## C201514 (R-4758) Jackson-Swain Counties

## SUBSURFACE INFORMATION

## CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WAS MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORNA LOGS, ROCK CORES, AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N. C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL UNIT 6 989 250-4088, NEITHER THE SUBSURFACE PLANS AND REPORTS, NOR THE FIELD BORNG LOGS, ROCK CORES, OR SOIL TEST DATA IS PART OF THE CONTRACT.

GENERAL SOL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE. SUBSURFACE DATA AND MAY NOT NECESSARLY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BORIENOLE, THE LABORATORY SAMPLE DATA AND THE IN SITU ON-PLACED TEST DATA CAN BE RELED ON OWLY TO THE DEGREE OF RELIABLITY INNERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOM, MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION, THESE WATER LEVELS OR SOM MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECEPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT, FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THIS PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE BIDICATED IN THE SUBSURFACE INFORMATION,

PROJECT: CHEROKEE HIGHWAY 19 WALLS CHEROKEE, NORTH CAROLINA S&ME Project No. 1411-05-166							BORING LOG	B-1				
DATE D	RILLE	D: 7/26/05	ELEVATION:				NOTES:					
DRILLIN	IG ME	THOD: 31/4" H.S.A.	BORING DEPTH: 31.0									
LOGGE	D BY:	J. JACOBSON	WATER LEVEL: TOB	OUN	TERED	@ 						
DRILLE	R: OA	KES AND MULLINS	DRILL RIG: Mobile B-56	,		·	,	,		 		
DEPTH (feet)	GRAPHIC	MATERIAL DES	SCRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO.	STANDARD PENETF (blov	vs/ft)	TEST ) 30	60 80	0	N VALUE
-8		Pavement (4 inches)				1, [X			9			33
		Crushed Stone (5 inches)				-			1			
5-		FILL/COLLUVIUM: Dense, s silty SAND (SM) with weathe	red rock fragments			2					$\mathbb{H}$	36
-		RESIDUUM: Dense to very of silty SAND and weathered ro	dense, moist, gray, ock fragments (GW)			3						55
-		Auger Refusal @ 8.0'		7		REC 67% RQD						
10-			•			27% -						
						REC -53% RQD 33%						
15— - - -		MASSIVE BEDROCK: Hard and white, medium crystalling	to very hard, gray ne biotite <b>GNEISS</b>		•	REC 27% RQD 0%						
20— - -						REC						
- 6 25—		•				1% RQD 0%						
J SKME.GDI 8/2		SOIL SEAM: Dark brown, s				REC -42% RQD 26%						
1105166.GP		and white, medium crystallir  Boring Terminated @ 31.0'	ne biotite GNEISS			REC 60% RQD				$\parallel$		
ORING LUG						60%						

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NOTES:

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- 2. BORING, SAMPLING AND PENETRATION TEST DATA IN GENERAL ACCORDANCE WITH ASTM D-1586.
- 3. STRATIFICATION AND GROUNDWATER DEPTHS ARE NOT EXACT.
- 4. WATER LEVEL IS AT TIME OF EXPLORATION AND WILL VARY.



	PROJE	CT:	CHEROKEE HIGHWAY CHEROKEE, NORTH ( S&ME Project No. 141	CAROLINA				BORING LOG	B-2			
	DATE	DRILLI	ED: <b>7/26/05</b>	ELEVATION:				NOTES:				
	DRILLI	NG ME	ETHOD: 3¼" H.S.A.	BORING DEPTH: 38.0								
	LOGGI	ED BY	J. JACOBSON	WATER LEVEL: 29.5'@T	ОВ							
	DRILLE	ER: M	ULLINS AND RAMEY	DRILL RIG: Mobile B-56			T					Γ
	DEPTH (feet)	GRAPHIC LOG	MATERIAL DES	CRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO. SAMPLE TYPE		RATION TE		0 80	N VALUE
	_		Asphalt (4 inches)	/		•	17					
	-		Crushed Stone (5 inches)				1 🖔					7
	5		FILL: Firm to hard, moist, bro SILT (ML) with rock fragment	ownish red, sandy s			2					31
			FILL: No Recovery (reported	l as boulders)			3 -					50/ 0"
	10			·		-	4					26
	- - 15						5 🛚			•		28
7	- - -		RESIDUUM: Very stiff, moist SILT (ML)	;, gray, fine sandy			6					20
	20 - -	4				-						
							7					21
GDT 8/22/06	25 - -	-				<del>-</del>		V				
6.GPJ S&ME.	30-		WEATHERED ROCK: Very so finely crystalline, severely we GNEISS	soft, dark brown, eathered, biotite	/ / 고 	-	8 - REC 90%				<b>/</b> %	50/ 0"
BORING LOG 1105166.GPJ S&ME.GDT 8/22/06			MASSIVE BEDROCK: Very medium crystalline, slightly w	hard, dark gray, veathered, biotite			90% RQD _ 33%					
. Z	<u> </u>	NXA	11					<u> </u>			لللل	

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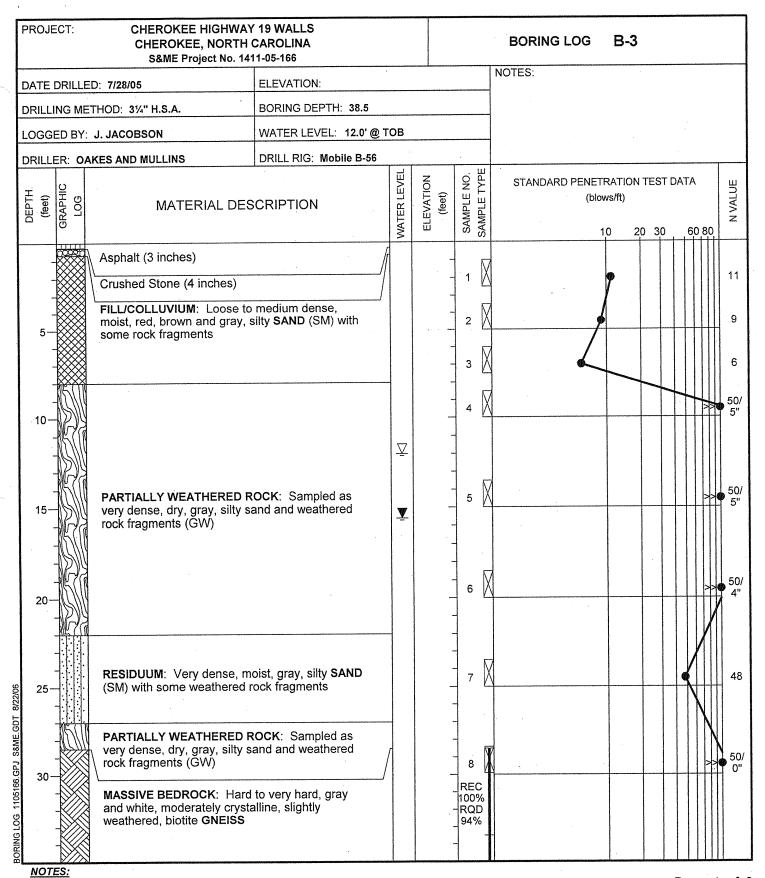
PF	ROJE	ECT:	CHEROKEE HIGHWAY CHEROKEE, NORTH S&ME Project No. 14	CAROLINA		-		BORING LOG	B-2		
D/	ATE	DRILLI	ED: <b>7/26/05</b>	ELEVATION:				NOTES:			
DF	RILL	ING ME	ETHOD: 3¼" H.S.A.	BORING DEPTH: 38.0							
LC	ogg	ED BY	J. JACOBSON	WATER LEVEL: 29.5' @ TOB							
DF	RILL	ER: M	ULLINS AND RAMEY	DRILL RIG: Mobile B-56						 	<b>.</b>
DEPTH (feet) (feet) MATERIAL DESCI			MATERIAL DES	CRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO. SAMPLE TYPE	•	vs/ft)	A 60,80	N VALUE
	-		WEATHERED ROCK: Very statement finely crystalline, severely we GNEISS	oft, dark brown, athered, biotite		-	REC 100% RQD 86%				
	-	YZZX	MASSIVE BEDROCK: Hard and white, medium crystalling biotite GNEISS (continued)	to very hard, gray e, slightly weathered,							
			Boring Terminated @ 38.0'								
90/											
J S&ME.GDT 8/22	-					·					
BORING LOG 1105166.GPJ S&ME.GDT 8/22/06					And the state of t						

NOTES:

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2. BORING, SAMPLING AND PENETRATION TEST DATA IN GENERAL ACCORDANCE WITH ASTM D-1586.



