TEST DATA SUMMARY

SWDGL Report No. 9211

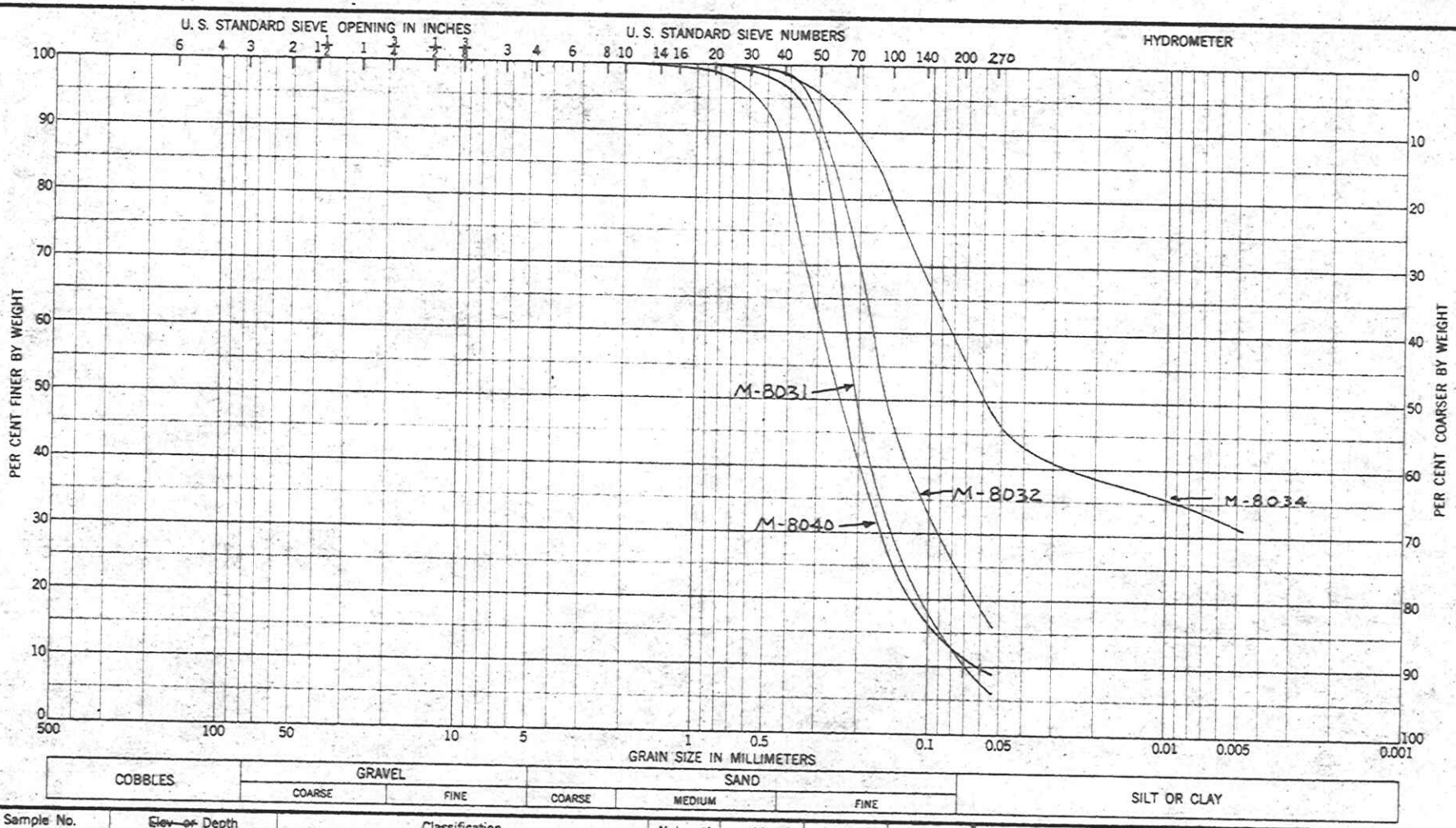
FEATURE FOUNDATION MATERIAL

WALLISVILLE RESERVOIR

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_1 %	W_F %	S_1 %	TYPE TEST	SPECIMEN SIZE INCHES	TEST	σ_m T/SQ FT	σ_1 T/SQ FT	c T/SQ FT	ϕ DEGREES	PERMEABILITY: γ Lbs/Ft³	K×10⁴ FT/MIN.	CONSOLIDATION DATA: P_o T/SQ FT	P_c T/SQ FT	C_c	t_{50}*	REMARKS
3ST-114 (Cont'd)																																	
M-8027		42.0-42.8	SC	0	73	27					27.3																						
				Grayish-brown clayey SAND; free water.																													
M-8028		47.0-49.0	SM	0	78	22				2.68	22.0	105																					
				Olive and gray silty SAND.																													
M-8029		53.0-54.5	SP	2	96	2					16.8																105	43.7	D_{10} = 0.21				
				Brown SAND.																													
M-8030		58.0-59.0	CL					27	13		17.5	111				112	17.2			UC	2.6 x 5.3		0.0	1.1									
				Bluish-gray and gray sandy CLAY, very stiff.																													
3ST-115																																	
M-8031		4.0-6.0	SM-SP	0	89	11					26.1																98	5.11	D_{10} = 0.07				
				Gray silty SAND; free water.																													
M-8032		8.0-10.0	SC	0	76	24					24.6																						
				Gray clayey SAND.																													
M-8033		16.0-18.0	CL					27	10		29.6	92				96	27.5			TC-Q	1.3 x 3.0		0.8	1.43									
				Gray CLAY, very soft; 1/8"-3/8" sandy seams throughout.																													
M-8034		26.0-28.0	CL	0	43	57		38	13		44.6																						
				Gray sandy CLAY; few shell fragments.																													
M-8035		28.0-30.0	CH					78	21		38.5	82																					
				Dk gray CLAY, medium consistency.																													
M-8036		31.0-32.0	CH					67	17	2.73	29.4	92			.840	93	30.6	29.9	99	TC-R	1.4 x 3.0		1.55	3.21									
				Gray and olive CLAY, stiff.																													
M-8037		36.0-37.0	CL					42	13		25.1	99																					
				Gray and olive CLAY, stiff.																													

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

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



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
M-8031	4.0-6.0	silty SAND (SM-SP)	26.1			
M-8032	8.0-10.0	clayey SAND (SC)	24.6			
M-8034	26.0-28.0	sandy CLAY (CL)	44.6			
M-8040	51.0-53.0	silty SAND (SM-SP)	20.6			

