

JOB NO. 94G783-4

DATE 9/12/94

PROJECT Houston-Galveston Navigation
Channel

AREA Houston, Texas

BORING NO. 93-114

SAMPLE NO. 3

DEPTH 4-6 ft

SPECIMEN NO. 1

CLASSIFICATION

Gray, Clay, Medium stiff, w/sand pockets and shell fragments

Tare No.	P-202	Height	5.595 in.
Tare plus Wet Specimen	399.65 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	331.04 gm	Initial Area	6.290 sq in.
Water Weight	68.61 gm	Volume	35.194 cu in.
Tare Weight	42.64 gm	Volume of Solids	cu in.
Wet Specimen	1079.53 gm	Void Ratio	
Dry Specimen	872.07 gm	Saturation	%
Water Content	23.79 %	Dry Density	94.4 lb/cu ft
Specific Gravity of Solids			
LL = 51	PL = 12	PI = 39	

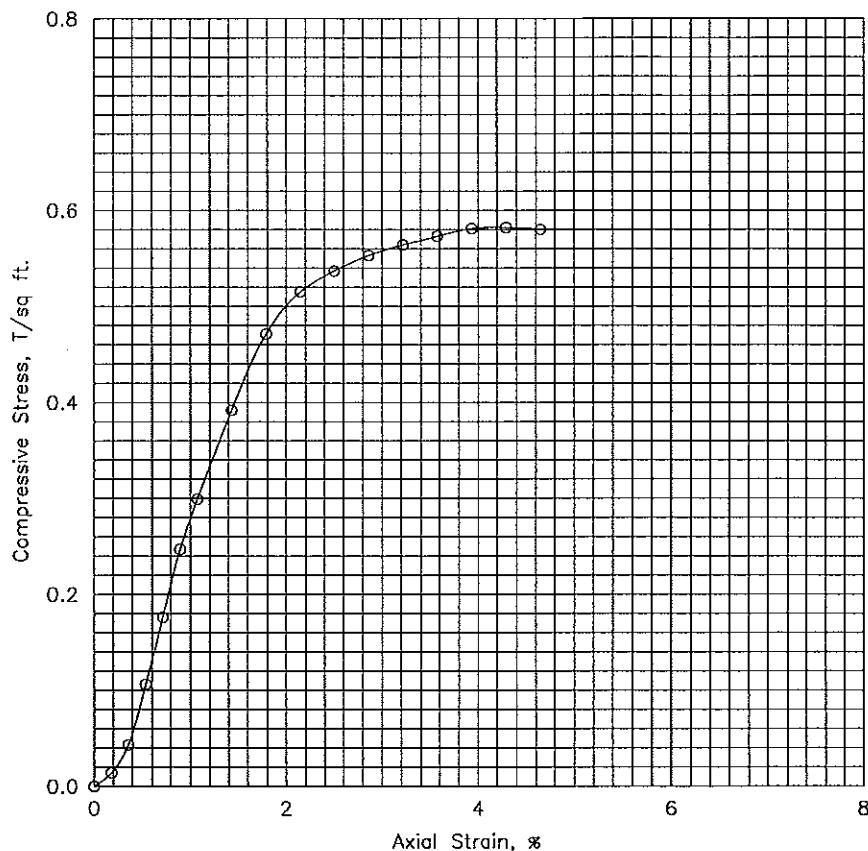
Proving Ring No. 17015

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	12.0	3.7	.004	6.31	.043
.6	30.	.030	30.0	9.3	.005	6.32	.106
.8	40.	.040	50.0	15.5	.007	6.34	.176
1.0	50.	.050	70.0	21.7	.009	6.35	.247
1.3	60.	.060	85.0	26.4	.011	6.36	.299
1.6	80.	.080	112.0	34.8	.014	6.38	.392
1.9	100.	.100	135.0	41.9	.018	6.40	.471
2.3	120.	.120	148.0	46.0	.021	6.43	.515
2.6	140.	.140	155.0	48.1	.025	6.45	.537
3.0	160.	.160	160.0	49.7	.029	6.48	.553
3.3	180.	.180	164.0	50.9	.032	6.50	.564
3.6	200.	.200	167.0	51.9	.036	6.52	.573
3.9	220.	.220	170.0	52.8	.039	6.55	.581
4.2	240.	.240	171.0	53.1	.043	6.57	.582
4.6	260.	.260	171.0	53.1	.046	6.60	.580

