



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

BORING NUMBER: B-101
SHEET 1 of 1
DATE STARTED: 11/03/06
DATE COMPLETED: 11/07/06

PROJECT NAME: CHESTER
SITE NAME: VT 103
STATION: 26+16.97
OFFSET: -24.87
VTSPG: N 275912.98 ft E 1618215.49 ft

PROJECT NUMBER: BRF 025-1(28)S
SITE NUMBER: BR 8
GROUND ELEVATION: 579.4 ft
GROUNDWATER DEPTH: 8.2 ft 11/07/06
PROJECT PIN NUMBER: 84E061

BORING CREW
CREW CHIEF: GARROW
DRILLER: GARROW
LOGGER: WERNER

BORING RIG: LAG TRACK 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)
5		A-2-4, SiSa, brn, Moist, Rec. = 0.9 ft	7	12.8	17.2	61.6	21.2
		Field Note:, Lost water at 3.3 ft.					
		Field Class:, No sample, Cobbles, Cleaned casing.					
10		A-2-4, SiSa, brn, Moist, Rec. = 0.4 ft	R	27.8	6.7	72.0	21.3
		Cobbles & Boulders, 6.9 ft - 9.8 ft					
		Field Class:, A-2-4, Gr Sa, brn, Moist, Rec. = 0.2 ft, Insufficient sample for testing.	R				
15		Cored ahead, Advanced casing, Cleaned casing, 10.5 ft - 11.8 ft					
		Top of Bedrock @ 12.0 ft					
		Gray-white, Quartz-Biotite-Plagioclase Gneiss, Quartz rich, Competent, Dip runs from 0 to 80., Hard, Unweathered, NXMDC, 12.0 ft - 17.0 ft, Rec. = 4.1 ft	1	82	83	80	7
20							4
							5
							4
25		Gray-white, Biotite-Quartz-Plagioclase Gneiss, Competent, Dip runs from 0 to 80., Hard, Unweathered, NXMDC, 17.0 ft - 21.8 ft, Rec. = 4.7 ft	2	98	90	80	8
							9
							8
		Hole stopped @ 21.8 ft					10
							8

LOG OF BORING CHESTER BRF 025-1(28)S.GPJ VT AOT.GDT 12/15/08



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BORING NUMBER: B-102
SHEET 1 of 1
DATE STARTED: 11/07/06
DATE COMPLETED: 11/13/06

PROJECT NAME: CHESTER
SITE NAME: VT 103
STATION: 25+57.14
OFFSET: 20.33
VTSPG: N 275889.36 ft E 1618144.32 ft

PROJECT NUMBER: BRF 025-1(28)S
SITE NUMBER: BR 8
GROUND ELEVATION: 577.89 ft
GROUNDWATER DEPTH: 7.1 ft 11/09/06
PROJECT PIN NUMBER: 84E061

BORING CREW
CREW CHIEF: GARROW
DRILLER: GARROW
LOGGER: WERNER

BORING RIG: LAG TRACK 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)
		A-2-4, SiSa, brn, Moist, Rec. = 0.3 ft	3	16.9	6.9	71.9	21.2
		NXDC, Cobbles, 2.1 ft - 4.9 ft					
5		Visual Class, Broken Rock with sand, brn, Wet, Rec. = 0.5 ft	38	10.0			
		NXDC, Cobbles, Cleaned out casing, 6.4 ft - 8.9 ft					
		Wood, 8.9 ft - 9.8 ft, Used roller core bit.					
10		Field Class, A-1-b, Sa Gr, gry, Wet, Rec. = 0.5 ft, Insufficient sample for testing.	41	9.6			
		NXDC, Boulders, Cleaned out casing, 11.8 ft - 16.0 ft					
		A-4, SaSi, gry, Moist, Sample retrieved from core barrel.		9.1	3.9	43.9	52.2
20		No Recovery, 19.7 ft - 20.2 ft	R				
						Top of Bedrock @ 21.7 ft	
		Gray-white, Layered Biotite-Quartz-Plagioclase Gneiss, Competent, Dip runs from 0 to 80., Hard, Unweathered, NXMDC, 21.7 ft - 22.4 ft, Rec. = 2.8 ft	1	97	81	80	5
		White-gray, Quartz-Biotite-Plagioclase Gneiss, Quartz rich, Competent., Hard, Unweathered, 22.4 ft - 24.6 ft					5
25		White-gray, Quartz-Biotite-Plagioclase Gneiss, Quartz rich, Competent, Dip runs from 0 to 80., Hard, Unweathered, NXMDC, 24.6 ft - 26.6 ft, Rec. = 4.9 ft	2	100	95	80	6
		Gray-white, Biotite-Quartz-Plagioclase Gneiss, Competent., Hard, Unweathered, 26.6 ft - 28.9 ft					7
		White-gray, Quartz-Biotite-Plagioclase Gneiss, Quartz rich, Competent., Hard, Unweathered, 28.9 ft - 29.5 ft					7
		White-gray, Quartz-Biotite-Plagioclase Gneiss, Quartz rich, Competent., Hard, Unweathered, NXMDC, 29.5 ft - 31.5 ft, Rec. = 1.4 ft	3	70	73	40	5
		Hole stopped @ 31.5 ft					6

LOG OF BORING CHESTER BRF 025-1(28)S.GPJ VT AOT.GDT 12/15/08



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BORING NUMBER: B-103
 SHEET 1 of 1
 DATE STARTED: 11/14/06
 DATE COMPLETED: 11/14/06

PROJECT NAME: CHESTER
 SITE NAME: VT 103
 STATION: 25+49.19
 OFFSET: -27.67
 VTSPG: N 275937.37 ft E 1618152.19 ft

PROJECT NUMBER: BRF 025-1(28)S
 SITE NUMBER: BR 8
 GROUND ELEVATION: 579.3 ft
 GROUNDWATER DEPTH: 8.3 ft 11/14/06
 PROJECT PIN NUMBER: 84E061

BORING CREW
 CREW CHIEF: GARROW
 DRILLER: GARROW
 LOGGER: WERNER

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

LOG OF BORING CHESTER BRF 025-1(28)S.GPJ VT AOT.GDT 12/15/08

DEPTH (ft)	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER FOOT	M.C. (%)	GRAVEL (%)	SAND (%)	FINES (%)
			RUN	REC (%)	RQD (%)	Dip (deg)	Drill Rate (min/ft)
		A-2-4, GrSa, brn, Moist, Rec. = 0.7 ft	20	19.4	24.9	58.6	16.5
5		Cobbles, No Recovery, 2.0 ft - 9.8 ft, Cleaned out casing.					
10		A-1-b, GrSa, brn, Wet, Rec. = 0.9 ft	22	12.8	46.5	47.1	6.4
		Field Note:, Cleaned out casing					
15		A-1-b, SaGr, brn, Wet, Rec. = 0.8 ft	22	10.9	47.2	44.6	8.2
		Field Note:, Cleaned out casing					
20		A-2-4, GrSiSa (HP), gry, Moist, Rec. = 1.0 ft	R	9.5	25.1	41.8	33.1
		Field Note:, Cleaned out casing					
				Top of Bedrock @ 21.8 ft			
25		Gray-white, Layered Biotite-Quartz-Plagioclase Gneiss, Competent, Dip runs from 0 to 40., Hard, Unweathered, NXMDC, 21.8 ft - 23.2 ft, Rec. = 4.7 ft	1	96	93	40	6
		White-gray, Quartz-Biotite-Plagioclase Gneiss, Quartz rich, Competent,, Hard, Unweathered, 23.2 ft - 26.7 ft					7
							7
							5
							6
30		White-gray, Quartz-Biotite-Plagioclase Gneiss, Quartz rich, Competent, Dip runs from 0 to 40., Hard, Unweathered, NXMDC, 26.7 ft - 31.6 ft, Rec. = 4.6 ft	2	94	70	40	5
							6
							7
							7
							6
		Hole stopped @ 31.6 ft					



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BORING NUMBER: B-104
 SHEET 1 of 1
 DATE STARTED: 11/15/06
 DATE COMPLETED: 11/15/06

PROJECT NAME: CHESTER
 SITE NAME: VT 103
 STATION: 26+12.73
 OFFSET: 17.73
 VTSPG: N 275873.99 ft E 1618197.81 ft

PROJECT NUMBER: BRF 025-1(28)S
 SITE NUMBER: BR 8
 GROUND ELEVATION: 576.67 ft
 GROUNDWATER DEPTH: 5.2 ft 11/15/06
 PROJECT PIN NUMBER: 84E061

