

**STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
MATERIALS & RESEARCH DIVISION  
SUBSURFACE INFORMATION**

HOLE NO.: B-1  
SHEET 1 OF 1  
DATE STARTED: 5/10/99  
DATE COMPLETED: 5/11/99

PROJECT NAME: CHARLESTON  
SITE NAME: BR-16  
STATION: I+109.80  
GROUND EL.: 431.157

PROJECT NUMBER: BRO 1449 (22)  
SITE NO.: TH-41  
OFFSET: -4.30  
G.W. DEPTH:

BORING CREW  
CREW CHIEF: TALLMAN  
DRILLER: RUSSELL  
LOGGER:  
ADDITIONAL CREW:

BORING RIG: UNI-MOG  
BORING TYPE: WASH BORE  
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS <i>(Description)</i>	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		0.80m-1.50m, Boulders							
		BXDC 1.50m-2.75m, Boulders							
		A-2-4, SiSaGr, brn, M, Rec. = 0.10m	R	16.1	42.3	32.1	25.6		
		BXDC, 3.15m-3.65m, Boulders							
5		A-1-a, Gr, gry, Dry, Rec. = 0.10m, Sample was mostly small cobble stones.	R	5.3	96.6	3.1	0.3		
		A-4, SaSi, HP, gry, Dry, Rec. = 0.30m	R	9.5	15.7	25.5	58.8		
		A-4, GrSi, HP, gry, Dry, Rec. = 0.28m	R	8.3	30.9	19.5	49.6		
		A-4, Si, HP, gry, Dry, Rec. = 0.30m	R	9.2	16.2	19.6	64.2		
10		Top of bedrock @ 10.0 m							
		Run #1: BXMDC, 10.0m-11.5m, Rec. = 1.5m, See Geologist's Report.	RUN	REC%	RQD%	Dip°			
			1	100	100	50			
		Run #2: BXMDC, 11.5m-13.0m, Rec. = 1.5m, See Geologist's Report.	2	100	100	50			
Hole stopped @ 13.0m									

**GEOLOGISTS REPORT:**

Run #1: Gray quartz-mica schist, Hard, Unweathered, Competent.

Run #2: Same as Run #1, but also contains bands of metavolcanics, Competent.

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HOLE NO.: B-2  
SHEET 1 OF 1  
DATE STARTED: 5/6/99  
DATE COMPLETED: 5/7/99

PROJECT NAME: CHARLESTON  
SITE NAME: BR-16  
STATION: I+110.20  
GROUND EL.: 431.142

PROJECT NUMBER: BRO 1449 (22)  
SITE NO.: TH-41  
OFFSET: 4.30  
G.W. DEPTH:

BORING CREW  
CREW CHIEF: TALLMAN  
DRILLER: RUSSELL  
LOGGER:  
ADDITIONAL CREW:

BORING RIG: UNI-MOG  
BORING TYPE: WASH BORE  
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		0.10m-2.75m, Boulders							
		A-1-b, GrSa, brn, Moist, Rec. = 0.15m	23	15.6	31.5	49.8	18.7		
		3.90m-4.30m, Boulders							
5		A-4, SaSi, gry, Dry, Rec. = 0.45m	88	8.2	14.6	27	58.4		
		(Visual Class.) Broken Rock, BXDC, 6.30m-6.45m, Boulder	R						
				Top of bedrock @		6.70 m			
		Run #1: BXMDC, 6.70m-8.20m, Rec. = 1.5m, See Geologist's Report.	RUN	REC%	RQD%	Dip°			
			1	100	100	50			
		Run #2: BXMDC, 8.20m-9.70m, Rec. = 1.5m, See Geologist's Report.	2	100	100	50			
10		Hole stopped @ 9.70m							

**GEOLOGISTS REPORT:**

Run #1: Gray quartz-mica schist, Hard, Unweathered, Competent.  
Run #2: Same as Run #1, but with metavolcanic bands, Competent.

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HOLE NO.: B-3  
SHEET 1 OF 2  
DATE STARTED: 5/3/99  
DATE COMPLETED: 5/6/99

PROJECT NAME: CHARLESTON  
SITE NAME: BR-16  
STATION: I+129.80  
GROUND EL.: 431.025

PROJECT NUMBER: BRO 1449 (22)  
SITE NO.: TH-41  
OFFSET: -5.40  
G.W. DEPTH:

BORING CREW  
CREW CHIEF: TALLMAN  
DRILLER: RUSSELL  
LOGGER:  
ADDITIONAL CREW:

BORING RIG: UNI-MOG  
BORING TYPE: WASH BORE  
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		0.45m-0.85m, Boulders							
		1.0m-1.6m, Boulders	3						
		2.0m-2.6m, Boulders	10						
		A-l-b, SaGr, gry, Moist, Rec. = 0.25m, Sample contained some broken concrete.	12	18.4	43.7	41	15.3		
		A-4, GrSi, gry, Moist, Rec. Rec. = 0.24m, Sample contained some wood (poss. root).	48	11.6	36.7	19.7	43.6		
5		A-4, GrSaSi, gry, Dry, Rec. = 0.30m	89	9.3	26.1	27.2	46.7		
		A-4, GrSaSi,HP, gry, Dry, Rec. = 0.10m	R	7.7	31.4	33.1	35.5		
		BXDC, 7.00m-7.70m, Boulders							
		A-4, SaSiGr, gry, Moist, Rec. = 0.35m	72	11.1	42.1	21.4	36.5		
		A-4, GrSaSi,HP, gry, Dry, Rec. = 0.09m	R	8	22.6	24.5	52.9		
10		(Visual Class.) Broken Rock, Rec. = 0.04m	R						
		A-4, SaSi,HP, gry, Dry, Rec. = 0.25m	R	8.8	18.5	23.5	58		
		A-4, SaSi,HP, gry, Dry, Rec. = 0.50m	R	9.6	10	25	65		
		A-4, SaSi,HP, gry, Moist, Rec. = 0.15m	R	10	16.9	20.2	62.9		
		(Visual Class.) Broken Rock, Rec. = 0.10m	R						

GEOLOGISTS REPORT:

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HOLE NO.: B-3  
SHEET 2 OF 2  
DATE STARTED: 5/3/99  
DATE COMPLETED: 5/6/99

PROJECT NAME: CHARLESTON  
SITE NAME: BR-16  
STATION: I+129.80  
GROUND EL.: 431.025

PROJECT NUMBER: BRO 1449 (22)  
SITE NO.: TH-41  
OFFSET: -5.40  
G.W. DEPTH:

BORING CREW  
CREW CHIEF: TALLMAN  
DRILLER: RUSSELL  
LOGGER:  
ADDITIONAL CREW:

BORING RIG: UNI-MOG  
BORING TYPE: WASH BORE  
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
	XXXX	No Rec.	R						
		BXDC, 15.90m-16.35m, Boulders							
		BXDC, 16.65m-17.20m, Boulders							
		BXDC, 18.00m-18.25m, Boulders							
		BXDC, 18.50m-19.10m, Boulders							
		BXDC, 19.10m-19.45m, Boulders							
		Top of bedrock @ 19.80 m							
20		Run #1: BXMDC, 19.8m-21.3m, Rec. = 1.47m, See Geologist's Report.	RUN	REC%	RQD%	Dip°			
			1	98	98	50			
		Run #2: BXMDC, 21.3m-22.8m, Rec. = 1.50m, See Geologist's Report.	2	100	100	50			
		Hole stopped @ 22.80m							
25									

GEOLOGISTS REPORT:

Run #1: Gray quartz-mica schist with bands of metavolcanics, Hard, Unweathered, Competent.  
Run #2: Same as Run #1, Competent.

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HOLE NO.: H-1  
SHEET 1 OF 1  
DATE STARTED: 5/12/99  
DATE COMPLETED: 5/12/99

PROJECT NAME: CHARLESTON  
SITE NAME: BR-16  
STATION: I+106.00  
GROUND EL.: 431.282

PROJECT NUMBER: BRO 1449 (22)  
SITE NO.: TH-41  
OFFSET: -6.40  
G.W. DEPTH:

BORING CREW  
CREW CHIEF: TALLMAN  
DRILLER: RUSSELL  
LOGGER:  
ADDITIONAL CREW:

BORING RIG: UNI-MOG  
BORING TYPE: WASH BORE  
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS <i>(Description)</i>	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		0.5m-1.1m, Boulders							
		1.35m-1.8m, Boulders							
		1.80m-2.45m, Boulders							
5									
10									
<p>Hole stopped @ 6.00m No Ledge To Depth</p> <p>Note: This boring was taken at station I+106.0 instead of I+107.361 to avoid removal of large trees.</p> <p>Boring was completed using regular washbore equipment because hand steel could not penetrate to depth required.</p> <p>Samples were not taken for this boring.</p>									

GEOLOGISTS REPORT:

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HOLE NO.: H-2  
SHEET 1 OF 1  
DATE STARTED: 5/12/99  
DATE COMPLETED: 5/12/99

PROJECT NAME: CHARLESTON  
SITE NAME: BR-16  
STATION: I+108.00  
GROUND EL.: 431.334

PROJECT NUMBER: BRO 1449 (22)  
SITE NO.: TH-41  
OFFSET: 8.00  
G.W. DEPTH:

BORING CREW  
CREW CHIEF: TALLMAN  
DRILLER: RUSSELL  
LOGGER:  
ADDITIONAL CREW:

BORING RIG: UNI-MOG  
BORING TYPE: WASH BORE  
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS <i>(Description)</i>	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		0.80m-1.15m, Boulders							
		1.40m-2.15m, Boulders							
		2.15m-4.20m, Boulders							
		BXDC, 4.3m-4.70m, Boulders							
5									
		BXDC, 5.85m-6.15m, Boulders							
	Hole stopped @ 6.15m No Ledge To Depth								
	Note: This boring was taken at 8.0m Rt., instead of 6.8m Rt., due to overhead power lines.								
	Boring was completed using regular washbore equipment because hand steel could not penetrate to depth required.								
10	Samples were not taken for this boring.								

GEOLOGISTS REPORT: