TEST DATA SUMMARY

SWDGL Report 9829

FEATURE _____

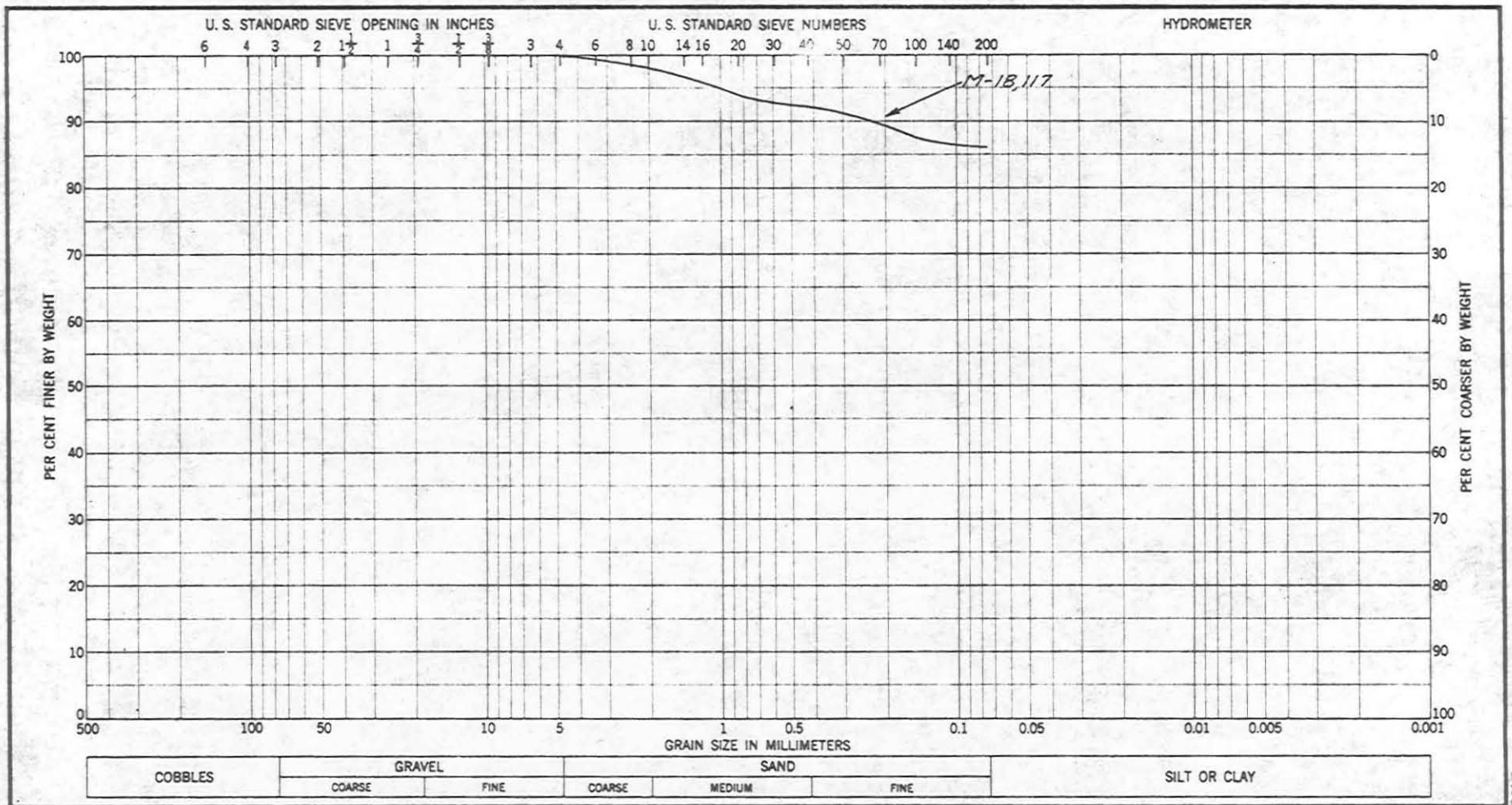
WALLISVILLE DAM

BORING NO.	SAM. NO.	DEPTH OR ELEV. OF SAMPLE	LABORATORY CLASSIFICATION	MECHANICAL ANALYSIS: GRAVEL %	SAND %	FINES %	D_{10}	ATTERBERG LIMITS: LL	PL	SPECIFIC GRAVITY G	NAT. WATER CONT. %	NATURAL DRY DENSITY LBS/CU FT	COMPACTION DATA: OPT. 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_m T/SQ FT	σ_I T/SQ FT	C T/SQ FT	ϕ DEGREES	PERMEABILITY: e	K FT/MIN.	CONSOLIDATION DATA: P_O T/SQ FT	P_C T/SQ FT	C_C	t_{50} *	LS	REMARKS
3ST-267																																		
M-18	120	0.5-10.0	CH	0	9	91		65	18	2.70est			22.5	98.6																			21	
				CLAY, grayish brown.											.805	93	27.8	30.1	93	DS	3X3X0.5	1			0.3	17.7								
															.797	94	27.8	28.4	94	"	"	2												
															.797	94	27.8	26.2	94	"	"	3												
3ST-274																																		
M-18	121	15.0-30.0	CH	0	16	84		70	19	2.70est			23.2	97.7																			22	
				CLAY, pale red.											.830	92	28.4	30.2	93	DS	3X3X0.5	1			0.1	17.9								
															.832	92	28.6	28.9	93	"	"	2												
															.834	92	28.7	26.7	93	"	"	3												
