SUMMARY OF UNCONFINED COMPRESSION TEST DATA
WALLISVILLE RESERVOIR
NON-OVERFLOW DAM

Boring No.	Depth Ft.	Density Data M.C. %	Density Data U.D.W. P.C.F.	Gradation Gr	Gradation Sa	Gradation Fines	L.L.	P.L.	% Strain @ Max. Stress	Max. Stress T.S.F.	Classification		
378	2-4	25	103	0	19	81	59	22	10.2	1.53	Tan Red-Brown and Light Gray Clay	Stiff	(CH)
381	2-4	32	88	0	25	75	55	23	4.9	.22	Gray and Tan Clay	Soft	(CH)
382	2-4	35	84	0	1	99	77	27	3.1	.14	Gray and Tan Clay	Medium	(CH)
385	2-4	35	90	0	5	95	50	19	5.5	.36	Gray Clay	Stiff	(CH)
"	6-8	63	62	0	0	100	73	23	6.8	.37	Gray Clay	Soft	(CH)
"	12-14	86	52	0	0	100	90	39	3.1	.22	Gray Clay	Very Soft	(CH)
387	6-8	75	60	0	11	89	65	28	4.7	.12	Gray Clay	Very Soft	(CH)
"	13-15	84	51	0	0	100	97	38	4.2	.19	Gray Clay	Soft	(CH)
390	2-4	46	73	0	2	98	99	36	2.4	.49	Black Clay	Soft	(CH)
392	2-4	43	80	0	4	96	87	20	5.1	.38	Gray and Tan Clay	Soft	(CH)
393	0-2	47	72	0	2	98	91	31	5.4	.43	Gray Clay	Soft	(CH)
"	22-24	57	67	0	6	94	76	30	4.0	.23	Gray Clay	Very Soft	(CH)
"	34-36	48	80	0	14	86	72	27	6.3	.34	Gray Clay	Very Soft	(CH)
395	12-14	61	61	0	21	79	110	27	3.4	.51	Dark Gray & Gray Clay	Med	(CH)
"	18-20	65	63	0	12	88	82	27	3.4	.61	Gray Clay	Stiff	(CH)
400	2-4	45	77	0	1	99	91	33	4.4	1.34	Gray Clay	Stiff	(CH)
401	2-4	45	77	0	2	98	89	32	3.8	.60	Gray, Dark Gray & Tan Clay	Stiff	(CH)
402	4-6	28	101	0	10	90	35	22	14.3	.64	Gray Sandy Clay	Soft	(CL)
"	14-16	33	91	—	—	—	56	19	7.9	.22	Gray Clay	Soft	(CH)
"	22-24	68	67	0	0	100	85	33	3.0	.21	Gray Clay	Very Soft	(CH)
"	26-28	63	68	0	0	100	89	31	3.9	.40	Gray Clay	Very Soft	(CH)
405	2-4	32	91	0	9	91	65	20	5.2	.52	Gray & Tan Clay	Med	(CH)
407	2-4	33	91	0	9	91	56	24	4.8	.28	Gray & Tan Clay	Soft	(CH)
410	2-4	35	90	0	5	95	62	32	6.6	.57	Dark Gray & Tan Clay	Soft	(CH)
412	0-2	37	84	0	4	96	76	26	5.0	.30	Gray & Tan Clay	Soft	(CH)
"	22-24	75	62	0	12	88	84	27	6.1	.45	Gray Clay	Soft	(CH)
"	30-32	34	90	0	1	99	76	24	7.5	1.74	Gray & Tan Clay	Stiff	(CH)

FORM 521 (R)
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Reach 1 Sta 19+00

Page ____ of ____

SUBJECT Wallisville Dam - Reach 1
COMPUTATION Consolidation Analysis FILE NO. Boring 83-381
COMPUTED BY TF DATE 7/16 CHECKED BY ____ DATE ____

Depth of desiccated layer at 19+00, Critical section -

Say 4 ft

$$\text{Settlement} = \frac{H_o}{1+e_o}\left[C_r \log \frac{\bar{\sigma}_{max}}{\bar{\sigma}_o} + C_c \log \frac{\bar{\sigma}_f}{\bar{\sigma}_{max}}\right]$$

Assume desiccated lyr is constant thickness and is uniformly over-consolidated. Degree of overconsolidation is such that $\bar{\sigma}_f < \bar{\sigma}_{max}$.