Project Wallisville Reservoir

Area FOUNDATION MATERIAL

Boring No. 3ST-115

Date DEC 64

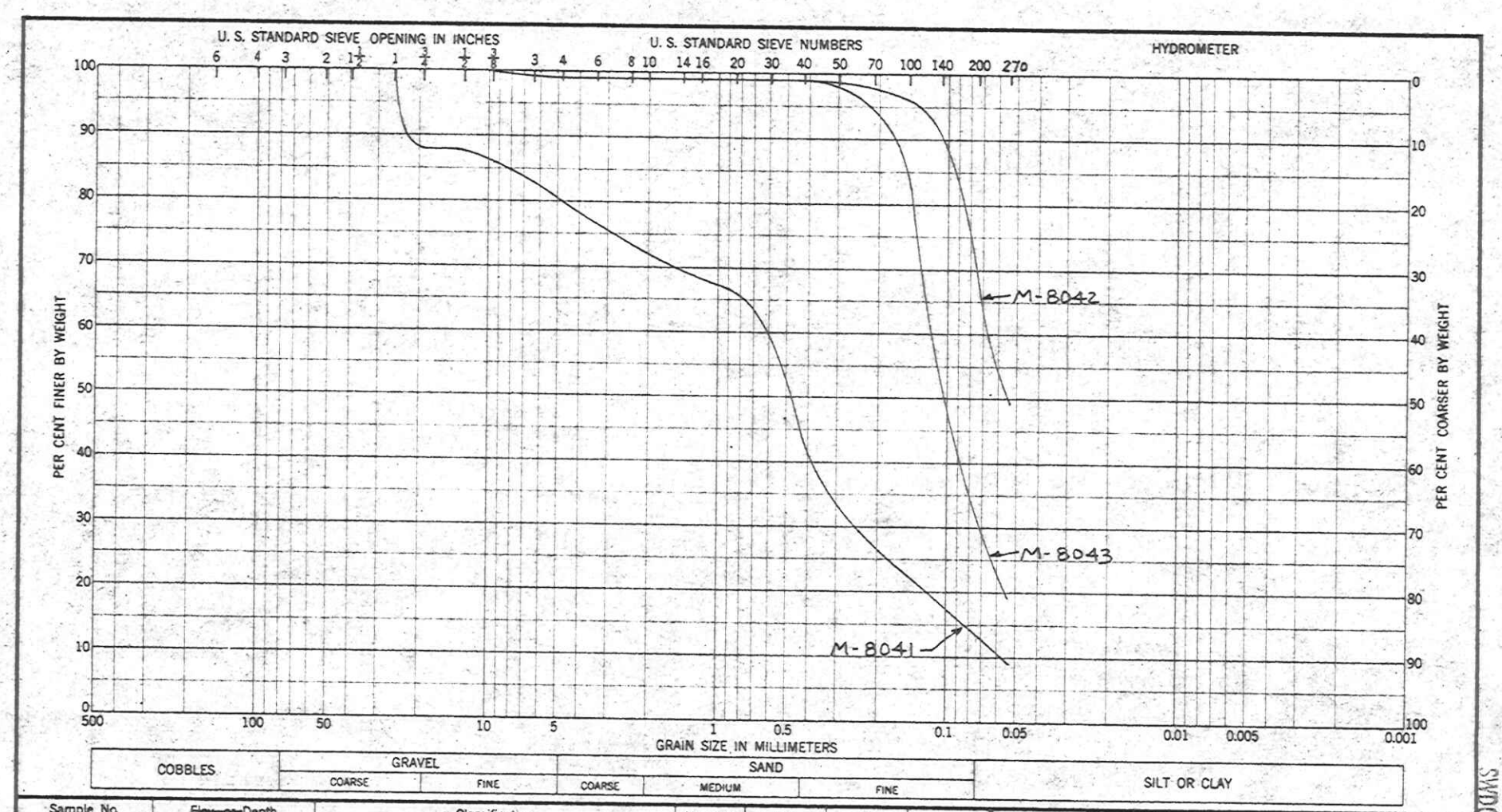
GRADATION CURVES

PLATE NO. 12

SWDGL Report No. 9211

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

C 2438



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
M-8041	56.0-58.0	clayey SAND (SC)	22.1			
M-8042	61.0-63.0	sandy CLAY (CL)	23.8	24	14	10
M-8043	68.0-69.5	clayey SAND (SC)	26.8			