Job No. 94G783-4

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	23.8 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	94.4		
Time to failure, min		t_f	4.23		
Unconfined compressive strength, T/sq ft		q_u	.58		
Undrained shear strength, T/sq ft		S_u	.29		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Gray, Clay, Medium stiff, w/sand pockets and shell fragments					
LL	51	PL	12	PI	39
Remarks		Project Houston--Galveston Navigation Channel Area Houston, Texas Boring No. 93-114 Sample No. 3 Depth 4-6 ft Date 9/12/94			
UNCONFINED COMPRESSION TEST REPORT					

JOB NO. 94G783-4

DATE 9/12/94

PROJECT Houston-Galveston Navigation
Channel

AREA Houston, Texas

BORING NO. 93-114

SAMPLE NO. 7

DEPTH 12-14 ft

SPECIMEN NO. 1

CLASSIFICATION

Gray, Clay, Medium stiff, w/sand pockets and shell fragments

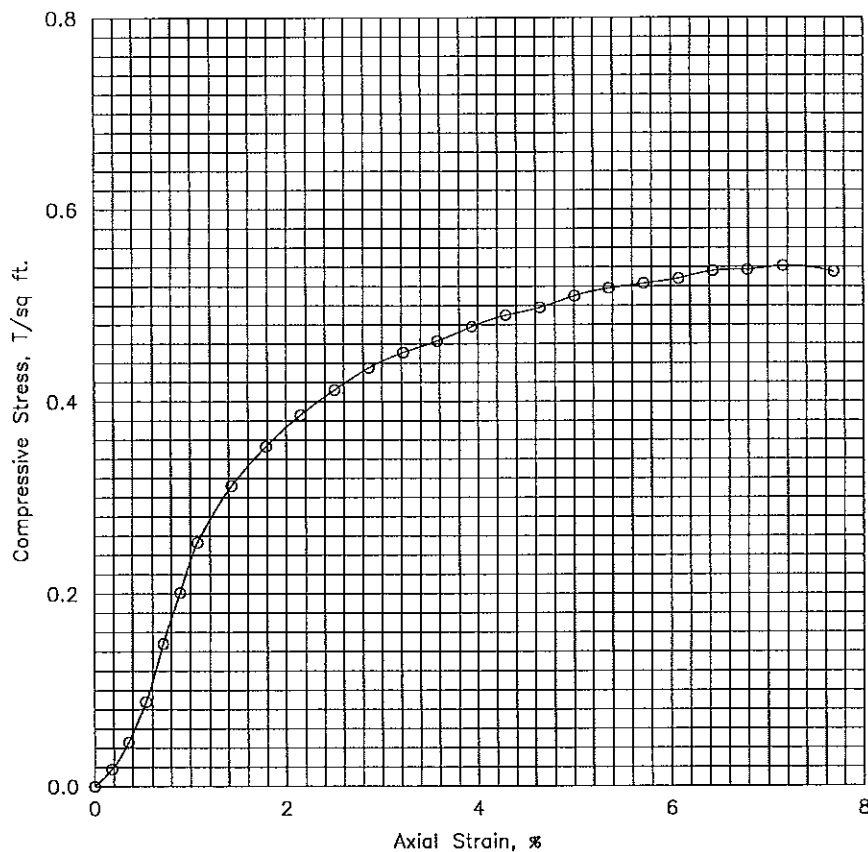
Tare No.	P-4	Height	5.595 in.
Tare plus Wet Specimen	543.89 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	435.14 gm	Initial Area	6.290 sq in.
Water Weight	108.75 gm	Volume	35.194 cu in.
Tare Weight	42.74 gm	Volume of Solids	cu in.
Wet Specimen	1103.24 gm	Void Ratio	
Dry Specimen	863.84 gm	Saturation	%
Water Content	27.71 %	Dry Density	93.5 lb/cu ft
Specific Gravity of Solids			
LL = 50	PL = 19	PI = 31	

