



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

BORING LOG

HALIFAX
STP 013-1(19)
VT-112 BR- 3&9

Boring No.: **B-101**

Page No.: 1 of 1

Pin No.: 12B522

Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS

Date Started: 9/09/13 Date Finished: 9/10/13

VTSPG NAD83: N 91265.74 ft E 1572694.14 ft

Station: 23+24 Offset: 16.10

Ground Elevation: 903.91 ft

Type: WB 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_s = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
09/10/13	12.2	AM

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 %
0.0 - 0.41		Asphalt Pavement, 0.0 ft - 0.41 ft								
0.41 - 1.0		A-1-b, GrSa, Dk/brn, Moist, Rec. = 1.0 ft				8-9-8-8 (17)	10.0	38.2	46.8	15.0
1.0 - 1.5		A-2-4, Sa, brn, Moist, Rec. = 1.0 ft				4-5-4-6 (9)	11.7	18.4	63.6	18.0
1.5 - 1.7		A-2-4, GrSa, brn, Moist, Rec. = 0.2 ft				4-4-15-19 (19)	14.1	23.0	60.0	17.0
1.7 - 2.0		Visual Description: GrSiSa with Broken Rock, Dk/brn, Moist, Rec. = 0.3 ft, Insufficient sample for testing.				24-9-6-12 (15)	8.1			
2.0 - 2.6		A-1-b, SaGr, Dk/brn, Moist, Rec. = 0.6 ft, Broken Rock was within sample. Cleaned out hole with roller cone.				14-3-11-6 (14)	16.7	53.7	32.2	14.1
2.6 - 3.2		A-1-b, GrSa, Dk/brn, Moist, Rec. = 0.6 ft, Broken Rock was within sample.				3-2-3-38 (5)	20.3	40.7	47.4	11.9
3.2 - 3.7		A-1-b, GrSa, Dk/brn, Moist, Rec. = 0.5 ft, Broken Rock was within sample.				27-R	28.9	33.0	52.8	14.2
3.7 - 13.5		13.5 ft - 15.0 ft, Light gray, Muscovite-quartz Schist, Moderately hard, Unweathered, Good rock, NXDC, RMR = 79	1 (80)	100 (93)						
13.5 - 15.0		15.0 ft - 20.0 ft, Dark gray, Biotite-muscovite-quartz Schist, Moderately hard, Unweathered, Good rock, BXGDC, RMR = 76	2 (80)	98 (76)	3					
15.0 - 17.5					4					
17.5 - 20.0					4					
20.0 - 20.0					5					
20.0 - 20.0					5					
20.0 - 22.0		Hole stopped @ 20.0 ft								
22.0 - 22.5		Remarks: 1. Hole collapsed at 9.8 ft.								

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 HALIFAX STP 013-1(19).GPF VERMONT AOT.GDT 11/25/13



STATE OF VERMONT
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BORING LOG

HALIFAX
STP 013-1(19)
VT-112 BR- 3&9

Boring No.: B-102

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Pin No.: 12B522

Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS

Date Started: 9/09/13 Date Finished: 9/09/13

VTSPG NAD83: N 91117.22 ft E 1572743.36 ft

Station: 24+79 Offset: 19.00

Ground Elevation: 907.0 ft

Type: WB 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_s = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
		No water to depth.

