



STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND INTERIORS
BUREAU CENTRAL LABORATORY

BORING LOG

Winoosburg HES 021-1(10)
(GeoDesign #730-00.10)
Winoosburg, VT

Boring No.: 08
Page No.: 1 of 2
Pin No.: 046204
Checked By: JFW

Boring Crew: C. Adrich (Platform), A. Baribault (GeoDesign)
Date Started: 5/20/15 Date Finished: 5/20/15
VSPG MOES: N 671063.00 H E 1479923.00 H
Station: 200+50 Offset: 10' LT
Ground Elevation: 377 H

Coring Sampler
Type: **ANDER SS**
I.D.: 2.25 in 1.38 in
Hammer Wt: **N.A. 140 lb.**
Hammer Fall: **N.A. 30 in.**
Hammer/Rod Type: **Auto/AMJ**
Rig: **Geoprobe 782201 CE = 1.35**

Groundwater Observations (3)		
Date	Depth (ft)	Notes
05/20/15	13.0	1st sample.

Depth (ft)	Soil (ft)	CLASSIFICATION OF INTERIORS (Description)	Moisture Content (%)	Wet Weight (lb)	Wet Volume (ft ³)	Gravel %	Sand %	Fines %	LL %	PL %
0.0 - 2.5	0.0 - 2.5	S1 (0.7' - 2.7'): Medium dense, brown fine to coarse SAND, some fine to coarse Gravel, little Asphalt fragments (upper 4"), trace SH, dry. (General FH) Res. = 1.8 H (ANSI D1145 Classification: A-1-b.)	17-18-19-20	13.5	47.4	43.0	9.8	NP	NP	NP
2.5 - 5.0	2.5 - 7.0	S2 (5' - 7'): Medium dense, brown and gray fine to coarse CHNCL (possible limestone, angular), some fine to coarse Sand, little Clayey SH in upper 3", metal. (General FH) (ANSI D1145 Classification: A-1-b). Res. = 0.7 H	0-10-2-0	7.4	62.0	22.1	15.0			
5.0 - 7.5	7' - 9'	S3 (7' - 9'): Medium, brown Clayey SILT, some fine to medium Sand, trace fine Gravel, trace Roots/Wood, top portion wet. Torvane = 0.32 - 0.45 lat. Res. = 1.8 H (ANSI D1145 Classification: A-4.)	1-2-2-2	23.0	3.7	31.5	64.8	21	3	
7.5 - 10.0	10' - 12'	S4 (10' - 12'): Soft, gray with brown mottling Clayey SILT, little fine to medium Sand, trace (-) fine Gravel, trace Roots/Wood (decayed pieces, very faint odor), metal. Torvane = 5.8 - 6.5 lat bottom half; Torvane = 0.33 - 0.38 lat top half. Res. = 2.0 H (ANSI D1145 Classification: A-4.)	100-1-2	25.8	0.8	16.4	82.7	21	2	
10.0 - 12.5	12' - 14'	S5 (12' - 14'): Medium dense gray SILT, some fine to coarse Sand, little fine to coarse Gravel (lower 4"), trace Clay & SH, wet (lower 4"). Res. = 1.5 H (ANSI D1145 Classification: A-4.)	2-4-0-4	10.1	17.1	25.5	57.4	NP	NP	
12.5 - 15.0	15' - 17'	S6 (15' - 17'): Dense, gray SILT, some fine to coarse Sand, some fine to coarse Gravel, trace Clay & SH, metal to wet. Res. = 1.1 H (ANSI D1145 Classification: A-4.)	13-21-22	11.5	27.8	25.5	48.0	NP	NP	
15.0 - 17.5	17' - 19'	S7 (17' - 19'): Dense, gray Clayey SILT, some fine to coarse Sand, little fine to coarse Gravel, metal. Res. = 1.5 H (ANSI D1145 Classification: A-4.)	10-10-20	9.5	16.5	24.8	58.0	17	3	

1. Soil/water lines represent approximate boundary between material types. Variation may be greater.
2. Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made of fines 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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22.5 - 25.0	22' - 25'	S8 (20' - 22'): Very dense, gray SILT, some fine to coarse Sand, some fine to coarse Gravel, trace SH & Clay, metal. Res. = 2.0 H (ANSI D1145 Classification: A-4.)	21-20-20-20	6.7	28.5	24.3	47.2	NP	NP	
25.0 - 27.5	24' - 26'	S9 (24' - 26'): Very dense, gray SILT, some fine to coarse Sand, some fine to coarse Gravel, metal. Res. = 2.0 H (ANSI D1145 Classification: A-4.)	10-20-30-30	10.0	26.1	21.8	52.1	17	2	
27.5 - 37.5	<p>Note stopped @ 28.0 H No refusal.</p> <p>Remarks: 1. Ground surface elevation, northing, easting, station, and offset shown are approximated from files made from existing features in the field by GeoDesign personnel, the Preliminary Plan Set prepared by WMS and dated 4/30/2015, and an electronic site plan titled "2046204.dwg" provided by WMS via email on June 26, 2015. 2. Visual soil descriptions are per the Geoprobe system. Laboratory gradations where applicable were performed by VTrans and are per ANSI D1145. 3. Auger grinding on inferred cobbles/gravel from approximately 4' - 6' deep. Augers slightly out of alignment while sampling S3, but were able to be brought back to vertical prior to sampling S4. 4. Increased drilling resistance beginning at 15' deep at the inferred transition to glacial till soils. 5. Water/wet cuttings observed during auger advances between 20' and 24' deep. 6. Barrels backfilled with cuttings and 1.5 bags of bentonite chips, 0.75 bags asphalt patch. 7. Hammer energy is assumed.</p>									

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