0.0    Seb-002-58-4.5   CL	-		0.0		(3.5-4.5')	CLAY, soft, very pale brown, moist, cohesive, hig	h	
cohesive  (5-7.5') CLAY, very soft to soft, light grayish olive, wet, cohesive, high plasticity  CL  (7.5-10') CLAY, hard, reddish yellow and very pale brown mottling, dry, cohesive, high plasticity  CL  Boring terminated at 10' bgs due to water	-		0.0	B6-002-SB-4.5				Wet at 4.5' bgs
(5-7.5') CLAY, very soft to soft, light grayish olive, wet, cohesive, high plasticity  O.0  (7.5-10') CLAY, hard, reddish yellow and very pale brown mottling, dry, cohesive, high plasticity  CL  Boring terminated at 10' bgs due to water	E				cohesive	SLAG GRAVEL, loose, brown, wet, non plastic, nor	' GW	
90 0.0 (7.5-10') CLAY, hard, reddish yellow and very pale brown mottling, dry, cohesive, high plasticity  CL  Boring terminated at 10' bgs due to water	5-		-		(5-7.5') C cohesive	CLAY, very soft to soft, light grayish olive, wet, , high plasticity		
0.0 (7.5-10') CLAY, hard, reddish yellow and very pale brown mottling, dry, cohesive, high plasticity  CL  Boring terminated at 10' bgs due to water	_		0.0				CL	
0.0 CL Boring terminated at 10' bgs due to water	_	90	0.0		(7.5-10') mottling,	CLAY, hard, reddish yellow and very pale brown dry, cohesive, high plasticity		
to water	-		0.0				CL	
End of Boring	10		0.0					
	10-			<u> </u>	End of B	oring		

Total Borehole Depth: 10' bgs.

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Boring terminated at 10' bgs due to water



Boring ID: B6-003-SB

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Repogle, E.I.T. Drilling Company : Green Services, Inc Driller : Don Marchese

Drilling Equipment : Geoprobe 7822DT Date : 06/30/2016

Weather : 80s, Sunny

Northing (US ft) : 571840.31 Easting (US ft) : 1459967.10

			(page 1	of 1)	Similing Equipment : Soopross (SEES)		
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				(0-1') ASI	PHALT, loose, black, dry, non plastic, non cohesive		
		-	B6-003-SB-1			NA	
-		10.5		(1-4.5') S speckled cohesive	ANDY SILT with SLAG GRAVEL and metallic rock, soft, brown and gray, dry, non plastic, non		
_	80	20.6				ML	
		18.1					
_		35.2	B6-003-SB-5	(4.5-6') S	ILTY SAND with SLAG GRAVEL, yellowish brown,		
5-		3.9		very mois	st, non plastic, non cohesive	SM	
_		8.8		(6-10') CI yellow, di	LAYEY SILT, very firm, very pale brown and reddishry, low plasticity, cohesive	n	
	100	8.5				ML	
		9.5				IVIL	
40		3.5	B6-003-SB-10				
10-		11.2		(10-10.5')	) SANDY CLAY, soft, pale brown, very moist, plasticity, cohesive	CL	Wet at 10.5' bgs
		11.2		(10.5-11)	) SAND with CLAY, medium dense, strong brown,		1.75. dt 10.0 bg0
		20.7		\wet, non (11-11.5'	plastic, no cohesion ) SANDY CLAY, soft, strong brown, wet, low	CL	
	100	22.3		(11.5-15)	cohesive  CLAY with trace SAND, very firm, strong brown gray, moist, medium plasticity, cohesive	/	
-		19.2			5 7,, p p	CL	
-		7.1					
15—			l	End of bo	pring		

Total Borehole Depth: 15' bgs.

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Boring terminated at 15' bgs due to water.



Boring ID: B6-004-SB

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Total Borehole Depth: 5' bgs.

Boring terminate at 5' bgs due to water

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Repogle, E.I.T. Drilling Company : Green Services, Inc Driller : Don Marchese

: Geoprobe 7822DT Drilling Equipment

Date : 06/30/2016 Weather : 80s, Sunny

Northing (US ft) : 571847.79

Easting (US ft) : 1460034.40

			(page 1	of 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	USCS	REMARKS
0-				(0.41) AC	DIIALT lacas grow dry non-plactic non-schoolive		
		-	B6-004-SB-1	(0-1) AS	PHALT, loose, gray, dry, non plastic, non cohesive	-	
-		4.8		plastic, n	LAG GRAVEL, loose, light gray and brown, dry, non on cohesive SAND and SLAG GRAVEL, loose, gray and brown,	GP	
-	85	31.8		dry, non	SAND and SLAG GRAVEL, loose, gray and brown, plastic, non cohesive	0.00	
-		25.6	B6-004-SB-4			GP/SP	
		1.8		(4.5-5') S brown, di	AND, fine to coarse grained, loose, yellowish y, non plastic, non cohesive	SW	
5-			1	End of Bo		<b>,</b>	
-							
-							
-							
-							
10-							



Boring ID: B6-005-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.

Drilling Company : Green Services, Inc.

Drilling Equipment : Geoprobe 7822DT

Date : 01/09/2017 Weather : 20s, Cloudy

Northing (US ft) : 570396.04

Drilling Company : Green Services, Inc. Easting (US ft) : 1462573.22

Driller : Don Marchese

			(page i			Г	
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-					DNCRETE, medium dense, gray, dry, no plasticity, r	no	
_		-		cohesion		NA	
		-	B6-005-SB-2	(1-4') SL brown	AG GRAVEL and SAND, medium dense, grayish		
	70	-				SW/GV	v
=		55.9					
-		5.2		(4-4.1') C	CONCRETE, medium dense, gray, dry, no plasticity	, NA	
5-		-		(4.1-7.5')	) GRAVELLY SAND, fine to coarse, medium dense rown, gray, and reddish yellow, dry, no plasticity, no		
-		3.2				SW/GV	V
-		3.2		 			
_	90	16.1	B6-005-SB-8	(7.5-8') S	SAND, fine to coarse, trace GLASS, medium dense by, and strong brown, dry, no plasticity, no cohesion	, SW	
		0.0		(8-11.8')	CLAY, very firm, but soft 9-9.5', brownish yellow, pist, high plasticity, cohesive		
-		0.0	B6-005-SB-10	]			
10 —				_		CL	
_		-					
		-					Wat at 11 9' has
-	64	0.1			.4') SANDY GRAVEL, medium dense, brown, wet, city, no cohesion	SW/GV	Wet at 11.8' bgs
-	<b>5</b>	0.1		some GF	') CLAY with SAND grading to SANDY CLAY, with RAVEL, dense, pale brown, moist to very moist, hig	h	
=		0.1		plasticity	r, cohesive	CL	
15		0.1					
15—				End of B	oring		

Total Borehole Depth: 10' bgs.

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Boring terminated at 15' bgs due to water



Boring ID: B6-006-SB

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Boring terminated at 8' bgs due to water.

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

: Green Services, Inc.

ARM Representative : J. Yaple, P.G. Checked by : M. Repogle, E.I.T.

Drilling Company

Driller : Kevin Pumphrey : Geoprobe 7822DT **Drilling Equipment** 

Northing (US ft)

Date

Weather

: 570352.74 Easting (US ft) : 1462577.67

: 06/16/2016

: 70s, Cloudy

			(page 1	of 1)						
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS			
0-				(0-1') CO	NCRETE, loose, dry					
		-	B6-006-SB-1	(0-1)00	NONETE, 1003E, dry	-	Refusal at 2' on first 2 attempts			
-		-		(1-8') SIL and brow SLAG thr	TY SAND and GRAVEL, fine to coarse, loose, gra rn, dry, angular, non plastic, non cohesive, some roughout	у				
_	47	-								
		2.2								
5—		204.2	B6-006-SB-5			SM/GW				
3		-								
	30	-								
		<0.3								
-				End of Bo	oring	,				
=										
10—										
	orehole D	epth: 8' b	gs.							



Boring ID: B6-007-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6
Site Location : Sparrows Point, MD

: Green Services, Inc

ARM Representative : J. Yaple, P.G. Checked by : M. Replogle, E.I.T.

Drilling Company

Driller : Kevin Pumphrey
Drilling Equipment : Geoprobe 7822DT

Date : 06/17/2016 Weather : 70s, Sunny

Northing (US ft) : 570639.05 Easting (US ft) : 1462700.34

PID Reading (PPM) Sample No/Interval Recovery Depth (ft.) **DESCRIPTION** USCS **REMARKS** 0 (0-9.5') GRAVEL and SAND with some SILT and CLAY and SLAG, fine to coarse, loose, dark gray to blue gray to dark B6-007-SB-1 Fill (non native) brown, dry to wet, non plastic, non cohesive ~30% slag 0-9.5' bgs 65 158.9 68.8 B6-007-SB-4 14.2 GW/SW Wet at 5' bgs 66.4 75 21.2 7.0 6.2 (9.5-10') SILTY CLAY, soft, gray-green, wet, cohesive, SM/GW medium plasticity 10 End of Boring

Total Borehole Depth: 10' bgs.

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01-03-2019

Boring terminated at 10' bgs due to water.



Boring ID: B6-008-SB

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Boring terminated at 8' bgs due to water.

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. : M. Replogle, E.I.T. Checked by Drilling Company : Green Services, Inc.

Driller : Kevin Pumphrey : Geoprobe 7822DT **Drilling Equipment** 

Date : 06/17/2016 Weather : 70s, Sunny

Northing (US ft) : 570624.00

Easting (US ft) : 1462702.34

			(page i	01 1)							
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS				
0-		-	B6-008-SB-1	(0-7') GR angular, wet, non	AVEL and SAND with some SLAG, fine to coarse, loose, dark gray to blue gray to dark brown, dry to plastic, non cohesive		Fill (non native) ~30% slag				
-		0.5									
-	80	3.7									
-		49.6	B6-008-SB-4			GW/SW					
5—		2.0					Wet at 5' bgs				
-		0.8									
	100	1.0									
-		0.5		(7-8') SIL plasticity	TY CLAY, soft, gray-green, wet, cohesive, medium	CL	Boring refusal at 8' bgs				
-				End of Bo	oring		I				
-											
10-											
Total Bo	Total Borehole Depth: 8' bgs.										



Boring ID: B6-009-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

: Green Services, Inc.

ARM Representative : J. Yaple, P.G. : M. Replogle, E.I.T. Checked by

Drilling Company

Driller : Kevin Pumphrey : Geoprobe 7822DT **Drilling Equipment** 

Date : 06/17/2016 Weather : 60s, Sunny

Northing (US ft) : 571151.65

Easting (US ft) : 1462392.91

			(page 1	,			I
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				(0-1') CO	NCRETE, hard, dry		
		-		(0.700	110112.12, 11414, 419	_	1st attempt refusal at 4' bgs
		-		(1-3') VO	ID	_	Driller reports void Initial near surface sample not collected due to excessive slag gravel.
	40	-					
-		0.1		(3-8') GR grading to	AVEL, loose, gray, angular, coarse, dry to moist, o SAND and CLAY, non plastic, non cohesive		
•		0.0					
5-		0.2				GW	
_		9.7	B6-009-SB-7				
	93	3.8					
-		0.1		(8-9') SA	ND with trace SILT, loose, tan, wet, cohesive	SP	Wet at 8' bgs
-		0.1		(9-10') Cl cohesive	AY with trace fine SAND, soft, gray green, wet, medium plasticity	CL	
10-				End of Bo	oring		

Total Borehole Depth: 10' bgs.

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Boring terminated at 10' bgs due to water.



Boring ID: B6-010-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. : M. Replogle, E.I.T. Checked by

**Drilling Company** : Green Services, Inc. Driller : Kevin Pumphrey : Geoprobe 7822DT **Drilling Equipment** 

Date : 06/17/2016

Weather : 60s, Mostly Sunny

Northing (US ft) : 571131.85

Easting (US ft) : 1462419.22

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	USCS	REMARKS
0-	6,	-	B6-010-SB-1	(0-1') CO	NCRETE, hard, dry	-	1st attempt refusal at 1' bgs
-		-		(1-7') SAI angular, I dry to we	ND and GRAVEL with some SLAG, fine to coarse, oose, dark gray to dark brown to blue gray to tan, t, non plastic, non cohesive		
	50	-					
-		3.9				SW/GW	
5-		14.8	B6-010-SB-5				
-		2.0					
-		24.3		(7-10') CI	_AY, soft, gray-green, wet, cohesive, high plasticity		Wet at 6.5' bgs
-	100	13.3					
-		7.5				CL	
10-		1.7		End of Bo	pring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-011-SB

01-03-2019 P:\EnviroAnalytics Group\150300M EAG\_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\2\_Bor Logs\B6-011-5B.bor

Total Borehole Depth: 15' bgs.

Boring terminated due to water and lack of recovery at 15' bgs

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6
Site Location : Sparrows Point, MD
ARM Representative : J. Yaple, P.G.

Checked by : M. Replogle, E.I.T.

Drilling Company : Green Services, Inc.

Driller : Ali Berenbrok - Tim Niblett

Drilling Equipment : Geoprobe 7822DT

Date : 06/15/2016

Weather : 60s, Mostly Cloudy

Northing (US ft) : 568630.10

Easting (US ft) : 1462452.78

			(page 1	of 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
90 0 - 10 - 15 - 15 - 15 - 15 - 15 - 15 -	90	- 0.5 21.2 14.6 7.6 0.4 4.3 12.9	B6-011-SB-1 B6-011-SB-8	angular to brown, di	LTY SAND and GRAVEL, fine to coarse grained, o subangular, medium dense, light brown to dark y to 8'	SM/GW	Wet at 8' bgs Viscous liquid, black with sheen 8-10' bgs
				End of Bo	pring		



Boring ID: B6-012-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc

Driller : Ali Berenbrok - Tim Niblett

**Drilling Equipment** : Geoprobe 7822DT Date : 06/15/2016

Weather : 80s, Sunny

Northing (US ft) : 568583.80

Easting (US ft) : 1462476.49

		_	_			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-				(0-1') CONCRETE, hard, dry	1	
		-	B6-012-SB-1	(0-1) CONCILIE, Haid, dry	-	
		17.1		(1-3.5') SAND and GRAVEL, fine to small, loose, tan and gray, dry, non plastic, non cohesive		
	87	48.7			SW/GW	
		105.1	B6-012-SB-4	(3.5-4.5') CLAY, soft, tan and light brown, dry, cohesive, medium plasticity	CL	
5—		38.2		(4.5-8.5') SILTY SAND, fine to medium grained, medium dense, light tan and yellow, moist, cohesive		
		-				
-		5.0			SM	
-	80	17.1				
-		0.3		(8.5-10') CLAY, very soft, light gray to dark gray, wet, cohesive, high plasticity		Wet at 8.5' bgs
10		15.8			CL	
10	_			End of Boring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-013-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Ali Berenbrok - Tim Niblett **Drilling Equipment** : Geoprobe 7822DT

Date : 06/16/2016 Weather : 70s, Cloudy

Northing (US ft) : 568538.40

Easting (US ft) : 1462430.65

	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval (baged)	of 1)	DESCRIPTION		nscs	REMARKS
		%	PIC	Sal				SN	
	0 -	82	1.1	B6-013-SB-1	medium o		on	SM	
SB.bor	-		0.8		and redd	ND, fine grained, medium dense, tan-green to tan ish yellow, moist, non cohesive, non plastic		SP	
r Logs\B6-013-{	5-		2.3		(5-8.5') C reddish y plasticity	CLAY with trace SAND, medium stiff, tan matrix wit rellow and brown mottling, moist, cohesive, mediur	th m		
\2_Boı			8.0	B6-013-SB-7				CL	
6\Boring Logs	1	100	7.0						
ments\Parcel B	-		2.1	(8.5- brow	(8.5-15') brown mo	CLAY, soft, tan with some reddish yellow and ottling, wet, high plasticity, cohesive			Wet at 8.5' bgs Boring terminated due to water at 15' bgs
t Area B\Docu	10 -		-						
/s Poin			<0.1					CL	
AG_Sparrow		80	<0.1						
300M E.			<0.2						
Group\1500	15—		<0.2						
Analytics	.5				End of Bo	oring			
01-03-2019 P:\EnviroAnalytics Group\150300M EAG_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\2_Bor Logs\86-013-SB.bor			epth: 15'	bgs. vater at 15' bgs.					



Boring ID: B6-0

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. Checked by : M. Replogle, E.I.T. **Drilling Company** : Green Services, Inc Date : 06/16/2016 Weather : 70s, Cloudy

Northing (US ft) : 570155.91 Easting (US ft) : 1462695.73

-014-SB	Driller	: Kevin Pumphrey	0 (	,	
(page 1 of 1)	Drilling Equipment	: Geoprobe 7822DT			

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION		nscs	REMARKS			
0-		-	B6-014-SB-1	(0-1') CC	NCRETE, hard, dry		-				
5 10	50	- 11.2 189.7 66.3 - - 4.8	B6-014-SB-4	(1-15') Si fine to co 12' bgs, v	ILTY SAND and GRAVEL with trace SILT and SLA parse grained, loose, dark gray to dark brown, dry to wet at 12' bgs, non plastic, non cohesive		SM/GM				
10 —	50	- 33.2 16.8						Wet at 12' bgs			
15—				End of B	oring			<u> </u>			
Total Bo	Total Borehole Depth: 15' bgs.  Boring terminated due to water at 15' bgs.										



Boring ID: B6-015-SB

01-03-2019 P:\EnviroAnalytics Group\150300M EAG\_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\\Z\_Bor Logs\B6-015-SB.bor

Total Borehole Depth: 9' bgs.

Boring terminated due to refusal and water at 9' bgs.

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

: Green Services, Inc

ARM Representative : J. Yaple, P.G.
Checked by : M. Replogle, E.I.T.

Drilling Company

Driller : Kevin Pumphrey
Drilling Equipment : Geoprobe 7822DT

Date : 06/17/2016 Weather : 70s, Sunny

Northing (US ft) : 570192.00 Easting (US ft) : 1462798.63

			(page 1	of 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-							
		-	B6-015-SB-1	(0-7') SIL coarse, lo cohesive	TY SAND and GRAVEL with trace SLAG, fine to bose, dark gray, dry, angular, non plastic, non		
		6.3					
_	87	0.3					
_		0.4				SM/GW	
-		0.8	B6-015-SB-5				
5—		-					
	62	-					
	02	6.4		(7-9') SA dry to 8.0	ND and GRAVEL, coarse, loose, light tan to white, ' bgs then wet, cohesive		
_		8.1				SW/GW	Wet at 8' bgs
-			l	End of Bo	pring		
					-		
10 —	1						



Boring ID: B6-016-SB

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Total Borehole Depth: 10' bgs.

Boring terminated due to water

at 10' bgs.

