



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

BORING LOG

Clarendon BRO 1443 (48)
 Clarendon, VT

Boring No.: B-2
 Page No.: 1 of 1
 Pin No.: 12J160
 Checked By: JFW

Boring Crew: J. Leonhardt (TransTech), J. Gilman (GeoDesign)
 Date Started: 3/07/13 Date Finished: 3/07/13
 VTSPG NAD83: N 383271 ft E 1501647 ft
 Station: 11+49 Offset: 8RT
 Ground Elevation: 647 ft

Casing: FJ Sampler: SS
 I.D.: 4 in 1.38 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. 30 in.
 Hammer/Rod Type: Auto/NWJ
 Rig: CME 75 TRACK $C_e = 1.43$

Groundwater Observations		
Date	Depth (ft)	Notes
03/07/13	9.0	Wet sample

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
0 - 9'	X X	Inferred Sand & Gravel fill.										
9' - 11'		S1 (9'-11'): Loose, brown with oxidized zones, fine to coarse SAND, some fine to coarse Gravel, trace Silt, wet. Rec. = 0.5 ft (AASHTO M145 Classification: A-1-a.)				7-6-2-8 (8)	19.4	54.2	37.2	8.6	NP	NP
19' - 21'		S2 (19'-21'): Very dense, gray fine to medium SAND and SILT, trace fine to coarse Gravel (top 3" only), wet. Rec. = 1.2 ft (AASHTO M145 Classification: A-4.)				17-31-25-31 (56)	17.8	17.7	46.5	35.8	NP	NP
29' - 31'		S3 (29'-31'): Refusal, gray brown fine to coarse SAND and SILT, trace fine Gravel, moist. Rec. = 1.3 ft (AASHTO M145 Classification: A-4.)				45-48-50/3 (100+)	16.2	13.6	36.9	49.5	NP	NP
30.3' - 35.3'		C1 (30.3'-35.3'): Fair quality, hard, slightly weathered with moderately to highly weathered seams, close to moderately jointed, tan to white-gray DOLOSTONE. Reacts to dilute HCl when powdered. Fractures typically 30 degrees from horizontal.	C1	88 (68)	5.5 5.5 7 6.2 6			Top of	Bedrock @	30.3 ft		
<p>Remarks: Hole stopped @ 35.3 ft</p> <ol style="list-style-type: none"> 1) Exploration location taped in the field by GeoDesign. Ground surface elevation, station, and offset shown are estimated from conceptual plans provided by VTrans. 2) Driller used 3.25" ID HSA to advance to 5 feet deep to create pilot hole for FJ casing advance. 3) Driller noted increased roller bit resistance (near refusal) at approximately 16.5 feet deep. Driller advanced casing to 15 feet deep and was able to continue borehole advance with roller bit. 4) Driller noted difficultly advancing casing from approximately 16.5 to 19 feet deep, and from 22 to 30 feet deep through dense soils. 5) Split spoon, spin casing, and roller bit refusal at 30.3 feet deep. 6) Visual soil descriptions are per the Burmister system. Lab testing gradations reported are per AASHTO M145. 												

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
 2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
 3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

GEODESIGN BORING LOG 750-09.10-CLARENDONBRO1443(48).GPJ VERMONT AOT.GDT 4/11/13