

SWG FORM 201
12 July 1971

PROJECT: NECHES RIVER SALT WATER BARRIER

LOCATION: Beaumont, Texas

TEST DATA SUMMARY

BORING NO. 79-93

DATE DRILLED: 23 Aug 79

LOCATION: Beaumont, Texas																							
FIELD NO.	Sample Depth, Feet		CLASSIFICATION	Length of sample rec'd	SYMBOL	CONSISTENCY	POCKET (1) PENETROMETER	STAN. PENET. BLOWS/FT (2)	MOISTURE CONTENT %	DRY DENSITY p. c. f.	L.L.	P.L.	Lab Sample No.	BAR L.S.	SIEVE ANALYSIS								
	From	To													PERCENT			WT. INIT.	ACC. WT. RTND. SIEVE NO. (3)				
															GRVL	SAND	FINES		NO. 4	NO. 10	NO. 40	NO. 200	
			ELEVATION TOP BORING _____																				
			#Water depth: 9.0'																				
1C	9.0	11.5	Gray sandy clay with random sand seams 9.0 - 14.0	0.9	CL	VS	0.0		37	83			1058										
2C	11.5	14.0	Gray sandy clay with random sand seams	0.85		S	0.25		44	80			1059	6	0	36	64	50	0	0	0	13	
3C	14.0	16.0	Gray sandy clay with random sand seams 14.0 - 16.0	0.9	CH	VS	0.0		39	*	69	23	1060		0	34	66	50	0	0	0	17	
4C	16.0	18.0	Gray sandy clay with random sand seams 16.0 - 20.0	0.8	CL	VS	0.0		36	85			1061	9	0	40	60	50	0	0	0	20	
5C	18.0	20.0	Gray sandy clay with random sand seams	0.9		VS	0.0		38	81	46	16	1062		0	34	66	50	0	0	0	17	
6J	20.0	22.0	Gray clayey sand 20.0 - 25.0		SC	L		4	35				1063		0	80	20	25	0	0	0	20	
7J	22.0	25.0	#washed		SP SM	L		5	29				1064										
8J	25.0	27.0	Gray silty sand with random clay seams 25.0 - 32.0																				
	27.0	30.0	#washed			VD		32	25				1065		0	94	6	50	0	0	3	47	
	30.0	32.0	Gray silty sand with random clay seams																				
	32.0	35.0	#washed					21	23				1066		0	96	4	25	0	0	2	24	
9J	35.0	36.5	Gray sand 32.0 - 36.5		SP	D							1067		0	4	96	50	0	0	0	2	
10C	36.5	38.0	Yellow & gray clay 36.5 - 38.0	0.85	CH	VST	3.75		20	109	39	18	1067		0	12	88	50	0	0	0	6	
11C	38.0	40.0	Yellow & gray clay 38.0 - 40.0	0.7	CL	H	4.50+		17	*	33	16	1068										
12C	40.0	42.5	Yellow & gray clay; sandy last 5" 40.0 - 50.0	1.2	CH	H	4.25		21	107			1069										
13C	42.5	45.0	Yellow & gray clay with random calcareous nodules	0.9		VST	2.50		25	101	67	18	1070		0	4	96	50	0	0	0	2	
14C	45.0	47.5	Yellow & gray clay with random calcareous nodules	1.1		VST	2.00		26	95			1071										
15C	47.5	50.0	Yellow & gray clay with random calcareous nodules; sandy last 2"	1.1		ST	1.50		34	87			1072										
															BORING NO. 79-93								

BORING NO. 79-93

Sheet 1 of sheets 2

CONSISTENCY - COMBINED SOILS
Very Soft Soft Medium Stiff Very Stiff Hard Very Loose Loose Medium Dense Very Dense

(1) Tons/Sq. Ft. Unconfined Compressive Strength
(2) Split Barrel Sampler
(3) Acc. Wt. Rnd : Init. Wt. x 100 = % Read.

