

VT Trans		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-208				
		Drottelleboro Bridge #9 Replacement IN 091-1(85) BR 9		Page No.: 1 of 3		Pin No.: 12x028				
		Checked By: JAG				Checked By: JAG				
Boring Crew: J. Leonhardt (TransTech), B. Marshall (GeoDesign)		Type: Casing SS		Sampler SS		Groundwater Observations (3)				
Date Started: 3/22/12 Date Finished: 3/28/12		L.D.: 4 in. 1.38 in.		Date		Depth (ft)				
VTSPG MADRS: N 136765.00 ft E 1821668.00 ft		Hammer Wt: 140 lb. 140 lb.		03/23/10		9.8				
Station: 570+19 Offset: 41' L		Hammer Fall: 30 in. 30 in.		03/26/12		11.9				
Ground Elevation: 232 ft		Hammer/Rob Type: Auto/AWJ		Rig: CME 75 TRACK		CE = 1.43				
Depth (ft)	Strat (ft)	CLASSIFICATION OF MATERIALS (Description)		Pen. (Obj. Dep.)	Core Rec. (Obj. Dep.)	Pen. (ft) (N Value/2)	Moisture Content (%)	Gravel %	Sand %	Fines %
0-7	1	S1) Loose, Top 1": Topsoil. Bottom 7": Brown fine SAND, little SIL, trace coarse Gravel. (FLL) Rec. = 0.7 ft (AASHTO M145 Classification: A-2-4) (AASHTO M145 Classification: Visual Description (Burmister).)		2-1-4-3 (5)		12.1	16.3	58.4	25.1	
7-12	2	S2) Loose, Top 2": Gray brown fine to medium SAND, little fine to coarse Gravel, little SIL. Bottom 4": Brown fine SAND, little (-) SIL, trace fine Gravel. (SILTY SAND) Rec. = 0.5 ft (AASHTO M145 Classification: A-2-4) (AASHTO M145 Classification: Visual Description (Burmister).)		12-3-4 (6)		12.6	37.9	47.0	15.1	
12-15	3	S3) Loose, brown fine SAND, little SIL, (SILTY SAND) Rec. = 0.6 ft (AASHTO M145 Classification: A-2-4) (AASHTO M145 Classification: Visual Description (Burmister).)		5-4-3-2 (7)		24.5	0.2	70.5	29.3	
15-17.5	4	S4) Very dense, gray brown fine to medium SAND, little (-) SIL, trace fine to coarse Gravel. (SILTY SAND) Rec. = 0.2 ft (AASHTO M145 Classification: A-1-b) (AASHTO M145 Classification: Visual Description (Burmister).) Inferred border from 15.5' to 17.5'. (AASHTO M145 Classification: Field Note.)		8-6-47-37 (53)		14.4	45.5	42.6	13.9	
17.5-20	5	S5) Medium dense, brown fine to medium SAND, little SIL, trace fine to coarse Gravel. (SILTY SAND) Rec. = 1.0 ft (AASHTO M145 Classification: A-2-4) (AASHTO M145 Classification: Visual Description (Burmister).)		10-11-13-14 (24)		18.3	28.0	57.8	14.2	
20-25	6	S6) Medium dense, brown fine to medium SAND, little (-) SIL, (SILTY SAND) Rec. = 1.0 ft (AASHTO M145 Classification: A-2-4) (AASHTO M145 Classification: Visual Description (Burmister).)		8-11-10 (21)		24.4	0.4	85.3	16.5	
25-27.5	7	S7) Loose, brown fine SAND, trace (+) SIL, (SILTY SAND) Rec. = 1.4 ft		5-4-4-6 (22)		4.4	77.5	18.1		

Notes:  
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0-35	1	(AASHTO M145 Classification: A-2-4) (AASHTO M145 Classification: Visual Description (Burmister).)				(8)				
35-40	2	Inferred transition from Silty Sand to Silty Gravelly Sand between 33' and 34.5'. (AASHTO M145 Classification: Field Note.)								
40-45	3	S8) Medium dense, gray brown fine SAND, trace (+) SIL, trace (-) coarse Gravel. (SILTY GRAVELLY SAND) Rec. = 1.5 ft (AASHTO M145 Classification: A-2-4) (AASHTO M145 Classification: Visual Description (Burmister).)		7-9-17-28 (36)		19.7	11.7	71.4	16.9	
45-50	4	S9) Loose, gray brown fine to medium SAND, little fine to coarse Gravel, little SIL, (SILTY GRAVELLY SAND) Rec. = 0.5 ft (AASHTO M145 Classification: A-1-b) (AASHTO M145 Classification: Visual Description (Burmister).)		9-3-4-4 (7)		13.2	34.6	49.6	15.8	
50-55	5	S10) Refusal, gray brown fine to medium SAND, little fine to coarse Gravel, little SIL, (SILTY GRAVELLY SAND) Rec. = 1.3 ft (AASHTO M145 Classification: A-1-b) (AASHTO M145 Classification: Visual Description (Burmister).)		54-54-90 (100+)		10.0	38.1	45.9	16.0	
55-60	6	C1) Very poor quality, hard, moderately weathered, shattered to very closely jointed, gray with white banding and orange weathering in joints PHYLLITE. No reaction to dilute HCl. Fractured surfaces show some schistosity. Jointing at ~40 to 50 degrees from horizontal.		C1	70 (0)	7				
60-65	7	C2) Very poor quality, hard, moderately weathered, fissured to closely jointed, gray with white banding and orange weathering in joints PHYLLITE. Fractured surfaces show some schistosity. Jointing ~ 45 to 55 degrees from horizontal. No reaction to dilute HCl.		C2	90 (15)	5				
65-70	8	C3) Very poor quality, hard, slight to moderately weathered, closely to very closely jointed, gray with white banding PHYLLITE. Fractured surfaces in upper portion of the core shows some schistosity. Jointing ~40 to 50 degrees from horizontal. Occasional slight reaction to dilute HCl.		C3	92 (22)	5				
70-75	9	C4) Fair quality, hard, slight to moderately weathered, closely to moderately jointed, gray with white banding PHYLLITE. Fractured surfaces in lower half show some schistosity. Jointing ~20 to 30 degrees from horizontal. No reaction to dilute HCl.		C4	92 (54)	5				

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0-65	1	C5) Good quality, hard, slight to moderately weathered, closely to moderately jointed, gray with white banding PHYLLITE. Jointing ~40 to 50 degrees from horizontal. No reaction to dilute HCl.		C5	92 (78)	5				
65-70	2	Hole stopped @ 63.5 ft								
70-75	3	Remarks: 1) Ground surface elevation estimated from a topographic site plan provided by VHD. 2) Boring shifted ~11' north of surveyed location due to d/w rig access constraints. 3) Casing refused at 17' deep. Rafter SR advanced through inferred cobbles / boulders to 17.5' deep. 4) Rafter bit advanced ahead of casing below 44.5' deep to refusal at 48.5' deep. 3" ID casing telescoped and driven to refusal at 48.5' deep. 5) Lab testing gradations reported are per AASHTO M145.								

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