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	5.0	1.6	.002	6.30	.018
.4	20.	.020	13.0	4.0	.004	6.31	.046
.6	30.	.030	25.0	7.8	.005	6.32	.088
1.0	40.	.040	42.0	13.0	.007	6.34	.148
1.1	50.	.050	57.0	17.7	.009	6.35	.201
1.3	60.	.060	72.0	22.4	.011	6.36	.253
1.6	80.	.080	89.0	27.6	.014	6.38	.312
2.0	100.	.100	101.0	31.4	.018	6.40	.353
2.3	120.	.120	111.0	34.5	.021	6.43	.386
2.6	140.	.140	119.0	37.0	.025	6.45	.412
2.9	160.	.160	126.0	39.1	.029	6.48	.435
3.3	180.	.180	131.0	40.7	.032	6.50	.451
3.6	200.	.200	135.0	41.9	.036	6.52	.463
3.9	220.	.220	140.0	43.5	.039	6.55	.478
4.2	240.	.240	144.0	44.7	.043	6.57	.490
4.6	260.	.260	147.0	45.7	.046	6.60	.498
4.9	280.	.280	151.0	46.9	.050	6.62	.510
5.2	300.	.300	154.0	47.8	.054	6.65	.518
5.6	320.	.320	156.0	48.5	.057	6.67	.523
5.9	340.	.340	158.0	49.1	.061	6.70	.528
6.2	360.	.360	161.0	50.0	.064	6.72	.536
6.5	380.	.380	162.0	50.3	.068	6.75	.537
6.7	400.	.400	164.0	50.9	.071	6.77	.541
7.3	430.	.430	163.0	50.6	.077	6.81	.535

Failure Sketches



□ Controlled stress
 ⊗ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	27.7 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	93.5		
Time to failure, min		t_f	6.67		
Unconfined compressive strength, T/sq ft		q_u	.54		
Undrained shear strength, T/sq ft		S_u	.27		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Gray, Clay, Medium stiff, w/sand pockets and shell fragments					
LL	50	PL	19	PI	31
				G_s	
Remarks		Project Houston-Galveston Navigation			
		Channel			
		Area Houston, Texas			
		Boring No.	93-114	Sample No.	7
		Depth	12-14 ft	Date	9/12/94
		UNCONFINED COMPRESSION TEST REPORT			

