



BORING LOG

STOWE
BHF 0235(15)
VT-108 BR-3

Boring No.: **B-101**
Page No.: **1 of 2**
PIn No.: **88C190**
Checked By: **MLM**

Boring Crew: **DAIGNEAULT, JUDKINS**
Date Started: **8/23/13** Date Finished: **8/26/13**
VTSPG NAD83: **N 719003.02 ft E 1586383.77 ft**
Station: **15+13.5** Offset: **-20.00**
Ground Elevation: **740.0 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 55 TRACK C = 1.46**

Groundwater Observations		
Date	Depth (ft)	Notes
08/26/13	12.4	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate min/feet	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		Visual Description:; SiGrSa, Dk/brn, Molst, Rec. = 0.3 ft, Insufficient sample for testing.				1-1-3-5 (4)	13.2			
		Visual Description:; SaGr, Dk/brn, Molst, Rec. = 0.2 ft, Insufficient sample for testing.				6-8-6-2 (14)	9.2			
		A-1-b, SaGr, brn, Molst, Rec. = 0.7 ft				6-9-10-10 (19)	8.3	52.8	28.1	19.1
		A-1-b, SaGr, brn, Molst, Rec. = 0.7 ft				6-7-10-13 (17)	9.8	46.1	40.9	13.0
10		A-1-b, SiSaGr, brn, Molst, Rec. = 0.7 ft				10-16-14-16 (30)	9.4	40.2	36.0	23.8
		A-1-b, SaGr, brn, Molst, Rec. = 0.5 ft, Broken Rock was within sample.				8-7-7-9 (14)	9.7	49.1	33.3	17.6
		A-2-4, SiSaGr, brn, MTW, Rec. = 0.6 ft				6-10-6-5 (16)	14.1	38.9	34.2	26.9
		A-4, Si, gry, Wet, Rec. = 0.8 ft				3-4-3-4 (7)	26.6	0.4	13.3	86.3
15		A-4, Si, gry, Wet, Rec. = 0.7 ft				1-3-3-4 (6)	27.0	3.6	8.1	88.3
		A-4, Si, gry, Wet, Rec. = 1.4 ft				2-2-2-3 (4)	30.8		3.4	96.6
25		A-4, Si, gry, Wet, Rec. = 1.2 ft				5-2-3-3 (5)	27.6	6.9	4.4	88.7
30		A-4, Si, gry, Wet, Rec. = 1.0 ft				2-4-3-2 (7)	28.6		11.2	88.8
35		A-4, Si, gry, Wet, Rec. = 0.9 ft				2-3-3-4 (6)	25.3	1.6	16.2	82.2
40		A-4, Si, gry, Wet, Rec. = 1.2 ft				1-3-3-3 (6)	27.5	0.6	6.0	93.4

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy, C 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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VTSPG NAD83: **N 719003.02 ft E 1586383.77 ft**
Station: **15+13.5** Offset: **-20.00**
Ground Elevation: **740.0 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 55 TRACK C = 1.46**

Groundwater Observations		
Date	Depth (ft)	Notes
08/26/13	12.4	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate min/feet	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	
50		A-4, Si, gry, MTW, Rec. = 1.2 ft				6-5-6-6 (11)		24.7	5.8	15.8	78.4
		A-4, SaSi, gry, MTW, Rec. = 0.8 ft				3-4-5-6 (9)		21.6	9.3	22.5	68.2
55		Field Note:; No Recovery				18-7-7-4 (14)					
60		Field Note:; No Recovery				6-4-5-4 (9)					
65		Field Note:; No Recovery				8-6-3-3 (9)					
70		69.5 ft - 74.5 ft, Light gray to green, Chlorite-muscovite-quartz Schist, with white quartzofeldspathic layers. Moderately hard, Unweathered, Fair rock, NXMDC, RMR = 52	1 (20)	96 (28)	8						Top of Bedrock @ 69.5 ft
75		74.5 ft - 79.5 ft, Light gray to green, Chlorite-muscovite-quartz Schist, with white quartzofeldspathic layers. Moderately hard, Unweathered, Fair rock, NXMDC, RMR = 57	2 (30)	88 (60)	5						
80		Hole stopped @ 79.5 ft									
85		Remarks: 1. Hole collapsed at 11.2 ft.									