Bottomed at _____

Water at _____

Tide Reading _____

PROJECT: NECHES RIVER SALT WATER BARRIER

BORING NO. 79-93

LOCATION: _____

TEST DATA SUMMARY

DATE DRILLED: _____

FIELD NO.	Sample Depth, Feet		CLASSIFICATION ELEVATION TOP BORING _____	Length of sample recv'd	SYMBOL	CONSISTENCY	POCKET (1) PENETROMETER	STAN. PENET. BLOWS/FT (2)	MOISTURE CONTENT %	DRY DENSITY p. c. f.	L.L.	P.L.	Lab Sample No.	BAR L.S.	SIEVE ANALYSIS							
	From	To													PERCENT			INIT. WT.	ACC. WT. RTND. SIEVE NO. (3)			
															GRVL	SAND	FINES		NO. 4	NO. 10	NO. 40	NO. 200
16C	50.0	52.5	Yellow & gray sandy clay with random calcareous nodules	1.1	CL	VST	2.75	18	111	42	15	1073		0	16	84	50	0	0	1	8	
17C	52.5	55.0	Yellow & gray sandy clay with random calcareous nodules	1.05		VST	2.00	22	103			1074										
18C	55.0	56.5	Yellow & gray sandy clay with 1" white sand layer at bottom	0.95		ST	1.75	24	103			1075										
	56.5	57.0	#washed																			
19J	57.0	59.0	Gray & brown sand		SP SM	VD	53	19				1076		0	92	8	25	0	0	2	23	
	59.0	62.0	#washed																			
	62.0	64.0	#no recovery			D	41															
20J	64.0	66.0	Yellow & gray to reddish brown clay with random calcareous nodules		CH	M	22	24				1077										
21C	66.0	67.0	Brown & gray clay with random calcareous nodules	0.75		H	4.50+	22	106			1078										
22C	67.0	70.0	Brown & gray clay with random calcareous nodules	0.8		VST	2.25	23	104	50	23	1079		0	4	96	50	0	0	1	2	
23C	70.0	72.5	Brown & gray clay with random calcareous nodules & silt seams	0.8		VST	2.50	24	102			1080										
24C	72.5	75.0	Brown & gray clay with random calcareous nodules	0.85	CL	ST	1.50	26	101	30	22	1081		0	6	94	50	1	2	2	3	
25C	75.0	77.5	Brown & gray clay with random calcareous nodules	1.1		VST	2.00	25	100			1082										
26C	77.5	80.0	Brown & gray clay with silty sand layers	0.85		ST	1.75	28	96			1083										
			#information obtained from driller's log																			
			*Disturbed																			

KEY: CONSISTENCY - COHESIVE SOILS CONSISTENCY - NONCOHESIVE SOILS (1) Tons/Sq. Ft. Unconfined Compressive Strength
 VS S H ST VST H VL L H D VD (2) Split Barrel Sampler
 Very Soft Soft Medium Stiff Very Stiff Hard Very Loose Loose Medium Dense Very Dense (3) Acc. Wt. Retd. & Init. Wt. x 100 = % Retd.

Bottomed at _____ Water at _____ Tide Reading _____

BORING NO. 79-93

Sheet 2 of sheets 2

TABLE 2
GRAIN SIZE & FOMETER ANALYSIS

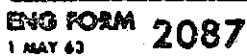
NECHES RIVER SALT WATER BARRIER

GALVESTON DISTRICT LABORATORY

1650

Diameter in Millimeters/Percent Finer by Weight																										
BORING NO.	SAMPLE NO.	DEPTH(FT.)	GDLR NO.	4.76	2.00	0.84	0.59	0.42	0.297	0.210	0.149	0.105	0.074	0.050	0.045	0.025	0.023	0.0094	0.0090	0.0064	0.0060	0.0047	0.0044	0.0034	0.0014	D ₁₀ MM
79-93	6	20.0'-22.0'	79-1063					100	96	79	36	23	20	16		16			14	14		13		12	10	0.002
	7	25.0'-27.0'	79-1064				100	97	87	68	35	24	23	20		20			17	15			15	14	10	0.014
	8	30.0'-32.0'	79-1065				100	94	74	36	14	8	6													0.120
	9	35.0'-36.5'	79-1066				100	92	64	20	8	4	4													0.160
	19	57.0'-59.0'	79-1076				100	92	72	40	20	8	8													0.112
79-94	4	8.0'- 9.0'	79-1118							100	92	71	47	25		18			15	14			13	13	10	0.001
	5	9.0'-11.0'	79-1119							100	91	68	47		27	17		13		13			12	11	9	0.002
	6	11.0'-13.0'	79-1120						100	99	77	47	33	25		21			17	16			15	15	12	*

