



Nobis Engineering
PO Box 2890
Concord, New Hampshire 03302

PROJECT

Remedial Design For Operable Unit 01

New Bedford Harbor Superfund Site

New Bedford, Massachusetts

BORING NO. FD-26

SHEET 1 of 3

FILE NO. 48138.07

CHKD. BY J. Trottier

Boring Co. Atlantic Testing Laboratories, Limited Boring Location northing 2697349.6 easting 814116.2
 Driller R. Pryce Ground Surface El. 7.48 Datum NGVD
 Logged By R. Chase Date Start 8/24/99 Date End 8/25/99

Sampler: 2-inch O.D. split-barrel sampler driven 24 inches with a 140 lb. safety hammer free falling from a height of 30 inches.
 Drill Rig: CME 75 truck mount
 Drilling Method: 4-inch I.D. (HW) flush-joint casing; spin and wash.

Groundwater Readings (from ground surface)				
Date	Time	Depth	Elev.	Stabilization Time
8/25	6:45 PM	3.4 ft.	4.08	Upon completion of drilling

O P T I O N	Casing Blows (R)	SAMPLE INFORMATION					SAMPLE DESCRIPTION (ASTM D2488)	STRATUM DESCRIPTION	R E M A R K S
		Type & No.	PEN/REC (inches)	DEPTH (feet)	BLOWS PER 6 INCHES	SPT N-Value			
1	Spin	S-1	24/14	0-2	10-22-20-18	42	Poorly graded sand (SP); dry, dense, 85% fine sand, 5% medium sand, 5% fine gravel, 5% silt, gray. (FILL) Advance HW drill casing to 2.5 ft.	SP (FILL)	
2	Spin								
3	Spin	S-2	12/9	2.5-3.5	86-54	>54	Similar to S-1, except wet. Advance HW drill casing to 7.5 ft.	SP (FILL)	
4	Spin								
5	Spin								
6	Spin								
7	Spin								
8	Spin	S-3	24/12	7.5-9.5	15-14-36-15	50	Poorly graded sand (SP); wet, dense, 85% fine sand, 5% medium sand, 5% silt, <5% wood, dark gray. (FILL) Advance HW drill casing to 12.5 ft.	SP (FILL)	
9	Spin								
10	Spin								
11	Spin								
12	Spin								
13	Spin	S-4	18/4	12.5-14	18-12-50	62	Poorly graded gravel with sand (GP); wet, very dense, 50% fine gravel, 40% fine sand, 5% medium sand, 5% silt, gray. Advance HW drill casing to 17.5 ft.	GP	
14	Spin								
15	Spin								
16	Spin								
17	Spin								
18	Spin	S-5	24/3	17.5-19.5	14-13-11-10	24	Sandy silt (ML); wet, very stiff, 55% silt, 40% fine sand, <5% medium sand, gray. Advance HW drill casing to 22.5 ft.	ML	
19	Spin								
20	Spin								

0 to 4 - Very Loose 5 to 10 - Loose 11 to 30 - Medium Dense 31 to 50 - Dense Over 50 - Very Dense	0 to 2 - Very Soft 3 to 4 - Soft 5 to 8 - Medium Stiff 9 to 15 - Stiff 16 to 30 - Very Stiff Over 30 - Hard	1. S denotes split-barrel sampler. 2. U denotes 3-inch O.D. undisturbed sample. 3. UO denotes 3-inch Osterberg undisturbed sample. 4. PEN denotes penetration length of sampler. 5. REC denotes recovered length of sample. 6. SPT denotes Standard Penetration Test.	7. PID denotes Photoionization Detector 8. PPM denotes parts per million. 9. PP denotes Pocket Penetrometer. 10. FVST denotes field vane shear test. 11. RQD denotes Rock Quality Designation. 12. R denotes core run number.
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REMARKS:
 1) Grout the completed borehole from 0 to 50.5 ft.
 2)
 3)
 4)



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BORING NO. FD-26

SHEET 2 of 3

FILE NO. 48138.07

CHKD. BY J. Trotter

Boring Co. Atlantic Testing Laboratories, Limited Boring Location northing 2697349.6 easting 814116.2
 Driller R. Pryce Ground Surface El. 7.48 Datum NGVD
 Logged By R. Chase Date Start 8/24/99 Date End 8/25/99

Sampler: 2-inch O.D. split-barrel sampler driven 24 inches with a 140 lb. safety hammer free falling from a height of 30 inches.
 Drill Rig: CME 75 truck mount
 Drilling Method: 4-inch I.D. (HW) flush-joint casing; spin and wash.