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

ARM Representative

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

: J. Yaple, P.G.

Checked by : M. Replogle, E.I.T.
Drilling Company : Green Services, Inc

Driller : Kevin Pumphrey
Drilling Equipment : Geoprobe 7822DT

Date : 06/17/2016 Weather : 70s, Sunny

Northing (US ft) : 570116.99 Easting (US ft) : 1462807.99

			(page 1	of 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	USCS	REMARKS
0-				(0.40)\ 0.	AND and CDAVEL with trace CUT and CLAC I		
		-	B6-016-SB-1	gray gree wet, non	AND and GRAVEL with trace SILT and SLAG, loose, en, dark brown, and light brown, dry to 9' bgs, then plastic, non cohesive		
		0.3					
	77	0.3					
-		1.1					
5-		<0.2	B6-016-SB-5			SM/GW	
		-				OW/ GVV	
		0.6					
_	80	0.7					
		0.6					Wet at 9' bgs
10-		0.4					250
				End of Bo	pring		



Boring ID: B6-017-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.
Drilling Company : Green Services, Inc.

Driller : Don Marchese
Drilling Equipment : Geoprobe 7822DT

Date : 07/06/2016 Weather : 80s, Sunny

Northing (US ft) : 569433.06

Easting (US ft) : 1462864.36

				(page i				
	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
	0-				0-0 5') C	ONCRETE, loose, white, dry, non plastic, non	_	
			-	B6-017-SB-1	cohesive	errortere, 10000, white, dry, non plactic, non		
	-		-		(0.5-2.5') non plast	SAND, fine to medium grained, loose, brown, dry, tic, non cohesive	SP	
		70	5.7		(2 5-3 5')	SLAG, GRAVEL and SAND sized, loose, pale		
	-				brown an	nd gray, dry, non plastic, non cohesive	GP/SP	
			3.5		(3.5-4.1')	SAND, loose, brown, dry, non plastic, non cohesive	e SP	
	-					SLAG, SAND and GRAVEL sized, loose, brown and	0.	
			8.4		light gray	other, said Givavee sized, loose, blown and , dry grading to moist, non plastic, non cohesive	<b>4</b>	
	5							
			62.4	B6-017-SB-6				
Ŝ	-							
ביים ביים ביים ביים ביים ביים ביים ביים			12.3					
200	-						GP/SP	
9		100	17.0					
5	-							
<u> </u>			18.3					
Ś	-							Blue tinted slag
			4.2					
	10		-			SLAG, GRAVEL and SAND sized, with SILT, loose, and light gray, non plastic, non cohesive		
	1		0.5				GP/SP	
			0.5				GF/SP	
	]	80	0.4					Wet at 12.5' bgs
ָ ס		ου	0.4					vvecatiz.o bys
5	]		0.4			) SILT, soft, gray, moist, cohesive, low plasticity	ML GP/SP	
			0.4		(13.3-13.	7') SLAG, GRAVEL and SAND sized, loose, gray, plastic, non cohesive	GF/SP	
many and company and	]		0.1			7') SILT, soft, gray, moist, cohesive, low plasticity	/ ML	
5	15		0.1			) SLAG, GRAVEL and SAND sized, loose, gray,	GP/SP	
2	13-7				wet, non	plastic, non cohesive		
2					End of Bo	oring		
Ĺ								

Total Borehole Depth: 15' bgs.

Boring terminated due to water

at 15' bgs.

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Boring ID: B6-018-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G.
Checked by : M. Replogle, E.I.T.

Drilling Equipment : Kevin Pumpnrey
: Geoprobe 7822DT

Date : 06/20/2016 Weather : 80s, Sunny

Northing (US ft) : 569501.90

B Drilling Company : Green Services, Inc. Easting (US ft) : 1462855.49
Driller : Kevin Pumphrey

			(page i	oi i)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				(0-1') CO	NCRETE, hard, dry		
		-	B6-018-SB-1	(0.700		-	
_		-		(1-7') SAI coarse, lo cohesive	ND with trace SILT and coarse GRAVEL, fine to cose, light gray to brown, dry, non plastic, non		
_	57	9.2					
_		7.9	B6-018-SB-4			sw	
5-		1.4					
5-		-					
_		5.8					
_	83	6.8		(7-8.5') S non cohe	ILT, stiff, reddish yellow and tan, dry, non plastic, sive	ML	
10-		4.7		(8.5-10') yellow an	CLAY with trace SAND and GRAVEL, soft, reddish d tan, wet, cohesive, high plasticity		Wet at 8.5' bgs
10-		16.7				CL	
10-				End of Bo	pring		

Total Borehole Depth: 10' bgs.

Boring terminated due to water

at 10' bgs.

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Boring ID: B6-019-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.
Drilling Company : Green Services, Inc.

Driller : Don Marchese
Drilling Equipment : Geoprobe 7822DT

Date : 06/17/2016 Weather : 70s, Cloudy

Northing (US ft) : 571473.33

Easting (US ft) : 1462346.63

			(page i	01 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				(0-3 8') S	ANDY SILT with small SLAG GRAVEL, soft, brown,		
		-	B6-019-SB-1	dry, non	plastic, non cohesive		
		-					
-						ML	
	60	3.9					
-		18.5	B6-019-SB-4				
-				(3.8-4.2') plasticity	CLAY, soft, very pale brown, moist, cohesive, low	CL	
		13.7		(4.2-5') S	ANDY GRAVEL, loose, brown and gray, dry, non on cohesive	GW	
5-		-		(5-7.5') S dark brov	AND AND GRAVEL SIZED fill, loose, yellow and vn, dry grading to moist, non plastic, non cohesive		
-							
		0.3				-	
-							
_	80	0.2		(7.5-10') brown an	BRICK and SLAG GRAVEL, loose, yellow and dark d light gray, wet, non plastic, non cohesive		Wet at 7.5' bgs
		0.0					
-							
		0.0					
10 —				End of Bo	pring		

Total Borehole Depth: 10' bgs.

Boring terminated due to water

at 10' bgs.

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Boring ID: B6-020-S

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

: M. Replogle, E.I.T. Checked by

Drilling Equipment : Geoprobe 7822DT Date : 06/17/2016

Weather : 70s, Sunny

Northing (US ft) : 571462.69

CD	Drilling Company	: Green Services, Inc.	Easting (US ft)	: 1462341.28
SB	Driller	: Don Marchese		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-		-	B6-020-SB-1	(0-3.8') SILT with SLAG GRAVEL and SAND, soft, dark brown, dry, non plastic, non cohesive		
_	70	8.6			ML	
-		11.8	B6-020-SB-4	(3.8-4.3') CLAY, hard, very pale brown, dry, cohesive, lo	ow CL	
		4.2		plasticity (4.3-5') SLAG, GRAVEL and SAND sized, loose, gray al brown, moist, non plastic, non cohesive		
5-		0.1		(5-7') SAND and SLAG GRAVEL, loose, brown, dry, nor plastic, non cohesive	SP/GP	
-	70	0.7		(7-7.5') SANDY CLAY, soft, brown and pale brown, mois cohesive, medium plasticity (7.5-10') SLAG and FILL, GRAVEL and SAND sized, loc yellow gray and black, non plastic, non cohesive	OL OL	Wet at 7.5' bgs
-		0.6			SP/GP	
40		0.2				
10-				End of Boring	,	

Total Borehole Depth: 10' bgs.

Boring terminated due to water

at 10' bgs.



Boring ID: B6-021-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Kevin Pumphrey

: Geoprobe 7822DT **Drilling Equipment** 

Date : 06/13/2016

Weather : 70s, Sunny

Northing (US ft) : 569397.76

Easting (US ft) : 1463015.88

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-	%	<u> </u>	<sub>ν</sub>			
-		0.6	B6-021-SB-1	(0-2') SANDY GRAVEL with SILT, loose, gray, dry, non plastic, non cohesive	SW/GW	
		0.6				
	90	0.1		(2-4') SANDY GRAVEL with SILT, loose, tan to gray, dry, nolastic, non cohesive	sw/Gw	
		4.3	B6-021-SB-4		3,47,57,	
-		0.1		(4-4.8') Fine grained SAND, light brown, wet, non plastic, n cohesive	SC	
5-		0.3		(4.8-5') CLAYEY SAND, light brown, fine grained, moist, cohesive, low plasticity	SP-SC	
-		0.0		(5-10') CLAY with some SAND, stiff, gray, reddish yellow, and brown, slightly moist, cohesive, high plasticity		
-		0.0				
	100	0.0			CL	
		0.0				
40		0.0	B6-021-SB-10			
10-		-		(10-13') CLAY, soft, gray, very moist, cohesive, high plasticity		
		-			CL	
-	100	_				
-	. 30			(13-15') SANDY CLAY, stiff, gray, reddish yellow, and brown, with coarse SAND at 13' bgs, cohesive, medium		Wet at 13' bgs
-		-		brown, with coarse SAND at 13' bgs, cohesive, medium plasticity	CL	
15		-				

Total Borehole Depth: 15' bgs.



Boring ID: B6-022-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman

: M. Replogle, E.I.T. Checked by Drilling Company : Green Services, Inc. Driller : Ali Berenbrok - Tim Niblett

**Drilling Equipment** : Geoprobe 7822DT Date : 06/14/2016

Weather : 70s, Sunny

Northing (US ft) : 569531.35

Easting (US ft) : 1463003.51

			(19	,		<u> </u>	
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				(0.21) SL	AG GRAVEL with SAND, loose, black to dark gray,		
-		2.6	B6-022-SB-1	non plast	tic, non cohesive	SW/GW	
-	84	2.2		(2-3') GR plastic, n	RAVELLY SAND, loose, tan to brown, dry, non on cohesive	GW/SW	
-		0.0		, ,	CINDERS, black, very moist  SANDY GRAVEL, loose, gray, dry, non plastic, nor	- n	
-		0.0		cohesive	: (a) (v) (v) (c) (v) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c		Wet at 4' bgs
5-				(4.5-6') G non cohe	GRAVEL with SAND, loose, black, wet, non plastic, sive	GW	
		4.9					
-		0.0		(6-7.5') S medium	SANDY CLAY, soft, olive gray, wet, cohesive, plasticity	CL	
-	100	0.0		stiff, brov	SANDY CLAY, SAND content increasing with depth vn and reddish yellow to gray, very moist to wet, , medium plasticity	١,	
-		0.0			•	CL	
40		0.0					
10 –				End of B	oring	•	
	1						

Total Borehole Depth: 10' bgs.

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Boring ID: B6-023-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

: Ali Berenbrok - Tim Niblett

ARM Representative : B. Gehman

Driller

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

**Drilling Equipment** : Geoprobe 7822DT Date : 06/14/2016

Weather : 70s, Sunny

Northing (US ft) : 569471.81

Easting (US ft) : 1463043.63

	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	511)	DESCRIPTION	nscs	REMARKS
ŀ	0-	0						
			1.4	B6-023-SB-1	(0-4.5') G loose, dr	GRAVELLY SAND with SILT, black to light gray, y to moist, some SLAG, non plastic, non cohesive		
			2.9					
	-	100	6.2				GW/SV	
	-		105.8	B6-023-SB-4				Odor at 4' bgs
3-SB.bor	5—		0.0		(4.5-5') S	ANDY CLAY, stiff, light gray, slightly moist, , low plasticity	CL	
01-03-2019 P:\EnviroAnalytics Group\150300M EAG_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\2_Bor Logs\B6-023-SB.bor	-		-		(5-10') S/	ANDY CLAY, stiff to very stiff (9.2'), light gray to rellow to brown, slightly moist, cohesive, high		
ring Logs\2_	-	70	11.1				CL	
arcel B6\Bo			10.7					
cuments\P	10-		2.5	B6-023-SB-10				− Wet at 10' bgs
Area B\Do			-		(10-14') S non plast	SAND, fine grained, loose, dark gray, wet, cohesive ic	€,	
ows Point			-				SP	
AG_Sparr	-	100	-					
0300M E			-					
Group/15	15—		-		(14-15') (	CLAY, soft, gray, wet, cohesive, high plasticity	CL	
oAnalytics	15				End of Bo	oring		
19 P:\Envir		orehole D						
01-03-201	Boring to	erminated	d due to w	vater at 15' bgs.				



Boring ID: B6-024-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc

Driller : Kevin Pumphrey : Geoprobe 7822DT **Drilling Equipment** 

Date : 06/13/2016

Weather : 70s, Sunny

Northing (US ft) : 569381.73

Easting (US ft) : 1462960.48

			(page 1	01 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0	1			(0.31) CB	AVELLY SAND, loose, light brown to tan, dry, non		
		0.4	B6-024-SB-1	plastic, no	on cohesive	GW/SW	
	100	29.7					
-		1.3		plastic, no	RAVELLY SAND, black, wet, strong odor, non on cohesive	GW/SW	Product odor at 3' bgs
-				(3.5-4.5') cohesive	SAND, fine grained, tan, moist, non plastic, non	SP	
		0.1	B6-023-SB-5	(4.5-5.0')	SANDY CLAY, reddish yellow, moist, cohesive,	CL	
5		0.0		medium r (5-10') Cl medium t	olasticity  AY with SAND, stiff, tan to light gray, cohesive, o high plasticity		
		0.0					
	100	0.0				CH/CL	
		0.0					
10		0.1	B6-023-SB-10				
		-		(10-14') ( mottling,	CLAY, soft, tan to light gray with reddish yellow cohesive, high plasticity		
		-				CL	
	100	-					
		-					
15		-		(14-15') ( wet, cohe	CLAY, very soft, tan with reddish yellow mottling, esive, high plasticity	CL	Wet at 14' bgs
15 +				End of Bo	oring	•	

Total Borehole Depth: 15' bgs.

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Boring ID: B6-025-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman Checked by

: M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Ali Berenbrok - Tim Niblett

**Drilling Equipment** : Geoprobe 7822DT Date : 06/14/2016

Weather : 70s, Sunny

Northing (US ft) : 569538.68

Easting (US ft) : 1462942.67

				<u> </u>		
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-				(0-3') SANDY GRAVEL with SILT, loose, dark brown, non		
-		-	B6-025-SB-1	plastic, non cohesive		
_		0.3			GW-GM	
_	86	1.5				Clay spot at 2.8' bgs
		0.5		(3-4.5') SLAG GRAVEL with SAND, black, dry, non plastic, non cohesive		
5-		0.0	B6-025-SB-5	(4.5-5') Fine grained SAND, dark tan, very moist, non plastic, non cohesive	SP	
_		-		(5-9.5') Fine grained SAND, light brown to light gray, very moist to wet, non plastic, non cohesive		
_		0.4				
_	70	0.7			SP	Wet at 8' bgs
_		0.1				The tare by
10-		0.1		(9.5-10') CLAY with some SAND, stiff, tan to light gray, high plasticity, cohesive End of Boring	CL	

Total Borehole Depth: 10' bgs.

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Boring ID: B6-026-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman : M. Replogle, E.I.T. Checked by

Drilling Company : Green Services, Inc. Driller : Ali Berenbrok - Tim Niblett

**Drilling Equipment** : Geoprobe 7822DT Date : 06/13/2016

Weather : 70s, Sunny

Northing (US ft) : 569447.73

Easting (US ft) : 1462953.28

			(19	,			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0	_				NDV ODAVEL I I I I I I I I I I I I I I I I I I I		
		20.8	B6-026-SB-1	moist, no	NDY GRAVEL, loose, dark gray to light gray, slight on plastic, non cohesive	SW/GW	
		53.2					
	94	250.2			GRAVEL, black, wet, non plastic, non cohesive	GW	Strong odor 2-2.5' bgs
	- 94	250.2		(2.5-4.0') and brow	) SANDY CLAY, very stiff, gray to reddish yellow vn, cohesive, medium plasticity		
		141.8				CL	
5	_	37.8	B6-026-SB-5	non plast	ND, gray to reddish yellow and brown, very moist, tic, non cohesive, odor	SW	
5		-		(5-10') Fi	ine grained SAND, light gray, very moist, non plasti esive	C,	
		-					
	24	-					
		4.8					
40		14.6					Wet at 10' bgs
10				End of B	oring	•	-

Total Borehole Depth: 10' bgs.

01-03-2019 P:\EnviroAnalytics Group\150300M EAG\_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\\Z\_Bor Logs\B6-026-SB.bor



Boring ID: B6-027-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Ali Berenbrok - Tim Niblett

**Drilling Equipment** : Geoprobe 7822DT Date : 06/14/2016

Weather : 70s, Sunny

: 569494.30 Northing (US ft)

Easting (US ft) : 1462964.25

				01 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	NSCS	REMARKS
0-				(0.31) CB	AVELLY SAND, loose, brown to dark brown, dry,		
-		2.9	B6-027-SB-1	non plast	ic, non cohesive	SW/GW	
		4.6					
	100	35.2		cohesive	LAY with some SAND, very stiff, dark tan, medium plasticity	CL	
		18.31	B6-027-SB-4	(2.2-4.5°) loose, bro	GRAVELLY SAND with CONCRETE GRAVEL, own to dark brown, dry, non plastic, non cohesive	SW/GW	
5—		29.1		(4.5-5') S	AND, fine grained, dense, light gray, slightly moist, city, cohesive	CL	
		1.0		(5-8.5') S	AND, fine grained, dense, light gray, slightly moist, ic, cohesive		
		206				SP	
-	100	14.4					
-		0.4		(8.5-10') yellow, w	SAND, fine grained, loose, light gray to reddish et, non plastic, cohesive	SP	Wet at 8.5' bgs
		0.1					
10		-		(10-14') S water, no	SAND, fine grained, light brown, saturated with free in plastic, cohesive		
		-				SP	
	50	-					
		-		/44 450	ANDY OLAY		
15—		-		(14-15') \$   medium	SANDY CLAY, gray to light brown, wet, cohesive, plasticity, cohesive	CL	
			•	End of B	•	•	

Total Borehole Depth: 15' bgs.

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Boring ID: B6-028-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman

Checked by : M. Replogle, E.I.T.

