

U.S. ARMY CORPS OF ENGINEERS
GEOTECHNICAL BORING DATA

PROJECT NAME Colorado River lock

LOG OF BORING NO. 94-136

LOCATION/STATION Sta. No. 447+750

DATE/TIME STARTED 9-23-94 8-30 AM

DATE/TIME COMPLETED 9-23-94 12-30 PM

TIDE ELEVATION +3' MLT DATUM, TIME _____ LOCATION LT. BKN.# _____

WATER DEPTH 12' - 3' (deck) = 9'

DEPTH FROM WATER SURFACE
TO BOTTOM OF BORING 48'

WEATHER Sunny

DRILL RIG MANUFACTURE
MODEL NO. Failling 3600

DRILLER Dempsey Gearner
LOGGER H. Patel

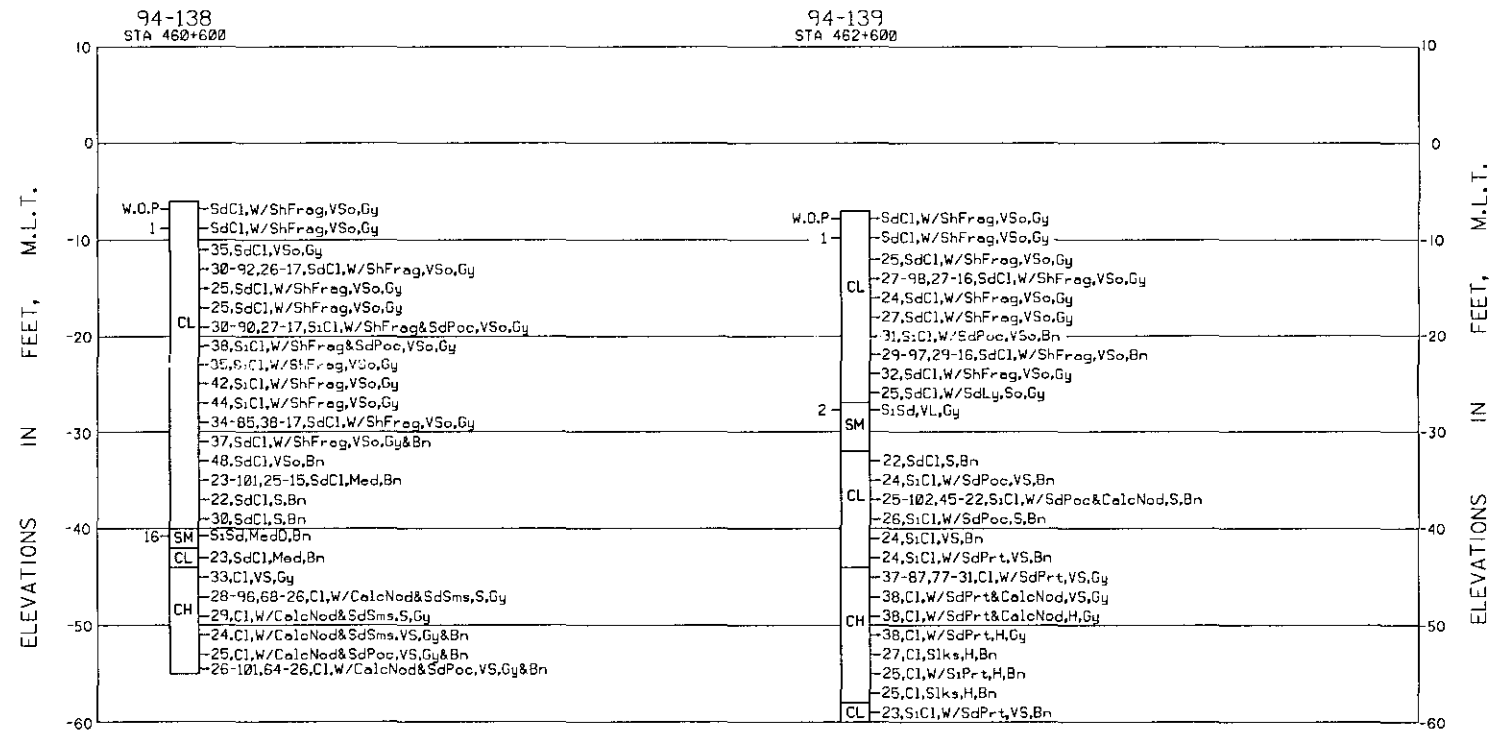
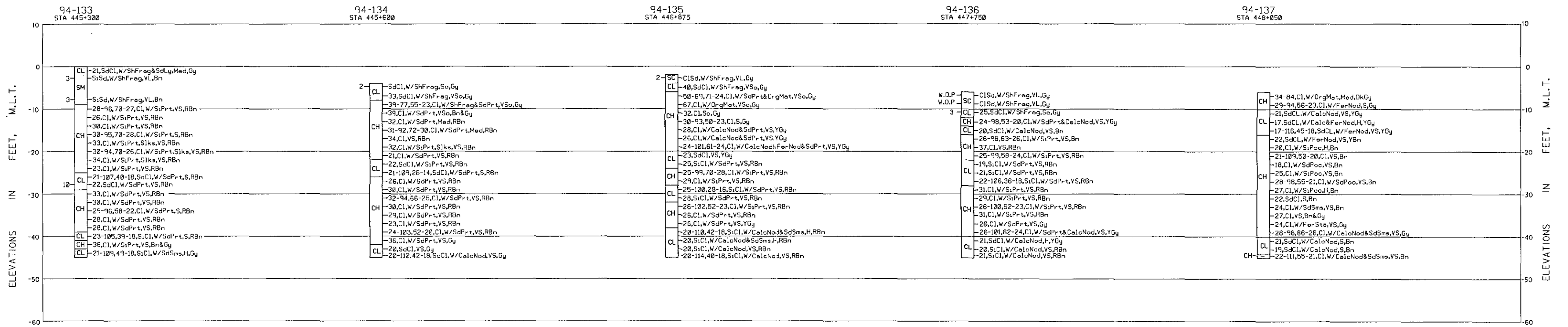
DRILLER'S/LOGGER'S COMMENTS _____

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSIS- TENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
BORING NO. <u>94-136</u> DATE: BEGIN <u>9-23-94</u> PAGE <u>111</u>								
JOB NO. <u>94G790</u> COMPLETE <u>9-23-94</u> Thin Walled Tube								
PROJECT <u>Colorado River lock</u> ☒ 3" ☐ 6"								
LOCATION <u>Sta. No. 447+750</u>								
ELEVATION OF HOLE <u>-6'</u>								
MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Failing 3600</u>								
GROUNDWATER: DEPTH _____ ft., ELEV. _____ ft., at end of Drilling								
WEATHER <u>Sunny</u>								
DRILLER <u>Dempsey Gearner</u> LOGGER <u>H. Patel</u>								
0	X	1	weight of pipe	Gray	sand	Very Loose	clayey	Attempt was made to push shelby tube, but no recovery - Split spoon used for sample
	X	2	weight of pipe	Gray	sand	Very Loose	clayey	with shell fragments (0'-4')
-5-	X	3	1 1/2	Gray	clay	Soft	Sandy	With shell fragments
		4	1.5	Gray	clay	Stiff		With sand partings & cal. Nodules
		5	2.5	Brown & Gray	clay	Very stiff		With sand partings & cal. Nodules
-10-		6	2.5	Brown	clay	Very stiff		With sand partings
		7	2.5	Brown	clay	Very stiff		With sand partings & cal. Nodules
-15-		8	3.0	Brown	clay	Very stiff		With silt partings
		9	2.75	Brown	clay	Very stiff	Sandy	With silt partings
		10	1.5	Brown	clay	Stiff	Sandy	With sand layer & silt partings
-20-		11	2.5	Brown	clay	Very stiff	Sandy	With silty partings
		12	3.0	Brown	clay	Very stiff		With silt partings
-25-		13	3.0	Brown	clay	Very stiff		With silt partings
		14	2.75	Brown	clay	Very stiff		With silt partings & shell frag.
		15	2.5	Brown	clay	Very stiff		With shell & silty sand layer
-30-		16	3.0	Gray	clay	Very stiff		With sand partings
		17	3.5	Gray	clay	Very stiff		With sand partings & Fine cal. Nodules
-35-		18	4.0	Brown	clay	Very stiff	Sandy	With calcareous Nodules

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	BORING NO. <u>94-136</u> DATE: BEGIN <u>9-23-94</u> PAGE <u>2/2</u> JOB NO. <u>94 G 790</u> COMPLETE <u>9-23-94</u> Thin Walled Tube PROJECT <u>Colorado River look</u> ☒ 3" ☐ 6" LOCATION <u>Sta. No. 447+750</u> ELEVATION OF HOLE <u>-6'</u> MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Failing 3600</u> GROUNDWATER: DEPTH _____ ft., ELEV. _____ ft., at end of Drilling WEATHER <u>Sunny</u> DRILLER <u>Dempsey Gearner</u> LOGGER <u>H. Patel</u>				
				COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
-35-								
	19	2.5	Brown clay	very stiff	Sandy	with cal. Nodules & silt partings		
	20	2.0	Brown clay	very stiff	Sandy	With cal. Nodd. & Silt partings		
-40-								
-45-								
-50-								
-55-								
-60-								
-65-								
-70-								

GEOTEST ENGINEERING, INC.



VISUAL CLASSIFICATIONS:

Bn Brown(ish)	H Hard	O Olive	S Silty
Cac Calcareous	L Loose	Part Particle(s)	Sks Silken Sides
Cl Clay(ey)	Ly Layer(s)	Poc Pocket(s)	Sms Seams
D Dense	Lt Light	Prt Parting(s)	So Soft
Dcm Decomposed	Mat Material	R Red(dish)	Sta Stains
Dk Dark	Med Medium	S Stiff	V Very
Fer Ferrous	Nod Nodules	Sd Sand(ly)	W With
Gy Gray(ish)	Org Organic	Sh Shell(ly)	Y Yellow(ish)

LABORATORY CLASSIFICATIONS:

CH INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS.
CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, LEAN CLAYS.
SC CLAYEY SANDS, SAND-CLAY MIXTURES.
SM SILTY SANDS, SAND-SILT MIXTURES.

NOTES:

1. SOILS HAVE BEEN CLASSIFIED IN ACCORDANCE WITH MILITARY STANDARD 6198 "UNIFIED SOIL CLASSIFICATION SYSTEM FOR ROADS, AIRFIELDS, EMBANKMENTS, AND FOUNDATIONS." CONSISTENCY OF SOILS SUCH AS SOFT, MEDIUM, HARD, LOOSE, DENSE, ETC., ARE RELATIVE TERMS BASED ON ESTIMATED UNDISTURBED SHEAR STRENGTH OF THE MATERIAL AS DETERMINED BY VISUAL CLASSIFICATION POCKET PENETROMETER TESTS AND PENETRATION RESISTANCE DURING SAMPLING.
2. FIGURES TO THE RIGHT OF BORING LOGS ARE WATER CONTENTS IN PERCENT OF THE DRY WEIGHT, DRY DENSITY, LIQUID LIMIT, PLASTIC LIMIT, AND BAR LINEAR SHRINKAGE. (MC-UDW), (LL-PL), (JBLS), FIGURES TO THE LEFT OF BORING LOGS ARE BLOWS PER FOOT OF PENETRATION FROM STANDARD PENETRATION TESTING.
3. BORINGS WERE DRILLED USING WET ROTARY DRILLING TECHNIQUES AND UNDISTURBED SAMPLES WERE RECOVERED WITH A 3-INCH DIAMETER THIN WALL SAMPLER WHERE COHESIVE MATERIALS WERE ENCOUNTERED. WHERE COHESIVE MATERIALS WERE ENCOUNTERED, DISTURBED SAMPLES WERE TAKEN WITH A SPLIT SPOON SAMPLER DURING PERFORMANCE OF STANDARD PENETRATION TESTING.
4. WATER TABLE LEVELS SHOWN ON BORING LOGS WERE DETERMINED AFTER DRILLING BORINGS BY MEASURING THE TOP OF FLUID LEVELS IN THE BORINGS. INASMUCH AS WET ROTARY DRILLING TECHNIQUES AND DRILLING MUD WERE USED TO DRILL THE HOLES, THE LEVEL OF DRILLING FLUIDS IN THE BORE HOLES MAY NOT HAVE STABILIZED TO THE LEVEL OF THE ACTUAL WATER TABLE. ADDITIONALLY, WATER TABLES IN THE FIELD ARE LIKELY TO FLUCTUATE DEPENDING ON WEATHER CONDITIONS, THEREFORE, SOME VARIATION SHOULD BE ANTICIPATED BETWEEN WATER TABLES INDICATED AND WATER TABLES ENCOUNTERED IN THE FIELD.