Project Wallisville Reservoir

Area FOUNDATION MATERIAL

Boring No. 3ST-115

Date DEC 64

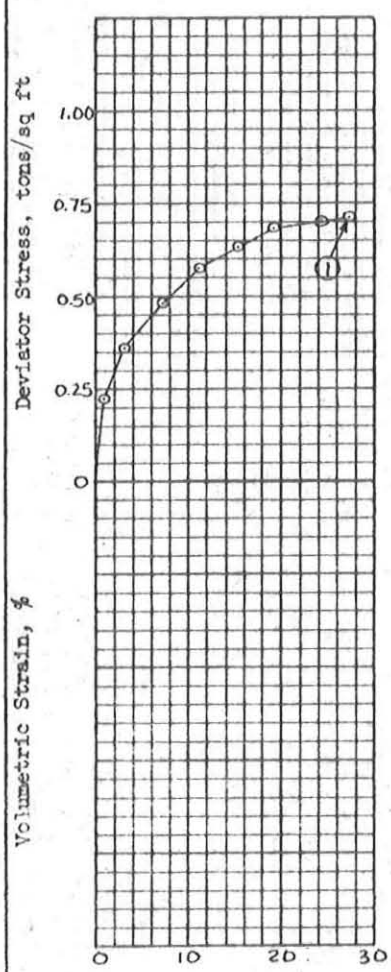
GRADATION CURVES

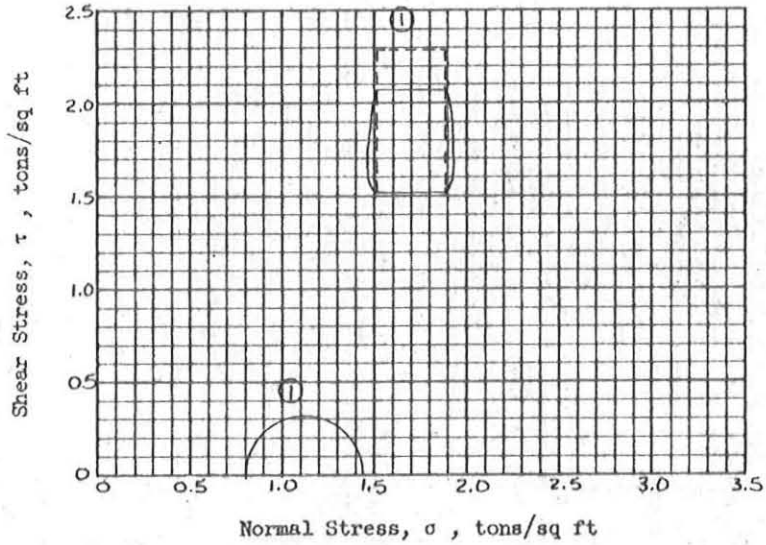
PLATE NO. 13

SWDG Report No. 9211

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

C 0438





Test No.			1			
Initial	Water content	w_o	27.5 %	%	%	%
	Void ratio	e_o				
	Saturation	S_o	%	%	%	%
	Dry density lb/cu ft	γ_d	96			
Before Test	Water content	w_c	%	%	%	%
	Saturation	S_c	%	%	%	%
	Consolidation press., tons/sq ft	σ_c				
	Void ratio	e_c				
Final	Water content	w_f	%	%	%	%
	Void ratio	e_f				
Major principal stress, tons/sq ft		σ_1	1.43*			
Minor principal stress, tons/sq ft		σ_3	0.8			
Time to failure, min			45*			
Initial diameter, ~~cm~~ in			1.3			
Initial height, H_o, ~~cm~~ in			3.0			

Shear Values

ϕ = _____ °

tan ϕ = _____

c = _____ tons/sq ft

Type Test Q

Method of Saturation _____ ☐ Controlled Stress ☑ Controlled Strain

Type of specimen UNDISTURBED Rate of strain 0.01 in./min

Classification CLAY (CL)

LL 27 PL 10 PI 17 D_{10}

Remarks *At 15% strain

Project Wallisville Reservoir

Area FOUNDATION MATERIAL

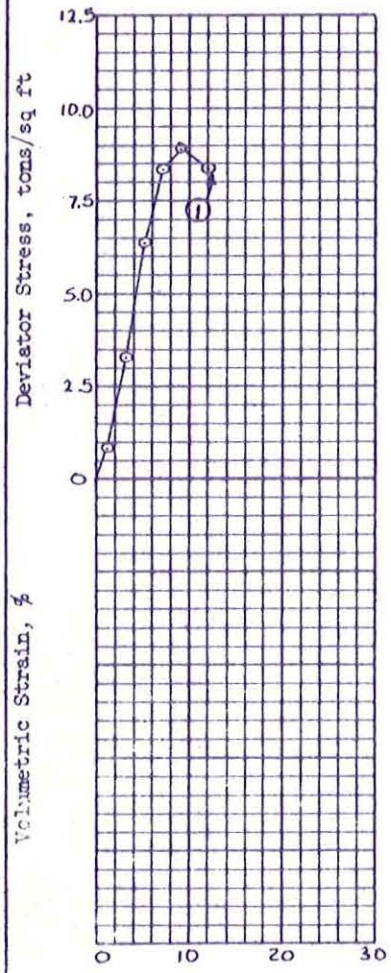
Boring No. 35T-115 Sample No. M-8033

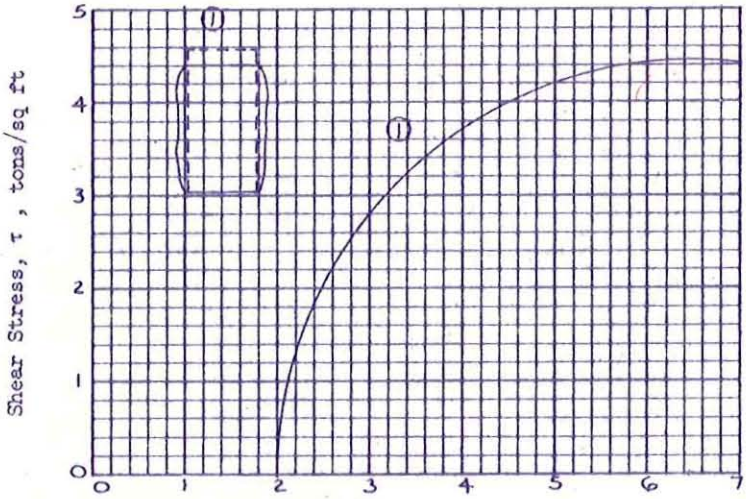
Depth ~~El~~ 16.0 - 18.0 Date DEC 84

TRIAXIAL COMPRESSION TEST REPORT

ENG FORM 1 MAY 63 2089 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT) G 3426

