



STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

ESSEX
STPG 030-1(22)
VT-15, TH-4 MAST ARMS

Boring No.: **B-101**
Page No.: **1 of 1**
Pin No.: **13B434**
Checked By: **CEE**

Boring Crew: DIAGNEAULT, HOOK
Date Started: 3/09/15 Date Finished: 3/09/15
VTSPG NAD83: N 732777.33 ft E 1495596.91 ft
Station: 297+23.7 Offset: -31.20
Ground Elevation: 487.5 ft

Type: H.S.A. Sampler SS
I.D.: 4 in 1.5 in
Hammer Wt: N.A. 140 lb.
Hammer Fall: N.A. 30 in.
Hammer/Rod Type: Auto/AWJ
Rig: CME 45C TRACK C_r = 1.34

Groundwater Observations

Date	Depth (ft)	Notes
03/09/15	24.6	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
5		A-2-4, SiSa, grn-brn, Moist, Rec. = 2.0 ft, Field Note: High blow counts due to frost.	10-50-45-34 (95)	15.3	19.0	53.1	27.9		
		A-2-4, SiSa, grn-brn, Moist, Rec. = 1.4 ft	20-9-7-3 (16)	11.1	11.6	55.6	32.8		
		A-2-4, Sa, brn, Moist, Rec. = 1.5 ft	3-3-2-3 (5)	9.9	0.2	83.6	16.2		
		A-2-4, Sa, brn, Moist, Rec. = 1.4 ft	2-3-3-4 (6)	10.8	0.6	86.1	13.3		
10		A-4, SiSa, orange-brn, MTW, Rec. = 1.4 ft	5-7-6-5 (13)	25.6		58.5	41.5		
		A-4, SiSa, orange-brn, Wet, Rec. = 1.0 ft	3-3-2-3 (5)	33.9	0.2	55.8	44.0		
		A-4, Si, brn, MTW, Rec. = 1.0 ft		34.0		3.7	96.3		
		A-4, SaSi, orange-brn, MTW, Rec. = 2.0 ft	3-2-2-4 (4)	29.4		37.8	62.2		
15		A-4, Si, orange-brn, MTW, Rec. = 1.4 ft	WH-1-2-3 (3)	35.9	0.7	7.0	92.3	29	1
20		A-4, Si, gry-brn, MTW, Rec. = 0.6 ft	WH-WH-1-1 (1)	34.5		4.8	95.2		
25		A-7-6, Cl, gry, MTW, Rec. = 2.0 ft	WH-1-1-1 (2)	48.5		1.4	98.6	50	26
Hole stopped @ 27.0 ft									
30		Remarks: 1. Hole collapsed at 5.8 feet.							

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C 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.

BORING LOG 2 ESSEX STPG 030-1(22).GPJ VERMONT AOT.GDT 4/27/15



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BORING LOG

ESSEX
 STPG 030-1(22)
 VT-15, TH-4 MAST ARMS

Boring No.: **B-102**
 Page No.: 1 of 1
 Pin No.: 13B434
 Checked By: CEE

Boring Crew: JUDKINS, HOOK, NIETO
 Date Started: 3/26/15 Date Finished: 3/26/15
 VTSPG NAD83: N 732748.85 ft E 1495653.16 ft
 Station: 297+89.1 Offset: -28.10
 Ground Elevation: 487.0 ft

Casing Sampler
 Type: H.S.A. SS
 I.D.: 4 in 1.5 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. 30 in.
 Hammer/Rod Type: Auto/AWJ
 Rig: CME 45C TRACK C = 1.34

Groundwater Observations		
Date	Depth (ft)	Notes
03/26/15	17.7	After drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-2-4, SiSa, Lt/brn, Moist, Rec. = 1.7 ft, Field Note: High blow counts due to frost.	12-19-17-7 (36)	16.9	14.1	57.8	28.1
		A-2-4, SiSa, Lt/brn, Moist, Rec. = 1.1 ft	2-3-2-2 (5)	10.9	16.3	59.4	24.3
		A-2-4, SiSa, Lt/brn, Moist, Rec. = 0.5 ft	2-5-3-2 (6)	11.8	16.6	60.8	22.6
10		A-1-b, SaGr, Lt/brn, Wet, Rec. = 0.4 ft, Lab Note: Lots of Broken Rock was within sample.	1-2-1-1 (3)	16.9	54.3	29.2	16.5
		A-2-4, SiGrSa, Lt/brn, Wet, Rec. = 0.9 ft, Lab Note: Broken Rock was within sample.	3-3-3-6 (6)	24.9	23.2	53.8	23.0
		A-4, SiSa, Lt/brn, MTW, Rec. = 1.1 ft, Lab Note: Sample tested (NP).	3-3-3-4 (6)	30.2	0.5	62.3	37.2
		A-4, SaSi, gry-brn, MTW, Rec. = 1.7 ft, Lab Note: Sample tested (NP).	1-1-2-1 (3)	30.9	2.4	26.9	70.7
15		A-4, SaSi, gry-brn, MTW, Rec. = 1.7 ft, Lab Note: Sample tested (NP).	WH-1-1-3 (2)	32.3	0.2	4.1	95.7
20		A-4, SaSi, gry, Wet, Rec. = 1.9 ft, Lab Note: Sample tested (NP).	WR-1-2-2 (3)	27.9		26.6	73.4
25		A-4, Si, gry, Wet, Rec. = 1.5 ft, Lab Note: Sample tested (NP).	WH-1-2-2 (3)	32.6		6.2	93.8
		Hole stopped @ 25.0 ft					
		Remarks: 1. Hole collapsed at 3.9 feet.					