REVISION	DATE	DESCRIPTION	BY
OFFICE OF THE DISTRICT ENGINEER U.S. ARMY ENGINEER DISTRICT, GALVESTON CORPS OF ENGINEERS GALVESTON, TEXAS			
DRAWN BY: J.G.		Colorado River Locks Boring logs	
DESIGNED BY: X			
CHECKED BY: L.A.A.			
SUBMITTED BY: X			
APPROVED: X		DATE: X	
CHIEF, X		CHIEF, ENGINEERING DIVISION	
1 - AS REQUIRED BY ENGINEER CIRCULAR NO. 1110-170		SCALE: AS SHOWN SPEC. DATE: X	
Prepared under the direction of Robert B. Gatlin, Col., C.E., District Engineer			
SHEET 1 OF 1		FILE NO. X	

S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	Mc (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	L L (%)	PL (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0-1.5		W.O.P	Gray,Sand,Very loose,Clayey,w/shell fragments	S C												
2	2-3.5		W.O.P	Gray,Sand,Very loose,Clayey,w/shell fragments	S C						96.7*	94.4	90.3	76.9	46.9		
3	4-5.5	0.25	3	Gray,Clay,Soft,Sandy,w/shell fragments	C L	25.2											
4	6 - 8	2.25	VS	Yellowish gray,Clay,Very stiff,w/sand partings and calcareous nodules	C H	24.2	97.7	121.3	53.0	20.0	100.0	100.0	98.4	97.0	94.7		
5	8 - 10	3.00	VS	Brown,Clay,Very stiff,Sandy,w/calcareous nodules	C L	20.2											
6	10 - 12	2.50	VS	Brown,Clay,Very stiff,w/silt partings	C H	25.6	98.0	123.1	63.0	26.0	100.0	100.0	100.0	99.4	97.9		2.39
7	12 - 14	2.00	VS	Reddish brown,Clay,Very stiff	C H	36.9											
8	14 - 16	3.50	VS	Reddish brown,Clay,Very stiff,w/silt partings	C H	24.9	99.4	124.1	58.0	24.0	100.0	100.0	99.1	98.1	97.1		
9	16 - 18	3.00	VS	Reddish brown,Clay,Very stiff,Silty,w/sand partings	C L	18.7											
10	18 - 20	2.50	VS	Reddish brown,Clay,Very stiff,Silty,w/sand partings	C L	20.8											
11	20 - 22	3.50	VS	Reddish brown,Clay,Very stiff,Silty,w/sand partings	C L	21.8	105.6	128.6	36.0	18.0	100.0	100.0	99.9	99.3	92.7		2.46
12	22 - 24	3.50	VS	Reddish brown,Clay,Very stiff,w/silt partings	C H	31.1											
13	24 - 26	4.00	VS	Reddish brown,Clay,Very stiff,w/silt partings	C H	28.6											
14	26 - 28	3.00	VS	Reddish brown,Clay,Very stiff,w/silt partings	C H	26.1	99.9	126.0	62.0	23.0	100.0	100.0	99.7	98.6	97.2		
15	28 - 30	3.50	VS	Reddish brown,Clay,Very stiff,w/silt partings	C H	31.0											
16	30 - 32	4.00	VS	Gray,Clay,Very stiff,w/sand partings	C H	25.7											
17	32 - 34	4.00	VS	Gray,Clay,Very stiff,w/sand partings and calcareous nodules	C H	25.8	100.9	126.9	62.0	24.0	99.8	98.7	97.8	96.9	91.3		2.45
18	34 - 36	4.25	H	Yellowish gray,Clay,Hard,Sandy,w/calcareous nodules	C L	21.2											
19	36 - 38	3.50	VS	Reddish brown,Clay,Very stiff,Silty,w/calcareous nodules	C L	20.2											
20	38-39	2.00	VS	Reddish brown,Clay,Very stiff,Silty,w/calcareous nodules	C L	21.3											

S # : Sample Number, P P : Pocket Penetrometer Reading, U S C : Unified Soil Classification, M c : Moisture Content

q u : Uncogined Compressive Strength, W O H : Weight of hammer, W O P : Weight of Pipe

* : Material Retained are shell fragments

JOB NO. 14G790

DATE 10/13/94

PROJECT Colorado River Locks

AREA GIWW at Colorado River, Texas

BORING NO. 94-136

SAMPLE NO. 6

DEPTH 10-12 ft.