Drilling Company : Green Services, Inc

Driller : Kevin Pumphrey

Drilling Equipment : Geoprobe 7822DT

Date : 06/13/2016 Weather : 70s, Sunny

Northing (US ft) : 569408.31

Easting (US ft) : 1462974.22

DESCRIPTION  O  O  O  O  O  O  O  O  O  O  O  O				(page i	,			
- B6-028-SB-1 (0-2.5) SANDY GRAVEL, loose, dark gray, dry, non plastic, non cohesive SW/GW  (2.5-4') SANDY GRAVEL, loose, tan to light gray, dry, non plastic, non cohesive SW/GW  (4-5') Fine grained SAND, stiff to loose, slightly loose, non plastic, non cohesive SP  (5-9.5') Fine grained SAND, tan to dark brown to reddish yellow and brown, moist, non plastic, non cohesive SP  31.9 B6-028-SB-9  12.1 B6-028-SB-10 (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive CL	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
100 - B6-028-SB-1 non cohesive SW/GW  (2.5-4') SANDY GRAVEL, loose, tan to light gray, dry, non plastic, non cohesive SW/GW  (4-5') Fine grained SAND, stiff to loose, slightly loose, non plastic, non cohesive SP  (5-9.5') Fine grained SAND, tan to dark brown to reddish yellow and brown, moist, non plastic, non cohesive  SP  10 - SP  12.1 B6-028-SB-10 (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive CL	0-				(0-2.5') S	SANDY GRAVEL, loose, dark gray, dry, non plastic,		
100 - (2.5-4') SANDY GRAVEL, loose, tan to light gray, dry, non plastic, non cohesive SW/GW  (4-5') Fine grained SAND, stiff to loose, slightly loose, non plastic, non cohesive SP  (5-9.5') Fine grained SAND, tan to dark brown to reddish yellow and brown, moist, non plastic, non cohesive SP  12.1 B6-028-SB-9  12.1 B6-028-SB-10 (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive CL			-	B6-028-SB-1				
100 - (2.5-4') SANDY GRAVEL, loose, tan to light gray, dry, non plastic, non cohesive SW/GW  (4-5') Fine grained SAND, stiff to loose, slightly loose, non plastic, non cohesive SP  (5-9.5') Fine grained SAND, tan to dark brown to reddish yellow and brown, moist, non plastic, non cohesive  SP  31.9 B6-028-SB-9  12.1 B6-028-SB-10 (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  CL  90 - CL	-				1		SW/GW	
(2.5-4') SANDY GRAVEL, loose, tan to light gray, dry, non plastic, non cohesive  (4-5') Fine grained SAND, stiff to loose, slightly loose, non plastic, non cohesive  (5-9.5') Fine grained SAND, tan to dark brown to reddish yellow and brown, moist, non plastic, non cohesive  SP  31.9 B6-028-SB-9  12.1 B6-028-SB-10  (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive  (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  CL  90 - CL	_		-					
plastic, non cohesive  SW/GW  (4-5') Fine grained SAND, stiff to loose, slightly loose, non plastic, non cohesive  SP  (5-9.5') Fine grained SAND, tan to dark brown to reddish yellow and brown, moist, non plastic, non cohesive  SP  12.1 B6-028-SB-9  12.1 B6-028-SB-10  (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive  (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  CL  90 - CL		100	-		(2.5.4') \$	CANDY CRAVEL loose ten te light gray day non		
(4-5') Fine grained SAND, stiff to loose, slightly loose, non plastic, non cohesive  (5-9.5') Fine grained SAND, tan to dark brown to reddish yellow and brown, moist, non plastic, non cohesive  SP  31.9 B6-028-SB-9  12.1 B6-028-SB-10  (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive  (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  CL	-				plastic, n	on cohesive	SW/GW	
plastic, non cohesive  (5-9.5') Fine grained SAND, tan to dark brown to reddish yellow and brown, moist, non plastic, non cohesive  SP  31.9 B6-028-SB-9  12.1 B6-028-SB-10 (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive  (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  CL  90 - CL			-				0000	
(5-9.5') Fine grained SAND, tan to dark brown to reddish yellow and brown, moist, non plastic, non cohesive  SP  12.1 B6-028-SB-10 (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  90 - CL	-				(4-5') Fin	e grained SAND, stiff to loose, slightly loose, non	O.D.	
(5-9.5') Fine grained SAND, tan to dark brown to reddish yellow and brown, moist, non plastic, non cohesive  SP  12.1 B6-028-SB-9  12.1 B6-028-SB-10 (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive  (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  90 - CL	5-		-				55	
31.9 B6-028-SB-9  12.1 B6-028-SB-10 (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  90 - CL	3		-		(5-9.5') F	Fine grained SAND, tan to dark brown to reddish		
31.9 B6-028-SB-9  12.1 B6-028-SB-10 (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  - 90 - CL	-				ľ	, , , ,		
10 B6-028-SB-9  12.1 B6-028-SB-10 (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  90 - CL			-					
10 B6-028-SB-9  12.1 B6-028-SB-10  (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive  (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  - CL	-						SP	
10 B6-028-SB-10 (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive CL	_	50	-					
10 B6-028-SB-10 (9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive CL			31.9	B6-028-SB-9				
(9.5-10') SANDY CLAY, gray to reddish yellow and brown, moist, medium plasticity, cohesive  (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  - 90 - CL	-							
- (10-15') CLAY with some SAND, soft, tan to reddish yellow and brown, very moist, high plasticity, cohesive  - 90 - CL			12.1	B6-028-SB-10	(9.5-10')	SANDY CLAY gray to reddish yellow and brown	CI	
and brown, very moist, high plasticity, cohesive  - 90 - CL	10 —							
90 - CL			-		(10-15') (   and brow	CLAY with some SAND, soft, tan to reddish yellow vn, very moist, high plasticity, cohesive		
- 90 - CL	-		_					
	_		_					
		90	-				CL	
	-							
Wet at 14' bos			-					Wet at 14' bgs
	-							
15	15-		-					
End of Boring	.0				End of B	oring		

Total Borehole Depth: 15' bgs.

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Boring ID: B6-029-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman Checked by : M. Replogle

Checked by : M. Replogle, E.I.T.

Drilling Company : Green Services, Inc.

Driller : Ali Berenbrok - Tim Niblett

Drilling Equipment : Geoprobe 7822DT

Date : 06/13/2016

Weather : 70s, Sunny

Northing (US ft) : 569450.25

Easting (US ft) : 1462967.15

			(page 1	of 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-		-	B6-029-SB-1	(0-1.5') S cohesive	LAG GRAVEL, loose, black, dry, non plastic, non	GW	
		0.9		(1.5-2.0') non cohe	SANDY GRAVEL, loose, light tan, dry, non plastic	sw/gw	
-	80	2.4			NDY GRAVEL, loose, dark gray, dry, non plastic,	SW/GW	
_		7.2		(3-5') SAI plastic, no	NDY GRAVEL with some SLAG, light gray, non on cohesive	SW/GW	
		22.3	B6-029-SB-5				
5-		-		(5-7.5') S cohesive	ANDY CLAY, very stiff, gray, slightly moist, , medium plasticity	CL	Odor 2-8' bgs
_	60	<ul><li>3.7</li><li>4.4</li><li>0.0</li></ul>		(7.5-10') reddish y cohesive	SAND, fine grained, slightly dense, dark gray to ellow and brown, very moist to wet, non plastic,	SP	Wet at 9' bgs
10-				End of Bo	pring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-030-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 06/15/2016

Weather : 70s, Rainy

Northing (US ft) : 570837.57

Easting (US ft) : 1463568.84

			(page i					
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION		nscs	REMARKS
0-				(0-2') SII	_T with GRAVEL and SAND, soft, brown	aradina to		
-		0.0	B6-030-SB-1	dark brov	wn, non plastic, non cohesive	r grading to	ML	Moderate sweet odor
	90	0.0		(2-3') CL cohesive	AY, soft, very dark gray, moist, high pla	sticity,	CL	
-		0.0		(3-5') CL reddish y medium	AY, firm to hard, gray grading to pale by yellow, moist, grades to SANDY CLAY a plasticity, cohesive	rown to at depth,	CL	
_		0.0	B6-030-SB-5					
5-		-		(5-10') S reddish y	AND, medium dense to loose, very pale yellow, moist to wet, non plastic cohesiv	e brown and re		
-		0.0						
	80	0.0					SP	Wet at 8' bgs
_		0.0						J
10-		0.0						
, '				End of B	oring			

Total Borehole Depth: 10' bgs.

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Boring ID: B6-031-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Don Marchese

**Drilling Equipment** : Geoprobe 7822DT Date : 06/15/2016

Weather : 70s, Cloudy

Northing (US ft) : 570917.11

Easting (US ft) : 1463596.71

			(page 1	01 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-		-	B6-031-SB-1	(0-3') SIL GRAVEL	T with GRAVEL grading to SANDY SILT with , soft, dark brown, dry, non plastic, non cohesive		
-		0.0				ML/SM	
-	83	163		(3-3.3') G	RAVEL, loose, very pale brown, moist, non plastic,	GP	
_		228	B6-031-SB-4	non cohe (3.3-7.5')	sive CLAY, hard, very pale brown, dry to moist, medium cohesive	/	
5-		40.3				CL	
-		0.0					
-	80	0.0		(7.5-10') grayish o	SAND, medium dense, reddish yellow and light live, very moist to wet, non plastic, non cohesive		
-		0.0				SP	Wet at 9.5' bgs
10-		0.0		End of Bo	pring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-032-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.

Drilling Company : Green Services, Inc.

Driller : Don Marchese
Drilling Equipment : Geoprobe 7822DT

Date : 06/15/2016

Weather : 70s, Rainy

Northing (US ft) : 570841.97

Easting (US ft) : 1463619.49

			(page 1	of 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	USCS	REMARKS
0-				(0-2 5') 9	ILT with GRAVEL grading to SANDY SILT with		
_		-	B6-032-SB-1	GRAVEL	, soft, brown to dark brown and gray, dry, non on cohesive	ML/SM	
_		0.0				IVIL/SIVI	
=	93	69.4		dark gray	CLAY grading to SANDY CLAY, soft to firm, very grading to pale brown, moist to very moist, high cohesive		
_		68.8	B6-032-SB-4			CH/SC	
5-		18.0		non cohe		SP	
3-		-		(5-7.5') S grading to cohesive	AND, dense to medium dense, reddish yellow o very pale brown, moist to wet, non plastic, non		
_		12.5				SP	Wet at 7' bgs
-	100	12.8		(7.5-10') mottling,	CLAY, very firm, light gray and reddish yellow moist, high plasticity, cohesive		Light odor in sand
-		0.0				CL	
10-		0.0					
.0				End of Bo	oring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-033-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.
Drilling Company : Green Services, Inc.
Driller : Don Marchese

Driller : Don Marchese
Drilling Equipment : Geoprobe 7822DT

Date : 07/06/2016 Weather : 80s, Sunny

Northing (US ft) : 571828.88

Easting (US ft) : 1462221.30

				(page 1	of 1)			
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
	0-				(0 1 5') 9	SILT with SAND, soft, brown to dark brown with		
			-	B6-033-SB-1	trace oxid	dation and small SLAG GRAVEL, dry, non plastic,	ML	
			4.6		(1.5-2') S tinted SL	SLAG GRAVEL and SAND, loose, brown but blue AG, dry, non plastic, non cohesive	GP/SP	
	-	80	1.8		(2-4.5') S grading to cohesive	SAND with SILT and small GRAVEL, loose, brown o dark red, dry grading to moist, non plastic, non		
	-		5.7	B6-033-SB-4			sw	
	-		3.5					Wet at 4.5' bgs
	5-				non plast	SAND with GRAVEL and SILT, loose, dark red, wet, tic, non cohesive	SW	Ü
			-		(5-7') SL <i>i</i> loose, da	AG and BRICK with SILT, SAND and GRAVEL sized, lirk red, wet, non plastic, non cohesive		
	-	100					GP/SP	
			-					
	-			1	End of Bo	oring		
	_							
	10 —							
1 -								

Total Borehole Depth: 7' bgs.

01-03-2019 P:\EnviroAnalytics Group\150300M EAG\_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\\Z\_Bor Logs\B6-033-SB.bor

Boring terminated due to refusal at 7' bgs.



Boring ID: B6-034-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Don Marchese

**Drilling Equipment** : Geoprobe 7822DT Date : 07/05/2016 Weather : 80s, Sunny

Northing (US ft) : 571875.19

Easting (US ft) : 1461636.84

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-				(0-0.2') ASPHALT, loose, gray dry, non plastic, non cohesive	NA	
_		-	B6-034-SB-1	(0.2-2.5') SLAG, GRAVEL and SAND sized, loose, brown, moist, non plastic, non cohesive	14.	
_		8.1			GW	
_	80	19.7		(2.5-3') SAND, fine to medium grained, loose, reddish yellow, dry, non plastic, non cohesive	sw	
				(3-3.5') CLAY with SAND, very firm, reddish yellow, dry, low plasticity, cohesive	CL	
		14.5	B6-034-SB-4	(3.5-4') GRAVELLY SAND, loose, reddish yellow, wet, non plastic, non cohesive	sw	
_		1.2		(4-5') SANDY CLAY, soft, reddish yellow, moist, cohesive, low plasticity	CL	
5—		0.9		(5-6.5') SAND with CLAY, very firm, reddish yellow, moist, non plastic, non cohesive	SC	
	100	-		(6.5-7.5') SANDY CLAY, very soft, reddish yellow, wet, low plasticity, cohesive	CL	Wet at 6.5' bgs
		1.4		(7.5-8') SLAG, GRAVEL and SAND sized, loose, gray, wet, non plastic, non cohesive	GP/SP	

Total Borehole Depth: 8' bgs.

Boring terminated due to water and refusal at 8' bgs.



Boring ID: B6-035-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 07/05/2016 Weather : 80s, Sunny

Northing (US ft) : 571854.89

Easting (US ft) : 1461765.26

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-				(0-0.3') ASPHALT, loose, gray, dry, non plastic, non cohesive	<u> </u>	
_		1.1	B6-035-SB-1	(0.3-2.5') SLAG, GRAVEL and SAND sized, loose, brown grading to red at depth, moist, non plastic, non cohesive		
_		4.4			GP/SP	
_	100	315.8		(2.5-3') SILT with GRAVEL, firm, yellowish brown, dry, non plastic, non cohesive	ML	
		111.3	B6-035-SB-4	(3-5') SILT with SLAG GRAVEL, soft, dark brown, yellowish brown and black, dry, non plastic, non cohesive	NAI.	Ellipsiana of applications of 2011, used
_		18.5			ML	5" piece of asphalt and 3" wood fragment at 4' bgs
5—		-		(5-9') SANDY SILT with SLAG GRAVEL and some lenses of firm CLAY, soft, brown, reddish yellow and gray, dry, non plastic, non cohesive		
_					ML	
-	80	4.5				
		37.8				Wat at Ollhara
_		13.3		(9-10') SLAG GRAVEL with SAND, loose, reddish yellow and gray, wet, non plastic, non cohesive	GP	Wet at 9' bgs
10 —				End of Boring		

Total Borehole Depth: 10' bgs.

01-03-2019 P:\EnviroAnalytics Group\150300M EAG\_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\\Z\_Bor Logs\B6-035-SB.bor



Boring ID: B6-036-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.

Drilling Company : Green Services, Inc.

Driller : Don Marchese
Drilling Equipment : Geoprobe 7822DT

Date : 06/30/2016 Weather : 80s, Sunny

Northing (US ft) : 571476.74

Easting (US ft) : 1459990.66

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-	%	<u>a</u>	, w	(0-0.75')	CONCRETE, loose, white dry		
_		-	B6-036-SB-1	(0.75-3')	SILT, soft, pale brown, dry, low plasticity, cohesive	NA	
_		-				ML	
	70	340.7					
_		155.7		(3-9.5') S moist, no	AND and SLAG GRAVEL, loose, brown, dry to very n plastic, non cohesive		
5-		27.4					
_		-					
_		-				SP/GP	
-	70	233.6	B6-036-SB-8				
_		108.8					
10-		41.1		plastic, n	SANDY GRAVEL, loose, gray and brown, wet, non on cohesive bring	GP	Wet at 9.5' bgs Slight odor

Total Borehole Depth: 10' bgs.

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Boring ID: B6-037-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

**Drilling Equipment** : Geoprobe 7822DT Date : 06/30/2016

Weather : 80s, Sunny

Northing (US ft) : 571342.03

Easting (US ft) : 1459930.94 Driller : Don Marchese

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0-	%		S		>	
J		-	B6-037-SB-1	(0-3.8') SILTY GRAVEL with SAND, loose, brown, dry to very moist, non plastic, non cohesive		
_		1.3			GW-GM	
_	85	8.4				Very strong odor, no sheen
_		2.1		(3.8-5') SILT with GRAVEL, soft, black, moist, non plastic,		
-		6.8	B6-037-SB-5	non cohesive	ML	W. A. Elbar
5-		-		(5-8') SILTY SAND with GRAVEL, loose, dark brown to blac wet, non plastic, non cohesive	ck,	Wet at 5' bgs
_		-			SM	
_	80	-				
<del>-</del>		-		(8-10') SANDY GRAVEL, loose, brown, wet, non plastic, no cohesive		
-		-			GP/SP	
10 —				End of Boring		

Total Borehole Depth: 10' bgs.

01-03-2019 P:\EnviroAnalytics Group\150300M EAG\_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\\Z\_Bor Logs\B6-037-SB.bor



Boring ID: B6-038-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.
Drilling Company : Green Services, Inc.

Driller : Don Marchese
Drilling Equipment : Geoprobe 7822DT

Date : 06/30/2016 Weather : 80s, Sunny

Northing (US ft) : 571389.26 Easting (US ft) : 1459935.06

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0				(0-0.5') C	ONCRETE, loose, white, dry, non plastic, non	NA	
		-	B6-038-SB-1	cohesive (0.5-3') S and gray	ILT with SLAG GRAVEL and SAND, soft, brown dry, non plastic, non cohesive		
1							
		255.7				ML	
ę	90	224.4					
-				(3-3.5') S	ILT with SLAG GRAVEL and SAND, soft, brown	ML	
		397.2	B6-038-SB-4	(3.5-5') B	dry, low plasticity, cohesive RICK, SAND and GRAVEL-sized fragments, loose d red and gray, dry, non plastic, non cohesive		
		87.7		DIOWII AII	u red and gray, dry, non plastic, non conesive	NA	
5		-		(5-9') SAI and red a	ND with BRICK and SLAG GRAVEL, loose, brown and gray, very moist, non plastic, non cohesive		
		32.4				sw	
] 7	70	35.8					
		100.2					Moderate odor
		40.5		(9-10') SI plastic, ne	AG GRAVEL with SILT, loose, gray, wet, non on cohesive	GP/SP	Wet at 9' bgs
10				End of Bo	pring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-039-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman Checked by

: M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Kevin Pumphrey

: Geoprobe 7822DT **Drilling Equipment** 

Date : 06/13/2016

Weather : 60s, Sunny

Northing (US ft) : 569231.05

Easting (US ft) : 1462914.15

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-	0.		0,	(0-3.5') GRAVELLY SAND, loose, brown, dry, non plastic,		
_		-	B6-039-SB-1	non cohesive		
-		20.4			GW/SW	
-	92	32.0				
_		18.2		(3.5-4') SLAG GRAVEL with SAND, gray and dark gray, dry to slightly moist, non plastic, non cohesive	GW	
_		12.7	B6-039-SB-5	(4-5') SANDY CLAY with GRAVEL, tan, very moist, medium plasticity, cohesive	CL	Strong odor at 4.5' bgs
5-		-		(5-7.5') GRAVELLY SAND, loose, brown, dry, non plastic, non cohesive		
		3.1			GW/SW	
-						Wet at 7.5' bgs
	90	4.6		(7.5-8') SANDY GRAVEL, white, wet, non plastic, cohesive	SW/GW	
_		00 -		(8-8.5') CLAYEY SAND, black, wet, low plasticity, cohesive	sc	Product at 8' bgs, strong odor and black
=		20.7		(8.5-10') SLAG GRAVEL with SAND, light gray, wet, non plastic, non cohesive	GW	
		8.0				
10-				End of Boring	1	

Total Borehole Depth: 10' bgs.

