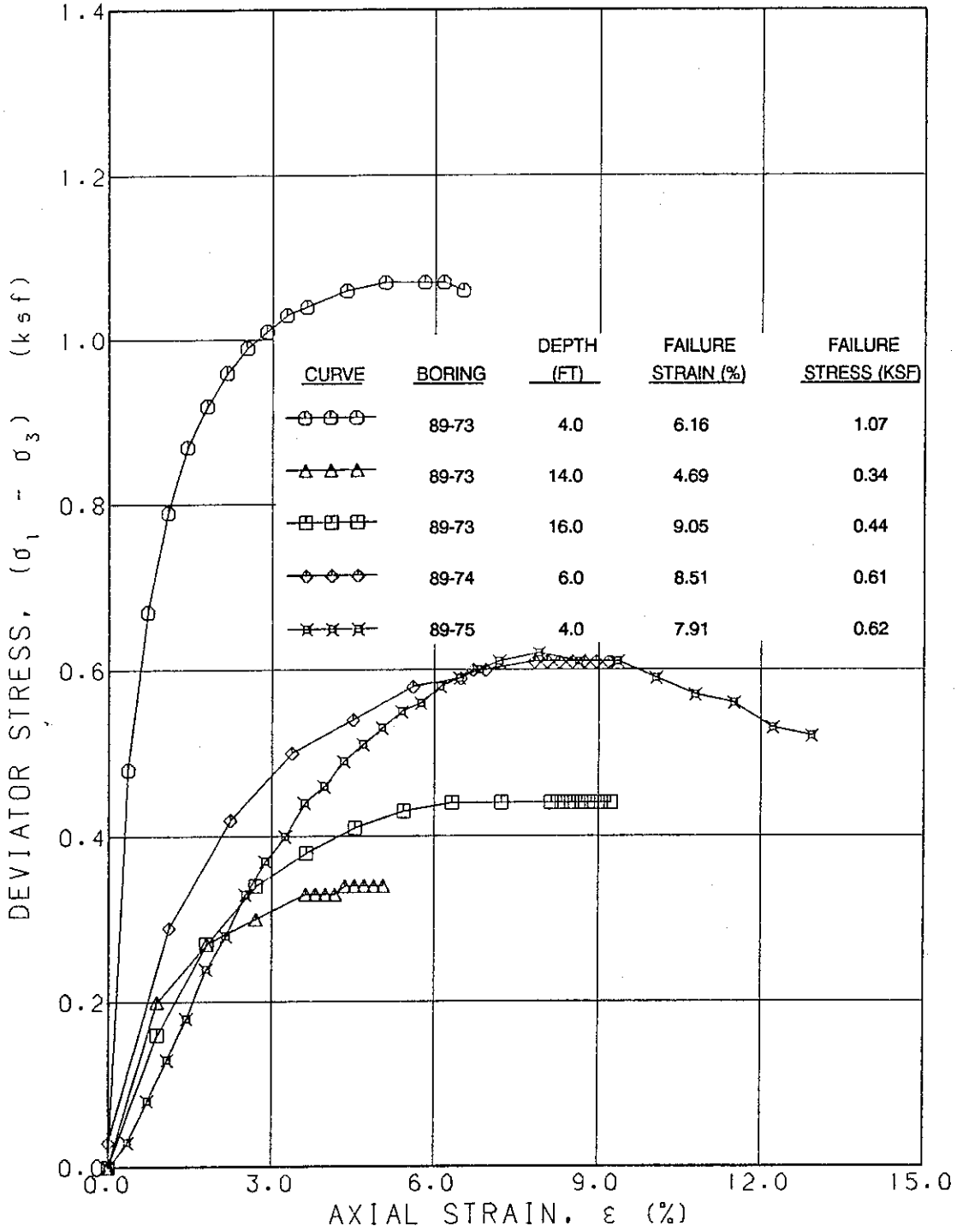
BORING NUMBER	SAMPLE NUMBER/TYPE	SAMPLE DEPTH (FT)	VISUAL CLASSIFICATION	UNIFIED SOIL CLASSIFICATION	MOISTURE CONTENT (%)	UNIT DRY WEIGHT (PCF)	SPECIFIC GRAVITY OF SOLIDS	LIQUID LIMIT	PLASTIC LIMIT	BAR LINEAR SHRINKAGE (%)	PERCENT FINER BY WEIGHT (ABBEVIATED MECHANICAL SIEVE ANALYSIS)					COMPLETE MECHANICAL ANALYSIS	HYDROMETER ANALYSIS	STANDARD COMPACTION TEST	MODIFIED COMPACTION TEST	UNDRAINED SHEAR STRENGTH(KSF)*	TORVANE SHEAR (KSF)
											3/8"	#4	#10	#40	#200						
89-73	1Q	0-2	Stiff brown clay	CH	45																1.1
	2Q	2-4	Firm brown clay w/ roots and ferrous nodules and sand pockets	CH	51	75		67	27						100					0.5	0.6
	3J	4.5-6	Brown clayey fine sand	SC							100	98	97	95	34						
	4J	8.5-10	Brown clay w/ sand seams and pockets	CH	51								100	97	55						
	5J	10-12	Brown clay w/ sand pockets	CH	44																
	6Q	12-14	Very soft brown clay with sand pockets	CH	41	70		87	22		100	98	97	93	61					0.2	0.2
	7Q	14-16	Very soft olive gray silty-clay w/ shell fragments	CL	36	87		36	16			100	99	95	68					0.2	0.2
	8Q	18-20	Soft brown clay w/ numerous sandy-silt pockets and shell fragments	CL	31																0.3
	9J	20-22	Brown silty fine sand	SM							100	99	99	99	15						
	10J	23.5-25	Brown silty fine sand	SM																	
89-74	1J	0-0.5	Stiff brown clay	CH	33																
	2J	0.5-2	Brown silty clay w/ silt seams and pockets	CL	27			30	18												
	3J	2.5-4	Brown clay	CH	38																
	4Q	4-6	Soft dark brown clay, laminated w/ sand and silt seams, w/ ferrous nodules	CH	55	72		56	21					100	82					0.3	0.4
	5J	7.5-9	Red silty fine sand	SM																	
	6J	13-15	Gray sandy-clay w/ shell fragments	CL	33			36	15			100	98	95	61						
	7J	15-17	olive gray clay w/ sand pockets	CH	38																
	8J	19-21	Brown clayey-sand w/ roots	SC	31								100	99	49						
	9J	21.5-23	Brown silty fine sand	SM										100	20						
	10J	23.5-25	Tan silty fine sand w/ clay pockets.	SM																	