PLATE NO. 29





Test No.			1			
Initial	Water content	w_o	17.1 %	%	%	%
	Void ratio	e_o				
	Saturation	S_o	%	%	%	%
	Dry density lb/cu ft	γ_d	113			
Before Test	Water content	w_c	%	%	%	%
	Saturation	S_c	%	%	%	%
	Consolidation press., tons/sq ft	σ_c				
	Void ratio	e_c				
Final	Water content	w_f	%	%	%	%
	Void ratio	e_f				
Major principal stress, tons/sq ft		σ_1	10.91			
Minor principal stress, tons/sq ft		σ_3	2.0			
Time to failure, min			18			
Initial diameter, ~~cm~~ in			1.4			
Initial height, H_o, ~~cm~~ in			3.0			

Shear Values

ϕ = _____ °

tan ϕ = _____

c = _____ tons/sq ft

Type Test Q

Method of Saturation _____ ☐ Controlled Stress ☑ Controlled Strain

Type of specimen UNDISTURBED Rate of strain 0.015 in./min

Classification silty SAND (SM)

LL NP PL NP PI D_{10}

Remarks

Project Wallisville Reservoir

Area FOUNDATION MATERIAL

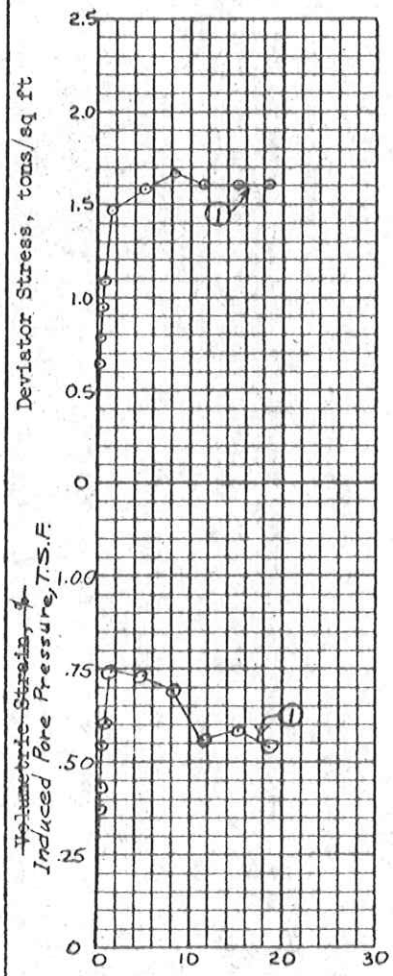
Boring No. 35T-115 Sample No. M-8038

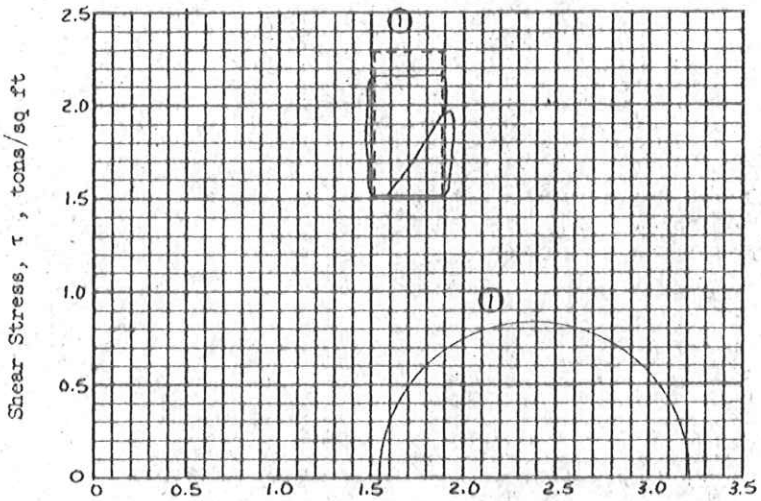
Depth ~~Elev~~ 40.0-42.0 Date DEC 64

TRIAXIAL COMPRESSION TEST REPORT

ENG FORM 1 MAY 63 2089 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT) 0 3426

PLATE NO. 30





Test No.			①			
Initial	Water content	w_o	30.6 %	%	%	%
	Void ratio	e_o	.840			
	Saturation	S_o	99 %	%	%	%
	Dry density lb/cu ft	γ_d	93			
Before Test	Water content	w_c	29.9 %	%	%	%
	Saturation	S_c	100 %	%	%	%
	Consolidation press., tons/sq ft	σ_c	1.55			
	Void ratio	e_c	.818			
Final	Water content	w_f	29.9 %	%	%	%
	Void ratio At Failure	e_f	.818			
Major principal stress, tons/sq ft		σ_1	3.21			
Minor principal stress, tons/sq ft		σ_3	1.55			
Time to failure, min			120			
Initial diameter, ~~cm~~ in			1.4			
Initial height, H_o, ~~cm~~ in			3.0			

