GEODESIGN INCORPORATED
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BORING LOG

Project Name: Stowe STP 0235(17), Stowe, VT

Boring No.: B-1 (IC)

File No.: 750-09.9
Checked By: JFW

Boring Company: SJB Drilling
Foreman: Tom Farrell
GeoDesign Rep.: Alan Boribault/Robert Marshall
Date Started: November 27, 2012 | Date Finished: November 29, 2012
N. Coordinate: 730246 | E. Coordinate: 1572481
Ground Surface Elevation (feet): 1063
Station: | Offset: ft

	Casing:	Sampler:
Type:	FJ	SS
I.D.:	5.0 in.	1.38 in.
Hammer Wt.:	140/300	140 lbs
Hammer Fall:	30 in.	30 in.
Rig Type:	CME 550X	
Hammer Type:	Automatic	

Groundwater Observations

Date	Depth (ft)	Elev. (ft)	Notes
11/29/12, 0:00			See Note 3.

Sample Information (Classification System: Burmister)

Depth (ft)	Casing Blows/ft	Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	Moisture Content (%)
		S1	SS	24	9	0	2	3	3	5		
	P											
	P											
	P											
5	P											
	P	S2	SS	24	14	5	9	10	10	7		7.5
	P											
	P											
	P											
10	P											
	P	S3	SS	24	18	10	20	10	6	6		10.6 combined
	P											
	P											
15	77/4"											
		S4	SS	24	20	15	17	22	29	30		6.5
	20											
	20											
	40											
20	60											
	>100	S5	SS	24	12	20	13	16	15	18		
25												

Strata Description (Depth & Elevation (feet)):
- Fill (Silty Sand and Gravel)
- 15 — 1048.0
- Silty Gravelly Sand (Kame Terrace)

Sample Description:
- S1) Loose, brown fine to coarse SAND, little Silt, little fine Gravel, moist.
- S2) Medium dense, brown fine to coarse SAND, little Silt, little (-) fine to coarse Gravel, moist.
- S3) Medum dense;
  S3A (upper 6"): Brown fine to coarse SAND, little fine to coarse Gravel, little Silt, moist.
  S3B (lower 10"): Light brown fine to meduim SAND, little (+) Silt, moist.
- S4) Very dense, brown fine to coarse SAND, some fine to coarse Gravel, little Silt, moist.
- S5) Dense, brown fine to coarse SAND, little Silt, little fine to coarse Gravel, moist.

Remarks:
1) Northing, easting, and ground surface elevation shown based on taped measurements made in the field by GeoDesign personnel and on electronic site plan titled, "d12c388_nu1.dgn" provided by VTrans on December 10, 2012.
2) Begin borehole using 4 1/4" HSA to 20', took sample S5, then switched to 5" FJ casing.
3) Groundwater not observed during drilling. Samples S1 through S5 not affected by drilling water. Moisture in samples S6 through S11 may have been affected by drilling water. With 5-inch casing set to 30 feet, bore hole was dry after sitting overnight.

Notes:
1) Stratification Lines Represent Approximate Boundary Between Material Types, Transitions May Be Gradual.
2) 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.
A.C. = After casing; N.R. = Not Recorded.
3) Sample Type Coding: A=Auger; C=Core; D=Driven; G=Grab; PD=Piston Sampler; SS=Split Barrel (Split Spoon); ST=Shelby Tube; Geo=GeoProbe T=Tues;
WOR/H=Weight of Rod/Hammer
4) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%
5) Stratification lines represent approximate boundary between material types, transitions may be gradual.

SMALL REMARK FONT STANDARD 750-09.9 STOWE 108.GPJ GEODESIGN STANDARD .GDT 12/2/13

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		S6	SS	24	6	25	2	9	8	9		
30												
		S7	SS	24	6	30	6	8	17	10		13
	301/5"											
35												
		S8	SS	24	11	35	5	11	14	18		
	342/5"											
40												
		S9	SS	24	12	40	11	14	15	16		25.7
	311/5"											
45												
	1125/5"											
50												

Strata Description (Depth & Elevation (feet)):
- Silty Gravelly Sand (Kame Terrace) (Continued)
- 38.5 — 1024.5
- Sand & Silt
- 44 — 1019.0
- Silty Gravelly Sand (Kame Terrace)

Sample Description:
- S6) Medium dense, brown fine SAND, little Silt, little fine Gravel, moist.
- S7) Medium dense, brown fine to coarse SAND, some fine to coarse Gravel, little Silt, moist.
- S8) Medium dense, brown fine to coarse SAND, some Silt, moist.
- S9) Medium dense, gray brown fine SAND and SILT, moist.

Remarks:
4) Used automatic hammer to drive casing to 20', then switched to 300 lb donut hammer. Auto hammer used to drive all split spoon samples.
5) Roller bit advanced ahead of casing as pilot below 45 feet.
6) Upon completion of boring, 80 mm ID ABS inclinometer casing installed to 59.5 feet below grade, with 1.5 foot stick up. Placed locking protective stand pipe installed with concrete collar and 2 feet stick up on stand pipe. Bentonite cement grout tremie injected in anular space.

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		S10	SS	12	2	50	36	50/6"				
	752/4"											
55												
		S11	SS	10	8	56.5	40	50/4"				16
	622/4"											
60												
65												
70												
75												

Strata Description (Depth & Elevation (feet)):
- Silty Gravelly Sand (Kame Terrace) (Continued)
- 59.5 — 1003.5
- Bottom of Exploration at 59.5 ft

Sample Description:
- S10) Refusal, gray-brown fine SAND, little Silt, little fine Gravel. (Probable Wash)
- S11) Refusal, gray-brown SILT and fine to medium SAND, trace (+) fine Gravel, moist.

Remarks:

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