

**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT**  
Soils and Materials Engineering Division

SP 4

**SIEVE ANALYSIS WORK SHEET**

LAB SERIAL NO. 22975 Total Weight of Sample 2.18 lbs.  
 Project BELL D.B. \_\_\_\_\_ grams.  
 Station \_\_\_\_\_ Moisture Content of Fines \_\_\_\_\_ %.  
 Location \_\_\_\_\_ Date Tested 3/10 Plotted By \_\_\_\_\_  
 Boring No. \_\_\_\_\_ Sample No. \_\_\_\_\_ Remarks NP  
 Sampled By \_\_\_\_\_ Lab Tested By NR-JHE Intended Use \_\_\_\_\_

GRAVEL (Plus No. 4)

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED		% OF TOTAL OVEN-DRY RETAINED	ACCUM. % RETAINED	ACCUM. % PASSING	
		LBS.	GRAMS			ACTUAL	SPEC. REQ.
3"	76.2						
1½"	38.1						
(1")	(25.4)						
¾"	19.1						
⅜"	9.52	.50		24.4	24.4		
No. 4	4.76	.34	.84	16.6	41.0	59.1	
Pan	0	1.34		xxxxx			
Total Fractions		2.18		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		1.21		59.1			
Total Oven-Dry		2.05		100.00			

Moisture Determination of Fines:  
 Cup No. 6  
 Dry Weight 164.6 grams  
 Moisture 10.4 %

WEIGHT, GRAMS 600 FINES (Minus No. 4) (CALC.) OVEN-DRY WEIGHT 90.6 grams.  
 WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 153.4 grams.

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	2.38	22.3	14.5	53.5		
16	1.19	26.7	17.4	72.9		
30	0.59	23.0	15.0	87.9		
50	.297	6.4	4.2	92.1		
100	.149	6.5	4.2	96.3		
200	.074	3.4	2.2	98.8	1.2	
Pan	0	0.3				
Total Fractions		88.6				
Total Dry Weight After Wet Sieving		208.9	88.7	57.8		
Sieve Loss-Gain		120.2	-0.1			

Calculated by NR Date 3/14/69  
 Checked by SHF Date 3/18/69

2.39  
120.2  
88.7

Note: Cross out sieve numbers not used.

