



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

BORING NUMBER: B-101
 SHEET 1 of 1
 DATE STARTED: 2/02/10
 DATE COMPLETED: 2/23/10

PROJECT NAME: SPRINGFIELD
 SITE NAME: TH-6
 STATION: 11+47
 OFFSET: -6.50
 VTSPG NAD83: N 303927.40 ft E 1631019.28 ft

PROJECT NUMBER: BRO 1442(26)
 SITE NUMBER: BR-57
 GROUND ELEVATION: 560.74 ft
 GROUNDWATER DEPTH: 16.7 ft 2/04/10
 PROJECT PIN NUMBER: 95J282

BORING CREW
 CREW CHIEF: GARROW
 DRILLER: GARROW
 LOGGER: MAHMUTOVIC

BORING RIG: LARGE SKID RIG w/AUTO HAMMER
 BORING TYPE: WASH BORE
 SAMPLE TYPE: SPLIT BARREL
 CHECKED BY: CAA

DEPTH (ft)	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER FOOT	M.C. (%)	GRAVEL (%)	SAND (%)	FINES (%)
			RUN	REC (%)	RQD (%)	Dip (deg)	Drill Rate (min/ft)
		Asphalt Pavement, 0.0 ft - 0.2 ft					
		Concrete, 0.2 ft - 1.5 ft					
		Field Note:, BXDC, Cobbles, Cleaned out casing.					
		A-1-b, SaGr, brn, MTW, Rec. = 0.6 ft	8	11.1	54.0	34.3	11.7
10		Field Note:, BXDC, Cobbles					
		Field Note:, No Recovery	11				
20		A-3, Sa, brn, Wet, Rec. = 1.2 ft	13	25.9	0.2	89.7	10.1
		A-1-b, GrSa, brn, Wet, Rec. = 0.8 ft	49	12.3	41.5	45.2	13.3
30		Field Note:, BXDC, Cobbles, Cleaned out casing.					
		Visual Classification, Broken Rock, Rec. = 0.2 ft, Advanced casing to 40.0 ft.	43				
40		Top of Bedrock @ 40.0 ft					
		Gray, Fine- to medium- grained biotitic schistose Gneiss, with closely spaced stained jointing. Fair to Good Rock, Very hard, Fresh Weathering, BXMDC, 40.0 ft - 41.0 ft, Rec. = 1.0 ft	1	100	0	30	12
		Gray, Fine- to medium- grained biotitic Gneiss, with closely spaced stained jointing. Good Rock, Very hard, Fresh Weathering, BXMDC, 41.0 ft - 46.0 ft, Rec. = 4.9 ft	2	98	82	30	6
		Gray, Fine- to medium- grained biotitic Gneiss, with 0.6 ft quartz vein at bottom of run. Closely spaced stained jointing. Good Rock, Very hard, Fresh Weathering, BXMDC, 46.0 ft - 50.0 ft, Rec. = 3.3 ft	3	83	63	30	7
50		Hole stopped @ 50.0 ft					7

LOG OF BORING SPRINGFIELD BRO 1442(26).GPJ VT AOT.GDT 4/5/10



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BORING NUMBER: B-102
 SHEET 1 of 1
 DATE STARTED: 1/27/10
 DATE COMPLETED: 2/16/10

PROJECT NAME: SPRINGFIELD
 SITE NAME: TH-6
 STATION: 11+71
 OFFSET: 15.00
 VTSPG NAD83: N 303897.04 ft E 1631026.52 ft

PROJECT NUMBER: BRO 1442(26)
 SITE NUMBER: BR-57
 GROUND ELEVATION: 559.24 ft
 GROUNDWATER DEPTH: 15.1 ft 1/28/10
 PROJECT PIN NUMBER: 95J282

BORING CREW
 CREW CHIEF: GARROW
 DRILLER: GARROW
 LOGGER: MAHMUTOVIC

BORING RIG: LAG TRACK RIG #10 w/AUTO HAMMER
 BORING TYPE: WASH BORE
 SAMPLE TYPE: SPLIT BARREL
 CHECKED BY: CAA

DEPTH (ft)	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER FOOT	M.C. (%)	GRAVEL (%)	SAND (%)	FINES (%)
			RUN	REC (%)	RQD (%)	Dip (deg)	Drill Rate (min/ft)
0		A-2-4, GrSa, brn, Moist, Rec. = 1.0 ft	4	15.4	21.0	65.7	13.3
5		A-1-a, Gr, brn, Wet, Rec. = 1.0 ft, Broken Rock was within sample.	33	9.8	75.2	19.6	5.2
10		Field Note: NXDC, Cobbles, Cleaned out casing.					
15		A-1-b, SaGr, brn, Wet, Rec. = 0.4 ft, Broken Rock was within sample.	21	15.7	44.4	44.1	11.5
20		Field Note: NXDC, Cobbles					
25		Visual Classification, Broken Rock with sand, brn, Wet, Rec. = 0.4 ft	R				
30		Possible Boulders, BXMDC, 27.5 ft - 32.5 ft, Rec. = 3.8 ft	1	76			5 7 7 8 7
35		Gray, Fine- to medium- grained biotitic schistose Gneiss, Good Rock, Very hard, Fresh Weathering, BXMDC, 32.5 ft - 37.5 ft, Rec. = 2.2 ft	2	44	30	80	6 7 7 8 7
40		Gray, Fine- to medium- grained biotitic schistose Gneiss, with close to very closely spaced stained jointing. Good Rock, Very hard, Fresh Weathering, BXMDC, 37.5 ft - 40.0 ft, Rec. = 2.1 ft	3	84	56	20	7 7 6
40		Hole stopped @ 40.0 ft					
45		DRILLER'S NOTES: 1. Broke the core bit at 40.0 ft.					