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 %	
2.5		A-1-b, GrSa, brn, Moist, Rec. = 1.2 ft				6-15-10-10 (25)	7.1	26.1	59.1	14.8	
		A-1-b, GrSa, brn, Moist, Rec. = 1.1 ft, Broken Rock was within sample. Cleaned out hole with roller cone.				6-10-6-12 (16)	7.3	36.8	48.0	15.2	
5.0		A-4, GrSiSa, Dk/brn, Moist, Rec. = 0.4 ft, Broken Rock was within sample.				12-R@2.5"	27.2	20.6	42.7	36.7	
		Field Note:, NXDC, Possible Cobbles or Boulders				R@0.0"					
7.5		Field Note:, Sudden drop. Possible void., Cleaned out hole with NXDC.				R@0.0"					
10.0		8.9 ft - 10.2 ft, Dark gray, Biotite-muscovite-quartz Schist, Moderately hard, Unweathered, Good rock, NXDC, RMR = 72	1 (80)	64 (64)						Top of Bedrock @ 8.9 ft	
		10.2 ft - 15.2 ft, Dark gray, Biotite-muscovite-quartz Schist, Moderately hard, Unweathered, Good rock, BXGDC, RMR = 76	2 (80)	100 (80)	5						
12.5					4						
					4						
					4						
					4						
15.0											
Hole stopped @ 15.2 ft											
17.5		Remarks: 1. Hole collapsed at 8.5 ft. 2. NXDC signifies 2.15" diameter core barrel.									
20.0											
22.5											

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
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HALIFAX
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VT-112 BR- 3&9

Boring No.: B-201
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Pin No.: 12B522
Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS
Date Started: 9/10/13 Date Finished: 9/11/13
VTSPG NAD83: N 92741.59 ft E 1571627.22 ft
Station: 32+59 Offset: 3.70
Ground Elevation: 935.26 ft

Type: WB 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
		No water to depth.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.8 ft					
		A-1-b, GrSa, brn, Moist, Rec. = 0.9 ft	19-29-R@0.0" (R)	8.9	35.5	46.1	18.4
		Field Note:, Cobble, Cleaned out hole with NXDC.					
		A-1-b, SiGrSa, brn, Moist, Rec. = 0.8 ft, Cleaned out hole with NXDC.	22-12-27-21 (39)	12.0	34.3	45.0	20.7
5		A-1-b, SaGr, brn, Moist, Rec. = 0.6 ft, Broken Rock was within sample. Cleaned out hole with NXDC.	26-27-27-16 (54)	11.9	47.9	37.5	14.6
		Visual Description:, Broken Rock with sand, gry-brn, Moist, Rec. = 0.3 ft, Cleaned out hole with NXDC.	29-23-8-15 (31)	10.3			
10		Visual Description:, Broken Rock with silty sand, gry-brn, Moist, Rec. = 0.6 ft, Cleaned out hole with NXDC.	31-16-8-8 (24)	12.1			
		A-1-b, SiGrSa, gry-brn, Moist, Rec. = 0.5 ft, Broken Rock was within sample. Cleaned out hole with NXDC.	34-23-R@2.5" (R)	13.6	36.9	42.5	20.6
		A-2-4, SiGrSa, brn, Moist, Rec. = 0.7 ft, Broken Rock was within sample. Cleaned out hole with NXDC.	25-18-20-28 (38)	11.9	22.8	56.6	20.6
15		Visual Description:, Broken Rock with silty sand, gry, Moist, Rec. = 0.2 ft	20-41-R@4.0" (R)				
		Field Note:, No Recovery, Stone in end of sampler.	23-28-31-R@5.0" (59)				
		A-2-4, Sa, brn, MTW, Rec. = 0.4 ft	6-R@0.0" (R)	19.2	8.8	75.6	15.6
20		Field Note:, NXDC, Boulder					
		Field Note:, NXDC, Refusal at 21.0 ft.	R@0.0"				
		Visual Description:, Broken Rock with silty sand, brn-gry, Moist, Rec. = 0.4 ft	30-R@3.5" (R)	18.1			
25		Hole stopped @ 23.8 ft					
		Remarks: 1. Hole collapsed at 10,3 ft. 2. NXDC signifies 2.15" diameter core barrel.					

