

Boring Crew: JUDKINS, HOOK, NIETO
 Date Started: 1/31/14 Date Finished: 2/10/14
 VTSPG NAD83: N 787581.20 ft E 1678684.90 ft
 Station: 12+82 Offset: -16.00
 Ground Elevation: 1025.0 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 45C TRACK C_s = 1.34

Groundwater Observations

Date	Depth (ft)	Notes
02/10/14	9.5	AM
02/10/14	4.2	Casing removed.

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 %
		A-1-b, SiGrSa, Dk/brn, Moist, Rec. = 0.7 ft				2-1-1-1 (2)	28.6	33.2	44.3	22.5
		A-2-4, SiSa, Dk/brn, Moist, Rec. = 0.9 ft, NXDC, Cleaned out casing.				7-4-3-3 (7)	13.4	18.5	53.9	27.6
		A-2-4, GrSiSa, Dk/brn, MTW, Rec. = 0.6 ft, NXDC, Cleaned out casing.				7-2-2-2 (4)	16.3	23.2	50.2	26.6
5		A-4, SiSa, Dk/brn, MTW, Rec. = 0.4 ft				3-8-17-21 (25)	16.6	18.3	41.2	40.5
		A-4, GrSiSa, Dk/brn, Moist, Rec. = 1.0 ft, NXDC, Cleaned out casing.				11-12-15-14 (27)	13.2	20.7	42.1	37.2
10		A-4, SiSa, Dk/brn, Moist, Rec. = 0.6 ft				33-33-31-R@2.5" (64)	11.2	16.4	43.7	39.9
		Field Note: NXDC, Cleaned out casing.				33-43-R@2.5" (R)	9.8	19.6	30.9	49.5
		A-4, SaSi (HP), gry, Moist, Rec. = 0.8 ft, Lab Note: A few pieces of Broken Rock were within sample.				25-46-R@5.0" (R)	10.5	18.6	27.1	54.3
15		A-4, SaSi (HP), gry, Moist, Rec. = 1.2 ft				39-49-R@1.0" (R)	11.7	18.2	28.1	53.7
		Field Note: NXDC, Cleaned out casing.				43-R@6.0" (R)	14.8	7.5	21.9	70.6
		A-4, SaSi (HP), gry, Moist, Rec. = 0.7 ft				40-46-R@1.0" (R)	13.0	16.2	24.8	59.0
		Field Note: NXDC, Cleaned out casing.								
		A-4, SaSi (HP), gry, Moist, Rec. = 0.3 ft								
		Field Note: NXDC, Cleaned out casing.								
20		A-4, SaSi (HP), gry, Moist, Rec. = 0.8 ft								
25		24.0 ft - 25.0 ft, Bluish-gray, Micaceous quartz-rich Limestone, Moderately hard, Unweathered, Fair rock, NXDC, RMR = 44	1 (30)	90 (0)	6					
		25.0 ft - 29.0 ft, Dark-gray to silvery-gray, Lustrous, carbonaceous muscovite-biotite-quartz (+/- garnet) Phyllite, and Dark-bluish-gray Micaceous quartz-rich Limestone. Medium to moderately hard, Unweathered, Fair rock, NXMDC, RMR = 49	2 (30)	95 (70)	4					
					4					
					5					
		29.0 ft - 34.0 ft, Dark-gray to silvery-gray, Lustrous, carbonaceous muscovite-biotite-quartz (+/- garnet) Phyllite, and Dark-bluish-gray Micaceous quartz-rich Limestone. Medium to moderately hard, Unweathered, Fair rock, NXMDC, RMR = 53	3 (30)	98 (86)	4					
					3					
					3					
					4					
					3					
35		Hole stopped @ 34.0 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. 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.

ABUT. 2 BTM.
 ELEV. 1018.25

EST. LENGTH = 22.25'

EST. PILE TIP
 ELEV. 996.00

BORING LOG 2 CRAFTSBURY BO 1449(34) GPJ VERMONT AOT.GDT 3/20/14

Boring Crew: DAIGNEAULT, HOOK, JUDKINS
 Date Started: 2/24/14 Date Finished: 2/26/14
 VTSPG NAD83: N 787507.50 ft E 1678701.40 ft
 Station: 12+12 Offset: 10.00
 Ground Elevation: 1022.0 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 45C SKID C_s = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
02/26/14	12.4	While drilling.
02/27/14	13.2	AM, Open Hole.

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 %
		A-2-4, GrSiSa, brn, Moist, Rec. = 1.5 ft, Cleaned out casing with roller cone.				8-34-34-R@2.5" (68)	13.9	21.2	57.3	21.5
		A-2-4, SiSa, brn, Moist, Rec. = 0.9 ft				2-5-3-2 (8)	21.5	12.7	65.0	22.3
5		A-2-4, SiSa, brn, Moist, Rec. = 1.1 ft, Cleaned out with roller cone.				2-1-1-2 (2)	16.2	12.1	63.0	24.9
		Field Note: Appears to be Silty Sand, No Recovery.				3-WR-1-1 (1)				
		Field Note: Cleaned out casing with roller cone., Casing dropped to 9.5 feet during clean out.				12-2-2-3 (4)	24.8	21.7	51.4	26.9
10		A-2-4, GrSiSa, brn, MTW, Rec. = 0.9 ft								
		Field Note: NXDC, Lost water return at 12.5 ft.								
		Field Note: NXDC								
15		Field Note: NXMDC, Silty Sand (HP), Cleaned out casing.								
20		A-1-a, SaGr (HP), gry, Moist, Rec. = 0.4 ft, Lab Note: Broken Rock was within sample.				10-R@3.5" (R)	8.9	60.3	26.2	13.5
		Field Note: NXDC								
25		Visual Description: Broken Rock with silt & sand, gry, Moist, Rec. = 0.2 ft, Insufficient sample for testing.				R@3.5" (R)	7.2			
		Field Note: Cleaned out casing with roller cone.								
30		A-4, SaSi (HP), gry, Moist, Rec. = 1.1 ft				39-49-R@1.0" (R)	15.0	7.2	31.1	61.7
		Field Note: Cleaned out casing with roller cone.				R@1.0" (R)	15.5	60.3	27.7	12.0
35		Visual Classification, Broken Rock with sand, gry, Moist, Rec. = 0.1 ft, Lab Note: Sample was mostly small pieces of Broken Rock. Core bit broke off.	1 (30)	78 (24)	5					
		35.1 ft - 40.1 ft, Dark-gray to silvery-gray, Lustrous, carbonaceous muscovite-biotite-quartz (+/- garnet) Phyllite, and Dark-bluish-gray Micaceous quartz-rich Limestone. Medium to moderately hard, Unweathered, Fair rock, NXMDC, RMR = 53			6					
		40.1 ft - 43.1 ft, Bluish-gray, Micaceous quartz-rich Limestone, Moderately hard, Unweathered, Fair rock, NXMDC, RMR = 58	2 (30)	87 (87)	3					
		Hole stopped @ 43.1 ft			3					
45		Remarks: 1. Hole collapsed at 23.1 ft. 2. Core barrel bit broke. Bit is still in hole at 43.1 ft.								

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.

ABUT. 1 BTM.
 ELEV. 1014.00

EST. LENGTH = 27.10'

EST. PILE TIP
 ELEV. 986.90

BORING LOG 2 CRAFTSBURY BO 1449(34) GPJ VERMONT AOT.GDT 3/20/14