BORING LOG B-501

GZA GeoEnvironmental, Inc. *Engineers and Scientists*

Bennington Bypass North
Bennington, Vermont

Boring No.: B-501
Page: 1 of 3
File No.: 15634.16
Check: DGL

Contractor: Geologic-Earth Exploration
Foreman: Tim Tucker/Charlie O'Donnell
Logged by: L. Charest
Date Start/Finish: 7-20-06 / 7-27-06
Boring Location: NB 6+260.6, 33.0m L
GS Elev.: 249.37m Datum: NAVD88

	Auger/ Casing	Sampler
Type:	ODEX	SS
I.D.:	108 mm	35 mm
Hammer Wt.:	NA	63.5 kg
Hammer Fall:	NA	0.76 m
Rig Type:	CME750 ATV	

GROUNDWATER READINGS

Date	Time	Depth	Casing	Slab
7/25/06	0800	0.98m	3.05m	5 days

Depth (m)	Sample Info: No.	Pen./ Rec. (m)	Depth (m)	Blows (/0.15m)	N Value	Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed
						Advanced borehole through nested cobbles and boulders from 0 to 2.74 meters (0 to 9 feet) below ground surface using an ODEX hammer.	FLUVIAL		No Equipment Installed
							2.74m		
	S-1	0.61/ 0.56	3.05- 3.66	7-12 18-23	30	Very stiff, light brown, Clayey SILT, some fine Sand with white, Clayey Silt lenses. (A-4)			
	S-2	0.61/ 0.56	4.27- 4.88	7-12 25-40	37	Hard, light brown, Clayey SILT, some fine Sand with white, Clayey Silt lenses. (A-4)			
5									
	S-3	0.61/ 0.56	5.79- 6.40	9-15 22-31	37	Hard, light brown, Clayey SILT, little fine Sand with white, Clayey Silt lenses. (A-4)	LACUSTRINE		
	S-4	0.61/ 0.53	7.32- 7.92	12-23 30-47	53	Hard, light brown, Clayey SILT, trace fine Sand with white, Clayey Silt lenses. (A-4)			
	S-5	0.61/ 0.58	8.84- 9.45	17-34 44-75	78	Hard, light brown, Clayey SILT, little fine to medium Sand, with white, Clayey Silt lenses. (A-4)			

REMARKS

SOIL BL WELL 500 SERIES.GPJ GZA_NH.GDT 12/4/06

All depth measurements are approximate. Stratification lines represent approximate boundary between soil types, transitions may be gradual. 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.

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BORING LOG B-501 (CONT'D)

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Depth (m)	Sample Info: No.	Pen./ Rec. (m)	Depth (m)	Blows (/0.15m)	N Value	Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed
	S-6	0.56/ 0.56	10.36- 10.92	15-30 71-100/102 mm	101	Hard, light brown, Clayey SILT, little fine Sand with white, Clayey Silt lenses. (A-4)			
	S-7	0.61/ 0.53	11.89- 12.50	26-59 68-80	127	Very dense, light brown, SILT, little fine Sand with white, Clayey Silt lenses. (A-4)			
	S-8	0.61/ 0.56	13.41- 14.02	22-35 47-61	82	Hard, light brown, Clayey SILT, trace fine Sand with white, Clayey Silt lenses. (A-4)			
15	S-9	0.61/ 0.56	14.94- 15.54	27-31 49-75	80	Hard, light brown, Clayey SILT, trace Gravel, trace fine Sand with white, Clayey Silt lenses. (A-4)	LACUSTRINE		
	S-10	0.41/ 0.41	16.46- 16.87	23-44 100/102 mm	44 100/102 mm	Very dense, light brown, SILT, little fine Sand, trace Gravel with white, Clayey Silt lenses. (A-4)			
	S-11	0.61/ 0.51	17.98- 18.59	28-49 67-85	116	Very dense, light brown, SILT, little fine Sand, trace Gravel with white, Clayey Silt lenses. (A-4)			
20	S-12	0.61/ 0.56	19.51- 20.12	20-22 34-46	56	Hard, light brown, Clayey SILT, little fine Sand, trace Gravel with white, Silt & Clay lenses. (A-4)			
	S-13	0.43/ 0.43	21.03- 21.46	20-57 100/127 mm	57 100/127 mm	Hard, light brown, Clayey SILT, little fine Sand, trace Gravel with white, Clayey Silt lenses. (A-4)			

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	S-14	0.41/ 0.36	22.56- 22.96	49-82 100/102 mm	82 100/102 mm	Very dense, light brown, SILT, little fine Sand with white and brown, Clayey Silt lenses and seams. (A-4)			
	S-15	0.46/ 0.46	24.08- 24.54	30-63 100/152 mm	63 100/152 mm	Very dense, light brown, SILT, little fine Sand, little Gravel with brown and white, Clayey Silt lenses. (A-4)	LACUSTRINE		
25	S-16	0.28/ 0.25	25.60- 25.88	76-100/127 mm	100/127 mm	Very dense, light brown, SILT, little fine Sand, trace Gravel with white, Clayey Silt lenses and seams and brown, Silt & Clay lenses. (A-4)			
	S-17	0.18/ 0.15	27.13- 27.31	83-100/25 mm	100/25 mm	Very dense, light brown, SILT, little fine Sand with white, Clayey Silt lenses and seams and brown, Clayey Silt lenses. (A-4)	27.31m		
						Bottom of boring at 27.31 meters (89.6 feet) below ground surface. Split spoon refusal.			
30									

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* BOTTOM OF DRILLED SHAFT, RAMP A, PIER 7 - EL. 224.250

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of BENNINGTON	Bridge No. BI5, BI5N, BI5S
Highway No. VT RTE 279	Log Sta. / Surv. Sta.
VT ROUTE 279 & RAMPS OVER ROARING BRANCH OF WALLOOMSAC RIVER	
BORING LOGS (SHEET 20 OF 33)	
Designed By GZA	Drawn By L.R. DELL
Checked By GZA Date 06/08	Bridge Design Supervisor K.M. WOJTKOWSKI Date 06/08
PROJECT BENNINGTON	PROJECT NO. AC NH 019-1(51)
TVGA CAD Drawing No. BL20.dgn	Date 02/02/2009
Bridge Sheet No. BR226	Sheet 213 of 367

TVGA CONSULTANTS