

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE NO.	SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	BORING NO. <u>92-119</u> DATE: BEGIN <u>1-22-95</u> PAGE <u>1 / 1</u>				
						JOB NO. <u>146622</u> COMPLETE <u>1-22-95</u> Thin Walled Tube				
PROJECT <u>Brazos Island Harbor Project</u> ☒ 3" ☐ 6"						LOCATION <u>along Brownsville Ship Channel, Brownsville, Tx</u>				
ELEVATION OF HOLE _____						MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Ardco K4X4</u>				
GROUNDWATER: DEPTH <u>1.5</u> ft., ELEV. _____ ft., at end of Drilling						WEATHER <u>Sunny & Hot</u>				
DRILLER <u>Scott Gregurek</u> LOGGER <u>Iraj Mostamand</u>										
						COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
0		1	0.00	Gray	clay	Very Soft			- encounter water @ 1.5'	
		2	0.00	"	"	" "				
5		3	0.00	"	"	" "				
		4	0.00	"	"	" "				
		5	0.00	"	"	" "				
10		Bottom of 92-119 @ 10'								
15										
20										
25										
30										
35										

JOB NO. 14G627

DATE 3/31/93

PROJECT Brazos Island Harbor Project
Brownsville Shipchannel

AREA Brownsville, Texas

BORING NO. 92-119

SAMPLE NO. 2

DEPTH 2-4 ft

SPECIMEN NO. 1

CLASSIFICATION

Gray, Clay, Very soft w/silt pockets

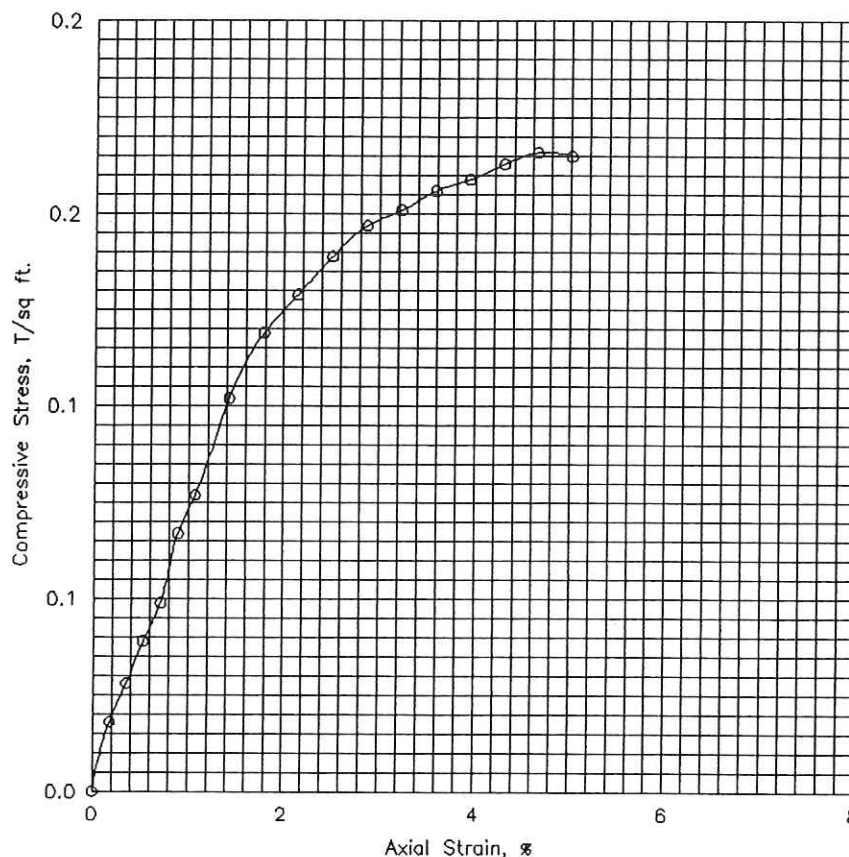
Tare No.	KL-28	Height	5.595 in.
Tare plus Wet Specimen	495.93 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	370.96 gm	Initial Area	6.290 sq in.
Water Weight	124.97 gm	Volume	35.194 cu in.
Tare Weight	42.81 gm	Volume of Solids	cu in.
Wet Specimen	1042.08 gm	Void Ratio	
Dry Specimen	754.68 gm	Saturation	%
Water Content	38.08 %	Dry Density	81.7 lb/cu ft
Specific Gravity of Solids			
LL = 50	PL = 21	PI = 29	

