



Boring Crew: John Leonhardt (QC/QA), Alan Baribault (GeoDesign)		Type:	Casing	Sampler	Groundwater Observations (3)		
Date Started: 1/30/14	Date Finished: 2/03/14	I.D.:	FJ	SS	Date	Depth (ft)	Notes
VTSPG NAD83: N 817384.00 ft	E 1723201.00 ft	Hammer Wt:	4 in.	1.38 in.	02/06/14	6.0	In well.
Station: 32+06.35	Offset: 14.2' RT	Hammer Fall:	140 lb.	140 lb.	02/07/14	6.0	In well.
Ground Elevation: 854 ft		Hammer/Rod Type:	Auto/NWJ				
		Rig:	CME 550X ATV	CE = 1.4			

Depth (ft)	Strat(1)	CLASSIFICATION OF MATERIALS (Description)	Well Diagram	Run (Dip deg.)	Core Rec. (ROD %)	Drill Rate (min/ft)	Blows/6" (N Value)(2)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
0		S1 (0' to 2'): Loose, brown MANURE, some Silt, trace fine SAND, trace Roots and Grass, moist / frozen (upper 10"). Rec. = 1.1 ft					5-2-3-2 (5)						
2		S2 (2' to 4'): Loose, brown fine SAND and SILT, trace Roots, moist. (Possible Fill). Rec. = 1.5 ft					2-2-3-3 (5)	27.1	0.0	48.6	51.4		
4		S3 (4' to 6'): Very loose, brown fine to medium SAND and SILT, very moist to wet at bottom. (Possible Fill). Rec. = 1.4 ft					1-1-1-2 (2)						
6		S4 (6' to 8'): Loose, brown and gray fine to medium SAND, some (+) Silt, trace Wood / organics (in layers), wet. (Possible Fill). Rec. = 1.5 ft					1-2-3-3 (5)	17.6	56.0	39.7	4.4		
8		S5 (8' to 10'): Medium dense, brown and tan fine to coarse GRAVEL and fine to coarse SAND, little Silt, wet. (Possible Fill). Rec. = 1.0 ft					2-4-6-8 (10)						
10		S6 (10' to 12'): Medium dense, brown/tan fine to coarse SAND, some fine to coarse Gravel, little Silt, trace Wood, wet. (Possible Fill). Rec. = 0.4 ft					3-6-10-10 (16)	25.3	1.9	9.4	88.7	NP	NP
12		S7 (12' to 14'): Medium dense, brown /tan/white fine to coarse SAND and fine to coarse GRAVEL, trace (+) Silt, wet. Rec. = 0.4 ft					10-8-10-11 (18)						
14		S8 (14' to 16'): Dense, gray-brown fine SAND and SILT, wet. Rec. = 0.5 ft					6-17-14-18 (31)						
16		S9 (16' to 18'): Medium dense, gray-brown SILT, trace fine Sand, wet. Rec. = 1.1 ft (AASHTO M145 Classification: A-4.)					5-8-5-6 (11)						
18		S10 (18' to 20'): Loose, gray-brown SILT, trace fine Sand, wet. Rec. = 1.2 ft					5-4-4-3 (8)						
20		S11 (20' to 22'): Loose, gray-brown SILT, little fine Sand, trace (-) fine Gravel, wet. Rec. = 1.2 ft					3-4-4-4 (8)	26.8	5.2	11.8	83.0		
22		S12 (24' to 26'): Medium dense; S12A (upper 5"): brown and orange fine to coarse SAND, little fine to coarse Gravel, trace Silt, wet (in bag). S12B (lower 7"): gray SILT, little fine Sand, wet. Rec. = 1.0 ft					26-18-44-73 (62)	11.9	28.4	33.9	37.6		
24		S13 (29' to 31'): Very dense, gray SILT and fine to coarse SAND, little fine to coarse Gravel, moist. Rec. = 1.5 ft					10-25-31-38 (56)						
26		S14 (34' to 36'): Very dense, gray fine to medium SAND, some Silt, trace fine to coarse Gravel, wet. Rec. = 1.2 ft					24-28-51-44 (79)	21.2	8.7	60.8	30.5		
28		S15 (39' to 41'): Very dense, olive-brown fine to medium SAND and SILT, trace fine Gravel, wet. Rec. = 1.7 ft					33-56-57-48 (R)						
30		S16 (44' to 46'): Very dense/refusal, gray fine to coarse SAND and SILT, little fine to coarse Gravel, moist. Rec. = 1.5 ft		C1	92 (67)	3.8							
32		C1 (46.5' to 51.5'): Fair quality, dark gray to											
34		Top of Bedrock @ 46.5 ft											

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.



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55		gray with occasional white bands, fresh to slightly weathered, moderately hard PHYLLITE. Fracturing approximately horizontal to 30 degrees and near vertical. C2 (51.5 to 56.5): Fair quality, dark gray to gray with occasional white bands, fresh to slightly weathered, moderately hard PHYLLITE. Fracturing approximately horizontal to 30 degrees and near vertical. Hole stopped @ 56.5 ft					4 4 4 8 10						
60		Remarks: 1) Northing, easting, and ground surface elevation estimated from an electronic site plan provided by TY Lin and taped measurements made in the field by GeoDesign personnel. Approximate Stationing based on conceptual plans dated October 2, 2013 (proposed roadway alignment). 2) Boring advanced to 16 feet using 4.25" HSA, offset 2 feet North and advanced with 4" FJ Casing. 3) Encountered slight auger grinding and roller bit chatter to approximately 16 feet on inferred gravel. Infer gravel at 23 feet based on roller bit grinding. 4) Roller bit grinding and increased casing resistance at approximately 28 feet, infer gravel and top of glacial outwash stratum. 5) Began rock core at 46.5 feet. Drilling times per foot higher due to drill string oscillations. 6) Located approximately 75 feet South of existing SE Bridge corner and 23 feet West of VT-16 pavement. 7) Well installed 2/5/14 offset approximately 10.5 feet northeast (68 feet to SE Bridge corner and 16 feet to VT-16 pavement) with 2" I.D PVC approximately 1.3 feet stickup.											

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GEODESIGN BORING LOG 888-04.8 BARTON BR 58.OPJ VERMONT AOT.GDT 5/15/14

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