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BORING LOG 2 STOWE BHF 0235(15) GPJ VERMONT AOT.GDT 9/30/13

BORING LOG 2 STOWE BHF 0235(15) GPJ VERMONT AOT.GDT 9/30/13



BORING LOG

STOWE
BHF 0235(15)
VT-108 BR-3

Boring No.: **B-103**
Page No.: 1 of 2
Pin No.: 88C190
Checked By: MLM

Boring Crew: DAIGNEAULT, JUDKINS
Date Started: 8/27/13 Date Finished: 8/27/13
VTSPG NAD83: N 719001.30 ft E 1586524.99 ft
Station: 16+57.3 Offset: -20.00
Ground Elevation: 738.4 ft

Casing Type: WB Sampler 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
Rlg: CME 55 TRACK C = 1.46

Groundwater Observations		
Date	Depth (ft)	Notes
08/27/13	11.4	After drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows* (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-1-b, GrSa, Dk/brn, Moist, Rec. = 0.5 ft, Broken Rock was within sample.				1-1-1-8 (2)	6.3	42.5	45.4	12.1
		A-1-a, SaGr, Lt/brn, Moist, Rec. = 0.6 ft, Lab Note: Mostly Broken Rock				3-1-3-5 (4)	4.5	65.1	24.6	10.3
		A-1-b, SiSaGr, brn, Moist, Rec. = 0.4 ft, Broken Rock was within sample.				3-8-9-10 (17)	9.9	50.9	26.8	22.3
		A-1-b, SaGr, brn, Moist, Rec. = 0.8 ft				8-13-16-12 (29)	9.9	49.3	37.2	13.5
10		A-1-b, SaGr, brn, Moist, Rec. = 0.7 ft, Broken Rock was within sample.				5-11-14-20 (25)	8.7	45.8	38.5	15.7
		A-2-4, SiSaGr, brn, Moist, Rec. = 0.5 ft				9-9-8-5 (17)	10.2	43.0	29.8	27.2
15		A-1-a, SaGr, brn, Moist, Rec. = 0.4 ft				3-5-9-5 (14)	10.2	56.3	28.9	14.8
		Visual Description: SaGr, gry, Moist, Rec. = 0.1 ft, Stone caught in sampler. Insufficient sample for testing.				3-4-6-8 (10)				
		A-1-b, SaGr, gry, Moist, Rec. = 0.7 ft				7-7-9-9 (16)	10.1	49.3	38.2	12.5
20		A-1-b, GrSa, gry-rust, Moist, Rec. = 0.6 ft, Lab Note: Sample had an orange colored area with the remainder of sample being gray.				9-8-7-7 (15)	13.9	33.7	48.7	17.6
25		A-4, Si, gry, MTW, Rec. = 1.0 ft				6-3-3-4 (6)	31.5	3.9	3.3	92.8
30		A-4, Si, gry, MTW, Rec. = 0.8 ft				4-3-3-3 (6)	30.3		7.6	92.4
35		A-4, SaSi, gry, MTW, Rec. = 0.8 ft				5-4-3-2 (7)	19.0	12.9	35.2	51.9
40		Field Note: No Recovery				3-1-1-1 (2)				

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Boring Crew: DAIGNEAULT, JUDKINS
Date Started: 8/27/13 Date Finished: 8/27/13
VTSPG NAD83: N 719001.30 ft E 1586524.99 ft
Station: 16+57.3 Offset: -20.00
Ground Elevation: 738.4 ft

Casing Type: WB Sampler 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
Rlg: CME 55 TRACK C = 1.46

Groundwater Observations		
Date	Depth (ft)	Notes
08/27/13	11.4	After drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows* (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
50		Visual Description: Broken Rocks, gry, Moist, Rec. = 0.1 ft, Stone caught in sampler. Insufficient sample for testing.				3-1-1-5 (2)				
		A-1-b, SaGr, gry, Moist, Rec. = 0.7 ft, Lab Note: Broken Rock & little Weathered Rock was within sample.				19-29-R@1.0" (R)	11.3	46.0	35.2	18.8
55		Field Note: NXDC 52.0 ft - 57.0 ft, Dark gray & black, Carbonaceous, graphitic, biotite-muscovite-quartz Phyllite, with silicic laminae. Moderately hard, Unweathered, Fair rock, NXMDC, RMR = 49	1 (45)	100 (50)	12					
60		57.0 ft - 62.0 ft, Dark gray & black, Carbonaceous, graphitic, biotite-muscovite-quartz Phyllite, with silicic laminae. Moderately hard, Unweathered, Fair rock, NXMDC, RMR = 49	2 (45)	92 (54)	4					
65		Hole stopped @ 62.0 ft								
		Remarks: 1. Hole collapsed at 7.2 ft.								
70										
75										
80										
85										