JOB NO. 94G783-4

DATE 9/12/94

PROJECT Houston-Galveston Navigation
Channel

AREA Houston, Texas

BORING NO. 93-114

SAMPLE NO. 9

DEPTH 16-18 ft

SPECIMEN NO. 1

CLASSIFICATION

Gray, Clay, Medium stiff, w/sand pockets and shell fragments

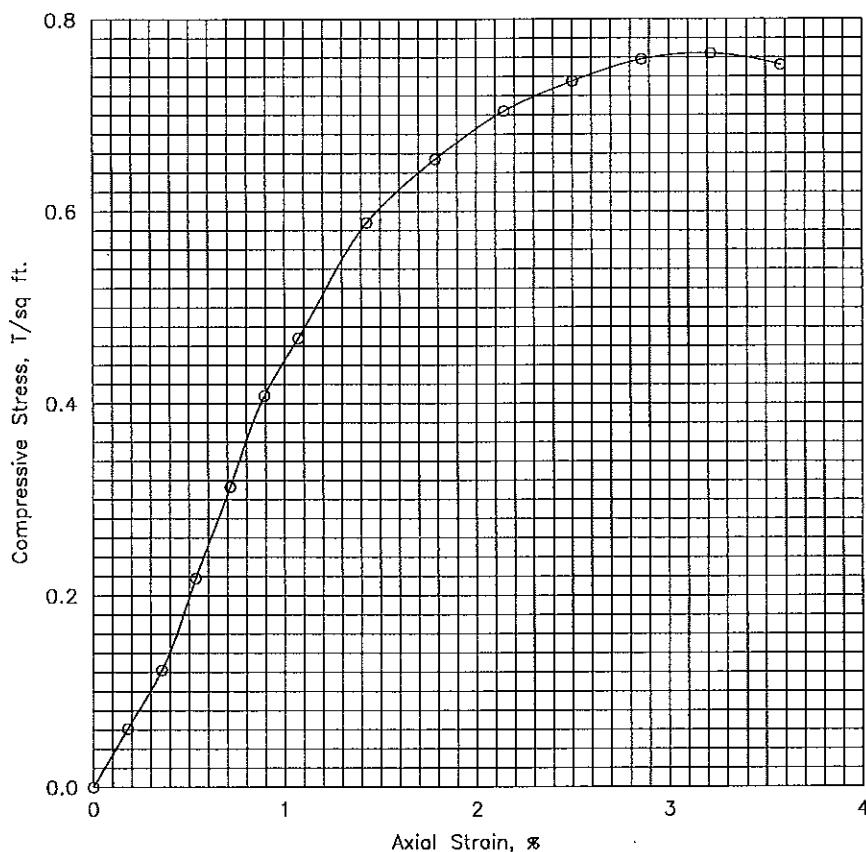
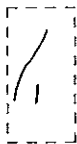
Tare No.	KL-6	Height	5.595 in.
Tare plus Wet Specimen	451.50 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	341.12 gm	Initial Area	6.290 sq in.
Water Weight	110.38 gm	Volume	35.194 cu in.
Tare Weight	42.63 gm	Volume of Solids	cu in.
Wet Specimen	1066.35 gm	Void Ratio	
Dry Specimen	778.47 gm	Saturation	%
Water Content	36.98 %	Dry Density	84.3 lb/cu ft
Specific Gravity of Solids			
LL = 50	PL = 18	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	7.0	5.4	.002	6.30	.061
.4	20.	.020	14.0	10.7	.004	6.31	.122
.7	30.	.030	25.0	19.1	.005	6.32	.218
.9	40.	.040	36.0	27.6	.007	6.34	.313
1.1	50.	.050	47.0	36.0	.009	6.35	.408
1.3	60.	.060	54.0	41.4	.011	6.36	.468
1.6	80.	.080	68.0	52.1	.014	6.38	.588
2.0	100.	.100	76.0	58.2	.018	6.40	.654
2.3	120.	.120	82.0	62.8	.021	6.43	.704
2.6	140.	.140	86.0	65.9	.025	6.45	.735
3.0	160.	.160	89.0	68.2	.029	6.48	.758
3.2	180.	.180	90.0	68.9	.032	6.50	.764
3.5	200.	.200	89.0	68.2	.036	6.52	.752

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	37.0 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	84.3		
Time to failure, min		t_f	3.23		
Unconfined compressive strength, T/sq ft		q_u	.76		
Undrained shear strength, T/sq ft		S_u	.38		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Gray, Clay, Medium stiff, w/sand pockets and shell fragments					
LL	50	PL	18	PI	32
		G_s			
Remarks		Project Houston--Galveston Navigation			
		Channel			
		Area Houston, Texas			
		Boring No.	93-114	Sample No.	9
		Depth	16-18 ft	Date	9/12/94
		UNCONFINED COMPRESSION TEST REPORT			