

U.S. ARMY CORPS OF ENGINEERS
GEOTECHNICAL BORING DATA

PROJECT NAME Colorado River lock

LOG OF BORING NO. 94-134

LOCATION/STATION Sta. NO. 445+600

DATE/TIME STARTED 9-22-94 2:00 P.M.

DATE/TIME COMPLETED 9-22-94 4:30 P.M.

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

WATER DEPTH 10' - 3' (deck) = 7'

DEPTH FROM WATER SURFACE
TO BOTTOM OF BORING 48'

WEATHER Partly Cloudy

DRILL RIG MANUFACTURE
MODEL NO. Failing 3600

DRILLER Dempsey Gearen
LOGGER H. Patel

DRILLER'S/LOGGER'S COMMENTS _____

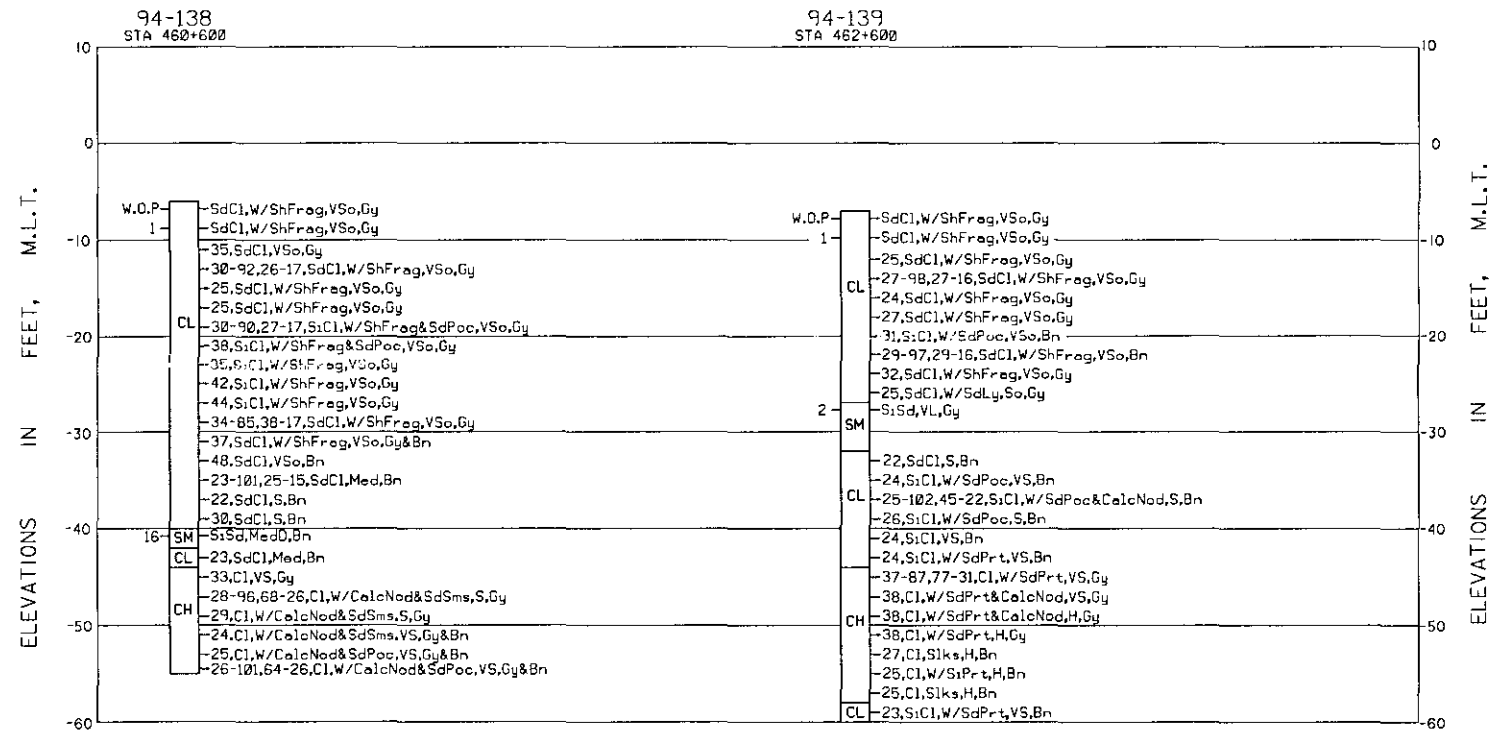
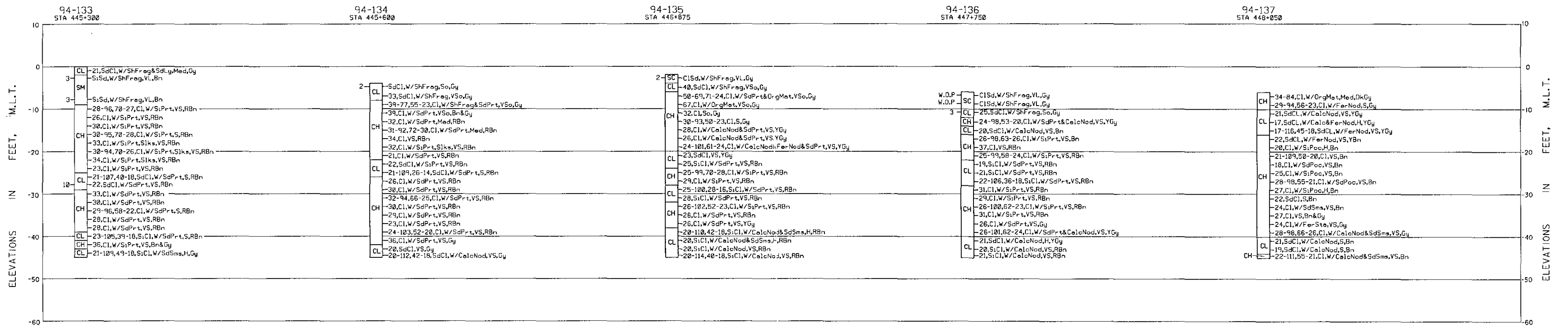
U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	BORING NO. <u>94-134</u> DATE: BEGIN <u>9-22-94</u> PAGE <u>111</u> JOB NO. <u>94G790</u> COMPLETE <u>9-22-94</u> Thin Walled Tube PROJECT <u>Colorado River Lock</u> ☒ 3" ☐ 6" LOCATION <u>Sta. No. 445+600</u> ELEVATION OF HOLE <u>-4'</u> MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Failing 3600</u> GROUNDWATER: DEPTH <u> </u> ft., ELEV. <u> </u> ft., at end of Drilling WEATHER <u>partly cloudy</u> DRILLER <u>Dempsey Gearen</u> LOGGER <u>H. Patel</u>				
				COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
0	X	1	0/11	Gray	sand	very loose	clayey	with shell fragments
		2	0.25	Gray	clay	soft	sandy	with shell fragments
5		3	0.25	Gray	clay	soft	sandy	with shell fragments
		4	0.25	Gray & Brown	clay	soft	sandy	with silt partings
10		5	1.5	Brown	clay	stiff		Slackensided
		6	2.0	Brown	clay	very stiff		Slackensided
		7	2.25	Brown	clay	very stiff		Slackensided
15		8	2.5	Brown	clay	very stiff		Slackensided with silt partings
		9	3.0	Brown	clay	very stiff		With silty sand partings
20		10	3.0	Brown	clay	very stiff	sandy	with silt partings
		11	2.0	Brown	clay	very stiff	sandy	With silty sand layer
		12	2.5	Brown	clay	very stiff	silty	With sand partings
25		13	3.0	Brown	clay	very stiff		With silt partings
		14	3.0	Brown	clay	very stiff		With silt partings
30		15	2.5	Brown	clay	very stiff		With silty sand layer
		16	2.5	Brown	clay	very stiff		With silty sand partings
		17	2.5	Brown	clay	very stiff	silty	With sand partings
35		18	3.0	Brown	clay	very stiff	silty	With sand partings