88.7

# LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

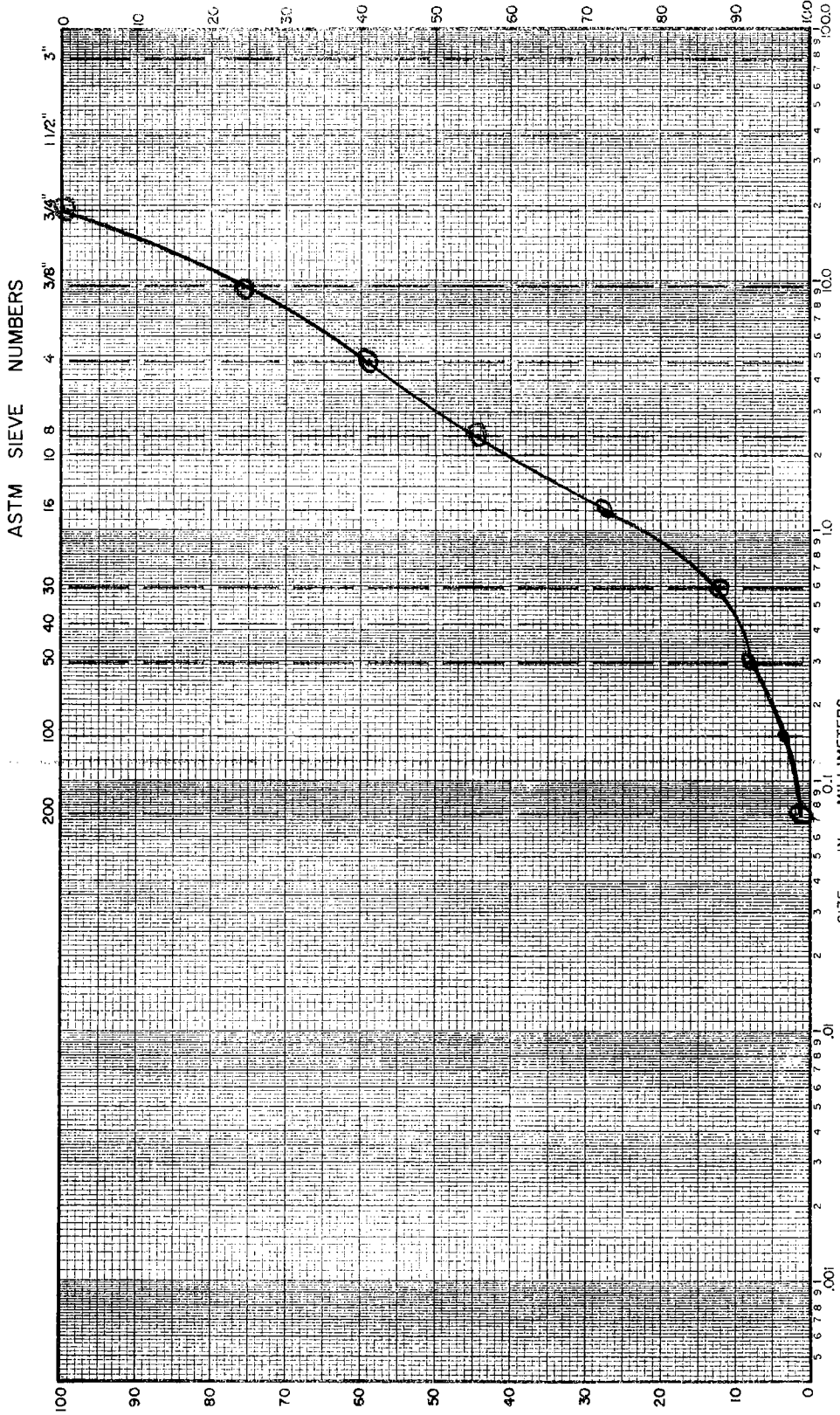
Soils and Materials Engineering Division

## MECHANICAL ANALYSIS

LAB. SERIAL NO. 22975  
 JOB \_\_\_\_\_  
 BORING NO. \_\_\_\_\_ SAMPLE NO. \_\_\_\_\_  
 STATION \_\_\_\_\_ DEPTH \_\_\_\_\_ FT.  
 LOCATION \_\_\_\_\_  
 SAMPLED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 FIELD CLASSIFICATION \_\_\_\_\_ BY \_\_\_\_\_  
 PLAS. IND. \_\_\_\_\_ LIQ. LIM. \_\_\_\_\_  
 REMARKS \_\_\_\_\_

### CLASSIFICATION DATA

PERCENT (+) NO. 200 \_\_\_\_\_ PERCENT (+) NO. 4 100  
 % (+) NO. 4 / % (+) NO. 200 \_\_\_\_\_ D<sub>10</sub> 0.15 mm  
 D<sub>30</sub> \_\_\_\_\_ mm D<sub>60</sub> 0.49 mm  
 C<sub>u</sub> = D<sub>60</sub> / D<sub>10</sub> \_\_\_\_\_ PLOTTED BY AR  
 C<sub>c</sub> = (D<sub>30</sub>)<sup>2</sup> / (D<sub>10</sub> x D<sub>60</sub>) \_\_\_\_\_ CHECKED BY SHF  
 GROUP SYMBOL SP DATE 3/18/69  
 NOTE: D<sub>x</sub> = PARTICLE DIA. AT X% PASSING