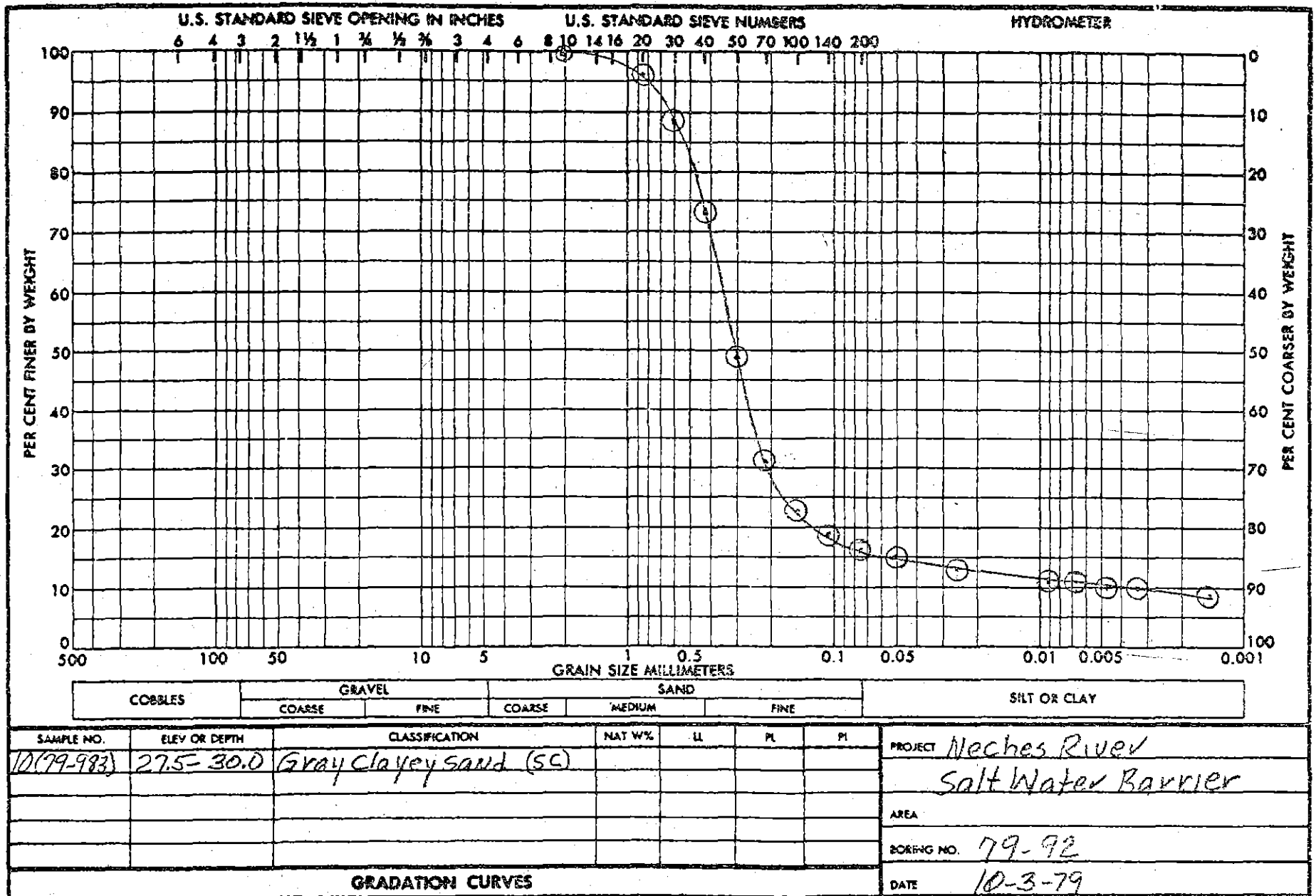
*D₁₀ - not determined (see paragraph 5a)



REPLACES WES FORM NO. 1241, SEP 1962, WHICH IS OBSOLETE.

U.S. GOVERNMENT PRINTING OFFICE : 1983 O7-700-128

PLATE NO. 38

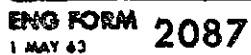


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REPLACES WES FORM NO. 1241, SEP 1962, WHICH IS OBSOLETE.