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET	SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	BORING NO. <u>94-134</u> DATE: BEGIN <u>9-22-94</u> PAGE <u>2/2</u>				
				JOB NO. <u>94 G 790</u> COMPLETE <u>9-22-94</u> Thin Walled Tube				
				PROJECT <u>Colorado River lock</u> ☒ 3" ☐ 6"				
				LOCATION <u>Sta. No. 445+600</u>				
				ELEVATION OF HOLE <u>-4'</u>				
				MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Failing 3600</u>				
				GROUNDWATER: DEPTH _____ ft., ELEV. _____ ft., at end of Drilling				
				WEATHER <u>partly cloudy</u>				
				DRILLER <u>Dempsey Gearen</u> LOGGER <u>H. Patel</u>				
				COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
35								
	19	2.5		Gray	clay	very stiff		with silt & sand partings
	20	3.0		Gray	clay	very stiff	sandy	with silt partings
40	21	3.5		Gray & Brown	clay	very stiff	sandy	with traces of cal. Nodules
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 Sandy	W With
Gy Gray(ish)	Org Organic	Sh Shelly	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. Gattlin, Col., C.E., District Engineer			
SHEET 1 OF 1		FILE NO. X	

Project: Colorado River Locks

SUMMARY OF LABORATORY TEST RESULTS

Contract No. DACW64-94-M-0880

Boring No. 94-134

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	0.25	50	Gray, Clay, Soft, Sandy, w/shell fragments	C L						85*	72.1*	63.1	54.9	50.3		
2	2 - 4	0.00	VS	Gray, Clay, Very soft, Sandy, w/shell fragments	C L	33.3										0.08	
3	4 - 6	0.00	VS	Gray, Clay, Very soft, w/shell fragments and sand partings	C H	38.9	77.4	107.5	55.0	23.0	99.6	97.1	94.3	93.4	90.9		0.11
4	6 - 8	0.00	VS	Brown & gray, Clay, Very soft, w/sand partings	C H	38.9										0.07	
5	8 - 10	0.75	Med	Reddish brown, Clay, Medium stiff, w/sand parting	C H	31.9											
6	10 - 12	0.75	Med	Reddish brown, Clay, Medium stiff, w/sand parting	C H	31.0	91.9	119.3	72.0	30.0	100.0	100.0	100.0	99.4	98.4		0.89
7	12 - 14	3.00	VS	Reddish brown, Clay, Very stiff	C H	33.5											
8	14 - 16	3.00	VS	Reddish brown, Clay, Very stiff, w/silt partings, slickensided	C H	31.7											
9	16 - 18	3.50	VS	Reddish brown, Clay, Very stiff, w/sand partings	C H	21.3											
10	18 - 20	2.25	VS	Reddish brown, Clay, Very stiff, Sandy, w/silt partings	C L	22.3											
11	20 - 22	1.75	S	Reddish brown, Clay, Stiff, Sandy, w/sand partings	C L	20.6	108.7	131.1	26.0	14.0	100.0	100.0	99.9	93.3	67.2		1.13
12	22 - 24	3.00	VS	Reddish brown, Clay, Very stiff, w/sand partings	C H	26.3											
13	24 - 26	3.50	VS	Reddish brown, Clay, Very stiff, w/sand partings	C H	30.0											
14	26 - 28	3.50	VS	Reddish brown, Clay, Very stiff, w/sand partings	C H	31.5	93.8	123.4	66.0	25.0	100.0	100.0	100.0	99.4	98.3		
15	28 - 30	3.00	VS	Reddish brown, Clay, Very stiff, w/sand partings	C H	30.2											
16	30 - 32	3.00	VS	Reddish brown, Clay, Very stiff, w/sand partings	C H	29.0											
17	32 - 34	3.50	VS	Reddish brown, Clay, Very stiff, w/sand partings	C H	23.4											
18	34 - 36	3.00	VS	Reddish brown, Clay, Very stiff, w/sand partings	C H	24.2	103.0	127.9	52.0	20.0	100.0	100.0	99.8	97.8	89.9		2.39
19	36 - 38	2.00	VS	Gray, Clay, Very stiff, w/sand partings	C H	35.8											
20	38 - 40	4.00	VS	Gray, Clay, Very stiff, Sandy	C L	19.8											

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

Project: Colorado River Locks

SUMMARY OF LABORATORY TEST RESULTS

Contract No. DACW64-94-M-0880

Boring No. 94-134

[illegible]

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

JOB NO. 14G790

DATE 10/11/94

PROJECT Colorado River Locks

AREA GIWW at Colorado River, Texas

BORING NO. 94-134

SAMPLE NO. 3

DEPTH 4-6 ft.

