



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

BORING LOG

Bridge No. 93 over C&P Railroad
Castleton BR# 015-2(10)
(GeoDesign #750-09.14)

Boring No.: B-3
Page No.: 1 of 1
Pin No.: 12b138
Checked By: SPK

Boring Crew: J. Leonhardt (TransTech), J. Gilman (GeoDesign)
Date Started: 10/24/13 Date Finished: 10/24/13
VTSPG NAD83: N 403314.31 ft E 1452548.87 ft
Station: 19+08 Offset: 10.50
Ground Elevation: 389.3 ft

Type: FJ Sampler: SS
I.D.: 4 in 1.38 in
Hammer Wt: 140 lb. 140 lb.
Hammer Fall: 30 in. 30 in.
Hammer/Rod Type: Auto/NWJ
Rig: CME 550X ATV CE = ~1.5

Groundwater Observations (3)

Date	Depth (ft)	Notes
10/24/13		See Remark 2

Depth (ft)	Strata(1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)(2)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %	
0	x x x	S1 (0' to 2'): Loose, brown to gray SILT & CLAY and fine to coarse SAND, little fine to coarse Gravel, trace Wood, trace Glass, moist. Rec. = 0.9 ft (AASHTO M145 Classification: A-4.)	1-1-5-5 (6)	13.7	29.1	25.1	45.8	25	6	
2	x x x	S2 (2' to 4'): Loose, gray fine to coarse SAND and SILT, little fine to coarse Gravel, moist. Rec. = 1.8 ft (AASHTO M145 Classification: A-4.)	4-5-4-5 (9)	9.6	30.1	31.7	38.2	NP	NP	
4	x x x	S3 (4' to 6'): Medium dense, gray SILT & CLAY, some fine to coarse SAND, some fine to coarse Gravel, wet. Rec. = 1.0 ft (AASHTO M145 Classification: A-4.)	4-6-11-12 (17)	11.7	31.1	24.5	44.4	24	6	
6	x x x	S4 (6' to 8'): Medium dense, gray SILT & CLAY and fine to coarse SAND, trace fine Gravel, trace Glass, wet. Rec. = 1.3 ft (AASHTO M145 Classification: A-4.)	6-7-11-12 (18)	19.7	15.1	30.4	54.5	27	5	
8		S5 (8' to 10'): Dense, gray SILT & CLAY and fine to coarse SAND, some fine to coarse Gravel, wet. Rec. = 1.0 ft	5-33-11-12 (44)	11.3						
14		S6 (14' to 16'): Medium dense, gray SILT & CLAY and fine to coarse SAND, some fine to coarse Gravel, wet. Rec. = 1.0 ft (AASHTO M145 Classification: A-4.)	6-8-20-18 (28)	11.4	33.5	25.6	40.9	25	6	
20		S7 (19' to 21'): Medium dense, gray SILT & CLAY and fine to coarse SAND, some fine to coarse Gravel, wet. Rec. = 1.0 ft	5-9-13-15 (22)	11.9						
26		S8 (24' to 26'): Medium dense, gray SILT & CLAY and fine to coarse SAND, little fine to coarse Gravel, wet. Rec. = 0.3 ft	7-10-13-17 (23)	15.7						
32		S9 (29' to 31'): Medium dense, gray SILT & CLAY and fine to coarse SAND, little fine to coarse Gravel, wet. Rec. = 1.4 ft (AASHTO M145 Classification: A-4.)	7-11-13-16 (24)	12.8	29.5	25.5	45.0	25	6	
38		S10 (34' to 36'): Medium dense, gray SILT & CLAY and fine to coarse SAND, little fine to coarse Gravel, wet. Rec. = 1.3 ft	15-12-16-20 (28)	11.8						
36		Hole stopped @ 36.0 ft Boring terminated at 36 feet deep with no refusal.								
40		Remarks: 1. Exploration locations were taped in the field by GeoDesign. Elevations were estimated based on topographic plan provided by VHB. 2. Sample moisture descriptions may not accurately reflect in-situ conditions due to wash-drive drilling methods. Unable to discern ground water elevation due to continuously adding water to the borehole during roller bit advance. 3. Visual soil descriptions are per the Burmister system. Lab testing gradations reported are per AASHTO M145. 4. Samples S2 and S4 were not sampled in accordance with ASTM D 1586 procedures (borehole was not advanced between consecutive samples). 5. Soil samples were tested by VTTrans soil laboratory and results were transmitted to GeoDesign for incorporation into boring logs.								
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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 750-09.14-CASTLETON BR# 015-2(10).GPJ VERMONT AOT.GDT 8/13/14