U.S. GOVERNMENT PRINTING OFFICE : 1965 OF-700-120

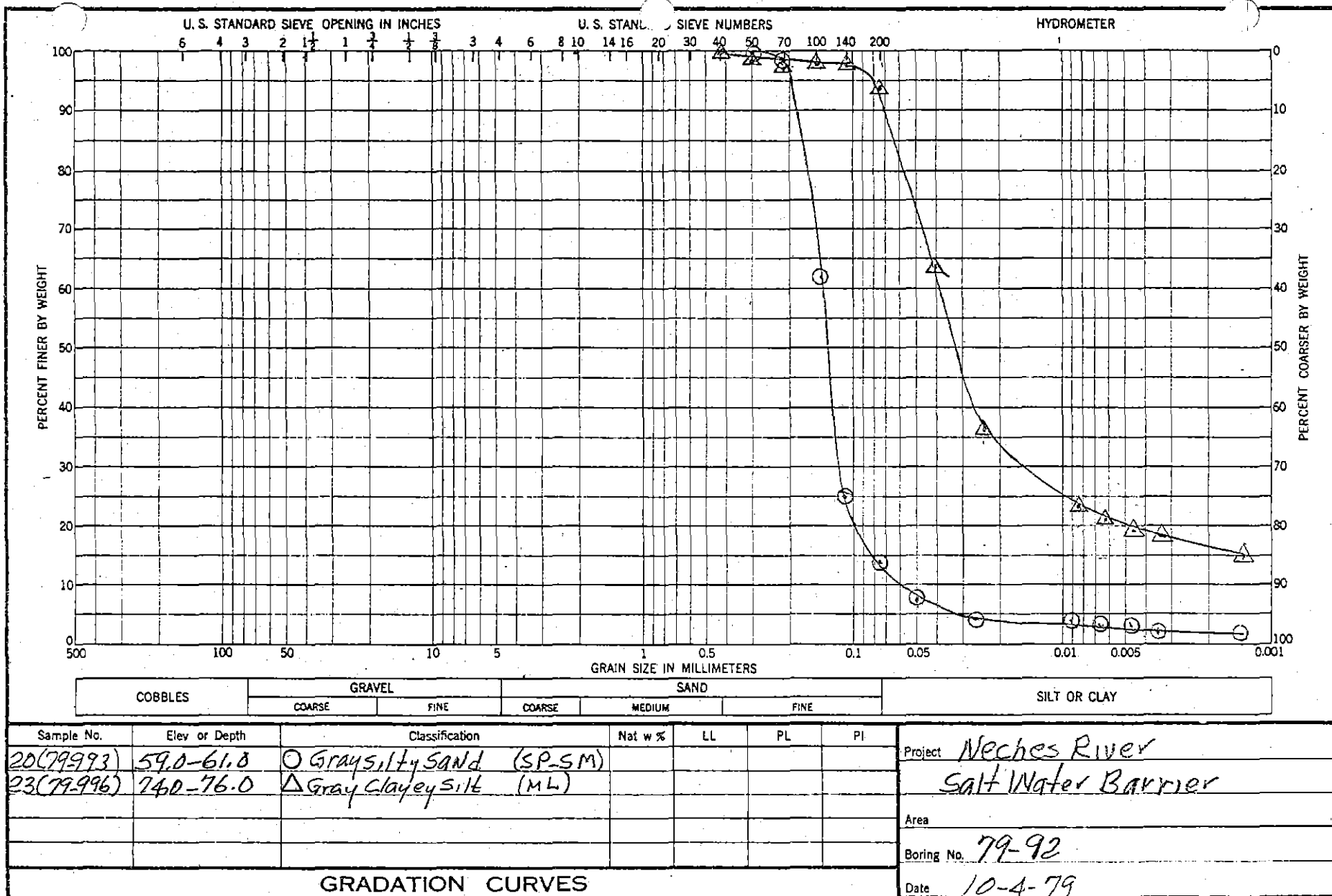
