

Job No. 0401-2906 Completion Date 5/9/90 Time _____ Field Log of Boring 90-72

Elevation _____ Location Disposal Area No. 2 Driller D. Findley

Lab. Tests _____ Soil Sample No. _____ Depth (ft) _____ Sample _____ Blows _____ Torvane Penet. _____ Logger K. Bowen 1 of 2

Lab. Tests	No.	Depth	Type	Depth (ft)	Sample	Blows	Torvane Penet.	Comments	Description of Material
	1	0-2	J				1.25		SAND, dense, with clay seams
	2	3-5	J	5	X	18-40-45			
	3	8-10	J	10			0.50		
	4	3-15	Q	15			2.0		(13') SANDY CLAY, very stiff
	5	15-17	J				1.5		SAND, medium-dense, with shell fragments
	6	18.5-20	J	20	X	4-5-7			
	7	23.5-25	J	25	X	6-6-6			
	8	28.5-30	J	30	X	2-5-5			SANDY CLAY, stiff
	9	30-32	Q				1.5		
	10	33.5-35	J	35	X	4-5-8			- sand, 32' to 33'
	11	35-37	Q						
	12	37-39	Q	40					

Remarks:

Boring Sealed? w/cuttings

Dry Auger _____ to _____ ft

Wet Rotary 0 to 49 ft

Water First Noticed _____ ft

Depth to Water _____ Caved at _____ Date _____ Time _____ ; _____

Job No. 0401-2906 Completion Date 5/9/90 Time _____ Field Log of Boring 90-72

Elevation _____ Location Disposal Area No. 2 Driller D. Findley

Lab. Tests	Soil Sample			Depth (ft)	Sample	Blows	Torvane Penet.	Logger <u>K Bowen</u>	2 of 2	Comments	Description of Material
	No.	Depth	Type								
	13	39-41	Q				1.25				SANDY CLAY, stiff
	14	41-43	Q				1.5				
	15	43-45	Q	45			1.5				
	16	45-47	Q				1.5				
	17	47-49	Q				1.5				
				50							
				55							
				60							
				65							
				70							
				75							
				80							

Remarks: Covered by construction; Unable to make depth-to-water measurements

Boring Sealed? w/cuttings

Dry Auger _____ to _____ ft

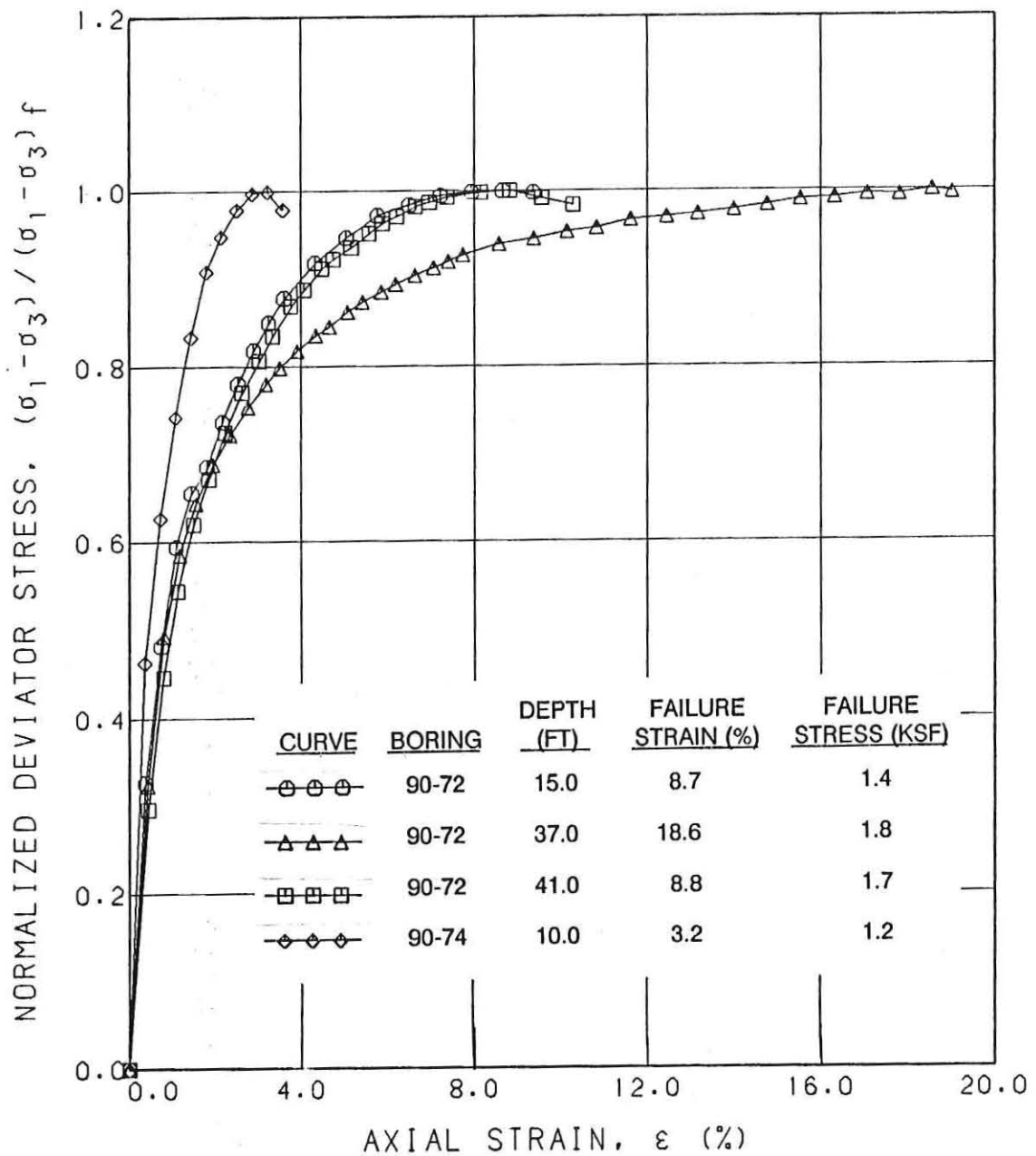
Wet Rotary 0 to 49 ft

Water First Noticed _____ ft

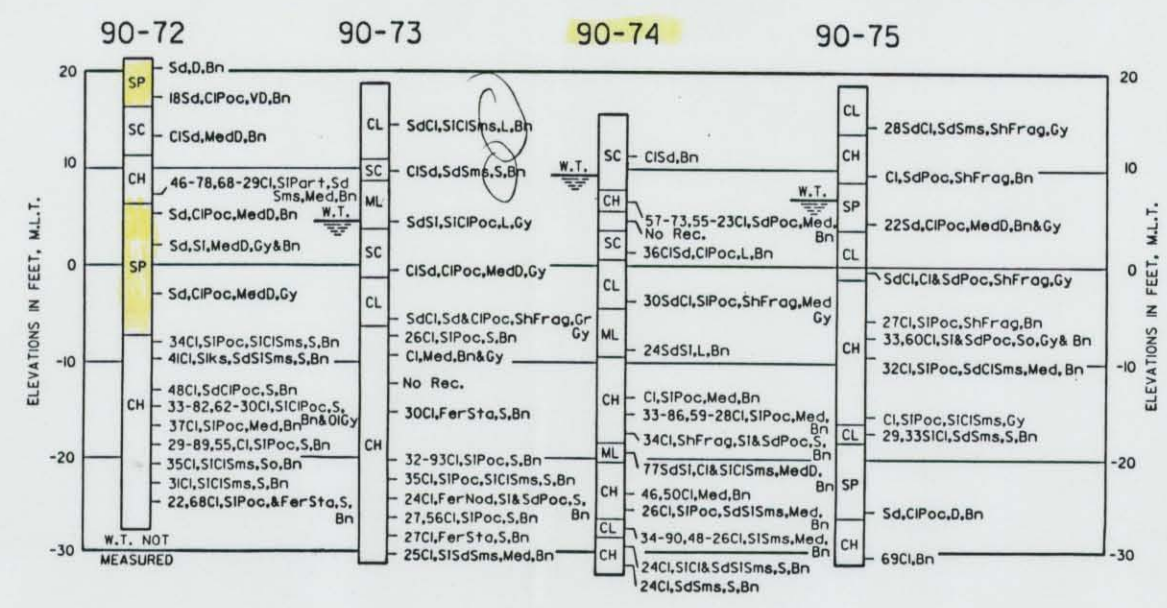
Depth to Water _____ Cased at _____ Date _____ Time _____ ; _____

SUMMARY OF TEST RESULTS
Galveston District, Corps of Engineers
Delivery Order No. 0016
Brazos Island Harbor
Brownsville Ship Channel

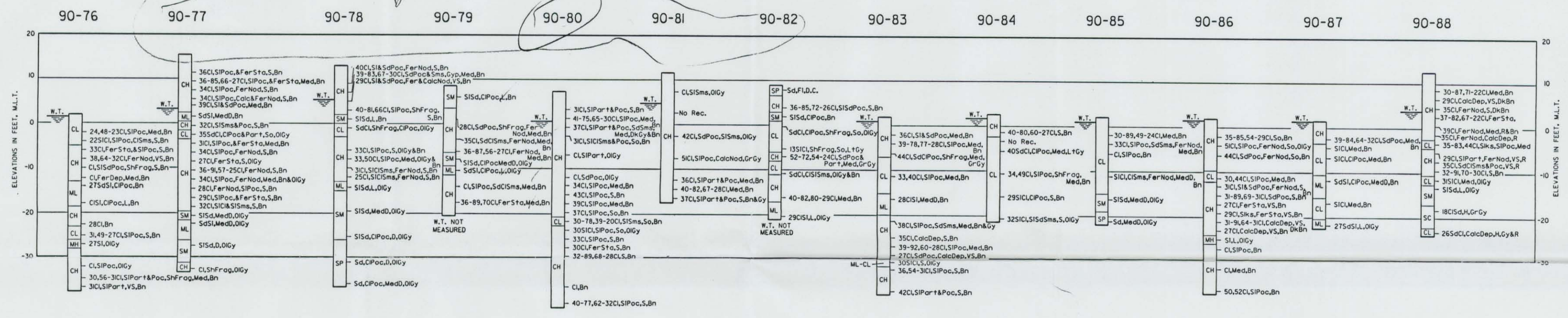
Boring Number	Sample Number	Sample Depth (ft)	Visual Classification	USCS	MC (%)	UDW (pcf)	LL	PL	PI	Gradation, % Passing Sieve No. 4 10 40 200	UNC Su (ksf)	TV Su (ksf)
E1 10.3	90-72 1J	0-2	Brown fine SAND <i>Dense</i>	SP								
	90-72 2J	3-5	Brown fine SAND w/ clay pockets <i>N/Dense</i>	SP	18					100 89 20		
	90-72 3J	6-10	Brown CLAYEY SAND	SC								
	90-72 4Q	13-15	Firm brown CLAY w/silt partings & sand seams	CH	46	78	68	29		100 99 94 84	0.7	
	90-72 5J	15-17	Brown fine SAND w/ clay pockets <i>Med Dense</i>	SP								
	90-72 6J	18.5-20	Gray and brown fine SAND w/ silt <i>M/D</i>	SP SM						100 77 16		
	90-72 7J	23.5-25	Gray SAND w/ clay pockets <i>M/D</i>	SP						<i>84</i>		
	90-72 8J	28.5-30	Brown CLAY w/ si pkcts & si cl sms	CH	34							
	90-72 9Q	30-32	Stiff CLAY slickensided w/ sandy silt seams	CH	41							
	90-72 10J	33.5-35	Brown CLAY w/ sandy clay pockets	CH	48					100 98 77		
	90-72 11Q	35-37	Stiff brown and ol gray CLAY w/silty clay pkcts	CH	33	82	62	30				
	90-72 12Q	37-39	Firm brown CLAY w/ silt pockets	CH	37							
	90-72 13Q	39-41	Stiff brown CLAY w/ silt pockets	CH	29	89	55			100 99 98		
	90-72 14Q	41-43	Soft brown CLAY w/ silty clay seams	CH	35							
	90-72 15Q	43-45	Stiff brown CLAY w/ silty clay seams	CH	31							
	90-72 16Q	45-47	Stiff brown CLAY w/ fe stns & si pkcts	CH	22		68			100 99 99		
	90-72 17Q	47-49	Sample Not Received in Lab									