SPECIMEN NO. 1

CLASSIFICATION

Gray, Clay, Very soft, w/shell fragments and sand partings

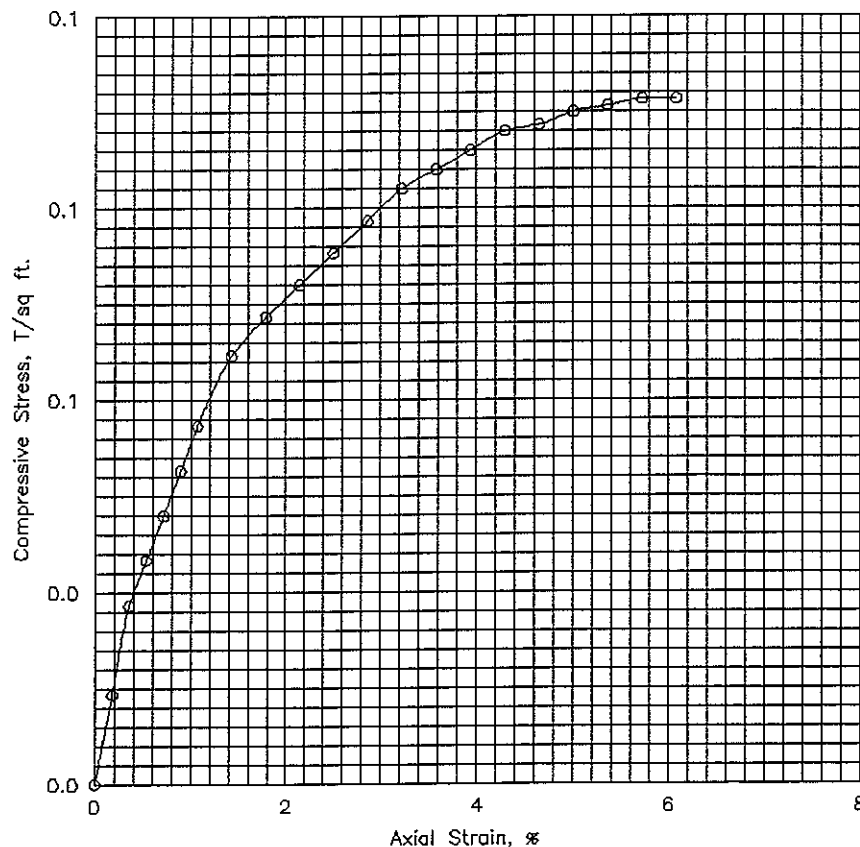
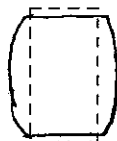
Tare No.	K1-2	Height	5.595 in.
Tare plus Wet Specimen	347.99 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	262.40 gm	Initial Area	6.290 sq in.
Water Weight	85.59 gm	Volume	35.194 cu in.
Tare Weight	42.34 gm	Volume of Solids	cu in.
Wet Specimen	993.78 gm	Void Ratio	
Dry Specimen	715.50 gm	Saturation	%
Water Content	38.89 %	Dry Density	77.4 lb/cu ft
Specific Gravity of Solids			
LL = 55	PL = 23	PI = 32	

Proving Ring No. 17015

Proving Ring Constant, K = .311 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	4.0	1.2	.002	6.30	.014
.3	20.	.020	8.0	2.5	.004	6.31	.028
.5	30.	.030	10.0	3.1	.005	6.32	.035
.7	40.	.040	12.0	3.7	.007	6.34	.042
.9	50.	.050	14.0	4.3	.009	6.35	.049
1.1	60.	.060	16.0	5.0	.011	6.36	.056
1.4	80.	.080	19.0	5.9	.014	6.38	.067
1.7	100.	.100	21.0	6.5	.018	6.40	.073
2.0	120.	.120	22.5	7.0	.021	6.43	.078
2.3	140.	.140	24.0	7.5	.025	6.45	.083
2.7	160.	.160	25.5	7.9	.029	6.48	.088
3.0	180.	.180	27.0	8.4	.032	6.50	.093
3.3	200.	.200	28.0	8.7	.036	6.52	.096
3.7	220.	.220	29.0	9.0	.039	6.55	.099
5.0	240.	.240	30.0	9.3	.043	6.57	.102
4.3	260.	.260	30.5	9.5	.046	6.60	.103
4.6	280.	.280	31.0	9.6	.050	6.62	.105
5.0	300.	.300	31.5	9.8	.054	6.65	.106
5.3	320.	.320	32.0	9.9	.057	6.67	.107
5.6	340.	.340	32.0	9.9	.061	6.70	.107