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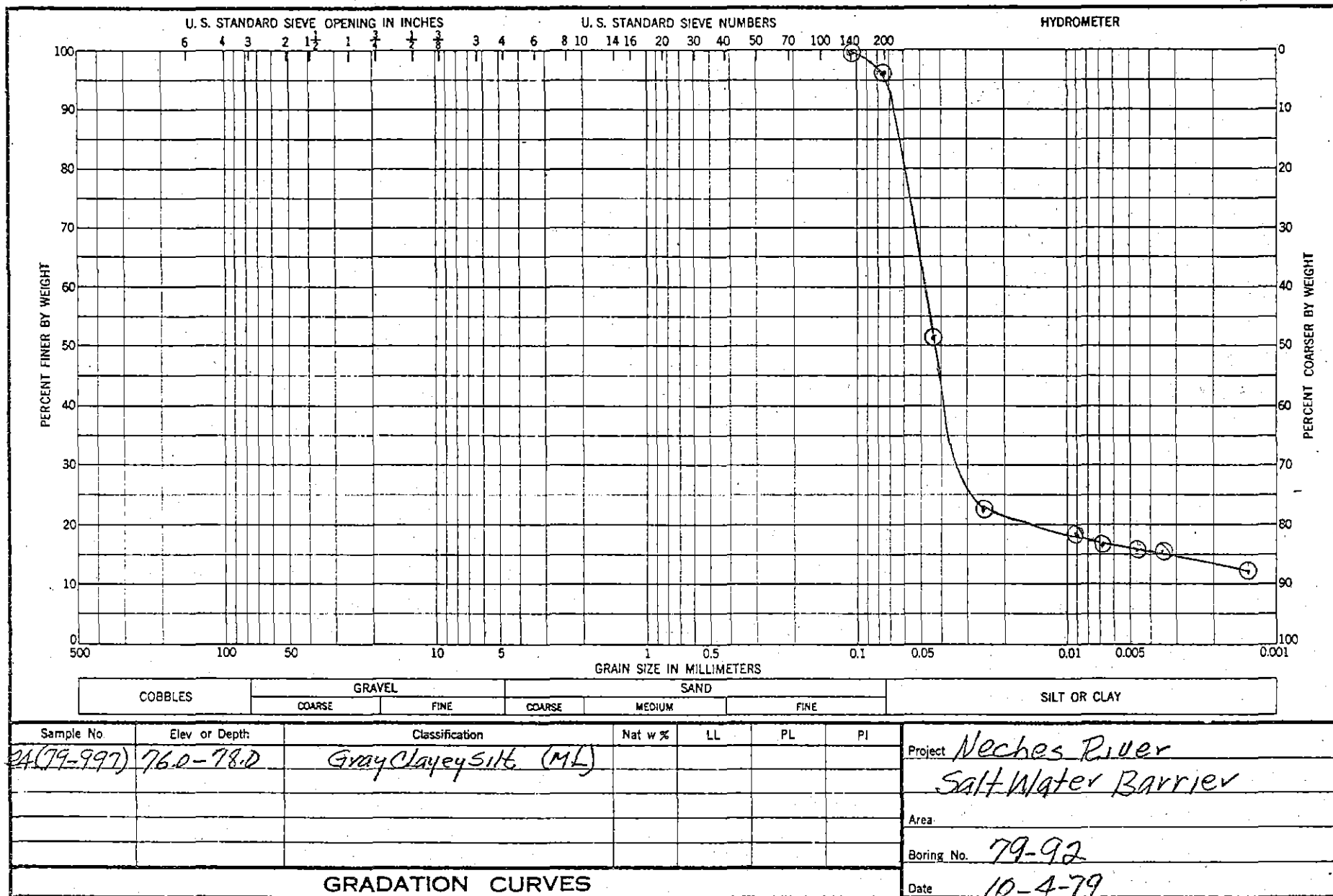


