CHANNEL RECTIFICATION

Sheet 1 of 6

TEST DATA SUMMARY

BRAYS BAYOU

FEATURE Log of Soil Borings

TABLE I

BORING NO.	SAMPLE NO.	DEPTH OR EL. EV. OF SAMPLE	MECHANICAL ANALYSIS GRAVEL %	SAND %	FINES %	★	ATTERBERG LIMITS LL	PL	BAR L. S. %	NATURAL WATER CONTENT %	NATURAL DRY DENSITY LBS./CU FT.	LABORATORY CLASSIFICATION
6ST-40	57-137	0.0	0	34	66	2.0	32.1		13.0	20.2	102.4 (103)	L-T-G moH, SaCl(CL), St-Pl, Fill
	138	2.0				1.75				19.5	102.7	L-T-G moH, SaCl(CL) Pl-St, Fill
	139	4.0	0	53	47	4.5+			5.0	8.4	120.1 (111)	L-G, ClSa (SC), F-Hd.
	140	5.5				4.5+				15.7	101.6	L-G, ClSa (SC), F-Hd.
	141	6.5	0	20	80	4.5+	48.7		18.5	19.7	101.8	D, Cl (CL), Hd.
	142	7.5	0	10	90	4.5+	57.1		23.0	24.3	102.3 (110)	T-L, Cl (CH), Hd
	143	9.0				4.5+				18.2	111.1	T-L, Cl (CH), Hd, Cal. seams.
	144	10.5				4.5+				14.9	116.4	T-L, Cl (CH), Hd, Cal. seams.
	145	12.0	0	26	74	4.5+	34.9		16.0	13.2	117.4	T-L, SaCl(CL), Hd, w/Cal. pock.
	146	13.5	0	32 (29)	68	4.5+	25.9		9.5 (13)	10.2	117.4 (118)	T-L, SaCl(CL), Hd, Stratified
	147	15.0				4.5+				7.2	118.8	T-L, SaCl(CL), Hd, Stratified
	148	17.0	0	0-0-75 75+	25 (18)	2.5			0.5 (0)	6.9	92.7	T-Bu, SiSa (SM), Crumb
	149	18.0	0	2-0-88 88	12				0.0	3.0		T, SiSa (SM), Lo. Damp.
	150	26.0	0	7	93	3.75	37.9		13.0	21.2	105.9	Ru-T-Gr, Cl (CH), St-Hd, Chalk pock.
	151	27.0				4.25				16.8	113.7	T-L, Cl, (CL), St-Hd. w/Cal. Nod.
	152	28.0	0	6	94	4.5+	44.3		17.5	16.5	114.8	T-L, Cl (CL) St-Hd.
	153	29.5				4.50				16.7	114.1 (114)	T-L, Cl (CL) St-Hd, Cal. Nod.
	154	31.0	(8)	(9)	98	4.0			(16)	17.0	113.2	T-L, Cl (CL) St-Hd, Cal. Nod.
	155	32.5				4.50				17.0	114.9	T-L-Ru-Wh, Cl, (CL), Cal. Nod.
	156	34.0	6	12	82	4.5+	39.5		15.0	15.8	114.2	BlG-Ru, Cl (CL), Cal. Nod & Chalk
		35.0										
			BOTTOMED AT 35.0' in BlGr-Ru Cl (CL)									
			NO WATER ENCOUNTERED									