*Based on Unconfined Compression Test Results

SUMMARY OF TEST RESULTS
Disposal Area No. 3
Mouth of Colorado River Project
Matagorda, Texas

McClelland consultants

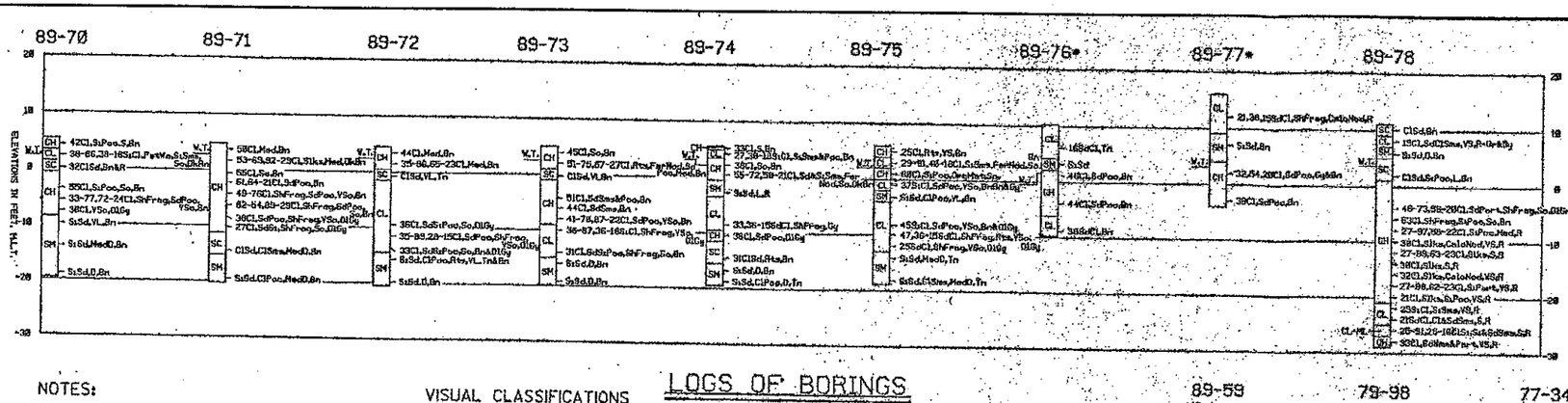
PLATE 8



STRESS-STRAIN CURVES
UNCONFINED COMPRESSION TEST
BORINGS 89-73,
89-74, AND 89-75

McCLELLAND ENGINEERS

PLATE 16



NOTES:

1. SOILS HAVE BEEN CLASSIFIED IN ACCORDANCE WITH MILITARY STANDARD 619B "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. (WC-LDDW)(LL-PL)(BL-S.)
3. BORINGS 89-59 THRU 89-62, 89-70 THRU 89-75 89-78, 79-92, 77-343 THRU 77-345, AND 79-95 THRU 79-97, 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 CONESIONLESS MATERIALS WERE ENCOUNTERED, DISTURBED SAMPLES WERE TAKEN WITH A SPLIT SPOON SAMPLER DURING PERFORMANCE OF STANDARD PENETRATION TESTING. BORINGS 89-63, 89-66, 89-68, 89-69, 89-76, AND 89-77 WERE DRILLED USING A MECHANICAL AUGER AND BORING 89-67 WAS DRILLED USING WET ROTARY TECHNIQUES TO OBTAIN DISTURBED SAMPLES.
4. WATER TABLES LEVELS SHOWN ON BORING LOGS WERE DETERMINED AFTER DRILLING BORINGS BY MEASURING THE TOP OF FLUID LEVELS IN THE BORINGS. IN BORINGS WHERE 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 TIDE AND WEATHER CONDITIONS. THEREFORE, SOME VARIATION SHOULD BE ANTICIPATED BETWEEN WATER TABLES INDICATED AND WATER TABLES ENCOUNTERED IN THE FIELD.

VISUAL CLASSIFICATIONS

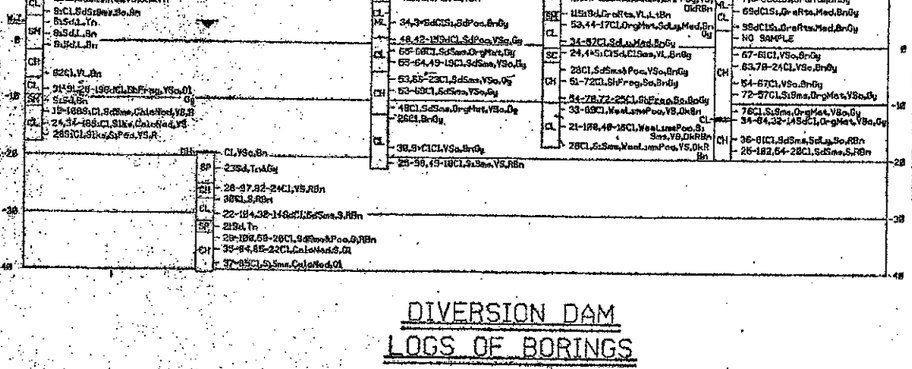
Bn Brown(ish)	Ol Olive
Cl Clay(ey)	Org Organic
Calc Calcareous	Part Partings(d)
D Dense	Pet Petrolum
Dec Decayed	Poc Pocket(s)
Dep Deposit(s)	R Red(ish)
Dk Dark	Rts Root(s)
Fer Ferrous	S Stiff
Frag Fragments(e)	Sd Sand(y)
Gr Gravel(ish)	Sh Shell(y)
Gra Grass	Sl Silty
Gy Gray(ish)	Slks Slickensides
L Loose	Sm(s) Seams
Leav Leaves	So Soft
Lim Limestone	Tn Tan(ish)
Lt Light	V Very
Lg Layer(s)	Wg Waxy
Mat Material(s)	Wd Wood(en)
Med Medium	Weа Weathered
Red Reddish	Y Yellow(ish)

LABORATORY CLASSIFICATION

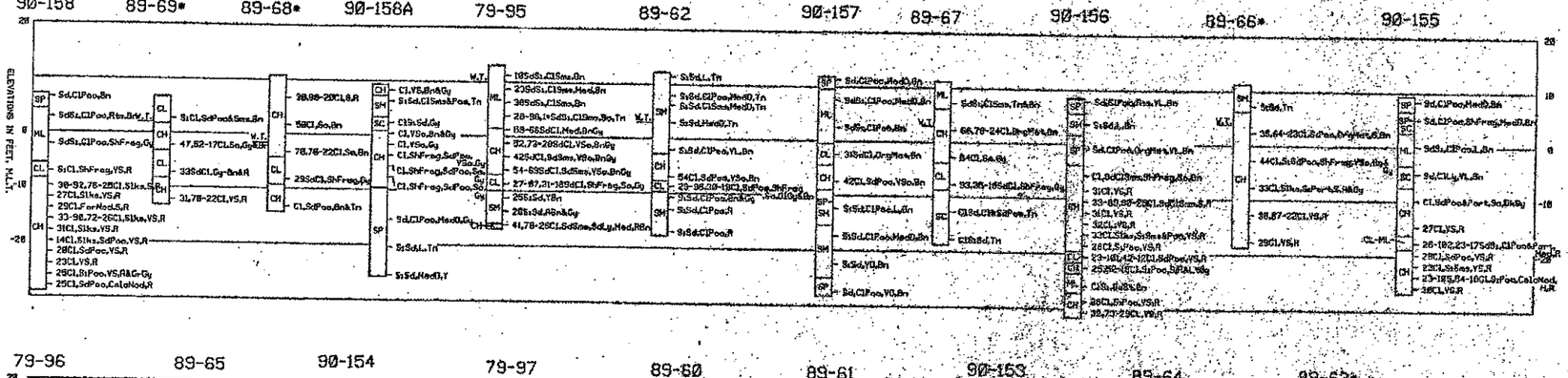
SP POORLY-GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES.
SM SILTY SANDS, SAND-SILT MIXTURES.
CH INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS.
CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, LEAN CLAYS.
ML INORGANIC SILTS AND VERY FINE SANDS, WITH SLIGHT PLASTICITY.
SC CLAYEY SANDS, SAND-SILT MIXTURES.
PT PEAT AND OTHER HIGHLY ORGANIC SOILS.

