



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

WBS ELEMENT NO. 34209.1.1		ID No. I-4025A	COUNTY Yadkin/Surry	GEOLOGIST D. Goodnight/P. Weaver									
SITE DESCRIPTION Bridge No. 13 on I-77 SBL Over Yadkin River, Yadkin Valley RR, and NC 268				GROUND WATER (ft)									
BORING NO. B3-B SS/B5-B C		BORING LOCATION 30+85		OFFSET 31ft RT	ALIGNMENT -SBL-								
COLLAR ELEV. 881.9 ft		NORTHING 915269.33		EASTING 1462976.50									
TOTAL DEPTH 46.3 ft		DRILL MACHINE CME 850		DRILL METHOD Wash Rotary/HQ Core									
DATE STARTED 4/1/04		COMPLETED 4/5/04		SURFACE WATER DEPTH NA									
HAMMER TYPE 140 lb./Automatic													
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80				100
881.9													881.9 0.00
880.9	1.0	2	2	2							SS-17 30.2%	M	878.9 3.0
878.4	3.5	2	1	2									ALLUVIAL: Soft to Medium Stiff, Red-Brown, Clayey, Fine Sandy SILT with a Little Mica
875.9	6.0	2	2	3							SS-18 24.2%	M	873.4 8.5
873.4	8.5	3	2	4									867.9 14.0
868.4	13.5	12	88/0.5										867.4 14.5
													865.7 16.2
860.6	21.3	24	30	66								M	860.9 21.0
													858.6 23.3
855.6	26.3	60/0.1											857.4 24.5
													856.1 25.8
													847.4 34.5
													840.6 41.3
													835.6 46.3
Coring Terminated at Elevation 835.6 feet in Crystalline Rock: Metamorphosed Granite													
Note: Bentonite slurry used as drilling fluid; Density = 63.0 lbs./cu. ft.													

NCDOT BORE SINGLE 07104006.GPJ NC_DOT.GDT 5/26/04



CORE BORING REPORT

PROJECT NO. 34209.1.1		ID No. I-4025A	COUNTY Yadkin/Surry	GEOLOGIST D. Goodnight/P. Weaver						
SITE DESCRIPTION Bridge No. 13 on I-77 SBL Over Yadkin River, Yadkin Valley RR, and NC 268				GROUND WATER (ft)						
BORING NO. B3-B SS/B5-B C		BORING LOCATION 30+85		OFFSET 31ft RT	ALIGNMENT -SBL-					
COLLAR ELEV. 881.9 ft		NORTHING 915269.33		EASTING 1462976.50						
TOTAL DEPTH 46.3 ft		DRILL MACHINE CME 850		DRILL METHOD Wash Rotary/HQ Core						
DATE STARTED 4/1/04		COMPLETED 4/5/04		SURFACE WATER DEPTH NA						
HAMMER TYPE 140 lb./Automatic										
ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN		STRATA		SAMP. NO.	LOG	DESCRIPTION AND REMARKS
				REC. (%)	RQD (%)	REC. (%)	RQD (%)			
										Begin Coring @ 14.5 ft
867.4	14.5	1.8	6:00	(1.7)	(0.3)	(1.7)	(0.3)			867.4 14.5
865.6	16.3	5.0	3:51/0.8	94%	17%	100%	18%			865.7 16.2
			4:19	(0.0)	(NA)	(0.0)	(NA)			4 jts @ 5° to 10°
			6:13	0%		0%				1 jt @ 45°
860.6	21.3		12:07							860.9 21.0
			5:10			(0.0)	(NA)			WEATHERED ROCK: Core Loss in Severely Weathered, Mica Schist
			7:48			0%				SOIL: Very Dense, Brown, Saprolitic, Silty, Coarse to Fine SAND with a Little Mica
859.1	22.8	3.5	N=96	(1.8)	(0.3)	(0.0)	(NA)			858.6 23.3
			3:34/0.5	51%	9%	0%				WEATHERED ROCK: Core Loss in Severely Weathered, Mica Schist
855.6	26.3		7:12			0%	(0.3)			857.4 24.5
			6:44			(1.3)	(23%)			856.1 25.8
855.5	26.4	4.9	10:35	(4.4)	(0.7)	100%	(1.5)			CRYSTALLINE ROCK: Grey, Moderately Severely to Moderately Weathered, Medium Hard to Moderately Hard, Mica Schist with Very Close to Close Fracture Spacing
			N=60/0.1	90%	14%	(7.4)	17%			7 jts @ 5° to 10°
			6:09/0.9							Very broken 24.5 feet to 25.0 feet
850.6	31.3	5.0	12:52	(3.3)	(0.8)					847.4 34.5
			7:35	66%	16%					CRYSTALLINE ROCK: Pink and Grey, Moderately Severely to Moderately Weathered, Hard, Metamorphosed Granite with Very Close to Close Fracture Spacing
			9:35							1 vertical fracture 25.8 feet to 26.3 feet
			15:26			(5.2)	(0.8)			7 jts @ 30° to 40°; 1 jt @ 60°; 6 jts @ 5° to 10°
845.6	36.3	5.0	4:44			76%	12%			Very broken 27.4 feet to 28.3 feet and 31.0 feet to 32.0 feet
			17:11							CRYSTALLINE ROCK: Grey, Moderately to Slightly Weathered, Hard, Fine-Grained Biotite Gneiss with Very Close to Close Fracture Spacing
			10:18	(4.4)	(0.8)					Very broken 34.9 feet to 35.2 feet; 36.4 feet to 36.6 feet; 39.6 feet to 39.8 feet; and 41.0 feet to 41.3 feet
			23:04	88%	16%					15 jts @ 5° to 10°
840.6	41.3	5.0	5:37							4 jts @ 30° to 40°
			11:21			(4.2)	(1.6)			2 jts @ 60° to 70°
			18:33	(4.2)	(1.6)	84%	32%			CRYSTALLINE ROCK: Pink and Grey, Moderately to Slightly Weathered, Very Hard, Metamorphosed Granite with Very Close to Close Fracture Spacing
			30:25							Very broken 43.0 feet to 43.3 feet and 44.2 feet to 45.0 feet
			12:23							Vertical fracture 43.0 feet to 45.1 feet
835.6	46.3	5.0	10:51							3 jts @ 5° to 10°
			15:47							3 jts @ 60° to 70°
			15:50							Core loss 43.0 feet to 43.2 feet and 44.2 feet to 44.8 feet
			23:20							Coring Terminated at Elevation 835.6 feet in Crystalline Rock: Metamorphosed Granite
			19:05							Note: Bentonite slurry used as drilling fluid; Density = 63.0 lbs./cu. ft.

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