



STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
MATERIALS & RESEARCH SECTION  
SUBSURFACE INFORMATION

BORING LOG		Boring No.:	B-6
Brookfield Floating Bridge BRF FLBR(2)		Page No.:	1 of 2
		Pin No.:	12e134
		Checked By:	DTH

Boring Crew: J. Leonhardt (TransTech), J.Wimett (GeoDesign)		Casing	Sampler	Groundwater Observations			
Date Started: 2/25/13	Date Finished: 2/27/13	Type: FJ	SS	Date	Depth (ft)	Notes	
VTSPG NAD83: N 562271.00 ft	E 1612777.00 ft	I.D.: 4 in	1.38 in				
Station: 11+47	Offset: 12'R	Hammer Wt: N.A.	140 lb.				
Ground Elevation: 1275 ft		Hammer Fall: N.A.	30 in.				
		Hammer/Rod Type: Safety/AWJ					
		Rig: CME 45C SKID	CE = 1				

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Bloves/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
0-5		Water Column.							
15-20	x x x	Inferred Lake Bottom Sediment (Organic Silt / Organic Matter)							
20-25	x x x	S1 (20'-22'): Very loose, black ORGANIC SILT, little fine to coarse Sand, trace Organic Matter, wet. (Lake Bottom Sediment) Rec. = 0.4 ft (AASHTO M145 Classification: A-4.)	WOR-WOR-WOR (0)	392.5	3.0	11.0	86.0	NP	NP
25-30		S2 (25'-27'): Dense, olive brown fine to coarse SAND, some Silt, little fine to coarse Gravel (Decomposed), wet. (Glacial Moraine). Rec. = 0.8 ft (AASHTO M145 Classification: A-2-4.)	12-14-29-16 (43)	14.5	24.9	45.5	29.6	NP	NP
30-35		S3 (30'-32'): Dense, olive brown fine to coarse SAND, some fine to coarse Gravel (Decomposed), little Silt, wet. (Glacial Moraine). Rec. = 0.8 ft (AASHTO M145 Classification: A-1-a.)	10-11-23-17 (34)	12.7	50.2	35.0	14.8	NP	NP
35-40		S4 (34'-34.3'): Refusal, gray SILT, some fine to coarse Sand, some fine Gravel, wet. (Glacial Till). Rec. = 0.3 ft (AASHTO M145 Classification: A-4.)	100/4" (R)	8.8	31.2	29.2	39.6	NP	NP
40-45		S5 (39'-39.3'): Refusal, gray SILT and fine to coarse SAND, some fine Gravel, wet. (Glacial Till). Rec. = 0.3 ft (AASHTO M145 Classification: A-4.)	100/4" (R)	14.2	41.8	14.8	43.4	NP	NP
45-50		S6 (44'-44.8'): Refusal, gray SILT, some fine to coarse Sand, little fine to coarse Gravel, wet. (Glacial Till) Rec. = 0.5 ft (AASHTO M145 Classification: A-4.)	66-100/3" (R)	15.1	19.6	17.1	63.3	NP	NP
50-55		S7 (49'-49.2'): Refusal, gray fine SAND and SILT, wet. (Glacial Till) Rec. =	100/2"						

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
2. If Values have not been corrected for hammer energy. CE is the hammer energy correction factor.  
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.



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		Hammer/Rod Type: Safety/AWJ					
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Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Bloves/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
0-0.1		0.1 ft	(R)						
55-60		SB (54'-54.8'): Refusal, gray SILT, some fine to coarse Sand, some fine Gravel, wet. (Glacial Till) Rec. = 0.8 ft (AASHTO M145 Classification: A-4.)	92-100/4" (R)	11.6	29.9	19.5	50.6	NP	NP
60-61		S9 (59'-61'): Very dense, gray SILT, some fine to coarse Sand, trace (+) fine Gravel, wet. (Glacial Till) Rec. = 2.0 ft (AASHTO M145 Classification: A-4.)	38-42-49-69 (91)	16.9	13.7	20.4	65.9	NP	NP
61-61.0		Hole stopped @ 61.0 ft No refusal to 61' depth.							
65-70		Remarks: 1) Ground surface elevation, northing, easting and stationing are estimated from concept plans provided by TY Lin dated December 17, 2012. Borehole performed ~4' east of proposed hinge point due to accessibility. 2) Hammer correction factor is assumed to be 1.0 (rope and cathead safety hammer). 3) Performed borehole through lake ice. Lake bottom sediments noted to begin at 14' below ice level. Casing sunk under own weight through lake bottom sediments until 20' deep. 4) Note increase in resistance during casing and roller bit advance at 24' deep. 5) Frequent rollerbit grinding and chatter through inferred gravel and cobbles below 24' deep. 6) Advance casing to 34' deep. Driller added EZ-Mud to the wash tub and advanced the borehole open hole below 34' deep. 7) Borehole terminated at 61' deep in glacial till. No refusal encountered. 8) Visual soil descriptions are per the Burmister system. Lab testing gradations reported are per AASHTO M145.							

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GEODESIGN BORING LOG: BBB-04.5 FLOATING BRIDGE VTRANS FORMAL.GPJ VERMONT AOT.GDT 5/7/13

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