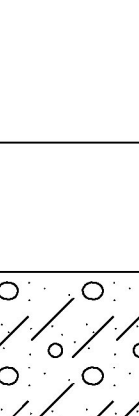
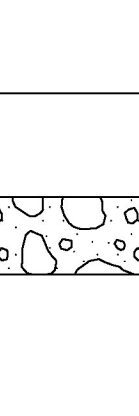


		STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: B-109		
				Williston-Essex STP SGNL(46) VT 2A		Page No.: 1 of 1		
						Pin No.: 15t017		
						Checked By: ZMH		
Boring Crew: JUDKINS, GARROW, COLETTI				Casing		Sampler		
Date Started: 5/10/16 Date Finished: 5/16/16				Type: WB		SS		
VTSPG NAD83: N 732589.46 ft E 1487410.01 ft				I.D.: 4 in		1.5 in		
Station: 207+59.70 Offset: 74.30				Hammer Wt: N.A.		140 lb.		
Ground Elevation: 497.2 ft				Hammer Fall: N.A.		30 in.		
				Hammer/Rod Type: Auto/AWJ				
				Rig: CME 45C TRACK		CE = 1.41		
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)		Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-4, GrSaSi, brn-gry, Moist, Rec. = 1.2 ft		2-3-4-5 (7)	17.6	21.2	36.2	42.6
		A-4, SaSi, Lt/brn-gry, Moist, Rec. = 1.3 ft		6-7-7-9 (14)	12.3	13.1	34.8	52.1
		A-4, SaSi, Lt/brn-gry, Moist, Rec. = 1.3 ft		10-10-10-10 (R)	12.6	15.2	29.2	55.6
10		A-4, SaSi, Lt/brn-Lt/gry, Moist, Rec. = 1.2 ft, Lab Note: Broken rock was within sample		21-13-14-19 (27)	12.4	18.9	35.2	45.9
		A-4, GrSaSi, Lt/brn-Lt/gry, Moist, Rec. = 1.3 ft, Lab Note: Broken rock was within sample		13-11-17-17 (28)	12.8	23.0	24.8	52.2
		Field Note:, NXDC, through boulder						
15		Field Note:, NXDC, cleaned out casing						
		A-2-4, SiGrSa, Lt/brn-Lt/gry, Moist, Rec. = 1.3 ft, Lab Note: Broken rock was within sample		22-31-27-27 (58)	10.9	39.9	33.8	26.3
		Field Note:, NXDC, cleaned out casing						
20		A-1-b, SiSaGr, brn-gry, Moist, Rec. = 0.9 ft, Lab Note: Broken and weathered rock was within sample.		48-48-48-48 (R)	15.2	42.0	33.5	24.5
		Field Note:, NXDC, cleaned out casing						
		Visual Description:, Broken and weathered rock, gry, Moist, Rec. = 0.1 ft, Lab Note: Insufficient sample size for testing.		R@1"				
25		Remarks: Hole Collapsed at 15.9 feet.						
		Hole stopped @ 25.1 ft						
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. <<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.								

		STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: B-110					
				Williston-Essex STP SGNL(46) VT 2A		Page No.: 1 of 1					
						Pin No.: 15t017					
						Checked By: ZMH					
Boring Crew: NIETO, GARROW, COLETTI				Casing		Sampler					
Date Started: 5/11/16 Date Finished: 5/11/16				Type: WB		SS					
VTSPG NAD83: N 732535.09 ft E 1487471.10 ft				I.D.: 4 in		1.5 in					
Station: 208+79.00 Offset: 44.50				Hammer Wt: N.A.		140 lb.					
Ground Elevation: 500.8 ft				Hammer Fall: N.A.		30 in.					
				Hammer/Rod Type: Auto/AWJ							
				Rig: CME 45C TRACK		CE = 1.41					
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)		Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-1-b, SaGr, brn, Moist, Rec. = 8.0 ft, Lab Note: Grass and grass roots were within sample.					2-3-2-2 (5)	10.6	43.7	41.9	14.4
		A-4, GrSaSi, brn-gry, Moist, Rec. = 0.9 ft					2-5-6-6 (11)	13.7	23.5	35.2	41.3
		A-4, GrSaSi, gry-brn, Moist, Rec. = 1.6 ft					5-6-6-7 (12)	12.6	22.0	30.8	47.2
10		A-2-4, SaSiGr, Lt/gry-brn, Moist, Rec. = 1.2 ft					7-7-15-35 (22)	11.0	39.6	26.8	33.6
		A-1-b, SaGr, Lt/gry-Lt/brn, Moist, Rec. = 0.4 ft					R@5" (R)	9.4	49.2	33.4	17.4
15		12.5 ft - 17.5 ft, Light green/gray, Phyllite, with quartz veins. Penetrative brown and rust staining on joints. Vugs present from 12.8 to 13.6 ft. Near verticle fractures at 15.4 to 15.7 ft and 16.7 to 16.9 ft. Vuggy section is slightly weathered.. Moderately hard, Slightly weathered, Poor rock, NXMDC, RMR=30.		R-1 (45-50)	98 (14)	2					
20		17.5 ft - 22.5 ft, Light green/gray, Phyllite, with quartz veins. Yellow and rust staining along joints and few slickensides.. Moderately hard, Slightly to moderately weathered, Fair rock, NXMDC, RMR=41		R-2 (45)	76 (29)	4					
25		Hole stopped @ 22.5 ft									
		Remarks: Hole collapsed at 15.6 feet.									
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. <<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.											

PROJECT NAME:	WILLISTON-ESSEX
PROJECT NUMBER:	STPG SGNL(46)
FILE NAME: t15t017rm.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 5	SHEET 12 OF 66