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BORING LOG 2 HALIFAX STP 013-1(19).GPJ VERMONT AOT.GDT 11/25/13



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BORING LOG

HALIFAX
 STP 013-1(19)
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Boring No.: B-501A

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Pin No.: 12B522

Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS

Date Started: 10/14/13 Date Finished: 10/14/13

VTSPG NAD83: N 98010.92 ft E 1560369.61 ft

Station: 73+44 Offset: -16.90

Ground Elevation: 1146.18 ft

Type: WB 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
10/14/13	1.5	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 - 0.58		Asphalt Pavement, 0.0 ft - 0.58 ft					
2.5		A-2-4, GrSa, brn, Moist, Rec. = 0.6 ft, Cleaned out hole with roller cone.	4-5-10-10 (15)	11.3	40.4	45.0	14.6
5.0		A-2-4, GrSa, brn, Moist, Rec. = 0.5 ft, Cleaned out hole with roller cone.	4-3-2-4 (5)	15.2	20.1	63.0	16.9
7.5		A-2-4, GrSa, brn, Moist, Rec. = 0.7 ft, Cleaned out hole with roller cone.	5-5-5-16 (10)	15.0	22.1	61.8	16.1
7.5		Visual Description:, Broken Rock, gry, Moist, Rec. = 0.5 ft	17-5-3-2 (8)	17.2	18.6	54.5	26.9
10.0		Field Note:, No Recovery	3-1-1-1 (2)				
12.5		Visual Description:, Broken Rock with sand, brn, MTW, Rec. = 0.5 ft	3-4-R@5.0" (R)	9.6			
12.5		Visual Description:, Ground Concrete, gry, Moist, Rec. = 0.1 ft Hole stopped @ 12.4 ft					
15.0		Remarks: 1. Hole collapsed at 6.2 ft.					
17.5							
20.0							
22.5							

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BORING LOG 2 HALIFAX STP 013-1(19).GPJ - VERMONT AOT.GDT 11/25/13



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BORING LOG

HALIFAX
 STP 013-1(19)
 VT-112 BR- 3&9

Boring No.: B-501B

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Pin No.: 12B522

Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS

Date Started: 10/14/13 Date Finished: 10/14/13

VTSPG NAD83: N 98020.94 ft E 1560362.78 ft

Station: 73+32 Offset: -17.90

Ground Elevation: 1146.19 ft

Type: WB 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_r = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
10/14/13	8.2	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.48 ft					
		A-1-b, GrSa, brn, Moist, Rec. = 0.6 ft	12-15-10-14 (25)	11.1	34.1	50.2	15.7
5		Visual Description:, Broken Rock with sand, brn, Moist, Rec. = 0.5 ft, Cleaned out hole with roller cone.	12-10-10-10 (20)	8.5			
		A-2-4, GrSa, brn, Moist, Rec. = 0.7 ft, Cleaned out hole with roller cone.	5-4-6-5 (10)	15.6	25.2	58.4	16.4
		A-1-b, GrSa, brn, MTW, Rec. = 0.8 ft, Cleaned out hole with roller cone.	5-3-2-2 (5)	13.9	38.8	50.0	11.2
10		Visual Description:, GrSa, brn, Wet, Rec. = 0.2 ft, Insufficient sample for testing.	2-1-WH-4 (1)				
		A-1-b, SaGr, Dk/brn, Moist, Rec. = 0.9 ft, Cleaned out hole with roller cone.	8-7-11-19 (18)	10.9	46.1	42.8	11.1
15		Visual Description:, Broken Rock with sand, Dk/brn, MTW, Rec. = 0.5 ft, Cleaned out hole with roller cone.	18-18-40-29 (58)				
		A-2-4, SiGrSa, Lt/brn, Moist, Rec. = 0.8 ft, Cleaned out hole with roller cone.	15-30-R@2.5" (R)	12.3	26.6	48.6	24.8
		A-2-4, SiGrSa, Lt/brn, Moist, Rec. = 1.1 ft, Cleaned out hole with roller cone.	19-31-38-R@1.0" (69)	13.6	23.3	54.3	22.4
20		A-2-4, SiGrSa, Lt/brn, Moist, Rec. = 0.7 ft	25-R@5.0" (R)	14.5	29.5	49.5	21.0
		A-1-b, SaGr, brn, Moist, Rec. = 0.6 ft	41-R@5.0" (R)	10.0	44.5	41.2	14.3
		A-1-b, GrSa, brn, Moist, Rec. = 0.6 ft	32-R@5.0" (R)	12.6	29.6	50.8	19.6
25		Hole stopped @ 23.9 ft					
		Remarks: 1. Hole collapsed at 10.0 ft.					