STRESS-STRAIN CURVES
UNCONFINED COMPRESSION TEST



DISPOSAL AREA No. 2



DISPOSAL AREA No. 4

NOTES:

1. SOILS HAVE BEEN CLASSIFIED IN ACCORDANCE WITH MILITARY STANDARD 698B "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. (MC-UOW), (LL-PL), (B.L.S.)
3. BORINGS 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 COHESIONLESS MATERIALS WERE ENCOUNTERED, DISTURBED SAMPLES WERE TAKEN WITH A SPLIT SPOON SAMPLER DURING PERFORMANCE OF STANDARD PENETRATION TESTING.
4. WATER TABLE LEVELS SHOWN ON BORING LOGS WERE DETERMINED AFTER DRILLING BORINGS BY MEASURING THE TOP OF FLUID LEVELS IN THE BORINGS. INASMUCH AS 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 WEATHER CONDITIONS. THEREFORE, SOME VARIATION SHOULD BE ANTICIPATED BETWEEN WATER TABLES INDICATED AND WATER TABLES ENCOUNTERED IN THE FIELD.

VISUAL CLASSIFICATIONS

Bn Brownish	Gr Green(ish)	R Reddish	Sta Stains)
Cdc Colorous	Gy Gray(ish)	Rec Recovery	Y Very
Cl Clayey	Gyp Gypsum	S Stiff	W.T. Water Table
D Dense	H Hard	Sh Shale	
D.C. Driller's Classification	L Loose	Sh Shelly	
Dep Deposit(s)	Lt Light	SI Silty	
Dk Dark	Med Medium	Sls Silty	
Fer Ferrous	Nod Nodules	Sks Sickenalides	
Fl Fine(s)	Ol Olive	Sms Seams	
Frag Fragment(s)	Poc Pocket(s)	So Soft	

LABORATORY CLASSIFICATION

- SP POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES.
 SM SILTY SANDS, SAND-SILT MIXTURES.
 SC CLAYEY SANDS, SAND-CLAY MIXTURES.
 ML INORGANIC SILTS AND VERY FINE SANDS, WITH SLIGHT PLASTICITY.
 CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, LEAN CLAYS.
 MH INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS.
 CH INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS.

REVISION	DATE	DESCRIPTION	BY
OFFICE OF THE DISTRICT ENGINEER U.S. ARMY ENGINEER DISTRICT, GALVESTON CORPS OF ENGINEERS GALVESTON, TEXAS			
DRAWN BY P.B.S.		BRAZOS ISLAND HARBOR, TEXAS BROWNSVILLE CHANNEL DREDGING INSHORE REACH NO. 1 DISPOSAL AREAS Nos. 2 & 4 BORING LOGS	
CHECKED BY J.T.F.		SUBMITTED BY David Campbell DIST. ENGINEER	
APPROVED BY David Campbell DIST. ENGINEER		DATE MAY 1992	
Prepared under the direction of Brink P. Miller, Col., C.E. District Engineer			
SCALE AS SHOWN		SPEC. DATE	
DRAWING NUMBER F-6		SHEET 13 OF 17 FILE NO. RIO 901-204	