3ST-284																																		
M-18	116	6.0-9.0	CL	0	18	82		50	15	2.69est			17.0	109.0																			18	
				CLAY, grayish brown; some small calcareous particles.											.658	101	22.2	22.4	91	DS-S	3X3X0.5	1			0.1	26.8								
															.659	101	22.2	21.1	91	"	"	2												
															.655	102	22.1	20.2	91	"	"	3												
3ST-290																																		
M-18	117	4.0-7.5	CH	0	14	86		65	17	2.70est			19.7	102.2																			22	
				CLAY, gray and grayish brown; some small calcareous particles.											.789	94	25.2	27.4	86	DS-S	3X3X0.5	1			0.3	16.3								
															.793	94	25.6	25.5	87	"	"	2												
															.786	94	25.5	22.6	88	"	"	3												

ENG FORM 1 MAR 58 2086 (PREVIOUS EDITIONS MAY BE USED) (EM 1110-2-1803) (TRANSLUCENT)

Specimens remolded with a water content of optimum+5% and dry density taken from wet leg of compaction curve.

TC – Triaxial Compression
UC – Unconfined Compression
DS – Direct Shear
UU – Unconsolidate Undrained
S – Consolidated Drained
CU – Consolidated Undrained
* Values at Pressure
T/SQ FT



Sample No.	Depth	Classification	Nat w %	LL	PL	PI
M-18,117	4.0 - 7.5	CLAY (CH)		65	17	48