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BORING LOG 2 HALIFAX STP 013-1(19).GPJ VERMONT AOT.GDT 11/25/13



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BORING LOG

HALIFAX
 STP 013-1(19)
 VT-112 BR- 3&9

Boring No.: **B-502**

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Pin No.: 12B522

Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS

Date Started: 9/12/13 Date Finished: 9/12/13

VTSPG NAD83: N 97944.87 ft E 1560396.34 ft

Station: 74+11 Offset: 7.90

Ground Elevation: 1147.45 ft

Type: _____ Casing WB 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_c = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
09/12/13	10.6	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.22 ft					
		A-1-b, SiSaGr, brn, Moist, Rec. = 0.6 ft, Cleaned out hole with roller cone.	4-13-13-14 (26)	8.7	47.5	27.9	24.6
		A-1-b, SiSaGr, brn, Moist, Rec. = 0.8 ft, Broken Rock was within sample. Cleaned out hole with roller cone.	11-12-11-10 (23)	8.5	56.6	22.7	20.7
5		A-2-4, GrSiSa, brn, Moist, Rec. = 0.9 ft	5-4-4-4 (8)	14.8	21.1	57.4	21.5
		Field Note:, No Recovery, Stone stuck in sampler. Cleaned out hole with roller cone.	6-5-4-5 (9)				
		Field Note:, No Recovery	4-4-2-1 (6)				
10		Field Note:, No Recovery from 11-17 feet. Very soft material. Drilling was extremely fast with no resistance., Intermittent water return with sand & silt in it.	12-1-WR-WR (1)				
			4-2-WR-WR (2)				
15			1-WH-WR-WH (WH)				
		Visual Description:, Broken Rock with sand, brn, Moist, Rec. = 0.3 ft, Insufficient sample for testing.	7-4-12-27 (16)	8.8			
		Visual Description:, Broken Rock with sand, brn, Moist, Rec. = 0.2 ft, Insufficient sample for testing.	R@2.5"	9.4			
20		Field Note:, No Recovery. Refusal at 21.2 ft.	R@2.5"				
		A-1-b, SiSaGr, gry, Moist, Rec. = 0.2 ft	R@2.5"	7.8	49.2	25.6	25.2
		Hole stopped @ 23.2 ft					
25		Remarks: 1. Hole collapsed at 11.8 ft.					

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_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 HALIFAX STP 013-1(19).GPJ VERMONT AOT.GDT 11/25/13



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BORING LOG

HALIFAX
 STP 013-1(19)
 VT-112 BR- 3&9

Boring No.: C-101
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 Pin No.: 12B522
 Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS
 Date Started: 9/10/13 Date Finished: 9/10/13
 VTSPG NAD83: N 91452.13 ft E 1572569.74 ft
 Station: 20+99 Offset: -10-9
 Ground Elevation: 900.62 ft

Casing: WB Sampler: SS
 I.D.: 4 in 3 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. 30 in.
 Hammer/Rod Type: Auto/AWJ
 Rig: CME 45C SKID C =

Groundwater Observations

Date	Depth (ft)	Notes
		No water to depth.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.48 ft					
2.5		A-1-b, SaGr, brn, Moist, Rec. = 1.5 ft	26-33-24-23	4.7	47.1	44.4	8.5
5.0		A-1-a, SaGr, brn, Moist, Rec. = 1.0 ft	38-54-42-36	5.9	61.3	30.9	7.8
		Hole stopped @ 5.0 ft					
		Remarks: 1. Driller's used a 3.0 inch split spoon sampler.					

