

DEPARTMENT OF THE ARMY DIVISION <u>Southwestern</u> INSTALLATION <u>Galv Dist, Eng Div</u>				1. PROJECT NASA Channel, Clear Creek, Texas		SHEET <u>OF</u>	
DRILLING LOG				2. LOCATION (Coordinates or Station) Sta. 20+00 Tide 2.2 @ 10:00			
4. HOLE NO. (As shown on drawing title and file No.) 3ST-4				3. DRILLING AGENCY U. S. Army Corps of Engineers			
6. DIRECTION OF HOLE ☐ VERTICAL ☐ INCLINED DEGREES WITH VERTICAL				5. NAME OF DRILLER Black		7. THICKNESS OF OVER-BURDEN	
8. DEPTH DRILLED INTO ROCK		9. TOTAL DEPTH OF HOLE 17.5		10. SIZE AND TYPE OF BIT Shelby Tube - 3"			
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)				12. MANUFACTURER'S DESIGNATION OF DRILL			
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN DISTURBED 2 Jars UNDISTURBED 3 Cont		14. TOTAL NO. CORE BOXES		15. ELEV. GROUND WATER		16. DATE HOLE STARTED 7 Jun COMPLETED 7 Jun 1962	
17. ELEV. TOP OF HOLE Elev.		18. TOTAL CORE RECOVERY FOR BORING (%)		19. SIGNATURE OF INSPECTOR			
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)	
0.0	2.2	0.0	Water				
2.2	6.0	-3.8	Gray mucky silty clay v/soft Tube penetrated under weight of kelly			Jar 1	
6.0	10.0	-7.8 1.39 2.14	Gray mucky silty clay, v/soft Tube penetrated under weight of kelly and 5' rod			Jar 2	
10.0	12.5	-10.3	Gray sticky silty clay tr of shell, soft			Cont. 1 0.25	
12.5	15.0	-12.8	Gray sticky silty clay, soft			Cont. 2 0.25	
15.0	17.5	-15.3	Gray sticky silty clay, soft Bottomed in above Water 2.2			Cont. 3 0.25	

Results of Tests of Foundation Materials

Hole No.	SWD Sample No.	Depth, Feet	Type of Sample	Mechanical Analysis			Limits		Natural Conditions		Pocket Penetrometer, tsf	Classification
				Gr	Sa	Fi	LL	PI	Water Content %	Dry Density Lbs/cu.ft.		
3ST-1	S-12849	3.5 - 7.5	Jar						59.7	-	-	Dk.gray CLAY(CL). (v/soft)
	S-12850	7.5 - 10.0	Jar						43.0	-	-	Dk.gray CLAY(CL). (soft)
	S-12851	10.0 - 12.5	ST						21.7	107	2.75	Gray and yellow CLAY(CH), very stiff.
3ST-2	S-12852	3.2 - 5.0	Jar	0	18	82	68	16	88.0	-	-	Gray CLAY(CH). (v/so)
	S-12853	5.0 - 7.5	Jar	0	24	76	38	16	41.3	-	-	Dk.gray sandy CLAY(CL). (v/so)
	S-12854	7.5 - 10.8	Jar	0	18	82	41	16	74.1	-	-	Dk.gray CLAY(CL). (v/so)
	S-12855	10.8 - 12.5	ST	1	14	85	37	10	22.2	106	2.5	Gray and brownish-yellow CLAY(CL), very stiff.
	S-12915	15.5 - 16.0	Jar	0	23	77	34	13	34.5	-	-	Dk.gray sandy CLAY(CL), few shells.
3ST-3	S-12856	3.7 - 8.0	Jar						43.4	-	-	Dk.gray CLAY(CL).
	S-12857	8.0 - 10.0	Jar						43.4	-	-	Dk.gray CLAY(CL).
	S-12858	10.0 - 12.5	ST						24.4	102	2.5	Olive and gray CLAY(CH), very stiff.
3ST-4	S-12859	2.3 - 6.0	Jar						46.3	-	-	Dk.gray CLAY(CL). v/soft
	S-12860	6.0 - 10.0	Jar						52.5	-	-	Dk.gray CLAY(CL). v/soft
	S-12861	10.0 - 12.5	ST						37.1	82	0.25	Dk.gray CLAY(CL), very stiff.
3ST-5	S-12862	3.5 - 6.0	Jar						49.2	-	-	Dk.gray CLAY(CL).
	S-12863	6.0 - 8.5	Jar						57.3	-	-	Dk.gray CLAY(CL).
	S-12864	8.5 - 11.0	Jar						55.9	-	-	Dk.gray CLAY(CL).
	S-12865	11.0 - 13.0	ST						54.1	69.3	0.25+	Dk.gray CLAY(CL), soft.
3ST-6	S-12866	4.0 - 8.0	Jar						44.6	-	-	Dk.gray CLAY(CH).
	S-12867	8.0 - 10.0	Jar	0	10	90	45	12	47.9	-	-	Dk.gray CLAY(CL).
	S-12868	10.0 - 12.5	Jar						41.8	-	-	Gray CLAY(CL).
	S-12869	12.5 - 15.0	Jar						41.2	-	-	Gray CLAY(CL).
3ST-7	S-12870	4.0 - 8.0	Jar	0	13	87	65	14	79.9	-	-	Dk.gray CLAY(CH).
	S-12871	8.0 - 10.0	Jar						40.5	-	-	Dk.gray CLAY(CL).
	S-12872	10.0 - 12.0	Jar	3	14	83	42	11	40.5	-	-	Dk.gray CLAY(CL).
	S-12873	12.0 - 14.0	ST						26.7	99	1.25	Red and gray CLAY(CH), stiff.
3ST-8	S-12874	4.2 - 8.0	Jar						42.6	-	-	Dk.gray CLAY(CL).
	S-12875	8.0 - 10.0	Jar						42.6	-	-	Dk.gray CLAY(CL).
	S-12876	10.0 - 12.5	Jar						36.6	-	-	Dk.gray CLAY(CL).
3ST-9	S-12877	4.5 - 7.0	Jar						116.3	-	-	Dk.gray CLAY(CH).
	S-12878	7.0 - 10.0	Jar						40.3	-	-	Dk.gray CLAY(CL).
	S-12879	10.0 - 12.5	ST	1	32	67	28	13	24.6	103	0.5	Gray sandy CLAY(CL), medium consistency.
	S-12880	12.5 - 15.0	ST	0	9	91	56	13	28.7	96	1.5	Greenish-gray CLAY(CH), stiff.

NASA CHANNEL IN CLEAR LAKE
INVEST OF CHANNEL DREDGING

TEST DATA SUMMARY

Sheet 1 of 3

FEATURE Log of Soil Boring

BORING NO.	SAMPLE NO.	DEPTH OR ELEV. OF SAMPLE	LABORATORY CLASSIFICATION	MECHANICAL ANALYSIS				ATTERBERG LIMITS		SPECIFIC GRAVITY G	NATURAL WATER CONTENT %	NATURAL DRY DENSITY LBS/CU FT	COMPACTION DATA		SHEAR DATA						PERMEABILITY		CONSOLIDATION DATA				REMARKS					
				GRAVEL %	SAND %	FINES %	D ₁₀ *	LL	PL				OPTIMUM WATER %	MAXIMUM DRY DENSITY LBS/CU FT	INITIAL e	DRY DENSITY LBS/CU FT	w ₁ %	w _p %	s ₁ %	TYPE TEST	SPECIMEN SIZE INCHES	TEST	σ _{vm} T/SQ FT	σ ₁ T/SQ FT	c T/SQ FT	φ DEGREES		e	k FT/MIN	P ₀ T/SQ FT	P _c T/SQ FT	C _c
3ST-1	62	0.0	Test Done By Div.																													
	4081	12.0	CL	0	14	86	3.00	49.5	20.0		23.9	104.3																				
	4082	15.0	Same as #4081				3.25				17.7	115.4																				
		17.50																														
3ST-2	62	0.0	Test Done By Div.																													
	4083	12.5	CL	0	21	79	4.50	34.2	13.0		17.7	117.2																				
	4084	15.0	Same as #4083				3.50				22.7	105.5																				
		17.5																														
3ST-3	62	0.0	TEST DONE BY DIV.																													
	4085	12.5	CL	0	17	83	3.75	42.2	15.0		19.5	112.8																				
	4086	15.0	SAME AS #4085				4.25				18.8	111.1																				
		17.5																														
3ST-4	62	0.0	TEST DONE BY DIV.																													
	4087	12.5	CL	0	23	77	0.0	33.9	12.0		42.1	87.5																				
	4088	15.0	SAME AS #4087				0.0				39.3	81.0																				
		17.5																														
3ST-5	62	0.0	TEST DONE BY DIV.																													
	4089	13.5	CL	0	21	79		35.4	13.0		42.5	76.2																				
	4090	16.0	SAME AS #4089								45.																					
		16.5																														
3ST-6	62	0.0	TEST DONE BY DIV.																													
	4091	15.0	CL	0	16	84		35.5	13.0		44.2																					
		17.0																														

* Values at Pressure T/SQ FT

- Triaxial Compression
UC - Unconfined Compression

DS - Direct Shear
UU - Unconsolidated Undrained

- Consolidated Drained
CU - Consolidated Undrained