GEOSCIENCE GROUP

GEOSCIENCE GROUP, INC.
BORING LOG

SHEET 1 OF 1

PROJECT NO. 33410.1.1	ID. B-4044	FED. NO.BRZ-1515(2)	CO. Burke	FIELD SUPERV. D. Hardister
SITE DESCRIPTION Bridge No. 4 over Smokey Creek on SR 1515				GROUND WATER (ft)
BORING NO. B1-B	BORING LOCATION 16+61	OFFSET 11' RT	ALIGNMENT -L-	0 HR. N/M
COLLAR ELEV. 1019.4 ft	TOTAL DEPTH 28.0 ft	NORTHING 755958.53	EASTING 1227617.34	24 HR. 10.8
DRILL MACHINE CME 550x	DRILL METHOD Rotary/HQ	HAMMER TYPE Automatic	FINAL CASING DEPTH 11.0 ft	
DATE STARTED 2/10/05	COMPLETED 2/11/05	DRILLING FLUID DENSITY Creek Water	SURFACE WATER DEPTH N/A	

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
1019.4	0.00				Ground Surface Elev. 1019.4 ft				1019.4 0.00 Alluvial-Very Loose Tan Silty Coarse to Fine SAND (A-2-4)
	3.5	1	1	1	2		W		
1015	8.5	3	16	52	68	SS-3	M		1010.4 9.0 Residual-Very Dense Tan-Brown-Grey Silty Coarse to Fine SAND with Rock Fragments (A-2-4)
1010	11.0	60/0			60/0	RS-2	D		1009.4 10.0 Weathered Rock-Grey-Black Weathered Biotite Gneiss 1008.6 10.8 Crystalline Rock-Grey-Black Biotite Gneiss 1008.4 11.0 Crystalline Rock-Grey-Black and Black-White Moderately and Slightly Weathered Moderately Hard and Hard Biotite Gneiss and Metamorphosed Granite with Close and Very Close Fracture Spacing 1007.1 12.3 Crystalline Rock-Grey-Black and Grey-Black-White Slightly to Very Slightly Weathered Hard and Very Hard Biotite Gneiss and Metamorphosed Granite with Moderately Close and Wide Fracture Spacing
1005									
1000									
995									991.4 28.0 Coring Terminated at Elev. 991.4ft in Crystalline Rock (Biotite Gneiss & Metamorphosed Granite)

NCDOT_BORE11X17 GR050032.GPJ NCDOT2.GDT 2/25/05

GEOSCIENCE GROUP

GEOSCIENCE GROUP, INC.
CORE BORING REPORT

SHEET 1 OF 1

PROJECT NO. 33410.1.1	ID. B-4044	FED. NO.BRZ-1515(2)	CO. Burke	FIELD SUPERV. D. Hardister
SITE DESCRIPTION Bridge No. 4 over Smokey Creek on SR 1515				GROUND WATER (ft)
BORING NO. B1-B	BORING LOCATION 16+61	OFFSET 11' RT	ALIGNMENT -L-	0 HR. N/M
COLLAR ELEV. 1019.4 ft	TOTAL DEPTH 28.0 ft	NORTHING 755958.53	EASTING 1227617.34	24 HR. 10.8
DRILL MACHINE CME 550x	DRILL METHOD Rotary/HQ	HAMMER TYPE Automatic	FINAL CASING DEPTH 11.0 ft	
DATE STARTED 2/10/05	COMPLETED 2/11/05	DRILLING FLUID DENSITY Creek Water	SURFACE WATER DEPTH N/A	
CORE SIZE HQ	TOTAL RUN 17.0 ft	DRILLER D. Harris		

ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min./ft)	RUN REC. (ft) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC. %	STRATA RQD %	DESCRIPTION AND REMARKS
1008.4									Begin Coring @ 1008.40 ft
1008.4	11.0	2.0	9:04	(1.9) 95%	(1.2) 60%	RS-2	1.2 92%	0.5 38%	Crystalline Rock-Grey-Black and Black-White Moderately and Slightly Weathered Moderately Hard and Hard Biotite Gneiss and Metamorphosed Granite with Close and Very Close Fracture Spacing
			5:56				15.7 100%	15.6 99%	1007.1 12.3 5 Jts @ 0-10° 5 Jts @ 10-20° 1 Jt @ 20-30°
1006.4	13.0	5.0	7:02	(5.0) 100%	(5.0) 100%				Crystalline Rock-Grey-Black and Grey-Black-White Slightly to Very Slightly Weathered Hard and Very Hard Biotite Gneiss and Metamorphosed Granite with Moderately Close and Wide Fracture Spacing
			6:43						3 Jts @ 0-10° 3 Jts @ 10-20° 2 Jts @ 30-40°
			6:54						
			6:01						
1001.4	18.0		8:38						
1001.4	18.0	5.0	7:36	(5.0) 100%	(4.9) 98%				
			7:35						
			9:05						
			6:40						
996.4	23.0		5:34						
996.4	23.0	5.0	6:10	(5.0) 100%	(5.0) 100%				
			4:24						
			4:22						
			3:38						
991.4	28.0		3:48						991.4 28.0 Coring Terminated at Elev. 991.4ft in Crystalline Rock (Biotite Gneiss & Metamorphosed Granite)

NCDOT_CORE#3-11X17 GR050032.GPJ NCDOT2.GDT 2/25/05