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Boring ID: B6-040-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Kevin Pumphrey

: Geoprobe 7822DT **Drilling Equipment** 

Date : 06/13/2016

Weather : 60s, Sunny

Northing (US ft) : 569248.54

Easting (US ft) : 1462952.66

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-		0.2	B6-040-SB-1	(0-3') SANDY GRAVEL with SILT, loose, black to tan, on plastic, non cohesive	dry,	
-		1.0			SW/GW	
	90	6.1				
		12.5		(3-4') SLAG GRAVEL with some SAND, loose, very monon plastic, non cohesive	oist, GW	
-		0.8	B6-040-SB-5	(4-5') CLAY with reddish yellow mottles and some SAN very stiff, tan, chigh plasticity, cohesive	ND,	
5-		1.2		(5-7.5') SANDY CLAY, slightly dense, gray, slightly momedium plasticity, cohesive	ist,	
-		2.2			CL	
	100	0.9		(7.5-8') GRAVEL with some CLAY, gray to black, wet, roplastic, cohesive	non GW	
		0.4		(8-10') SANDY CLAY, slightly dense, gray, slightly mois medium plasticity		
1.		0.1	B6-040-SB-10		CL	
10-	0	-		(10-11') No return, refusal - possible concrete		Boring refusal at 11' bgs
			I	End of Boring	I	1 0

Total Borehole Depth: 11' bgs.

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Boring terminated due to refusal at 11' bgs.



Boring ID: B6-041-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3 Project Description

: Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD ARM Representative : J. Yaple, P.G.

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

**Drilling Equipment** : Geoprobe 7822DT Date : 06/15/2016

Weather : 70s, Rainy

Northing (US ft) : 569058.05 : 1462671.97

Easting (US ft) Driller : Ali Berenbrok - Tim Niblett

	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION		nscs	REMARKS		
s Group\150300M EAG_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\2_Bor Logs\B6-041-SB.bor	0- - 5- - 10- -	67	- 0.9 1.3 2.4 <0.1 - 1.3 4.9 0.2 <0.1 <0.1	B6-041-SB-4	(8.5-15') plastic, n	SLAG GRAVEL, very loose, blue gray, wet, non on cohesive	k	SM	SILT/CLAY lense at 4-4.5' bgs  SILT/CLAY lense at 7-7.5' bgs  Wet at 8.5' bgs		
01-03-2019 P:\EnviroAnalytics Group\150300M EAG_Sparr	Total Bo	End of Boring  al Borehole Depth: 15' bgs.  Ing terminated due to water at 10' bgs.									



Boring ID: B6-042-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Ali Berenbrok - Tim Niblett Drilling Equipment : Geoprobe 7822DT

Date : 06/15/2016 Weather : 70s, Rainy

Northing (US ft) : 569036.02

Easting (US ft) : 1462683.48

Company   Comp				(page i	,			
10	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	USCS	REMARKS
60 2.8  4.8  0.6	0-				(0 0 51) 0	LAC CAND and CDAVEL sized very laces first		
60 2.8  4.8  0.6  -  60 8.4 B6-042-SB-8  8.4  (8.5-10') SLAG, GRAVEL-sized, very loose, light blue-gray, wet, non plastic, non cohesive, some SLAG  GW  Wet at 8.5' bgs			-	B6-042-SB-1	(0-8.5') S brown, da	LAG, SAND and GRAVEL-sized, very loose, light ark brown, blue-gray, dry, non plastic, non cohesive		
4.8  4.8  0.6	-		-					
5	_	60	2.8					
5	_		4.8					
- 60 8.4 B6-042-SB-8  8.4 (8.5-10') SLAG, GRAVEL-sized, very loose, light blue-gray, wet, non plastic, non cohesive, some SLAG  GW  Wet at 8.5' bgs	_		0.6				SM/GW	
8.4  8.4  (8.5-10') SLAG, GRAVEL-sized, very loose, light blue-gray, wet, non plastic, non cohesive, some SLAG  GW  Wet at 8.5' bgs	5-		-					
8.4  (8.5-10') SLAG, GRAVEL-sized, very loose, light blue-gray, wet, non plastic, non cohesive, some SLAG  GW  Wet at 8.5' bgs	-		-					
(8.5-10') SLAG, GRAVEL-sized, very loose, light blue-gray, wet, non plastic, non cohesive, some SLAG  4.6  GW	-	60	8.4	B6-042-SB-8				
4.6 GW	-		8.4		(8.5-10')	SLAG, GRAVEL-sized, very loose, light blue-gray,		Wet at 8.5' bgs
10 End of Boring	-		4.6		wot, non	piddio, non conceivo, some deno	GW	
	10 —				End of Bo	prina		
						J.		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-043-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman

Checked by : M. Replogle, E.I.T.

Drilling Company : Green Services, Inc

Driller : Ali Berenbrok - Tim Niblett

Drilling Equipment : Geoprobe 7822DT

Date : 06/14/2016 Weather : 80s, Sunny

Northing (US ft) : 569305.47

Easting (US ft) : 1462862.90

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				(0-0.5') C	ONCRETE, loose, white, dry	NA	
_		-	B6-043-SB-1	(0.5-5') S plastic, n	ANDY GRAVEL SLAG, loose, light brown, dry, non on cohesive		
_	50	19.4				GW	
-		8.4					
		8.8					
5-		4.3		(5-10') Sa dry to mo	ANDY GRAVEL SLAG, loose, brown to light gray, ist, non plastic, non cohesive		
_		4.0					
_	84	22.5	B6-043-SB-8			GW	
_		12.8					
		0.0					
10-		-		(10-13') S non plast	SANDY GRAVEL, loose, brown to light gray, wet, ic, non cohesive		
-	29	-				GW	
		-					Wet at 12.5' bgs
-				blue, dry	GRAVEL with SAND SLAG, very dense, grayish to wet, non plastic, non cohesive		
-				End of B	oring		
15-							

Total Borehole Depth: 13.5' bgs.

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Boring terminated due to refusal at 13.5' bgs.



Boring ID: B6-044-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Kevin Pumphrey : Geoprobe 7822DT **Drilling Equipment** 

Date : 06/13/2016

Weather : 70s, Sunny

Northing (US ft) : 569315.33

Easting (US ft) : 1462960.62

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	SS	REMARKS
	Ж	PID	San		nscs	
0-		-	B6-044-SB-1	(0-5') SANDY GRAVEL with SILT and a very stiff/plastic CLAYEY zone at 4.5', loose, brown to black, dry, non plastic, non cohesive		
_		2.0				
_	86	22.8			GW-GM	
_		281.1	B6-044-SB-4			Moist at 4' bgs
		19.9				
5-		0.6		(5-8') CLAY with some SAND, very stiff, reddish yellow and gray to brown, moist, medium plasticity to high plasticity, cohesive		
_		9.8			CL/CH	
	100	0.6				
-		04.7		(8-8.5') GRAVEL, light gray to gray, very moist, non plastic, non cohesive	GW	
_		21.7		(8.5-9.5') CLAY with some SAND, very stiff, reddish yellow and gray to brown, moist, medium plasticity to high plasticity, cohesive	CL/CH	Wet at 9.5' bgs
10-		0.1		(9.5-10') CLAYEY GRAVEL, loose, dark gray, wet, non plastic, non cohesive	GC	,

Total Borehole Depth: 10' bgs.

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Boring ID: B6-045-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Ali Berenbrok - Tim Niblett

**Drilling Equipment** : Geoprobe 7822DT Date : 06/14/2016

Weather : 70s, Sunny

Northing (US ft) : 569598.49

Easting (US ft) : 1462951.06

<u>-</u>	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval ab		DESCRIPTION		nscs	REMARKS	
	0		4.3	B6-045-SB-1	(0-1') SA plastic, n	NDY GRAVEL, loose, light to dark gray, dry, non on cohesive		GW		
			5.6		(1-2') SA red, dry,	NDY SILT, very stiff, gray to brown and yellowish low plasticity, cohesive		ML		
	-	100	1.7		(2-4.5') S brown, no	SANDY GRAVEL with SLAG and BRICK, light gray on plastic, non cohesive	v to			
	_		0.6					GW		
-SB.bor	5—		0.4	B6-045-SB-5		CLAYEY GRAVEL, soft, black, wet, non plastic, nor	n [	GC	Wet zone at 4.5' bgs (perched)	
ogs\B6-045			0.9		cohesive (5-7.5') C medium	CLAY with some SAND, soft, olive gray, very moist, plasticity, cohesive	-		Odor at 5'	
Js∖2_Bor Lo			0.2					CL	Wet zone in clay at 7' bgs	
Boring Lo	_	80	2.3		(7.5-10') and brow	CLAY with some SAND, very stiff, reddish yellow on to gray, slightly moist, high plasticity, cohesive				
∖Parcel B6	_	-	3.2					CL		
ocuments	10-		0.0	B6-045-SB-10	(10 15') (	CLAY with some SAND, soft, reddish yellow and				
t Area B\D	-		-		brown to	gray, wet, cohesive, high plasticity				
rows Poin	-		-							
EAG_Spal	-	40	-					CL		
\150300M	-		-						Wet at 15' bgs	
s Group	15—		-		End of B	oring				
iroAnalytic					⊏IIU UI B	oring				
P:\Env	Total Bo	orehole D	epth: 15'	bgs.						
01-03-2019 P:\EnviroAnalytics Group\150300M EAG_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\2_Bor Logs\86-045-SB.bor	Boring to	erminated	d due to w	vater at 15' bgs.						



Boring ID: B6-046-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : B. Gehman

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Ali Berenbrok - Tim Niblett

**Drilling Equipment** : Geoprobe 7822DT Date : 06/14/2016 Weather : 70s, Sunny

Northing (US ft)

: 569666.88 Easting (US ft) : 1463036.05

			(page 1	of 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				(0-2') GR	AVELLY SAND with CINDER BALLAST and SLAG a	+	
-		4.2 17.4	B6-046-SB-1	1.8', loos	e, dark brown, dry, non plastic, non cohesive	sw	
_				(2-5') SAI	NDY CLAY, gray to reddish yellow to brown,		
_	94	22.2 1.9		slightly m	oist, medium plasticity, cohesive	CL	
-		0.2					
5-			D0 040 0D 0	(5-6') SAI	NDY CLAY, olive gray, slightly moist, medium		
-		7.1	B6-046-SB-6	plasticity,	cohesive	CL	
		2.7		plastic, n	ND, tan to dark brown to black, very moist, non on cohesive	SW	Wet zone in clay at 7' bgs
_	100	0.0		(7-8.5') S medium p	ANDY CLAY, very soft, gray to dark tan, sticky, plasticity, cohesive	CL	Wet zone in day at 7 bys
		0.7		(8.5-20')	CLAY, hard to stiff, gray to brown and reddish		
10-		0.0	B6-046-SB-10	yellow, sl cohesive	ightly moist to wet at bottom, medium plasticity.		
-		-					
		-					
-	100	-					
_		-					
15-		-				CL	
-		-					
_		-					
_	100	-					
_		-					Wet at 20' bgs
20 —		-		End of Bo	aring		
				⊏iiu 0i B0	oring .		

Total Borehole Depth: 20' bgs.

01-03-2019 P:\EnviroAnalytics Group\150300M EAG\_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\\Z\_Bor Logs\B6-046-SB.bor



Boring ID: B6-047-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese Drilling Equipment : Geoprobe 7822DT Date : 07/05/2016 Weather : 80s, Sunny

Northing (US ft) : 571786.69

Easting (US ft) : 1460453.97

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-				(0-3') SANDY SILT with some SLAG GRAVEL, soft, dark		
-		-	B6-047-SB-1	gray and brown, moist, non plastic, non cohesive		
-		9.1			ML	Trace oxidation
	86	7.5				
		23.4		(3-3.5') SILTY SAND, loose, dark brown, wet, non plastic, non cohesive	SM	
-		20.4		(3.5-5') SILT with SAND and small SLAG GRAVEL, soft, red, brown and pale brown, dry, non plastic, non cohesive	ML	
5-		5.0			IVIL	
5		26.0	B6-047-SB-6	(5-6') SILTY SAND with SLAG GRAVEL and BRICK, loose, red and brown, dry, non plastic, non cohesive	SM	
1				(6-6.3') SILTY CLAY, firm, moist, low plasticity, cohesive	CL	
		30.4		(6.3-6.9') CONCRETE, loose, pale yellow, dry, non plastic, non cohesive	-	
-	100	19.8		(6.9-7.5') SILTY SAND, loose, pale yellow, dry, non plastic, non cohesive	SP	
		-		(7.5-8') SILT, firm, brown, moist, low plasticity, cohesive	ML	
		20.2		(8-8.5') SILT, soft, brown, dry, non plastic, non cohesive	ML	
		20.2		(8.5-9') CLAY, very firm, pale brown and strong brown mottling, dry, low plasticity, cohesive	CL	
		10.5		(9-9.5') SILT, firm, dark brown, dry to moist, low plasticity, cohesive	ML	Wet at 9.5' bgs
				(9.5-10') SILT, soft, dark brown, wet, low plasticity, cohesive	ML	

Total Borehole Depth: 10' bgs.

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Boring ID: B6-048-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Don Marchese

**Drilling Equipment** : Geoprobe 7822DT Date : 07/05/2016

Weather : 80s, Sunny

Northing (US ft) : 571776.07

Easting (US ft) : 1460368.15

					1		
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				(0-0.5') S cohesive	LAG GRAVEL, loose, moist, non plastic, non	GP	
-		5.0	B6-048-SB-1		ANDY SILT, soft, very dark brown, dry, non plastic,		
_		3.8				ML	
	80	2.2					
-		2.0		(3-5') SIL moist, lov	T with large SLAG GRAVEL, soft, dark brown, very v plasticity, cohesive		
-		-				ML	
5-		0.9		(5-6.5') S non plast	ILTY SLAG GRAVEL, loose, brown and red, moist, ic, non cohesive	GP-GM	
		6.0		(6.5-7') S non cohe	LAG GRAVEL, loose, gray, very moist, non plastic, sive	GP	
	90	11.7	B6-048-SB-8	(7-8') SIL cohesive	T, soft, very dark brown, very moist, low plasticity,	ML	
=		10.9		(8-10') SI gray, wet	AG GRAVEL with SILT, loose, dark brown and , non plastic, non cohesive		Wet at 8' bgs
-		6.3				GP	
10 —			l	End of Bo	oring		<u> </u>

Total Borehole Depth: 10' bgs.

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Boring ID: B6-049-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 07/05/2016 Weather : 80s, Sunny

Northing (US ft) : 571934.62

Easting (US ft) : 1460131.00

			(19	,		L		
Depth (ft.)	% Recovery	% Recovery PID Reading (PPM) Sample No/Interval			DESCRIPTION		nscs	REMARKS
0		0.0	DC 040 CD 4	(0-2.5')	GRAVELLY SILT with SAND, soft, brown, very moi	oist,		
		8.6	B6-049-SB-1	non plas	tic, non cohesive			
		75.2					ML	
1	60	55.2						
-	00	55.2		(2.5-5.5') wet, non	) SLAG GRAVEL, with SILT, loose, gray and brow plastic, non cohesive	/n,		
		-					0.5	
		-					GP	
5								
		4.1		(5.5-5.7')	) SILTY CLAY, firm, strong brown, dry, medium		EÞ.	
		5.5		(5.7-5.8')	) SLAG GRAVEL, loose, brown, very moist, non non cohesive			
	100	19.8	B6-049-SB-8	(5.8-9') C mottling,	CLAY, very firm, strong brown and pale brown dry, medium plasticity, cohesive		CL	
		0.3						
-				(9-10') C	LAY, soft, strong brown and pale brown mottling,			
10-		0.7	B6-049-SB-10		edium plasticity, cohesive		CL	
		-		(10-12') ( very moi	CLAY, soft, pale brown and strong brown mottling, st, medium plasticity, cohesive	,		
+							CL	
-		-		(12.45)	CLAV voru off pole brown wat madium planticit	tu		Wet at 12' bgs
	100	-		cohesive	CLAY, very soft, pale brown, wet, medium plasticit	ıy,		
1		_					CL	
-								
15—		-						
10				End of B	orina	•		

Total Borehole Depth: 15' bgs.

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Boring ID: B6-050-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. **Drilling Company** : Green Services, Inc. Driller : Don Marchese

**Drilling Equipment** : Geoprobe 7822DT Date : 06/30/2016 Weather : 80s, Sunny

Northing (US ft) : 571874.28

Easting (US ft) : 1460074.28

			(page i	or r)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				I (0, 0, 0)\ A	CDIIAIT Issue and described to the control of the c		I
-		-	B6-050-SB-1	$\overline{}$	SPHALT, loose, gray, dry, non plastic, non cohesive SLAG GRAVEL, loose, pale brown, dry, non plastic, esive	GP	
		5.3					
-	78	10.3		(2-3') SA plastic, n	ND with SLAG GRAVEL, loose, brown, dry, non on cohesive	SP	
-		14.3		(3-5.4') S plastic, n	SLAG, GRAVEL-sized, loose, gray, very moist, non on cohesive		
5-		1.8				GP	
J	100	0.6	B6-050-SB-6	(5.4-6') S dry, non	SILT with trace SLAG GRAVEL, firm, pale brown, plastic, non cohesive	ML	Boring refusal at 6' bgs
-				End of B	oring	•	
-							
10-							

Total Borehole Depth: 6' bgs.

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Boring terminated due to refusal at 6' bgs.



Boring ID: B6-051-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

**Drilling Equipment** : Geoprobe 7822DT

Driller : Ali Berenbrok - Tim Niblett Date : 06/15/2016

Weather : 70s, Cloudy, Rainy

Northing (US ft) : 568746.80

Easting (US ft) : 1462508.43

			(19	′		L	<u></u>
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-			1	(0.41) 00NOD====			1
		-	B6-051-SB-1	(0-1') CONCRETE	, hard, dry	-	
		3.2		(1-2.5') SILT, very	stiff, tan, dry, non plastic, cohesive	ML	
	83	0.8			dium grained, loose, yellowish brown, non cohesive	SP	
		1.8		(3-7') CLAY with traplasticity, cohesive	race SAND, stiff, tan, dry to moist, mediu	ım	
5-		1.2				CL	
3-		2.7	B6-051-SB-6				
		0.6					
	100	0.7		(7-10') CLAY, med oxidation, moist to	lium stiff, brown with reddish yellow wet, high plasticity, cohesive		
		<0.2				CL	
40		<0.2					Wet at 9.5' bgs
10-				End of Boring		•	

Total Borehole Depth: 10' bgs.