Failure Sketches



Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	38.9 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	77.4		
Time to failure, min		t_f	5.27		
Unconfined compressive strength, T/sq ft		q_u	.11		
Undrained shear strength, T/sq ft		S_u	.05		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Gray, Clay, Very soft, w/shell fragments and sand partings					
LL	55	PL	23	PI	32
Remarks		G _s			
		Project Colorado River Locks			
		Area GIWW at Colorado River, Texas			
		Boring No. 94-134		Sample No. 3	
		Depth 4-6 ft.		Date 10/11/94	
UNCONFINED COMPRESSION TEST REPORT					

JOB NO. 14G790

DATE 10/11/94

PROJECT Colorado River Locks

AREA GIWW at Colorado River, Texas

BORING NO. 94-134

SAMPLE NO. 6

DEPTH 10-12 ft.

SPECIMEN NO. 1

CLASSIFICATION

Reddish brown, Clay, Medium stiff, w/sand partings

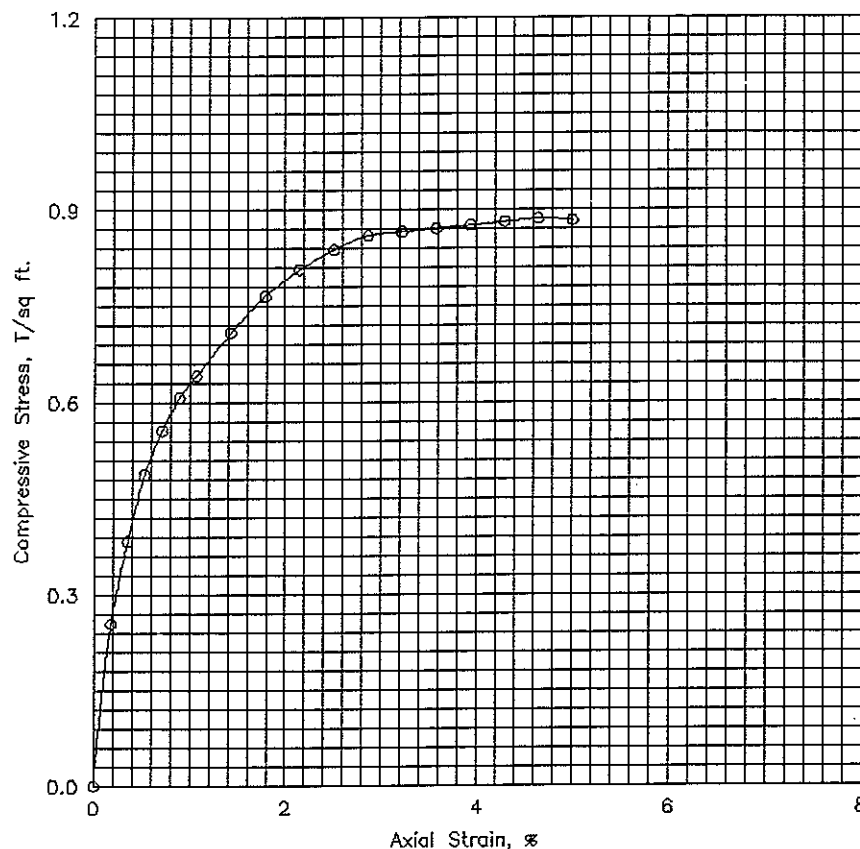
Tare No.	IM-1	Height	5.595 in.
Tare plus Wet Specimen	202.61 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	164.66 gm	Initial Area	6.290 sq in.
Water Weight	37.95 gm	Volume	35.194 cu in.
Tare Weight	42.38 gm	Volume of Solids	cu in.
Wet Specimen	1102.58 gm	Void Ratio	
Dry Specimen	841.44 gm	Saturation	%
Water Content	31.04 %	Dry Density	91.1 lb/cu ft
Specific Gravity of Solids			
LL = 72	PL = 30	PI = 42	

