

Lincoln Debris Basin

2/25/69
from 2/19/69

TIMBER
CABLE
RETAINING WALL
#3
(SP-SM)

ROAD WASHED OUT

681'

VIOLENT EROSION

GRAVEL & SAND

(SW-SM)

INLET
BOULDERS & GRAVEL
TO 4"



CONCRETE
STRUCTURE,
BURIED

#2
190'

ACCESS ROAD

SAND

#1 (SM)

SAND CONE

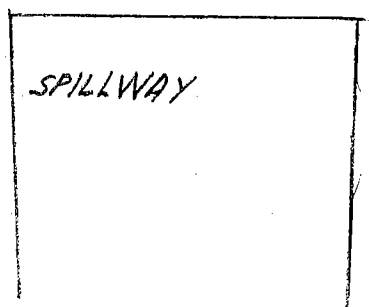
H₂O Standing to
Spillway Elevation

80'

ACCESS



JAL-JJB



SPILLWAY

DAM

SM (34)

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
Soils and Materials Engineering Division

SIEVE ANALYSIS WORK SHEET

LAB SERIAL NO. 22854 Total Weight of Sample 2.01 lbs.
 Project LINCOLN _____ grams.
 Station _____ Moisture Content of Fines _____ %.
 Location _____ Date Tested 3/19/69 Plotted By _____
 Boring No. _____ Sample No. _____ Remarks AP
 Sampled By _____ Lab Tested By NR 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	1					
1 1/2"	38.1	1					
(1")	(25.4)	43		23.9	23.9		
3/4"	19.1	09		5.0	28.9		
3/8"	9.52	11		6.1	35.0		
No. 4	4.76	08	.71	4.4	39.4	60.6	
Pan	0	130		xxxxx			
Total Fractions		2.01		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		1.09		60.6			
Total Oven-Dry		1.80		100.00			

Moisture Determination of Fines:
 Cup No. 35
 Dry Weight 157.6 grams
 Moisture 19.6 %

FINES (Minus No. 4)

WEIGHT, GRAMS 1.00 (CALC.) OVEN-DRY WEIGHT 83.6 grams.
 WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 1.381 grams.

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	2.38	3.9	2.8	42.2		
16	1.19	7.4	5.4	47.6		
30	0.59	11.1	8.0	55.6		
50	.297	9.9	7.2	62.8		
100	.149	10.2	7.4	70.2		
200	.074	12.0	8.7	79.1	20.9	
Pan	0	0.3				
Total Fractions		54.8				
Total Dry Weight After Wet Sieving		175.0	39.7			
Sieve Loss-Gain		120.2				

Calculated by NR Date 3/19/69
 Checked by RTT Date 3/20/69

Note: Cross out sieve numbers not used.

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
Soils and Materials Engineering Division

SM-SW
34

SIEVE ANALYSIS WORK SHEET

LAB SERIAL NO. 22855 Total Weight of Sample 2.40 lbs.
 Project LINCOLN D.S. _____ grams.
 Station _____ Moisture Content of Fines _____ %.
 Location _____ Date Tested 3-6-69 Plotted By _____
 Boring No. _____ Sample No. 2 Remarks N
 Sampled By JJB Lab Tested By FK-NK 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						
1 1/2"	38.1						
(1")	(25.4)	0.09		4.2	4.2		
3/4"	19.1	0.06		2.8	7.0		
3/8"	9.52	0.11		5.1	12.1		
No. 4	4.76	0.04	1.30	1.9	14.0	86.0	
Pan	0	2.10		xxxxx			
Total Fractions		2.40		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		1.85		86.0			
Total Oven-Dry		2.15		100.00			

Moisture Determination of Fines:
Cup No. 6
Dry Weight 162.2 grams
Moisture 13.4 %

FINES (Minus No. 4)

WEIGHT, GRAMS 100 (CALC.) OVEN-DRY WEIGHT 88.2 grams.
 WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 102.6 grams.

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	2.38	7.2	7.0	21.0		
16	1.19	18.2	17.7	38.7		
30	0.59	25.0	24.4	63.1		
50	.297	17.2	16.8	79.9		
100	.149	11.8	11.5	91.4		
200	.074	2.8	2.7	94.2	5.8	
Pan	0	0.2				
Total Fractions		82.4				
Total Dry Weight After Wet Sieving		82.3	80.2			
Sieve Loss-Gain		1.1				

Calculated by NR Date 3/7/69
 Checked by SHF Date 3/10/69

Note: Cross out sieve numbers not used.

