

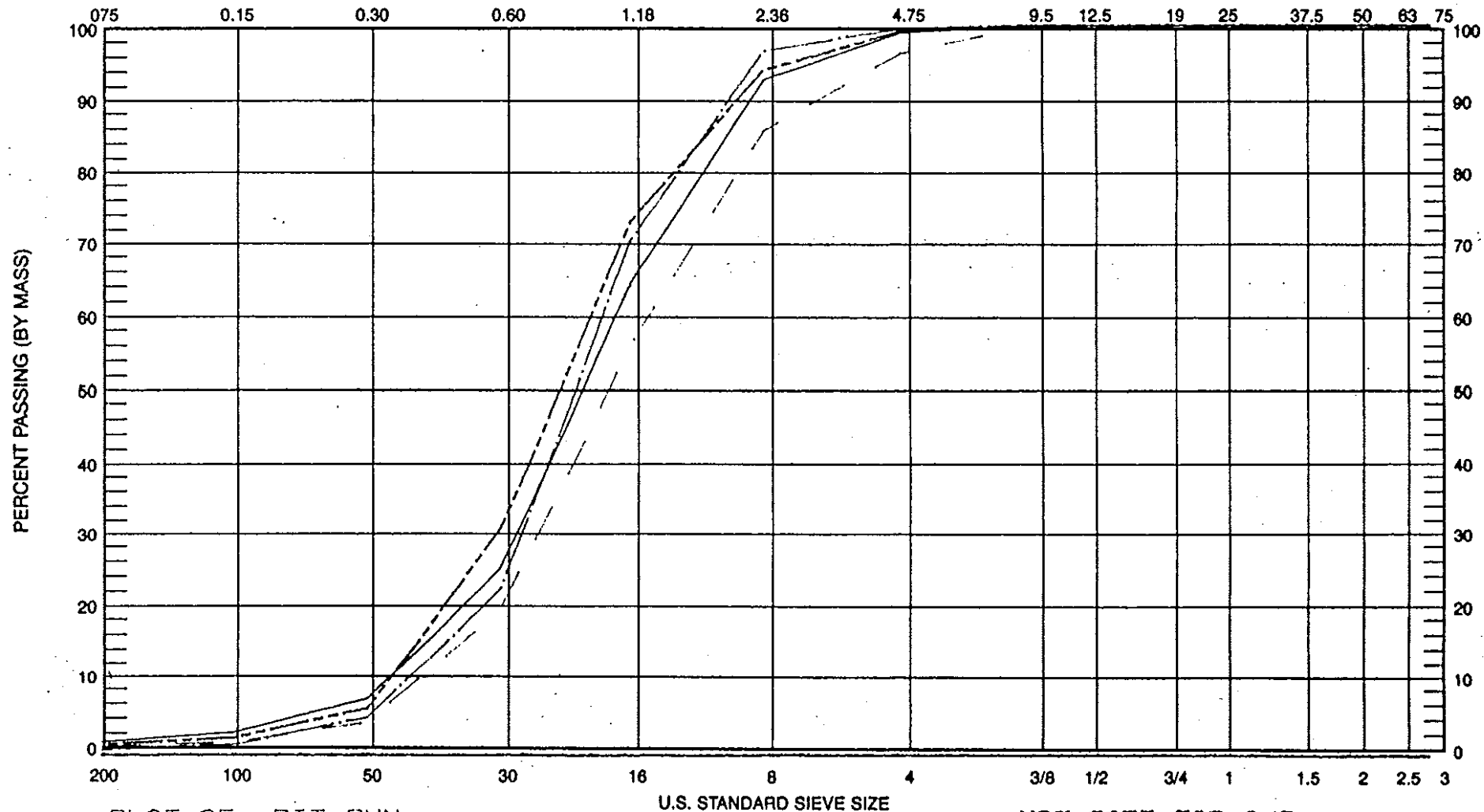
AGGREGATE GRADATION CHART

REGION: DEL. SOIL

PROJECT: MUNDY INVEST

DISTRICT: GOLDEN

SIEVE OPENING (mm) FILE NUMBER: 3711B



NOT CORR FOR O/S

BAG #	SAMPLE #	TESTHOLE/PIT	DEPTH	SAMPLE OF	SAMPLED BY	METHOD	DATE	TESTED BY	DATE
B2393	1	03- 1	0.0 to 0.0'				NOV 24 83	LAB	NOV 24 83
B2394	1	03- 2	0.0 to 0.0'				NOV 24 83	LAB	NOV 24 83
B2393	1	03- 3	0.0 to 0.0'				NOV 24 83	LAB	NOV 24 83
B2391	1	03- 5	0.0 to 0.0'				NOV 24 83	LAB	NOV 24 83

