



BORING LOG

Highgate RD 1448 (43)
(Coeledge #730-00.16)
Bridge #25, Highgate, VT

Boring No.: 0-100
Page No.: 1 of 2
Pin No.: P90171
Checked By: JTW/SPK

Boring Crew: J. Barrowsbridge (OCN), A. Barbauff (CoEledge)
Date Started: 8/19/14 Date Finished: 8/20/14
VTSPG INRDS: N 005104.00 N E 1514000.00 N
Station: 12+00 Offset: -7.00
Ground Elevation: 221 N

Coring Sampler
Type: U.S.A. SS
I.D.: 3.25 in. 1.38 in.
Hammer Wt: 140 lb. 140 lb.
Hammer Fall: 30 in. 30 in.
Hammer/Rod Type: Safety/MIJ
Rig: CME 45 TRUCK CE = 1

Groundwater Observations (3)

Date	Depth (ft)	Notes
08/20/14		None observed.

Depth (ft)	Strat(1)	CLASSIFICATION OF MATERIALS (Description)	SPT (blows/ft)	SPT (blows/ft)	SPT (blows/ft)	Groundwater Observations (3)				
						Date	Depth (ft)	Notes		
2.5		S1 (0.5-2'): Sand, light brown fine to coarse SAND, little fine gravel, little SH, moist. (ROAD BRSE) (ASHMO N145 Classification: A-1-b.) Res. = 1.1 N	22-18-14 (35)	4.3	32.8	51.9	15.5			
5.0		S2 (2-4'): Medium dense, brown fine to coarse SAND, trace fine gravel, little SH, moist. (ROAD BRSE) Res. = 0.8 N (ASHMO N145 Classification: A-1-b.)	14-0-0-5	4.0	30.2	62.8	7.0			
5.0		S3 (0-6'): Medium dense, brown fine to coarse SAND, some SH, trace fine gravel, trace (-) rounded wood, sat. (FILL) Res. = 0.7 N (ASHMO N145 Classification: A-2-4.)	13-10-7 (8)	18.4	27.0	40.2	23.0			
7.5		S4 (0-8'): Loose, brown fine to coarse SAND, some SH, trace fine gravel trace (-) wood/round fibers, sat. (FILL) Res. = 0.5 N (ASHMO N145 Classification: A-2-4.)	7-5-4-7	14.0	12.7	63.1	24.2			
10.0		S5 (8-10'): Medium dense, light brown fine to coarse SAND, and SILT, little fine to coarse gravel (friable, platy-silty), moist to sat. Res. = 0.8 N (ASHMO N145 Classification: A-2-4.)	12-10-14 (16)	16.0	33.7	30.9	35.4			
12.5		S6 (10-12'): Sand, light brown fine to coarse SAND and fine GRAVEL (friable), some SH, moist. (RECOMPOSED ROCK) Res. = 1.1 N (ASHMO N145 Classification: A-1-b.)	12-21-21 (24)	12.4	43.3	30.2	20.5			
15.0		S7 (12-14'): Sand, light brown/orange and gray fine to coarse SAND and fine to coarse GRAVEL (friable, platy), some SH, moist to sat. (RECOMPOSED ROCK) Res. = 1.0 N (ASHMO N145 Classification: A-1-b.)	21-21-21 (30)	14.5	52.2	27.4	20.4			
17.5		S8 (14-16'): Very dense, tan and gray fine to coarse SAND, some fine to coarse gravel, some SH, moist. (WEATHERED ROCK) Res. = 1.3 N (ASHMO N145 Classification: A-2-4.)	15-17-31 (38)	12.1	41.7	20.5	20.8			
20.0		S9 (16-17.7'): Very dense, tan and gray fine to coarse SAND, some fine GRAVEL (friable, broken), some SH, moist. Darker gray rock in spoon shov. (WEATHERED ROCK) Res. = 1.0 N (ASHMO N145 Classification: A-1-b.)	47-37-10 (53)	10.7	47.8	20.3	23.0			
22.5		S10 (18-18.5'): Refractory gray fine to coarse SAND, some fine GRAVEL (friable, broken), some SH, sat. (from drilling fluid). (WEATHERED ROCK) (ASHMO N145 Classification: A-2-4.) Res. = 0.2 N	100/4 (5)	0.8	44.0	24.7	31.3			
25.0		C1 (20-24.8'): Very poor quality, soft to moderately hard, (partly friable), slightly to moderately weathered, fine-grained gray with occasional white stripes SLATE. Fracturing approximately 30 degrees.	C1 (9)	0.3						
25.0				5.0				Top of Bedrock @ 20.0 N		
25.0				13						
25.0				12						
25.0				0.6						

Notes: 1. Stratification lines represent approximate boundary between material types. Variation may be gradual.
2. If there are not three blows recorded for hammer energy, CE is the hammer energy correction factor.
3. Water level readings have been made of time and other conditions stated. Fluctuations of ground-water may occur due to other factors than those present at the time measurements were made.



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27.5		C2 (24.8'-28.8'): Very poor quality, soft to moderately hard, slightly to moderately weathered, fine-grained gray with white banding and white SLATE. Fracturing approximately 45 degrees from horizontal.	C2 (7)	0.3	7.0	8.5	13.3	8	7	
30.0		C3 (28.8'-34.3'): Poor quality, light/dark gray and white, moderately hard to hard, slightly weathered, fine-grained gray and white with white and brown SLATE. Fracturing approximately 45 degrees from horizontal. C3SE UCS (31.5' deep) 4,650 psi.	C3 (37)	5.5	0.3	12.5	14	20		
35.0		Hole stopped @ 34.3 N								
45.0		Remarks: 1) Boring performed ~10' East of 0-1. 2) Material descriptions may not accurately reflect in-situ conditions due to wash-dry drilling methods. 3) Samples S2 and S4 were not performed according to ASTM D1586 (barrel not cleared with the roller bit prior to sampling). 4) Observed auger grinding/shatter from approximately 10 feet to 13 feet deep. 5) Saturated drill rig on 8/20 to a CME 5500 with auto hammer (assumed Ce = 1.5) and began sampling with S0 at 16 feet deep. 6) Prior to beginning coring, clear hole with roller bit and set 4" casing of 20 feet deep. 7) Wash water returns during core light gray/gray. Slight loss (~25 gallons) noted between 10 and 21 feet deep. 8) Total loss of water (partially from leaking rig) from core C1 at end of run; ended core with 4.5' penetration. 9) Wash water returns dark gray & light gray during coring of C3. Some loss of water, but could be attributed to leaking hose on rig. 10) Bottom of C3 possible test due to broken core exterior. 11) Bedrock cores obtained with a 60-size rock core barrel.								

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