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PROJE	CT:	CHEROKEE HIGHWAY CHEROKEE, NORTH S&ME Project No. 14	CAROLINA				BORING LOG	B-3	
DATE D	RILLE	ED: <b>7/28/05</b>	ELEVATION:				NOTES:		
DRILLI	NG ME	THOD: 3¼" H.S.A.	BORING DEPTH: 38.5						
LOGGE	D BY:	J. JACOBSON	WATER LEVEL: 12.0' @ TOB						
DRILLE	R: 0/	AKES AND MULLINS	DRILL RIG: Mobile B-56	<del></del>		1			
DEPTH (feet)	GRAPHIC LOG	MATERIAL DES	SCRIPTION	WATE ELE' SAMF				RATION TEST DATA ws/ft) 0 20 30 60 80	N VALUE
-		MASSIVE BEDROCK: Hard and white, moderately crysta weathered, biotite GNEISS (continued)	to very hard, gray lline, slightly		- ^- -	REC 100% RQD 77%			
		Boring Terminated @ 38.5'							
									-
			*						
		,							
				-					
SAME: O									
25									
3									
901									
					ľ				

NOTES:

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PROJE	ECT:	CHEROKEE HIGHWAY CHEROKEE, NORTH ( S&ME Project No. 141	CAROLINA					BORING LOG	B-4				
DATE	DRILLE	D: 7/27/05	ELEVATION:	·				NOTES:					
DRILLI	ING ME	THOD: 31/4" H.S.A.	BORING DEPTH:	21.0									
LOGG	ED BY:	J. JACOBSON	WATER LEVEL:	12.5' @ T	ОВ								
DRILLI	ER: OA	KES AND MULLINS	DRILL RIG: Mob	ile B-56								<u></u>	
DEPTH (feet)	GRAPHIC LOG	MATERIAL DES	CRIPTION		WATER LEVEL	ELEVATION (feet)	SAMPLE NO. SAMPLE TYPE	STANDARD PENETR (blow:	s/ft)	30		0 80	N VALUE
-		Asphalt (3 inches)		/		-	V						
-		Crushed Stone (3 inches)					1 🖔	•					6
5-		FILL/COLLUVIUM: Loose to moist, reddish brown, silty fir	medium dense, ne <b>SAND</b> (SM)			_	2						11
						-	3 🛭						5
10-		RESIDUUM: Loose, dry, gra weathered rock fragments (C	y, silty <b>SAND</b> and GW)	1	,	-	4						8
					Ţ V	-	REC 77% RQD 29%						
15-		MASSIVE BEDROCK: Hard and white, moderately crysta weathered, biotite GNEISS	to very hard, gra Illine, slightly	у		- - -	REC 82% RQD 57%						
20-	- 💹					-	REC 100%		•	-	+	+ + +	$\parallel$
	<i>X///</i> 2	Boring Terminated @ 21.0'					100%					$\  \ $	
9													
17719		,						·					
ME. GD													
800													
100.0													
110													
KING LO													
BORING LOG 1105166.GPJ S&ME.GDJ 8/22/05		Boring Terminated @ 21.0'					100%   RQD						

NOTES:

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P	ROJE	CT:	CHEROKEE HIGHWAY CHEROKEE, NORTH ( S&ME Project No. 141	CAROLINA				BORING LOG	B-5		
D	ATE [	DRILLI	ED: <b>7/27/05</b>	ELEVATION:				NOTES:			
<u></u>	RILLI	NG ME	ETHOD: 3¼" H.S.A.	BORING DEPTH: 50.0							
L	OGGE	D BY	J. JACOBSON	WATER LEVEL: 48.0'@1	ОВ						
D	RILLE	R: 0	AKES AND MULLINS	DRILL RIG: Mobile B-56	<b>,</b>						
i Hari	(feet)	GRAPHIC	MATERIAL DES	CRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO.	STANDARD PENET (blow	RATION TEST [ ws/ft) 0 20 30	OATA 60 80	N VALUE
	-		Asphalt (4 inches)	//				7			
	-		Crushed Stone (4 inches)				1 1		1		28
	-		FILL/COLLUVIUM: Medium of moist, gray and white, silty So	dense to very dense, AND (SM) with some			] 2 🛛				18
	5-		weathered rock fragments	/			3				30
							4 🗵				50/ 5"
	10-						<del>-</del>				1
						٠	5			/	63
	15— - - -		RESIDUUM: Medium dense moist, gray and white, silty Some weathered rock fragments	to very d4ense, AND (SM) with							\ \ 
-	-						_ 6 ⊠			>>	50/ 5"
	20— - -										
96	- 25—			en e			7				41
E.GDT 8/22/			,		-		-				
GPJ S&ME	20						8 28	<u> </u>		<b>                                     </b>	50/ 4"
BORING LOG 1105166.GPJ S&ME.GDT 8/22/06	30		PARTIALLY WEATHERED Revery dense, moist, gray and weathered rock fragments	OCK: Sampled as white, silty sand, with			1				
	NOTE					-	9 🗵	\$			50/ 5"