SILT OR CLAY
FINE
MEDIUM
COARSE
FINE
GRAVEL COARSE

**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT**  
Soils and Materials Engineering Division

SP ④

**SIEVE ANALYSIS WORK SHEET**

LAB SERIAL NO. 22973 Total Weight of Sample 2.04 lbs.  
 Project BELL D.B. \_\_\_\_\_ grams.  
 Station \_\_\_\_\_ Moisture Content of Fines \_\_\_\_\_ %.  
 Location \_\_\_\_\_ Date Tested \_\_\_\_\_ Plotted By \_\_\_\_\_  
 Boring No. \_\_\_\_\_ Sample No. \_\_\_\_\_ Remarks \_\_\_\_\_  
 Sampled By \_\_\_\_\_ Lab Tested By NR-JHE Intended Use \_\_\_\_\_

GRAVEL (Plus No. 4)

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED		% OF TOTAL OVEN-DRY RETAINED	ACCUM. % RETAINED	ACCUM. % PASSING	
		LBS.	GRAMS			ACTUAL	SPEC. REQ.
3"	76.2						
1½"	38.1						
(1")	(25.4)						
¾"	19.1	.13		7.1	7.1		
⅜"	9.52	.09		4.9	12.0		
No. 4	4.76	.14	3.6	7.7	19.7	80.2	
Pan	0	1.68		xxxxx			
Total Fractions		2.04		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		1.46		80.2			
Total Oven-Dry		1.82		100.00			

Moisture Determination of Fines:  
 Cup No. 1  
 Dry Weight 16.2 grams  
 Moisture 14.7 %

WEIGHT, GRAMS 100 FINES (Minus No. 4) (CALC.) OVEN-DRY WEIGHT 87.2 grams.  
 WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 108.7 grams.

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	2.38	10.3	4.5	29.2		
16	1.19	22.6	20.8	50.0		
30	0.59	32.9	30.3	80.3		
50	.297	14.6	13.4	93.7		
100	.149	4.2	3.9	97.6		
200	.074	0.8	0.7	98.5	15	
Pan	0	0.0				
Total Fractions		85.4				
Total Dry Weight After Wet Sieving		205.9	85.7	78.8		
Sieve Loss-Gain		-1.3				