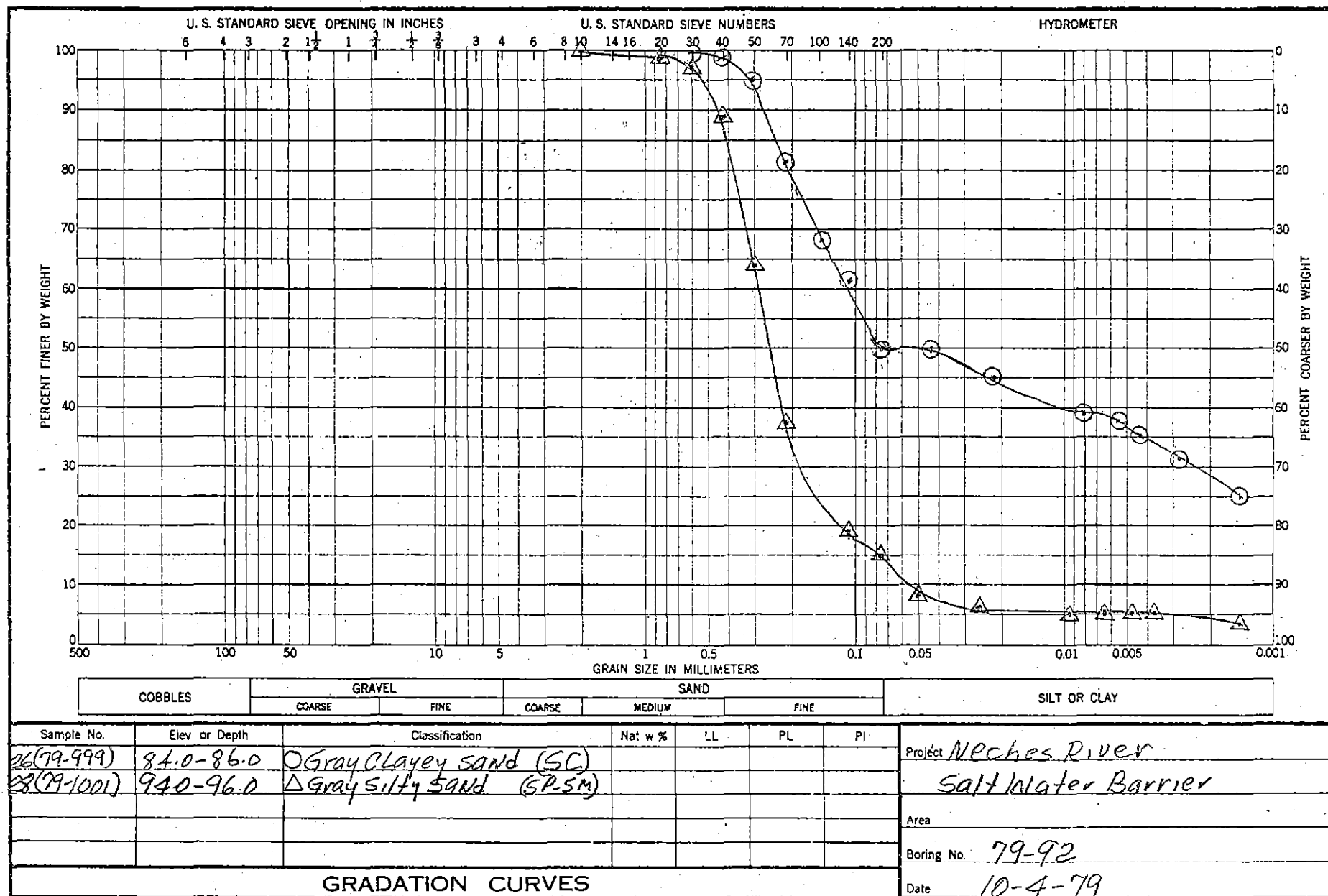
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U. S. GOVERNMENT PRINTING OFFICE : 1963 OF-700-126