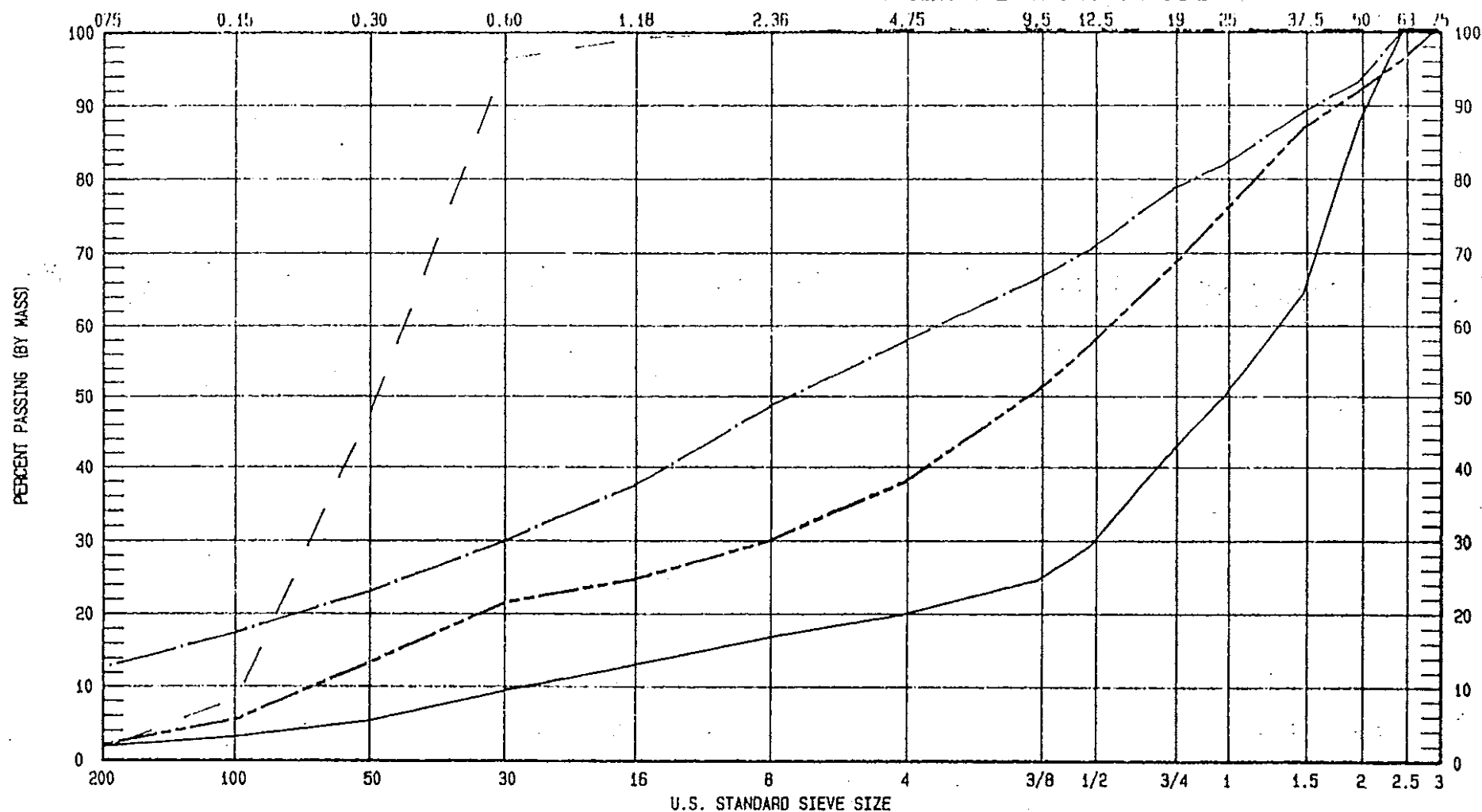
AGGREGATE GRADATION CHART

REGION: NELSON

PROJECT: BURUCH INVEST

DISTRICT: REVELSTOKE

SIEVE OPENING (mm) FILE NUMBER: 3821C



PLOT OF: PIT RUN

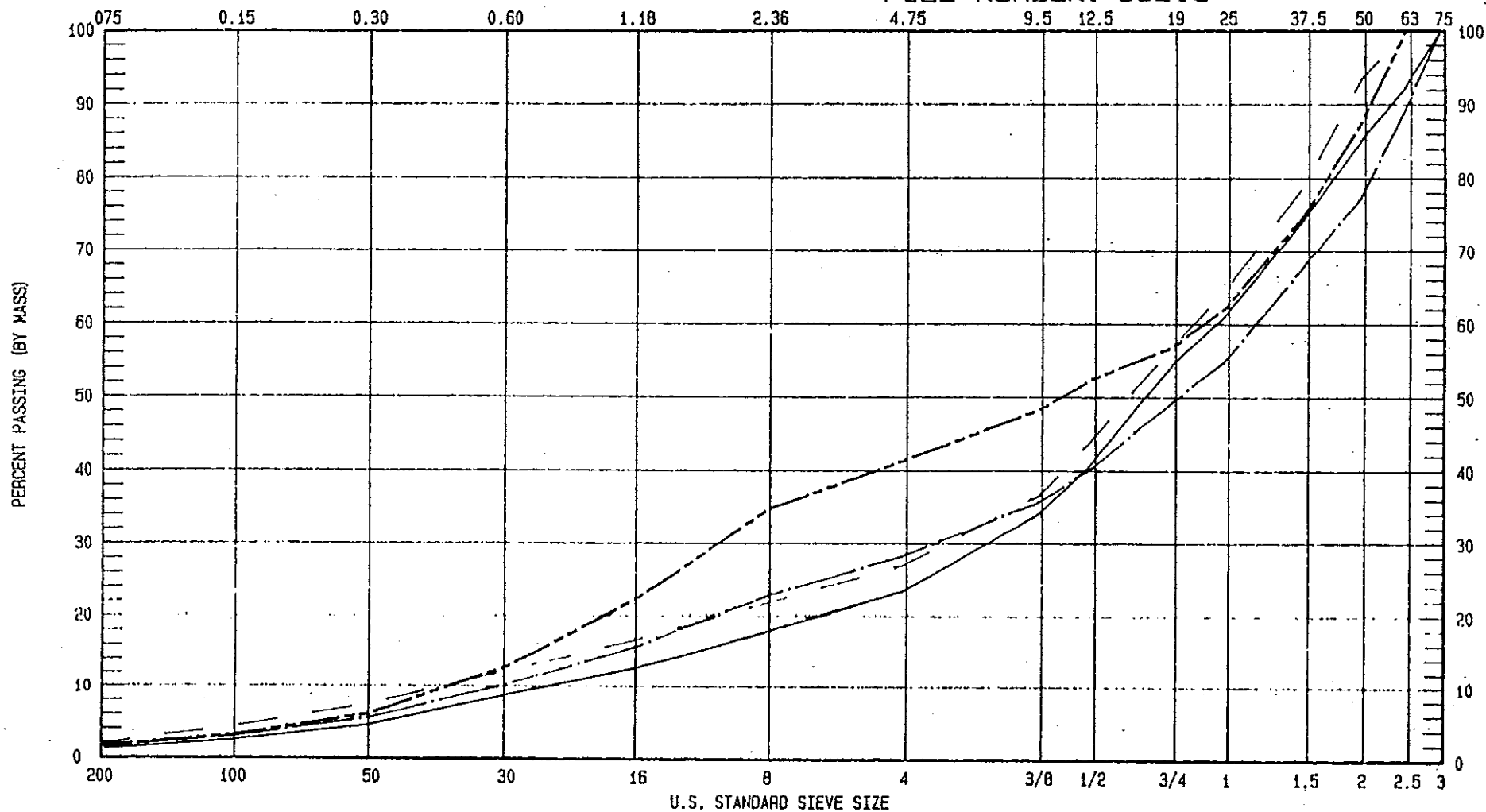
NOT CORR FOR 0/S

BAG #	SAMPLE #	TESTHOLE/PIT	DEPTH	SAMPLE OF	SAMPLED BY	METHOD	DATE	TESTED BY	DATE
X2600	1	87-1	1.1 to 1.3		SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87
X2601	2	87-1	1.3 to 3.0		SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87
X2602	1	87-2	0.0 to 5.0		SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87
X2603	1	87-3	0.0 to 5.0		SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87

AGGREGATE GRADATION CHART

REGION: NELSON
PROJECT: BURUCH INVEST
DISTRICT: REVELSTOKE

SIEVE OPENING (mm) FILE NUMBER: 3821C



PLOT OF: PIT RUN

NOT CORR FOR 0/8

BAG #	SAMPLE #	TESTHOLE/PIT	DEPTH	SAMPLE OF	SAMPLED BY	METHOD	DATE	TESTED BY	DATE
X2604	1	87-4	0.1 to 6.0		SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87
X2605	2	87-5	0.7 to 7.0		SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87
X2606	2	87-6	0.7 to 7.0		SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87
X2607	3	87-7	1.0 to 6.0		SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87

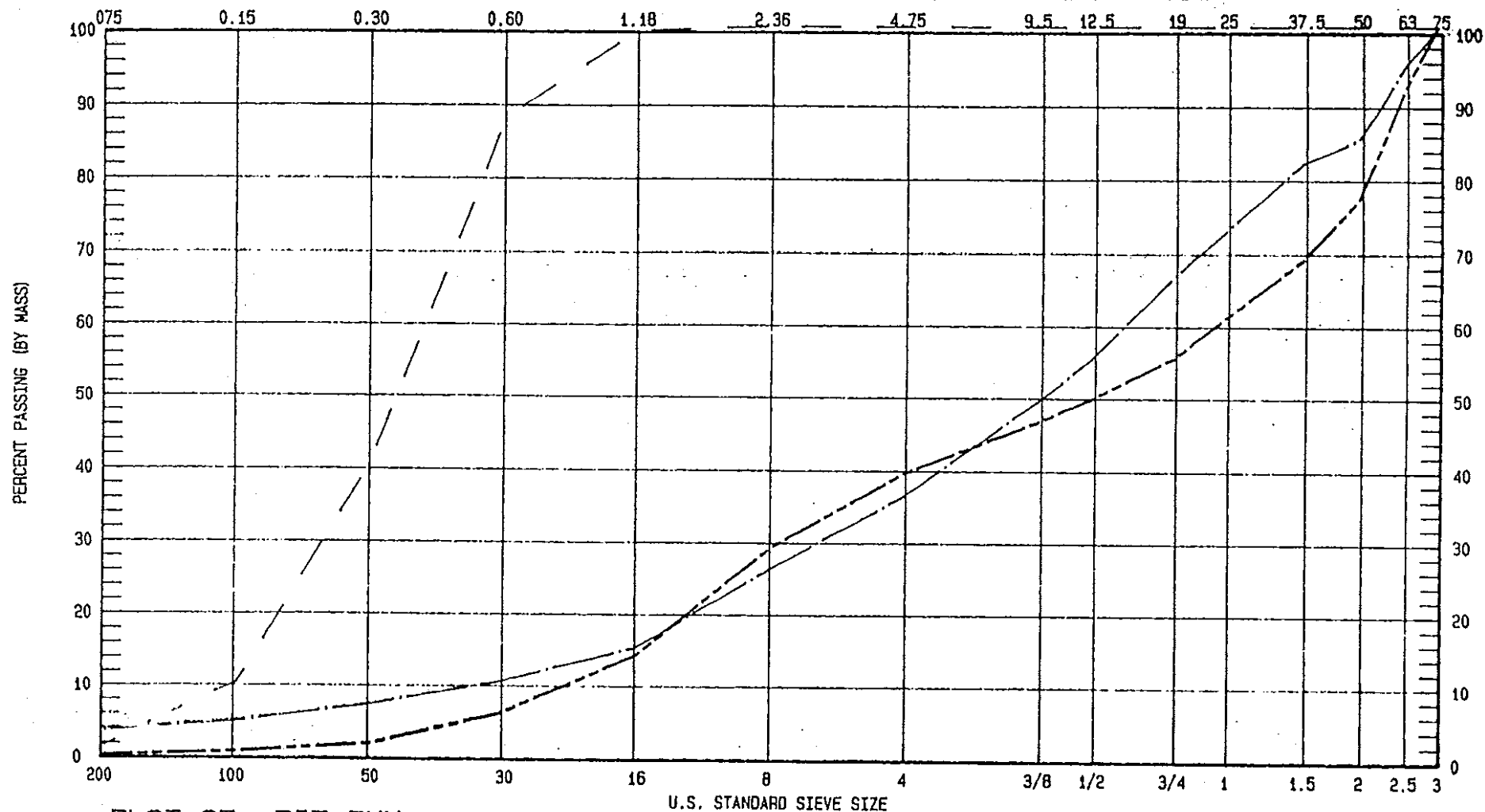
AGGREGATE GRADATION CHART

REGION: NELSON

PROJECT: BURUCH INVEST

DISTRICT: REVELSTOKE

SIEVE OPENING (mm) FILE NUMBER: 3821C



PLOT OF: PIT RUN

NOT CORR FOR 0/S

BAG #	SAMPLE #	TESTHOLE/PIT	DEPTH	SAMPLE OF	SAMPLED BY	METHOD	DATE	TESTED BY	DATE
X2608	1	87-8	1.8 to 4.5		SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87
X2609	1	87-9	0.5 to 6.8		SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87
X2610	3	87-9	6.8 to 7.0		SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87