SPECIMEN NO. 1

CLASSIFICATION

Brown, Clay, Very stiff, w/silt partings

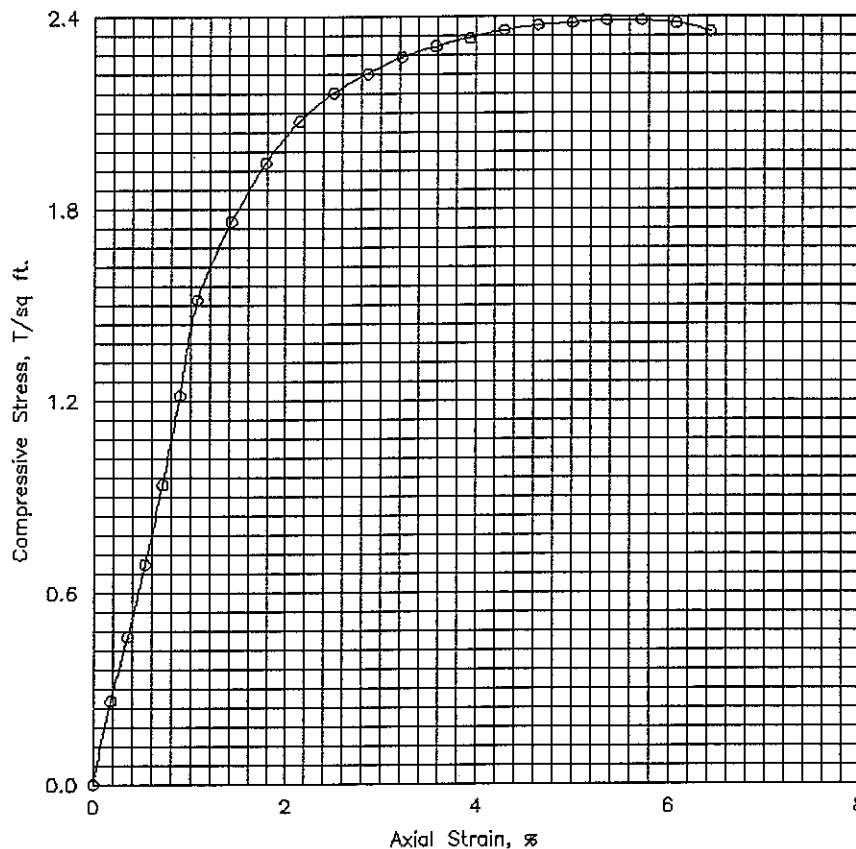
Tare No.	W-19	Height	5.595 in.
Tare plus Wet Specimen	249.25 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	207.20 gm	Initial Area	6.290 sq in.
Water Weight	42.05 gm	Volume	35.194 cu in.
Tare Weight	42.67 gm	Volume of Solids	cu in.
Wet Specimen	1136.91 gm	Void Ratio	
Dry Specimen	905.49 gm	Saturation	%
Water Content	25.56 %	Dry Density	98.0 lb/cu ft
Specific Gravity of Solids			
LL = 63	PL = 26	PI = 37	

Proving Ring No. 10170

Proving Ring Constant, K = .766 lbs/div.

Elapsed Time min.	Dial Reading 0.001"	Cumulative Change in.	Proving Ring Dial Reading	Axial Load lb	Axial Strain	Area Corr. sq in.	Compr. Stress tsf
.0	0.	.000	.0	.0	.000	6.29	.000
.2	10.	.010	30.0	23.0	.002	6.30	.263
.4	20.	.020	53.0	40.6	.004	6.31	.463
.6	30.	.030	79.0	60.5	.005	6.32	.689
.8	40.	.040	108.0	82.7	.007	6.34	.940
.9	50.	.050	140.0	107.2	.009	6.35	1.217
1.1	60.	.060	175.0	134.0	.011	6.36	1.518
1.4	80.	.080	204.0	156.3	.014	6.38	1.763
1.8	100.	.100	226.0	173.1	.018	6.40	1.946
2.1	120.	.120	242.0	185.4	.021	6.43	2.076
2.4	140.	.140	253.0	193.8	.025	6.45	2.163
2.8	160.	.160	261.0	199.9	.029	6.48	2.223
3.1	180.	.180	268.0	205.3	.032	6.50	2.274
3.4	200.	.200	273.0	209.1	.036	6.52	2.308
3.8	220.	.220	277.0	212.2	.039	6.55	2.333
4.1	240.	.240	281.0	215.2	.043	6.57	2.358
4.4	260.	.260	284.0	217.5	.046	6.60	2.374
4.8	280.	.280	286.0	219.1	.050	6.62	2.382
5.1	300.	.300	288.0	220.6	.054	6.65	2.390
5.4	320.	.320	289.0	221.4	.057	6.67	2.389
5.7	340.	.340	289.0	221.4	.061	6.70	2.380
6.0	360.	.360	287.0	219.8	.064	6.72	2.354