BORING CREW
 CREW CHIEF: GARROW
 DRILLER: GARROW
 LOGGER: WERNER

BORING RIG: LAG TRACK 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)
		A-2-4, GrSa, brn, Moist, Rec. = 0.7 ft	3	17.8	20.8	64.8	14.4
5		Field Class., A-1-b, Gr Sa with Wood, Rec. = 0.3 ft, Insufficient sample for testing.	4				
10		Gray-white, Biotite-Quartz-Plagioclase Gneiss, Competent, Dip runs from 0 to 80., Hard, Unweathered, NXMDC, 9.7 ft - 10.5 ft, Rec. = 0.8 ft	1	100	100	80	8
		Gray-white, Biotite-Quartz-Plagioclase Gneiss, Competent, Dip runs from 0 to 80., Hard, Unweathered, NXMDC, 10.5 ft - 11.0 ft, Rec. = 4.9 ft	2	100	73	80	9
		Quartz vein., 11.0 ft - 12.4 ft					6
		Gray-white, Biotite-Quartz-Plagioclase Gneiss, Competent, Hard, Unweathered, 12.4 ft - 15.4 ft					6
15		Gray-white, Biotite-Quartz-Plagioclase Gneiss, Competent, Dip runs from 0 to 80., Hard, Unweathered, NXMDC, 15.4 ft - 17.7 ft, Rec. = 3.6 ft	3	92	79	80	6
		Quartz vein., 17.7 ft - 18.0 ft					5
		Biotite-Quartz-Plagioclase Gneiss, 18.0 ft - 18.4 ft					5
		Quartz vein., 18.4 ft - 19.3 ft					6
20		Hole stopped @ 19.3 ft					
25							

LOG OF BORING CHESTER BRF 025-1(28)S.GPJ VT AOT.GDT 12/15/08

Top of Bedrock @ 9.7 ft



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BORING NUMBER: B-201
 SHEET 1 of 1
 DATE STARTED: 1/20/09
 DATE COMPLETED: 1/21/09

PROJECT NAME: CHESTER
 SITE NAME: VT 103
 STATION: 25+52
 OFFSET: -4.50
 VTSPG: N 275906.53 ft E 1618144.78 ft

PROJECT NUMBER: BRF 025-1(28)S
 SITE NUMBER: BR 8
 GROUND ELEVATION: 580.2 ft
 GROUNDWATER DEPTH: 9.6 ft 1/21/09
 PROJECT PIN NUMBER: 84E061

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

BORING RIG: LARGE SKID RIG w/AUTO HAMMER
 BORING TYPE: WASH BORE
 SAMPLE TYPE:
 CHECKED BY: NSM

DEPTH (ft)	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER FOOT	M.C. (%)	GRAVEL (%)	SAND (%)	FINES (%)
			RUN	REC (%)	RQD (%)	Dip (deg)	Drill Rate (min/ft)
0.0 - 0.6		Asphalt Pavement, 0.0 ft - 0.6 ft Field Class:, GrSa, brn, Moist					
5		Field Class:, Gr, brn, Moist					
10		Field Class:, Cobbles, BXDC, Cored ahead					
23.5		Top of Bedrock @ 23.5 ft					
25		Silver-gray, Biotite Schist, Dip varied from 20 to 60 degrees. Competent below 24 ft., Moderately hard, Unweathered, BXMDC, 23.5 ft - 28.5 ft, Rec. = 5.0 ft	1	100	60		9 12 10 10
30		Silver-gray, Biotite Schist, Dip varied from 20 to 60 degrees. Competent., Moderately hard, Unweathered, BXMDC, 28.5 ft - 33.5 ft, Rec. = 5.0 ft	2	100	66		10 10 10 10
33.5		Hole stopped @ 33.5 ft					

LOG OF BORING CHESTER BRF 025-1(28)S.GPJ VT AOT.GDT 3/11/09



STATE OF VERMONT
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BORING NUMBER: B-202
 SHEET 1 of 1
 DATE STARTED: 1/22/09
 DATE COMPLETED: 1/22/09

PROJECT NAME: CHESTER
 SITE NAME: VT 103
 STATION: 26+14
 OFFSET: -5.50
 VTSPG: N 275894.31 ft E 1618205.86 ft

PROJECT NUMBER: BRF 025-1(28)S
 SITE NUMBER: BR 8
 GROUND ELEVATION: 580.49 ft
 GROUNDWATER DEPTH: 9.4 ft 1/22/09
 PROJECT PIN NUMBER: 84E061

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

BORING RIG: LARGE SKID RIG w/AUTO HAMMER
 BORING TYPE: WASH BORE
 SAMPLE TYPE:
 CHECKED BY: NSM

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 - 0.6 ft					
		Field Class., Sa, brn, Moist					
5		Field Class., Cobbles					
		Field Class., GrSa, brn, Moist					
		Field Class., Cobbles, BXDC, Cored ahead.					
					Top of Bedrock @ 9.1 ft		
10		Silver-gray, Biotite Schist, Competent., Moderately hard, Unweathered, BXMDC, 9.1 ft - 14.1 ft, Rec. = 4.6 ft	1	92	82	55	10
							10
							10
							10
							10
15		Silver-gray, Biotite Schist, Competent., Moderately hard, Unweathered, BXMDC, 14.1 ft - 19.1 ft, Rec. = 5.0 ft	2	100	95	55	10
							10
							10
							10
20		Hole stopped @ 19.1 ft					
25							

LOG OF BORING CHESTER BRF 025-1(28)S.GPJ VT AOT.GDT 3/11/09