

GEODESIGN INCORPORATED
 Geotechnical Engineers/Environmental Consultants/Construction Engineers
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 Windsor, VT 05089 South Burlington, VT 05403
 Tel: 802-674-2033 Tel: 802-652-5140
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BORING LOG
 Project Name: **Chester Bridge BRFO16-1(25)**
 Location: **Chester, VT**

Boring No.: **B-1**
 Page No.: **1 of 2**
 File No.: **750-05.2**
 Checked By: **JAG**

Boring Company: **SJB Services Inc.**
 Foreman: **Steve Wolkiewicz**
 GeoDesign Rep.: **Jacob Wimet**
 Date Started: **April 26, 2007** Date Finished: **May 1, 2007**
 N. Coordinate: **276131.9206** E. Coordinate: **1592818.9861**
 Ground Surface Elevation (feet): **940**
 Station: **14+87** Offset: **8 ft RT**

Depth (ft)	Casing Blows/ft	Casing Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval				Casing Time (min./ft)	Moisture Content (%)	Strata Description	Symbol	Sample Description
							0 - 6	6 - 12	12 - 18	18 - 24					
													1 Asphalt		
		S1	SS	24	8	1	15	12	10	6			Base course 939.0		S1) Medium dense, tan, fine to coarse SAND and fine to coarse GRAVEL, trace Silt, dry.
		S2	SS	24	15	3	10	6	5	3			3.7		S2) Medium dense. S2A (Top 8"): Similar to S1. S2B (Bottom 7"): Orange brown, fine to medium SAND, little fine Gravel, trace Silt, moist.
5		S3	SS	24	13	5	2	5	5	6			Fill 936.3		S3) Medium dense, olive gray with orange brown, fine to coarse SAND and SILT, trace fine to coarse Gravel, moist.
		S4	SS	24	6	7	5	5	6	8					S4) Medium dense, gray/ brown/ orange, fine to coarse SAND and fine GRAVEL, little Silt, with fractured black Gravel, moist.
10		S5	SS	24	13	10	3	2	1	2			11		S5) Very loose, olive/ brown/ orange, fine to medium SAND, some Silt, trace fine Gravel, bottom 1" layered, moist.
		S6	SS	24	6	12	2	2	1	1			15		S6) Very loose, layered brown and olive, fine to medium SAND and SILT, little fine to coarse Gravel, wet.
15		S7	SS	24	20	15	8	21	23	40			15		S7) Dense, greenish gray, fine SAND and SILT, little fine to coarse Gravel, moist.
		S8	SS	21	20	20	21	37	52	62/3"					S8) Very dense, SILT and fine to medium SAND, trace fine Gravel, moist to wet.
20		S9	SS	24	18	25	3	27	40	35					S9) Very dense, gray parted, fine to medium SAND, little Silt, trace fine Gravel, moist to wet.
25															
30													28		Glacial Till 912.0

Remarks:
 1) Ground surface elevation estimated by GeoDesign. Boring coordinates derived from electronic site plans issued by VTrans.
 2) Augered through 12 inches of asphalt prior to sampling S1.
 3) Auger grinding and chatter from 1' to 10' deep.
 4) Frequent moderate auger grinding and chatter from 15' to 20' deep.
 5) Occasional rig chatter while augering from 23' to 24.5' deep.

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; PS=Piston Sampler; SS=Split Barrel (Split Spoon); ST=Shelby Tube; Geo = GeoProbe; V=Vane; WOR/H=Weight of Rod/Hammer
 4) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%

Boring No.: **B-1**

VT BORING LOG MC 5/12/04 FOR CONVERSION TO DFX 750-5.2.GPJ. GEODESIGN STANDARD .GDT 8/17/07

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Boring Company: **SJB Services Inc.**
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 Date Started: **April 26, 2007** Date Finished: **May 1, 2007**
 N. Coordinate: **276131.9206** E. Coordinate: **1592818.9861**
 Ground Surface Elevation (feet): **940**
 Station: **14+87** Offset: **8 ft RT**