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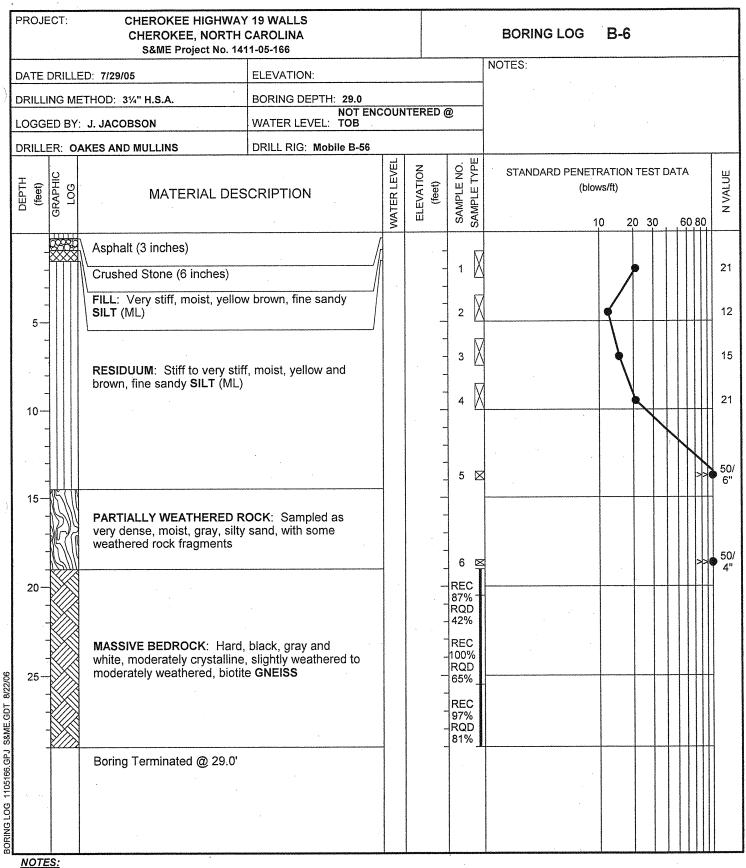


by common way construction of the second	PROJECT: CHEROKEE HIGHWAY CHEROKEE, NORTH C S&ME Project No. 141	CAROLINA				BORING LOG B-	5
	DATE DRILLED: 7/27/05	ELEVATION:				NOTES:	
	DRILLING METHOD: 31/4" H.S.A.	BORING DEPTH: 50.0					
	LOGGED BY: J. JACOBSON	WATER LEVEL: 48.0'@T	ОВ				*-
	DRILLER: OAKES AND MULLINS	DRILL RIG: Mobile B-56					
	(feet) (Rect) (Rect) (Get) MATERIAL DES	CRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO. SAMPLE TYPE	STANDARD PENETRATION (blows/ft)	N TEST DATA III N TEST DATA II
BORING LOG 1105166.GPJ 88ME.GDT 8/22/06	PARTIALLY WEATHERED ROvery dense, moist, gray and weathered rock fragments (continued)  Boring Terminated @ 50.0'	OCK: Sampled as white, silty sand, with	<u>Ā</u>		10 -		20 30 60 80
BO	NOTES:						<u> </u>

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PROJEC	OT:	CHEROKEE HIGHWAY CHEROKEE, NORTH ( S&ME Project No. 141	CAROLINA	,			more:	BORING LOG	B-7			
DATE DI	RILLE	D: 8/2/05	ELEVATION:					NOTES:				
DRILLIN	IG ME	THOD: 31/4" H.S.A.	BORING DEPTH: 11.0					·				
LOGGE	D BY:	J. JACOBSON	WATER LEVEL: TOB	COUN	ILRED	@		,	•			
DRILLER	R: OA	KES AND MULLINS	DRILL RIG: Mobile B-56			<del></del>						<del></del>
DEPTH (feet)	GRAPHIC (feet) (		CRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO.	SAMPLE TYPE	STANDARD PENETI (blov	vs/ft)	TEST 1	0 80	N VALUE
<u> </u>		Asphalt (2 inches)		A		1	×				>>	50/ 5"
-:		Crushed Stone (3 inches)				1						
		FILL: Stiff, moist, brownish, r				_ 2	æ				*	50/ 3"
5:		RESIDUUM: Very dense, mo silty SAND (SM) with some sr fragments	ist, gray and white, nall weathered rock		•	3	×				*	50/
10-		PARTIALLY WEATHERED RO very dense, moist, gray and v some small weathered rock fi	white, silty sand, with			4	×				×	50/ 5"
		RESIDUUM: Very dense, mo silty SAND (SM) with some sr fragments	ist, gray and white, mall weathered rock									
		Auger Refusal @ 11.0'										
A Comment												
2/06												
DT 8/2												
S&ME.G												
GPJ (	***************************************											
105166						Anti-constitution of the Constitution of the C						
106 1	***************************************					Application of the state of the						
BORING LOG 1105166.GPJ S&ME.GDT 8/22/06												

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