



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

BORING LOG

ENOSBURG  
BRO 1448(40)  
TH-2 BR-48

Boring No.: B-101  
Page No.: 1 of 1  
Pin No.: 12J168  
Checked By: CAA

Boring Crew: GARROW, JUDKINS, WHITLOCK  
Date Started: 10/23/12 Date Finished: 10/23/12  
VTSPG NAD83: N 861193.20 ft E 1572945.10 ft  
Station: 11+95 Offset: 17.30  
Ground Elevation: 557.11 ft

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 55 TRACK CE = 1.46

Groundwater Observations

Date	Depth (ft)	Notes
10/24/12	10.9	

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-2-4, GrSiSa, brn, Moist, Rec. = 0.8 ft				WH-1-1-WH (2)	21.5	23.8	47.0	29.2	
		A-2-4, SiGrSa, brn, Moist, Rec. = 1.2 ft				1-2-3-2 (5)	19.9	31.6	43.8	24.6	
10		A-1-a, SaGr, gry-brn, Moist, Rec. = 1.6 ft, Lab Note: Rounded & Fractured Rocks were within sample.				22-11-21-23 (32)	13.0	57.6	32.4	10.0	
		Lab Note, Multiple types of large pieces of fractured rock (Cobbles), gry-yel, Moist					0.8	99.5	0.2	0.3	
15		12.0 ft - 17.0 ft, Silvery-green, Quartz-muscovite-chlorite Schist, Moderately hard, Unweathered, NXMDC, RMR = 79; Good rock.	1 (80)	100 (90)	5	Top of Bedrock @ 12.0 ft					
					4						
					4						
					5						
20		Hole stopped @ 17.0 ft									
		Remarks: 1. Lost water at 7.0 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. CE is the hammer energy correction factor.  
3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 ENOSBURG BRO 1448(40).GPJ VERMONT AOTI.GDT 12/17/12



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BORING LOG

ENOSBURG  
BRO 1448(40)  
TH-2 BR-48

Boring No.: B-102  
Page No.: 1 of 1  
Pin No.: 12J168  
Checked By: CAA

Boring Crew: GARROW, JUDKINS, WHITLOCK  
Date Started: 10/26/12 Date Finished: 10/26/12  
VTSPG NAD83: N 861201.10 ft E 1572920.30 ft  
Station: 11+92 Offset: -8.60  
Ground Elevation: 558.0 ft

Casing 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 55 TRACK CE = 1.46

Groundwater Observations

Date	Depth (ft)	Notes

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-1-a, SaGr, brn-gry, Moist, Rec. = 1.1 ft, Lab Note: Broken Rock was within sample.				2-2-5-40 (7)	5.4	56.2	28.9	14.9
5		A-1-a, SaGr, gry, Dry, Rec. = 0.6 ft, Lab Note: Broken Rock was within sample.				1-1-16-R (17)	4.6	61.6	26.4	12.0
		Field Note:, NXDC, Cobbles								
10		Visual Description:, Broken Rock with silty sand, gry, Moist, Rec. = 0.2 ft, Material similar to 3-4.9 ft., Insufficient sample for testing. Field Note:, NXDC, Boulder				(R)	8.4			
15		A-1-b, SaGr, Dk/gry, Moist, Rec. = 0.8 ft, Lab Note: Broken Rock was within sample.				11-28-16-16 (44)	9.9	60.2	20.4	19.4
		Field Note:, NXDC, Cobbles								
20		A-2-4, SaSiGr, gry, Moist, Rec. = 0.2 ft, Lab Note: Some Broken Rock was within sample.				11-11-30-R (41)	10.4	36.7	29.6	33.7
		Field Note:, NXDC								
25		22.5 ft - 27.5 ft, Silvery-green, Quartz-muscovite-chlorite Schist, Moderately hard, NXMDC, Unweathered from 22.5-25.3 ft., Moderately Weathered from 25.3-25.9 ft., RMR = 72 ; Good rock.	1 (80-90)	82 (72)	7					
					5	Top of Bedrock @ 22.5 ft				
					6					
					7					
					7					
		Hole stopped @ 27.5 ft								

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
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3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 ENOSBURG BRO 1448(40).GPJ VERMONT AOT.GDT 12/17/12



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BORING LOG

ENOSBURG  
 BRO 1448(40)  
 TH-2 BR-48

Boring No.: B-103  
 Page No.: 1 of 1  
 Pin No.: 12J168  
 Checked By: CAA

Boring Crew: GARROW, JUDKINS, WHITLOCK  
 Date Started: 10/23/12 Date Finished: 10/23/12  
 VTSPG NAD83: N 861150.60 ft E 1572883.70 ft  
 Station: 11+31 Offset: -21.70  
 Ground Elevation: 549.88 ft