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	29.0	22.2	.002	6.30	.254
.4	20.	.020	44.0	33.7	.004	6.31	.384
.6	30.	.030	56.0	42.9	.005	6.32	.488
.8	40.	.040	64.0	49.0	.007	6.34	.557
1.0	50.	.050	70.0	53.6	.009	6.35	.608
1.1	60.	.060	74.0	56.7	.011	6.36	.642
1.5	80.	.080	82.0	62.8	.014	6.38	.709
1.8	100.	.100	89.0	68.2	.018	6.40	.766
2.2	120.	.120	94.0	72.0	.021	6.43	.807
2.5	140.	.140	98.0	75.1	.025	6.45	.838
2.8	160.	.160	101.0	77.4	.029	6.48	.860
3.1	180.	.180	102.0	78.1	.032	6.50	.866
3.4	200.	.200	103.0	78.9	.036	6.52	.871
3.8	220.	.220	104.0	79.7	.039	6.55	.876
4.1	240.	.240	105.0	80.4	.043	6.57	.881
4.5	260.	.260	106.0	81.2	.046	6.60	.886
4.8	280.	.280	106.0	81.2	.050	6.62	.883

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	31.0 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	91.1		
Time to failure, min		t_f	4.47		
Unconfined compressive strength, T/sq ft		q_u	.89		
Undrained shear strength, T/sq ft		S_u	.44		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Reddish brown, Clay, Medium stiff, w/sand partings					
LL	72	PL	30	PI	42
Remarks		Project Colorado River Locks Area GIWW at Colorado River, Texas Boring No. 94-134 Sample No. 6 Depth 10-12 ft. Date 10/11/94			
UNCONFINED COMPRESSION TEST REPORT					

JOB NO. 14G790

DATE 10/11/94

PROJECT Colorado River Locks

AREA GIWW at Colorado River, Texas

BORING NO. 94-134

SAMPLE NO. 11

DEPTH 20-22 ft.

SPECIMEN NO. 1

CLASSIFICATION

Reddish brown, Clay, Stiff, Sandy, w/sand partings

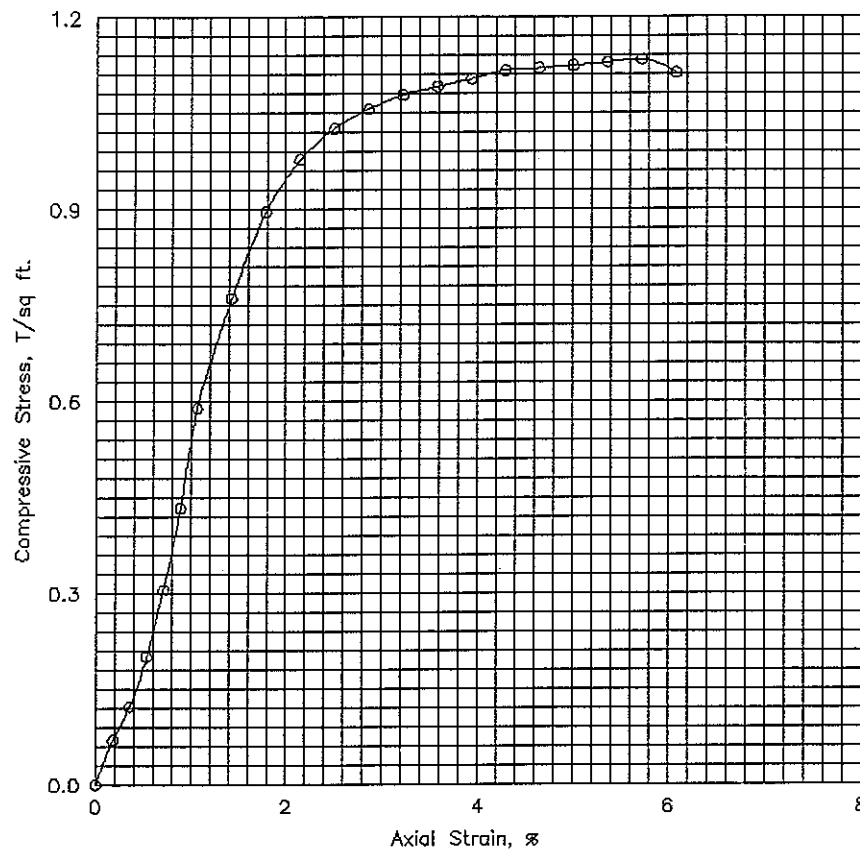
Tare No.	KL-16	Height	5.595 in.
Tare plus Wet Specimen	327.32 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	278.60 gm	Initial Area	6.290 sq in.
Water Weight	48.72 gm	Volume	35.194 cu in.
Tare Weight	42.42 gm	Volume of Solids	cu in.
Wet Specimen	1211.37 gm	Void Ratio	
Dry Specimen	1004.22 gm	Saturation	%
Water Content	20.63 %	Dry Density	108.7 lb/cu ft
Specific Gravity of Solids			
LL = 26	PL = 14	PI = 12	