★ Laboratory Penetrometer Reading

DLR 627 ADD-5

GD FORM 053-R
25 AUG. 58

TABLE No. 1

TEST DATA SUMMARY

SWDGL Report No 4219

FEATURE Channel Rectification

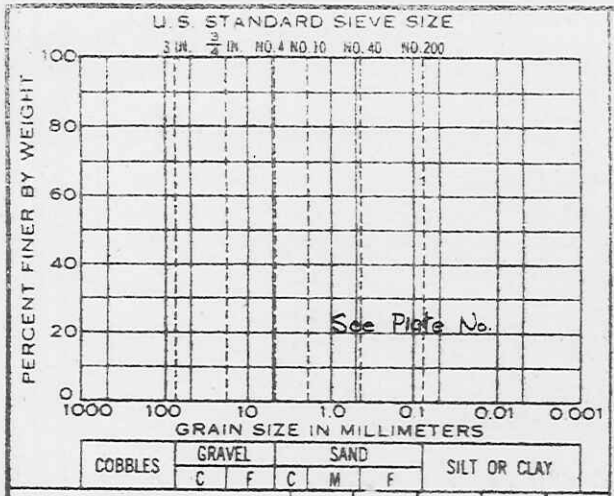
Brays Bayou

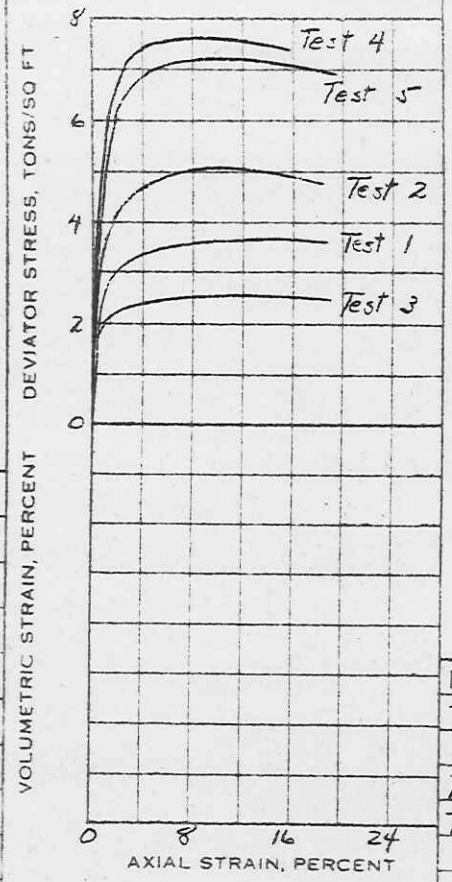
BORING NO. 6ST-	SAMPLE NO. X-	DEPTH OR ELEV OF SAMPLE	LABORATORY CLASSIFICATION	MECHANICAL ANALYSIS GRAVEL %	SAND %	FINES %	D_{10}	ATTERBERG LIMITS LL	PL	SPECIFIC GRAVITY G	NATURAL WATER CONTENT %	NATURAL DRY DENSITY LBS/CU FT	COMPACTION DATA OPTIMUM WATER %	MAXIMUM DRY DENSITY LBS/CU FT	REMARKS
40	9821	7.5-9.0	CH	0	11	89		56	15	2.67	21.0	108			Light olive-brown clay, hard consistency
	9822	9.0-10.5	CH								17.2	113			Light brownish-gray and olive clay; few small calcareous nodules, few yellowish-brown streaks, hard consistency
	9823	10.5-12.0	CH								15.0	118			Light brownish-gray clay, hard consistency
43	9824	14.5-16.0	CL	0	47	53		24	13	2.67	12.0	116			Marbled yellowish-brown, gray and white sandy clay, hard consistency.
	9825	16.0-17.5	SC								14.5	111			Gray and light gray clayey sand, very stiff to hard consistency.
45	9826	22.0-23.0	CH	0	2	98		71	19	2.75	26.4	101			
	9827	23.0-24.0	CH								23.2	105			
	9828	24.0-25.0	CH								24.2	105			
	9829	25.5-26.5	CH								19.2	107			Red and light grayish brown clay, few thin lenses and irregular deposits of calcareous material, hard consistency