Proving Ring No. 10170

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	8.0	2.5	.004	6.31	.028
.5	30.	.030	11.0	3.4	.005	6.32	.039
.7	40.	.040	14.0	4.3	.007	6.34	.049
.9	50.	.050	19.0	5.9	.009	6.35	.067
1.0	60.	.060	22.0	6.8	.011	6.36	.077
1.3	80.	.080	29.0	9.0	.014	6.38	.102
1.6	100.	.100	34.0	10.6	.018	6.40	.119
1.9	120.	.120	37.0	11.5	.021	6.43	.129
2.3	140.	.140	40.0	12.4	.025	6.45	.139
2.6	160.	.160	42.5	13.2	.029	6.48	.147
2.9	180.	.180	44.0	13.7	.032	6.50	.151
3.2	200.	.200	45.5	14.1	.036	6.52	.156
3.6	220.	.220	46.5	14.4	.039	6.55	.159
3.8	240.	.240	48.0	14.9	.043	6.57	.163
4.2	260.	.260	49.0	15.2	.046	6.60	.166
4.5	280.	.280	49.0	15.2	.050	6.62	.165

Failure Sketches



Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	38.1 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	81.7		
Time to failure, min		t_r	4.17		
Unconfined compressive strength, T/sq ft		q_u	.17		
Undrained shear strength, T/sq ft		S_u	.08		
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/silt pockets					
LL	50	PL	21	PI	29
				G_s	
Remarks		Project Brazos Island Harbor Project			
		Brownsville Shipchannel			
		Area Brownsville, Texas			
		Boring No. 92-119		Sample No. 2	
		Depth 2-4 ft		Date 3/31/93	
		UNCONFINED COMPRESSION TEST REPORT			