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Boring ID: B6-052-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. Checked by : M. Replogle, E.I.T.

Drilling Company

Driller : Ali Berenbrok - Tim Niblett

: Green Services, Inc.

Drilling Equipment : Geoprobe 7822DT Date : 06/15/2016

Weather : 70s, Cloudy, Rainy

Northing (US ft) : 568817.70

Easting (US ft) : 1462500.14

	(page 1						
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				L (0, 41), 00	NODETE hand do.		
		-	B6-052-SB-1	(0-11) CO	NCRETE, hard, dry	-	
		2.5		(1-4') SIL cohesive	T, medium stiff, reddish yellow, dry, low plasticity,		
	83	2.1				ML	
_		0.6					Wet at 4' bgs
5-		<0.2		(4-5') SA dense, pa	ND with trace SILT, fine to medium grained, mediur ale brown, wet, non plastic, non cohesive	n SP	J
3_		2.9		(5-10') SI with redd cohesive	LTY CLAY with trace SAND, very soft, pale brown ish yellow oxidation, wet, medium plasticity,		
_		0.8					
<del>-</del>	93	0.6				CL	
-		0.3					
10-		<0.2					
10				End of Bo	pring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-053-SB

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Boring terminated due to refusal at 4' bgs.

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese : Geoprobe 7822DT **Drilling Equipment** 

Date : 06/30/2016 Weather : 80s, Sunny

Northing (US ft) : 571656.78

Easting (US ft) : 571656.78

			(page i	····						
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	I	nscs	REMARKS		
0-		-	B6-053-SB-1		DRGANIC SILT, soft, very pale bi , cohesive SAND with SLAG GRAVEL, loose ion cohesive		OL			
-		6.7								
_	63	2.2					sw			
_		5.5	B6-053-SB-4							
5-				End of B	oring					
	Total Borehole Depth: 4' bgs.									



Boring ID: B6-054-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 06/30/2016 Weather : 80s, Sunny

Northing (US ft) : 571702.83

Easting (US ft) : 1460034.69

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-						
_		-	B6-054-SB-1	(0-3') SILT with SAND and SLAG GRAVEL, soft, light gray grading to brown, dry to very moist, non plastic, non cohesive		
		8.9			ML	
	75	76.0				
		558.6	B6-054-SB-4	(3-4') SANDY GRAVEL, loose, brown and gray, very moist to wet, non plastic, non cohesive	SP	Moderate odor
-				End of Boring		

5-

10

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Total Borehole Depth: 4' bgs.

Boring terminated due to refusal at 4' bgs.



Boring ID: B6-055-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.

Drilling Equipment : Geoprobe 7822DT Date : 06/17/2016 Weather : 70s, Sunny

Northing (US ft) : 571477.60

Drilling Company	: Green Services, Inc.	Easting (US ft)	: 1462442.62
Driller	: Don Marchese		
Drilling Equipment	· Cooprobo 7922DT		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-	%		) iii			) 5	
0-		0.2	B6-055-SB-1	(0-2') SA wet at ve	NDY SILT with SLAG GRAVEL, soft, brown, dry but ry top, non plastic, non cohesive		
_		3.1				ML	
_	93	4.1		(2-5') CL	AY with small SLAG GRAVEL throughout, very firm, yn, dry, low plasticity, cohesive		
-		3.3				CL	
-		2.9					
5-		1.8		(5-7.5') C cohesive	LAY, very firm, gray, dry, medium plasticity,		
		2.2	B6-055-SB-7			CL	
-	100	7.0		(7.5-8.5') medium į	SANDY CLAY, very soft, brownish gray, wet, plasticity, cohesive	CL	Wet at 7.5' bgs
		8.0		(8.5-10') plasticity,	CLAY, soft, brownish gray, very moist, high cohesive		
46		8.0				СН	
10 —	·			End of Bo	pring		

Total Borehole Depth: 10' bgs.



Boring ID: B6-056-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.
Drilling Company : Green Services, Inc

Date : 06/16/2016 Weather : 80s, Cloudy

Northing (US ft) : 571429.98

Drilling Company Driller	: Green Services, Inc. : Don Marchese	Eastir	ng (US ft)	: 1462393.57
Drilling Equipment	: Geoprobe 7822DT			

(#)	Deptri (It.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
2	-	%	PI	Š		<u> </u>	
	0 -		-	B6-056-SB-1	(0-2.5') SAND and SLAG GRAVEL, loose, brown, wet to dry, non plastic, non cohesive	GP/SP	
		70	1.4		(2.5-3') BRICK and CONCRETE GRAVEL, loose, yellow and	GP	Glass present
	-		0.5		gray, dry, non plastic, non cohesive (3-3.8') SILT grading to SAND, soft to loose, black grading to pale brown, moist, non plastic, non cohesive	ML/SP	
00.00	-		0.0		(3.8-5') BRICK GRAVEL and SAND, loose, red and yellow and gray, non plastic, non cohesive	-	
	5-		3.5		(5-7') BRICK GRAVEL and SAND with some CLAY, loose, red and yellow and gray, very moist, non plastic, non cohesive	-	
יווסרופוץ במסטיים במסטייו באלבים שני המסטייות במסטיים במסטיים במסטיים במסטיים במסטיים במסטיים במסטיים במסטיים ב	-	70	34.8 33.3 0.7	B6-056-SB-8	(7-10') GRAVELLY CLAY, very soft, gray, black, and red, very moist to wet, high plasticity, cohesive	CL	Sheen, strong odor  Apparent product from 7-10' bgs  Wet at 8.5' bgs
ilea biDocu	10		-		(10-15') CLAY, soft, grayish green, very moist, high plasticity, cohesive		
			-				
o oballo		50	0.0			CL	
NO COO			0.0				
ci vdnois .	15—		0.0				
All O'Al lai y u co					End of Boring		

Total Borehole Depth: 15' bgs.

Boring terminated due to water and piezometer installation at 15' bgs.



Boring ID: B6-057-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. : M. Replogle, E.I.T. Checked by

**Drilling Company** : Green Services, Inc. Driller : Kevin Pumphrey

: Geoprobe 7822DT **Drilling Equipment** 

Date : 06/16/2016 Weather : 70s, Cloudy

Northing (US ft) : 569986.62

Easting (US ft) : 1462575.11

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-		-	B6-057-SB-1	(0-1') CONCRETE, hard, dry	-	1st attempt refusal at 3' bgs
-	83	5.3 3.9		(1-3') SILTY SAND and GRAVEL, fine to medium grained, dense, reddish yellow, dry, non plastic, non cohesive	SM/GW	
		2.7		(3-7') Fine grained SAND, dense, reddish yellow, dry, cohesive		
5		1.2			SP/SM	
-		3.2				
		3.9		(7-12.5') SILT, medium soft, reddish yellow, dry to moist, non		
	100	9.0	B6-057-SB-8	plastic, cohesive		
-		1.6				
10-		1.2	B6-057-SB-10		ML	
-		<0.2				
		<0.2				
-	100	<0.2		(12.5-13') SAND, fine grained, loose, reddish yellow, wet, non plastic, cohesive	SP	Saturated at 12.5' bgs
		<0.2		(13-15') CLAY, soft, reddish-yellow and gray, wet, medium plasticity, cohesive	CL	
15—		<0.2		End of Devine		
				End of Boring		
Total Bo	rehole D	epth: 15' l	bgs.			
Total Bo	erminated	d due to w	vater at 15' bgs.			



Boring ID: B6-058-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. : M. Replogle, E.I.T. Checked by

**Drilling Company** : Green Services, Inc Driller : Kevin Pumphrey : Geoprobe 7822DT **Drilling Equipment** 

Northing (US ft) : 569973.78

Date

Weather

Easting (US ft) : 1462600.55

: 06/16/2016

: 70s, Cloudy

			(page i				
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				(0-3.5') S	AND and GRAVEL, fine to coarse, loose, dry, non		
		-	B6-058-SB-1	plastic, n	on cohesive		
		2.6					
-		2.0				SW/GW	
	70	1.2					
-		2.2					
-		2.2		(3.5-8.5') angular, l	SILTY SAND with GRAVEL, fine to medium grained oose, gray-green and reddish yellow, dry to wet,	,	
		6.3	B6-058-SB-5	cohesive			
5-							
-						SM/GW	
		-					
1	43	_					
-	40						
		5.9		(8.5-10')	CLAYEY SILT, soft, pale brown with brown, wet to		
-		2.7	B6-058-SB-10	moist, me	edium plasticity, cohesive	ML	
10-		2.1	Во-030-0В-10	(40.42.51)	CILT stiff male beauty mariet law plasticity.		
		<0.2		cohesive	) SILT, stiff, pale brown, moist, low plasticity,		
1		<0.2					
-		~U.Z				ML	
	100	<0.2					
1		<0.2					
-		<b>~U.Z</b>		(13.5-15') brown, m	SILTY CLAY, very soft, gray-green and pale oist then wet, medium plasticity, cohesive		Wet at 14' bgs
		<0.2				CL	
15			L	End of Bo			

Total Borehole Depth: 15' bgs.

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Boring ID: B6-059-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. : M. Replogle, E.I.T. Checked by Drilling Company : Green Services, Inc.

Driller : Kevin Pumphrey : Geoprobe 7822DT **Drilling Equipment** 

Date : 06/16/2016 Weather : 70s, Sunny

Northing (US ft) : 570004.88

Easting (US ft) : 1462810.99

The state of the				(page 1				
B6-059-SB-1	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
Coarse grained, angular, medium dense, dark brown, dark gray, gray-green, dry to moist, non plastic, non cohesive	0-		-	B6-059-SB-1	(0-1') CC	DNCRETE, hard, dry		
28.5 7.6 5	-	_	-		(1-9') SIL coarse g gray, gra	LTY SAND and GRAVEL with ~15% SLAG, fine to trained, angular, medium dense, dark brown, dark ay-green, dry to moist, non plastic, non cohesive		
7.6   SM/GW   SM/GW	_	63	5.2					
5			28.5					
38 65.3 B6-059-SB-8  43.6  2.3 B6-059-SB-10 (9-15') SILTY SAND with trace GRAVEL, fine to coarse grained, dense, reddish yellow, dark brown, gray, moist to wet, non plastic, cohesive  73 1.7  0.8  Wet at 12.5' bgs			7.6					
38 65.3 B6-059-SB-8 43.6 2.3 B6-059-SB-10 (9-15') SILTY SAND with trace GRAVEL, fine to coarse grained, dense, reddish yellow, dark brown, gray, moist to wet, non plastic, cohesive  73 1.7 0.6 SM Wet at 12.5' bgs	5-		-				SM/GW	
43.6  2.3  B6-059-SB-10  9-15') SILTY SAND with trace GRAVEL, fine to coarse grained, dense, reddish yellow, dark brown, gray, moist to wet, non plastic, cohesive  SM  Wet at 12.5' bgs	-		-					
2.3 B6-059-SB-10 G9-15') SILTY SAND with trace GRAVEL, fine to coarse grained, dense, reddish yellow, dark brown, gray, moist to wet, non plastic, cohesive  73 1.7 0.6 Wet at 12.5' bgs	-	38	65.3	B6-059-SB-8				
10 -			43.6					
- 0.8 SM SM Wet at 12.5' bgs	10_		2.3	B6-059-SB-10	(9-15') S grained, wet, non	ILTY SAND with trace GRAVEL, fine to coarse dense, reddish yellow, dark brown, gray, moist to plastic, cohesive		
- 73 1.7 Wet at 12.5' bgs	10-		-					
73 1.7 Wet at 12.5' bgs	-		0.8					
	-	73	1.7				SM	Wet at 12.5' bgs
- 0.3	-	-	0.6					
	_	1	0.3					
15 End of Boring	15-				End of B	oring		

Total Borehole Depth: 15' bgs.

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Boring ID: B6-060-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. : M. Replogle, E.I.T. Checked by Drilling Company : Green Services, Inc.

Driller : Kevin Pumphrey : Geoprobe 7822DT **Drilling Equipment** 

Date : 06/17/2016

Weather : 70s, Sunny

Northing (US ft) : 569987.09

Easting (US ft) : 1462812.50

				(19-				
Depth (ft.)		% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
(	+				(0-1') CO	DNCRETE, hard, dry		Fill material 0-13' bgs
			-	B6-060-SB-1			-	
			-		(1-9') SIL fine to co non plast	TY SAND and GRAVEL with trace SILT and SLAC parse, loose, dark brown and brown, dry to moist, tic, non cohesive	G,	
		48	-					
			11.3	B6-060-SB-4				
E	5—		1.6				SM/GM	
			-				SIVI/GIVI	
			-					
		43	-					
			7.1					
4.0	$\left[ \right]$		10.8		(9-10') C	ONCRETE, hard, gray-green, dry	-	
10			-		(10-13') ( brown an	CLAYEY GRAVEL, angular, soft to loose, pale and brown, dry to wet, medium plasticity, cohesive		
		66	0.2				GC	Wet at 12' bgs
		66	0.3					vvecat 12 bys
					End of B	oring	•	

Total Borehole Depth: 13' bgs.

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Boring terminated due to refusal at 13' bgs.



Boring ID: B6-061-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G.
Checked by : M. Replogle, E.I.T.
Drilling Company : Green Services, Inc

Driller : Ali Berenbrok - Tim
Drilling Equipment : Geoprobe 7822DT

Date : 06/15/2016

Weather : 70s, Cloudy, Rain

Northing (US ft) : 568863.50

mpany : Green Services, Inc. Easting (US ft) : 1462446.45 : Ali Berenbrok - Tim Niblett

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-	%		S		_ >	
_		-	B6-061-SB-1	(0-3.5') SILTY SAND fine grained with trace well rounded GRAVEL, very loose, dark brown, non plastic, non cohesive		1st attempt hit void 2-5' bgs 2nd attempt-completed at 20' to the west
_		-			SM	
-	70	2.1				
_		4.2	B6-061-SB-4	(3.5-4.5') SANDY SILT, soft, gray-green and brown, dry, non plastic, non cohesive	ML	
5-		2.5		(4.5-8.5') SILTY SAND with trace GRAVEL, fine to medium grained, loose, dark brown and pale brown, wet, non plastic, cohesive		Saturated at 4.5' bgs
_		-				
_		10.2			SM	
-	80	9.9				
-		4.1		(8.5-10') SILTY CLAY, soft, brownish and gray-green, wet, medium plasticity, cohesive	C	
40		1.8			CL	
10 —			•	End of Boring	•	•

Total Borehole Depth: 10' bgs.

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Boring ID: B6-062-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

: Ali Berenbrok - Tim Niblett

ARM Representative : J. Yaple, P.G. : M. Replogle, E.I.T. Checked by Drilling Company : Green Services, Inc.

Driller

: Geoprobe 7822DT **Drilling Equipment** 

Date : 06/15/2016 Weather : 70s, Cloudy

Northing (US ft) : 568886.21

Easting (US ft) : 1462455.12

			(page i	01 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-		-	B6-062-SB-1	(0-4.5') S GRAVEL non cohe	ILTY SAND, fine to coarse grained with trace , loose, dark brown and dark gray, dry, non plastic, sive	,	Fill material (0-4.5' bgs)
		4.1					
-	85	4.6				SM	
<del>-</del>		4.7	B6-062-SB-4				
5-		1.2		(4.5-6') S moist to v	ILT with some SAND, soft, tan and reddish yellow, vet, non plastic, cohesive		Wet at 5' bgs
_		<0.2				ML	Wet at o bgs
		<0.2		(6-10') CI wet, high	_AY, very soft, brown with yellowish red oxidation, plasticity, cohesive		
	100	<0.2				CL	
		<0.2					
10-		<0.2					
.0				End of Bo	oring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-063-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 06/16/2016