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
Soils and Materials Engineering Division

MECHANICAL ANALYSIS

LAB. SERIAL NO. 22855

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_{10} _____ mm

D_{30} _____ mm D_{60} _____ mm

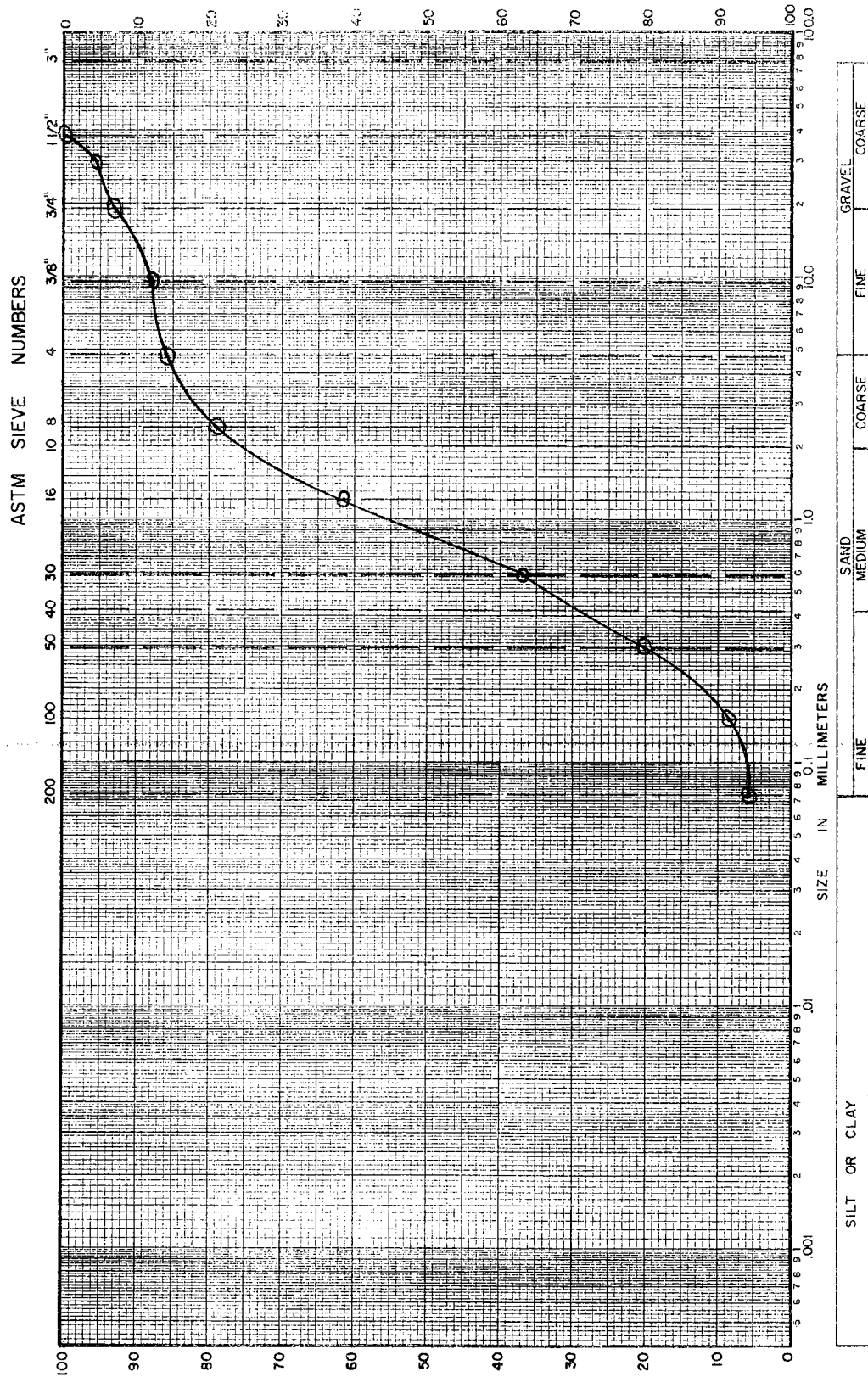
$Cu = D_{60}/D_{10}$ _____ PLOTTED BY NK

$Cc = (D_{30})^2 / (D_{10} \times D_{60})$ _____ CHECKED BY SHE

.194 / .187 _____ DATE 3/10/62

GROUP SYMBOL _____

NOTE: D_x = PARTICLE DIA. AT X% PASSING



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LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
Soils and Materials Engineering Division

34
SM-SP

SIEVE ANALYSIS WORK SHEET

LAB SERIAL NO. 22856 Total Weight of Sample 2.55 lbs.
 Project LINCOLN D.B. _____ grams.
 Station _____ Moisture Content of Fines _____ %.
 Location _____ Date Tested 3-6-69 Plotted By _____
 Boring No. _____ Sample No. 3 Remarks NP
 Sampled By JJB Lab Tested By _____ 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	0.01		0.4	0.4		
No. 4	4.76	0.03	0.4	1.2	1.6	98.4	
Pan	0	2.51		xxxxx			
Total Fractions		2.55		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		2.40		98.4			
Total Oven-Dry		2.44		100.00			

Moisture Determination of Fines:
 Cup No. 59
 Dry Weight 169.7 grams
 Moisture 4.8 %

FINES (Minus No. 4)

WEIGHT, GRAMS 100 (CALC.) OVEN-DRY WEIGHT 95.4 grams.
 WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 97.0 grams.