Project WALLISVILLE DAM

Area

Boring No. 3ST-290

Date JUL 66

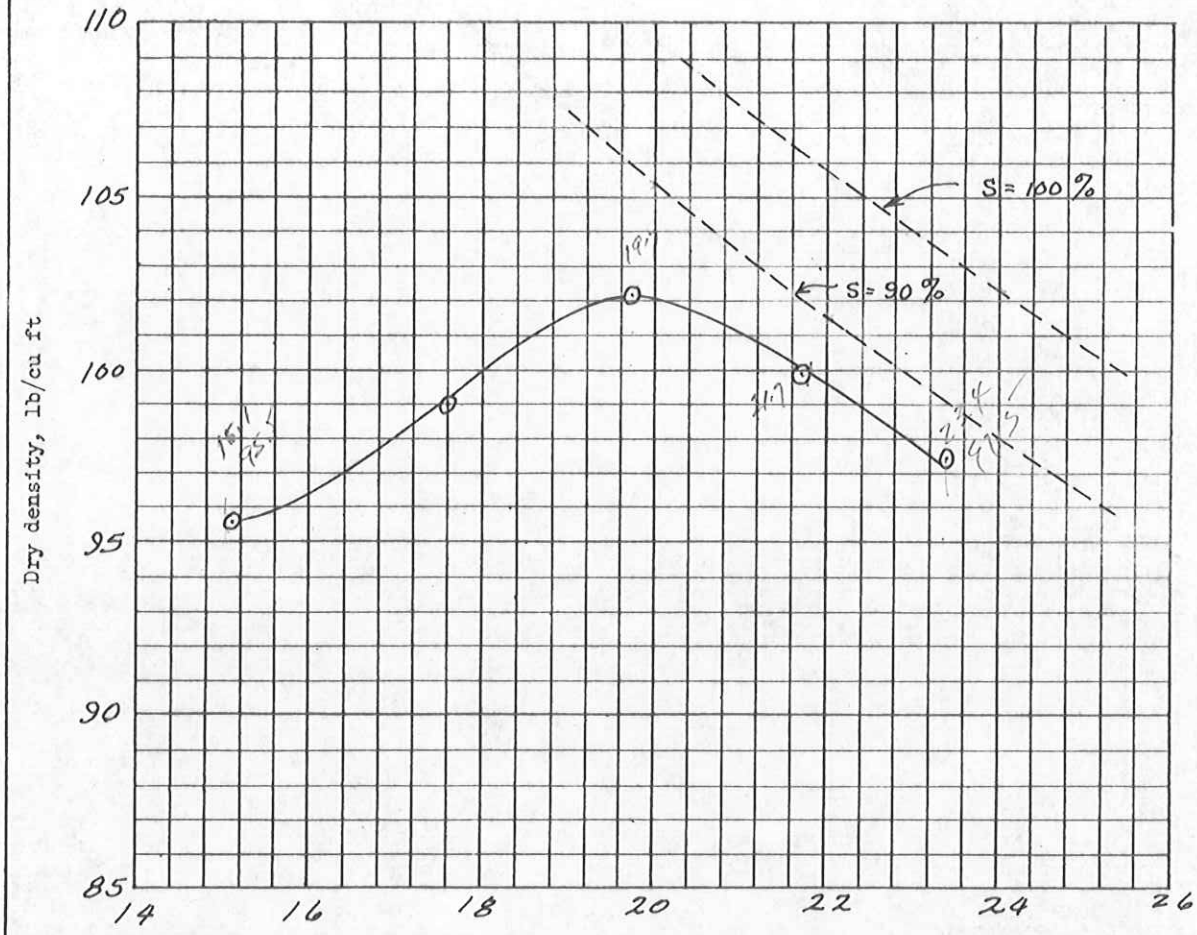
GRADATION CURVES

SWDGL Report 9829

Plate No. 4

ENG FORM 1 MAY 63 2087 REPLACES WES FORM NO. 1241, SEP 1962, WHICH IS OBSOLETE. (TRANSLUCENT)

C 0438



EM 1110-2-1906
Appendix VI

Water content, percent of dry weight

Standard compaction test

25 blows per each of 3 layers, with 5.5 lb rammer and

12 inch drop. 4 inch diameter mold

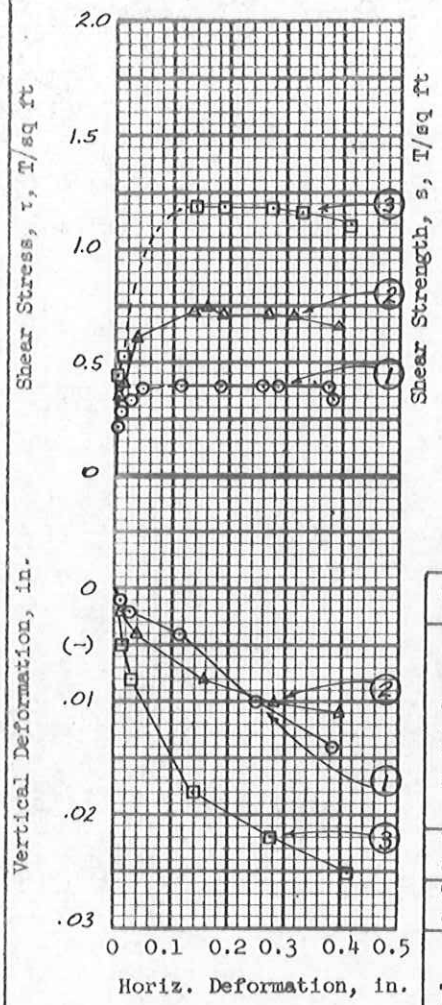
Sample No.	~~Elev or~~ Depth	Classification	G	LL	PL	% > No. 4	% > 3/4 in.
	40-7.5	CLAY (CH)	2.70 est.	65	17		