Depth (ft)	Casing Blows/ft	Casing Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval				Casing Time (min./ft)	Moisture Content (%)	Strata Description	Symbol	Sample Description
							0 - 6	6 - 12	12 - 18	18 - 24					
		S10	SS	21	21	30	11	27	46	51/3"					S10) Very dense/ hard, olive gray, Clayey SILT (slightly blocky in appearance) and fine to coarse SAND, little (-) fine Gravel, moist to wet.
		S11	SS	11	11	33	51	100/5"					33.9		S11) Refusal, olive gray, fine to coarse SAND, some Silt, some fine Gravel, with flakes of fractured orange/ gray weathered micaceous SCHIST in the spoon tip.
35													906.0		Bouldery glacial fill
		S12	SS	6	0.5	37	148								S12) Refusal, piece of fractured rusted QUARTZITE in spoon tip.
40		S13	SS	11.5	9	40	70	100/5.5"							S13) Refusal, orange/ gray/ black, fractured and decomposing ROCK, little fine to coarse Sand, little Silt, little fine Gravel, wet.
		S14	SS	9	9	45	23	52/3"							S14) Refusal, brown mottled, fine to coarse SAND, some Silt, little fine Gravel, wet.
45		S15	SS	16	16	50	42	81	100/4"						S15) Very dense/ refusal, gray/ orange/ tan, fractured and decomposed ROCK, and fine to coarse SAND, some Silt, wet.
50		S16	SS	5	3	55	100/5"						55.4		S16) Refusal, fine to coarse GRAVEL, little Silt, little Sand, wet.
55															Bottom 884.6 of Exploration at 55.4 ft
60															

Remarks:
 6) Auger grinding and rig chatter from 28' to 33' deep. Slow auger advance at 33' deep. Unable to advance casing so roller bit to 35.8' deep. Bit would go through layers of harder to easier drilling until 35.8' deep, steady pressure.
 7) Only able to advance augers to 33.7' deep.
 8) EOE at 55.4' deep. Hole abandoned. Will not be able to core if rock is encountered deeper do to crooked hole.

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 3) Sample Type Coding: A=Auger; C=Core; D=Driven; G=Grab; PS=Piston Sampler; SS=Split Barrel (Split Spoon); ST=Shelby Tube; Geo = GeoProbe; V=Vane; WOR/H=Weight of Rod/Hammer
 4) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%

