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

BORING LOG

Barton Bridge #20
BHF 0286 (5) – TH-2 (VT-16)
GeoDesign #888-04.9

Boring No.: B-1B
Page No.: 1 of 2
Pin No.: 12J172
Checked By: JFW/DTH

Boring Crew: J.Leonhardt (QC/QA), A. Baribault (GeoDesign)
Date Started: 2/25/14 Date Finished: 2/28/14
VTSPG NAD83: N 819410.00 ft E 1723365.00 ft
Station: 12+48.6 Offset: 4.3 LT
Ground Elevation: 856 ft

	Casing	Sampler
Type:	FJ	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto/NWJ
Rig:	CME 550X ATV	CE = 1.4

Groundwater Observations (3)

Date	Depth (ft)	Notes
02/25/14		See Remark 1.

Depth (ft)	Strata(1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Drill Rate minutes/ft	Blows/6" (N Value)(2)	Moisture Content %	Gravel %	Sand %	Fines %
		Inferred Fill from Boring B-1							
BOTTOM OF ABUT NO I EL 850.00									
10		Inferred Silty Sand from Boring B-1							
20		Inferred Sandy Silt from Boring B-1							
30									
40									
50									

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 888-04.7 BARTON BR 20.GPJ VERMONT AOT.GDT 5/12/14

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Groundwater Observations (3)

Date	Depth (ft)	Notes
02/25/14		See Remark 1.

Depth (ft)	Strata(1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Drill Rate minutes/ft	Blows/6" (N Value)(2)	Moisture Content %	Gravel %	Sand %	Fines %
		S1 (54' to 56'): Medium dense, gray SILT, some fine Sand, wet. (PID = 64.5 PPM). Rec. = 1.0 ft			10–13–15–14 (28)				
60		S2 (59' to 61'): Medium dense, gray SILT, some fine Sand, wet. (PID = 25.0 PPM). Rec. = 0.8 ft			11–17–9–5 (26)				
		S3 (64' to 66'): Very dense, gray SILT and fine SAND, wet. (PID = 24.9 PPM). Rec. = 1.7 ft			27–40–48–53 (88)		1.0	46.0	53.0
70		S4 (69' to 72'): Very dense, gray SILT, little fine Sand, trace coarse Gravel (1 pc near top of sample, in extra bag), wet. (PID = 1.0 PPM). Rec. = 1.7 ft			13–27–43–67 (70)		1.0	9.0	90.0
		C1A (75'–75.5'): BOULDER. C1B (75.5'–78') Inferred soil.	C1	1.3 0.4 0.3					
		S5) (78' to 78.8'): Refusal, gray fine to coarse SAND, some Silt, little fine to coarse Gravel, very moist. (PID = 1.1 PPM). Rec. = 0.5 ft			20–100/4" (R)		47.0	23.0	30.0
80		S6) (79' top 80.3'): Very dense, gray fine to coarse GRAVEL, some fine to coarse Sand, some Silt, moist. (PID = 2.5 PPM). Rec. = 1.2 ft Hole stopped @ 80.3 ft			5–20–60–100/4" (80)				
ESTIMATED BOTTOM OF PILE AT ABUT NO I EL 770.0									
90									
100									

Remarks:
1) Boring advanced to define depth to bedrock after casing forced termination of B–1. For stratigraphy above 54 feet, refer to log of B–1. Sample moisture observations may not reflect actual insitu conditions due to wash–drive drilling methods.
2) First attempt resulted in auger refusal at 8"; boring advanced to 5 feet deep with HSA, wash and drive to 14 feet and casing moved out of alignment due to possible cobbles or obstruction between 8 and 10 feet deep. Hole reamed with HSA and casing reset prior to continuing.
3) No sampling or environmental screening performed. Strong petroleum odor and sheen on wash water return from approximately 8 to 14 feet deep.
4) Wash water return brown turning gray–brown and then gray by 19 feet. Polymer E–Z Mud added to drilling fluid at approximately 25 feet deep.
5) Driller noted change in roller bit resistance from 61 to 61.5 feet deep.
6) Encountered roller bit resistance at 72.5 feet deep. Switched to a carbide button roller bit and advanced borehole to 75 feet with occasional slight chatter and consistent advancement rate (4 min/foot) through inferred boulder.
7) Installed 3–inch FJ Casing with spin shoe to 62 feet in open hole, advanced while spinning/washing to 75 feet. Advanced rock core to 78 feet through inferred soil from 75.5 to 78 feet,
8) All sample descriptions shown are per the Burmister classification system and are based on visual descriptions made in the field by GeoDesign personnel. Where applicable, laboratory testing results shown are from testing performed by GeoTesting Express, with the Gravel/Sand/Fines breakdown shown per AASHTO M145.
9) Northing, easting, and ground surface elevation are estimated from an electronic site plan provided by TY Lin and taped measurements made from existing features in the field by GeoDesign personnel.

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GEODESIGN BORING LOG 888-04.7 BARTON BR 20.GPJ VERMONT AOT.GDT 5/12/14

TY LIN INTERNATIONAL

PROJECT NAME: BARTON VILLAGE
PROJECT NUMBER: BHF 0286(5)

FILE NAME: z12J172bloglb.dgn
PROJECT LEADER: J. OLUND
DESIGNED BY: J. OLUND
BORING LOG 3

PLOT DATE: 7/26/2016
DRAWN BY: S. MORGAN
CHECKED BY: T. POULIN
SHEET 78 OF 110