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	8.0	6.1	.002	6.30	.070
.4	20.	.020	14.0	10.7	.004	6.31	.122
.6	30.	.030	23.0	17.6	.005	6.32	.201
.7	40.	.040	35.0	26.8	.007	6.34	.305
.9	50.	.050	50.0	38.3	.009	6.35	.434
1.0	60.	.060	68.0	52.1	.011	6.36	.590
1.4	80.	.080	88.0	67.4	.014	6.38	.761
1.7	100.	.100	104.0	79.7	.018	6.40	.896
2.1	120.	.120	114.0	87.3	.021	6.43	.978
2.4	140.	.140	120.0	91.9	.025	6.45	1.026
2.7	160.	.160	124.0	95.0	.029	6.48	1.056
3.0	180.	.180	127.0	97.3	.032	6.50	1.078
3.4	200.	.200	129.0	98.8	.036	6.52	1.091
3.7	220.	.220	131.0	100.3	.039	6.55	1.103
4.1	240.	.240	133.0	101.9	.043	6.57	1.116
4.4	260.	.260	134.0	102.6	.046	6.60	1.120
4.7	280.	.280	135.0	103.4	.050	6.62	1.124
5.1	300.	.300	136.0	104.2	.054	6.65	1.129
5.3	320.	.320	137.0	104.9	.057	6.67	1.133
5.7	340.	.340	135.0	103.4	.061	6.70	1.112

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	20.6 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_s	108.7		
Time to failure, min		t_f	5.35		
Unconfined compressive strength, T/sq ft		q_u	1.13		
Undrained shear strength, T/sq ft		S_u	.57		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Reddish brown, Clay, Stiff, Sandy, w/sand partings					
LL	26	PL	14	PI	12
Remarks		Project Colorado River Locks Area GIWW at Colorado River, Texas Boring No. 94-134 Sample No. 11 Depth 20-22 ft. Date 10/11/94 EI			
UNCONFINED COMPRESSION TEST REPORT					

JOB NO. 14G790

DATE 10/11/94

PROJECT Colorado River Locks

AREA GIWW at Colorado River, Texas

BORING NO. 94-134

SAMPLE NO. 18

DEPTH 34-36 ft.

SPECIMEN NO. 1

CLASSIFICATION

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

Tare No.	P-14	Height	5.595 in.
Tare plus Wet Specimen	303.60 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	252.80 gm	Initial Area	6.290 sq in.
Water Weight	50.80 gm	Volume	35.194 cu in.
Tare Weight	42.45 gm	Volume of Solids	cu in.
Wet Specimen	1180.89 gm	Void Ratio	
Dry Specimen	951.18 gm	Saturation	%
Water Content	24.15 %	Dry Density	103.0 lb/cu ft
Specific Gravity of Solids			
LL = 52	PL = 20	PI = 32	