Boring No.: **B-1**

BORING LOG												Boring No.: B-2					
Project Name												Page No.: 1 of 2					
Chester Bridge BRF016-1(25)												File No.: 750-05.2					
Chester, VT												Checked By: JAG					
GEODESIGN INCORPORATED Geotechnical Engineers/Environmental Consultants/Construction Engineers P.O. Box 699 1233 Shelburne Rd., Suite E-1 Windsor, VT 05089 South Burlington, VT 05403 Tel: 802-674-2033 Tel: 802-652-5140 Fax: 802-674-5943												Boring Company: SJB Services Inc. Foreman: Steve Wolkiewicz GeoDesign Rep.: Jacob Wilmett Date Started: April 27, 2007 Date Finished: April 30, 2007 N. Coordinate: 276104.86 E. Coordinate: 1592718.9956 Ground Surface Elevation (feet): 940 Station: 13+86 Offset: 8 ft LT		Casing: H.S.A. SS Sampler: 4.25 in. 1.38 in. Date: 4/27/07 Depth (ft): 15.0 Elev. (ft): 925.0 Notes: Wet Sample Hammer Wt.: NA 140 lbs Hammer Fall: NA 30 in. Rig Type: CME 550X ATV Hammer Type: Automatic		Groundwater Observations Date: 4/27/07 Depth (ft): 15.0 Elev. (ft): 925.0 Notes: Wet Sample Hammer Wt.: NA 140 lbs Hammer Fall: NA 30 in. Rig Type: CME 550X ATV Hammer Type: Automatic	
Sample Information												Strata Description		Sample Description			
Depth (ft)	Casing Blows/ft	Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval				Coring Time (min./ft)	Moisture Content (%)	Depth & Elevation (feet)	Symbol	Classification System: Burmister		
							0 - 6	6 - 12	12 - 18	18 - 24							
		S1	SS	24	14	1	12	11	13	10			0.7	Asphalt			
		S2	SS	24	1	3	10	15	15	13			3.5	Fill 936.5	S1) Medium dense, brown, fine to coarse SAND and fine to coarse GRAVEL, trace Silt, dry.		
5		S3	SS	24	11	5	18	15	10	5			7	Sand & gravel	S2) Dense, piece of fractured coarse GRAVEL stuck in spoon tip.		
		S4	SS	24	3	7	3	5	8	4			7	Sand & gravel	S3) Medium dense, brown, fine to coarse SAND, some fine to coarse Gravel, trace Silt, dry.		
10		S5	SS	24	12	10	20	22	25	25			10		S4) Medium dense, brown, fine to coarse SAND, little Silt, trace fine Gravel, moist.		
		S6	SS	24	18	15	16	22	25	34			15	Silty Sand	S5) Dense, fine to coarse SAND and fine to coarse GRAVEL (fractured), trace Silt.		
15		S7	SS	24	19	20	24	33	36	45			15		S6) Dense, gray, fine to medium SAND, and SILT, little (-) fine Gravel, (decomposed) Rock, wet.		
20		S8	SS	24	19	20	24	33	36	45			20		S7) Very dense, similar to S6.		
25		S8	SS	24	19	20	24	33	36	45			25		S8) Very dense, gray, fine to coarse SAND, some decomposed Rock, little Silt, wet.		
30													27	Glacial Till			
Remarks: 1) Ground surface elevation estimated by GeoDesign. Boring coordinates derived from electronic site plans issued by VTrans. 2) Augered through 9 inches of asphalt prior to sampling S1. 3) Augers grinding and chatter from 2 feet to 3.5 feet deep. 4) Driller accidentally dropped rod with spoon while lowering into hole at S8, sunk in 6 inches. 5) Torque test on S8 sampler. Applied 85 ft-lbs but couldn't move it more. 6) Increased auger resistance with frequent chatter and grinding beginning at 27' deep.																	
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 coring; N.R. = Not Recorded. 3) Sample Type Coding: A=Auger; C=Core; D=Driver; G=Grab; PS=Piston Sampler; SS=Split Barrel (Split Spoon); ST=Shelby Tube; Geo = GeoProbe; V=Vane; WOR/H=Weight of Rod/Hammer 4) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%																	

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Boring No.: B-2

BORING LOG												Boring No.: B-2					
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Chester Bridge BRF016-1(25)												File No.: 750-05.2					
Chester, VT												Checked By: JAG					
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Sample Information												Strata Description		Sample Description			
Depth (ft)	Casing Blows/ft	Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval				Coring Time (min./ft)	Moisture Content (%)	Depth & Elevation (feet)	Symbol	Classification System: Burmister		
							0 - 6	6 - 12	12 - 18	18 - 24							
		S9	SS	24	18	30	40	76	79	68							
		S10	SS	15	15	35	53	93	54/3"				35			S9) Very dense, gray/ olive, fine to coarse SAND and SILT, little (+) oxidized micaceous decomposed Rock, wet.	
		S11	SS	24	21	40	12	27	37	50			40			S10) Refusal, gray to brown, fine to coarse SAND and SILT, little fine Gravel, little decomposed oxidized Rock, wet.	
		S12	SS	16	12	45	6	65	100/4"				45			S11) Very dense/ hard, brown with gray/ orange and black, fine to coarse SAND and SILT and CLAY, little fine Gravel, trace decomposed Rock, wet.	
		S13	SS	8	8	50	98	50/2"					50			S12) Refusal, orange brown, fine to coarse SAND, some Silt, little decomposed Rock, wet.	
													50	890.0	Bottom of Exploration at 50.7 ft	S13) Refusal, white with orange and brown, decomposed ROCK, little fine to coarse Sand, little Silt, wet.	
Remarks: 7) Very hard auger grinding and rig chatter on inferred boulder from 48' to 49.5' deep.																	
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 coring; N.R. = Not Recorded. 3) Sample Type Coding: A=Auger; C=Core; D=Driver; G=Grab; PS=Piston Sampler; SS=Split Barrel (Split Spoon); ST=Shelby Tube; Geo = GeoProbe; V=Vane; WOR/H=Weight of Rod/Hammer 4) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%																	

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