SOIL BORING LOGS

GEODESIGN INCORPORATED

P.O. Box 699
Windsor, VT 05089
Tel: (802) 674-2033

1233 Shelburne Road, Suite E-1
South Burlington, VT 05403
Tel: (802) 652-5140

BORING LOG

Project Name: Shelburne-South Burlington NH EGC 019-4(19)

Boring No.: B-204
Page No.: 1 of 1
File No.: 750-03.8
Checked By: RSA

Boring Company: M&W Soils Engineering
Foreman: Mike Hitchcock
GeoDesign Rep.: Aaron Humphrey
Date Started: September 11, 2002 Date Finished: September 11, 2002
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet): 182.0
Station: 34668 Offset: 59.0 ft R

	Casing:	Sampler:
Type:	H.S.A.	SS
I.D./O.D.:	3.25 in.	2.0 in.
Hammer Wt.:	NA	140 lbs
Hammer Fall:	NA	30 in.
Rig Type:	Acker Soil Max	
Other:	Truck mounted	

Groundwater Observations			
Date and Time	Depth (ft)	Elevation (ft)	Notes
▽ 9/11/02 10:20 AM	8.0	174.0	rmrk (8')
▼ 9/11/02 2:00 PM	4.0	178.0	open hole

Depth (ft)	Casing Blows/ft	Sample Info: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	PID Result	Sample Description (Classification System: Burmister)	Symbol	Strata Description (Elevation & Depth (feet))
		1	SS	24.0	13.0	0.0	2	2	4	6		-	S-1) Top 1" - Topsoil. Bottom 13" - Loose, brown-black fine to coarse SAND, some SILT, trace fine Gravel, trace Root Fibers, moist.		SILT and SAND (Fill)
		2	SS	24.0	13.0	2.0	3	3	4	6		-	S-2) Similar to S-1.		178.0 ▼
5		3	SS	24.0	22.0	4.0	6	2	2	7		-	S-3) Loose, brown fine to medium SAND and SILT, trace fine Gravel.		4.0 SILT and SAND ▽
		4	SS	24.0	22.0	6.0	10	22	20	23		-	S-4) Similar to S-3, except dense.		
		5	SS	7.0	4.0	8.0	72	100/1"				-	S-5) Similar to S-4, except wet.		
10															
		6	SS	12.0	12.0	10.0	40	64				-	S-6) Very dense, gray SILT and SAND, trace red rock fragments, moist.		
15															
		7	SS	4.0	4.0	15.0	100/4"					-	S-7) Similar to S-6.		
20															
		8	SS	6.0	6.0	20.0	85/6"					-	S-8) Similar to S-6.		161.5
															20.5 Bottom of Borehole at 20.5 ft
25															
30															

Remarks:
(0'): Groundsurface elevation based on hand level survey from proposed VAOT staked boring location. Location is estimated from site plan based on locations taped from proposed VAOT staked boring location and plotted by GeoDesign.
(8'): Groundwater depth based on saturated soil conditions during drilling.
(8.5'): Piece of coarse gravel in SS sampler tip. Drillers attempted second SS sample at 8-10' depth with no recovery.
(9'): Depth of strata change based on observed higher drilling resistance.
(20.5'): Borehole was left open for groundwater observations for the remainder of the drilling day.

Notes:
1) Soil Samples screened in the field using a thermal Environmental Systems Model 580S Photoionization Detector. The meter was calibrated relative to a benzene-in-air standard. ND = None Detected, - = Sample Not Screened
2) Stratification Lines Represent Approximate Boundary Between Material Types, Transitions May Be Gradual.
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. AC = After Coring Rock
4) Sample Type Coding: A = Auger; C = Core; PS = Piston Sampler; SS = Split Barrel (Split Spoon); ST = Shelby Tube; V = Vane
5) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%

Boring No.: B-204

OFFICES LOG WL 750-03.8.GPJ GEODSGN.GDT 1/22/03

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BORING LOG

Project Name: Shelburne-South Burlington NH EGC 019-4(19)

Boring No.: B-205
Page No.: 1 of 1
File No.: 750-03.8
Checked By: RSA

Boring Company: M&W Soils Engineering
Foreman: Mike Hitchcock
GeoDesign Rep.: Rob Achilles
Date Started: September 24, 2002 Date Finished: September 24, 2002
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet): 198.3
Station: 36450 Offset: 75.0 ft R

	Casing:	Sampler:
Type:	H.S.A.	SS
I.D./O.D.:	3.25 in.	2.0 in.
Hammer Wt.:	NA	140 lbs
Hammer Fall:	NA	30 in.
Rig Type:	Acker Soil Max	
Other:	Truck mounted	

Groundwater Observations			
Date and Time	Depth (ft)	Elevation (ft)	Notes
▽ 9/24/02 12:00 PM			rmrk (17.6')
▼ 9/24/02 3:30 PM	3.5	194.8	open hole

Depth (ft)	Casing Blows/ft	Sample Info: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	PID Result	Sample Description (Classification System: Burmister)	Symbol	Strata Description (Elevation & Depth (feet))
		1	SS	24.0	8.0	0.0	1	3	11	6		-	S-1) Medium dense, brown SILT and fine SAND, moist (TOPSOIL).		SILT and SAND (Fill)
		2	SS	24.0	2.0	2.0	5	6	7	5		-	S-2) Similar to S-1.		194.3 ▽
5		3	SS	24.0	19.0	4.0	2	4	7	12		-	S-3) Stiff, brown CLAY and SILT, laminated, wet.		4.0 CLAY and SILT
		4	SS	24.0	24.0	6.0	6	8	7	14		-	S-4) Top 20" - Similar to S-3, except, little fine SAND. Bottom 4" - Brown Clayey SILT, little fine SAND, moist.		190.6
		5	SS	24.0	8.0	8.0	21	50/2"				-	S-5) Very dense, brown fine to medium SAND, little SILT, occasional piece of fine Gravel, moist.		7.7 SILT and SAND
10															186.3
		6	SS	6.0	6.0	10.0	50/6"					-	S-6) Very dense, brown Clayey SILT, little fine SAND, moist.		12.0 GLACIAL TILL
15		7	SS	8.0	6.0	14.0	40	50/2"				-	S-7): Very dense, gray SILT and fine to medium SAND, trace coarse SAND and fine Gravel, moist.		180.7
															17.6 Bottom of Borehole at 17.6 ft
20															
25															
30															

Remarks:
(0'): Groundsurface elevation based on hand level survey from proposed VAOT staked boring location. Location is estimated from site plan based on locations taped from proposed VAOT staked boring location and plotted by GeoDesign.
(8.5'-10'): Piece of coarse gravel in SS sampler tip. SS refusal on possible cobble or boulder.
(12'): Depth of strata change based on observed higher drilling resistance. (17.6'): Observed auger refusal on possible boulder or bedrock.
(17.6'): Groundwater was not encountered during drilling and borehole was left open for groundwater observations for the remainder of the drilling day.

Notes:
1) Soil Samples screened in the field using a thermal Environmental Systems Model 580S Photoionization Detector. The meter was calibrated relative to a benzene-in-air standard. ND = None Detected, - = Sample Not Screened
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Boring No.: B-205

OFFICES LOG WL 750-03.8.GPJ GEODSGN.GDT 1/22/03

DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

4/13/04

SHELBURNE

SURVEYED BY V.S.C. INC. DATE
DRAWN BY E.A.A. INC. DATE
TRACED BY E.A.A. INC. DATE

PROJECT NH-EGC-019-4(27)
SOIL BORING DRAWING NO. 3
SHEET NO. 429 OF 537