Weather : 80s, Cloudy

Northing (US ft) : 571239.79

Easting (US ft) : 1462420.94

DESCRIPTION  The state of the s	0				 I			1		<u> </u>
B6-063-SB-1   B6-063-SB-1     (I-1.5') SAND; loose, reddish yellow, very moist, non plastic, non plastic, non cohesive   (2.3') SLAG, SAND and GRAVEL-sized, loose, gray and brown, moist, non plastic, non cohesive   (2.3') SLAG, SAND and GRAVEL-sized, loose, gray and brown, moist, non plastic, non cohesive   (3.3') SLAG, GRAVEL, loose, gray and brown, moist, non plastic, non cohesive   (4.5.5') SLT with SLAG GRAVEL, firm, pale brown, moist, non plastic, non cohesive   (5.5-7') SLAG GRAVEL, loose, very dark brown and gray, moist to very moist, non plastic, non cohesive   (5.5-7') SLAG GRAVEL, loose, very dark brown and gray, moist to very moist, non plastic, non cohesive   SP/GP   (7.10') CLAY, firm to soft, greenish gray, moist, sandy at depth, medium to high plasticity, cohesive   CL/CH   (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive   (12-5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive   CL   CL   CL   CL   CL   CL   CL   C	- B6-063-SB-1 (01-15) SAND and GRAVEL, loose, very dark brown, moist, non plastic, non chesive (1.5-2') SAND loose, reddish yellow, very moist, non plastic, sp. (2.3') SLAG, SAND and GRAVEL-sized, loose, gray and brown, moist, non plastic, non cohesive (2.3') SLAG, SAND and GRAVEL-sized, loose, gray and GP/SP brown, moist, non plastic, non cohesive (3.3-4') SLAG GRAVEL, loose, gray and brown, moist, non plastic, non cohesive (4.5-5') SLT with SLAG GRAVEL, firm, pale brown, moist, non plastic, non cohesive (5.5-7') SLAG GRAVEL, loose, very dark brown and gray, moist to very moist, non plastic, non cohesive (5.5-7') SLAG GRAVEL, loose, very dark brown and gray, moist to very moist, non plastic, non cohesive (6.5-7') SLAG GRAVEL, loose, very dark brown and gray, moist to very moist, non plastic, non cohesive SP/GP  100 9.0 (7-10') CLAY, firm to soft, greenish gray, moist, sandy at depth, medium to high plasticity, cohesive CL/CH  10 (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, wet, non plastic, non cohesive (12-5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive CL  15 - (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, high plasticity, cohesive CL	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION		nscs	REMARKS
86-063-S8-1 non plastic, non cohesive  (1.5-2') SAND, loose, reddish yellow, very moist, non plastic, non chesive  (2.3') SLAG, SAND and GRAVEL-sized, loose, gray and brown, moist, non plastic, non cohesive  (3.3.3') SILT, firm, pale brown, moist, non plastic, non cohesive  (3.3.4') SLAG GRAVEL, loose, gray and brown, moist, non plastic, non cohesive  (4.5-5') SILT with SLAG GRAVEL, firm, pale brown, moist, non plastic, non cohesive  (5.5-7') SLAG GRAVEL, loose, very dark brown and gray, moist to very moist, non plastic, non cohesive  (7.10') CLAY, firm to soft, greenish gray, moist, sandy at depth, medium to high plasticity, cohesive  (10.12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  (12.12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive	90 22.5   GP/SP   (1.5-2') SAND, loose, reddish yellow, very moist, non plastic, non cohesive   GP/SP   (2-3') SLAG, SAND and GRAVEL-sized, loose, gray and brown, moist, non plastic, non cohesive   (3-3.3') SILT, firm, pale brown, moist, non plastic, non cohesive   (3-3.3') SILT, firm, pale brown, moist, non plastic, non cohesive   (3-3.3') SIAG GRAVEL, loose, gray and brown, moist, non plastic, non cohesive   (4-5.5') SILT with SLAG GRAVEL, firm, pale brown, moist, non plastic, non plastic, non cohesive   (5.5-7') SLAG GRAVEL, loose, very dark brown and gray, moist to very moist, non plastic, non cohesive   SP/GP   (7-10') CLAY, firm to soft, greenish gray, moist, sandy at depth, medium to high plasticity, cohesive   CL/CH   (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, high plasticity, cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, high plasticity, cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, high plasticity, cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, high plasticity, cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, high plasticity, cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, high plasticity, cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, high plasticity, cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, high plasticity, cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, high plasticity, cohesive   CL   (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, high plasticity, cohesive   CL   (12-12.5') SLAG GRAVEL, loose, gray and brown, moist, non plastic, non cohesive   (12-12.5') SLAG GRAVEL, loose, gray and brown, moist, non plastic, non cohesive   (12-12.5') SLAG GRAVEL, loose, gray	0-				(0.4.51) 0	CAND and CDAVEL loose year dark brown main	ot [		
(1.5-2') SAND, loose, reddish yellow, very moist, non plastic, non cohesive (2.3') SLAG, SAND and GRAVEL-sized, loose, gray and brown, moist, non plastic, non cohesive (3.3.3') SILT, firm, pale brown, moist, non plastic, non cohesive (3.3.3') SILT, firm, pale brown, moist, non plastic, non plastic, non cohesive (4.5.5') SILT with SLAG GRAVEL, loose, gray and brown, moist, non plastic, non cohesive (5.5-7') SLAG GRAVEL, loose, very dark brown and gray, moist to very moist to very moist, non plastic, non cohesive SP/GP  (7-10') CLAY, firm to soft, greenish gray, moist, sandy at depth, medium to high plasticity, cohesive CL/CH  (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive (12-55') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive (12-15.5') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive (12-15') CLAY, soft to very soft gray and b	1.5-2') SAND, loose, reddish yellow, very moist, non plastic, non cohesive   (2-3') SLAG, SAND and GRAVEL-sized, loose, gray and brown, moist, non plastic, non cohesive   (3-3.3') SLT, firm, pale brown, moist, non plastic, non   ML GP/SP	_		-	B6-063-SB-1				GP/SP	
brown, moist, non plastic, non cohesive  (3-3.3') SLRT, firm, pale brown, moist, non plastic, non Cohesive  (3-3.3') SLRT gray and brown, moist, non Cohesive  (3-5.5') SLRT with SLAG GRAVEL, loose, gray and brown, moist, non plastic, non cohesive  (4-5.5') SLRT with SLAG GRAVEL, firm, pale brown, moist, non plastic, non cohesive  (5.5-7') SLAG GRAVEL, loose, very dark brown and gray, moist to very moist, non plastic, non cohesive  (7-10') CLAY, firm to soft, greenish gray, moist, sandy at depth, medium to high plasticity, cohesive  (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive	brown, moist, non plastic, non cohesive  (3-3.3) SiLT, firm, pale brown, moist, non plastic, non cohesive  (3-3.3) SiLT, firm, pale brown, moist, non plastic, non cohesive  (3-5.5) SiLT with SLAG GRAVEL, firm, pale brown, moist, non plastic, non cohesive  (4-5.5') SiLT with SLAG GRAVEL, firm, pale brown, moist, non plastic, non cohesive  (5.5-7') SLAG GRAVEL, loose, very dark brown and gray, moist to very moist, non plastic, non cohesive  (7-10') CLAY, firm to soft, greenish gray, moist, sandy at depth, medium to high plasticity, cohesive  CL/CH  (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12-5.5') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  (12-5.5') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive	_		6.4				stic,	SP	
68.4   Cohesive   GP/SP   GP/SP   GP/SP   GS/SP   GS/S	68.4   Cohesive   (3.3-4") SLAG GRAVEL, loose, gray and brown, moist, non plastic, non cohesive   (4-5.5") SILT with SLAG GRAVEL, firm, pale brown, moist, non plastic, non cohesive   (4-5.5") SLAG GRAVEL, loose, very dark brown and gray, moist to very moist, non plastic, non cohesive   SP/GP    100 9.0   (7-10") CLAY, firm to soft, greenish gray, moist, sandy at depth, medium to high plasticity, cohesive   CL/CH    10	_	90	22.5		brown, m	noist, non plastic, non cohesive			
Description of the state of t	100   0.1			68.4		cohesive	•			
100 9.0 (5.5-7') SLAG GRAVEL, loose, very dark brown and gray, moist to very moist, non plastic, non cohesive SP/GP  (7-10') CLAY, firm to soft, greenish gray, moist, sandy at depth, medium to high plasticity, cohesive  CL/CH  10 0.1  (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  CL  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  CL  CL  CL  CL  CL  CL  CL  CL  CL  C	(5.5-7) SLAG GRAVEL, loose, very dark brown and gray, moist to very moist, non plastic, non cohesive  SP/GP  (7-10') CLAY, firm to soft, greenish gray, moist, sandy at depth, medium to high plasticity, cohesive  CL/CH  0.1  (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  CL  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  CL  CL  Wet at 12' bgs	5-		0.1		plastic, n (4-5.5') S	non cohesive SILT with SLAG GRAVEL, firm, pale brown, moist,	/	ML	
100 9.0 (7-10') CLAY, firm to soft, greenish gray, moist, sandy at depth, medium to high plasticity, cohesive  10 9.8 B6-063-SB-9  (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  CL  (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  CL  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  CL  CL  CL  CL  CL  CL  CL  CL  CL  C	100 9.0 (7-10') CLAY, firm to soft, greenish gray, moist, sandy at depth, medium to high plasticity, cohesive  9.8 B6-063-SB-9  0.1  10	_		2.0		(5.5-7') S moist to	SLAG GRAVEL, loose, very dark brown and gray, very moist, non plastic, non cohesive			
depth, medium to high plasticity, cohesive  9.8 B6-063-SB-9  0.1  (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  CL  0.0  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12-5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  CL  CL  CL  CL  CL  CL  CL  CL  CL  C	depth, medium to high plasticity, cohesive    10	_		5.6					SP/GP	
10  - (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  CL  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  CL  CL  CL  CL  CL  CL  CL  CL  CL	10  - (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  CL  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  CL  CL  CL  CL  CL  CL  CL  CL  CL  C	_	100	9.0		(7-10') C depth, m	LAY, firm to soft, greenish gray, moist, sandy at dedium to high plasticity, cohesive			
10 - (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  CL  (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  CL  CL  CL  CL  CL  CL  CL  CL	10 - CL Sludge-type odor  (10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  CL (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  CL (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, high plasticity, cohesive (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive	_		9.8	B6-063-SB-9				CL/CH	
(10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  CL  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  CL  CL  CL  CL  CL  CL  CL  CL  CL  C	(10-12') SANDY CLAY grading to CLAY, soft, greenish gray, very moist, high plasticity, cohesive  CL  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  CL  CL  CL  CL  CL  CL  CL  CL  CL  C	10		0.1						Sludge type odor
0.0  80  0.0  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive  (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  CL  Wet at 12' bgs  CL	0.0  80  0.0  (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive  CL  Wet at 12' bgs  CL	10-		-		(10-12') s very mois	SANDY CLAY grading to CLAY, soft, greenish gra st, high plasticity, cohesive	ay,	2	Sludge-type odol
80 0.0 (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive CL	80 0.0 (12-12.5') SLAG GRAVEL, loose, greenish gray, wet, non plastic, non cohesive (12.5-15') CLAY, soft to very soft, greenish gray, wet, high plasticity, cohesive CL	_		0.0					OL	
0.0 plasticity, cohesive CL	0.0 plasticity, cohesive CL	-	80	0.0		plastic, n	non cohesive	/t	GP	Wet at 12' bgs
15	15	-		0.0		(12.5-15' plasticity	') CLAY, soft to very soft, greenish gray, wet, high r, cohesive		CL	
15 End of Boring	End of Boring	<del>-</del>		0.0						
		15—			!	End of B	oring	Į.		

Total Borehole Depth: 15' bgs.

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Boring ID: B6-064-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.
Drilling Company : Green Services, Inc.

Driller : Don Marchese
Drilling Equipment : Geoprobe 7822DT

Date : 06/16/2016 Weather : 80s, Cloudy

Northing (US ft) : 571237.74

Easting (US ft) : 1462394.43

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-			D0 004 0D 4	(0-2') SA	ND and SLAG GRAVEL SLAG, loose, dark brown,		
_		-	B6-064-SB-1	moist, no	on plastic, non cohesive	GP/SP	
		0.0					
_	80	0.0		(2-2.5') S	SILT with SAND, soft, brown, dry, non plastic, non	ML	
-		0.0		(2.5-4') S	SLAG GRAVEL, loose, gray and brown, dry, non on cohesive	GP/SP	
		2.7		piastic, n	on conesive	GF/SF	
_		0.0		(4-5') SL white, mo	AG GRAVEL, loose, black, strong brown and trace pist	GP/SP	
5-		0.0			BRICK GRAVEL, loose, yellow, dry, non plastic, nor	n _	
_		0.2		(5.8-10')	CLAY, firm to soft, greenish gray and reddish		
		1.7		yellow m	ottled, moist, medium plasticity, cohesive		
-	100	2.3	B6-064-SB-8				
-				_		CL	
_		1.2					
		0.0	B6-064-SB-10				
10-				(10-15')	CLAY, very firm but soft at 12', greenish gray, mois	t	
-		=		to wet, m	nedium plasticity, cohesive		
		0.0					
_	87	0.0				CL	
-							
_		0.0					Wet at 15' bgs
		0.0					
15-			l	End of B	oring		

Total Borehole Depth: 15' bgs.

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Boring ID: B6-065-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.
Drilling Company : Green Services, Inc.

Driller : Don Marchese
Drilling Equipment : Geoprobe 7822DT

Date : 07/05/16

Weather : 80s, Sunny

Northing (US ft) : 571473.63 Easting (US ft) : 1459784.47

10   10   10   10   10   10   10   10		_		(page i					
(0-1) ORGANIC SIL1, soft, prown, dry, non plastic, non cohesive  (1-3) SILT with SAND, firm to sfot, brown, dry, low plasticity, cohesive  (3-3) SILT with SAND, firm to sfot, brown, dry, low plasticity, cohesive  (3-3-3) CONCRETE, loose, white, dry, non plastic, non cohesive  (3-4-5) SANDY SILT, soft, dark brown, moist, non plastic, non cohesive  (4.5-6) SANDY GRAVEL, loose, dark brown, wet, non plastic, non cohesive  (6-7) SILT with SAND, very firm, greenish brown, moist, low plasticity, cohesive  (7-9) SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive  (7-9) SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive  End of Boring  End of Boring	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION		USCS	REMARKS
4.5  4.5  9.0 6.0  9.3 B6-065-SB-4  (3-3.3') CONCRETE, loose, white, dry, non plastic, non cohesive  (3.3.3') SILT, firm, reddish yellow, dry, low plasticity, cohesive  (3.3.3') SILT, firm, reddish yellow, dry, low plasticity, cohesive  (3.7-4.5') SANDY SILT, soft, dark brown, moist, non plastic, non cohesive  (4.5-6') SANDY GRAVEL, loose, dark brown, wet, non plastic, non cohesive  (6-7') SILT with SAND, very firm, greenish brown, moist, low plasticity, cohesive  (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive  (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive  End of Boring	0-		-	B6-065-SB-1			non		Over Heave to a second
9.3 B6-065-SB-4 (3.3.3') CONCRETE, loose, white, dry, non plastic, non cohesive (3.3-3.7') SILT, firm, reddish yellow, dry, low plasticity, cohesive (3.7-4.5') SANDY SILT, soft, dark brown, moist, non plastic, non cohesive (4.5-6') SANDY GRAVEL, loose, dark brown, wet, non plastic, non cohesive GP/SP  5.1 (6-7') SILT with SAND, very firm, greenish brown, moist, low plasticity, cohesive MC  (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP  End of Boring			4.5		(1-3') SIL cohesive	T with SAND, firm to sfot, brown, dry, low pl	lasticity,	ML	Small roots present
9.3 B6-065-SB-4 (cohesive (3.3-3.7') SILT, firm, reddish yellow, dry, low plasticity, cohesive (3.7-4.5') SANDY SILT, soft, dark brown, moist, non plastic, non cohesive (4.5-6') SANDY GRAVEL, loose, dark brown, wet, non plastic, non cohesive (6-7') SILT with SAND, very firm, greenish brown, moist, low plasticity, cohesive MC (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesi		90	6.0		(2.2.21)				
(3.7-4.5') SANDY SILT, soft, dark brown, moist, non plastic, non cohesive  (4.5-6') SANDY GRAVEL, loose, dark brown, wet, non plastic, non cohesive  (6-7') SILT with SAND, very firm, greenish brown, moist, low plasticity, cohesive  (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive  (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive  End of Boring			9.3	B6-065-SB-4	(3.3-3.7')	SILT, firm, reddish yellow, dry, low plasticit			
(4.5-6') SANDY GRAVEL, loose, dark brown, wet, non plastic, non cohesive  5.1  (6-7') SILT with SAND, very firm, greenish brown, moist, low plasticity, cohesive  MC  (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive  GP/SP  8.4  End of Boring	I	-			(3.7-4.5')	SANDY SILT, soft, dark brown, moist, non	plastic,	ML	
3.5  - 100  6.0  - 100  6.0  - 100  End of Boring	5-		7.4		(4.5-6') S plastic, n	SANDY GRAVEL, loose, dark brown, wet, no on cohesive	on	CD/CD	Wet at 4.5' bgs
- 100   SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive   GP/SP    End of Boring   Find the street of t			5.1					GP/SP	
6.0 (7-9') SANDY GRAVEL, loose, brown, wet, non plastic, non cohesive GP/SP  End of Boring			3.5		(6-7') SIL plasticity	T with SAND, very firm, greenish brown, mo, cohesive	oist, low	MC	
End of Boring		100	6.0		(7-9') SA cohesive	NDY GRAVEL, loose, brown, wet, non plast	iic, non		
			8.4					GP/SP	
10-				ı	End of B	oring		1	
10—									
	10-								

Total Borehole Depth: 9' bgs.

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Boring terminated due to refusal at 9' bgs.



Boring ID: B6-066-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 07/5/16

Weather : 80s, Sunny

Northing (US ft) : 571512.31

Easting (US ft) : 1459800.72

				(page 1	of 1)			
	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
	0-				(0-0 7') C	PRGANIC CLAY, soft, brown, moist, low plasticity,		
			2.2	B6-066-SB-1	cohesive		OL	Grass and small roots present
	-				(0.7-1') C cohesive	LAY with SAND, soft, brown, moist, low plasticity,	CL -	
			5.7		· —	RICK GRAVEL, loose, yellow, dry, non plastic, non		
	1				(1.2-4.5')	SILT with GRAVEL and SAND, soft, brown grading	_	
		94	82.6		to dark bi cohesive	rown, dry grading to moist, non plastic, non	ML	
			40.0					
5			40.0					
3			510.8	B6-066-SB-5				Strong oil odor, trace product
	5-		-	B0 000 0B 0	(4.5-5') S	ILT with SAND, soft, black, very moist to wet, non on cohesive	ML	Wet at 5' bgs
י סווניאינים בינבטנים			20.7		· — ·	ANDY GRAVEL, loose, black, wet, non plastic, non		Product present throughout sleeve and in clay
Ž Į	4				Conesive		GP/SP	,
e E			7.1		(6 5 0 5')	CLAY, very soft, olive green and black, wet, high		
	-					cohesive		
5		100	-					
	+						CL	
			-					
	+							Strong odor and slightly viscous with sheen
			-			SANDY GRAVEL, loose, black, wet, non plastic, non	GP/SP	with Shooti
5	10				cohesive	CLAY with some SLAG GRAVEL, very soft, dark	_	
			-			lack, wet, high plasticity, cohesive		
5								Strong odor
ì		45-	-				CL	
		100						
9			-					
inaly ites Group/1505001M EAG_spain					End of Bo	oring		
l la								

Total Borehole Depth: 13' bgs.

Boring terminated due to water and piezometer installation at 13' bgs.



Boring ID: B6-067-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 07/06/16

Weather : 80s, Sunny

Northing (US ft) : 571971.11

Easting (US ft) : 1462554.66

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	S	REMARKS
	%	E G	Sar			nscs	
0-		-	B6-067-SB-1	(0-1.2') C non cohe	DRGANIC SILT, soft, dark brown, moist, non plastic esive	C, OL	Grass and small roots present
		2.8		(1.2-2.2') non cohe	SILT with SAND, soft, dark brown, dry, non plastic sive	;, ML	
5 -	90	15.9		(2.2-4') S sized, loc	ELAG GRAVEL with SAND, GRAVEL and SAND ose, gray, dry, non plastic, non cohesive	OD/	
		29.6				GP/S	Moderate odor
		200.7	B6-067-SB-5	with large moist, no	ELAG GRAVEL with SILT, GRAVEL and SAND size wWOOD fragment, loose, brown and gray, very in plastic, non cohesive SILT type material, firm, white, moist, non low	GP/S	
Total Bo		-		plasticity	cohesive	ML	
-	50	26.6		(7.7-8') S	SLAG GRAVEL and SAND, loose, brown, dry, non on cohesive		
		110.1		(8-8.5') C medium (8.5-9') S	CLAY, soft, brown with yellowish brown mottling, plasticity, cohesive CAND with GRAVEL, loose, dark brown and pale et, non plastic, non cohesive	SP	Wet at 8.5' bgs
10-		14.1		(9-10') C plasticity	LAY, soft to firm, grayish brown, moist, medium , cohesive	CL	
				End of B	oring		
Total Bo		epth: 10'	bgs. vater at 10' bgs.				