PLATE NO. 40



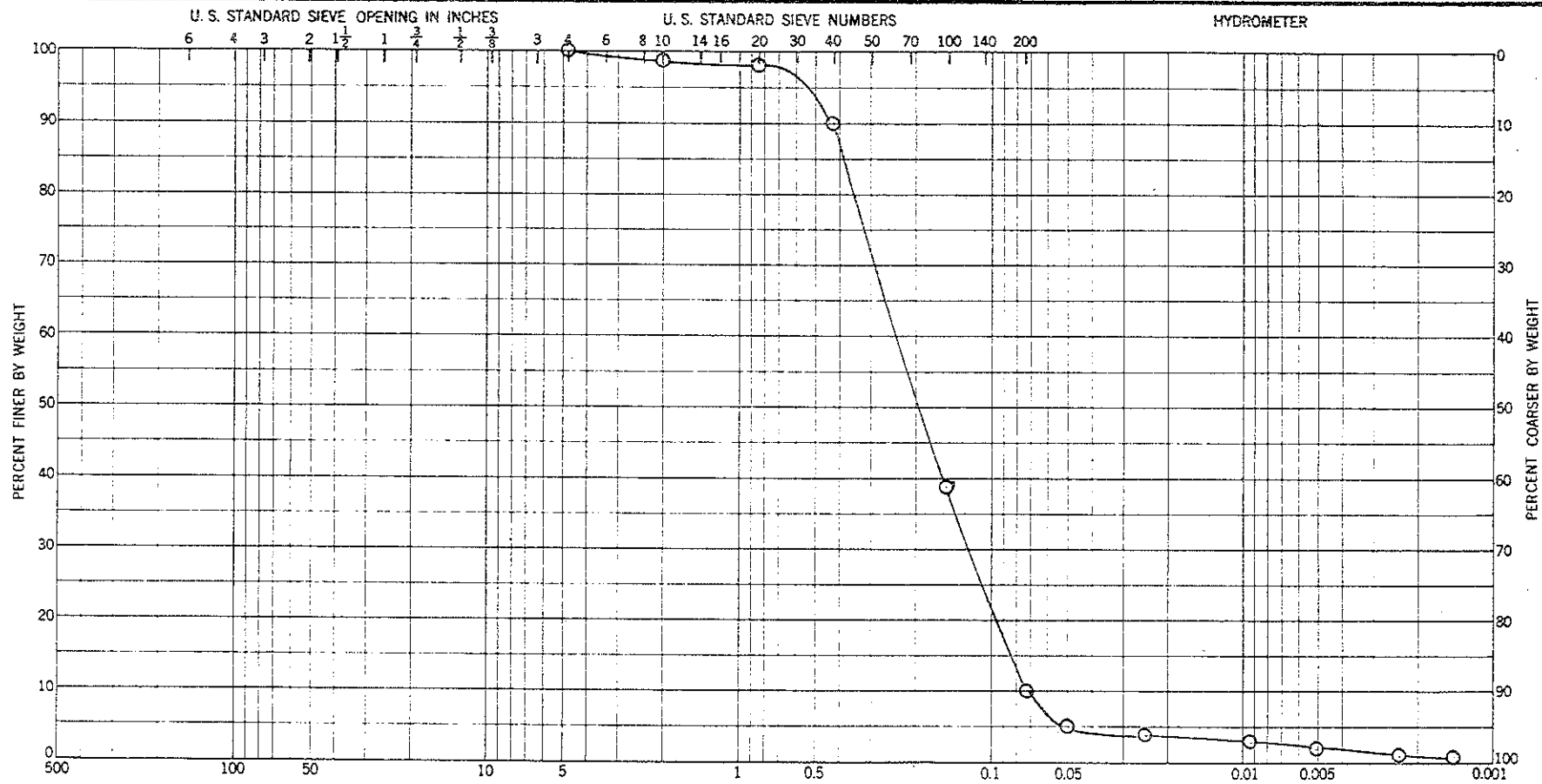


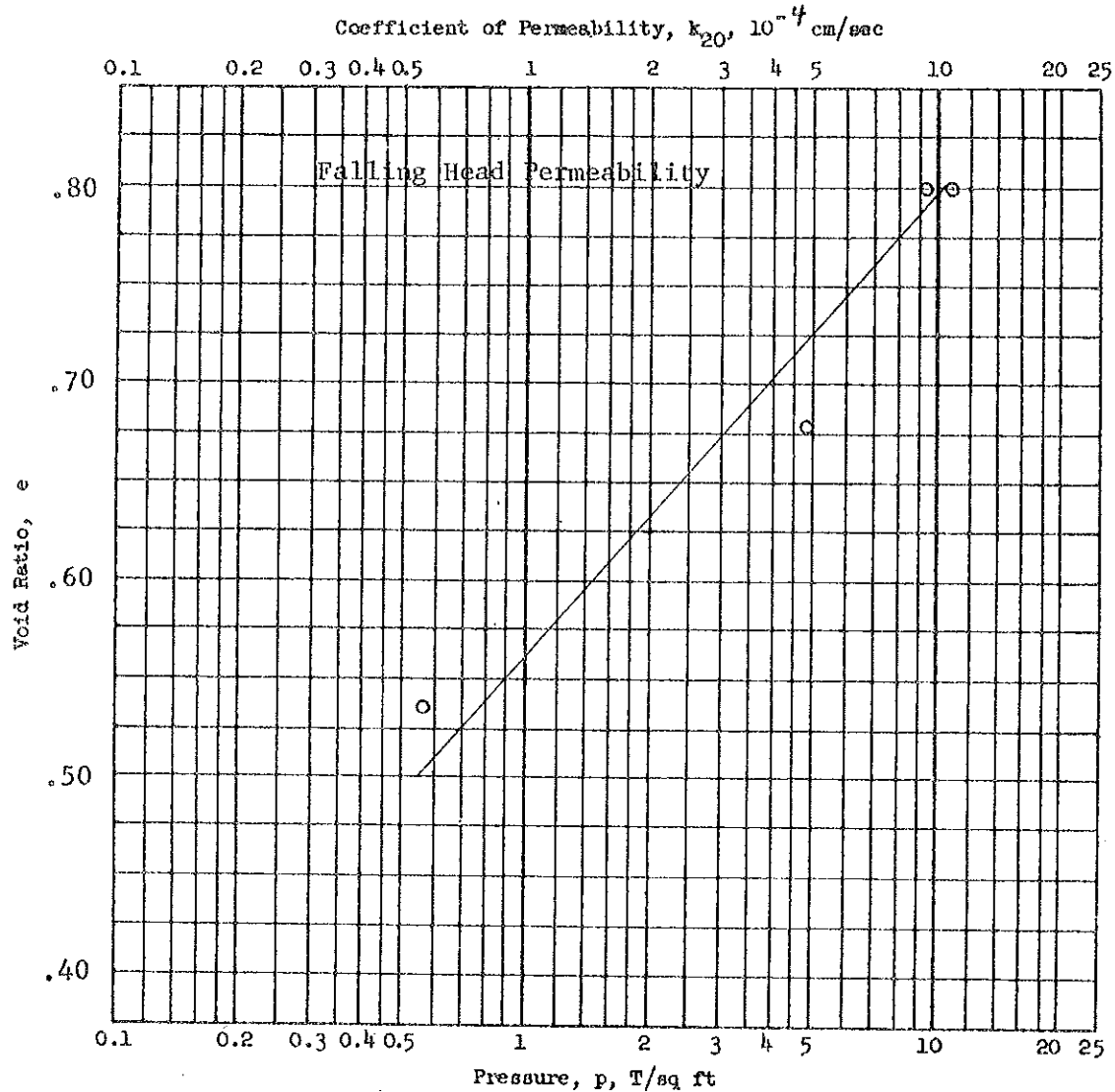




Results of Tests of Foundation Material

Boring No.	Field No.	SWD No.	Depth Ft.	Mechanical Analysis			Permeability cm/sec	Void Ratio	Dry Density Lb/cu ft	Test		Description
				Gr	Sa	Fi				Type	Plate	
79-91 (Cont'd)	S-22 & S-23	A-3636	64.0-71.0	0	92	8	23.1 x 10 ⁻⁴	.762	94	Perm	20	SP-SM White SAND
							8.0 x 10 ⁻⁴	.716	96			
							2.1 x 10 ⁻⁴	.551	107			
	S-25 & S-26	A-3637	79.0-85.0	0	84	6	5.0 x 10 ⁻³	.696	98	Perm	21	SP-SM White SAND
							2.9 x 10 ⁻³	.623	102			
							1.6 x 10 ⁻³	.564	106			
79-92	S-21 & S-22	A-3638	64.0-71.0	0	90	10	10.2 x 10 ⁻⁴	.802	92	Perm	22	SP-SM White SAND
							4.9 x 10 ⁻⁴	.678	99			
							0.5 x 10 ⁻⁴	.538	108			





Type of Specimen		Before Test		After Test	
Diam in.	Ht in.	Water Content, w_o	%	w_f	%
Overburden Pressure, p_o T/sq ft		Void Ratio, e_o		e_f	
Preconsol. Pressure, p_c T/sq ft		Saturation, S_o	%	S_f	%
Compression Index, C_c		Dry Density, γ_d	lb/ft ³		
Classification		k_{20} at $e_o =$ $\times 10^{-4}$ cm/sec			
LL	G_s	Project Neches River			
PL	D_{10}				
Remarks		S-21 & S-22			
		Area			
		Boring No. 79-92	Sample No. A-3638		
		Depth El 64.0-71.0	Date Jan 1980		
		CONSOLIDATION TEST REPORT			