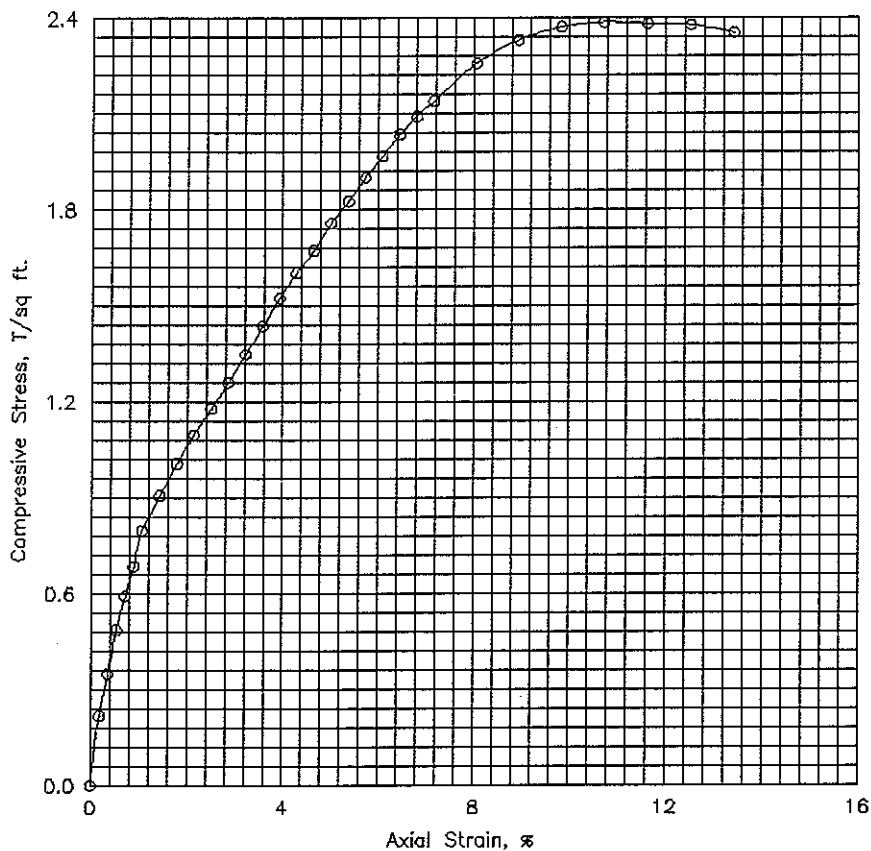
Proving Ring No. 10170

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	25.0	19.1	.002	6.30	.219
.4	20.	.020	40.0	30.6	.004	6.31	.349
.6	30.	.030	56.0	42.9	.005	6.32	.488
.8	40.	.040	68.0	52.1	.007	6.34	.592
1.0	50.	.050	79.0	60.5	.009	6.35	.686
1.2	60.	.060	92.0	70.5	.011	6.36	.798
1.5	80.	.080	105.0	80.4	.014	6.38	.907
1.9	100.	.100	117.0	89.6	.018	6.40	1.008
2.2	120.	.120	128.0	98.0	.021	6.43	1.098
2.5	140.	.140	138.0	105.7	.025	6.45	1.180
2.9	160.	.160	148.0	113.4	.029	6.48	1.261
3.2	180.	.180	159.0	121.8	.032	6.50	1.349
3.5	200.	.200	170.0	130.2	.036	6.52	1.437
3.9	220.	.220	181.0	138.6	.039	6.55	1.525
4.2	240.	.240	191.0	146.3	.043	6.57	1.603
4.6	260.	.260	200.0	153.2	.046	6.60	1.672
4.9	280.	.280	211.0	161.6	.050	6.62	1.757
5.3	300.	.300	220.0	168.5	.054	6.65	1.826
5.6	320.	.320	230.0	176.2	.057	6.67	1.901
5.9	340.	.340	239.0	183.1	.061	6.70	1.968
6.3	360.	.360	248.0	190.0	.064	6.72	2.035
6.6	380.	.380	256.0	196.1	.068	6.75	2.092
6.9	400.	.400	263.0	201.5	.071	6.77	2.141
7.8	450.	.450	280.0	214.5	.080	6.84	2.258
8.6	500.	.500	292.0	223.7	.089	6.91	2.331
9.4	550.	.550	300.0	229.8	.098	6.98	2.372

10.2	600.	.600	305.0	233.6	.107	7.05	2.387
11.0	650.	.650	307.5	235.5	.116	7.12	2.383
11.8	700.	.700	310.0	237.5	.125	7.19	2.378
12.7	750.	.750	310.0	237.5	.134	7.26	2.354

Failure Sketches



- ☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	24.2 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	103.0		
Time to failure, min		t_f	10.18		
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 Reddish brown, Clay, Very stiff, w/sand partings					
LL	52	PL	20	PI	32
				G_s	
Remarks		Project Colorado River Locks			
		Area GIWW at Colorado River, Texas			
		Boring No. 94-134		Sample No. 18	
		Depth 34-36 ft.		Date 10/11/94	
		UNCONFINED COMPRESSION TEST REPORT			