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 55 TRACK CE = 1.46

Groundwater Observations

Date	Depth (ft)	Notes

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 %
		A-1-b, Sa, brn, Moist, Rec. = 0.8 ft				WH-1-1-1 (2)	17.3	18.2	64.0	17.8
5		A-1-b, SaGr, brn, Moist, Rec. = 0.6 ft				5-1-3-5 (4)	15.1	53.7	32.4	13.9
10		Field Note: No Recovery				(R)				
15		A-1-b, Gr, gry, Moist, Rec. = 0.1 ft, Lab Note: Broken Rock was within sample.				R@2.5"	7.8	71.1	10.8	18.1
15		Field Note: Soft Broken Rock 13.2-14 ft., Possible top of bedrock. 14.0 ft - 19.0 ft, Silvery-green, Quartz-muscovite-chlorite Schist, Moderately hard, Unweathered, NXMDC, RMR = 76; Good rock.	1 (80)	96 (80)	5 6 6 7 6	Top of Bedrock @ 14.0 ft				
20	Hole stopped @ 19.0 ft									
25										

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BORING LOG

ENOSBURG  
BRO 1448(40)  
TH-2 BR-48

Boring No.: B-104  
Page No.: 1 of 1  
Pin No.: 12J168  
Checked By: CAA

Boring Crew: GARROW, JUDKINS, WHITLOCK  
Date Started: 10/24/12 Date Finished: 10/24/12  
VTSPG NAD83: N 861117.90 ft E 1572878.10 ft  
Station: 10+99 Offset: -13.70  
Ground Elevation: 557.4 ft

Casing 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 55 TRACK CE = 1.46

Groundwater Observations

Date	Depth (ft)	Notes

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		A-1-b, GrSa, Dk/brn, Moist, Rec. = 0.9 ft				1-2-3-4 (5)	12.3	37.8	45.8	16.4
5										
8		A-1-a, Gr, gry, Moist, Rec. = 0.8 ft, Lab Note: Sample was mostly Broken Rock.				8-9-R@0.0" (R)	7.8	70.3	19.5	10.2
11		A-1-a, SaGr, gry, Moist, Rec. = 0.3 ft, Lab Note: Sample was mostly Broken Rock.				11-6-4-2 (10)	7.7	72.2	20.2	7.6
16										
16.5		A-2-4, SiSa, gry, Moist, Rec. = 0.2 ft, Lab Note: Broken Rock was within sample.	1 (80-90)	90 (0)	1	R@2.5" Top of Bedrock @	18.3	15.5	53.1	31.4
16.5		16.5 ft - 21.5 ft, Silvery-green, Quartz-muscovite-chlorite Schist, with quartz rich zones. Moderately hard, Unweathered, NXMDC, RMR = 62; Good rock.			2					
20					2					
20					3					
20					3					
21.5		21.5 ft - 26.5 ft, Silvery-green, Quartz-muscovite-chlorite Schist, with quartz rich zones. Moderately hard, Unweathered, NXMDC, RMR = 72; Good rock.	2 (80-90)	90 (50)	2					
25					7					
25					6					
25					4					
25					3					

Hole stopped @ 26.5 ft

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BORING LOG 2 ENOSBURG BRO 1448(40).GPFJ VERMONT AOT.GDT 12/17/12



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BORING LOG

ENOSBURG  
BRO 1448(40)  
TH-2 BR-48

Boring No.: B-105  
Page No.: 1 of 1  
Pin No.: 12J168  
Checked By: CAA

Boring Crew: GARROW, JUDKINS, WHITLOCK  
Date Started: 11/02/12 Date Finished: 11/02/12  
VTSPG NAD83: N 861107.90 ft E 1572899.80 ft  
Station: 10+98.5 Offset: 10.20  
Ground Elevation: 558.19 ft

Casing 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 55 TRACK CE = 1.46

Groundwater Observations

Date Depth (ft) Notes

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Field Note:, Asphalt Pavement								
		A-1-a, SaGr, brn, Moist, Rec. = 0.3 ft, Asphalt Pavement was within sample.				4-R (R)	7.2	56.5	29.7	13.8
		A-4, GrSaSi, brn, Moist, Rec. = 1.1 ft				6-5-4-5 (9)	15.9	27.1	31.1	41.8
5										
		Field Note:, NXDC, Gravel								
		Visual Description:, GrSaSi, brn, Moist, Rec. = 0.1 ft, Material similar to 2-4 ft., Insufficient sample for testing.				3-2-1-1 (3)	13.8			
10										
		Field Note:, NXDC, Gravel								
		A-1-b, SaGr, brn, Moist, Rec. = 0.8 ft				14-13-24-19 (37)	11.1	53.1	32.1	14.8
15										
		Lab Note, NXDC, Gravel								
		A-1-b, SaGr, brn, Moist, Rec. = 0.5 ft, Lab Note: Broken Rock was within sample.				10-12-7-4 (19)	9.5	49.8	33.2	17.0
20										
		20.3 ft - 25.3 ft, Silvery-green, Quartz-muscovite-chlorite Schist, Moderately hard, Unweathered, NXMDC, RMR = 76; Good rock.	1 (80-90)	92 (76)	3	Top of Bedrock @ 20.3 ft				
					3					
					2					
					3					
					3					
25										
		Hole stopped @ 25.3 ft								

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