N.C.D.O.T. GEOTECHNICAL UNIT
BORING LOG

WBS ELEMENT NO. 33454.1.1	ID No. B-4096	COUNTY Davidson	GEOLOGIST P. Weaver/P. Alton
SITE DESCRIPTION Bridge 140 Over Rich Fork Creek on US 29-70/I-85 Business			GROUND WATER (ft)
BORING NO. B2-A	BORING LOCATION 20+84	OFFSET 19ft LT	ALIGNMENT -L-	0 HR. NM
COLLAR ELEV. 656.1 ft	NORTHING 772009.38	EASTING 1651462.63		24 HR. 1.8
TOTAL DEPTH 56.1 ft	DRILL MACHINE CME 850	DRILL METHOD Wash Rotary/HQ Core	HAMMER TYPE 140 lb. Automatic	
DATE STARTED 2/26/04	COMPLETED 3/2/04	SURFACE WATER DEPTH NA		

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
656.1									656.1 0.00
655.1	1.0								ALLUVIAL: Medium Stiff to Stiff, Brown with Some Grey, Silty, Coarse to Fine Sandy CLAY
652.6	3.5	2	3	2	@5				
650.1	6.0	2	3	5	@8		W		
646.6	9.5	6	6	7	@13		W		
642.6	13.5	2	4	7	@11	ST-2			647.6 8.5
637.6	18.5	5	10	10	@20	SS-12	36.1%		RESIDUAL: Stiff, Brown-Grey, Clayey, Coarse to Fine Sandy SILT
632.6	23.5	8	14	15	@29		W		642.1 14.0
627.6	28.5	2	4	10	@14		M		Medium Dense, Brown and White, Silty, Fine to Coarse SAND
622.6	33.5	11	14	16	@30	SS-13	21.1%		637.6 18.5
617.6	38.5	47	53/0.4		100/0.9 @				Stiff to Very Stiff, Grey and Brown, Coarse to Fine Sandy SILT with a Trace of Clay
		60/0.2			60/0.2 @				622.6 33.5
									WEATHERED ROCK: Grey with White, Metadiorite
									616.3 39.8
									614.8 CRYSTALLINE ROCK: Grey with White, Moderately to Slightly Weathered, Hard, Metadiorite with Close Fracture Spacing 41.3
									CRYSTALLINE ROCK: Grey with White, Slightly to Very Slightly Weathered, Hard to Very Hard, Metadiorite with Scattered Metamorphosed Granitic Intrusions and with Wide Fracture Spacing
									600.0 56.1
									Coring Terminated at Elevation 600.0 feet in Crystalline Rock: Metadiorite

Note: Drill fluid = creek water + bentonite
Mud density = 64.5 lbs./cu. ft.
Slurry was used for soil and weathered rock drilling.
Creek water alone was used for rock coring.

NCDOT BORE SINGLE 07104004.GPJ NC_DOT.GDT 3/19/04

N.C.D.O.T. GEOTECHNICAL UNIT
CORE BORING REPORT

WBS ELEMENT NO. 33454.1.1	ID No. B-4096	COUNTY Davidson	GEOLOGIST P. Weaver/P. Alton
SITE DESCRIPTION Bridge 140 Over Rich Fork Creek on US 29-70/I-85 Business			GROUND WATER (ft)
BORING NO. B2-A	BORING LOCATION 20+84	OFFSET 19ft LT	ALIGNMENT -L-	0 HR. NM
COLLAR ELEV. 656.1 ft	NORTHING 772009.38	EASTING 1651462.63		24 HR. 1.8
TOTAL DEPTH 56.1 ft	DRILL MACHINE CME 850	DRILL METHOD Wash Rotary/HQ Core	HAMMER TYPE 140 lb. Automatic	
DATE STARTED 2/26/04	COMPLETED 3/2/04	SURFACE WATER DEPTH NA		
CORE SIZE HQ	TOTAL RUN 17.4 ft	DRILLER C. Heun		

ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN REC. (ft)%	RUN RQD (ft)%	SAMP. NO.	STRATA REC. (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Begin Coring @ 38.7 ft
617.4	38.7	2.8	5:00	(1.7)	(1.1)		(0.0)	NA		616.3 WEATHERED ROCK: Grey with White, Metadiorite 39.8
614.6	41.5		4:10	61%	39%		0%	(0.9)		614.8 CRYSTALLINE ROCK: Grey with White, Moderately to Slightly Weathered, Hard, Metadiorite with Close Fracture Spacing 41.3
			5:30/0.8				(1.5)	60%		
		5.0	5:00	(5.0)	(5.0)		100%	(14.8)		1 jt @ 30° w/light iron staining
			5:00	100%	100%		(14.8)	100%		Series of open and partially healed fractures at 70° with light iron staining
609.6	46.5		4:45				100%			CRYSTALLINE ROCK: Grey with White, Slightly to Very Slightly Weathered, Hard to Very Hard, Metadiorite with Scattered Metamorphosed Granitic Intrusions and with Wide Fracture Spacing
			5:10							
		4.8	6:00	(4.8)	(4.8)					1 natural fracture at 20°
			7:00	100%	100%					
604.8	51.3		5:10							*Notes: 1) Run #3 shortened by 0.2 ft. to recover 0.2 ft. of core left in hole from Run #2
			5:45							2) Run #4 shortened due to bit not cutting
			6:00							3) 0.3 ft. of rock from Run #4 could not be retrieved from hole; REC and RQD values assumed unrecovered rock is the same as the recovered rock
		4.8	5:00/0.8	(4.8)	(4.8)					600.0 56.1
			9:00	100%	100%					Coring Terminated at Elevation 600.0 feet in Crystalline Rock: Metadiorite
			8:15							
600.0	56.1		6:10							Note: Drill fluid = creek water + bentonite
			6:40							Mud density = 64.5 lbs./cu. ft.
			6:45/0.8							Slurry was used for soil and weathered rock drilling.
										Creek water alone was used for rock coring.

NCDOT CORE SINGLE 07104004.GPJ NC_DOT.GDT 3/22/04