HOLE NO. 3ST-5

DEPARTMENT OF THE ARMY
DIVISION Southwestern
INSTALLATION Galv Dist, Eng Div

DRILLING LOG

1. PROJECT: NASA Channel, Clear Creek, Texas — SHEET OF
2. LOCATION (Coordinates or Station): Sta. 15/00 Tide 2.3 11:00 hr
3. DRILLING AGENCY: U. S. Army Corps of Engineers
4. HOLE NO. (As shown on drawing title and file No.): 3ST-5
5. NAME OF DRILLER: Black
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED — DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 18.5
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 5 Jars; UNDISTURBED 1 Cont
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED 7 June; COMPLETED 7 June 1962
17. ELEV. TOP OF HOLE
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	3.5	-1.2	Water			
3.5	6.0	-2.7	Gray mucky silty clay, v/soft 3" ST penetrated material w/ weight of kelly			Jar 1
6.0	8.5	6.2	Gray mucky silt v/soft 3" ST penetrated material w/weight of kelly			Jar 2
8.5	11.0		Gray sticky silt tr of shell v/soft 3" ST penetrated material w/ weight of kelly			Jar 3
11.0	13.5	-11.2	Gray sticky silty clay, soft			Cont. 1 0.15
13.5	16.0		Gray sticky clay, v/soft			Jar 4
16.0	18.5		Gray sticky clay, v/soft			Jar 5
			Bottomed in above at 18.5 Water 3.5			

8.7 1.5 10.64

-11.2 + 2.3 = 13.5

18.5 − 2.3 = 16.2

16.0

Results of Tests of Foundation Materials

Hole No.	SWD Sample No.	Depth, Feet	Type of Sample	Mechanical Analysis Gr	Sa	Fi	Limits LL	PI	Natural Conditions: Water Content %	Dry Density Lbs/cu.ft.	Pocket Penetrometer, tsf	Classification
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	Gray clay(CL) 43 v/soft, mucky					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	Gray clay(CH) 24 v/stiff					24.4	102	2.5	Olive and gray CLAY(CH), very stiff.
3ST-4	S-12859	2.3 - 6.0	Jar	Gray Clay(CL) 49 v/Soft					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	Gray Clay(CL) 37 Soft					37.1	82	0.25-	Dk.gray CLAY(CL), very ~~stiff.~~ soft
3ST-5	S-12862	3.5 - 6.0	Jar						49.2	-	-	Dk.gray CLAY(CL).
	S-12863	6.0 - 8.5	Jar	Gray Clay(CL) 54 v/Soft, Mucky					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	Gray Clay(CL) 54 Soft					54.1	69.3	0.25+	Dk.gray CLAY(CL), soft.
3ST-6	S-12866	4.0 - 8.0	Jar	Gray Clay(CH) 45 v/Soft, Mucky						-	-	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	Gray Clay(CL) 45 v/Soft to Soft					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

FEATURE Log of Soil Boring

Boring No.	Sample No.	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	Shear Data: 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_I T/sq ft	C T/sq ft	Ø Degrees	Permeability: e	K ft/min	Consolidation Data: P_o T/sq ft	P_c T/sq ft	C_c	t_{50} *	Remarks
3ST-1	62	0.0																															
			Test Done By Div.																														
		12.0																															
	4081		CL	0	14	86	3.00	49.5	20.0		23.9	104.3		Blue To Gray Clay (CL) v/Stiff																			
		15.0																															
	4082		Same as #4081				3.25				17.7	115.4		Blue To Gray Clay (CL) v/Stiff																			
		17.50																															
3ST-2	62	0.0																															
			Test Done By Div.																														
		12.5																															
	4083		CL	0	21	79	4.50	34.2	13.0		17.7	117.2		Rust To Gray Sandy Clay (CL) Hard																			
		15.0																															
	4084		Same as #4083				3.50				22.7	105.5		Red To Gray Sandy Clay (CL) v/Stiff																			
		17.5																															
3ST-3	62	0.0																															
			TEST DONE BY DIV.																														
		12.5																															
	4085		CL	0	17	83	3.75	42.2	15.0		19.8	112.8		Brown Sandy Clay (CL) v/Stiff																			
		15.0																															
	4086		SAME As #4085				4.25				18.8	111.1		Brown to Gray Clay (CL) Hard																			
		17.5																															
3ST-4	62	0.0																															
			TEST DONE BY DIV																														
		12.5																															
	4087		CL	0	23	77	0.0	33.9	12.0		42.1	87.5		Dark Gray Sandy Clay (CL) v/Soft																			
		15.0																															
	4088		SAME As #4087				0.0				39.3	81.0		Dark Gray Sandy Clay (CL) v/Soft																			
		17.5																															
3ST-5	62	0.0																															
			TEST DONE BY DIV.																														
		13.5																															
	4089		CL	0	21	79		35.4	15.0		45.5	76.2		Dark Gray Sandy Clay (CL)																			
		16.0																															
	4090		SAME As #4089								[illegible]			Dark Gray Sandy Clay (CL)																			
		16.5																															
3ST-6	62	0.0																															
			TEST DONE BY DIV.																														
		15.0																															
	4091		CL	0	16	84		35.5	15.0		44.2			Dark Gray Sandy Clay (CL)																			
		17.0																															

* Values at Pressure T/SQ FT

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

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