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 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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BORING LOG

ESSEX
STPG 030-1(22)
VT-15, TH-4 MAST ARMS

Boring No.: **B-103**
Page No.: 1 of 1
Pin No.: 13B434
Checked By: CEE

Boring Crew: DIAGNEAULT, JUDKINS, NIETO
Date Started: 2/27/15 Date Finished: 3/02/15
VTSPG NAD83: N 732685.93 ft E 1495655.11 ft
Station: 298+13.3 Offset: 30.00
Ground Elevation: 485.5 ft

Type: H.S.A. SS
I.D.: 4 in 1.5 in
Hammer Wt: N.A. 140 lb.
Hammer Fall: N.A. 30 in.
Hammer/Rod Type: Auto/AWJ
Rig: CME 45C SKID C_c = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
02/27/15	21.2	End of day.
03/02/15	4.2	Before drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Visual Description: Mostly Topsoil with sand, brn, Moist, Rec. = 2.0 ft, High blow counts due to frost.	20-19-22-10 (41)	21.1					
		A-3, Sa, brn, Moist, Rec. = 1.4 ft	5-6-6-7 (12)	6.5	0.1	90.1	9.8		
5		A-3, Sa, Lt/brn, Moist, Rec. = 1.5 ft	5-6-7-7 (13)	20.1		90.1	9.9		
		A-4, SiSa, brn, MTW, Rec. = 1.5 ft	5-5-5-4 (10)	28.1	0.2	56.4	43.4		
		A-4, SiSa, brn-Lt/brn, MTW, Rec. = 2.0 ft	5-1-2-1 (3)	28.5		59.8	40.2		
10		A-4, SiSa, Lt/brn, Wet, Rec. = 1.6 ft	1-2-1-1 (3)	25.6	0.2	56.9	42.9		
		A-4, Si, gry, Wet, Rec. = 2.0 ft	WH-WH-WH-WH (WH)	35.4		7.9	92.1		
15		A-4, Si, gry, Wet, Rec. = 1.8 ft	WH-WH-WH-WH (WH)	36.6		2.4	97.6		
20		A-4, Si, gry, Wet, Rec. = 1.3 ft, Lab Note: Sample was tested for Limits. (NP)	WH-1-1-1 (2)	37.0		4.9	95.1		
25		A-4, Si, gry, Wet, Rec. = 1.6 ft	WH-WH-WH-WH (WH)	33.7		0.7	99.3	27	3
		Hole stopped @ 27.0 ft							
30		Remarks: 1. Hole collapsed at 7.2 feet. 2. Attempted Tube sample at 27.0 feet. No Recovery.							

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
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BORING LOG

ESSEX
STPG 030-1(22)
VT-15, TH-4 MAST ARMS

Boring No.: B-104
Page No.: 1 of 1
Pin No.: 13B434
Checked By: CEE

Boring Crew: DIAGNEAULT, JUDKINS, HOOK
Date Started: 3/02/15 Date Finished: 3/02/15
VTSPG NAD83: N 732695.48 ft E 1495567.34 ft
Station: 10+54.5 Offset: 18.40
Ground Elevation: 488.2 ft

Type: H.S.A. Sampler SS
I.D.: 4 in 1.5 in
Hammer Wt: N.A. 140 lb.
Hammer Fall: N.A. 30 in.
Hammer/Rod Type: Auto/AWJ
Rig: CME 45C SKID C = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
03/02/15	14.0	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-2-4, SiSa, brn, Moist, Rec. = 1.3 ft, Lab Note: Broken Rock was within sample. High blow counts due to frost.	25-21-10-9 (31)	20.9	17.8	57.9	24.3
		Visual Description: Mostly Broken Rock with sand, red-brn, Moist, Rec. = 0.4 ft, Insufficient sample for testing.	6-6-3-1 (9)	1.1			
5		Visual Description: Mostly Broken Rock with sand, red-brn, Moist, Rec. = 0.3 ft, Insufficient sample for testing.	3-3-4-5 (7)	5.2			
		A-4, SaSi, brn, MTW, Rec. = 1.5 ft	5-6-6-8 (12)	25.0	1.1	26.8	72.1
		A-4, SaSi, brn, MTW, Rec. = 1.6 ft	7-6-6-5 (12)	26.0		32.5	67.5
10		A-4, SiSa, brn, MTW, Rec. = 0.7 ft	3-2-2-3 (4)	28.2	1.0	63.1	35.9
		A-4, Si, brn, Wet, Rec. = 1.7 ft	WH-WH-WH-1 (WH)	37.1		4.9	95.1
15		A-4, Si, brn-gry, Wet, Rec. = 1.8 ft	WH-WH-WH-WH (WH)	36.9		3.4	96.6
		A-4, SaSi, gry, MTW, Rec. = 1.5 ft	WH-WH-1-1 (1)	27.7		46.1	53.9
20		A-4, Si, gry, Wet, Rec. = 1.5 ft	WH-WH-1-1 (1)	34.0		4.6	95.4
25	Hole stopped @ 25.0 ft						
30	Remarks: 1. Hole collapsed at 7.2 feet.						

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
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