Notes:
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Boring No.: C-102
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 Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS
 Date Started: 9/09/13 Date Finished: 9/09/13
 VTSPG NAD83: N 91122.16 ft E 1572756.03 ft
 Station: 24+80 Offset: 5.40
 Ground Elevation: 907.31 ft

Casing Sampler
 Type: WB SS
 I.D.: 4 in 3 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. 30 in.
 Hammer/Rod Type: Auto/AWJ
 Rig: CME 45C SKID C =

Groundwater Observations

Date	Depth (ft)	Notes
		No water to depth.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.58 ft					
		A-1-b, SaGr, brn, Moist, Rec. = 0.5 ft		6.0	46.7	39.1	14.2
2.5		A-1-a, SaGr, brn, Moist, Rec. = 0.4 ft, Lab Note: Broken Rock was within sample.		5.9	57.3	31.2	11.5
		A-1-b, SaGr, brn, Moist, Rec. = 0.4 ft, Lab Note: Broken Rock was within sample.	R@5.0"	10.5	48.8	35.1	16.1
		Hole stopped @ 3.4 ft CNPF					
5.0		Remarks: 1. Driller's used a 3.0 inch split spoon sampler.					
7.5							
10.0							
12.5							
15.0							
17.5							

Notes:
 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
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BORING LOG 2 HALIFAX STP 013-1(19).GFI VERMONT AOT.GDT 11/19/13



STATE OF VERMONT
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BORING LOG

HALIFAX
 STP 013-1(19)
 VT-112 BR- 3&9

Boring No.: C-201

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Pin No.: 12B522

Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS
 Date Started: 9/10/13 Date Finished: 9/10/13
 VTSPG NAD83: N 92874.31 ft E 1571592.24 ft
 Station: 31+22 Offset: -9.00
 Ground Elevation: 936.33 ft

Casing WB Sampler SS
 I.D.: 4 in 3 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. 30 in.
 Hammer/Rod Type: Auto/AWJ
 Rig: CME 45C SKID C. =

Groundwater Observations

Date	Depth (ft)	Notes
		No water to depth.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.68 ft					
2.5		A-1-b, SaGr, brn, Moist, Rec. = 1.5 ft	22-25-30-21	4.8	45.3	43.7	11.0
5.0		A-2-4, GrSa, brn, Moist, Rec. = 1.5 ft	14-22-18-12	8.5	24.0	58.2	17.8
		Hole stopped @ 5.0 ft					
7.5		Remarks: 1. Driller's used a 3.0 inch split spoon sampler.					
10.0							
12.5							
15.0							
17.5							

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 HALIFAX STP 013-1(19).GPJ VERMONT AOT.GDT 11/19/13



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BORING LOG

HALIFAX
 STP 013-1(19)
 VT-112 BR- 3&9

Boring No.: C-202
 Page No.: 1 of 1
 Pin No.: 12B522
 Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS
 Date Started: 9/10/13 Date Finished: 9/10/13
 VTSPG NAD83: N 92422.06 ft E 1571754.40 ft
 Station: 36+02 Offset: -2.80
 Ground Elevation: 924.73 ft

Type: WB SS
 I.D.: 4 in 3 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. 30 in.
 Hammer/Rod Type: Auto/AWJ
 Rig: CME 45C SKID C. =

Groundwater Observations

Date	Depth (ft)	Notes
		No water to depth.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.9 ft					
2.5		A-1-b, GrSa, brn, Moist, Rec. = 1.5 ft	13-16-15-14	5.2	41.3	46.3	12.4
		A-1-b, SaGr, brn, Moist, Rec. = 0.6 ft	13-12-5-5	8.6	47.0	38.4	14.6
5.0		A-2-4, SiSa, brn, Moist, Rec. = 0.9 ft		28.8	14.7	56.6	28.7
		Hole stopped @ 5.0 ft					
7.5		Remarks: 1. Driller's used a 3.0 inch split spoon sampler.					
10.0							
12.5							
15.0							
17.5							

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 HALIFAX STP 013-1(19).GFJ VERMONT AOT.GDT 11/19/13



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BORING LOG

HALIFAX
 STP 013-1(19)
 VT-112 BR- 3&9

Boring No.: C-301

Page No.: 1 of 1

Pin No.: 12B522

Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS

Date Started: 9/11/13 Date Finished: 9/11/13

VTSPG NAD83: N 94295.61 ft E 1570114.54 ft

Station: 52+12 Offset: -13.30

Ground Elevation: 949.1 ft

Type:	Casing	Sampler
I.D.:	<u>WB</u>	<u>SS</u>
Hammer Wt:	<u>4 in</u>	<u>3 in</u>
Hammer Fall:	<u>N.A.</u>	<u>140 lb.</u>
Hammer/Rod Type:	<u>N.A.</u>	<u>30 in.</u>
Rig:	<u>Auto/AWJ</u>	
	<u>CME 45C SKID</u>	<u>C =</u>

Groundwater Observations

Date	Depth (ft)	Notes
		No water to depth.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.48 ft					
2.5		A-1-b, SaGr, brn, Moist, Rec. = 1.5 ft	9-11-9-11	6.3	46.0	45.0	9.0
5.0		A-1-b, SaGr, brn, Moist, Rec. = 1.4 ft	7-18-43-15	7.6	51.3	38.6	10.1
		Hole stopped @ 5.0 ft					
7.5		Remarks: 1. Driller's used a 3.0 inch split spoon sampler.					
10.0							
12.5							
15.0							
17.5							

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 HALIFAX STP 013-1(19).GPFJ VERMONT AOT.GDT 11/19/13



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BORING LOG

HALIFAX
 STP 013-1(19)
 VT-112 BR- 3&9

Boring No.: C-302

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Pin No.: 12B522

Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS
 Date Started: 9/11/13 Date Finished: 9/11/13
 VTSPG NAD83: N 94271.31 ft E 1570117.31 ft
 Station: 52+26 Offset: 6.20
 Ground Elevation: 949.65 ft

Type: WB SS
 I.D.: 4 in 3 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. 30 in.
 Hammer/Rod Type: Auto/AWJ
 Rig: CME 45C SKID C =

Groundwater Observations

Date	Depth (ft)	Notes
		No water to depth.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.4 ft					
2.5		A-1-a, SaGr, brn, Moist, Rec. = 1.5 ft	14-32-34-25	5.3	53.4	38.6	8.0
		A-1-a, SaGr, brn, Moist, Rec. = 0.8 ft	25-36-38-80	12.3	55.7	36.7	7.6
5.0		A-4, GrSaSi, brn, Moist, Rec. = 0.8 ft		8.7	27.2	34.2	38.6
		Hole stopped @ 5.0 ft					
7.5		Remarks: 1. Driller's used a 3.0 inch split spoon sampler.					
10.0							
12.5							
15.0							
17.5							

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 HALIFAX STP 013-1(19).GPJ VERMONT AOT.GDT 11/19/13



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BORING LOG

HALIFAX
 STP 013-1(19)
 VT-112 BR- 3&9

Boring No.: C-401
 Page No.: 1 of 1
 Pin No.: 12B522
 Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS
 Date Started: 9/11/13 Date Finished: 9/11/13
 VTSPG NAD83: N 96740.29 ft E 1561897.07 ft
 Station: 61+59 Offset: 2.20
 Ground Elevation: 1123.94 ft

Casing WB Sampler SS
 I.D.: 4 in 3 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. 30 in.
 Hammer/Rod Type: Auto/AWJ
 Rig: CME 45C SKID C =

Groundwater Observations		
Date	Depth (ft)	Notes
		No water to depth.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.61 ft					
		A-1-b, GrSa, brn, Moist, Rec. = 0.5 ft	42-R@2.5"	4.3	41.0	49.2	9.8
2.5		Hole stopped @ 1.7 ft CNPF					
5.0		Remarks: 1. Driller's used a 3.0 inch split spoon sampler.					
7.5							
10.0							
12.5							
15.0							
17.5							

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 HALIFAX STP 013-1(19).GPJ VERMONT AOT.GDT 11/19/13



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BORING LOG

HALIFAX
 STP 013-1(19)
 VT-112 BR- 3&9

Boring No.: **C-402**

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Pin No.: 12B522

Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS
 Date Started: 9/11/13 Date Finished: 9/11/13
 VTSPG NAD83: N 96618.00 ft E 1562184.82 ft
 Station: 64+70 Offset: -14.90
 Ground Elevation: 1122.3 ft

Type: _____
 I.D.: _____
 Hammer Wt: _____
 Hammer Fall: _____
 Hammer/Rod Type: _____
 Rig: _____

Casing WB Sampler SS
4 in 3 in
N.A. 140 lb.
N.A. 30 in.
Auto/AWJ
CME 45C SKID C =

Groundwater Observations

Date	Depth (ft)	Notes
		No water to depth.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Groundwater Observations				
			Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.48 ft					
2.5		A-1-a, SaGr, brn, Moist, Rec. = 1.7 ft	23-29-41-43	3.6	54.1	37.7	8.2
5.0		A-1-b, SaGr, brn, Moist, Rec. = 1.7 ft	50-42-47-30	4.4	50.8	40.1	9.1
		Hole stopped @ 5.0 ft					
7.5		Remarks: 1. Driller's used a 3.0 inch split spoon sampler.					
10.0							
12.5							
15.0							
17.5							

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.



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HALIFAX
 STP 013-1(19)
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Boring No.: C-501
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 Pin No.: 12B522
 Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS
 Date Started: 10/14/13 Date Finished: 10/14/13
 VTSPG NAD83: N 98110.14 ft E 1560287.56 ft
 Station: 72+14 Offset: -6.60
 Ground Elevation: 1147.82 ft

Casing WB Sampler SS
 I.D.: 4 in 3 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. 30 in.
 Hammer/Rod Type: Auto/AWJ
 Rig: CME 45C SKID C =

Groundwater Observations		
Date	Depth (ft)	Notes

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 - 0.5		Asphalt Pavement, 0.0 ft - 0.5 ft					
2.5		A-1-b, SaGr, brn, Moist, Rec. = 1.7 ft	50-124-154-197	4.3	48.6	43.0	8.4
5.0		A-1-b, GrSa, Dk/brn, Moist, Rec. = 2.0 ft	65-96-74-72	6.0	44.0	46.2	9.8
5.0 - 17.5		Hole stopped @ 5.0 ft					

Remarks:
 1. Driller's used a 3.0 inch split spoon sampler.

- Notes:
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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 No.: C-502
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 Pin No.: 12B522
 Checked By: TDE

Boring Crew: DAIGNEAULT, JUDKINS
 Date Started: 9/12/13 Date Finished: 9/12/13
 VTSPG NAD83: N 97821.54 ft E 1560562.89 ft
 Station: 76+18 Offset: 4.30
 Ground Elevation: 1144.5 ft

Casing WB Sampler SS
 I.D.: 4 in 3 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. 30 in.
 Hammer/Rod Type: Auto/AWJ
 Rig: CME 45C SKID C =

Groundwater Observations

Date	Depth (ft)	Notes
		No water to depth.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.38 ft					
2.5		A-1-b, SaGr, brn, Moist, Rec. = 1.7 ft	51-65-93-58	4.6	46.7	44.1	9.2
5.0		A-1-b, GrSa, brn, Moist, Rec. = 1.4 ft	38-66-53-45	7.9	38.9	48.5	12.6
5.0	Hole stopped @ 5.0 ft						
7.5	Remarks: 1. Driller's used a 3.0 inch split spoon sampler.						

Notes:
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 2. N Values have not been corrected for hammer energy. C is the hammer energy correction factor.
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