Boring ID: B6-068-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Don Marchese

**Drilling Equipment** : Geoprobe 7822DT Date : 06/30/2016

Weather : 80s, Sunny

Northing (US ft) : 571239.34

Easting (US ft) : 1459383.21

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-						
ŭ		4.3	B6-068-SB-1	(0-1') SILTY SAND with quartzite GRAVEL, loose, very pale brown, dry, non plastic, non cohesive	SP	
_		1.8		(1-2.5') SANDY SILT, soft, very pale brown, dry, low plasticity, cohesive	ML	
	100	1.2		(2.5-3') SANDY CLAY, soft, pale brown, moist, cohesive, medium plasticity	CL	
Ī				(3-3.5') CLAYEY SAND with GRAVEL, loose, pale brown,	SW	
-		38.4	B6-068-SB-4	very moist, non plastic, non cohesive (3.5-4.5') CLAY, hard, pale brown and light gray, dry, medium plasticity, cohesive	CL	
		30.4				Wet at 4.5' bgs
5-		30.4		(4.5-5.5') GRAVELLY SAND with SILT, loose, very dark brown, wet, non plastic, non cohesive	SP/GP	Wet at 4.5 bys
		-		(5.5-6) WOOD fragments with SILT, wet	-	
_		-		(6-9.5') SILTY CLAY with SAND and GRAVEL, very firm, dark brown, moist to wet, low plasticity, cohesive		
_	100	-			CL	
-		-				Trace sheen, odor, possible product
		-		(9.5-10') SANDY GRAVEL with SILT, loose, very dark brown,	GP	
10-				wet, non plastic, non cohesive End of Boring		

Total Borehole Depth: 10' bgs.



Boring ID: B6-069-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 07/05/2016 Weather : 80s, Sunny

Northing (US ft) : 572086.11

Easting (US ft) : 1460731.04

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0-		0.5	B6-069-SB-1	(0-3') SILT with some SLAG GRAVEL, soft, brown, moist to dry, non plastic, non cohesive		
-		0.0	20 000 02 1			
		1.1			ML	
-	84	5.7				
-		3.0		(3-4') SILTY BRICK and SLAG GRAVEL, loose, brown, yellow and reddish yellow, non plastic, non cohesive	GP/GM	
-		0.5		(4-5') GRAVELLY CLAY, large BRICK at bottom, soft, brown with trace reddish yellow, moist, low plasticity, cohesive	CL	
5-		-		(5-8.5') SILTY SAND with SLAG and BRICK GRAVEL, soft, brown with trace yellow, moist, non plastic, non cohesive		
-		-			SM	
	50	4.5				
=			B6-069-SB-8.5			
-		16.1		(8.5-9.5') SANDY GRAVEL with SILT, loose, dark brown, wet, non plastic, non cohesive	SP/GP	Wet at 8.5' bgs
10-		24.5		(9.5-10') SANDY SILT with SLAG GRAVEL, soft, dark brown, wet, non plastic, non cohesive	ML	
.•				End of Boring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-070-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. **Drilling Company** : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 07/05/2016 Weather : 80s, Sunny

Northing (US ft)

: 571757.84 Easting (US ft) : 1461098.10

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	NSCS	REMARKS
0-	0.	ш.	07				
O		0.9	B6-070-SB-1		AG and BRICK GRAVEL with SILT, loose, brown a ry, non plastic, non cohesive	nd GP	
-		28.9		(1-6.5') S SAND, so	SILT with SLAG and BRICK GRAVEL and trace oft, brown and gray, dry, non plastic, non cohesive		
	94	543.8					
-		66.3	B6-070-SB-4			ML	
5-		13.7					
-		-					
		1.2		(6.5-7') S reddish y	ILTY CLAY with GRAVEL, firm, pale brown and rellow mottling, moist, low plasticity, cohesive	CL	
	80	14.4		(7-8') SA	NDY GRAVEL, loose, brown and dark gray, wet, ic, non cohesive	GP/SP	
-		63.5		السناء فالمسالك	TY CLAY, firm, grayish brown, moist to dry, low , cohesive	CL	
-		70.0		plasticity,	CLAY, soft, grayish brown, moist then wet, low , cohesive	CL	Wet at 9.5' bgs
10-				(9.8-10') plastic, n End of Bo	SANDY GRAVEL, loose, dark brown, wet, non on cohesive oring	SP/GP	1
Total Bo	orehole D	epth: 10'	bgs.				



Boring ID: B6-071-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 06/17/2016

Weather : 80s, Sunny

Northing (US ft) : 569740.43

Easting (US ft) : 1463364.83

	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval bad)	,	DESCRIPTION	, ,	USCS	REMARKS
	0-				(0.4.41) 0	WIT WOODING THE		<u></u>	
	-		-	B6-071-SB-1	non cohe	ILT with SAND, soft, dark brown, moist, non plasticesive		ИL	
			0.2		(1.4-1.8') cohesive	CONCRETE, loose, gray, dry, non plastic, non	N	۸A	
J.	-	80	1.1			SAND and SLAG GRAVEL, loose, gray and brown t at bottom, non plastic, non cohesive	1,		
gs/B6-071-SB.bc	-		3.1	B6-071-SB-4					
ogs\2_Bor Lo	5-		1.3						
sel B6\Boring L	_		-				SP	P/GP	
)ocuments\Par	_		-						
s Point Area B∖⊡	-	60	0.3						
EAG_Sparrows	-		1.9						Wet at 9' bgs
np/150300M E	10-		0.9						
iroAnalytics Grou	10-				End of Bo	oring			
01-03-2019 P:\EnviroAnalytics Group\150300M EAG_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\2_Bor Logs\86-071-SB.bor		orehole Do		bgs. vater at 10' bgs.					



Boring ID: B6-072-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Don Marchese

**Drilling Equipment** : Geoprobe 7822DT Date : 06/17/2016

Weather : 80s, Sunny

Northing (US ft) : 570457.03

Easting (US ft) : 1463017.37

			(page 1	01 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				/a a an a			
				(0-0.3') S \cohesive	ILT with SAND, soft, brown, dry, non plastic, non	ML	
		0.5	B6-072-SB-1		CINDER BALLAST, loose, black, moist, non plastic,	<u> </u>	
_				non cohe	sive	/ ML	
					SILT with SAND, soft, brown, dry, non plastic, non		
		1.0		cohesive		_/	
				(1.3-2') C non cohe	INDER BALLAST, loose, black, moist, non plastic,	-	
-				<u> </u>	T grading to CLAY, firm, brownish gray, dry, low	$\neg$	
	100	1.3		plasticity,	cohesive		
-						ML/CL	
		1.5	B6-072-SB-4				
		1.0	50 072 05 1				
-				(4.5') CL	AY, very firm, brownish gray, dry, medium plasticity,		
		0.6		cohesive	Tr, very litti, brownish gray, dry, medidiri piasticity,	CL	
		0.6				CL	
5-				(F 7 CI) O	1 AV		
				cohesive	LAY, very soft, dark gray, moist, high plasticity,		
		-					
_							
						CL	
		-					
	50	0.1					
				(7.6-10')	SLAG GRAVEL, large, loose, light gray, moist to		
-				wet, non	plastic, non cohesive		
		0.2					
						GP	
-							Wet at 9' bgs
		0.2					
		0.2					
10 —				End of Bo	oring		
				LIIU UI DO	ang -		

Total Borehole Depth: 10' bgs.

01-03-2019 P:\EnviroAnalytics Group\150300M EAG\_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\\Z\_Bor Logs\B6-072-SB.bor



Boring ID: B6-073-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.
Drilling Company : Green Services, Inc.

Driller : Don Marchese
Drilling Equipment : Geoprobe 7822DT

Date : 06/167/2016 Weather : 80s, Cloudy

Northing (US ft) : 571211.18 Easting (US ft) : 1463204.49

			(page 1	of 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	NSCS	REMARKS
0-		0.0	B6-073-SB-1	(0-2.2') S plastic, n	ILT with SAND anad GRAVEL, loose, black, dry, non on cohesive	ML	
	80	0.2		dry, low	SILT, very firm, pale brown and reddish yellow, blasticity, cohesive SLAG GRAVEL, loose, gray and light gray, moist,	ML	
-		0.5		non plast	CLAY, hard, light gray and reddish yellow mottling,	GP/SP	
-		0.3	B6-073-SB-5	dry, high	plasticity, cohesive	CL	
5-		-		cohesive		SP	Wet at 5' bgs
-		0.3		mottling,	CLAY, very firm, light gray and reddish yellow dry, high plasticity, cohesive		
-	100	0.0				CL	
_		0.9					
10-		0.0					
10-				End of B	oring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-074-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 06/17/2016

Weather : 70s, Cloudy

Northing (US ft) : 571635.97

Easting (US ft) : 1462790.95

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-				(0-1.5') SILT, firm, brown, dry, low plasticity, cohesive		
		0.4	B6-074-SB-1		ML	
_		0.5		(1.5-2.5') SILTY SLAG GRAVEL, loose, dark gray, dry, non plastic, non cohesive	GP-GM	
-	100	1.5		(2.5-8') SILT, soft to firm, gray, dry to moist, low plasticity, cohesive		
		3.0	B6-074-SB-4			
		1.3				
5-		0.3			ML	Slight odor
1		0.5				
	100	0.2				
=		0.2		(8-9') CLAYEY SILT, very soft, dark gray, wet, low plasticity, cohesive	ML	Wet at 8' bgs
10		0.1		(9-10') CLAY, soft, gray, very moist, medium plasticity, cohesive	CL	Wood fragments
10 —				End of Boring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-075-SB

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 06/16/2016 Weather : 80s, Cloudy

Northing (US ft) : 571760.13 Easting (US ft) : 1463645.90

			(page 1	of 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-							
•				I (0-2.5') S	SAND and SLAG GRAVEL. loose, brown, drv. non		1

Depth (fi	% Recov	PID Rea	Sample	DESCRIPTION	nscs	REMARKS
0-		-	B6-075-SB-1	(0-2.5') SAND and SLAG GRAVEL, loose, brown, dry, non plastic, non cohesive		
_		-			SP/GP	
-	60	0.3		(2.5-5') SLAG, fine to coarse, loose, gray to dark gray, dry to moist, non plastic, non cohesive		
_		4.4			SP/GP	
5-		0.5	No sample due to large diameter slag	(5-7') SLAG, coarse, loose, gray, dry, non plastic, non		
_		-		cohesive	GP	
_		0.8				Wet at 7' bgs
_	70	0.0		(7-8') CLAY, very soft, pale brown, wet, high plasticity, cohesive	CL	
		0.0		(8-10') CLAY, hard, pale brown with reddish yellow mottling, dry, high plasticity, cohesive	Q.	
-		0.0			CL	
10 —			1	End of Boring		

Total Borehole Depth: 10' bgs.



Boring ID: B6-076-SB

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

: M. Replogle, E.I.T. Checked by

**Drilling Equipment** : Geoprobe 7822DT Date : 07/06/2016

Weather : 80s, Sunny

Northing (US ft) : 572130.46

Drilling Company	: Green Services, Inc.	Easting (US ft)	: 1463347.57
Driller	: Don Marchese		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-				(0-0.5') ORGANIC SILT with SAND, soft, brown, moist, no plastic, non cohesive		
_		-	B6-076-SB-1	(0.5-5.5') SANDY SILT, soft, brown then very dark gray th brown, dry, non plastic, non cohesive	en	Small grass and roots present
		2.5				Official grass and roots present
-	80	2.4				
-		0.0			ML	Metallic shimmer
_		0.8				Yellow brick and metallic SLAG
		9.1				at 4' bgs
5-		35.9		(5.5-7') SILT, very firm, yellowish brown, dry, low plasticity	<i>y</i> ,	
-		20.4		cohesive	ML	
-	100	105.2	B6-076-SB-8	(7-8') SILT, very firm, yellowish brown, dry, low plasticity, cohesive	ML	
_		9.7		(8-10') SLAG GRAVEL and SAND, loose, dark brown, we non plastic, non cohesive		Wet at 8' bgs
_		3.3			GP/SP	
10-				End of Boring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-077-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Don Marchese

**Drilling Equipment** : Geoprobe 7822DT Date : 06/15/2016

Weather : 70s, Cloudy, Rainy

Northing (US ft) : 570152.57

Easting (US ft) : 1463598.20

			1	51 1)		
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-		-	B6-077-SB-1	(0-0.7') SILT with GRAVEL, soft, very pale brown, dry, non plastic, non cohesive	ML	
-		9.8		(0.7-2.5') SILT with large GRAVEL, firm, brown, dry, non plastic, non cohesive	ML	
-	80	0.0		(2.5-3.5') CLAY with SILT, soft, very dark gray, moist, medium plasticity, cohesive	CL	
-		0.0	B6-077-SB-4	(3.5-4.3') CLAY grading to SANDY CLAY, very soft, pale brown, moist to wet, high plasticity to low plasticity, cohesive	CH/CL	Wet at 4' bgs
		0.0		(4.3-4.7') SAND, loose, pale brown, wet, non plastic, non cohesive	SP	
5-		0.8		(4.7-5') SANDY CLAY, soft, pale brown, very moist, high plasticity, cohesive (5-5.8') SAND, loose, pale brown, wet, non plastic, non cohesive	SP	
_		0.5		(5.8-10') SANDY CLAY grading to CLAY, hard, pale brown and light gray mottling, dry, high plasticity, cohesive		
_	100	0.1			CL	
-		0.1				
		0.1				
10 —				End of Boring		<u> </u>

Total Borehole Depth: 10' bgs.

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Boring ID: B6-078-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G. Checked by : M. Replogle, E.I.T.

Drilling Company : Green Services, Inc. Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT

Date : 06/17/2016 Weather : 60s, Cloudy

Northing (US ft) : 570696.75

Easting (US ft) : 1462395.62

-	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval ea	GI 1)	DESCRIPTION		nscs	REMARKS
	0-		0.8	B6-078-SB-1	(0-1') CO	NCRETE, hard, dry		NA	
	-		1.7		(1-9') SAN coarse, su dark gray,	ND and GRAVEL with SILT and CLAY, fine to ubangular, medium dense, tan, gray-green, red, r, dry, non plastic, non cohesive			
		92	2.4						
	-		16.1						
3-SB.bor	5-		29.5				614	N/GW	
gs/B6-078			-				Į v	/v/Gvv	
s\2_Bor Lo			17.7						
oring Logs		82	34.9	B6-078-SB-8					
rcel B6\E			24.7						
cuments\Pa	10-		2.1		(9-15') Cl plasticity,	LAY, very soft, gray-green, moist to wet, high cohesive			Wet at 9.5' bgs
rea B\Dc			-						
s Point A			-						
Sparrow.		40	-					CL	
300M EAC			<0.1						
3roup\150			<0.1						
malytics (	15—				End of Bo	oring			
P:\EnviroA	Total Bo	orehole D	epth: 15' l	bgs.					
01-03-2019 P:\EnviroAnalytics Group\150300M EAG_Sparrows Point Area B\Documents\Parcel B\Boring Logs\2_Bor Logs\86-078-SB.bor	Boring t	erminated	d due to w	vater at 15' bgs.					



Boring ID: B6-079-SE

(page 1 of 1)

Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

: M. Replogle, E.I.T. Checked by

**Drilling Equipment** : Geoprobe 7822DT Date : 06/15/2016 Weather

: 70s, Cloudy

Northing (US ft) : 570487.23

D	Drilling Company	: Green Services, Inc.	Easting (US ft)	: 1463459.59
В	Driller	: Don Marchese		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-	<u> </u>	<u> </u>		(0-0.5') CONCRETE, loose, gray, dry, non plastic, non	NA	
		-	B6-079-SB-1	cohesive (0.5-2.5') SILT, soft grading to very firm, brownish gray and		
-		97.5		dark gray, dry, non plastic, non cohesive	ML	
-	93	49.8		(2.5-4.7') CLAY with SILT, firm, pale brown, moist, high plasticity, cohesive		
		0.0			CL	
5-		0.0		(4.7-5') CLAYEY SAND, firm, reddish yellow, moist, non	SP	
J		-		(bastic, non cohesive (5-6.2') CLAY, very soft, pale brown and gray, very moist, high plasticity, cohesive	CL	
-		9.6	B6-079-SB-7	(6.2-9.5') SAND, soft to medium dense, very pale grown,to pale brown with reddish yellow staining, moist to wet, non plastic, non cohesive		Wet at 7' bgs
-	90	21.3			SP	
		0.0				
10-		14.0		(9.5-10') SANDY CLAY grading to CLAY, soft, light gray, moist, high plasticity, cohesive  End of Boring	CL	

Total Borehole Depth: 10' bgs.

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Boring ID: B6-080-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 06/16/2016

Weather : 70s, Cloudy

Northing (US ft) : 571239.99

Easting (US ft) : 1463600.74

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0-				(0-3.5') SLAG GRAVEL, loose, brown, dry, non plastic, non		
		-	B6-080-SB-1	cohesive		
_		-				
-					GP	
	40	-				
-						
_		0.0		(3.5-5') CLAY, hard, pale brown and reddish yellow, dry, high plasticity, cohesive		
		0.0			CL	
5-		0.0	B6-080-SB-6	(5-8') CLAY grading to SANDY CLAY, very frim grading to very soft, dry then wet, medium plasticity, cohesive		
		0.0			CL	
	100	0.0				Wet at 7.5' bgs
-		0.0		(8-10') SAND, medium dense, pale brown, wet, non plastic, non cohesive		
_		0.0			SP	
10 —				End of Boring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-081-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 06/16/2016

Weather : 80s, Cloudy

Northing (US ft) : 571621.60

Easting (US ft) : 1463297.54

			(page 1	of 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				(0-0.5') S	LAG GRAVEL, loose, dark brown, very moist, non		
		-	B6-081-SB-1	plastic, n	on cohesive	GP	
				and gray	SAND and SLAG GRAVEL, loose, grayish brown dry to moist, non plastic, non cohesive		
		-					
	50	0.0					
-						SP/GP	
		0.8					
_							
		26.5	B6-081-SB-5				
5—							
		0.4		(5.5-6.5')	SAND and SLAG GRAVEL with CLAY, loose, rown and gray, wet, non plastic, non cohesive		Wet at 5.5' bgs
1				grayisirb	own and gray, wet, non plastic, non conesive	SP/GP	
		0.3		(6.9-9') C	LAY with SAND, very soft, black grading to pale		
-				brown an	d brownish yellow, wet, high plasticity, cohesive		
	100	0.0					
4						CL	
		0.1					
		0.1					
				(9-10') Cl	AY, very firm, reddish yellow and pale brown, dry, icity, cohesive		
		0.0		ingii pias	, 55/7001V0	CL	
10				End of Bo	pring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-082-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Replogle, E.I.T.
Drilling Company : Green Services, Inc.

