VTrans Working to Get You There — Vermont Agency of Transportation

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

BORING LOG

WINHALL
STP CULV (31)
Bridge 47

Boring No.: B-202
Page No.: 1 of 2
Pin No.: 11b268
Checked By: J. MacGregor

Boring Crew: J. Leonhardt, K. Owens
Date Started: 9/19/12 Date Finished: 9/20/12
VTSPG NAD83: N 249746.50 ft E 1524704.41 ft
Station: Offset: 10.9S
Ground Elevation: 1640.5 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto/NW	
Rig:	CME 75 ATV Mounted	CE = 1.4

Groundwater Observations		
Date	Depth (ft)	Notes
09/19/12	16.0	

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		0.0 ft – 1.0 ft, Augered through asphalt pavement.									
		A-1-b, f.m.c. SAND, Some f.c. Gravel, little silt, very compact, Light brown, Moist, Rec. = 1.4 ft, Fill			27-27-32-33 (59)						
2.5											
		A-4, f.m.c. SAND, AND SILT, little f.c. gravel, very compact, brown/red, Moist, Rec. = 0.6 ft, Fill			24-29-28-25 (57)	13.1	17.3	43.0	39.7		
5.0											
7.5											
		A-4, SILT, Some f.m.c. Sand, little f.c. gravel, medium compact, brown, MTW, Rec. = 0.4 ft, Fill			9-10-8-7 (18)						
10.0											
12.5											
		A-2-4, f.m.c. SAND, Some Silt, little f.c. gravel, very compact, brown, Wet, Rec. = 0.5 ft, Fill			10-6-50/5" (R)						
15.0											
		A-1-b, f.m.c. SAND,Some f.c. Gravel, little silt, medium compact, Dark brown, Wet, Rec. = 0.5 ft, Fill			10-12-12-8 (24)	22.8	31.8	49.8	18.4		
17.5											
		A-1-b, becomes very compact, Rec. = 0.2 ft, Fill			9-50/1" (R)						
		Cobbles/Boulders, 18.5 ft – 20.2 ft, Fill									
20.0		20.0 ft – 20.2 ft, Gray, Marble, Boulder fragment recovered in R-1. NXDC	R-1	100							
		A-4, Clayey SILT, Some f.m.c. Sand, hard, brown, Moist, Rec. = 1.3 ft, Glacial Till			12-16-19-22 (35)						
22.5											
		A-4, Clayey SILT, AND f.m.c. SAND,little f.c. gravel, hard, brown, Moist, Rec. = 1.7 ft, Glacial Till			17-31-52-	15.6	15.9	38.7	45.4	20	2

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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Groundwater Observations		
Date	Depth (ft)	Notes
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Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
					50/3" (83)						
27.5											
		A-4, becomes medium compact, Rec. = 1.7 ft, Zones of weathered gravel/cobble/boulder in bottom 5" of sample.			12-11-16-31 (27)						
30.0											
32.5											
		A-4, Clayey SILT, Some f.m.c. Sand, little f.c. gravel, hard, brown/white, Moist, Rec. = 1.5 ft, Glacial Till, Zones of weathered gravel/cobbles/boulders in sample.			24-48-64-60 (112)						
35.0											
37.5											
		A-4, Clayey SILT,Some f.m.c. Sand, trace f. gravel, hard, brown, Moist, Rec. = 1.5 ft, Glacial Till			15-27-33-40 (60)						
40.0											
		Hole stopped @ 41.0 ft									
42.5											
		Remarks: Groundwater observations made during drilling may not represent static conditions.									
		Gravel fragments recovered in sample at 1' are likely from cobble/boulder.									
45.0		Coarse gravel fragment blocking shoe of spoon of sample at 14'.									
		Roller bit grinding 18.5'–20'.									
		Roller bit grinding 28.5'–30'.									
47.5		Hard drilling at 30'.									

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