$\Delta\bar{\sigma} = 13.19 \times 120 = 1583$

	Lyr No	w	γ_d	e_o	γ	γ_b	d	$\bar{\sigma}_o$	$\bar{\sigma}_f$	N_z	LL	H_o	C_c *C_r	S
SFC EL. 2.5	1	33	82	1.018	109		1	109	1630	1.00		2	*.06	.071
	2	32	88	.88	116	54	3	272	1855	1.00	55	2	*.08	.072
	3	30	89	.859	116	53	5	379	1962	1.00		2	.32	.246
	4	22	92	.798	112	50	7	482	2034	.98		2	.16	.111
	6	38	89	.859	123	60	14	749	2301	.94		2	.4	.210
	7				108	45								
	8	26	92	.798	116	53		1278	2703	.9		16	.1	.289
														1.0'

SWGED-FG
SUBJECT: Wallisville Lake, Texas - Staking Request

TO: Soils Design Sec FROM: SWGED-FG DATE: 4 Jan 84 CMT 2
ATTN: John M. Cleveland

Subject request for boring stake-outs has been completed as of this date. The following are coordinates and elevations for the respective borings:

Boring No.	X	Y	STA.	Elevation		
83-368				3.8		
83-369				3.6		
83-370				2.4		
83-371				7.0		
83-372				8.3		
83-373				8.5		
83-374				6.4		
83-375				8.9		
83-376				6.5		
83-377				7.9		
83-378	3,342,098.78	752,430.13	5+00	5.4	✓	5+00 2.7
83-379	3,342,216.23	752,006.10	10+00	8.5	✓	10+00 4.3
83-380	3,342,462.07	751,575.25	15+00	1.9	✓	15+00 1.0
83-381	3,342,760.45	751,309.32	19+00	2.3	✓	1.2
83-382	3,343,141.70	750,985.83	24+00	3.9	✓	1.8
83-383	3,343,522.95	750,662.34	29+00	4.0	✓	2.0
83-384	3,343,904.21	750,338.85	34+00	4.1	✓	2.0
83-385	3,344,285.46	750,015.36	39+00	3.3	✓	1.6
83-386	3,344,666.72	749,691.87	44+00	2.1	✓	1.0
83-387	3,345,047.97	749,368.39	49+00	1.4	✓	

SWG FL 24
26 Nov 68

SUMMARY OF LABORATORY TEST DATA

PROJECT Corp of Engineers/Wallisville
DATE 83-431N

BORING NO.	DEPTH IN FEET	TYPE OF MATERIAL	MOISTURE CONTENT %	DRY DENSITY pcf	ATTERBERG LIMITS LL	PL	PI	COMPRESSION TEST: COMPRESSION tsf	STRAIN %	LATERAL PRESSURE psi	TYPE FAILURE	Sieve Analysis % Passing #4	#10	#40	#200
381 1	0-2	Gray and tan silty clay with roots (CL)	33	82											
2	2-4	Gray and tan clay with sand pockets and organics, slightly sandy (CH)	32	88	55	23	32	.22 .5	4.9	0	SHEAR	-	100	99	75
3	4-6	Gray and tan sandy clay with clay and sand pockets (CL)	30	89				.5							
4	6-8	Light gray and tan sand with clay pockets and partings and seams (SM)	22	92				.5							
	8-9.5	Light gray sand with gray clay pockets (SM)	19												
6	13.5-15	Light gray and gray sandy clay with silty clay pockets (CL)	38									100	99	94	10
	18.5-20	Light gray sand with gray silty clay pockets (SM)	17												
8	23.5-25	Tan and gray sandy clay (CL)	26												
382	0-2	Gray and dark gray silty clay with roots and wood fragments (CL)	31												
	2-4	Gray and tan clay with ferrous nodules, roots and silt partings (CH)	35	84	77	27	50	.74 .5	3.1	0	SHEAR	-	-	100	99
	4-6	Gray and tan silty clay with sand layer (CL)	44	78				.25							
	6-8	Dark gray and gray silty clay with sand layer and organic (CL)	52	65				1.00							
	8.5-10	Gray sandy clay, slightly silty (CL)	30					.5							
	10-12	Gray sandy clay (CL)	28					.5							

SOUTHWESTERN LABORATORIES