



MACTEC, Inc.

MACTEC Engineering and Consulting

MACTEC Development

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For Review / Comment

Please Reply

TO:	CHRIS HENSLEY	DATE:	5/14/05
FIRM:	TVA	SUBJECT:	Field BORNSB LOGS FOR NB-59, 65, 76 and 85/6
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# PAGES:	4 + this cover sheet		
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


MACTEC SOIL TEST BORING FIELD REPORT

BORING NO. NB-09 PG. 1 OF 1

RIG TYPE CME HAMMER TYPE Auto

JOB NO. 3043051021 DRILLER G. ALINS HOURS DRILLING _____ GROUND SURFACE ELEV. _____

JOB NAME TVA KING STON LOGGED BY T. Justin HOURS MOVING _____ DATE: 5/14/05 WEATHER: Sunny

No.	Depth	Blows	Blows	Blows	Pen.	Description
1	0-1.5	3	5	3	1.3	Firm Brown silty moist s. clay Topsoil = 0 to 0.6 with manganese nodules - Residue
2	1.5-6.5	4	4	6	1.5	Same as above except stiffer and Red Brown
UD1 9-11				2.0		
3	11-12.5	3	4	6		Same as above except no manganese nodules.
4	15-16.5	3	3	3	1.5	Firm Red Brown silty moist sandy clay - Residue
UD2 19-21				1.7		
5	21-22.5	W/H	3	2	1.5	SAME AS ABOVE except moist
6	25-26.5	1	2	1	1.5	Soft Red Brown Very moist sandy clay - Residue
UD3 26.5-28.5				2.0		
7	28.5-30	1	1	3	0.5	Soft Red Brown very moist sandy clay
8	30-31.5	1	1	2	1.5	with chert fragments - Residue
9	31.5-34.0	13	19	16	1.0	Dense Brown and Gray Dolomite fragments with sand - Residue

A.R. @ 34.0 FT

NOTE: SURELY THERE WAS NO ATTENTION TO 32.5 FT due to CREEPY / weathered Dolomite fragments.

STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 5" AND 3RD 6" TO DRIVE 1-3/8" I.D. 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES.

BORING TERMINATED: 34.0'
 BORING REFUSAL: 34.0'
 WATER TOB DEPTH 16.9 FT
 WATER 24 HR.: DEPTH 17.0 FT
 WATER LOSSES _____
 CAVE-IN DEPTHS _____
 CASING: SIZE _____ LENGTH _____
 STANDBY TIME _____ BORING LAYOUT _____

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	0 TO 34'
HAND SHOP: W/MUD: W/WATER	_____ TO _____
ROTARY DRILL: W/MUD: W/WATER	_____ TO _____
DIAMOND CORE	_____ TO _____
CORE SIZE	_____ TO _____
UNDISTURBED SAMPLES	NO <u>3</u> SIZE <u>3"</u>
BAG SAMPLES	NO <u>1</u> SIZE <u>5'-10'</u>

F1024 8/03

MACTEC SOIL TEST BORING FIELD REPORT

BORING NO. 18-65 PG. 1 OF 1

RIG TYPE CME HAMMER TYPE Auto

JOB NO. 3043057021 DRILLER G. AKUS HOURS DRILLING _____ GROUND SURFACE ELEV. _____

DB NAME TVA Kingston LOGGED BY T Justice HOURS MOVING _____ DATE: 5/14/05 WEATHER: SUNNY

SAMPLING			NO	REC	SOIL DESCRIPTION	REMARKS
No. Depth	IN	FEET				
1	0-1.5	4 4 8	1.5		STIFF Red Brown dry silty clay with a few chert fragments - Residue	Top soil = 0 to 0.1
2	5-6.5	5 6 9	1.5		"SAME AS ABOVE" - except with some black manganese nodules.	
3	15-16.5	5 6 8	1.5		STIFF Reddish Orange silty moist sandy silty clay - Residue	
4	25-26.5	2 3 4	1.5		Firm Reddish Orange to Yellowish Brown silty moist sandy clay - Residue	
5	35-36.5	1 2 1	1.0		Soft Brown moist sandy clay with a few chert fragments - Residue	(35'-35.9')
6	38.4-38.5	5/16" - -	0.1		Very Soft Brown Very moist to wet Sandy SILT with a few chert fragments - Residue	(35.9'-38.5')
<p>Auger Refusal @ 38.4 FT</p> <p>Very Loose Brown wet Very Silty Sand - (completely weath. Dolomite) - Residue (38.4'-38.5')</p>						

STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-38" I.D. 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES.

BORING TERMINATED: 38.5'
 BORING REFUSAL: 38.4'
 WATER TOB DEPTH: 23.7'
 WATER 24 HR.: DEPTH: 24.1'
 WATER LOSSES _____
 CAVE-IN DEPTHS _____
 CASING: SIZE _____ LENGTH _____
 STANDBY TIME _____ BORING LAYOUT _____

METHOD OF ADVANCING BORING		DEPTH
POWER AUGER	3 1/4"	0 TO 38.4
HAND SHOP: W/MUD: W/WATER		TO _____
ROTARY DRILL: W/MUD: W/WATER		TO _____
DIAMOND CORE		TO _____
CORE SIZE		TO _____
UNDISTURBED SAMPLES	NO <u>0</u> SIZE _____	
BAG SAMPLES	NO <u>1</u> 2'-10'	

MACTEC SOIL TEST BORING FIELD REPORT

BORING NO. NB 76 PG. 1 OF 1

RIG TYPE CME HAMMER TYPE Auto

JOB NO. 3043051021 DRILLER G. AKINS HOURS DRILLING _____ GROUND SURFACE ELEV. _____

JOB NAME TVA Kingston LOGGED BY J. J. WATKINS HOURS MOVING _____ DATE: 5/14/05 WEATHER: Sunny

No. Depth	Scale	U ¹	U ²	U ³	U ⁴	U ⁵	REMARKS
1 0-1.5	3	4	4				1.5 Firm Rd Br dry to sl. moist Silty clay with a few black Manganese nodules - Residual Topsoil = 0 to 0.5'
2 1.5-6.5	3	3	5				1.5 SAME AS ABOVE - except sl. moist with chert fragments
not 9-11							
3 11-12.5	3	4	7				1.5 STIFF Br and Rd Br sl. moist silty clay with (weath) chert fragments - Residual and black manganese nodules
4 15-16.5	3	4	4				1.5 Firm "SAME AS ABOVE"
not 17-20.5 (PUSHED 1.5')							
5 20.5-22	3	4	10				1.5 STIFF Yellowish Br sl. moist silty clay with chert fragments and chert SAND - Residual
6 25-26.5	2	3	3				1.5 Firm Rd Br to Rd Br sl. moist Silty clay - Residual
not 26.5'							
7 28.5-30	5	3	2				1.2 to br sandy silty 0.9 Firm Yellow Br moist silty clay silt with chert fragments - Residual
not 30-32.5							
8 32-33.5	1	1	1				0
9 35-36.5	1	1	1				1.0 Very soft Br to Rd Br wet sandy clayey silt with dolomite fragments - Residual
A.R. @ 38.0 FT							

*STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D. 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES.

BORING TERMINATED: 38.0 FT
 BORING REFUSAL: 38.0 FT
 WATER TOB DEPTH: 28.2 FT
 WATER 24 HR.: DEPTH _____
 WATER LOSSES _____
 CAVE-IN DEPTHS _____
 CASING: SIZE _____ LENGTH _____
 STANDBY TIME _____ BORING LAYOUT _____

METHOD OF ADVANCING BORING		DEPTH
POWER AUGER	3 1/4"	0 TO 38.0 FT
HAND SHOP: W/MUD: W/WATER		TO _____
ROTARY DRILL: W/MUD: W/WATER		TO _____
DIAMOND CORE		TO _____
CORE SIZE		TO _____
UNDISTURBED SAMPLES	NO 4 SIZE 3"	
BAG SAMPLES	NO 1, 5'-15"	

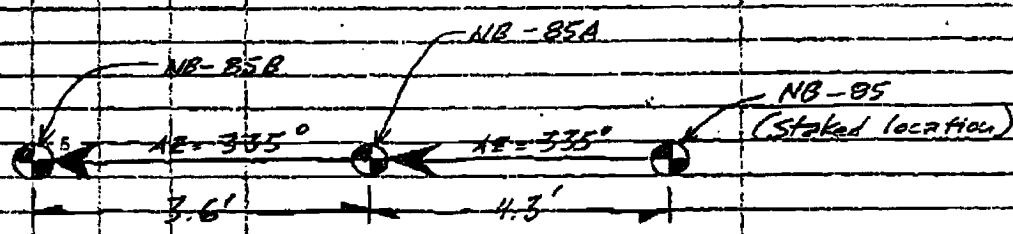


SOIL TEST BORING FIELD REPORT

JOB NO. 343051021 DRILLER M. B. Matt BORING NO. NB-B5A-85B PG. 1 OF 1
 JOB NAME EVA KINGSTON LOGGED BY J. Mason HOURS DRILLING _____ GROUND SURFACE ELEV. _____
 HOURS MOVING _____ DATE: 5/12/05 WEATHER: _____

No.	Depth	SAMPLING			SCALE	UD	REC	SOIL CLASSIFICATION	REMARKS
		1st 6"	2nd 6"	3rd 6"					
					0			Auger from 0.0 to 13.0 ft.	
1	14:30				5	UD	1.5'		
2	14:37				5	UD	1.3' Refused @ 16.4'		
3	14:46				0	UD	0.4' Refused @ 18.0'	Driven 2.0' total 1.0' in NB-85B	
4	14:57				5	UD	0.8' Driven 1.65' to refusal @ 20.65'		
5	16:00				5	UD	0.9' Driven 1.6' (NB-85B)		
6	16:09				5	UD	1.6' Driven 2.0' (NB-85B)		
7	16:27				5	UD	2.0' Driven 2.0' (NB-85B)		
8	16:40				5	UD	1.6' Driven 2.0' (NB-85B)		
21' to 25' UD tube pulled off of UD drive head in NB-85A; rig offset further to NB-85B to continue UD sampling.									
9	17:00				5	UD	1.0' Driven 1.3' (refused, NB-85B)		
Resistance to augers @ 30.3 ft.; refused @ 31.0 ft.									

STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES.



BORING TERMINATED: _____
 BORING REFUSAL: _____
 WATER TOB DEPTH _____
 WATER 24 HR.: DEPTH _____
 WATER LOSSES _____
 CAVE-IN DEPTHS _____
 CASING: SIZE _____ LENGTH _____
 STANDBY TIME _____ BORING LAYOUT _____

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	TO _____
HAND SHOP: W/MUD: W/WATER	TO _____
ROTARY DRILL: W/MUD: W/WATER	TO _____
DIAMOND CORE	TO _____
CORE SIZE	TO _____
UNDISTURBED SAMPLES NO. _____ SIZE _____	
BAG SAMPLES NO. _____	