STATE OF VERMONT
AGENCY OF TRANSPORTATION

BORING LOG INFORMATION

BORING LOG — Page 2 of 4

GEODESIGN INCORPORATED
54 Main Street
Windsor, Vermont, 05089
GeoDesign, Inc.
Telephone: 802-674-2033 Fax: 802-674-5943

Project Name: Springfield STP 016-2 (10)S
Springfield, VT

Boring No.: B-12
Page No.: 2 of 4
File No.: 750-03.3
Checked By: RSA

Boring Company: M and W Soils Engineering
Foreman: Mike Hitchcock
GeoDesign Rep.: Andrew Elms
Date Started: May 1, 2001 Date Finished: May 1, 01
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet): 506.5
Station: Offset: ft

Casing: Sampler:
Type: NW SS
I.D./O.D.: 3.0 in. 2.0 in.
Hammer Wt.: NA 140 lbs
Hammer Fall: NA 30 in.
Rig Type: Mobile Drill
Other:

Groundwater Observations

Date and Time	Depth (ft)	Elevation (ft)	Notes
5/1/01 12:00 AM	30.0	476.5	Caving

Depth (ft)	Casing Blowcoth	Sampler	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval 0-6	6-12	12-18	18-24	Casing Time (min./ft)	REC/TCR/QD (%/%/%)	Sample Description (Classification System: Burmister)	Symbol	Strata Description (Elevation & Depth (feet))
															Fine Sand and Silts (Continued)
															476.5
30		SS	SS	4.0	2.0	30.0	50/4"	--	--	--			S3 Very dense, fine SAND and SILT, trace Gravel		30.0 Glacial Till
35															
40															
		S4	SS	10.0	8.0	40.0	30	50/4"	--	--			S4 Similar to SS sample S3 with 1/4" thick Silt seam		
45															
50															

Remarks: (30.4'): SS sampler refusal on glacial till.
(34.2'): Hard drilling resistance on probable large boulder.

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.
3) Sample Type Coding: A = Auger; C = Core; Pt = Piston Sampler; Sp = Split Barrel (split Spoon); St = Shelby Tube; V = Vane.
4) Proportional Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%

Boring No.: B-12

BORING LOG 750.03.GPJ GEODESIGN.GDT 7/20/01

BORING LOG — Page 3 of 4

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Type: NW SS
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Hammer Fall: NA 30 in.
Rig Type: Mobile Drill
Other:

Groundwater Observations

Date and Time	Depth (ft)	Elevation (ft)	Notes
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Depth (ft)	Casing Blowcoth	Sampler	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval 0-6	6-12	12-18	18-24	Casing Time (min./ft)	REC/TCR/QD (%/%/%)	Sample Description (Classification System: Burmister)	Symbol	Strata Description (Elevation & Depth (feet))
		SS	SS	12.0	12.0	50.0	37	48	--	--			S5 Similar to SS sample S4, layered SILT and SAND		Glacial Till (Continued)
55															
															447.5
60		S6	SS	14.0	14.0	60.0	18	32	39	--			S6 Very dense, light to dark green, brown, fine SAND and SILT, trace Gravel, 1/4" parting of light sand.		59.0 Layered Sand and Silt
65															
															437.5
70		C1	C	60.0	65.0	69.0	--	--	--	--	11	100-75	C1 Light to dark gray, moderately hard, close fracturing, slight weathering.		69.0 Bedrock (Schist and Quartzite)
											12				
											14				
											10				
											12				
75		C2	C	69.0	80.0	74.0	--	--	--	--	12	100-42	C2 Light to dark gray, moderately		

Remarks: (68'): Roller bit resistance on possible bedrock.
(69-79'): Cored using BX (1.42" diameter) core barrel sampler.

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BORING LOG 750.03.GPJ GEODESIGN.GDT 7/20/01

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Boring No.: B-12
Page No.: 4 of 4
File No.: 750-03.3
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Type: NW SS
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												13	hard, close to very close fracturing, trace Quartz, 3" Quartz vein, fresh.		Bedrock (Schist and Quartzite) (Continued)
												9			
												12			
												10			
															427.5
80															79.0 Bottom of Borehole at 79.0 ft
85															
90															
95															
100															

Remarks:

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BORING LOG 750.03.GPJ GEODESIGN.GDT 7/20/01

PROJECT NAME:	SPRINGFIELD
PROJECT NUMBER:	STP 016-2 (10)S
FILE NAME: 00b124\structures\sb124bor.xls	PLOT DATE: 6/18/2004
PROJECT MANAGER: R. R. WHITCOMB	DRAWN BY: L. ASHWORTH
DESIGNED BY: G. ROY	CHECKED BY: G. ROY
BORING LOG INFORMATION SHEET #7	SHEET 33 OF 72