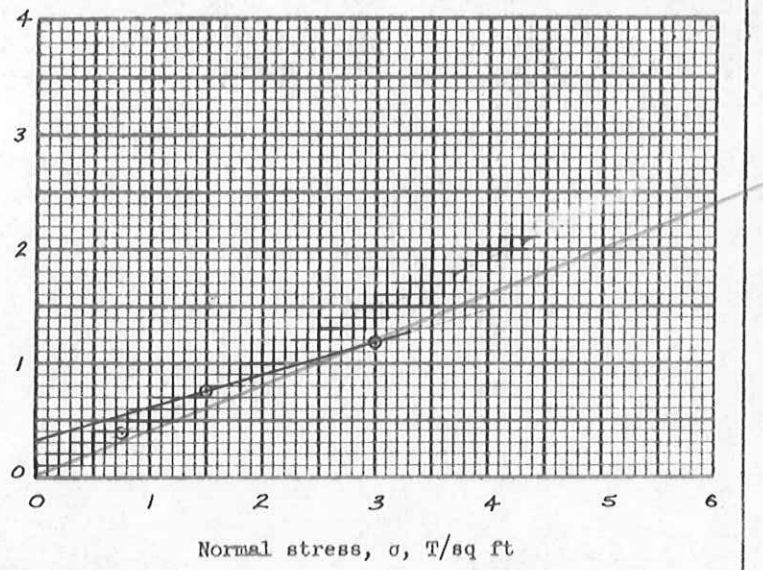
Sample No.	14, 18, 17			
Natural water content, percent				
Optimum water content, percent	19.7	19.7		
Max dry density, lb/cu ft	102.2	102.2 ✓		

Remarks	Project WALLISVILLE DAM
	Area
	Boring No. 3ST-290 Date JUL 66
	COMPACTION TEST REPORT

ENG FORM 2091 1 JUN 65 PREVIOUS EDITIONS ARE OBSOLETE D41500 PLATE VI-2

Plate No. 9





Test No.			1	2	3	
Initial	Water content	w_o	25.2 %	25.6 %	25.5 %	%
	Void ratio	e_o	.789	.793	.786	
	Saturation	S_o	86 %	87 %	88 %	%
	Dry density, lb/cu ft	γ_d	94	94	94	
Void ratio after consolidation		e_c				
Time for 50 percent consolidation, min		t_{50}	—	—	18	
Final	Water content	w_f	27.4 %	25.5 %	22.6 %	%
	Void ratio	e_f				
	Saturation	S_f	%	%	%	%
Normal stress, T/sq ft		σ	0.75	1.5	3.0	
Maximum shear stress, T/sq ft		τ_{max}	0.39	0.74	1.18	
Actual time to failure, min		t_f	800	1600	1100	
Rate of strain, in./min			.0001	.0001	.0001	
Ultimate shear stress, T/sq ft		τ_{ult}				

Shear Strength Parameters

ϕ' = 16.3 ° 22°

tan ϕ' = .293

c' = 0.3 T/sq ft

☐ Controlled stress

☑ Controlled strain

Type of specimen Remolded | 3.0 in. square | 0.5 in. thick

Classification CLAY, (CH)

LL 65 | PL 17 | PI 48 | G_s 2.70 (est.)

Remarks Specimens remolded with a water content of optimum +5% (approx.), and dry density taken from wet leg of compaction curve.

Project WALLISVILLE DAM

Area

Boring No. 3ST-290 | Sample No. M-18,117

Depth ~~El~~ 4.0 - 7.5 | Date JUL 66

DIRECT SHEAR TEST REPORT