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

HOLE NO.: B-1
SHEET 1 OF 2
DATE STARTED: 8/27/97
DATE COMPLETED: 9/5/97

PROJECT NAME: MORGAN
SITE NAME: BR# 4
STATION: 10+078.00
GROUND EL.: 392.81

PROJECT NUMBER: TH2-9339
SITE NO.: TH #1
OFFSET: 4.30
G.W. DEPTH:

BORING CREW
CREW CHIEF: TALLMAN .
DRILLER: GAMMELL .
LOGGER:
ADDITIONAL CREW:

BORING RIG: TRUCK
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
		A-1-b, GrSa, Wet, brn, Rec. = 0.20m	2	14.7	23.2	59.1	17.7		
		A-1-b, GrSa, Wet, gry, Rec. = 0.26m	4	17.9	30.3	55	14.7		
5		A-4, SaSi, Wet, gry, Rec. = 0.46m	5	26.4	0	41.1	58.9		
		A-4, Si, Wet, gry, Rec. = 0.35m	6	24.5	0	18.2	81.8		
		A-4, Si, Wet, gry, Rec. = 0.39m	7	25.1	0	13.7	86.3		
		A-4, SaSi, Wet, gry, Rec. = 0.55m	9	24.6	0.4	21.9	77.7		
10		A-4, SiSa, Wet, gry, Rec. = 0.36m	11	25.2	2.1	51	46.9		
		No sample in a boulder							
		A-4, SiSa, Wet, gry, Rec. = 0.20m	24	19.7	6.8	52.2	41		
15									

GEOLOGISTS REPORT:

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

HOLE NO.: B-1
SHEET 2 OF 2
DATE STARTED: 8/27/97
DATE COMPLETED: 9/5/97

PROJECT NAME: MORGAN
SITE NAME: BR# 4
STATION: 10+078.00
GROUND EL.: 392.81

PROJECT NUMBER: TH2-9339
SITE NO.: TH #1
OFFSET: 4.30
G.W. DEPTH:

BORING CREW
CREW CHIEF: TALLMAN .
DRILLER: GAMMELL .
LOGGER:
ADDITIONAL CREW:

BORING RIG: TRUCK
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
		A-2-4, GrSa, Wet, gry, Rec. = 0.31m	25	21.3	22.3	68.2	9.5		
		No Rec.	84						
			Top of bedrock @ 18.00m						
		Run #1: BXMDC, 18.0m-19.5m, Rec. = 1.5m, See Geologist's Report.	RUN 1	REC% 100	RQD% 71	Dip°			
		Run #2: BXMDC, 19.5m-19.8m, Rec. = 0.3m, See Geologist's Report.	2	100	67				
20			Hole stopped @ 19.80m in bedrock.						
25									

GEOLOGISTS REPORT:

RUN 1: LIGHT GRAY FINE TO MEDIUM GRAINED GRANITE. VERY HARD, UNWEATHERED, COMPETENT.

RUN 2: LIGHT GRAY MEDIUM GRAINED GRANITE, VERY HARD, UNWEATHERED, COMPETENT.

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

HOLE NO.: B-2
SHEET 1 OF 2
DATE STARTED: 8/14/97
DATE COMPLETED: 8/20/97

PROJECT NAME: MORGAN
SITE NAME: BR# 4
STATION: 10+087.00
GROUND EL.: 393.03

PROJECT NUMBER: TH2-9339
SITE NO.: TH #1
OFFSET: 4.30
G.W. DEPTH:

BORING CREW
CREW CHIEF: WILLIS
DRILLER: TALLMAN R
LOGGER: GAMMELL .
ADDITIONAL CREW:

BORING RIG: TRUCK
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
		No Rec.	7						
		A-2-4, GrSa, Wet, gry, Rec. = 2.5m	2	22.5	23.3	58.9	17.8		
		A-1-b, GrSa, Wet, gry, Rec. = 0.3m	4	19.7	22.5	57.8	19.7		
		A-2-4, SiSa, Wet, gry, Rec. = 0.45m	1	24.1	7.6	70.2	22.2		
5		A-4, SaSi, Wet, gry, Rec. = 0.45m	7	23.9	0.1	31.8	68.1		
		A-4, SaSi, Wet, gry, Rec. = 0.50m	7	23.9	0	46.1	53.9		
		A-4, SaSi, Wet, gry, Rec. = 0.46m	8	28.8	0	44.1	55.9		
		A-4, SaSi, Wet, gry, Rec. = 0.46m	8	25.3	0.7	37.1	62.2		
		A-2-4, SiSa, Wet, gry, Rec. = 0.32m	7	24.3	0.1	70.3	29.6		
10		A-4, SaSi, Wet, gry, Rec. = 0.34m	6	24.9	0.1	21.9	78		
		No Rec., Boulders							
		A-1-a, SaGr HP, Moist, gry, Rec. = 0.45m	55	16	50.1	39.2	10.7		
		A-1-b, GrSa, Moist, gry, Rec. = 0.06m	25	25.4	28.1	63.8	8.1		
		A-4, SaSi HP, Moist, gry, Rec. = 0.24m	36	9.1	16.5	30.7	52.8		
15									