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	2.38	1.6	1.6	3.2		
16	1.19	8.8	9.1	12.3		
30	0.59	22.4	23.1	35.4		
50	.297	25.9	26.7	62.1		
100	.149	23.0	23.7	85.8		
200	.074	5.8	6.0	92.5	7.5	
Pan	0	0.4				
Total Fractions		87.9				
Total Dry Weight After Wet Sieving		208.4	88.2	90.9		
Sieve Loss-Gain		120.2	-1.3			

Calculated by NR Date 3/7/69
 Checked by JHE Date 3/10/69

Note: Cross out sieve numbers not used.

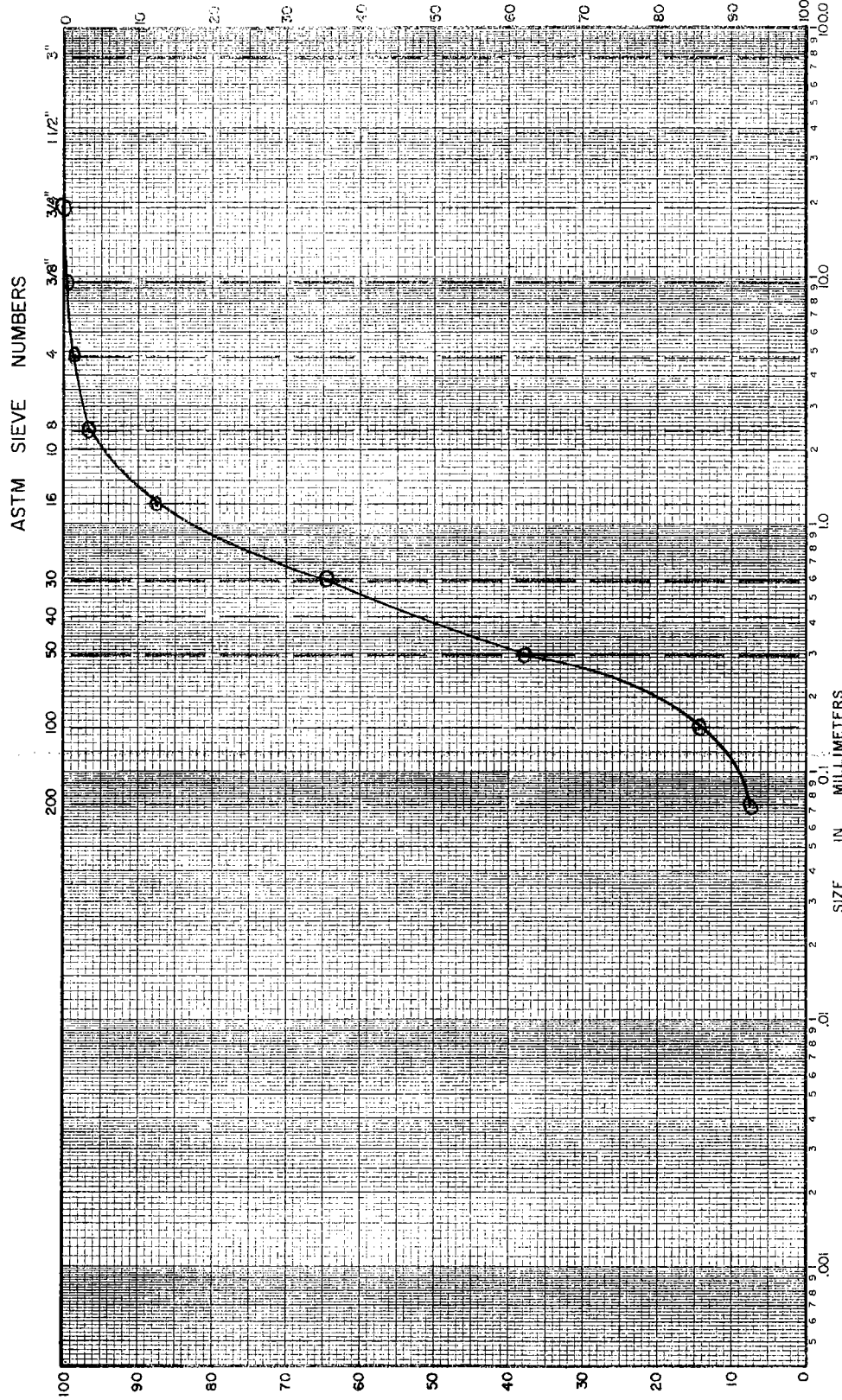
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
Soils and Materials Engineering Division
MECHANICAL ANALYSIS

LAB. SERIAL NO. 22856

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 _____ D₁₀ _____ mm
D₃₀ _____ mm D₆₀ _____ mm
Cu = D₆₀/D₁₀ _____ PLOTTED BY NR
Cc = (D₃₀)² / (D₁₀ x D₆₀) _____ CHECKED BY SHF
GROUP SYMBOL _____ DATE 3/10/69
NOTE: D_x = PARTICLE DIA. AT X% PASSING



SILT OR CLAY	SAND		GRAVEL	
	FINE	COARSE	FINE	COARSE

PERCENT RETAINED



PERCENT PASSING