



STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

WATERFORD
BF 0225(4)
VT-18 BR-7

Boring No.: **B-101**
Page No.: **1 of 2**
Pin No.: **13C268**
Checked By: **MLM**

Boring Crew: **JUDKINS, DAIGNEAULT**
Date Started: **4/01/14** Date Finished: **4/02/14**
VTSPG NAD83: **N 680559.75 ft E 1795988.59 ft**
Station: **106+25** Offset: **-11.00**
Ground Elevation: **911.1 ft**

Type: **WB** Casing **SS** Sampler
I.D.: **4 in** **1.5 in**
Hammer Wt: **N.A.** **140 lb.**
Hammer Fall: **N.A.** **30 in.**
Hammer/Rod Type: **Auto/AWJ**
Rig: **CME 45C SKID** **CE = 1.33**

Groundwater Observations		
Date	Depth (ft)	Notes
04/01/14	5.0	While drilling.
04/02/14	8.0	Before drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate min/feet/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.45 ft								
		A-1-b, SiGrSa, Lt/brn, Moist, Rec. = 0.9 ft				22-11-11-16 (22)	9.9	33.5	45.4	21.1
2.5		Field Note: Roller coned ahead. Cleaned out casing.								
		A-2-4, SiGrSa, Lt/brn, MTW, Rec. = 0.9 ft, Lab Note: Broken Rock was within sample.				24-R@5.0" (R)	23.1	33.6	34.8	31.6
5.0		A-1-a, SaGr, brn, MTW, Rec. = 0.8 ft, NXDC, Cleaned out casing.				48-29-14-R@3.5" (36)	15.0	59.9	25.2	14.9
7.5		A-1-b, SaGr, brn, MTW, Rec. = 1.0 ft				24-14-22-16 (36)	15.3	61.3	22.0	16.7
10.0		A-1-b, SiSaGr, brn-gry, Moist, Rec. = 0.3 ft, Lab Note: Broken Rock was within sample.				35-17-14-11 (31)	10.8	42.7	35.3	22.0
		Field Note: No Recovery, NXDC, Cobbles				R@1.0" (R)				
12.5		A-4, GrSaSi (HP), gry, Moist, Rec. = 1.6 ft				9-15-16-25 (31)	9.9	23.7	28.1	48.2
15.0		A-4, GrSaSi (HP), gry, Moist, Rec. = 1.0 ft				27-37-26-R@2.5" (63)	9.3	24.1	32.6	43.3
17.5		A-4, SaSi (HP), gry, Moist, Rec. = 1.6 ft				25-34-32-R@2.5" (66)	12.1	6.1	32.1	61.8
20.0		Field Note: NXDC, Cleaned out casing								
		A-4, SaSi (HP), gry, Moist, Rec. = 1.4 ft				23-32-39-R@1.0" (71)	10.7	12.5	31.1	56.4
		Field Note: NXDC, Cleaned out casing								

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
<<SUB>><<SUB>> is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.



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Groundwater Observations		
Date	Depth (ft)	Notes
04/01/14	5.0	While drilling.
04/02/14	8.0	Before drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate min/feet/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
22.5										
25.0		A-4, SaSi (HP), gry, Moist, Rec. = 1.1 ft				23-32-35-R@1.0" (67)	12.2	15.2	28.8	56.0
27.5										
30.0		28.3 ft - 33.3 ft, Light gray, Fine-grained feldspathic Metasandstone, with thin slaty partings. Hard, Unweathered, Good rock, NXMDC, RMR = 67	1 (35)	100 (64)	5					
32.5										
35.0		33.3 ft - 38.3 ft, Light gray, Fine-grained feldspathic Metasandstone, with thin slaty partings. Hard, Unweathered, Good rock, NXMDC, RMR = 67	2 (35)	100 (50)	3					
37.5										
40.0		Hole stopped @ 38.3 ft								
42.5		Remarks: Hole collapsed at 7.0 ft.								