JOB NO. 14G627

DATE 3/31/93

PROJECT Brazos Island Harbor Project
Brownsville Shipchannel

AREA Brownsville, Texas

BORING NO. 92-119

SAMPLE NO. 4

DEPTH 6-8 ft

SPECIMEN NO. 1

CLASSIFICATION

Gray, Clay, Medium stiff, w/ferrous stains

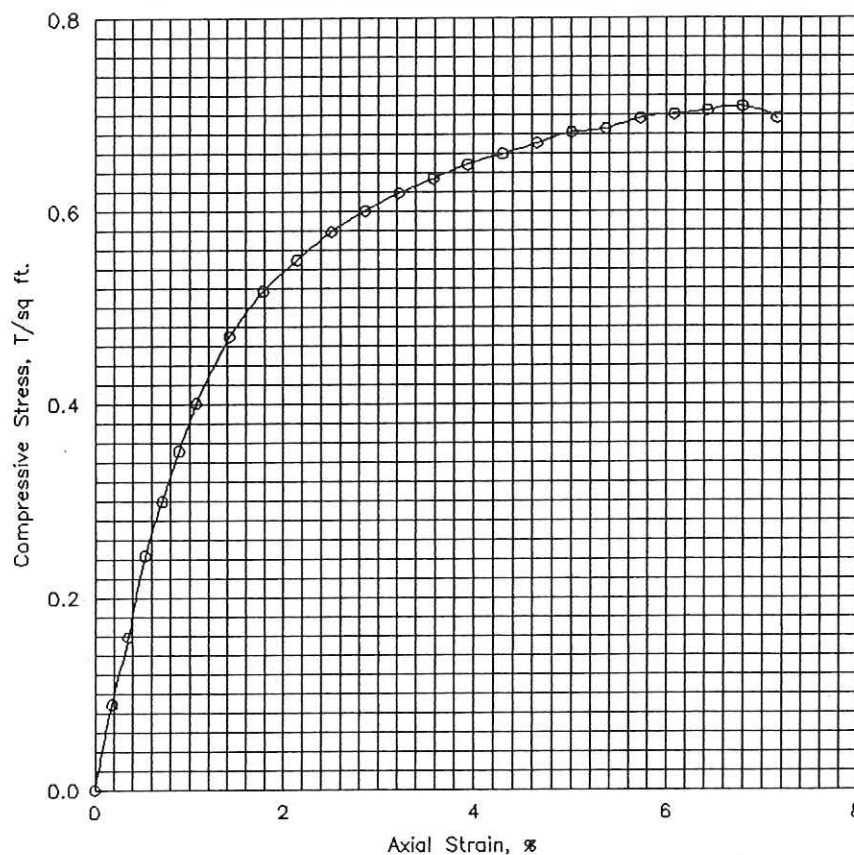
Tare No.	KL-19	Height	5.595 in.
Tare plus Wet Specimen	565.48 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	451.09 gm	Initial Area	6.290 sq in.
Water Weight	114.39 gm	Volume	35.194 cu in.
Tare Weight	42.65 gm	Volume of Solids	cu in.
Wet Specimen	1106.97 gm	Void Ratio	
Dry Specimen	864.78 gm	Saturation	%
Water Content	28.01 %	Dry Density	93.6 lb/cu ft
Specific Gravity of Solids			
LL = 50	PL =	PI =	

Proving Ring No. 10170

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	25.0	7.8	.002	6.30	.089
.2	20.	.020	45.0	14.0	.004	6.31	.159
.4	30.	.030	69.0	21.4	.005	6.32	.244
.6	40.	.040	85.0	26.4	.007	6.34	.300
.8	50.	.050	100.0	31.1	.009	6.35	.352
.9	60.	.060	114.0	35.4	.011	6.36	.401
1.1	80.	.080	134.0	41.6	.014	6.38	.470
1.5	100.	.100	148.0	46.0	.018	6.40	.517
1.8	120.	.120	158.0	49.1	.021	6.43	.550
2.1	140.	.140	167.0	51.9	.025	6.45	.579
2.4	160.	.160	174.0	54.0	.029	6.48	.601
2.8	180.	.180	180.0	55.9	.032	6.50	.619
3.4	200.	.200	185.0	57.5	.036	6.52	.634
3.7	220.	.220	190.0	59.0	.039	6.55	.649
4.1	240.	.240	194.0	60.3	.043	6.57	.660
4.4	260.	.260	198.0	61.5	.046	6.60	.671
4.7	280.	.280	202.0	62.7	.050	6.62	.682
5.0	300.	.300	204.0	63.4	.054	6.65	.686
5.4	320.	.320	208.0	64.6	.057	6.67	.697
5.7	340.	.340	210.0	65.2	.061	6.70	.701
6.0	360.	.360	212.0	65.8	.064	6.72	.705
6.3	380.	.380	214.0	66.5	.068	6.75	.709
6.7	400.	.400	211.0	65.5	.071	6.77	.697

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	28.0 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	93.6		
Time to failure, min		t_f	6.35		
Unconfined compressive strength, T/sq ft		q_u	.71		
Undrained shear strength, T/sq ft		S_u	.35		
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/ferrous stains					
LL	50	PL		PI	G_s
Remarks		Project Brazos Island Harbor Project			
		Brownsville Shipchannel			
		Area Brownsville, Texas			
		Boring No. 92-119		Sample No. 4	
		Depth 6-8 ft		Date 3/31/93	
		UNCONFINED COMPRESSION TEST REPORT			