

SOILS LOGS

DEMPSTER M 268.6 - 289.7

DRILLED BY WHITEHORSE

" " WESTERN - borrowed by
Valley Home 2/2/72

549

D1 1972 00679 PWC-1

T-549

D1-679

BORE HOLE NO. **RR-21** BORE HOLE POSITION **3356+00**

DATE AND TIME **June 24/72**

OPW TECHNICIAN _____ STARTED: _____ FINISHED: _____

CONTRACTOR _____ DRILLER _____

METHOD OF BORING _____ GAUGE READING _____

SOIL: _____ ROCK: _____ CASING HAMMER WT.LBS. DROP.....INCHES

DESCRIPTION OF STRATA	DEPTH (FT.)	ELEV. (FT.)	BLOWS PER FOOT	SAMPLE			BLOWS PER 6 IN.	SAMPLE NO.	SAMPLE DESCRIPTION AND BORING NOTES
				NO.	SYM-BOL	TYPE			
.....	0								.....
.....	1								.....
.....	2								.....
.....	3								.....
.....	4								.....
.....	5								.....
.....	6								.....
.....	7								.....
.....	8								.....
.....	9			33	1111	A			.....
.....	10			34					.....

GRAIN SIZE ANALYSIS

VE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
1	97.8						
2	89.2						
3	77.4						
4	68.7						
5	60.4						
6	54.3						

LE	CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
		24.1	23.3	.8	29.4	
	ML - INORGANIC SANDY SILT					SILT-SAND MIXTURE

CRUSH COUNT %

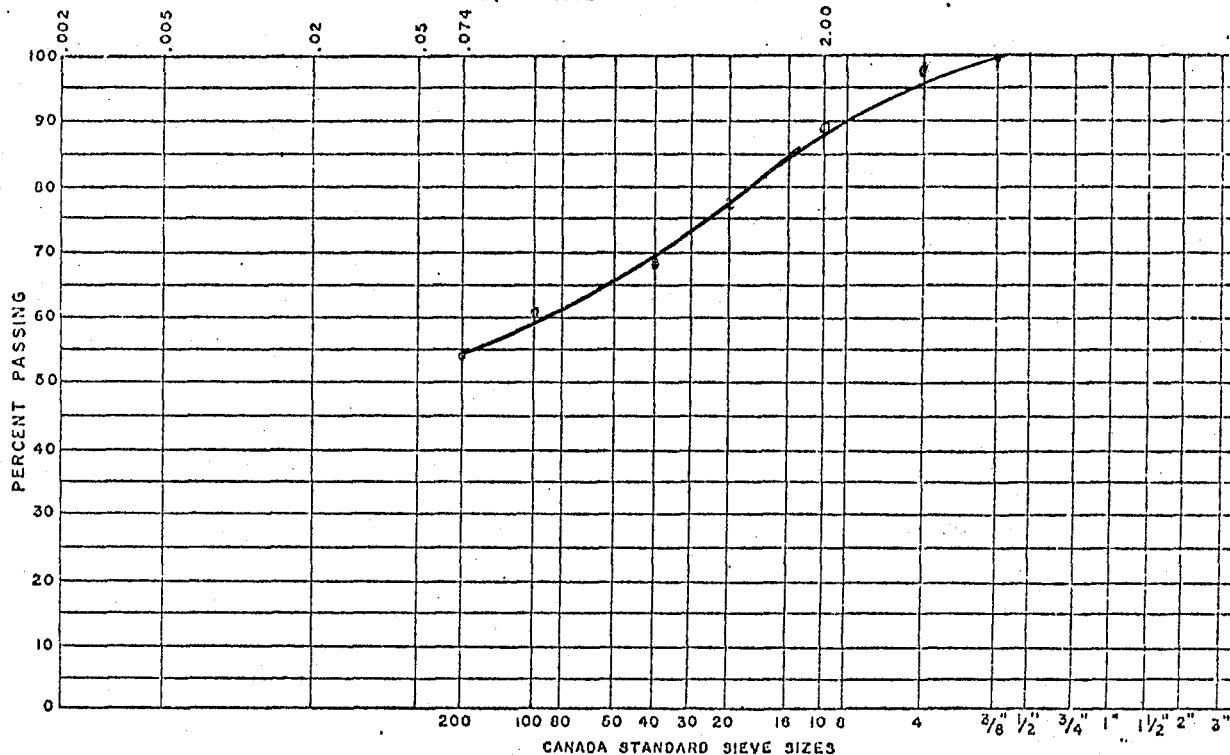
PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE
ALT	
STONE	
MITIC	
OSTONE	
LE	
IST	
RTZITE	
ERS	

PARTICLE SHAPE ANALYSIS

ND	
-ROUND	
ULAR	
-ANGULAR	
TS	

GRAIN SIZE IN MILLIMETERS



CLAY	SILT	SAND	GRAVEL
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PROJECT DENPSTER HIGHWAY

LOCATION STATION 3356+00

HOLE NO. RR21

DEPTH 9'-10' FIELD NO. 33

SAMPLE TYPE BAC

LAB. NO.
4790

LABORATORY'S REMARKS	DATE SAMPLED
<u>SANDY SILT (L.P.)</u>	<u>24-6-72</u>
	<u>30-6-72</u>
	<u>10-8-72</u>

GRAIN SIZE ANALYSIS

SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
3/4"	100	200	44.9				
1/2	96.4						
3/8	93.5						
4	83.1						
10	69.0						
20	58.8						
40	52.9						
200	47.5						

SAMPLE NO.	CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
		27.3	17.9	9.4	15.2	
	SC - CLAYEY SAND					
	MEDIUM PLASTICITY					

CRUSH COUNT %

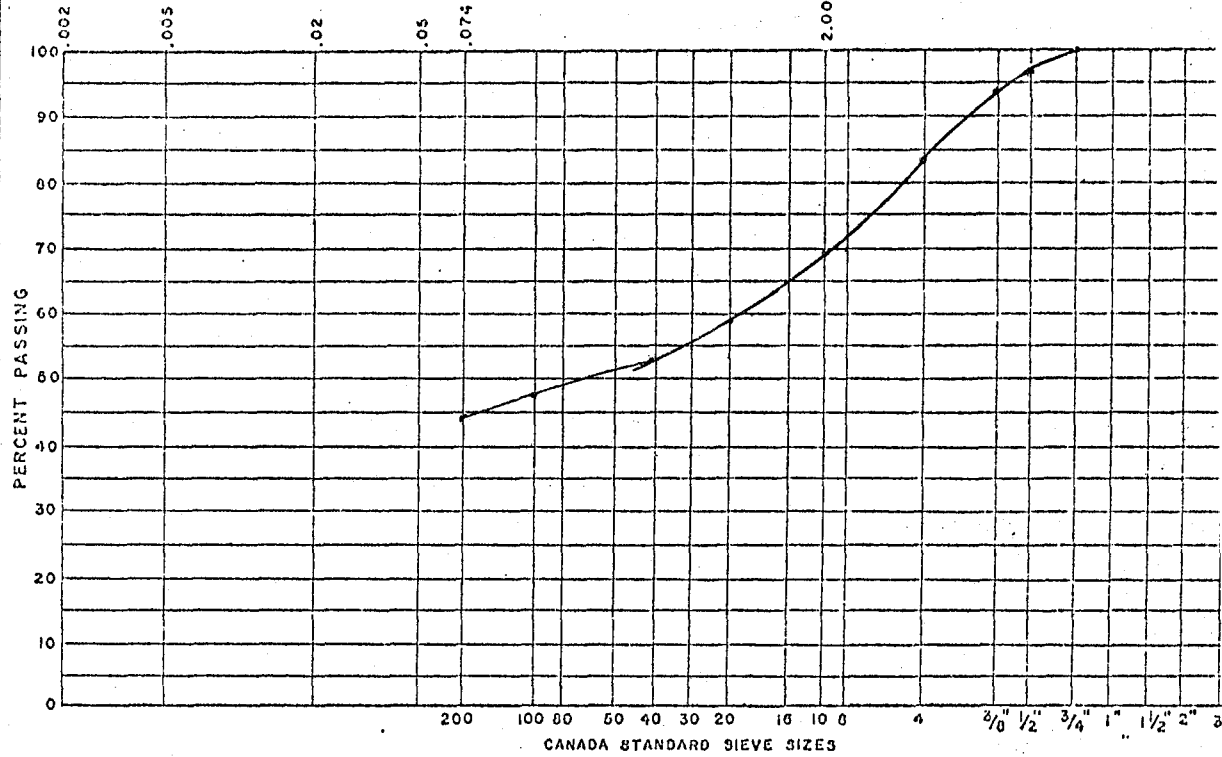
PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE
SALT	
GLAUCONITE	
AMPHIBOLE	
ROCK	
QUARTZ	
MICA	
CLAY	
OTHER	

PARTICLE SHAPE ANALYSIS

UNDULATING	
FLAT	
ANGULAR	
OTHER	

GRAIN SIZE IN MILLIMETERS



CLAY	SILT	SAND	GRAVEL

PROJECT ... DEMAREST HWY ...

LOCATION ... 3371 + 60 E ...

HOLE NO. ... RR 15 ...

DEPTH ... 5' ... FIELD NO. ... 27 ...

SAMPLE TYPE ... SPG ...

LAB. NO.
4784

LABORATORY'S REMARKS
CLAYEY SAND (M.P.)

DATE SAMPLED 23-6-72

DATE RECEIVED 30-6-72

DATE RECORDED 16-8-72

GRAIN SIZE ANALYSIS

SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
1/2"	100.0						
3/8"	99.4						
#4	95.6						
10	87.0						
20	78.9						
40	73.9						
100	68.2						
4200	65.5						

SAMPLE NO.	CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
		37.4	19.5	12.9	5.6	
	CL - INORGANIC SILTY SANDY CLAY MEDIUM PLASTICITY					

CRUSH COUNT %

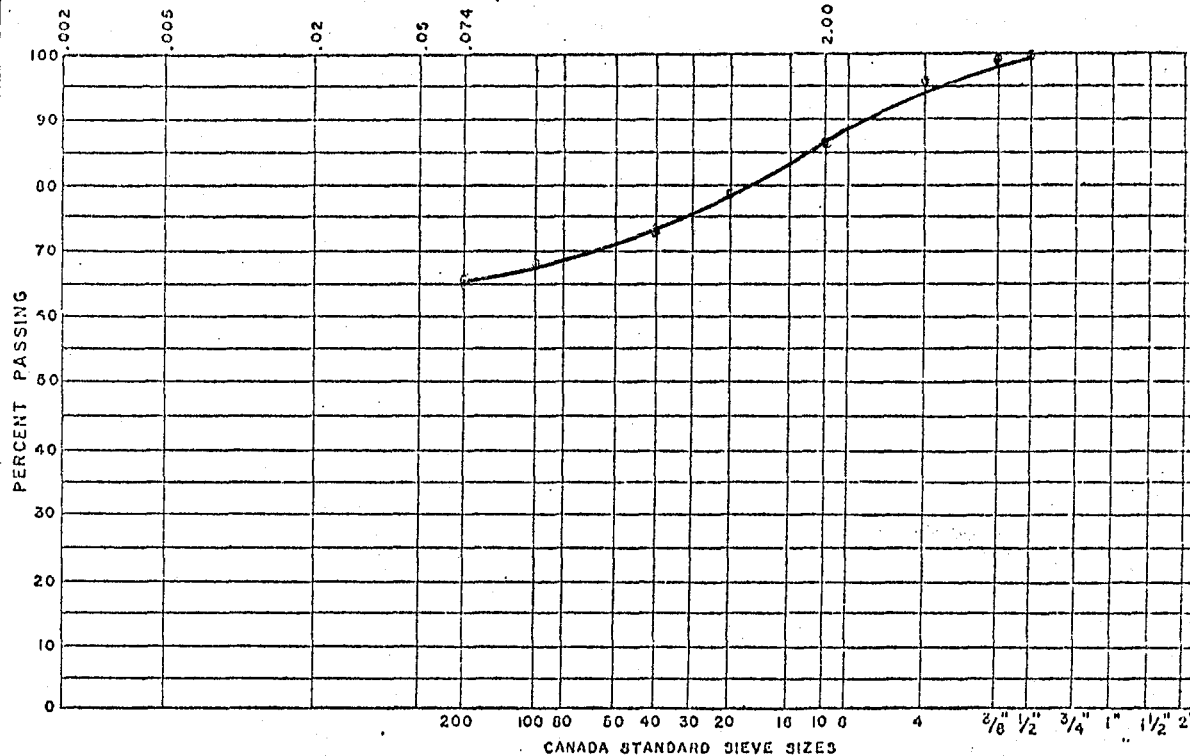
PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE
BASALT	
LIMESTONE	
GRANITIC	
SANDSTONE	
SHALE	
SCHIST	
QUARTZITE	
OTHERS	

PARTICLE SHAPE ANALYSIS

ROUND	
SUB-ROUND	
ANGULAR	
SUB-ANGULAR	
FLATS	

GRAIN SIZE IN MILLIMETERS



CLAY	SILT	SAND	GRAVEL
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PROJECT DENPSTER HIGHWAY
 LOCATION STATION 3371+00
 HOLE NO. RR 15
 DEPTH 10' FIELD NO. 28
 SAMPLE TYPE BOC

LAB. NO.
4785

LABORATORY'S REMARKS
SANDY CLAY (M.P.)

DATE SAMPLED 23-6-72
 DATE RECEIVED 30-6-72
 DATE RECORDED 14-8-72
 10

GRAIN SIZE ANALYSIS ^D _{MM} ^P _{MM}

SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
4	100.0			.052	84.7	.0040	49.6
10	94.0			.037	81.8		
20	87.4			.027	78.8		
40	85.9			.019	75.9		
100	83.5			.014	73.0		
200	80.9			.010	69.5		
				.0074	63.7		
				.0054	57.5		

UNIFORMITY NO.	CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
		58.1	51.6	6.5	131.2	
	ML-CL INORGANIC SANDY CLAYEY SILT LOW PLASTICITY					

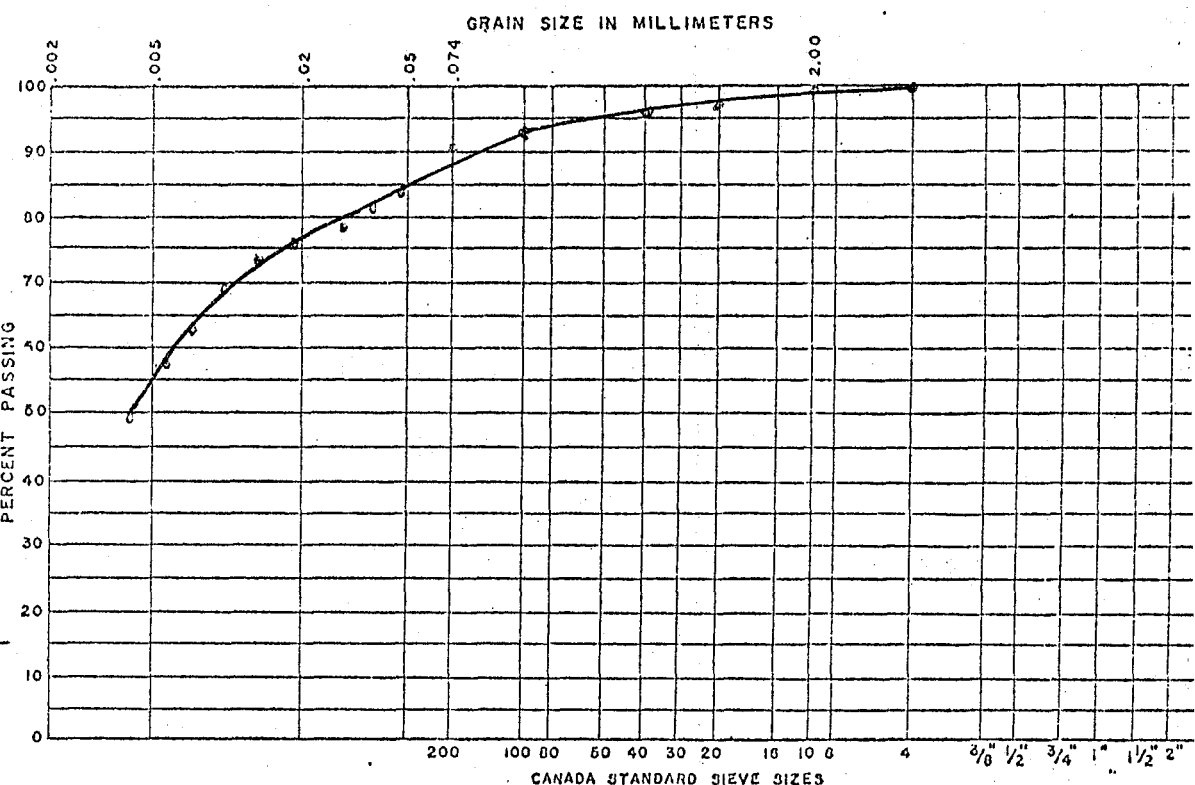
CRUSH COUNT	%

PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE
DIABASE	
SLATE	
GRANITE	
SANDSTONE	
SHALE	
GNEISS	
QUARTZITE	
OTHERS	

PARTICLE SHAPE ANALYSIS

ROUND	
SUB-ROUND	
IRREGULAR	
SUB-ANGULAR	
FLAT	



CLAY	SILT	SAND	GRAVEL

PROJECT DEMIPSTER HIGHWAY

LOCATION STATION 3396+000

HOLE NO. RR 14

DEPTH 4 1/2' FIELD NO. 25

SAMPLE TYPE B.G.C

LAB. NO.
4782

LABORATORY'S REMARKS
CLAYEY SILT (L.P.)

DATE SAMPLED 23-6-72

DATE RECEIVED 30-6-72

DATE RECORDED 14-8-72

GRAIN SIZE ANALYSIS

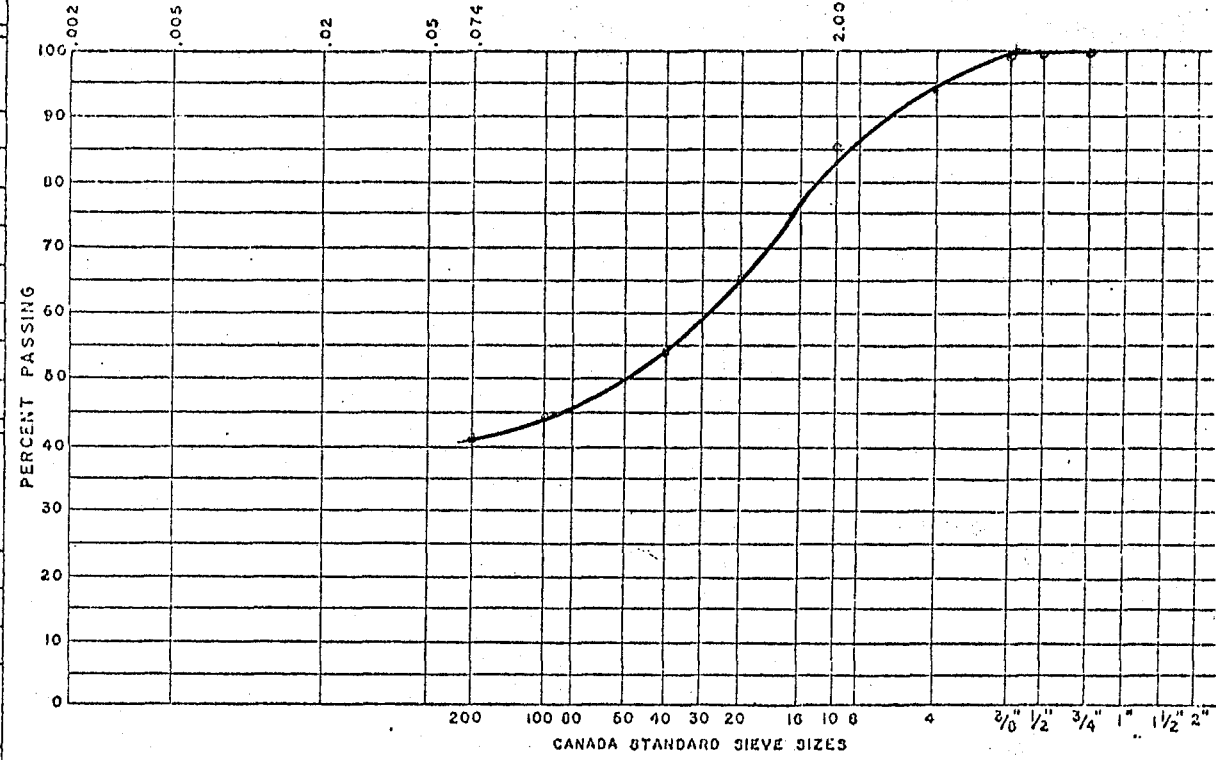
SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
3/4"	100.0	#200	41.5
1/2"	99.5		
3/8"	99.1		
1/4"	94.3		
10	85.1		
20	65.7		
40	54.4		
100	44.6		

SAMPLE NO.	CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
		24.6	21.3	8.3	35.7	
SC - GRAVELLY CLAYEY SAND		MEDIUM PLASTICITY				
CRUSH COUNT		%				

PETROGRAPHIC ANALYSIS	
MATERIAL TYPE	% OF TOTAL SAMPLE
ASALT	
ONE	
RANITIC	
ANDSTONE	
HALE	
GHIST	
UARTZITE	
THERS	

PARTICLE SHAPE ANALYSIS	
OUND	
UB-ROUND	
SGULAR	
UB-ANGULAR	
ATS	

GRAIN SIZE IN MILLIMETERS



CLAY	SILT	SAND	GRAVEL
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PROJECT DEMPSTER HIGHWAY

LOCATION STATION 3396+00d

HOLE NO. RR 11

DEPTH 9 1/2' FIELD NO. 26

SAMPLE TYPE Bag

LAB. NO.
4783

LABORATORY'S REMARKS	DATE SAMPLED
<u>CLAYEY SAND (M.P.)</u>	<u>23-6-72</u>
	DATE RECEIVED <u>30-6-72</u>
	DATE RECORDED <u>7-8-72</u>

GRAIN SIZE ANALYSIS

SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
054	85.6	0039	61.8
038	84.0		
027	82.4		
019	79.3		
014	78.9		
010	77.3		
0074	71.0		
0053	67.2		

SAMPLE NO.	CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
	CL - INORGANIC SILTY CLAY MEDIUM PLASTICITY	49.1	35.9	13.2	126.2	

CRUSH COUNT %

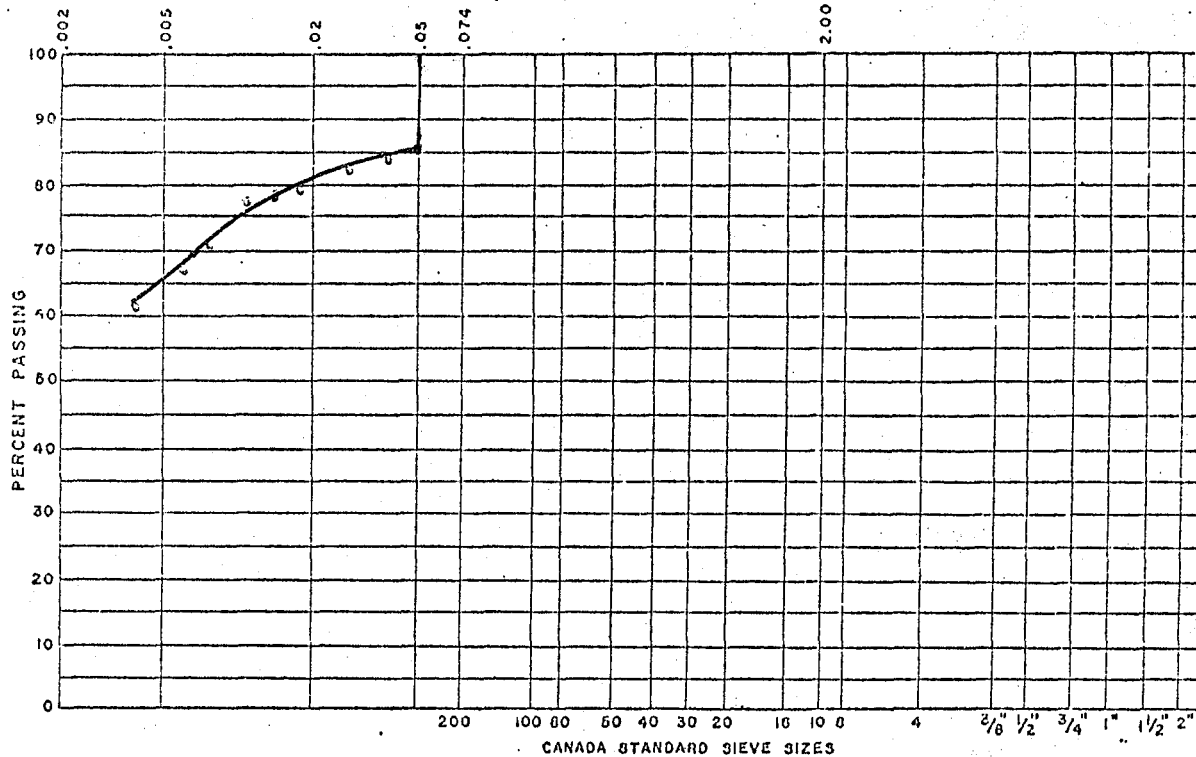
PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE
BASALT	
STONE	
GRANITIC	
SANDSTONE	
SHALE	
SCIIST	
QUARTZITE	
OTHERS	

PARTICLE SHAPE ANALYSIS

ROUND	
SUB-ROUND	
ANGULAR	
SUB-ANGULAR	
FLATS	

GRAIN SIZE IN MILLIMETERS



CANADA STANDARD SIEVE SIZES

CLAY	SILT	SAND	GRAVEL

PROJECT DEMPSTER HIGHWAY

LOCATION STATION 3421+00 &

HOLE NO. RR 11

DEPTH 4 1/2' FIELD NO. 21

SAMPLE TYPE B-G

LAB. NO.
4778

LABORATORY'S REMARKS
SILTY CLAY (M.P.)

DATE SAMPLED 23-6-72

DATE RECEIVED 27-6-72

DATE RECORDED 14-8-72

TR

GRAIN SIZE ANALYSIS

SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
3/8"	100.0						
4	98.9						
10	93.8						
20	82.1						
40	74.9						
100	67.6						
200	65.3						

CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
	34.6	22.9	11.7	10.2	
CL - INORGANIC SILTY CLAYEY SAND MEDIUM PLASTICITY					

CRUSH COUNT %

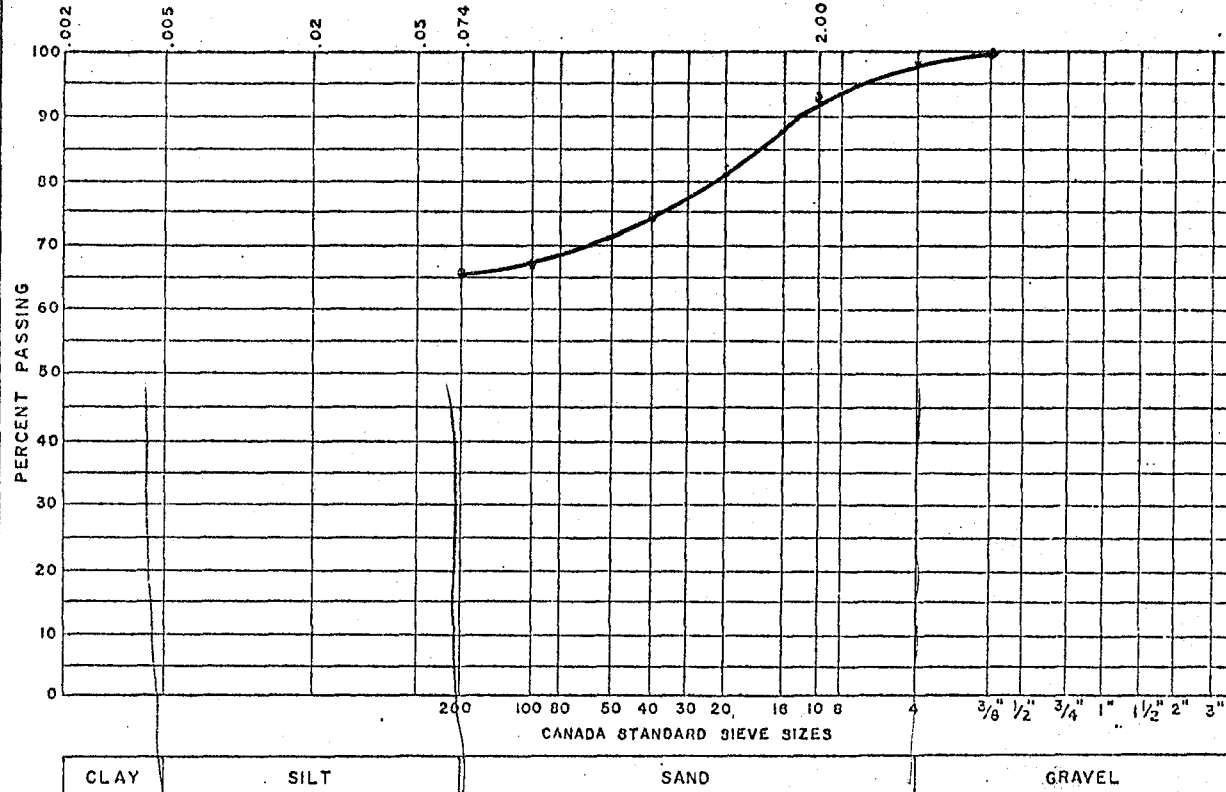
PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE
SALT	
WAX	
GLASS	
WOOD	
PAPE	
TEXTILE	
OTHER	

PARTICLE SHAPE ANALYSIS

UNDULATING	
3-ROUNDED	
ANGULAR	
3-ANGULAR	
FLAT	
EDGES	

GRAIN SIZE IN MILLIMETERS



PROJECT DEMPSTER HIGHWAY

LOCATION STATION 3421+00

HOLE NO. RR11

DEPTH 9 1/2' FIELD NO. 22

SAMPLE TYPE BAG

LAB. NO.
4779

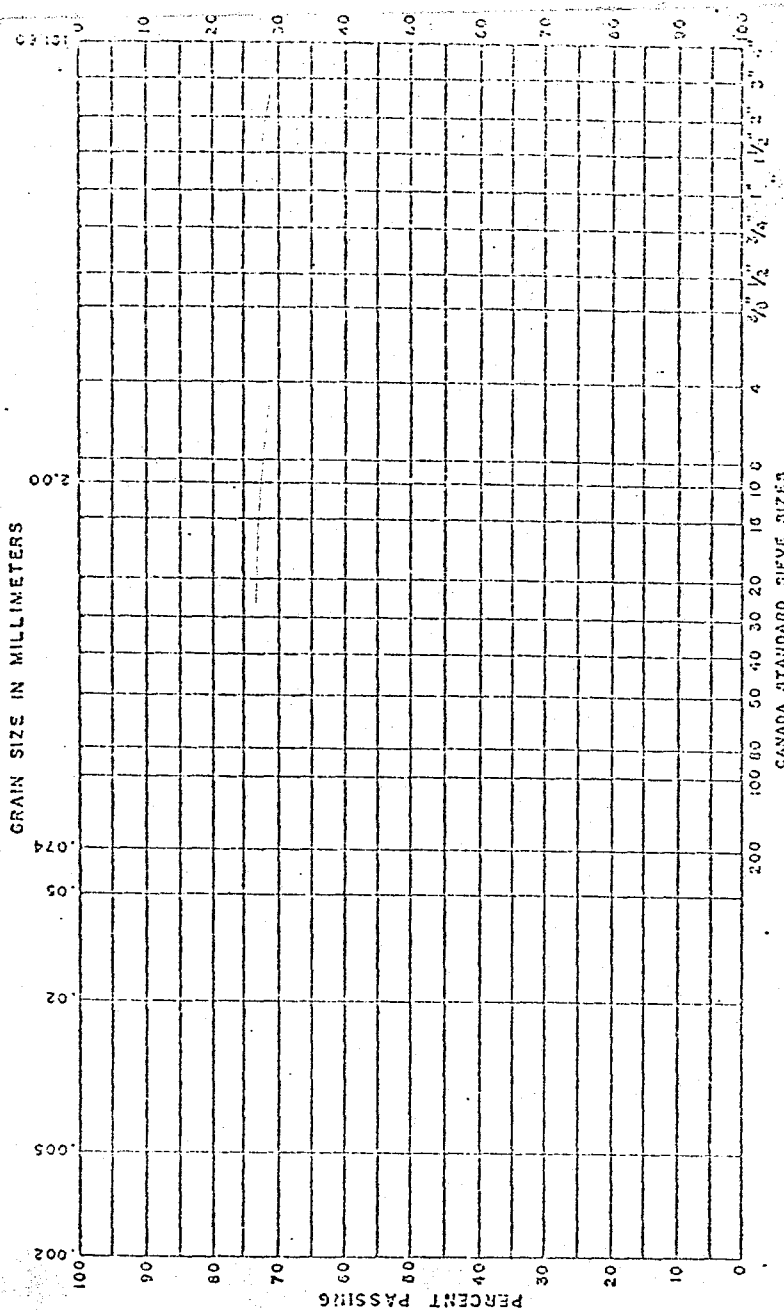
LABORATORY'S REMARKS
CLAYEY SAND (MP)

DATE SAMPLED 23-6-72

DATE RECEIVED 30-6-72

DATE RECORDED 8-8-72

TESTED BY JR. ✓



CLAY	SILT	SAND	GRAVEL
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GRAIN SIZE ANALYSIS			
FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	% FINER BY WEIGHT
100			
90			
80			
70			
60			
50			
40			
30			
20			
10			
0			

CLASSIFICATION	L.L.	P.L.	NAT. %W	F.M.
GRAVEL MATERIAL		0	29.0	

CRUSH COUNT	%

PETROGRAPHIC ANALYSIS	
MATERIAL TYPE	% OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS	

PROJECT DENHAMSTER HIGHWAY
 LOCATION STATION 4850 + 0.00
 HOLE NO. RM 39
 DEPTH 1' FIELD NO. 53
 SAMPLE TYPE 4" AUGER - BAC

LAB. NO.
7615

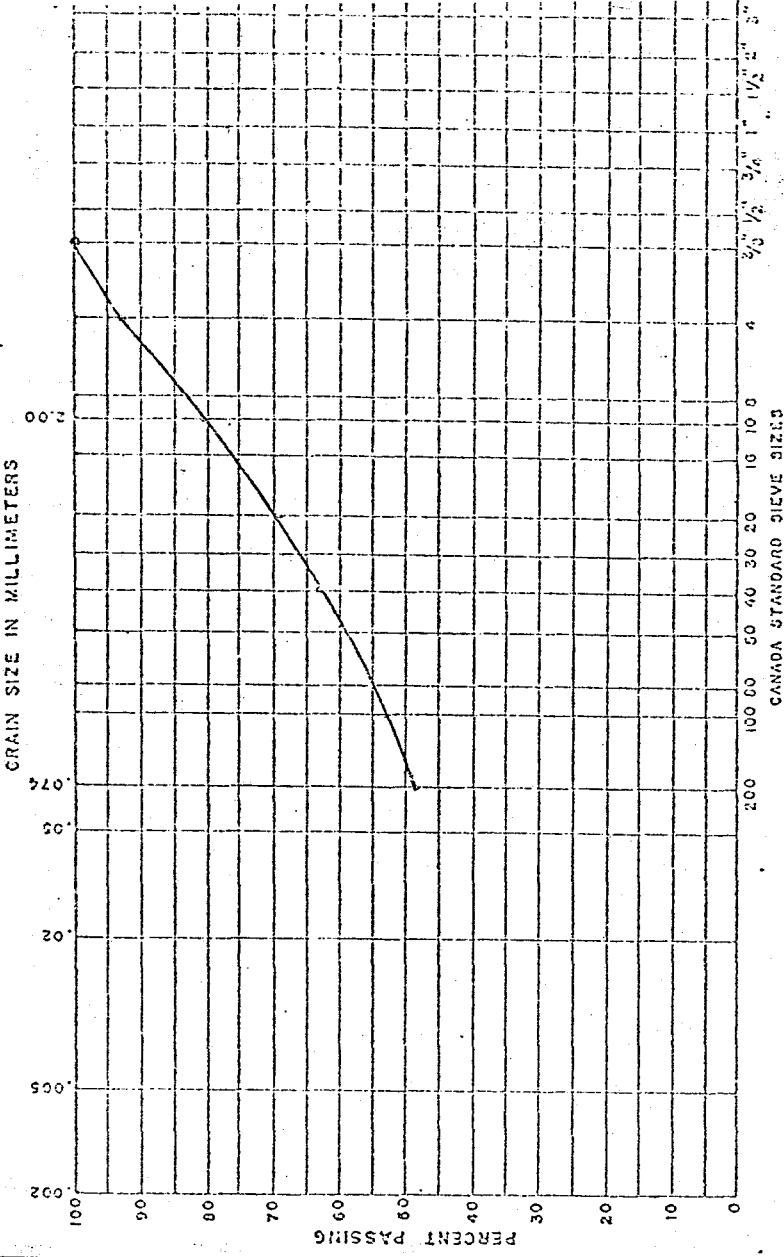
LABORATORY'S REMARKS	
SAMPLE ALL ORGANIC	
DATE SAMPLED	7-6-72
DATE RECEIVED	16-6-72
DATE RECORDED	24-7-72

GRAIN SIZE ANALYSIS

% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
100.0						
93.2						
80.2						
69.7						
63.7						
57.9						
48.9						

CLASSIFICATION	L.L.	P.L.	NAT. %W	F.M.
SM - ORGANIC SILTY SAND	29.4	26.0	3.4	10.70
LOW PLASTICITY				

CRUSH COUNT	%



PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE
ONE	
C	
ONE	
ITE	

PARTICLE SHAPE ANALYSIS
UND
R
GULAH

PROJECT *DEMPSTER HIGHWAY*

LOCATION *STATION 4080+00 d*

HOLE NO. *RM 39*

DEPTH *4 1/2'* FIELD NO. *53*

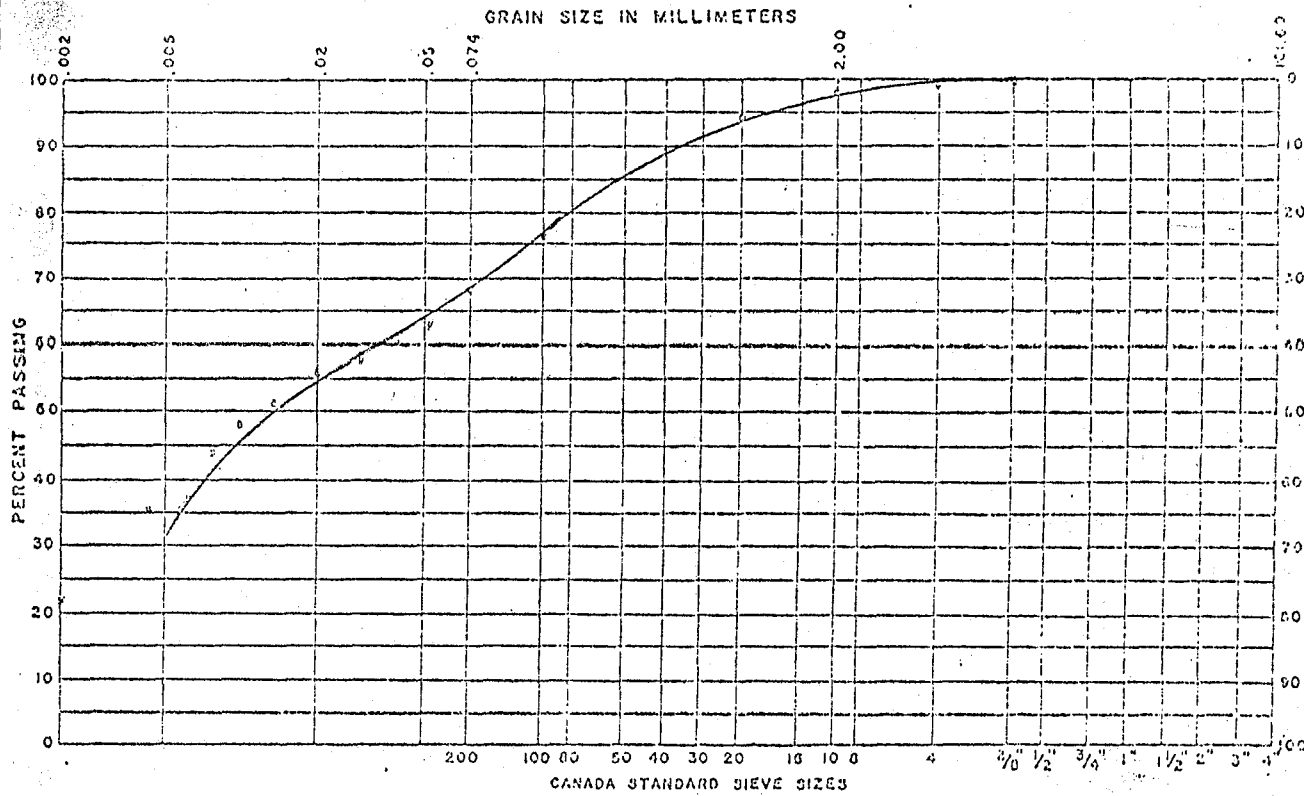
SAMPLE TYPE *4" AUGER - Bed*

LAB. NO.
4616

LABORATORY'S REMARKS	DATE SAMPLED	DATE RECEIVED	DATE RECORDED
	<i>7-6-72</i>	<i>16-6-72</i>	<i>21-7-72</i>

GRAIN SIZE ANALYSIS $\frac{D}{MM}$ $\frac{D}{MM}$

FINER BY GHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
0.0			.057	63.2	.0041	35.2
19.8			.041	60.1		
28.3			.029	58.5		
42.4			.021	55.4		
54.4			.0149	51.9		
63.5			.011	48.8		
86			.0074	44.0		
			.0057	37.4		



CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
	22.6	20.6	2.0	46.9	
= IMPROVED FINE SANDY SILTY LOW PLASTICITY					
CRUSH COUNT					
	%				

CLAY	SILT	SAND	GRAVEL
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PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE

PROJECT DEMPSTER HIGHWAY

LOCATION STATION 4080+00

HOLE NO. RM39

DEPTH 9 1/2' FIELD NO. 54

SAMPLE TYPE 4" AUGER - BAC

LAB. NO.
4617

PARTICLE SHAPE ANALYSIS

LABORATORY'S REMARKS	DATE SAMPLED <u>7-6-72</u>
	DATE RECEIVED <u>16-6-72</u>
	DATE RECORDED <u>24-7-72</u>

GRAIN SIZE ANALYSIS :

FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
100		100		100		100
90		90		90		90
80		80		80		80
70		70		70		70
60		60		60		60
50		50		50		50
40		40		40		40
30		30		30		30
20		20		20		20
10		10		10		10
0		0		0		0

CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
LOW PLASTIC SILTY CLAY	51.8	40.6	11.2	51.5	

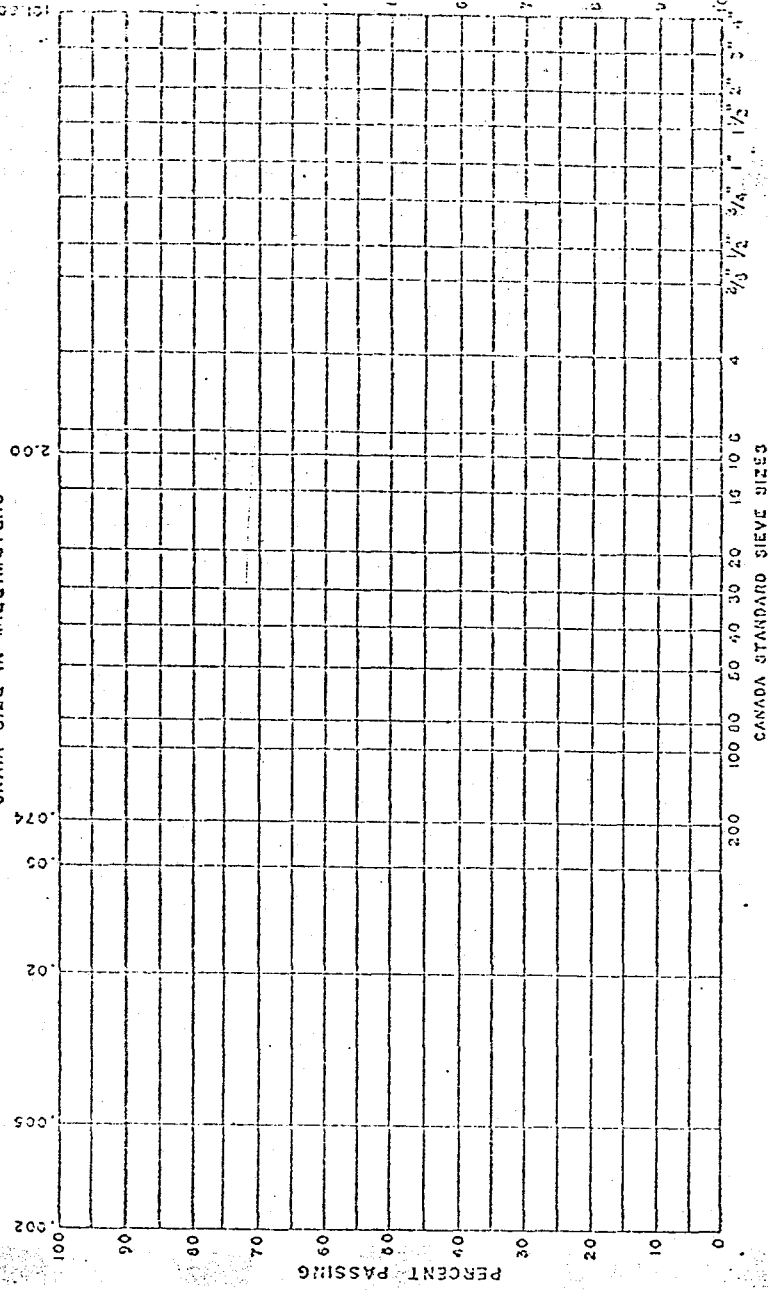
CRUSH COUNT %

PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS

GRAIN SIZE IN MILLIMETERS



CLAY SILT SAND GRAVEL

PROJECT DEPARTMENT HIGHWAY
 LOCATION STATION 410.9+0.0
 HOLE NO. RMB3
 DEPTH 2 1/2' FIELD NO. 49
 SAMPLE TYPE 4" AUGER - B.C.

LAB. NO. 4612

LABORATORY REMARKS	DATE SAMPLED
dry clay (MP)	7-6-72
	DATE RECEIVED 16-6-72
	DATE RECORDED 24-7-72

GRAIN SIZE ANALYSIS

% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
100.0						
96.2						
88.9						
73.3						
60.0						
52.7						
39.1						
35.5						

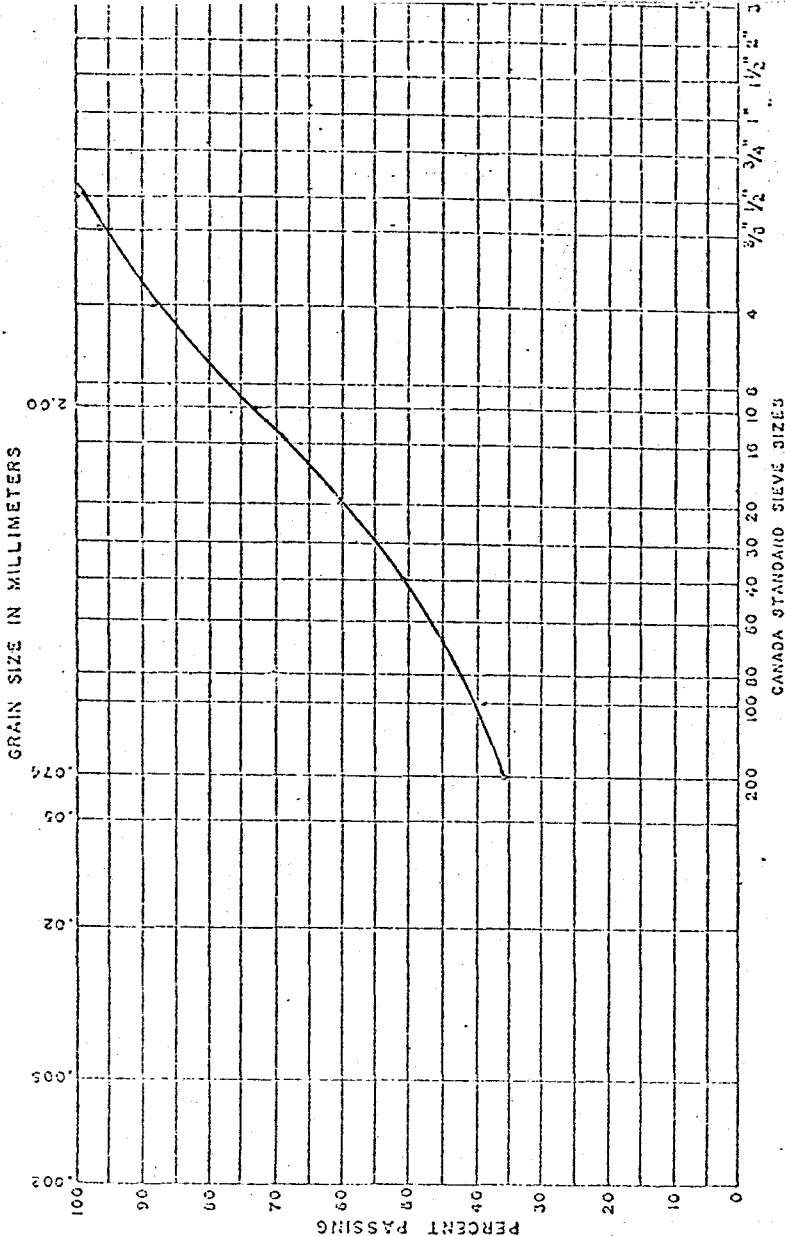
CLASSIFICATION		L.L.	P.L.	P.I.	NAT. %W	F.M.
SM-SM	CLAYEY SILTY SAND	27.9	19.9	25	16.1	
	LOW PLASTICITY					

CRUSH COUNT %

PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS



CLAY SILT SAND GRAVEL

PROJECT *DEMPETER HIGHWAY*

LOCATION *STATION H.097.004*

HOLE NO. *R.M. 28*

DEPTH *6 1/2'* FIELD NO. *50*

SAMPLE TYPE *A" ACCELER - BAL*

LAB. NO.
4613

LABORATORY'S REMARKS	DATE SAMPLED
	<i>7-6-72</i>
	<i>16-6-72</i>
	<i>21-7-72</i>

GRAIN SIZE ANALYSIS

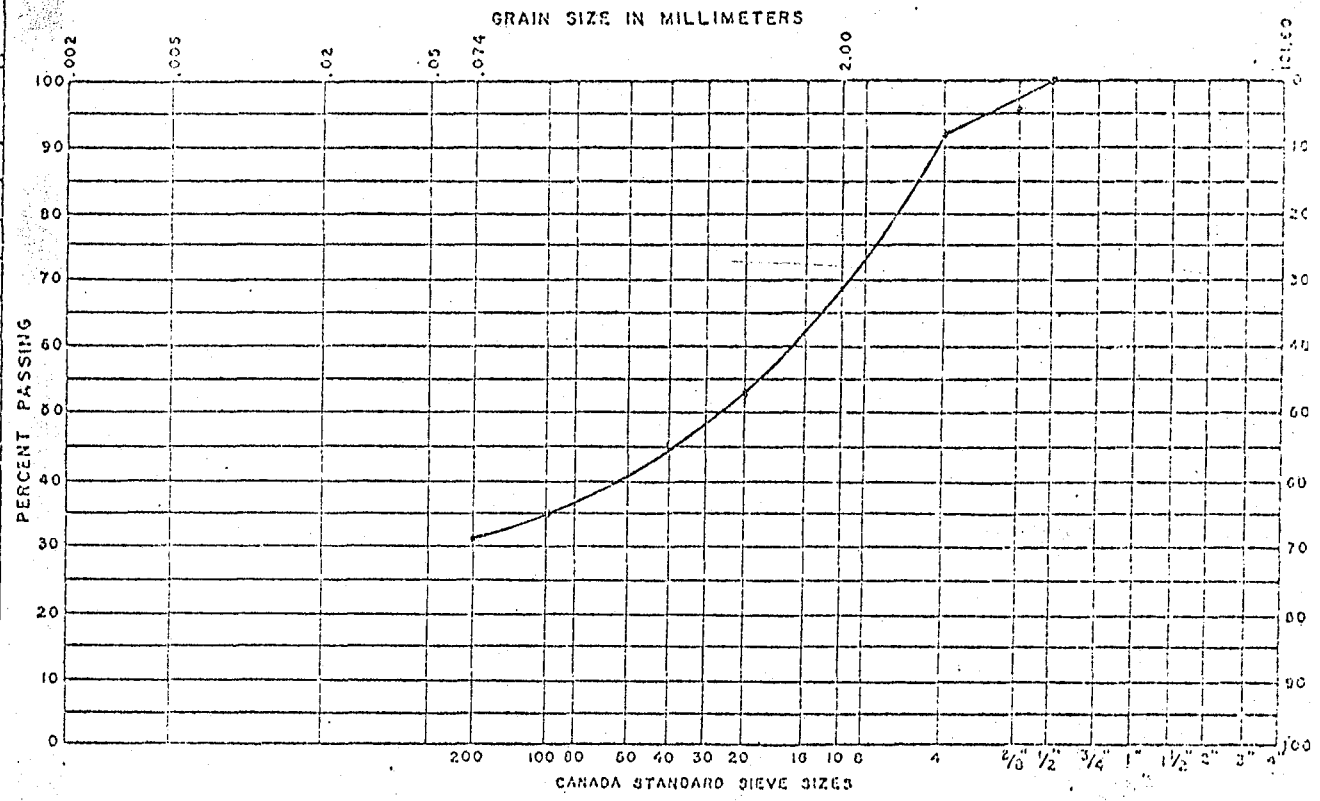
SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
75.0			
5.6			
2.2			
0.85			
0.35			
0.15			
0.075			

CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
	21.5	18.8	2.7	13.7	
1-SW - GRAVELLY SILTY SAND					
LOW PLASTICITY					
CRUSH COUNT					%

PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS



CLAY	SILT	SAND	GRAVEL
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PROJECT DUNDAS HIGHWAY

LOCATION STATION 4109+000

HOLE NO. RMB3

DEPTH 9' FIELD NO. 51

SAMPLE TYPE 4" RUBER - BAR

LAB. NO.
4614

LABORATORY'S REMARKS	DATE SAMPLED
<u>50% SAND (LP)</u>	<u>7-6-72</u>
	DATE RECEIVED <u>16-6-72</u>
	DATE RECORDED <u>24-7-72</u>

D
MM
GRAIN SIZE ANALYSIS :

% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
54.4	NO. 45	15.9				
57.3						
68.2						
73.3						
86.1						
91.4						
94.9						
99.9						

CLASSIFICATION	L.L.	P.L.	NAT. %W	F.M.
SM - SAND SILT			15.5	

CRUSH COUNT

%

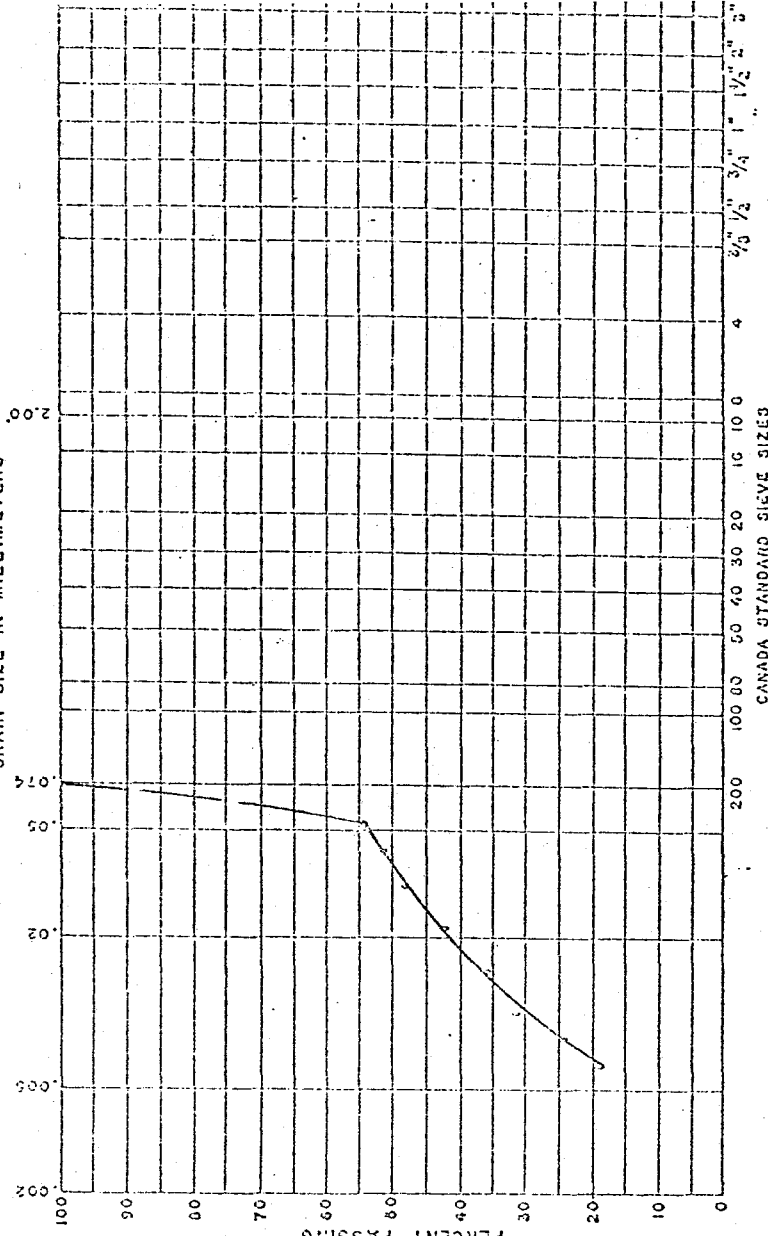
PETROGRAPHIC ANALYSIS

MATERIAL TYPE

% OF TOTAL SAMPLE

IC	
ONE	
ZITe	
S	
PARTICLE SHAPE ANALYSIS	
ROUND	
IR	
ANGULAR	

GRAIN SIZE IN MILLIMETERS



CLAY SILT SAND GRAVEL

PROJECT *DEMPSTER HIGHWAY*
 LOCATION *STATION 435+00*
 HOLE NO. *R.M. 37*
 DEPTH *3 1/2'* FIELD NO. *17*
 SAMPLE TYPE *4" AUGER - BAG*

LAB. NO.
4610

LABORATORY'S REMARKS
*INSUFFICIENT SAMPLE FOR
SIEVE ANALYSIS*

DATE SAMPLED *7-6-72*
 DATE RECEIVED *16-6-72*
 DATE RECORDED *24-7-72*

GRAIN SIZE ANALYSIS :

% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
100.0						
98.5						
83.4						
71.0						
65.0						
56.5						
53.0						

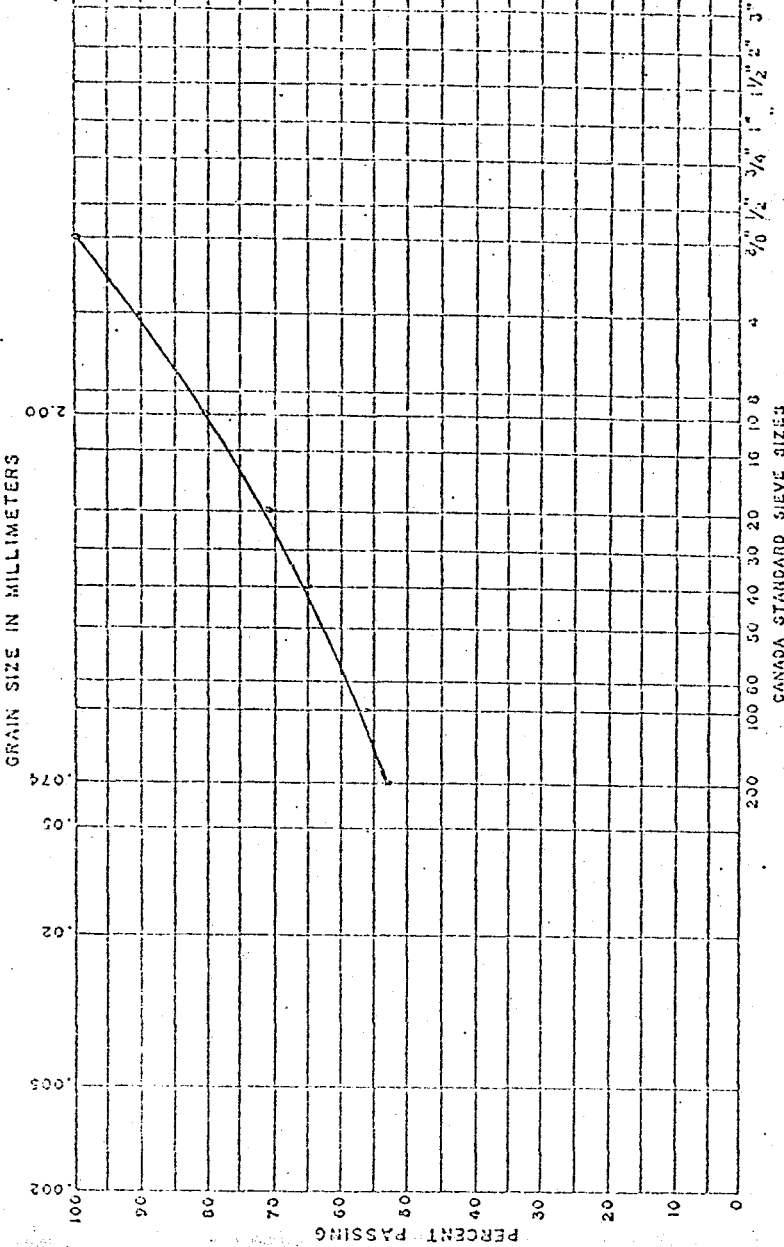
CLASSIFICATION	L.L.	P.L.	P.I.	NAT. % W	F.M.
ML - MEDIUM SAND	28.0	23.4	5.6	99.0	
L.C.M. PLASTICITY					

CRUSH COUNT %

PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS



CLAY SILT SAND GRAVEL

PROJECT DENNISVILLE HIGHWAY
 LOCATION STATION 4+86.5 S.E.C.
 HOLE NO. RM 36
 DEPTH 5' FIELD NO. 15
 SAMPLE TYPE 4" AUGER - BAG

LAB. NO.
4608

LABORATORY'S REMARKS
 SAND (CP)
 DATE SAMPLED 7-6-72
 DATE RECEIVED 16-6-72
 DATE RECORDED 24-7-72

BORE HOLE NO. **R 1731** BORE HOLE POSITION **Sta 4194+00 1/2**

DPW TECHNICIAN _____ DATE AND TIME **June 6/72**

CONTRACTOR _____ DRILLER _____ STARTED: _____ FINISHED: _____

METHOD OF BORING _____ GROUND SURFACE ELEVATION _____ GAUGE READING _____

SOIL: _____ CASING SIZE _____ CASING HAMMER WT.LBS. DROP.....INCHES

DESCRIPTION OF STRATA	DEPTH (FT.)	ELEV. (FT.)	BLOWS PER FOOT	SAMPLE			BLOWS PER 6 IN.	SAMPLE NO.	SAMPLE DESCRIPTION AND BORING NOTES
				NO.	SYM-BOL	TYPE			
shale gravel & organic silt	0								small shale chips, organic matter, frozen, med. brown
||	1								
gravelly silt	2			40	||||	1A1		40	dry, med. brown
||	3								||
clayey silt & gravel	4								dry, dk. brown
||	5			41	||||	A		41	||
clayey silt with silt & gravel	6								dk. gray, frozen, high m.c.
||	7								
||	8			42	||||	A		42	
gravel with clayey silt	9								base moisture
||	10								
||	11								
clayey silt & gravel	12								base moisture, gray
||	13								
shale gravel with clayey silt	14								
||	15			43	||||	A		43	

GRAIN SIZE ANALYSIS

% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
100.0						
97.4						
76.3						
46.3						
30.1						
24.1						
18.9						
16.5						

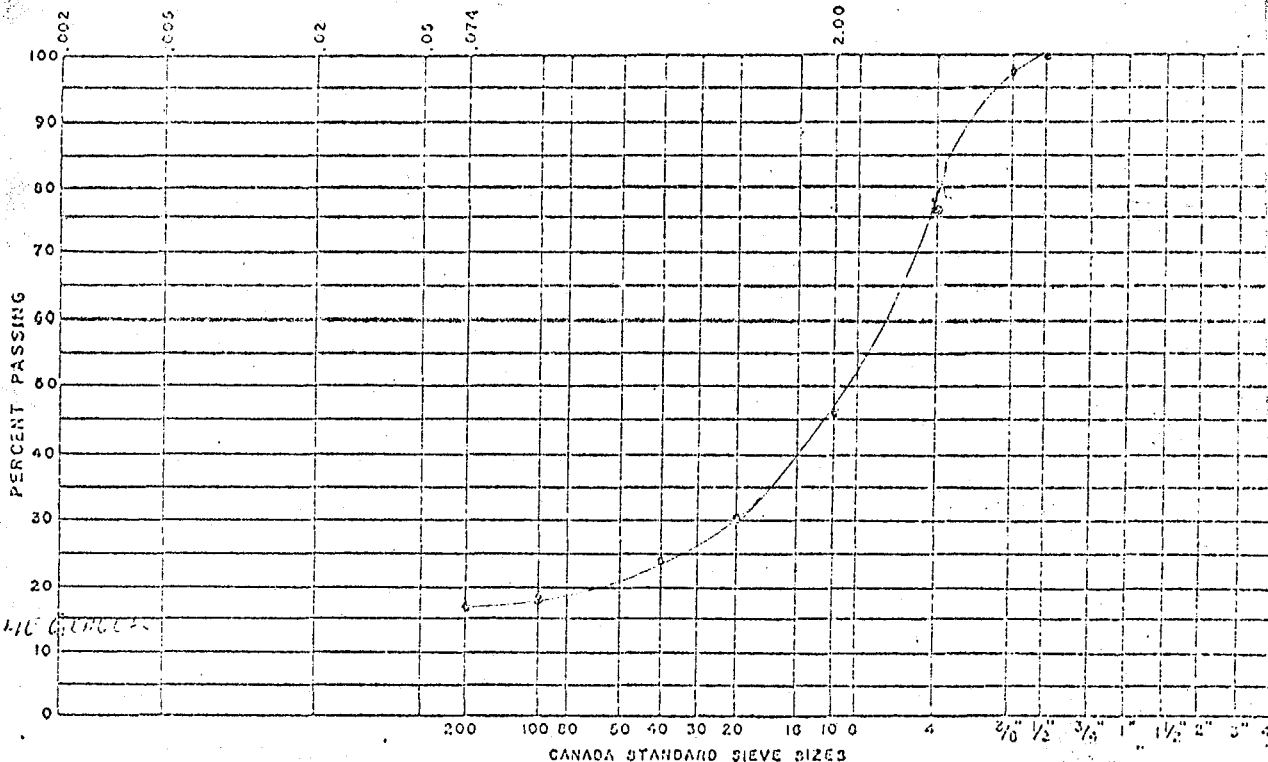
CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
	25.3	17.2	8.1	11.6	
SC - CLAYLY SAND SAND - CLAY MIXTURE SOME CLAY					
LOW TO MEDIUM PLASTICITY					
CRUSH COUNT					
	%				

PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS

GRAIN SIZE IN MILLIMETERS



CLAY	SILT	SAND	GRAVEL
------	------	------	--------

PROJECT DEMPSTER HIGHWAY

LOCATION STATION 4194 + 00 d

HOLE NO. R1431

DEPTH 15' FIELD NO. 43

SAMPLE TYPE BAG

LAB. NO.
4570

LABORATORY'S REMARKS	DATE SAMPLED
	<u>6-6-72</u>
	<u>13-6-72</u>
	<u>11-7-72</u>

BORE HOLE NO. RM 30	BORE HOLE POSITION STN 4198 ♀	DATE AND TIME June 8/72
DPW TECHNICIAN	CONTRACTOR	FINISHED
	DRILLER	
METHOD OF BORING	GND SURFACE ELEVATION	GAUGE READING
SOIL:	CASING SIZE	
ROCK:	CASING HAMMER WT. ....LBS.	DROP.....INCHES

DESCRIPTION OF STRATA	DEPTH (FT.)	ELEV. (FT.)	BLOWS PER FOOT	SAMPLE			BLOWS PER 6 IN.	SAMPLE NO.	SAMPLE DESCRIPTION AND BORING NOTES
				NO.	SYMBOL	RE-FINE (FT.)			
organic	0								magenta
silty clay	1								light brown, silty, magenta
ll	2								
ll	3								
silty clay with gravel	4								hard drilling, dk grey, frozen
ll	5								ll
ll	6								after drilling, dk grey, frozen
ll	7								
ll	8								
ll	9								
ll	10								
ll	11								
ll	12								
silty clay & gravel	13								dk grey & dk grey, frozen with little red line
ll	14								
ll	15			39	ll	A		39	

GRAIN SIZE ANALYSIS :

% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
100.0						
90.0						
89.1						
57.3						
39.7						
33.8						
28.1						
15.2						

CLASSIFICATION	L.L.	P.L.	NAT. %W	F.M.
CLAYEY SAND	27.1	18.3	5.8	9.3
TO MEDIUM PLASTICITY				

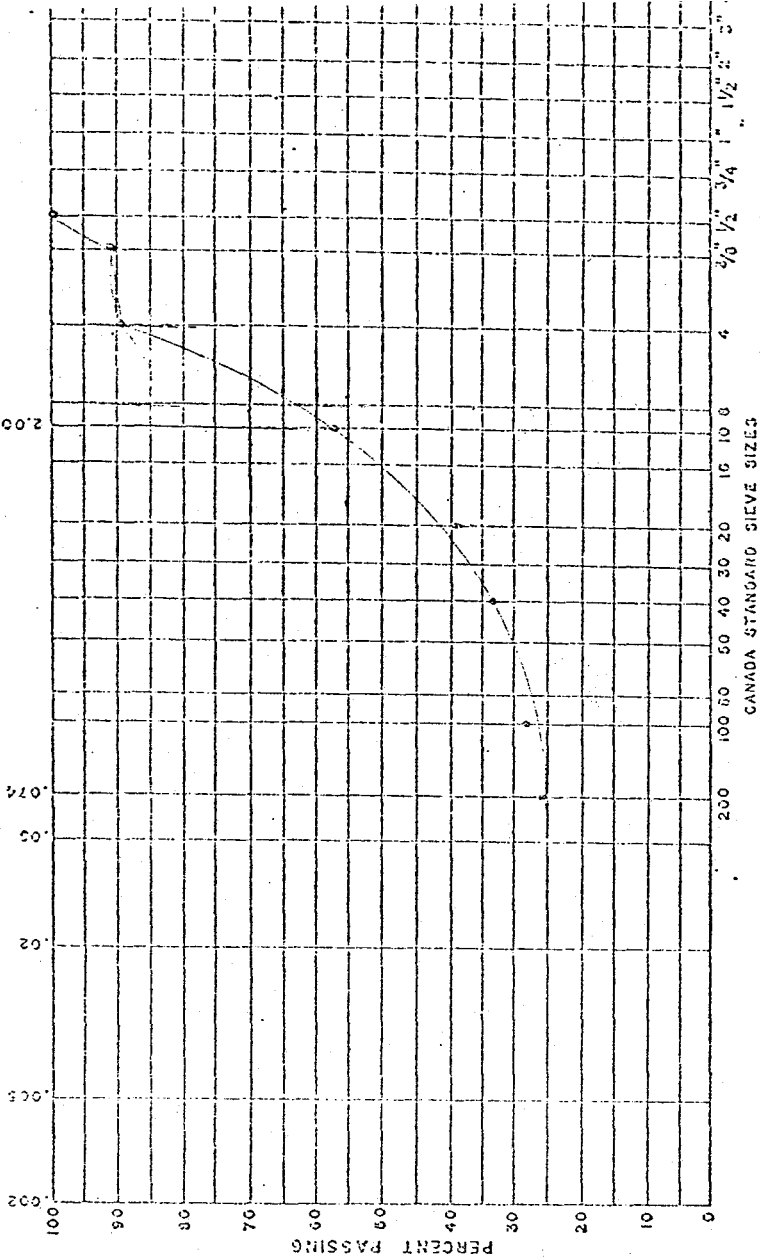
CRUSH COUNT %

PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS

GRAIN SIZE IN MILLIMETERS



CLAY SILT SAND GRAVEL

PROJECT *Remington Highway*
 LOCATION *Station 4198 + 0.0*
 HOLE NO. *RM 30*
 DEPTH *15'* FIELD NO. *39*
 SAMPLE TYPE *BAG*

LAS. NO.
4571

LABORATORY'S REMARKS	DATE SAMPLED	DATE RECEIVED	DATE RECORDED
	<i>6-6-72</i>	<i>13-6-72</i>	<i>11-7-72</i>

GRAIN SIZE ANALYSIS :

% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
100.0						
92.0						
68.4						
52.7						
45.8						
32.5						
26.3						

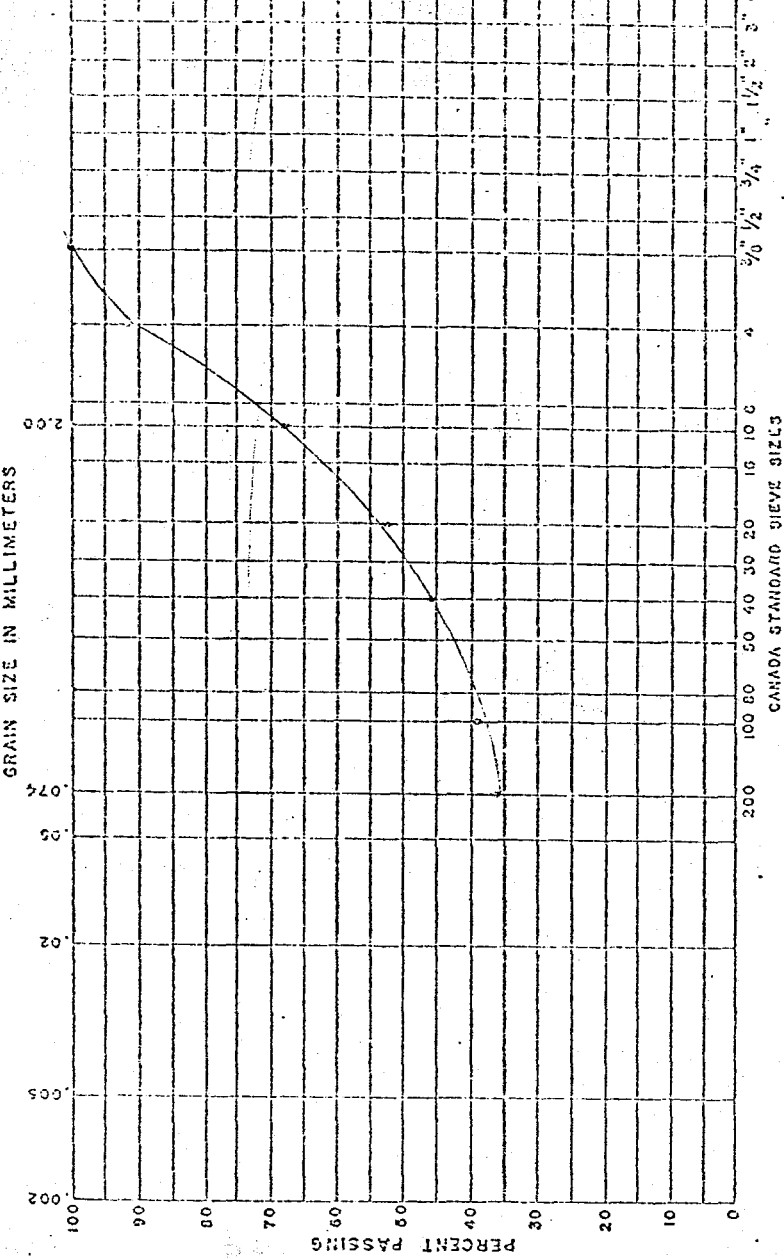
CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
MA-SC SILTY CLAYEY SAND	26.8	19.3	7.5	20.8	
LOW TO MEDIUM PLASTICITY					

CRUSH COUNT

PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS



CLAY SILT SAND GRAVEL

LAB. NO.
A573

PROJECT *DEMETER HIGHWAY*

LOCATION *STATION 4+23.175*

HOLE NO. *RM 25*

DEPTH *9 1/2'* FIELD NO. *32*

SAMPLE TYPE *BAG*

LABORATORY'S REMARKS

GRAVEL SAND (MP)

DATE SAMPLED *6-6-72*

DATE RECEIVED *13-6-72*

DATE RECORDED *11-7-72*

GRAIN SIZE ANALYSIS

FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
100.0						
86.1						
43.5						
34.3						
30.4						
25.4						
22.5						

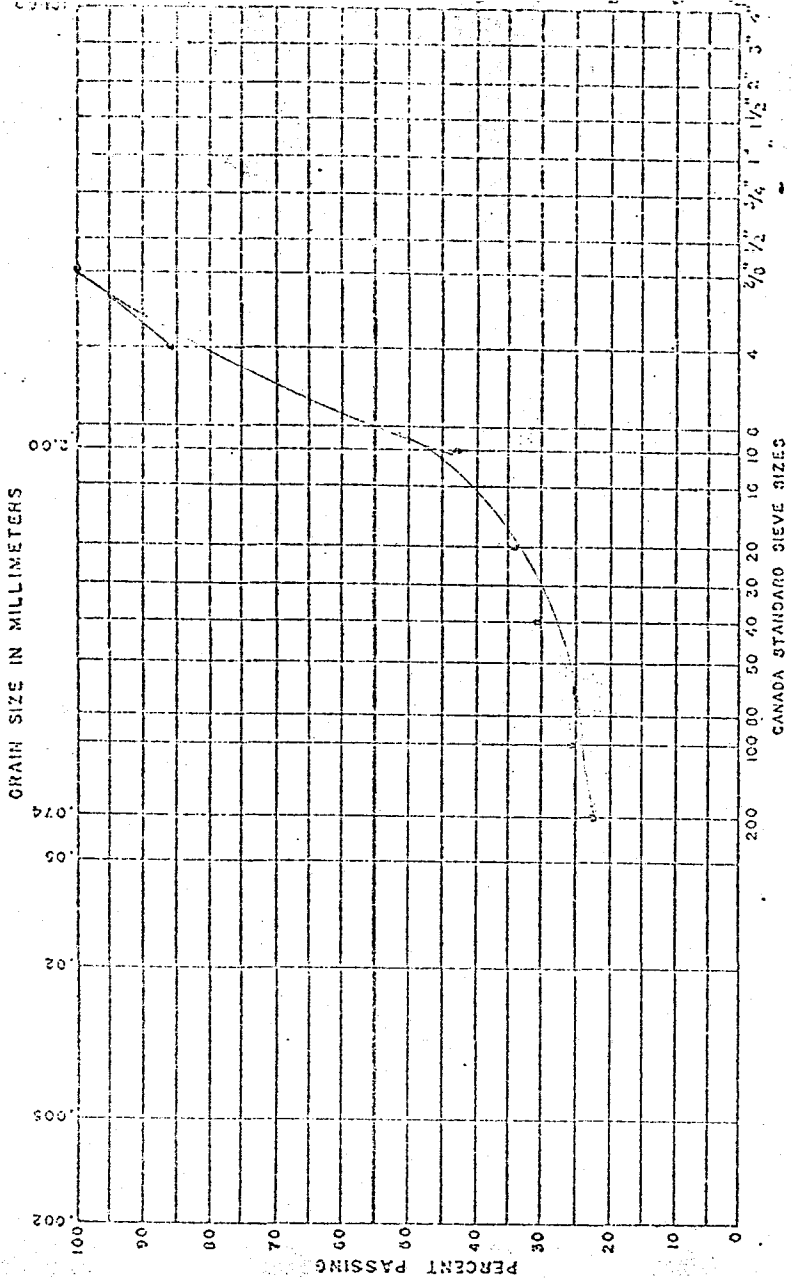
CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %V	F.M.
NON-COARSELY PLASTIC MEDIUM PLASTICITY	20.7	19.2	11.5	91.7	

CRUSH COUNT %

PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS



CLAY SILT SAND GRAVEL

PROJECT DENNIS ST. HIGHWAY
 LOCATION STATION 4233+1.75
 HOLE NO. RM 25
 DEPTH 16' FIELD NO. 33
 SAMPLE TYPE Bag

LAB. NO. 4574

LABORATORY'S REMARKS	DATE SAMPLED	DATE RECEIVED	DATE RECORDED
	6-6-72	6-6-72	11-7-72

GRAIN SIZE ANALYSIS :

FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
100		100.0				
95		95.2				
90		92.3				
85		91.5				
80		89.2				
75		86.6				
70		74.8				
60		63.9				

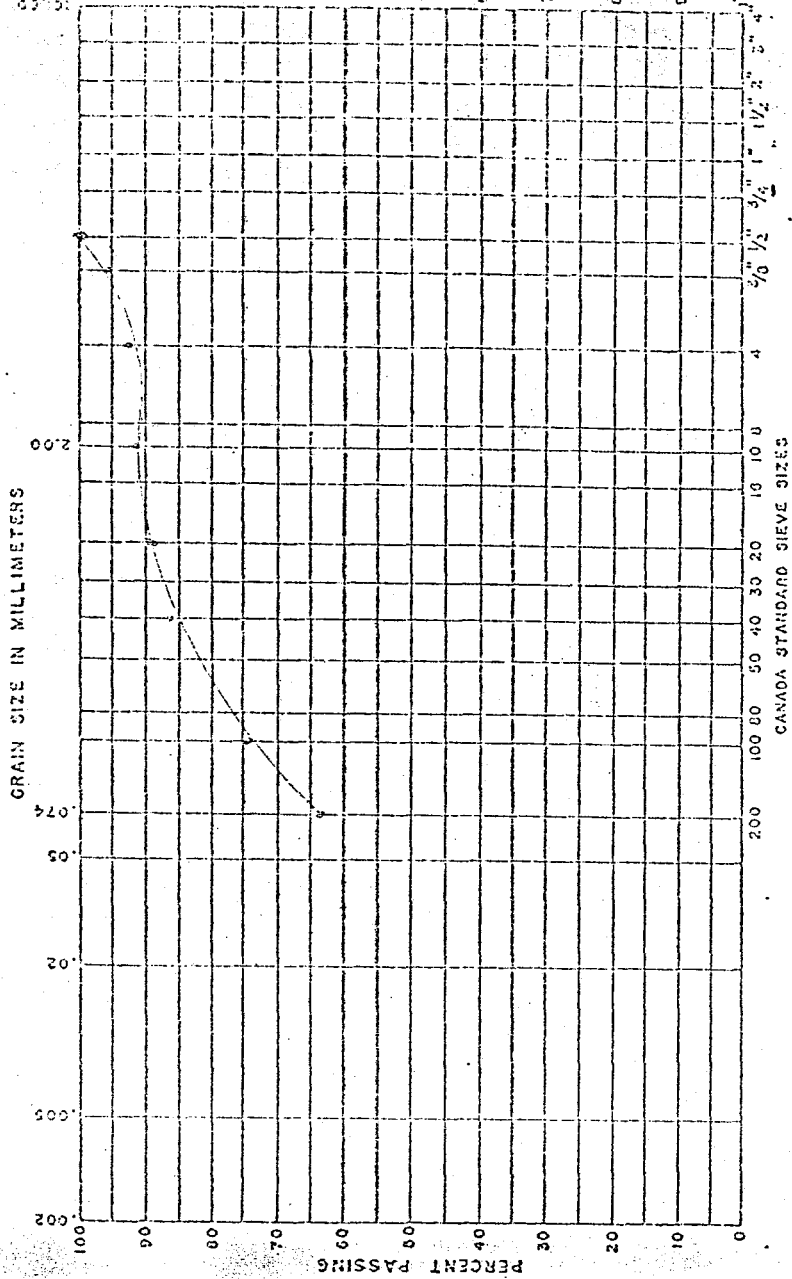
CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
L-CL	24.4	18.3	6.1	18.5	
LOW PLASTICITY SILTY SAND					

CRUSH COUNT %

PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS



CLAY SILT SAND GRAVEL

LAB. NO.
4576

PROJECT *DEMPSTER HIGHWAY*
 LOCATION *STATION 4335+00*
 HOLE NO. *R.M. 24*
 DEPTH *3 1/2'* FIELD NO. *29*
 SAMPLE TYPE *BAC*

LABORATORY'S REMARKS
COARSE SAND (LP)

DATE SAMPLED *6-6-72*
 DATE RECEIVED *13-6-72*
 DATE RECORDED *11-7-72*

CANADA DEPARTMENT OF PUBLIC WORKS, WHITEHORSE MATERIALS LABORATORY TESTING REPORT

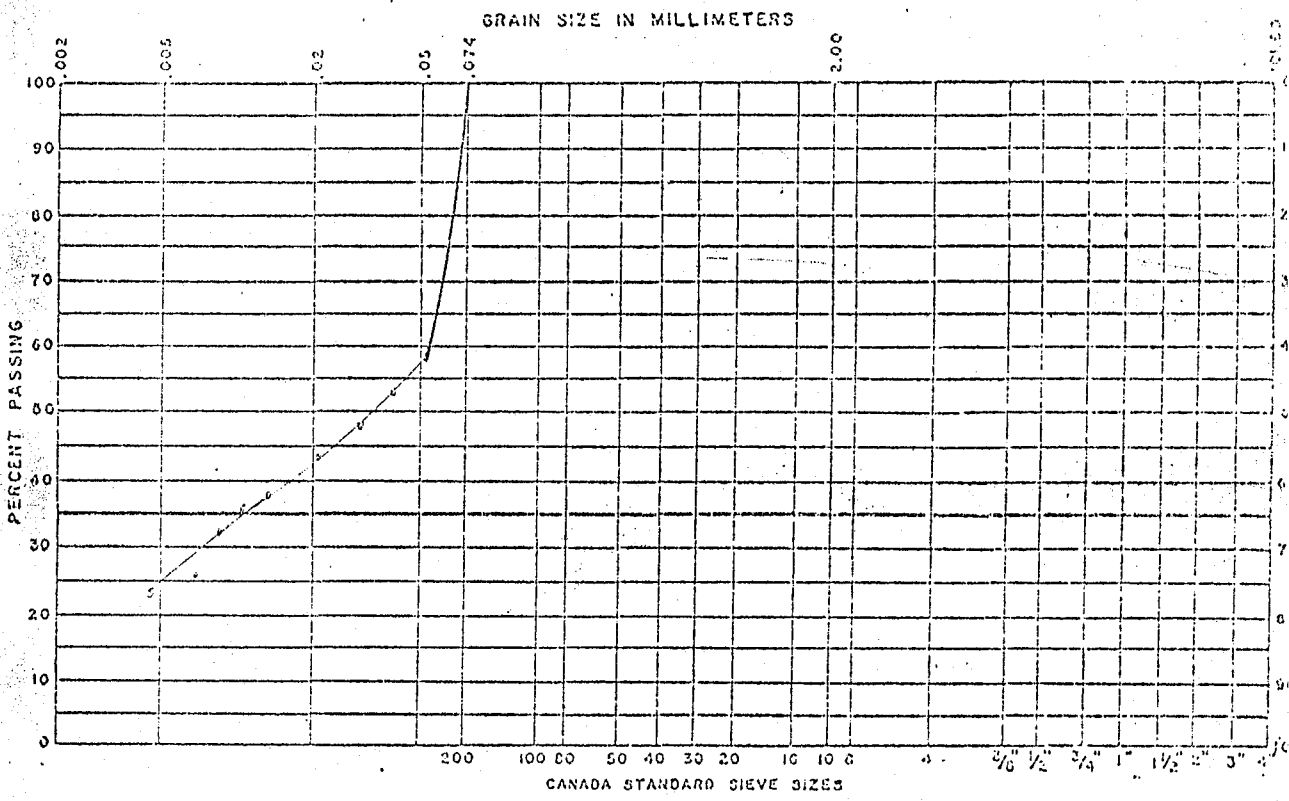
GRAIN SIZE ANALYSIS \bar{D} \bar{D}
MM MM

FINER BY SIEVE	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
			.056	57.8	.0643	23.9
			.075	53.1		
			.085	48.4		
			.106	43.3		
			.125	38.6		
			.150	35.2		
			.180	31.7		
			.250	26.1		

CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
	20.2	15.2	5.0	26.4	
16 - INORGANIC SANDY SILT					
LOW PLASTICITY					
CRUSH COUNT					
	%				

PETROGRAPHIC ANALYSIS	
MATERIAL TYPE	% OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS	



CLAY SILT SAND GRAVEL

PROJECT DEMPSTER HIGHWAY

LOCATION STATION 4238+00.0

HOLE NO. RM24

DEPTH 6 1/2' FIELD NO. 30

SAMPLE TYPE SALTY SILT

LAB. NO.
4577

LABORATORY'S REMARKS <u>INSUFFICIENT FOP SIEVE ANALYSIS</u>	DATE SAMPLED <u>6-6-72</u>
<u>SALTY SILT (LD)</u>	DATE RECEIVED <u>13-6-72</u>
	DATE RECORDED <u>12-7-72</u>

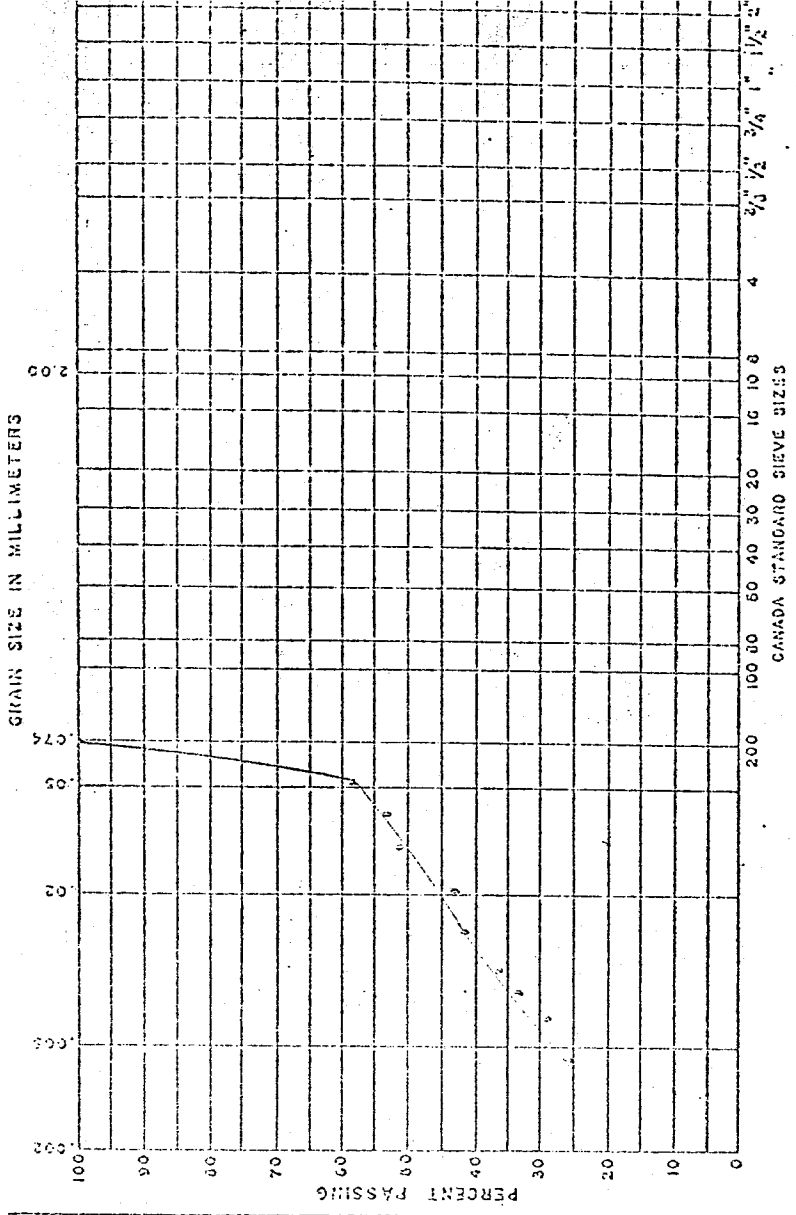
GRAIN SIZE ANALYSIS (M)

% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
100	75	100	100	100	100	100
95	100	95	150	95	200	95
90	150	90	200	90	250	90
85	200	85	300	85	400	85
80	250	80	400	80	500	80
75	300	75	500	75	600	75
70	400	70	600	70	75	70
65	500	65	75	65	100	65
60	600	60	100	60	150	60
55	75	55	150	55	200	55
50	100	50	200	50	250	50
45	150	45	250	45	300	45
40	200	40	300	40	400	40
35	250	35	400	35	500	35
30	300	30	500	30	600	30
25	400	25	600	25	75	25
20	500	20	75	20	100	20
15	600	15	100	15	150	15
10	75	10	150	10	200	10
5	100	5	200	5	250	5
0	150	0	250	0	300	0

CLASSIFICATION	L.L.	P.L.	NAT. %W	F.M.
MALE INORGANIC	15.8	19.4	56.5	
CRUSH COUNT				

MATERIAL TYPE	% OF TOTAL SAMPLE
SALT	
CLAY	
QUARTZ	
FOSSILS	
GLASS	
IRON	
ARTIFACTS	
OTHERS	

PARTICLE SHAPE ANALYSIS
ROUND
SUB-ANGULAR
ANGULAR
IRREGULAR
FLAT
SPINDLE
DISK
OTHER



LAB. NO. 4578

PROJECT DEMRSTER HIGHWAY

LOCATION STATION 4271.00

HOLE NO. R.H.19

DEPTH 6' FIELD NO. 23

SAMPLE TYPE BAG

LABORATORY'S REMARKS

TEST RECEIVED FOR IDENTIFICATION

SANDY SILT (LD)

DATE SAMPLED 5-6-72

DATE RECEIVED 13-6-72

DATE RECORDED 14-7-72

TESTED BY J.J.

GRAIN SIZE ANALYSIS: *D* *MM*

VE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
8	100.0		100.0	75	100.0
10	98.3		98.3	60	98.3
20	88.8		88.8	47.5	88.8
40	75.1		75.1	37.5	75.1
60	58.5		58.5	30	58.5
80	47.9		47.9	25	47.9
100	32.9		32.9	20	32.9
150	22.9		22.9	15	22.9
200	10.5		10.5	12.5	10.5
250	8.5		8.5	10	8.5
300	7.9		7.9	7.5	7.9
350	7.9		7.9	6.75	7.9
400	7.9		7.9	6.0	7.9
450	7.9		7.9	5.25	7.9
500	7.9		7.9	4.75	7.9
550	7.9		7.9	4.25	7.9
600	7.9		7.9	3.75	7.9
650	7.9		7.9	3.35	7.9
700	7.9		7.9	3.0	7.9
750	7.9		7.9	2.75	7.9
800	7.9		7.9	2.5	7.9
850	7.9		7.9	2.25	7.9
900	7.9		7.9	2.0	7.9
950	7.9		7.9	1.75	7.9
1000	7.9		7.9	1.5	7.9

CLASSIFICATION

CLASSIFICATION	L.L.	P.L.	NAT. %W	F.M.
ML - MEDIUM CLAY	32.9	9.9	50.9	
CLAY TO SILT				

CRUSH COUNT

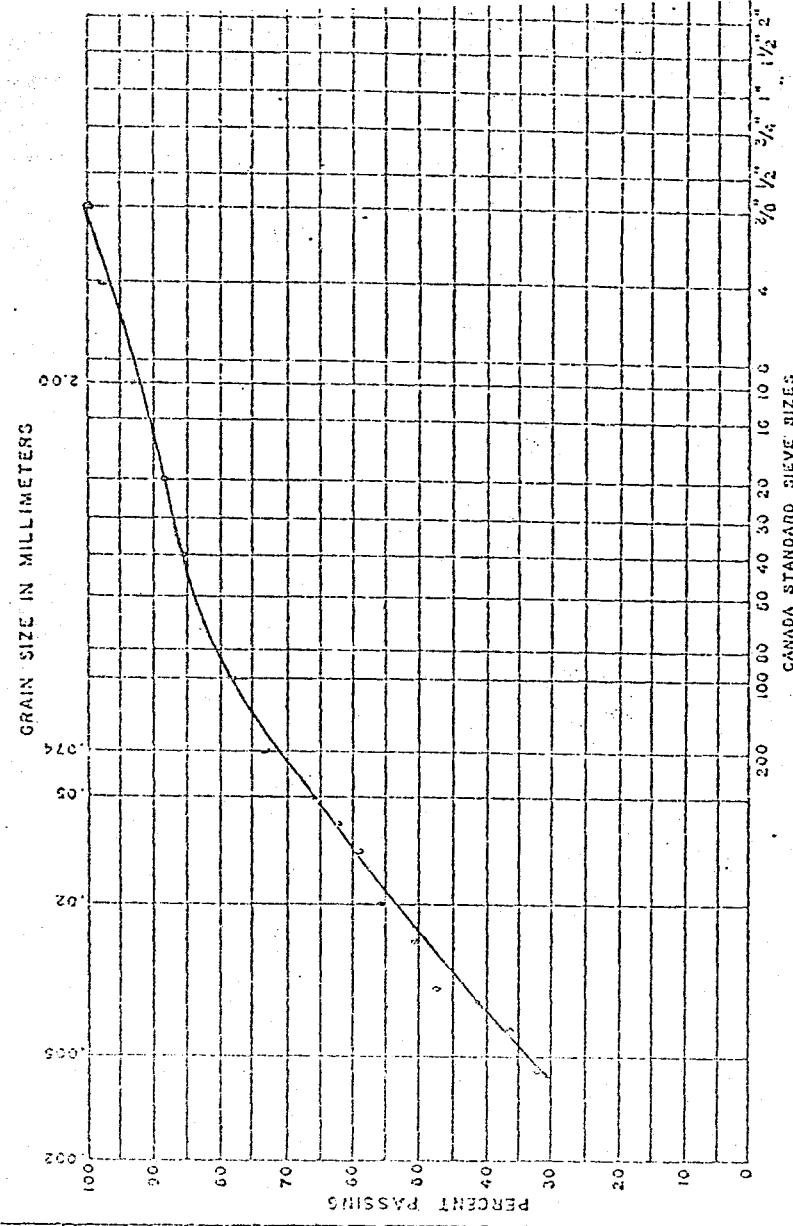
CRUSH COUNT	%

PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE
CLAY	
SILT	
SAND	
GRAVEL	

PARTICLE SHAPE ANALYSIS

PARTICLE SHAPE ANALYSIS	%
ROUND	
SUB-ROUND	
ANGULAR	



CLAY	SILT	SAND	GRAVEL

PROJECT *DEMPSTER HIGHWAY*

LOCATION *STATION 4280+00*

HOLE NO. *RM 18*

DEPTH *7'* FIELD NO. *22*

SAMPLE TYPE *BAG*

LAB. NO.
4580

LABORATORY'S REMARKS

GRAVEL SILT (MP)

DATE SAMPLED	DATE RECEIVED	DATE RECORDED
<i>5-6-22</i>	<i>13-6-22</i>	<i>20-7-22</i>

GRAIN SIZE ANALYSIS

% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	NAT. % W	F.M.
100.0								
93.5								
75.0								
63.3								
57.0								
48.8								
43.9								
CLASSIFICATION		L.L.	P.L.	P.I.	NAT. % W	F.M.		
SAND		24.2	17.3	6.9	15.2			
SILT		SILT		PLASTICITY				

CRUSH COUNT

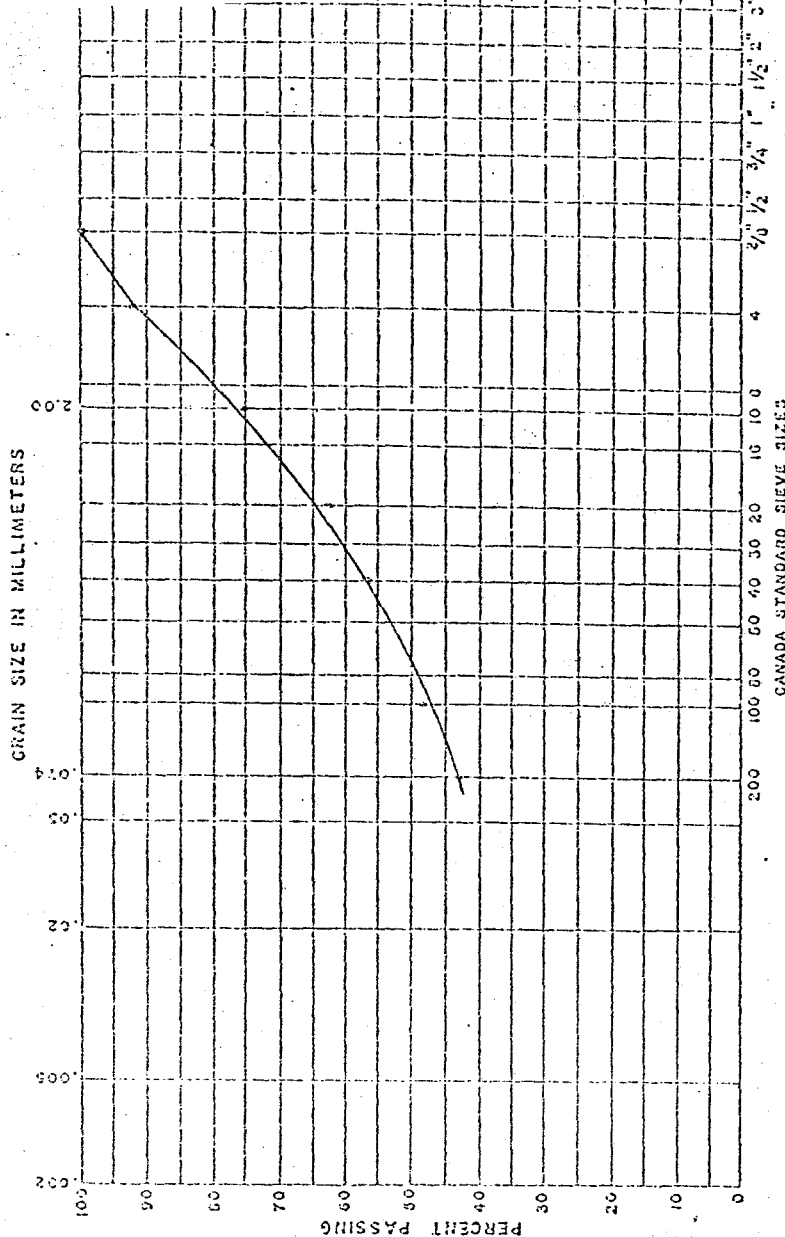
%

PETROGRAPHIC ANALYSIS

MATERIAL TYPE	% OF TOTAL SAMPLE
ONE	
TWO	
THREE	
FOUR	
FIVE	
SIX	
SEVEN	
EIGHT	
NINE	
TEN	
ELEVEN	
ARTIFICIAL	

PARTICLE SHAPE ANALYSIS

ANGULAR	
SUB-ANGULAR	
ANGULAR	
SUB-ANGULAR	
ANGULAR	
SUB-ANGULAR	



CLAY SILT SAND GRAVEL

PROJECT *DEMPSTER HIGHWAY*

LOCATION *STATION 4305+00*

HOLE NO. *RMH*

DEPTH *9'* FIELD NO. *18*

SAMPLE TYPE *BOB*

LAS. NO.
4582

LABORATORY'S REMARKS

POUZY SAND (LP)

DATE SAMPLED *5-6-72*

DATE RECEIVED *13-6-72*

DATE RECORDED *20-7-72*

BORE HOLE NO. RM-9 BORE HOLE POSITION Sta 43+0 E

DATE AND TIME June 5/72

DPW TECHNICIAN _____ CONTRACTOR _____ DRILLER _____

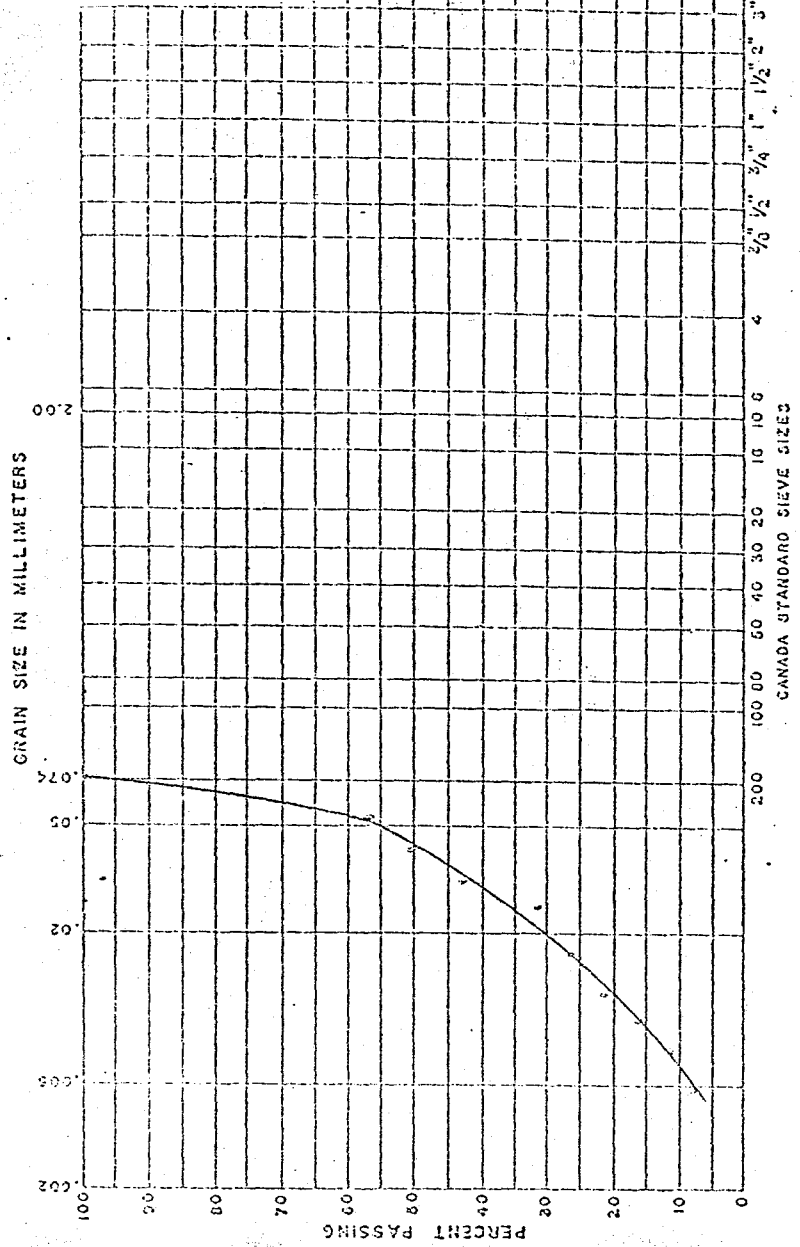
STARTED: _____ FINISHED: _____

ATUM _____ GAUGE READING _____

METHOD OF BORING _____ AND SURFACE ELEVATION _____

SOIL: _____ CASING SIZE _____ CASING HAMMER WT.LBS. _____ DROP.....INCHES _____

DESCRIPTION OF STRATA	DEPTH (FT.)	ELEV. (FT.)	BLOWS PER FOOT	SAMPLE				BLOWS PER 6 IN.	SAMPLE NO.	SAMPLE DESCRIPTION AND BORING NOTES
				NO.	SYM-BOL	TYPE	RE-TAINED (FT.)			
<i>swampy silt</i>	0								<i>masses of mica</i>	
<i>silt some clay</i>	1			11	1111	111		11	<i>thin brown grey frozen, high m.c.</i>	
<i>silt</i>	2								<i>no ice visible</i>	
<i>clayey silt</i>	3								<i>brownish grey, ice crystals, 4 ice layers, high m.c.</i>	
<i>silt particles in ice, little clay</i>	4			12	1111	1A		12		
	5								<i>few rocks</i>	
	6									
	7									
	8									
									<i>- ? large Armer.</i>	
									<i>- frozen blocks.</i>	



CLAY SILT SAND GRAVEL

PROJECT *DENVER AREA HIGHWAY*
 LOCATION *STATION 7380 + 0.0*
 HOLE NO. *RM 9*
 DEPTH *1 1/2'* FIELD NO. *11*
 SAMPLE TYPE *BAG*

LAB. NO.
4585

LABORATORY'S REMARKS
*LABORATORY SAMPLE FOR
 SILEX ANALYSIS*
 DATE SAMPLED *5-6-72*
 DATE RECEIVED *13-6-72*
 DATE RECORDED *20-7-72*

GRAIN SIZE ANALYSIS	D		M	
% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
100	75	100	75	100
100	60	100	60	100
100	47.5	100	47.5	100
100	37.5	100	37.5	100
100	30	100	30	100
100	25	100	25	100
100	20	100	20	100
100	15	100	15	100
100	12.5	100	12.5	100
100	10	100	10	100
100	7.5	100	7.5	100
100	6	100	6	100
100	4.75	100	4.75	100
100	3.75	100	3.75	100
100	3	100	3	100
100	2.5	100	2.5	100
100	2	100	2	100
100	1.5	100	1.5	100
100	1.25	100	1.25	100
100	1	100	1	100
100	0.75	100	0.75	100
100	0.6	100	0.6	100
100	0.425	100	0.425	100
100	0.3	100	0.3	100
100	0.25	100	0.25	100
100	0.15	100	0.15	100
100	0.075	100	0.075	100

CLASSIFICATION	L.L.	R.L.	P.I.	NAT. %W	F.M.
SM - SUBGRAIN SILTY SAND	48.1	47.2	0.9	14.5	
PLASTICITY					

CRUSH COUNT %

PETROGRAPHIC ANALYSIS

MATERIAL TYPE % OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS

NO

ULAR

GRAIN SIZE ANALYSIS				D MM	
% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE
		1059	59.8	0.075	85.8
		1013	53.5		
		0.63	46.9		
		1023	31.5		
		1017	25.2		
		1012	18.9		
		10096	15.7		
		10063	12.2		

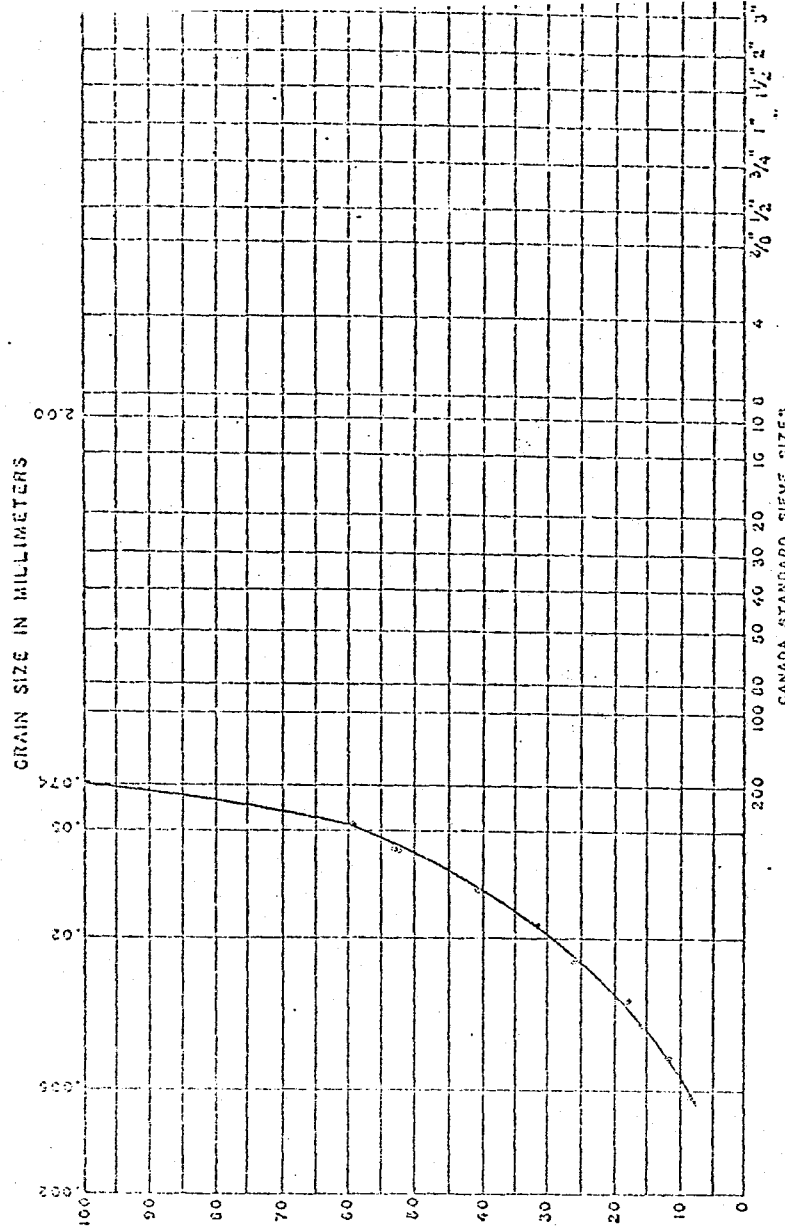
CLASSIFICATION	L.L.	P.L.	P.I.	NAT. % W	F.M.
			TRACE		

SUM - 100% SAND
L.P. PLASTICITY

CRUSH COUNT %

PETROGRAPHIC ANALYSIS	
MATERIAL TYPE	% OF TOTAL SAMPLE

PARTICLE SHAPE ANALYSIS	



CLAY SILT SAND GRAVEL

PROJECT *DEMPESTER HIGHWAY*
 LOCATION *STATION 4340+00*
 HOLE NO. *RM9*
 DEPTH *5' 1/2'* FIELD NO. *12*
 SAMPLE TYPE *BAG*

LAB. NO.
4586

LABORATORY'S REMARKS
TAKE GREAT SAMPLE TO DO SIEVE ANALYSIS

DATE SAMPLED *5-6-72*
 DATE RECEIVED *13-6-72*
 DATE RECORDED *20-7-72*

SILTY SAND (IP)

GRAIN SIZE ANALYSIS

SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
75	100.0						
100	97.7						
200	70.3						
425	78.7						
75	71.0						
150	67.6						
300	51.3						
600	33.4						

CLASSIFICATION	L.L.	P.L.	P.I.	NAT. %W	F.M.
GM-SM - GRAVELLY SILTY SAND	22.4	19.7	2.7	5.1	
LOW PLASTICITY					

CRUSH COUNT

%

PETROGRAPHIC ANALYSIS

MATERIAL TYPE

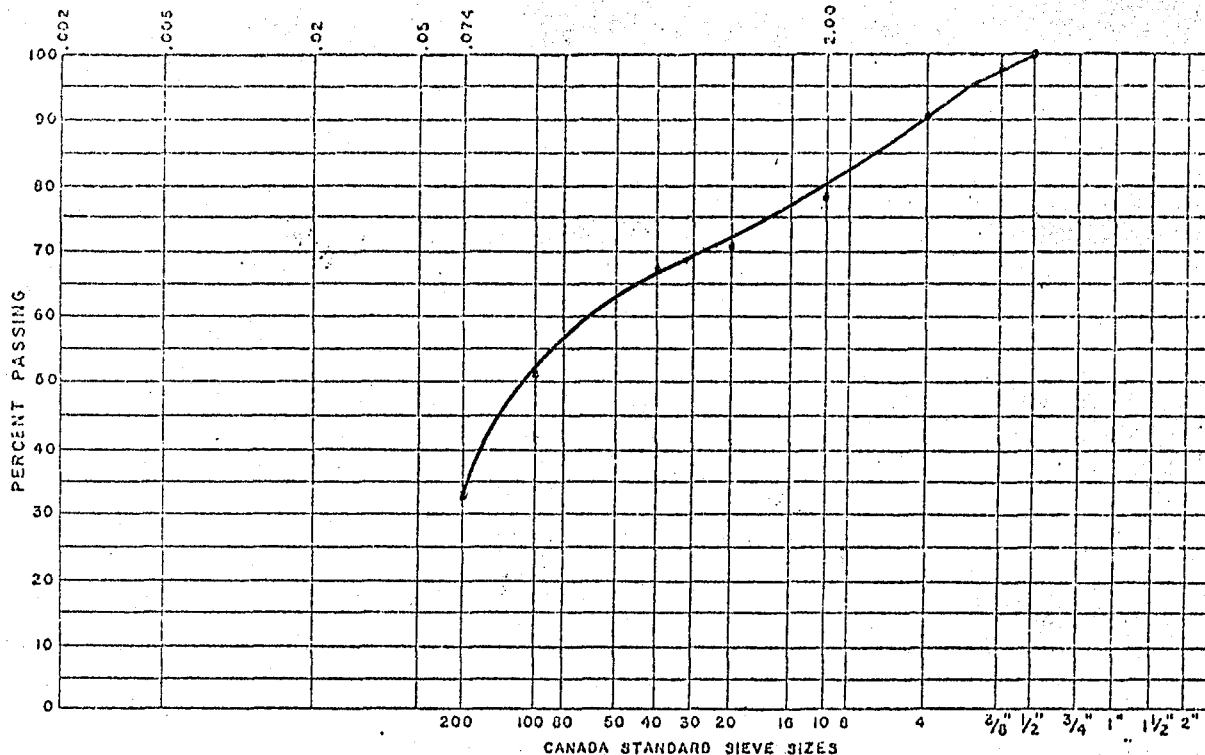
% OF TOTAL SAMPLE

SALT	
STONE	
ANITIC	
RODSTONE	
TALE	
QUARTZITE	
OTHERS	

PARTICLE SHAPE ANALYSIS

UND	
U-ROUND	
ANGULAR	
3-ANGULAR	
FLATS	

GRAIN SIZE IN MILLIMETERS



CLAY	SILT	SAND	GRAVEL
------	------	------	--------

PROJECT DEMPSTER HIGHWAY

LOCATION STATION 4365+000

HOLE NO. RM 8

DEPTH 4' FIELD NO. 10

SAMPLE TYPE SAC

LAB. NO.
4555

LABORATORY'S REMARKS	DATE SAMPLED
<u>SILTY SAND (LP)</u>	<u>2-6-72</u>
	<u>6-6-72</u>
	<u>31-7-72</u>