

**B**

## APPENDIX B

### LABORATORY TESTING

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM) or other suggested procedures. Selected samples were tested for their in-place dry density and moisture content, compaction characteristics (maximum dry density and optimum moisture content), direct shear strength, expansion, gradation, soluble sulfate characteristics, and Atterberg limits. The results of the laboratory tests are shown on Tables B-1 through B-IV, and Figures B-1 and B-7. The in-place dry density and moisture content of the samples tested are presented on the Boring logs in Appendix A.

**TABLE B-I  
SUMMARY OF LABORATORY MAXIMUM DRY DENSITY  
AND OPTIMUM MOISTURE CONTENT TEST RESULTS  
ASTM D 1557**

<b>Sample No.</b>	<b>Description</b>	<b>Maximum Dry Density (pcf)</b>	<b>Optimum Moisture Content (% dry wt.)</b>
B4-2	Dark Brown, Silty, fine to medium SAND	125.5	11.9
T3-2	Dark gray-brown, Sandy SILT with abundant mica	102.1	18.0
T6-2	Dark reddish brown, Silty, fine to coarse SAND	131.1	8.6
T9-1	Olive brown, Silty, fine to coarse SAND	134.8	7.2

**TABLE B-II  
SUMMARY OF DIRECT SHEAR TEST RESULTS**

<b>Sample No.</b>	<b>Dry Density (pcf)</b>	<b>Moisture Content (%)</b>	<b>Unit Cohesion (psf)</b>	<b>Angle of Shear Resistance (degrees)</b>
B1-2	91.3	30.4	800	30
B2-2	81.8	40.3	320	28
SB10-1	120.1	7.7	0	40
SB10-3	112.7	17.2	800	25

**TABLE B-III  
SUMMARY OF LABORATORY EXPANSION INDEX TEST RESULTS**

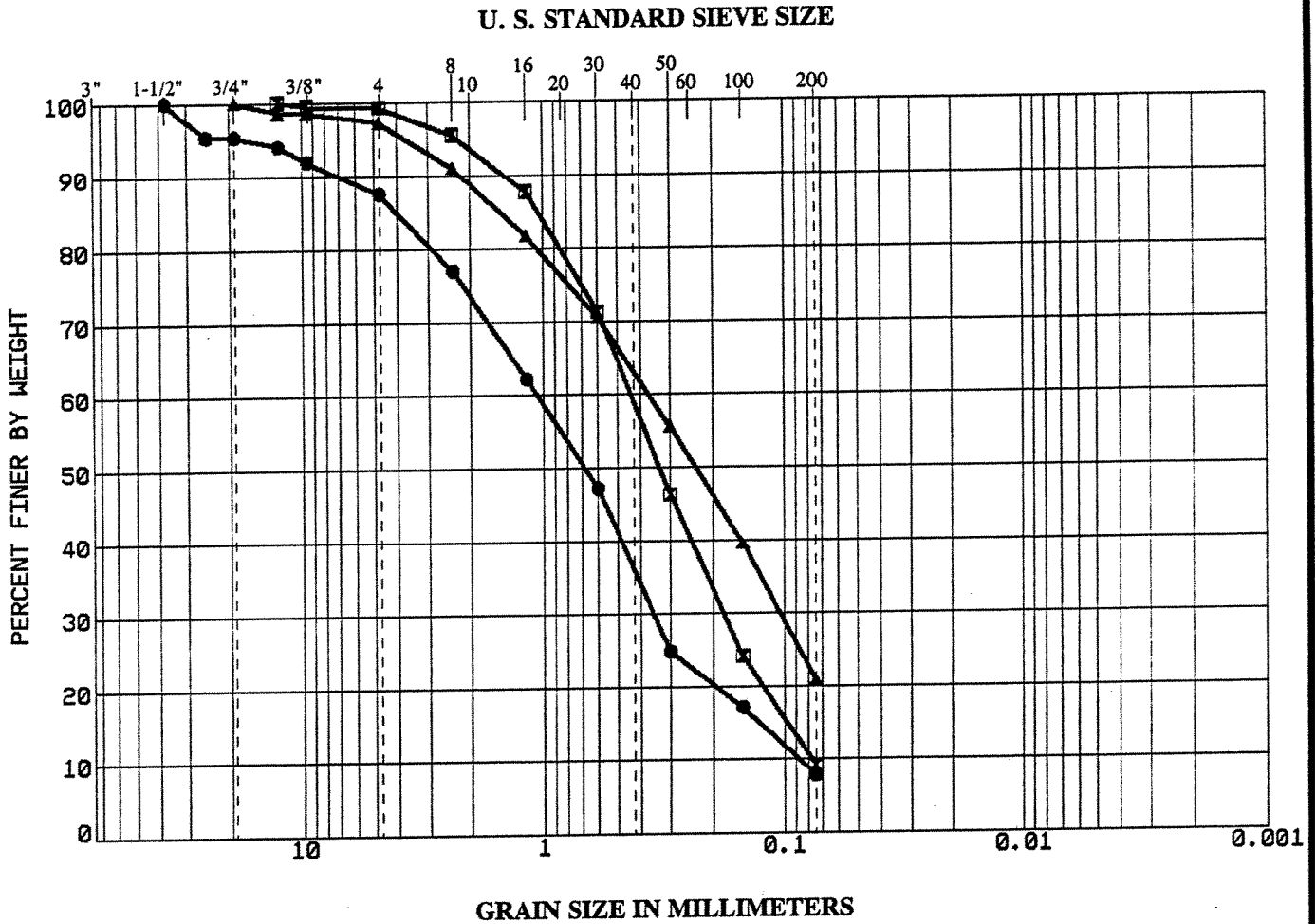
Sample No.	Moisture Content		Dry Density (pcf)	Expansion Index
	Before Test (%)	After Test (%)		
B4-2	8.2	16.9	121.5	0
T6.2	8.6	18.8	119.8	0

**TABLE IV  
SUMMARY OF LABORATORY SOLUBLE SULFATE TEST RESULTS**

Sample No.	Sulfate (% SO <sub>4</sub> )	Sulfate Exposure*
EI-1	0.040	Negligible
EI-2	0.006	Negligible
EI-3	0.021	Negligible

\*Reference: 1997 Uniform Building Code Table 19-A-4.

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	



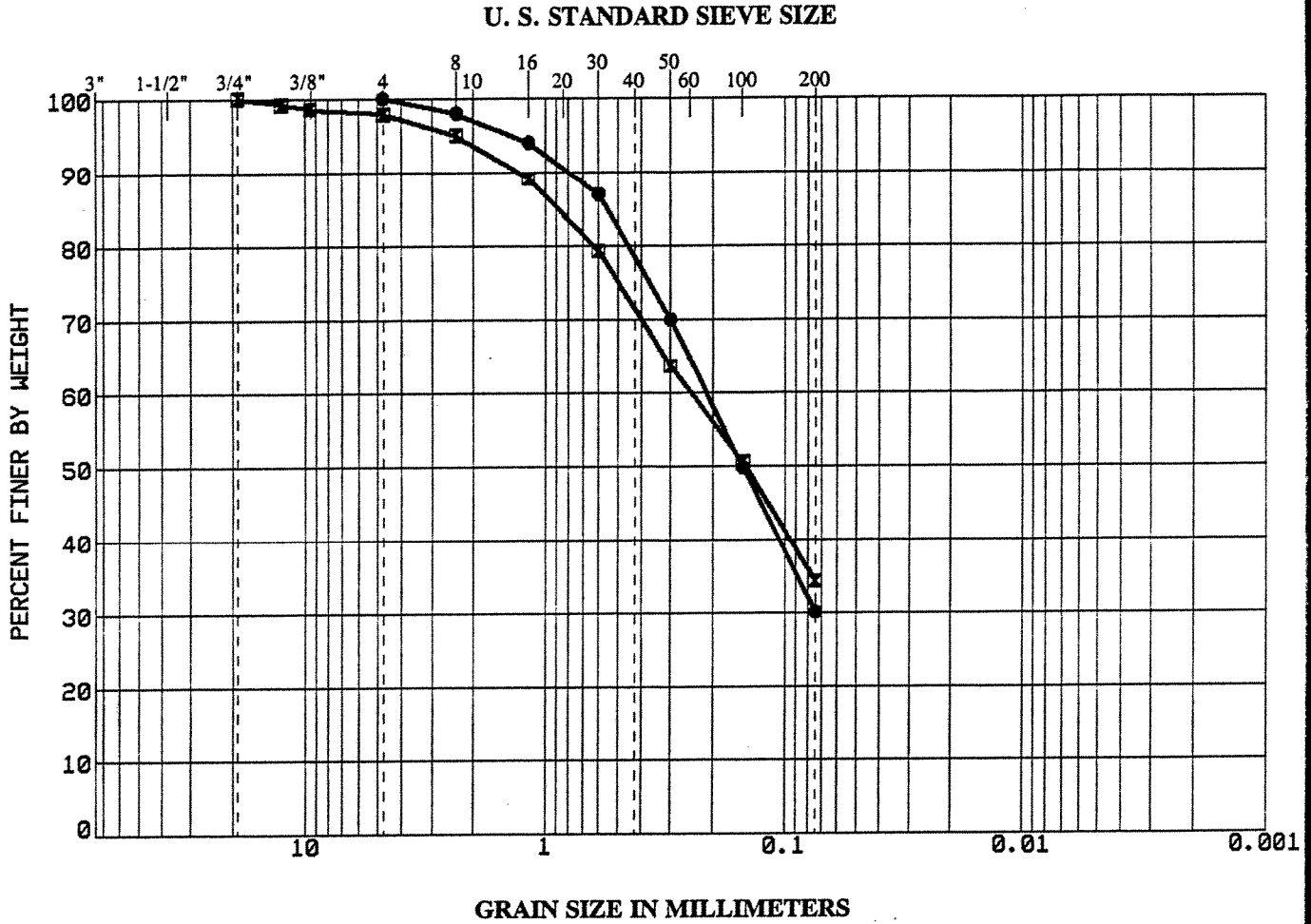
	SAMPLE	Depth (ft)	CLASSIFICATION	NAT WC	LL	PL	PI
●	B1-3	15.0	(SW)				
☒	B2-6	30.0	(SP-SM)				
▲	B3-3	15.0	(SM)				

### GRADATION CURVE

PARDEE-FALLBROOK, PANKEY RANCH

SAN DIEGO COUNTY, CALIFORNIA

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	



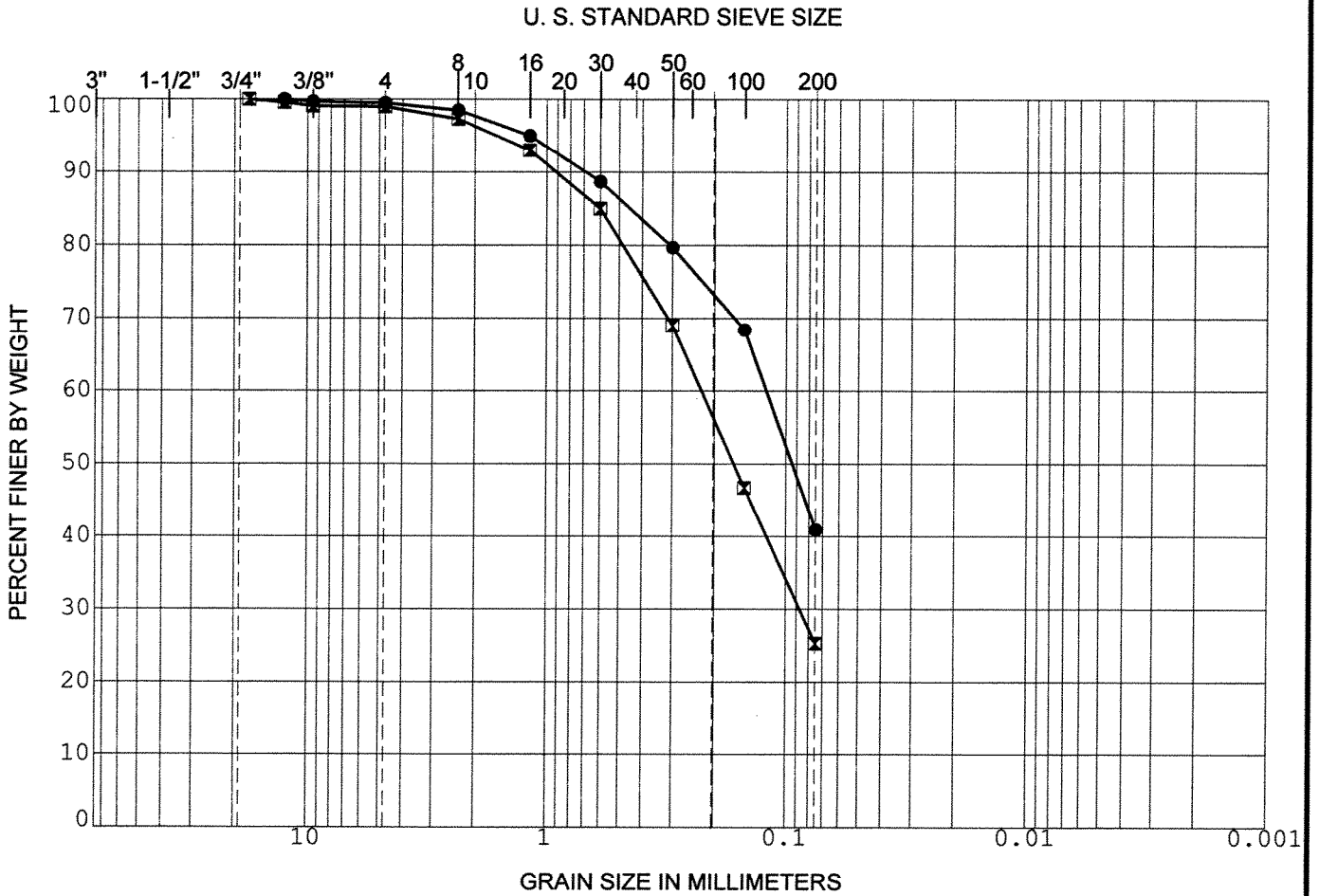
SAMPLE	Depth (ft)	CLASSIFICATION	NAT WC	LL	PL	PI
● B4-5	20.0	(SC)				
■ B5-4	25.0	(SM)				

**GRADATION CURVE**

PARDEE-FALLBROOK, PANKEY RANCH

SAN DIEGO COUNTY, CALIFORNIA

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	



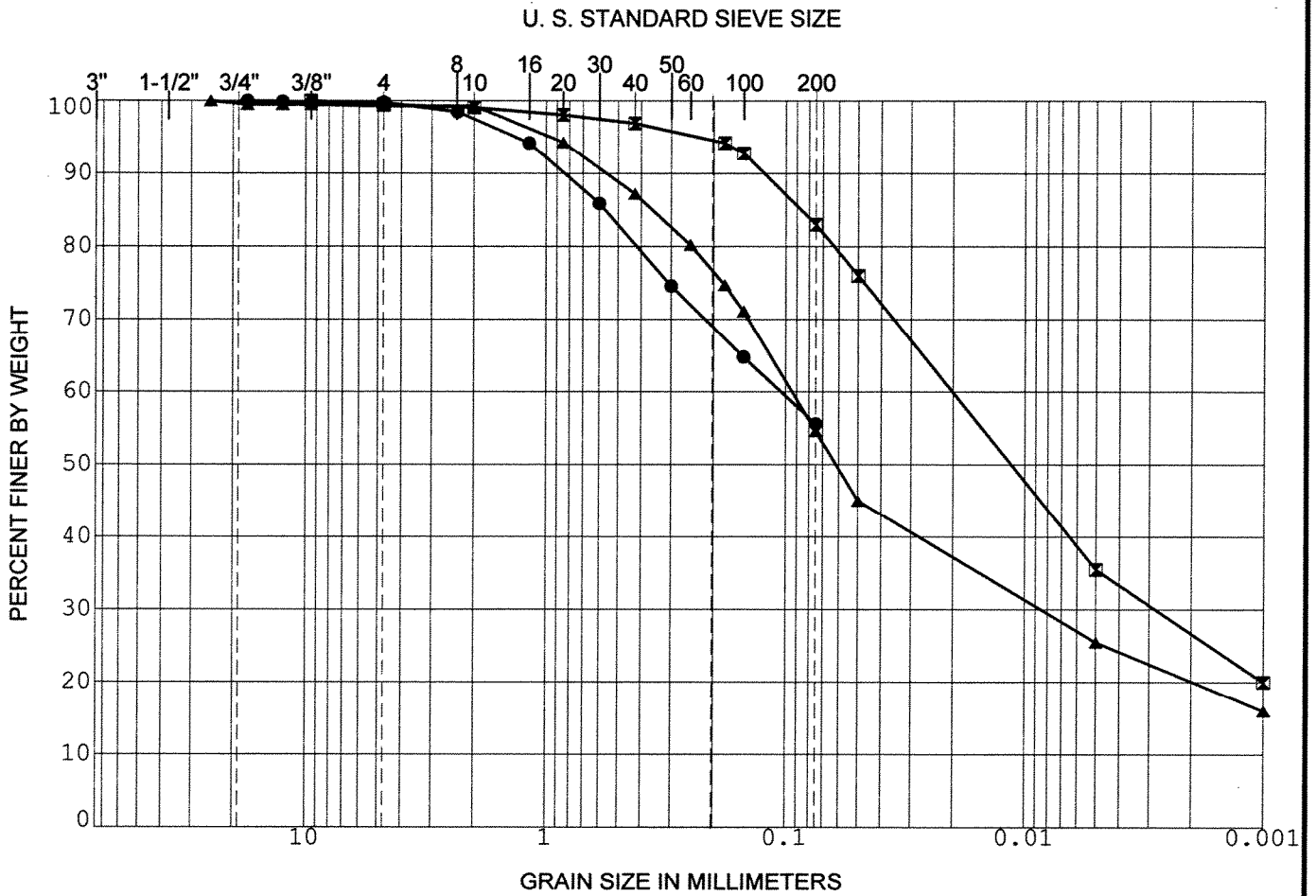
SAMPLE	DEPTH (ft)	CLASSIFICATION	NAT WC	LL	PL	PI
● SB6-5	20.0	(SM) Silty SAND				
x SB6-6	30.0	(SM) Silty SAND				

GRADATION CURVE

MEADOWOOD

SAN DIEGO COUNTY, CALIFORNIA

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	



	SAMPLE	DEPTH (ft)	CLASSIFICATION	NAT WC	LL	PL	PI
●	SB7-2A	8.0	(CL) CLAY				
⊠	SB7-4	15.0	(ML) SILT		43	27	16
▲	SB7-7	40.0	(CL) CLAY		31	11	20

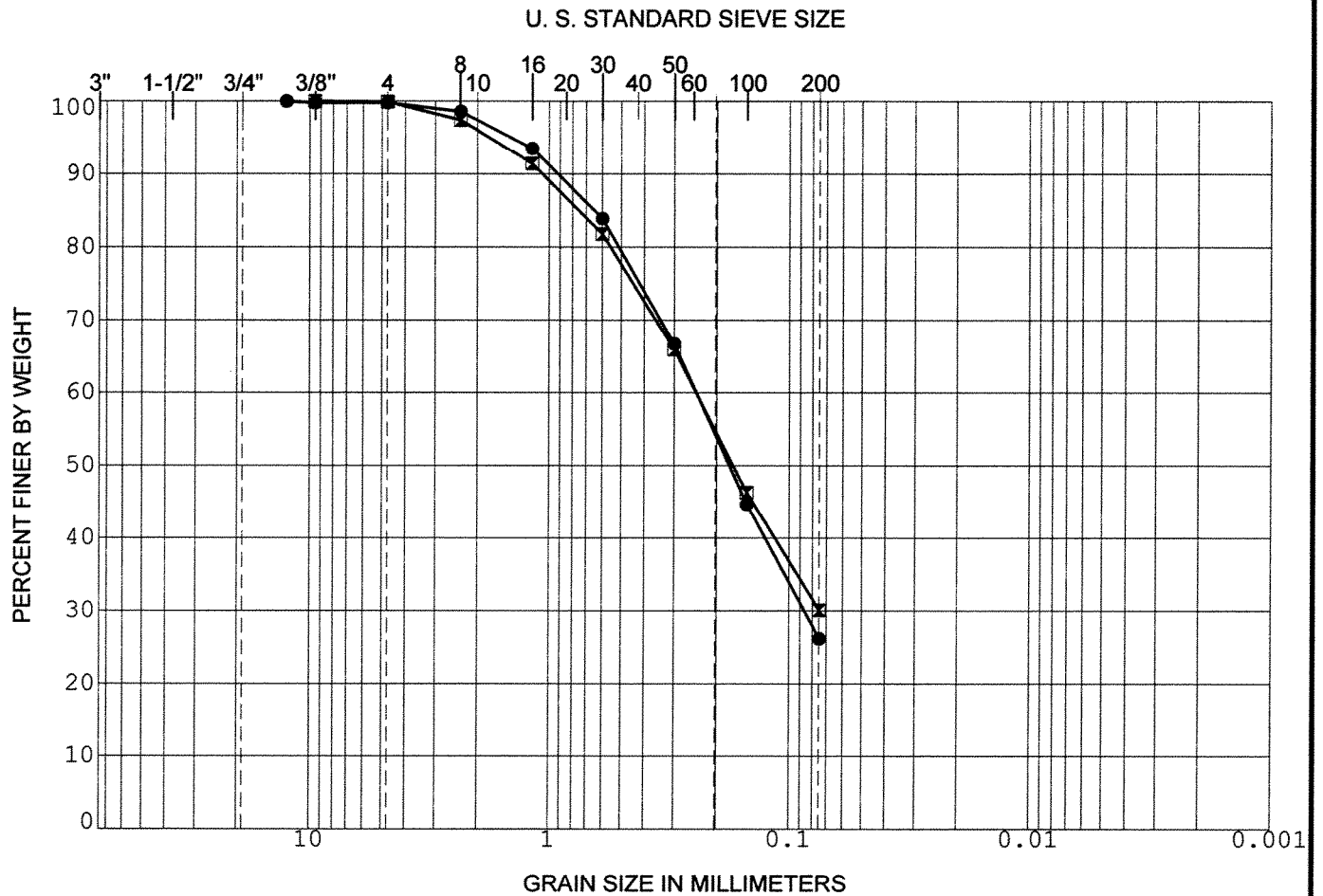
GRADATION CURVE

MEADOWOOD

SAN DIEGO COUNTY, CALIFORNIA

Figure B-4

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	



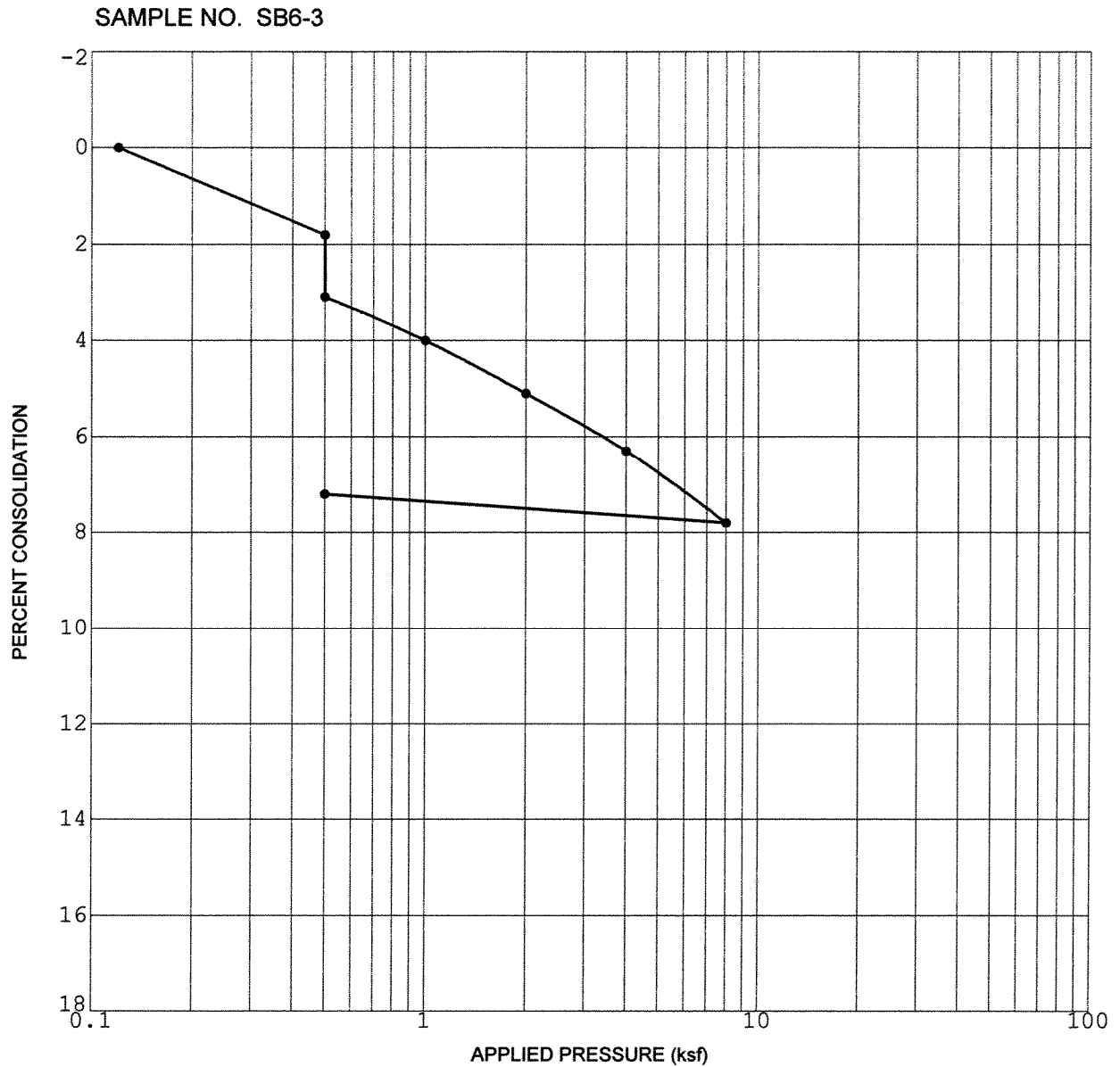
	SAMPLE	DEPTH (ft)	CLASSIFICATION	NAT WC	LL	PL	PI
●	SB8-3	10.0	(SM) Silty SAND				
⊠	SB8-5	20.0	(SM) Silty SAND				

GRADATION CURVE

MEADOWOOD

SAN DIEGO COUNTY, CALIFORNIA





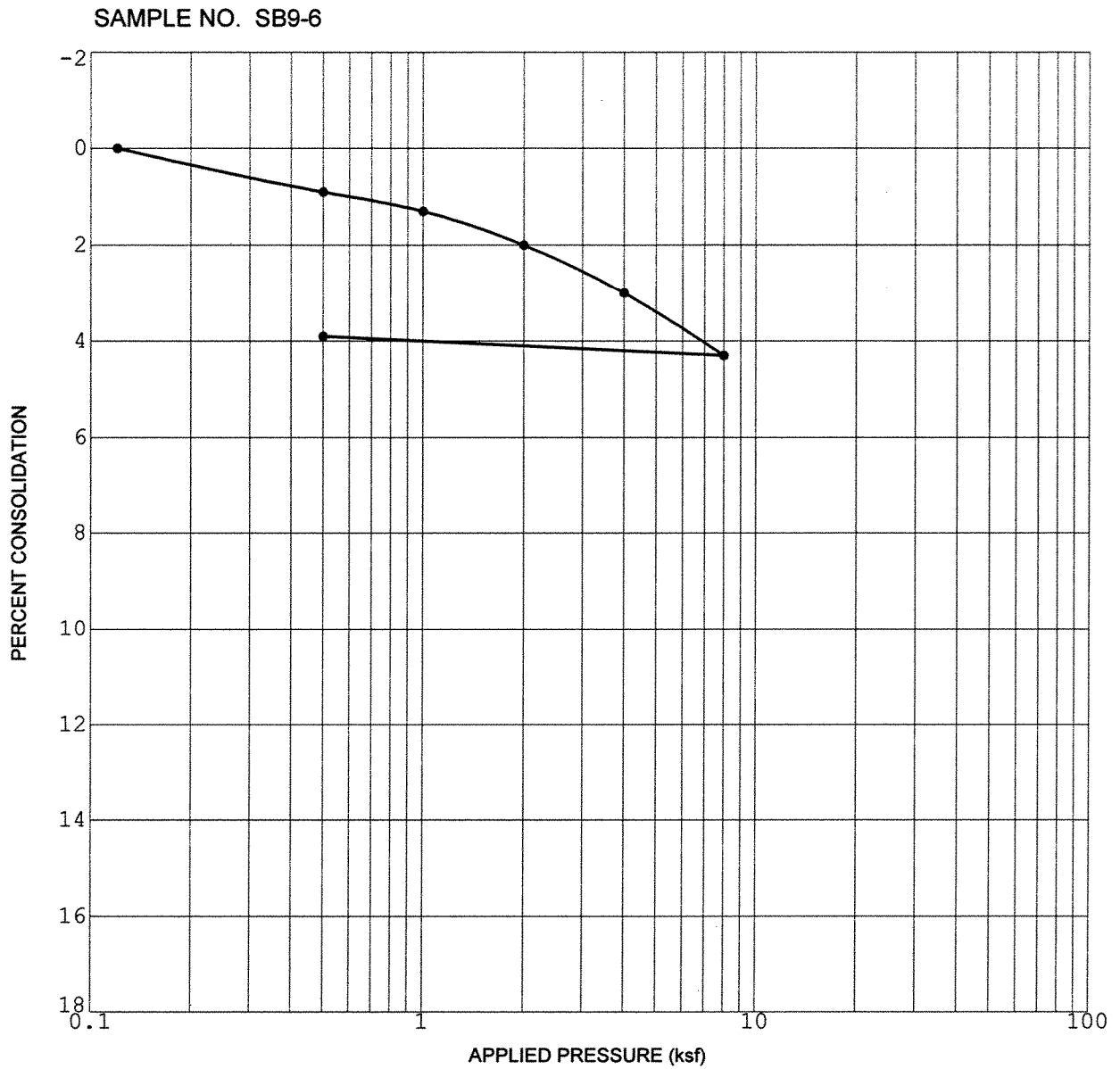
Initial Dry Density (pcf)	87.5
Initial Water Content (%)	4.9

Initial Saturation (%)	99.5
Sample Saturated at (ksf)	0.5

CONSOLIDATION CURVE

MEADOWOOD

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Initial Dry Density (pcf)	117.3
Initial Water Content (%)	15.5

Initial Saturation (%)	99.5
Sample Saturated at (ksf)	500

CONSOLIDATION CURVE

MEADOWOOD

SAN DIEGO COUNTY, CALIFORNIA