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	25.6 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	98.0		
Time to failure, min		t_f	5.07		
Unconfined compressive strength, T/sq ft		q_u	2.39		
Undrained shear strength, T/sq ft		S_u	1.19		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Brown, Clay, Very stiff, w/silt partings					
LL	63	PL	26	PI	37
				G_s	
Remarks		Project Colorado River Locks			
		Area GIWW at Colorado River, Texas			
		Boring No. 94-136		Sample No. 6	
		Depth 10-12 ft.		Date 10/13/94	
		El			
UNCONFINED COMPRESSION TEST REPORT					

JOB NO. 14G790

DATE 10/13/94

PROJECT Colorado River Locks

AREA GIWW at Colorado River, Texas

BORING NO. 94-136

SAMPLE NO. 11

DEPTH 20-22 ft.

SPECIMEN NO. 1

CLASSIFICATION

Reddish brown, Clay, Very stiff, Silty, w/sand partings

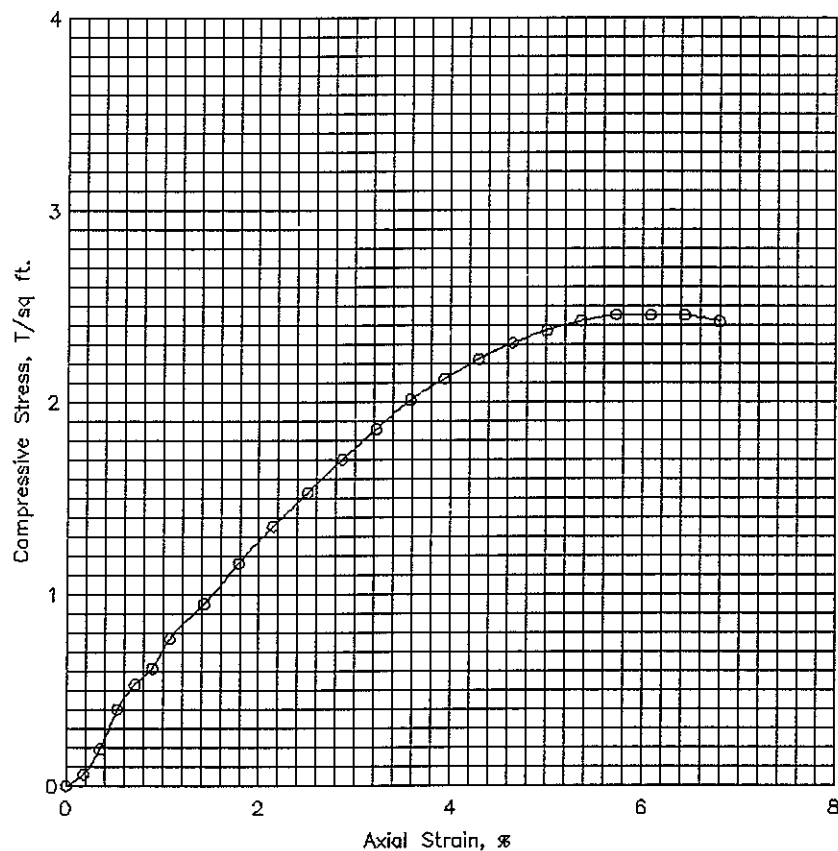
Tare No.	P-9	Height	5.595 in.
Tare plus Wet Specimen	340.99 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	287.50 gm	Initial Area	6.290 sq in.
Water Weight	53.49 gm	Volume	35.194 cu in.
Tare Weight	42.66 gm	Volume of Solids	cu in.
Wet Specimen	1188.26 gm	Void Ratio	
Dry Specimen	975.21 gm	Saturation	%
Water Content	21.85 %	Dry Density	105.6 lb/cu ft
Specific Gravity of Solids			
LL = 36	PL = 18	PI = 18	

Proving Ring No. 10170

Proving Ring Constant, K = .766 lbs/div.