Shear Values

ϕ = _____ °

tan ϕ = _____

c = _____ tons/sq ft

Type Test R

Method of Saturation Back Pressure ☐ Controlled Stress ☑ Controlled Strain

Type of specimen UNDISTURBED Rate of strain 0.002 (nominal) in./min

Classification CLAY (CH)

LL 67 PL 17 PI 50 ~~D10~~ G 2.73

Remarks

Project Wallisville Reservoir

Area FOUNDATION MATERIAL

Boring No. 3ST-115 Sample No. M-8036

Depth ~~Bl~~ 31.0-32.0 Date DEC 64

TRIAXIAL COMPRESSION TEST REPORT

ENG FORM 1 MAY 63 2089 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT) 0 3426

PLATE NO. 41

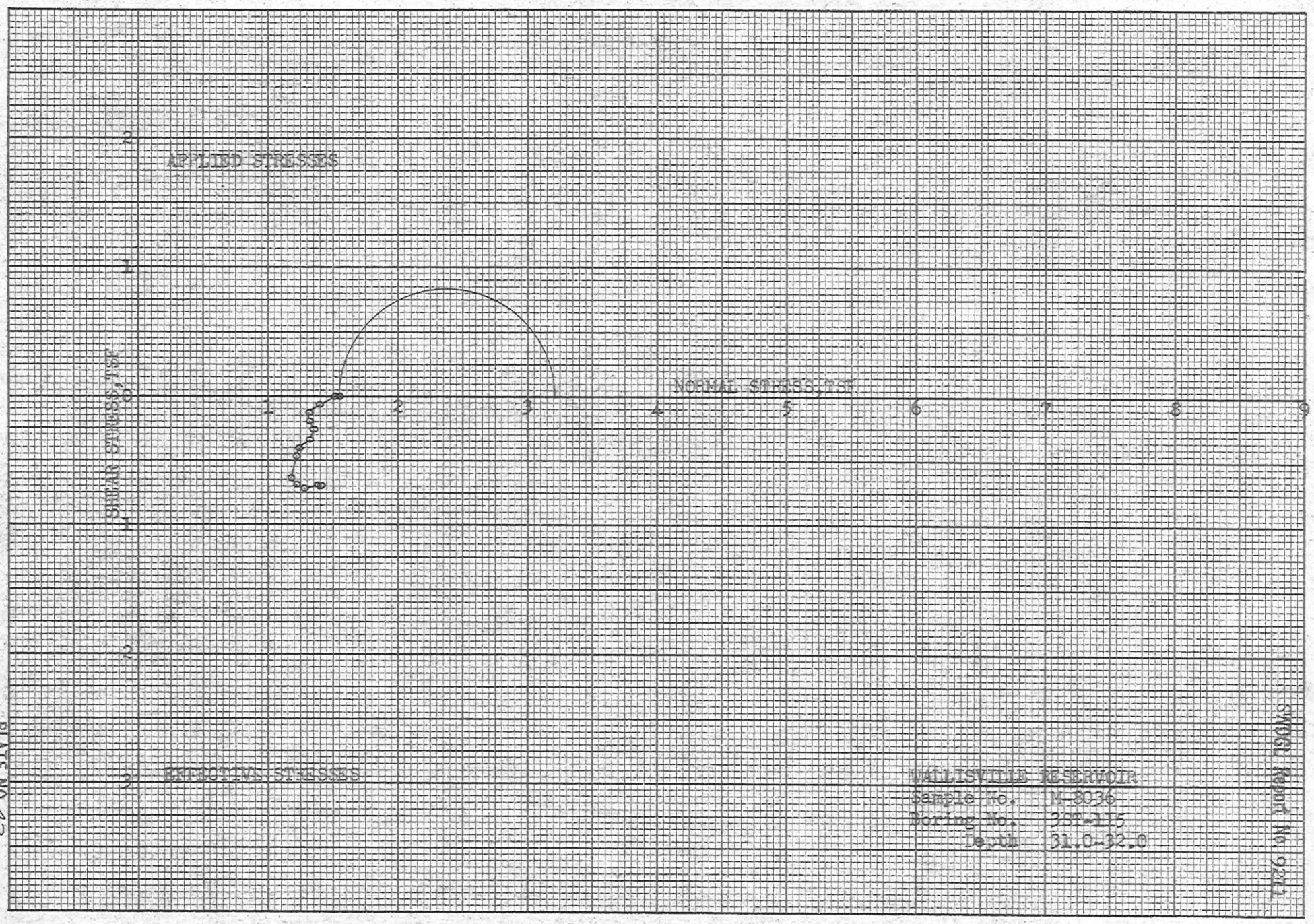
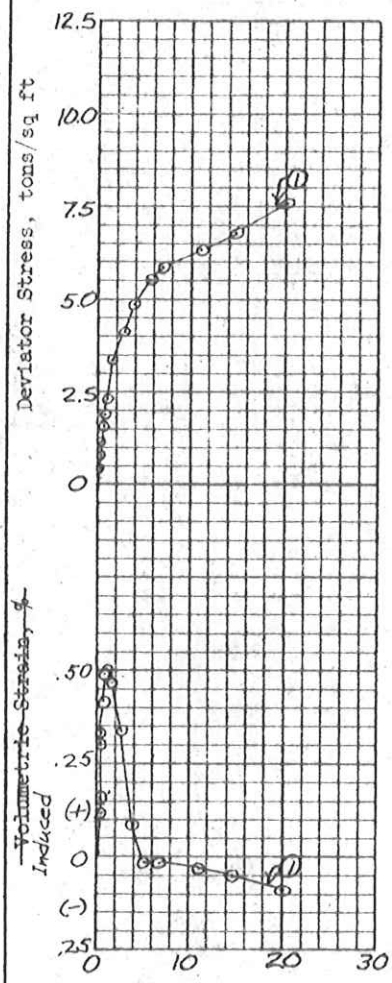
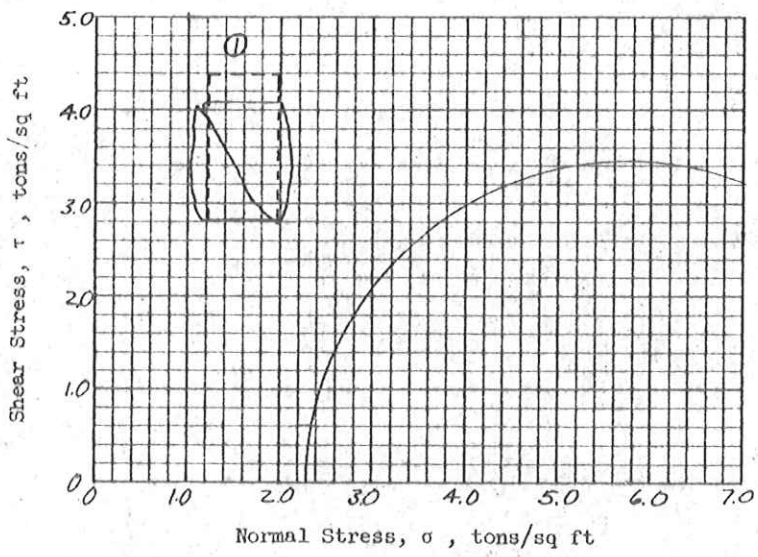


PLATE NO. 42

SWDGL Report No. 9271





Test No.			①			
Initial	Water content	w_o	22.1 %	%	%	%
	Void ratio	e_o	.619			
	Saturation	S_o	97 %	%	%	%
	Dry density lb/cu ft	γ_d	104			
Before Test	Water content	w_c	20.3 %	%	%	%
	Saturation	S_c	100 %	%	%	%
	Consolidation press., tons/sq ft	σ_c	2.30			
	Void ratio	e_c	.550			
Final	Water content	w_f	20.3 %	%	%	%
	Void ratio At Failure	e_f	.550			
Major principal stress, tons/sq ft		σ_1	9.19*			
Minor principal stress, tons/sq ft		σ_3	2.30			
Time to failure, min			160*			
Initial diameter, ~~cm~~ in			1.4			
Initial height, H_o, ~~cm~~ in			3.0			

Shear Values

ϕ = _____ °

tan ϕ = _____

c = _____ tons/sq ft

Type Test R

Method of Saturation Back Pressure ☐ Controlled Stress ☒ Controlled Strain

Type of specimen UNDISTURBED Rate of strain 0.003 (nominal) in./min

Classification Clayey SAND (SC-SM)

LL 22 PL 15 PI 7 ~~Dio~~ G 2.71

Remarks * At 15% strain.

Project Wallisville Reservoir

Area FOUNDATION MATERIAL

Boring No. 3ST-115 Sample No. M-8039

Depth ~~El~~ 45.0-47.0 Date DEC 64

TRIAXIAL COMPRESSION TEST REPORT

ENG FORM 1 MAY 63 2089 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PLATE NO. 43

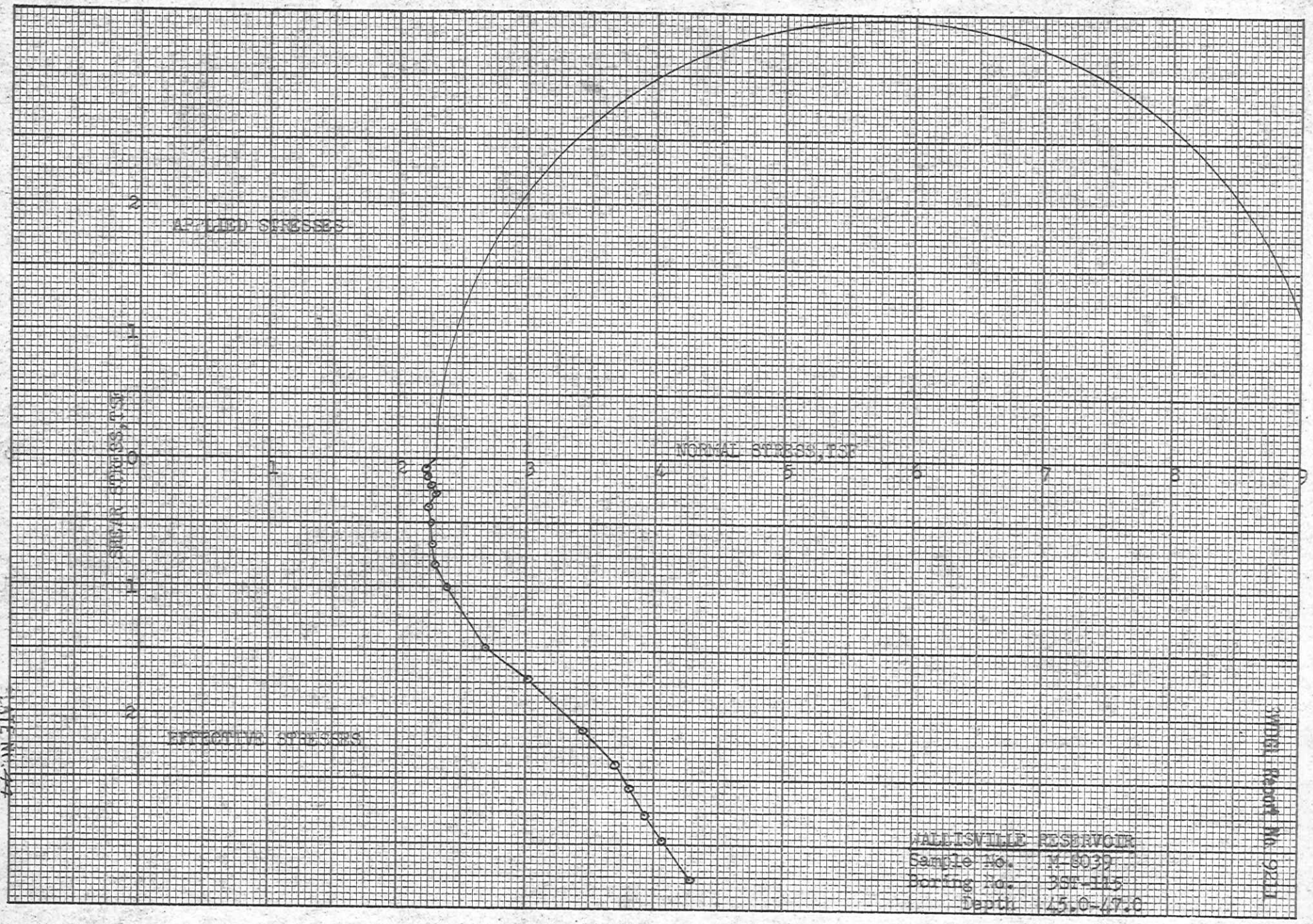

APPLIED STRESSES
EFFECTIVE STRESSES
SHEAR STRESS, TSF
NORMAL STRESS, TSF
2
1
0
1
2
1
2
3
4
5
6
7
8
9
WALLISVILLE RESERVOIR
Sample No. M-8039
Boring No. 3ST-115
Depth 45.0-47.0

PLATE No. 44