Groundwater Readings (from ground surface)				
Date	Time	Depth	Elev.	Stabilization Time
8/25	6:45 PM	3.4 ft.	4.08	Upon completion of drilling

DEPTH	Casing Blows (ft)	SAMPLE INFORMATION					SAMPLE DESCRIPTION (ASTM D2488)	STRATUM DESCRIPTION	REMARKS
		Type & No.	PENREC (inches)	DEPTH (feet)	BLOWS PER 6 INCHES	SPT N-Value			
21	Spin								
22	Spin								
23	Spin	S-6	24/10	22.5-	11-11-12-13	23	Poorly graded sand with silt (SP-SM); wet, medium dense, 85% fine sand, 5% fine gravel, 10% silt, gray.	SP-SM	
24	Spin			24.5			Advance HW drill casing to 27.5 ft.		
25	Spin								
26	Spin								
27	Spin								
28	Spin	S-7	24/10	27.5-	9-14-17-21	31	Similar to S-6, except dense.	SP-SM	
29	Spin			29.5			Advance 3-7/8 in. roller bit to 32 ft. Advance HW drill casing to 32.5 ft.		
30	Spin								
31	Spin								
32	Spin								
33	Spin	S-8	24/0	32.5-	12-19-27-39	46	No recovery.		
34	Spin			34.5			Advance 3-7/8 in. roller bit to 37 ft. Advance HW drill casing to 37.5 ft.		
35	Spin								
36	Spin								
37	Spin								
38	Spin	S-9	24/6	37.5-	18-15-20-14	35	Poorly graded gravel with sand (GP); wet, dense, 75% fine gravel, 10% medium sand, 5% coarse sand, 5% fine sand, 5% silt, gray.	GP	
39	Spin			39.5			Advance HW drill casing to 43 ft.		
40	Spin								

0 to 4 - Very Loose 5 to 10 - Loose 11 to 30 - Medium Dense 31 to 50 - Dense Over 50 - Very Dense	0 to 2 - Very Soft 3 to 4 - Soft 5 to 8 - Medium Stiff 9 to 15 - Stiff 16 to 30 - Very Stiff Over 30 - Hard	1. S denotes split-barrel sampler. 2. U denotes 3-inch O.D. undisturbed sample. 3. UO denotes 3-inch Osterberg undisturbed sample. 4. PEN denotes penetration length of sampler. 5. REC denotes recovered length of sample. 6. SPT denotes Standard Penetration Test.	7. PID denotes Photoionization Detector 8. PPM denotes parts per million. 9. PP denotes Pocket Penetrometer. 10. FVST denotes field vane shear test. 11. RQD denotes Rock Quality Designation. 12. R denotes core run number.
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SHEET 3 of 3

FILE NO. 48138.07

CHKD. BY J. Trottier

Boring Co. Atlantic Testing Laboratories, Limited

Driller R. Pryce

Logged By R. Chase

Boring Location

Ground Surface El.

Date Start

northing 2697349.6 easting 814116.2

7.48

8/24/99

Datum NGVD

Date End

8/25/99

Sampler: 2-inch O.D. split-barrel sampler driven 24 inches with a 140 lb. safety hammer free falling from a height of 30 inches.

Drill Rig: CME 75 truck mount

Drilling Method: 4-inch I.D. (HW) flush-joint casing; spin and wash.

Groundwater Readings (from ground surface)

Date	Time	Depth	Elev.	Stabilization Time
8/25	6:45 PM	3.4 ft.	4.08	Upon completion of drilling

DEPTH T H	Casing Blows (R)	SAMPLE INFORMATION					SAMPLE DESCRIPTION (ASTM D2488)	STRATUM DESCRIPTION	R E M A R K S
		Type & No.	PEN/REC (inches)	DEPTH (feet)	BLOWS PER 6 INCHES	SPT N-Value			
41	Spin								
42	Spin								
43	Spin								
44	Spin	S-10	24/6	43-45	17-15-18-16	33	Poorly graded gravel (GP); wet, dense, 85% fine gravel, <5% medium sand, <5% fine sand, <5% silt. Advance HW drill casing to 47.2 ft.	GP	
45	Spin								
46	Spin								
47	Spin						Casing refusal at 47.2 ft. Top of bedrock at 47.2 ft.		
48							Advance 3-7/8 in. roller bit to 50.5 ft. to confirm bedrock.	BEDROCK	
49									
50									
51							Bottom of exploration at 50.5 ft.; boring terminated in probable bedrock.		
52									
53									
54									
55									
56									
57									
58									
59									
60									

0 to 4 - Very Loose
5 to 10 - Loose
11 to 30 - Medium Dense
31 to 50 - Dense
Over 50 - Very Dense

0 to 2 - Very Soft
3 to 4 - Soft
5 to 8 - Medium Stiff
9 to 15 - Stiff
16 to 30 - Very Stiff
Over 30 - Hard

1. S denotes split-barrel sampler.
2. U denotes 3-inch O.D. undisturbed sample.
3. UO denotes 3-inch Osterberg undisturbed sample.
4. PEN denotes penetration length of sampler.
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