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BORING LOG 2 WATERFORD BF 0225(4) GPJ VERMONT AOT.GDT 1/13/17

BORING LOG 2 WATERFORD BF 0225(4) GPJ VERMONT AOT.GDT 1/13/17



Boring Crew: JUDKINS, DAIGNEAULT, NIETO
Date Started: 4/03/14 Date Finished: 4/04/14
VTSPG NAD83: N 680610.25 ft E 1795985.87 ft
Station: 106+71 Offset: 10.00
Ground Elevation: 914.1 ft

Casing Sampler
Type: WB SS
I.D.: 4 in 1.5 in
Hammer Wt: N.A. 140 lb.
Hammer Fall: N.A. 30 in.
Hammer/Rod Type: Auto/AWJ
Rig: CME 45C SKID CE = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
04/03/14	7.0	End of day.
04/04/14	9.0	Before drilling.
04/04/14	6.6	After drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Cone Rec. % (ROD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Field Note: Asphalt Pavement								
		Visual Description: SiGrSa, gry, Moist, Rec. = 1.1 ft, Lab Note: Lots of Asphalt Pavement was within sample.				19-29-30 R@2.5" (R)	9.8			
5		A-4, SaSi, Dk/bm, MTW, Rec. = 1.5 ft, Lab Note: Broken Rock was within sample. Roller coned and cleaned out casing.				32-27-30 R@1.0" (57)	24.6	19.0	39.9	41.1
		Field Note: No Recovery. Appears to be sandy gravel, Roller coned and cleaned out casing.				19-17-10-7 (27)				
		Field Note: No Recovery., Roller coned and cleaned out casing.				5-10-20-25 (30)				
10		A-1-b, SaGr, gry, MTW, Rec. = 0.8 ft, Lab Note: Broken Rock was within sample. Roller coned and cleaned out casing.				12-18-19-18 (37)	12.6	50.4	32.9	16.7
		A-4, GrSaSi, tan, Moist, Rec. = 0.3 ft, Lab Note: Broken Rock was within sample. Roller coned and cleaned out casing.				26- R@5.0" (R)	10.2	28.7	30.5	40.8
		A-4, SaGrSi, gry, Moist, Rec. = 0.8 ft, Lab Note: Broken Rock was within sample. NXDC, Cleaned out casing.				45-21-15-20 (36)	9.8	31.3	30.5	38.2
15		Field Note: No Recovery, NXDC, Cleaned out casing.				36-15-40- R@2.5" (55)				
		A-4, GrSaSi, gry, Moist, Rec. = 1.2 ft, Lab Note: Broken Rock was within sample. NXDC, Cleaned out casing.				40-27-36- R@0.0" (63)	9.8	22.5	35.4	42.1
20		A-4, SaSi (HP), gry, Moist, Rec. = 1.5 ft				19-25-30- R@3.5" (55)	11.6	3.9	29.6	66.5
25		A-4, SaGrSi (HP), gry, Moist, Rec. = 1.0 ft, Lab Note: Broken Rock was within sample. NXDC, Cleaned out casing.				22-27-18-28 (45)	11.1	24.9	20.7	54.4

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Hammer Fall: N.A. 30 in.
Hammer/Rod Type: Auto/AWJ
Rig: CME 45C SKID SUB>><<SUB>>

Groundwater Observations		
Date	Depth (ft)	Notes
04/03/14	7.0	End of day.
04/04/14	9.0	Before drilling.
04/04/14	6.6	After drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Cone Rec. % (ROD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Field Note: NXDC, advanced casing								
30		A-4, SaGrSi (HP), gry, Moist, Rec. = 1.1 ft, Lab Note: Broken Rock was within sample. NXDC, Cleaned out casing.				11-14-16-17 (30)	11.9	27.5	22.2	50.3
		Field Note: NXDC, advanced casing								
35		Field Note: No Recovery				10-11-1- R@5.0" (R)				
		Geologist's Note: Till, (HP), NXMDC, Drill time = 3, 15, 8, 21, minutes per foot.								
40		41.0 ft - 46.0 ft, Dark gray, Slate, Moderately hard, Unweathered, Good rock, NXMDC, RMR = 68	1 (40)	100 (84)	6					
		Top of Bedrock @ 41.0 ft			6					
					7					
					7					
45		46.0 ft - 51.0 ft, Dark gray, Slate, Moderately hard, Unweathered, Good rock, NXMDC, RMR = 68	2 (40)	100 (86)	5					
					6					
					7					
					7					
50					7					
		Hole stopped @ 51.0 ft								
		Remarks: Hole collapsed at 8.2 ft.								
55										

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