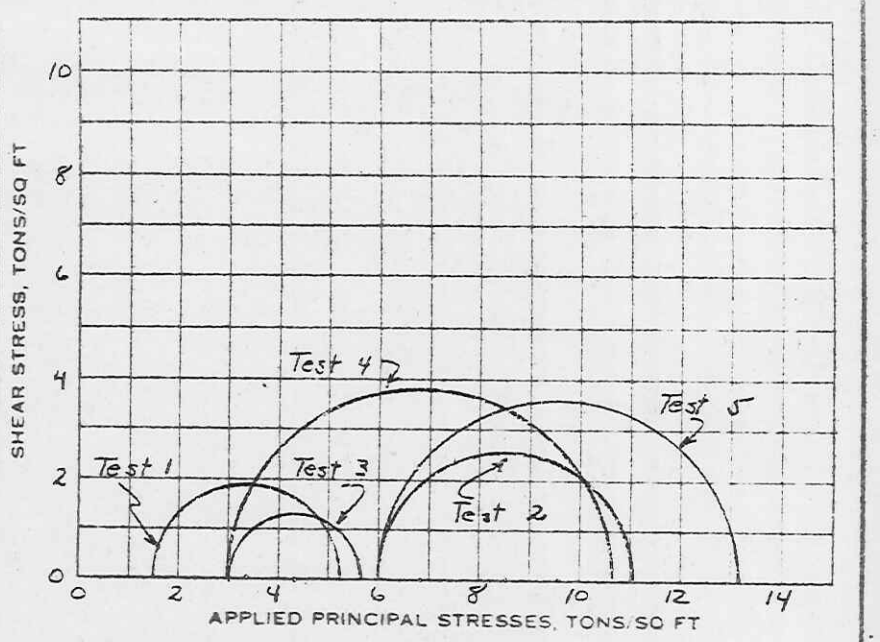
INITIAL e	DRY DENSITY LBS/CU FT	W_i %	W_f %	S_i %	TYPE TEST	SPECIMEN SIZE INCHES	TEST	σ_{III} T/SQ FT	σ_1 T/SQ FT	C T/SQ FT	Ø DEGREES	PERMEABILITY e	PERMEABILITY K FT/MIN	CONSOLIDATION DATA P_o T/SQ FT	CONSOLIDATION DATA P_c T/SQ FT	CONSOLIDATION DATA C_c	CONSOLIDATION DATA t_{50} *	REMARKS LS
.512	110	17.9	20.9	93	T-CU	1.4X3.5	1	1.5	5.20	-	-							21
.521	110	17.3	20.2	99	"	1.4X3.6	2	3.0	11.06									
.531	109	17.9	20.3	96	"	1.4X3.6	3	3.0	5.62									
.518	110	18.7	17.9	96	"	1.4X3.6	4	3.0	10.66									
.563	111	18.8	18.1	100	"	1.4X3.6	↓	6.0	13.18									
.428	117	10.2	16.6	64	DS-CU	3X3X0.5	1			0.0	29.6 (Max.)							7
.428	117	11.3	16.4	71	"	"	2											
.426	117	11.1	15.5	70	"	"	3											
.737	99	26.4	31.9	99	T-CU	1.4X3.6	1	1.5	3.34	0.5	7.8							23
.737	99	26.4	29.8	99	"	1.4X3.6	2	3.0	5.56									
.731	99	26.3	28.9	99	"	1.4X3.6	3	6.0	8.94									

* Values at Pressure T/SQ FT

T - Triaxial Compression
UC - Unconfined Compression
DS - Direct Shear
UU - Unconsolidated Undrained
- Consolidated Drained
CU - Consolidated Undrained







	Test No.	1	2	3	4	5
INITIAL	Water Content, W_o %	17.9	19.3	18.9	18.7	18.4
	Dry Density Lbs/Cu Ft	110	110	109	110	111
	Void Ratio, e_o	.512	.521	.531	.518	.503
	Saturation, S_o %	93	99	95	96	98
BEFORE TEST	W.C. after Saturation, W_s %	21.2	21.6	31.8	—	—
	Saturation, S %	100	100	100	100	100
	Consol Pressure T/Sq Ft	1.5	6.0	3.0	3.0	6.0
	W.C. after Consol, W_c %	20.9	20.2	25.3	17.9	18.1
	Void Ratio after Consol e_c	.559	.540	.677	.477	.483
AT FAILURE	Maj Prin Stress, σ_1 T/Sq Ft	5.20	11.06	5.62	10.66	13.18
	Min Prin Stress, σ_3 T/Sq Ft	1.5	6.0	3.0	3.0	6.0
	Water Content, W_f %	20.9	20.2	25.3	17.9	18.1
	Void Ratio, e_f	.559	.540	.677	.477	.483
Specimen Diameter Inches		1.4	1.4	1.4	1.4	1.4
Initial Height Inr		3.5	3.6	3.6	3.6	3.6
Test Time to Failure Min		24	36	24	17	20

Type of Test
Constant Strain, 0.02 in/min.
Control
X Consolidated, Not Drained

Type of Specimen Undisturbed

ø = — °	Tan ø = —	c = — T/Sq Ft

Classification Clay (CH)

LL 56	G 2.67
PL 15	D_{10}

Remarks: (See text of this report)
Tests 1 & 2: Induced (saturation) water extended into lower 1/3 of specimens only.
Test 3: Induced water extended full length of specimen.
Tests 4 & 5: Consolidation was begun immediately; specimens were not permitted to take water.

Project Brays Bayou Channel Rectification
Area Galveston District
Boring No. 65T-40 Sample No. X-9821
Elev or Depth 7.5-9.0 Date 23 April 1957

TRIAXIAL COMPRESSION TEST REPORT

Plate No. 4

SwDGL Report No. 4219