GEOLOGISTS REPORT:

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

HOLE NO.: B-2
SHEET 2 OF 2
DATE STARTED: 8/14/97
DATE COMPLETED: 8/20/97

PROJECT NAME: MORGAN
SITE NAME: BR# 4
STATION: 10+087.00
GROUND EL.: 393.03

PROJECT NUMBER: TH2-9339
SITE NO.: TH #1
OFFSET: 4.30
G.W. DEPTH:

BORING CREW
CREW CHIEF: WILLIS
DRILLER: TALLMAN R
LOGGER: GAMMELL .
ADDITIONAL CREW:

BORING RIG: TRUCK
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
		No Rec., In boulders and layers of HP.							
		No Rec., Appears to be in boulders and HP.	R						
		No Rec.	R	Top of bedrock @ 17.20m					
			RUN	REC%	RQD%	Dip°			
		Run #1: BXMDC, 17.20m-18.70m, Rec. = 1.50m, See Geologist's Report.	1	100	11				
		Run #2: BXMDC, 18.70m-20.20m, Rec. = 1.50m, See Geologist's Report.	2	100	83				
20									
		Hole stopped @ 20.20m in bedrock.							
25									

GEOLOGISTS REPORT:

RUN 1: LIGHT GRAY MEDIUM GRAINED GRANITE. VERY HARD. UNWEATHERED.
POOR RQD MAY BE DUE TO MECHANICAL BREAKAGE DURING DRILLING.

RUN 2: LIGHT GRAY MEDIUM GRAINED GRANITE. VERY HARD. UNWEATHERED. COMPETENT.

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

HOLE NO.: B-3
SHEET 1 OF 2
DATE STARTED: 8/26/97
DATE COMPLETED: 8/27/97

PROJECT NAME: MORGAN
SITE NAME: BR* 4
STATION: 10+096.00
GROUND EL.: 392.86

PROJECT NUMBER: TH2-9339
SITE NO.: TH #1
OFFSET: -4.30
G.W. DEPTH:

BORING CREW
CREW CHIEF: TALLMAN .
DRILLER: GAMMELL .
LOGGER:
ADDITIONAL CREW:

BORING RIG: TRUCK
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
		A-1-b, GrSa, Wet, brn, Rec. = 0.20m	3	14.6	35.2	47	17.8		
		A-2-4, GrSiSa, Moist, brn, Rec. = 0.28m	7	19.6	20	57.8	22.2		
5		A-1-b, GrSa, Moist, blk, Rec. = 0.23m	7	15	30.3	58.1	11.6		
		A-1-b, SiSa, Moist, gry, Rec. = 0.30m	9	16.5	11.7	63.5	24.8		
		A-4, SaSi, Moist, gry, Rec. = 0.37m	6	25.3	0.8	29.8	69.4		
		A-4, Si, Wet, brn, Rec. = 0.33m	9	27.5	0.4	17.6	82		
10		A-1-b, SaGr HP, Moist, brn, Rec. = 0.28m	48	11.4	43.7	41.2	15.1		
		A-2-4, SiSa, Moist, gry, Rec. = 0.29m	20	19.8	0.7	73.6	25.7		
		A-4, SaGrSi HP, Moist, gry, Rec. = 0.16m	14	13.2	30.2	25.2	44.6		
15									

GEOLOGISTS REPORT:

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

HOLE NO.: B-3
SHEET 2 OF 2
DATE STARTED: 8/26/97
DATE COMPLETED: 8/27/97

PROJECT NAME: MORGAN
SITE NAME: BR* 4
STATION: 10+096.00
GROUND EL.: 392.86

PROJECT NUMBER: TH2-9339
SITE NO.: TH #1
OFFSET: -4.30
G.W. DEPTH:

BORING CREW
CREW CHIEF: TALLMAN .
DRILLER: GAMMELL .
LOGGER:
ADDITIONAL CREW:

BORING RIG: TRUCK
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
		No Rec.	62						
		No Rec.	R						
				Top of bedrock @ 17.00m					
		Run #1: BXMDC, 17.00m-17.98m, Rec. = 0.98m, See Geologist's Report.	RUN	REC%	RQD%	Dip°			
			1	92	0				
		Run #2: BXMDC, 17.98m-19.22m, Rec. = 1.24m, See Geologist's Report.	2	98	55				
20				Hole stopped @ 19.22m in bedrock.					
25									

GEOLOGISTS REPORT:

RUN 1: LIGHT GRAY MEDIUM GRAINED GRANITE. VERY HARD. UNWEATHERED.
POOR RQD MAY BE DUE TO MECHANICAL BREAKAGE DURING DRILLING.

RUN 2: LIGHT GRAY MEDIUM GRAINED GRANITE. VERY HARD. UNWEATHERED. COMPETENT.

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

HOLE NO.: B-4
SHEET 1 OF 2
DATE STARTED: 8/21/97
DATE COMPLETED: 8/26/97

PROJECT NAME: MORGAN
SITE NAME: BR* 4
STATION: 10+087.00
GROUND EL.: 393.26

PROJECT NUMBER: TH2-9339
SITE NO.: TH *1
OFFSET: -4.30
G.W. DEPTH:

BORING CREW
CREW CHIEF: TALLMAN .
DRILLER: GAMMELL .
LOGGER:
ADDITIONAL CREW:

BORING RIG: TRUCK
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
		No Rec.	3						
		No Rec., In boulder.							
		A-4, SaSi, Wet, gry, Rec. = 0.32m	10	22.3	8.8	23.3	67.9		
		A-4, Si, Wet, gry, Rec. = 0.28m	10	29.4	0	18.3	81.7		
5		A-4, Si, Wet, gry, Rec. = 0.16m	11	28.2	0	11.9	88.1		
		A-2-4, SiSa, Moist, gry, Rec. = 0.26m	13	21	8.5	64.9	26.6		
		A-1-b, GrSa, Moist, gry, Rec. = 0.28m	18	13.5	39.1	44.8	16.1		
		A-1-b, GrSa, Moist, gry, Rec. = 0.19m	16	14.3	37.6	48.3	14.1		
		A-2-4, SiSa, Wet, gry, Rec. = 0.32m	20	20.6	10	65.4	24.6		
10		A-1-b, Sa, Wet, brn, Rec. = 0.35m	14	19.2	13.5	75.8	10.7		
		A-2-4, SiSa, Wet, gry, Rec. = 0.42m	37	19.8	18.7	50.4	30.9		
		No Rec., In boulders.							
		No Rec.	24						
		A-2-4, Sa, Wet, gry, Rec. = 0.35m	19	21.2	5.7	74.8	19.5		
15									

GEOLOGISTS REPORT:

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

HOLE NO.: B-4
SHEET 2 OF 2
DATE STARTED: 8/21/97
DATE COMPLETED: 8/26/97

PROJECT NAME: MORGAN
SITE NAME: BR* 4
STATION: 10+087.00
GROUND EL.: 393.26

PROJECT NUMBER: TH2-9339
SITE NO.: TH *1
OFFSET: -4.30
G.W. DEPTH:

BORING CREW
CREW CHIEF: TALLMAN .
DRILLER: GAMMELL .
LOGGER:
ADDITIONAL CREW:

BORING RIG: TRUCK
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
		A-4, SaSi HP, Moist, gry, Rec. = 0.10m	28	9.5	16.8	25	58.2		
		A-4, GrSi HP, Moist, gry, Rec. = 0.25m	98	10.6	29.1	18.7	52.2		
		No Rec., In boulder.	Top of bedrock @ 17.50m						
		Run #1: BXMDC, 17.50m-18.46m, Rec. = 0.96m, See Geologist's Report.	RUN 1	REC% 80	RQD% 15	Dip°			
		Run #2: BXMDC, 18.46m-19.96m, Rec. = 1.50m, See Geologist's Report.	2	100	64				
20		Hole stopped @ 19.96m in bedrock.							
25									

GEOLOGISTS REPORT:

RUN 1: LIGHT GRAY MEDIUM GRAINED GRANITE. VERY HARD. UNWEATHERED.
POOR RQD MAY BE DUE TO MECHANICAL BREAKAGE DURING DRILLING.

RUN 2: LIGHT GRAY MEDIUM GRAINED GRANITE. VERY HARD. UNWEATHERED. COMPETENT.