

VT <small>Working to Get You There</small> Vermont Agency of Transportation		STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: <b>B-107</b>				
				Williston-Essex STP SGNL(46) VT 2A		Page No.: 1 of 1				
						Pin No.: 151017				
						Checked By: ZMH				
Boring Crew: NIETO, JUDKINS, COLETTI		Casing		Sampler		Groundwater Observations				
Date Started: 5/13/16 Date Finished: 5/13/16		Type: WB		SS		Date				
VTSPG NAD83: N 732491.94 ft E 1487305.79 ft		I.D.: 4 in		1.5 in		Depth (ft)				
Station: 207+23.20 Offset: -39.90		Hammer Wt: N.A.		140 lb.		Notes				
Ground Elevation: 499.7 ft		Hammer Fall: N.A.		30 in.		05/13/16 6.3 W.T. taken during				
		Hammer/Rod Type: Auto/AWJ								
		Rig: CME 55 TRACK		CE = 1.41						
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate (minutes/ft)	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-2-4, SiSa, brn, Moist, Rec. = 0.6 ft, Lab Note: A lot of grass and grass roots were within sample.				1-3-4-5 (7)	14.7	19.1	46.1	34.8
		Field Note: Roller Cone, cleaned out casing				4-2-2-2 (4)				
10		A-4, GrSaSi, brn-gry, Moist, Rec. = 0.4 ft, Lab Note: Broken rock was within sample.				4-3-2-2 (5)	16.8	27.3	32.7	40.0
		Field Note: Roller Cone, cleaned out casing				2-1-2-3 (3)	8.8	45.0	27.7	27.3
15		A-4, SaGrSi, brn, Moist, Rec. = 1.6 ft, Lab Note: Broken rock was within sample.				8-13-31-24 (44)	10.8	30.3	25.9	43.8
		Field Note: Roller Cone, cleaned out casing				8-21-27-32 (48)	12.5	19.0	24.6	56.4
20		A-4, SaSi, brn-gry, Moist, Rec. = 1.9 ft, Lab Note: Broken rock was within sample.								
		Field Note: Roller Cone, cleaned out casing								
25		A-1-b, SiSaGr, brn-gry, Moist, Rec. = 1.2 ft, Lab Note: Broken rock was within sample.				9-12-16-14 (28)	10.2	39.5	38.9	21.6
		Field Note: Roller Cone, cleaned out casing								
30		A-1-a, SaGr, gry-brn, Moist, Rec. = 0.3 ft, Lab Note: A lot of broken rock was within sample.				3-11-R@4.5" (R)	7.1	60.2	25.1	14.7
		22.3 ft - 27.3 ft, Pale green to gray, Phyllite, with rare quartz veins. Massive quartz vein at 22.3 ft to 22.5 ft. Slight brown and orange staining on joints. Low RQD could be due to mechanical breakage. Moderately hard, Very slightly weathered, Poor rock, NXMDC, RMR=39	R-1 (45)	100	5					
		Hole stopped @ 27.3 ft								
		Remarks: Hole collapsed at 6.3 feet.								

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Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. <<SUB>><<SUB>> is the hammer energy correction factor.  
 3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

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				Williston-Essex STP SGNL(46) VT 2A		Page No.: 1 of 1	
						Pin No.: 151017	
						Checked By: ZMH	
Boring Crew: NIETO, GARROW, EMERSON		Casing		Sampler		Groundwater Observations	
Date Started: 5/12/16 Date Finished: 5/12/16		Type: WB		SS		Date	
VTSPG NAD83: N 732589.46 ft E 1487379.41 ft		I.D.: 4 in		1.5 in		Depth (ft)	
Station: 208+40.80 Offset: -55.80		Hammer Wt: N.A.		140 lb.		Notes	
Ground Elevation: 502.3 ft		Hammer Fall: N.A.		30 in.		05/12/16 6.1 W.T. after drilling	
		Hammer/Rod Type: Auto/AWJ					
		Rig: CME 45C TRACK		CE = 1.41			
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-4, SiSa, brn, Moist, Rec. = 0.9 ft, Lab Note: A lot of grass, grass roots, and some wood fibers were within sample.	3-2-4-4 (6)	24.6	10.6	48.6	40.8
		Field Note: NXDC, cleaned out casing					
10		A-4, SaGrSi, brn-gry, Moist, Rec. = 1.1 ft	3-5-6-7 (11)	13.2	30.3	28.7	41.0
		Field Note: NXDC, cleaned out casing					
15		A-4, SaSi, Lt/brn, Moist, Rec. = 1.7 ft	4-4-6-10 (10)	13.0	17.7	29.6	52.7
		Field Note: Roller Cone, cleaned out casing					
20		A-4, SaGrSi, Lt/brn-gry, Moist, Rec. = 1.3 ft	8-11-14-22 (25)	10.3	26.8	26.5	46.7
		Field Note: NXDC, cleaned out casing					
25		A-4, GrSaSi, Lt/brn-gry, Moist, Rec. = 1.2 ft, Lab Note: Broken rock was within sample.	20-24-44-R@2.5" (68)	10.2	29.6	30.4	40.0
		Field Note: Roller Cone, cleaned out casing					
30		A-4, GrSaSi, Lt/gry-Lt/brn, Moist, Rec. = 0.6 ft	40-30-R@3.5" (R)	10.1	23.2	26.4	50.4
		Field Note: Roller Cone, cleaned out casing					
35		A-4, GrSaSi, gray, Moist, Rec. = 0.3 ft	9-R@3.5" (R)	9.7	23.2	28.9	47.9
		Field Note: Roller Cone, cleaned out casing					
40		A-1-b, SiSaGr, Lt/gry-Lt/brn, Moist, Rec. = 0.3 ft	R@5" (R)	10.6	50.8	26.1	23.1
		Field Note: NXDC, cleaned out casing					
45		A-1-b, SaGr, Moist, Lab Note: Sample consisted entirely of broken and weathered rock.	R@3.5" (R)	9.2	47.2	39.0	13.8
		Field Note: NXDC, cleaned out casing					
		Hole stopped @ 25.3 ft					
		Remarks: Hole collapsed at 22.7 feet.					

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PROJECT NAME:	WILLISTON-ESSEX
PROJECT NUMBER:	STPG SGNL(46)
FILE NAME: t151017rm.dgn	PLOT DATE: 3/21/2017
PROJECT LEADER: M. LACROIX	DRAWN BY: K. RECORD
DESIGNED BY: K. RECORD	CHECKED BY: M. LACROIX
BORING LOG SHEET 4	SHEET 11 OF 66