



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

BORING LOG

Clarendon BRO 1443 (48)  
Clarendon, VT

Boring No.: B-4  
Page No.: 1 of 1  
Pin No.: 12J160  
Checked By: JFW

Boring Crew: J. Leonhardt (TransTech), J. Gilman (GeoDesign)  
Date Started: 3/05/13 Date Finished: 3/06/13  
VTSPG NAD83: N 383331 ft E 1501609 ft  
Station: 12+20 Offset: 10.5RT  
Ground Elevation: 645 ft

Type: FJ 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  $C_c = 1.43$

Groundwater Observations

Date	Depth (ft)	Notes
03/05/13	7.0	Wet sample

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 %	LL %	PI %
5	X X X	S1 (0.5'-2'): Medium dense, dark brown fine to coarse SAND, some fine to coarse Gravel, little Silt, moist. Rec. = 0.7 ft (AASHTO M145 Classification: A-1-b.)				7-10-10 (20)	7.1	48.4	43.5	8.1	NP	NP
		S2 (2'-4'): Loose, brown fine to coarse SAND, some fine to coarse Gravel, little Silt, moist. Rec. = 0.7 ft (AASHTO M145 Classification: A-1-b.)				6-4-4-5 (8)	7.9	45.8	42.7	11.5	NP	NP
		S3 (5'-7'): Loose, no recovery. Rec. = 0.0 ft				9-5-2-6 (7)						
		S4 (7'-9'): Loose, gray brown fine to coarse SAND, some fine to coarse Gravel, some Silt, wet. Rec. = 0.9 ft (AASHTO M145 Classification: A-2-4.)				7-4-5-10 (9)	16.0	36.9	42.1	21.0	NP	NP
10	X X X	S5 (10'-12'): Dense, brown fine to coarse GRAVEL, some fine to coarse Sand, little Silt, wet. Rec. = 1.0 ft (AASHTO M145 Classification: A-1-a.)				21-15-28-15 (43)	9.3	64.9	22.1	13.0	NP	NP
		S6 (12'-13'): Refusal, brown fine to coarse GRAVEL and fine to coarse SAND, little Silt, wet. Rec. = 0.8 ft (AASHTO M145 Classification: A-1-a.)				25-100 (100+)	9.7	66.1	22.5	11.4	NP	NP
15	X X X	S7 (15'-17'): Very dense, brown fine to coarse SAND, some fine to coarse Gravel, some Silt, wet. Rec. = 1.0 ft (AASHTO M145 Classification: A-1-b.)				47-35-30-37 (65)	9.7	41.1	35.0	23.9	NP	NP
		S8 (17'-19'): Very dense, gray fine to coarse SAND, some fine to coarse Gravel, some Silt, wet. Rec. = 1.3 ft (AASHTO M145 Classification: A-1-b.)				36-70-44-48 (100+)	8.3	43.0	31.8	25.2	NP	NP
		S9 (20'-22'): Very dense, gray fine to coarse SAND, some Silt, some fine to coarse Gravel, wet. Rec. = 1.0 ft (AASHTO M145 Classification: A-2-4.)				28-55-30-36 (85)	9.2	40.3	28.6	31.1	NP	NP
25		C1 (22'-26'): Boulder Fragments.	C1	52 (0)	6.5 3.5 3 4							
30	X X X	C2 (26'-27'): Excellent quality, hard, fresh to slightly weathered, close to moderately jointed, light grayish tan DOLOSTONE. Reacts to dilute HCl when powdered.	C2	100	8							
		C3 (27'-32'): Fair quality, hard, fresh to slightly weathered, moderately jointed, white-gray DOLOSTONE. Reacts to dilute HCl when powdered. Fractures typically 10 to 30 degrees from horizontal.	C3	(100)	8 87 (70)	8 5.8 4.5 4 4.5						
35		Remarks: 1) Exploration location taped in the field by GeoDesign. Ground surface elevation, station, and offset shown are estimated from conceptual plans provided by VTTrans. 2) Driller used 3.25" ID HSA to advance to 5 feet deep to create pilot hole for FJ casing advance. 3) Roller bit refusal at 22 feet deep. Set casing to 22' deep prior to coring C1. 4) Core runs C1 and C2 were performed continuously without removal of the core barrel. Driller telescoped 3" I.D. casing through 4" I.D. casing to 25 feet deep after coring C1/C2, then advanced roller bit to 26 feet deep to clear the borehole of boulder debris prior to coring C3. 5) 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