



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

BORING LOG

Brattleboro Bridge #9 Replacement  
 IM 091-1(65) BR 9

Boring No.: B-204

Page No.: 1 of 1

Pin No.: 12a026

Checked By: JAG

Boring Crew: T. Farrell (SJB), J. Gilman (GeoDesign)  
 Date Started: 3/21/12 Date Finished: 3/21/12  
 VTSPG NAD83: N 136341.00 ft E 1621295.00 ft  
 Station: 564+57 Offset: 2' R  
 Ground Elevation: 235 ft

Casing Sampler  
 Type: H.S.A. SS  
 I.D.: 4.25 in 1.38 in  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 550X ATV CE = 1.5

Groundwater Observations (3)		
Date	Depth (ft)	Notes
03/21/12	14.0	Wet sample.
03/21/12	15.2	In augers.

Depth (ft)	Strata(1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)(2)	Moisture Content %	Gravel %	Sand %	Fines %	
5	× × ×	S1) Loose, dark brown to brown fine to coarse SAND, some fine to coarse Gravel, trace Silt, trace Root Fibers, moist. (FILL) Rec. = 0.9 ft (AASHTO M145 Classification: A-1-b) (AASHTO M145 Classification: Visual Description (Burmister).)	1-2-4-3 (6)	7.5	47.1	44.5	8.4	
	× × ×	S2) Medium dense, brown and blue fine to coarse SAND, some fine to coarse Gravel, little Silt, trace Root Fibers, trace Blast Wire, moist. (FILL) Rec. = 0.9 ft (AASHTO M145 Classification: A-1-a) (AASHTO M145 Classification: Visual Description (Burmister).)	6-7-7-5 (14)	9.3	57.7	30.2	12.1	
	× × ×	S3A - Top 8.5": Similar description as S2 except loose. (FILL) Rec. = 1.3 ft (AASHTO M145 Classification: A-1-b) (AASHTO M145 Classification: Visual Description (Burmister).) S3B - Bottom 7.5": Light brown fine to medium SAND, trace Silt, moist. (SILTY SAND) (AASHTO M145 Classification: A-4) (AASHTO M145 Classification: Visual Description (Burmister).)	2-3-4-2 (7)	13.9	44.3	36.7	19.0	
	× × ×			17.9	0.3	62.0	37.7	
	10	× × ×	S4) Very loose, brown fine to medium SAND, trace Silt, trace wood fibers, wet. (SILTY SAND) Rec. = 1.8 ft (AASHTO M145 Classification: A-2-4) (AASHTO M145 Classification: Visual Description (Burmister).)	1-1-1-1 (2)	30.1	1.4	79.7	18.9
		× × ×						
	20	× × ×	S5) Refusal, gray to dark gray fine to coarse SAND, some fine Gravel, little Silt, wet (sample pulverized rock fragments). (WEATHERED ROCK) Rec. = 0.3 ft (AASHTO M145 Classification: A-1-a) (AASHTO M145 Classification: Visual Description (Burmister).)	50/4" (100+)	10.0	53.2	32.1	14.7
		× × ×						

Hole stopped @ 20.4 ft  
 HSA Refusal on Inferred Bedrock.

Top of Bedrock @ 20.4 ft

Remarks:

- 1) Ground surface elevation estimated from a topographic site plan provided by VHB.
- 2) Boring shifted 13' south of surveyed location due to overhead wires.
- 3) Driller noted easier augering through inferred softer soils beginning at 7.5' deep. Inferred upper 7.5' to contain blast rock fill.
- 4) Driller noted an increase in auger resistance beginning at 18' deep.
- 5) Driller noted hollow stem auger refusal at 20.4 feet deep. Exploration terminated at 20.4' deep.
- 6) Lab testing gradations reported are per AASHTO M145.

Notes:

1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N 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.

GEODESIGN BORING LOG BRATTLEBORO IM 091-1(65) BR 9 VTRANS FORMAT.GPJ VERMONT AOT.GDT 12/2/13