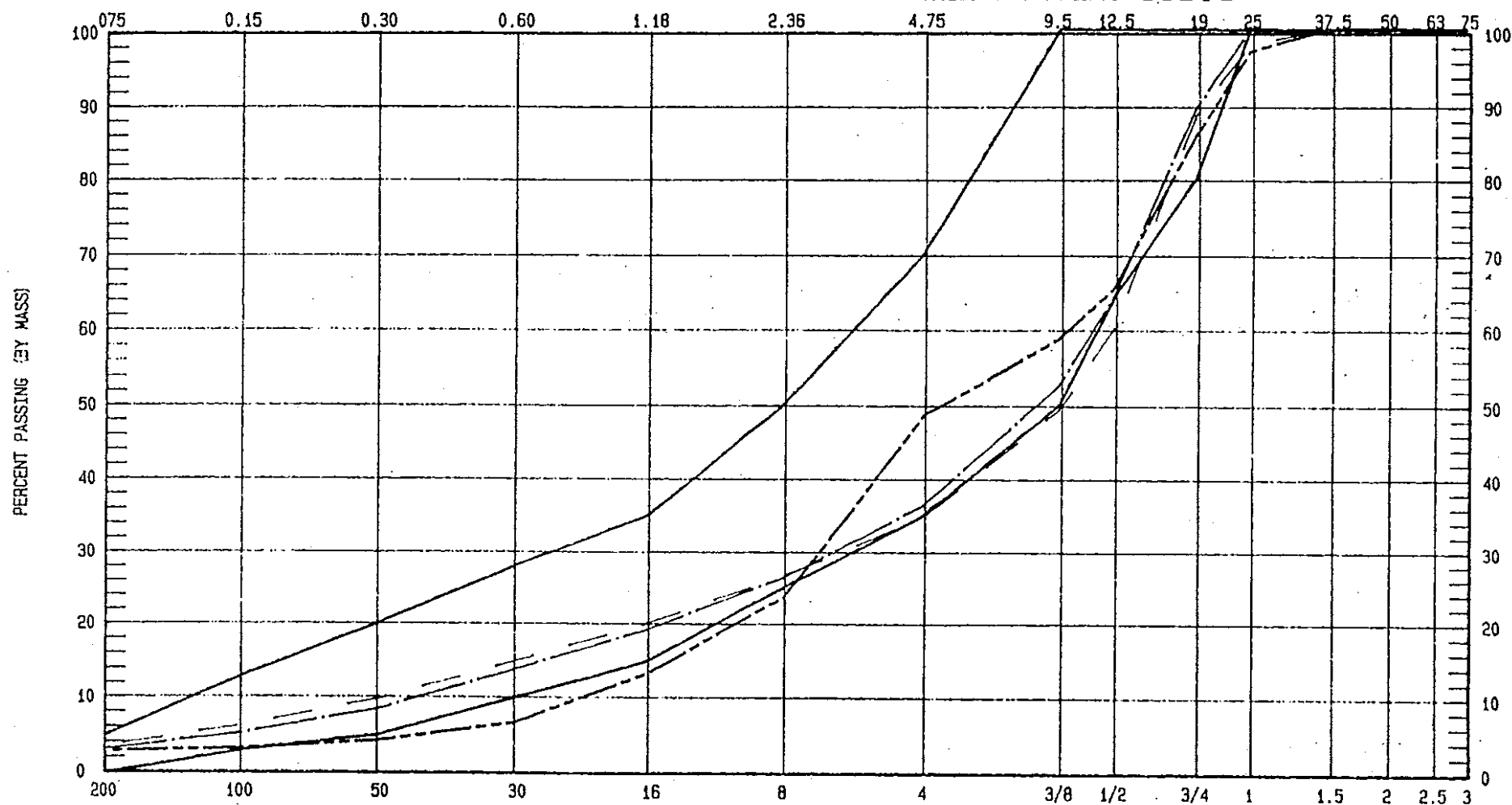
AGGREGATE GRADATION CHART

REGION: NELSON

PROJECT: BORUCH INVES

DISTRICT: REVELSTOKE

SIEVE OPENING (mm) FILE NUMBER: 3821C



PLOT OF:

25mm LAB CRUSH

U.S. STANDARD SIEVE SIZE

NOT CORR FOR O/S

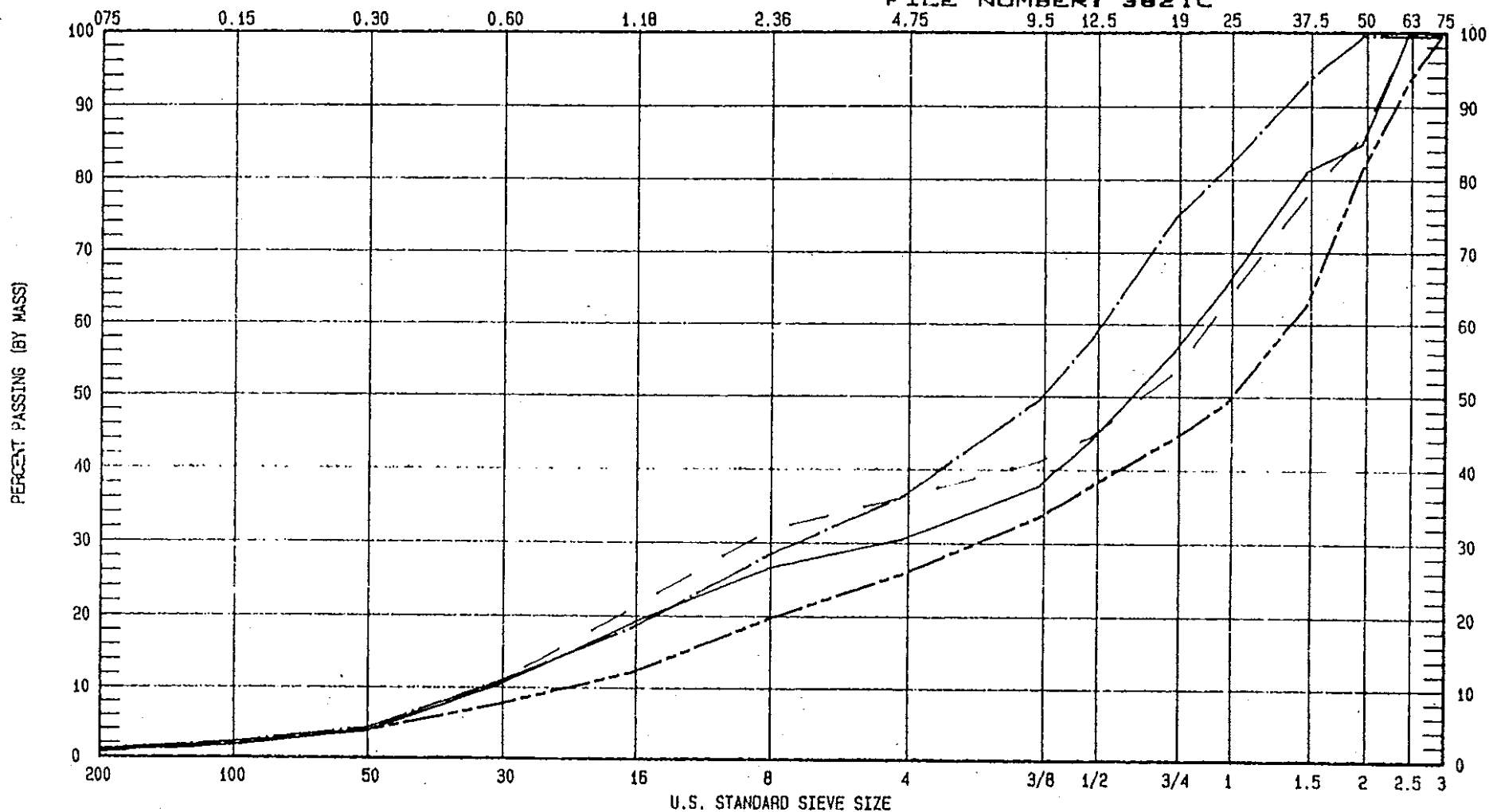
BAG #	SAMPLE #	TESTHOLE/PIT	DEPTH	SAMPLE OF	SAMPLED BY	METHOD	DATE	TESTED BY	DATE
X2604	1	87-4	0.1 to 6.0	1	SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87
X2605	2	87-5	0.7 to 7.0	1	SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87
X2607	3	87-7	1.0 to 6.0	1	SH	EXCAVATOR	FEB 12 87	LAB	FEB 26 87

AGGREGATE GRADATION CHART

REGION: NELSON
PROJECT: BURUCH INVEST
DISTRICT: NEVELSTOCK

SIEVE OPENING (mm)

FILE NUMBER: 3821C



PLOT OF: PIT RUN

BAG #	SAMPLE #	TESTHOLE/PIT	DEPTH	SAMPLE OF	SAMPLED BY	METHOD	DATE	TESTED BY	DATE
X3954	1 86-1	0.0 to 6.5		SH	EXCAVATOR		AUG 12 86	LAB	SEP 25 86
CLASS:GW	CU:45.4	CZ: 1.6		+225: 7	+150: 10	+75: 12	+4.75: 73	SAND: 25	FINES: 2
X3955	1 86-2	0.3 to 7.0		SH	EXCAVATOR		AUG 12 86	LAB	SEP 25 86
CLASS:GP	CU:44.2	CZ: 0.4		+225: 5	+150: 7	+75: 10	+4.75: 63	SAND: 36	FINES: 1
X3960	1 86-5	3.0 to 7.0		SH	EXCAVATOR		AUG 12 86	LAB	SEP 25 86
CLASS:GW	CU:25.6	CZ: 1.0		+225: 2	+150: 5	+75: 10	+4.75: 63	SAND: 35	FINES: 2
X3961	1 86-6	1.0 to 7.0		SH	EXCAVATOR		AUG 12 86	LAB	SEP 23 86
CLASS:GW	CU:39.4	CZ: 1.3		+225: 10	+150: 12	+75: 12	+4.75: 65	SAND: 30	FINES: 2