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BORING LOG 2 STOWE BHF 0235(15) GP1 VERMONT AOT/GDT 9/30/13

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STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

STOWE
BHF 0235(15)
VT-108 BR-3

Boring No.: **B-104**

Page No.: 1 of 1

Pin No.: 88C190

Checked By: MLM

Boring Crew: DAIGNEAULT, JUDKINS
Date Started: 8/21/13 Date Finished: 8/22/13
VTSPG NAD83: N 718957.36 ft E 1586495.57 ft
Station: 16+26 Offset: 20.00
Ground Elevation: 745.5 ft

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 55 TRACK C_s = 1.46

Groundwater Observations

Date	Depth (ft)	Notes
08/22/13	19.5	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	
		A-2-4, SiGrSa, brn, Moist, Rec. = 0.6 ft				1-1-4-3 (5)	4.8	26.1	49.9	24.0	
		A-2-4, SiGrSa, brn, Moist, Rec. = 0.8 ft				3-3-4-3 (7)	6.3	25.4	50.2	24.4	
10		Visual Description: Lots of Broken Rock with Sand, brn, Moist, Rec. = 0.2 ft				4-6-7-5 (13)	5.7				
		A-2-4, SiSaGr, brn, Moist, Rec. = 0.4 ft				6-5-5-5 (10)	14.2	36.3	33.2	30.5	
		A-2-4, GrSiSa, brn, Moist, Rec. = 0.7 ft, Some Broken Rock was within sample.				6-5-22-R (27)	14.2	25.6	43.4	31.0	
		Visual Description: Broken Rock with Silty Sand, brn-gry, Moist, Rec. = 0.2 ft				12-7-5-5 (12)	8.9				
		A-1-b, SiSaGr, brn, Moist, Rec. = 0.4 ft				2-4-6-9 (10)	9.1	51.7	26.6	21.7	
		Field Note: No Recovery				9-7-7-9 (14)					
20		Visual Description: SaGr with Broken Rock, gry, MTW, Rec. = 0.4 ft, Insufficient sample for testing.				7-7-15-15 (22)	8.9				
		A-1-b, SiSaGr, brn, MTW, Rec. = 0.3 ft				8-6-7-5 (13)	10.5	43.8	30.7	25.5	
		A-4, Si, brn, Wet, Rec. = 0.8 ft				5-2-3-3 (5)	30.8	1.9	8.7	89.4	
		A-4, Si, gry, Wet, Rec. = 1.2 ft				2-2-3-3 (5)	29.6		6.2	93.8	
30		A-4, SaSi, gry, Wet, Rec. = 1.0 ft				4-6-5-4 (11)	24.1	2.0	25.2	72.8	
		Visual Description: Broken Rock with Silty Sand, gry, MTW, Rec. = 0.4 ft				11-7-6-8 (13)	7.0				
40		38.5 ft - 39.5 ft, Dark gray & black, Carbonaceous, graphitic, biotite-muscovite-quartz Phyllite, with silicic laminae. Moderately hard, Unweathered, Poor rock, NXDC, Low RQD may be due to mechanical breakage along foliation planes. RMR = 39	1 (45)	80 (0)	3	Top of Bedrock @ 38.5 ft					
		39.5 ft - 44.5 ft, Dark gray & black, Carbonaceous, graphitic, biotite-muscovite-quartz Phyllite, with silicic laminae. Moderately hard, Unweathered, Poor rock, NXDC, Low RQD may be due to mechanical breakage along foliation planes. RMR = 39	2 (45)	100 (0)	4						
		44.5 ft - 49.5 ft, Dark gray & black, Carbonaceous, graphitic, biotite-muscovite-quartz Phyllite, with silicic laminae. Moderately hard, Unweathered, Poor rock, NXDC, Low RQD may be due to mechanical breakage along foliation planes. RMR = 39	3 (45)	100 (20)	3						
		Hole stopped @ 49.5 ft			4						
50		Remarks: 1. Hole collapsed at 13.8 ft.									

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