Drilling Equipment : Geoprobe 7822DT

Date : 06/17/2016

Weather : 80s, Sunny

Northing (US ft) : 571271.36

Drilling Company : Green Services, Inc. Easting (US ft) : 1462827.07
Driller : Don Marchese

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
0-		0.1	B6-082-SB-1	(0-0.5') SILTY SAND and GRAVEL, loose, dark brown, dry, non plastic, non cohesive	SM	
_	100	0.2		(0.5-3') SILT grading to CLAY, hard, pale brown and reddish yellow grading to brown, low plasticity, cohesive	ML/CL	
_		0.1		(3-3.3') SLAG GRAVEL, loose, light gray, dry, non plastic, non cohesive (3.3-4.5') CLAY, hard, reddish yellow, dry, low plasticity, cohesive	GP CL	Intermittent black coarse sand layer
5-		0.1	B6-082-SB-5	(4.5-5') SAND, medium grained, loose, strong brown, wet, non plastic, non cohesive	SP	
Ü		-		(5-5.8') SAND, medium grained, loose, strong brown, wet, non plastic, non cohesive	SP	Wet at 5.7' bgs
_		0.8		(5.8-7') SANDY CLAY, very soft, black and grayish brown, wet, low plasticity, cohesive	CL	
_	87	0.1		(7-8') SANDY CLAY, hard, reddish yellow, dry, low plasticity, cohesive	CL	
_		0.2		(8-8.5') SANDY CLAY, very soft, reddish yellow, dry, low plasticity, cohesive	CL	
_		0.1		(8.5-10') CLAY with SAND, hard, reddish yellow and light gray mottles, dry, low plasticity, cohesive	CL	
10 —				End of Boring		

Total Borehole Depth: 10' bgs.



Boring ID: B6-083-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : J. Yaple, P.G.
Checked by : M. Replogle, E.I.T.
Prilling Company : Green Services, Inc.

Drilling Equipment : Geoprobe 7822DT

Date : 06/16/2016

Weather : 70s, Cloudy, Rainy

Northing (US ft) : 569309.02

B Drilling Company : Green Services, Inc. Easting (US ft) : 1462636.78
Driller : Kevin Pumphrey

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-		0.3	B6-083-SB-1	(0-3') Find loose, da cohesive	e SAND and coarse GRAVEL with trace SLAG, rk brown and dark gray, dry, non plastic, non		
_		0.5				sw/gw	
	100	2.4					
-		3.0		(3-5.5') S soft, tan I	ANDY SILT with GRAVEL and some SAND, medium prown and dark gray, non plastic, non cohesive		
5—		2.4				ML	
_		-		(5.5-6.5') gray and	GRAVEL with SAND and some SLAG, loose, dark dark brown, dry, non plastic, non cohesive	GW	
_		53.2		(6.5-10') plasticity,	CLAY, soft, gray-green and tan, moist to wet, high cohesive		
	100	88.3	B6-083-SB-8				
-		59.0				CL	Wat at 0! has
-		0.9					Wet at 9' bgs
10-				End of Bo	orina		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-084-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

: Green Services, Inc.

ARM Representative : J. Yaple, P.G. : M. Replogle, E.I.T. Checked by

Drilling Company

Driller : Kevin Pumphrey : Geoprobe 7822DT **Drilling Equipment** 

Date : 06/16/2016 Weather : 70s, Cloudy

Northing (US ft) : 569651.91

Easting (US ft) : 1462521.52

			(page 1	of 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	USCS	REMARKS
0-				(0-1') SAI	ND and GRAVEL, fine to coarse, angular, loose, light	t	
		3.4	B6-084-SB-1		hite and black, dry, non plastic, non cohesive	SW/GW	
		1.4		(1-7') Find reddish y cohesive	e SAND with trace SILT, very dense to loose, ellow and tan, dry to moist, non plastic, non		
	100	0.4					
		0.0					
		0.0				SP	
5		2.5					
-		6.3	B6-084-SB-7				
	100	6.3		(7-15') Cl 13', moist	AY, soft, tan-gray with trace red-yellow mottles to to wet, high plasticity, cohesive		
		6.3					
10		3.7					
10		1.4					
1		0.2				CL	
1	100	0.0					Wet at 12' bgs
+		0.0					
15		0.0					Boring terminated at 15' bgs due to water
15				End of Bo	pring		

Total Borehole Depth: 15' bgs.

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Boring ID: B6-085-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Repogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 06/17/2016 Weather : 80s, Sunny

Northing (US ft) : 570897.96

Easting (US ft) : 1462914.54

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
	%	E	Sa		3	
0-		-	B6-085-SB-1	(0-0.2') SILT, organic, soft, brown, dry, low plasticity, cohesive (0.2-2.5') GRAVELLY SILT, loose, brown and gray, dry, non plastic, non cohesive	OL	Small roots
-		0.2			ML	
-	90	0.8		(2.5-3.5') SILT, very firm, grayish brown, dry, low plasticity, cohesive	ML	
-		0.1		(3.5-5') SANDY SILT, soft, yellowish red, dry, non plastic, non cohesive	ML	
5-		-		(5-7.5') SANDY SILT with small GRAVEL, soft, yellowish red, dry, non plastic, non cohesive		
-		-			ML	
-	60	7.5	B6-085-SB-8	(7.5-10') SILT grading to fine to medium grained SAND, soft to medium dense, dark brown, moist to wet, non plastic, non cohesive		
-		7.4 4.8			ML/SW	Wet at 9' bgs
10-				End of Boring		

Total Borehole Depth: 10' bgs.

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Boring ID: B6-086-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Repogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 06/17/2016 Weather : 80s, Sunny

Northing (US ft) : 570057.80 Easting (US ft) : 1463153.27

	Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval bad)	,	DESCRIPTION		nscs	REMARKS
	0-				(0-3.5') S	SILT with SAND and GRAVEL, loose, black to gray	rish		Small roots
	-		-	B6-086-SB-1	brown, di	ry, non plastic, non cohesive		ML	
3-SB.bor	-	60	0.5	Do 000 05 4					
gs/B6-086	-		1.2	B6-086-SB-4	(3.5-5') S non plast	SANDY SLAG GRAVEL, loose, light gray to gray, d tic, non cohesive	lry,		
ogs\2_Bor Lo	5-		0.6		(- 40) 21			GP/SP	
01-03-2019 P:\EnviroAnalytics Group\150300M EAG_Sparrows Point Area B\Documents\Parcel B6\Boring Logs\2_Bor Logs\B6-086-SB.bor	-		-		(5-10') SI brown, w	LAG GRAVEL, fine to coarse, loose, gray and et, non plastic, non cohesive			
a B\Docum	-								
Point Area	-	50	0.8					GP	Wet at 7.5' bgs
EAG_Sparrows	-		1.0						
p\150300M E	4.0		0.1						
iroAnalytics Group	10—				End of Bo	oring	·		
01-03-2019 P:\Env		orehole De		bgs. vater at 10' bgs.					



Boring ID: B6-087-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Repogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 01/10/2017 Weather : 30s, Cloudy

Northing (US ft) : 569093.24

Easting (US ft) : 1462850.77

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION		nscs	REMARKS
		₫	Š				ž	
0	-	-		(0-4.5') C cohesive	CONCRETE, hard, gray, dry, non plastic, non			Cored through 4' of concrete (truline)
	20	-						
Total and a special conditions of the properties	_	7.5	B6-087-SB-5	(4.5-7.5')	SAND, fine to medium grained, dense, yellowish noist, no plasticity, no cohesion			
	;— -	-		biowii, ii	ioist, no plasticity, no concision		SW	(4.5-5') Sand may be moist due to driller placing water in boring
	78	1.6	B6-087-SB-7.5	brownish	SLAG, large GRAVEL, SAND-sized, medium dens gray and brown, dry then wet at 8', non plastic,	se,		
	_	1.4		non cohe	ssive		GP	Wet at 8.7' bgs Heavy sheen in water (8.7-10') No visible product
10	)	2.0		End of B	oring			
<b>&gt;</b>		Depth: 10'	bgs. water at 10' bgs.					



Boring ID: B6-088-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Repogle, E.I.T.

Drilling Company : Green Services, Inc.

Driller : Don Marchese
Drilling Equipment : Geoprobe 7822DT

Date : 09/19/2016 Weather : 80s, Rainy

Northing (US ft) : 568800.2977

Easting (US ft) : 1462756.232

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
Ŏ 0-	%		ဟိ			
0_			D0 000 0D 4	(0-0.2') SAND, dense, very pale brown, moist, no plasticity, no cohesion	SW NA	
		-	B6-088-SB-1	(0.2-0.4') CONCRETE, loose, white, dry, no plasticity, no cohesion	sw	
_		-		(0.4-1') SAND, dense, very pale brown, moist, no plasticity, no cohesion (1-2') CLAY, hard, pale yellow, dry, low plasticity, cohesive	CL	Strong sweet odor around
-				(2-3.5') SAND, dense, very pale brown, moist, no plasticity,	-	concrete
	70	7.6		no cohesion	sw	
		2.4		(3.5-4') CLAY, medium stiff, brown, dry, low plasticity, cohesive	CL	
5-		16.8	B6-088-SB-5	(4-8') SLAG, SAND and GRAVEL-sized, loose, grayish brown, dry, no plasticity, no cohesion		
J		-			SW/GW	
		-				
	50	0.0				
-				(8-8.5') SAND, medium dense, light brownish gray, moist, no plasticity, no cohesion	sw	W/s4 s4 0 51 h ms
-		-		(8.5-10') SAND, loose to medium dense, light brownish gray, wet, no plasticity, no cohesion		Wet at 8.5' bgs
		-			SW	
10-			L	L End of boring		L

Total Borehole Depth: 10' bgs.

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Boring ID: B6-089-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Repogle, E.I.T.
Drilling Company : Green Services, Inc.

Driller : Don Marchese
Drilling Equipment : Geoprobe 7822DT

Date : 09/19/2016 Weather : 80s, Rainy

Northing (US ft) : 570659.28 Easting (US ft) : 1463610.45

Depth (ft.)	Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	nscs	REMARKS
	%	Δ.	σ			
0-		23.8	B6-089-SB-1	(0-0.8') GRAVELLY SILT with SAND, soft, brown, moist, no plasticity, no cohesion	ML	
-		66.8		(0.8-2.5') SLAG, SAND and GRAVEL-sized, medium dense, gray and light gray, dry, no plasticity, no cohesion	SW/GW	Moderate odor throughout; predominately at 1-3' bgs
_	100	232.1		(2.5-3') CLAYEY SILT with SLAG GRAVEL, medium stiff, black, moist to dry, low plasticity, cohesive	ML	
		148.4	B6-089-SB-4	(3-4') CLAY, hard, gray and yellowish brown mottling, high plasticity, cohesive	CL	
-		125.6		(4-6.8') CLAY with SILT, hard, brownish gray and reddish yellow mottling, medium plasticity, cohesive		
5-		64.8			CL	
_		-		(6.8-8') SAND, dense, light brownish gray, wet, no plasticity,		Wet at 6.8' bgs
	100	-		no cohesion	SW	
_		-		(8-9') CLAYEY SAND, dense, yellowish red, very moist, no plasticity, no cohesion	SW-SC	
_		-		(9-10') CLAY with a one inch SAND layer at 9.6', very firm, brownish gray and reddish yellow mottling, moist, high plasticity, cohesive	CL	
10 —				End of boring		<u> </u>

Total Borehole Depth: 10' bgs.

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Boring ID: B6-090-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Repogle, E.I.T. Drilling Company : Green Services, Inc. Driller : Don Marchese

Drilling Equipment : Geoprobe 7822DT Date : 09/19/2016

Weather : 80s, Rainy

Northing (US ft) : 570849.50

Easting (US ft) : 1462253.23

			(page 1	01 1)			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	USCS	REMARKS
0-							
		-		(0.2-1.2')	CONCRETE, SAND and GRAVEL-sized, loose, y, no plasticity, no cohesion	NA NA	SB-2 collected from 0-0.2' + 1.2-2' bgs
-		104.5	B6-090-SB-2	(1.2-3') S	AND with CONCRETE GRAVEL, loose, pale brown, lasticity, no cohesion	SW	
_	90	48.5					
		15.5		brown, m	SILTY SAND with CONCRETE GRAVEL, loose, dark noist, no plasticity, no cohesion	SM ML	
5-		0.6		plasticity (3.9-5') S	SILT, medium dense, reddish yellow, dry, no no cohesion SLAG, SAND and GRAVEL-sized, loose, grayish d gray, dry, no plasticity, no cohesion	sw/gw	
-		-		(5-7.5') S	ILTY SAND, very fine grained, medium dense, red, moist, no plasticity, no cohesion	sw	
-		17.5				300	
-	90	24.9 3.5	B6-090-SB-8	(7.5-9') C plasticity	CLAY with SAND, soft, grayish brown, moist, low cohesive	CL	
-		10.1	B6-090-SB-10	(9-9.4') S cohesion	EILTY SAND, loose, dark brown, dry, no plasticity, no	SM	
10 —		-		(9.4-12.5 plasticity	') SANDY CLAY, soft, grayish brown, moist, low cohesive		
-		0.6				CL	
-	70	-		(12.5-14'	) SAND, loose grading to medium dense, gray to		Wet at 12.5' bgs
1		-		brownish cohesion	gray, wet then very moist 13.5-14', no plasticity, no	SW	
		-		black, dr	) SLAG, SAND-sized, dense, very dark brown and y, no plasticity, no cohesion	SW-SC	
15—			I	(14.5-15' very mois End of bo	CLAYEY SAND, medium dense, grayish brown, st, no plasticity, no cohesion		
				LIN OI DO	oning .		

Total Borehole Depth: 15' bgs.

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Boring ID: B6-091-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Repogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 09/19/2016

Weather : 80s, Rainy

Northing (US ft) : 569479.80

Easting (US ft) : 1462392.41

			(page 1				
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	NSCS	REMARKS
0-		2.6	B6-091-SB-1		SANDY SILT, soft, brownish gray, dry, no plasticity,		
-			B0-091-3B-1	no cohes	sion	ML	
-		8.9		(1.5-1.7')	) SLAG GRAVEL, large, loose, light gray, dry, no cohesion	GP	
-	100	4.5		(1.7-5') S	SILT with CLAY grading to CLAYEY SILT, hard, brown with yellowish brown at 3-4', dry, low		
-		5.9		plasticity	r, cohesive	ML	
5-		1.1					
		4.2			SILTY CLAY, hard, brownish gray, dry, low , cohesive	CL	
		10.1			) SAND, dense, yellowish red, moist, no plasticity, no	o sw	
	100	5.6		(7.5-18')	CLAY, very firm (7.5-10') then firm to soft (10-18').		
		12.8	B6-091-SB-9	brownish	n gray with reddish yellow mottling, moist but very 8-10'), high plasticity, cohesive		
		10.6	B6-091-SB-10	]			
10 —		0.0		-			
-		0.0					
-	100	0.0					
-		0.0				CH	
-		0.0					
15—		0.0					
-							
-		0.0					
	100	0.0		(18-20')	CLAY, soft, gray, very moist, high plasticity,		No water encountered
		0.0		cohesive		CL	Boring terminated at 20' bgs due to maximum allowable
20-		0.0					depth
				End of b	oring		

Total Borehole Depth: 20' bgs.

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Boring ID: B6-092-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Repogle, E.I.T. Drilling Company : Green Services, Inc. Driller

: Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 09/21/2016

Weather : 80s, Sunny

Northing (US ft) : 568504.06

Easting (US ft) : 1462664.96

			(page i	, ,			
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-				(0.2.41) 6	IAC SILT to CDAVEL sized medium dense brown	.	
-		-	B6-092-SB-1	and gray	LAG, SILT to GRAVEL-sized, medium dense, brown dry, no plasticity, no cohesion	ML/GW	Trace oxidation
		11.5					
-	84	8.7		l (2.1-2.5')	LAY with trace SLAG GRAVEL, hard, gray then grayish brown and reddish yellow mottling, city low plasticity grading to high plasticity,		
		3.1				CL/CH	
5-		0.0					
5-		0.7		gray with	AY, soft to very soft then hard at 7.7' +, brownish reddish yellow mottling from 6-9', moist to very n dry at 7.7' +, high plasticity, cohesive		
_		8.5				CL	
_	100	7.2					
		51.3	B6-092-SB-9				Wet at 9' bgs
-		49.9		(9-10') SA pale brov	AND, very fine to medium grained, dense to loose, vn, wet, no plasticity, no cohesion	SW	vvecate bgs
10 —			<u> </u>	End of bo			

Total Borehole Depth: 10' bgs.

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Boring ID: B6-093-SB

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Client : EnviroAnalytics Group

ARM Project No. : 150300M-5-3

Project Description : Sparrows Point - Parcel B6 Site Location : Sparrows Point, MD

ARM Representative : L. Perrin

Checked by : M. Repogle, E.I.T. Drilling Company : Green Services, Inc.

Driller : Don Marchese **Drilling Equipment** : Geoprobe 7822DT Date : 09/21/2016

Weather : 80s, Sunny

Northing (US ft) : 570364.50

Easting (US ft) : 1463641.00

			(page 1				
Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval		DESCRIPTION	nscs	REMARKS
0-					DCANIC CIL Twith CAND lease brown maiet me		
		92.2	B6-093-SB-1	plasticity (0.3-1.5') GRAVEL	RGANIC SILT with SAND, loose, brown, moist, no no cohesion  SILTY SAND with SLAG (SAND and sized), loose, brown and gray, dry to moist, no no cohesion, SLAG increases with depth	SM	Organic matter
		126.4		(1.5-2.5') cohesive	CLAY, firm, grayish brown, moist, high plasticity,	CL	
-	100	146.3			SANDY CLAY, soft, reddish yellow, moist, medium cohesive	CL	
		106.7		moist to v	SAND, very fine to medium grained, dense, very vet, very pale brown and light yellowish brown, no no cohesion	sw	
-		0.4		(3.8-6.6') yellow, d	CLAY, hard, light gray, pale brown and reddish y, medium plasticity, cohesive		
5-		39.5				CL	
-	•	178.5	B6-093-SB-7	(6.6-7') S	AND, fine grained, dense, light gray and reddish	SW	
	100	-		(7-10') Sa light gray	oist, no plasticity, no cohesion  ND, very fine to medium grained, dense to loose, very pale brown, and reddish yellow; wet, no no cohesion		Wet at 7' bgs
		-				SW	
10		-					
10-			1	End of bo	ring		<u> </u>

Total Borehole Depth: 10' bgs.

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