



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

BORING LOG

Richford-Sutton  
 BHF 0814(1)  
 VT-105A Bridge #3

Boring No.: **B-101**

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Pin No.: 10c222

Checked By: END

Boring Crew: Garrow, Judkins, Nieto  
 Date Started: 6/06/16 Date Finished: 6/07/16  
 VTSPG NAD83: N 915475.54 ft E 1617697.85 ft  
 Station: 59+76.6 Offset: -7.35  
 Ground Elevation: 514.6 ft

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  
 Rig: CME 45C SKID CE = 1.42

Groundwater Observations		
Date	Depth (ft)	Notes
06/06/16	21.6	W.T. after drilling
06/07/16	21.5	W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.85 ft					
5		A-1-a, SaGr, Dk/brn, Moist, Rec. = 1.3 ft, Lab Note: Pieces of asphalt pavement were within sample	10-8-5-5 (13)	7.4	52.1	41.0	6.9
		A-1-b, GrSa, Dk/brn, Moist, Rec. = 0.7 ft	4-5-4-6 (9)	6.5	33.0	57.9	9.1
10		A-1-a, SaGr, gry, Moist, Rec. = 1.0 ft, Lab Note: Broken concrete was within sample	5-5-4-3 (9)	6.7	54.3	33.2	12.5
		A-1-a, SaGr, gry-brn, Moist, Rec. = 1.2 ft, Lab Note: Broken rock was within sample Field Note:, Cleaned out casing	5-24-9-9 (33)	3.0	65.2	28.0	6.8
		A-1-b, GrSa, gry, MTW, Rec. = 0.3 ft, Lab Note: Broken rock was within sample Field Note:, Rollercone, Cleaned out casing	9-5-4-5 (9)	20.5	27.7	68.8	3.5
15		A-1-a, SaGr, brn-gry, Moist, Rec. = 0.5 ft, Lab Note: Broken rock and pieces of broken concrete were within sample Field Note:, NXDC, Cleaned out casing, cobbles, stones and concrete	3-1-4-24 (5)	12.7	50.2	41.3	8.5
		A-1-a, Gr, gry, Moist, Rec. = 0.7 ft, Lab Note: A lot of pieces of broken concrete were within sample Field Note:, Cleaned out casing	17-9-6-7 (15)	12.8	87.2	10.9	1.9
20		A-1-a, SaGr, brn, Moist, Rec. = 0.5 ft, Lab Note: Pieces of broken concrete were within sample Field Note:, NXDC, Cleaned out casing, cobbles, stones and concrete	4-2-5-2 (7)	13.7	65.9	25.6	8.5
		A-1-a, Gr, gry, Moist, Rec. = 0.6 ft, Lab Note: A lot of broken rock and pieces of concrete were within sample Field Note:, NXDC, Cleaned out casing, cobbles and concrete	4-5-12-11 (17)	7.2	87.5	11.4	1.1
25		A-1-a, SaGr, gry, Moist, Rec. = 0.5 ft Field Note:, Cleaned out casing	11-14-6-4 (20)	12.3	76.4	22.3	1.3
		24.4 ft - 25.0 ft Field Note:, No Recovery Field Note:, NXDC, Cleaned out casing	4-7-18-9 (25)				
30		Field Note:, Cored concrete from 27.3 feet to 42.3 feet					
45		Hole stopped @ 42.3 ft					
		Remarks: Hole Collapsed at 18.5 feet.					

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.

Boring Crew: Nieto, Judkins, Coletti  
 Date Started: 6/07/16 Date Finished: 6/09/16  
 VTSPG NAD83: N 915467.77 ft E 1617704.14 ft  
 Station: 59+66.6 Offset: -7.34  
 Ground Elevation: 514.3 ft

Type: Casing WB Sampler SS  
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 Hammer Wt: N.A. 140 lb.  
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Groundwater Observations		
Date	Depth (ft)	Notes
06/09/16	19.5	W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RCD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.3 ft								
5										
		Field Note: Cobbles								
20		Field Note: Cobbles and boulder								
25		A-1-a, SaGr, gry-brn, Moist, Rec. = 1.2 ft, Lab Note: A lot of broken rock was within sample				13-27-20-27 (47)	10.0	60.1	29.5	10.4
30		Field Note: Cleaned out casing								
		A-1-a, SaGr, gry-brn, Moist, Rec. = 0.8 ft, Lab Note: Broken rock was within sample				13-23-16-24 (39)	10.9	54.4	34.2	11.4
35		Field Note: Cleaned out casing								
		A-1-a, Gr, gry, Moist, Rec. = 0.3 ft, Lab Note: A lot of broken rock was within sample				40-R@3.5" (R)	5.1	81.0	14.3	4.7
40		A-1-a, SaGr, gry, Moist, Rec. = 0.8 ft, Lab Note: A lot of broken rock was within sample				14-16-22-16 (38)	9.5	68.0	22.6	9.4
		Field Note: BXDC, Cleaned out casing								

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Groundwater Observations		
Date	Depth (ft)	Notes
06/09/16	19.5	W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RCD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Field Note: No Recovery								
50		Field Note: BXDC, Cleaned out casing A-2-4, Sa, Dk/brn, Moist, Rec. = 0.9 ft								
55		A-4, Si, gry, Moist, Rec. = 1.2 ft								
60		Field Note: BXDC, Cleaned out casing Field Note: No Recovery								
65		Field Note: BXDC, Cleaned out casing Field Note: No Recovery								
70		Field Note: No Recovery 70.1 ft - 75.1 ft, Gray, Graphitic biotite-muscovite-quartz-albite-pyrite Schist, Faint brown and rust staining along joints and pyrite inclusions. Hard, Unweathered, Fair rock, BX, RMR=49	1 (75)	90 (30)	7	8-8-8-6 (16)				
75		75.1 ft - 80.1 ft, Gray, Graphitic biotite-muscovite-quartz-albite-pyrite Schist, Hard, Unweathered, Poor rock, BX, RMR=31, Low recovery due to mechanical difficulties during drilling	2 (75)	10 (0)	5	6-5-7-8 (12)	26.2	0.3	80.5	19.2
80		80.1 ft - 85.1 ft, Gray, Graphitic biotite-muscovite-quartz-albite-pyrite gneissic Schist, Rust and brown staining along joints. Hard, Very slightly weathered, Fair rock, BX, RMR=43	3 (75-80)	84 (12)	6	2-4-5-4 (9)	28.9		9.1	90.9
85		Hole stopped @ 85.1 ft				5-2-3-2 (5)				
		Remarks: Hole collapsed at 20.0 feet.								

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BORING LOG 2 RICHFORD-SUTTON BHF0814(1) LSPJ VERMONT AOT.GDT 8/1/17