Calculated by NR Date 3/11/69  
 Checked by SP Date 2/12/69

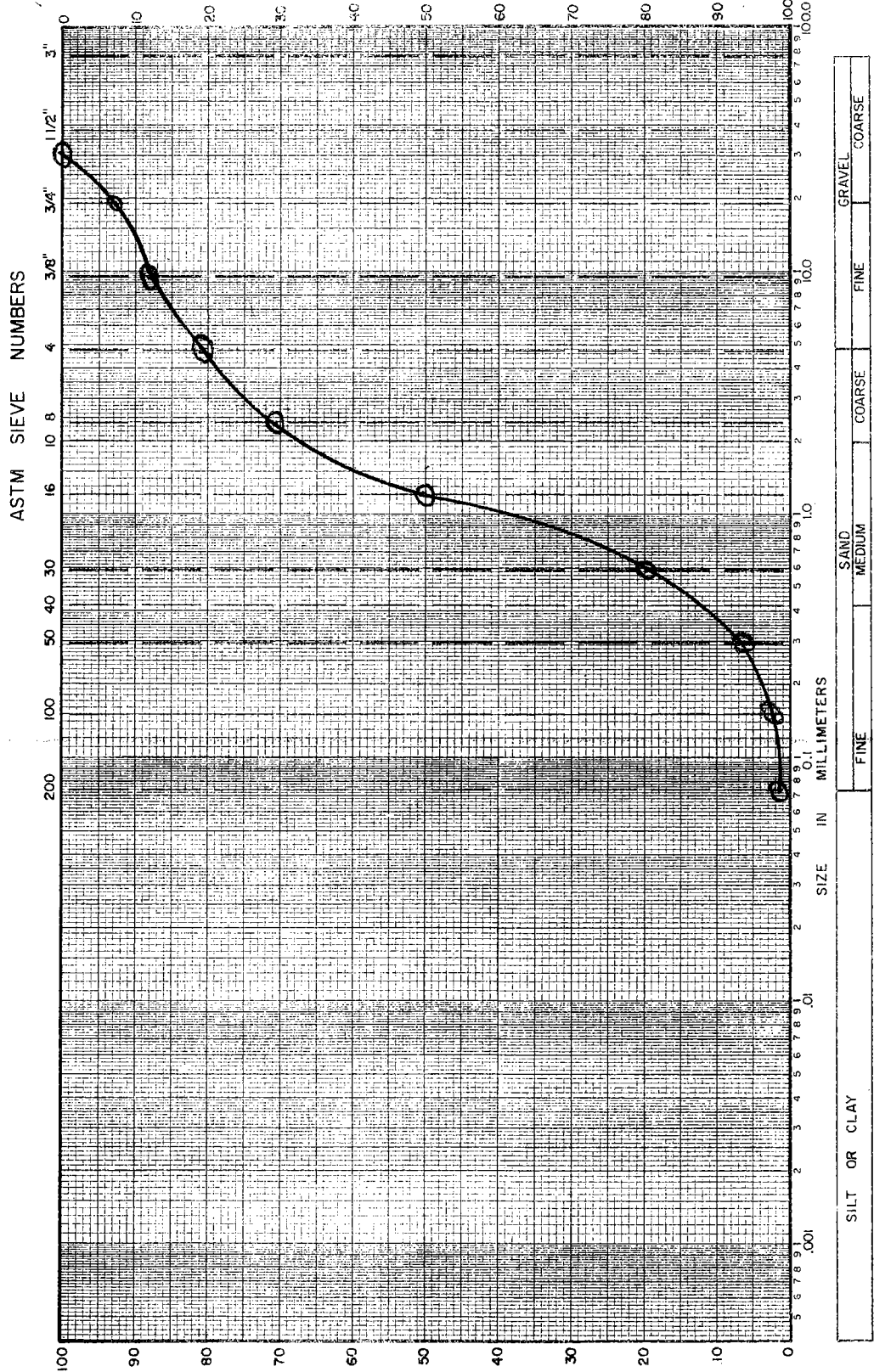
Note: Cross out sieve numbers not used.

**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT**  
 Soils and Materials Engineering Division  
**MECHANICAL ANALYSIS**

LAB. SERIAL NO. 22973  
 JOB \_\_\_\_\_  
 BORING NO. \_\_\_\_\_ SAMPLE NO. \_\_\_\_\_  
 STATION \_\_\_\_\_ DEPTH \_\_\_\_\_ FT.  
 LOCATION \_\_\_\_\_  
 SAMPLED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 FIELD CLASSIFICATION \_\_\_\_\_ BY \_\_\_\_\_  
 PLAS. IND. \_\_\_\_\_ LIQ. LIM. \_\_\_\_\_  
 REMARKS \_\_\_\_\_

**CLASSIFICATION DATA**

PERCENT (+) NO. 200 \_\_\_\_\_ PERCENT (+) NO. 4 \_\_\_\_\_  
 % (+) NO. 4 / % (+) NO. 200 \_\_\_\_\_ D<sub>10</sub> 0.38 mm  
 D<sub>30</sub> \_\_\_\_\_ mm D<sub>60</sub> \_\_\_\_\_ mm  
 C<sub>u</sub> = D<sub>60</sub>/D<sub>10</sub> \_\_\_\_\_ PLOTTED BY R  
 C<sub>c</sub> = (D<sub>30</sub>)<sup>2</sup> / (D<sub>10</sub> x D<sub>60</sub>) \_\_\_\_\_ CHECKED BY R  
 GROUP SYMBOL \_\_\_\_\_ DATE 3/11/69  
 NOTE: D<sub>x</sub> = PARTICLE DIA. AT X% PASSING



**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT**  
Soils and Materials Engineering Division

JM-SP (4)

**SIEVE ANALYSIS WORK SHEET**

LAB SERIAL NO. 22974 Total Weight of Sample 1.91 lbs.  
 Project BELL P.B. \_\_\_\_\_ grams.  
 Station \_\_\_\_\_ Moisture Content of Fines \_\_\_\_\_ %.  
 Location \_\_\_\_\_ Date Tested \_\_\_\_\_ Plotted By \_\_\_\_\_  
 Boring No. \_\_\_\_\_ Sample No. \_\_\_\_\_ Remarks \_\_\_\_\_  
 Sampled By \_\_\_\_\_ Lab Tested By NR-JHE Intended Use \_\_\_\_\_

GRAVEL (Plus No. 4)

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED		% OF TOTAL OVEN-DRY RETAINED	ACCUM. % RETAINED	ACCUM. % PASSING	
		LBS.	GRAMS			ACTUAL	SPEC. REQ.
3"	76.2						
1½"	38.1						
(1")	(25.4)	.12		7.1	7.1		
¾"	19.1	.24		14.1	21.2		
⅜"	9.52	.17		10.0	31.2		
No. 4	4.76	.12	.65	7.1	38.3	61.8	
Pan	0	1.26		xxxxx			
Total Fractions		1.91		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		1.05		61.8			
Total Oven-Dry		1.70		100.00			

Moisture Determination of Fines:  
 Cup No. 18  
 Dry Weight 157.5 grams  
 Moisture 19.8 %

FINES (Minus No. 4)

WEIGHT, GRAMS 100 (CALC.) OVEN-DRY WEIGHT 83.5 grams.  
 WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 135.1 grams.

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	2.38	3.1	2.3	40.6		
16	1.19	4.1	3.0	43.6		
30	0.59	8.6	6.4	50.0		
50	.297	15.5	11.5	61.5		
100	.149	27.2	20.1	81.6		
200	.074	12.4	9.2	91.4	8.6	
Pan	0	0.5				
Total Fractions		71.4				
Total Dry Weight After Wet Sieving		191.9	71.7	53.1		
Sieve Loss-Gain		- .3				

Calculated by AP Date 3/14/69  
 Checked by SHF Date 3/14/69

Note: Cross out sieve numbers not used.