LOG OF BORING SPRINGFIELD BRO 1442(26) GPJ VT.AOT.GDT 4/5/10

Top of Bedrock @ 32.5 ft



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BORING NUMBER: B-103
 SHEET 1 of 1
 DATE STARTED: 1/02/10
 DATE COMPLETED: 1/22/10

PROJECT NAME: SPRINGFIELD
 SITE NAME: TH-6
 STATION: 12+87
 OFFSET: -18.00
 VTSPG NAD83: N 303851.06 ft E 1631139.07 ft

PROJECT NUMBER: BRO 1442(26)
 SITE NUMBER: BR-57
 GROUND ELEVATION: 554.11 ft
 GROUNDWATER DEPTH: 12.4 ft 1/22/10
 PROJECT PIN NUMBER: 95J282

BORING CREW
 CREW CHIEF: GARROW
 DRILLER: GARROW
 LOGGER: MAHMUTOVIC

BORING RIG: LARGE SKID RIG w/AUTO HAMMER
 BORING TYPE: WASH BORE
 SAMPLE TYPE: SPLIT BARREL
 CHECKED BY: CAA

DEPTH (ft)	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER FOOT	M.C. (%)	GRAVEL (%)	SAND (%)	FINES (%)
			RUN	REC (%)	RQD (%)	Dip (deg)	Drill Rate (min/ft)
0-5		A-1-b, GrSa, brn, Moist, Rec. = 0.5 ft	7	14.8	32.8	54.5	12.7
5-10		A-2-4, SiSa, brn, MTW, Rec. = 0.7 ft	10	24.9	5.4	73.0	21.6
9.0		Top of Bedrock @ 9.0 ft					
10-11		Gray, Fine- to medium- grained biotitic schistose Gneiss, with close to very closely spaced stained jointing. Fair to Good Rock, Very hard, Fresh Weathering, BXDC, 9.0 ft - 10.0 ft, Rec. = 0.7 ft	1	70	0	20	6
11-12			2	60	0	40	6
12-13			3	52	18	60	7
13-14			3	52	18	60	5
14-15		Gray, Fine- to medium- grained biotitic schistose Gneiss, with close to very closely spaced stained jointing. Fair to Good Rock, Very hard, Fresh Weathering, BXMDC, 10.0 ft - 13.0 ft, Rec. = 1.8 ft					6
15-16							6
16-17							7
17-18							6
18-20		Gray, Fine- to medium- grained biotitic schistose Gneiss, with close to very closely spaced stained jointing. Good Rock, Very hard, Fresh Weathering, BXMDC, 18.0 ft - 23.0 ft, Rec. = 4.3 ft	4	86	40	20	9
20-21							5
21-22							10
22-23							7
23-24							10
23.0		Hole stopped @ 23.0 ft					

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BORING NUMBER: B-104
 SHEET 1 of 1
 DATE STARTED: 2/17/10
 DATE COMPLETED: 2/19/10

PROJECT NAME: SPRINGFIELD PROJECT NUMBER: BRO 1442(26)
 SITE NAME: TH-6 SITE NUMBER: BR-57
 STATION: 13+20 GROUND ELEVATION: 553.84 ft
 OFFSET: 16.00 GROUNDWATER DEPTH: 15.5 ft 2/19/10
 VTSPG NAD83: N 303803.49 ft E 1631140.29 ft PROJECT PIN NUMBER: 95J282

BORING CREW BORING RIG: LAG TRACK RIG #10 w/AUTO HAMMER
 CREW CHIEF: GARROW BORING TYPE: WASH BORE
 DRILLER: GARROW SAMPLE TYPE: SPLIT BARREL
 LOGGER: MAHMUTOVIC CHECKED BY: CAA

DEPTH (ft)	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER FOOT	M.C. (%)	GRAVEL (%)	SAND (%)	FINES (%)
			RUN	REC (%)	RQD (%)	Dip (deg)	Drill Rate (min/ft)
0		A-2-4, GrSa, brn, Moist, Rec. = 1.4 ft	22	18.9	23.0	59.3	17.7
5		Field Note: NXDC, Boulders					
10		Field Note: NXDC, Boulders					
15		A-2-4, GrSiSa, brn, MTW, Rec. = 1.1 ft	25	17.9	20.3	55.4	24.3
20		Field Note: NXDC, Cobbles					
25		Top of Bedrock @ 25.0 ft					
25		Gray, Fine- to medium- grained biotitic schistose Gneiss, and Biotitic Gneiss with close to very closely spaced stained jointing. Good Rock, Very hard, Fresh Weathering, BXMDC, 25.0 ft - 30.0 ft, Rec. = 4.2 ft	1	84	38	30	5 5 5 5
30		Gray, Fine- to medium- grained biotitic Gneiss, with closely spaced stained jointing. Good Rock, Very hard, Fresh Weathering, BXMDC, 30.0 ft - 35.0 ft, Rec. = 5.0 ft	2	100	68	30	6 4 4 5 5
35		Hole stopped @ 35.0 ft					
40							
45							

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