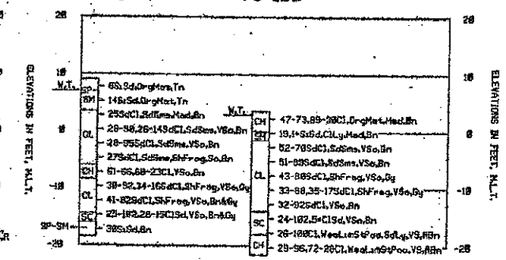
LOGS OF BORINGS
DISPOSAL AREA NO. 3

NOTE : * INDICATES AUGER BORINGS.



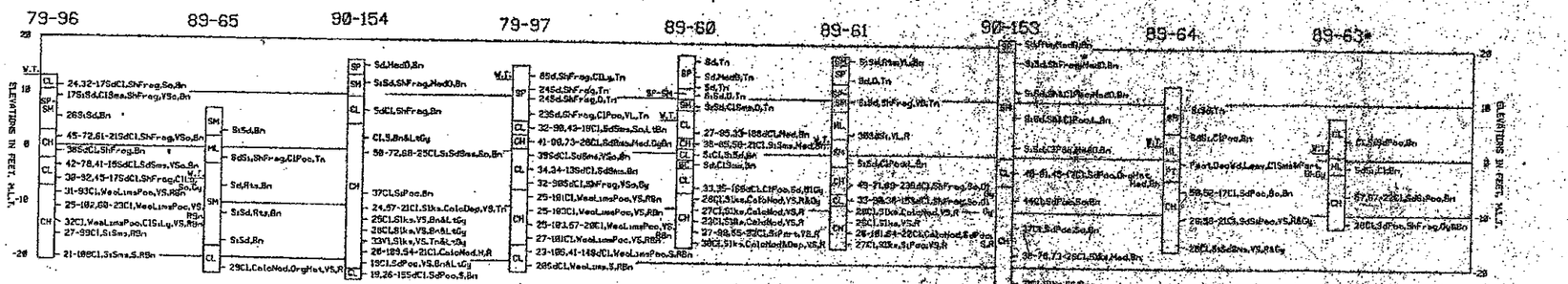
DIVERSION DAM
LOGS OF BORINGS





DIVERSION CHANNEL
LOGS OF BORINGS

NOTE: APPROXIMATE MAXIMUM DEPTH OF PREVIOUS DREDGING IS TO EL. -21.0 M.L.T.



CONNECTING CHANNEL
LOGS OF BORINGS

OFFICE OF THE DISTRICT ENGINEER
U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS

COLORADO RIVER AND TRIBUTARIES, TEXAS
MOUTH OF COLORADO RIVER
DIVERSION DAM AND NAVIGATION
(CONNECTING) CHANNEL
LOGS OF BORINGS

DATE: FEBRUARY 1991
SCALE: AS SHOWN
DRAWING NUMBER: F-1

Prepared under the direction of
Brink P. Miller, Col. C.E.
Commanding

INVITATION NO.
DACW64-
03-B-00

US Army of Engineers Galveston District

Drawn by: X | Rev. | Date:
Designed by: X | Scale: AS SHOWN
Checked by: X | Approved/Recommended:
Submitted by: | DAVID A. CAMPBELL, P.E.
MOHAMED M. HUSSEIN, P.E.

U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS

PREPARED UNDER THE DIRECTION OF

PROJECT INFORMATION 4 LINES PROVIDED

SHEET TITLE

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