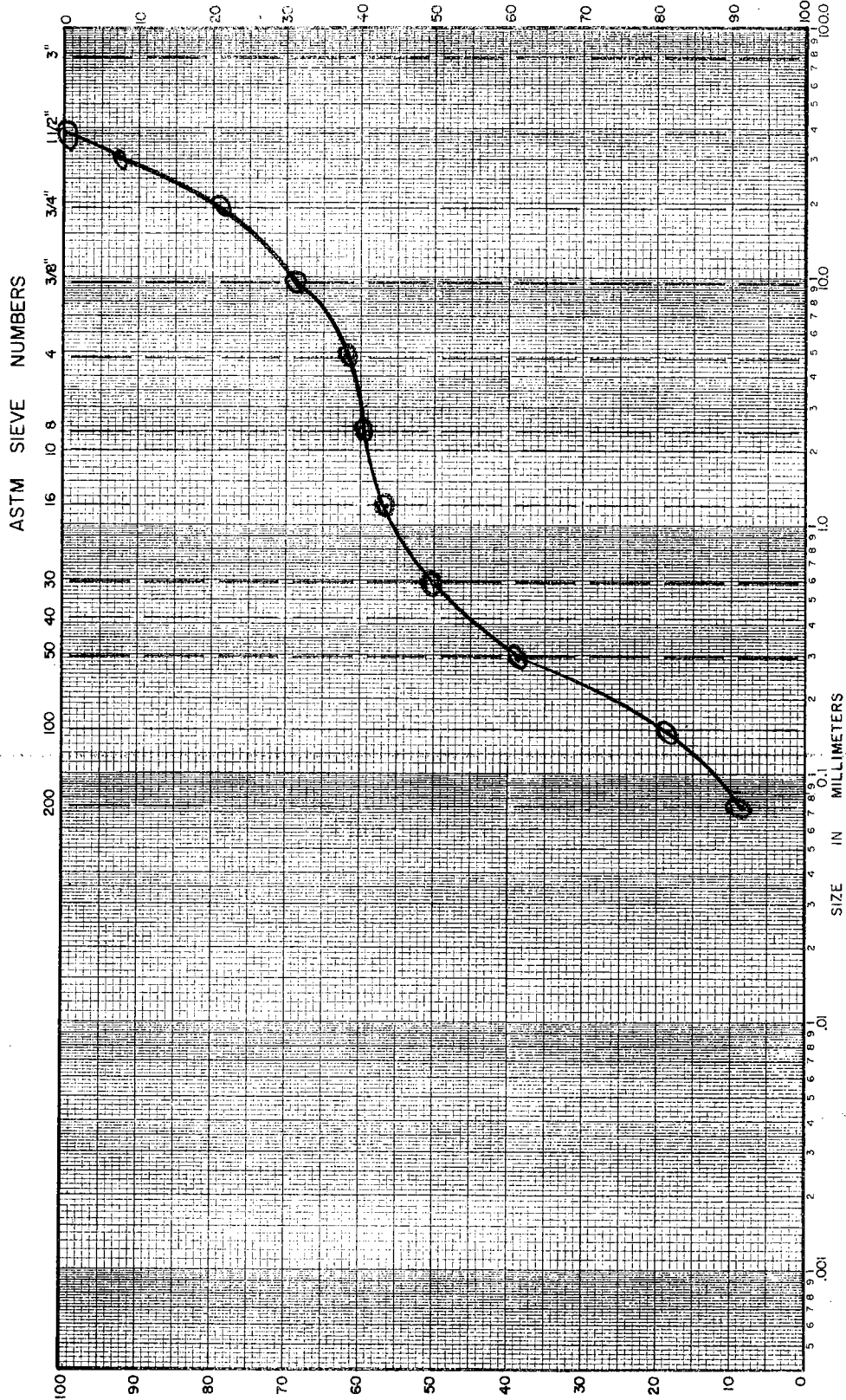
**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT**  
Soils and Materials Engineering Division  
**MECHANICAL ANALYSIS**

LAB. SERIAL NO. 22974  
 JOB \_\_\_\_\_  
 BORING NO. \_\_\_\_\_ SAMPLE NO. \_\_\_\_\_  
 STATION \_\_\_\_\_ DEPTH \_\_\_\_\_ FT.  
 LOCATION \_\_\_\_\_  
 SAMPLED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 FIELD CLASSIFICATION \_\_\_\_\_ BY \_\_\_\_\_  
 PLAS. IND. \_\_\_\_\_ LIQ. LIM. \_\_\_\_\_  
 REMARKS \_\_\_\_\_

**CLASSIFICATION DATA**

PERCENT (+) NO. 200 \_\_\_\_\_ PERCENT (+) NO. 4 \_\_\_\_\_  
 % (+) NO. 4 / % (+) NO. 200 \_\_\_\_\_ D<sub>10</sub> 1.084 mm  
 D<sub>30</sub> 1.23 mm D<sub>60</sub> 3.10 mm  
 C<sub>u</sub> = D<sub>60</sub> / D<sub>10</sub> \_\_\_\_\_ PLOTTED BY AR  
 C<sub>c</sub> = (D<sub>30</sub>)<sup>2</sup> / (D<sub>10</sub> x D<sub>60</sub>) \_\_\_\_\_  
1.0529 \_\_\_\_\_ CHECKED BY \_\_\_\_\_  
1.52 \_\_\_\_\_ GROUP SYMBOL \_\_\_\_\_ DATE 3/7/60

NOTE: D<sub>x</sub> = PARTICLE DIA. AT X% PASSING



SILT OR CLAY	FINE	SAND MEDIUM	COARSE	FINE	GRAVEL COARSE
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PERCENT RETAINED

PERCENT PASSING