



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

BORING LOG

Londonderry-Chester  
STP PS19(10)  
VT-11

Boring No.: **B-173b**  
Page No.: 1 of 1  
Pin No.: 16v121  
Checked By: SPM

Boring Crew: Goyve, Judkins, E. Olson  
Date Started: 7/25/17 Date Finished: 7/25/17  
VTSPG NAD83: N 279889.88 ft E 1609608.10 ft  
Station: mm 4.91 Offset: -201.500  
Ground Elevation: \_\_\_\_\_

Type: \_\_\_\_\_  
I.D.: \_\_\_\_\_  
Hammer Wt: \_\_\_\_\_  
Hammer Fall: \_\_\_\_\_  
Hammer/Rod Type: \_\_\_\_\_  
Rig: \_\_\_\_\_

Casing: WB  
Sampler: SS  
4 in  
1.5 in  
N.A.  
140 lb.  
N.A.  
30 in.  
Auto/AWJ  
CE = 1.42

Groundwater Observations		
Date	Depth (ft)	Notes
07/25/17	5.0	W.T. during 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 %
0.0 - 0.5	A-1-a, SaGr, brn, Moist, Rec. = 0.95 ft	Asphalt concrete, Rec. = 0.95 ft				1-1-3-5 (4)	14.7	16.0	58.1	25.9
0.5 - 1.0	A-1-b, SaGr, brn, Moist, Rec. = 1.0 ft	Lab Note: Broken and weathered rock was within sample				9-7-8-7 (15)	11.1	46.3	43.0	10.7
1.0 - 1.5	A-2-4, SiSa, brn, Moist, Rec. = 1.1 ft					4-2-2-2 (6)	12.3	10.8	69.2	20.0
1.5 - 2.0	A-1-b, SaGr, brn, Moist, Rec. = 0.7 ft	Lab Note: Broken and weathered rock was within sample				20-R@3.5" (R)	10.2	49.6	38.4	12.0
2.0 - 2.5	Field Note: NXDC, Cleaned out casing					3-5-7-8 (12)	14.5	28.1	52.4	19.5
2.5 - 3.0	A-1-a, SaGr, gry, Moist, Rec. = 0.2 ft	Lab Note: Broken and weathered rock was within sample				R@3.5" (R)	7.3	67.6	26.0	6.4
3.0 - 3.5	Field Note: NXDC, Cleaned out casing					13-18-24-29 (42)	12.2	27.8	52.6	19.6
3.5 - 4.0	A-2-4, GrSa, brn, Moist, Rec. = 1.4 ft	Lab Note: Broken rock was within sample				R@2.5" (R)	8.8	49.8	37.1	13.1
4.0 - 4.5	Field Note: NXDC, Cleaned out casing					15-19-24-30 (43)	9.8	42.8	43.7	13.5
4.5 - 5.0	A-1-b, SaGr, gry, Moist, Lab Note: Broken and weathered rock was within sample		1 (70)	98 (67)	5					
5.0 - 5.5	A-1-b, GrSa, brn, Moist, Lab Note: Broken rock was within sample				6					
5.5 - 6.0	10.7 ft - 11.5 ft, Light gray, Sugary QUARTZITE, with small size grains that host sulfidic, thin bands of biotite, dipping at ~50 degrees.		1 (80)	100 (68)	5					
6.0 - 6.5	11.5 ft - 12.3 ft, Dark gray-black, Biotite-quartz GNEISS, with zones of biotite and quartz that are thinly banded with zones of quartz and biotite. Joints are rough, very hard, Unweathered, Good rock, NX, RMR=61		3 (70)	100 (100)	4					
6.5 - 7.0	12.3 ft - 13.0 ft, Buggy Quartz PEGMATITE, with significant bright orange oxidation. Soft, Moderately weathered, Fair rock, RMR=49		3 (70)	100 (94)	3					
7.0 - 7.5	13.0 ft - 13.8 ft, Buggy Quartz PEGMATITE, with significant bright orange oxidation. Soft, Moderately weathered, Fair rock, RMR=49				4					
7.5 - 8.0	13.8 ft - 14.5 ft, Black, Biotite-quartz GNEISS, with zones of biotite and quartz that are thinly banded with zones of quartz and biotite. Joints are rough with moderate oxidation surrounding the biotite. Soft, Moderately weathered, Fair rock, RMR=49				3					
8.0 - 8.5	14.5 ft - 15.7 ft, Black, Biotite-quartz GNEISS, with zones of biotite and quartz that are thinly banded with zones of quartz and biotite. Joints are rough with moderate oxidation surrounding the biotite. Soft, Moderately weathered, Fair rock, NX, RMR=59		2 (70)	70 (95)	5					
8.5 - 9.0	15.7 ft - 17.2 ft, Black, Biotite-quartz GNEISS, with a rough joint cuts through core. Joints are rough, very hard, Unweathered, Good rock, NX, RMR=61				6					
9.0 - 9.5	17.2 ft - 17.5 ft, Hole stopped @ 17.2 ft				3					
17.5 - 20.0	Remarks: Hole stopped @ 18.7 ft Hole collapsed at 5.9 feet.  Remarks: Hole collapsed at 7.8 feet.				4					

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.