Elapsed Time min.	Dial Reading 0.001"	Cumulative Change in.	Proving Ring Dial Reading	Axial Load lb	Axial Strain	Area Corr. sq in.	Compr. Stress tsf
.0	0.	.000	.0	.0	.000	6.29	.000
.2	10.	.010	7.0	5.4	.002	6.30	.061
.3	20.	.020	22.0	16.9	.004	6.31	.192
.6	30.	.030	46.0	35.2	.005	6.32	.401
.7	40.	.040	61.0	46.7	.007	6.34	.531
.9	50.	.050	71.0	54.4	.009	6.35	.617
1.1	60.	.060	89.0	68.2	.011	6.36	.772
1.5	80.	.080	110.0	84.3	.014	6.38	.951
1.8	100.	.100	135.0	103.4	.018	6.40	1.163
2.2	120.	.120	158.0	121.0	.021	6.43	1.356
2.5	140.	.140	179.0	137.1	.025	6.45	1.530
2.9	160.	.160	200.0	153.2	.029	6.48	1.703
3.2	180.	.180	219.0	167.8	.032	6.50	1.858
3.7	200.	.200	238.0	182.3	.036	6.52	2.012
3.9	220.	.220	252.0	193.0	.039	6.55	2.123
4.3	240.	.240	265.0	203.0	.043	6.57	2.224
4.7	260.	.260	276.0	211.4	.046	6.60	2.308
4.9	280.	.280	285.0	218.3	.050	6.62	2.374
5.3	300.	.300	292.0	223.7	.054	6.65	2.423
5.6	320.	.320	297.0	227.5	.057	6.67	2.455
5.9	340.	.340	298.0	228.3	.061	6.70	2.454
6.2	360.	.360	299.0	229.0	.064	6.72	2.453
6.6	380.	.380	296.0	226.7	.068	6.75	2.419

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	21.8 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	105.6		
Time to failure, min		t_f	5.62		
Unconfined compressive strength, T/sq ft		q_u	2.46		
Undrained shear strength, T/sq ft		S_u	1.23		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		

Classification Reddish brown, Clay, Very stiff, Silty, w/sand partings

LL	36	PL	18	PI	18	G _s
Remarks		Project Colorado River Locks				
		Area GIWW at Colorado River, Texas				
		Boring No. 94-136			Sample No. 11	
		Depth 20-22 ft. El			Date 10/13/94	
UNCONFINED COMPRESSION TEST REPORT						

JOB NO. 14G790

DATE 10/13/94

PROJECT Colorado River Locks

AREA GIWW at Colorado River, Texas

BORING NO. 94-136

SAMPLE NO. 17

DEPTH 32-34 ft.

SPECIMEN NO. 1

CLASSIFICATION

Gray, Clay, Very stiff, w/sand partings & calcareous nodules

Tare No.	W-2	Height	5.595 in.
Tare plus Wet Specimen	263.48 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	218.14 gm	Initial Area	6.290 sq in.
Water Weight	45.34 gm	Volume	35.194 cu in.
Tare Weight	42.50 gm	Volume of Solids	cu in.
Wet Specimen	1172.72 gm	Void Ratio	
Dry Specimen	932.10 gm	Saturation	%
Water Content	25.81 %	Dry Density	100.9 lb/cu ft
Specific Gravity of Solids			
LL = 62	PL = 24	PI = 38	

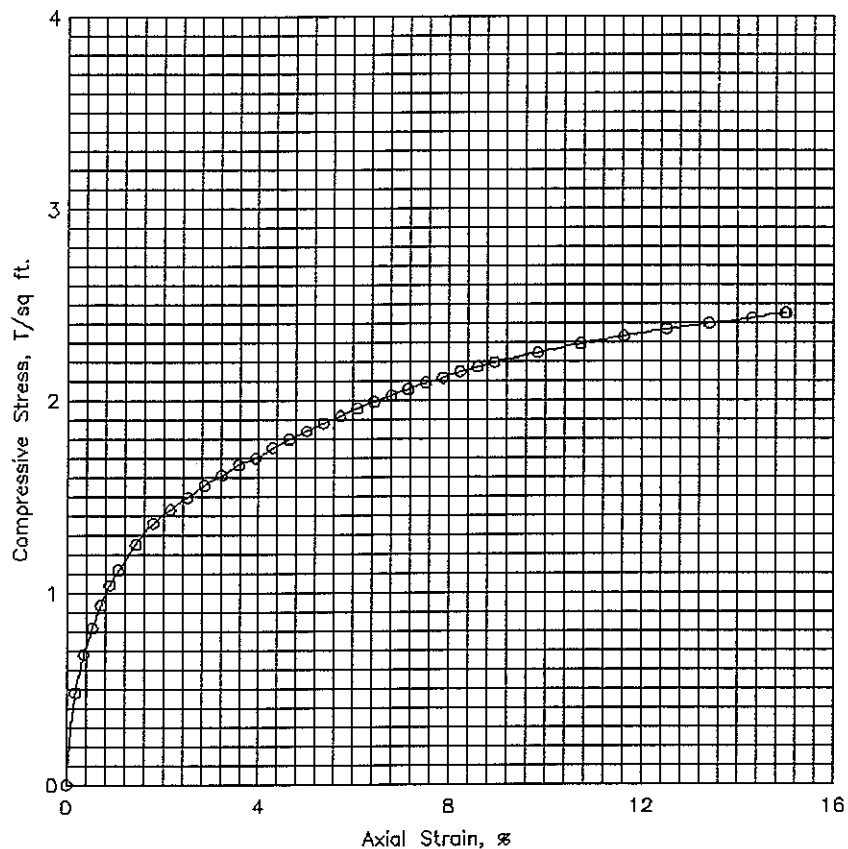
Proving Ring No. 10170

Proving Ring Constant, K = .766 lbs/div.

Elapsed Time min.	Dial Reading 0.001"	Cumulative Change in.	Proving Ring Dial Reading	Axial Load lb	Axial Strain	Area Corr. sq in.	Compr. Stress tsf
.0	0.	.000	.0	.0	.000	6.29	.000
.2	10.	.010	55.0	42.1	.002	6.30	.481
.4	20.	.020	78.0	59.7	.004	6.31	.681
.6	30.	.030	94.0	72.0	.005	6.32	.820
.8	40.	.040	108.0	82.7	.007	6.34	.940
1.0	50.	.050	120.0	91.9	.009	6.35	1.043
1.2	60.	.060	129.0	98.8	.011	6.36	1.119
1.5	80.	.080	145.0	111.1	.014	6.38	1.253
1.9	100.	.100	158.0	121.0	.018	6.40	1.361
2.2	120.	.120	167.0	127.9	.021	6.43	1.433
2.5	140.	.140	175.0	134.0	.025	6.45	1.496
2.9	160.	.160	183.0	140.2	.029	6.48	1.559
3.2	180.	.180	190.0	145.5	.032	6.50	1.612
3.5	200.	.200	197.0	150.9	.036	6.52	1.666
3.8	220.	.220	202.0	154.7	.039	6.55	1.701
4.2	240.	.240	209.0	160.1	.043	6.57	1.754
4.5	260.	.260	215.0	164.7	.046	6.60	1.798
4.8	280.	.280	221.0	169.3	.050	6.62	1.841
5.2	300.	.300	227.0	173.9	.054	6.65	1.884
5.5	320.	.320	232.0	177.7	.057	6.67	1.918
5.8	340.	.340	238.0	182.3	.061	6.70	1.960
6.2	360.	.360	243.0	186.1	.064	6.72	1.994
6.5	380.	.380	248.0	190.0	.068	6.75	2.027
6.8	400.	.400	253.0	193.8	.071	6.77	2.060
7.2	420.	.420	258.0	197.6	.075	6.80	2.092
7.5	440.	.440	262.0	200.7	.079	6.83	2.117
7.8	460.	.460	267.0	204.5	.082	6.85	2.149

8.1	480.	.480	271.0	207.6	.086	6.88	2.172
8.5	500.	.500	275.0	210.6	.089	6.91	2.196
9.3	550.	.550	284.0	217.5	.098	6.98	2.245
10.1	600.	.600	293.0	224.4	.107	7.05	2.294
10.9	650.	.650	301.0	230.6	.116	7.12	2.333
11.8	700.	.700	309.0	236.7	.125	7.19	2.370
12.6	750.	.750	316.0	242.1	.134	7.26	2.399
13.4	800.	.800	323.0	247.4	.143	7.34	2.427
14.2	839.	.839	329.0	252.0	.150	7.40	2.452
14.2	840.	.840	329.0	252.0	.150	7.40	2.452

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	25.8 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	100.9		
Time to failure, min		t_f	14.17		
Unconfined compressive strength, T/sq ft		q_u	2.45		
Undrained shear strength, T/sq ft		S_u	1.23		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Gray, Clay, Very stiff, w/sand partings & calcareous nodules					
LL	62	PL	24	PI	38
Remarks		Project Colorado River Locks Area GIWW at Colorado River, Texas Boring No. 94-136 Sample No. 17 Depth 32-34 ft. Date 10/13/94 El			
UNCONFINED COMPRESSION TEST REPORT					