PIT RUN

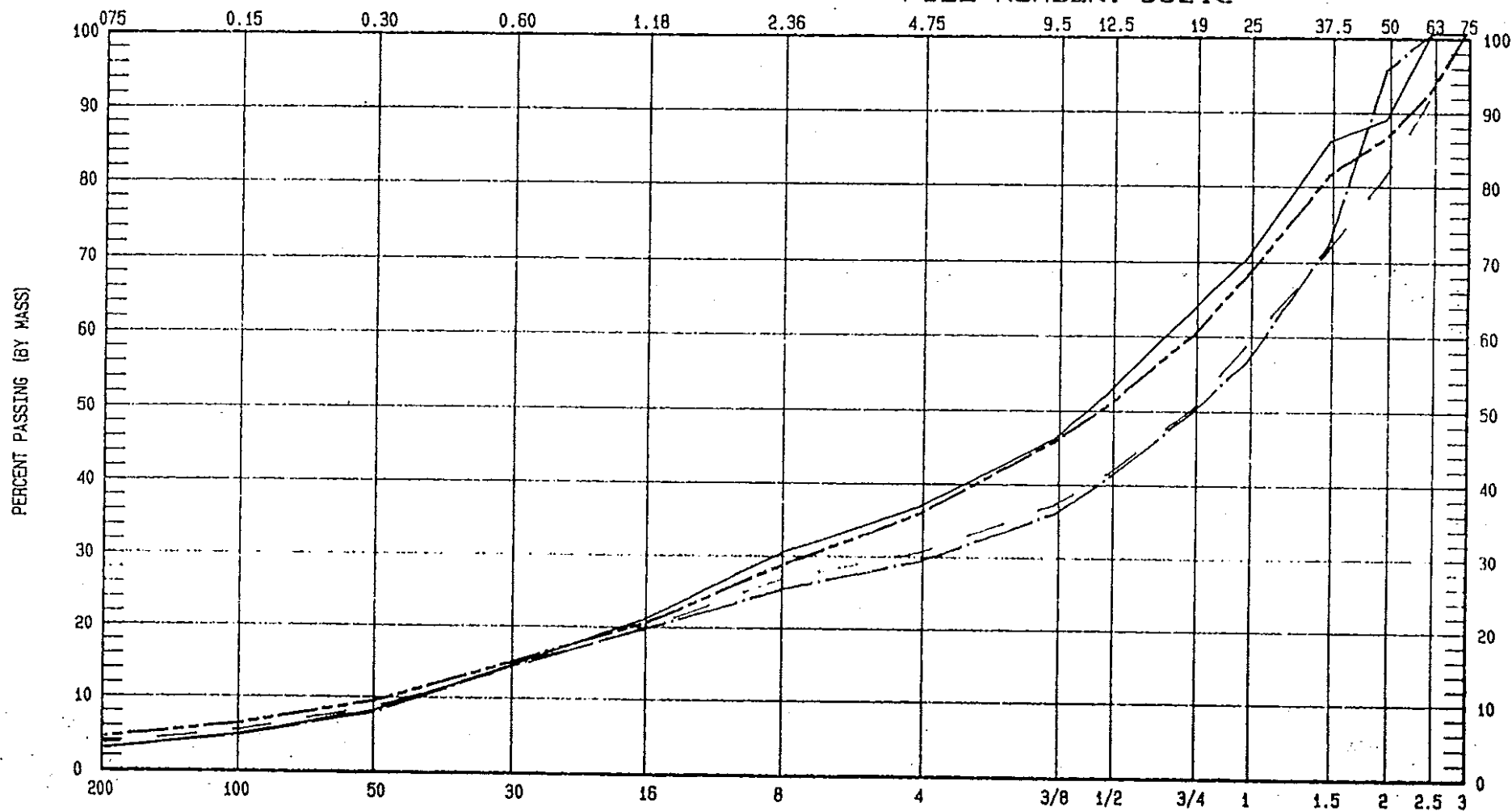
AGGREGATE GRADATION CHART

REGION: NELSON

PROJECT: BURUCH INVEST

DISTRICT: REVELSTOKE

SIEVE OPENING (mm) FILE NUMBER: 3821C



PLOT OF: PIT RUN

U.S. STANDARD SIEVE SIZE

NOT CORR FOR 0/S

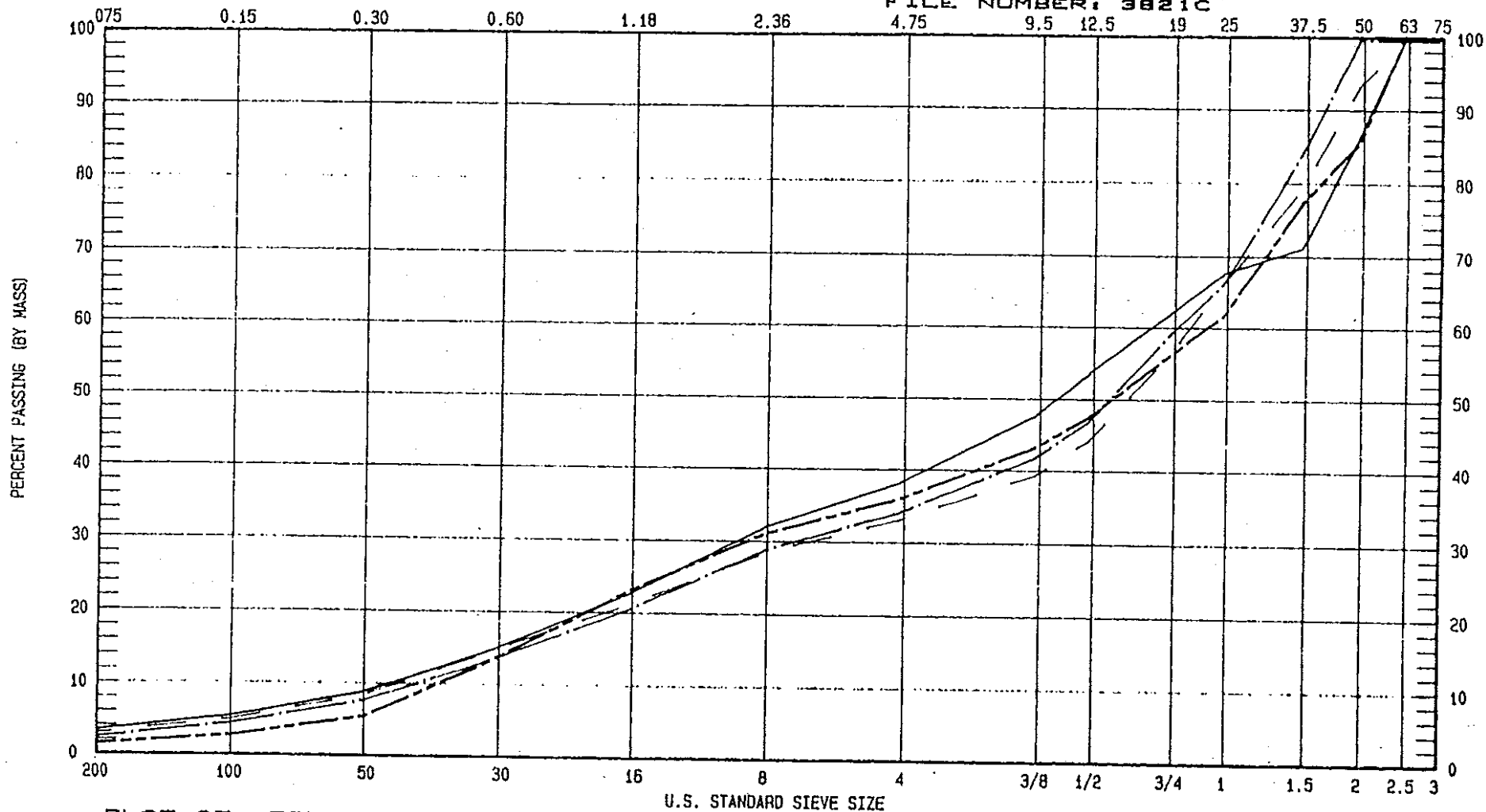
BAG #	SAMPLE #	TESTHOLE/PIT	DEPTH	SAMPLE OF	SAMPLED BY	METHOD	DATE	TESTED BY	DATE
X3962	1	86-7	0.6 to 3.5		SH	EXCAVATOR	AUG 12 86	LAB	SEP 25 86
X3963	2	86-7	3.5 to 7.0		SH	EXCAVATOR	AUG 12 86	LAB	SEP 25 86
X3964	1	86-8	0.9 to 7.0		SH	EXCAVATOR	AUG 12 86	LAB	SEP 25 86
X3966	1	86-9	0.2 to 6.5		SH	EXCAVATOR	AUG 12 86	LAB	SEP 29 86

AGGREGATE GRADATION CHART

REGION: NELSON
PROJECT: BURUCH INVEST
DISTRICT: REVELSTOKE

SIEVE OPENING (mm)

FILE NUMBER: 3821C



PLOT OF: PIT RUN

BAG #		SAMPLE #	TESTHOLE/PIT	DEPTH	SAMPLE OF	SAMPLED BY	METHOD	NOT CORN FOR O/S	DATE	TESTED BY	DATE
-----	X3967	1 86-10	0.8 to 2.0	2	SH	EXCAVATOR	AUG 12 86			LAB	SEP 29 86
-----	X3968	2 86-10	2.0 to 7.0	2	SH	EXCAVATOR	AUG 12 86			LAB	SEP 29 86
-----	X3969	1 86-11	0.5 to 7.0		SH	EXCAVATOR	AUG 12 86			LAB	SEP 29 86
-----	X3970	1 86-12	2.0 to 6.0	1	SH	EXCAVATOR	AUG 12 86			LAB	SEP 29 86

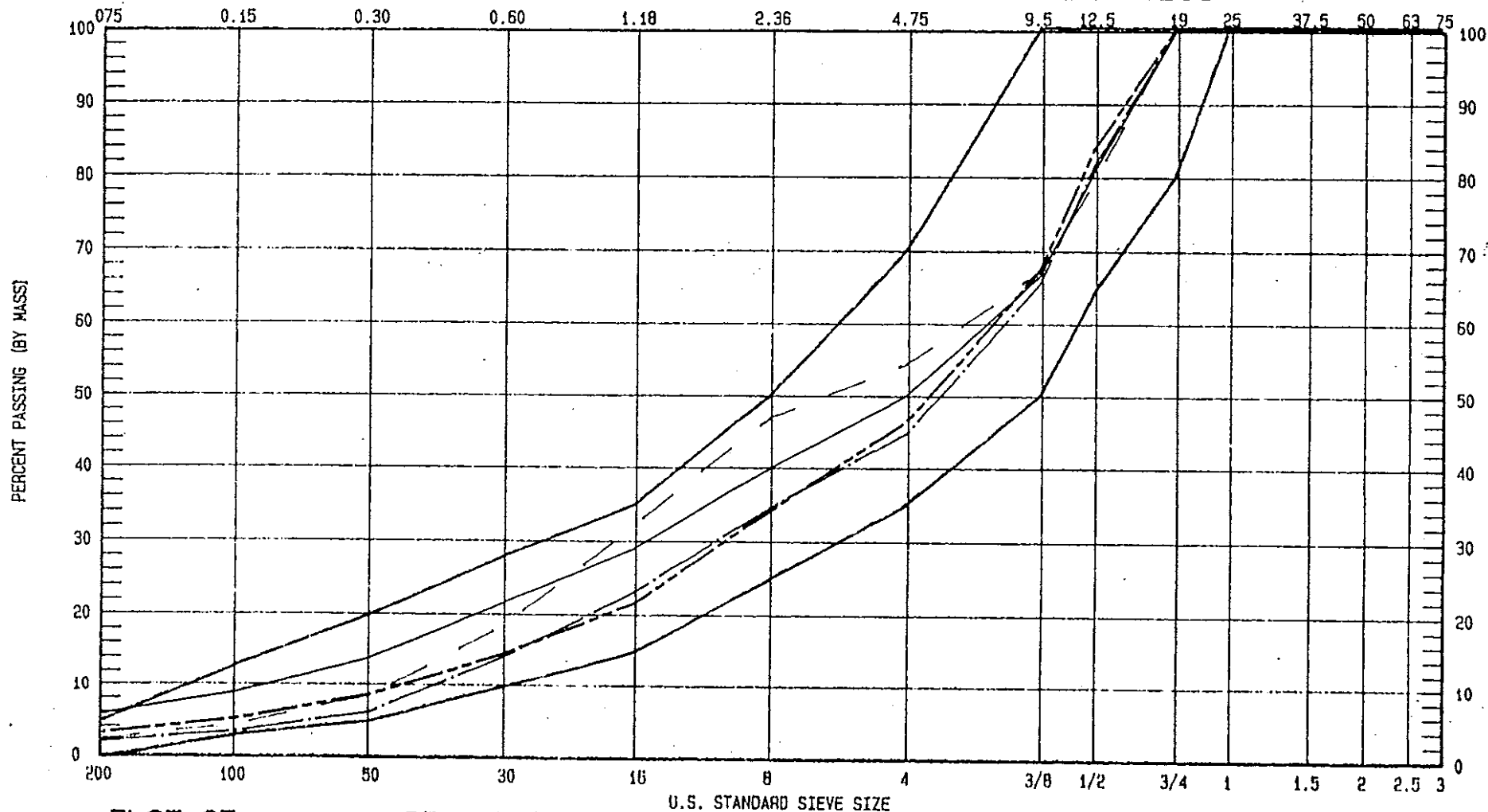
AGGREGATE GRADATION CHART

REGION: NELSON

PROJECT: BORUCH INVES

DISTRICT: REVELSTOKE

SIEVE OPENING (mm) FILE NUMBER: 3821C



PLOT OF:

25mm LAB CRUSH

U.S. STANDARD SIEVE SIZE

NOT CORR FOR 0/5

NOT CORN FOR 6/8									
BAG #	SAMPLE #	TESTHOLE/PIT	DEPTH	SAMPLE OF	SAMPLED BY	METHOD	DATE	TESTED BY	DATE
X3954	1 86-1	0.0 to 5.5	AREA B	SH	EXCAVATOR	AUG 12 86		LAB	SEP 25 86
X3955	1 86-2	0.3 to 7.0	AREA B	SH	EXCAVATOR	AUG 12 86		LAB	SEP 25 86
X3958	1 86-5	0.3 to 7.0	AREA C	SH	EXCAVATOR	AUG 12 86		LAB	SEP 25 86
X3962	1 86-7	0.6 to 3.5	AREA C	SH	EXCAVATOR	AUG 12 86		LAB	SEP 25 86

AGGREGATE GRADATION CHART

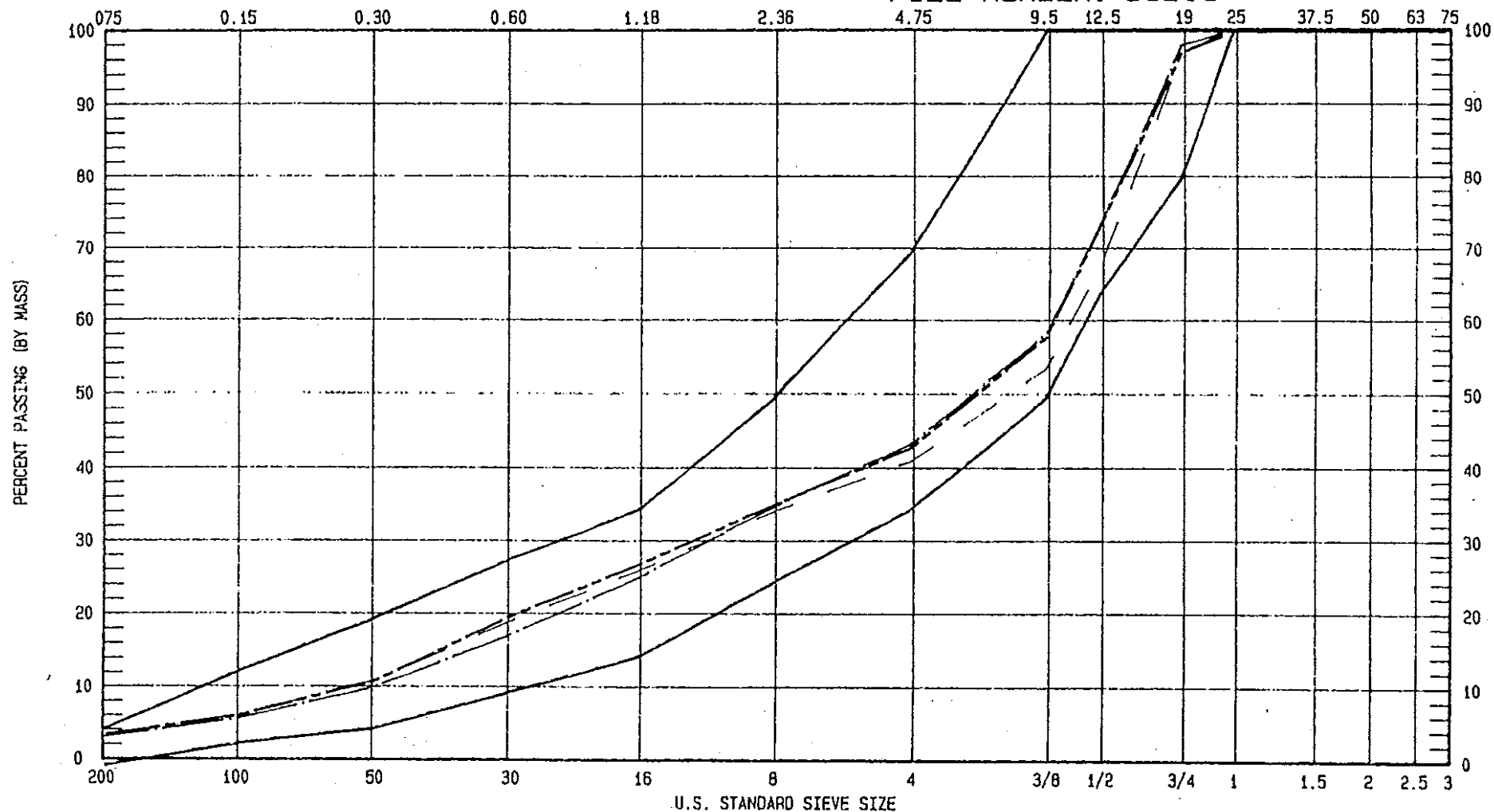
REGION: NELSON

PROJECT: BORUCH INVES

DISTRICT: REVELSTOKE

SIEVE OPENING (mm)

FILE NUMBER: 3821C



PLOT OF: 25mm LAB CRUSH

BAG # SAMPLE # TESTHOLE/PIT DEPTH SAMPLE OF

X3964	1 86-8	0.5 to 7.0
X3968	2 86-10	2.0 to 7.0
X3969	1 86-11	0.5 to 7.0

SAMPLED BY METHOD DATE TESTED BY

SH	EXCAVATOR	AUG 12 86
SH	EXCAVATOR	AUG 12 86
SH	EXCAVATOR	AUG 12 86

DATE

LAB	SEP 25 86
LAB	SEP 25 86
LAB	SEP 25 86

AGGREGATE GRADATION CHART

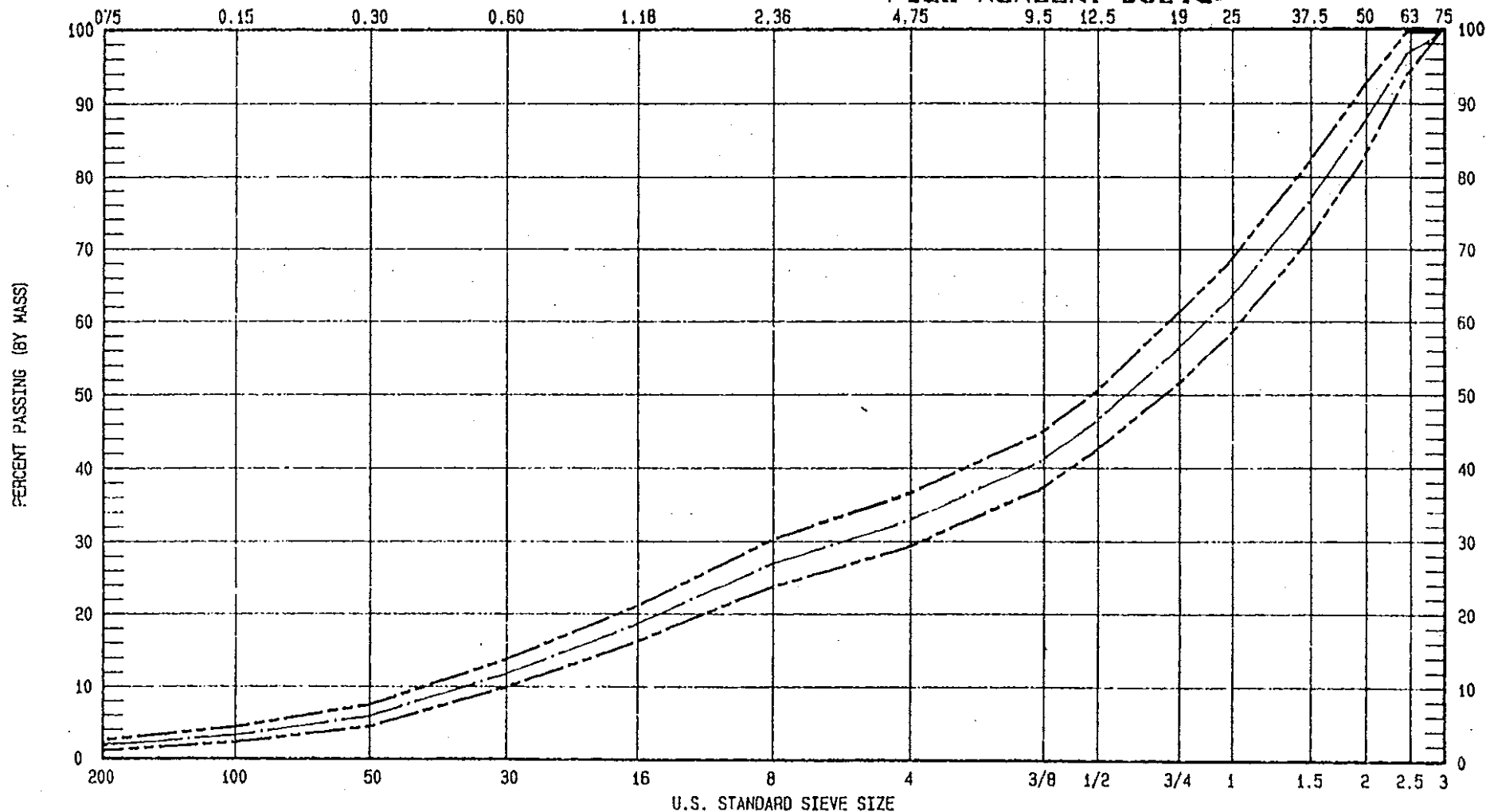
REGION: NELSON

PROJECT: BORUCH INVESTIGATION

DISTRICT: REVELSTOKE

SIEVE OPENING (mm)

FILE NUMBER: 3821C



STATISTICS PLOT OF: AREA 8+C

BAG # SAMPLE # TESTHOLE/PIT DEPTH SAMPLE OF SAMPLED BY METHOD DATE TESTED BY DATE

MEAN

UPPER CONFIDENCE LEVEL (98%)

LOWER CONFIDENCE LEVEL (98%)

CLASS: GW CU: 48.7 CZ: 1.0 +225: 11 +150: 11 +75: 11 +4.75: 68 SAND: 31 FINES: 2

SIEVE ANALYSIS SUMMARY REPORT - ASTM C136, C117

GRAN_SVE.XLW

Rev. 6/19/96

Project: Woods O/H
Project No.: 090-79750
Material: Pit Run
Sample Source: WAP Pit
Client: MOT

TP / TH #: TP02-07 Depth: Grab
Bag No.: 31032
Date Rec'd: 10-Jul-02 Date Tested: Jul-02
Tested By: D.P. Sample No.:
Sampled By: A.R.M. Lab. No.: 728-1

Sieve Fraction Size, mm	Cumulative % Passing	MOTH Specifications
75	100.0	
37.5	100.0	
19	100.0	
9.5	100.0	
4.75	100.0	
2.36	99.3	
1.18	87.3	
0.6	43.8	
0.3	6.9	
0.075	0.8	

Test Mass 1036.5 gm

Deg SE

Fracture PI %

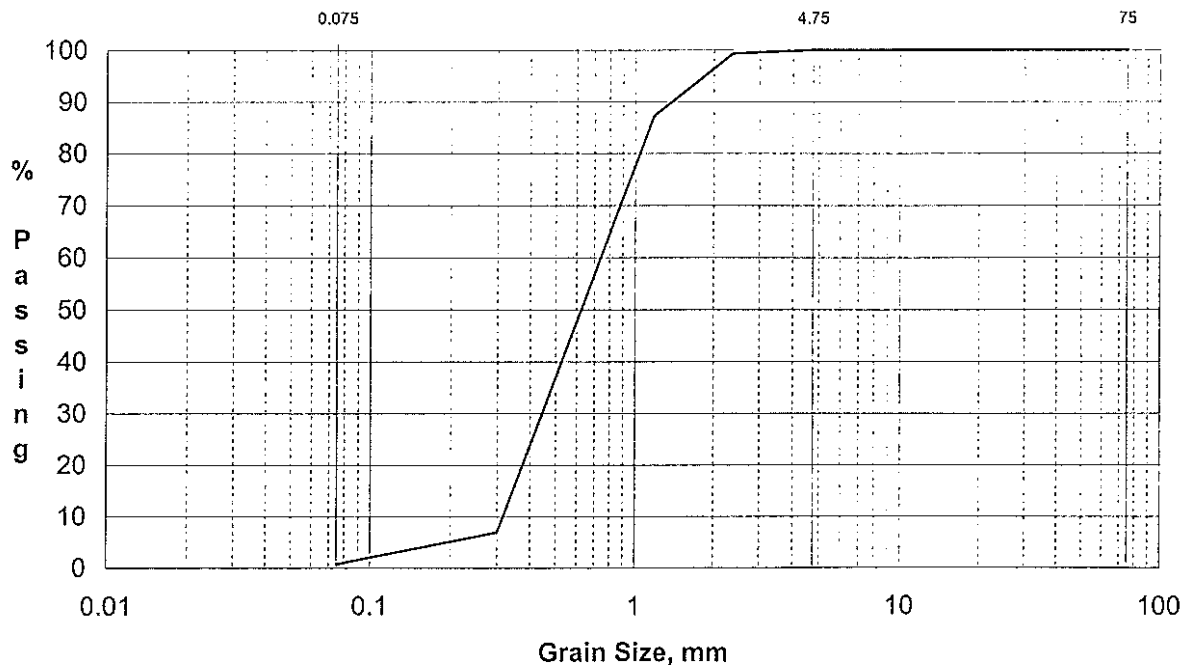
% Gravel Cc 1

% Sand 99.2 Cu 2

% Fines 0.8 USCS SP

Comments:

Grain Size Distribution Chart



SIEVE ANALYSIS SUMMARY REPORT - ASTM C136, C117

GRAN_SVE.XLW

Rev. 6/19/96

Project: Woods O/H
Project No.:
Material: Pit Run
Sample Source: Wap Pit
Client: MOTH

TP / TH #: 02-20 Depth: 2.0-5.0
Bag No.: 182
Date Rec'd: Aug. /02 Date Tested: Sept. 9/02
Tested By: A & S Sample No.: Pit Run
Sampled By: Lab. No.: 728-3

Sieve Fraction Size, mm	Cumulative % Passing	MOTH Specifications
75	100.0	
37.5	85.9	
19	70.7	
9.5	55.2	
4.75	41.6	
2.36	29.8	
1.18	21.3	
0.6	15.6	
0.3	10.0	
0.075	3.2	

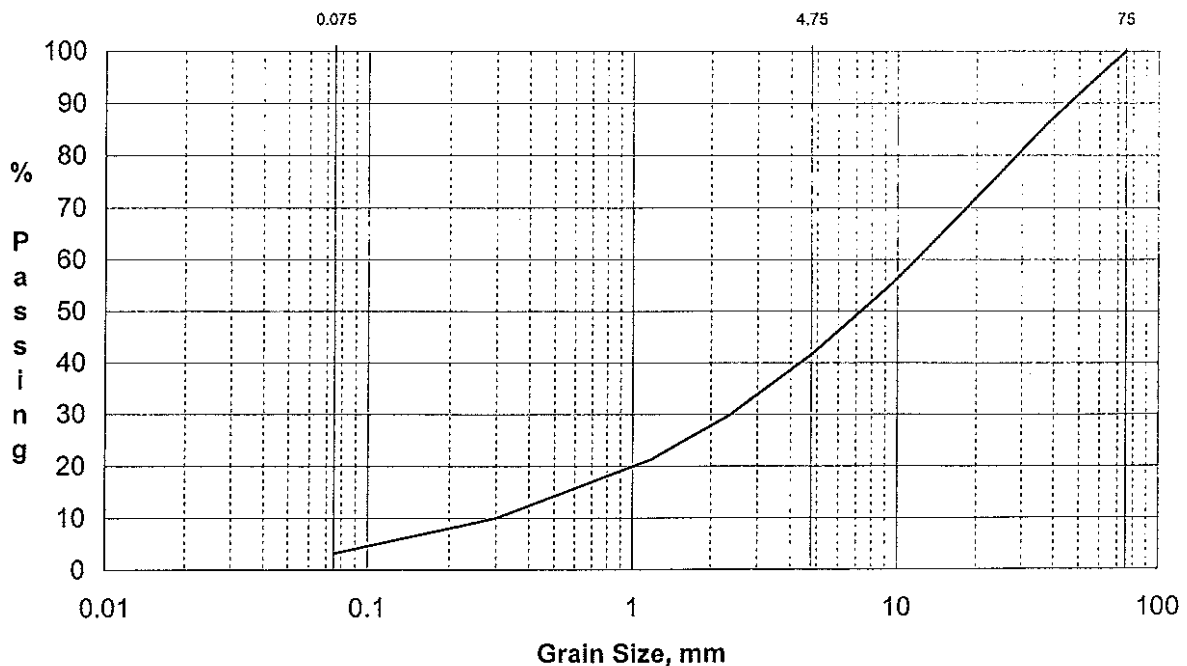
Test Mass 6731.6 gm

Deg SE
Fracture PI %

% Gravel 58.4 Cc 1
% Sand 38.4 Cu 59
% Fines 3.2 USCS GW

Comments:

Grain Size Distribution Chart



SIEVE ANALYSIS SUMMARY REPORT - ASTM C136, C117

GRAN_SVE.XLW

Rev. 6/19/96

Project:	Woods O/H	TP / TH #:	02-18	Depth:	1.0-4.0
Project No.:		Bag No.:	30102		
Material:	Pit Run	Date Rec'd:	Aug. /02	Date Tested:	Sept. 9/02
Sample Source:	Wap Pit	Tested By:	A & S	Sample No.:	Pit Run
Client:	MOTH	Sampled By:		Lab. No.:	728-2

Sieve Fraction Size, mm	Cumulative % Passing	MOTH Specifications
75	100.0	
37.5	78.2	
19	54.6	
9.5	41.7	
4.75	33.1	
2.36	27.4	
1.18	23.0	
0.6	18.8	
0.3	13.5	
0.075	5.2	

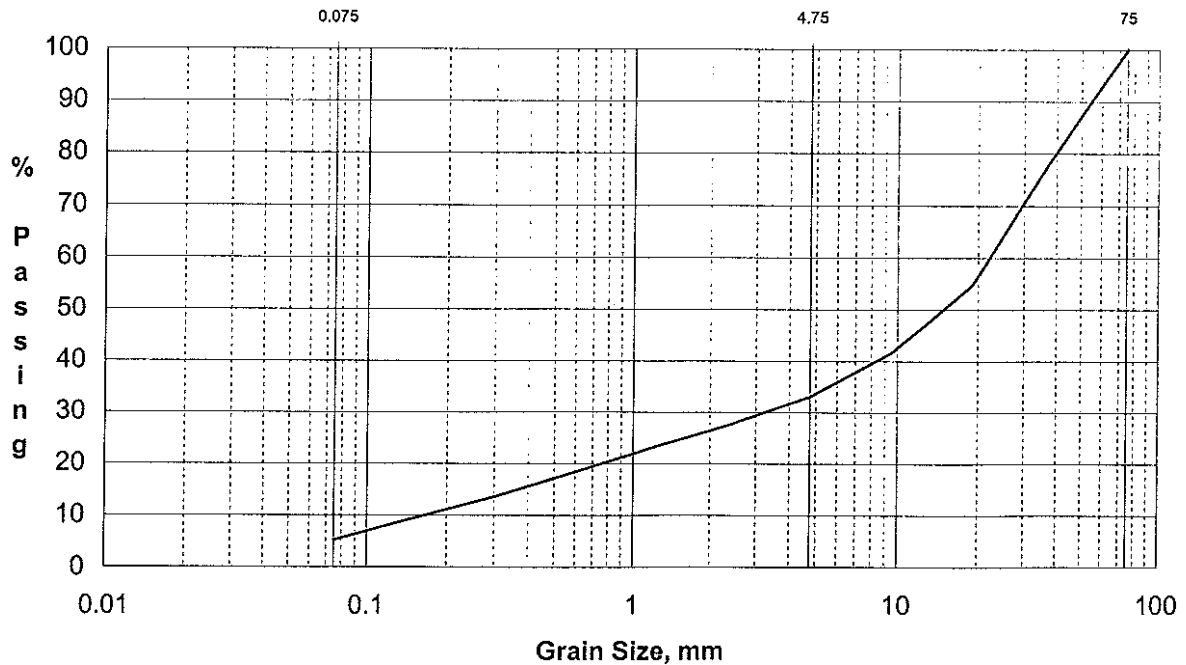
Test Mass 7248.5 gm

Deg SE
Fracture PI %

% Gravel 66.9 Cc 3
% Sand 27.9 Cu 133
% Fines 5.2 USCS GW-GM

Comments:

Grain Size Distribution Chart



SIEVE ANALYSIS SUMMARY REPORT - ASTM C136, C117

GRAN_SVE.XLW

Rev. 6/19/96

Project: Woods O/H
Project No.: _____
Material: Pit Run
Sample Source: Wap Pit
Client: MOTH

TP / TH #: 02-24 Depth: 1.0-4.0
Bag No.: 51299
Date Rec'd: Aug. /02 Date Tested: Sept. 9/02
Tested By: A & S Sample No.: Pit Run
Sampled By: _____ Lab. No.: 728-5

Sieve Fraction Size, mm	Cumulative % Passing		MOTH Specifications
75	100.0		
37.5	86.3		
19	76.2		
9.5	68.2		
4.75	61.3		
2.36	51.1		
1.18	32.5		
0.6	13.1		
0.3	3.9		
0.075	1.1		

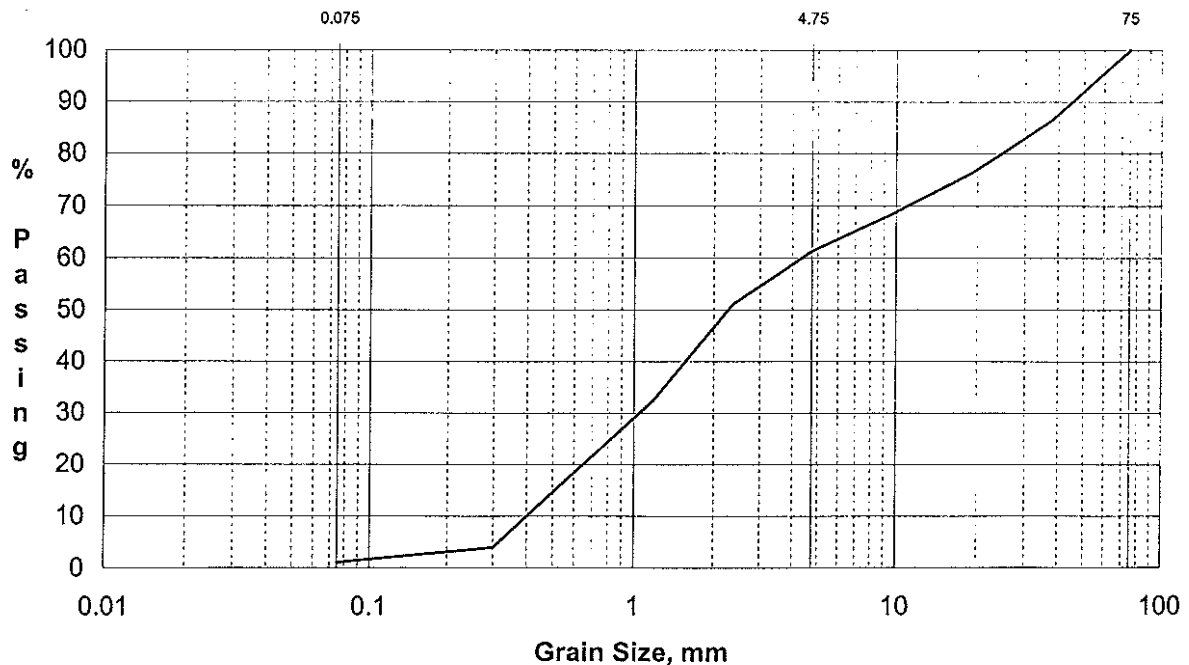
Test Mass 6761.1 gm

Deg _____ SE _____
Fracture _____ PI % _____

% Gravel 38.7 Cc 1
% Sand 60.2 Cu 11
% Fines 1.1 USCS SP

Comments:

Grain Size Distribution Chart



SIEVE ANALYSIS SUMMARY REPORT - ASTM C136, C117

GRAN_SVE.XLW

Rev. 6/19/96

Project:	<u>Woods O/H</u>	TP / TH #:	<u>02-27</u>	Depth:	<u>1.0-4.0</u>
Project No.:	<u></u>	Bag No.:	<u>906</u>		
Material:	<u>Pit Run</u>	Date Rec'd:	<u>Aug. /02</u>	Date Tested:	<u>Sept. 9/02</u>
Sample Source:	<u>Wap Pit</u>	Tested By:	<u>A & S</u>	Sample No.:	<u>Pit Run</u>
Client:	<u>MOTH</u>	Sampled By:	<u></u>	Lab. No.:	<u>728-6</u>

Sieve Fraction Size, mm	Cumulative % Passing		MOTH Specifications
75	100.0		
37.5	81.3		
19	63.0		
9.5	50.3		
4.75	36.3		
2.36	25.9		
1.18	16.9		
0.6	10.8		
0.3	5.5		
0.075	1.5		

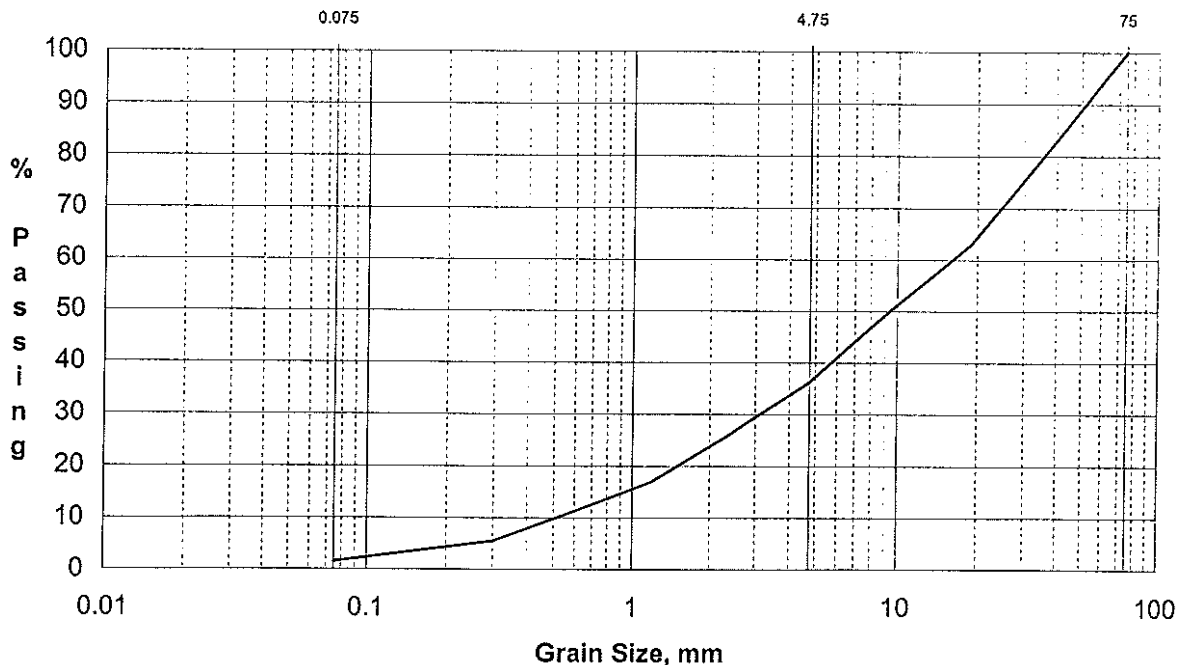
Test Mass 6801 gm

Deg SE
Fracture PI %

% Gravel	<u>63.7</u>	Cc	<u>0</u>
% Sand	<u>34.8</u>	Cu	<u>78</u>
% Fines	<u>1.5</u>	USCS	<u>GP</u>

Comments:

Grain Size Distribution Chart



SIEVE ANALYSIS SUMMARY REPORT - ASTM C136, C117

GRAN_SVE.XLW

Rev. 6/19/96

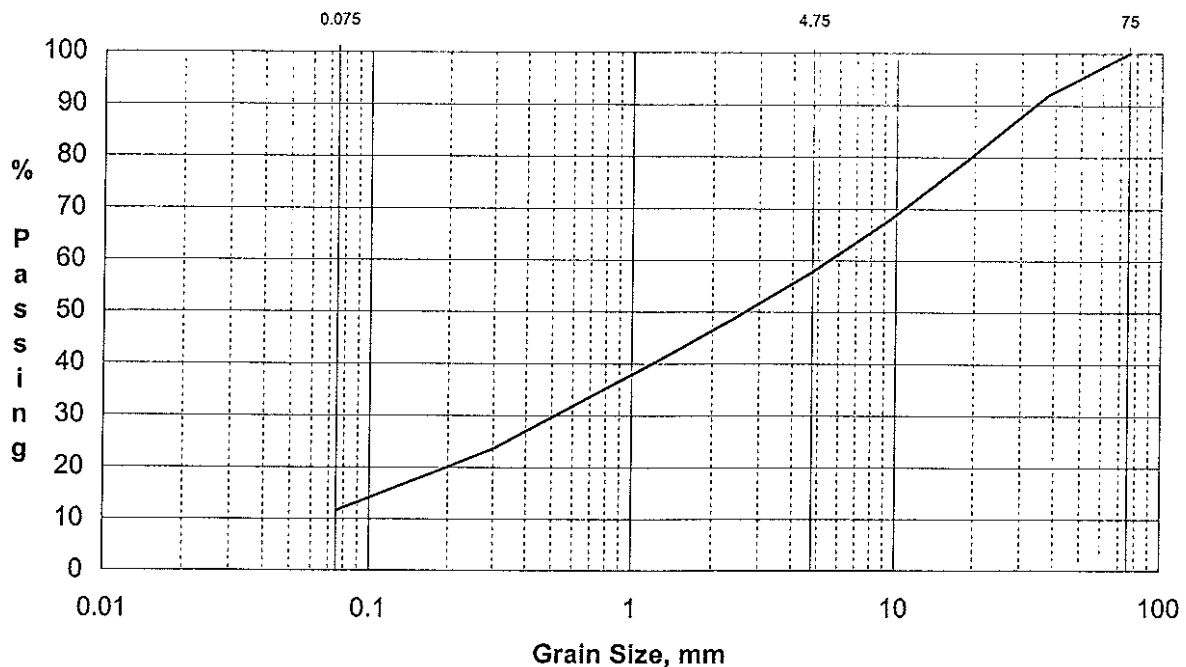
Project:	<u>Woods O/H</u>	TP / TH #:	<u>02-21</u>	Depth:	<u>1.0-5.0</u>
Project No.:	<u></u>	Bag No.:	<u>21865</u>		
Material:	<u>Pit Run</u>	Date Rec'd:	<u>Aug. /02</u>	Date Tested:	<u>Sept. 9/02</u>
Sample Source:	<u>Wap Pit</u>	Tested By:	<u>A & S</u>	Sample No.:	<u>Pit Run</u>
Client:	<u>MOTH</u>	Sampled By:	<u></u>	Lab. No.:	<u>728-4</u>

Sieve Fraction Size, mm	Cumulative % Passing		MOTH Specifications
75	100.0		
37.5	92.0		
19	79.6		
9.5	68.0		
4.75	57.8		
2.36	48.4		
1.18	39.9		
0.6	32.3		
0.3	23.6		
0.075	11.6		

Test Mass	<u>8205</u>	gm	
Deg	<u></u>	SE	<u></u>
Fracture	<u></u>	PI %	<u></u>
% Gravel	<u>42.2</u>	Cc	<u>1</u>
% Sand	<u>46.2</u>	Cu	<u>97</u>
% Fines	<u>11.6</u>	USCS	<u>SP-SM</u>

Comments:

Grain Size Distribution Chart



REPORT OF: DEGRADATION AND SAND EQUIVALENT TESTS

Project: Woods Overhead
Project

Aggregate Source: Wap Pit
Date Sampled: Aug. 2002
Date Printed: Sep 10 2002

DEGRADATION (B.C.H. 1-9)				
LAB #	728-2	728-3	728-6	
TP/TH	02-18	02-20	02-27	
Bag #	30102	182	906	
Depth (m)	1.0-4.0	2.0-5.0	1.0-4.0	
Sediment Height (H)	0.8	0.8	0.7	
Dry Mass Before Wash (g)	1000.0	1000.0	1000.0	
Dry Mass After Wash (g)	990.0	994.2	995.2	
Mass Loss (g)	10.0	5.8	4.8	
Loss %	1.0%	0.6%	0.5%	
DEGRADATION FACTOR	86.6%	86.6%	88.1%	
Standard Specifications For Highway Construction		Specification	DEG. FACTOR = $\frac{15 - H}{15 + 1.75 H} \times 100$	
Section 202, Granular Surfacing, Base & Sub-Base		Min. 35		
Section 223, Hot-Mix Asphalt Pavement		Min. 35		
Section 224, Asphalt Surface Treatments		Min. 40		

SAND EQUIVALENT (ASTM D2419)					
Lab #	728-2	728-3	728-6	728-4	728-5
TP/TH	02-18	02-20	02-27	02-21	02-24
Bag No.	30102	182	906	29865	51299
Sediment Height	4.2	4.1	3.7	7.3	3.8
Sand Height	2.8	3.3	2.9	2.6	3.3
% Pass 4.75 mm (B)					
% Pass 0.075 mm (A)					
% Fines In Sand (A / B X100)					
SAND EQUIVALENT %	66.7%	80.5%	78.4%	35.6%	86.8%
Standard Specifications For Highway Construction		Specification	SAND EQUIVALENT = $\frac{\text{SAND HEIGHT}}{\text{CLAY HEIGHT}} \times 100$		
Section 202, Granular Surfacing, Base & Sub-Base					
25mm, 50mm Base Course Aggregate		Min. 40			
75mm Base Course Aggregate		Min. 30			
Sub-Base & Surfacing Aggregate		Min. 20			
Section 223, Hot-Mix Asphalt Pavement		Min. 40			

COMMENTS:

CC:

LAB STAFF: