



42J01NE8150 2.15373 KIPLING

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MINERAL RESEARCH CANADA Inc.

Mineral Processing Facility
Tel. (705) 378 - 2416
Fax. (705) 378 - 5123

1 Industrial Blvd. R. R. # 2
Parry Sound, Ontario
Canada P2A 2W8

LOCATION AND ACCESS TO PROPERTY

The kaolin/silica project claims are located in the townships of Kipling and Emerson in the area of and comprising the claims historically known as the Douglas property. The claims are on the Mattagami River in the area of the Kipling Hydro dam approximately 100 miles southwest of James Bay in Ontario.

The claims are accessible by driving north on highway 634 from Smooth Rock Falls to Fraserdale (approximately 45.0 miles). Then a private Ontario Hydro road may be taken west for 40 miles to the Smoky Falls dam. A road then continues north for approximately 6 miles to the Kipling dam.

CLAIM NUMBERS

The kaolin/silica property consists of 367 claims (as of Jan. 13, 1994) as well as 8 patented and one leased claim. The claim numbers are P 900001 - P 900100, P1089038 - 1089073, 1089078 - 1809111, 1090037 - 1090044, 1112282 to 1112306, 1112317 - 1112351, 825792 - 825811, 880001 - 880016, 970070 - 970104, 970168 - 970200 & 983551 - 983566.

The claim numbers that this work is to be filed on are P 1-89038 - 1089073 & 1089078 - 1089111.

OWNERSHIP

The claims are wholly owned by Great Lakes Kaolin Inc.

PREVIOUS WORK

The property history as compiled by A. Gourley (1989) cites Robert Bell of the GSC as the first person to document the presence to clay and lignite in the James Bay Lowlands on Coal Brook in 1875. Borron (1891) reported extensive deposits of silica and clay on the Missinaibi River. In 1925, a report was produced by H. S. Hancock for McCarthy & Douglas regarding nine claims held on the bank of the Mattagami River and a company was formed (Northern Ontario China Clay Corporation).

In 1934 Minefinders Ltd financed the drilling of 18 holes on the west side of the Mattagami, directly across from the Douglas property, which became known as the General Refractory Products Ltd.

Fifteen holes were drilled in 1959 - 1960 by American Nepheline Ltd. with nine of these being in Kipling township.

The China Clay Syndicate comprised of New Calumet and Crang Securities drilled one hole to a depth of 163.0' north of the Douglas property in 1962. This hole is now known as C-1 after ownership transferal to the Chesterfield Mining & Exploration Co. Ltd.

Exploration in this areas continued in 1970, when Indusmin Ltd. drilled nine holes. The overburden depth in this area was approximately 100.0'.

Six hole were drilled by Geocon Ltd. on the Douglas claims in 1972. These claims were being leased by Brascan and a report was issued by C. Norman Simpson Consultants Ltd.

Ontario Geological Survey from 1975 - 1978 performed a drilling, geophysical, laboratory and field mapping study to determine Mesozoic stratigraphy.

Drilling was again conducted during 1981 by Selco Ltd. after a airborne magnetometer survey was completed. The seven holes were drilled into the anomalous magnetic areas.

Carlson Mines Ltd. optioned the Douglas property in 1985, and drilled five additional holes into the property. At this time a bulk sample was taken from the Douglas on which test work was performed by the Ontario Research Foundation (now Ortech International) and Lakefield Research. Carlson Mines Ltd. failed to complete option payments on the property resulting in forfeiture.

In 1989 the Douglas property was acquired by 798839 Ontario Ltd. (under the management of James Bay Kaolin Corp.), as well adjoining claims were staked to bring the total to 380 claims. An exhaustive drilling program of 168 holes was undertaken in which WRA, XRD, STEM, viscosity, abrasion, particle size distributions were done on core samples. Various separation techniques were developed as well as construction of a pilot plant begun.

In 1990 James Bay Kaolin Corporation was relieved of its managerial duties due to an improper rendering of accounts. The testing work continued, a 13 000 tonne bulk sample extracted and a 15 hole drilling program was completed in 1992 under the name of Mineral Research Canada Inc. for it's associated company Great Lakes Kaolin Inc.. Mineral Research Canada Inc. currently operates a small scale pilot producing kaolin materials in Parry Sound and continues with the testing work.

5.0 PRICING

RE: OUR QUOTATION NUMBER 930101T

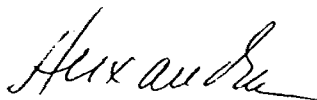
CHEMEX CODE	DESCRIPTION	MINERAL RESEARCH CANADA INC. PRICE PER SAMPLE
226/208	Crush/split (up to 5 lbs material) Ring, pulverize to -150 mesh (>90%) (200-250 gram material)	\$ 3.51
217	Dry and pulverize the sample (up to 200 gram material) to -150 mesh (>90%)	\$1.76
214/225	Handling charge for pulps not prepared in house	NO CHARGE
A12	Majors only - whole rock package includes major oxides as well as loss on ignition	\$18.00

Please include our reference number 930101T on all sample shipments related to this project.

PREPARED FOR MINERALS RESEARCH CANADA INC.

JANUARY 6, 1993

Yours truly,



Adriana Alexanru
Analytical Lab Manager

AA/tmn

MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD., R.R. 2 FOLEY
PARRY SOUND, ONTARIO P2A 2W8

ROYAL BANK OF CANADA
MAIN BRANCH
32 DUKE STREET WEST
KITCHENER, ONTARIO N2H 6L7

CHEQUE

632

PAY

8,083.24

TO THE
ORDER OF

Chemex Labs Ltd.
1212 Brooksbank Avenue
North Vancouver, British Columbia
V7J 2C1

DATE

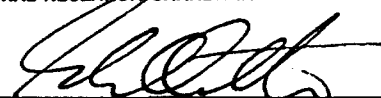
Feb 24/93

AMOUNT

\$8,083.24

MINERAL RESEARCH CANADA INC.

PER



AUTHORIZED SIGNATURE

⑆02482⑆003⑆

⑆18⑆223⑆7⑆

⑆0000808324⑆

MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD., R.R. 2 FOLEY
PARRY SOUND, ONTARIO P2A 2W8

ROYAL BANK OF CANADA
MAIN BRANCH
32 DUKE STREET WEST
KITCHENER, ONTARIO N2H 6L7

CHEQUE
860

PAY

The sum of \$3,015 and 06/100

TO THE
ORDER OF

Chemex Labs Ltd.
212 Brooksbank Ave.
North Vancouver, B.C.
V7J 2C1

DATE

Aug. 24, 1993

AMOUNT

\$3,015.06

MINERAL RESEARCH CANADA INC.

PER


AUTHORIZED SIGNATURE

⑆024820003⑆

1180022300700

⑆0000301506⑆

MINERAL RESEARCH CANADA INC.
1 INDUSTRIAL BLVD., R.R. 2 FOLEY
PARRY SOUND, ONTARIO P2A 2W8

ROYAL BANK OF CANADA
MAIN BRANCH
32 DUKE STREET WEST
KITCHENER, ONTARIO N2H 6L7

CHEQUE
906

PAY ~~the sum of \$2,301.23~~ ~~cts~~

TO THE
ORDER OF

DATE

Oct. 7, 1993

AMOUNT

\$2,301.23

Chemex Labs Ltd.
212 Brooksbank Ave.
North Vancouver, B.C.
V7J 2C1

MINERAL RESEARCH CANADA INC.

PER 
AUTHORIZED SIGNATURE

⑆02482⑉003⑆

118⑉223⑉7⑉⑆

⑆0000230123⑉⑆

TESTING PROCEDURES

The following tests are used almost exclusively by the pulp & paper industry for the testing of kaolin and to a limited extent by the ceramics, rubber and other industries. These being: viscosity, abrasion, particle size distribution (by Ro-tap & Sedigraph), moisture, brightness and pH. Due to the highly lensic nature of the Moose River deposit extensive testing is required as each lithologic unit must be treated separately to evaluate its potential. The methods and equipment models used are described for each test.

VISCOSITY - provides a rough indicator as to the presence of smectites (a similar clay mineral to kaolin but has a quality of expanding to up to 11 times its length in the presence of water due to hydroxyl incorporation into the lattice structure). Viscosity is critical in the pulp and paper industry as kaolin is almost always shipped as a slurry at 70.0% solids. These slurries must be unloaded with little difficulty and remain fluid during shipping without settling out or becoming more viscous. The kaolin particle shape can also effect the viscosity (especially if large amounts of halloysite - a tubular kaolin - is present). There are two viscosity tests, one at high shear rates and the other at low shear rates. Our instrument is a Brookfield, model DV-II. For any viscometer model the minimum range is obtained by using the largest spindle at the highest level; the maximum range by using the smallest spindle at the lowest speed. It is a measurement of a specified percentage solids at a specific temperature and pH. For high brightness coating grade kaolin, the viscosity should be 300 - 600 cps., regular brightness coating grade viscosity runs from 200 - 600 cps., for water washed filler grade kaolin, the viscosity requirement is 150 - 300 centapoises.

PARTICLE SIZE DISTRIBUTION - this test is performed to give a early indication of the kaolin yield from the sample as well as the percentage of silica in each size fraction which may become important as more market are found for silica of certain size fractions (e.g. - golf course sand is only of a particular size fraction). The silica fractionation required the use of a Ro-tap after the clay portion (-325 mesh material) has been removed. The Ro-tap utilizes various sieve sizes to give the appropriate distribution. The clay portion is then tested with the sedigraph which used an X-ray beam to measure the portion if the fine material in each particle size, generally measured in microns. The particle size is critical for kaolin, it is the most crucial factor by which quality is judged. Each application of kaolin has a different particle size distribution requirement. See figure 1 (particle size for the paper products), figure 2 is a typical sedigraph for ceramic grade material. Our sedigraph results are as follows; page 1: shows tabular data of cumulative mass percent finer and mass percent in interval vs. diameter. Page 2: the curve represents cumulative mass percent finer vs. equivalent spherical diameter. Page 3: columns indicate mass population (percent in

interval) vs. equivalent spherical diameter. The instrument model is a Micromeretics Sedigraph 5100.

MOISTURE - determination of moisture must be completed in order to calculate the Ro-tap screen fractions (percentage of total dry material).

BRIGHTNESS - a significant element for the paper industry, the whiter the material is the higher the price the material commands. Brightness is especially important in kaolin that is used in paper coating. The brightness must be high to provide a good reflectance, opacity and gloss. Our instrument is a Technibrite Micro TB -1C, & is fully automatic microprocessor based that provides brightness, opacity, colour and fluorescence measurements. The powdered kaolin is pressed into a pellet form before obtaining a brightness reading.

pH - a reading is taken as an indicator of the settling quality of the sample as well as being required to perform the viscosity and abrasion tests and is a rough estimate as to the possible chemical loading of the final product - most kaolin is shipped as a pH of 4, the material from the Moose River deposit is generally alkaline. Accumet 910 meter is in our use.

ABRASION - even though the particle size distribution may indicate a large percentage of fine particles it is important that these particles be almost entirely kaolin. Silica in the Moose River deposit is frequently as fine as the kaolin platelets and because kaolin and quartz has the same specific gravity there is a constant challenge in removing sufficient silica to reduce the abrasion to an acceptable level. It is required that most abrasives be removed as their presence causes excess wear on apparatus when producing paper. The instrument used is Einlehner AT 100. Dry kaolin (100 g) is mixed with 300 mls of water, agitated 5.0 minutes, flushed with 700 mls of water, pH is then adjusted. The standard duration of the test is 2.0 hours. The abrasion of the test is measured as loss in weight g/m^2 suffered by standard test screen having an abrasion areas of 305 mm^2 . For the regular and high brightness coating grade kaolins, abrasion value must be less than $65g/m^2$ and water washed filler grade kaolin abrasion value is less than 100 g/m^2 .

ROTARY DRILL HOLE RECORD

Drilling Started: Jan. 8, 1989	Logged By: A. Casselman
Drilling Finished: Jan. 9, 1989	Logged: April 11, 1989
Drilling Co.: Midwest	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 255.0'	Mineral Research Canada Inc.
Overburden Depth: 63.0'	R. R. # 2
Claim No.: P 825809	Parry Sound, ON
Easting: 6210 E	P2A 2W8
Northing: 395 N	Hole No.: 89-3
Azimuth: 50° 09' 01" W. 82° 08' 09" N.	
Location: 550.0' at 208° To Claim Post No. 1	
Property: Kipling	

SUMMARY

From	To	Description
0.0'	4.0'	Peat
4.0'	63.0'	Glacial Clay Till - Overburden - Pleistocene
63.0'	67.0'	Clay Cretaceous
67.0'	98.0'	Kaolin Silica Sand (Kss)
98.0'	99.0'	Clay
99.0'	99.5'	Kss & Clay
99.5'	107.0'	Kss
107.0'	120.0'	Clay
120.0'	133.0'	Kss
133.0'	137.0'	Clay
137.0'	141.0'	Sandy Clay
141.0'	149.0'	Clay
149.0'	167.0'	Kss
167.0'	175.0'	Clay
175.0'	195.0'	Kss
195.0'	200.0'	Clay
200.0'	230.0'	Sandy Clay
230.0'	255.0'	Kss

Jan. 13, 1989
 Anne Casselman

Detailed Log 89-3

From	To	Sample No.	Description
0.0'	4.0'		Peat
4.0'	63.0'		Glacial Clay Till - dark brown, competent, disc-like, large clasts up to 3.0" - Precambrian (10.0%) and Devonian (3.0 - 5.0%), high sand content near lower contact, calcareous.
63.0'	65.0'	3701	Clay - yellow brown, highly competent, disc-like, large clasts up to 0.25" along restricted laminations. 53.82% kaolin by calculation.
65.0'	67.0'	3702	Clay - yellow brown, highly competent, disc-like, greasy from 65.0' - 66.0', turns to pliable grey sandy clay from 66.0' - 67.0'. 51.39% kaolin by calculation.
67.0'	69.0'	3703	Kss - medium grain, well sorted, medium brown. 10.18% kaolin by calculation.
69.0'	72.0'	3704	Kss - as above. 8.71% kaolin by calculation.
72.0'	77.0'	3705	Kss - coarsening downsection to coarse grain at 74.0', white, well sorted. 7.72% kaolin by calculation.
77.0'	79.0'	3706	Kss - as above, continues to coarsen downsection. 8.15% kaolin.
79.0'	82.0'	3707	Kss - dried, high clay content, very coarse grain, poorly sorted, disc-like. 9.67% kaolin by calculation.
82.0'	85.0'	3708	Kss - as above from 82.0' - 83.0', at 83.0' - 85.0' kss becomes medium grain, dark brown, some purple and grey laminations. Material not dried. 8.63% kaolin by calculation.
85.0'	88.0'	3709	Kss - fine grain from 85.0' - 86.0', 86.0' - 88.0' - kss - medium brown, coarse grain containing clay interbedding. Clay - dark brown, pliable. 9.06% kaolin by calculation.
88.0'	91.0'	3710	Kss - brown, well sorted, coarse grain. 4.25% kaolin by calculation.

91.0'	98.0'	3711	Kss - fining downsection from medium grain to fine grain, darker banding - almost sandy clay at lower contact, minor illite and heavies. 10.43% kaolin by calculation.
98.0'	99.0'	3712	Sandy Clay - buff, grading to greasy pliable clay. 58.20% kaolin by calculation.
99.0'	99.5'	3713	Kss & Clay - interbedded, Kss - white, medium grain, well sorted, Clay - light brown, pliable - 1.0". 16.99% kaolin by calculation.
99.5'	105.0'	3714	Kss - medium grain, dark brown, yellow tinge from 99.5' - 100.5', 100.5' - 105.0' - white. 6.89% kaolin by calculation.
105.0'	107.0'	3715	Kss - dark yellow brown, medium grain. 6.89% kaolin by calculation.
107.0'	110.0'	3716	Clay - light yellow, very pliable - putty-like, rare red laminations at 107.2' and rare white laminations at 109.0' - water saturated. 81.75% kaolin. 75.0% kaolin, 25.0% quartz by XRD.
110.0'	113.0'	3717	Clay - competent, yellow brown, greasy, disc-like. 82.66% kaolin by calculation.
113.0'	115.0'	3718	Clay - medium brown, more pliable than above, competent, darker discontinuous laminations, 71.70% kaolin.
115.0'	120.0'	3719	Clay - dark brown, competent, pliable, darker discontinuous laminations. 71.04% kaolin by calculation.
120.0'	123.0'		Kss - medium grain, buff, entire hole dried.
123.0'	127.0'		Kss - medium grain, light brown, minor heavies.
127.0'	131.0'		Kss - as above, hematite staining due to drilling debris.
131.0'	133.0'		Clay - with some silty areas, competent, purple moulding, buff, one large - 1.5" rounded garnetiferous haematitic nodule, not siliceous.
133.0'	137.0'		Clay - as above, some purple areas, illite, sulphureous smell.
137.0'	141.0'		Sandy Clay - competent, buff to chocolate brown, carbonaceous clay laminations, minor illite.

- 141.0' 144.0' Clay - competent, fissile, medium brown, carbonaceous.
- 144.0' 147.0' Clay - as above, some areas of yellow/green exterior coating with sulphureous smell.
- 147.0' 149.0' Clay - mottled with fine grain kss and having and exterior contamination of kss, medium brown, some chocolate and light brown areas.
- 149.0' 153.0' Kss - medium grain, medium brown, exterior crystal growth.
- 153.0' 156.0' Kss - medium grain, light brown, haematite staining due to drilling debris.
- 156.0' 160.0' Kss - medium grain, white.
- 160.0' 165.0' Kss - as above.
- 165.0' 167.0' Kss - 163.0' - 164.0' - coarse grain in a white clay matrix, medium yellow/brown clay matrix, 164.0' - 165.0' - competent, light red/brown, 165.0' - 167.0' - medium grain, light brown kss.
- 167.0' 171.0' Clay - as above, competent, disc-like, greasy, medium brown, carbonaceous, 169.0' - 169.25' - kss - medium grain, medium brown.
- 171.0' 175.0' Clay - as above, Kss seam at 171.75' - 172.0'.
- 175.0' 178.0' Kss - medium grain, white, chocolate brown at upper contact.
- 178.0' 181.0' Kss - medium grain, light brown.
- 181.0' 185.0' Kss - medium grain, light brown.
- 185.0' 190.0' Kss - as above, hematite staining due to drilling debris.
- 190.0' 195.0' Kss - medium grain, light grey, much yellow/brown staining.
- 195.0' 200.0' Clay - some silty areas, competent, disc-like, greasy, chocolate brown, carbonaceous, minor illite, exterior crystal growth.
- 200.0' 205.0' Sandy Clay - competent, chocolate brown, carbonaceous, minor illite.
- 205.0' 214.0' Sandy Clay - mangled, flowage from bag, fine grain, medium brown, rounded yellow and smoky silica

clasts, 1.0" found within the clay seams.

- 214.0' 224.0' Sandy Clay - competent, fissile, black and medium brown laminations, carbonaceous, minor illite, at 214.0' - clear acicular needles up to 2.5".
- 224.0' 230.0' Sandy Clay - as above, laminations are thicker.
- 230.0' 234.0' Kss - fine grain, medium brown, to medium grain, light brown, minor heavies, yellow sulphureous coating and crystal growth.
- 234.0' 238.0' Kss - medium grain, buff, with buff clay clots and laminations that are slightly darker.
- 238.0' 243.0' Kss - medium grain, buff, minor heavies.
- 243.0' 245.0' Kss - as above.
- 245.0' 250.0' Kss - as above.
- 250.0' 255.0' Kss - as above.

EOH - 255.0'

Section 89-3

Claim No.: P 825809

Hole Length: 255.0'

Overburden Depth: 63.0'

Astronomic Azimuth: $50^{\circ} 09' 01''$ W. $82^{\circ} 08' 09''$ N.

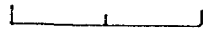
Location: 550.0' at 208° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 395 N

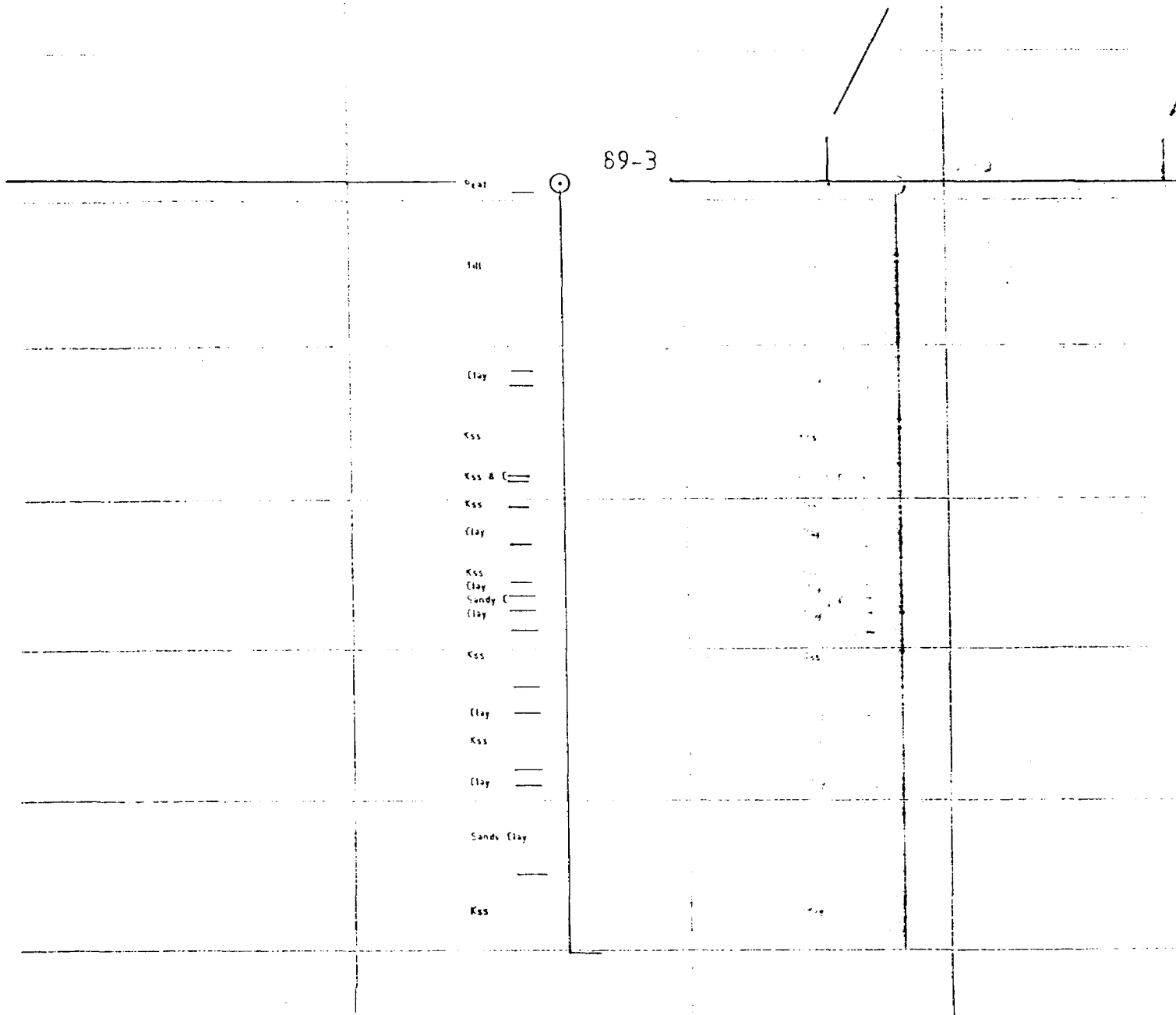
Easting: 6210 E

Dip: -90°



50.0'

Gridline 6300



Section 89-3

Claim No.: P 825809

Hole Length: 255.0'

Overburden Depth: 63.0'

Astronomic Azimuth: $50^{\circ} 09' 01''$ W. $82^{\circ} 08' 09''$ N.

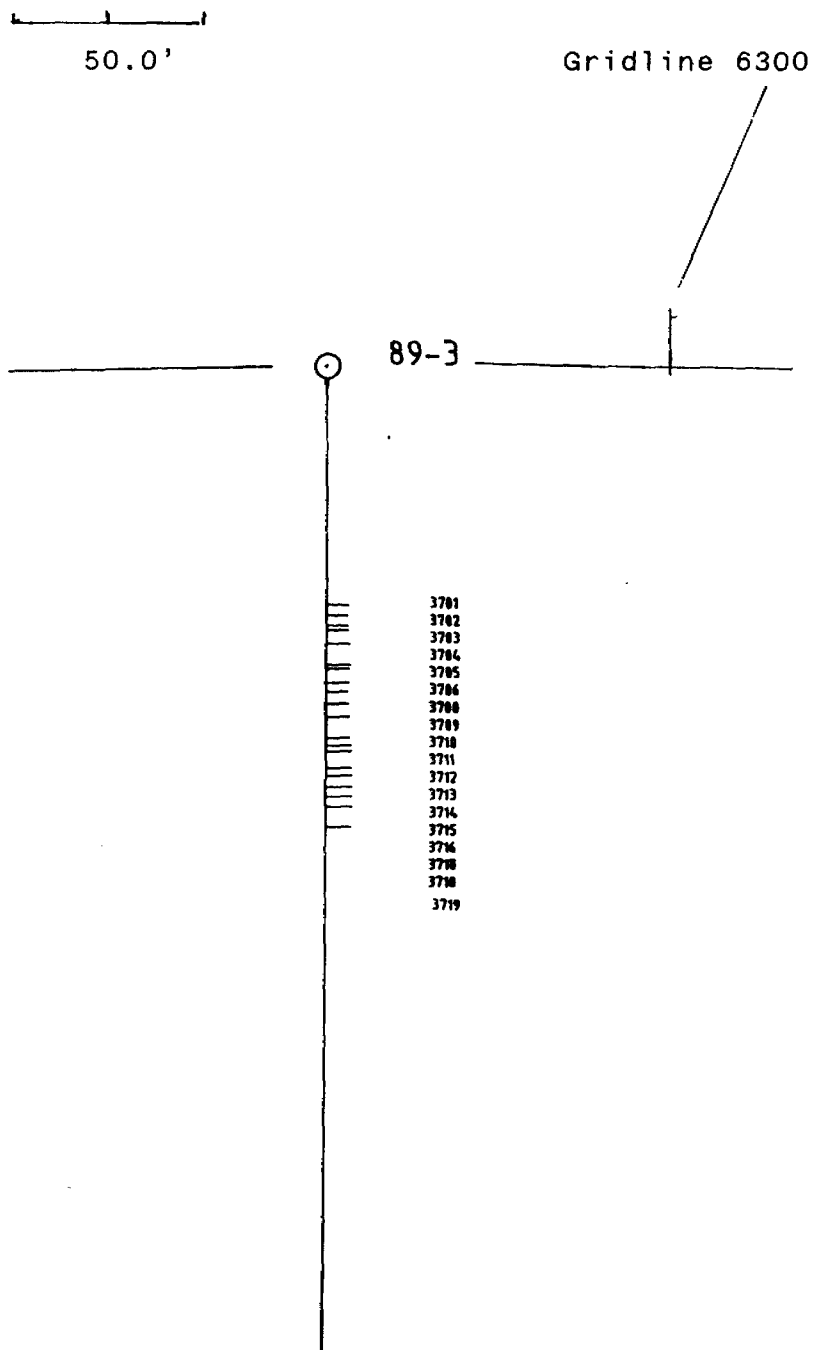
Location: 550.0' at 208° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 395 N

Easting: 6210 E

Dip: -90°



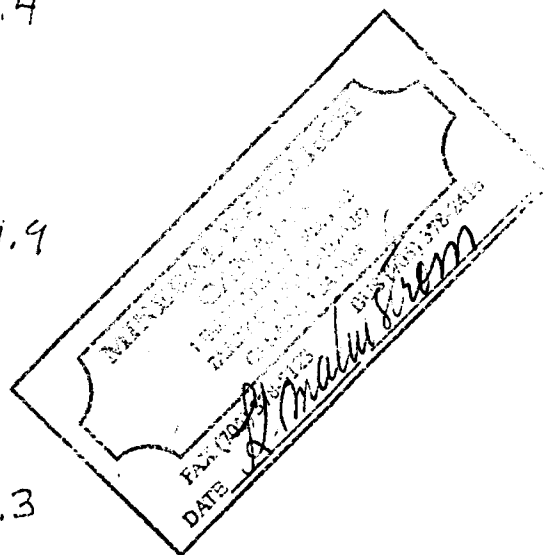
MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
<i>Hole 89-3</i> 3701	+ 4	0	8.3	
	+ 40	4.8		
	+100	5.3		
	+200	3.8		
	+325	3.5		
	-325	82.6		
3702	+ 4	0	7.9	
	+ 40	0.2		
	+100	0.4		
	+200	1.4		
	+325	3.8		
	-325	94.4		
3703	+ 4	0	9.4	
	+ 40	10.8		
	+100	63.2		
	+200	7.1		
	+325	1.8		
	-325	17.1		
3704	+ 4	0	1.9	
	+ 40	65.3		
	+100	25.2		
	+200	1.3		
	+325	0.6		
	-325	7.6		
3705	+ 4	6.8	0.3	
	+ 40	5.4		
	+100	6.9		
	+200	2.9		
	+325	1.7		
	-325	26.3		



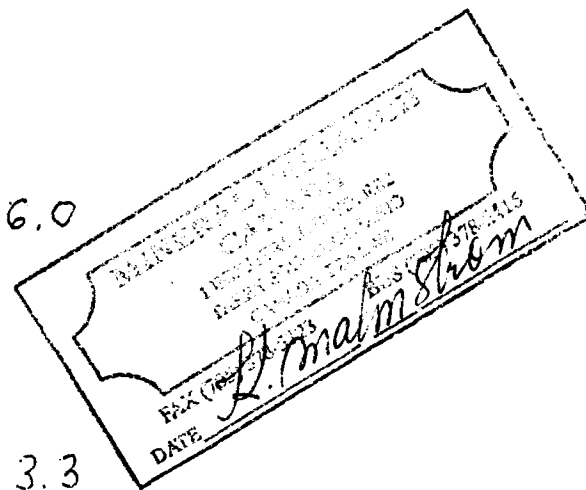
MINERAL RESEARCH CANADA

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FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
PARRY SOUND, ON, CANADA
P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
Hole 89-3 3706	+ 4	3.7	0.2	
	+ 40	65.1		
	+100	16.4		
	+200	2.4		
	+325	1.3		
	-325	11.1		
3707	+ 4	0.4	4.4	
	+ 40	52.1		
	+100	33.5		
	+200	2.2		
	+325	0.6		
	-325	11.2		
3708	+ 4	3.8	16.9	
	+ 40	58.5		
	+100	22.8		
	+200	1.9		
	+325	0.7		
	-325	12.3		
3709	+ 4	2.4	6.0	
	+ 40	85.1		
	+100	2.6		
	+200	0.8		
	+325	9.1		
	-325			
3710	+ 4	4.9	3.3	
	+ 40	67.3		
	+100	12.4		
	+200	3.0		
	+325	0.8		
	-325	11.6		



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1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON, CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
<i>Hole 89-3</i> 3711	+ 4	0.2	3.8	
	+ 40	65.6		
	+100	22.5		
	+200	2.3		
	+325	1.0		
	-325	8.4		
3712	+ 4	0	4.6	
	+ 40	0.1		
	+100	0.6		
	+200	15.0		
	+325	6.9		
	-325	77.4		
3713	+ 4	11.5	5.5	
	+ 40	16.2		
	+100	41.3		
	+200	12.7		
	+325	2.6		
	-325	15.7		
3714	+ 4	0.3	3.4	
	+ 40	62.8		
	+100	23.1		
	+200	4.3		
	+325	0.7		
	-325	8.8		
3715	+ 4	9.6	2.7	
	+ 40	63.5		
	+100	10.5		
	+200	2.3		
	+325	1.4		
	-325	12.7		

Stalmstrom

DATE: _____
 FAX: _____

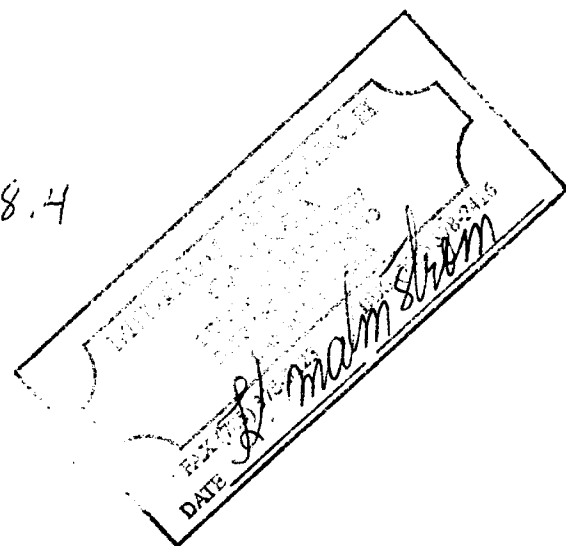
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ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
<i>Hole 89-3</i> 3716	+ 4	0	7.2	
	+ 40	2.0		
	+100	1.4		
	+200	2.0		
	+325	4.8		
	-325	89.8		
3717	+ 4	0	7.4	
	+ 40	0.1		
	+100	0.3		
	+200	2.0		
	+325	3.4		
	-325	94.2		
3718	+ 4	0	5.6	
	+ 40	2.1		
	+100	7.7		
	+200	3.5		
	+325	3.3		
	-325	83.4		
3719	+ 4	0	8.4	
	+ 40	0.1		
	+100	0.8		
	+200	1.6		
	+325	3.4		
	-325	94.1		
	+ 4			
	+ 40			
	+100			
	+200			
	+325			
	-325			



SAMPLE DIRECTORY/NUMBER: DATA7 /33
 SAMPLE ID: Hole 89-3 Pt 3701
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 112 kilocounts/sec

UNIT NUMBER: 1
 START 14:27:12 01/29/93
 REPR 14:15:01 01/17/94
 TOT RUN TIME 0:07:14
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9944 g/cc
 LIQ VISC: 0.7334 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 fm
 ENDING DIAMETER: 0.40 fm

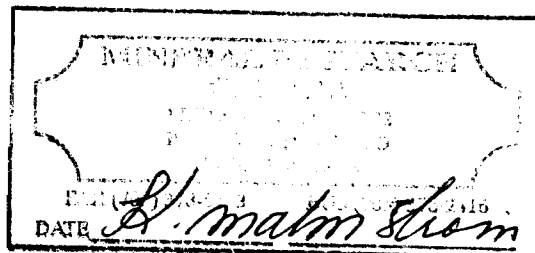
REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.37 fm

MODAL DIAMETER: 1.71 fm

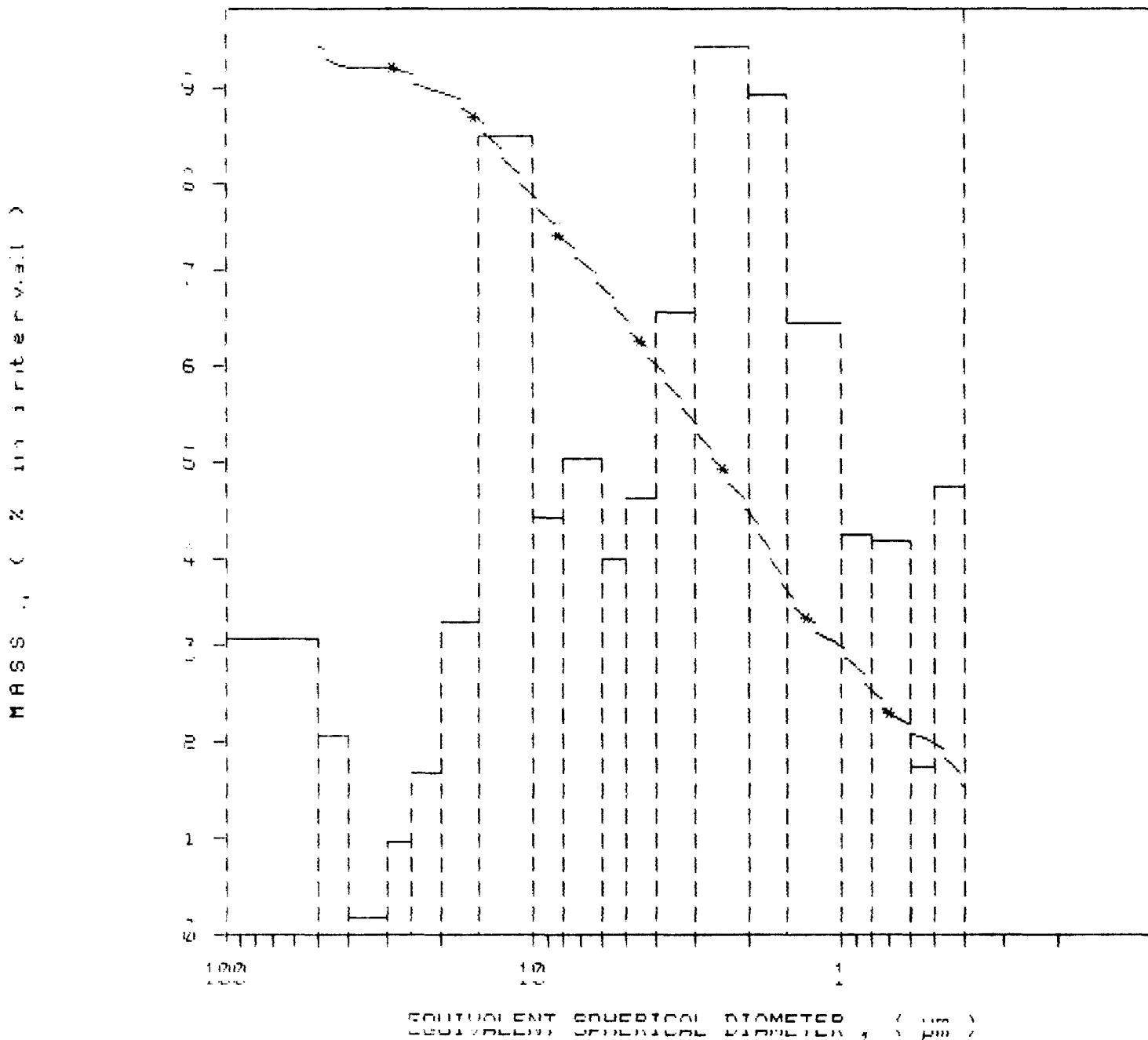
DIAMETER (fm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	96.9	3.1
40.00	94.8	2.1
30.00	94.6	0.1
25.00	93.7	0.9
20.00	92.0	1.7
15.00	88.7	3.3
10.00	80.2	8.5
8.00	75.8	4.4
6.00	70.7	5.1
5.00	66.7	4.0
4.00	62.1	4.6
3.00	55.5	6.6
2.00	46.1	9.4
1.50	37.2	8.9
1.00	30.7	6.4
0.80	26.5	4.3
0.60	22.3	4.2
0.50	20.5	1.7
0.40	15.7	4.8



SAMPLE DIRECTORY/NUMBER: DATA7 /33
 SAMPLE ID: Hole 89-3 A 3701
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 112 kilocounts/sec

UNIT NUMBER: 1
 START 14:27:12 01/29/93
 REPT 14:15:01 01/17/94
 TOT RUN TIME 0:07:14
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9944 g/cc
 LIQ VISC: 0.7334 cp
 RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /34
 SAMPLE ID: Hole 89-3 # 3702
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 119 kilocounts/sec

UNIT NUMBER: 1
 START 14:50:37 01/29/93
 REPT 14:25:05 01/17/94
 TOT RUN TIME 0:07:14
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7333 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

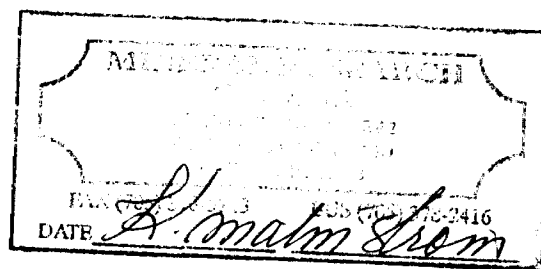
REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.34 μ m

MODAL DIAMETER: 1.64 μ m

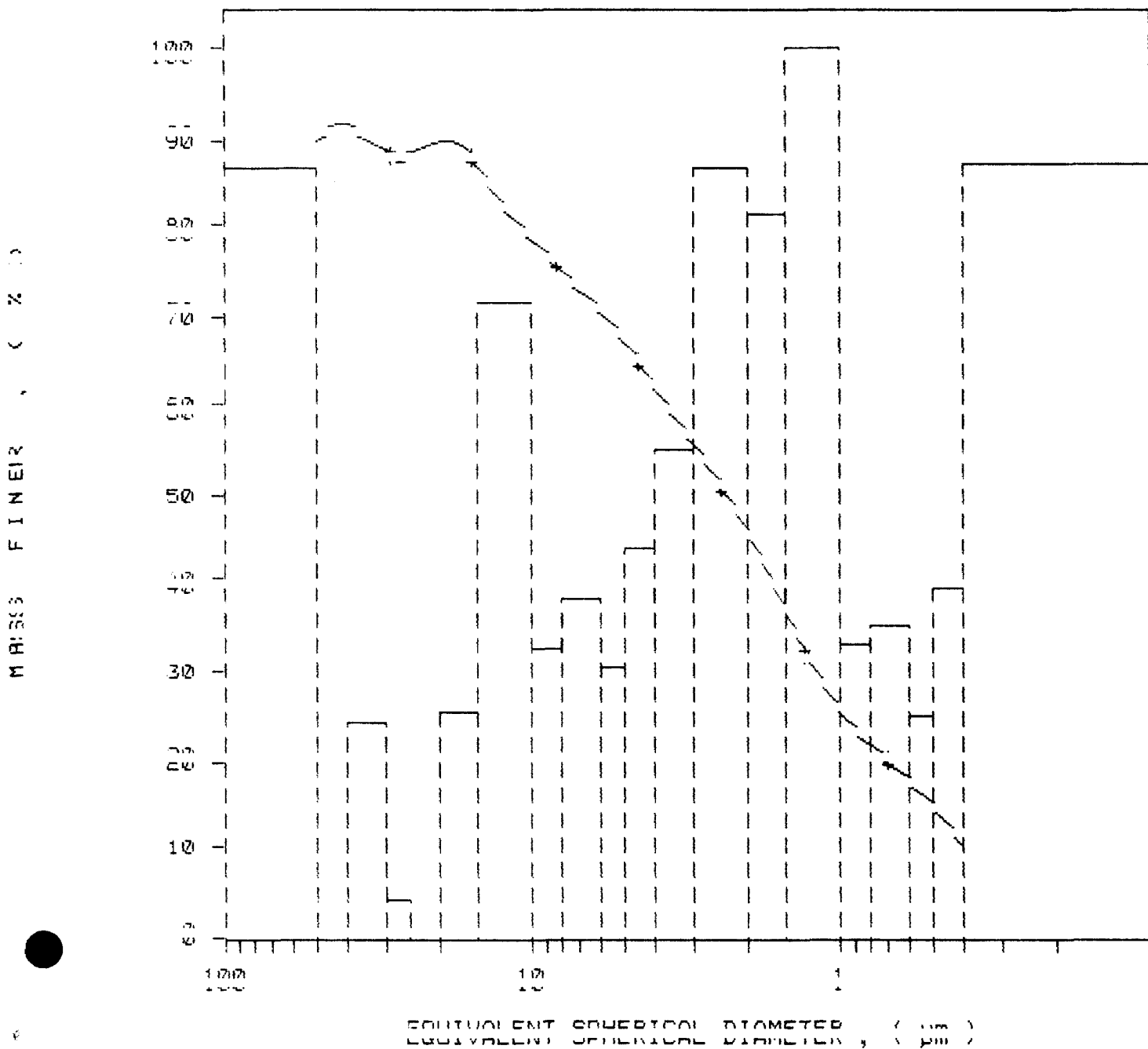
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	90.1	9.9
40.00	91.3	-1.2
30.00	88.6	2.8
25.00	88.1	0.4
20.00	89.8	-1.7
15.00	86.9	2.9
10.00	78.8	8.2
8.00	75.0	3.7
6.00	70.7	4.4
5.00	67.2	3.5
4.00	62.1	5.0
3.00	55.9	6.3
2.00	45.9	9.9
1.50	36.6	9.4
1.00	25.2	11.4
0.80	21.4	3.8
0.60	17.4	4.0
0.50	14.6	2.9
0.40	10.0	4.5



SAMPLE DIRECTORY/NUMBER: DATA7 /34
 SAMPLE ID: Hole B9-3 R 3702
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 119 kilocounts/sec

UNIT NUMBER: 1
 START 14:50:37 01/29/93
 REPT 14:25:05 01/17/94
 TOT RUN TIME 0:07:14
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7333 cp
 RUN TYPE: High Speed

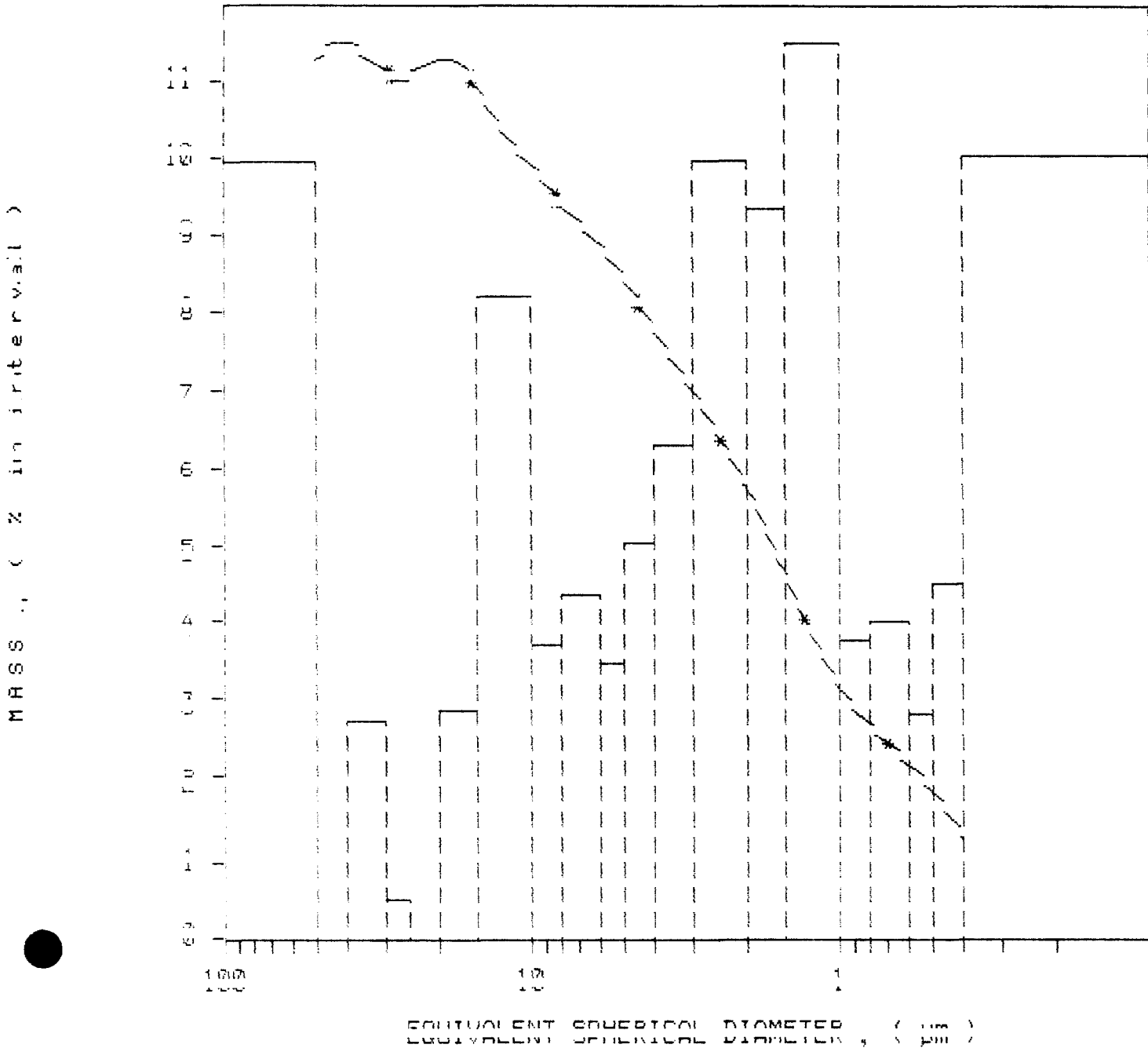
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 + CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /34
SAMPLE ID: Hole B9-3 R 3702
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 119 kilocounts/sec

UNIT NUMBER: 1
START 14:50:37 01/29/93
REPRT 14:25:05 01/17/94
TOT RUN TIME 0:07:14
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7333 cp
RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /50
 SAMPLE ID: Hole 89-3 # 3703
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 106 kilocounts/sec

UNIT NUMBER: 1
 START 11:26:46 02/05/93
 REPR 09:55:39 01/18/94
 TOT RUN TIME 0:07:33
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7324 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 μm
 ENDING DIAMETER: 0.40 μm

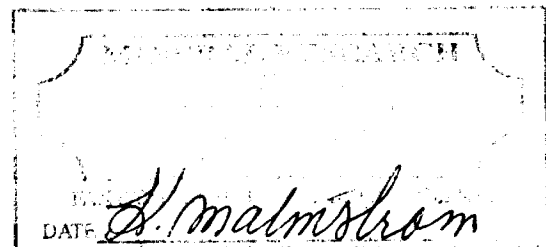
REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 7.46 μm

MODAL DIAMETER: 6.96 μm

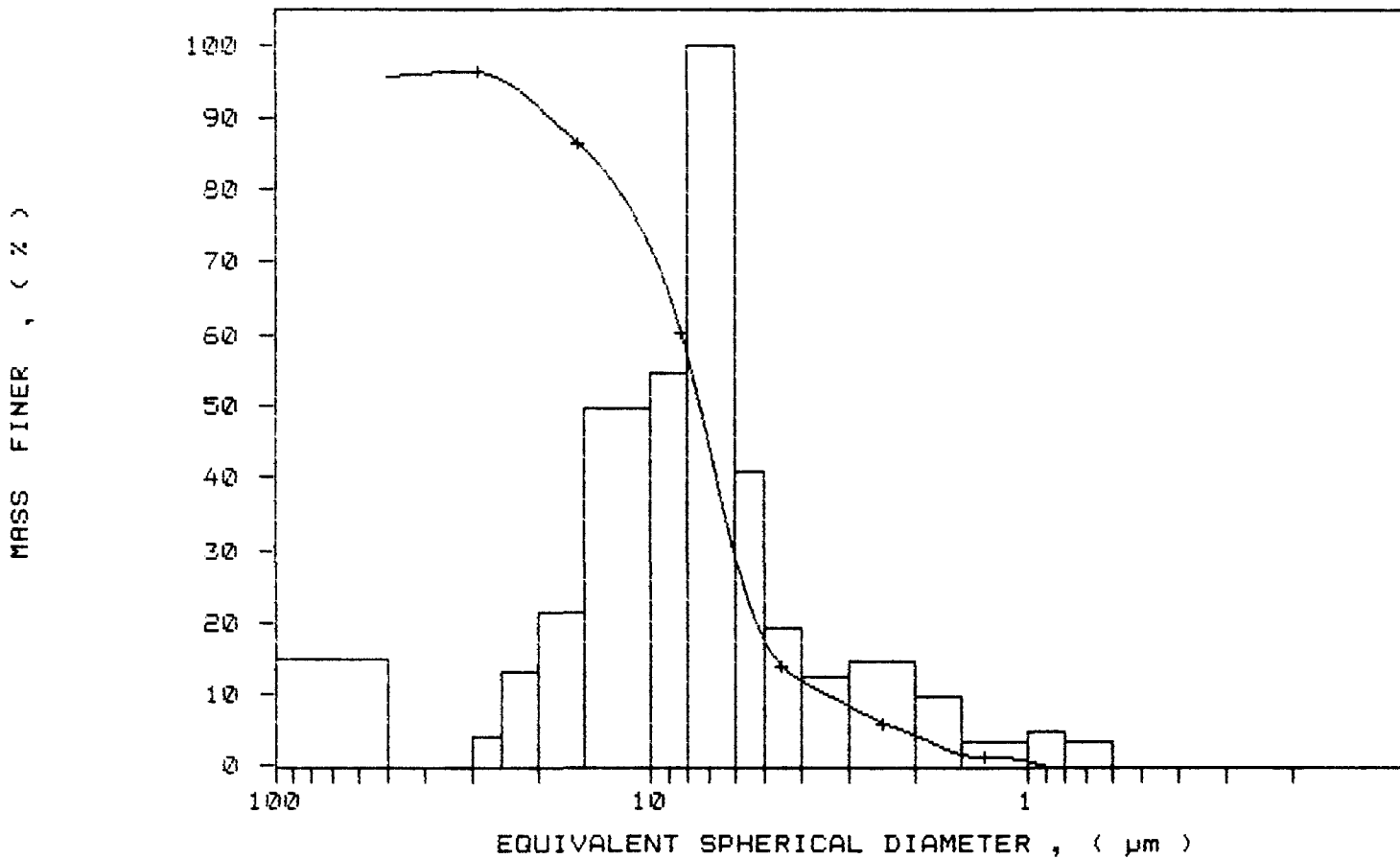
DIAMETER (μm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	95.8	4.2
40.00	96.0	-0.3
30.00	96.5	-0.4
25.00	95.3	1.2
20.00	91.5	3.7
15.00	85.6	6.0
10.00	71.7	13.8
8.00	56.5	15.2
6.00	28.7	27.8
5.00	17.3	11.4
4.00	11.9	5.4
3.00	8.4	3.5
2.00	4.3	4.1
1.50	1.6	2.7
1.00	0.6	1.0
0.80	-0.7	1.4
0.60	-1.7	1.0
0.50	-1.7	0.0
0.40	-1.2	-0.5



SAMPLE DIRECTORY/NUMBER: DATA7 /50
SAMPLE ID: Hole 89-3 # 3703
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 106 kilocounts/sec

UNIT NUMBER: 1
START 11:26:46 02/05/93
REPT 09:55:39 01/18/94
TOT RUN TIME 0:07:33
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7324 cp
RUN TYPE: High Speed

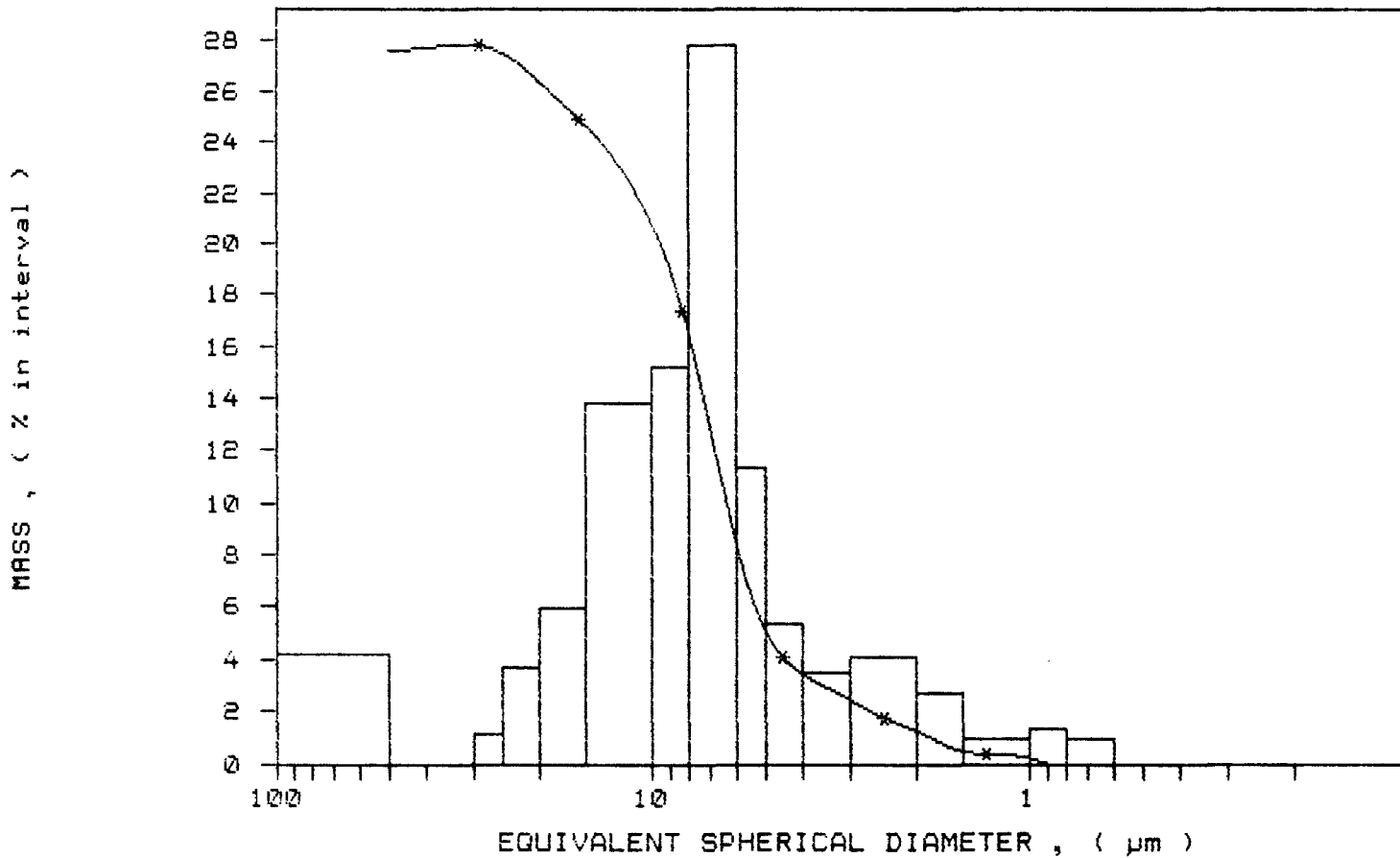
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /50
SAMPLE ID: Hole 89-3 # 3703
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 106 kilocounts/sec

UNIT NUMBER: 1
START 11:26:46 02/05/93
REPR 09:55:39 01/18/94
TOT RUN TIME 0:07:33
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7324 cp
RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /51
 SAMPLE ID: Hole 89-9 # 3704
 SUBMITTER: NRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 83 kilocounts/sec

UNIT NUMBER: 1
 START 11:47:18 02/05/93
 REPR 10:02:01 01/18/94
 TOT RUN TIME 0:07:01
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7324 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 μm
 ENDING DIAMETER: 0.40 μm

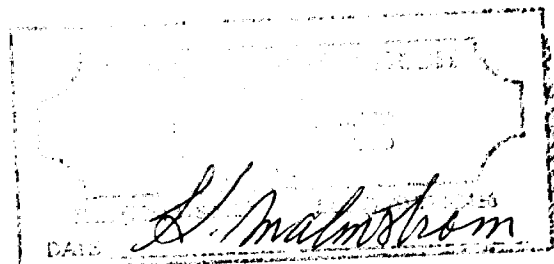
REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.12 μm

MODAL DIAMETER: 1.12 μm

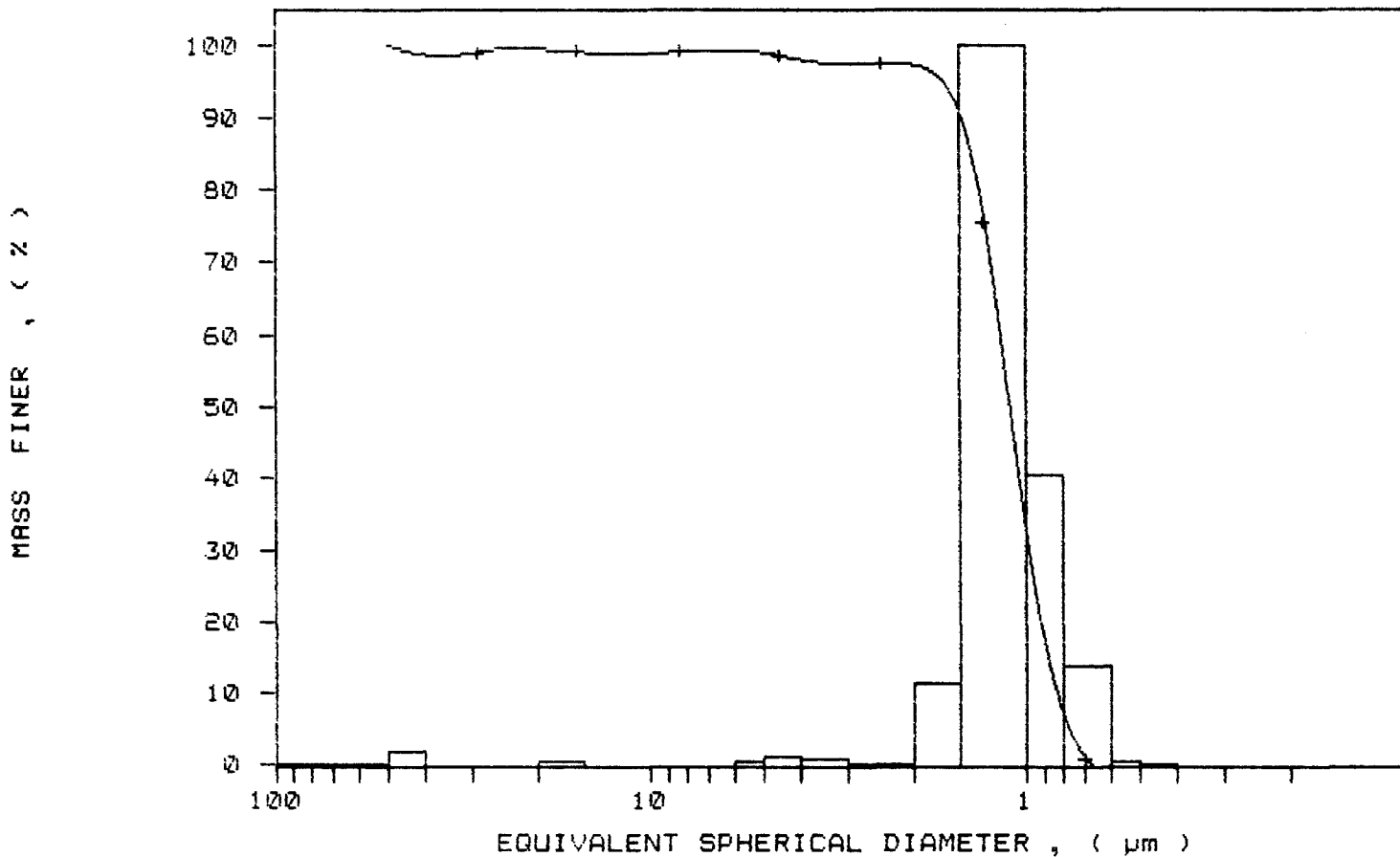
DIAMETER (μm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	99.9	0.1
40.00	98.7	1.2
30.00	98.8	-0.1
25.00	99.5	-0.7
20.00	99.5	-0.0
15.00	99.0	0.5
10.00	98.9	0.1
8.00	99.1	-0.2
6.00	99.3	-0.2
5.00	98.9	0.3
4.00	98.0	0.9
3.00	97.3	0.6
2.00	97.2	0.1
1.50	90.3	6.9
1.00	30.9	59.4
0.80	6.8	24.1
0.60	-1.6	8.3
0.50	-2.0	0.4
0.40	-2.1	0.1



SAMPLE DIRECTORY/NUMBER: DATA7 /51
SAMPLE ID: Hole 89-9 # 3704
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 83 kilocounts/sec

UNIT NUMBER: 1
START 11:47:18 02/05/93
REFRT 10:02:01 01/18/94
TOT RUN TIME 0:07:01
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7324 cp
RUN TYPE: High Speed

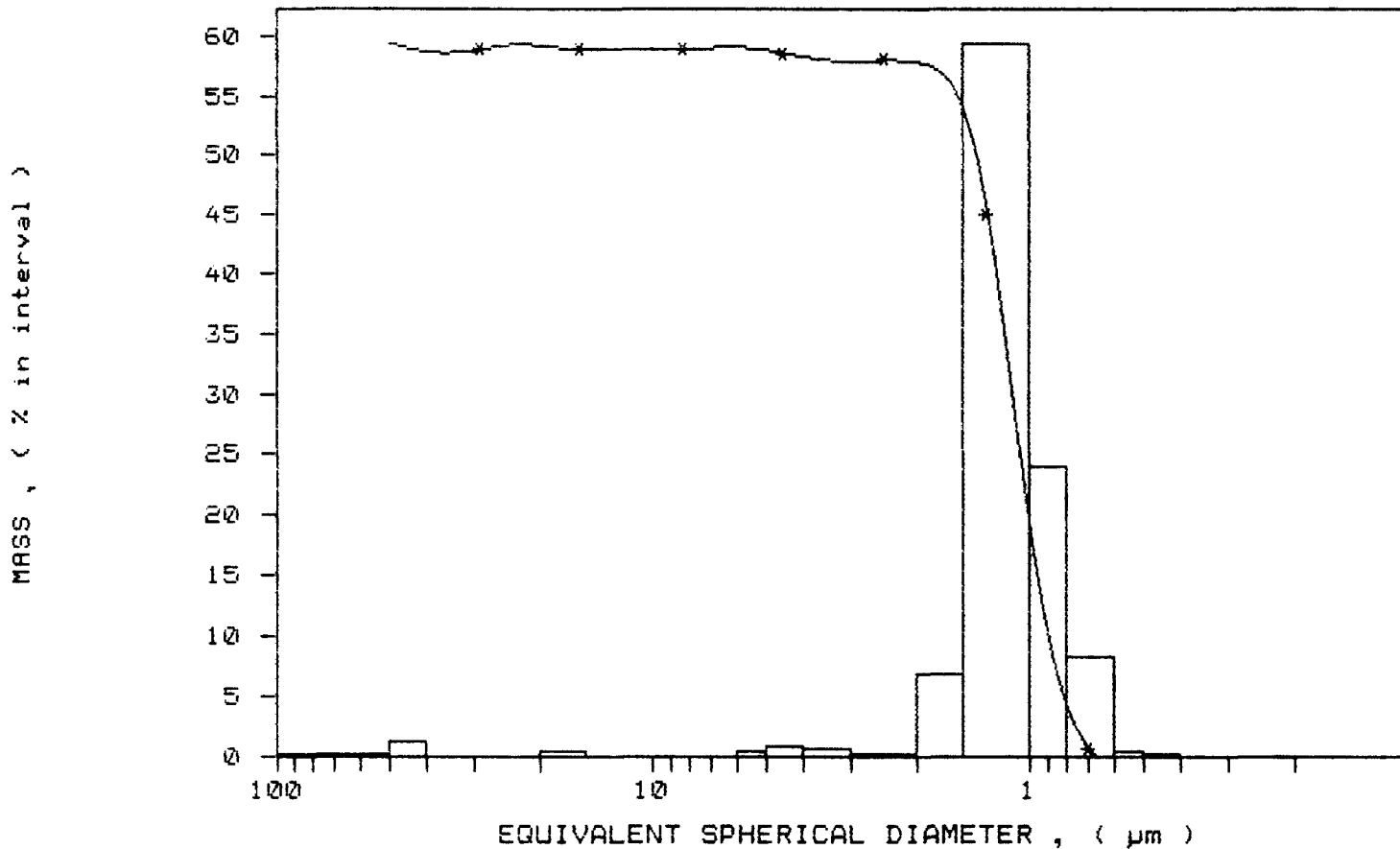
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /51
SAMPLE ID: Hole 89-9 # 3704
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 83 kilocounts/sec

UNIT NUMBER: 1
START 11:47:18 02/05/93
REPR 10:02:01 01/18/94
TOT RUN TIME 0:07:01
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7324 cp
RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /35
 SAMPLE ID: Hole 89-3 # 3705
 SUBMITTER: MRC Inc.
 OPERATOR: KH
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.2 deg C
 BASELINE/FULL SCALE: 127/ 102 kilocounts/sec

UNIT NUMBER: 1
 START 15:27:32 01/29/93
 REPRT 14:40:50 01/17/94
 TOT RUN TIME 0:07:11
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9944 g/cc
 LIQ VISC: 0.7336 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.39 μ m MODAL DIAMETER: 0.40 μ m

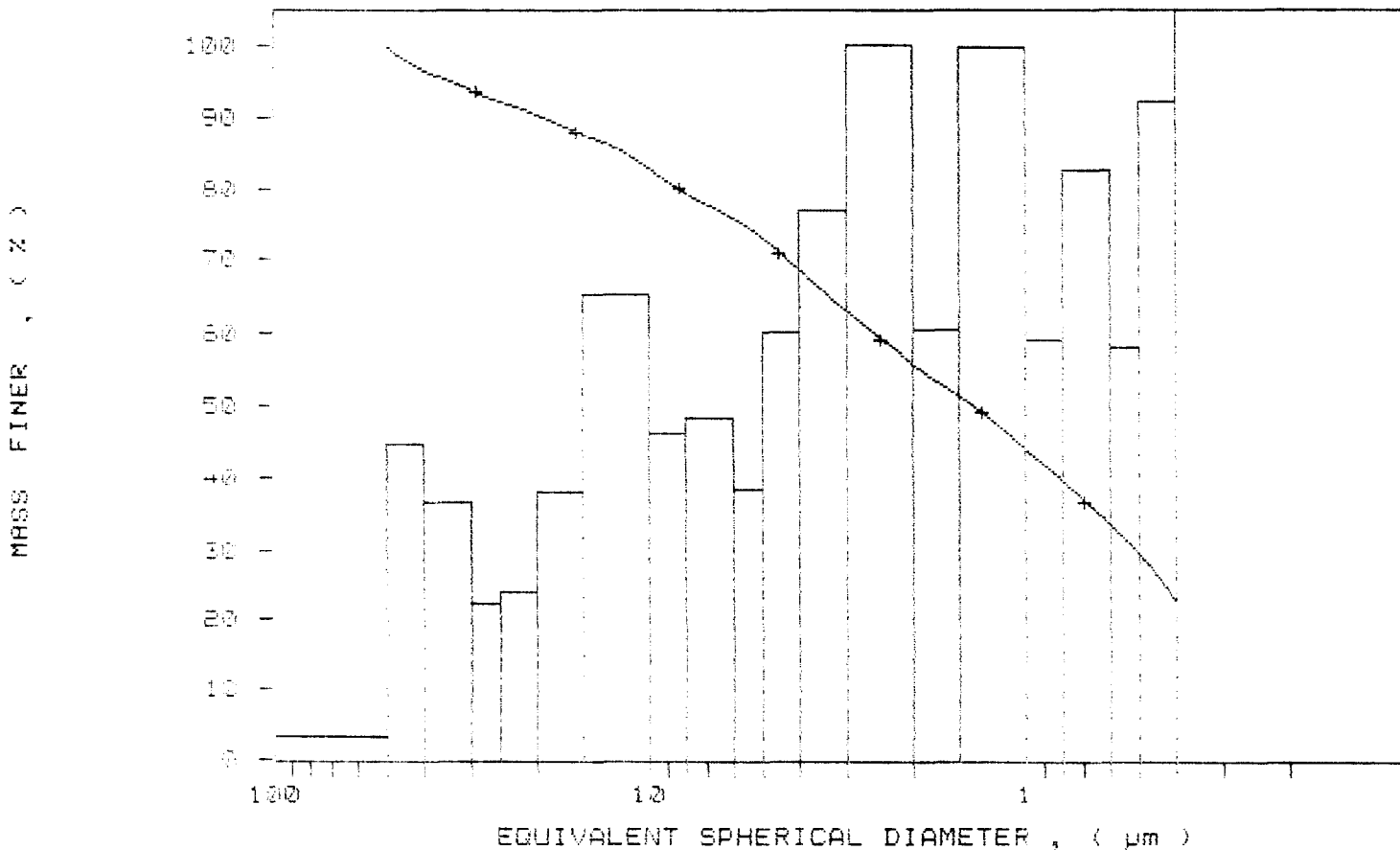
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	99.7	0.3
40.00	96.5	3.3
30.00	93.8	2.7
25.00	92.1	1.6
20.00	90.4	1.8
15.00	87.6	2.8
10.00	82.7	4.8
8.00	79.4	3.4
6.00	75.8	3.6
5.00	73.0	2.8
4.00	68.6	4.4
3.00	58.9	9.7
2.00	55.6	7.3
1.50	50.1	4.4
1.00	43.8	7.3
0.80	39.5	3.3
0.60	37.4	6.1
0.50	29.2	3.2
0.40	22.4	6.8

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SAMPLE DIRECTORY/NUMBER: DATA7 /35
SAMPLE ID: Hole 89-3 # 3705
SUBMITTER: MRC Inc.
OPERATOR: JM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSTS TEMP: 34.2 deg C
BASELINE/FULL SCALE: 127/ 102 kilocounts/sec

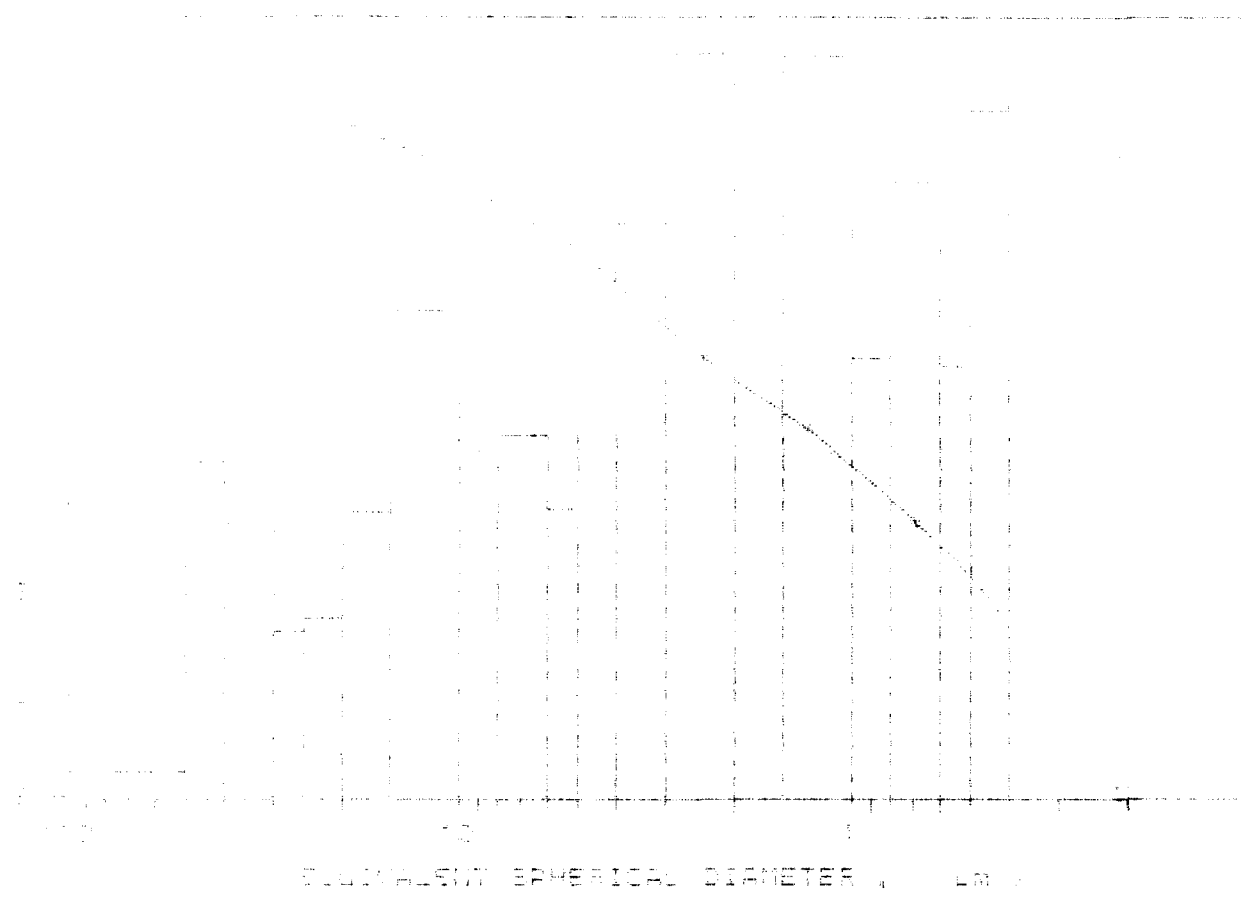
UNIT NUMBER: 1
START 15:27:32 01/29/93
REPT 14:40:50 01/17/94
TOT RUN TIME 0:07:11
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9944 g/cc
LIQ VISC: 0.7336 cp
RUN TYPE: High Speed

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



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 FAX: 773-936-3701

THE EFFECT OF PARTICLE SIZE ON
 THE REACTION RATE OF ETHYLENE
 WITH A CATALYST



REPRODUCED FROM THE JOURNAL OF POLYMER SCIENCE

SAMPLE DIRECTORY/NUMBER: DATA7 /36
 SAMPLE ID: Hole 89-3 # 3706
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.2 deg C
 BASELINE/FULL SCALE: 127/ 102 kilocounts/sec

UNIT NUMBER: 1
 START 15:46:52 01/29/93
 REPRY 14:52:32 01/17/94
 TOT RUN TIME 0:07:11
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9944 g/cc
 LIQ VISC: 0.7336 cp
 RUN TYPE: High Speed

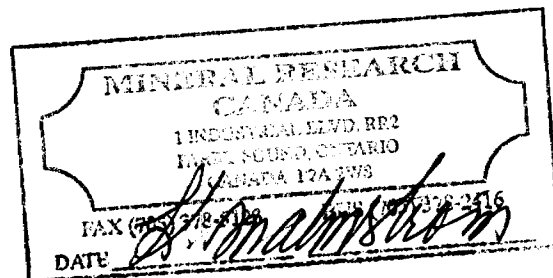
STARTING DIAMETER: 50.00 µm
 ENDING DIAMETER: 0.40 µm

REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.03 µm MODAL DIAMETER: 0.40 µm

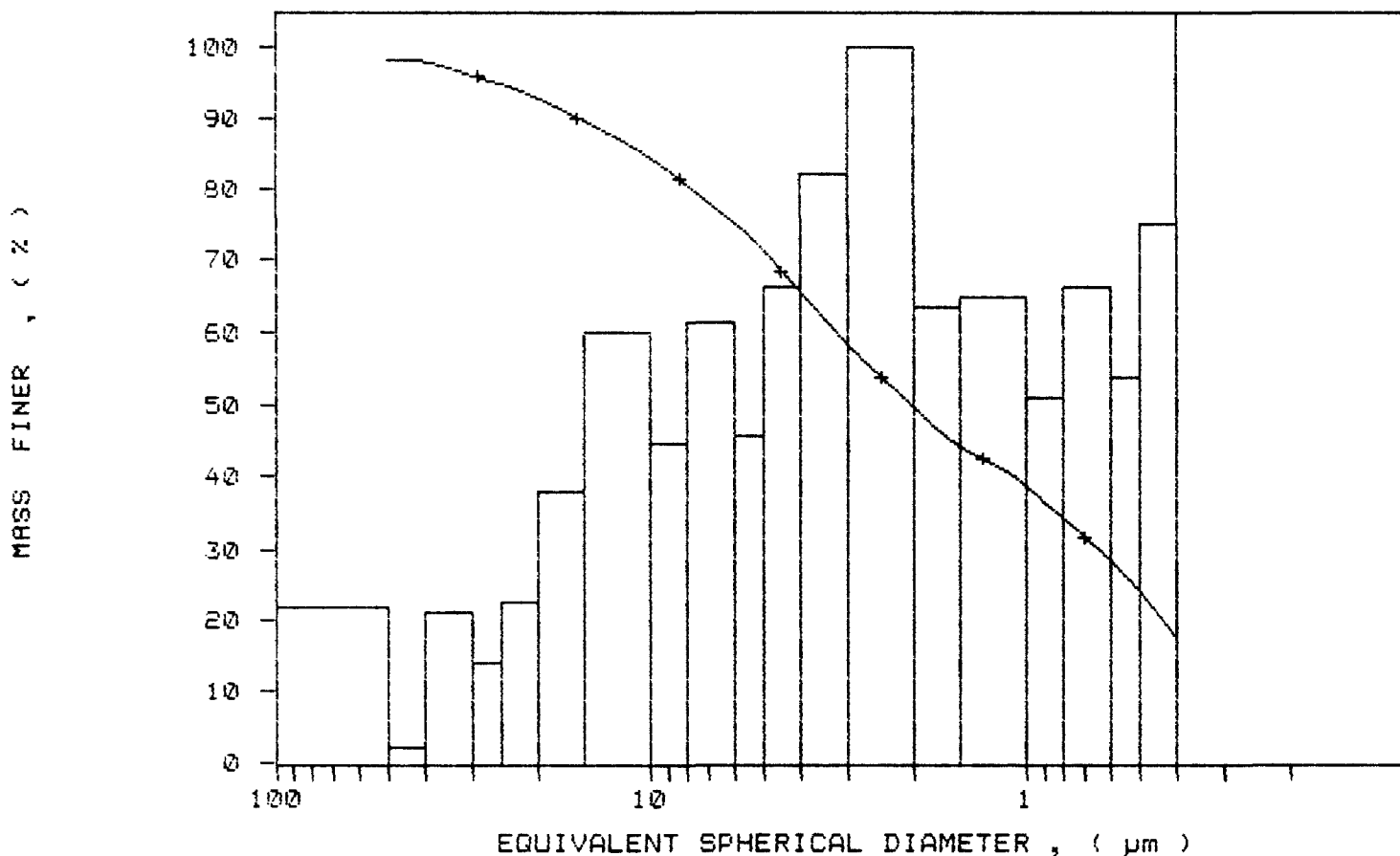
DIAMETER (µm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.1	1.9
40.00	97.9	0.2
30.00	96.1	1.8
25.00	94.9	1.2
20.00	92.9	1.9
15.00	89.6	3.3
10.00	84.4	5.2
8.00	80.5	3.9
6.00	75.2	5.3
5.00	71.2	4.0
4.00	65.5	5.7
3.00	58.4	7.1
2.00	49.7	8.6
1.50	44.2	5.5
1.00	38.6	5.6
0.80	34.2	4.4
0.60	28.4	5.7
0.50	23.8	4.7
0.40	17.3	6.5



SAMPLE DIRECTORY/NUMBER: DATA7 /36
 SAMPLE ID: Hole 89-3 # 3706
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.2 deg C
 BASELINE/FULL SCALE: 127/ 102 kilocounts/sec

UNIT NUMBER: 1
 START 15:46:52 01/29/93
 REPT 14:52:32 01/17/94
 TOT RUN TIME 0:07:11
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9944 g/cc
 LIQ VISC: 0.7336 cp
 RUN TYPE: High Speed

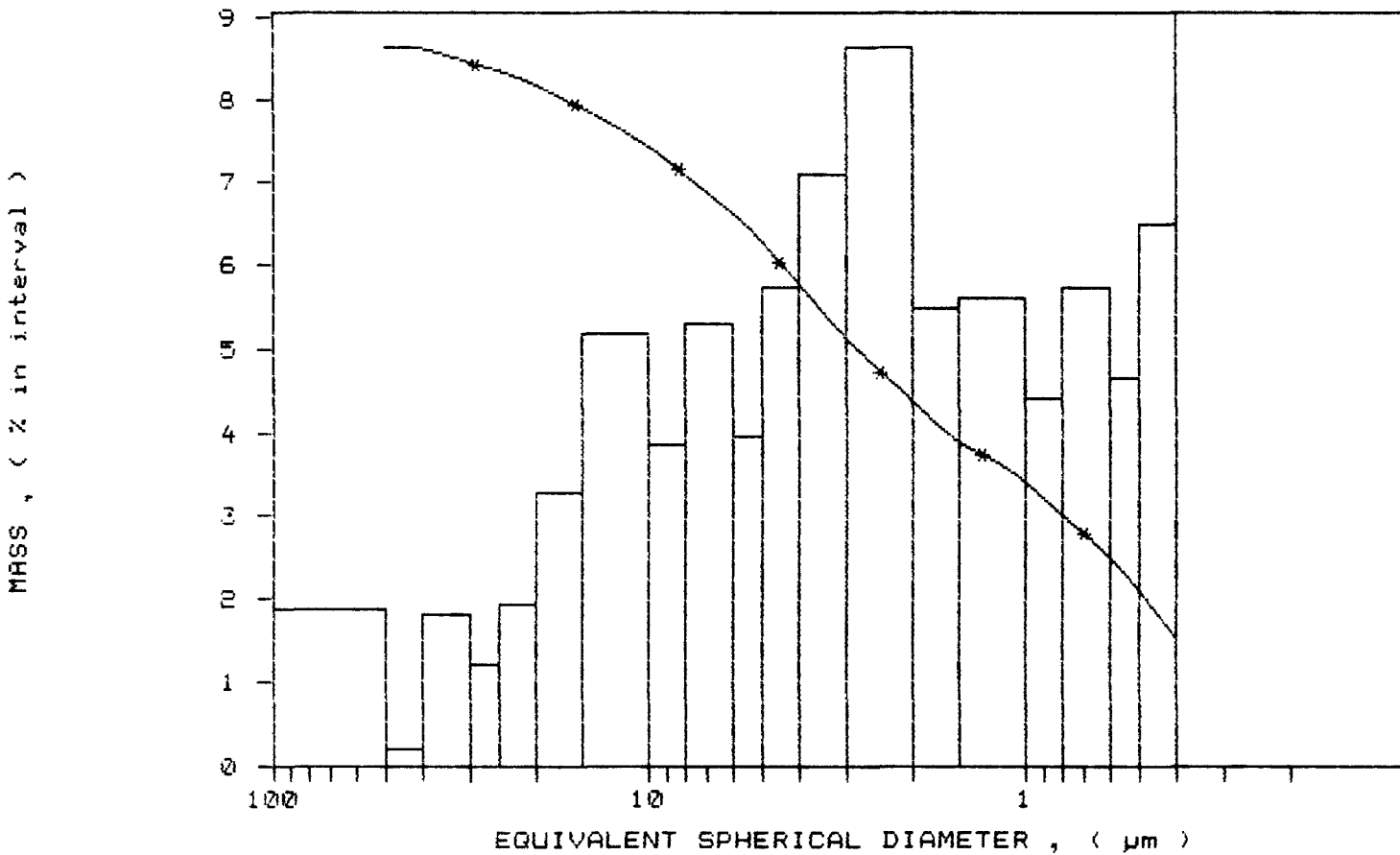
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /36
 SAMPLE ID: Hole 89-3 # 3706
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.2 deg C
 BASELINE/FULL SCALE: 127/ 102 kilocounts/sec

UNIT NUMBER: 1
 START 15:46:52 01/29/93
 REPRY 14:52:32 01/17/94
 TOT RUN TIME 0:07:11
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9944 g/cc
 LIQ VISC: 0.7336 cp
 RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /37
 SAMPLE ID: Hole 89-3 # 3707
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.2 deg C
 BASELINE/FULL SCALE: 127/ 114 kilocounts/sec

UNIT NUMBER: 1
 START 16:04:04 01/29/93
 REPR 08:19:28 01/18/94
 TOT RUN TIME 0:07:04
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9944 g/cc
 LIQ VISC: 0.7335 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 μm
 ENDING DIAMETER: 0.40 μm

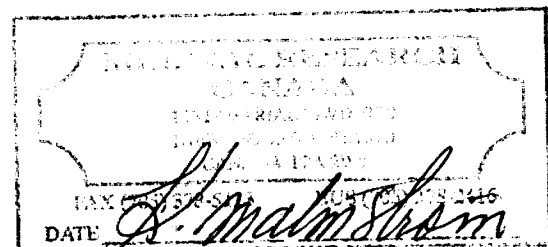
REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.63 μm

MODAL DIAMETER: 2.24 μm

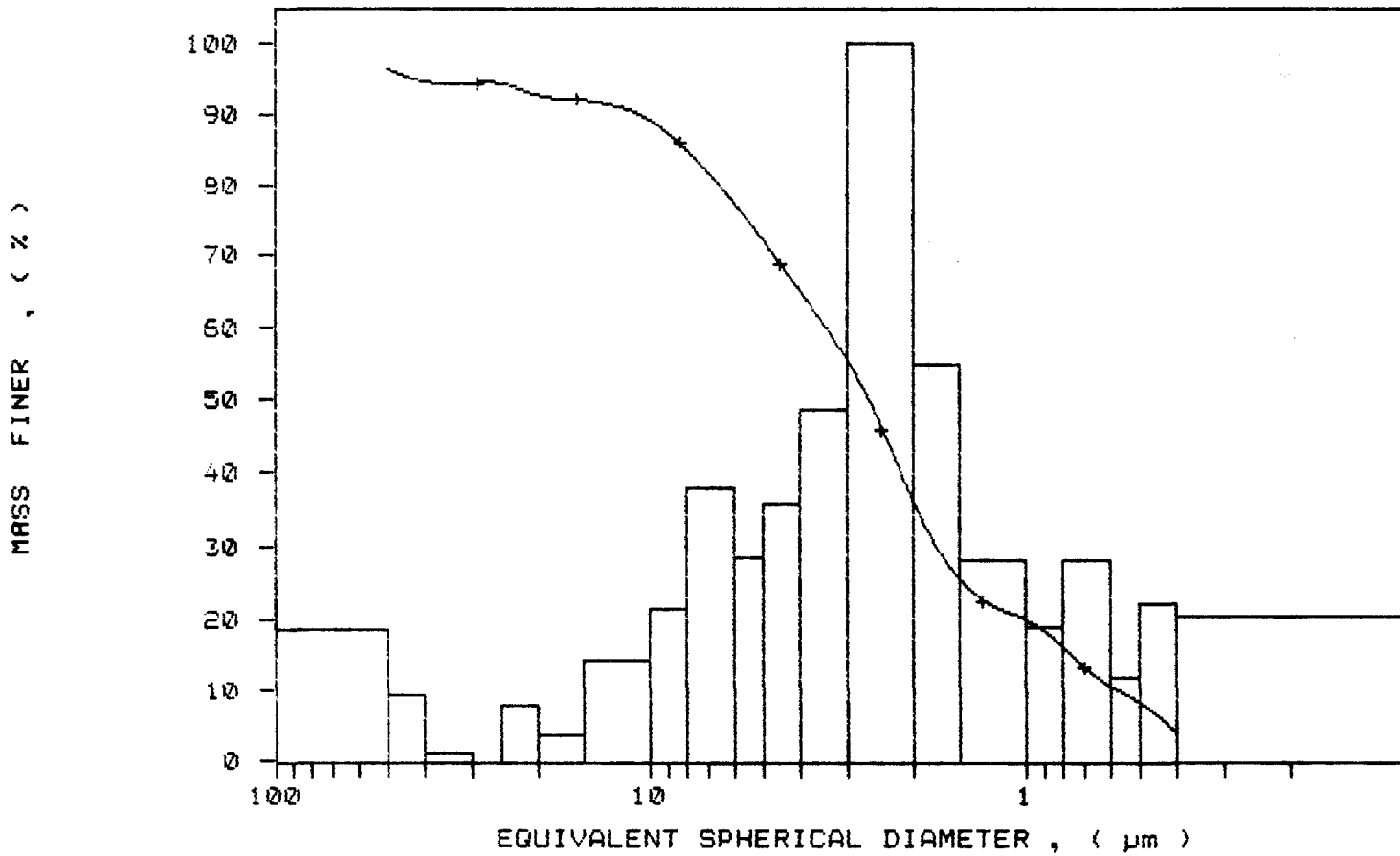
DIAMETER (μm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	96.4	3.6
40.00	94.5	1.8
30.00	94.3	0.2
25.00	94.3	0.0
20.00	92.7	1.6
15.00	92.0	0.7
10.00	89.1	2.8
8.00	85.0	4.2
6.00	77.5	7.5
5.00	72.0	5.5
4.00	65.0	7.0
3.00	55.5	9.5
2.00	36.1	19.4
1.50	25.4	10.7
1.00	19.9	5.5
0.80	16.2	3.7
0.60	10.6	5.5
0.50	8.3	2.4
0.40	4.0	4.3



SAMPLE DIRECTORY/NUMBER: DATA7 /37
SAMPLE ID: Hole 89-3 # 3707
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.2 deg C
BASELINE/FULL SCALE: 127/ 114 kilocounts/sec

UNIT NUMBER: 1
START 16:04:04 01/29/93
REPT 08:19:28 01/18/94
TOT RUN TIME 0:07:04
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9944 g/cc
LIQ VISC: 0.7335 cp
RUN TYPE: High Speed

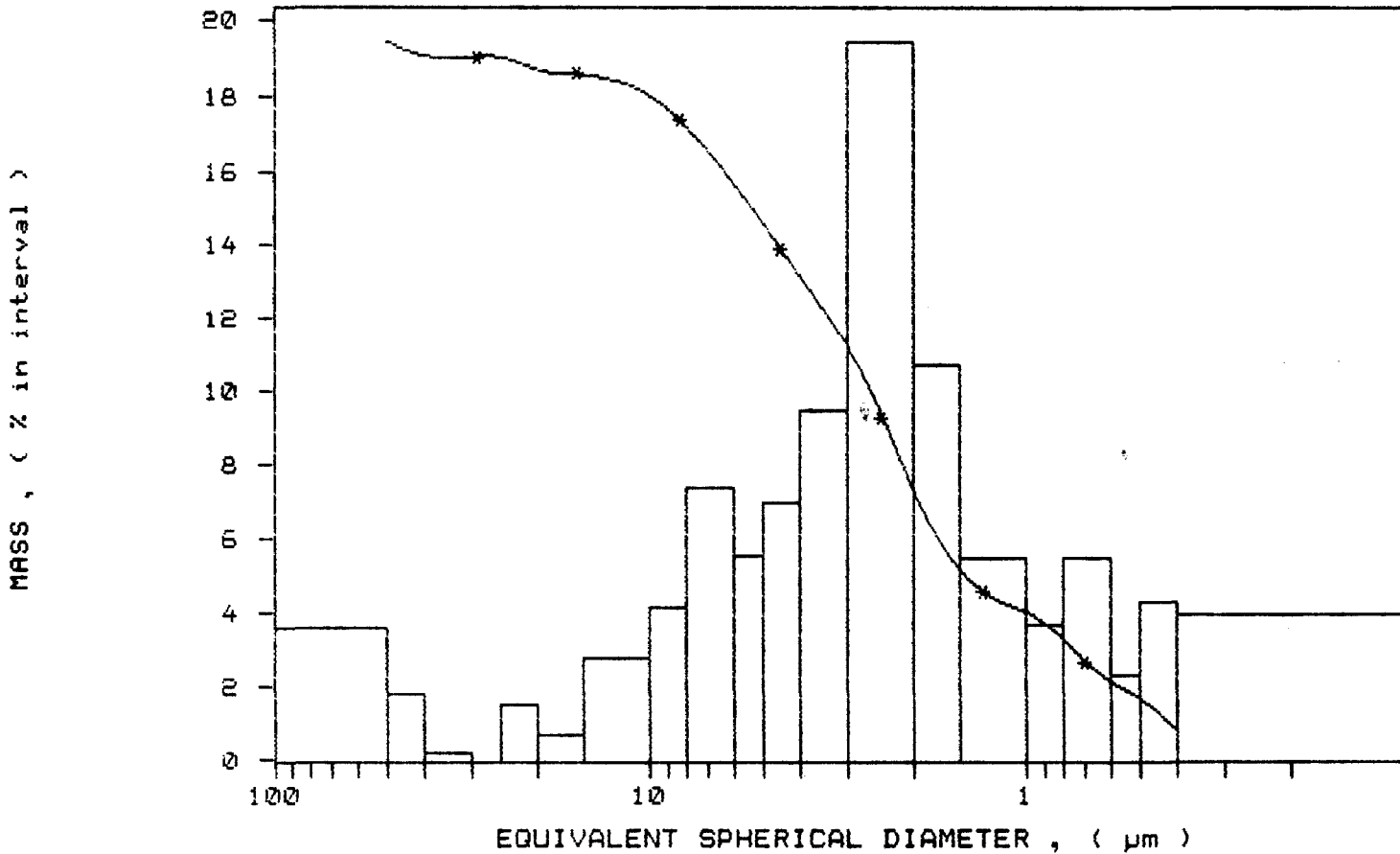
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /37
SAMPLE ID: Hole 89-3 # 3707
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.2 deg C
BASELINE/FULL SCALE: 127/ 114 kilocounts/sec

UNIT NUMBER: 1
START 16:04:04 01/29/93
REPT 08:19:28 01/18/94
TOT RUN TIME 0:07:04
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9944 g/cc
LIQ VISC: 0.7335 cp
RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /38
 SAMPLE ID: Hole 89-3 # 3708
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Coarse material
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 114 kilocounts/sec

UNIT NUMBER: 1
 START 11:02:49 02/02/93
 REPR 08:25:52 01/18/94
 TOT RUN TIME 0:07:16
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9944 g/cc
 LIQ VISC: 0.7333 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 1.62
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.95 μ m

MODAL DIAMETER: 0.40 μ m

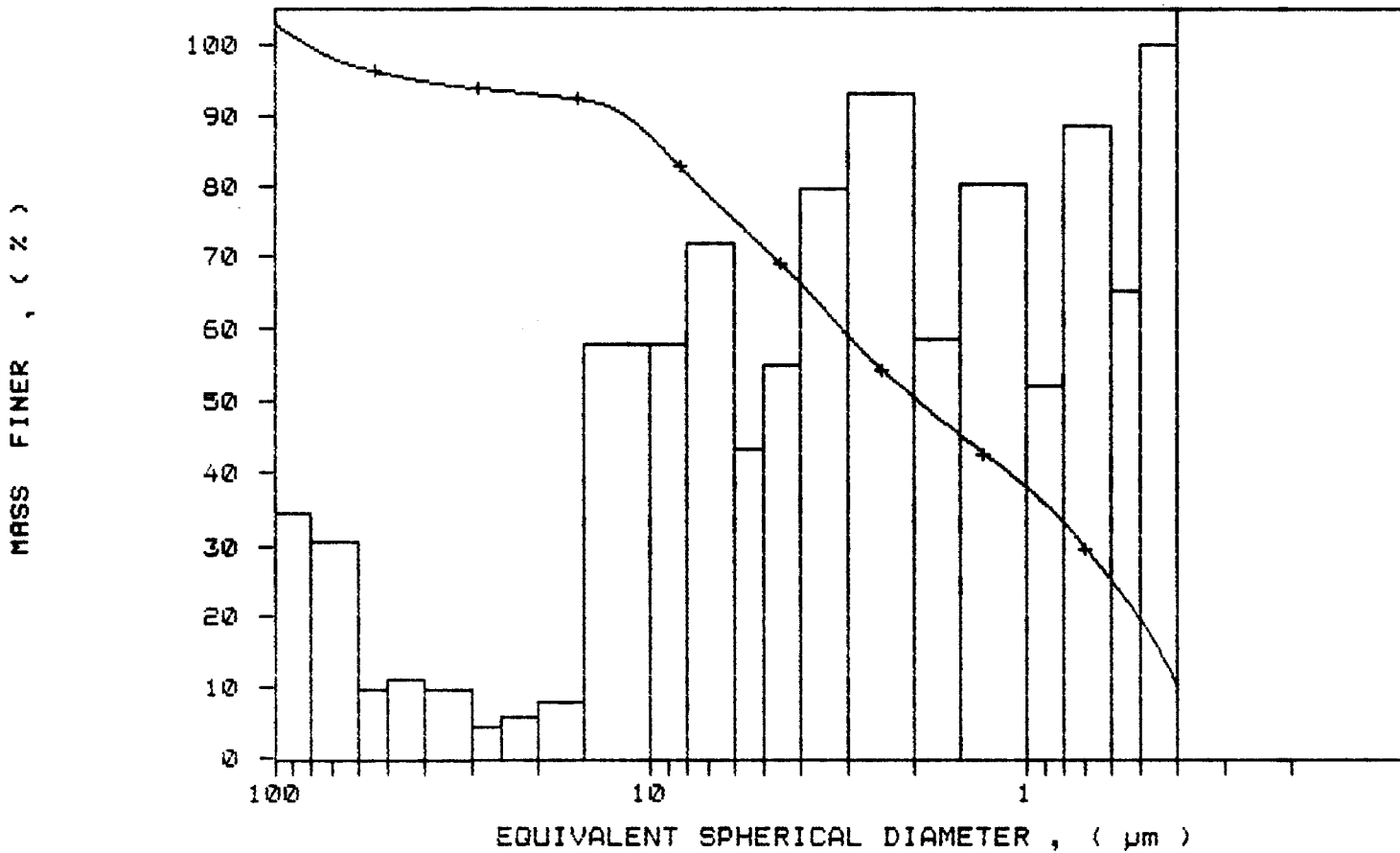
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	102.7	-2.7
80.00	99.6	3.1
60.00	96.8	2.8
50.00	95.9	0.9
40.00	94.9	1.0
30.00	93.9	0.9
25.00	93.5	0.4
20.00	93.0	0.6
15.00	92.2	0.7
10.00	87.0	5.3
8.00	81.7	5.2
6.00	75.2	6.5
5.00	71.3	4.0
4.00	66.3	5.0
3.00	59.0	7.3
2.00	50.5	8.5
1.50	45.2	5.3
1.00	37.9	7.3
0.80	33.1	4.8
0.60	25.1	8.0
0.50	19.2	5.9
0.40	10.1	9.1

DATE *S. M. M. S. M.*

SAMPLE DIRECTORY/NUMBER: DATA7 /38
 SAMPLE ID: Hole 89-3 # 3708
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Coarse material
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 114 kilocounts/sec

UNIT NUMBER: 1
 START 11:02:49 02/02/93
 REPT 08:25:52 01/18/94
 TOT RUN TIME 0:07:16
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9944 g/cc
 LIQ VISC: 0.7333 cp
 RUN TYPE: High Speed

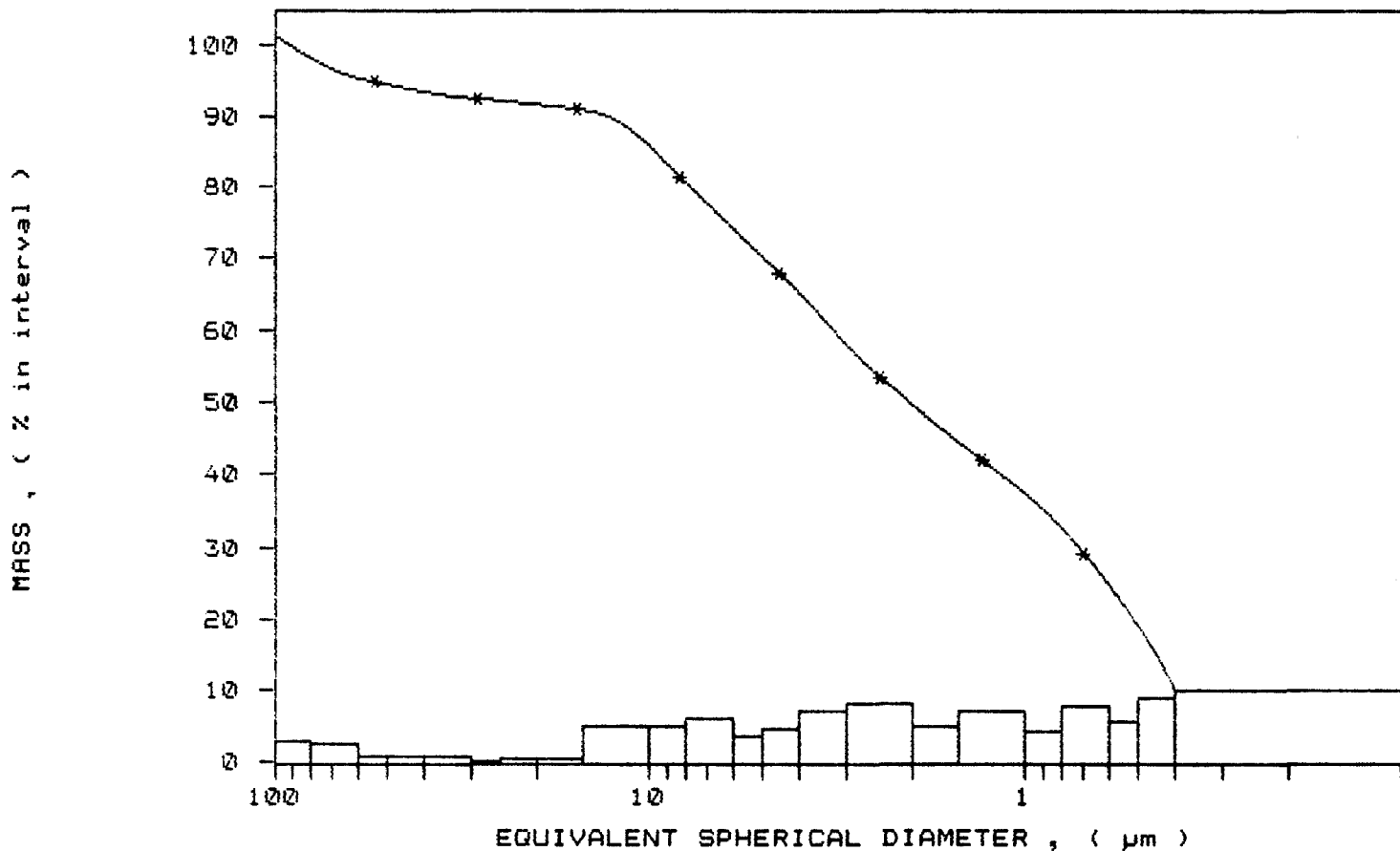
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /38
SAMPLE ID: Hole 89-3 # 3708
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Coarse material
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 114 kilocounts/sec

UNIT NUMBER: 1
START 11:02:49 02/02/93
REPRT 08:25:52 01/18/94
TOT RUN TIME 0:07:16
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9944 g/cc
LIQ VISC: 0.7333 cp
RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /39
 SAMPLE ID: Hole 89-3 # 3709
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 110 kilocounts/sec

UNIT NUMBER: 1
 START 11:26:35 02/02/93
 REPT 08:32:16 01/18/94
 TOT RUN TIME 0:07:19
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7330 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.27 μ m

MODAL DIAMETER: 0.40 μ m

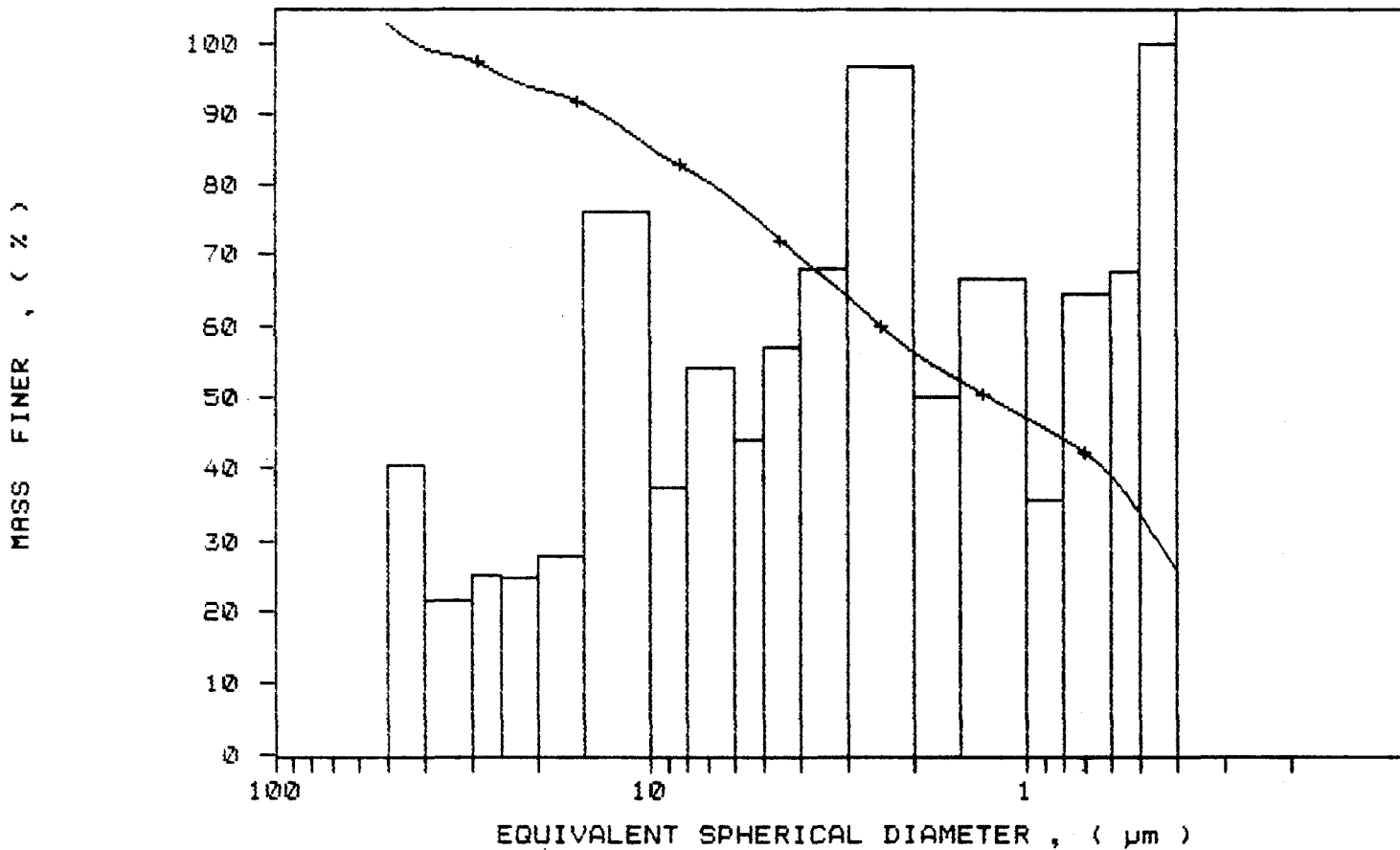
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	102.6	-2.6
40.00	99.3	3.3
30.00	97.6	1.7
25.00	95.6	2.0
20.00	93.6	2.0
15.00	91.3	2.2
10.00	85.2	6.1
8.00	82.2	3.0
6.00	77.8	4.4
5.00	74.3	3.6
4.00	69.7	4.6
3.00	64.2	5.5
2.00	56.4	7.8
1.50	52.4	4.0
1.00	47.0	5.4
0.80	44.1	2.9
0.60	38.9	5.2
0.50	33.5	5.5
0.40	25.4	8.0

S. Malmström

SAMPLE DIRECTORY/NUMBER: DATA7 /39
SAMPLE ID: Hole 89-3 # 3709
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 110 kilocounts/sec

UNIT NUMBER: 1
START 11:26:35 02/02/93
REPT 08:32:16 01/18/94
TOT RUN TIME 0:07:19
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7330 cp
RUN TYPE: High Speed

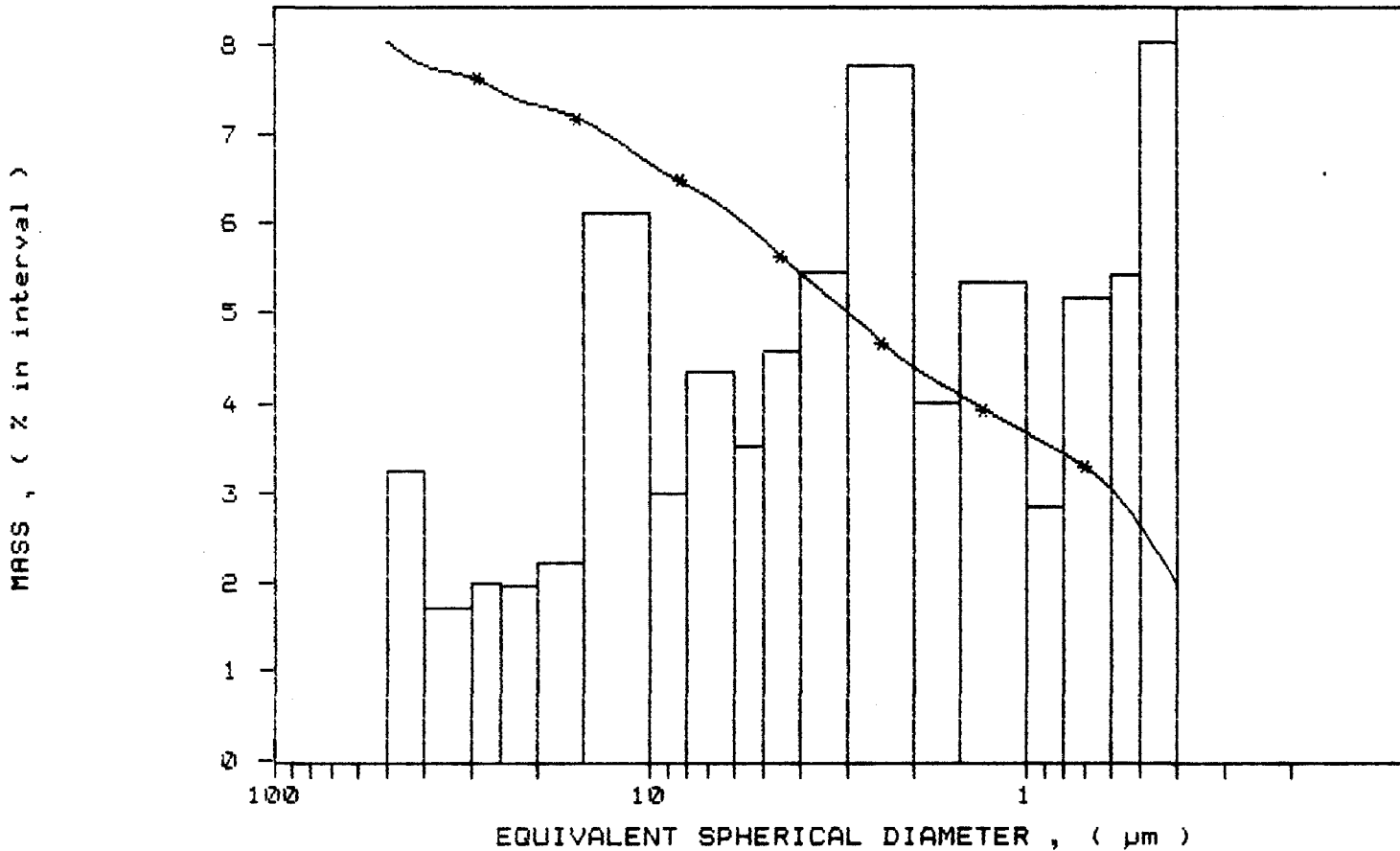
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /39
SAMPLE ID: Hole 89-3 # 3709
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 110 kilocounts/sec

UNIT NUMBER: 1
START 11:26:35 02/02/93
REFRT 08:32:16 01/18/94
TOT RUN TIME 0:07:19
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7330 cp
RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /40
 SAMPLE ID: Hole 89-3 # 3710
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 118 kilocounts/sec

UNIT NUMBER: 1
 START 11:49:53 02/02/93
 REPRT 08:38:38 01/18/94
 TOT RUN TIME 0:07:20
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7331 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 3.87 μ m

MODAL DIAMETER: 0.81 μ m

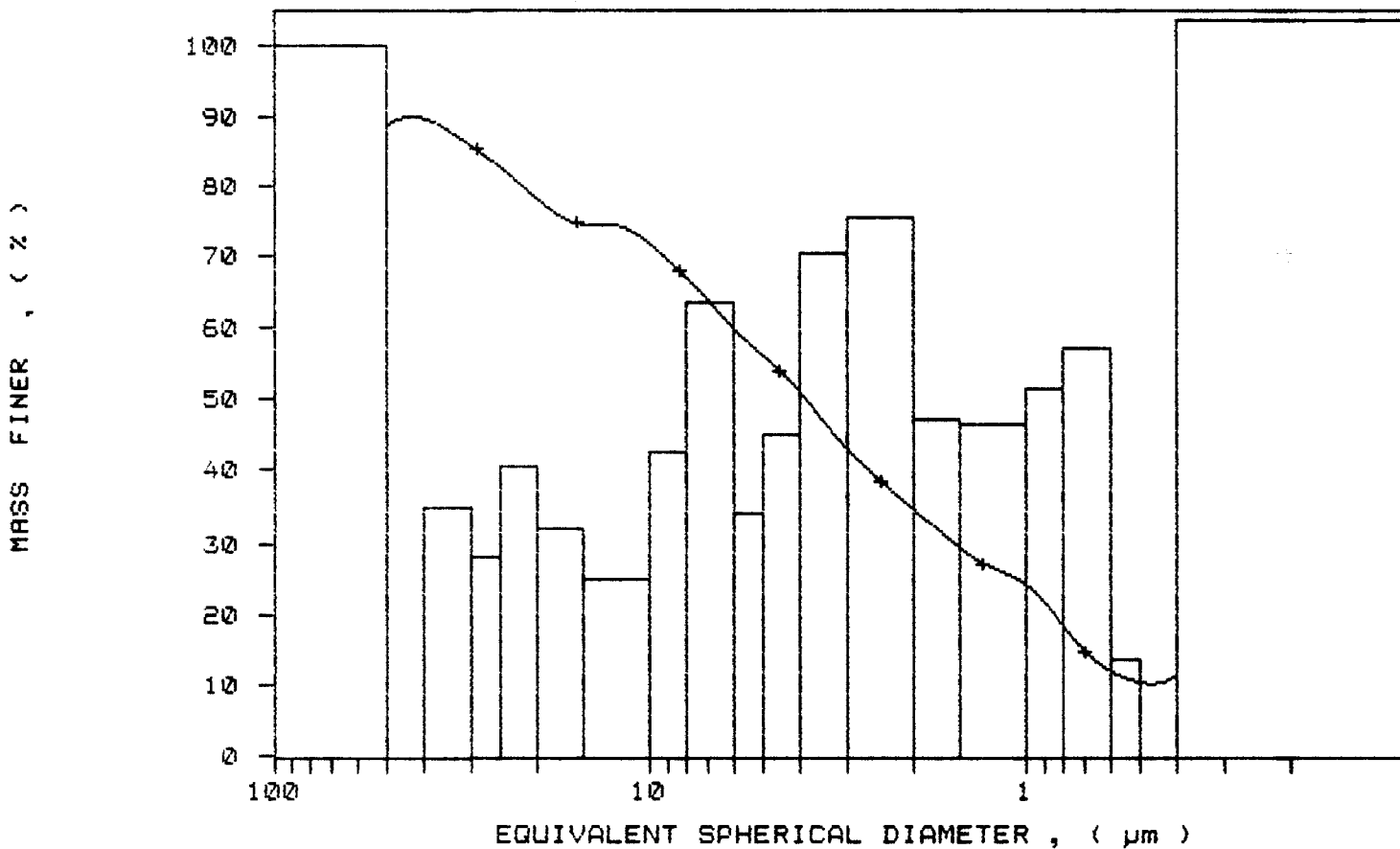
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	88.8	11.2
40.00	89.8	-0.9
30.00	85.8	3.9
25.00	82.7	3.2
20.00	78.1	4.5
15.00	74.5	3.6
10.00	71.7	2.8
8.00	66.9	4.8
6.00	59.8	7.1
5.00	56.0	3.8
4.00	50.9	5.1
3.00	43.0	7.9
2.00	34.5	8.4
1.50	29.3	5.3
1.00	24.0	5.2
0.80	18.3	5.7
0.60	11.9	6.4
0.50	10.4	1.5
0.40	11.6	-1.2

MINERAL RESEARCH
 LABORATORY
 10000 W. 10th Ave.
 Golden, CO 80401
 (303) 440-9200
 FAX (303) 440-9201
 DATE: *01/18/94*
St. Martin Strom

SAMPLE DIRECTORY/NUMBER: DATA7 /40
SAMPLE ID: Hole 89-3 # 3710
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 118 kilocounts/sec

UNIT NUMBER: 1
START 11:49:53 02/02/93
REPT 08:38:38 01/18/94
TOT RUN TIME 0:07:20
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7331 cp
RUN TYPE: High Speed

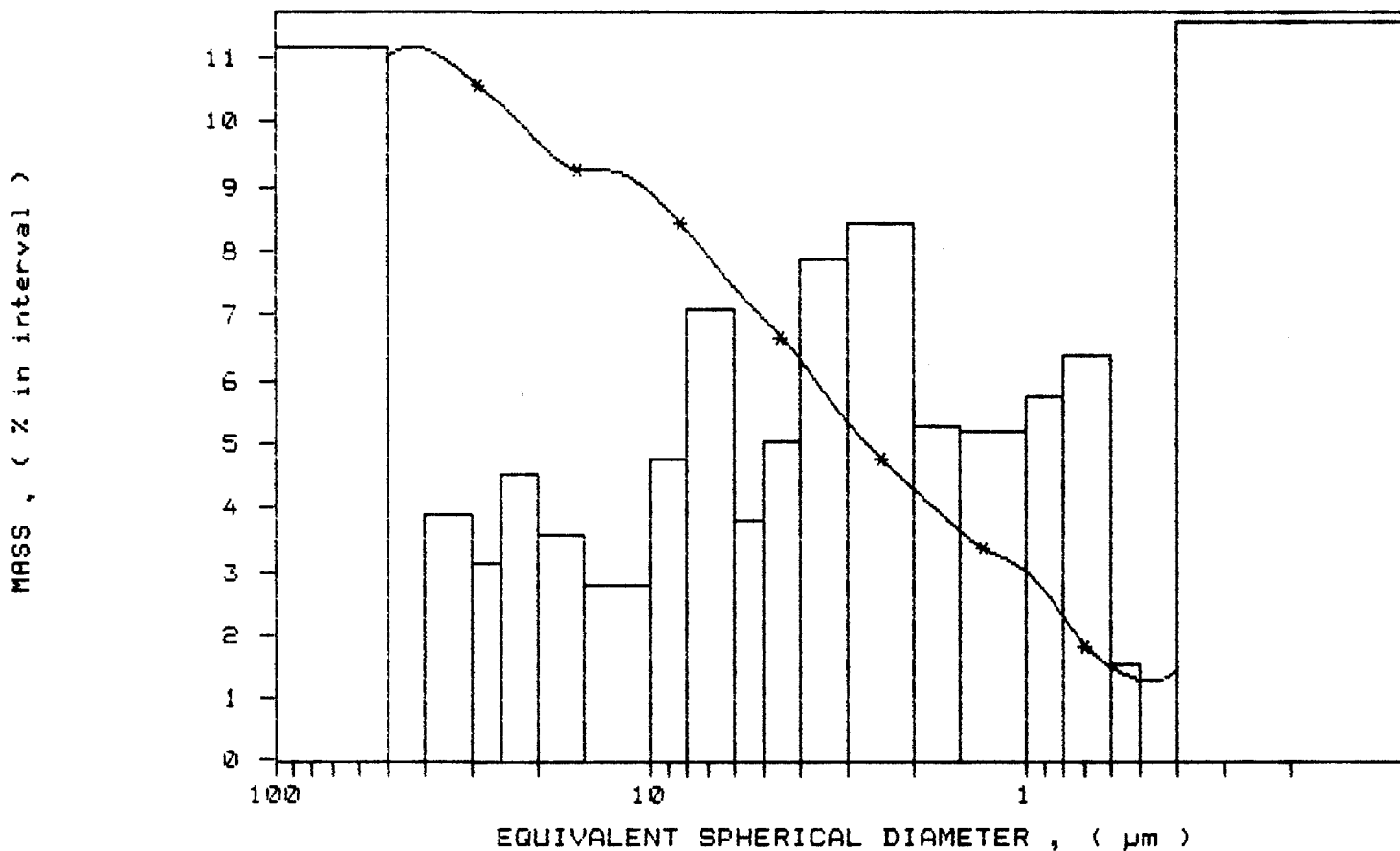
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /40
 SAMPLE ID: Hole 89-3 # 3710
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 118 kilocounts/sec

UNIT NUMBER: 1
 START 11:49:53 02/02/93
 REPT 08:38:38 01/18/94
 TOT RUN TIME 0:07:20
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7331 cp
 RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /41
 SAMPLE ID: Hole 89-3 # 3711
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 116 kilocounts/sec

UNIT NUMBER: 1
 START 13:33:06 02/02/93
 REPT 08:50:27 01/18/94
 TOT RUN TIME 0:07:12
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7333 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 μm
 ENDING DIAMETER: 0.40 μm

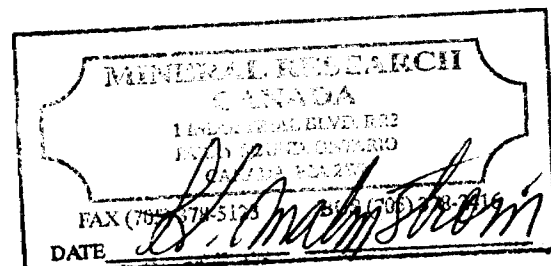
REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.23 μm

MODAL DIAMETER: 0.72 μm

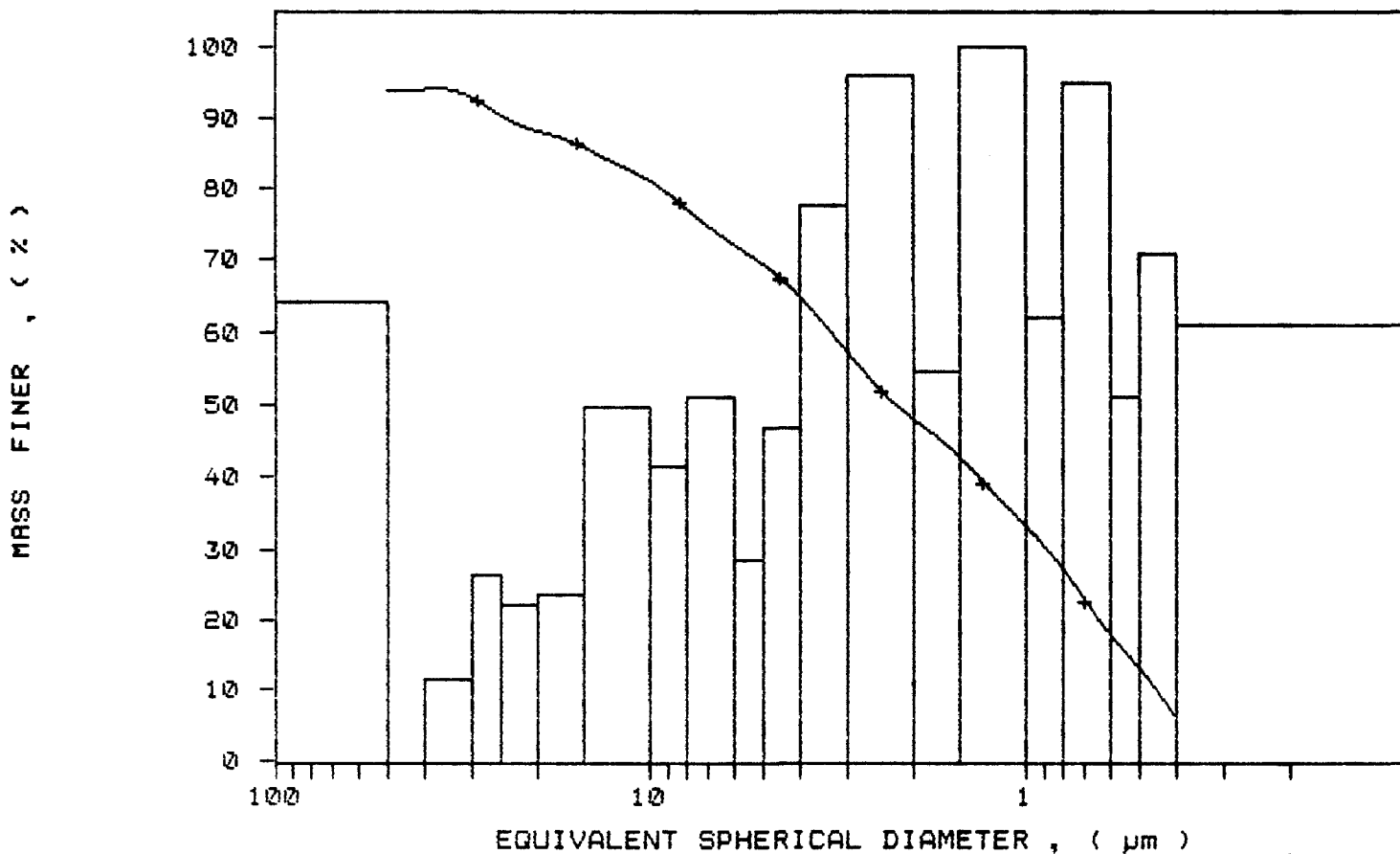
DIAMETER (μm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	93.8	6.2
40.00	94.0	-0.3
30.00	92.9	1.1
25.00	90.4	2.6
20.00	88.2	2.1
15.00	85.9	2.3
10.00	81.1	4.8
8.00	77.1	4.0
6.00	72.1	5.0
5.00	69.4	2.8
4.00	64.8	4.6
3.00	57.3	7.5
2.00	48.0	9.3
1.50	42.7	5.3
1.00	33.0	9.7
0.80	27.0	6.0
0.60	17.8	9.2
0.50	12.8	5.0
0.40	5.9	6.9



SAMPLE DIRECTORY/NUMBER: DATA7 /41
SAMPLE ID: Hole 89-3 # 3711
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 116 kilocounts/sec

UNIT NUMBER: 1
START 13:33:06 02/02/93
REPT 08:50:27 01/18/94
TOT RUN TIME 0:07:12
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7333 cp
RUN TYPE: High Speed

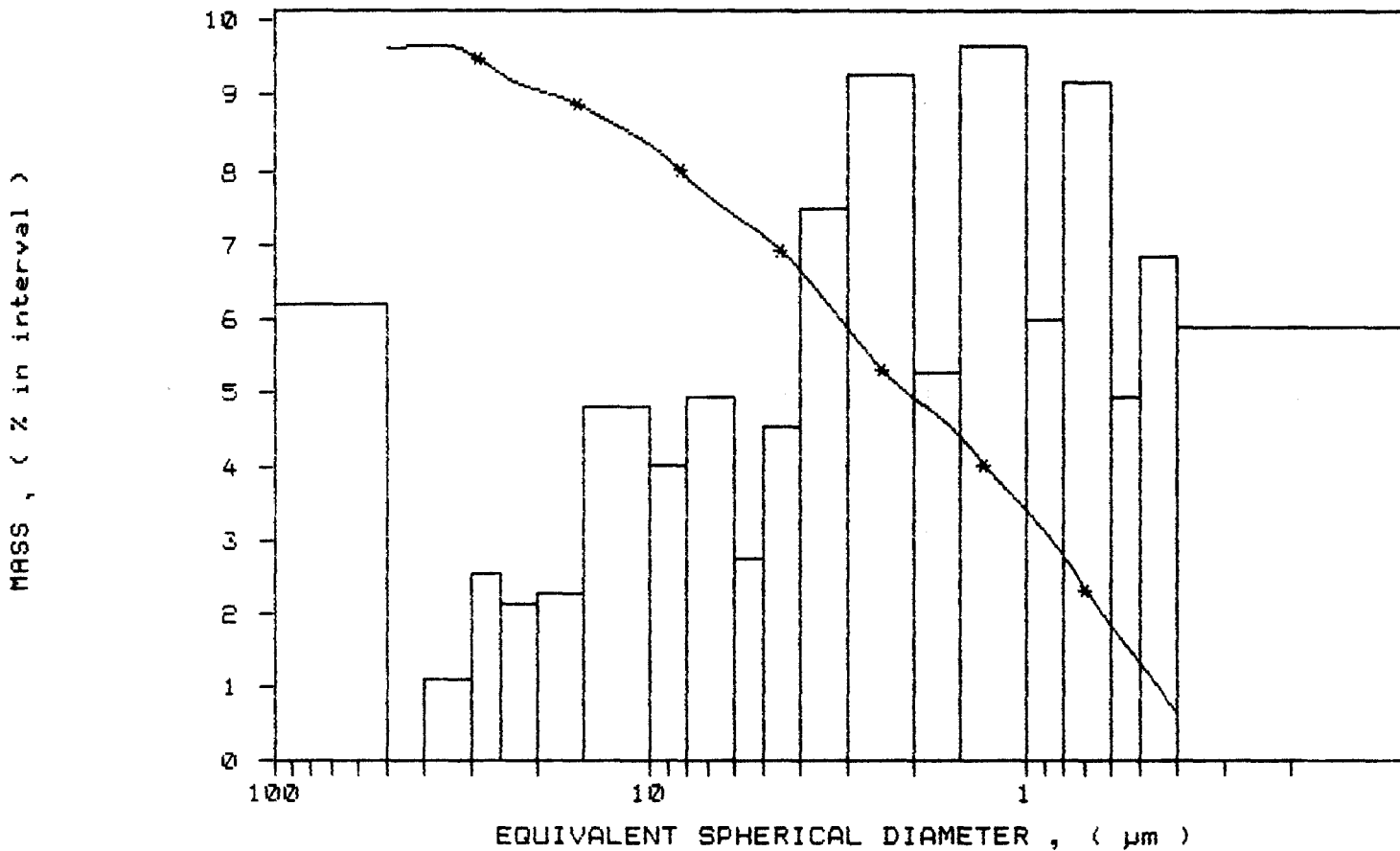
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /41
 SAMPLE ID: Hole 89-3 # 3711
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 116 kilocounts/sec

UNIT NUMBER: 1
 START 13:33:06 02/02/93
 REPT 08:50:27 01/18/94
 TOT RUN TIME 0:07:12
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7333 cp
 RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /42
 SAMPLE ID: Hole B9-3 # 3712
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 109 kilocounts/sec

UNIT NUMBER: 1
 START 14:04:35 02/02/93
 REFRT 10:20:31 01/18/94
 TOT RUN TIME 0:07:22
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7331 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

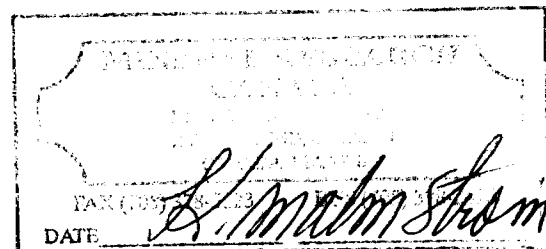
REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.46 μ m

MODAL DIAMETER: 1.36 μ m

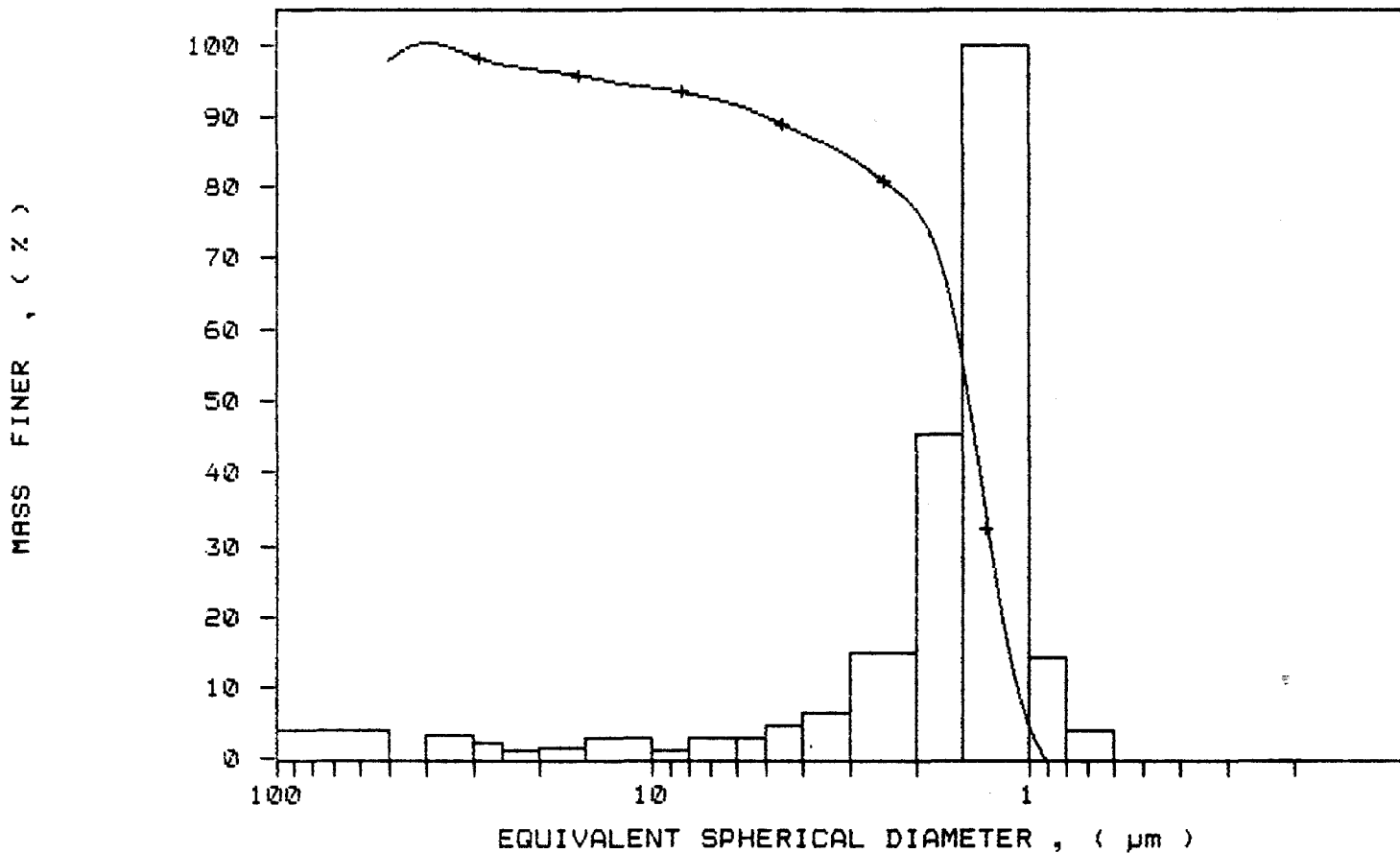
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	97.9	2.1
40.00	100.2	-2.3
30.00	98.4	1.8
25.00	97.2	1.2
20.00	96.5	0.7
15.00	95.6	0.9
10.00	94.0	1.6
8.00	93.2	0.8
6.00	91.6	1.6
5.00	90.0	1.6
4.00	87.6	2.4
3.00	84.2	3.4
2.00	76.7	7.5
1.50	54.0	22.7
1.00	4.2	49.9
0.80	-3.1	7.3
0.60	-5.2	2.1
0.50	-5.0	-0.3
0.40	-4.9	-0.0



SAMPLE DIRECTORY/NUMBER: DATA7 /42
SAMPLE ID: Hole 89-3 # 3712
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 109 kilocounts/sec

UNIT NUMBER: 1
START 14:04:35 02/02/93
REPR 10:20:31 01/18/94
TOT RUN TIME 0:07:22
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7331 cp
RUN TYPE: High Speed

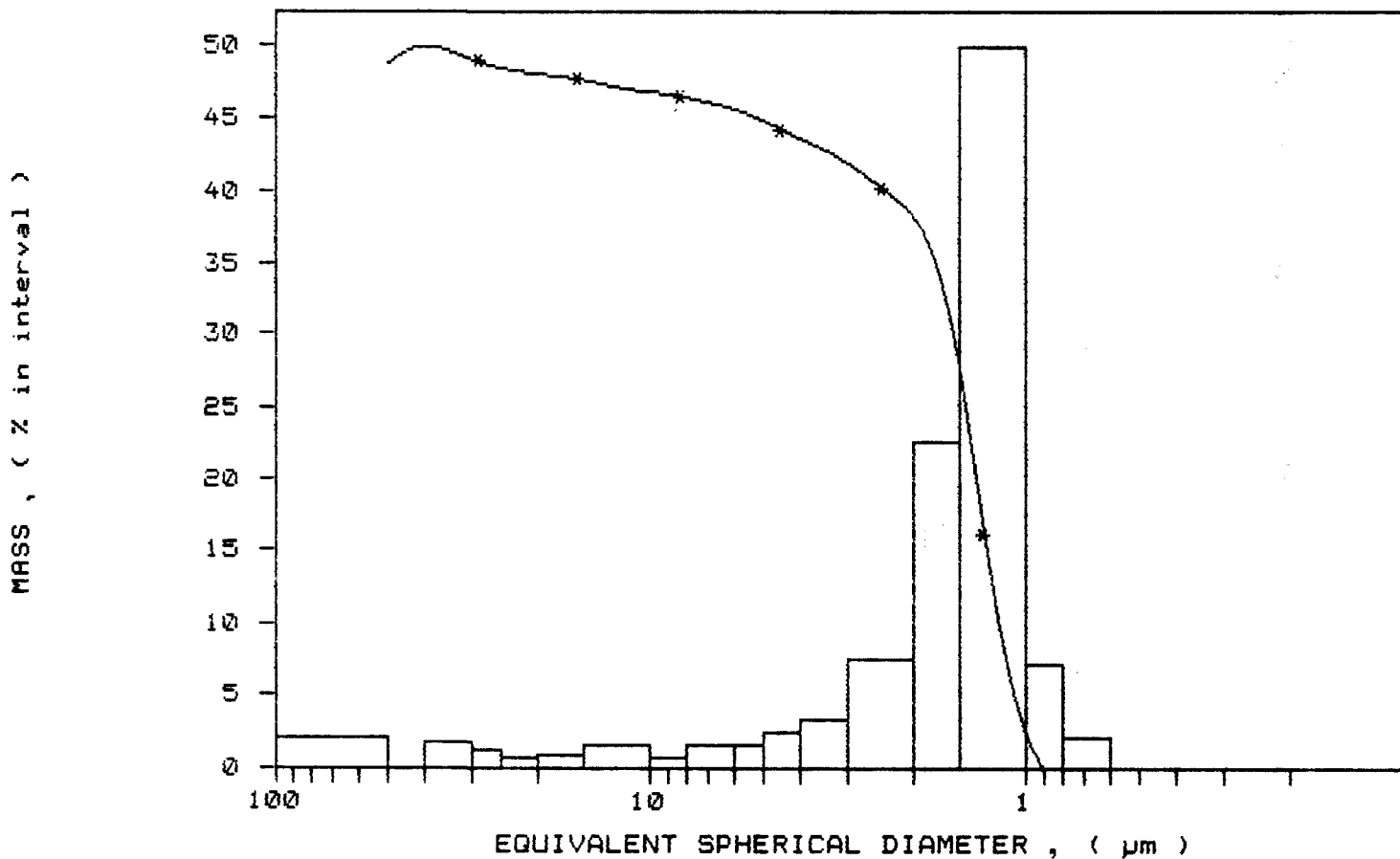
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /42
SAMPLE ID: Hole 89-3 # 3712
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 109 kilocounts/sec

UNIT NUMBER: 1
START 14:04:35 02/02/93
REFRT 10:20:31 01/18/94
TOT RUN TIME 0:07:22
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7331 cp
RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /43
 SAMPLE ID: Hole 89-3 # 3713
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 108 kilocounts/sec

UNIT NUMBER: 1
 START 14:34:18 02/02/93
 REPR 09:05:06 01/18/94
 TOT RUN TIME 0:07:21
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7329 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 μm
 ENDING DIAMETER: 0.40 μm

REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.39 μm

MODAL DIAMETER: 1.36 μm

DIAMETER (μm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	100.9	-0.9
40.00	97.6	3.4
30.00	97.7	-0.2
25.00	97.4	0.3
20.00	97.0	0.4
15.00	97.1	-0.1
10.00	96.4	0.8
8.00	96.6	-0.2
6.00	96.0	0.5
5.00	95.6	0.5
4.00	94.5	1.1
3.00	93.6	0.9
2.00	88.1	5.5
1.50	62.9	25.1
1.00	4.9	58.0
0.80	-2.6	7.5
0.60	-2.6	0.0
0.50	-1.0	-1.6
0.40	-0.6	-0.3

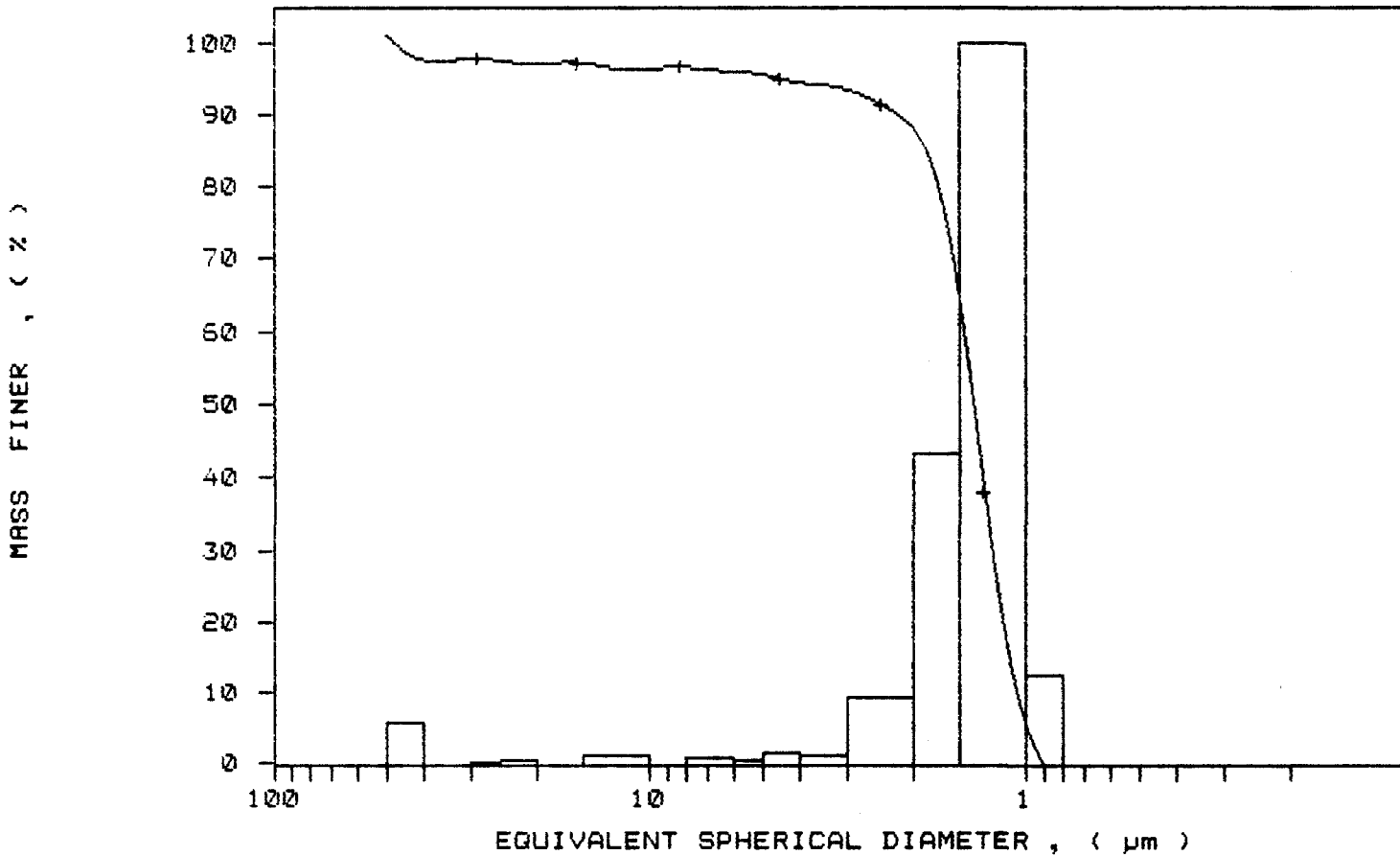
ANALYSIS REPORT

S. Mahmood

SAMPLE DIRECTORY/NUMBER: DATA7 /43
SAMPLF ID: Hole 89-3 # 3713
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 108 kilocounts/sec

UNIT NUMBER: 1
START 14:34:18 02/02/93
REFRT 09:05:06 01/18/94
TOT RUN TIME 0:07:21
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7329 cp
RUN TYPE: High Speed

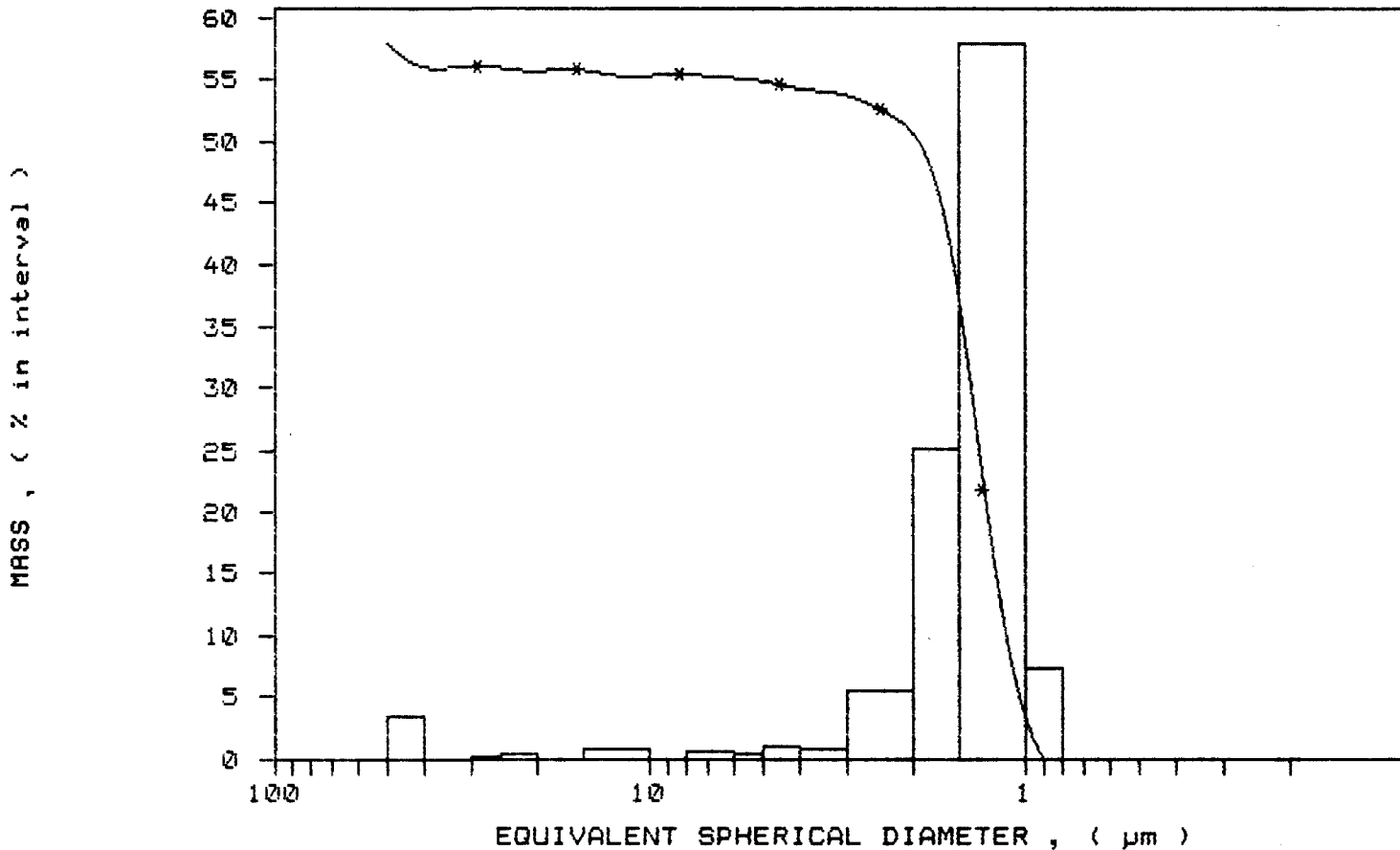
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /43
SAMPLE ID: Hole 89-3 # 3713
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 108 kilocounts/sec

UNIT NUMBER: 1
START 14:34:18 02/02/93
REPRT 09:05:06 01/18/94
TOT RUN TIME 0:07:21
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7329 cp
RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /44
 SAMPLE ID: Hole 89-3 # 3714
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 112 kilocounts/sec

UNIT NUMBER: 1
 START 15:06:32 02/02/93
 REPRT 09:14:55 01/18/94
 TOT RUN TIME 0:07:21
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7330 cp
 RUN TYPE: High Speed

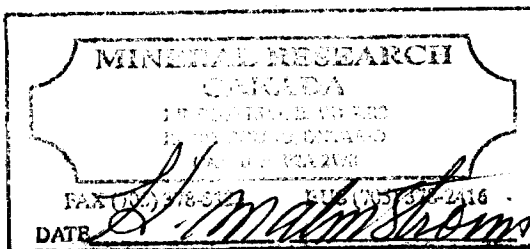
STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 4.03 μ m MODAL DIAMETER: 2.62 μ m

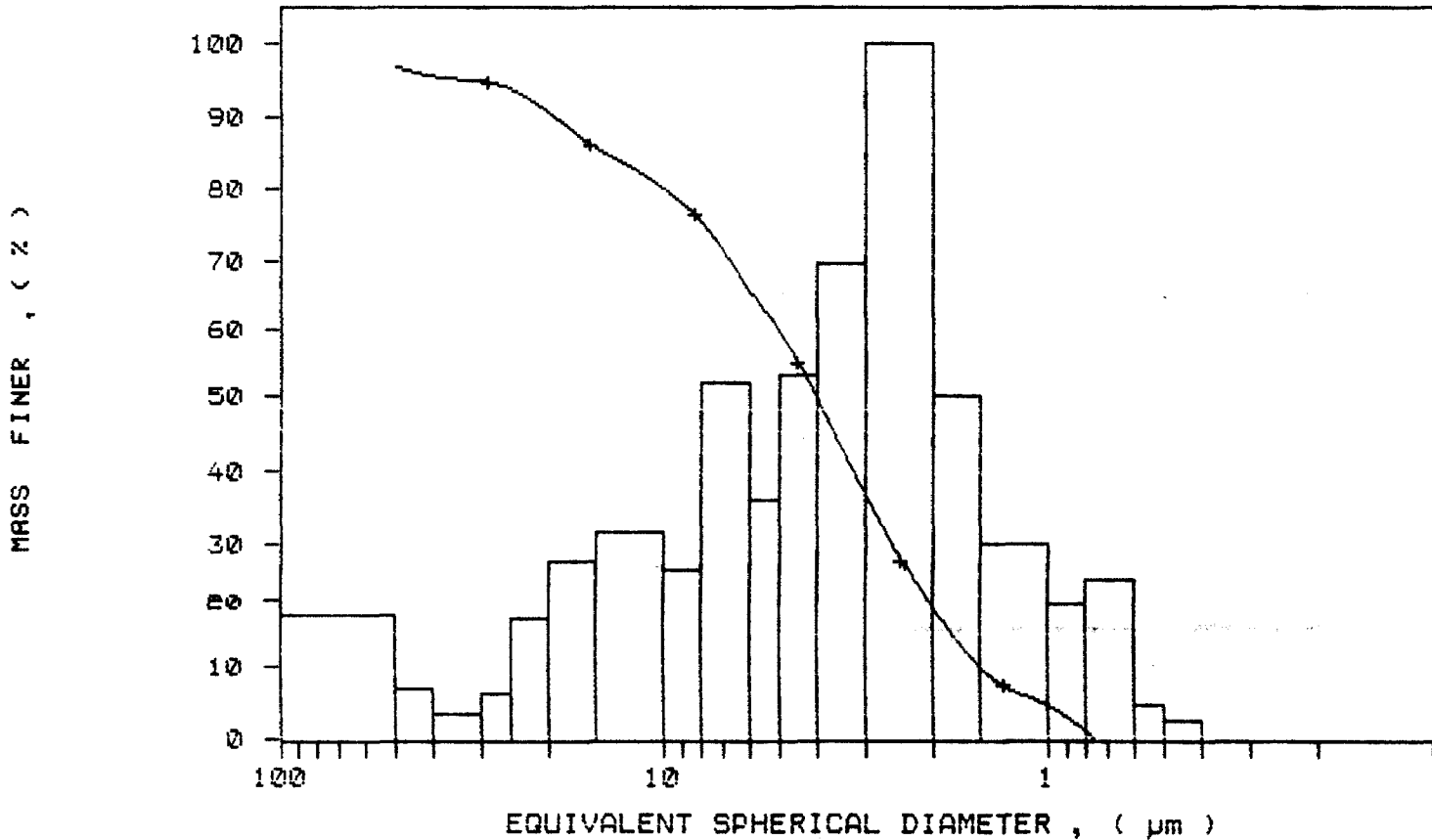
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	96.8	3.2
40.00	95.5	1.3
30.00	94.9	0.6
25.00	93.7	1.1
20.00	90.6	3.2
15.00	85.7	4.9
10.00	79.9	5.7
8.00	75.4	4.5
6.00	66.0	9.5
5.00	59.4	6.6
4.00	49.7	9.7
3.00	37.0	12.7
2.00	18.9	18.1
1.50	9.8	9.2
1.00	4.3	5.5
0.80	0.8	3.5
0.60	-3.5	4.3
0.50	-4.3	0.8
0.40	-4.8	0.4



SAMPLE DIRECTORY/NUMBER: DATA7 /44
 SAMPLE ID: Hole 89-3 # 3714
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 112 kilocounts/sec

UNIT NUMBER: 1
 START 15:06:32 02/02/93
 REPRT 09:14:55 01/18/94
 TOT RUN TIME 0:07:21
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7330 cp
 RUN TYPE: High Speed

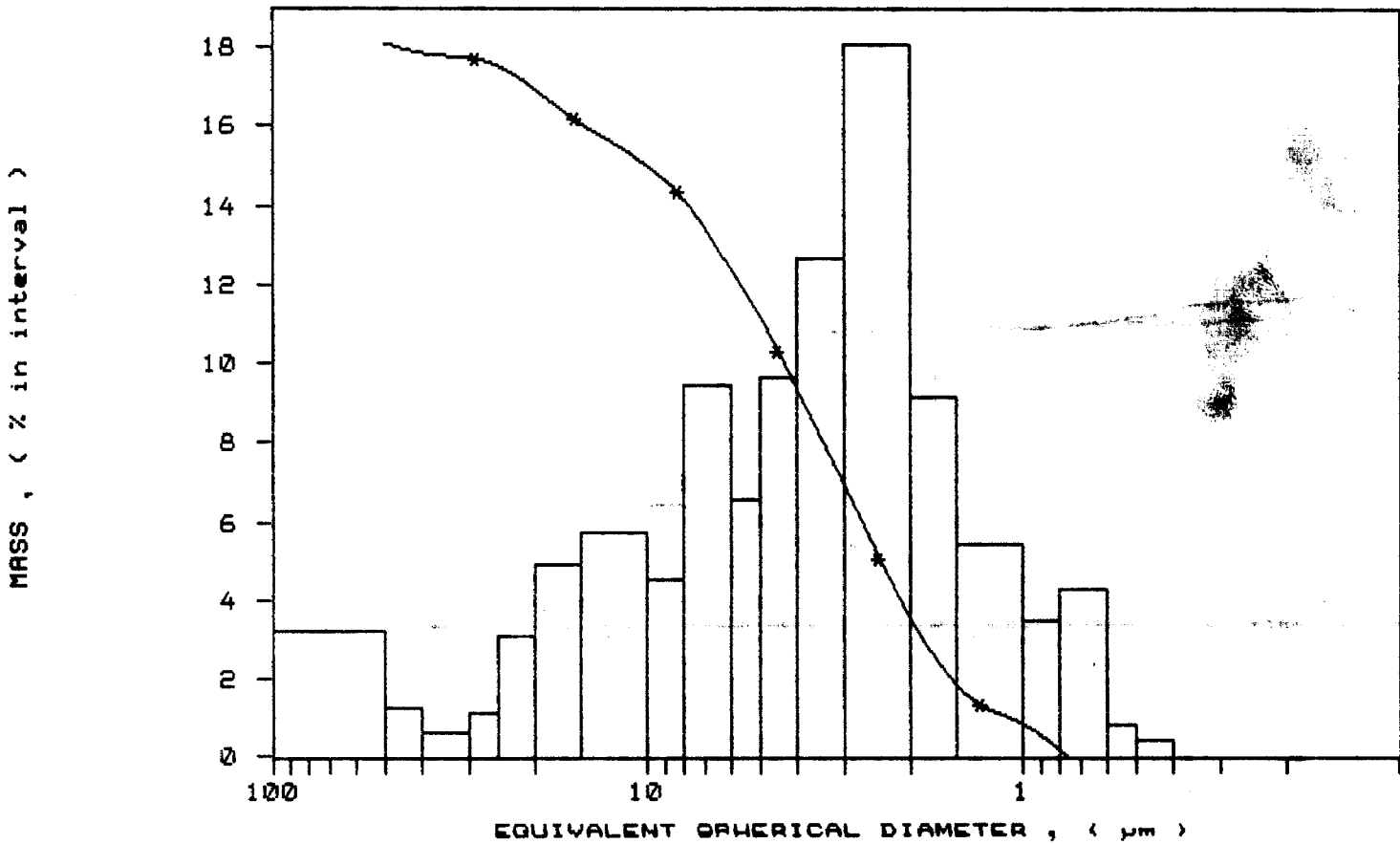
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /44
 SAMPLE ID: Hole 89-3 # 3714
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 112 kilocounts/sec

UNIT NUMBER: 1
 START 15:06:32 02/02/93
 REPT 09:14:55 01/18/94
 TOT RUN TIME 0:07:21
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7330 cp
 RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Hole 89-3 # 3715

SediGraph 5100 V3.02 DATA7 /45 UNIT NUMBER: 1 PAGE 1
 BASELINE/FULL SCALE: 127/ 112 kilocounts/sec REPORT DATE: 01/18/94

Hole 89-3 # 3715

SAMPLE DIRECTORY/NUMBER: DATA7 /45 UNIT NUMBER: 1 PAGE 1
 ANALYSIS TEMP: 34.3 deg C REPORT DATE: 01/18/94

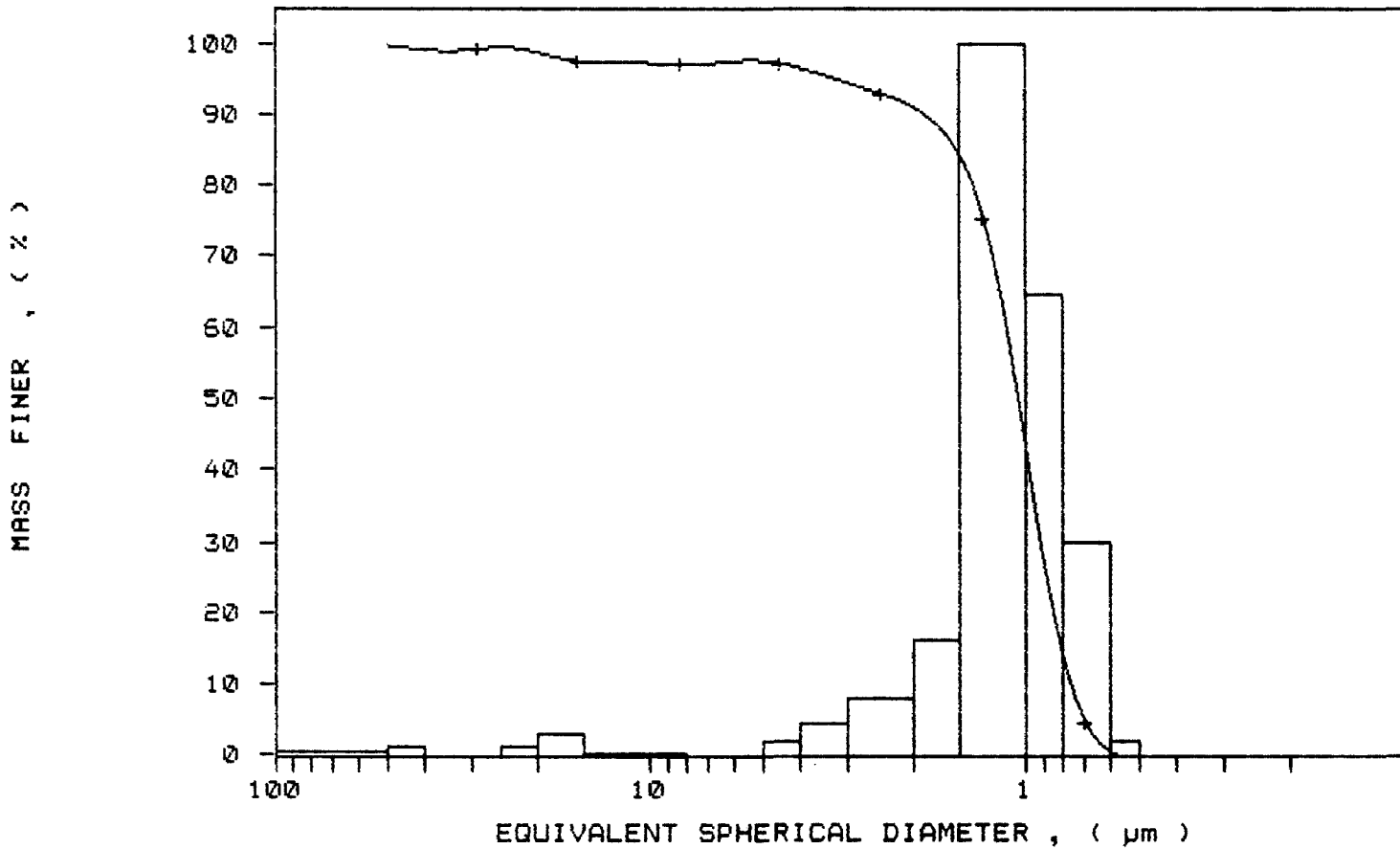
MASS POPULATION VS. DIAMETER * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /45
SAMPLE ID: Hole 89-3 # 3715
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 92 kilocounts/sec

UNIT NUMBER: 1
START 15:34:33 02/02/93
REPR 10:30:28 01/18/94
TOT RUN TIME 0:07:28
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7330 cp
RUN TYPE: High Speed

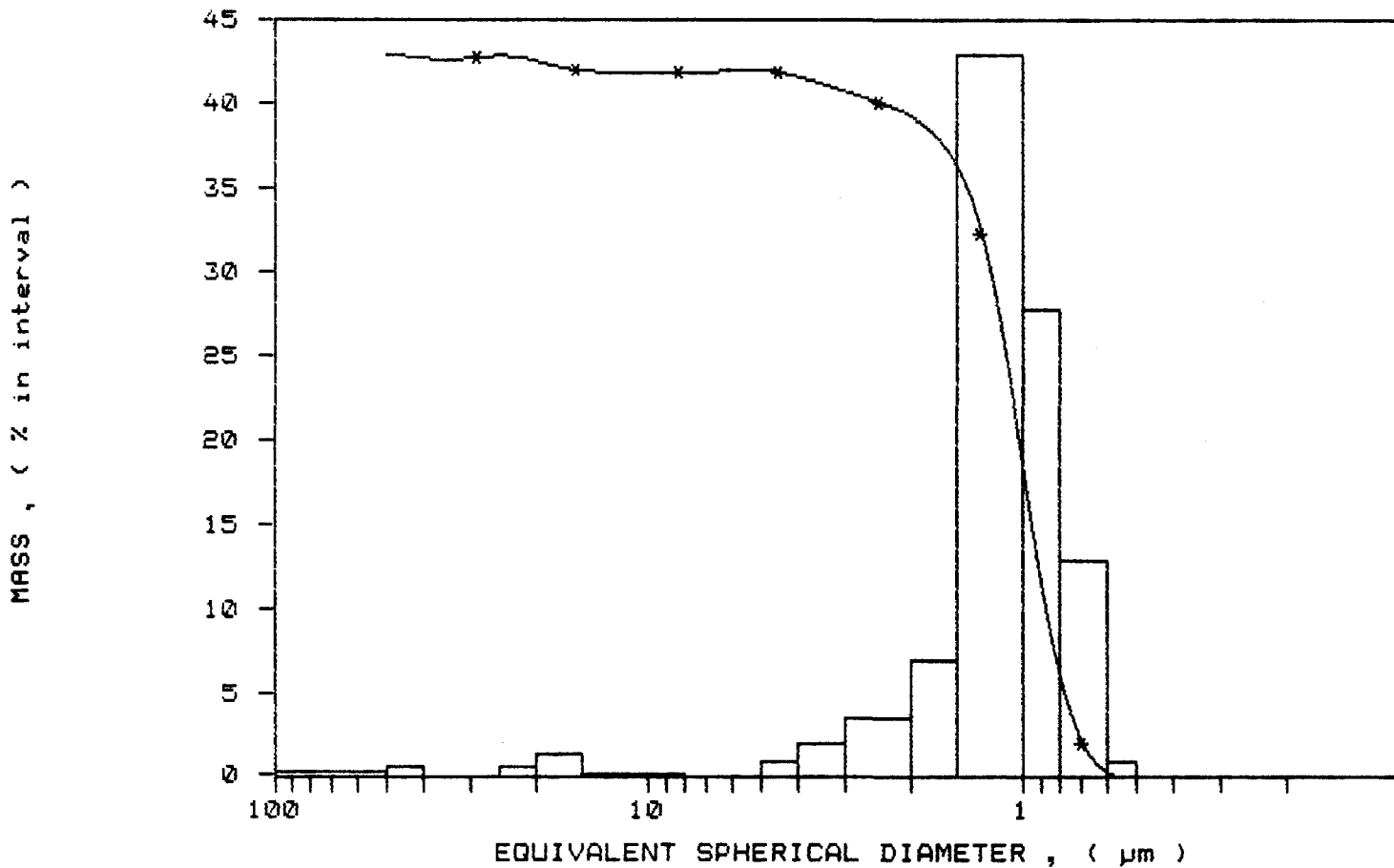
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /45
SAMPLE ID: Hole 89-3 # 3715
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 92 kilocounts/sec

UNIT NUMBER: 1
START 15:34:33 02/02/93
REFRT 10:30:28 01/18/94
TOT RUN TIME 0:07:28
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7330 cp
RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /46
 SAMPLE ID: Hole 89-3 # 3716
 SUBMITTER: NRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 121 kilocounts/sec

UNIT NUMBER: 1
 START 15:58:14 02/02/93
 REPR 09:30:15 01/18/94
 TOT RUN TIME 0:07:22
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7328 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 μm
 ENDING DIAMETER: 0.40 μm

REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.42 μm

MODAL DIAMETER: 0.87 μm

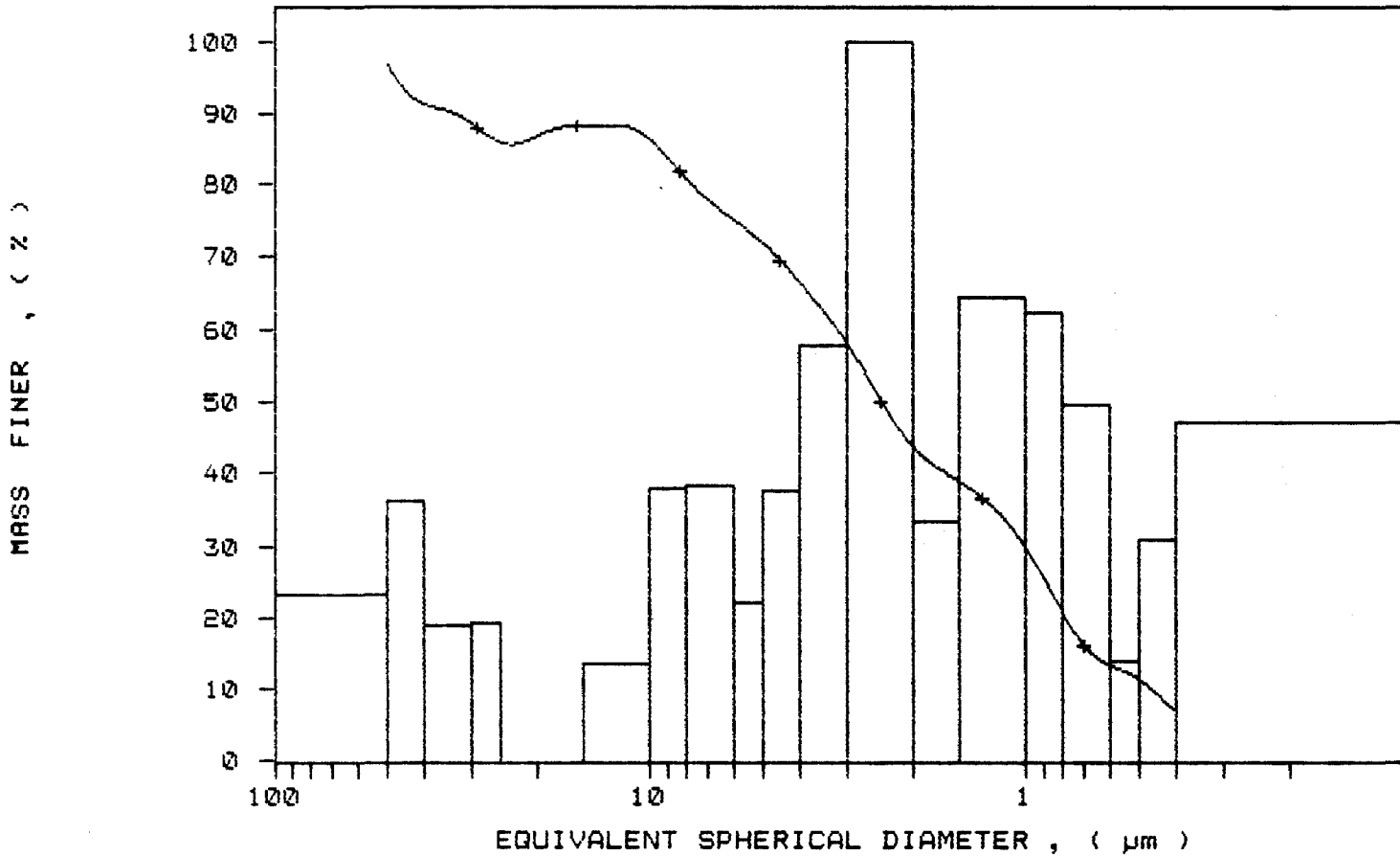
DIAMETER (μm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	96.6	3.4
40.00	91.3	5.3
30.00	88.6	2.8
25.00	85.8	2.8
20.00	86.7	-0.9
15.00	88.2	-1.5
10.00	86.2	2.0
8.00	80.7	5.5
6.00	75.1	5.5
5.00	72.0	3.2
4.00	66.5	5.5
3.00	58.1	8.4
2.00	43.7	14.4
1.50	38.9	4.8
1.00	29.6	9.3
0.80	20.6	9.0
0.60	13.4	7.2
0.50	11.3	2.1
0.40	6.8	4.5

S. Malmström

SAMPLE DIRECTORY/NUMBER: DATA7 /46
SAMPLE ID: Hole 89-3 # 3716
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 121 kilocounts/sec

UNIT NUMBER: 1
START 15:58:14 02/02/93
REFRT 09:30:15 01/18/94
TOT RUN TIME 0:07:22
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7328 cp
RUN TYPE: High Speed

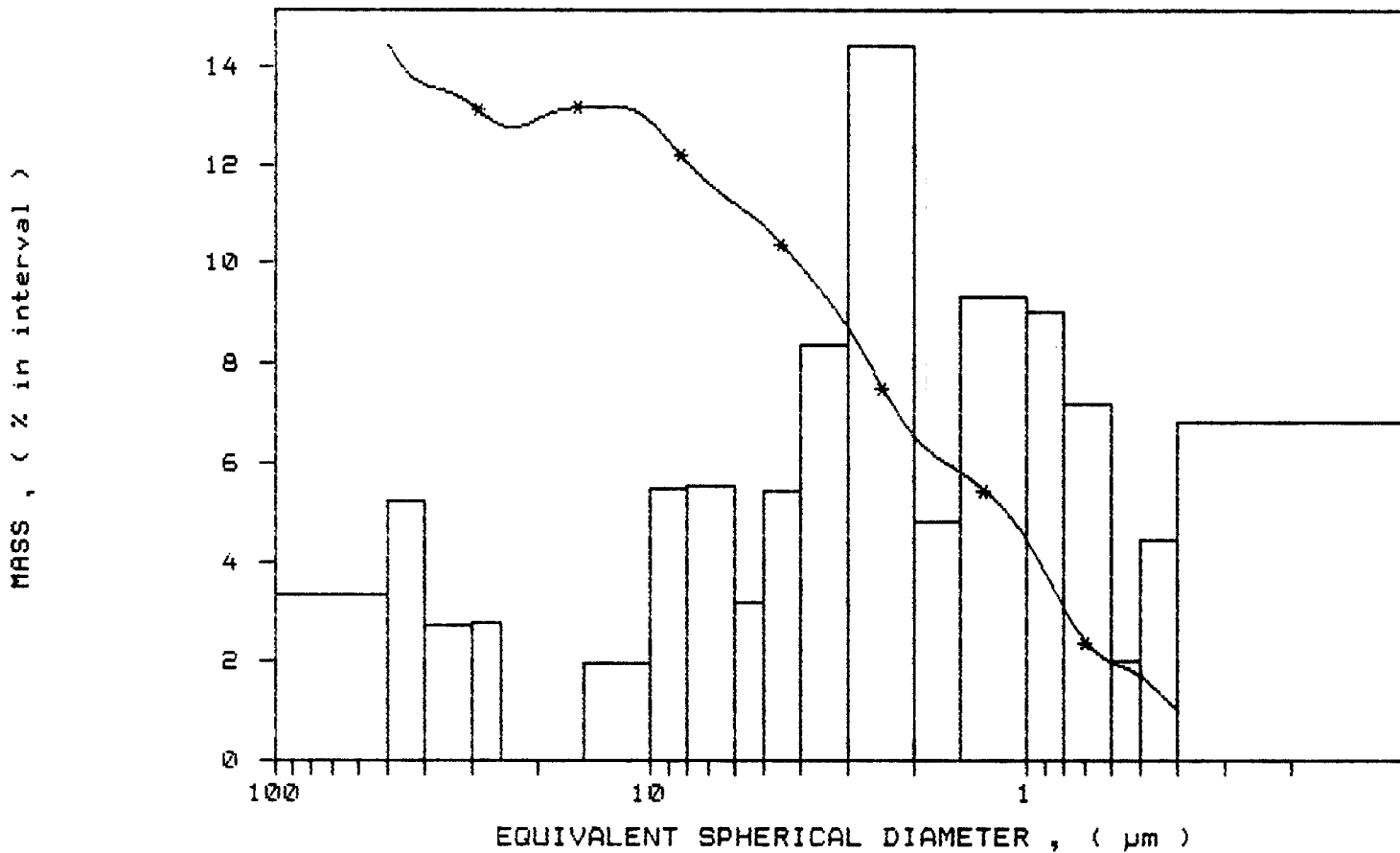
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /46
 SAMPLE ID: Hole 89-3 # 3716
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 121 kilocounts/sec

UNIT NUMBER: 1
 START 15:58:14 02/02/93
 REPR 09:30:15 01/18/94
 TOT RUN TIME 0:07:22
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7328 cp
 RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /47
 SAMPLE ID: Hole 89-3 # 3717
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 108 kilocounts/sec

UNIT NUMBER: 1
 START 09:25:45 02/03/93
 REPRY 09:36:40 01/18/94
 TOT RUN TIME 0:07:21
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7328 cp
 RUN TYPE: High Speed

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 3.44 μ m MODAL DIAMETER: 3.12 μ m

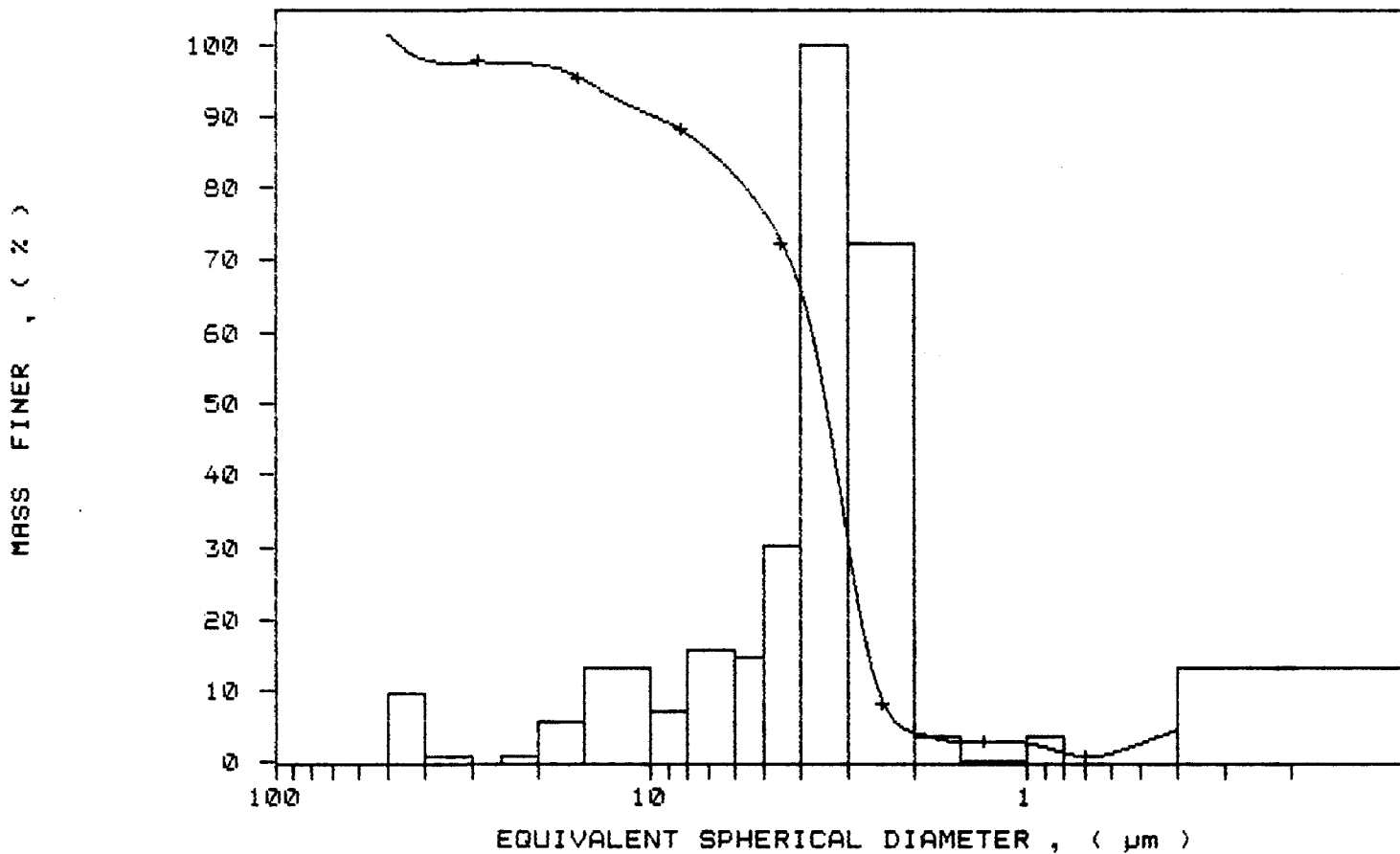
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	101.4	-1.4
40.00	97.9	3.5
30.00	97.6	0.3
25.00	97.5	0.0
20.00	97.1	0.4
15.00	95.0	2.1
10.00	90.2	4.8
8.00	87.5	2.7
6.00	81.8	5.7
5.00	76.5	5.3
4.00	65.6	10.9
3.00	30.1	35.5
2.00	4.3	25.8
1.50	2.9	1.4
1.00	2.7	0.2
0.80	1.4	1.4
0.60	1.3	0.1
0.50	2.8	-1.5
0.40	4.7	-2.0

S. Mattheis

SAMPLE DIRECTORY/NUMBER: DATA7 /47
SAMPLE ID: Hole 89-3 # 3717
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 108 kilocounts/sec

UNIT NUMBER: 1
START 09:25:45 02/03/93
REFRT 09:36:40 01/18/94
TOT RUN TIME 0:07:21
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7328 cp
RUN TYPE: High Speed

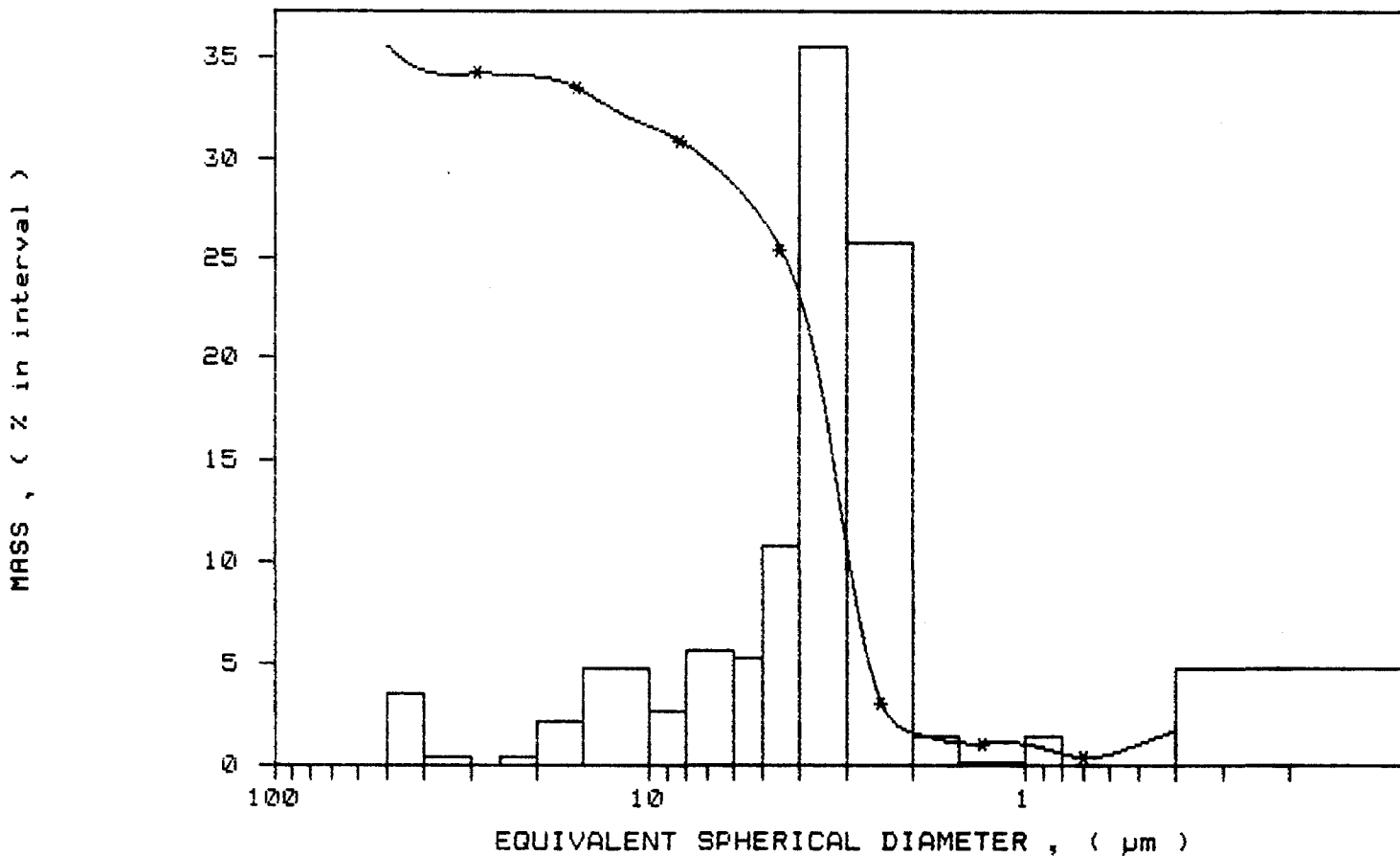
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /47
SAMPLE ID: Hole 89-3 # 3717
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 108 kilocounts/sec

UNIT NUMBER: 1
START 09:25:45 02/03/93
REPR 09:36:40 01/18/94
TOT RUN TIME 0:07:21
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7328 cp
RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /48
 SAMPLE ID: Hole 89-3 # 3718
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 107 kilocounts/sec

UNIT NUMBER: 1
 START 10:44:13 02/05/93
 REPRT 09:43:00 01/18/94
 TOT RUN TIME 0:07:35
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7324 cp
 RUN TYPE: High Speed

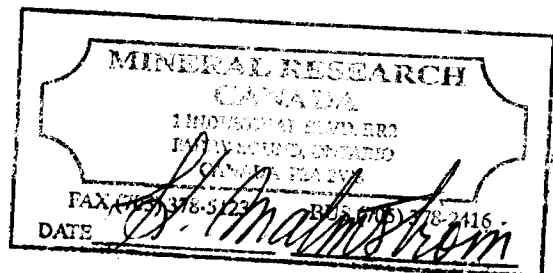
STARTING DIAMETER: 50.00 µm
 ENDING DIAMETER: 0.40 µm

REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.05 µm MODAL DIAMETER: 1.96 µm

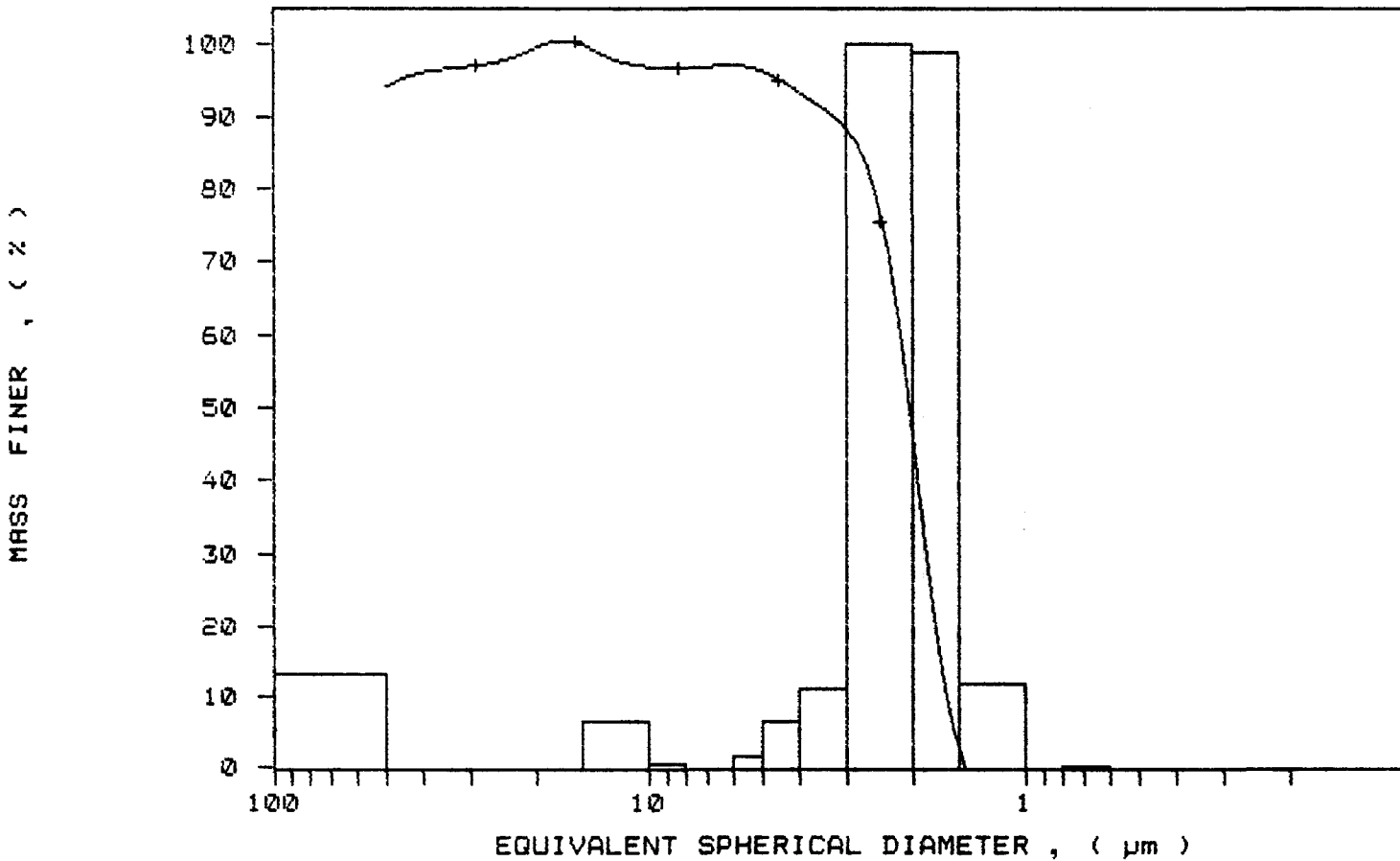
DIAMETER (µm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	94.1	5.9
40.00	96.1	-2.0
30.00	96.9	-0.8
25.00	97.6	-0.7
20.00	99.4	-1.8
15.00	99.8	-0.4
10.00	96.8	3.0
8.00	96.5	0.3
6.00	97.0	-0.5
5.00	96.2	0.8
4.00	93.4	2.9
3.00	88.4	5.0
2.00	45.0	43.4
1.50	1.9	43.0
1.00	-3.3	5.3
0.80	-3.4	0.1
0.60	-3.5	0.1
0.50	-2.7	-0.8
0.40	-1.1	-1.6



SAMPLE DIRECTORY/NUMBER: DATA7 /48
SAMPLE ID: Hole 89-3 # 3718
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 107 kilocounts/sec

UNIT NUMBER: 1
START 10:44:13 02/05/93
REPRT 09:43:00 01/18/94
TOT RUN TIME 0:07:35
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7324 cp
RUN TYPE: High Speed

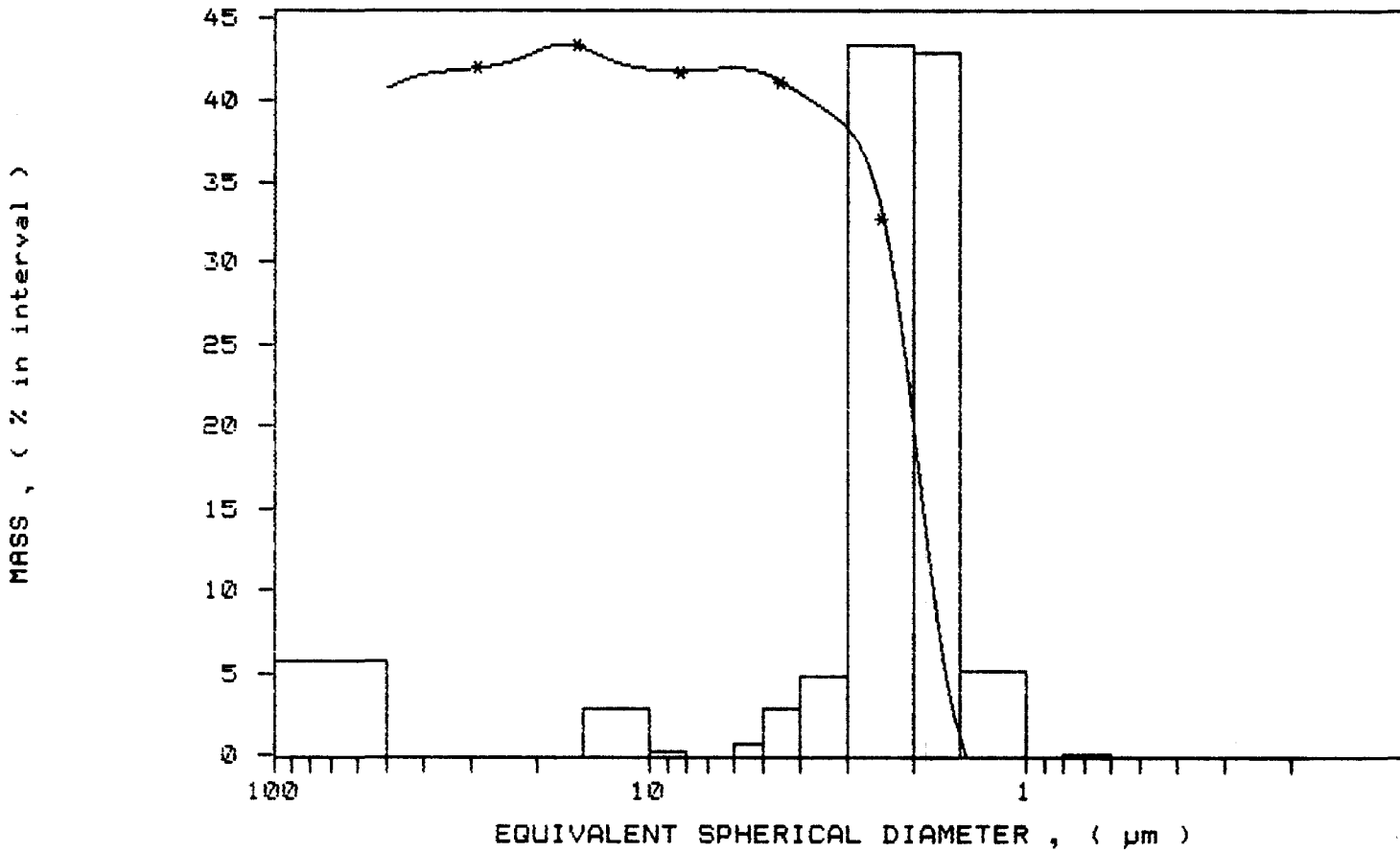
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /48
SAMPLE ID: Hole 89-3 # 3718
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 107 kilocounts/sec

UNIT NUMBER: 1
START 10:44:13 02/05/93
REPR 09:43:00 01/18/94
TOT RUN TIME 0:07:35
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7324 cp
RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /49
 SAMPLE ID: Hole 89-3 # 3719
 SUBMITTER: MRC Inc.
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.3 deg C
 BASELINE/FULL SCALE: 127/ 104 kilocounts/sec

UNIT NUMBER: 1
 START 11:04:35 02/05/93
 REPR 09:49:19 01/18/94
 TOT RUN TIME 0:07:37
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9943 g/cc
 LIQ VISC: 0.7324 cp
 RUN TYPE: High Speed

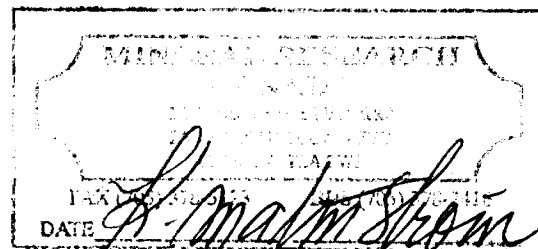
STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.20
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 3.46 μ m MODAL DIAMETER: 3.19 μ m

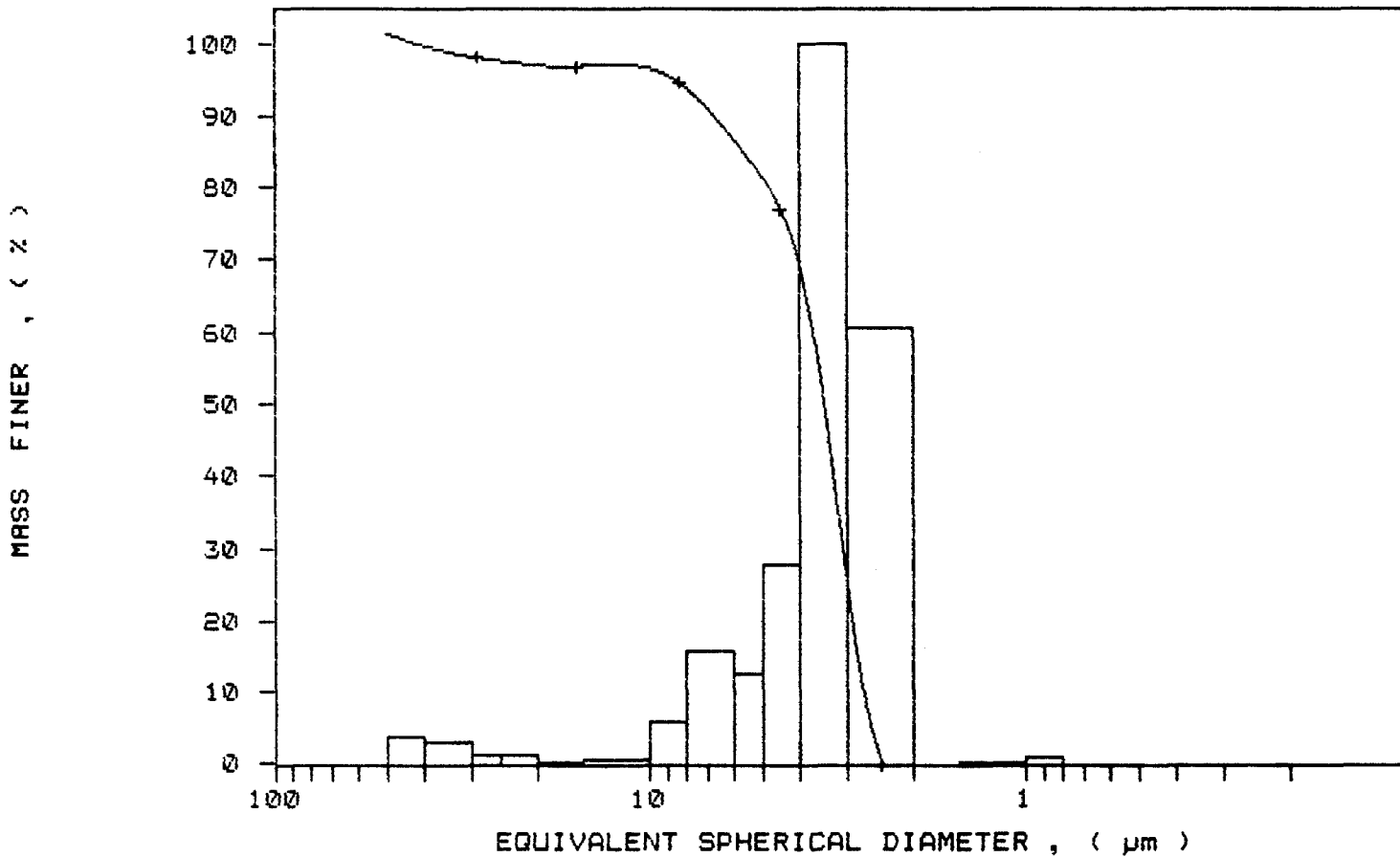
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	101.4	-1.4
40.00	99.7	1.7
30.00	98.2	1.5
25.00	97.6	0.6
20.00	97.0	0.6
15.00	96.9	0.1
10.00	96.5	0.3
8.00	93.8	2.7
6.00	86.7	7.1
5.00	81.1	5.6
4.00	68.7	12.4
3.00	24.4	44.3
2.00	-2.6	27.0
1.50	-2.3	-0.2
1.00	-2.5	0.2
0.80	-3.1	0.5
0.60	-2.9	-0.2
0.50	-1.7	-1.2
0.40	-0.7	-1.0



SAMPLE DIRECTORY/NUMBER: DATA7 /49
SAMPLE ID: Hole 89-3 # 3719
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 104 kilocounts/sec

UNIT NUMBER: 1
START 11:04:35 02/05/93
REFRT 09:49:19 01/18/94
TOT RUN TIME 0:07:37
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7324 cp
RUN TYPE: High Speed

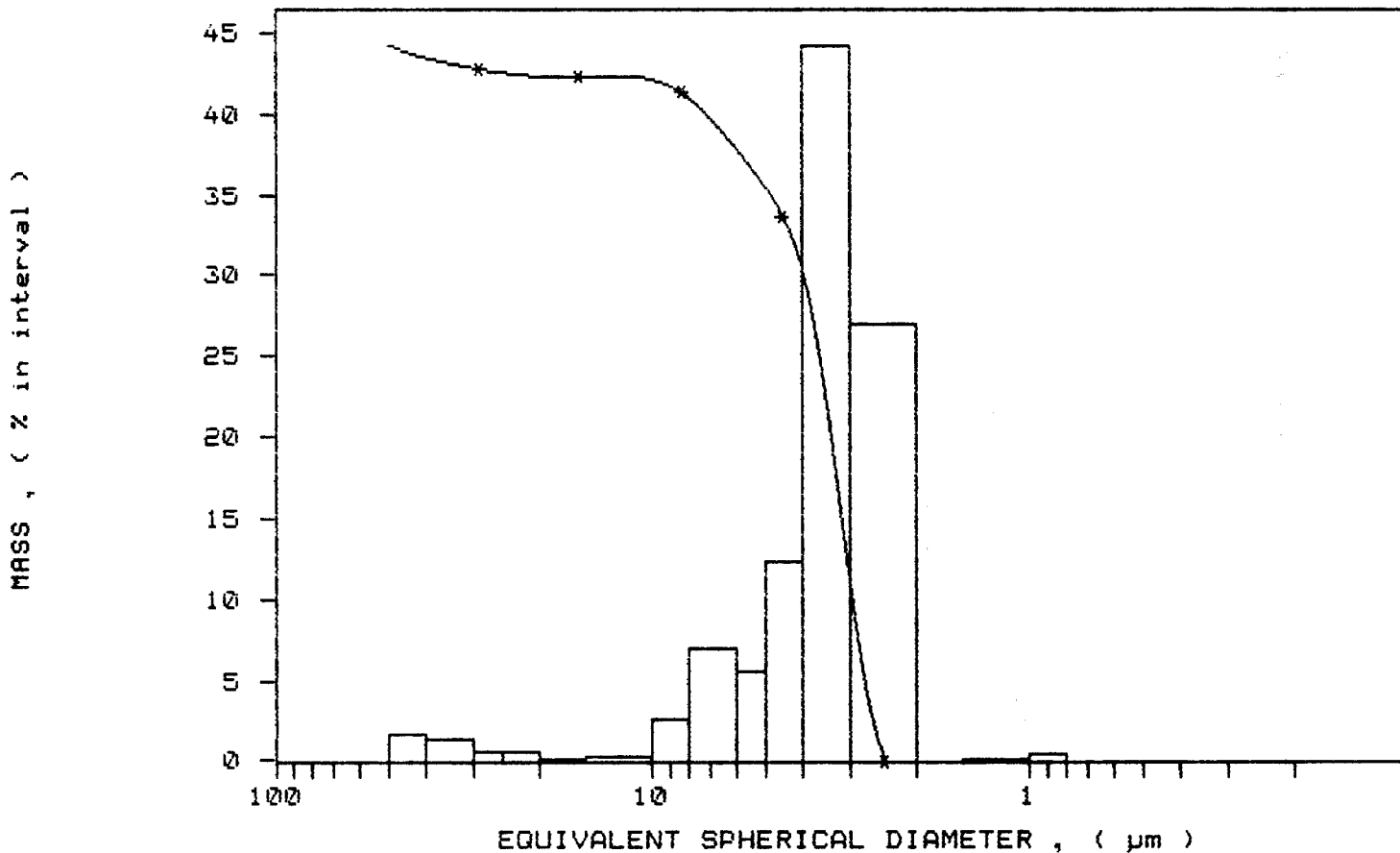
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /49
SAMPLE ID: Hole 89-3 # 3719
SUBMITTER: MRC Inc.
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.3 deg C
BASELINE/FULL SCALE: 127/ 104 kilocounts/sec

UNIT NUMBER: 1
START 11:04:35 02/05/93
REFRT 09:49:19 01/18/94
TOT RUN TIME 0:07:37
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9943 g/cc
LIQ VISC: 0.7324 cp
RUN TYPE: High Speed

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



ROTARY DRILL HOLE RECORD

Drilling Started: Jan. 7, 1989	Logged By: A. Casselman
Drilling Finished: Jan. 8, 1989	Logged: April 11, 1989
Drilling Co.: Midwest	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 250.0'	Mineral Research Canada Inc.
Overburden Depth: 94.0'	1 Industrial Blvd.
Claim No.: P 825798	R. R. # 2
Easting: 4995 E	Parry Sound, On
Northing: 380 N	P2A 2W8
Azimuth: 50° 09' 01" W. 82° 09' 16" N.	
Location: 760.0' at 237° To Claim Post No. 1	
Property: Kipling	Hole Number: 89-2

SUMMARY

From	To	Description
0.0'	1.0'	Kaolin Silica Sand (Kss)
1.0'	6.0'	Peat
6.0'	94.0'	Glacial Clay Till - Overburden - Pleistocene
94.0'	103.0'	Kaolin Silica Sand - Cretaceous
103.0'	110.5'	Clay
110.5'	117.5'	Kss
117.5'	121.0'	Clay
121.0'	123.0'	Kss
123.0'	124.0'	Sandy Clay
124.0'	140.0'	Clay
140.0'	142.0'	Sandy Clay
142.0'	145.0'	Clay
145.0'	156.5'	Sandy Clay
156.5'	187.0'	Kss
187.0'	195.0'	Lost Core
195.0'	219.5'	Kss
219.0'	220.5'	Lignite
220.5'	222.5'	Kss
222.5'	250.0'	Clay

Jan. 13, 1989

A. Casselman

Detail Log 89-2

From	To	Sample No.	Description
0.0'	1.0'		Kaolin Silica Sand - fine grain, white, apparent true kss - possible glacial incorporation, more likely an error - did not go to Parry Sound.
1.0'	6.0'		Peat
6.0'	94.0'		Glacial Clay Till - green/brown, competent, 2.0 - 5.0% carbonate clast & 10.0% gneissic clasts from 0.25" - 2.0", some areas are clast-free and more fissile.
94.0'	98.0'	12901	Kss - fine grain, some medium, medium grey, lightening downsection, yellow tinged in certain areas, well sorted, clay clot - light grey, pliable, 1.0" at 96.0'. 11.72% kaolin.
98.0'	103.0'	12902	Kss - as above, yellow tinged from 98.0' - 98.5'. 8.35% kaolin.
103.0'	109.0'	12903	Clay - medium brown grading to dark brown, friable, competent, small lamination of white kss well sorted, fine grain. 60.78% kaolin.
109.0'	110.5'	12904	Clay - dark brown, highly pliable, water saturated. 33.72% kaolin.
110.5'	113.0'	12905	Kss - well sorted, fine grain, white, clay impurity banding. 11.19% kaolin.
113.0'	116.0'	12906	Kss - interbedded with 1.0" brown pliable clay laminations, kss - yellow brown medium grain. 8.28% kaolin.
116.0'	117.5'	12907	Kss - as above. 8.89% kaolin. Box 116.0' - 119.0' smells of gasoline.
117.5'	121.0'	12908	Clay - grey, friable, highly competent, 110.75' - 119.25' - red clots in clay. 75.97% kaolin.
121.0'	123.0'		Kss - medium grain, medium yellow brown, extremely high amount of heavies (especially garnet - at least 25.0 - 35.0% of the clastic material).

123.0' 124.0' Sandy Clay - competent, fissile, light grey, minor heavies creating darker laminations, minor illite, entire remainder of hole dried.

124.0' 127.0' Clay - competent, disc-like, greasy, light grey sandy clay, competent & disc-like to fissile, minor illite.

127.0' 130.0' Clay - light grey grading to light grey sandy clay, competent and disc-like to fissile, minor illite.

130.0' 134.0' Clay - and Silty Clay interbedded, competent, fissile, medium grey/brown, carbonaceous, minor illite.

134.0' 140.0' Clay - competent, disc-like, greasy, medium brown with red exterior coating.

140.0' 142.0' Sandy Clay - competent, semi-pliable, fine grain, medium brown with chocolate brown laminations.

142.0' 145.0' Clay - competent, semi-pliable, fine grain, medium brown with chocolate brown laminations.

145.0' 149.0' Sandy Clay - as previous, with exterior crystal growth.

149.0' 152.0' Sandy Clay - competent, semi-pliable, medium brown, moist.

152.0' 156.5' Sandy Clay - as above, dried, mouldy, exterior crystal growth and wood fragments from box in core.

156.5' 166.0' Kss - medium grain, medium brown grading to light brown.

166.0' 171.0' Kss - coarse grain, in a white clay matrix, high clay content.

171.0' 175.0' Kss - coarse grain, as above grading to medium grain, light grey.

175.0' 180.0' Kss - as above.

180.0' 182.0' Kss - coarse grain, vari-coloured silicas in a light brown clay matrix.

182.0' 187.0' Kss - medium grain, rare coarser clasts, light brown, vari-coloured silicas.

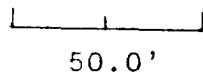
187.0' 195.0' Lost Core - field log indicates material is Kss as above.

195.0'	198.0'	Kss - medium grain, medium grading to light brown, minor heavies.
198.0'	203.0'	Kss - medium grain, high clay content, one sandy clay seam of 0.5' at 199.25' containing large sub-rounded vari-coloured silicas.
203.0'	206.0'	Kss - as above, no sandy clay seams.
206.0'	211.0'	Kss - coarse grain in a medium grain matrix, light brown.
211.0'	216.0'	Kss - fine grain grading to medium grain downsection, light brown with an exterior chocolate brown coating.
216.0'	219.5'	Kss - medium grain with coarse clasts, light brown, vari-coloured silicas.
219.5'	220.5'	Lignite - black, highly fissile, extremely poor quality.
220.5'	222.5'	Kss - medium grain, with coarser clasts, dark brown exterior crystal growth.
222.5'	227.5'	Clay - competent, disc-like, chocolate brown, carbonaceous crystal growth.
227.5'	234.0'	Clay - as above, few silty portions.
234.0'	239.0'	Clay - competent, semi-pliable, as above, minor illite.
239.0'	244.0'	Clay - as previous - not silty, disc-like.
244.0'	250.0'	Clay - as above.

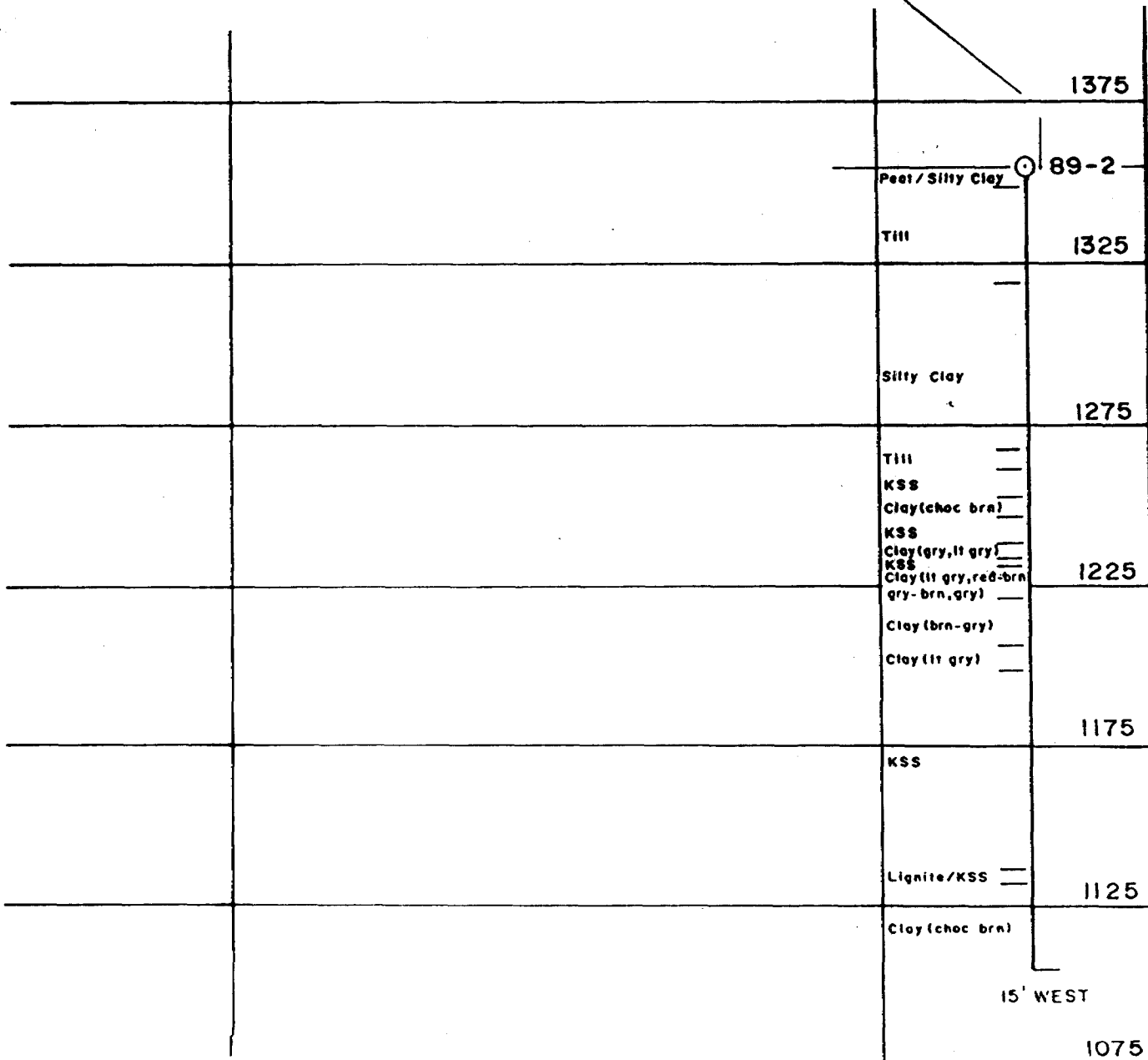
 EOH - 250.0'

Section 89-2

Hole Length: 250.0'
 Overburden Depth: 94.0'
 Astronomic Azimuth: 50° 09' 01" W. 82° 09' 16" N.
 Location: 760.0' at 237° to claim no. 1
 Claim No.: P 825798
 Easting: 4995 E
 Northing: 380 N
 Dip: -90°
 Scale: 1.0" = 50.0' or 1:600



Gridline 5000



Section 89-2

Hole Length: 250.0'

Overburden Depth: 94.0'

Astronomic Azimuth: $50^{\circ} 09' 01''$ W. $82^{\circ} 09' 16''$ N

Location: 760.0' at 237° to claim no. 1

Claim No.: P 825798

Easting: 4995 E

Northing: 380 N

Dip: -90°

Scale: 1.0" = 50.0' or 1:600

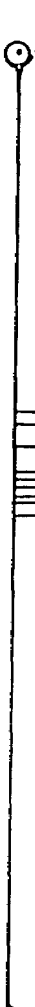


50.0'

Gridline 5000



89-2



12981
12982
12983
12984
12985
12986
12987
12988

MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

89-2

ANALYSIS REPORT

SAMPLE # SCREEN % MOISTURE % pH (20% SOLIDS)

12901

+ 4	0.0	
+ 40	63.6	8.3
+100	26.9	
+200	8.1	
+325	0.1	
-325	1.3	

12902

+ 4	0	9.65
+ 40	61.8	
+100	28.6	
+200	2.7	
+325	0.5	
-325	6.4	

12903

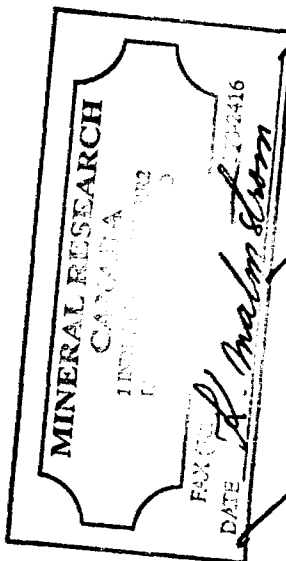
+ 4	0.0	13.2
+ 40	6.2	
+100	9.7	
+200	8.2	
+325	3.9	
-325	70.0	

12904

+ 4	0.6	13.3
+ 40	3.2	
+100	3.6	
+200	8.9	
+325	3.3	
-325	68.0	

12905

+ 4	0.0	9.4
+ 40	0.0	
+100	1.8	
+200	59.9	
+325	4.3	
-325	33.0	



MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
12906	+ 4	0.4	8.5	
	+ 40	2.1		
	+100	5.8		
	+200	60.1		
	+325	3.1		
	-325	28.5		
12907	+ 4	5.0	11.7	
	+ 40	53.5		
	+100	20.0		
	+200	4.6		
	+325	0.0		
	-325	16.9		
12908	+ 4	0	20.9	
	+ 40	0.4		
	+100	2.8		
	+200	5.1		
	+325	33.5		
	-325	60.2		
	+ 4			
	+ 40			
	+100			
	+200			
	+325			
	-325			
	+ 4			
	+ 40			
	+100			
	+200			
	+325			
	-325			

UNIT NUMBER: 1
 START 14:00:15 11/06/59
 REPORT 14:05:25 09:19:51
 TOT RUN TIME 0:16:10
 SAM DENS: 1.6300 g/cc
 LIQ DENS: 0.7940 g/cc
 LIQ VISC: 0.7200 cc

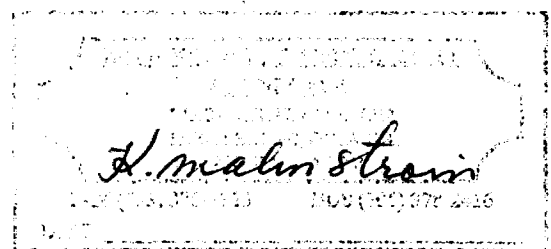
START TIME: 14:00:15
 ENDING TIME: 14:05:25

REYNOLDS NUMBER: 0.11
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 0.40 μ m MODAL DIAMETER: 0.40 μ m

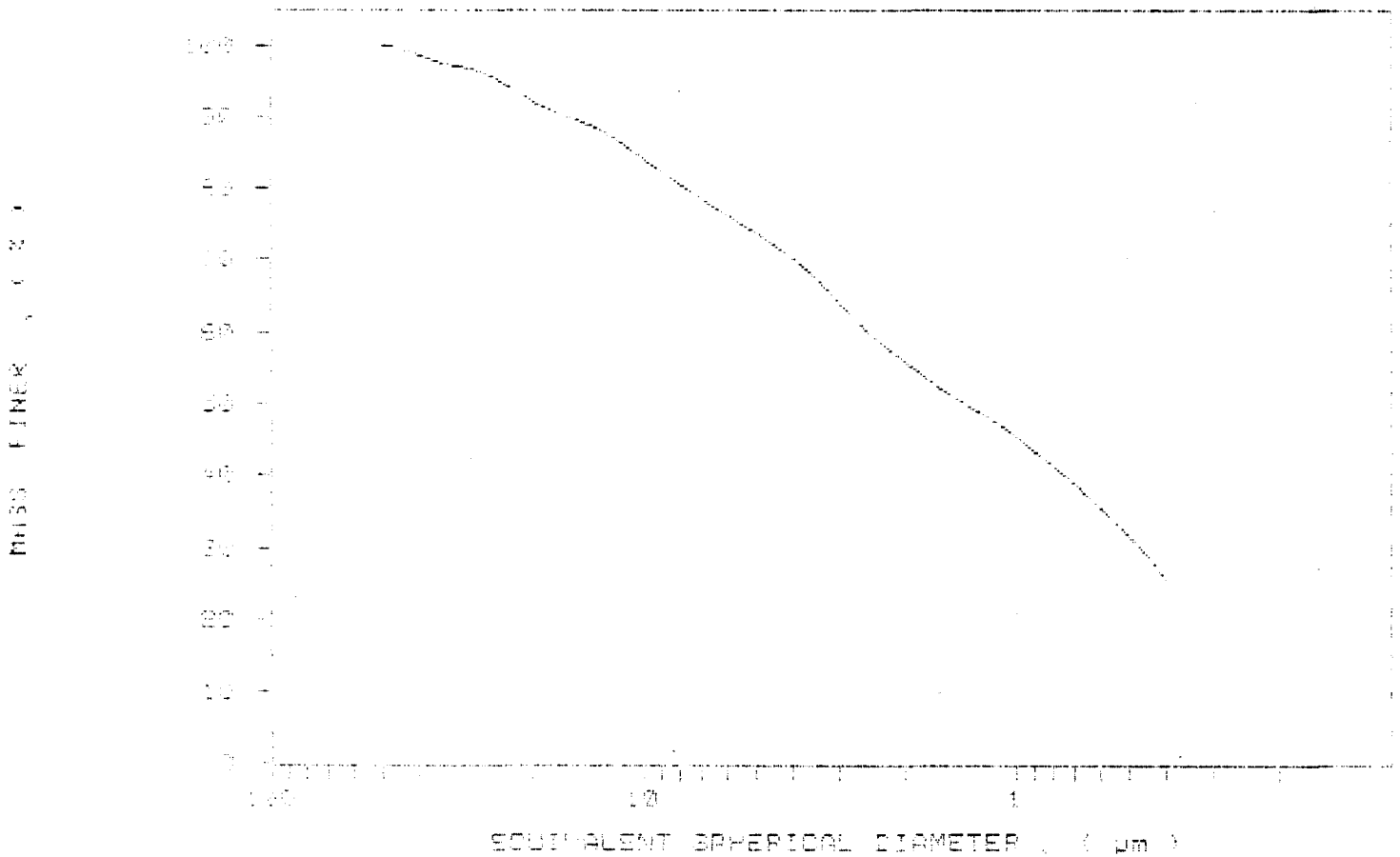
DIAMETER (μ m)	CONCENTRATION MASS %	MASS % IN INTERVAL
00.00	100.00	0.00
00.10	99.10	1.00
00.20	97.40	2.70
00.30	94.90	5.50
00.40	91.60	9.30
00.50	87.60	14.00
00.60	82.90	20.70
00.70	77.50	29.40
00.80	71.40	40.20
00.90	64.60	54.10
01.00	57.20	71.30
01.10	49.30	91.90
01.20	40.90	115.60
01.30	32.10	142.50
01.40	23.00	172.60
01.50	13.70	206.00
01.60	4.30	242.70
01.70	0.00	282.70
01.80	0.00	326.00
01.90	0.00	372.60
02.00	0.00	422.50



SAMPLE IDENTIFICATION: 7880
 SAMPLE ID: note 20-E # 12501
 SUBMITTER: James Bay Co.
 OPERATOR: Pearson
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TYPE: 15.2 gpc C NON TYPE: Standard

UNIT NUMBER: 1
 START 14:05:13 11/06/99
 REPT 14:09:28 09/10/99
 TOT RUN TIME 0:16:00
 SAM DENS: 2.6500 g/cc
 LIQ DENS: 0.9990 g/cc
 LIQ VISC: 0.7202 cc

CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTION NUMBER: 0000 / 0000
 SAMPLE ID: 0000 0000 0 10000
 SUBMITTER: 0000 00 00
 OPERATOR: kaolin
 SAMPLE REFER ID:
 LIQUID TYPE: water
 ANALYSIS (In) : 0000 bag 0 RUN TYPE: Standard

UNIT NUMBER: 1
 START 15:07:40 11/08/89
 REPT 14:07:15 09/10/91
 TOT RUN TIME 0:17:01
 SAM DENS: 2.6500 g/cc
 LIO DENS: 0.9990 g/cc
 LIO VISC: 0.7200 cp

STARTING DIAMETER: 50.00 um
 ENDING DIAMETER: 0.100 um

REYNOLDS NUMBER: 0.22
 FULL SCALE PRESS X: 100

MASS DISTRIBUTION

MEAN DIAMETER: 5.07 um MODAL DIAMETER: 0.40 um

DIAMETER (um)	CUMULATIVE PERCENT FINER (%)	MASS IN INTERVAL (%)
50.00	99.99	0.00
40.00	99.98	0.01
30.00	99.97	0.01
20.00	99.95	0.02
15.00	99.93	0.02
10.00	99.88	0.05
5.000	99.75	0.13
2.500	99.45	0.30
1.000	98.95	0.50
0.500	98.10	0.85
0.250	96.80	1.30
0.100	94.50	2.30
0.075	92.50	2.00
0.050	89.50	3.00
0.030	85.50	4.00
0.020	80.50	5.00
0.015	75.50	5.00
0.010	69.50	6.00
0.0075	63.50	6.00
0.0050	57.50	6.00
0.0030	51.50	6.00
0.0020	45.50	6.00
0.0015	39.50	6.00
0.0010	33.50	6.00
0.00075	27.50	6.00
0.00050	21.50	6.00
0.00030	15.50	6.00
0.00020	9.50	6.00
0.00015	3.50	6.00

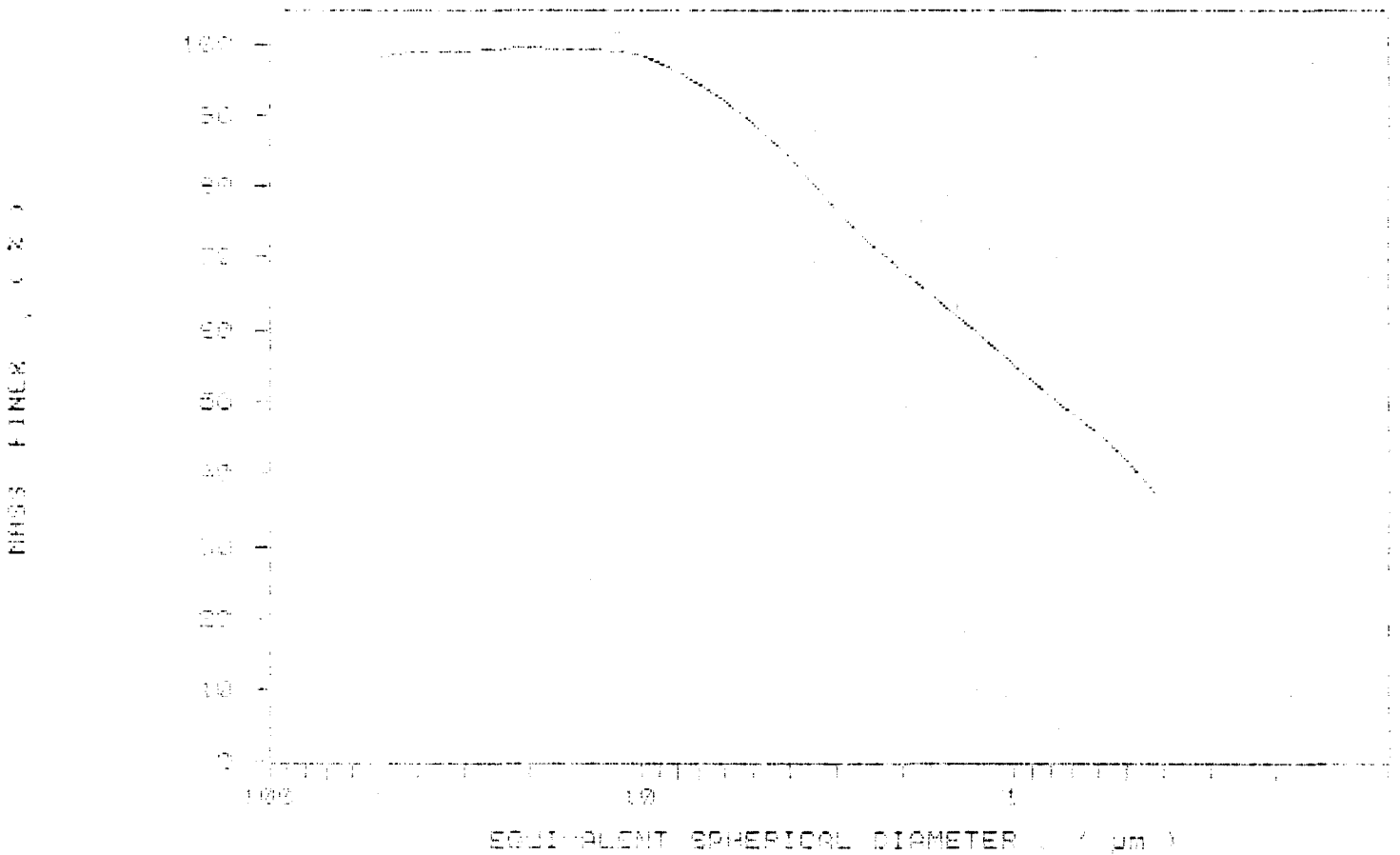
MINERAL RESEARCH CANADA
 1 KINGSTON RD. UNIT 22
 MISSISSAUGA, ONTARIO
 CANADA L4A 2W8

FAX (705) 378-5000 BUS (705) 378-2416
 DATE *L. Malmstrom*

SAMPLE BRAND: UNIDENTIFIED
 SAMPLE ID: 001 0100 0100
 SUBMITTER: Lab: 001 0100
 OPERATOR: Radiin
 SAMPLE TYPE: Liquid
 LIQUID TYPE: water
 ANALYSIS TECH: COLE 0100 0100

UNIT NUMBER: 1
 START: 15:07:48 11/06/09
 REPORT: 14:07:00 03/19/10
 TOT RUN TIME: 0:17:01
 SAM DENS: 2.0000 g/cc
 LIQ DENS: 0.99940 g/cc
 LIQ VISC: 0.7200 cP

CUMULATIVE MASS PERCENT FINER VS. DIAMETER



OPERATOR: [unclear]
 SAMPLE NO: [unclear]
 OPERATOR: [unclear]
 OPERATOR: [unclear]
 LIQUID: water
 FILTER: Standard

UNIT NUMBER: 1
 START: 15:39:40 11/06/00
 REF: 141212 00.10731
 TOT RUN TIME: 0:17:00
 SAM DENS: 2.6500 g/cc
 LIQ DENS: 0.9980 g/cc
 LIQ VISC: 0.7250 cP

STARTING DIAMETER: 0.000 mm
 ENDING DIAMETER: 0.000 mm

REYNOLDS NUMBER: 0.112
 FULL SCALE MASS: 1.00

MASS DISTRIBUTION

FILTER DIAMETER: 0.000 mm HOUR DIAMETER: 0.000 mm

DIAMETER (mm)	Cumulative MASS PERCENT	MASS IN INTERVAL (%)
0.000	100.00	0.12
0.001	99.88	0.17
0.002	99.74	0.11
0.003	99.61	0.12
0.004	99.47	0.17
0.005	99.30	1.10
0.006	99.17	0.19
0.008	99.00	0.11
0.010	98.88	4.10
0.015	98.70	4.12
0.020	98.57	0.19
0.030	98.41	7.11
0.040	98.21	0.18
0.050	98.00	0.11
0.070	97.80	0.10
0.100	97.60	4.10
0.150	97.40	7.11
0.200	97.20	0.10
0.300	97.00	0.10
0.400	96.80	0.10

MINERAL RESEARCH CANADA
 1180 SHEPPARD AVE. E. #22
 SCARBOROUGH, ONTARIO
 CANADA M1A 2P3
 FAX (709) 378-5123 BUS (709) 378-2416
 DATE *L. malmstrom*

SAMPLE NUMBER: 10461 1092
 SAMPLE DESCRIPTION: ...
 SUBMITTER: James Bay Co.
 OPERATOR: ...
 SAMPLE TYPE: Lime
 LIQUID: ...
 ANALYSIS ITEM: ...
 RUN TYPE: Standard
 STABILITY: ...
 ...

UNIT NUMBER: 1
 START: 02:57:41 11/07 83
 REPT: 14:15:51 09/15/81
 TOT RUN TIME: 0114:04
 SAM DENS: 2.9800 g/cc
 LIQ DENS: 2.9941 g/cc
 LIQ VISC: 0.7207 cp
 REYNOLDS NUMBER: 0.23
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 10.14 μm MODAL DIAMETER: 6.15 μm

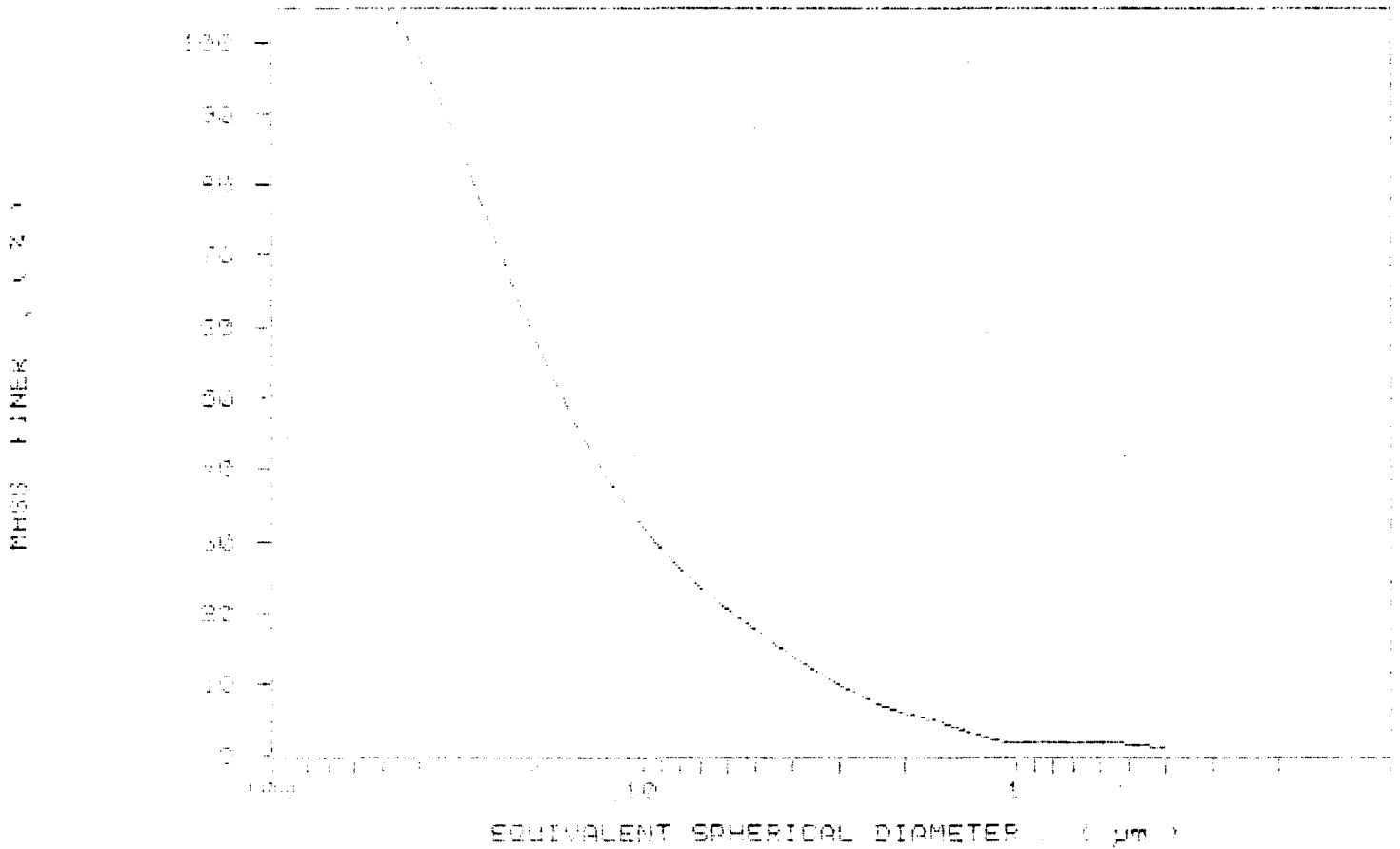
DIAMETER (μm)	CUMULATIVE PERCENT	MASS PERCENT INTERVAL (%)
0.100	100.00	100.00
0.200	100.00	100.00
0.300	100.00	100.00
0.400	100.00	100.00
0.500	100.00	100.00
0.600	100.00	100.00
0.800	100.00	100.00
1.000	100.00	100.00
1.200	100.00	100.00
1.500	100.00	100.00
2.000	100.00	100.00
2.500	100.00	100.00
3.000	100.00	100.00
4.000	100.00	100.00
5.000	100.00	100.00
6.000	100.00	100.00
8.000	100.00	100.00
10.000	100.00	100.00
12.000	100.00	100.00
15.000	100.00	100.00
20.000	100.00	100.00
25.000	100.00	100.00
30.000	100.00	100.00
40.000	100.00	100.00
50.000	100.00	100.00
60.000	100.00	100.00
80.000	100.00	100.00
100.000	100.00	100.00

MINERALS RESEARCH
 CANADA
 100-10000 100-10000
 100-10000 100-10000
 CANADA 100-10000
 FAX (705) 336-1123 TEL (705) 338-2416
L. Malmstrom

SAMPLE DIRECTORY NUMBER: DATA 7292
 SAMPLE ID: 101010 0010 1000
 IDENTIFIER: James Bay Co.
 OPERATOR: [unclear]
 SAMPLE TYPE: [unclear]
 LIQUID: 100% water
 ANALYSIS UNIT: 0.01 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START: 00:57:41 11/07/79
 REPT: 14:16:31 09/19/79
 LIQ RUN TIME: 0:14:24
 SAM DENS: 2.9300 g/cc
 LIQ DENS: 0.9991 g/cc
 LIQ VISC: 0.7207 cP

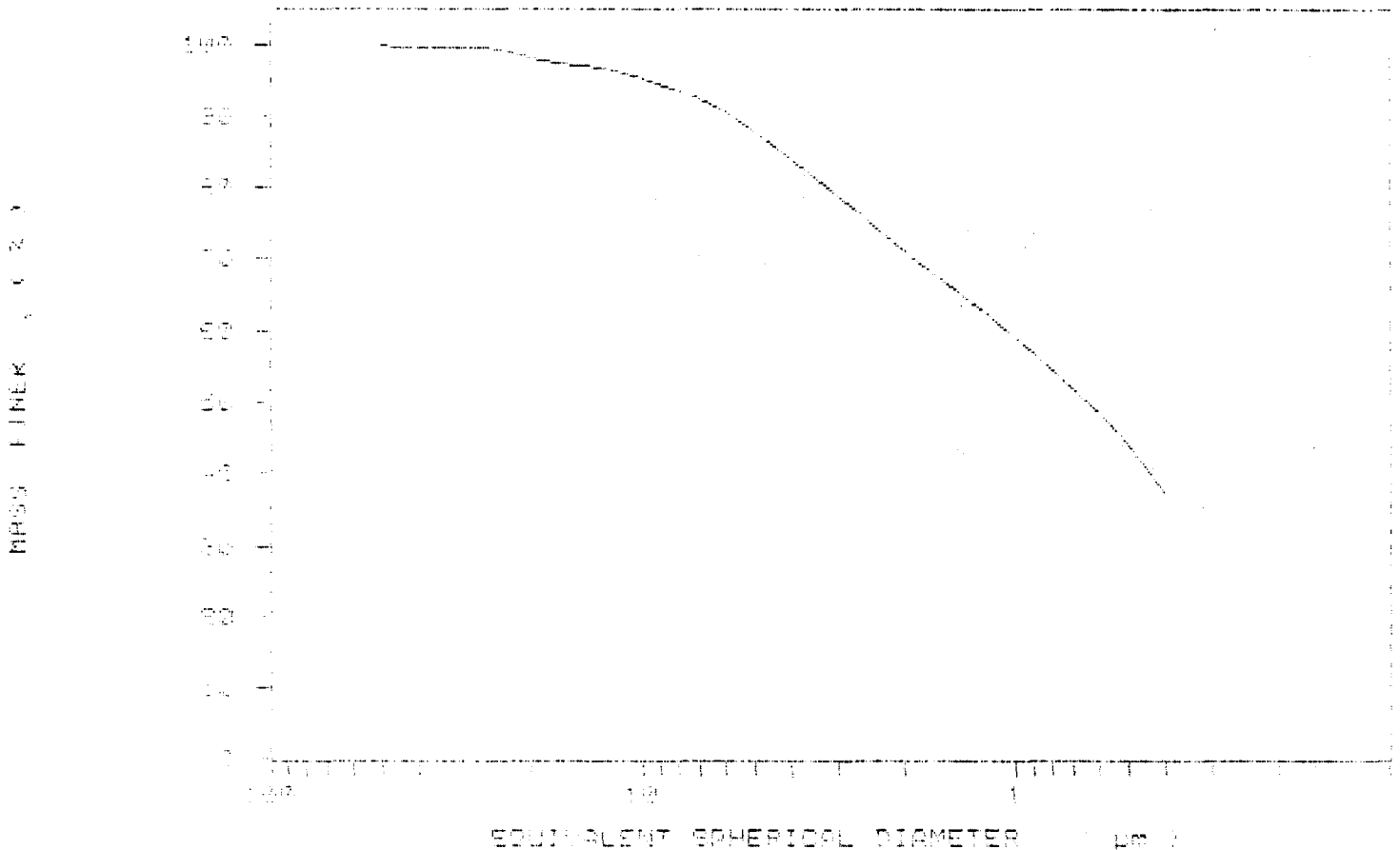
CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE LABORATORY NUMBER: DA101 7890
 SAMPLE ID: none 10-1 12000
 SUBMITTER: James Earl Co.
 OPERA Co: Kaoline
 SAMPLE TYPE: Clay
 LIQUID: Water
 ANALYSIS UNIT: 0.015 cc/g C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:32:15 11/06/99
 REPT 14:21:20 03/19/01
 TOT RUN TIME 0:16:15
 SAM DENS: 2.6500 g/cc
 LIQ DENS: 0.9990 g/cc
 LIQ VISC: 0.7200 cp

CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE CHARACTERISTICS DATA
 SAMPLE ID: 1010 02 01 1010
 QUANTITY: 100000000
 OPERATOR: KAARINA
 SAMPLE TYPE: LIQ
 LIQUID: Water
 ANALYSIS TIME: 01:00 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START: 05:28:00 11/07/50
 REPT: 14:28:40 02/19/51
 TOT RUN TIME: 0:16:00
 SAM DENS: 0.9990 g/cc
 LIQ DENS: 0.9991 g/cc
 LIQ VISC: 0.0100 cP

STARTING DIAPHYER: 00:00 AM
 ENDING DIAPHYER: 01:00 AM

REYNOLDS NUMBER: 0.122
 FULL SCALE MASS AT 100

MASS DISTRIBUTION

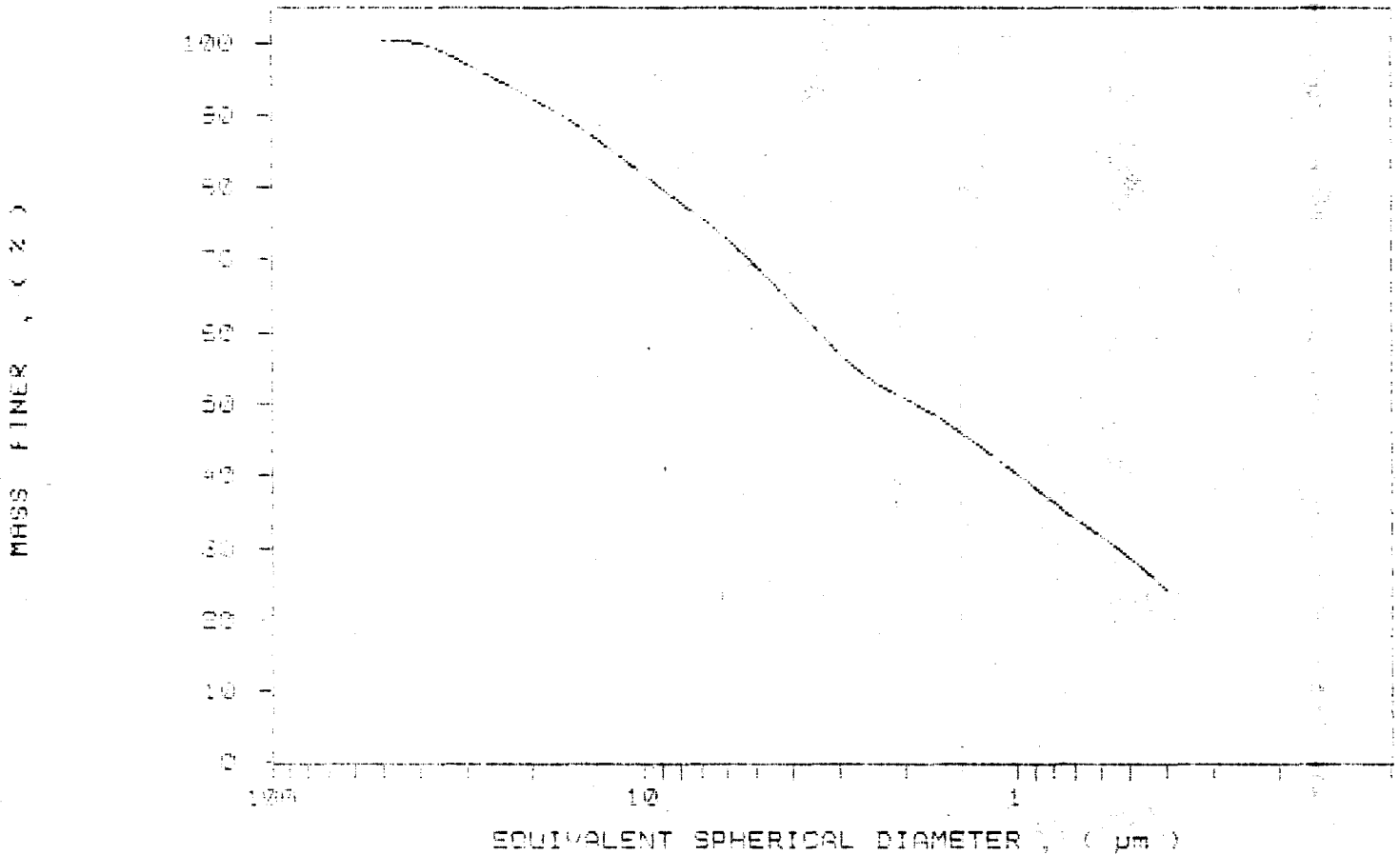
NOZZLE DIAMETER: 0.100 MM NOZZLE DIAMETER: 0.100 MM

DIAPHYER (MIN)	MASS (%)	MASS IN INTERVAL (%)
0.000	100.0	0.0
0.000	99.9	0.1
0.000	99.8	0.2
0.000	99.7	0.3
0.000	99.6	0.4
0.000	99.5	0.5
0.000	99.4	0.6
0.000	99.3	0.7
0.000	99.2	0.8
0.000	99.1	0.9
0.000	99.0	1.0
0.000	98.9	1.1
0.000	98.8	1.2
0.000	98.7	1.3
0.000	98.6	1.4
0.000	98.5	1.5
0.000	98.4	1.6
0.000	98.3	1.7
0.000	98.2	1.8
0.000	98.1	1.9
0.000	98.0	2.0
0.000	97.9	2.1
0.000	97.8	2.2
0.000	97.7	2.3
0.000	97.6	2.4
0.000	97.5	2.5
0.000	97.4	2.6
0.000	97.3	2.7
0.000	97.2	2.8
0.000	97.1	2.9
0.000	97.0	3.0

GENERAL RESEARCH
 CORP.
 1000 UNIVERSITY BLVD
 BERKELEY, CALIF. 94702
 CALIF. 1000000000
 DATE: 11/07/50
 BY: K. Malmstrom

SAMPLE DIRECTOR/NUMBER: DATA /394	UNIT NUMBER: 1
SAMPLE ID: 1018 50mg + 12000	START 09:25:03 11/07/99
SUBMITTER: James Day Co.	REPRT 14:25:49 09/19/91
OPERATOR: Kaarina	TOT RUN TIME 0:16:05
SAMPLE TYPE: Clay	SAM DENS: 2.6500 g/cc
LIQUID TYPE: water	LIQ DENS: 0.9941 g/cc
ANALYSIS TEMP: 35.1 deg C	RUN TYPE: Standard
	LIQ VISC: 0.7205 cp

CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY NUMBER: DATA1 7895
 SAMPLE ID: Hole 95-2 + 12907
 SUBMITTER: James Ray Co.
 OPERATOR: Kaarina
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 20.1 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:06:57 11/07/89
 REPT 14:00:13 09/19/91
 TOT RUN TIME 0:17:00
 SAM DENS: 2.6500 g/cc
 LIQ DENS: 0.9941 g/cc
 LIQ VISC: 0.7200 cc

STARTING DIAMETER: 50.00 um
 ENDING DIAMETER: 0.40 um

REYNOLDS NUMBER: 10.22
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.96 um MODAL DIAMETER: 1.41 um

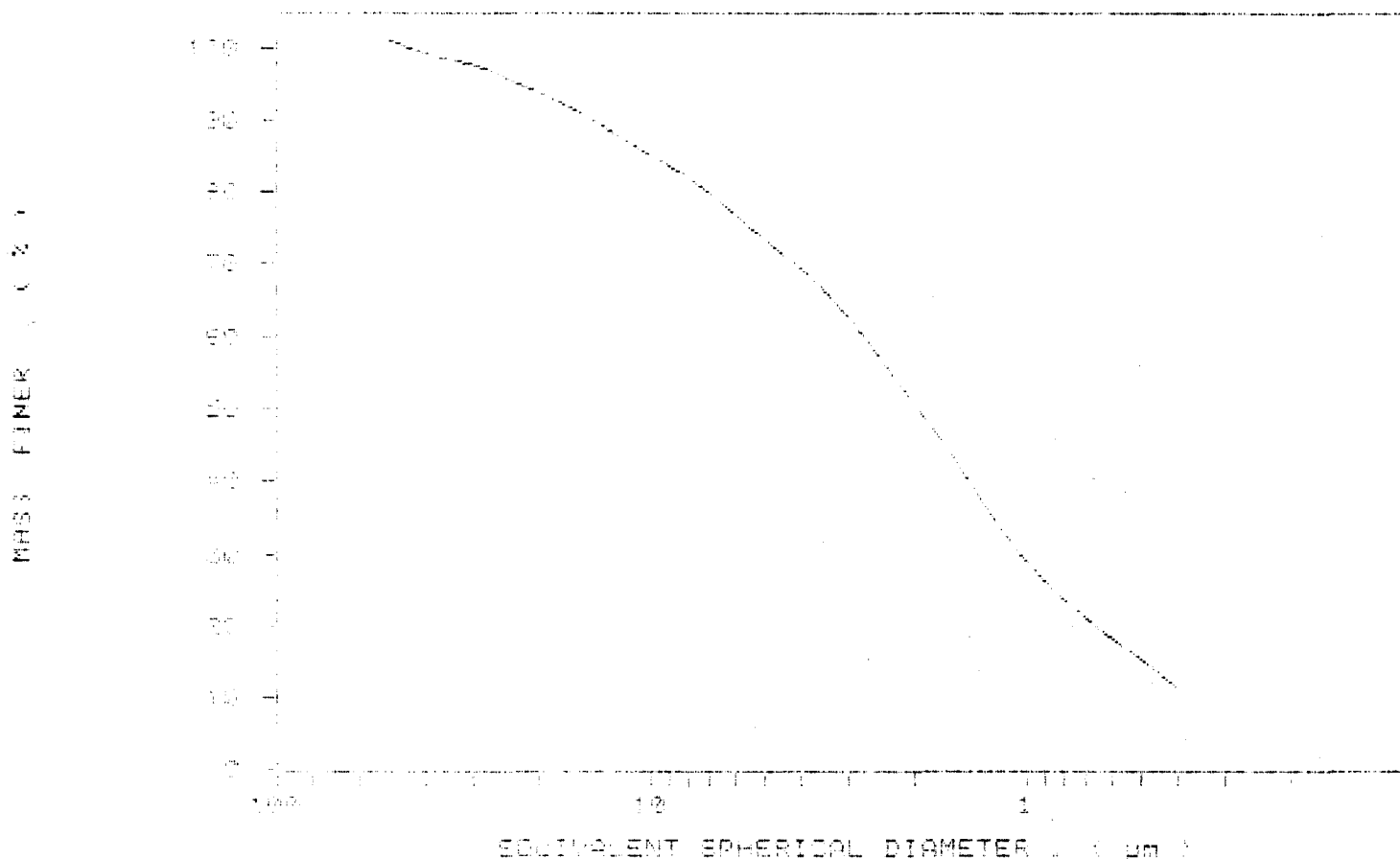
DIAMETER (um)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	101.1	1.1
40.00	99.1	2.0
30.00	97.1	1.9
25.00	95.9	1.8
20.00	93.7	2.3
15.00	89.5	3.1
10.00	83.0	3.8
7.00	82.0	1.0
6.00	76.3	3.1
5.00	72.4	3.4
4.00	69.4	4.0
3.00	62.5	6.9
2.00	50.0	12.5
1.50	41.0	9.0
1.00	28.0	12.9
0.750	21.7	6.1
0.500	11.4	9.8
0.300	13.0	3.0
0.400	11.2	4.1

MINERAL RESEARCH
 CANADA
 1 INDUSTRIAL BLVD. E10
 BAY SOUND, ONTARIO
 CANADA P7A 2W3
 (705) 379-1233 BUS (705) 378-2416
 R. Malmstrom

SAMPLE IDENTIFICATION NUMBER: 08101 7095
 SAMPLE ID: none used 12907
 SUBMITTER: none used
 OPERATOR: none used
 SAMPLE TYPE: Clay
 LIQUID: none used
 ANALYSIS: none used
 RUN TYPE: Standard

UNIT NUMBER: 1
 START: 10:00:57 11/07/91
 REPLY: 14:30:18 09/19/91
 TOT RUN TIME: 0117:00
 SAM DENS: 2.6500 g/cc
 LIQ DENS: 0.9991 g/cc
 LIQ VISC: 0.17200 cP

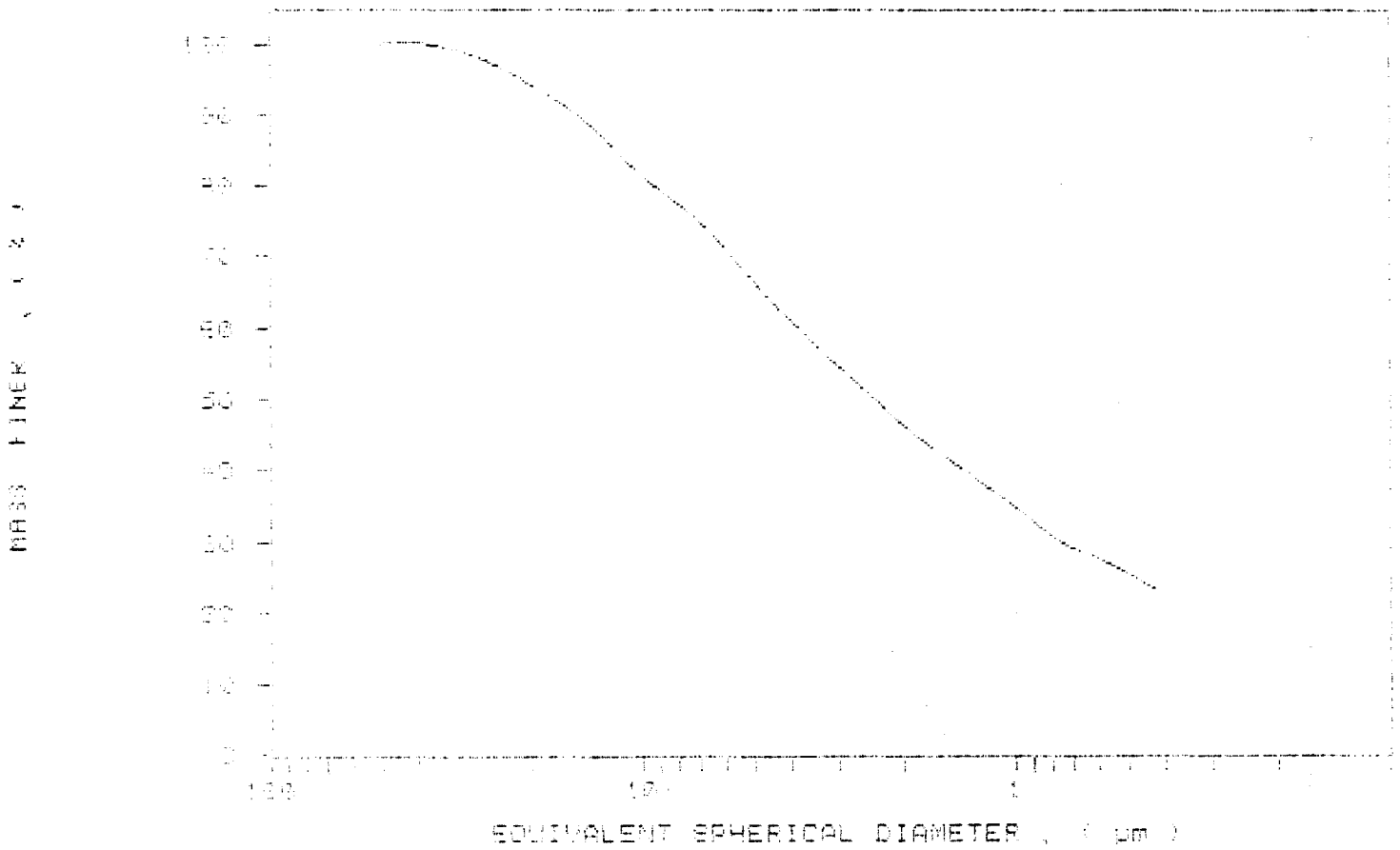
CUMULATIVE MASS PERCENT FINER VS DIAMETER



SAMPLE DIRECTOR/NUMBER, DATA 1200
 SAMPLE ID: Naolin 1200
 SUBMITTER: James Ray Co.
 OPERATOR: [unclear]
 SAMPLE TYPE: Clay
 LIQUID: distilled water
 ANALYSIS TYPE: 0.1% deq 0 RUN TYPE: Standard

UNIT NUMBER: 1
 START: 10:00:00 11/07/91
 REPORT: 14:02:02 09/19/91
 TOT RUN TIME: 04:16:51
 SAM DENS: 2.6500 g/cc
 LIQ DENS: 0.9999 g/cc
 LIQ VISC: 0.7200 cP

CUMULATIVE MASS PERCENT FINER VS. DIAMETER



ROTARY DRILL HOLE RECORD

Drilling Started: Jan. 12, 1989 Logged By: A. Casselman
 Drilling Finished: Jan. 14, 1989 Logged: May 4, 1989
 Drilling Co.: Midwest Core Size: 3.5"
 Dip: -90° Core Storage:
 Hole Length: 250.0' Mineral Research Canada
 Overburden Depth: 83.0' 1 Industrial Blvd.
 Claim No.: P 825807 R. R. # 2
 Easting: 5810 E Parry Sound, ON
 Northing: 775 N P2A 2W8
 Azimuth: 50° 09' 08" W. 82° 08' 31" N.
 Location: 400.0' at 218° To Claim Post No. 1
 Property: Kipling Hole No: 89-5

SUMMARY

From	To	Description
0.0'	83.0'	Glacial Clay Till Overburden - Pleistocene
83.0'	94.0'	Kaolin Silica Sand (Kss) Cretaceous
94.0'	97.0'	Clay
97.0'	99.0'	Kss & Clay interbedded
99.0'	102.0'	Sandy Clay
102.0'	106.0'	Clay
106.0'	121.0'	Kss
121.0'	127.0'	Clay
127.0'	146.0'	Kss
146.0'	148.0'	Clay
148.0'	164.0'	Kss
164.0'	173.0'	Sandy Clay
173.0'	184.0'	Kss
184.0'	185.0'	Clay
185.0'	208.0'	Kss
208.0'	214.5'	Clay
214.5'	250.0'	Kss

Jan. 13, 1989
 A. Casselman

Detail Log 89-5

From	To	Sample No.	Description
0.0'	83.0'		Glacial Clay Till - alternating brown, fine grain, silty, pliable, clast-free material with greenish grey competent, material which contains 2.0 - 5.0% carbonate clasts & 15.0% gneissic clasts up to 1.5".
83.0'	89.0'	401	Kss - well sorted, fine grain, 83.0' - 86.0' - grey, 86.0' - 89.0' - yellow. 8.38% kaolin.
89.0'	94.0'	402	Kss - as above, yellow at upper contact 93.0' - 94.0', white. 6.51% kaolin.
94.0'	97.0'	403	Clay - competent, friable, light brown/grey. 58.0% kaolin.
97.0'	99.0'	404	Kss & Clay - interbedded, kss - well sorted, fine grain, light grey/brown, clay - pliable, light brown. 39.77% kaolin.
99.0'	102.0'	405	Sandy Clay - light to medium grey, pliable, increasingly competent downsection. 25.19% kaolin.
102.0'	106.0'	406	Clay - competent, friable, light brown/grey, yellow upper contact. 61.09% kaolin.
106.0'	111.0'	407	Kss - well sorted, fine to medium grain, 106.0' - 108.0' - moderate to intense yellow - decreasing downsection, 108.0' - 111.0' - white, 9.95% kaolin.
111.0'	115.0'	408	Kss - as above. 9.49% kaolin.
115.0'	119.0'	409	Kss - as above, white to light grey. 9.29% kaolin.
119.0'	121.0'	410	Kss - well sorted, fine to medium grain, white to buff, yellow at lower contact. 73.77% kaolin.
121.0'	123.0'	411	Clay - competent, friable, light brown and brown discontinuous laminations, occasional 1.0" kss interbeds. 8.43% kaolin.

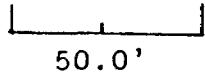
122.0'	124.0'	Clay - competent, disc-like, greasy, buff.
124.0'	126.5'	Clay & Lignite - fissile, chocolate brown clay and black lignite interbedded on a fine scale.
126.5'	127.0'	Clay - competent, disc-like, greasy, medium yellow/brown.
127.0'	130.0'	Kss - light brown, medium grain, minor illite.
130.0'	134.0'	Kss - medium grain, coarsening downsection to coarse grain, white, heavies as banding, minor illite.
134.0'	138.0'	Kss - medium grain with frequent coarse clasts, medium grey, vari-coloured silica - sub-angular to sub-rounded, high percentage of black shard-like pieces of lignite, fissile angular, much grease on bag.
138.0'	142.0'	Kss - coarse grain, light grey, vari-coloured silicas.
142.0'	146.0'	Kss - as above, coarsening downsection to coarse grain in a white clay matrix.
146.0'	148.0'	Clay - competent, disc-like somewhat fissile, greasy, medium brown, few yellow laminations.
148.0'	154.0'	Kss - medium grain, medium brown, clay seam as previous at 150.0' - 150.5'.
154.0'	158.0'	Kss - coarse grain, white vari-coloured silica clasts.
158.0'	162.0'	Kss - coarse grain in a medium grain matrix, medium brown.
162.0'	164.0'	Kss - medium grain, larger clasts interspersed, light brown.
164.0'	169.0'	Sandy Clay - competent, fissile fine grain, buff, minor illite.
169.0'	173.0'	Sandy Clay - as above - lighter buff.
173.0'	177.0'	Kss - fine grain, buff.
177.0'	181.0'	Kss - fine grain, coarsening downsection to medium grain, medium grey, Devonian dolomitic siltstone, fish scale, crinoids, fossiliferous, & granitic fragments in addition to frequent larger smoky quartz.

181.0'	184.0'	Kss - medium grain, rare coarser clasts, light yellow brown.
184.0'	185.0'	Sandy Clay - competent, fissile, fine grain, medium brown.
185.0'	187.0'	Kss - fine grain, medium grey, minor illite.
187.0'	192.0'	Kss - medium grain, rare coarser clasts, light yellow brown.
192.0'	196.0'	Kss - medium grain, coarsening downsection to coarse grain, light brown.
196.0'	200.0'	Kss - coarse grain, white.
200.0'	205.0'	Kss - coarse grain, light brown.
205.0'	208.0'	Kss - coarse grain, chocolate brown.
208.0'	214.5'	Clay - some silty sections with illite enrichments, mottled with lighter material at lower contact, chocolate brown, carbonaceous, minor illite.
214.5'	219.0'	Kss - medium grain, fining downsection to fine grain, chocolate brown, 214.5 - 216.0' - grading to white.
219.0'	222.0'	Kss - fine grain, coarsening downsection to medium grain, white with minor illite.
222.0'	226.0'	Kss - medium grain, white with minor illite.
226.0'	230.0'	Kss - as above.
230.0'	235.0'	Kss - as above.
235.0'	240.0'	Kss - as above.
240.0'	245.0'	Kss - as above.
245.0'	250.0'	Kss - as above.

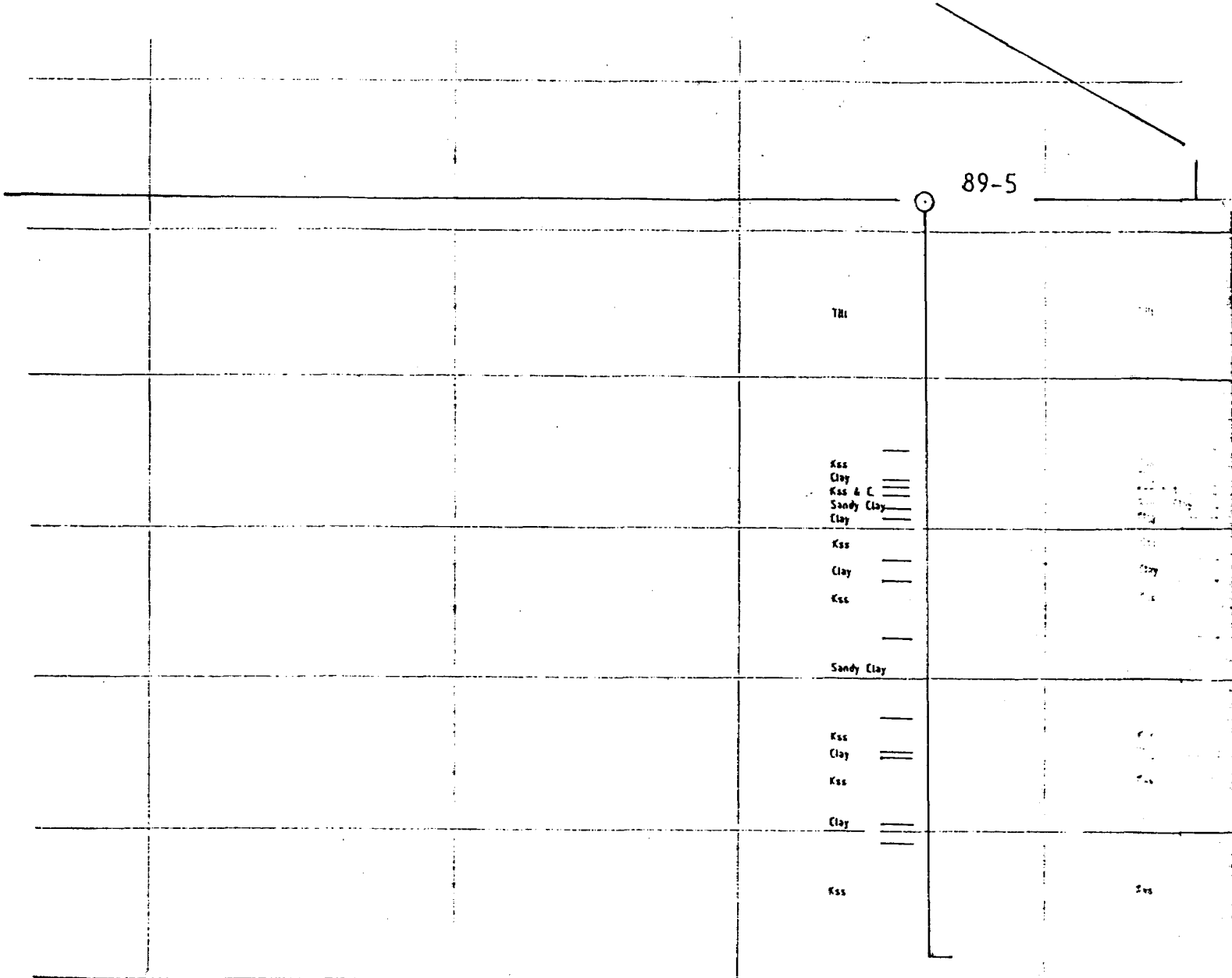
EOH - 250.0'

Section 89-5

Hole Length: 250.0'
 Overburden Depth: 83.0'
 Astronomic Azimuth: 50° 09' 08" W. 82° 08' 31" N
 Location: 400.0' at 218° to claim post no. 1
 Claim No.: P 825807
 Easting: 5810 E
 Northing: 775 N
 Dip: -90°
 Scale: 1.0" = 50.0' or 1:600



Gridline 5900



Section 89-5

Hole Length: 250.0'

Overburden Depth: 83.0'

Astronomic Azimuth: $50^{\circ} 09' 08''$ W. $82^{\circ} 08' 31''$ N

Location: 400.0' at 218° to claim post no. 1

Claim No.: P 825807

Easting: 5810 E

Northing: 775 N

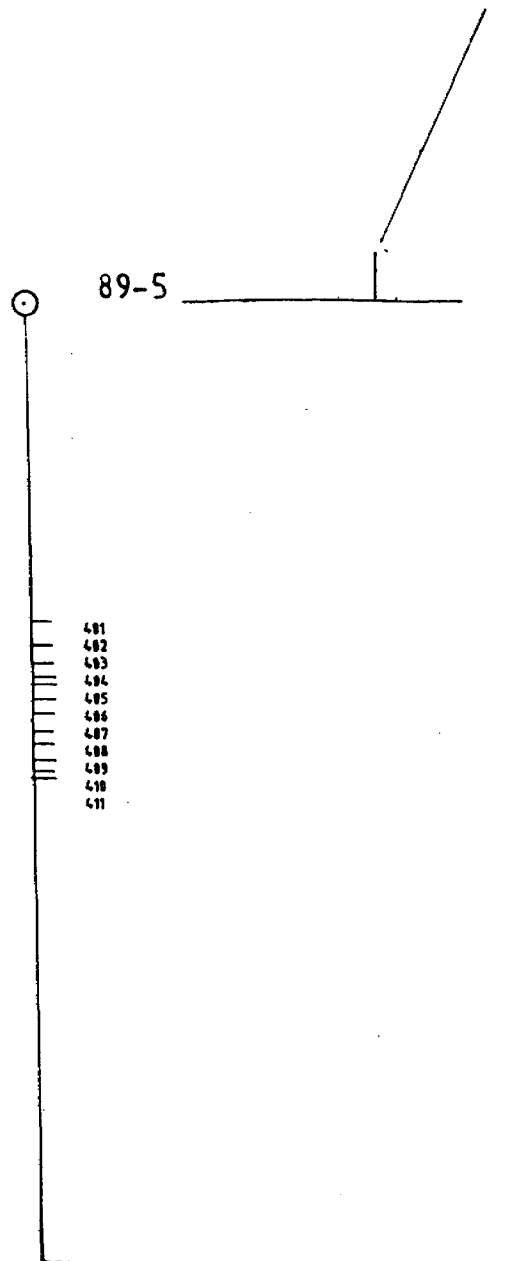
Dip: -90°

Scale: 1.0" = 50.0' or 1:600



50.0'

Gridline 5900



MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
<i>Hole 89-5</i> 401	+ 4	0		
	+ 40	39.8		
	+100	43.1	12.5	8.1
	+200	2.9		
	+325	1.1		
	-325	13.1		
402	+ 4	0.4		
	+ 40	71.4		
	+100	14.4	9.3	8.1
	+200	2.7		
	+325	0.9		
	-325	10.2		
403	+ 4	0.1		
	+ 40	1.9		
	+100	3.0	19.2	8.2
	+200	6.9		
	+325	7.8		
	-325	81.3		
404	+ 4	2.9		
	+ 40	43.3		
	+100	14.4	7.7	8.2
	+200	5.3		
	+325	3.1		
	-325	31.0		
405	+ 4	0		
	+ 40	0.8		
	+100	46.3	11.0	8.1
	+200	17.2		
	+325	2.6		
	-325	33.1		

MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
hole 89-5 406	+ 4	0	21.8	8.1
	+ 40	1.3		
	+100	19.9		
	+200	14.3		
	+325	5.9		
	-325	59.6		
407	+ 4	9.4	7.4	8.1
	+ 40	56.3		
	+100	18.0		
	+200	4.2		
	+325	2.3		
	-325	9.8		
408	+ 4	5.1	9.1	8.1
	+ 40	41.1		
	+100	29.8		
	+200	5.5		
	+325	1.0		
	-325	17.5		
409	+ 4	0.9	9.0	8.1
	+ 40	66.2		
	+100	15.7		
	+200	3.7		
	+325	1.2		
	-325	12.3		
410	+ 4	0.4	10.3	8.1
	+ 40	74.1		
	+100	12.7		
	+200	0.6		
	+325	0.9		
	-325	11.3		

MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
Hole 89-5 411	+ 4	0		
	+ 40	0.3		
	+100	2.0	21.7	8.2
	+200	11.5		
	+325	9.1		
	-325	77.1		
+ 4				
+ 40				
+100				
+200				
+325				
-325				
+ 4				
+ 40				
+100				
+200				
+325				
-325				
+ 4				
+ 40				
+100				
+200				
+325				
-325				
+ 4				
+ 40				
+100				
+200				
+325				
-325				

SAMPLE DIRECTORY/NUMBER: DATA4 /4
 SAMPLE ID: Hole 39-5 # 401
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 24.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 08:41:34 12/04/90
 REPR 13:59:52 08/21/91
 TOT RUN TIME 0:07:11
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

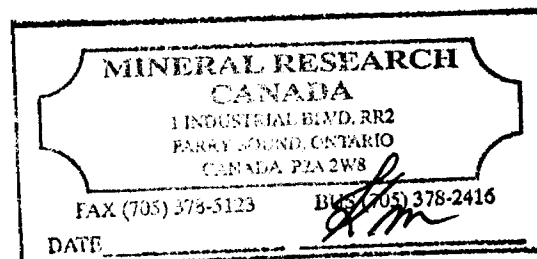
STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.71 μ m MODAL DIAMETER: 0.40 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.2	1.8
40.00	97.6	0.6
30.00	95.7	1.9
25.00	93.8	1.9
20.00	90.6	3.2
15.00	85.4	5.2
10.00	80.4	5.0
8.00	77.2	3.2
6.00	72.6	4.6
5.00	69.2	3.4
4.00	64.5	4.7
3.00	59.5	4.9
2.00	52.4	7.1
1.50	48.3	4.0
1.00	42.0	6.4
0.80	38.0	3.9
0.60	31.3	6.7
0.50	26.4	4.9
0.40	19.5	6.9



Clay

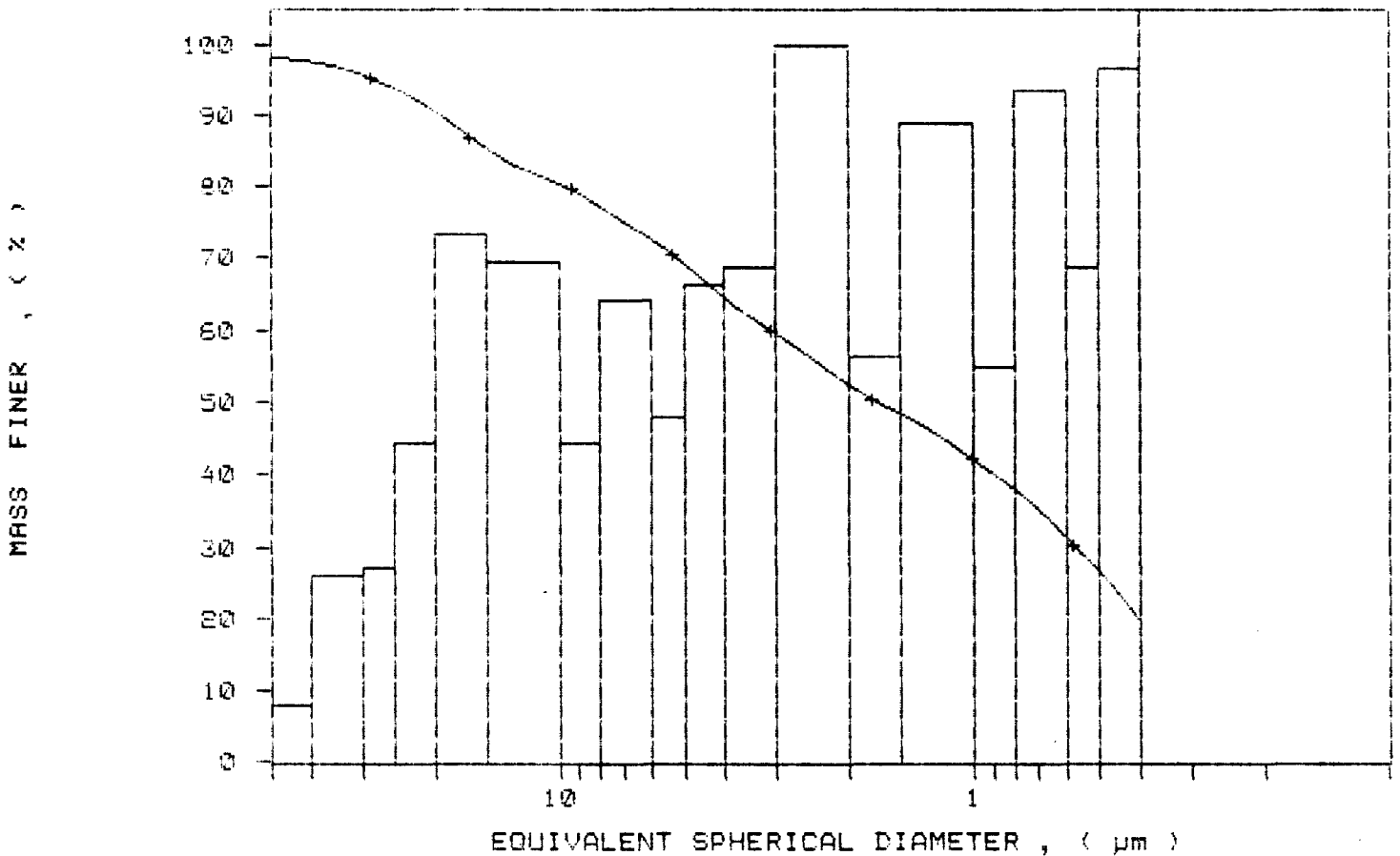
SediGraph 5100 V2.02

PAGE 2

SAMPLE DIRECTORY/NUMBER: DATA4 /4
SAMPLE ID: Hole 89-5 # 401
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

UNIT NUMBER: 1
START 08:41:34 12/04/90
REFRT 13:59:52 08/21/91
TOT RUN TIME 0:07:11
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7270 cp

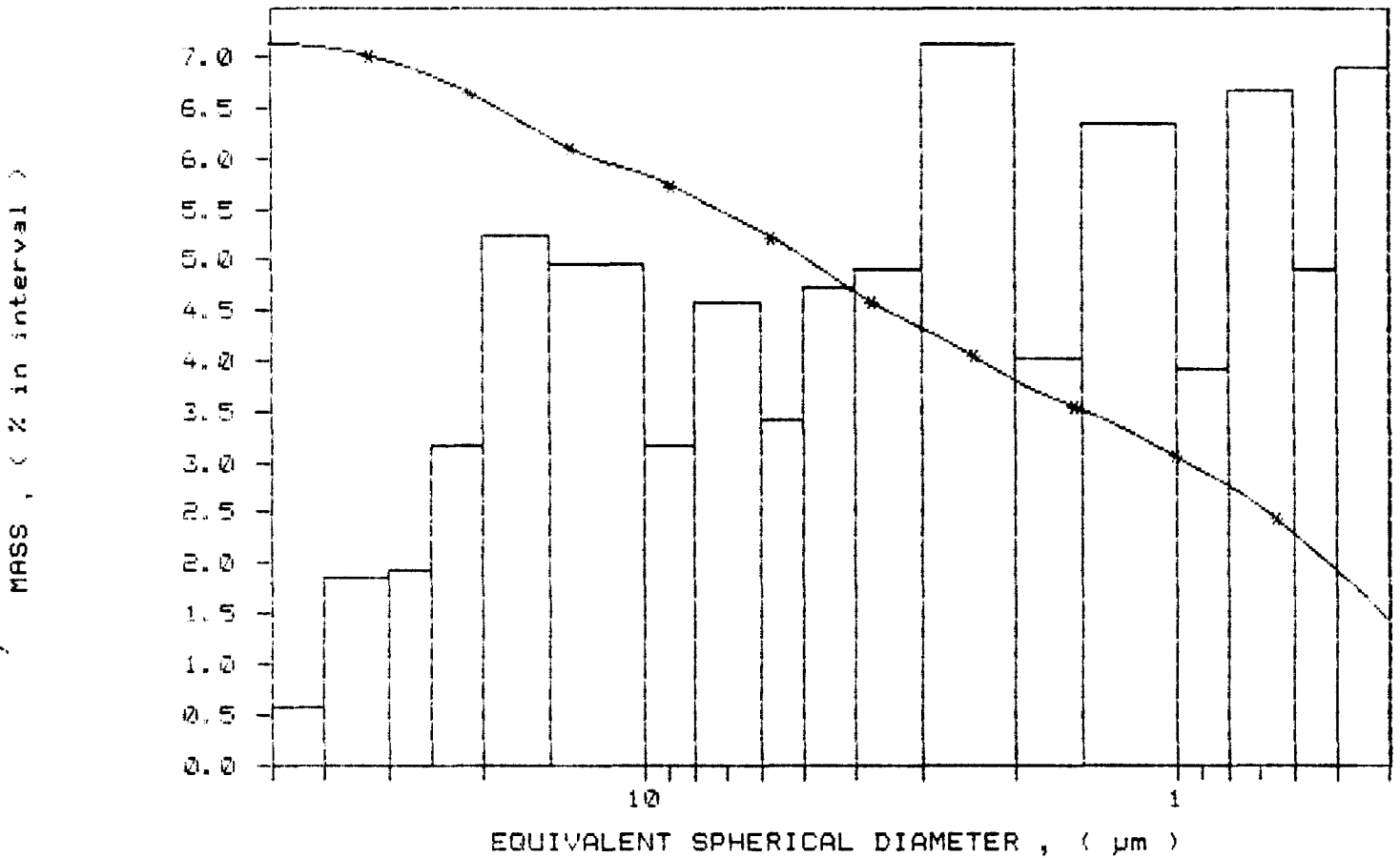
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA4 /4
SAMPLE ID: Hole 89-5 # 401
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

UNIT NUMBER: 1
START 08:41:34 12/04/90
REPR1 13:59:52 08/21/91
TOT RUN TIME 0:07:11
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7270 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA4 /5
 SAMPLE ID: Hole 89-5 # 402
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 09:00:59 12/04/90
 REPR1 14:08:04 08/21/91
 TOT RUN TIME 0:06:42
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7266 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 0.78 μ m

MODAL DIAMETER: 0.40 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	99.6	0.4
40.00	96.7	2.9
30.00	92.9	3.8
25.00	91.0	1.9
20.00	88.9	2.0
15.00	85.6	3.3
10.00	80.8	4.8
8.00	78.3	2.6
6.00	75.3	3.0
5.00	73.0	2.3
4.00	69.7	3.3
3.00	65.8	3.9
2.00	61.5	4.3
1.50	57.8	3.7
1.00	53.7	4.1
0.80	50.4	3.4
0.60	46.2	5.2
0.50	40.4	4.8
0.40	33.0	7.4

**MINERAL RESEARCH
CANADA**

1 INDUSTRIAL BLVD. RR2
BARRY SOUND, ONTARIO
CANADA P2A 2W5

FAX (705) 378-5125 BUS (705) 378-2416

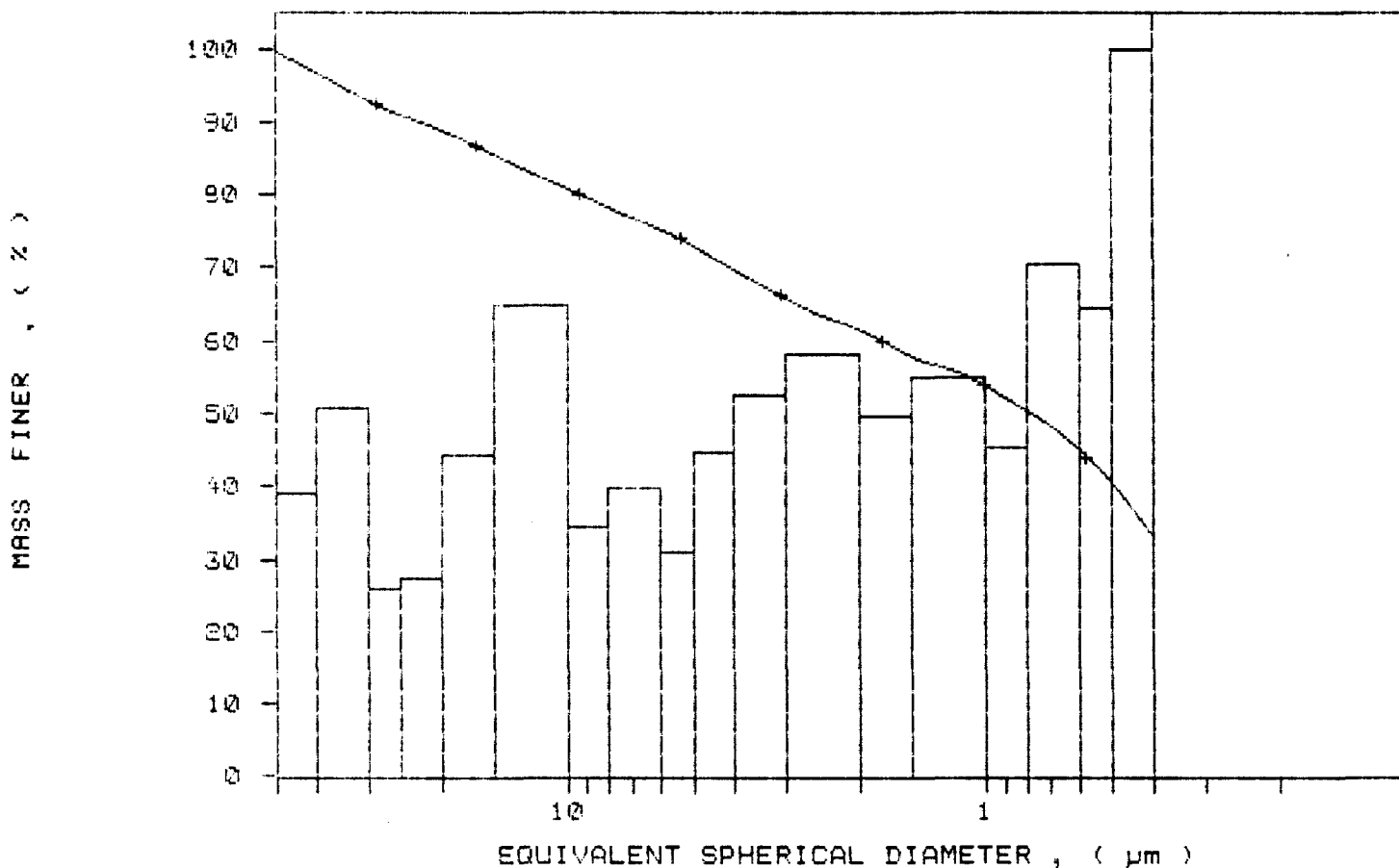
DATE *2/11/91*

SAMPLE DIRECTORY/NUMBER: DATA4 /5
SAMPLE ID: Hole 89-5 # 402
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

RUN TYPE: High Speed

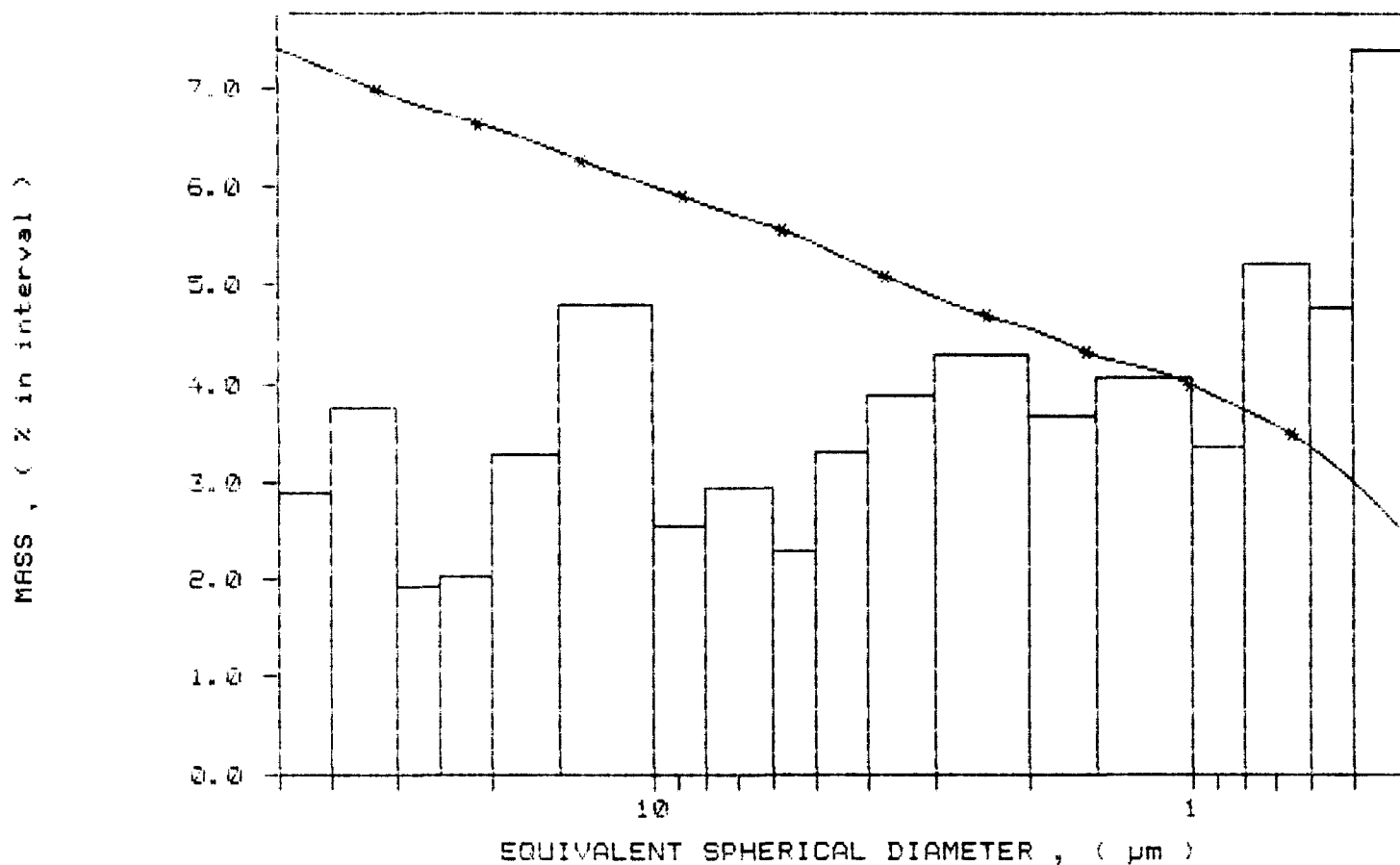
UNIT NUMBER: 1
START 09:00:59 12/04/90
REPT 14:08:04 08/21/91
TOT RUN TIME 0:06:42
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7266 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA4 /5	UNIT NUMBER: 1
SAMPLE ID: Hole 89-5 # 402	START 09:00:59 12/04/90
SUBMITTER: # 99	REPRT 14:08:04 08/21/91
OPERATOR: KM	TOT RUN TIME 0:06:42
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	RUN TYPE: High Speed
	LIQ VISC: 0.7266 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA4 /6
 SAMPLE ID: Hole 89-5 403
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 09:30:42 12/04/90
 REPRT 14:16:16 08/21/91
 TOT RUN TIME 0:06:48
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7265 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.75 μ m MODAL DIAMETER: 4.11 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	97.2	2.8
40.00	98.1	-0.9
30.00	96.4	1.8
25.00	93.7	2.7
20.00	90.8	2.9
15.00	86.7	4.1
10.00	80.2	6.5
8.00	76.7	3.5
6.00	70.5	6.2
5.00	65.5	5.0
4.00	59.3	6.3
3.00	51.8	7.5
2.00	43.7	8.0
1.50	38.1	5.6
1.00	30.5	7.6
0.80	25.8	4.7
0.60	20.4	5.4
0.50	17.1	3.3
0.40	11.9	5.1

**MINERAL RESEARCH
CANADA**
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P1A2W8

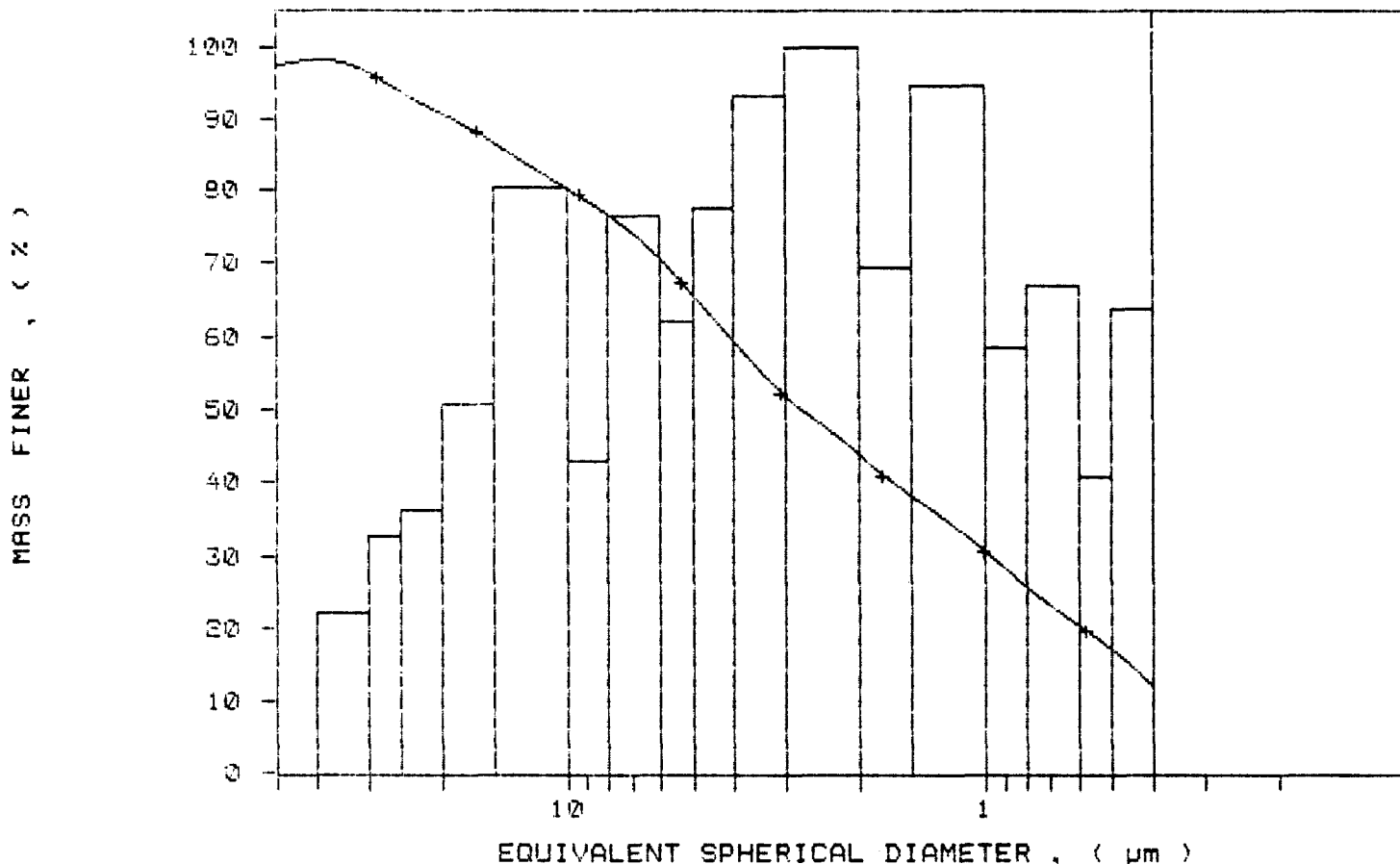
FAX (705) 378-5123 BUS (705) 378-2416

DATE *km*

SAMPLE DIRECTORY/NUMBER: DATA4 /6
SAMPLE ID: Hole 89-5 403
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

UNIT NUMBER: 1
START 09:30:42 12/04/90
REPRT 14:16:16 08/21/91
TOT RUN TIME 0:06:48
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7265 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER

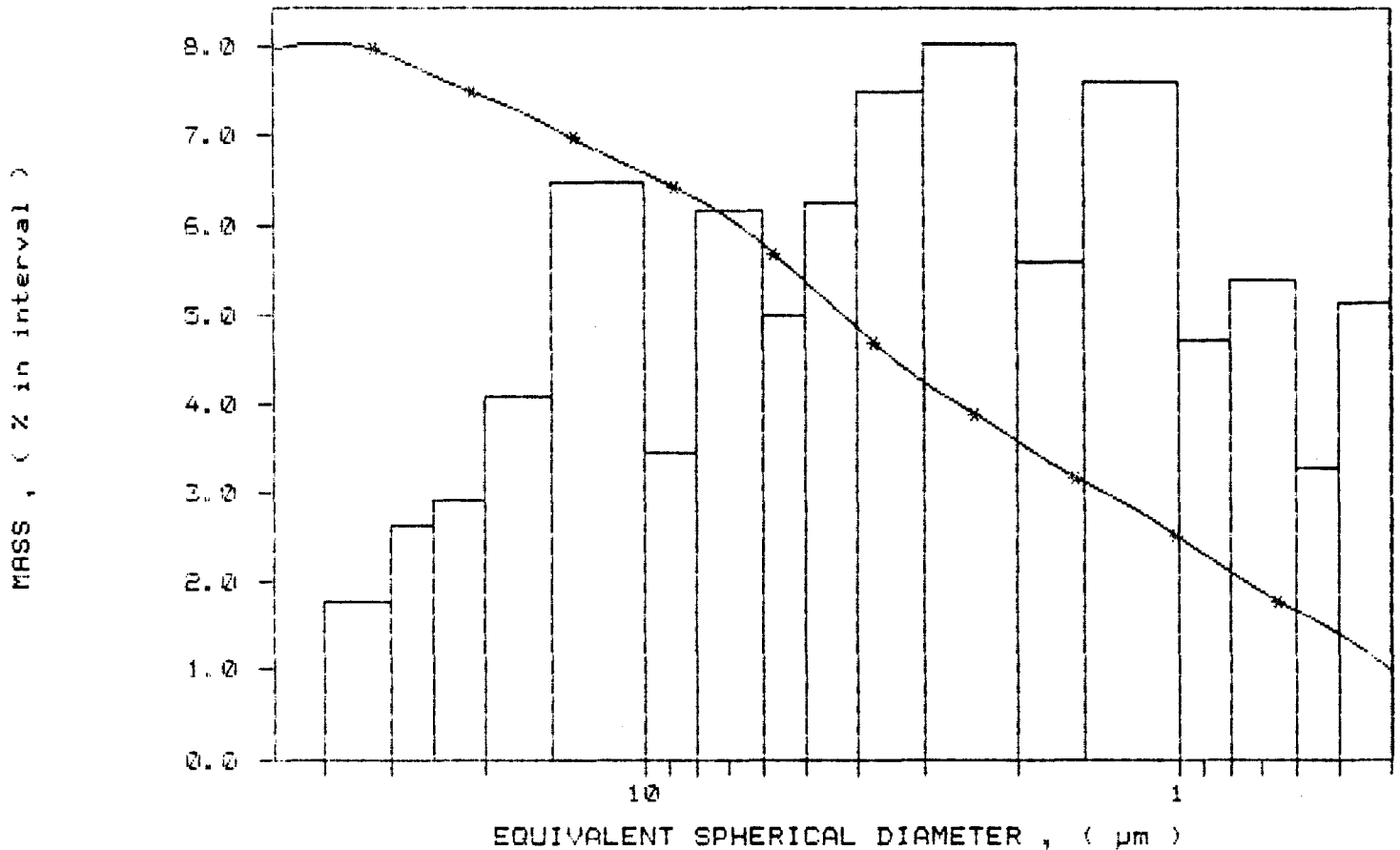


SAMPLE DIRECTORY/NUMBER: DATA4 /6
 SAMPLE ID: Hole 89-5 403
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C

RUN TYPE: High Speed

UNIT NUMBER: 1
 START 09:30:42 12/04/90
 REPR1 14:16:16 08/21/91
 TOT RUN TIME 0:06:48
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7265 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SediGraph 5100 V2.02

Clay

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA4 /7
 SAMPLE ID: Hole 89-5 # 404
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 09:49:40 12/04/90
 REPT 14:24:27 08/21/91
 TOT RUN TIME 0:06:57
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7264 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.39 μ m

MODAL DIAMETER: 4.61 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.9	1.1
40.00	97.5	1.5
30.00	95.6	1.9
25.00	93.9	1.7
20.00	91.4	2.5
15.00	87.7	3.6
10.00	81.8	6.0
8.00	77.9	3.9
6.00	71.8	6.0
5.00	67.5	4.3
4.00	61.9	5.6
3.00	55.0	6.9
2.00	46.5	8.5
1.50	41.3	5.2
1.00	34.0	7.3
0.80	30.0	4.0
0.60	25.1	4.9
0.50	21.7	3.5
0.40	17.8	3.8

**MINERAL RESEARCH
CANADA**
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W3

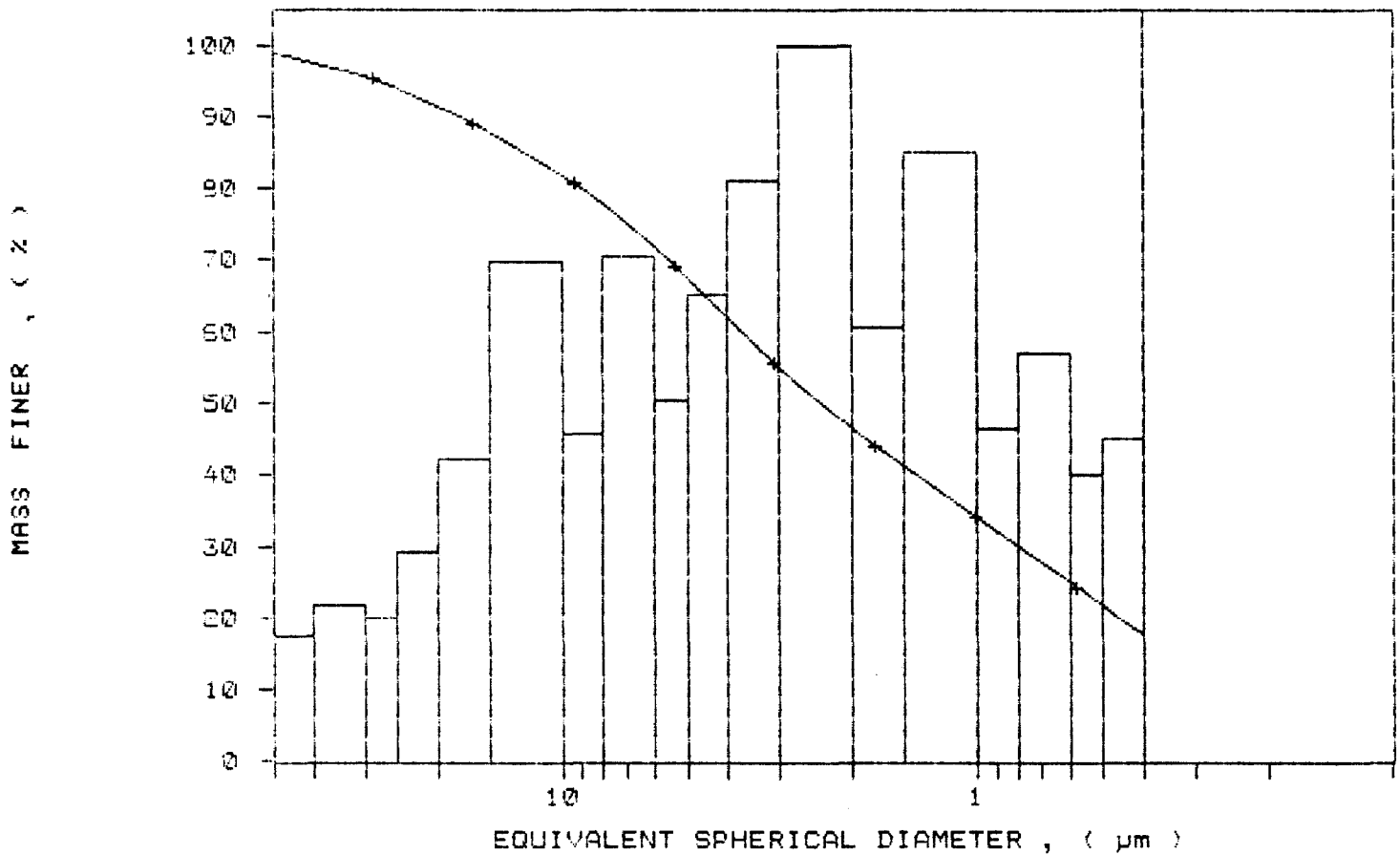
FAX (705) 378-5123 BCS (705) 378-2416

DATE _____ *[Signature]*

SAMPLE DIRECTORY/NUMBER: DATA4 /7
SAMPLE ID: Hole 89-S # 404
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

UNIT NUMBER: 1
START 09:49:40 12/04/90
REPT 14:24:27 08/21/91
TOT RUN TIME 0:06:57
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7264 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER

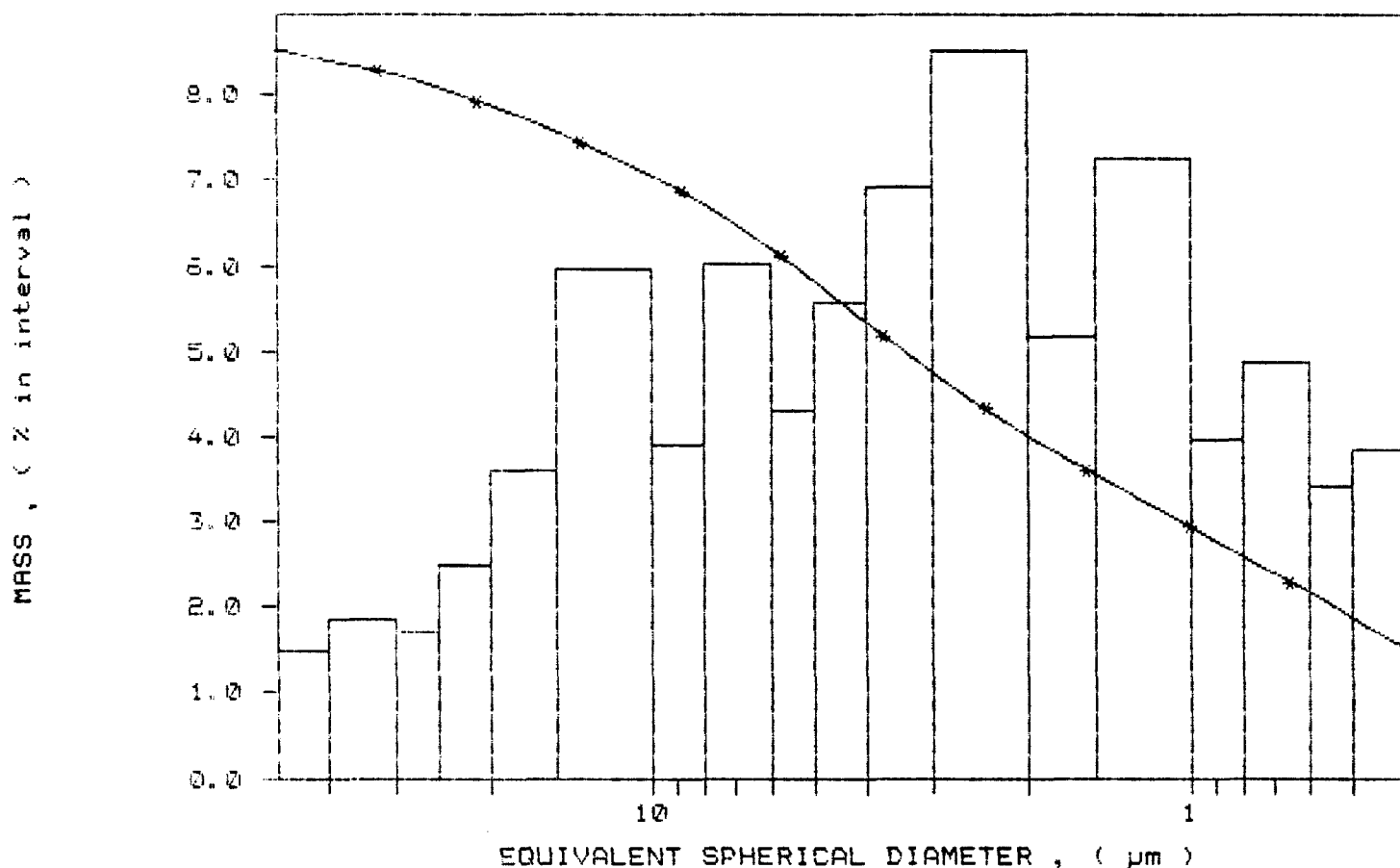


SAMPLE DIRECTORY/NUMBER: DATA4 /7
SAMPLE ID: Hole 89-5 # 404
SUBMITTER: # 89
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

RUN TYPE: High Speed

UNIT NUMBER: 1
START 09:49:40 12/04/90
REPT 14:24:27 08/21/91
TOT RUN TIME 0:06:57
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7264 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA4 / 5
 SAMPLE ID: Hole 89-5 # 405
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: J
 START 11:04:45 12/04/90
 REPR1 08:23:40 08/22/91
 TOT RUN TIME 0:06:57
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7267 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

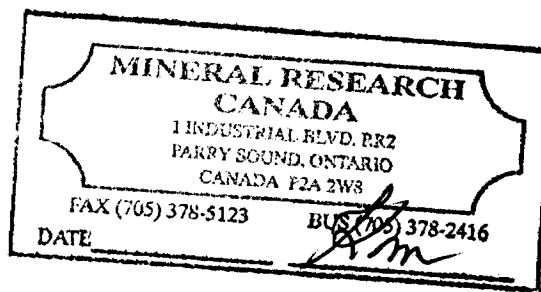
REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.97 μ m

MODAL DIAMETER: 4.03 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.9	1.1
40.00	97.9	1.0
30.00	95.2	2.6
25.00	93.1	2.1
20.00	89.9	3.2
15.00	85.4	4.4
10.00	78.5	7.0
8.00	74.1	4.4
6.00	67.5	6.6
5.00	62.9	4.6
4.00	57.2	5.7
3.00	50.2	7.0
2.00	41.8	8.4
1.50	36.5	5.3
1.00	30.9	5.7
0.80	27.4	3.5
0.60	22.8	4.6
0.50	19.7	3.0
0.40	16.0	3.8

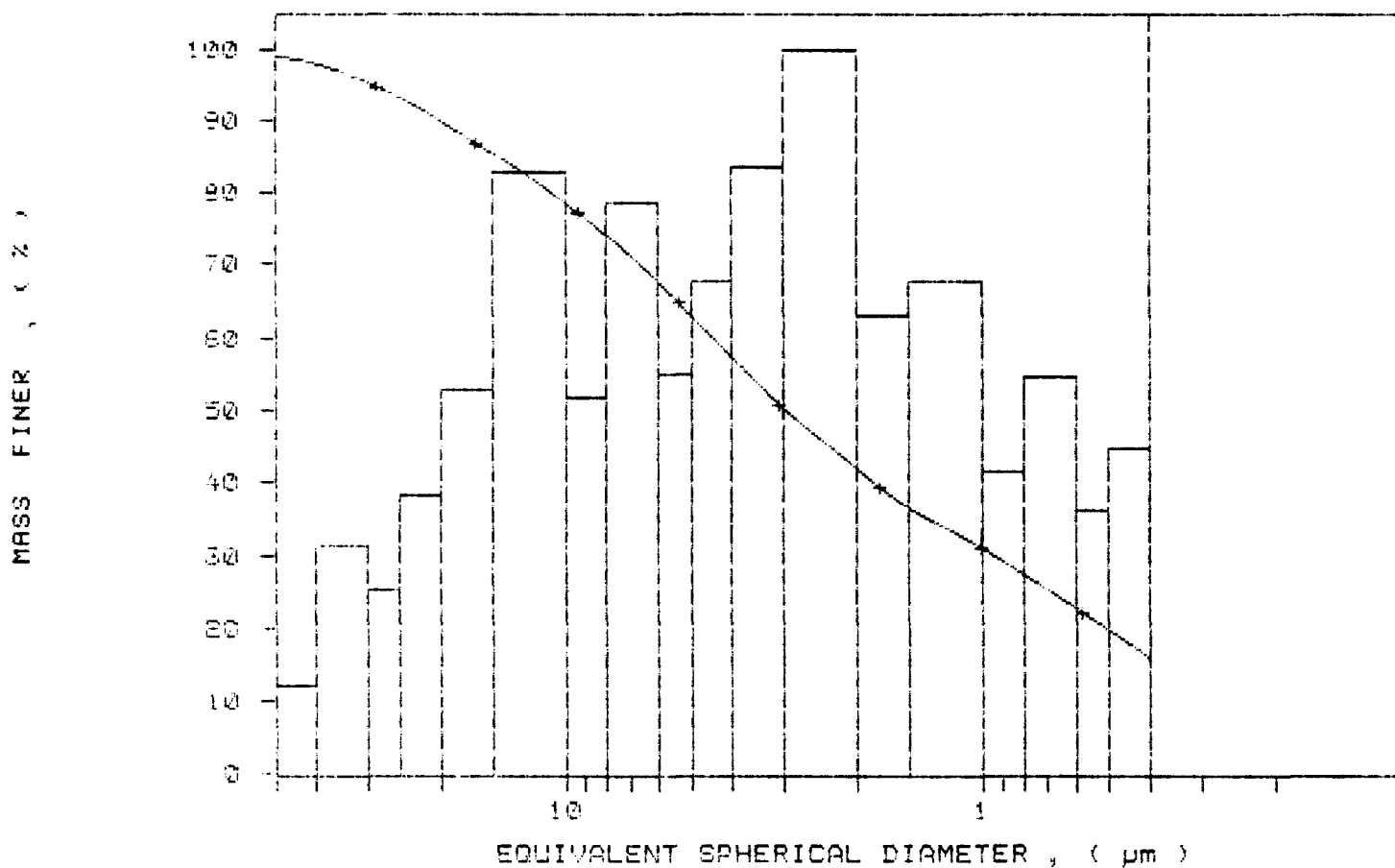


SAMPLE DIRECTORY/NUMBER: DATA4 78
 SAMPLe ID: Hole 89-5 # 405
 SUBMITTER: # 39
 OPERATOR: RM
 SAMPLe TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C

RUN TYPE: High Speed

UNIT NUMBER: 1
 START 11:04:45 12/04/90
 REPRt 06:23:40 08/22/91
 TOT RUN TIME 0:06:57
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7267 cp

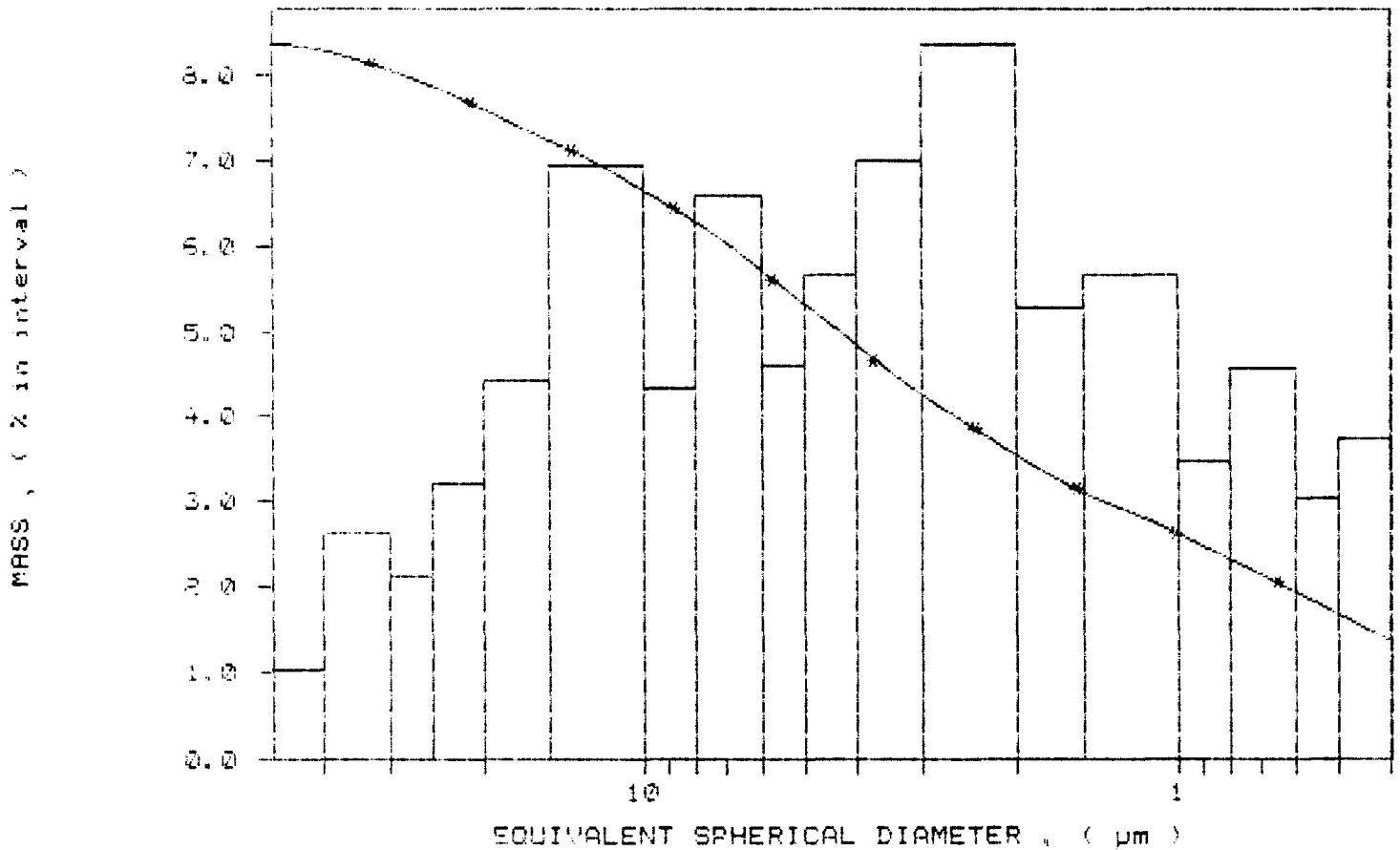
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA4 /8
 SAMPLE ID: Hole 89-5 # 405
 SUBMITTER: # 89
 OPERATOR: RM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 24.7 deg C

UNIT NUMBER: 1
 START 11:04:45 12/04/90
 REPT 08:23:40 08/22/91
 TOT RUN TIME 0:06:57
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7267 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA4 /14
 SAMPLE ID: Hole 89-5 # 40b
 SUBMITTER: # 89
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 09:45:11 12/05/90
 REPRT 08:31:48 08/22/91
 TOT RUN TIME 0:06:55
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7267 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.00 μ m

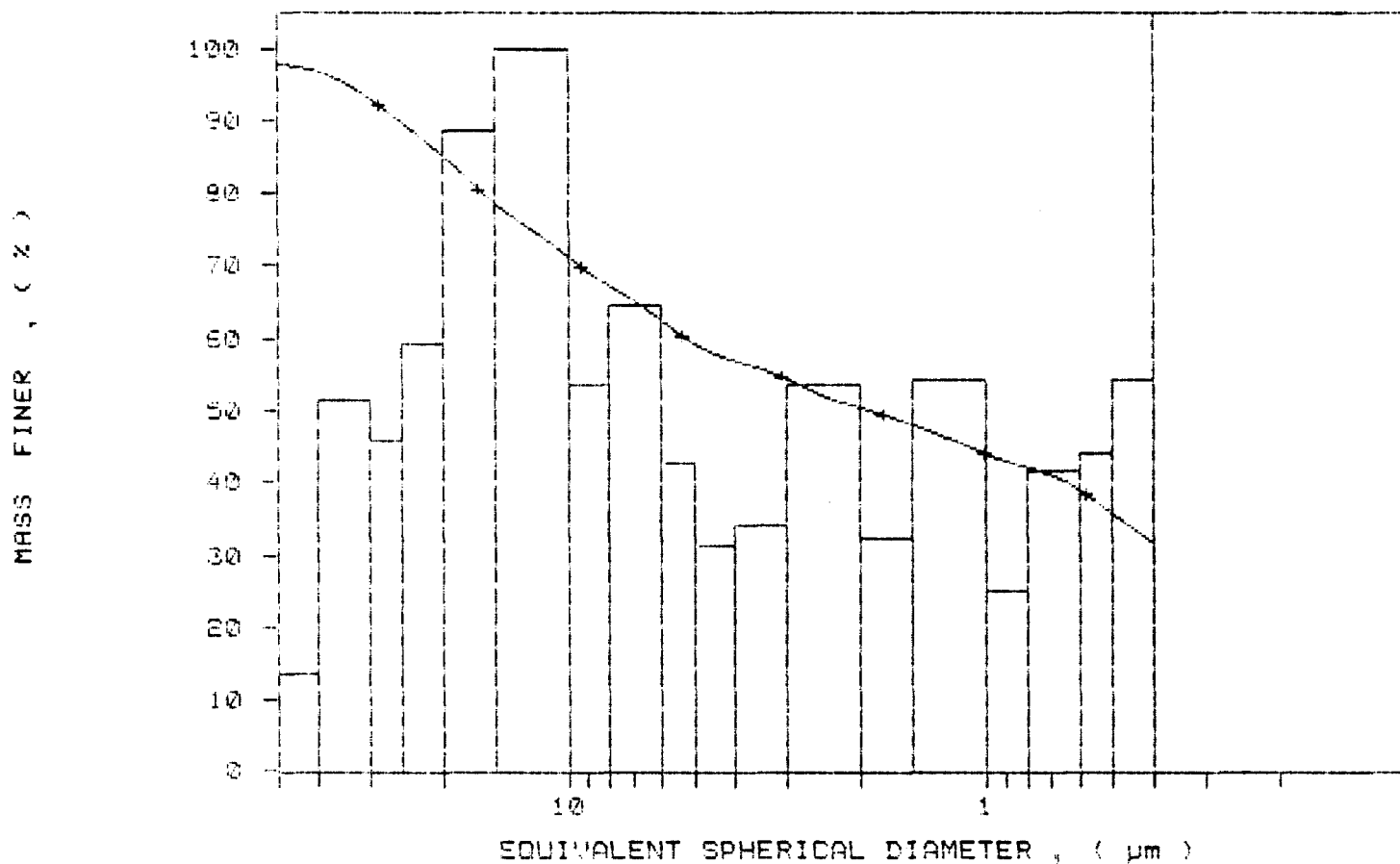
MODAL DIAMETER: 17.82 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	97.7	2.3
40.00	96.7	1.0
30.00	92.9	3.8
25.00	89.5	3.4
20.00	85.1	4.4
15.00	78.6	6.6
10.00	71.2	7.4
8.00	67.2	4.0
6.00	62.4	4.8
5.00	59.2	3.2
4.00	56.9	2.3
3.00	54.3	2.6
2.00	50.3	4.0
1.50	47.9	2.4
1.00	43.9	4.0
0.80	42.0	1.9
0.60	39.0	3.1
0.50	35.7	3.3
0.40	31.7	4.0



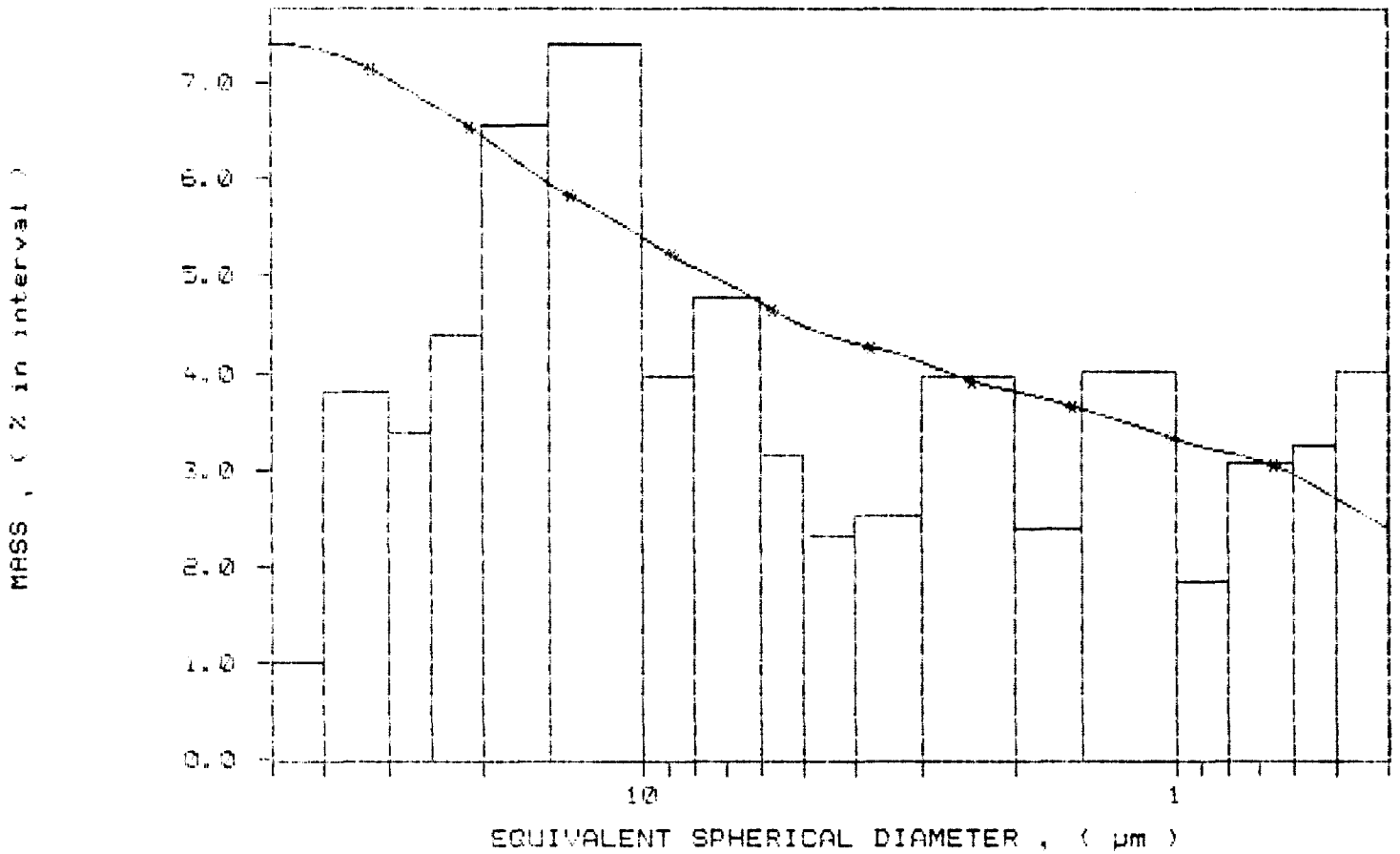
SAMPLE DIRECTORY/NUMBER: DATA4 /14	UNIT NUMBER: 1
SAMPLE ID: Hole 89-5 # 406	START 09:45:11 12/05/90
SUBMITTER: # 39	REPRT 08:31:48 08/22/91
OPERATOR: KM	TOT RUN TIME 0:06:55
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	LIQ VISC: 0.7267 cp
RUN TYPE: High Speed	

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA4 /14	UNIT NUMBER: 1
SAMPLE ID: Hole 89-5 # 406	START 09:45:11 12/05/90
SUBMITTER: # 39	REPR: 08:31:48 08/22/91
OPERATOR: KM	TOT RUN TIME 0:06:55
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	RUN TYPE: High Speed
	LIQ VISC: 0.7267 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA4 /15
 SAMPLE ID: Hole 89-5 # 407
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 10:24:16 12/05/90
 REPR 08:39:59 08/22/91
 TOT RUN TIME 0:06:42
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

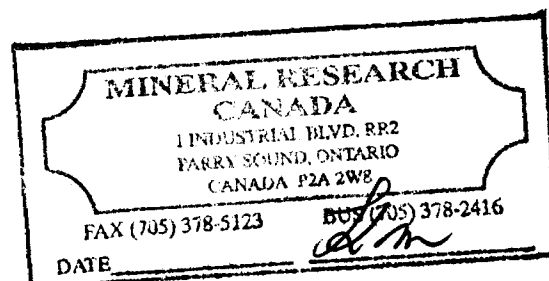
REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.29 μ m

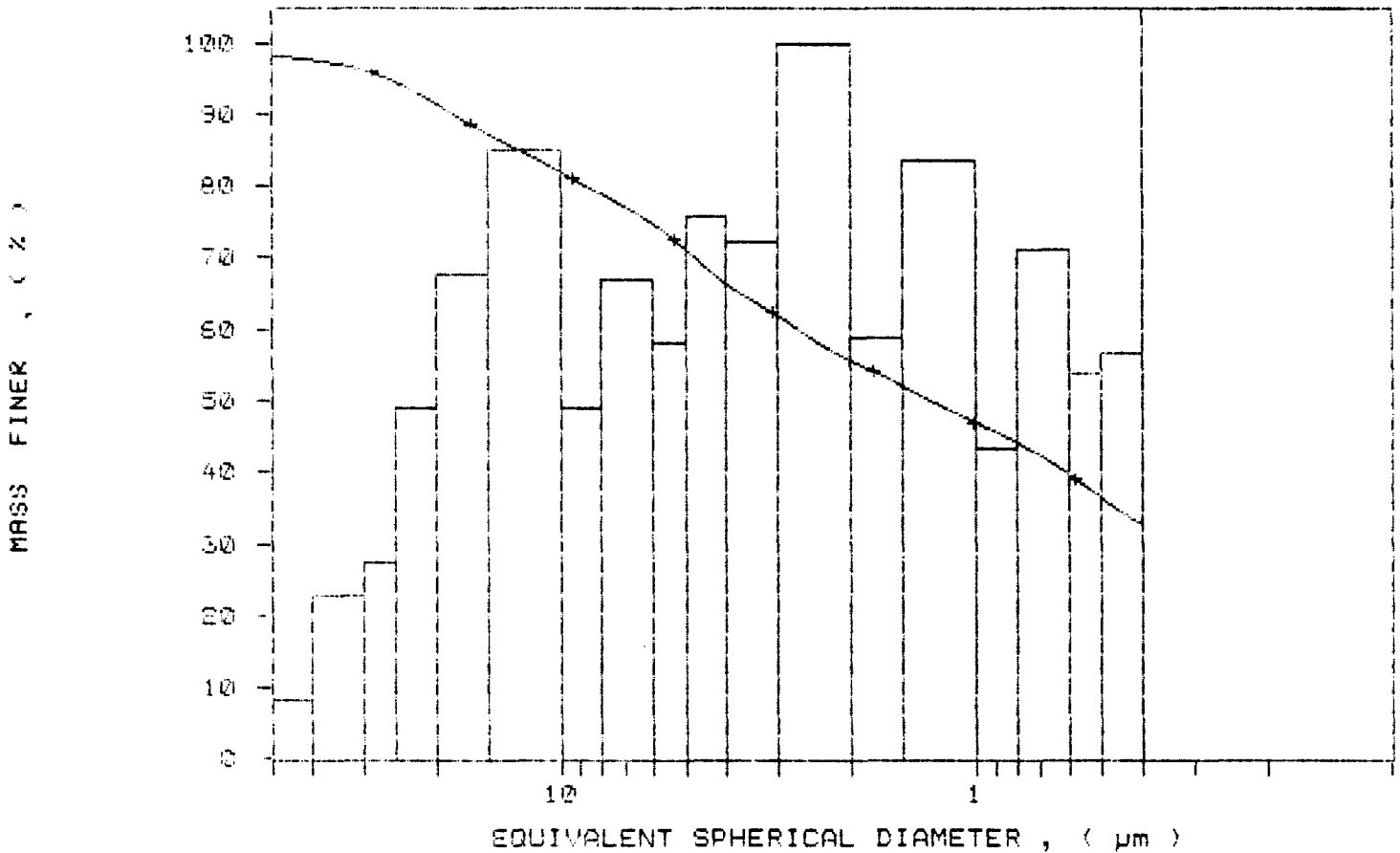
MODAL DIAMETER: 4.76 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.1	1.9
40.00	97.6	0.5
30.00	96.2	1.4
25.00	94.5	1.7
20.00	91.4	3.0
15.00	87.2	4.2
10.00	81.9	5.3
8.00	78.9	3.0
6.00	74.7	4.2
5.00	71.1	3.6
4.00	66.4	4.7
3.00	61.3	4.5
2.00	55.7	6.2
1.50	52.6	3.7
1.00	46.8	5.2
0.80	44.1	2.7
0.60	39.7	4.4
0.50	36.3	3.4
0.40	32.8	3.5



SAMPLE DIRECTORY/NUMBER: DATA4 /15	UNIT NUMBER: 1
SAMPLE ID: Hole 89-5 # 407	START 10:24:16 12/05/90
SUBMITTER: # 39	REPRT 08:39:59 08/22/91
OPERATOR: KM	TOT RUN TIME 0:06:42
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	RUN TYPE: High Speed
	LIQ VISC: 0.7269 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



Clay

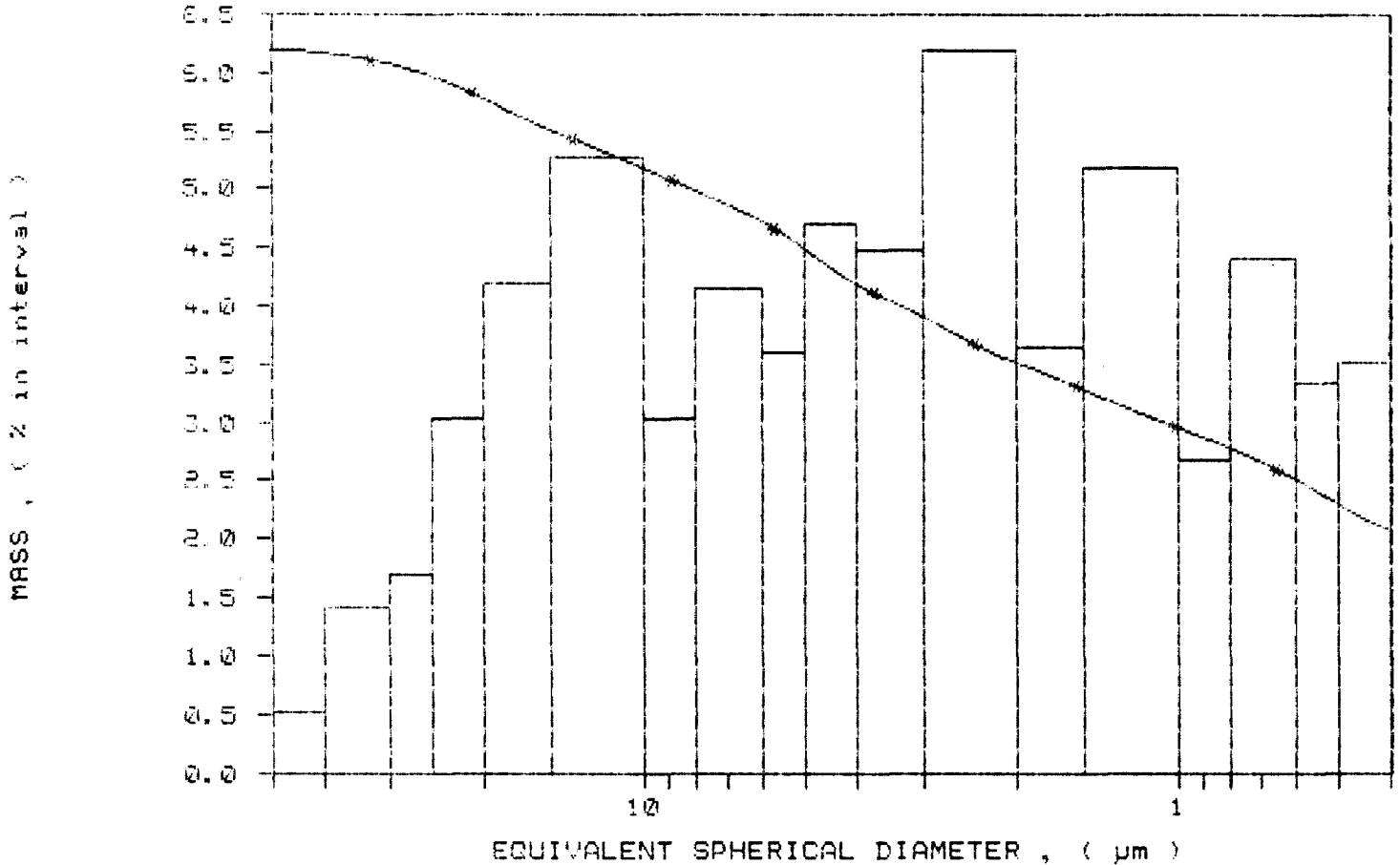
SediGraph 5100 V2.02

PAGE 3

SAMPLE DIRECTORY/NUMBER: DATA4 /15
SAMPLE ID: Hole 39-5 # 407
SUBMITTER: # 89
OPERATOR: KM
SAMPLLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

UNIT NUMBER: 1
START 10:24:16 12/05/90
REPR1 08:39:59 08/22/91
TOT RUN TIME 0:06:42
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7269 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

Sedigraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA4 /16
 SAMPLE ID: Hole 89-5 # 408
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 11:38:05 12/05/90
 REPR 08:48:19 08/22/91
 TOT RUN TIME 0:06:46
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.02 μ m

MODAL DIAMETER: 0.45 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.0	2.0
40.00	96.6	1.4
30.00	94.5	2.1
25.00	92.7	1.8
20.00	89.6	3.1
15.00	86.0	3.6
10.00	80.6	5.4
8.00	76.9	3.7
6.00	72.7	4.3
5.00	69.8	2.9
4.00	66.2	3.6
3.00	61.8	4.5
2.00	55.9	5.8
1.50	51.9	4.1
1.00	46.9	5.0
0.80	44.6	2.3
0.60	40.1	4.5
0.50	36.4	3.7
0.40	31.5	4.9

MINERAL RESEARCH
 CANADA
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W3

FAX (705) 378-5123 BUS (705) 378-2416
 DATE *AM*

Clay

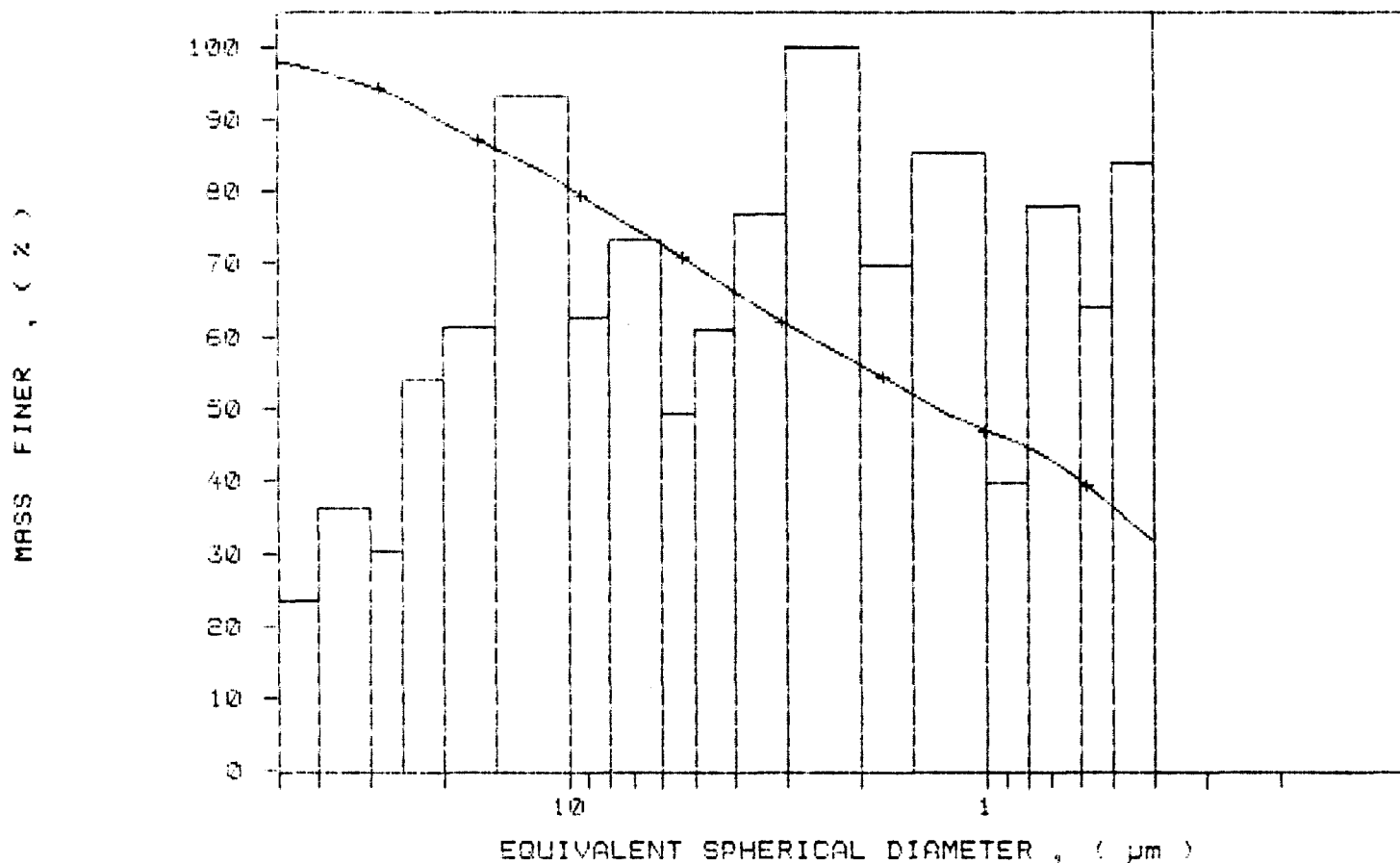
Sediograph 5100 V2.02

PAGE 2

SAMPLE DIRECTORY/NUMBER: DATA4 /16
SAMPLE ID: Hole 89-5 # 408
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

UNIT NUMBER: 1
START 11:33:05 12/05/90
REFRT 08:48:19 08/22/91
TOT RUN TIME 0:06:46
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7269 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



Clay

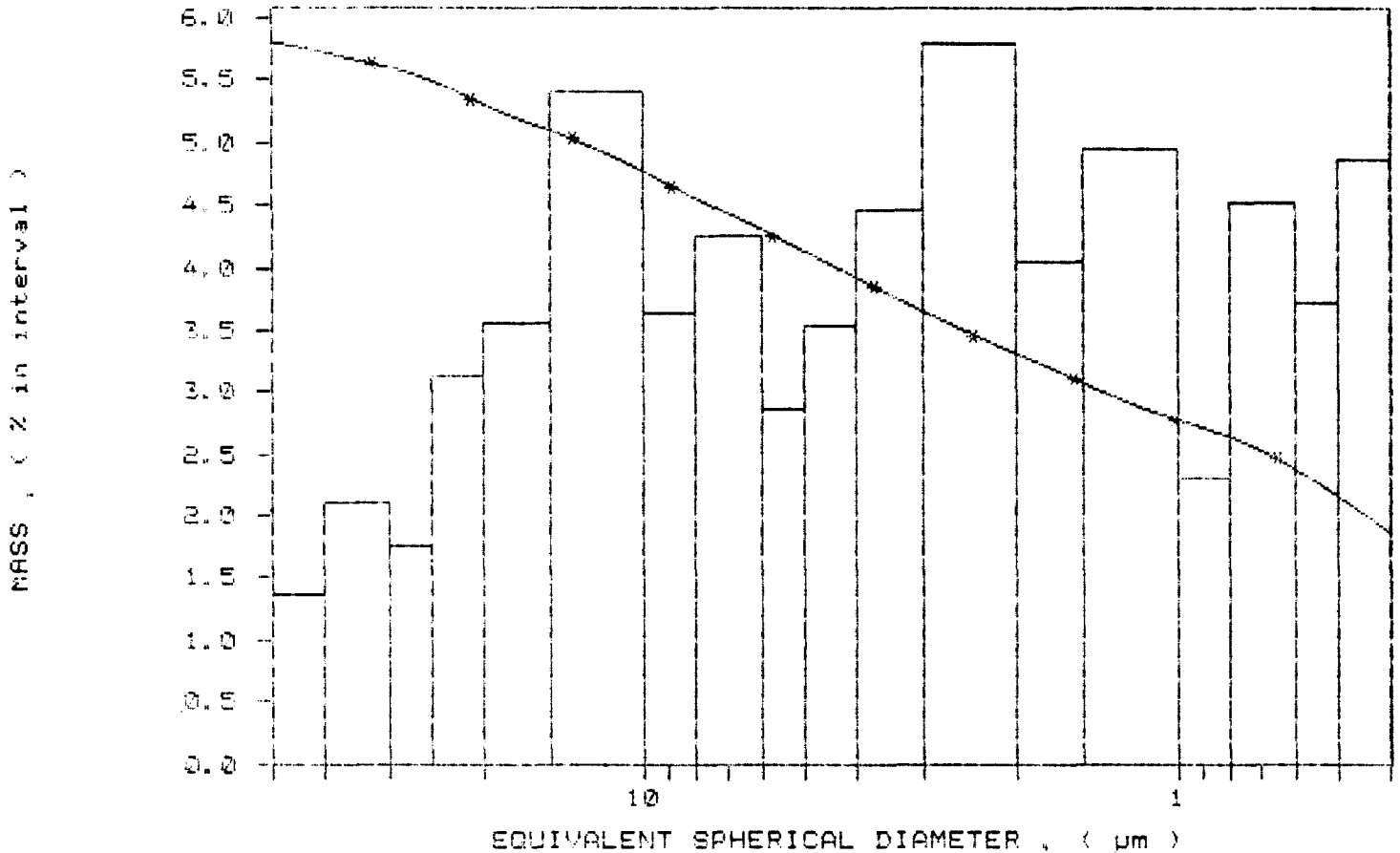
SediGraph 5100 V2.02

PAGE 3

SAMPLE DIRECTORY/NUMBER: DATA4 /16
SAMPLE ID: Hole 89-S # 408
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

UNIT NUMBER: 1
START 11:33:05 12/05/90
REPR1 08:48:19 08/22/91
TOT RUN TIME 0:06:46
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7269 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

PAGE 1

SediGraph 5100 V2.02

SAMPLE DIRECTORY/NUMBER: DATA4 /21
 SAMPLE ID: Hole 89-5 # 409
 SUBMITTER: # 99
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 11:18:24 12/06/90
 REPR 08:52:26 08/22/91
 TOT RUN TIME 0:06:51
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MEDIAN DIAMETER: 1.65 μ m MASS DISTRIBUTION MODAL DIAMETER: 0.40 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	96.5	3.5
40.00	97.0	-0.5
30.00	94.5	2.5
25.00	91.6	3.0
20.00	88.2	3.4
15.00	84.2	4.0
10.00	77.2	7.0
8.00	73.7	3.5
6.00	69.3	4.4
5.00	65.5	3.8
4.00	61.5	4.0
3.00	57.6	3.9
2.00	51.0	6.6
1.50	47.7	3.3
1.00	42.4	5.3
0.80	39.6	3.1
0.60	34.9	4.5
0.50	31.6	3.2
0.40	27.2	4.4

**MINERAL RESEARCH
CANADA**

1 INDUSTRIAL BLVD. PR2
 PARK SOUND, ONTARIO
 CANADA P2A 2W8

FAX (705) 378-5123 BU8 (705) 378-2416

DATE _____ *km*

Clay

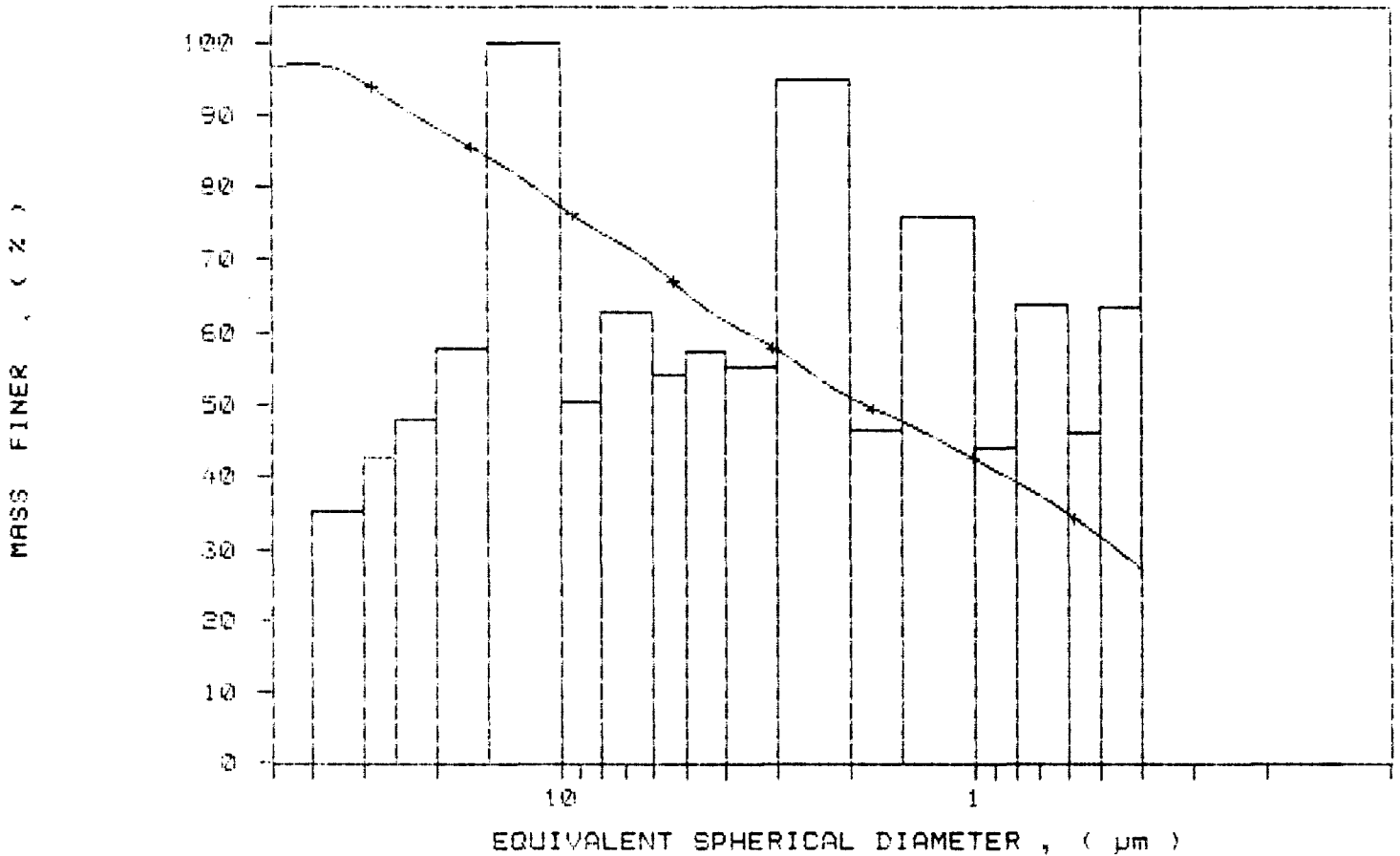
SediGraph 5100 V2.02

PAGE 2

SAMPLE DIRECTORY/NUMBER: DATA4 /21
SAMPLE ID: Hole 89-5 # 409
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

UNIT NUMBER: 1
START 11:18:24 12/06/90
REPT 08:52:26 08/22/91
TOT RUN TIME 0:06:51
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7268 cp

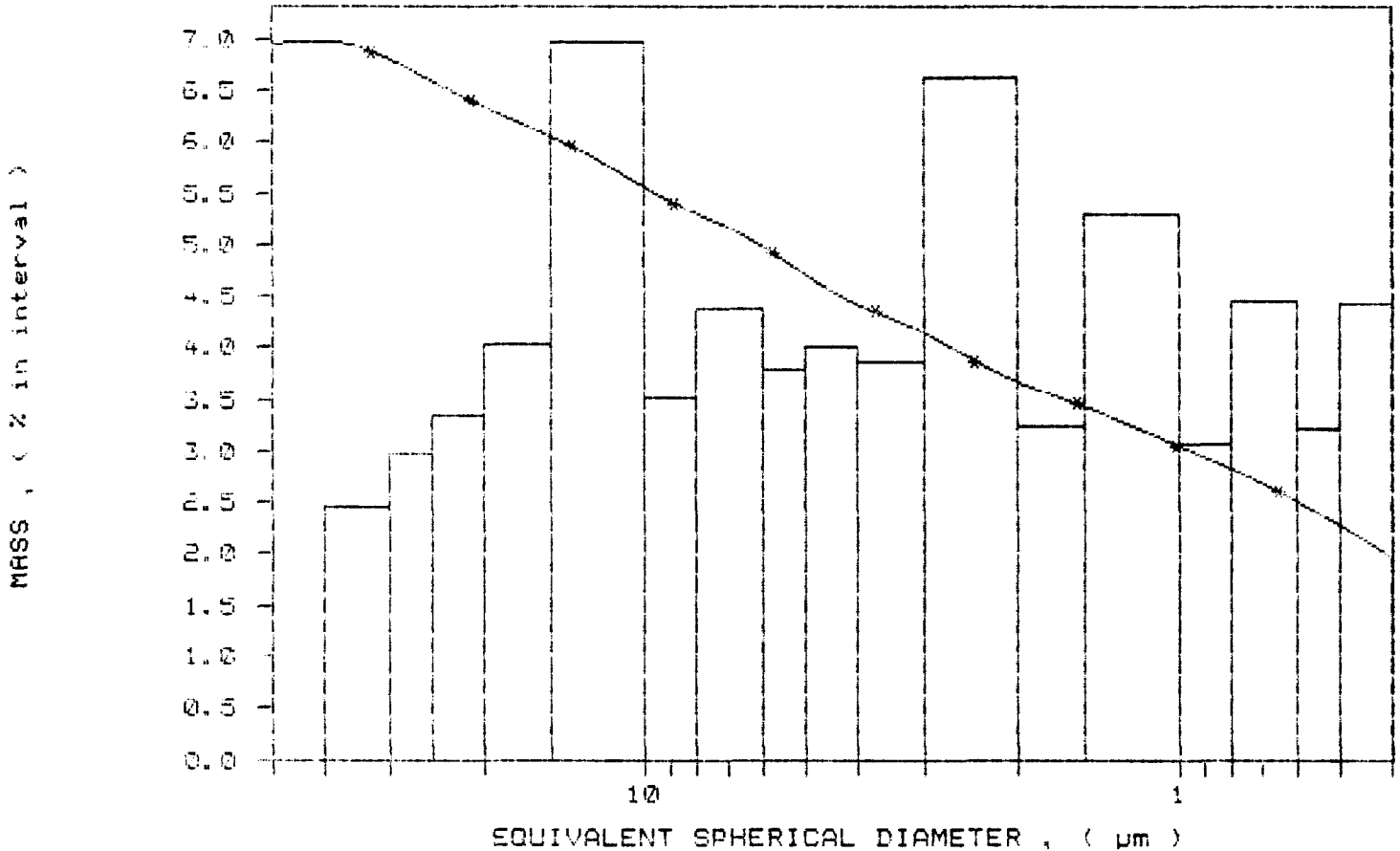
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA4 /21
SAMPLE ID: Hole 89-5 # 409
SUBMITTER: # 89
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
START 11:18:24 12/06/90
REPR 08:52:26 08/22/91
TOT RUN TIME 0:06:51
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7268 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA4 /22
 SAMPLE ID: Hole 89- 5 # 410
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 11:37:37 12/06/90
 REPRT 09:00:39 08/22/91
 TOT RUN TIME 0:06:53
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7266 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.05 μ m MODAL DIAMETER: 0.61 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	99.1	0.9
40.00	97.6	1.5
30.00	95.1	2.5
25.00	92.5	2.6
20.00	89.6	2.9
15.00	86.5	3.1
10.00	81.9	4.6
8.00	79.5	2.4
6.00	76.6	2.9
5.00	73.7	2.9
4.00	70.3	3.4
3.00	65.6	4.7
2.00	59.4	6.2
1.50	55.2	4.2
1.00	49.3	5.9
0.80	45.5	3.7
0.60	37.9	7.6
0.50	32.3	5.1
0.40	27.2	5.6

**MINERAL RESEARCH
CANADA**

1 INDUSTRIAL BLVD. RR2
PARRY SOUND, ONTARIO
CANADA P2A 2Y3

FAX (705) 378-5123 BUS (705) 378-2416

DATE *AK*

Clay

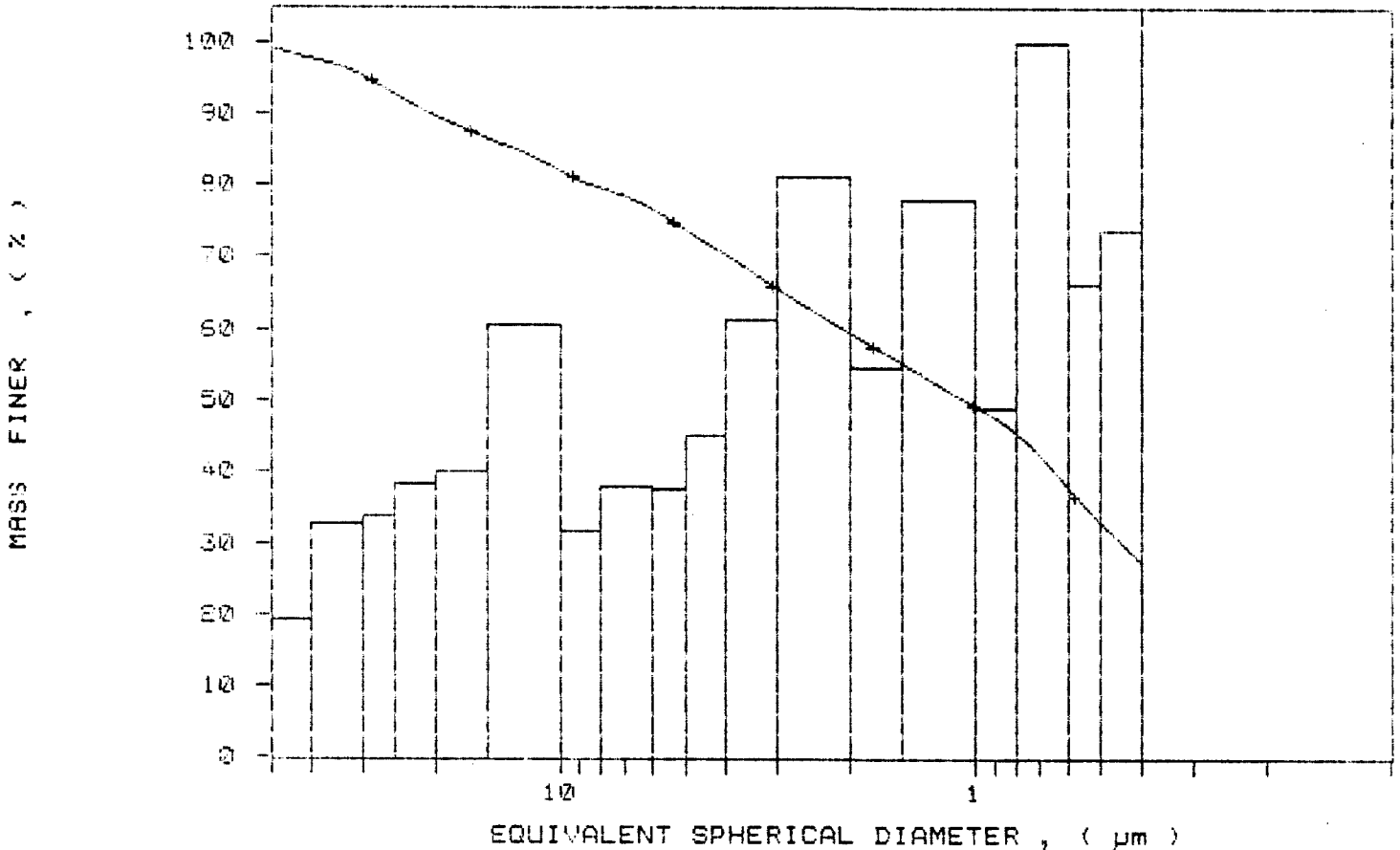
SediGraph 5100 V2.02

PAGE 2

SAMPLE DIRECTORY/NUMBER: DATA4 /22
SAMPLE ID: Hole 89- 5 # 410
SUBMITTER: # 89
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

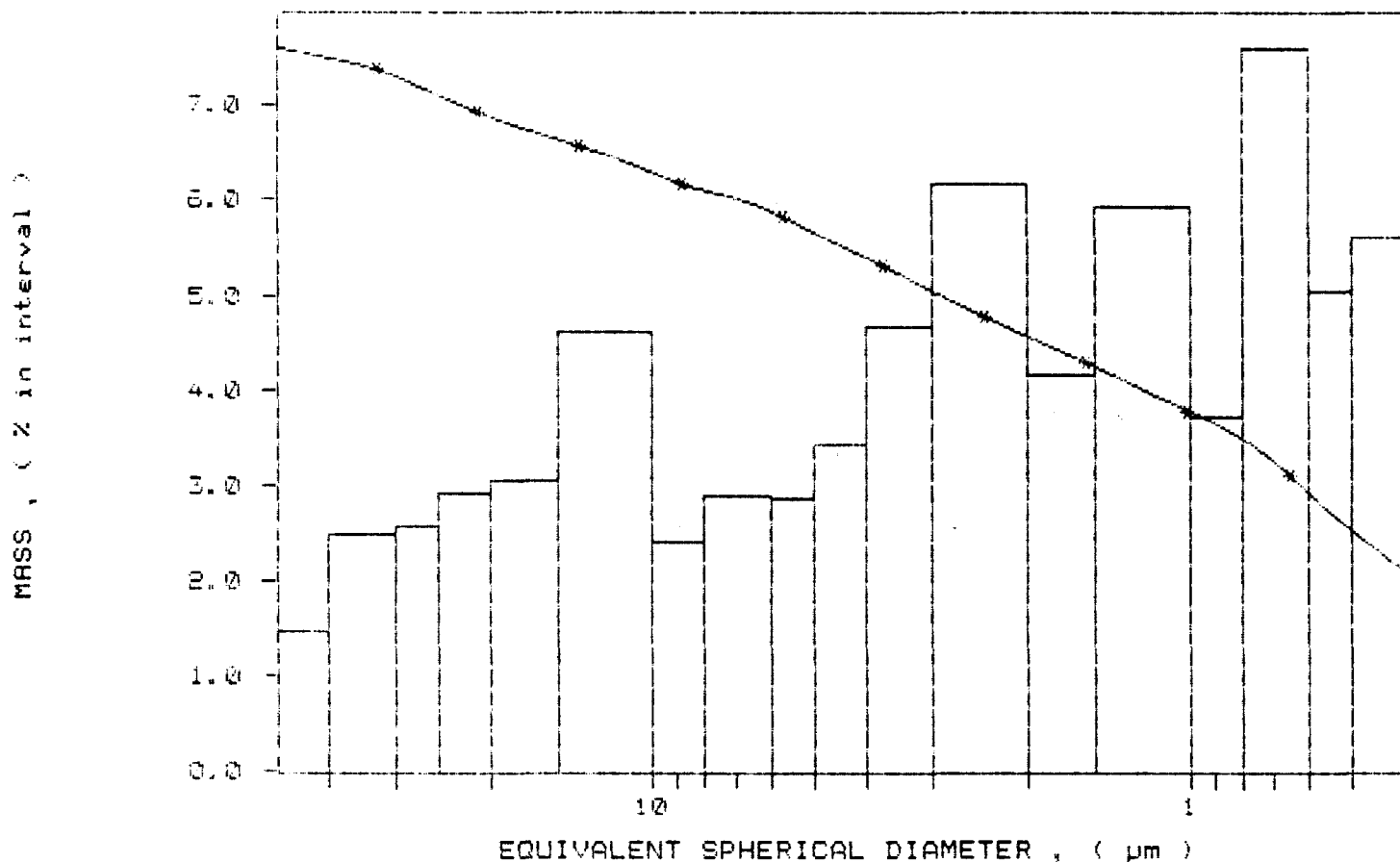
UNIT NUMBER: 1
START 11:37:37 12/06/90
REPT 09:00:39 08/22/91
TOT RUN TIME 0:06:53
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7266 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA4 /22 UNIT NUMBER: 1
SAMPLE ID: Hole 89- 5 # 410 START 11:37:37 12/06/90
SUBMITTER: # 39 REPR1 09:00:39 08/22/91
OPERATOR: KM TOT RUN TIME 0:06:53
SAMPLE TYPE: Clay SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed LIQ VISC: 0.7256 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA4 /92
 SAMPLE ID: Hole 89-5 # 411
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 10:41:42 02/09/91
 REPRT 09:08:50 08/22/91
 TOT RUN TIME 0:07:01
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7273 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.27 μ m

MODAL DIAMETER: 4.18 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	97.0	3.0
40.00	97.1	0.1
30.00	96.0	1.1
25.00	94.0	2.0
20.00	91.3	2.7
15.00	87.1	4.2
10.00	80.4	6.7
8.00	77.4	3.0
6.00	72.7	4.7
5.00	68.9	3.8
4.00	63.1	5.8
3.00	56.2	6.9
2.00	47.1	9.0
1.50	40.7	6.4
1.00	32.8	7.9
0.80	29.1	3.7
0.60	23.1	6.0
0.50	19.1	4.1
0.40	14.4	4.7

**MINERAL RESEARCH
CANADA**

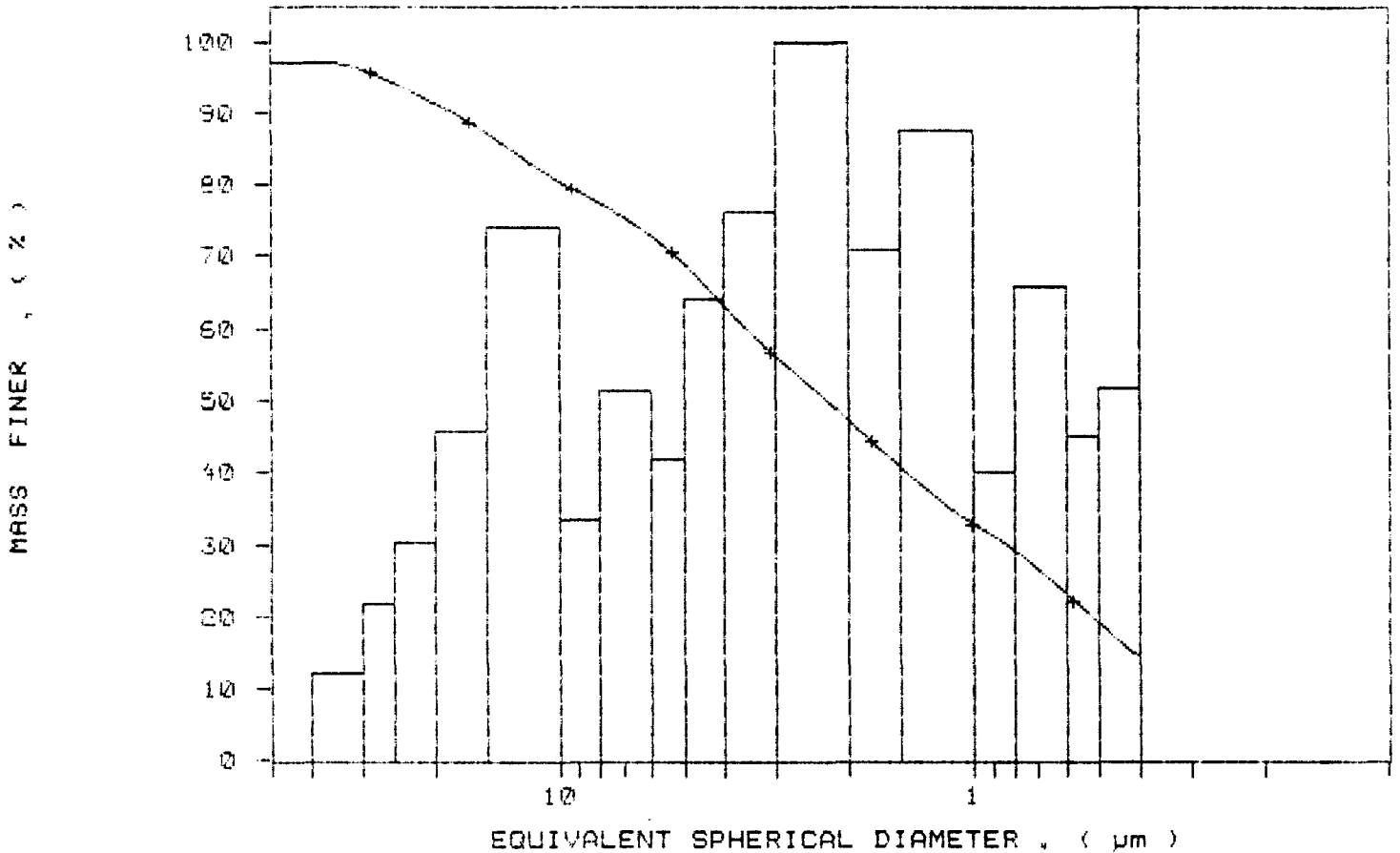
1 INDUSTRIAL BLVD. RR2
PARKY SOUND, ONTARIO
CANADA P2A 2W8

FAX (705) 378-5123 TEL (705) 378-2416

DATE *[Signature]*

SAMPLE DIRECTORY/NUMBER: DATA4 /92	UNIT NUMBER: 1
SAMPLE ID: Hole 89-5 # 411	START 10:41:42 02/09/91
SUBMITTER: # 39	REPRT 09:08:50 08/22/91
OPERATOR: KM	TOT RUN TIME 0:07:01
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	LIQ VISC: 0.7273 cp
RUN TYPE: High Speed	

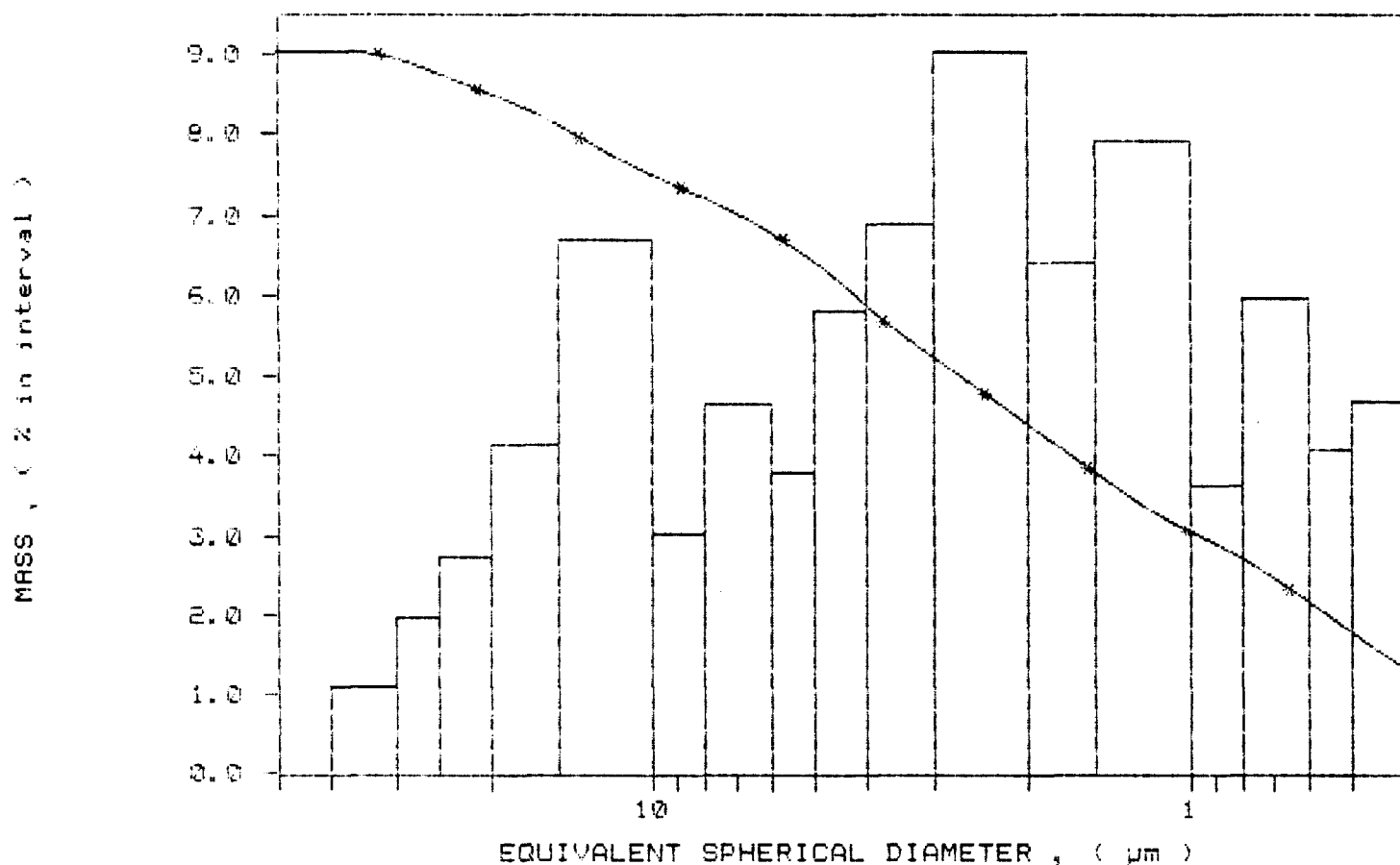
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA4 /92
 SAMPLE ID: Hole 89-5 # 411
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C

UNIT NUMBER: 1
 START 10:41:42 02/09/91
 REPR1 09:08:50 08/22/91
 TOT RUN TIME 0:07:01
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7273 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



ROTARY DRILL HOLE RECORD

Drilling Started: Jan. 15, 1989
 Drilling Finished: Jan. 16, 1989
 Drilling Co.: Midwest
 Dip: -90°
 Hole Length: 250.0'
 Overburden Depth: 111.0'
 Claim No.: P 1112328
 Easting: 5390 E
 Northing: 960 N
 Azimuth: 50° 09' 16" W. 82° 08' 53" N.
 Location: 1450.0' at 194° To Claim Post No. 1
 Property: Kipling
 N.B.: Drilled Before Claims Recorded.

Logged By: A. Casselman
 Logged: Jan. 14, 1991
 Core Size: 3.5"
 Core Storage:
 Mineral Research Canada
 1 Industrial Blvd.
 R. R. # 2
 Parry Sound, ON
 P2A 2W8
 Hole No: 89-6

SUMMARY

From	To	Description
0.0'	2.0'	Peat
2.0'	111.0'	Glacial Clay Till Overburden - Pleistocene
111.0'	127.0'	Kaolin Silica Sand (Kss) Cretaceous
127.0'	139.0'	Sandy Clay
139.0'	142.0'	Clay
142.0'	153.0'	Kss
153.0'	159.0'	Clay
159.0'	167.0'	Sandy Clay
167.0'	250.0'	Kss

EOH - 250.0'

Jan 13, 1991
 A. Casselman

Detail Log 89-6

From	To	Sample No.	Description
0.0'	2.0'		Peat
2.0'	111.0'		Glacial Clay Till - alternating brown very fine grain pliable silty material with competent green/grey material that contains 1.0 - 3.0% carbonate clasts with 25.0% gneissic clasts up to 2.0".
111.0'	115.0'	801	Kss - fine grain and medium grain alternating, light brown, some calcareous sections due to overburden contact.
115.0'	118.0'	802	Kss - as above.
118.0'	121.0'	803	Kss - medium grain, white - entire remainder of hole dried.
121.0'	124.5'	804	Kss - buff clay seam at 123.25 - 125.5', kss - medium grain white, becoming light brown, after the clay seam the kss is chocolate brown.
124.5'	127.0'	805	Kss - medium grain, chocolate brown grading to sandy clay - carbonaceous with lignitic fragments and hematitic staining.
127.0'	129.0'	806	Sandy Clay - competent, fissile, chocolate brown, minor illite.
129.0'	132.0'	807	Sandy Clay - as above.
132.0'	136.0'	808	Sandy Clay - as above, higher illite content.
136.0'	139.0'	809	Sandy Clay - competent, grading to medium brown clay, competent, semi-pliable, sandy clay - black containing much illite and silica as well as highly carbonaceous seams, exterior crystal growth.
139.0'	142.0'	810	Clay - competent, semi-pliable, medium brown grading to chocolate brown, sulphureous smell, exterior crystal growth, mangled with kss.
142.0'	146.0'	811	Kss - fine grain, rare coarser clasts, light brown grading to white.
146.0'	149.0'	812	Kss - coarse grain in a clay matrix, light grey.

149.0'	153.0'	813	Kss - medium grain grading to coarse grain in a clay matrix, white, slightly yellow at lower contact.
153.0'	156.0'	814	Clay - competent, disc-like greasy, medium brown grading to chocolate brown, carbonaceous exterior crystal growth.
156.0'	159.0'	815	Clay - competent, fissile, chocolate brown, carbonaceous.
159.0'	163.0'	816	Sandy Clay - competent, fissile, chocolate brown grading to buff grading to medium brown, minor illite.
163.0'	167.0'	817	Sandy Clay - competent, fissile, medium brown grading to buff, carbonaceous, minor illite.
167.0'	172.0'	818	Kss - medium grain with rare coarser vari-coloured silicas, light grey.
172.0'	177.0'	819	Kss - as above.
177.0'	181.0'	820	Kss - as above.
181.0'	185.0'	821	Kss - as above.
185.0'	190.0'	822	Kss - as above, some areas of light grey.
190.0'	194.0'	823	Kss - as above, coarse grain.
194.0'	199.0'	824	Kss - as above.
199.0'	204.0'	825	Kss - medium grain, white.
204.0'	208.0'	826	Kss - as above.
208.0'	212.0'	827	Kss - as above.
212.0'	217.0'	828	Kss - as above.
217.0'	221.0'	829	Kss - as above.
221.0'	225.0'	830	Kss - coarse grain, vari-coloured silicas, white.
225.0'	230.0'	831	Kss - as above.
230.0'	235.0'	832	Kss - as above, with medium brown clay clots - fine grain section at lower footage - 234.75 - 235.0'.

235.0' 239.0' 833 Kss - coarse grain, to medium grain,
including clay clots, light brown, some
yellow areas.

239.0' 241.0' 834 Kss - medium grain, light brown.

241.0' 244.0' 835 Kss - as above.

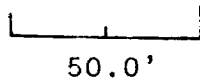
244.0' 246.0' 836 Kss - as above.

246.0' 250.0' 837 Kss - as above - grading to lighter
material with large carbonaceous pieces and
illite in sandy clay.

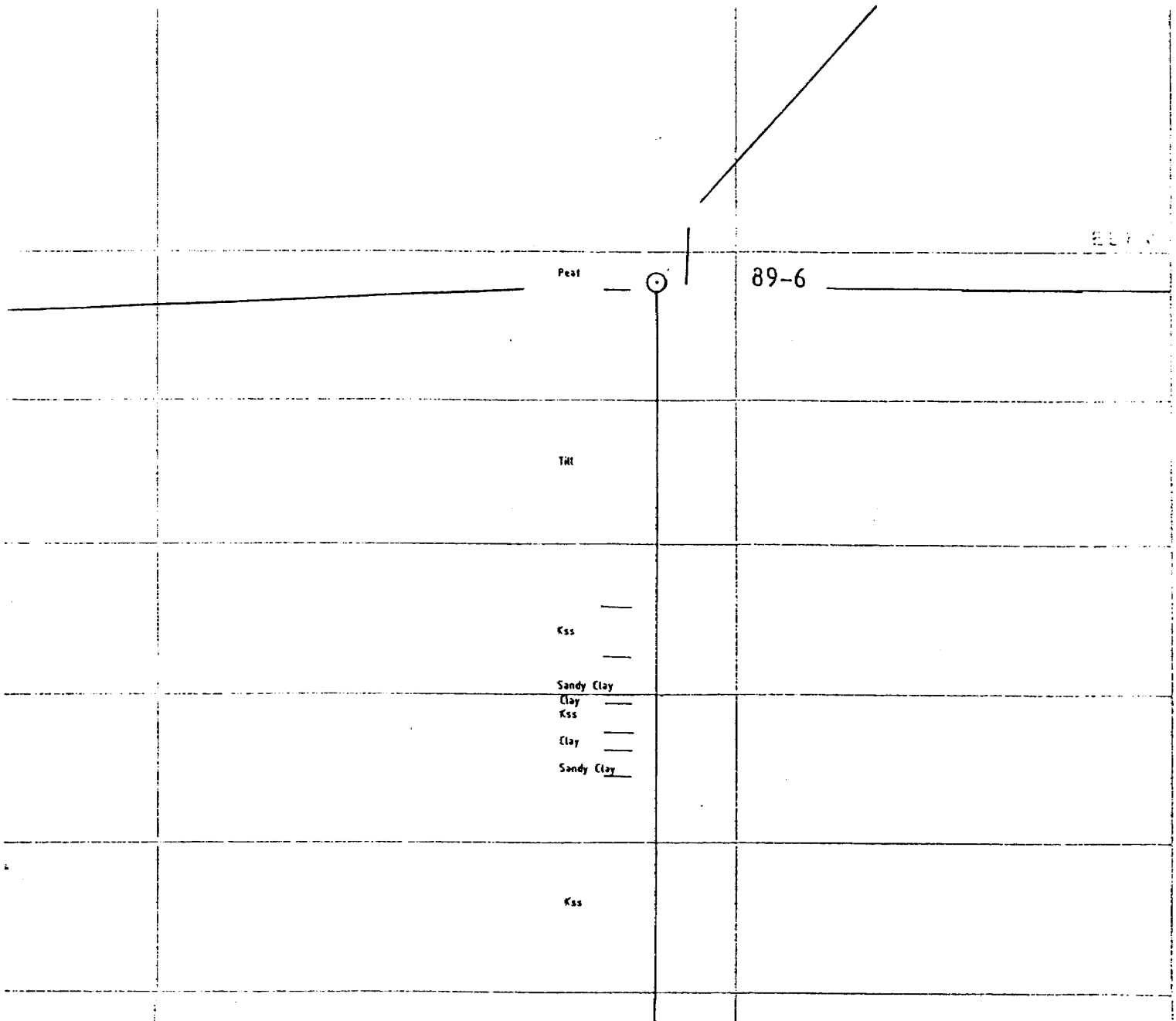
EOH - 250.0'

Section 89-6

Hole Length: 250.0'
Overburden Depth: 111.0'
Astronomic Azimuth: 50° 09' 16" W. 82° 08' 53" N
Location: 1450.0' at 194° to claim post no. 1
Claim No.: P 1112329
Dip: -90°
Northing: 960 N
Easting: 5390 E
Scale: 1.0" = 50.0' or 1:600

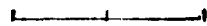


Gridline 5400



Section 89-6

Hole Length: 250.0'
Overburden Depth: 111.0'
Astronomic Azimuth: $50^{\circ} 09' 16''$ W. $82^{\circ} 08' 53''$ N
Location: 1450.0' at 194° to claim post no. 1
Claim No.: P 1112329
Dip: -90°
Northing: 960 N
Easting: 5390 E
Scale: 1.0" = 50.0' or 1:600



50.0'

Gridline 5400



MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

89-6

ANALYSIS REPORT

SAMPLE # SCREEN % MOISTURE % pH (20% SOLIDS)

801

+ 4 0.7
 + 40 58.6
 +100 26.0
 +200 3.1
 +325 1.7
 -325 9.7

8.55

802

+ 4 3.4
 + 40 63.7
 +100
 +200 2.3
 +325 1.8
 -325 28.8

14.45

803

+ 4 1.3
 + 40 64.6
 +100 20.3
 +200 2.1
 +325 1.9
 -325 9.8

13.5

804

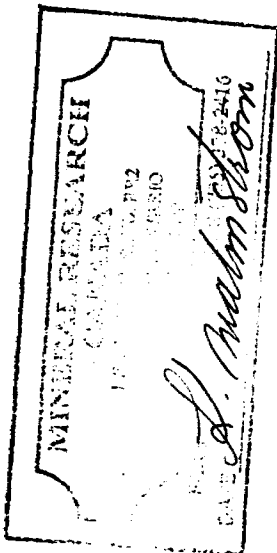
+ 4 0
 + 40 0
 +100 0.9
 +200 10.2
 +325 6.3
 -325 82.6

13.55

805

+ 4 0
 + 40 0.8
 +100 54.4
 +200 16.0
 +325 4.5
 -325 24.3

14.0



MINERAL RESEARCH CANADA

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FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
PARRY SOUND, ON. CANADA
P2A 2W8

ANALYSIS REPORT

SAMPLE # SCREEN % MOISTURE % pH (20% SOLIDS)

806 + 4 0
+ 40 0
+100 15.6
+200 27.1
+325 8.8
-325 43.5 13.4

807 + 4 0
+ 40 0.9
+100 51.1
+200 28.6
+325 4.7
-325 14.7 12.8

808 + 4 0
+ 40 0.8
+100 54.6
+200 16.3
+325 12.2
-325 16.1 19.0

809 + 4 0
+ 40 0.7
+100 9.8
+200 14.3
+325 40.6
-325 34.6 7.95

810 + 4 8
+ 40 8
+100 3.6
+200 1.5
+325 2.6
-325 92.3 15.0

MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
811	+ 4	0.7	12.9	
	+ 40	7.5		
	+100	72.7		
	+200	4.4		
	+325	1.7		
	-325	13.0		
812	+ 4	8.5	6.55	
	+ 40	61.7		
	+100	15.7		
	+200	3.5		
	+325	3.8		
	-325	6.8		
813	+ 4	0	14.23	
	+ 40	72.1		
	+100	14.9		
	+200	2.9		
	+325	1.1		
	-325	9.0		
814	+ 4	0	13.9	
	+ 40	0		
	+100	0.6		
	+200	6.8		
	+325	11.1		
	-325	81.5		
815	+ 4	1.0	14.6	
	+ 40	14.4		
	+100	1.0		
	+200	2.4		
	+325	1.6		
	-325	79.6		

MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE # SCREEN % MOISTURE % pH (20% SOLIDS)

816	+ 4	3.0	14.3
	+ 40	3.6	
	+100	48.5	
	+200	14.6	
	+325	0.4	
	-325	29.9	

817	+ 4	1.9	7.0
	+ 40	5.7	
	+100	13.7	
	+200	0.3	
	+325	8.0	
	-325	70.4	

818	+ 4	0.6	11.7
	+ 40	63.7	
	+100	24.2	
	+200	2.2	
	+325	1.5	
	-325	7.3	

819	+ 4	1.4	12.75
	+ 40	51.8	
	+100	28.0	
	+200	4.7	
	+325	1.6	
	-325	12.5	

820	+ 4	0.5	9.8
	+ 40	73.7	
	+100	14.1	
	+200	2.9	
	+325	1.7	
	-325	7.1	

MINERAL RESEARCH CANADA

TEL: (705) 378-2416
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1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
821	+ 4	1.9	6.1	7.5
	+ 40	75.6		
	+100	10.0		
	+200	2.7		
	+325	0.5		
	-325	9.3		
822	+ 4	0.4	6.6	7.5
	+ 40	53.6		
	+100	25.3		
	+200	3.8		
	+325	1.3		
	-325	15.6		
823	+ 4	1.1	6.5	7.5
	+ 40	65.9		
	+100	2.4		
	+200	1.3		
	+325	19.6		
	-325	9.8		
824	+ 4	2.4	6.4	7.5
	+ 40	63.5		
	+100	11.0		
	+200	5.4		
	+325	3.5		
	-325	14.2		
825	+ 4	0.3	8.0	7.5
	+ 40	58.1		
	+100	24.2		
	+200	5.1		
	+325	2.0		
	-325	10.3		

MINERAL RESEARCH CANADA

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 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
826	+ 4	0	11.9	7.1
	+ 40	49.3		
	+100	33.2		
	+200	4.1		
	+325	2.8		
	-325	10.6		
827	+ 4	1.9	7.1	7.1
	+ 40	62.8		
	+100	22.1		
	+200	2.3		
	+325	1.2		
	-325	9.7		
828	+ 4	1.3	6.6	7.1
	+ 40	65.1		
	+100	18.4		
	+200	3.2		
	+325	1.6		
	-325	9.9		
829	+ 4	4.1	3.9	7.1
	+ 40	67.6		
	+100	15.5		
	+200	2.2		
	+325	2.2		
	-325	10.6		
830	+ 4	0	13.9	7.1
	+ 40	0		
	+100	0.6		
	+200	6.8		
	+325	11.1		
	-325	81.5		

MINERAL RESEARCH CANADA

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1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
831	+ 4	0	13.4	
	+ 40	0		
	+100	15.6		
	+200	27.1		
	+325	8.8		
	-325	48.5		
832	+ 4	0	12.8	
	+ 40	0.9		
	+100	51.1		
	+200	24.6		
	+325	4.8		
	-325	18.6		
833	+ 4	0	13.4	
	+ 40	0.4		
	+100	51.7		
	+200	20.5		
	+325	4.4		
	-325	23.0		
834	+ 4	0	10.9	
	+ 40	30.2		
	+100	58.9		
	+200	2.7		
	+325	0.7		
	-325	7.5		
835	+ 4	0.8	4.1	
	+ 40	69.2		
	+100	16.0		
	+200	2.8		
	+325	1.1		
	-325	10.1		

MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE # SCREEN % MOISTURE % pH (20% SOLIDS)

836

+ 4 3.2
 + 40 67.3
 +100 25.5
 +200 3.1
 +325 1.0
 -325 7.9

7.5

837

+ 4 0
 + 40 11.3
 +100 14.1
 +200 2.7
 +325 0.3
 -325 71.4

15.9

FOH

+ 4
 + 40
 +100
 +200
 +325
 -325

+ 4
 + 40
 +100
 +200
 +325
 -325

+ 4
 + 40
 +100
 +200
 +325
 -325

NOTE 27-1 # 201

Department of ...

PAGE 1

SAMPLE NO. 1234567890
 SAMPLE ID: 1234567890
 SUBMITTER: ABC
 OPERATOR: JKL
 SAMPLE TYPE: LIQ
 LIQUID TYPE: Water
 ANALYSIS METHOD: 200 deg C Run TYPE: High Speed

UNIT NUMBER: 1
 START: 13:54:12 07/22/91
 REPORT: 14:21:24 07/22/91
 TOT RUN TIME: 0:07:107
 SAM DENS: 2.0000 g/cc
 LIQ DENS: 0.9998 g/cc
 LIQ VISC: 0.7951 cc

STARTING DIAMETER: 0.50 um
 ENDING DIAMETER: 0.50 um

REYNOLDS NUMBER: 0.50
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 0.50 um

MODAL DIAMETER: 0.50 um

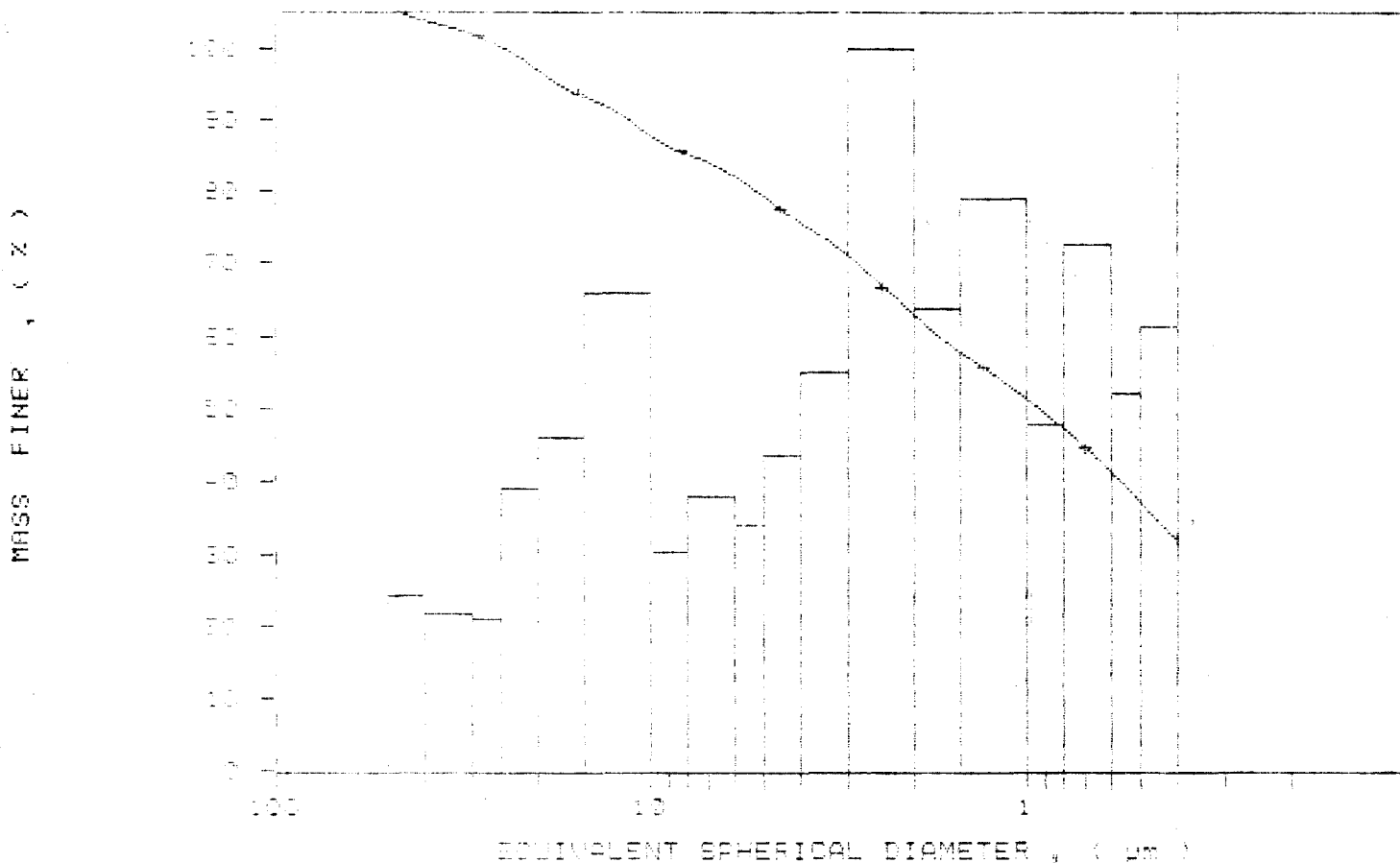
DIAMETER (um)	CUMULATIVE MASS (%)	MASS % INTERVAL (%)
50.000	100.00	100.00
40.000	100.00	100.00
30.000	100.00	100.00
25.000	100.00	100.00
20.000	100.00	100.00
15.000	100.00	100.00
10.000	100.00	100.00
5.000	100.00	100.00
0.500	100.00	100.00
0.400	100.00	100.00
0.300	100.00	100.00
0.200	100.00	100.00
0.100	100.00	100.00
0.050	100.00	100.00
0.020	100.00	100.00
0.010	100.00	100.00
0.005	100.00	100.00
0.002	100.00	100.00
0.001	100.00	100.00
0.000	100.00	100.00

LABORATORY REPORT
 H. Malmstrom

SAMPLE ID: CP-6-201-01
 SAMPLE ID: CP-6-201-01
 SUBMITTED BY: [unclear]
 OPERATOR: [unclear]
 SAMPLE NO: [unclear]
 LIQUID PHASE: water
 ANALYSIS: LPI SAND deg C KOLYMER High Speed

UNIT NUMBER: 1
 START 13:54:12 07/22/91
 REPT 14:21:04 07/22/91
 TOT RUN TIME 0107107
 SAM DENS: 2.6500 g/cc
 LIQ DENS: 0.9998 g/cc
 LIQ VISC: 0.7321 cp

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER

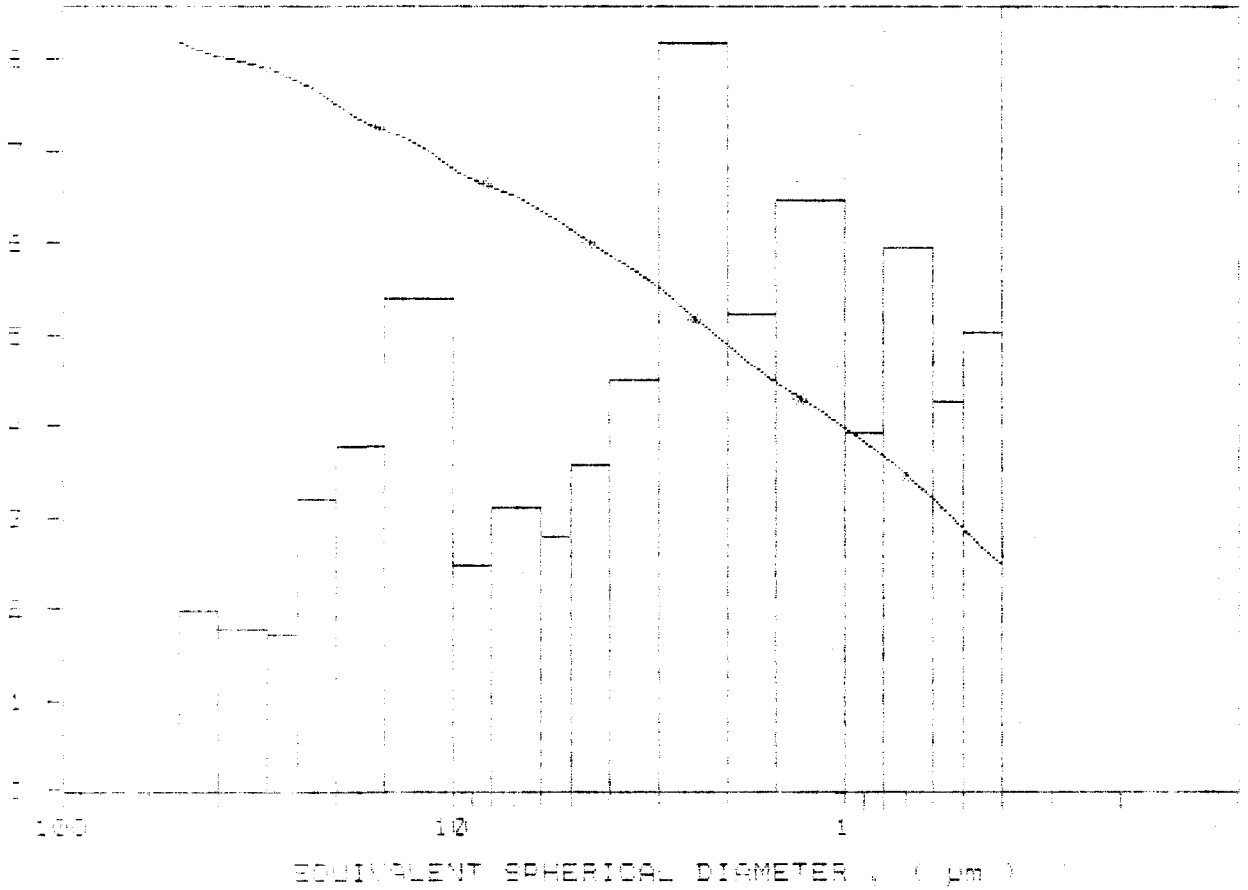


SAMPLE Description: Content: 50000 1000
 SAMPLE ID: Note 89-6 #1891
 SUBMITTED: 8/28
 OPERATOR: JG
 SAMPLE TYPE: Water
 LIQUID TYPE: Water
 ANALYSIS Unit: 50000 1000 RUN TYPE: High Speed

UNIT NUMBER: 1
 START 10:54:12 07/22/91
 REPT 14:21:24 07/22/91
 TOT RUN TIME 0:07:07
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9948 g/cc
 LIQ VISC: 0.7251 cp

MASS POPULATION VS. DIAMETER
 & CUMULATIVE MASS PERCENT FINER VS. DIAMETER

MASS, (% in interval)



Serial No. 010782100

SAMPLE IDENTIFICATION: Denslab / 2005
 SAMPLE NO. / Date: # 01
 SUBMITTED # 01
 OPERATION: #1
 SAMPLE TYPE: Oil
 LIQUID: Diesel Water
 ANALYSIS UNIT: 010782100 RUN TYPE: High speed

UNIT NUMBER: 1
 START 14:13:52 07/22/91
 REPT 14:40:50 07/22/91
 TIME OF RUN TIME 0:07:05
 SAM DENS: 2.5000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7275 cp

STARTING DIAMETER: 0.100 um
 ENDING DIAMETER: 20.000 um

REYNOLDS NUMBER: 2121
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 4.16 um MODAL DIAMETER: 0.100 um

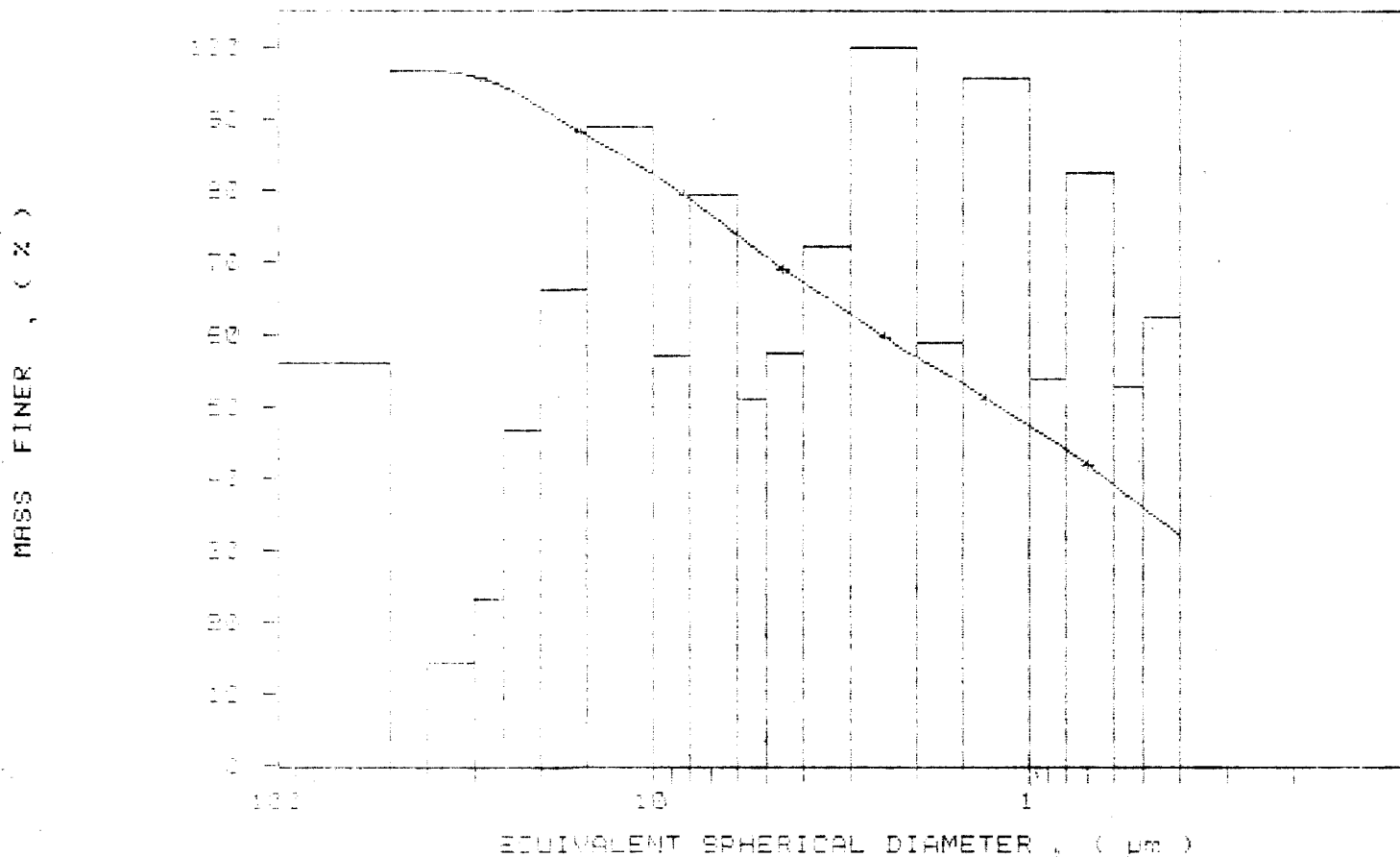
DIAMETER (um)	RELATIVE MASS %	MASS IN INTERVAL (%)
20.00	0.00	0.4
18.00	0.00	0.1
16.00	0.00	0.9
15.00	0.00	1.4
14.00	1.00	2.9
13.00	27.00	4.9
12.00	15.00	0.4
11.00	14.00	0.2
10.00	15.00	1.0
9.00	9.00	2.1
8.00	3.00	3.6
7.00	10.00	4.4
6.00	11.00	6.1
5.00	18.00	9.6
4.00	10.00	1.0
3.00	17.00	3.6
2.00	11.00	1.0
1.00	10.00	0.4
0.00	11.00	0.0

L. malmstrom

SAMPLE ID: 101-101-101-101-101 10101
SAMPLER: 101-101-101-101-101
SUBMITTER: 101-101-101-101-101
OPERATOR: 101-101-101-101-101
SAMPLER TYPE: 101-101-101-101-101
LIQUID: 101-101-101-101-101
ANALYSIS: 101-101-101-101-101 RUN TYPE: High Speed

UNIT NUMBER: 1
START 14:13:52 07/22/91
REPT 14:40:50 07/22/91
TOT RUN TIME 0:07:02
SAM DENS: 2.6000 g/cc
L10 DENS: 0.9992 g/cc
L10 VISC: 0.7275 cp

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE ID: 89-B # 802 7005

UNIT NUMBER: 1

SAMPLE NO: 1

START 14:18:52 07/21/91

SUBMITTER: C

REPRT 14:40:50 07/21/91

OPERATOR: C

TOT RUN TIME 0:07:08

SAMPLE NAME: C

SAN DENS: 2.6000 g/cc

LIQUID: Water

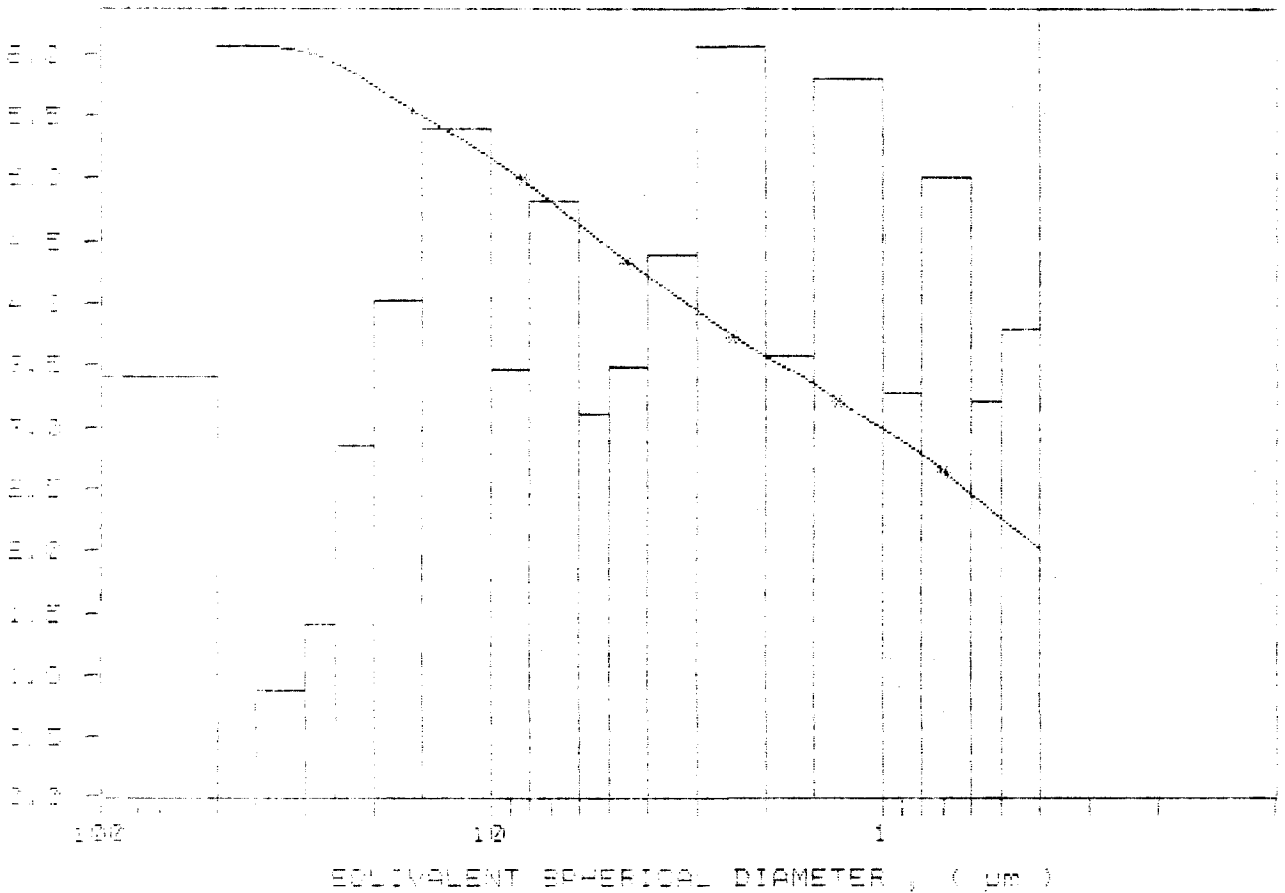
LIO DENS: 0.9998 g/cc

ANALYSIS: High Speed

LIO VISC: 0.7275 cP

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER

MRSS, (% in interval)



Note 89-b # 805

Sealed 010 210

PAGE 1

SAMPLE CHARACTER NUMBER: 84748 7264
 SAMPLE ID: Note 89-b # 805
 SUBMITTER: M 89
 OPERATOR: JH
 SAMPLE TYPE: L10
 LIQUID TYPE: Water
 ANALYSIS TEMP: 24.1 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 14:52:25 07/22/91
 REPT 14:58:09 07/22/91
 TOT RUN TIME 0:07:05
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9982 g/cc
 LIQ VISC: 0.7275 cP

STARTING DIAMETER: 8.100 um
 ENDING DIAMETER: 0.100 um

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.175 um MODAL DIAMETER: 0.40 um

DIAMETER (um)	CUMULATIVE % Flow % Vol	BASE IN Interval (um)
50.00	100.0	5.0
40.00	100.0	4.0
30.00	100.0	3.0
20.00	100.0	2.0
15.00	100.0	1.5
10.00	100.0	1.0
8.100	100.0	0.1
6.100	100.0	0.6
5.100	100.0	0.5
4.100	100.0	0.4
3.100	100.0	0.3
2.100	100.0	0.2
1.700	100.0	0.17
1.500	100.0	0.15
1.400	100.0	0.14
1.300	100.0	0.13
1.200	100.0	0.12
1.100	100.0	0.11
1.000	100.0	0.1
0.900	100.0	0.09
0.800	100.0	0.08
0.700	100.0	0.07
0.600	100.0	0.06
0.500	100.0	0.05
0.400	100.0	0.04
0.300	100.0	0.03
0.200	100.0	0.02
0.100	100.0	0.01

DATE: _____
L. Malmstrom

SAMPLE NO: 19-C-005-01A MS 7284

UNIT NUMBER: 1

SAMPLE ID: 19-C-005-01A

START 14:52:23 07/22/91

SUBMITTED BY: [unclear]

REPT 14:58:03 07/22/91

OPERATOR: [unclear]

TOT RUN TIME 0:10:00

SAMPLE VOL: 0.100

SAM DENS: 2.6000 g/cc

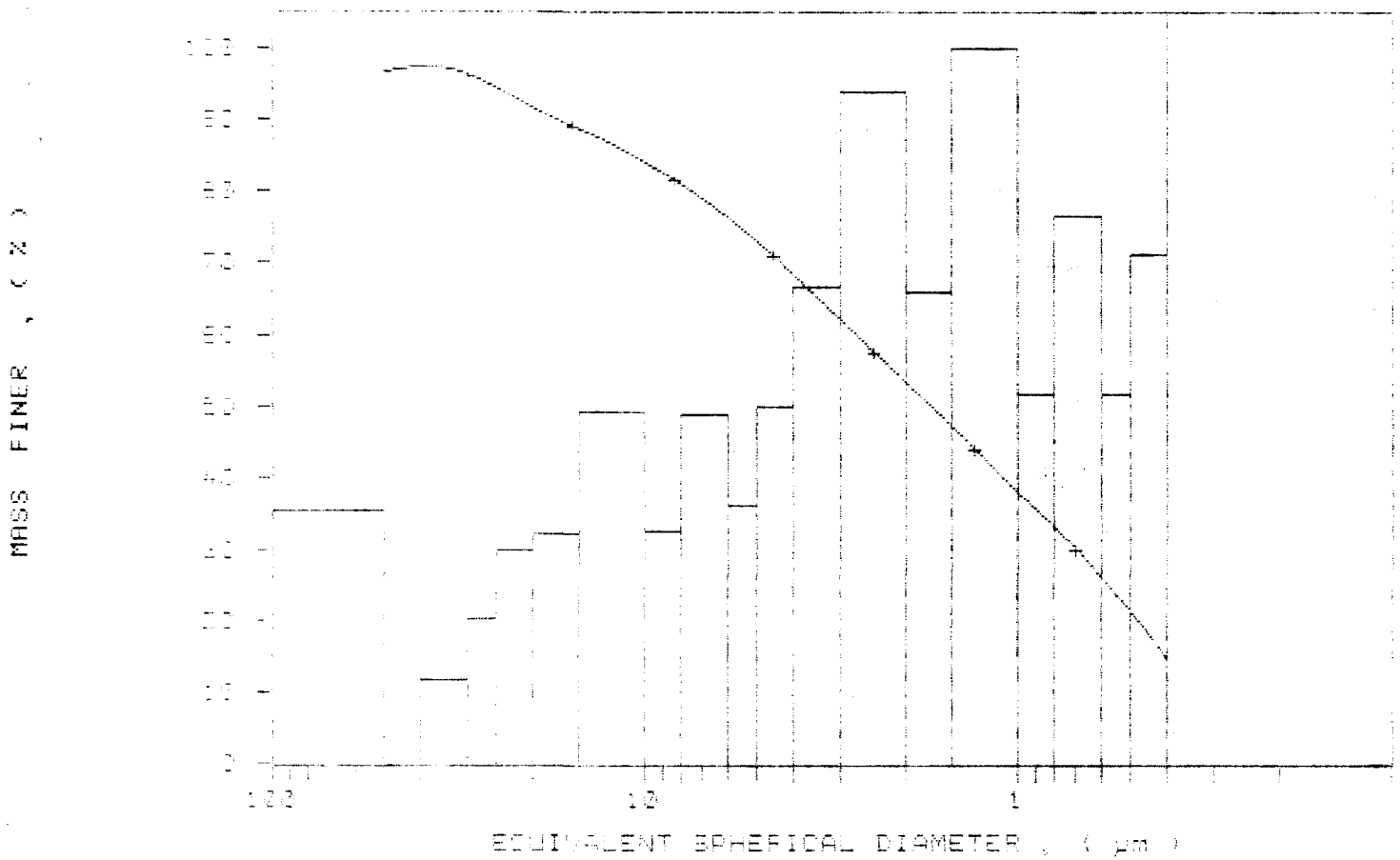
LIQUID: distilled water

LIQ DENS: 0.9942 g/cc

ANALYSIS: DM: 2000 g @ ROT TYPE: High-Speed

LIQ VISC: 0.7275 cP

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE INFORMATION NUMBER: 06740 /284

UNIT NUMBER: 1

SAMPLE ID: Note 89-6 # 805

START 14:32:25 07/22/91

SUBMITTER: # 50

REPT 14:53:03 07/22/91

OPERATOR: AF

TOT RUN TIME 0:07:05

SAMPLE TYPE: L&A

SAM DENS: 2.8000 g/cc

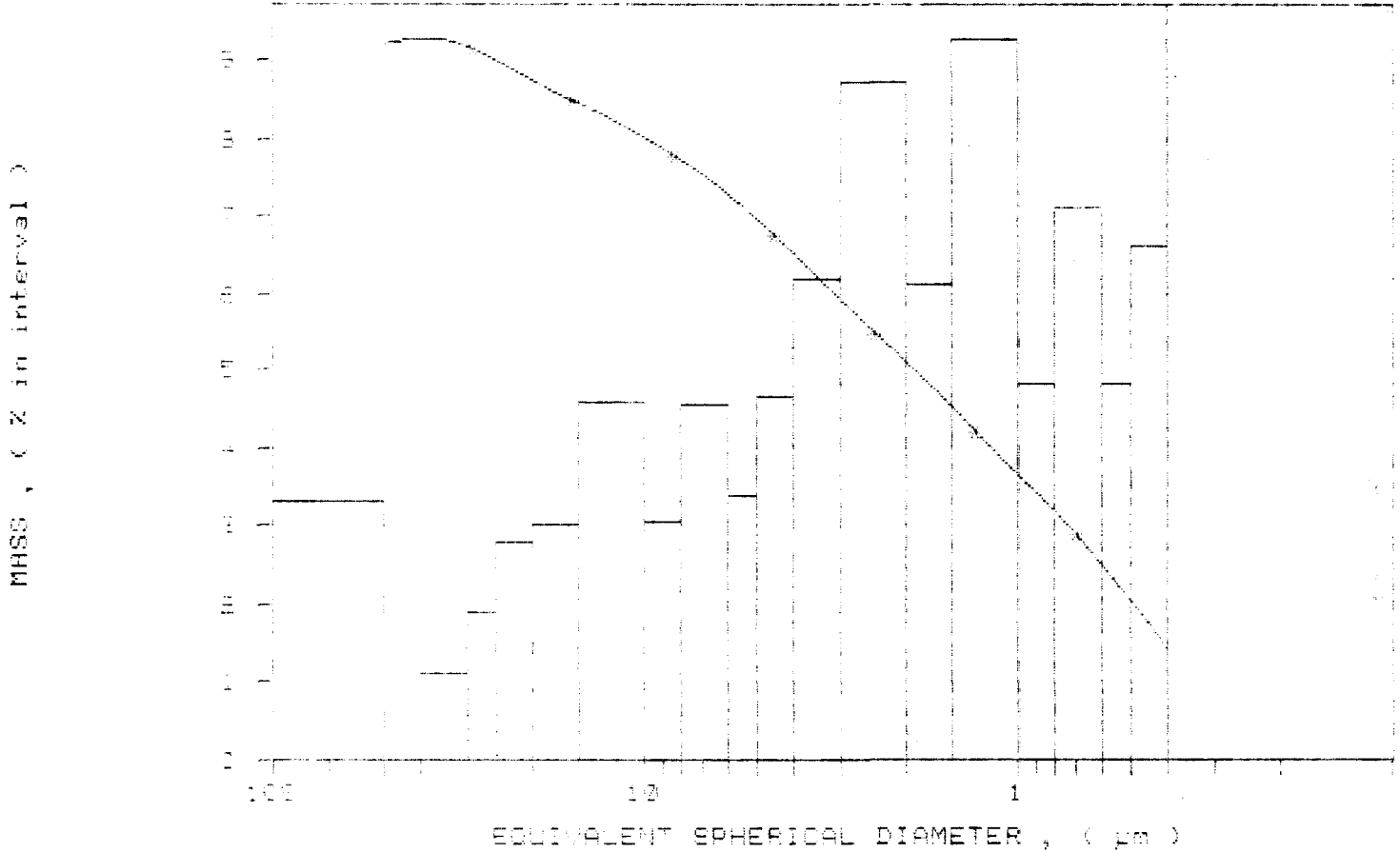
LIQUID TYPE: Water

LIO DENS: 0.9942 g/cc

ANALYSIS TEMP: 24.7 deg C FLK TYPE: High Speed

LIO VISC: 0.7276 cp

MASS POPULATION VS. DIAMETER
CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE CHARACTER NUMBER: 5095 / 225
 SAMPLE ID: 1000 42.00
 SUBMITTED: 10/25
 OPERATOR: JF
 SAMPLE TYPE: 1000
 LIQUID TYPE: water
 ANALYSIS METHOD: 1000 42.00 ANAL. TYPE: High Speed

UNIT NUMBER: 1
 START: 14:58:36 07/22/91
 REPT: 15:16:08 07/22/91
 TOT RUN TIME: 01:05:57
 SAM DENS: 2.5000 g/cc
 LIQ DENS: 0.9998 g/cc
 LIQ VISC: 0.7275 cp

STARTING DIAMETER: 50.00 um
 ENDING DIAMETER: 0.10 um

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.75 um MODAL DIAMETER: 0.73 um

DIAMETER (um)	CUMULATIVE MASS %	MASS % INTERVAL
50.00	0.00	1.5
40.00	0.11	1.5
30.00	0.16	1.5
25.00	0.18	1.2
20.00	0.19	2.2
15.00	0.21	2.7
10.00	0.23	4.2
5.00	0.26	5.5
0.100	0.27	2.4
0.100	0.28	0.1
0.100	0.31	0.7
0.100	0.32	0.2
0.100	0.34	0.1
1.000	0.35	1.2
1.000	0.37	2.9
0.100	0.38	5.1
0.100	0.40	7.2
0.100	0.47	6.9
0.100	0.53	4.8

L. Malmstrom

SAMPLE ID: 1000, NUMBER: 2045 7265

UNIT NUMBER: 1

SAMPLE ID: File Name # 004

START 14:58:56 07/22/91

SUBMITTER # 00

REPR: 15:18:08 07/22/91

OPERATOR: SJ

TOT RUN TIME 0:06:57

SAMPLE TYPE: 2.00

SAM DENS: 2.6000 g/cc

LIQUID TYPE: Water

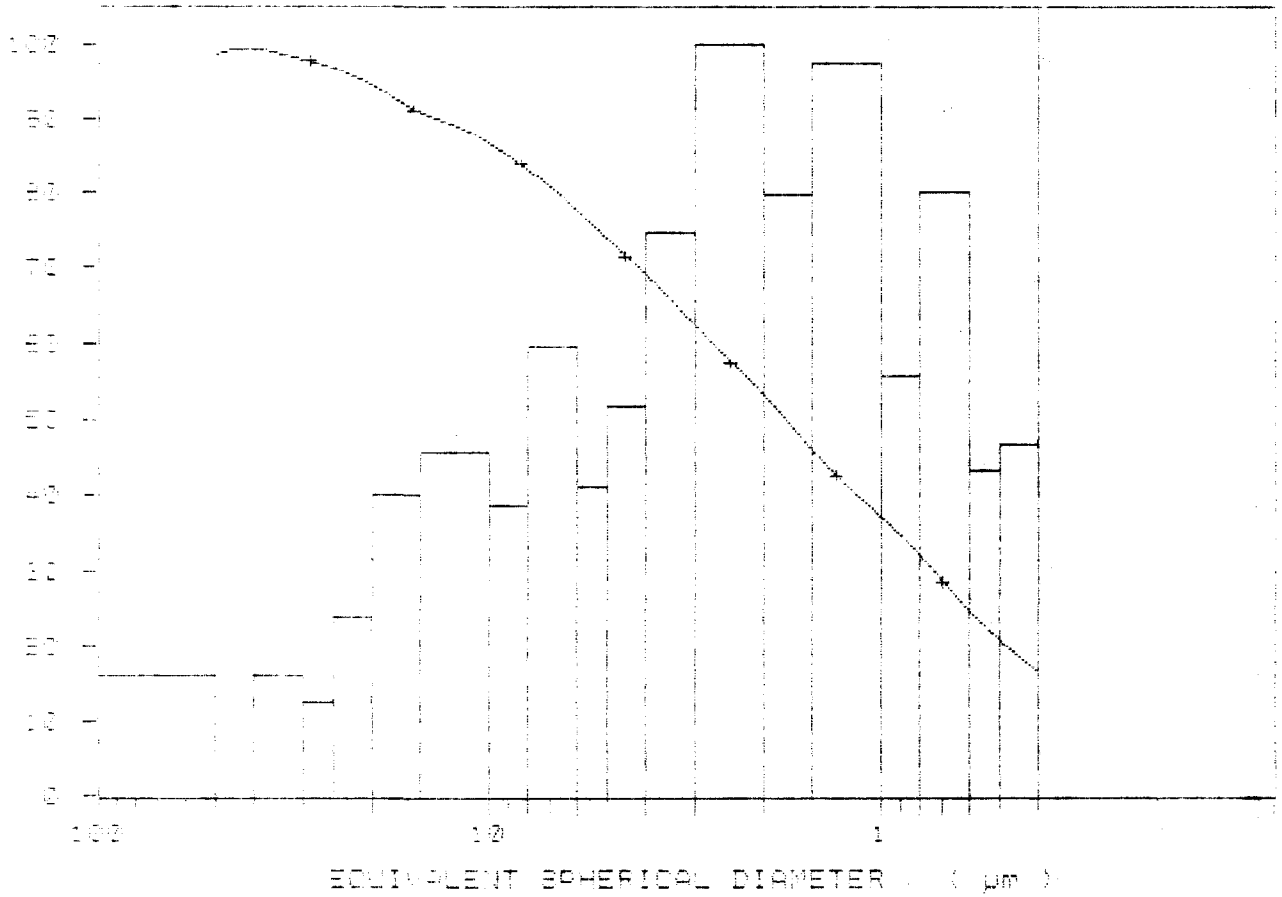
LIG DENS: 0.9942 g/cc

ANALYSIS Ver: 3-71 deg C Run TYPE: High speed

LIG VISC: 0.7275 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
PASS POPULATION VS. DIAMETER

MASS FINER, (%)



SAMPLE CONTAINER NUMBER: 10105 7888

UNIT NUMBER: 1

SAMPLE NO. Note 59-5 # 037

START 14:58:56 07/22/91

SUBMITTER: W. B.

REPT 15:16:08 07/22/91

OPERATOR: AM

TOT RUN TIME 0:06:57

SAMPLE TYPE: LIME

DAM DENS: 2.2000 g/cc

LIQUID USED: water

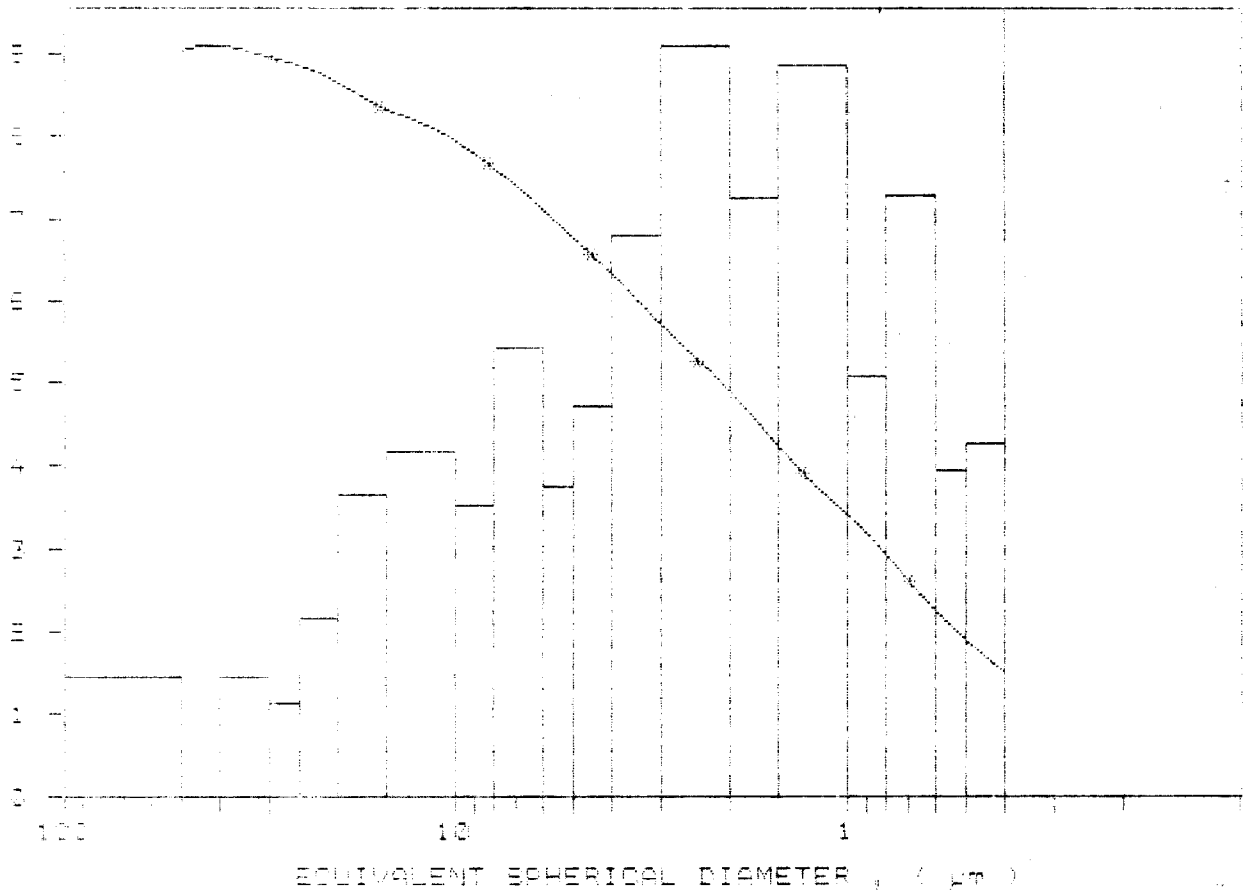
LID DENS: 0.9992 g/cc

ANALYSIS TEMP: 100 deg C RUN TYPE: High Speed

LID VISC: 0.7275 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER

MASS, (% in interval)



SAMPLE DISC/DISK NUMBER: 167100 7206
 SAMPLE ID: No. 89-6 # 808
 SUBMITTER: # 81
 OPERATOR: JF
 SAMPLE OPERATED:
 LIQUID TYPE: water
 ANALYSIS METHOD: 1.1.1 deg L RUN TYPE: High Speed

UNIT NUMBER: 1
 START 15:11:38 07/22/91
 REPT 15:29:06 07/22/91
 TOT RUN TIME 0:17:02
 SAM DENS: 2.0000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7275 cp

STARTING CONCENTRATION: 0.0000 gm
 ENDING CONCENTRATION: 0.0000 gm

REYNOLDS NUMBER: 0.121
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.00 um

MODAL DIAMETER: 0.55 um

DIAMETER (um)	CUMULATIVE MASS FLOW (%)	MASS % INTERVAL
50.00	100.0	10.0
40.00	98.6	1.4
30.00	95.1	3.5
25.00	91.2	3.9
20.00	81.5	9.7
15.00	68.1	13.4
10.00	53.1	15.0
8.00	42.4	10.7
6.00	29.2	13.2
5.00	20.4	8.8
4.00	12.8	7.6
3.00	6.5	6.3
2.00	2.8	3.7
1.50	1.3	1.5
1.00	0.1	1.2
0.75	0.0	0.1
0.50	0.0	0.0
0.40	14.4	14.4

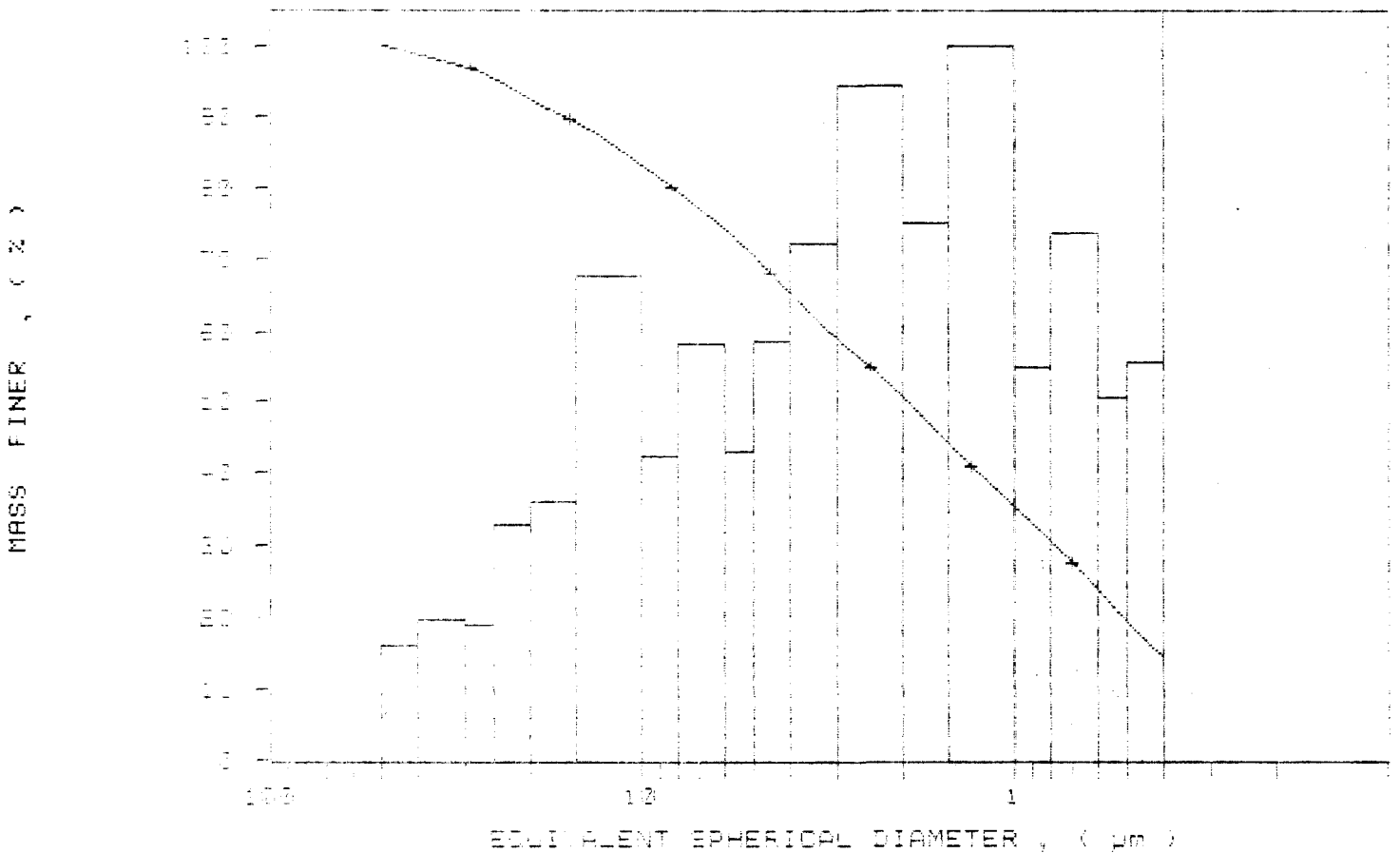
L. Malmstrom

SAMPLE IDENTIFICATION NUMBER : WAINB 7286
 SAMPLE ID: 1010-206 # 205
 SUBMITTER: # 27
 OPERATOR: NT
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 24.7 deg C

UNIT NUMBER: 1
 START 15:11:38 07/22/91
 REPT 15:29:06 07/22/91
 TOT RUN TIME 0:07:02
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7275 cp

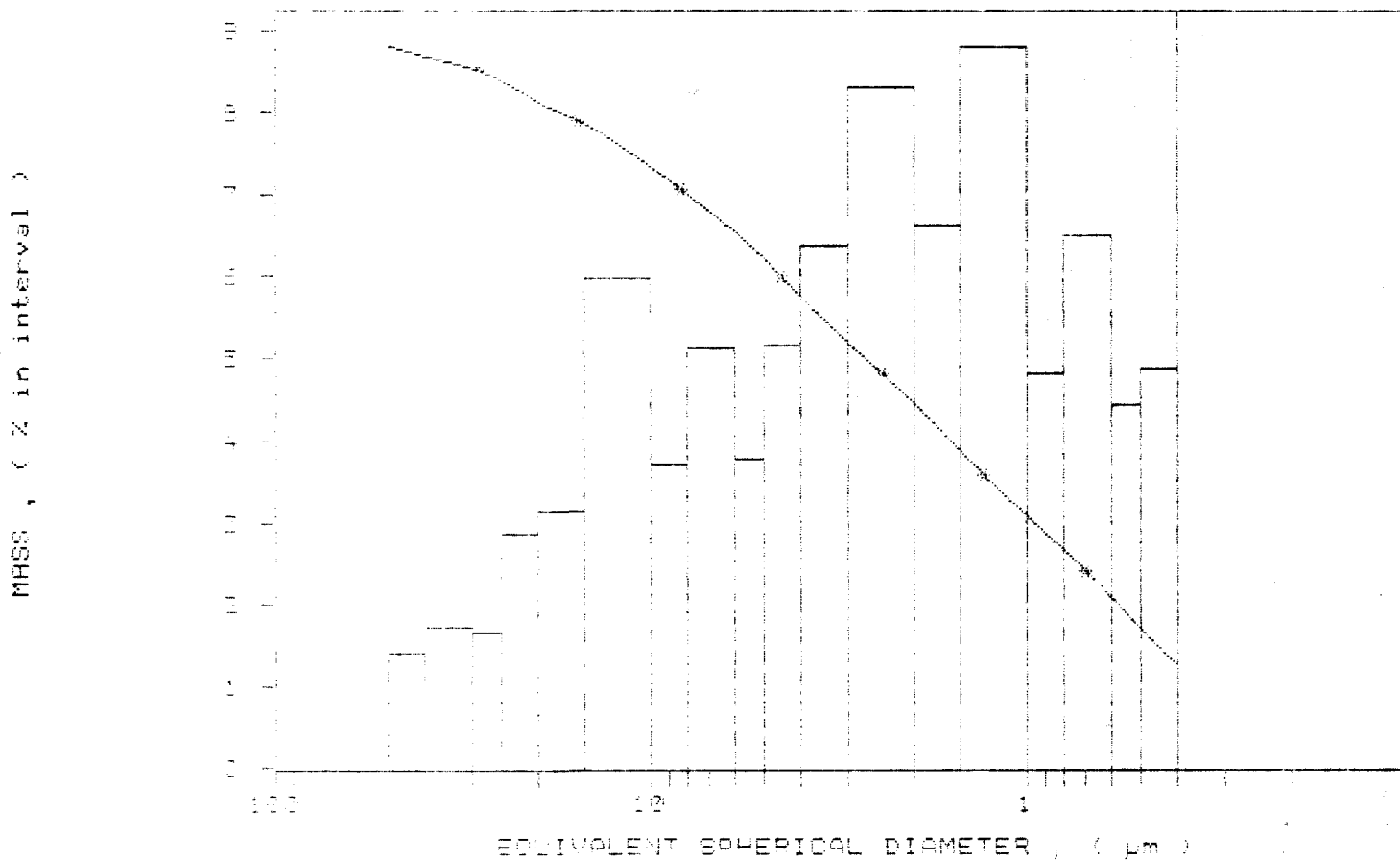
PAK TYPE: High Speed

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE NO: 1770	ANALYST: LHM	UNIT NUMBER: 1
SAMPLE ID: Note 89-6 # 005		START: 15:11:38 07/22/91
SUBMITTER: # 1		REPT: 15:29:06 07/22/91
OPERATOR: LHM		TOT RUN TIME: 0:07:02
SAMPLE TYPE: Clay		SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water		LIG DENS: 0.9942 g/cc
ANALYSIS METHOD: 1000 deg C	TEST TYPE: High Speed	LIG VISC: 0.7275 cp

MASS POPULATION VS. DIAMETER
 < CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE IDENTIFICATION NUMBER: 2103-287
 SAMPLE ID: 2103-287
 SUBMITTER: # 287
 OPERATION: NO
 SAMPLE TYPE: DRY
 LIQUID TYPE: water
 ANALYSIS: LHM 2103-287 C RUN TYPE: High Speed

UNIT NUMBER: 1
 START: 15:45:53 07/22/91
 REPT: 16:06:08 07/22/91
 TOT RUN TIME: 0:20:38
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7273 cp

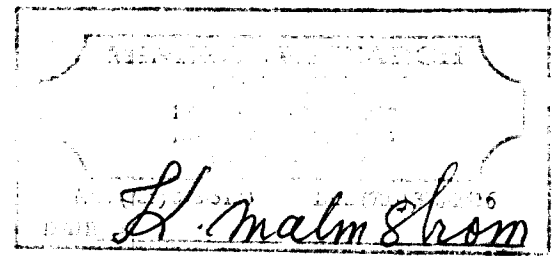
STARTING DIAMETER: 50.00 um
 ENDING DIAMETER: 0.10 um

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 11.1 um MODAL DIAMETER: 6.40 um

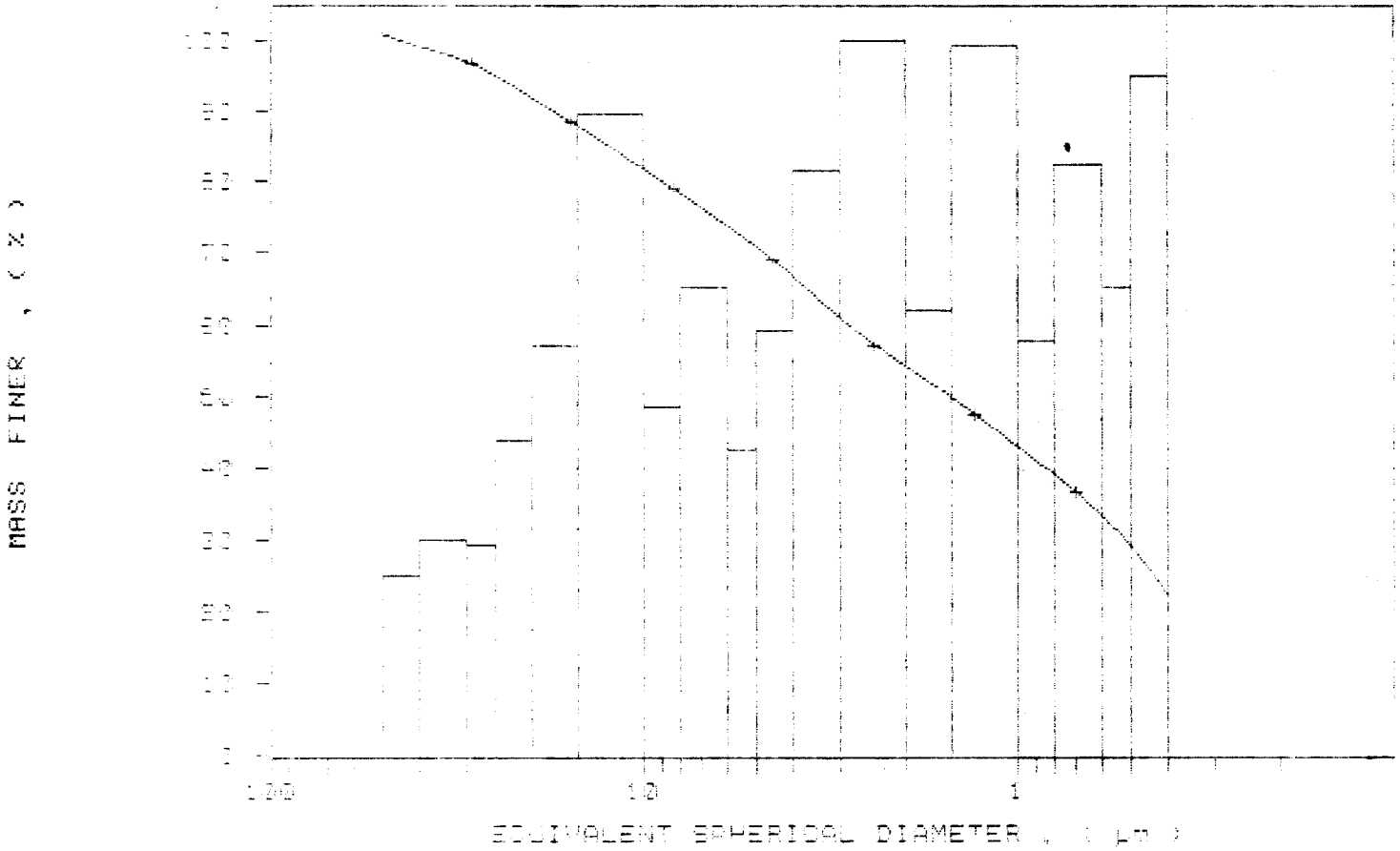
DIAMETER (um)	CUMULATIVE MASS %	MASS % INTERVAL
50.00	100.0	0.0
40.00	99.9	0.1
30.00	99.7	0.2
25.00	99.5	0.2
20.00	99.3	0.2
15.00	97.9	1.4
10.00	81.1	16.8
5.00	70.5	10.6
4.00	64.5	6.0
3.00	50.7	13.8
2.00	31.1	19.6
1.50	24.2	7.9
1.00	12.1	12.1
0.50	2.0	10.1
0.20	0.0	2.0



SAMPLE ID: ROK/MUNSEL/06/045 267
SAMPLE ID: hole core # 606
SUBMITTER: # 20
OPERATOR: # 20
SAMPLE TYPE: clay
LIQUID TYPE: Water
ANALYSIS TEMP: 24.0 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
START 15:45:58 07/22/91
REPT 16:06:09 07/22/91
TOT RUN TIME 0:27:38
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7278 cp

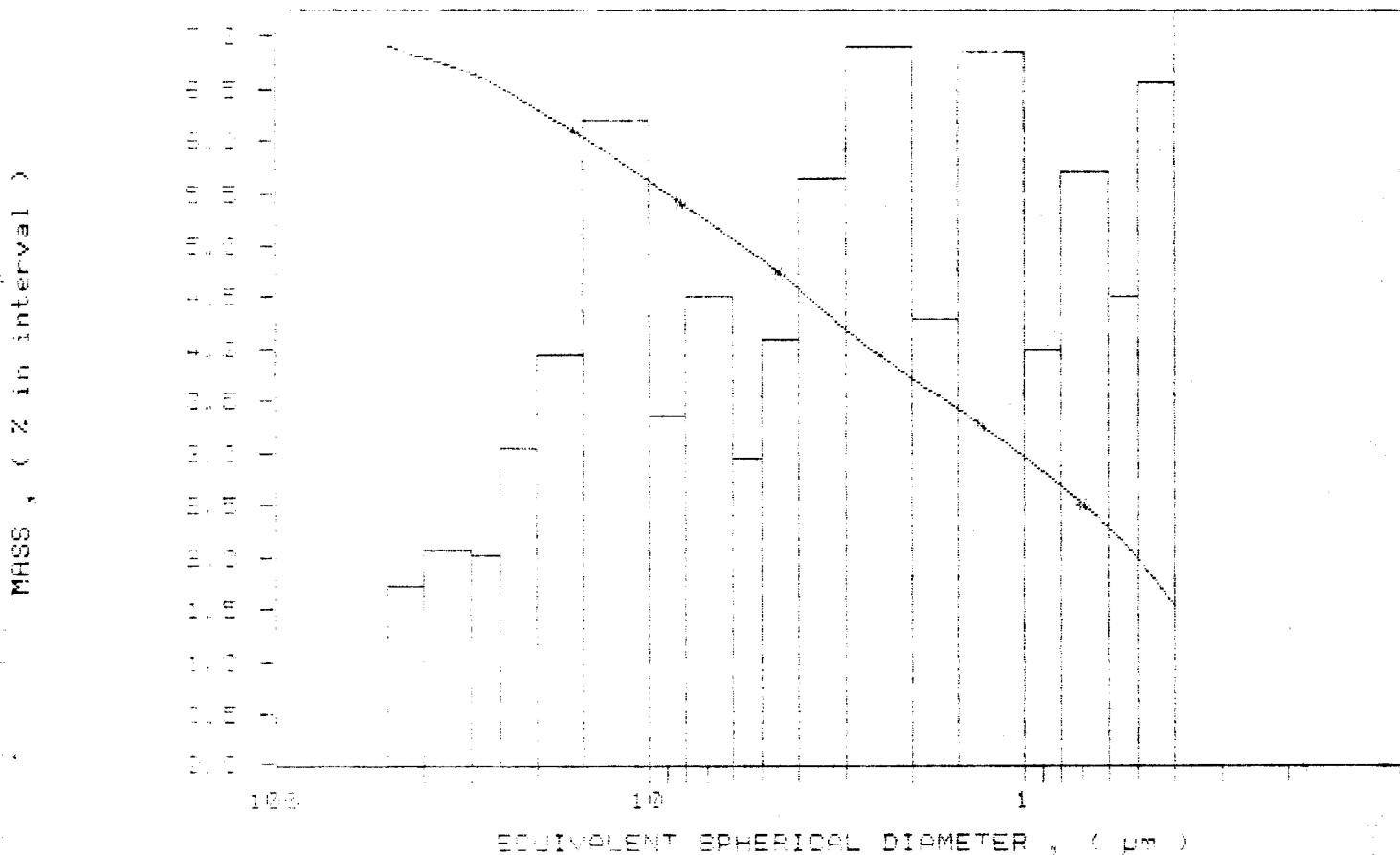
- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE ID: 100745 / 7057
 SAMPLE ID: note none + 806
 SUBMITTER: A. B.
 OPERATOR: J.M.
 SAMPLE TYPE: 0107
 LIQUID: 1 ml ketol
 ANALYSIS UNIT: 0417 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 15:45:58 07/22/91
 REPT 16:06:09 07/22/91
 TOT RUN TIME 0:07:38
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9042 g/cc
 LIQ VISC: 0.7275 cc

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE ID: 29-6 # 007
 SAMPLE ID: role 29-6 # 007
 SUBMITTED: 8/31
 OPERATOR: JN
 SAMPLE TYPE: Clay
 LIQUID: Water
 ANALYTIC UNIT: 29-6 # 007 RUN TYPE: High Speed

UNIT NUMBER: 1
 START 16:11:09 07/22/91
 REPT 16:35:35 07/22/91
 TOT RUN TIME 0:07:30
 SAM DENS: 2.15000 g/cc
 LIQ DENS: 0.99942 g/cc
 LIQ VISC: 0.7275 cp

STARTING DIAMETER: 50.00 μ m REYNOLDS NUMBER: 0.21
 ENDING DIAMETER: 0.10 μ m FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIA DIAMETER: 5.00 μ m NODAL DIAMETER: 29.67 μ m

DIAMETER (μ m)	CUMULATIVE PERCENT PASSING	MASS IN INTERVAL (%)
50.00	00.0	100.0
40.00	00.0	100.0
30.00	00.0	100.0
25.00	00.0	100.0
20.00	00.0	100.0
15.00	00.0	100.0
10.00	00.0	100.0
7.50	00.0	100.0
5.00	00.0	100.0
3.00	00.0	100.0
2.00	00.0	100.0
1.50	00.0	100.0
1.00	00.0	100.0
0.75	00.0	100.0
0.50	00.0	100.0
0.25	00.0	100.0
0.10	100.0	0.0

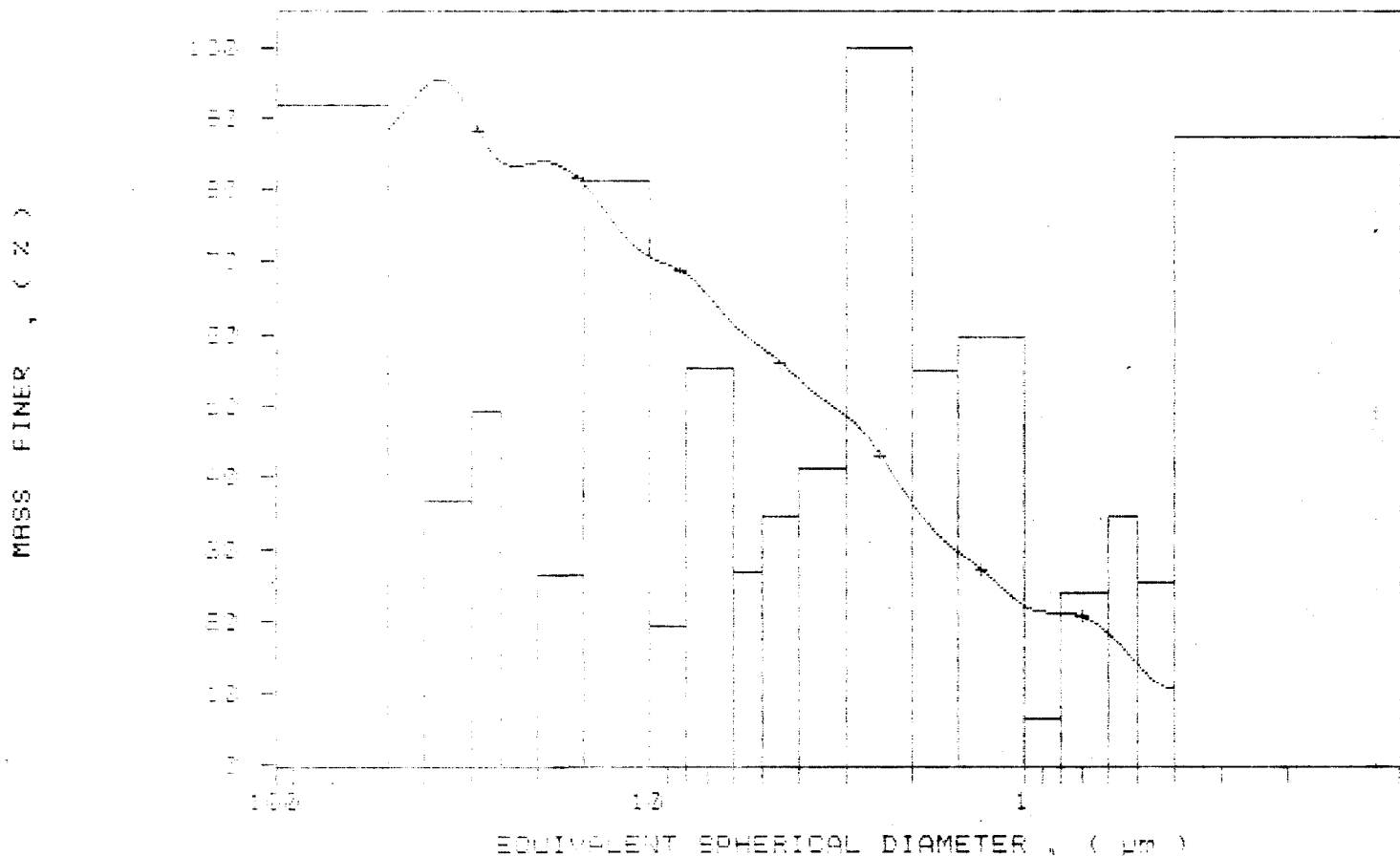
LABORATORY REPORT
 L. Malmstrom

SAMPLE NO: 01700000000000000000 7280
SAMPLE DATE: 07/22/91
SUBMITTED BY: [unclear]
OPERATOR: [unclear]
SAMPLE TYPE: [unclear]
LIQUID: Fresh Water
ANALYSIS TECH: [unclear] sig 0

UNIT NUMBER: 1
START 16:11:00 07/22/91
REPT 16:55:00 07/22/91
TOT RUN TIME 0:47:00
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7275 cp

RUN TYPE: High Speed

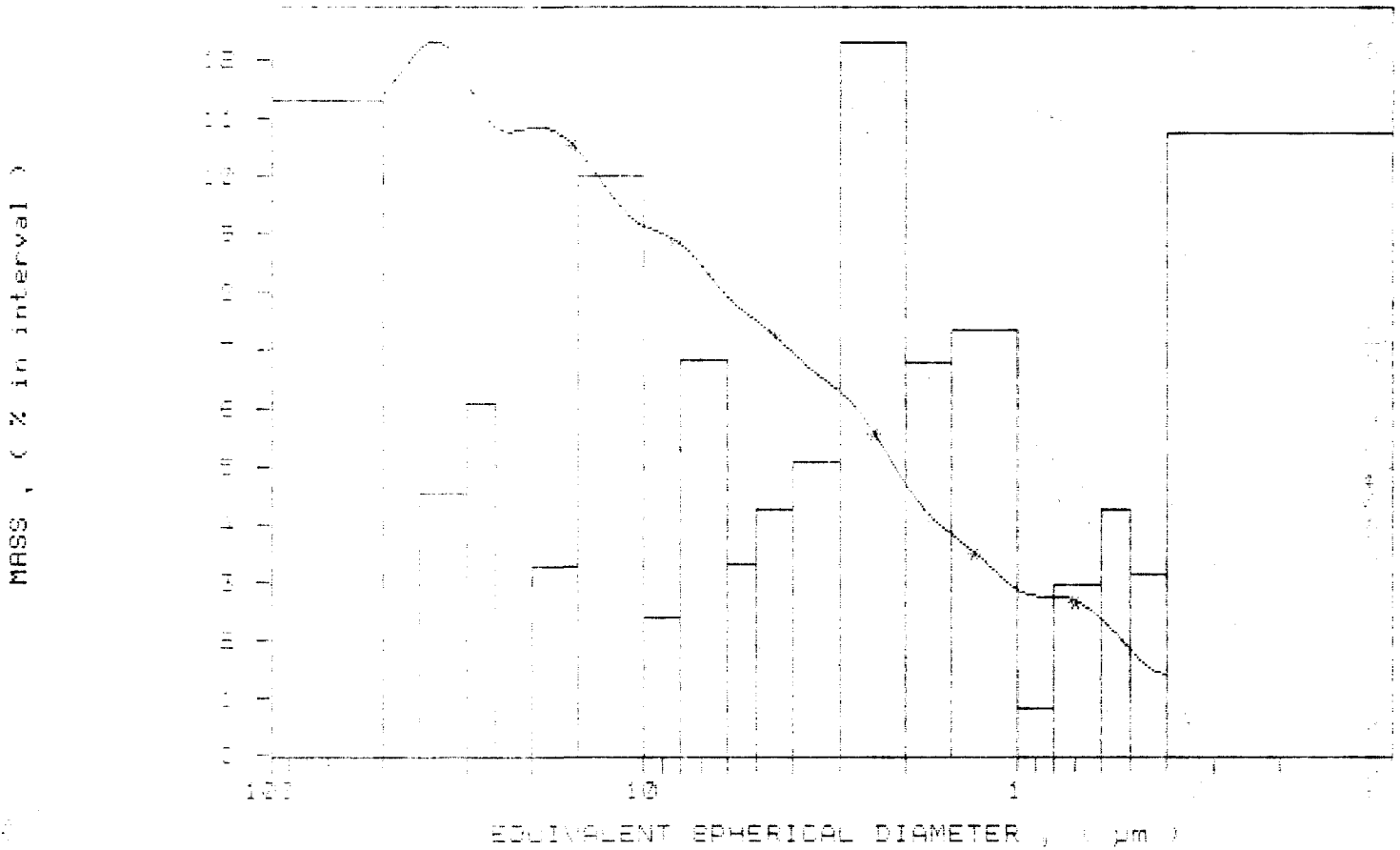
- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
- MASS POPULATION VS. DIAMETER



SAMPLE ID: 89-04-807
 SAMPLE ID: note 89-04-807
 SUBMITTED: 8/31
 OPERATOR: JF
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS DATE: 8/31/91

UNIT NUMBER: 1
 START 16:11:09 07/22/91
 REPT 16:25:39 07/22/91
 TOT RUN TIME 0:07:30
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7275 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTOR (NUMBER) : DAYAS /289
 SAMPLE Job# Job# # 805
 SUBMITTED BY :
 OPERATOR :
 SAMPLE TYPE :
 LIQUID TYPE :
 ANALYSIS Temp: 24.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 16:32:14 07/22/91
 REPT 16:53:10 07/22/91
 TOT RUN TIME 0:07:06
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9998 g/cc
 LIQ VISC: 0.7274 cp

STARTING TIME: 16:00 Am
 ENDING TIME: 16:45 Am

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.96 um

MODAL DIAMETER: 0.54 um

DIAMETER (um)	PERCENTAGE (%)	MASS IN INTERVAL (%)
30.00	100.1	-0.1
40.00	11.0	1.1
30.00	8.5	1.4
20.00	22.7	2.0
10.00	30.9	2.7
15.00	51.6	5.7
10.00	50.5	5.7
5.00	70.0	1.0
5.00	51.6	5.7
2.00	69.4	3.3
2.00	51.2	1.1
1.00	50.1	3.2
2.00	40.1	11.4
1.00	39.2	5.6
1.00	32.7	6.5
0.50	31.1	3.7
0.50	29.2	10.1
0.50	31.1	12.7
0.50	10.1	12.2

L. Matsson
 1991-07-22

SAMPLE DIAL OM: 10/11/91 7:35

UNIT NUMBER: 1

SAMPLE ID: Home Base # 208

START 16:02:14 07/22/91

SUBMITTER: A-1

REPT 16:03:10 07/22/91

OPERATOR: N

TOT RUN TIME 0:07:06

SAMPLE TYPE: Clay

SAM DENS: 2.6000 g/cc

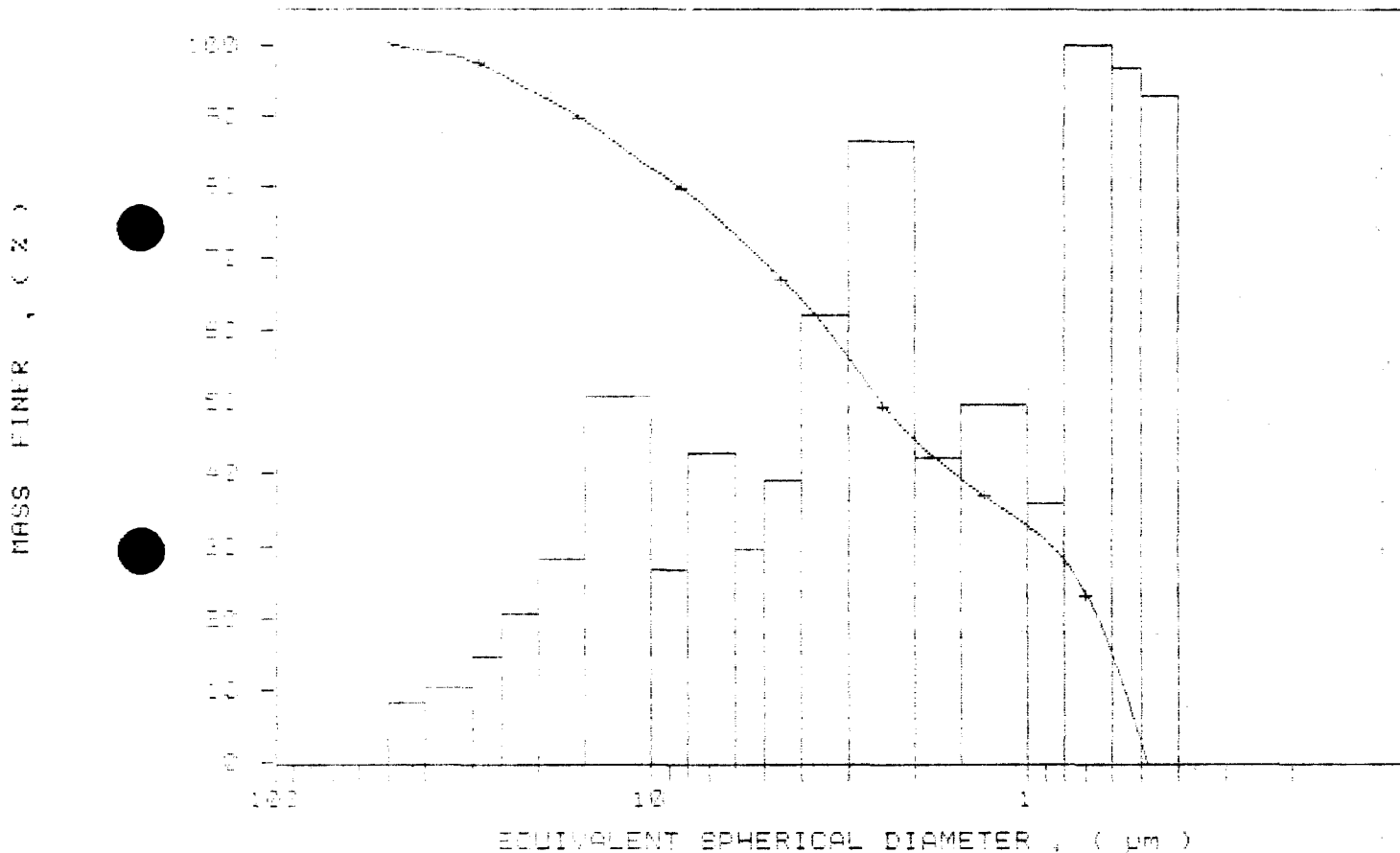
LIQUID: Water

LID DENS: 0.9942 g/cc

ANALYSIS UNIT: 0.175g @ RUN TYPE: High Speed

LID VISC: 0.7274 cp

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



September 5, 1991 12:02

Job # 09-6 # 802

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SAMPLE ID: 09-6 # 802

SAMPLE ID: 09-6 # 802

SUBMITTER: C

OPERATOR: C

SAMPLE TYPE: Sil.

LIQUID: Dist. water

ANALYSIS METHOD: Laser Light Scattering RUN TYPE: High Speed

UNIT NUMBER: 1

START 16:02:14 07/21/91

REPT 16:03:10 07/22/91

TOT RUN TIME 0:07:06

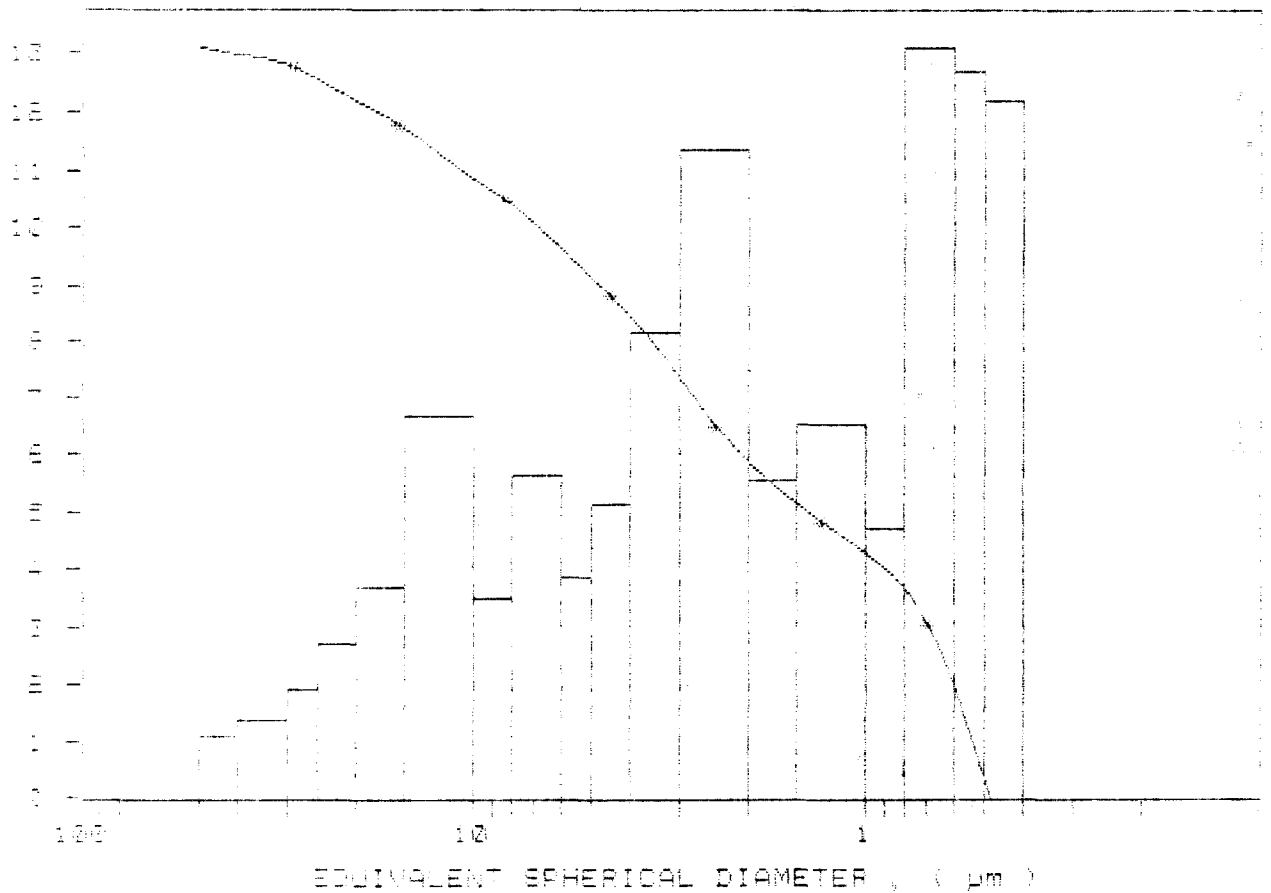
SAM DENS: 2.6000 g/cc

LIG DENS: 0.9998 g/cc

LIG VISC: 0.7274 cp

MASS POPULATION VS. DIAMETER
- CUMULATIVE MASS PERCENT FINER VS. DIAMETER

MRSS, (% in interval)



hole 59-6 # 809

Section 59-6 # 809

Page 1

SAMPLE INFORMATION: 59-6 # 809 / 230

SAMPLE ID: 59-6 # 809 # 230

SUBMITTED: 8/25

OPERATOR: JPT

SAMPLE TYPE: Core

LIQUID TYPE: water

ANALYSIS: 59-6 # 809 # 230 RUN TYPE: High Speed

UNIT NUMBER: 1

START: 16:55:15 07/22/91

REPT: 10:07:44 08/16/91

TOT RUN TIME 0:04:15

SAK DENS: 2.0000 g/cc

LIO DENS: 0.9942 g/cc

LIO VISC: 0.7275 cp

STARTING DENSITY: 2.0000 g/cc

REYNOLDS NUMBER: 0.21

ENDING DENSITY: 0.9942 g/cc

FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.45 μ m

MODAL DIAMETER: 0.55 μ m

DIAMETER (μ m)	CUMULATIVE PERCENT	MASS IN INTERVAL (%)
50.00	100.0	1.1
40.00	99.9	1.0
30.00	99.8	0.4
25.00	99.7	1.7
20.00	99.1	0.5
15.00	98.6	0.0
10.00	98.0	7.0
5.00	91.1	8.2
0.00	82.9	8.9
3.00	74.0	8.9
4.00	65.1	8.9
5.00	56.2	24.7
6.00	47.3	24.7
7.00	38.4	19.1
8.00	29.5	19.1
9.00	20.6	0.0
0.00	11.7	0.0
0.00	2.8	08.0

L. Malmstrom

SAMPLE IDENTIFICATION NUMBER: 1075 7250

UNIT NUMBER: 1

SAMPLE LOCATION: 1075 7250

START 16:55:12 07/12/91

SUBMITTER: # 20

REPRT 10:07:44 08/15/91

OPERATOR: sm

TOT RUN TIME 0:04:15

SAMPLE WEIGHT: 1.0000 g

SAM DENS: 2.0000 g/cc

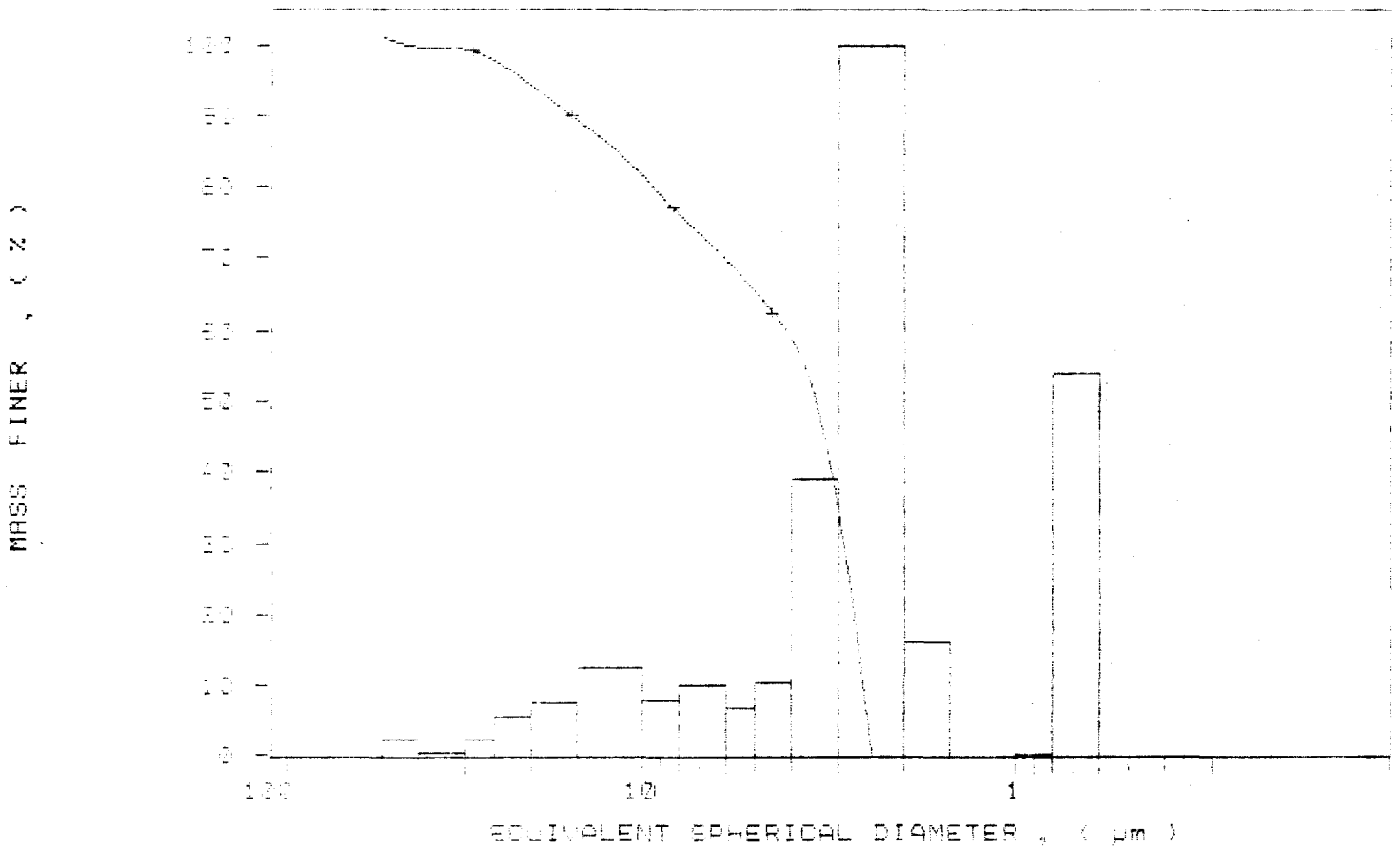
LIQUID TYPE: water

LIG DENS: 0.9942 g/cc

ANALYSIS: W.P. 0.9942 g/cc Run TYPE: high speed

LIG VISC: 0.7275 cp

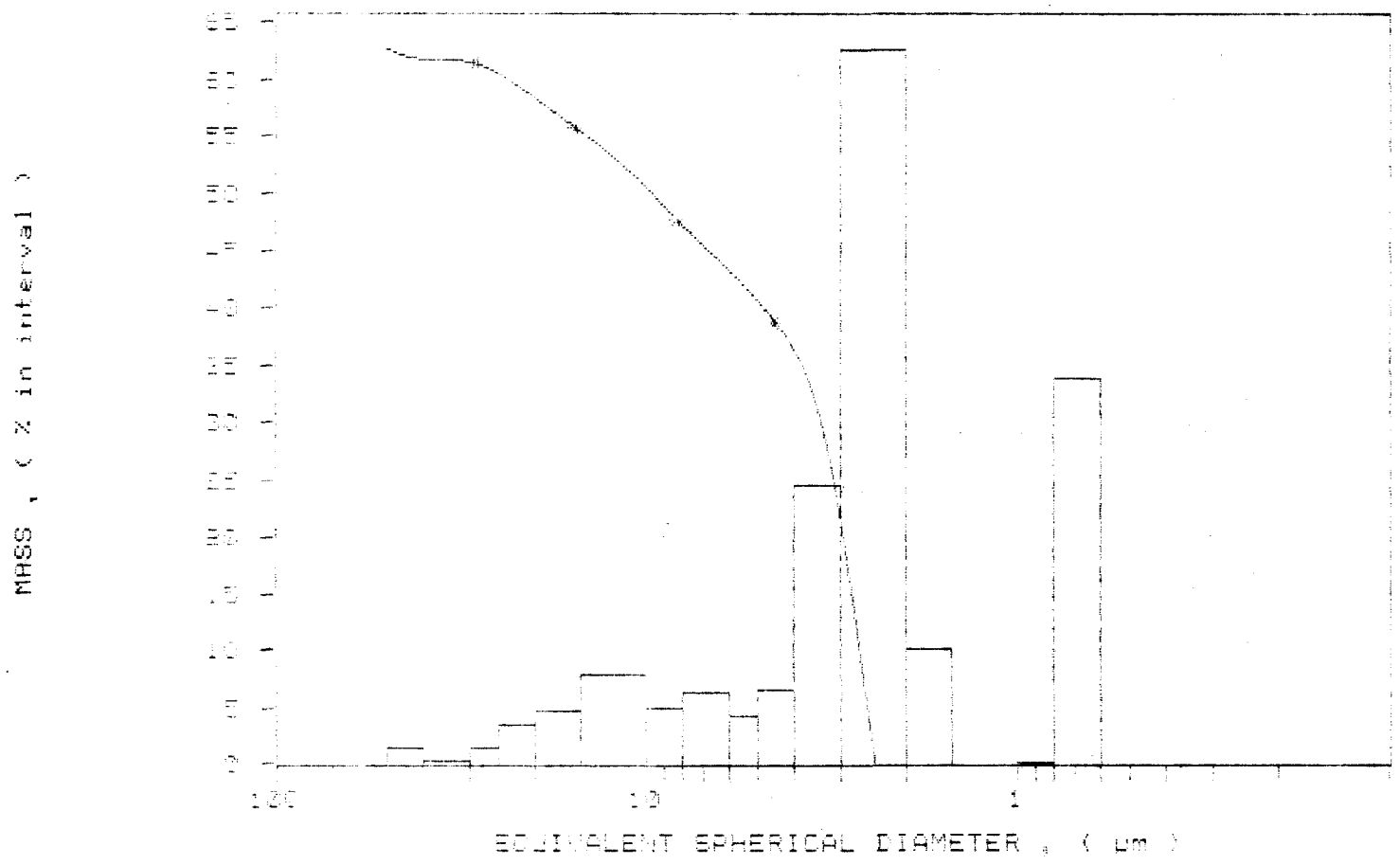
- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE ID: 10101
 SAMPLE ID: 10101
 SUBMITTER: # 25
 OPERATOR: JH
 SAMPLE TYPE: 10101
 LIQUID: 10101
 ANALYSIS: 10101

UNIT NUMBER: 1
 START: 16:55:12 07/22/91
 REPT: 10:07:44 08/13/91
 TOT RUN TIME: 0:04:15
 SAM DENS: 2.5000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7272 cc

MASS POPULATION VS. DIAMETER
 * RELATIVE MASS PERCENT FINER VS. DIAMETER



note 89-6 # 810

Sedigraph 5100 V2.10

PAGE 1

SAMPLE ID: SEC DRY (Number): 04105 /231
 SAMPLE ID: note 89-6 # 810
 SUBMITTER: # 21
 OPERATOR: JH
 SAMPLE TYPE: Dry
 LIQUID TYPE: Water
 ANALYSIS TEMP: 24.0 deg C Run TYPE: High Speed

UNIT NUMBER: 1
 START 10:04:34 08/15/91
 REPT 10:25:03 08/15/91
 TOT RUN TIME 0:10:04
 SAM DENS: 2.6000 g/cc
 LID DENS: 0.9942 g/cc
 LID VISC: 0.7276 cc

STARTING DIAMETER: 50.00 um
 ENDING DIAMETER: 0.40 um

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN LIQD FR. 2.11 um

MODAL DIAMETER: 4.34 um

DIAMETER (um)	CUMULATIVE MASS PERCENT (%)	MASS IN INTERVAL (%)
50.00	99.1	0.7
40.00	98.1	1.2
30.00	96.1	1.8
25.00	94.1	1.5
20.00	91.1	2.2
15.00	85.1	3.5
10.00	75.4	5.7
8.00	70.1	4.8
6.00	62.8	5.5
5.00	51.7	3.9
4.00	33.5	5.1
3.15	27.1	6.5
2.50	11.8	6.1
1.75	10.1	5.8
1.00	25.4	5.8
0.75	11.1	4.3
0.60	25.8	5.8
0.50	11.8	5.8
0.40	11.7	4.8

L. Malmstrom

SAMPLE NO: 107-101-101-101-101-101 / 291

UNIT NUMBER: 1

SAMPLE ID: Bole core # 810

START 10:04:34 08/15/91

SUBMITTER: B

REPT 10:26:03 08/15/91

OPERATION: 101

TOT RUN TIME 0:07:04

SAMPLE VOL: 100ml

SAM DENS: 2.5000 g/cc

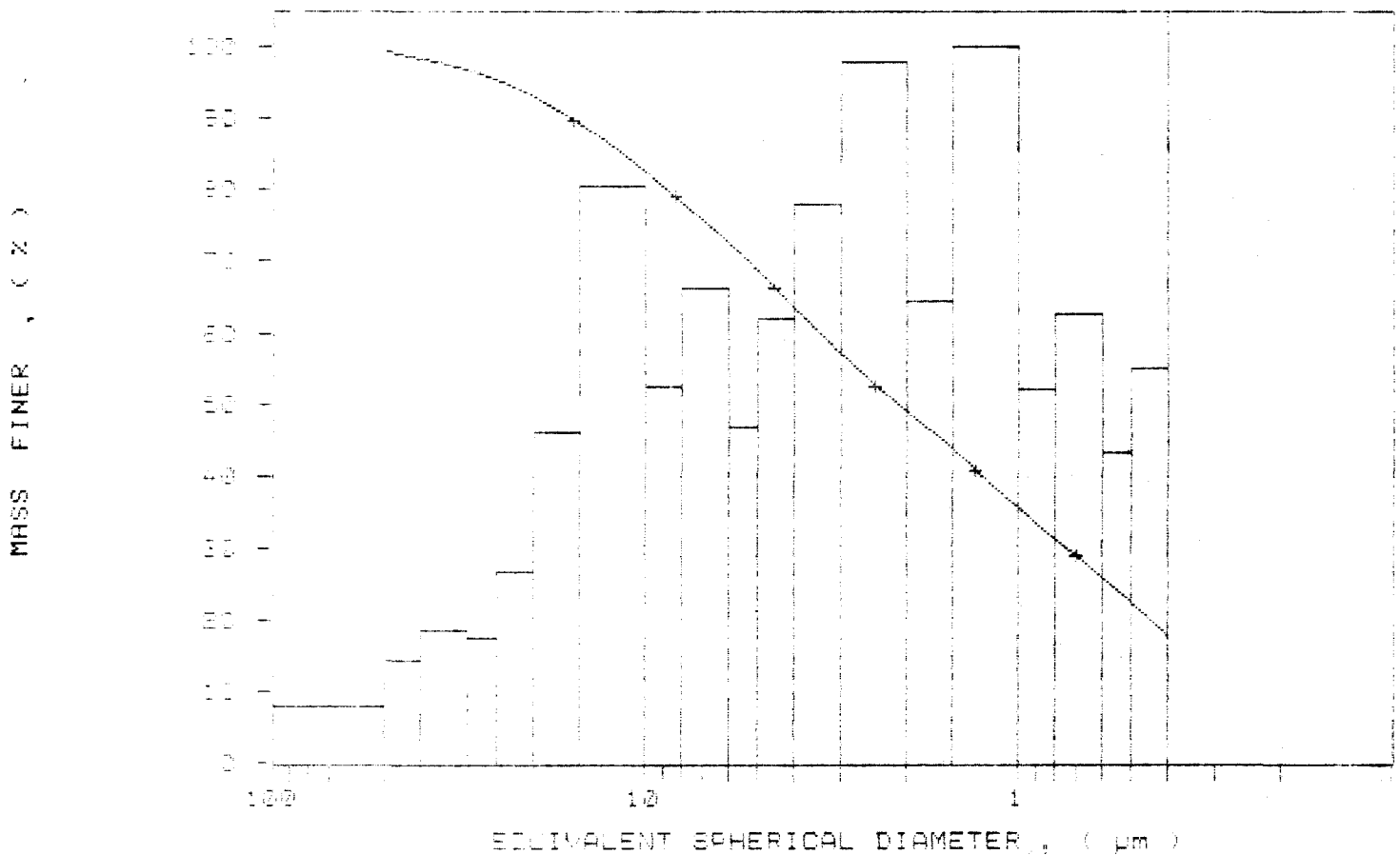
LIQUID USED: water

LIG DENS: 0.9942 g/cc

ANALYSIS: 101-101-101-101-101-101 Son TYPE: High Speed

LIG VISC: 0.7876 cP

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE IDENTIFICATION: 89-6 # 810

UNIT NUMBER: 1

SAMPLE ID: note 89-6 # 810

START 10:04:34 08/15/91

SUBMITTER: # 37

REFRT 10:20:03 08/15/91

OPERATOR: LF

TOT RUN TIME 0:07:04

SAMPLE TYPE: SLUR

SAM DENS: 2.5000 g/cc

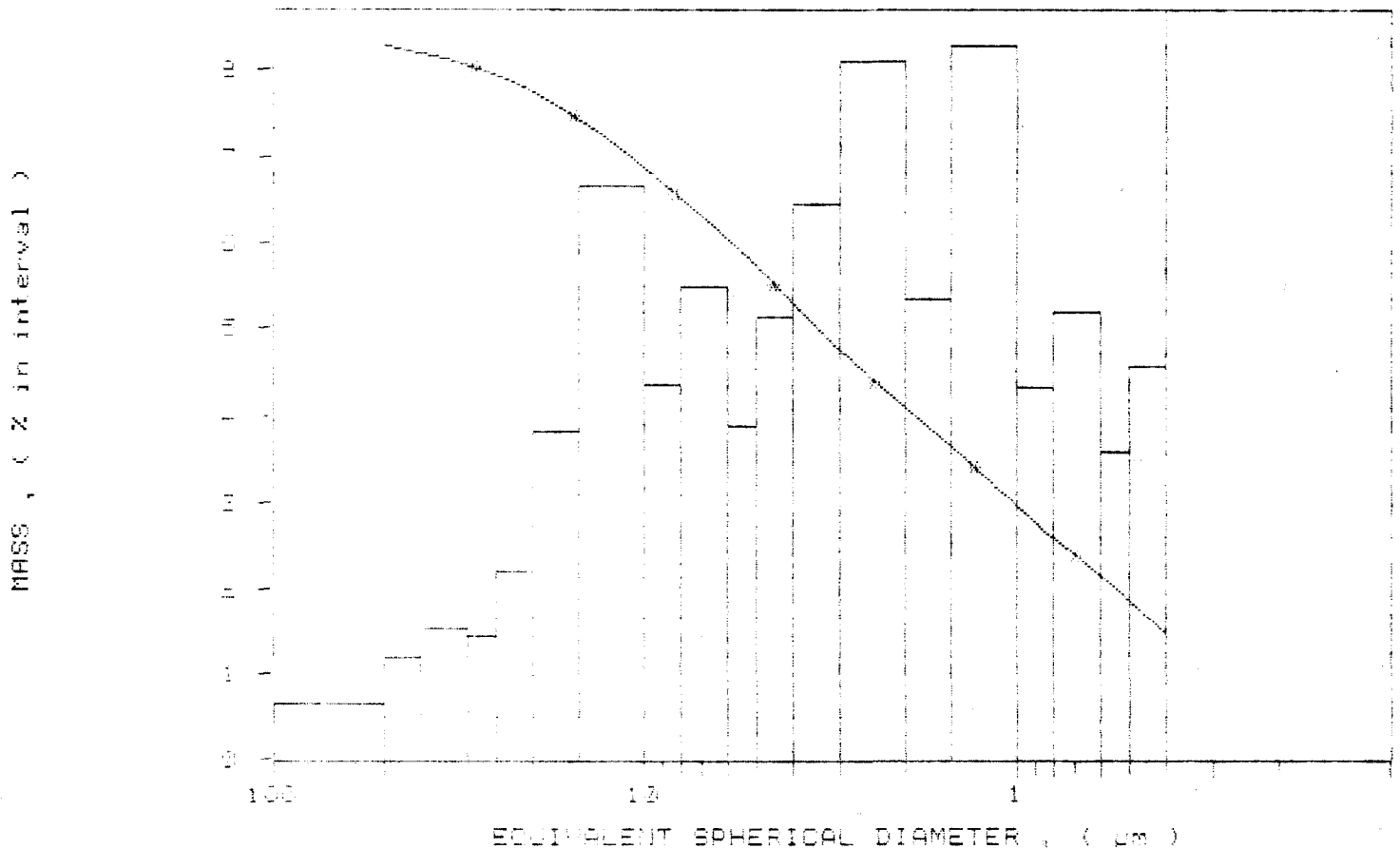
LIDUII: 0.10 meter

LID DENS: 0.9942 g/cc

ANALYSIS: DMF: DMF, deg C RUN TYPE: High Speed

LID VISC: 0.7275 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE INFORMATION NUMBER DATE TYPE UNIT NUMBER: 1
 SAMPLE ID: Bole 29-6 # 011 START 10:24:42 08/12/91
 SUBMITTER: E2 REPRT 10:44:55 08/12/91
 OPERATOR: CA TOT RUN TIME 0:00:57
 SAMPLE TYPE: 012 SAM DENS: 2.6000 g/cc
 LIQUID TYPE: WATER LIQ DENS: 0.9942 g/cc
 ANALYSIS: LMS + 2400 deg C RUN TYPE: High Speed LIQ VISC: 0.7275 cp
 STARTING DIAPHRAGM: 1.000 cm REYNOLDS NUMBER: 0.21
 ENDING DIAPHRAGM: 1.150 cm FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAPHRAGM: 1.150 cm MODAL DIAPHRAGM: 5.22 cm

DIAPHRAGM (cm)	CUMULATIVE MASS (%)	MASS % INTERVAL
50.00	0.00	0.0
40.00	0.00	0.0
30.00	0.00	0.0
25.00	0.00	0.0
20.00	0.00	0.0
15.00	0.00	0.0
10.00	0.00	0.0
5.00	0.00	0.0
3.00	0.00	0.0
2.00	0.00	0.0
1.50	0.00	0.0
1.20	0.00	0.0
1.00	0.00	0.0
0.80	0.00	0.0
0.60	0.00	0.0
0.40	0.00	0.0
0.20	0.00	0.0
0.10	0.00	0.0
0.00	0.00	0.0

L. Malmstrom

SAMPLE IDENTIFICATION NUMBER: DA.05 /298

UNIT NUMBER: 1

SAMPLE NO: note 13-6 # 911

START 10:24:42 08/13/91

SUBMITTER: # 80

REPT 10:44:55 08/13/91

OPERATOR: AM

TOT RUN TIME 0:00:57

SAMPLE TYPE: Clay

SAM DENS: 2.8000 g/cc

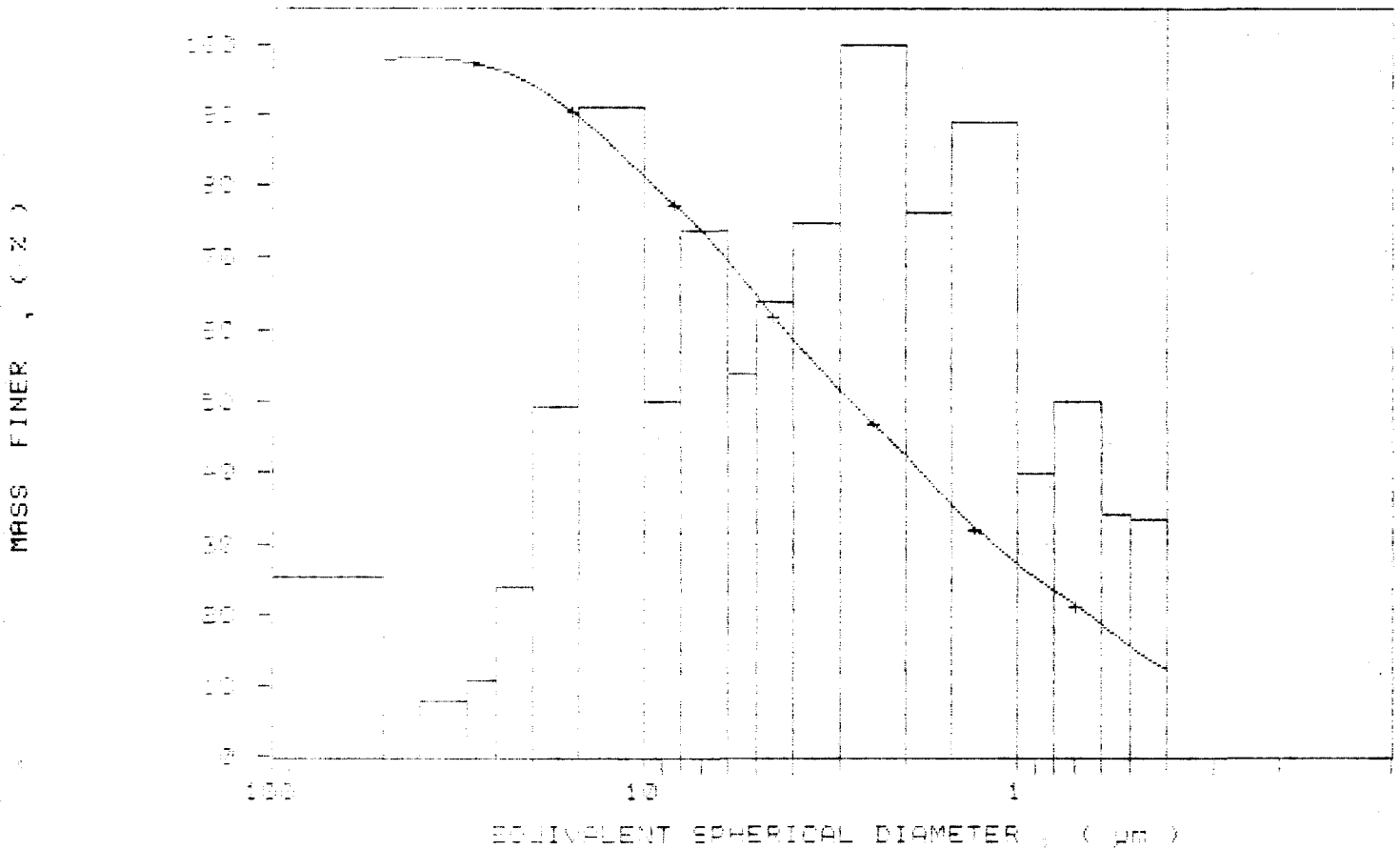
LIQUID TYPE: water

LIG DENS: 0.9942 g/cc

ANALYSIS METHOD: Laser Diffraction RUN TYPE: High Speed

LIG VISC: 0.7275 cp

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE COLLECTOR: NOMEIN 08745 /RZE

UNIT NUMBER: 1

SAMPLE ID: Nete 88-B # 611

START 10:24:42 08/15/91

SUBMIT LAB: # 24

REPT 10:44:55 08/15/91

OPERATOR: RB

TOT RUN TIME 0:06:57

SAMPLE TYPE: Clay

SAM DENS: 2.6000 g/cc

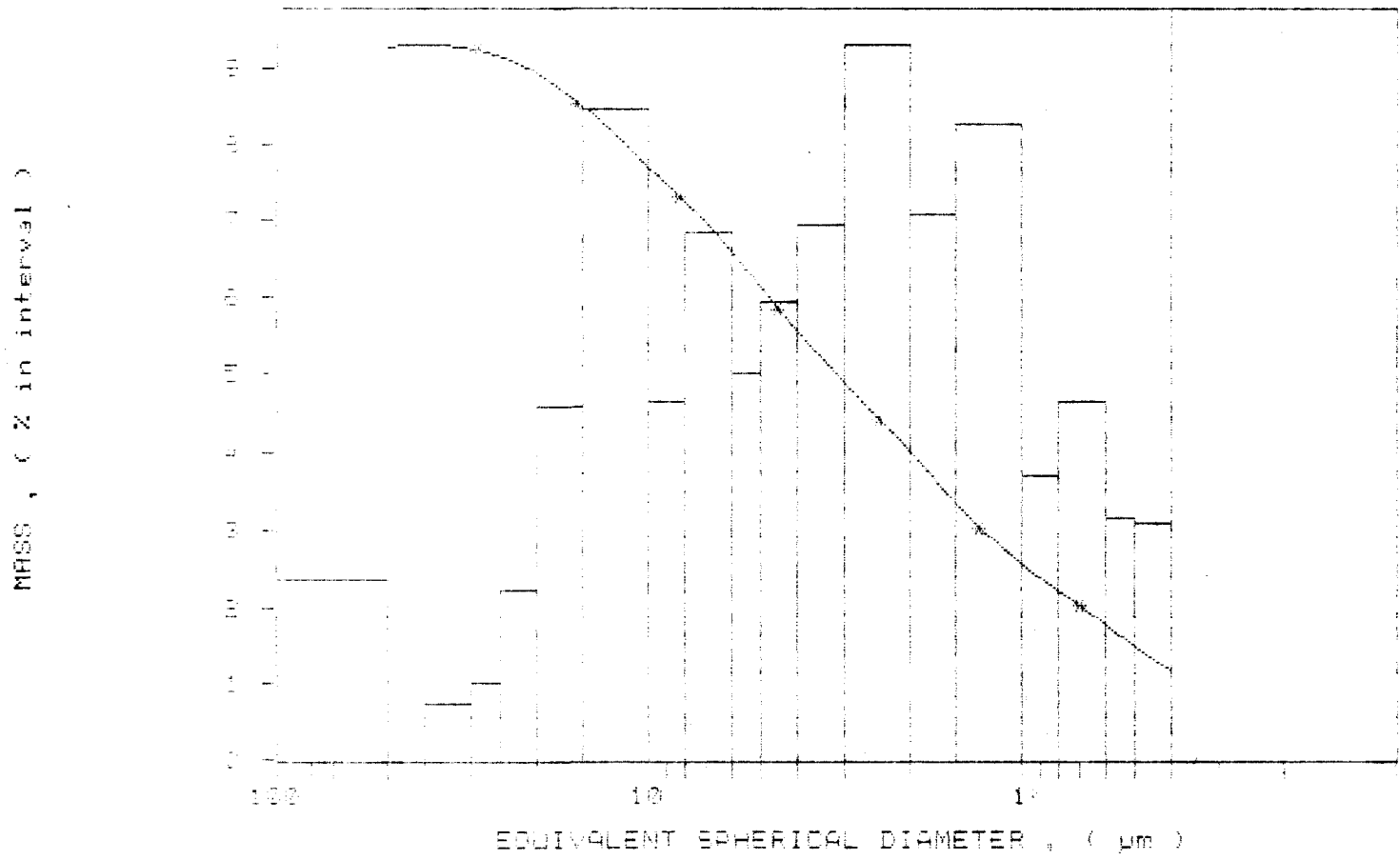
LIQUID TYPE: water

LIG DENS: 0.9992 g/cc

ANALYSIS METHOD: Sed. Log. D. RUN TYPE: High Speed

LIG VISC: 0.7275 cp

MASS POPULATION VS. DIAMETER
CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE ID: 8906A, LINDEN, 12745 /293
 SAMPLE ID: role 89-6 # 212
 SUBMITTED: 5/29
 OPERATOR: JF
 SAMPLE TYPE: 100
 LIQUID: Et Water
 ANALYSIS: 1000 rpm, 100 sec, RUN TYPE: High speed

UNIT NUMBER: 1
 START 10:48:11 08/15/91
 REPT 11:08:11 08/15/91
 TOT RUN TIME 0:27:09
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7274 cp

STARTING FLAME: 8906A
 ENDING FLAME: 8906A

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

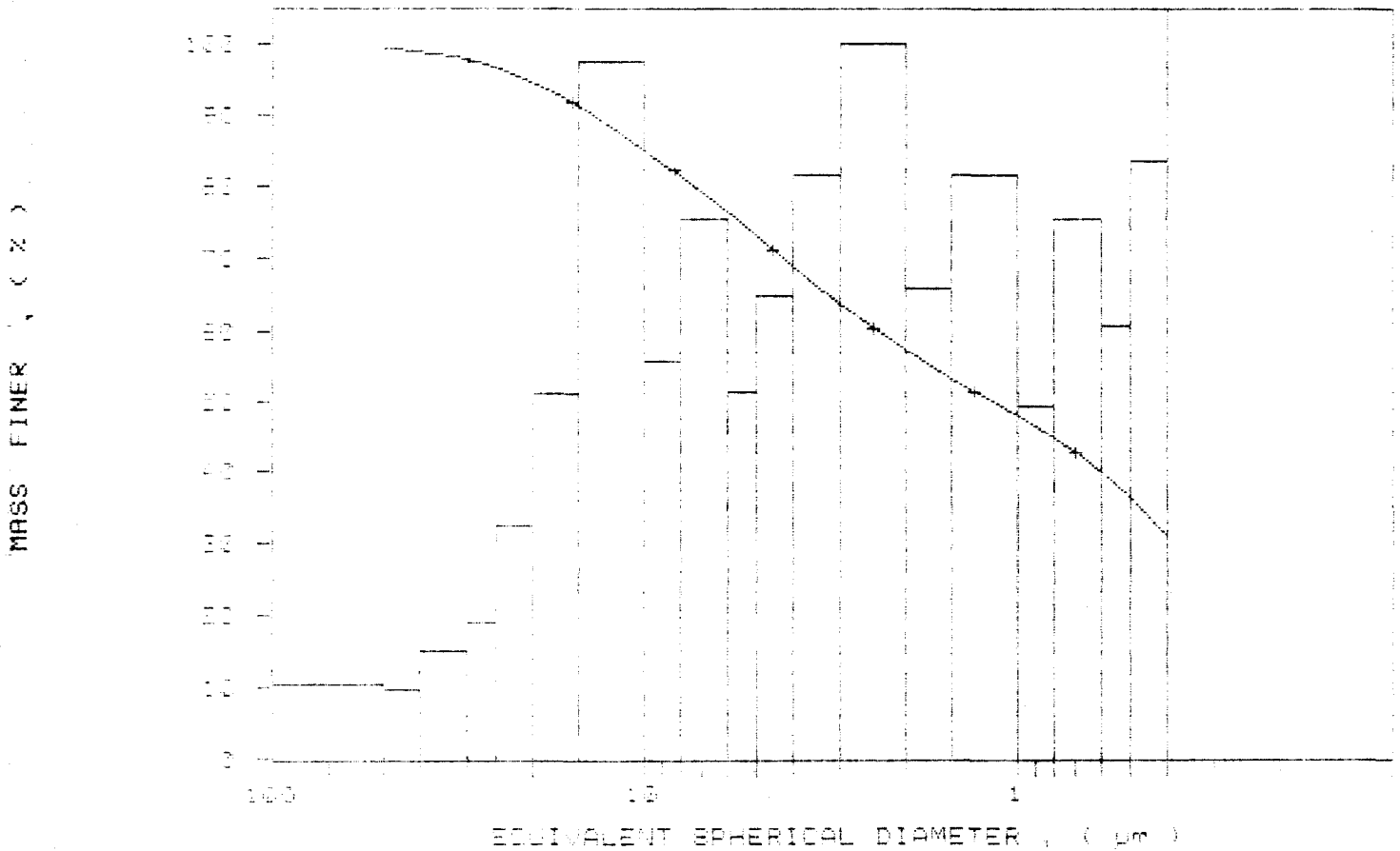
MEDIA DIAMETER: 100 μm MODAL DIAMETER: 0.41 μm

DIAMETER (μm)	DIAPHRAGM MASS (%)	MASS IN INTERVAL (%)
50.00	99.0	0.7
40.00	98.7	0.6
30.00	98.5	1.0
25.00	98.1	1.3
20.00	97.9	2.1
15.00	97.1	3.3
10.00	94.9	6.3
7.50	91.1	8.0
6.00	78.0	9.0
5.00	72.2	11.2
4.00	61.8	4.2
3.00	41.1	7.1
2.00	21.4	6.4
1.50	13.1	4.2
1.00	6.7	3.1
0.75	4.7	3.2
0.50	2.9	4.8
0.30	1.8	3.9
0.20	0.8	1.4

L. Malmstrom

SAMPLE 0110 (0.075 mm) (0.075 mm) / 255	UNIT NUMBER: 1
SAMPLE ID: 0110 (0.075 mm) (0.075 mm)	START 10:43:11 08/15/91
SUBMITTER: M. S.	REPR: 11:03:11 08/15/91
OPERATOR: M.	TOT RUN TIME 0:07:09
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID: 95% water	LIG DENS: 0.9998 g/cc
ANALYSIS: Temp: 24.7 deg C RUN TYPE: High Speed	LIG VISC: 0.7274 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE ID: 100-110-1002 UNIT NUMBER: 1

UNIT NUMBER: 1

SAMPLE ID: 100-110-1002

START 10:40:11 02/15/91

SUBMITTER: [unclear]

REPT 11:05:11 02/15/91

OPERATOR: [unclear]

TOT RUN TIME 0:27:04

SAMPLE TYPE: [unclear]

SAM DENS: 2.6000 g/cc

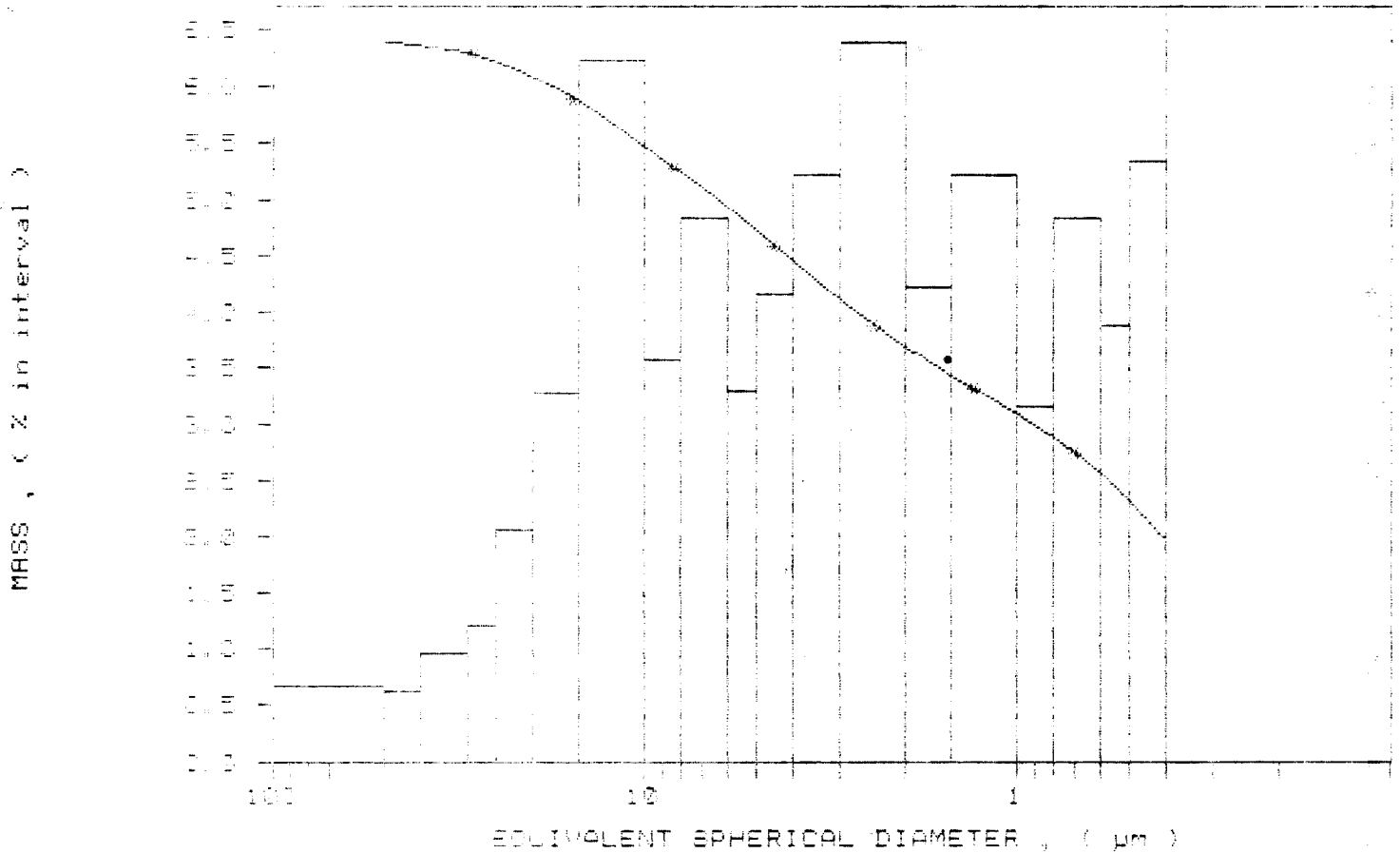
LIQUID TYPE: Water

LIO DENS: 0.9942 g/cc

ANALYSIS TECH: 24.1 deg C RUN TYPE: High Speed

LIO VISC: 0.7274 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE ID: KETON, UNSOL: 1 WAS /204

UNIT NUMBER: 1

SAMPLE ID: Note 89-0 # 018

START 11:05:50 08/15/91

SUBJECT: # 1

ALRT 11:25:54 08/15/91

OPERATOR: SP

TOT RUN TIME 0107:05

SAMPLE TYPE: Dry

SAM DENS: 2.6000 g/cc

LIQUID: Water

LIG DENS: 0.9942 g/cc

ANALYSIS CORR: 0.000000 Run TYPE: High Speed

LIG VISC: 0.7276 cp

STARTING DIAMETER: 50.00 um

REYNOLDS NUMBER: 0.21

ENDING DIAMETER: 8.00 um

FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIA DIAMETER: 100 um

NOIAL DIAMETER: 0.46 um

DIAMETER (um)	CUMULATIVE PERCENT	MASS IN INTERVAL (%)
50.00	0.0	0.0
40.00	0.0	0.0
30.00	0.0	1.4
25.00	1.2	1.2
20.00	11.0	9.8
15.00	31.0	20.0
10.00	51.0	20.0
8.00	71.0	20.0
6.00	71.8	0.8
5.00	72.0	0.2
4.00	72.0	0.0
3.00	72.0	0.0
2.00	72.0	0.0
1.50	72.1	0.1
1.00	72.8	0.7
0.75	73.7	0.9
0.50	74.0	0.3
0.25	74.2	0.2
0.10	74.7	0.5

D. Malmstrom

SAMPLE ID: MOIRE NUMBER: 16745 /290
 SAMPLE ID: MOIRE 8096 + 114
 SUBMITTER: # 34
 OPERATOR: RCT
 SAMPLE ID: MOIRE 8096
 LIQUID TYPE: water
 ANALYSIS TEMP: 20.0 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 11:28:21 03/18/91
 REPT 11:47:51 03/18/91
 TOT RUN TIME 0:06:58
 SAM DENS: 2.0000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7275 cp

STARTING DIAMETER: 00.00 um
 ENDING DIAMETER: 0.40 um

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

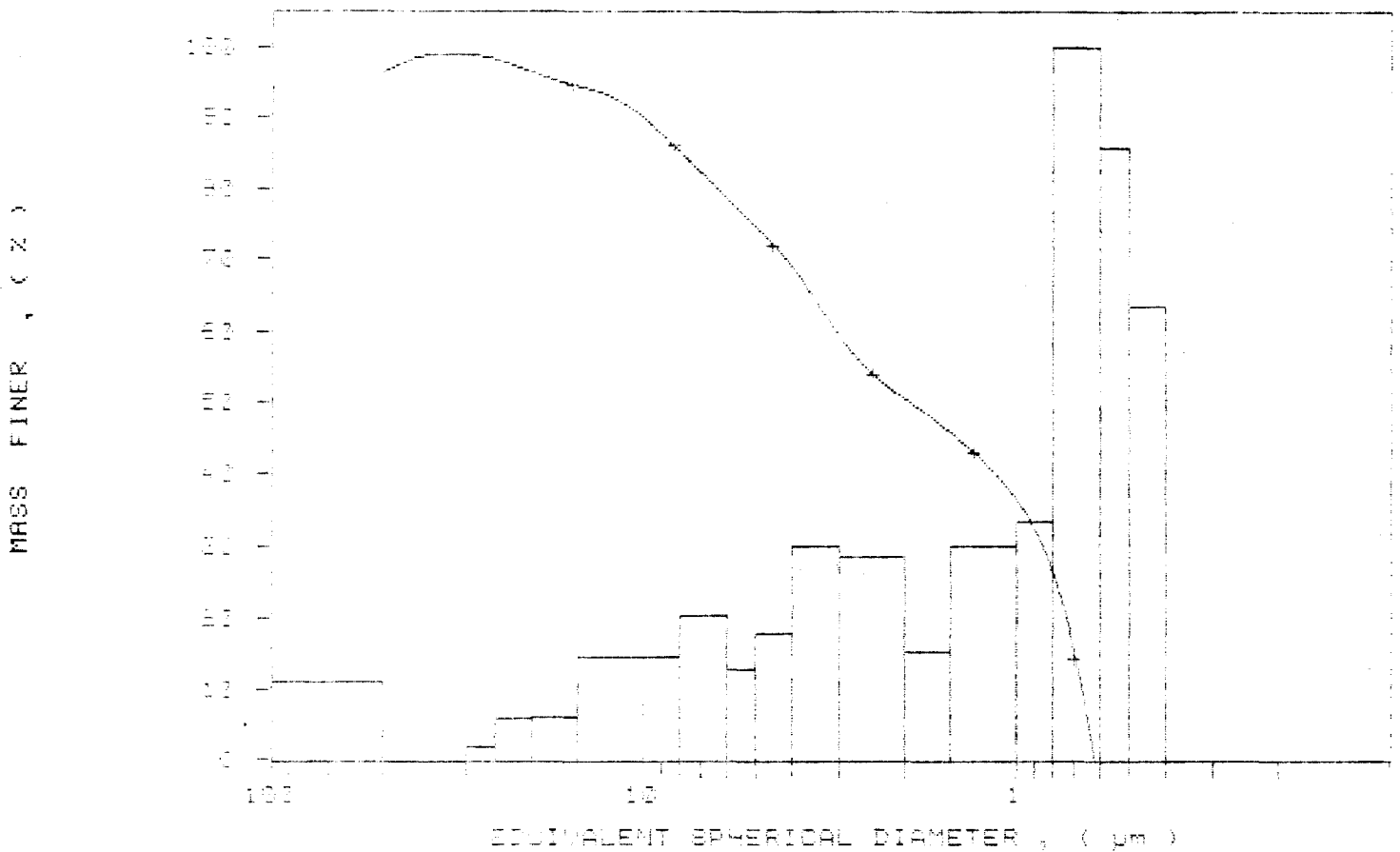
MEDIAN DIAMETER: 0.14 um MODAL DIAMETER: 0.55 um

DIAMETER (um)	CUMULATIVE PERCENT (%)	MASS IN INTERVAL (%)
50.00	99.4	0.6
40.00	99.0	0.4
30.00	98.7	0.3
25.00	98.5	0.2
20.00	98.2	0.3
15.00	97.8	0.4
10.00	97.7	0.1
7.00	97.1	0.6
5.00	96.8	0.3
4.00	96.2	0.6
3.00	95.4	0.8
2.00	94.0	1.4
1.50	93.0	1.0
1.00	91.6	1.4
0.70	90.2	1.4
0.50	88.8	1.4
0.40	87.4	1.4

ANALYSIS REPORT
 MOIRE 8096 + 114
 03/18/91
 RCT
 S. Malmstrom

SAMPLE NO: 1700 (Sample) UNIT 5 / 295	UNIT NUMBER: 1
SAMPLE No: 1700 (Sample) UNIT 5 / 295	START 11:20:21 08/15/91
SUBMITTER: A 19	REPT 11:47:51 08/15/91
OPERATOR: SA	TOT RUN TIME 0:04:35
SAMPLE No: 1700 (Sample) UNIT 5 / 295	SAM DENS: 2.6000 g/cc
LIQUID: Water	LIQ DENS: 0.9942 g/cc
ANALYSIS REF: 1700 (Sample) UNIT 5 / 295	LIQ VISC: 0.7275 cp
ROK TYPER: High Speed	

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE ID: 017701 NUMBER: 101A5 /ZSS

UNIT NUMBER: 1

SAMPLE ID: 017701 NUMBER: 101A5

START 11:23:21 08/15/91

SUBMITTER: 0177

REPT 11:47:51 08/15/91

OPERATOR: 0177

TOT RUN TIME 0:05:52

SAMPLE TYPE: Dry

SAM DENS: 2.6000 g/cc

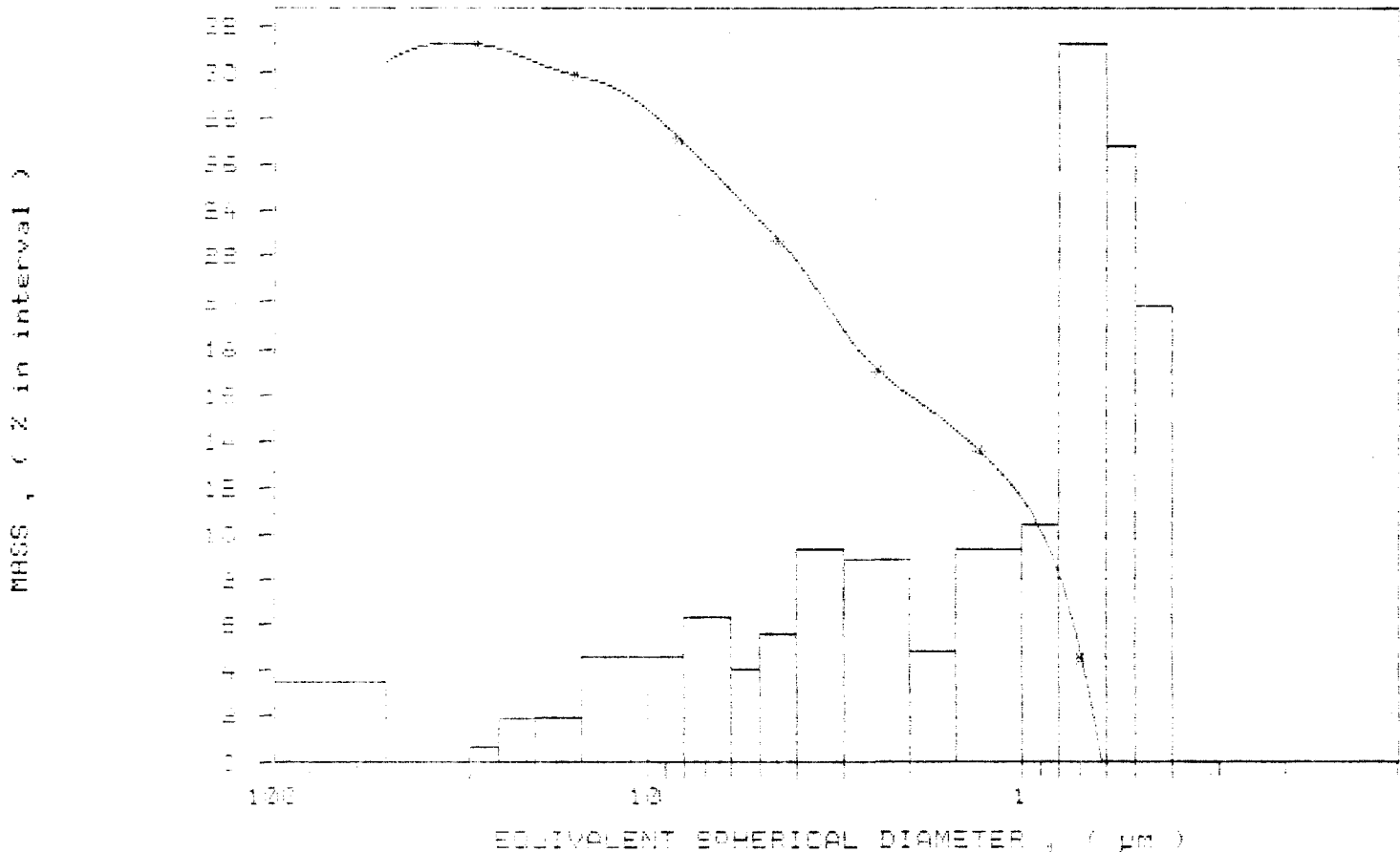
LIQUID TYPE: water

LIQ DENS: 0.9942 g/cc

ANALYSIS: EMP; 50% org; 2 Run TYPE: High Speed

LIO VISC: 0.7275 cp

MASS POPULATION VS. DIAMETER
% CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE NO: 107 (37/10/91) (107) (7296)

UNIT NUMBER: 1

SAMPLE NO: 107 (37/10/91) (107) (7296)

START 11:54:03 08/15/91

SUBMITTER: # 81

REPORT 12:14:25 08/15/91

OPERATOR: AT

TOT RUN TIME 0:06:56

SAMPLE TYPE: 107

SAM DENS: 2.5000 g/cc

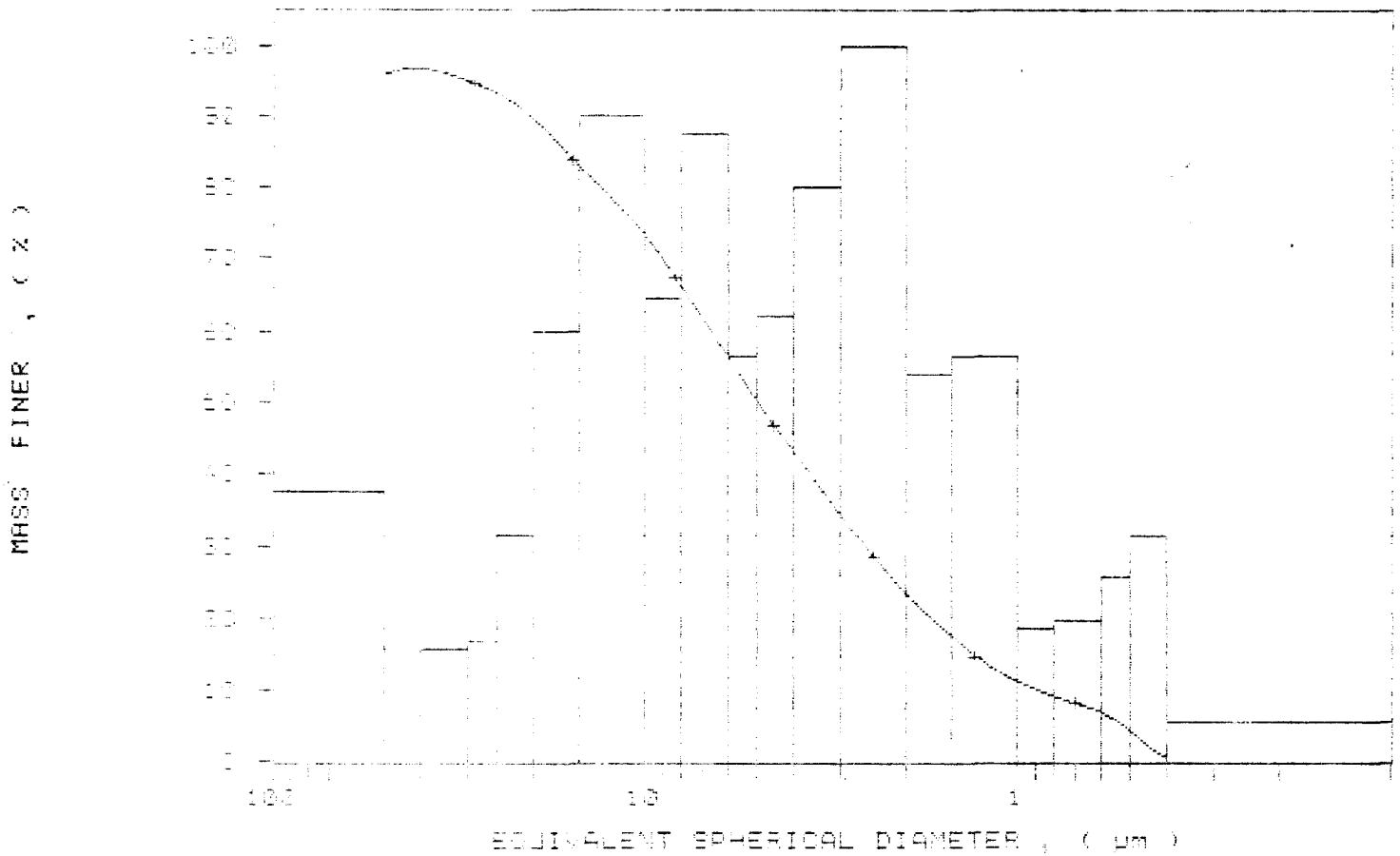
LIQUID TYPE: water

LIG DENS: 0.9942 g/cc

ANALYSIS TYPE: 107 (37/10/91) (107) (7296) RUN TYPE: High Speed

LIQ VISC: 0.7275 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
- MASS POPULATION VS. DIAMETER

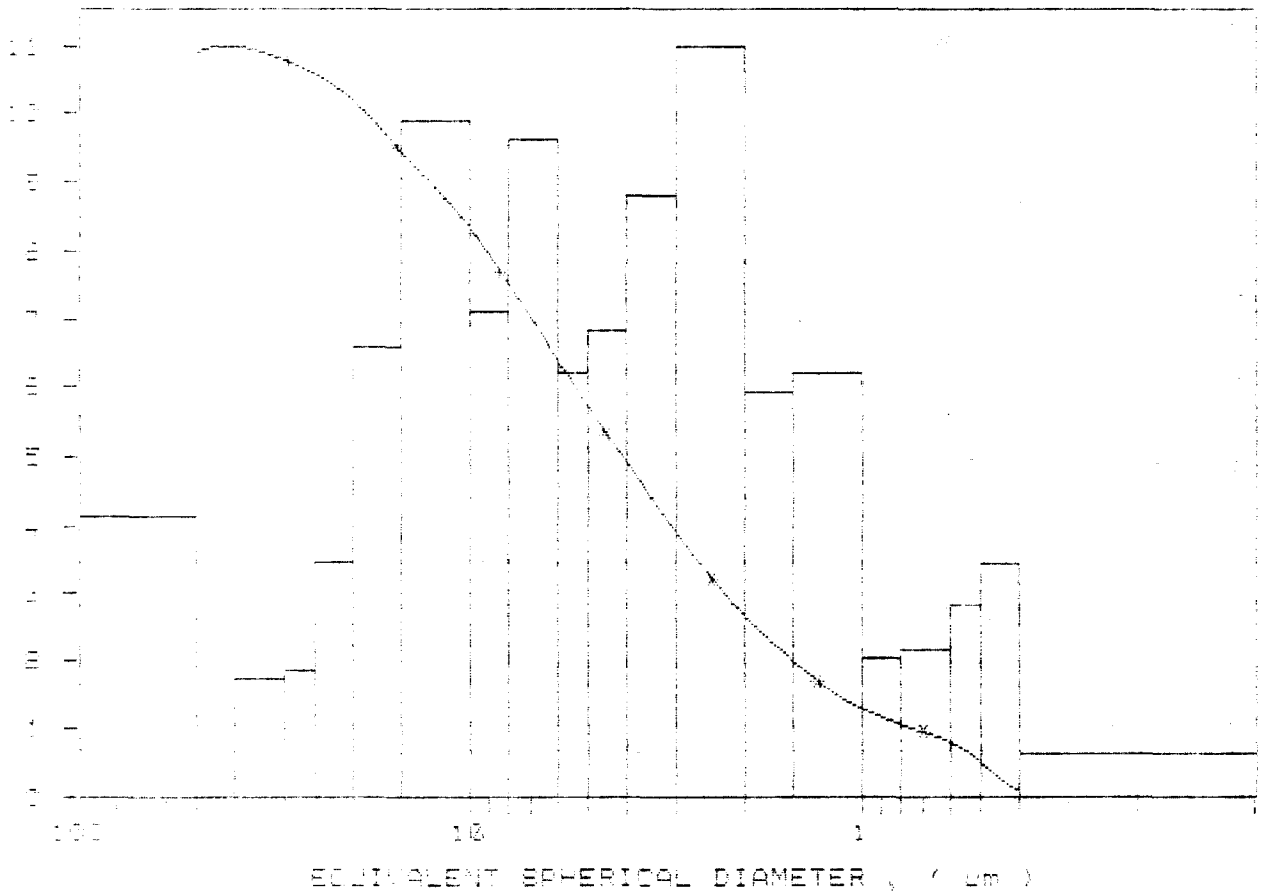


SAMPLE ID: 45 7206
 SAMPLE ID: Hole #45 # 113
 SUBMITTER: # 11
 OPERATOR: JF
 SAMPLE TYPE: # 11
 LIQUID: # 11
 ANALYSED: # 11

UNIT NUMBER: 1
 START 11:14:09 08/13/91
 REPT 12:14:23 08/13/91
 TOT RUN TIME 0:08:58
 SAM DENS: 2.5000 g/cc
 LIO LENS: 0.3142 g/cc
 LIO VISC: 0.7275 cP

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER

MASS, (% in interval)



SAMPLE IDENTIFICATION: 2-12-81 7217
 SAMPLE NO: 101-100-100-100
 SUBMITTER:
 OPERATOR:
 SAMPLE TYPE:
 LIQUID:
 ANALYSIS:
 RUN TYPE: High Speed

UNIT NUMBER:
 START: 12:14:23 08/10/91
 STOP: 12:24:51 08/10/91
 TOT RUN TIME: 0:10:28
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7274 cP

STARTING DIAMETER:
 ENDING DIAMETER:

REYNOLDS NUMBER:
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEAN DIAMETER: MEDAL DIAMETER:

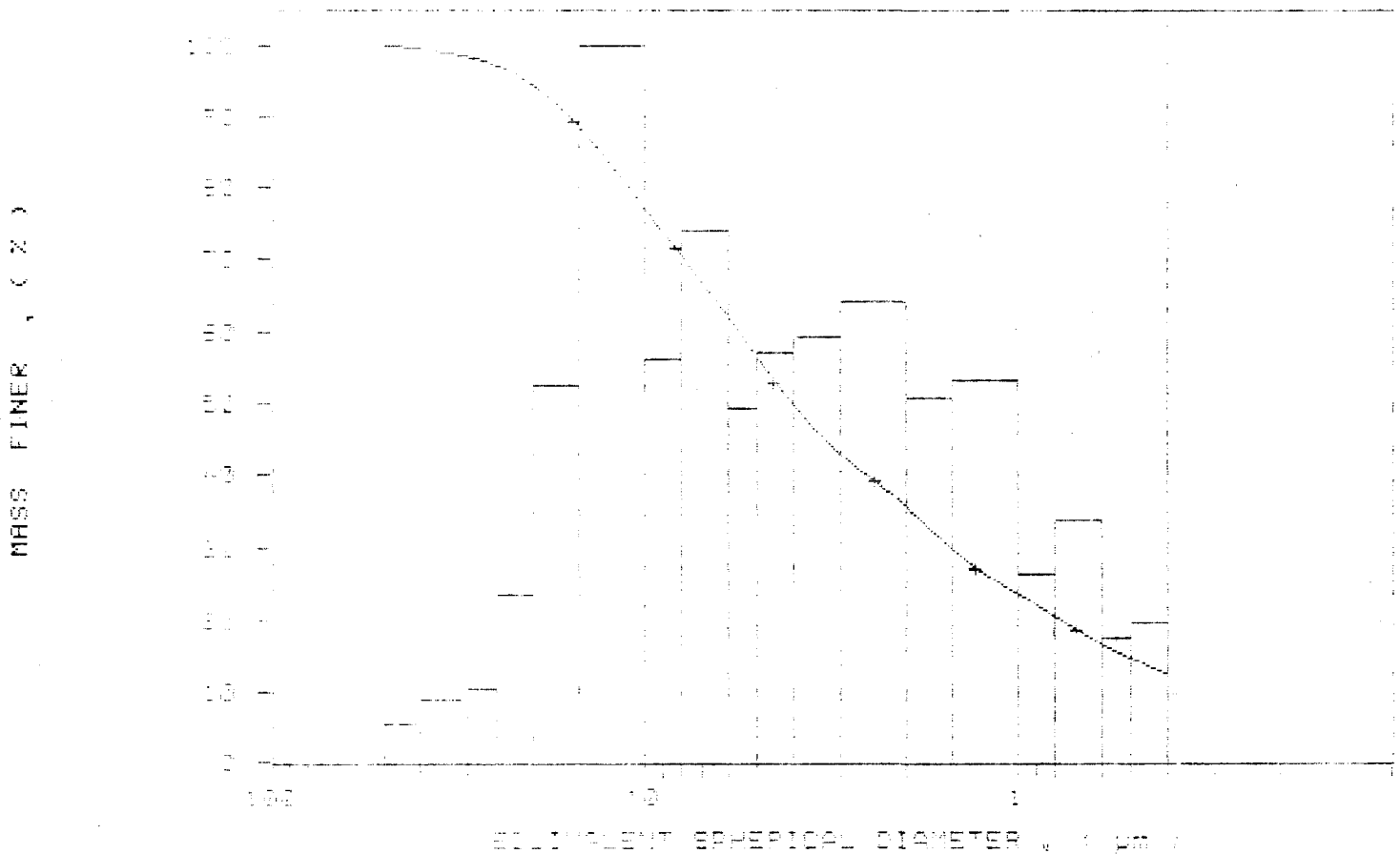
DIAMETER (um)	PERCENT	MASS %
50.00	1.7	1.2
40.00	1.7	1.0
30.00	1.5	1.4
20.00	1.5	2.4
15.00	1.5	3.5
10.00	1.5	4.0
8.00	1.5	4.6
6.00	1.5	5.0
5.00	1.5	5.2
4.00	1.5	5.1
3.00	1.5	5.1
2.00	1.5	5.0
1.50	1.5	4.9
1.00	1.5	4.8
0.50	1.5	4.7
0.20	1.5	4.5
0.10	1.5	4.3
0.05	1.5	4.1

L. malmstrom

SAMPLE NO. 11
 SAMPLE ID. 11
 SUBMITTER
 OPERATOR
 SAMPLE NO. 11
 LIQUID WATER
 ANALYSIS METHOD: High Speed

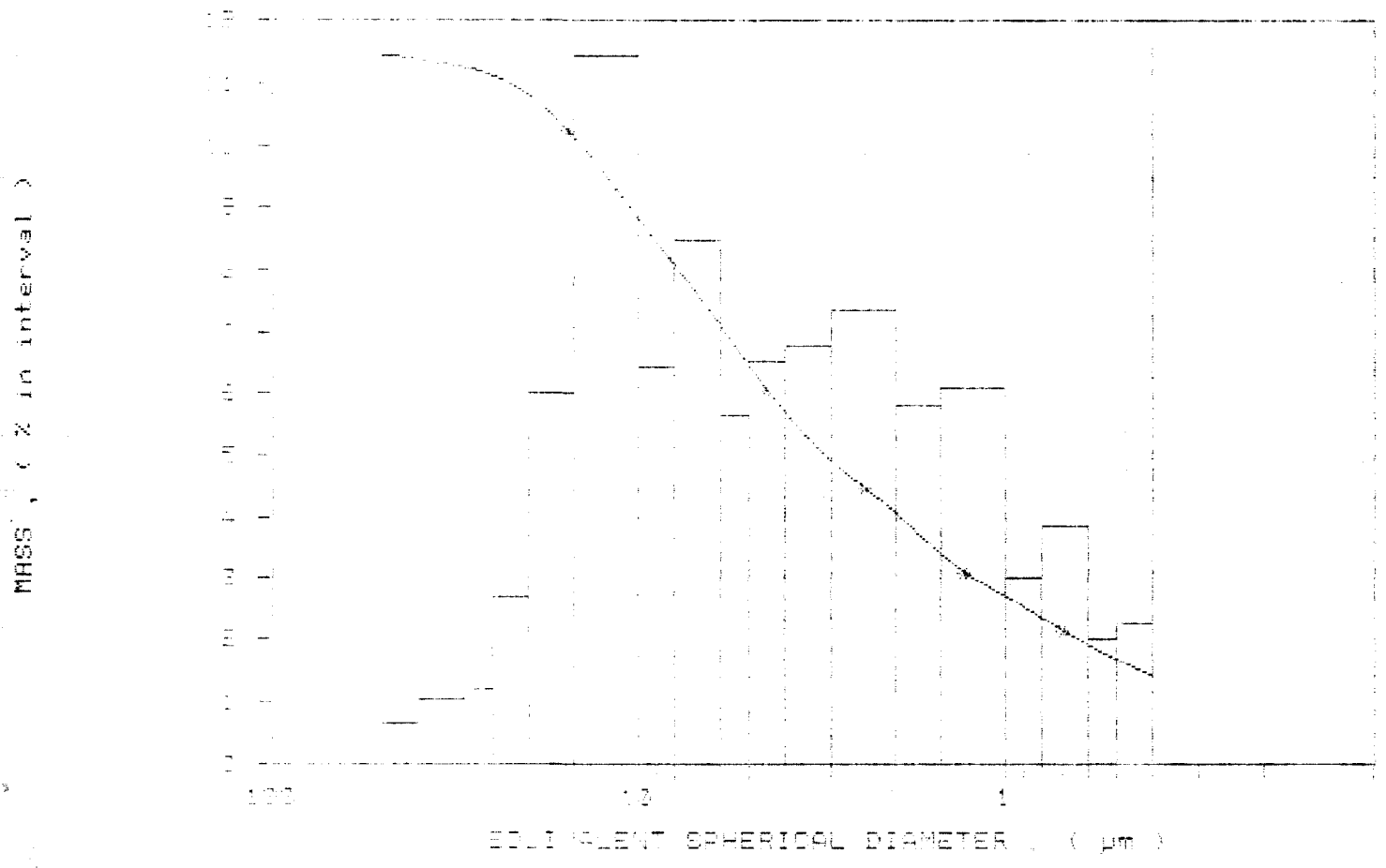
UNIT NUMBER: 1
 START: 12:45:29 05/17/91
 REPT: 13:09:29 05/17/91
 TOT RUN TIME: 0:23:19
 SAM DENS: 2.0000 g/cc
 LID DENS: 0.9998 g/cc
 LID VISC: 0.7331 cp

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE NO. 2179-1011-10	UNIT NUMBER: 1
SAMPLE NO. 2179-1011-10	START 12:40:21 02/11/91
SUBMITTER: W. S. J.	RENT 12:00:23 02/15/91
OPERATOR: J. P.	TOT RUN TIME 0:00:19
SAMPLE NO. 2179-1011-10	DRY WGT: 2.0000 g.00
LIQUID: Water	WET WGT: 0.0000 g.00
ANALYSIS: 0.1000 sec - High Speed	WET WGT: 0.0000 g.00

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE ID: 1010 800 4 10

UNIT NUMBER: 1

SAMPLE ID: 1010 800 4 10

START: 16:48:25 VS: 10/10/01

SUBMITTER: 1010

REPORT: 14:08:54 10/10/01

OPERATOR: 1010

TOT RUN TIME: 01:07:02

SAMPLE NAME: 1010

SAM DENS: 2.6000 g/cc

LIQUID: 1010

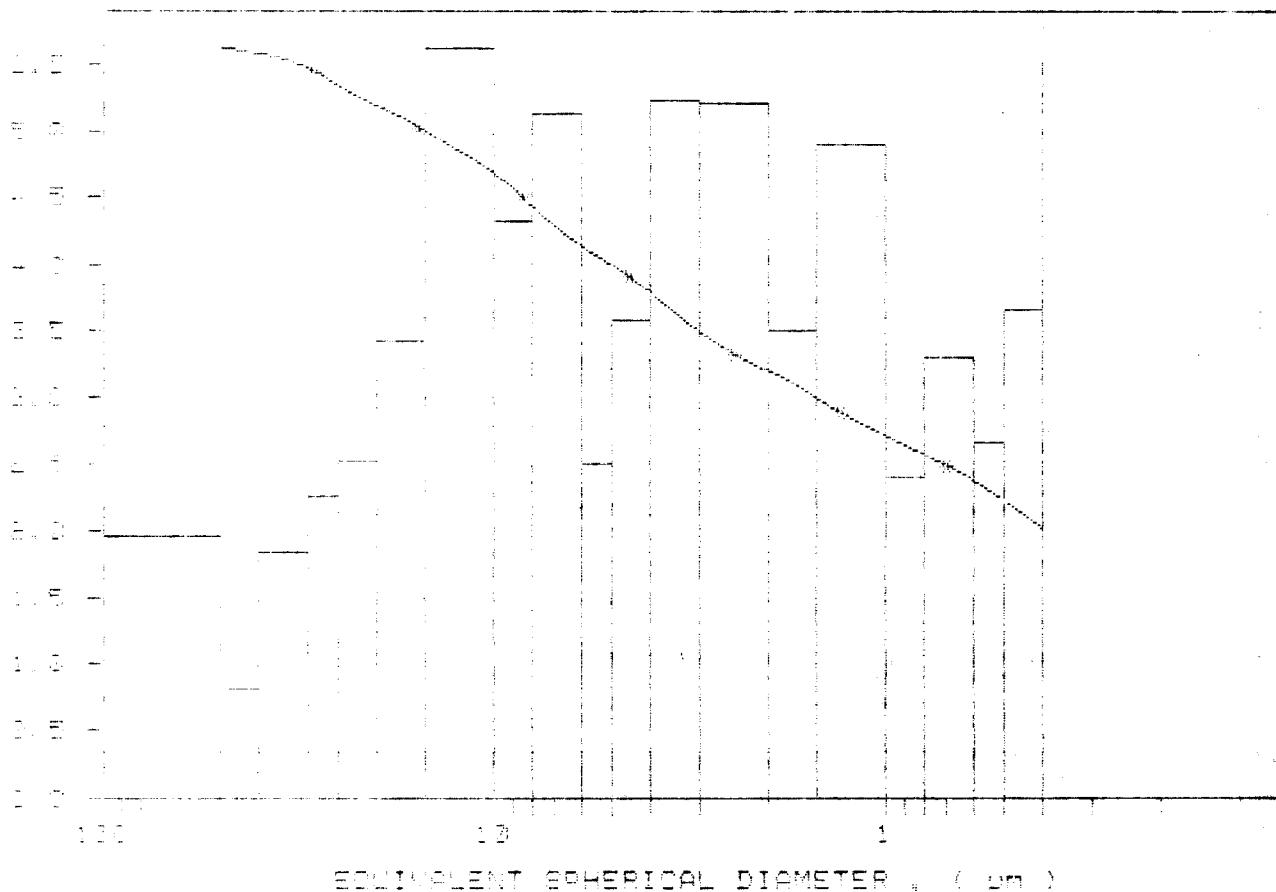
LIO DENS: 0.9942 g/cc

ANALYSIS: 1010 800 4 10 1010 800 4 10 1010 800 4 10

LIO VISC: 0.7275 cP

MASS POPULATION VS. DIAMETER
CUMULATIVE MASS PERCENT FINER VS. DIAMETER

MASS, (% in interval)



SAMPLE NAME:
 SAMPLE NO:
 SUBSTITUTION:
 OPERATOR:
 SAMPLE WEIGHT:
 LIQUID IN:
 ANALYSIS METHOD: High Speed

UNIT NUMBER: 1
 START 14:06:26 05/15/91
 REPRY 14:26:12 05/15/91
 TOT RUN TIME 0:07:01
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9992 g/cc
 LIQ VISC: 0.7212

STARTING TEMPERATURE:
 ENDING TEMPERATURE:

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

PAUSE DISTRIBUTION

RELATIVE PERCENTAGE:
 NOMINAL DIAMETER: 0.52 mm

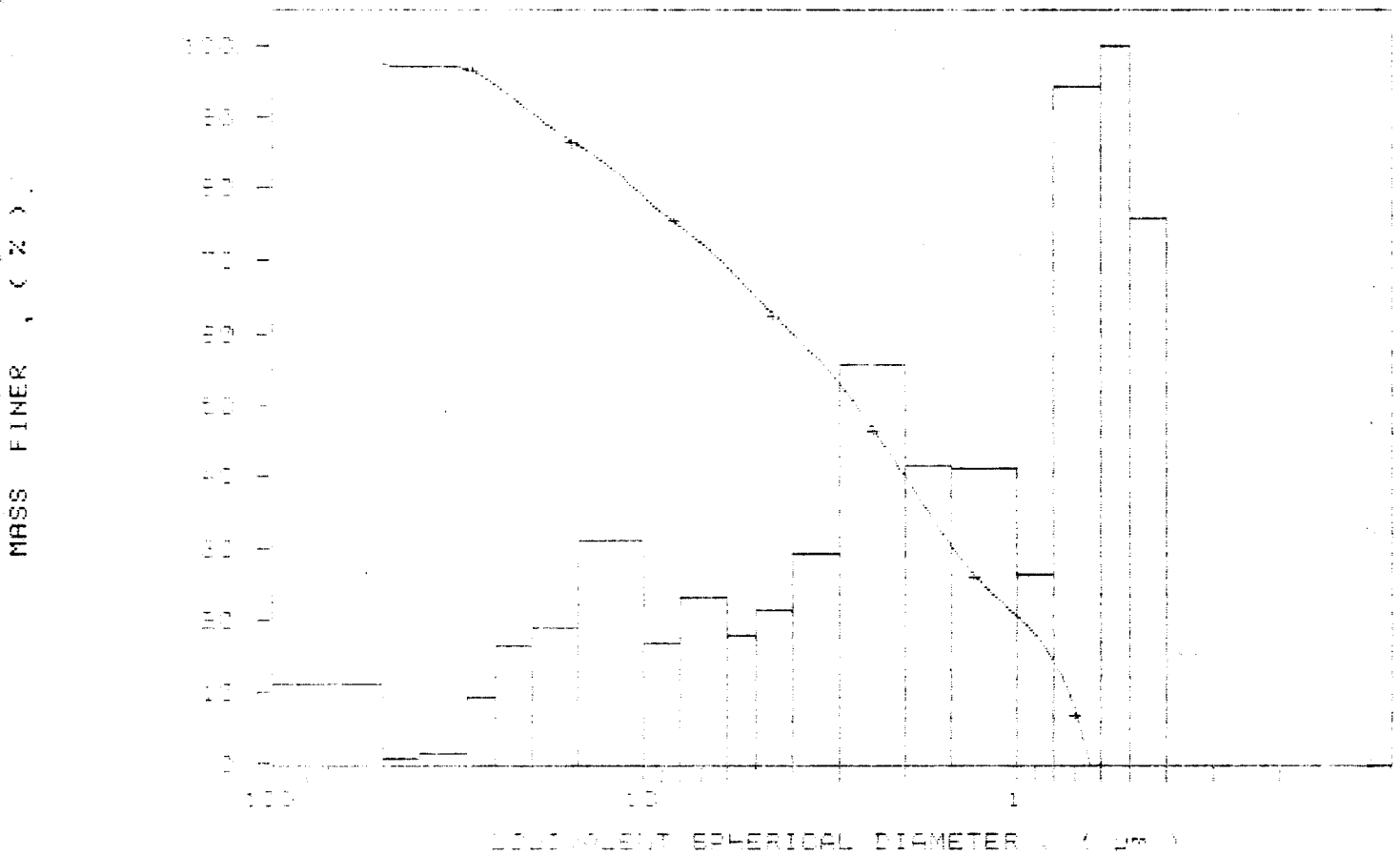
DIAMETER (mm)	PERCENTAGE (%)	PERCENTAGE (%)
50.00		0.0
40.00		0.0
30.00		0.0
25.00		0.0
20.00		0.0
15.00		0.0
10.00		0.0
8.00		0.0
6.00		0.0
5.00		0.0
4.00		0.0
3.00		0.0
2.00		0.0
1.50		0.0
1.00		0.0
0.75		0.0
0.50		0.0
0.25		0.0

L. malmstrom

SAMPLE NO. 1000 1000 1000 1000
 SAMPLE NO. 1000 1000 1000 1000
 SUBMIT NO. 1000 1000 1000 1000
 OPERATOR 1000 1000 1000 1000
 SAMPLE NO. 1000 1000 1000 1000
 LIT. NO. 1000 1000 1000 1000
 ANALYSIS 1000 1000 1000 1000

UNIT NUMBER :
 START 14:00:12 08/15/91
 REPORT 14:26:12 08/15/91
 TOI RUN TIME 0:07:01
 SAM DENS: 2.6000 g/cc
 LID DENS: 0.9999 g/cc
 LID VISC: 0.7275 cc

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE IDENTIFICATION NUMBER: 0760

SAMPLE ID: 1000000000

SUBMITTER: # 10

OPERATOR: #

SAMPLE WEIGHT: 0.1000

LIQUID: WATER

ANALYSIS METHOD: 0760000000 Run Type: High Speed

UNIT NUMBER: 1

START 14:05:20 03/15/91

REPORT 14:25:12 03/15/91

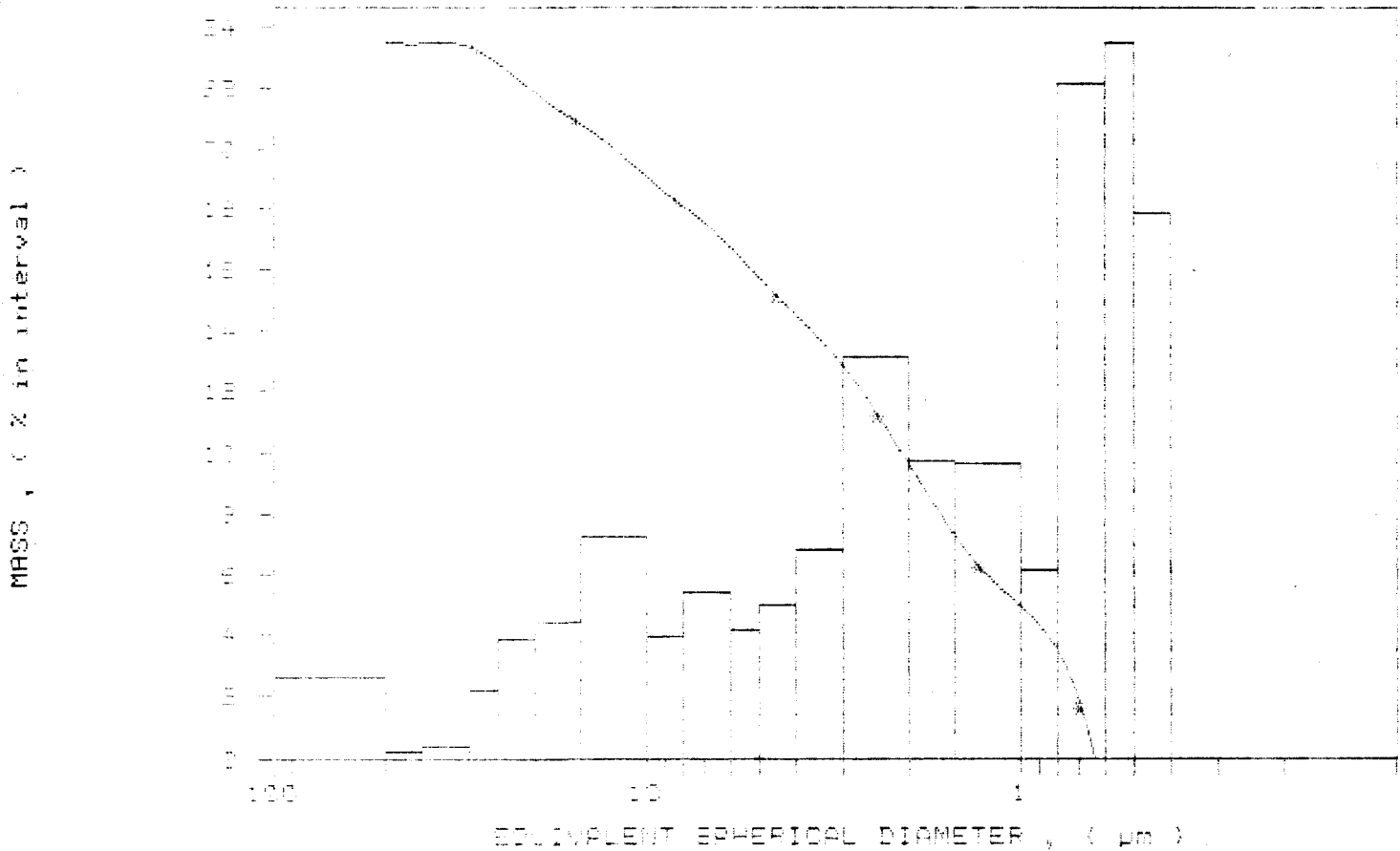
TOT RUN TIME 0:07:01

SAM DENS: 2.5000 g/cc

LIO DENS: 0.9942 g/cc

LIO VISC: 0.7273 cp

MASS POPULATION VS. DIAMETER
CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Bedford Hills, N.Y.

PAGE 1

SAMPLE NO: 1010

UNIT NUMBER: 1

SAMPLE ID: 1010

START 15:02:01 08/12/91

SUBMITTER: A.C.

REPT 15:21:51 08/15/91

OPERATOR: SA

TOT RUN TIME 0:07:17

SAMPLE TYPE: 1010

PAR DENS: 2.0000 g/cc

LIQUID TYPE: WATER

LIC DENS: 0.9942 g/cc

ANALYSIS TYPE: 1010

LIC VISC: 0.727 cp

STARTING DIAMETER: 1000

REYNOLDS NUMBER: 0.21

ENDING DIAMETER: 1000

FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 0.54 um

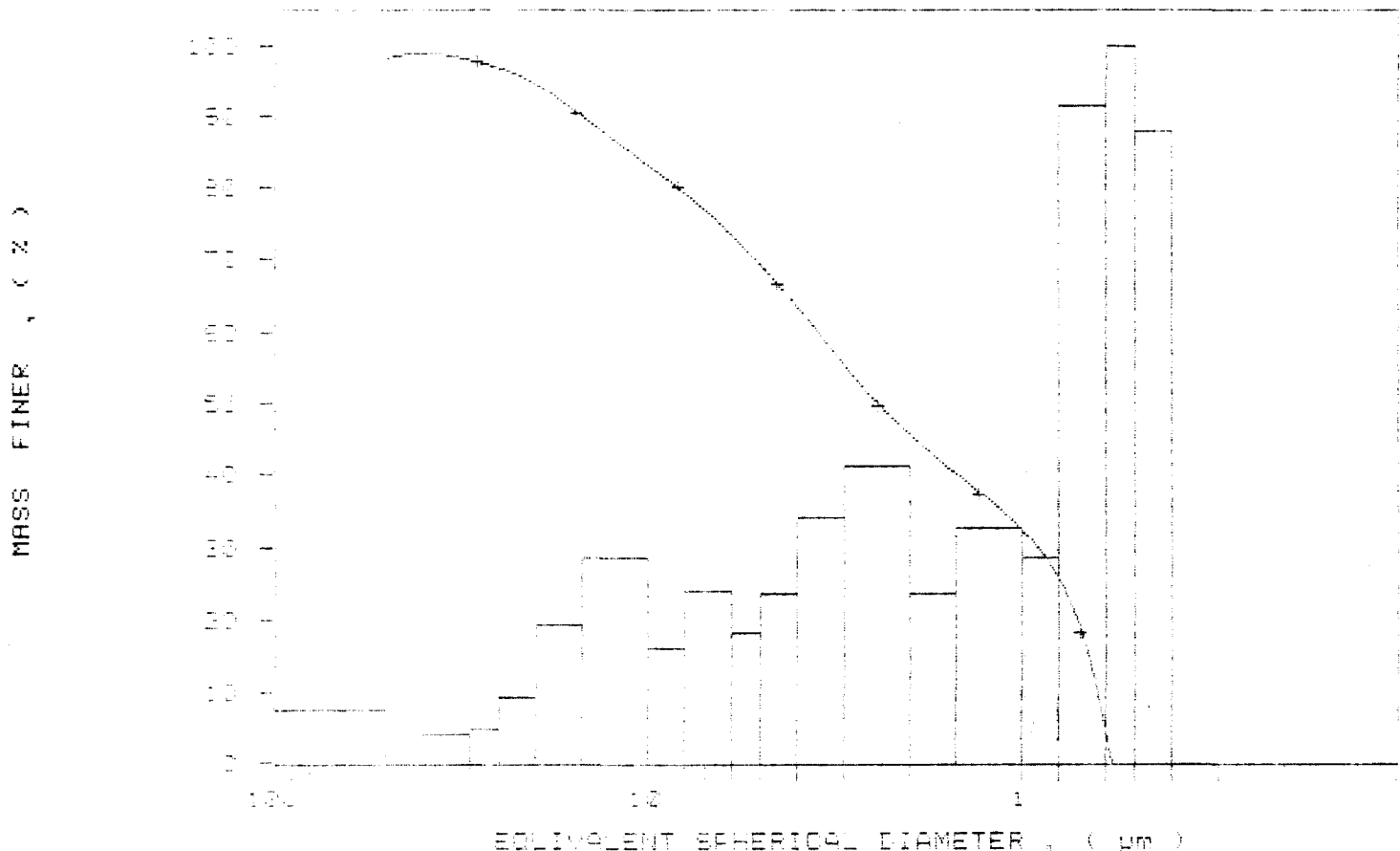
MODAL DIAMETER: 0.54 um

DIAMETER (um)	DIFFERENTIAL MASS (%)	CUMULATIVE MASS (%)
50.00	0.00	1.0
40.00	0.00	0.8
30.00	0.00	1.0
25.00	0.00	1.2
20.00	0.00	2.0
15.00	0.00	4.0
10.00	0.00	6.0
8.00	0.00	7.5
6.00	0.00	8.7
5.00	0.00	9.4
4.00	0.00	9.6
3.00	0.00	9.7
2.00	0.00	9.8
1.50	0.00	9.9
1.00	0.00	10.0
0.75	0.00	10.0
0.50	0.00	10.0
0.25	0.00	10.0
0.10	0.00	10.0
0.05	0.00	10.0

H. malmstrom

SAMPLE ID: 1010000001	LAB NO: 10002	UNIT NUMBER: 1
SAMPLE ID: 1010000001	LAB NO: 10002	START 15:02:01 08/15/91
SUBMITTER: A. J. ...		REPORT 15:21:01 08/15/91
OPERATOR: ...		TOT RUN TIME 0107:17
SAMPLE ...		SAM DENS: 2.0000 g/cc
LIQUID TYPE: water		LIG DENS: 0.9942 g/cc
ANALYSIS METHOD: ...	ANALYSIS TYPE: High Speed	LIG VISC: 0.7271 cp

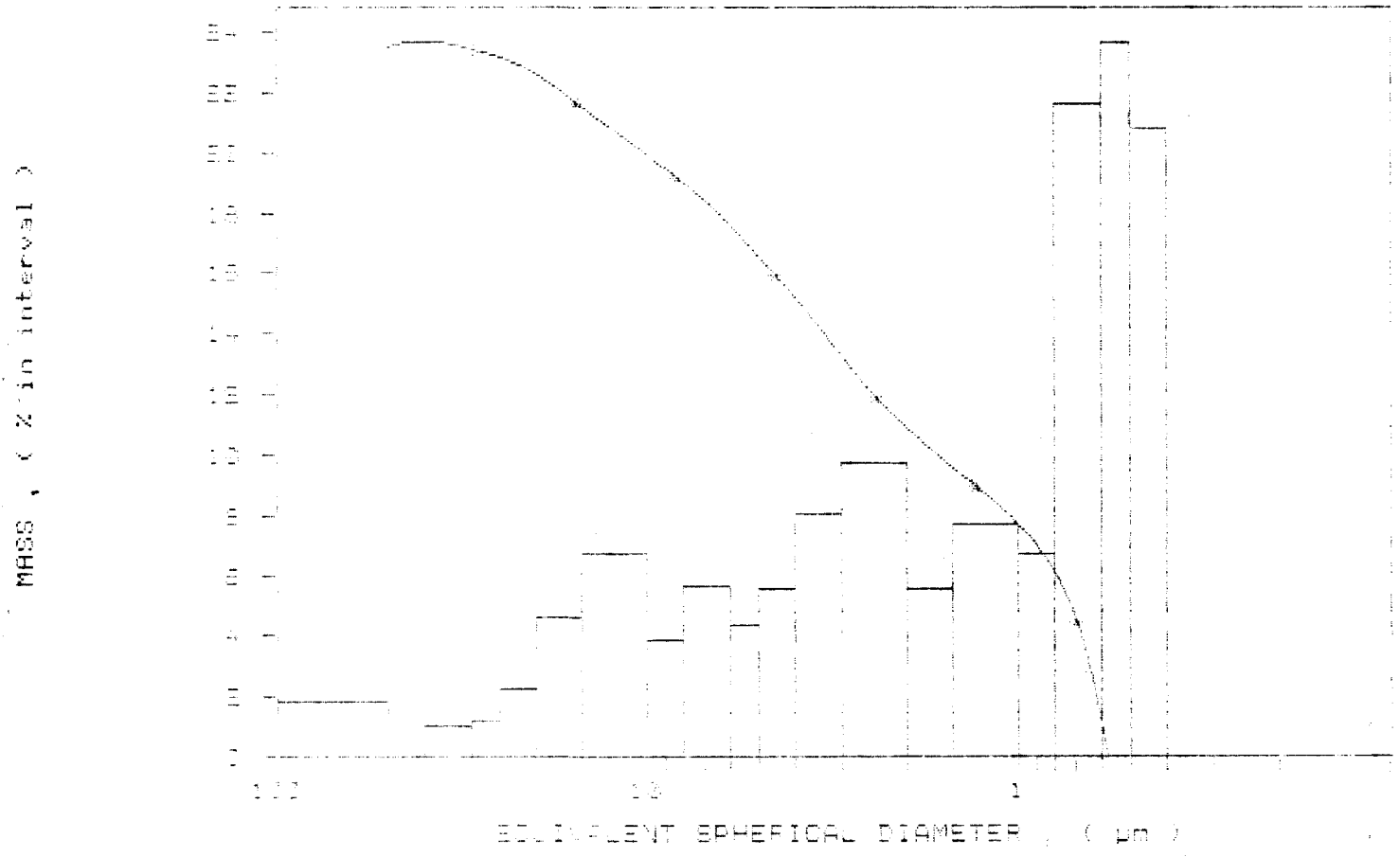
- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE NO: 09-6-1000-1000-1000-1000-1000
 SAMPLE FOR: 09-6-1000-1000-1000-1000-1000
 SUBMIT: 09-6-1000-1000-1000-1000-1000
 OPERATOR: J
 SAMPLE NO: 09-6-1000-1000-1000-1000-1000
 LIQUID IN: 1000-1000-1000-1000-1000-1000
 ANALYSIS: 09-6-1000-1000-1000-1000-1000-1000 Run Type: High Speed

UNIT NUMBER: 1
 START: 15:03:01 08/15/91
 REPR: 15:21:51 08/15/91
 TOT RUN TIME: 0:17:17
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cc

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE ID: 101-101-101-101-101-101
 SAMPLE NO: 101-101-101-101-101-101
 SUBMITTER: W. G.
 OPERATOR: J.
 SAMPLE TYPE: 101-101-101-101-101-101
 LIQUID TYPE: 101-101-101-101-101-101
 ANALYSIS METHOD: 101-101-101-101-101-101
 BOX TYPE: High Speed

UNIT NUMBER: 1
 START 15:29:53 08/18/91
 REPT 15:49:34 08/18/91
 TOT RUN TIME 0:07:09
 SAM DENS: 2.0000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.1270 cp

STARTING DIAPHRAGM: 101-101-101-101-101-101
 ENDING DIAPHRAGM: 101-101-101-101-101-101

REYNOLDS NUMBER: 1.121
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAPHRAGM: 101-101-101-101-101-101 NOMINAL DIAPHRAGM: 0.25 µm

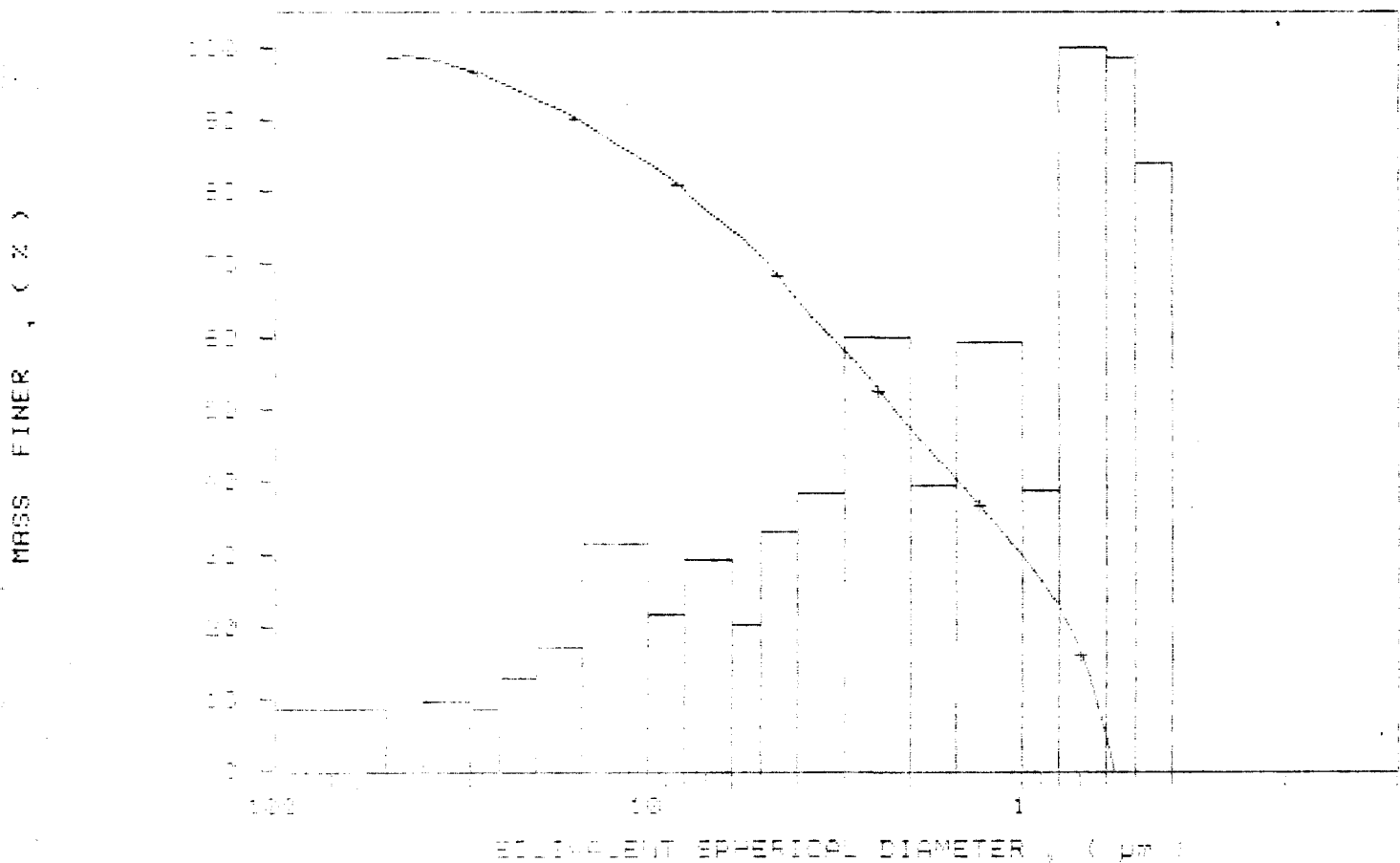
DIAPHRAGM (µm)	MASS	
	CUMULATIVE AREA (%)	IN INTERVAL (%)
50.00	0.0	0.0
40.00	0.0	0.0
30.00	0.0	0.0
25.00	0.0	0.0
20.00	0.0	0.0
15.00	0.0	0.0
10.00	0.0	0.0
8.00	0.0	0.0
6.00	0.0	0.0
5.00	0.0	0.0
4.00	0.0	0.0
3.00	0.0	0.0
2.00	0.0	0.0
1.50	0.0	0.0
1.00	0.0	0.0
0.75	0.0	0.0
0.50	0.0	0.0
0.25	0.0	0.0

S. Malmstrom

SAMPLE NO: 010 010
 SAMPLE ID: 010 010
 SUBMIT DATE: 08/15/91
 OPERATOR: MM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS: 1st: 010 010 2nd: 010 010 High Speed

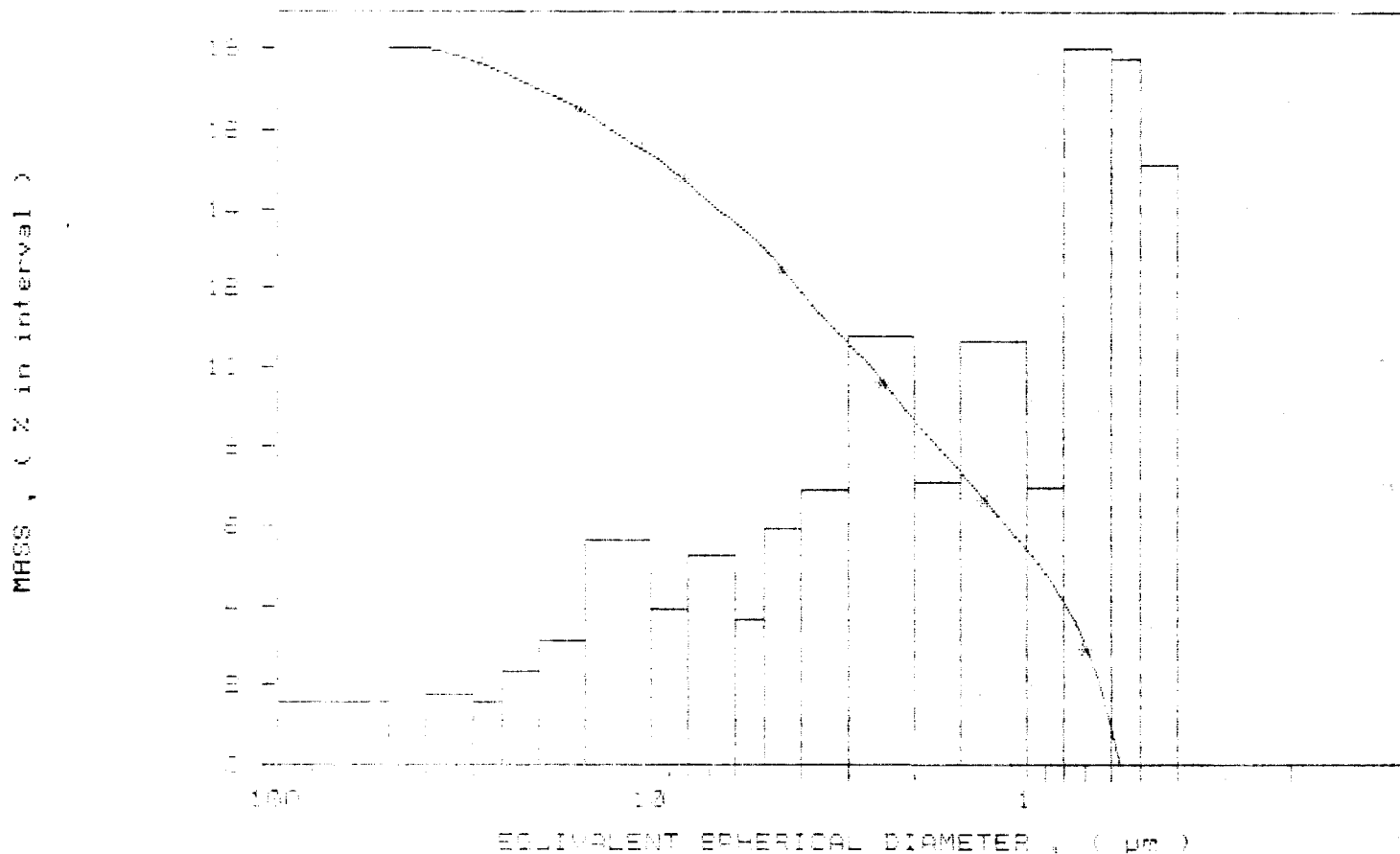
UNIT NUMBER: 1
 START: 15:29:53 08/15/91
 REPT: 15:49:34 08/15/91
 TOT RUN TIME: 0:19:09
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cc

CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE NO: 10101A	UNIT NO: 005	UNIT NUMBER: 1
SAMPLE ID: 10101A		START 15:29:53 08/10/91
SUBMIT: 10101A		REPORT 15:49:34 08/10/91
OPERATOR: JF		TEST RUN TIME 0:07:09
SAMPLE BY: JF		SAM DENS: 2.8200 g/cc
LIGUID BY: WATER		LIG DENS: 0.9992 g/cc
ANALYSIS: 10101A 005 0	RUN MODE: High Speed	LIG VISC: 0.7270 cp

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE NO: 11111111111111111111 / 7804
 SAMPLE ID: 11111111111111111111
 SUBMIT BY: 11111111111111111111
 OPERATOR: 11111111111111111111
 SAMPLE TYPE: 11111111111111111111
 LIQUID TYPE: 11111111111111111111
 ANALYSIS: 11111111111111111111 Run Type: High Speed

UNIT NUMBER: 1
 START: 10:02:44 08/13/91
 REPT: 10:22:17 08/13/91
 TOT RUN TIME: 0:19:31
 SAM DENS: 2.0000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cc

STARTING TEMPERATURE: 11111111111111111111
 ENDING TEMPERATURE: 11111111111111111111

REYNOLDS NUMBER: 11111111111111111111
 FULL SCALE MASS %: 100

SIZE DISTRIBUTION

MEDIA: 11111111111111111111 NOMINAL DIAMETER: 1.01 um

DIAMETER (um)	PERCENT	INTERVAL (%)
50.00	0.00	0.0
40.00	0.00	0.0
30.00	0.00	0.0
25.00	0.00	0.0
20.00	0.00	0.0
15.00	0.00	0.0
10.00	0.00	0.0
8.00	0.00	0.0
6.00	0.00	0.0
5.00	0.00	0.0
4.00	0.00	0.0
3.00	0.00	0.0
2.00	0.00	0.0
1.50	0.00	0.0
1.00	0.00	0.0
0.75	0.00	0.0
0.50	0.00	0.0
0.25	0.00	0.0

S. Malmstrom

SAMPLE DIAL: 00000000000000000000

UNIT NUMBER: 1

SAMPLE ID: note 19-8 1. 200

START 16:02:49 08/15/91

SUBMITTER: A. C. P.

REFRT 16:22:17 08/15/91

OPERATOR: A.

TOT RUN TIME 0107:01

SAMPLE VOL: 100

SAM DENS: 2.5000 g/cc

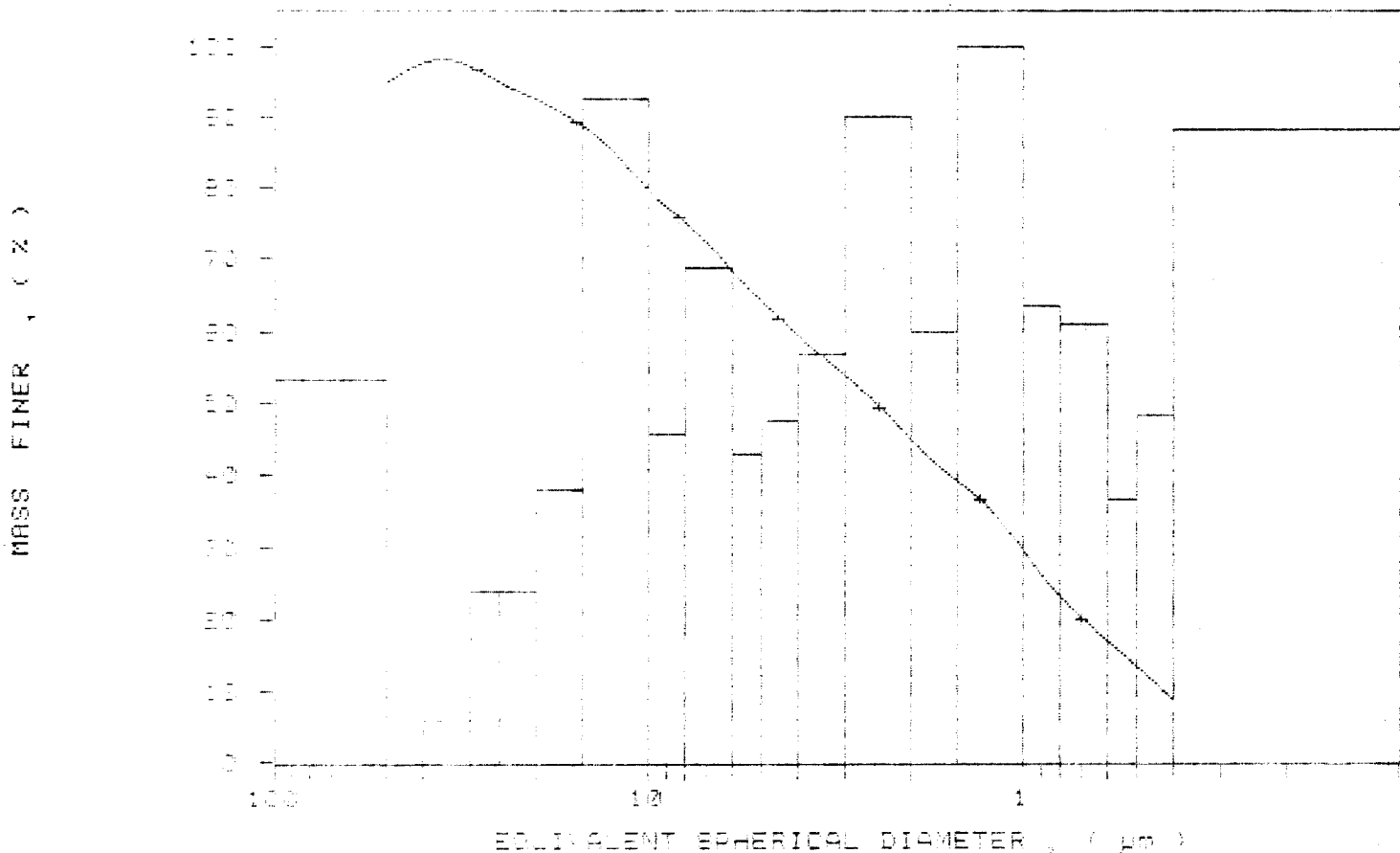
LIGUID TEMP: water

LIG DENS: 0.9982 g/cc

ANALYSIS: 1000 mg @ 1000 rpm @ High Speed

LIG VISL: 0.7871 cp

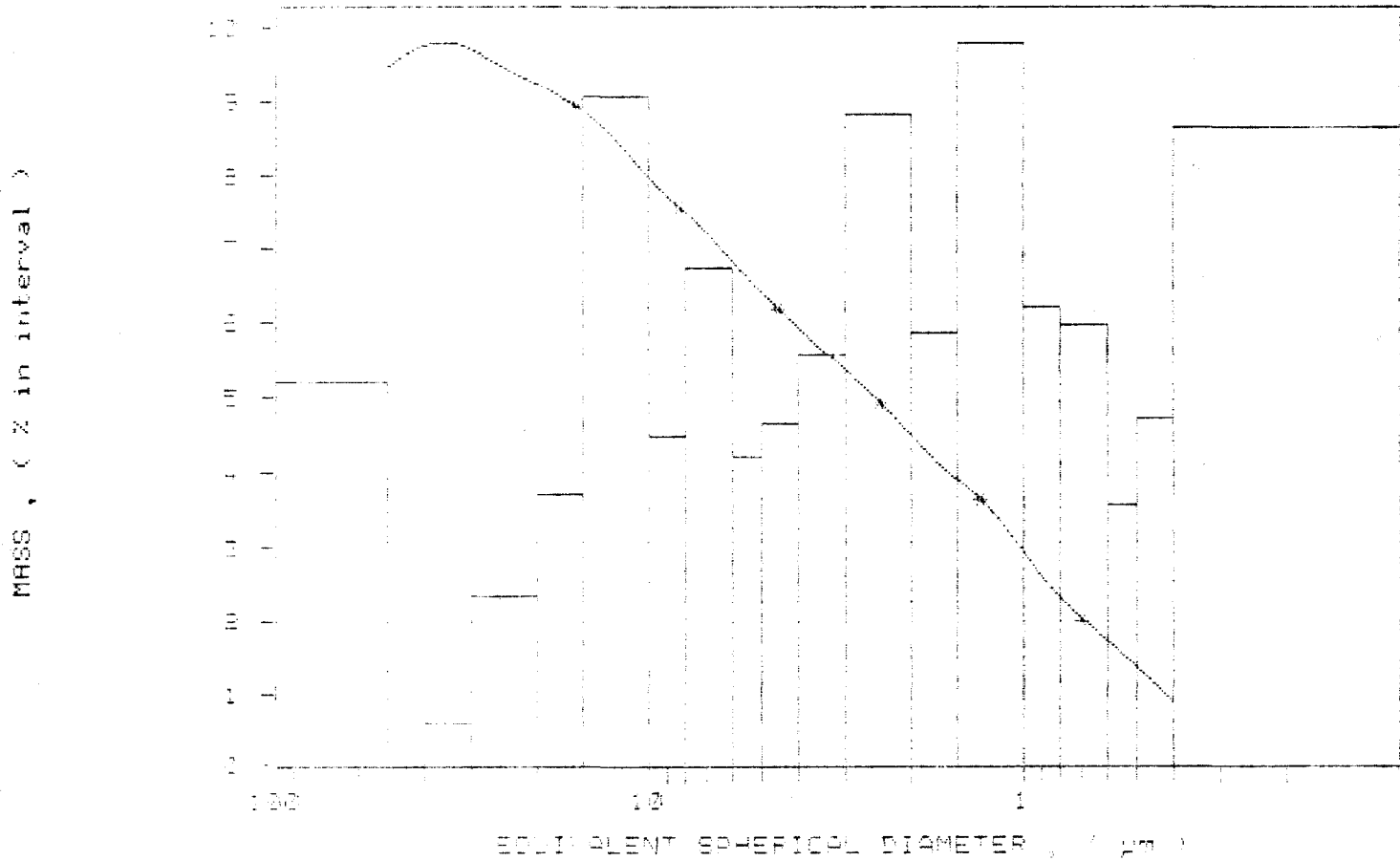
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTION: NONE
 SAMPLE ID: 101-101-101
 SUBMITTER: # 00
 OPERATOR: SA
 SAMPLE CONTAINER:
 LIQUID TYPE: AIR
 ANALYSIS: 20% 40% 60% 80% 100%
 RUN TYPE: High Speed

UNIT NUMBER: 1
 START 16:02:44 08/15/91
 REPT 10:22:17 08/15/91
 TOT RUN TIME: 0:10:01
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cP

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE ID: LIDIA; NO BLK: 00405 /300
 SAMPLE ID: 00405; 214
 SUBMITTER: 00405
 OPERATOR: 00405
 SAMPLE TYPE: 00405
 LIQUID TYPE: water
 ANALYSIS DEF: 00405; Run Time: high Speed

UNIT NUMBER: 1
 START 09:06:12 02/21/91
 REPT 09:26:03 02/21/91
 TOT RUN TIME 0:00:11
 SAM DENS: 2.0000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

STARTING DIAMETER: 0.000 um
 ENDING DIAMETER: 0.000 um

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

Median Diameter: 4.07 um

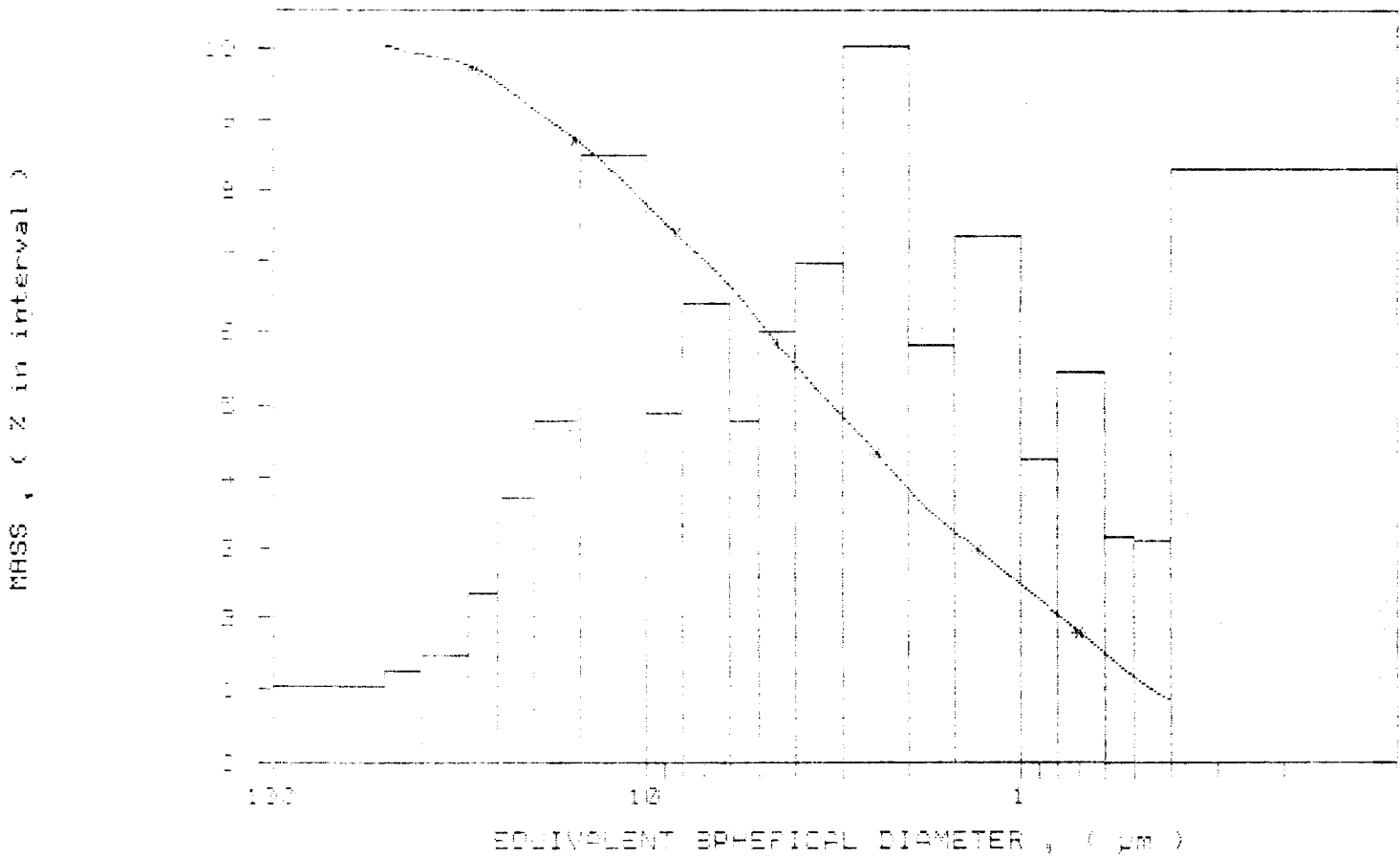
Modal Diameter: 4.07 um

Diameter (um)	Count (%)	Mass Interval (%)
50.00	0.00	0.0
40.00	0.00	0.0
30.00	0.00	0.0
25.00	0.00	0.0
20.00	0.00	0.0
18.00	0.00	0.0
16.00	0.00	0.0
15.00	0.00	0.0
14.00	0.00	0.0
13.00	0.00	0.0
12.00	0.00	0.0
11.00	0.00	0.0
10.00	0.00	0.0
9.00	0.00	0.0
8.00	0.00	0.0
7.00	0.00	0.0
6.00	0.00	0.0
5.00	0.00	0.0
4.00	0.00	0.0
3.00	0.00	0.0
2.00	0.00	0.0
1.50	0.00	0.0
1.00	0.00	0.0
0.50	0.00	0.0
0.10	0.00	0.0
0.05	0.00	0.0

L. malmstrom

SAMPLE IDENTIFICATION: 101A0	7005	UNIT NUMBER: 1
SAMPLE ID: 101A0	101A0	START 09:06:15 08/21/91
SUBMITTER: # 00		REPT 09:26:05 08/21/91
OPERATOR: J		TOT RUN TIME 0:07:11
SAMPLE TYPE: 010		SPL DENS: 2.6700 g/cc
LIQUID TYPE: water		LIG DENS: 0.9942 g/cc
ANALYSIS TEMP: 24.7 deg C	RUN TYPE: High Speed	LIG VISC: 0.7270 cp

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER



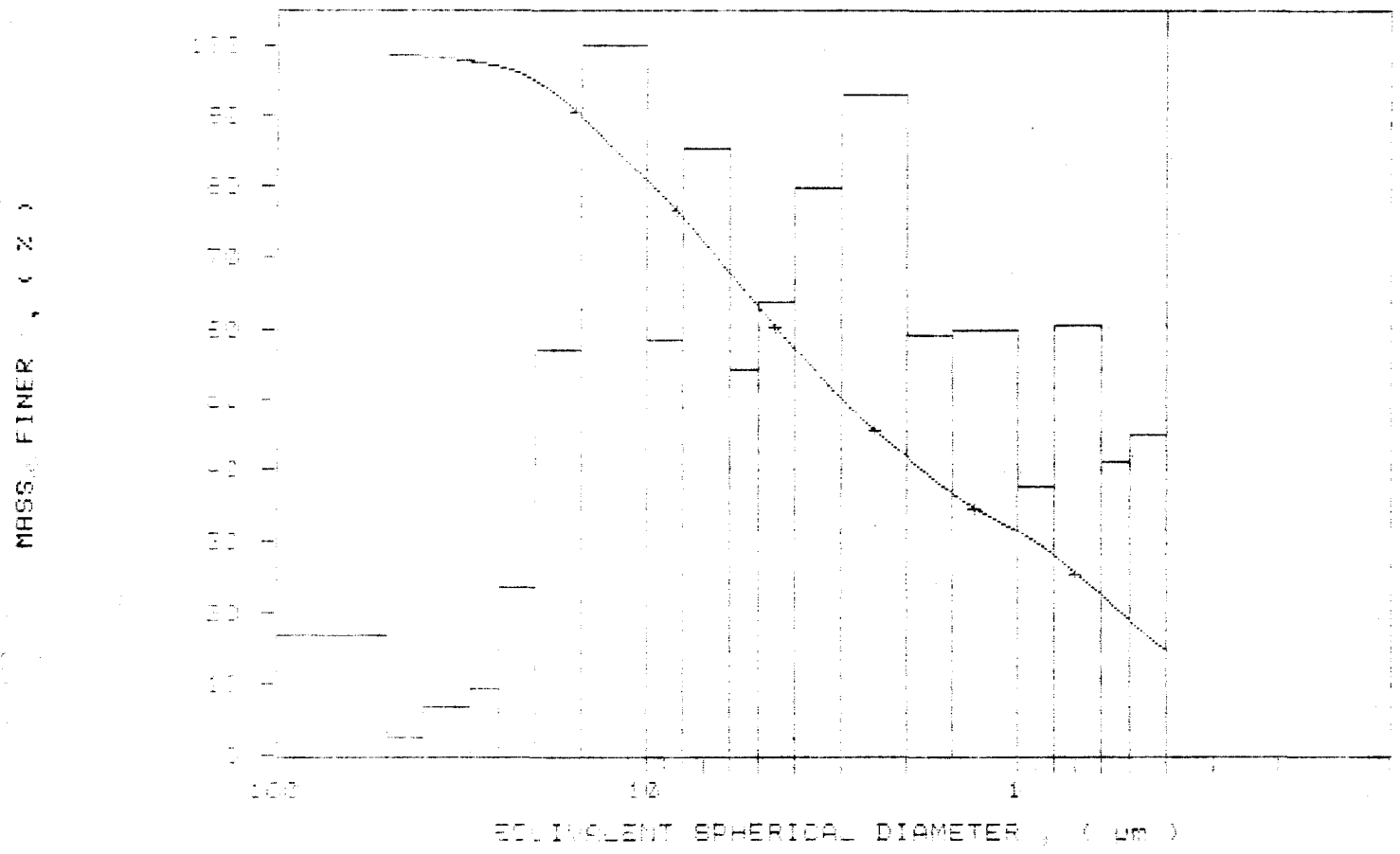
Section: 5100 12.80

PAGE 2

SAMPLE IDENTIFICATION: 04745 7386
 SAMPLE NO: 04745 7386
 SUBMITTER: W 57
 OPERATOR: P
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS UNIT: 04745 7386
 RUN TYPE: High Speed

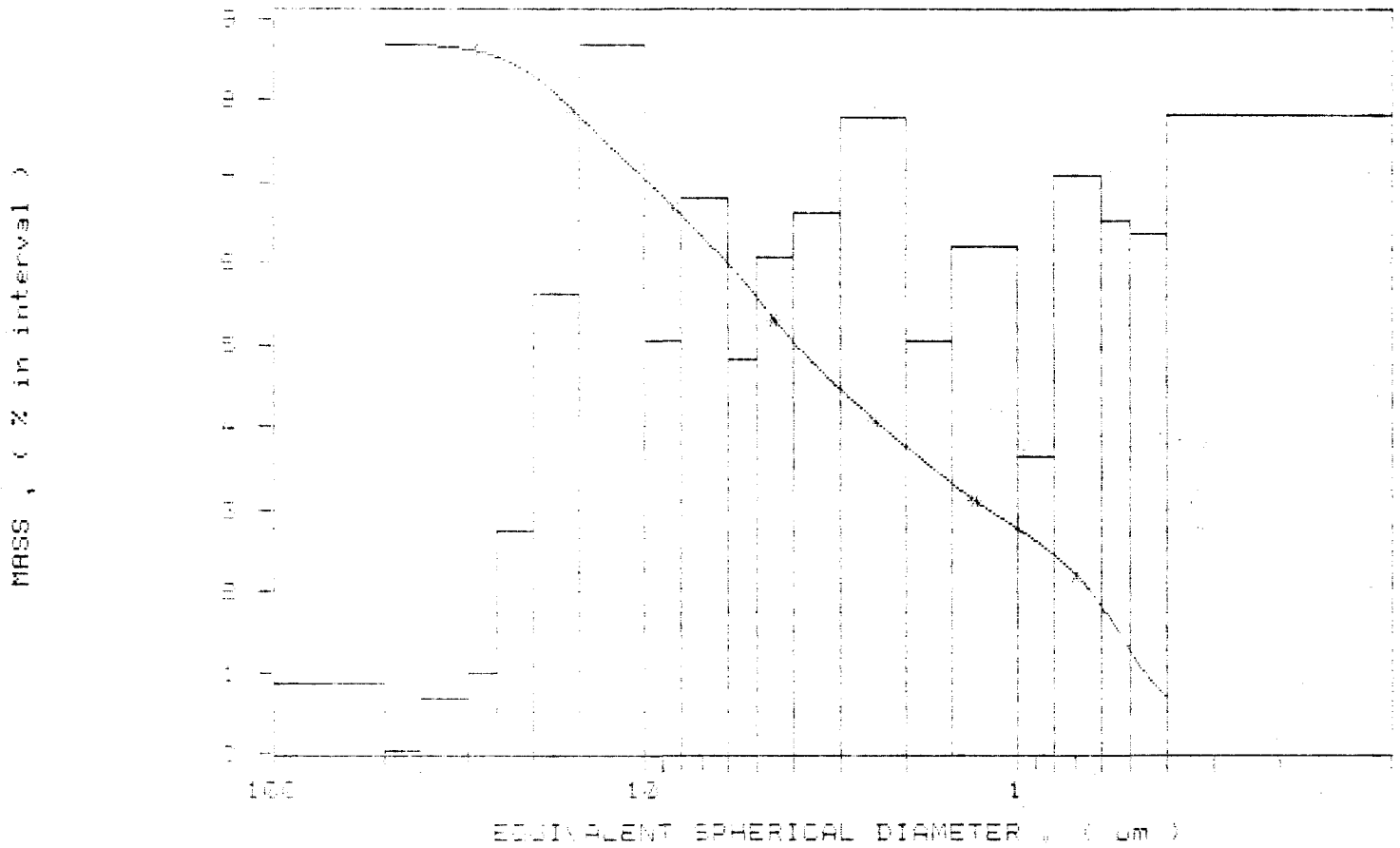
UNIT NUMBER: 1
 START 09:31:58 08/21/91
 REPT 09:51:49 08/21/91
 TOT RUN TIME 0:10:17
 SAM DENS: 2.8000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7267 cp

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DETERMINATION NUMBER	1307	UNIT NUMBER:	1
SAMPLE NO.	14-118-1-121	START	10:01:30 08/21/91
SUBMITTER	889	REPT	10:22:12 08/21/91
OPERATOR	KP	TOT RUN TIME	0:07:25
SAMPLE TYPE	oil	SAM DENS:	2.0008 g/cc
LIQUID TEMP	water	LIG DENS:	0.9942 g/cc
ANALYSIS	LM: low speed RM: high speed	LIO VISC:	0.7058 cp

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE NO: 0100 (0100) UNIT: 0100
 SAMPLE ID: 0100 (0100) UNIT: 0100
 SUBMITTED: 01/01/91
 OPERATION: 0100
 SAMPLE TYPE: 0100
 LIQUID TYPE: 0100
 ANALYSIS: 0100 (0100) UNIT: 0100 RUN # 0100: High Speed

UNIT NUMBER: 0100
 START: 10:22:10 08/21/91
 REPR: 10:42:44 08/21/91
 TOT RUN TIME: 01:07:14
 SAM DENS: 2.5000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7257 cP

STARTING DIAPHRAGM: 0100
 ENDING DIAPHRAGM: 0100

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MODE DISTRIBUTION

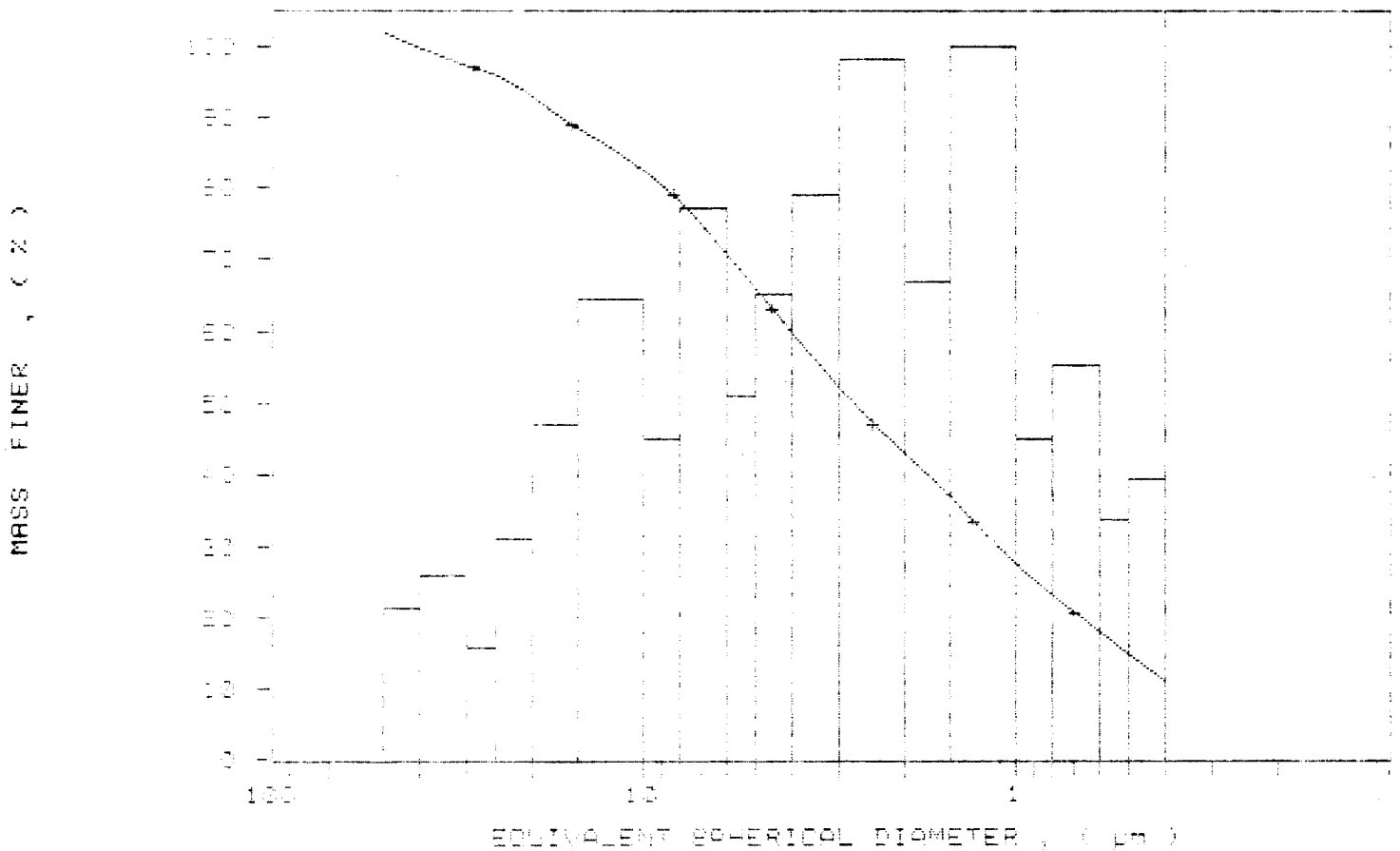
MEDIA: 0100 (0100) UNIT: 0100 NOMINAL DIAMETER: 4.75 μm

DIAMETER (μm)	CLASSIFIED (%)	MODE (%)
10.00	100.0	100.0
9.00	100.0	100.0
8.00	100.0	100.0
7.00	100.0	100.0
6.00	100.0	100.0
5.00	100.0	100.0
4.00	100.0	100.0
3.00	100.0	100.0
2.00	100.0	100.0
1.50	100.0	100.0
1.00	100.0	100.0
0.75	100.0	100.0
0.50	100.0	100.0
0.25	100.0	100.0
0.125	100.0	100.0

L. Malashov

SAMPLE ID: 100-1211-10-145	1898	UNIT NUMBER: 1
SAMPLE ID: 100-1211-10-145		START 10:22:10 08/21/91
SUBMITTED: 8/21		REPT 10:42:44 08/21/91
OPERATOR: J. J. ...		TOT RUN TIME 0:01:14
SAMPLE TYPE: ...		SAM DENS: 2.5000 g/cc
LIQUID: ...		LIG DENS: 0.8342 g/cc
ANALYSIS: ...	... RUN TYPE: High Speed	LIG VISC: 0.7257 cs

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



note 89-6 # 827

Sedimentation Data

PAGE 3

SAMPLE LOCATION: [unclear] 7508

UNIT NUMBER: 1

SAMPLE ID: note 89-6 # 827

START 10:22:10 08/21/91

SUBMITTER: [unclear]

REFRT 10:42:44 08/21/91

OPERATOR: [unclear]

TOT RUN TIME 010714

SAMPLE # 1: 0107

SAM DENS: 2.6000 g/cc

LIQUID # 1: water

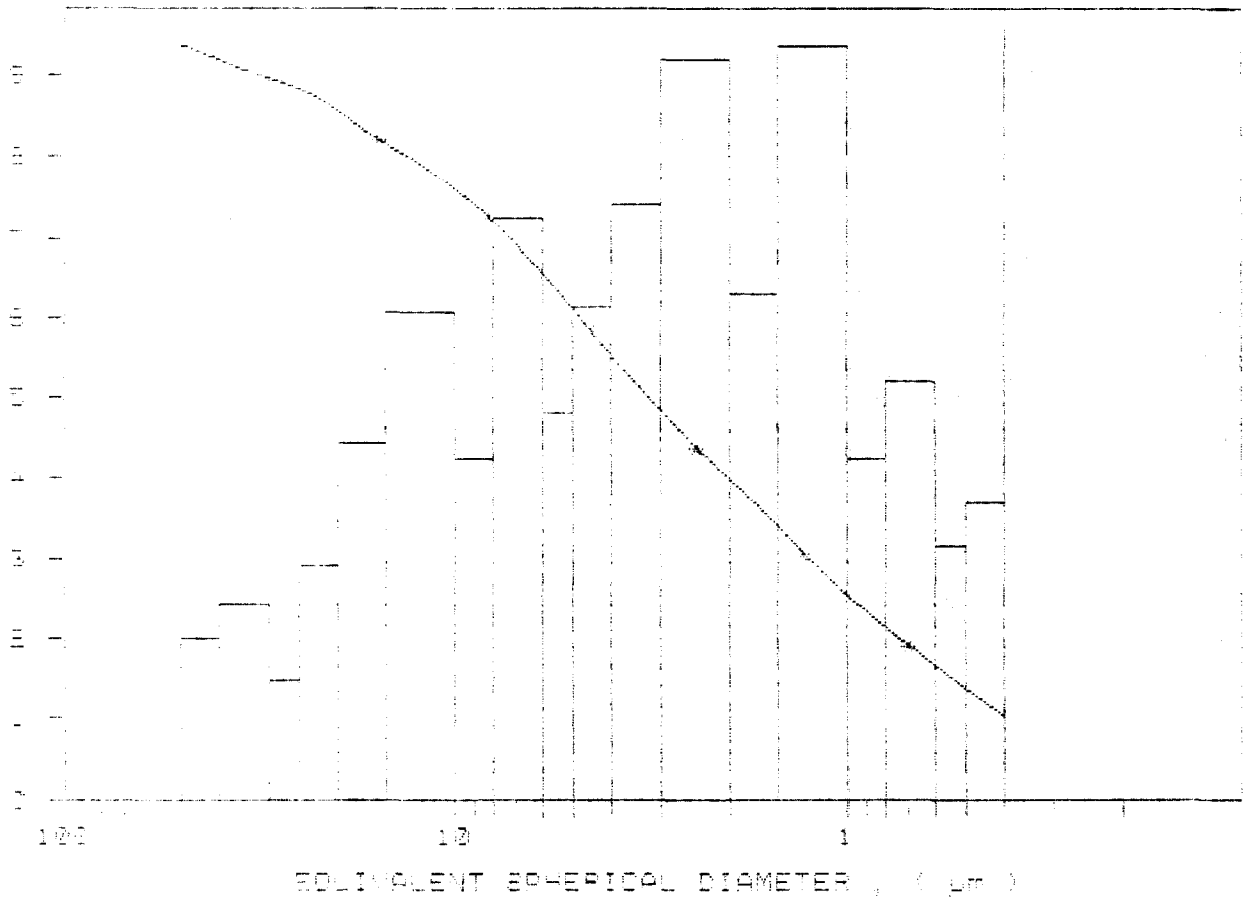
LIG DENS: 0.9942 g/cc

ANALYSIS: [unclear] RUN TYPE: High Speed

LIG VISC: 0.7267 cp

MASS POPULATION VS. DIAMETER
& CUMULATIVE MASS PERCENT FINER VS. DIAMETER

MASS, (% in interval)



SAMPLE SUBJECT: *[illegible]* / 1903
SAMPLE ID: *[illegible]*
SUBMITTER: *[illegible]*
OPERATOR: *[illegible]*
SAMPLE TYPE: *[illegible]*
LIQUID TYPE: *[illegible]*
ANALYSIS: *[illegible]* Kon Type: High Speed

UNIT NUMBER: 1
START 10:42:25 08/21/91
REPRT 10:58:23 08/21/91
TOT RUN TIME 01:15:19
SOL DENS: 2.6000 g/cc
LID DENS: 0.9942 g/cc
LID VISC: 0.72e7 cp

STARTING DIAMETER: *[illegible]*
ENDING DIAMETER: *[illegible]*

REYNOLDS NUMBER: 0.21
FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIA DIAMETER RANGE: *[illegible]*

MEDIA DIAMETER: 0.34 μ m

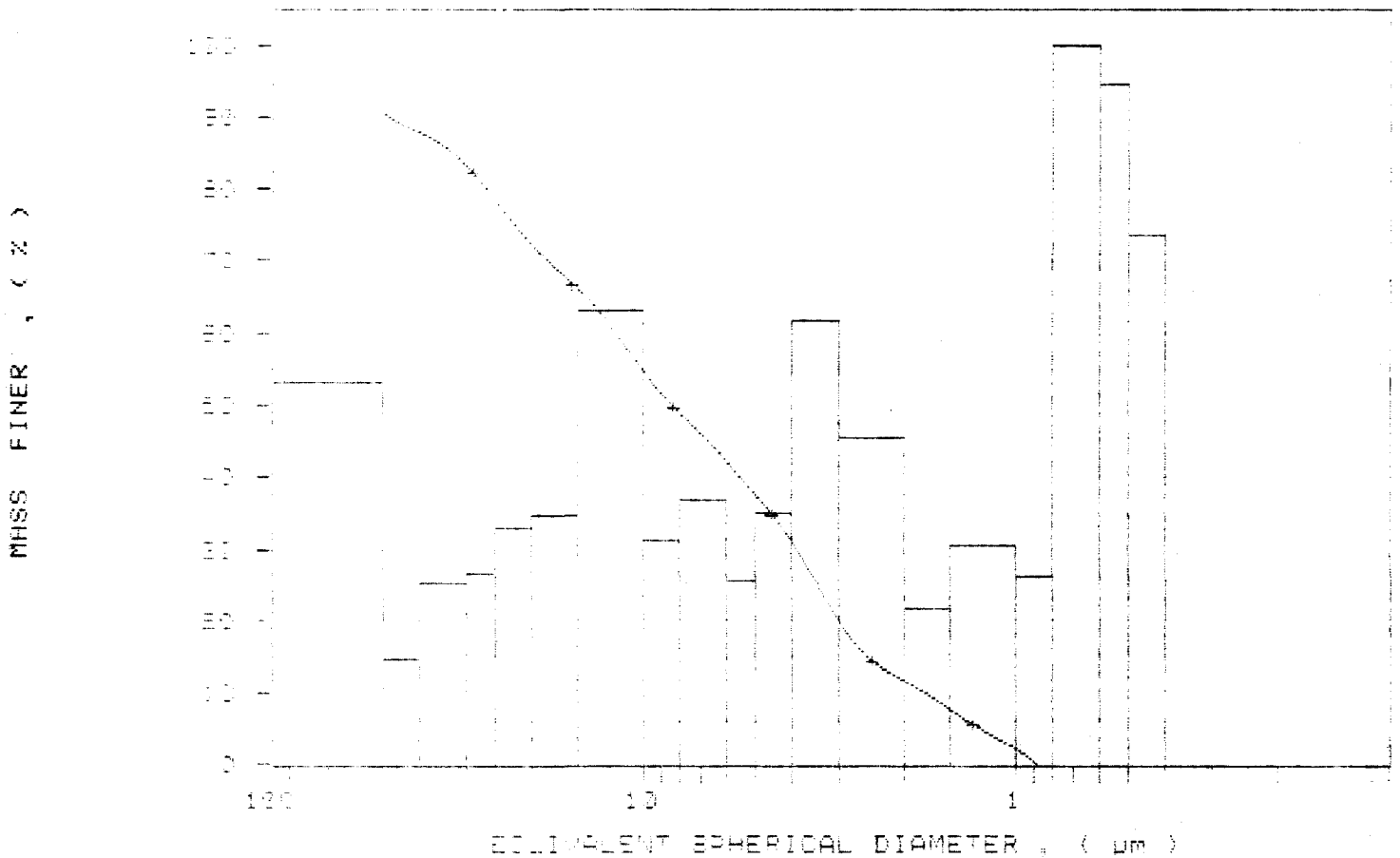
DIAMETER	DISTRIBUTION (%)	CUMULATIVE (%)
50.00	0.4	0.4
40.00	1.1	1.5
30.00	2.1	3.6
25.00	2.1	5.7
20.00	3.2	8.9
15.00	13.0	21.9
10.00	14.8	36.7
8.00	22.6	59.3
6.00	22.1	81.4
5.00	27.8	109.2
4.00	11.1	120.3
3.00	8.1	128.4
2.00	4.0	132.4
1.50	1.1	133.5
1.00	4.2	137.7
0.75	13.8	151.5
0.50	13.1	164.6
0.40	12.1	176.7

[Handwritten Signature: D. Matmstrom]

SAMPLE NO: 1106 11/71
 SAMPLE ID: 1106 11/71
 SUBMITTER: 1106 11/71
 OPERATOR: 1106 11/71
 SAMPLE TYPE: 1106 11/71
 LIQUID: 1106 11/71
 ANALYSIS: 1106 11/71

UNIT NUMBER: 1
 START 10:42:25 08/21/91
 REPT 10:58:23 08/21/91
 TOT RUN TIME 2:07:19
 SAM DENS: 2.5000 g/cc
 LIQ DENS: 0.8942 g/cc
 LIQ VISC: 0.7057 cP

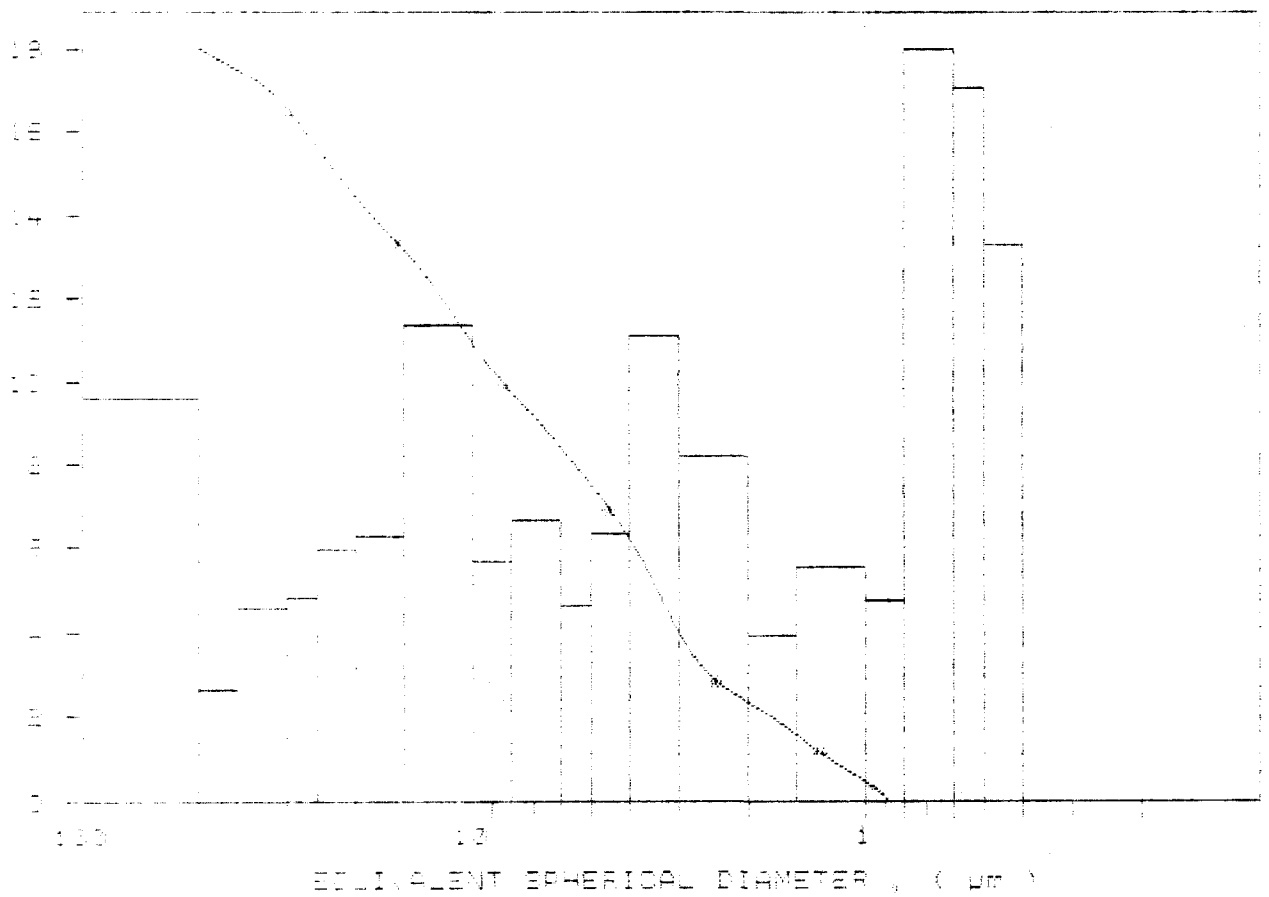
- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE ID: 80100	LABBER: B/DM	1989	UNIT NUMBER: 1
SAMPLE CD: 80100	CLASS: CL8		START 10:42:23 08/21/91
SUBMITTER: # 21			REPT 10:23:23 08/21/91
OPERATOR: VE			TOT RUN TIME 0:07:19
SAMPLE CD: 80100			SAT DENS: 2.6000 g/cc
LIQUID TYPE: Water			LIG DENS: 0.9982 g/cc
ANALYSIS: 2.0000 g	ROP TYPE: High Speed		LIG VISC: 0.7107 cp

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER

MASS, (% in interval)



SAMPLE NO: 101070000 DENS: 2.000 7210
 SAMPLE ID: 101070000
 SUBMIT: 10/14/91
 OPERATOR: M
 SAMPLE NAME: 101070000
 LIQUID NAME: water
 ANALYSIS: 101070000 FOR PM: High Speed

UNIT NUMBER: 1
 START 11:25:12 08/21/91
 REPORT 11:24:56 08/21/91
 TOT RUN TIME 0:07:11
 SAM DENS: 2.0000 g/cc
 LID DENS: 0.9942 g/cc
 LID VISC: 0.7267 cp

START TIME: 11:25:12
 ENDING TIME: 11:32:23

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

PALE DISTRIBUTION

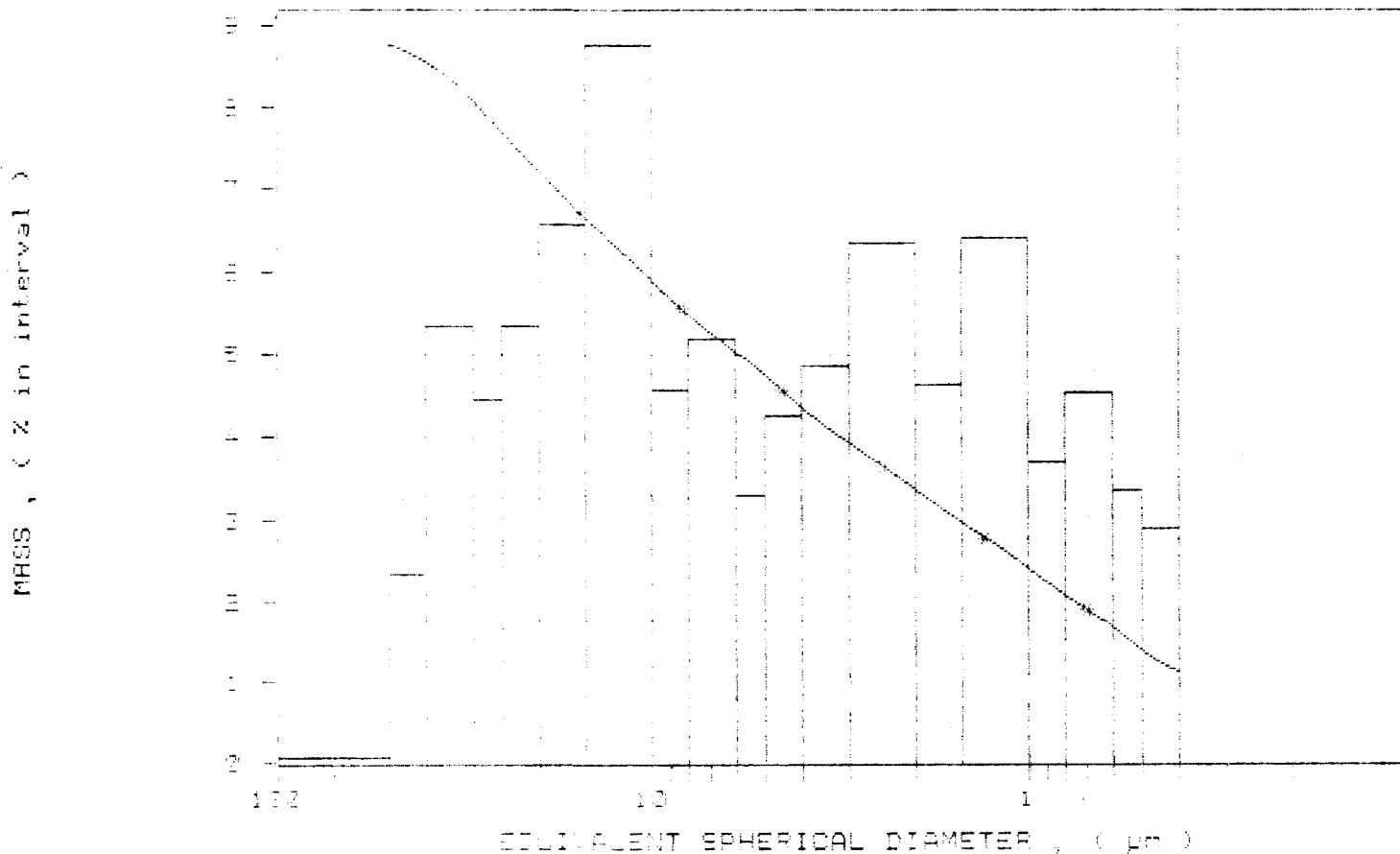
MEDIAN DIAMETER: 2.17 μm MODAL DIAMETER: 0.47 μm

DIAMETER (μm)	RELATIVE FREQUENCY (%)	PALE IN INTERVAL (%)
40.00	0.01	0.0
30.00	0.01	0.0
20.00	0.01	0.0
15.00	0.01	0.0
10.00	0.01	0.0
7.50	0.01	0.0
5.00	0.01	0.0
3.75	0.01	0.0
2.50	0.01	0.0
1.88	0.01	0.0
1.25	0.01	0.0
0.94	0.01	0.0
0.71	0.01	0.0
0.53	0.01	0.0
0.40	0.01	0.0
0.30	0.01	0.0
0.23	0.01	0.0
0.17	0.01	0.0
0.13	0.01	0.0
0.10	0.01	0.0
0.07	0.01	0.0
0.05	0.01	0.0

L. Malmstrom

SAMPLE NO: 1016 09-10-91	UNIT NUMBER: 1
SAMPLE NO: 1016 09-10-91	START 11:46:23 09/21/91
SUBMITTER: W. D.	REPT 12:07:11 09/21/91
OPERATOR: W.	TOT RUN TIME 0:07:14
SAMPLE TYPE: 011	SAM DENS: 2.6000 g/cc
LIQUID: 011	LIG DENS: 0.9992 g/cc
ANALYSIS: 1016 09-10-91	LIG VISC: 0.7230 cp
RUN TYPE: High Speed	

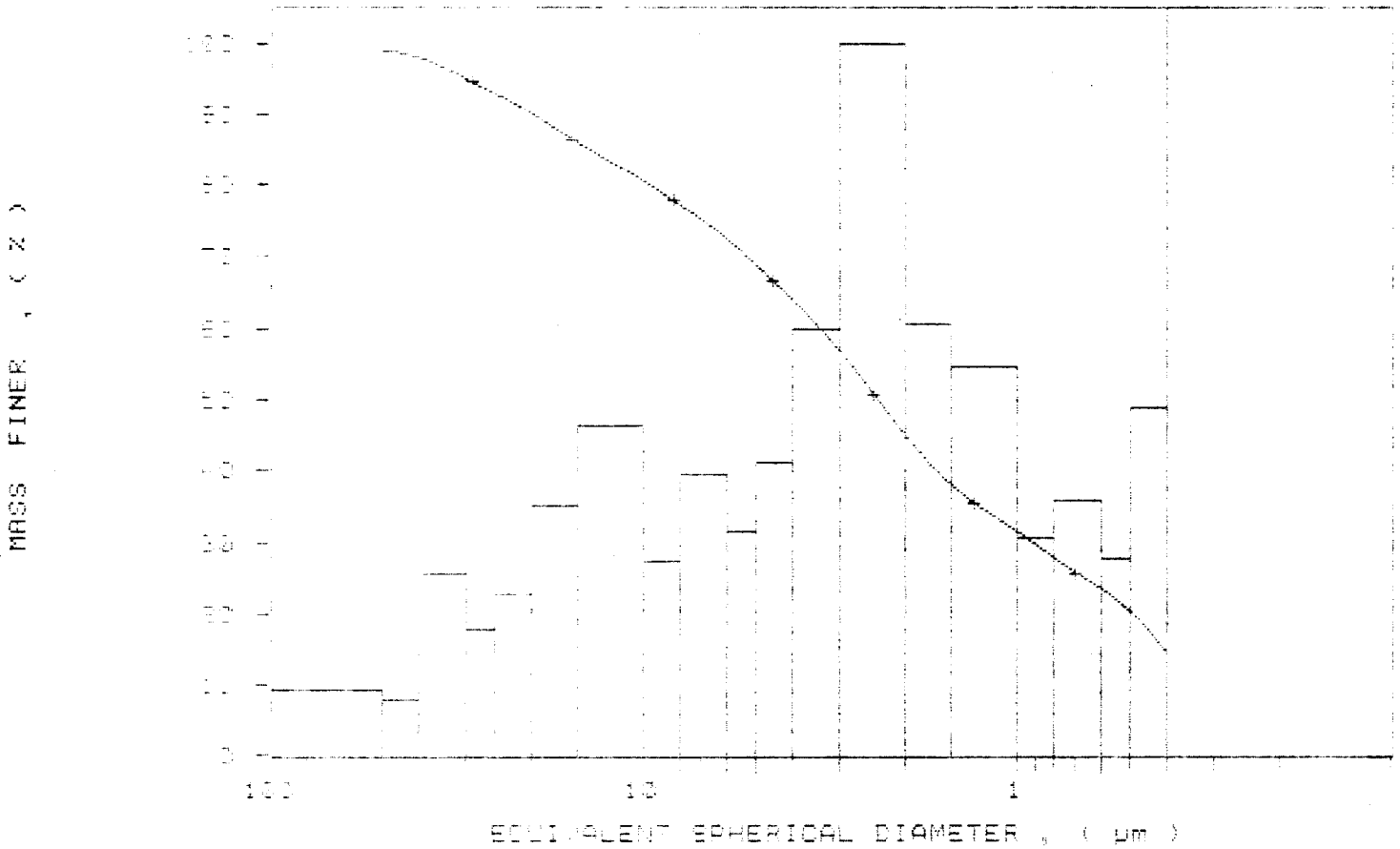
MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE ID: 10100000000000000000
 SAMPLE ID: 10100000000000000000
 SUBMITTER: F B
 OPERATOR: M
 SAMPLE TYPE: Clay
 LIQUID PHASE: water
 ANALYSIS: 10100000000000000000 High Speed

UNIT NUMBER: 1
 START: 12:05:13 08/21/91
 REPT: 12:24:53 08/21/91
 TOT RUN TIME: 0:19:41
 SAM DENS: 2.6000 g/cc
 LIG DENS: 0.9998 g/cc
 LIG VISC: 0.7268 cP

+ CUMULATIVE MASS PERCENT FINER VS DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE 11711000 10 21 1991
 SAMPLE 11711000 10 21 1991
 SUBMITTER # 100
 OPERATOR #
 SAMPLE # 11711
 LIQUID # 100
 ANALYSE # 11711 10 21 1991 Run TYPE: High Speed

UNIT NUMBER: 1
 START 12:04:59 08/21/91
 REPR1 13:07:07 08/21/91
 TOT RUN TIME 0:10:11
 SAM DENS: 2.0000 g/cc
 LIQ DENS: 0.9992 g/cc
 LIQ VISC: 0.7272 cP

STARTING SAMPLE # 11711000
 ENDING SAMPLE # 11711000

REYNOLDS NUMBER: 1.21
 FULL SCALE MASS % 100

MASS DISTRIBUTION

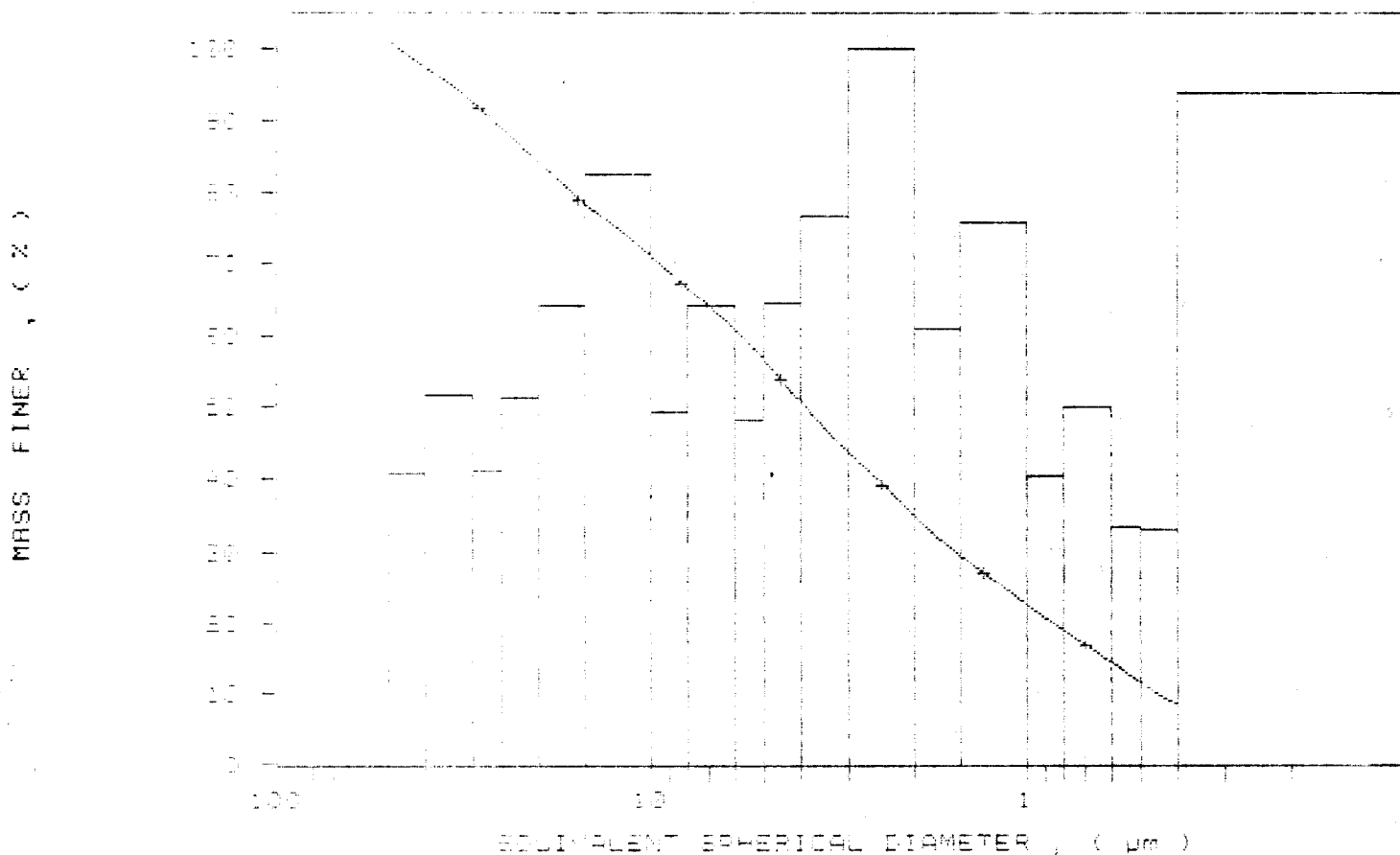
MEDIA # 1000 1000 1000 MODAL DIAMETER: 4.40 um

DIAMETER (um)	PERCENTAGE (%)	MASS (%)
50.00	0.00	0.00
40.00	0.00	0.00
30.00	0.00	0.00
20.00	0.00	0.00
15.00	0.00	0.00
10.00	0.00	0.00
8.00	0.00	0.00
6.00	0.00	0.00
5.00	0.00	0.00
4.00	0.00	0.00
3.00	0.00	0.00
2.00	0.00	0.00
1.50	0.00	0.00
1.00	0.00	0.00
0.75	0.00	0.00
0.50	0.00	0.00
0.25	0.00	0.00
0.10	0.00	0.00

L. malmstrom

SAMPLE ID: 20-6-10-1	UNIT NUMBER: 1
SAMPLE NO: 20-6-10-1	STAR: 12:54:59 08/21/91
SUBMITTER: [unclear]	REPT: 13:07:07 08/21/91
OPERATOR: [unclear]	TOT RUN TIME: 0:07:11
SAMPLE ID: 20-6-10-1	SAM DENS: 2.0000 g/cc
LIQUID: [unclear]	LIO DENS: 0.9998 g/cc
ANALYSIS: [unclear]	LIO VISC: 0.727E-10
ANALYSIS METHOD: [unclear]	ANAL TYPE: High Speed

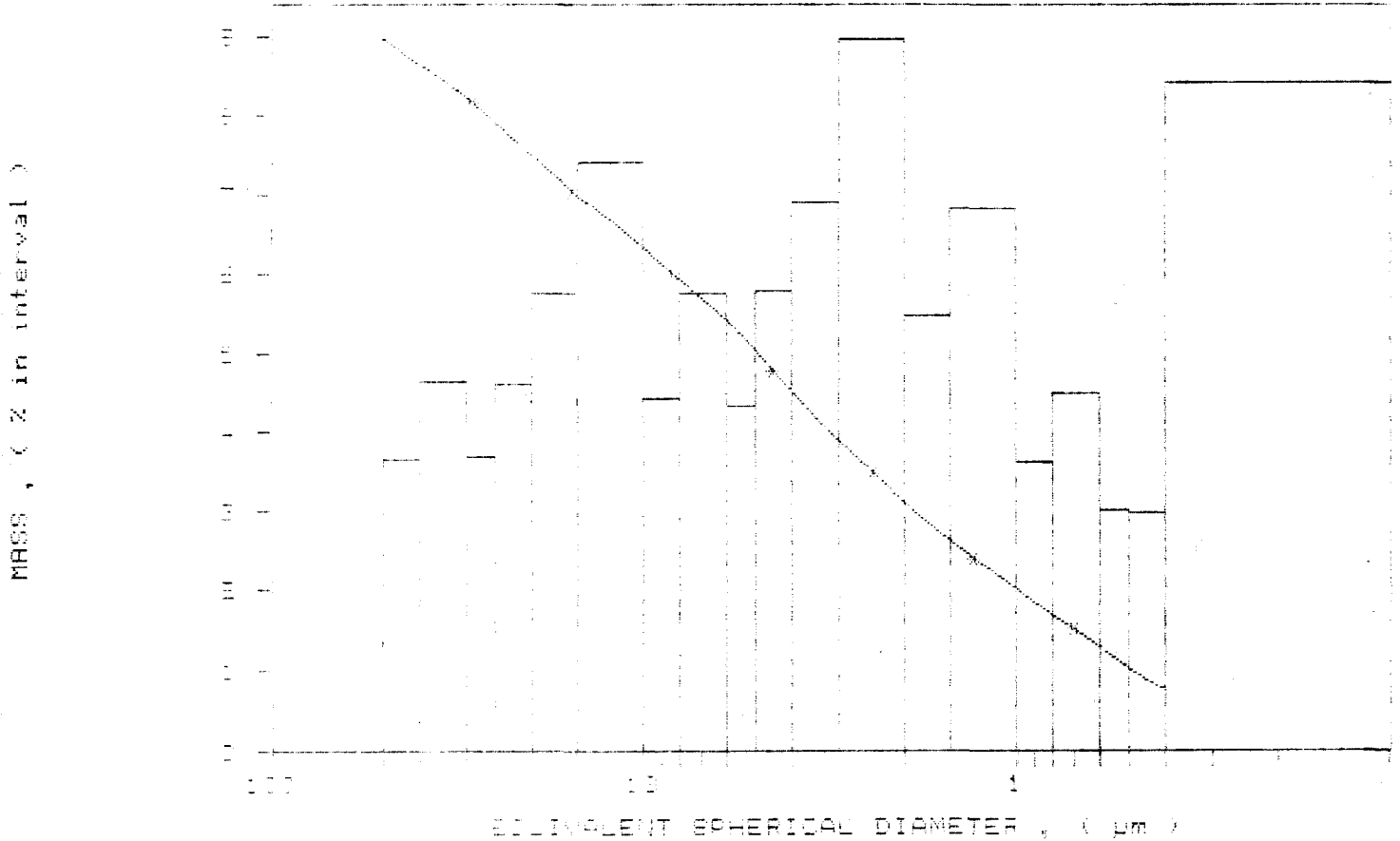
- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
- MASS POPULATION VS. DIAMETER



SAMPLE NO. 100-111
 SUBMITTER: W. L. ...
 OPERATOR: ...
 LIQUID: Water
 ANALYSIS: High Speed

UNIT NUMBER: 1
 START 12:34:59 08/21/81
 REPORT 15:07:07 08/21/81
 TOT RUN TIME 010:11
 SAM DENS: 2.0000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE CHARACTERISTICS: 1000 / 314
 SAMPLE ID: 1000-314
 SUBMITTER:
 OPERATOR:
 SAMPLE TYPE:
 LIQUID:
 ANALYSIS METHOD:
 RUN TYPE: High Speed

UNIT NUMBER: 1
 START 15:12:21 08/21/91
 REPT 15:21:02 08/21/91
 TOT RUN TIME 0:07:05
 SAM DEN: 210000 g/cc
 LIQ DEN: 0.7042 g/cc
 LIQ VISC: 0.0271 cp

STARTING TEMPERATURE: 10000 RPM
 ENGINE SPEED: 10000 RPM

REYNOLDS NUMBER: 1.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

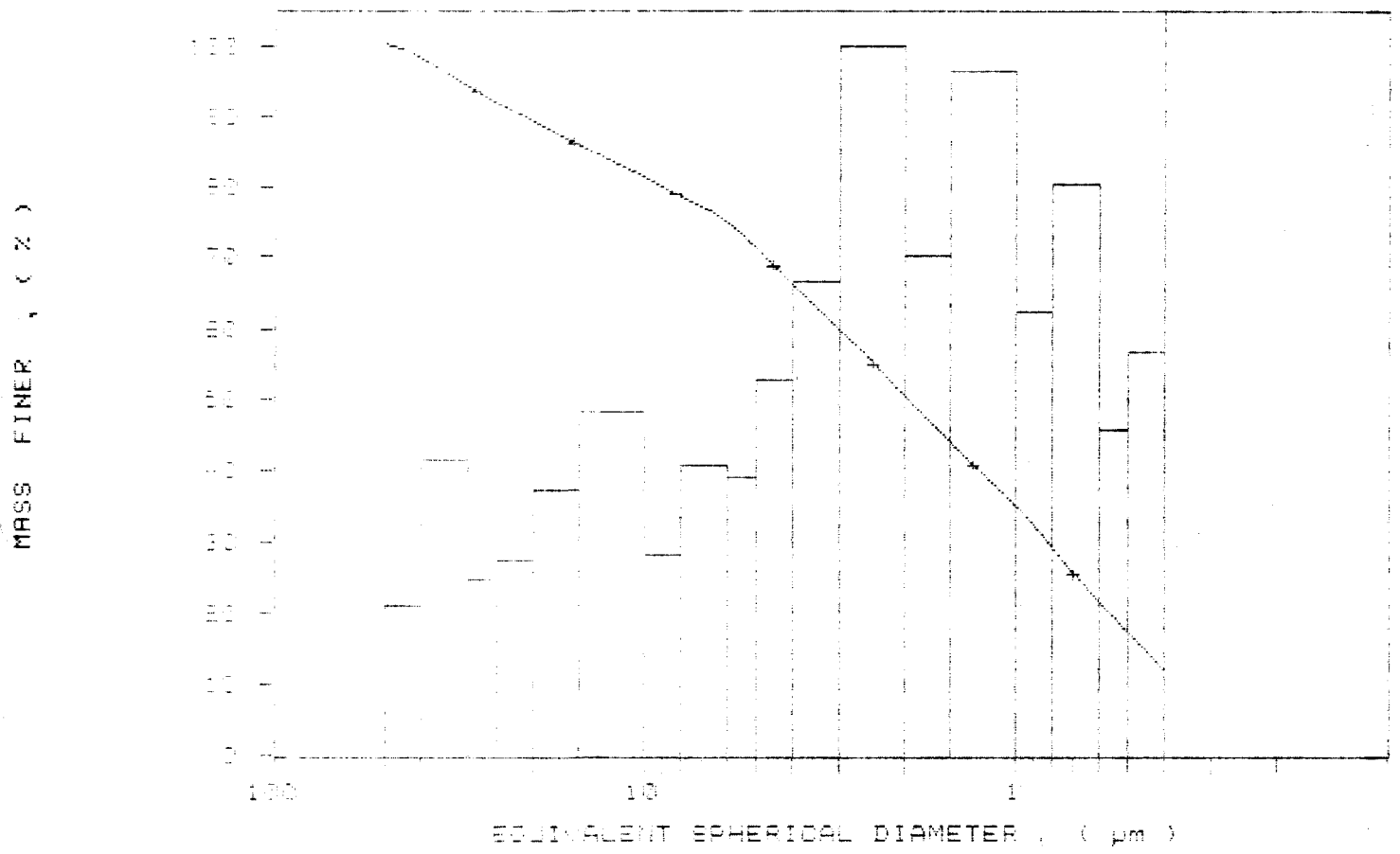
MEAN DIAMETER: 1.0000 μm NOMINAL DIAMETER: 0.5000 μm

DIAMETER (μm)	CL. (μm)	MASS %
0.075	0.075	0.1
0.090	0.090	2.0
0.105	0.105	5.0
0.120	0.120	12.0
0.135	0.135	20.0
0.150	0.150	30.0
0.165	0.165	40.0
0.180	0.180	50.0
0.195	0.195	60.0
0.210	0.210	70.0
0.225	0.225	80.0
0.240	0.240	90.0
0.255	0.255	100.0
0.270	0.270	100.0
0.285	0.285	100.0
0.300	0.300	100.0
0.315	0.315	100.0
0.330	0.330	100.0
0.345	0.345	100.0
0.360	0.360	100.0
0.375	0.375	100.0
0.390	0.390	100.0
0.405	0.405	100.0
0.420	0.420	100.0
0.435	0.435	100.0
0.450	0.450	100.0
0.465	0.465	100.0
0.480	0.480	100.0
0.495	0.495	100.0
0.510	0.510	100.0
0.525	0.525	100.0
0.540	0.540	100.0
0.555	0.555	100.0
0.570	0.570	100.0
0.585	0.585	100.0
0.600	0.600	100.0
0.615	0.615	100.0
0.630	0.630	100.0
0.645	0.645	100.0
0.660	0.660	100.0
0.675	0.675	100.0
0.690	0.690	100.0
0.705	0.705	100.0
0.720	0.720	100.0
0.735	0.735	100.0
0.750	0.750	100.0
0.765	0.765	100.0
0.780	0.780	100.0
0.795	0.795	100.0
0.810	0.810	100.0
0.825	0.825	100.0
0.840	0.840	100.0
0.855	0.855	100.0
0.870	0.870	100.0
0.885	0.885	100.0
0.900	0.900	100.0
0.915	0.915	100.0
0.930	0.930	100.0
0.945	0.945	100.0
0.960	0.960	100.0
0.975	0.975	100.0
0.990	0.990	100.0
1.005	1.005	100.0

L. Malmstrom
 12/20/96

SAMPLE NO: 10000-10000-10000	7514	UNIT NUMBER: 1
SAMPLE NO: 10000-10000-10000		START 13:13:21 05/21/91
SUBJECT: 10000		REFAT 13:21:00 05/21/91
OPERATOR: 10000		TOT RUN TIME 0:00:00
SAMPLE NO: 10000		SAM DENS: 2.5000 g/cc
LIDULE NO: 10000		LID DENS: 0.5942 g/cc
ANALYSIS UNIT: 10000	ANAL TYPE: High Speed	LID VISC: 0.7271 dyne/cm

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE NO: 10000000000000000000
 SAMPLE ID: 10000000000000000000
 SUBMITTER: E. S.
 OPERATOR: J. S.
 SAMPLE TYPE: 1000
 LIQUID: 1000
 ANALYSIS: 1000 1000 1000 1000 1000
 Run Type: High Speed

UNIT NUMBER: 1
 STAR: 19:38:49 08/21/91
 REPT: 19:46:27 08/21/91
 TOT RUN TIME: 0:07:16
 SAM LENS: 2.0000 0.000
 LIQ DENS: 0.9998 1.000
 LIQ VISC: 0.7265 0.000

STARTING DIAMETER: 0.4000 0.4000
 ENDING DIAMETER: 0.4000 0.4000

REYNOLDS NUMBER: 1.21
 FULL SCALE MASS %: 100

PALE DISTRIBUTION

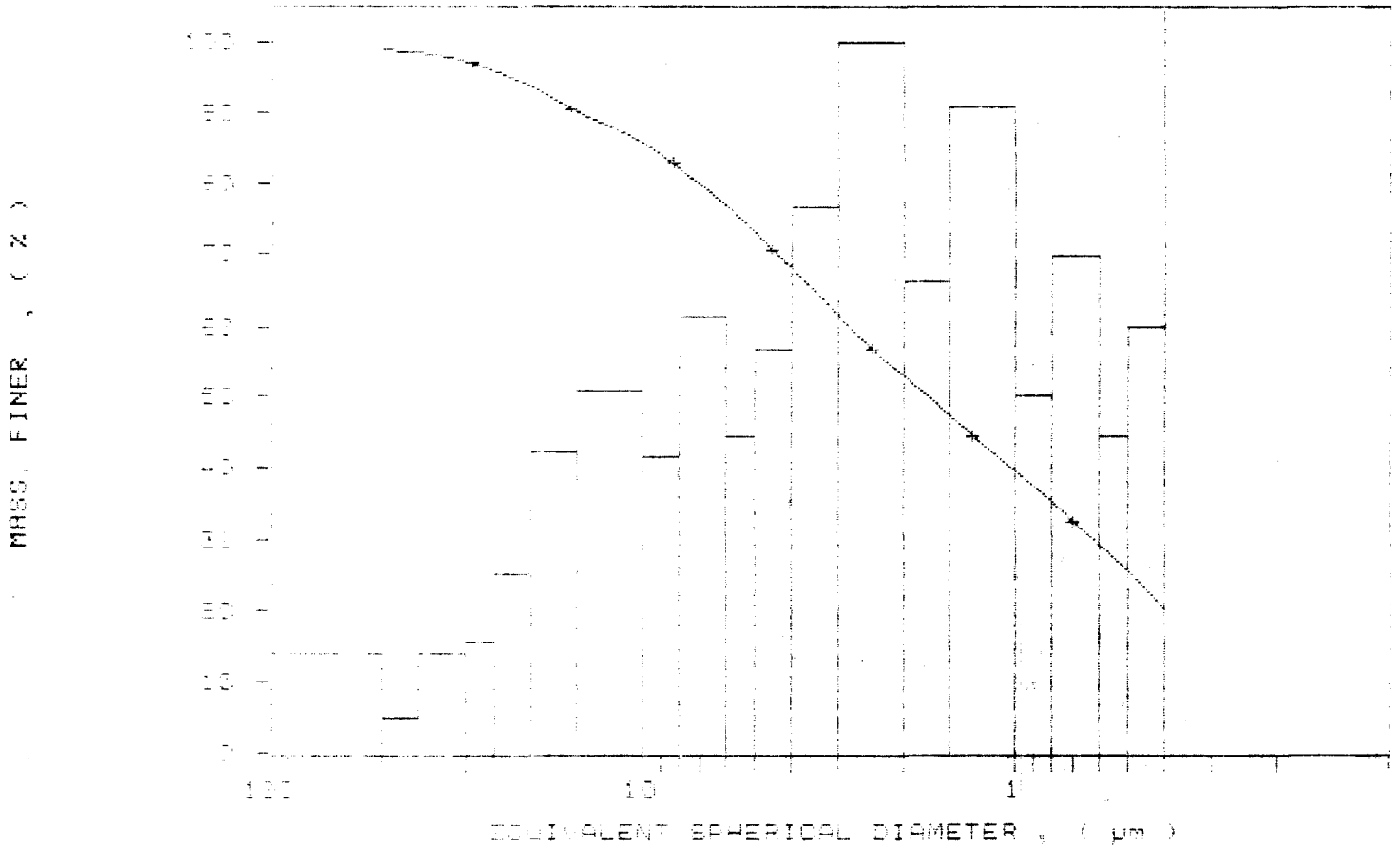
MEAN DIAMETER: 0.4000 0.4000 NORMAL DIAMETER: 0.4000 0.4000

DIAMETER (UM)	PERCENT	MASS IN INTERVAL (%)
0.4000	100.0	1.0
0.4100	100.0	0.9
0.4200	100.0	1.2
0.4300	100.0	1.3
0.4400	100.0	2.2
0.4500	100.0	2.0
0.4600	100.0	3.4
0.4700	100.0	3.6
0.4800	100.0	5.3
0.4900	100.0	5.3
0.5000	100.0	9.9
0.5100	100.0	6.0
0.5200	100.0	6.5
0.5300	100.0	2.7
0.5400	100.0	7.2
0.5500	100.0	4.3
0.5600	100.0	6.0
0.5700	100.0	6.0
0.5800	100.0	3.2

H. malmstrom

SAMPLE IDENTIFICATION NUMBER: DA-40-1915	UNIT NUMBER: 1
SAMPLE DESCRIPTION: ...	START 10:58:49 08/21/91
SUBMITTER: ...	REPORT 13:46:27 08/21/91
OPERATOR: ...	TOI RUN TIME 010.116
SAMPLE WEIGHT: ...	SAM DENS: 2.6000 g/cc
LIQUID NAME: water	LIG DENS: 0.9948 g/cc
ANALYSIS METHOD: ... High Speed	LIG VISC: 0.7818 cP

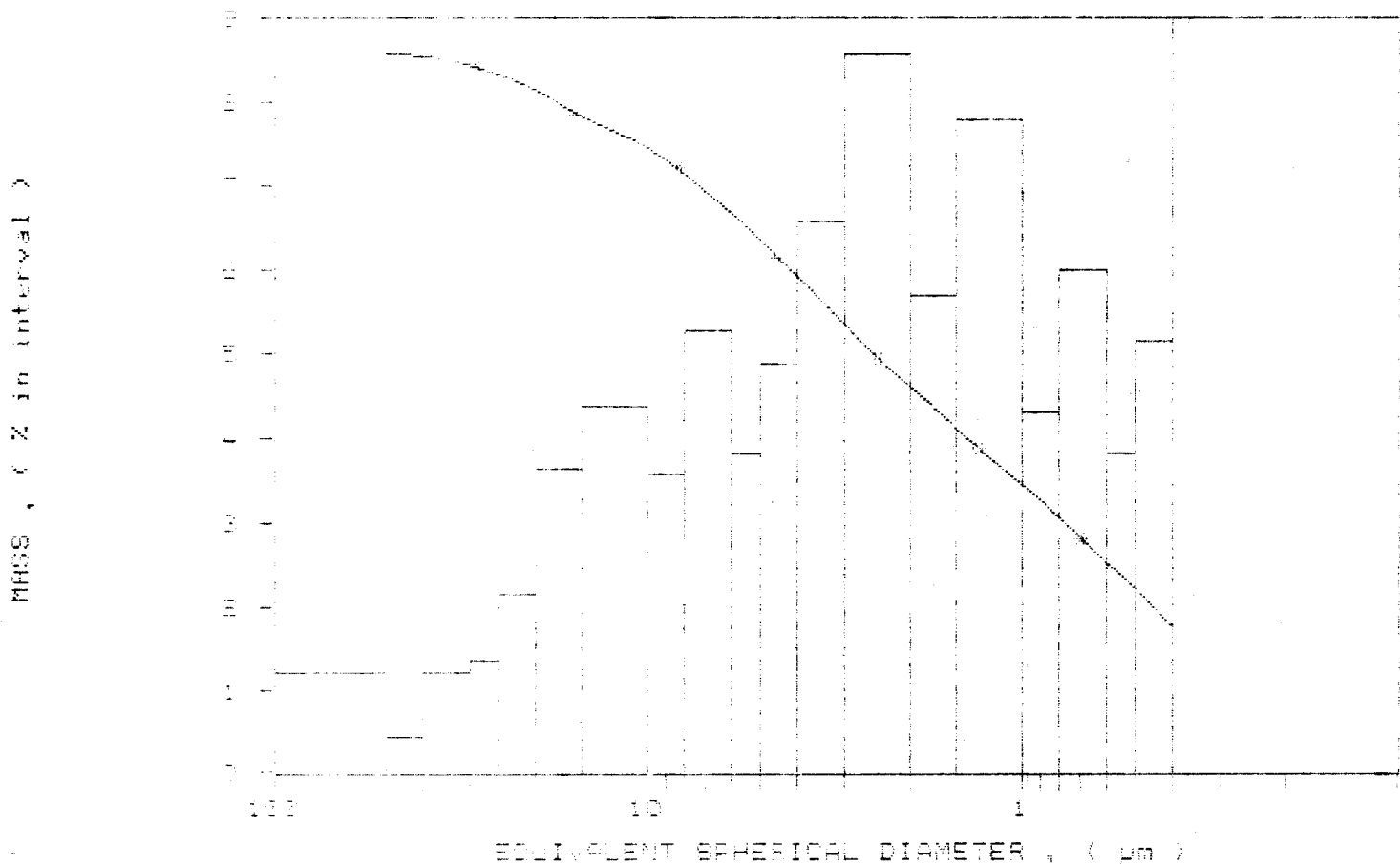
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE ID: 101-101-101-101-101
 SAMPLE NO: 101-101-101-101-101
 SUBMITTER:
 OPERATOR:
 SAMPLE BY:
 LIQUID:
 ANALYSIS: High Speed

UNIT NUMBER: 1
 START 13:33:49 08/21/91
 REPT 13:46:27 08/21/91
 TOT RUN TIME 0:12:16
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7265 cP

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE 101	ORIG. NO. 101	ORIT NUMBER: 1
SAMPLE 101	DATE 08/21/91	START 14:00:31 08/21/91
SUBTITLE: 8 03		REPT 14:08:02 08/21/91
OPERATOR: 84		TOT RUN TIME 0:07:08
SAMPLE TYPE: 018		SAM DENS: 2.6000 g/cc
LIQUID TYPE: 018		LID DENS: 0.9991 g/cc
ANALYSIS CLASS: 018	ROW TYPE: High Speed	LID VISC: 0.7855 cP
STARTING DIAMETER: 0.400 mm		REYNOLDS NUMBER: 0.21
ENDING DIAMETER: 0.400 mm		FULL SCALE MASS %: 100

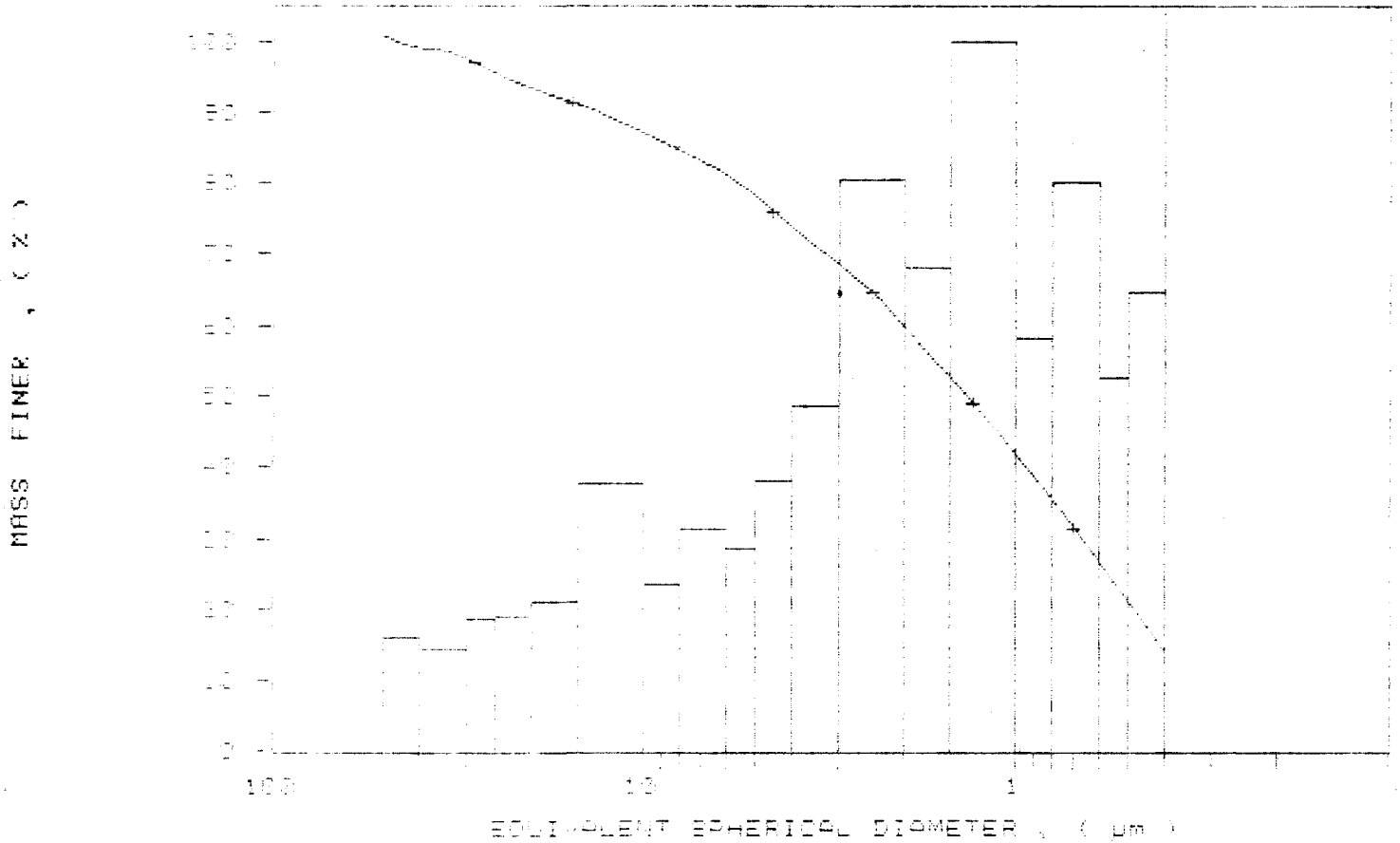
PALE DISTRIBUTION

MEDIAN DIAMETER: 0.400 mm MODAL DIAMETER: 0.40 mm

DIAMETER (mm)	PERCENT	MASS IN INTERVAL (%)
50.00	0.00	0.0
40.00	0.00	0.0
30.00	0.00	0.0
25.00	0.00	0.0
20.00	0.00	0.0
15.00	0.00	0.0
10.00	0.00	0.0
8.00	0.00	0.0
6.00	0.00	0.0
5.00	0.00	0.0
4.00	0.00	0.0
3.00	0.00	0.0
2.00	0.00	0.0
1.50	0.00	0.0
1.00	0.00	0.0
0.75	0.00	0.0
0.50	0.00	0.0
0.40	0.00	0.0

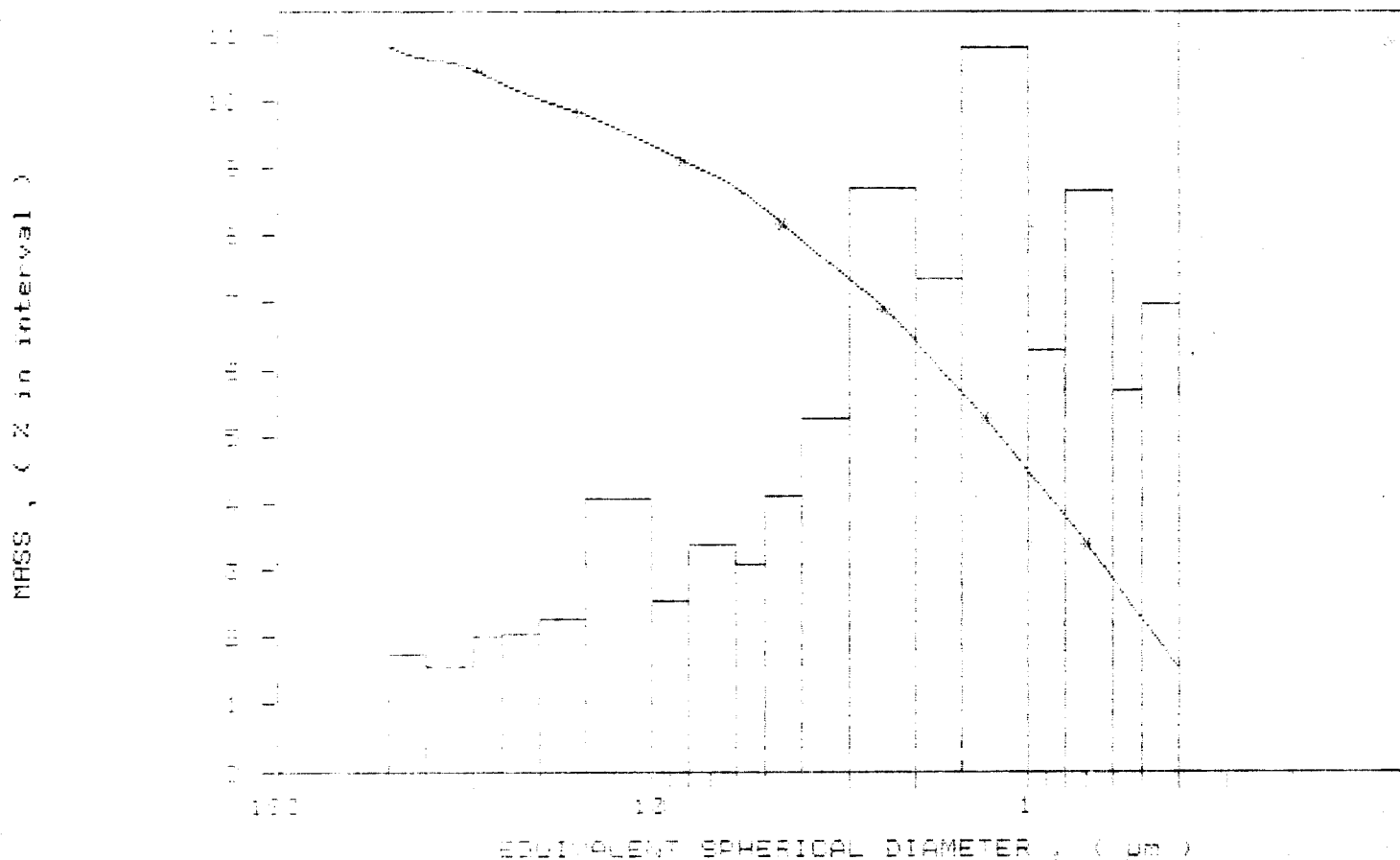
SAMPLE IDENTIFICATION NUMBER: 1495 7815 UNIT NUMBER: 1
 SAMPLE ID: 10010301 # 001 START: 14:00:31 08/21/91
 SUBMITTED BY: OPERATOR: REPORT: 14:08:02 08/21/91
 OPERATIONAL: TOT RUN TIME: 0:07:09
 SAMPLE Wt: 1.0000 g DRY DENS: 2.6000 g/cc
 LIQUID TYPE: water LIQ DENS: 0.9994 g/cc
 ANALYSIS: High Speed Run Type: High Speed LIQ VISC: 0.1269 cp

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE ID: 10000000000000000000	UNIT NUMBER: 1
SAMPLE ID: 10000000000000000000	START 14:00:31 05/21/91
SUBMITAL # 10	REPT 14:08:02 05/21/91
OPERATOR: J.K.	TOT RUN TIME 0:07:00E
SAMPLE TYPE: L.S.	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LIG DENS: 0.9942 g/cc
ANALYSIS: DPA 10000000000000000000	Run TYPE: High Speed
	LIG VISC: 0.7205 cP

MASS POPULATION VS. DIAMETER
& CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Note 29-6 # 236

Section 11.100.0111

PAGE 1

SAMPLE LABEL OR NUMBER: 0175 7217
 SAMPLE ID: 016 0000 0000
 SUBMITTER: EP
 OPERATOR: SA
 SAMPLE TYPE: 1165
 LIQUID TYPE: water
 ANALYSIS: ENH: 34.0 cc/g D FUR TYPE: High Speed

UNIT NUMBER: 1
 START: 14:16:35 08/21/91
 REPT: 14:31:35 08/21/91
 TOT RUN TIME: 6:04:24
 SAM DENS: 2.6000 g/cc
 LIG DENS: 0.9942 g/cc
 LIG VISC: 0.7517 cp

STARTING DIAMETER: 5.000 mm
 ENDING DIAMETER: 0.040 mm

REYNOLDS NUMBER: 0.181
 FULL SCALE MASS W: 100

SIZE DISTRIBUTION

MEDIA: 11.100.0111 0175 7217 MODAL DIAMETER: 6.12 um

DIAMETER (um)	PERCENTAGE	CLASS IN INTERVAL (%)
10.00	0.00	1.2
9.00	0.00	1.0
8.00	0.00	0.8
7.00	0.00	0.9
6.00	0.00	4.7
5.00	0.00	1.1
4.00	0.00	0.1
3.00	0.00	0.1
2.00	0.00	4.7
1.00	0.00	5.7
0.500	0.00	7.4
0.200	0.00	1.1
0.100	0.00	0.1
0.075	0.00	0.1
0.050	0.00	0.1
0.025	0.00	0.1
0.010	0.00	0.1
0.005	0.00	0.1

L. matmstrom

SAMPLE NO: 10M170088-12A-45 .317

UNIT NUMBER: 1

SAMPLE NO: 10M170088-12A-45

START 14:19:58 08/21/91

SURVEY NO: 20

REPORT 14:31:35 08/21/91

OPERATOR: JY

TOT RUN TIME 0:07:24

SAMPLE TYPE: L10

SAM DENS: 2.6600 g/cc

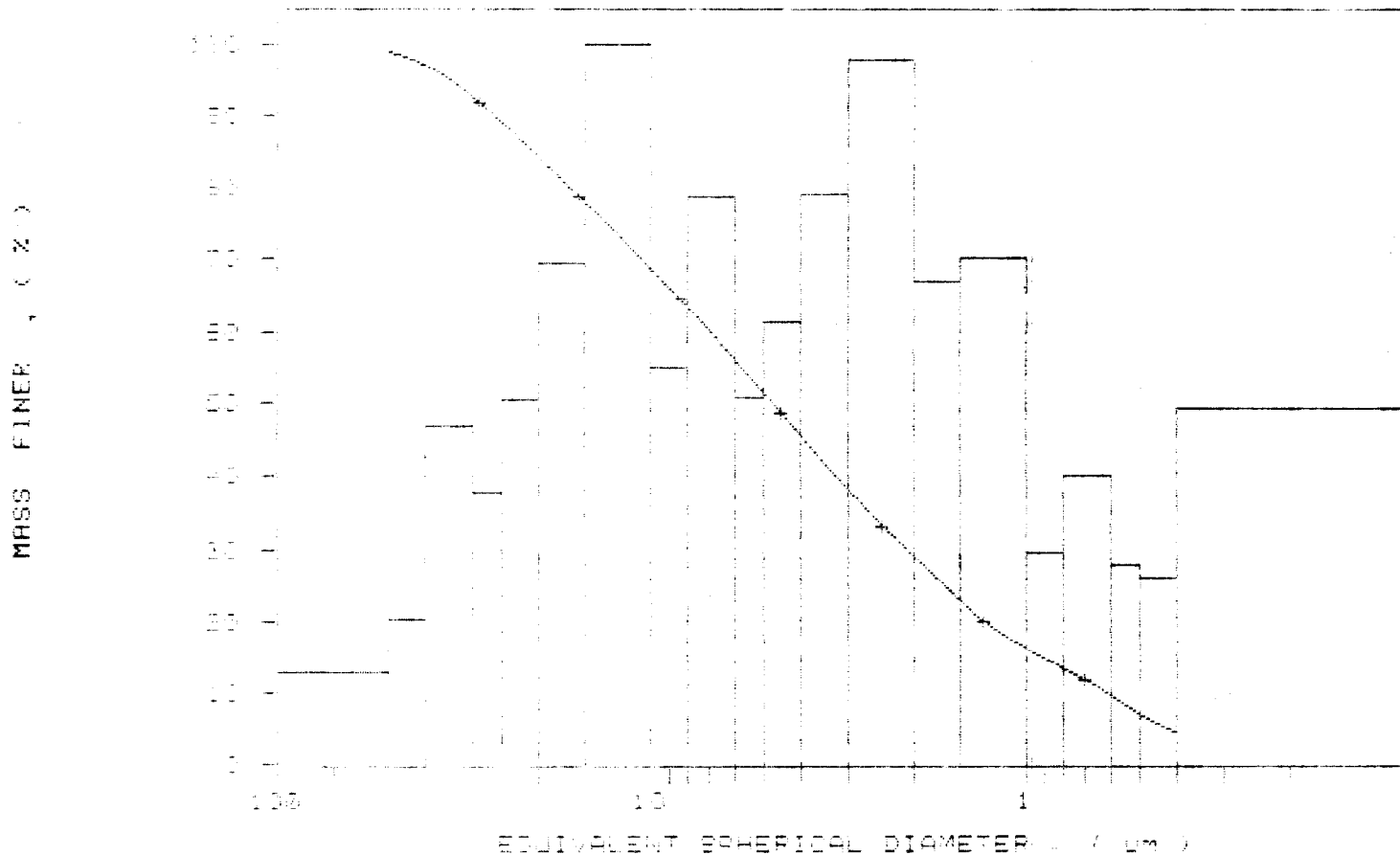
LIQUID: Water

L10 DENS: 0.9949 g/cc

ANALYSIS: L10 100% bag 1 Run TYPE: High Speed

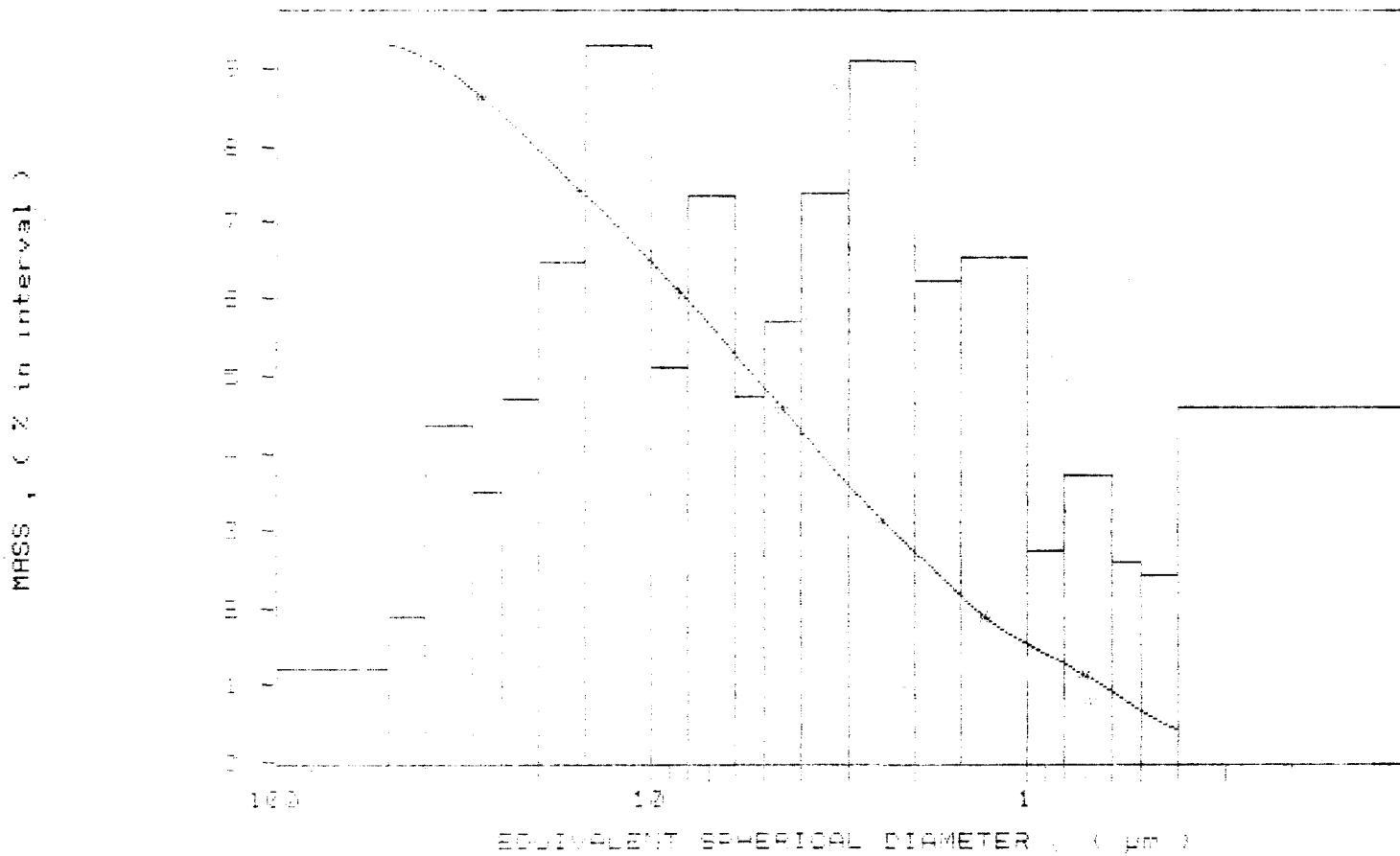
L10 VISC: 0.7269 cp

4 CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE ID: CETYLV	ANALYST: BAYAS	7917	UNIT NUMBER: 1
SAMPLE NO: 1016	DATE: 7/27/91		START: 14:19:08
SUBSTITUTE: 1016			DATE: 7/27/91
OPERATOR: KJ			TOT RUN TIME: 01:01:24
SAMPLE WGT: 0.1000			SAM DENS: 2.6304 g/cc
LIGUL: 1000000			LIG DENS: 0.8942 g/cc
ANALYSIS: CFT: 4000	WGT: 0.1000	RUN TYPE: High Speed	LIG VISC: 0.7259 cc

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE ID: 8711
 SUBMITTER: ...
 OPERATOR: ...
 SAMPLE NO: 8711
 LIQUID: ...
 ANALYSIS TYPE: ... Run Type: High Speed

UNIT NUMBER: 1
 START: 10:05:29 05/21/87
 REPT: 10:21:55 05/21/87
 TOT RUN TIME: 0:17:11
 SAM BLND: 2.0070 g/cc
 LIQ DENS: 0.9342 g/cc
 LIQ VISC: 0.7224 cp

STARTING WEIGHT: ...
 ENDING WEIGHT: ...

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIA: ... MODAL DIAMETER: 5.50 µm

DIAMETER (µm)	...	...
50.00	...	...
40.00	...	...
30.00	...	...
20.00	...	...
15.00	...	...
10.00	...	...
8.00	...	...
6.00	...	...
4.00	...	...
3.00	...	...
2.00	...	...
1.50	...	...
1.00	...	...
0.75	...	...
0.50	...	...
0.30	...	...

S. Malmström

SAMPLE # 17010670000000000000 7019

UNIT NUMBER: 1

SAMPLE # 17010670000000000000

START 16:05:29 08/21/91

SUBMITTER: F. L.

REPT 16:25:58 08/21/91

OPERATOR: J.

LOI RUN TIME 01:0111

SAMPLE # 17010670000000000000

SAM DENS: 2.0000 g/cc

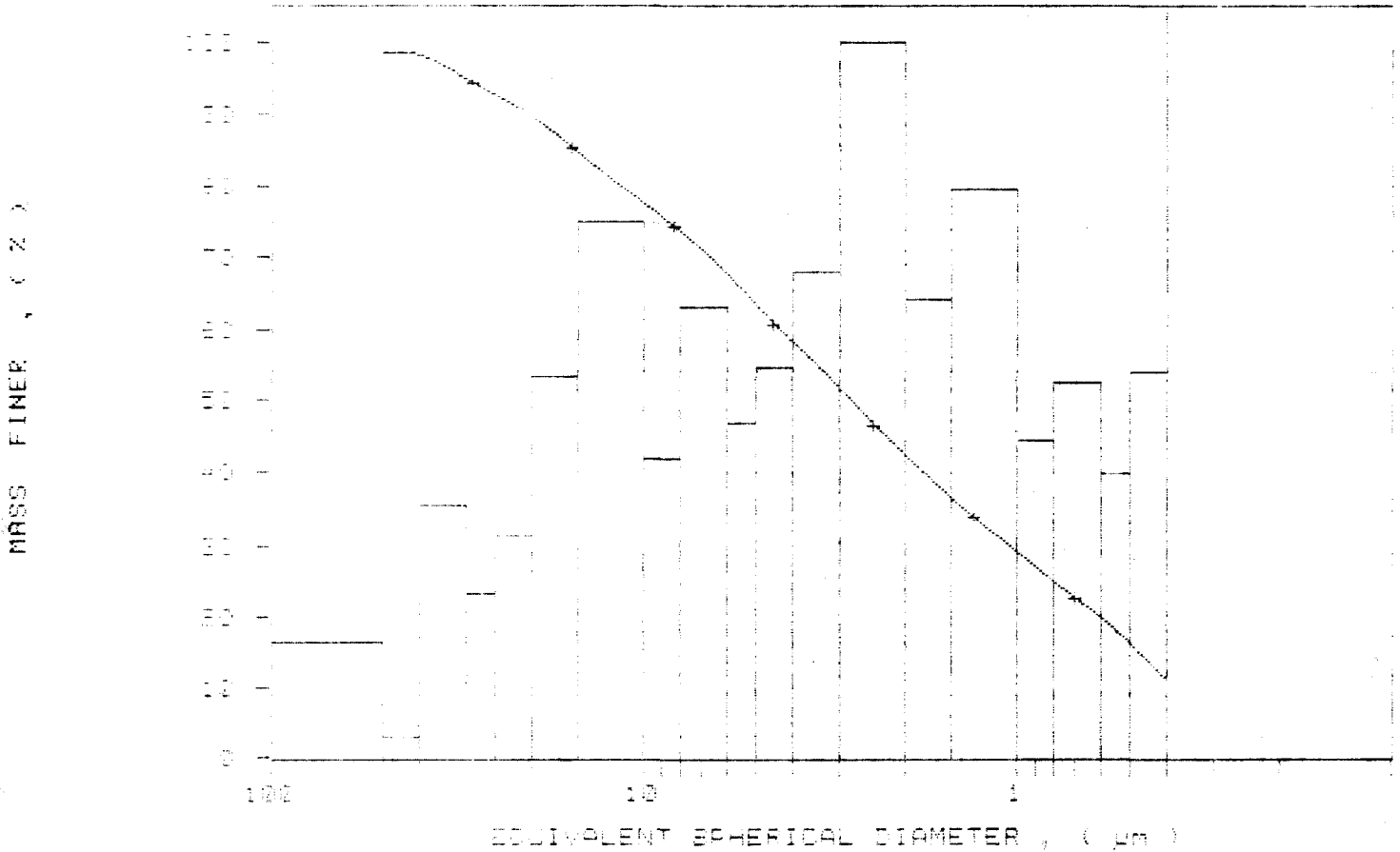
LIQUID: water

LIG DENS: 0.9998 g/cc

ANALYSIS UNIT: 17010670000000000000 Run TYPE: High Speed

LIG VISC: 0.7264 cp

- CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER

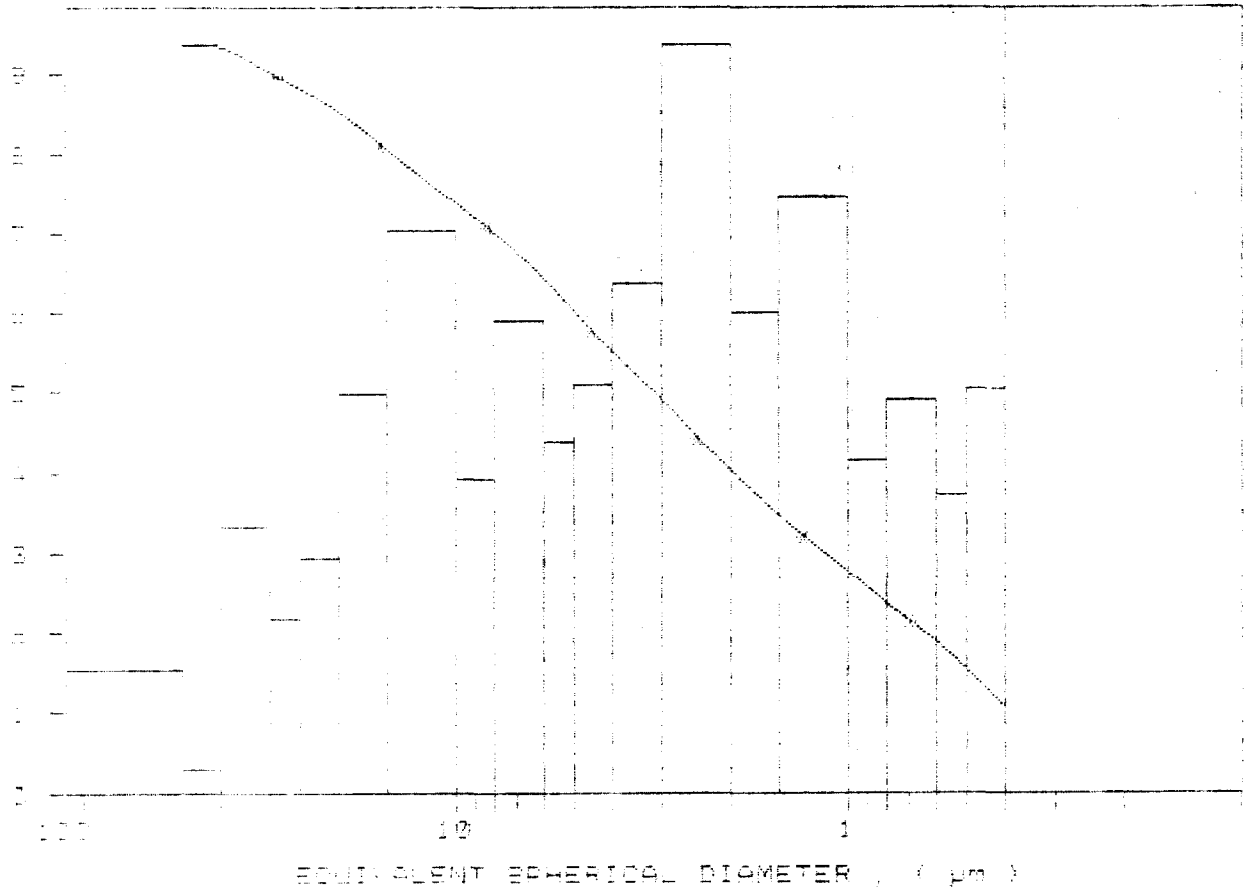


SAMPLE ID: 10707-1 (CLER) 10-05 1915
 SAMPLE ID: 10707-1 (CLER) 10-05 1915
 SUBST: 10707-1 (CLER) 10-05 1915
 OPERATOR: 10707-1 (CLER) 10-05 1915
 SAMPLE TYPE: 10707-1 (CLER) 10-05 1915
 LIQUID: 10707-1 (CLER) 10-05 1915
 ANALYSIS: 10707-1 (CLER) 10-05 1915

UNIT NUMBER: 1
 START 16:05:29 08/21/91
 REPT 16:25:55 08/21/91
 TOT RUN TIME 0:10:11
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7264 cP

MASS POPULATION VS. DIAMETER
 CUMULATIVE MASS PERCENT FINER VS. DIAMETER

MASS, (% in interval)



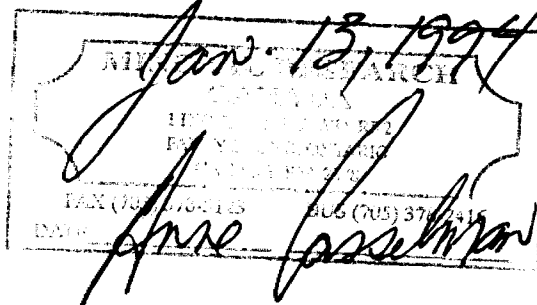
ROTARY DRILL HOLE RECORD

Drilling Started: January 30, 1989	Logged By: A. Casselman
Drilling Finished: January 31, 1989	Logged: April 11, 1989
Drilling Co.: Midwest	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 250.0'	Mineral Research Canada
Overburden Depth: 75.0'	R. R. # 2
Claim No. P 825806	Parry Sound, ON
Northing: 390 S	P2A 2W8
Easting: 5815 E	Elevation: 350.0'
Azimuth: 50° 09' 01" W. 82° 08' 29" N.	
Location: 450.0' at 190° To Claim Post No. 1	
Property: Kipling	Hole Number: 89-15

SUMMARY

From	To	Description
0.0'	1.0'	Sand
1.0'	75.0'	Glacial Clay Till Pleistocene - Overburden
75.0'	105.5'	Kaolin Silica Sand (kss) - Cretaceous
105.5'	130.0'	Clay
130.0'	145.5'	Sandy Clay
145.5'	184.75'	Kss
184.75'	189.0'	Clay
189.0'	209.0'	Kss
209.0'	230.0'	Sandy Clay
230.0'	248.0'	Kss
248.0'	250.0'	Clay

EOH - 250.0'



Detail Log 89-15

From	To	Sample No.	Description
0.0'	1.0'		Sand - orange, limonitic, medium grain, approximately 10.0% larger clasts, predominantly silica.
1.0'	75.0'		Glacial Clay Till - competent, clast-free from 1.0' - 21.0' - more massive and pliable, green/grey, and clast-rich areas, 1.0 - 3.0% carbonate clasts & 10.0% gneissic clasts from 0.25" - 1.5", in dark green/brown clay matrix.
75.0'	81.0'	3651	Kss - coarse grain, with high amounts of medium brown clay, grading lighter from 75.0' - 77.0', 77.0' - 77.5' - medium brown clay, pliable with darker laminations and coarse grain silica interbedded, contact at 77.5' with 1.0" of white kss, then turns to a deep concord purple at 81.0' - coarse grain kss. 16.66% kaolin.
81.0'	85.0'	3652	Kss - medium grain, medium brown, high moisture retention, minor heavies, some areas are almost completely devoid of kaolin - appears to be washed out, other areas are saturated. 7.42% kaolin.
85.0'	89.0'	3653	Kss - medium brown, medium grain, very little clay content, increasing downsection, purple clot at 88.5" - washed out. 5.54% kaolin.
89.0'	92.0'	3654	Kss - white and brown bands, medium grain, from 89.0' - 92.0', clay clots, medium brown, pliable, kss - coarse grain, brown, 90.5' - 92.0' - brown to yellow/brown, coarse grain. 8.76% kaolin.
92.0'	96.0'	3655	Kss - fine grain, brown. 6.66% kaolin.
96.0'	100.0'	3656	Kss - fine grain, as above, less brown. 8.05% kaolin.
100.0'	105.5'	3657	Kss - as above, 103.0' - 105.5' - brown. 11.70% kaolin.
105.5'	111.0'	3658	Clay - 105.5' - 105.6' - white, pliable, non-competent, grading into mauve - 105.6' - 105.7', grading into yellow pliable from 105.7' - 107.0', 107.0' - 109.0' - highly

competent yellow grades to red to white discontinuous laminations, to mostly red downsection - from 109.0' - 110.75', buff to white - greasy, competent, disc-like from 110.75' - 111.0'. 76.43% kaolin. 60.0% kaolin, 32.0% quartz, 5.0% illite, 3.0% smectite by XRD.

- 111.0' 116.0' 3659 Clay - competent, fissile, white, greasy areas, yellow/brown, grading into sandy clay at 112.0' - 113.0' - light grey, pliable, minor illite and heavies, lower contact with dark grey, pliable clay with lighter brown laminations, 69.87% kaolin.
- 116.0' 121.0' 3660 Clay - fissile, greasy, competent, carbonaceous at 119.0' & 120.0' - 120.5', sample taken for cyclone trials on Aug.31, 1990. 82.63% kaolin.
- 121.0' 125.0' Clay - competent, disc-like, chocolate brown grading to red/brown, entire remainder of hole dried.
- 125.0' 130.0' Clay - competent, fissile, red, some darker bluish clots.
- 130.0' 132.5' Sandy Clay - competent, fissile, red & light grey mottled.
- 132.5' 136.0' Sandy Clay - competent, fissile, coarsening downsection, red and light grey mottled to yellow & grey mottled to light grey, minor illite.
- 136.0' 140.0' Sandy Clay - competent, fissile, light grey, medium brown, with darker laminations, exterior crystal growth.
- 140.0' 145.5' Sandy Clay - as above, some yellow haematitic staining - some coarser areas, silica-rich near kss, lighter in colour.
- 145.5' 151.0' Kss - medium grain, rare coarser clasts, light brown.
- 151.0' 155.0' Kss - as above.
- 155.0' 159.0' Kss - as above, pink/purple mould on surface.
- 159.0' 163.0' Kss - medium grain, light yellow/brown.
- 163.0' 166.0' Kss - as above, exterior crystal crusting, yellow/white.

- 166.0' 169.0' Kss - as above, some pink/purple surface mould.
- 169.0' 172.0' Kss - as above, more white.
- 172.0' 176.0' Kss - as above.
- 176.0' 179.0' Kss - coarse grain, in a medium grain matrix, sub-rounded vari-coloured silica clasts, light brown, pink/purple mould on surface.
- 179.0' 182.0' Kss - coarse grain, some medium grain matrix, some light grey clay matrix, vari-coloured silica clasts angular to sub-rounded.
- 182.0' 184.75' Kss - medium grain, rare coarser clasts light brown/yellow.
- 184.75' 189.0' Clay - grading to sandy clay, competent, fissile, medium brown, with darker laminations, minor illite.
- 189.0' 195.0' Kss - fine grain, light brown.
- 195.0' 199.0' Kss - fine grain, very light brown, minor illite.
- 199.0' 203.0' Kss - as above.
- 203.0' 207.0' Kss - fine grain, grading to medium grain grading to coarse grain, with a medium grain matrix, light brown, vari-coloured silicas, sub-rounded.
- 207.0' 209.0' Kss - clay-rich, light brown, medium grain.
- 209.0' 215.0' Sandy Clay - competent, fissile, fine grain, light brown, grading to chocolate brown, minor illite.
- 215.0' 220.0' Sandy Clay - as above.
- 220.0' 225.0' Sandy Clay - as above, last 0.5' is light brown.
- 225.0' 230.0' Sandy Clay - some silica-rich areas, nearly kss, competent, fissile, fine grain, medium grain in more siliceous areas, buff, minor illite.
- 230.0' 234.0' Kss - fining grain, light brown, minor illite.
- 234.0' 238.0' Kss - as above, bright yellow coating 237.5' - 238.0' - on exterior, sulphureous smell.
- 238.0' 242.0' Kss - fine grain, light brown, sulphureous smell, yellow exterior coating 241.75' - 242.0', at 239.0' - a group of siliceous/haematitic/garnetiferous conglomerates - fine grain, found within a darker band of yellow/red/brown kss that contains a high

percentage of garnet and haematite.

242.0' 248.0' Kss - medium grain, white.

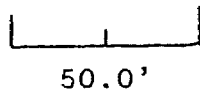
248.0' 250.0' Clay - some lighter sandy sections, one of these at 248.25' contained an area of red and yellow mottling of silty material, chocolate brown, carbonaceous, minor illite.

EOH - 250.0'

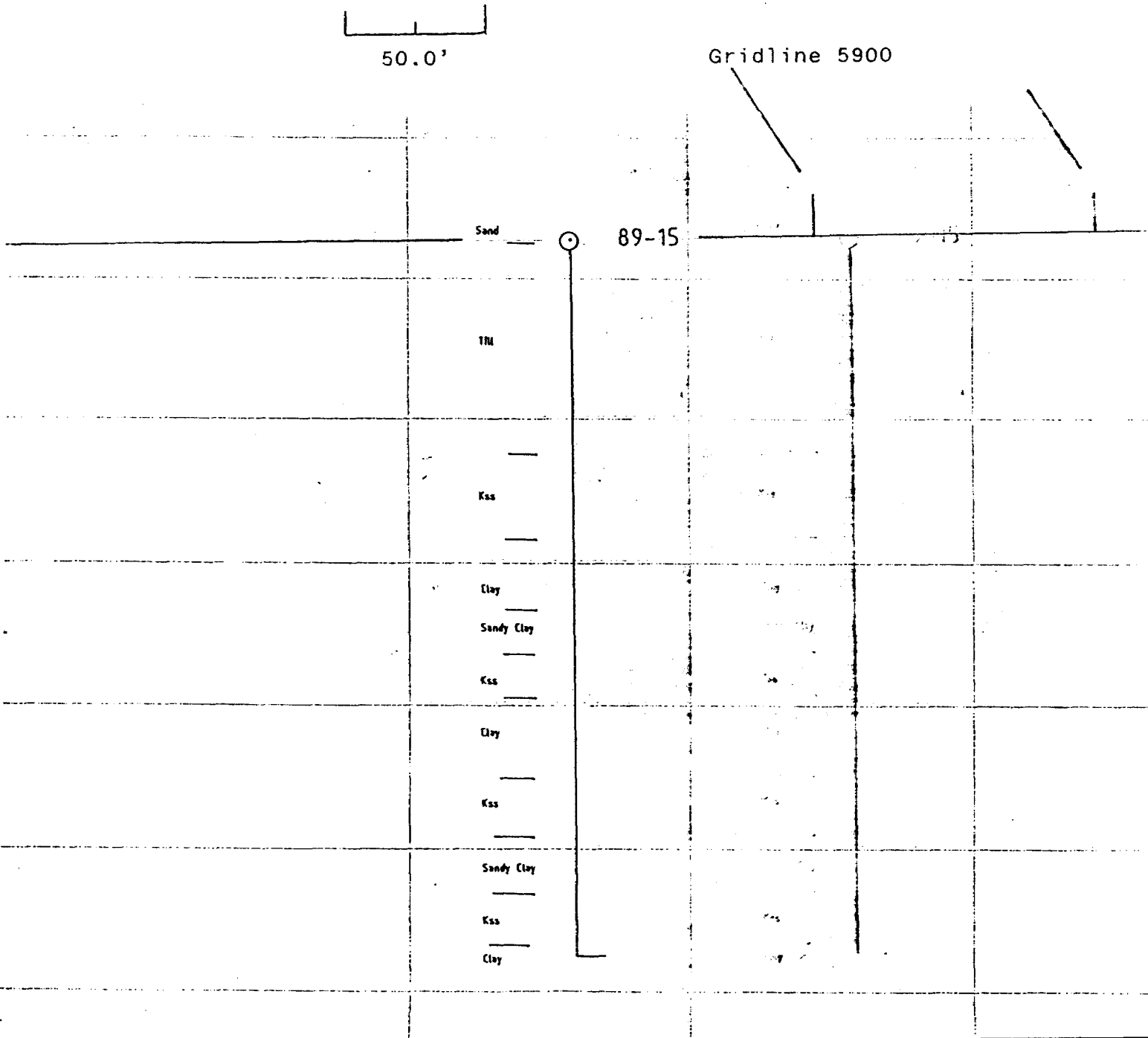
Section - 89-15

15

Hole Length: 250.0'
Overburden Depth: 75.0'
Astronomic Azimuth: $50^{\circ} 09' 01''$ W. $82^{\circ} 08' 29''$ N
Location: 450.0' at 190° to claim post no. 1
Claim No.: P 825805
Dip Collar: -90°
Northing: 390 S
Easting: 5815 E
Scale: 1.0" = 50.0' or 1:600



Gridline 5900



Section - 89-15

Hole Length: 250.0'

Overburden Depth: 75.0'

Astronomic Azimuth: 50° 09' 01" W. 82° 08' 29" N

Location: 450.0' at 190° to claim post no. 1

Claim No.: P 825805

Dip Collar: -90°

Northing: 390 S

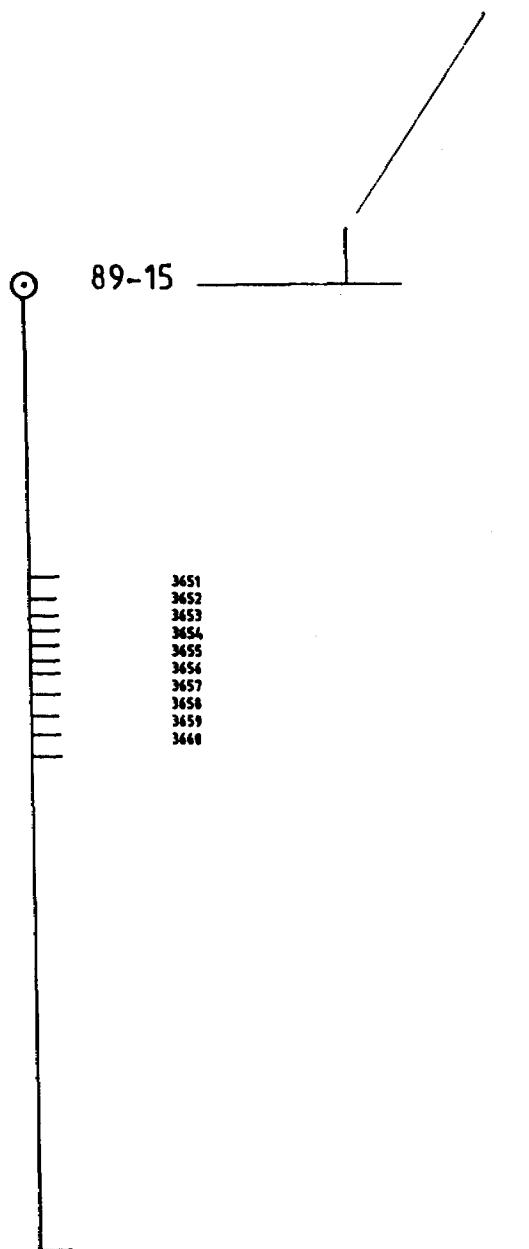
Easting: 5815 E

Scale: 1.0" = 50.0' or 1:600



50.0'

Gridline 5900



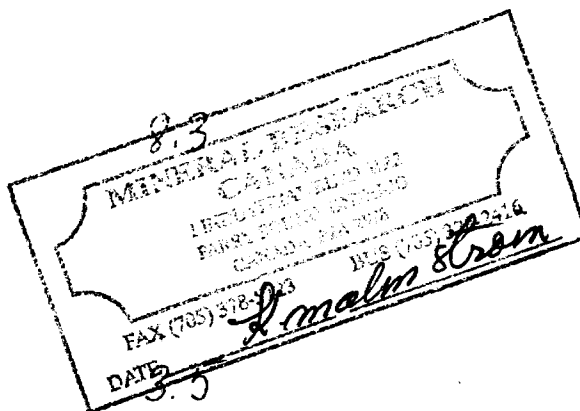
MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
<i>Hole 89-15</i> 3651	+ 4	9.3	3.5	
	+ 40	59.2		
	+100	11.2		
	+200	3.3		
	+325	2.6		
	-325	14.4		
3652	+ 4	1.3	7.6	
	+ 40	75.6		
	+100	11.8		
	+200	2.3		
	+325	0.9		
	-325	8.1		
3653	+ 4	13.8	6.5	
	+ 40	40.3		
	+100	27.9		
	+200	3.4		
	+325	1.9		
	-325	12.7		
3654	+ 4	1.1	8.3	
	+ 40	68.7		
	+100	17.3		
	+200	3.1		
	+325	0.9		
	-325	8.9		
3655	+ 4	9.3	3.5	
	+ 40	67.2		
	+100	7.3		
	+200	2.9		
	+325	1.8		
	-325	11.5		



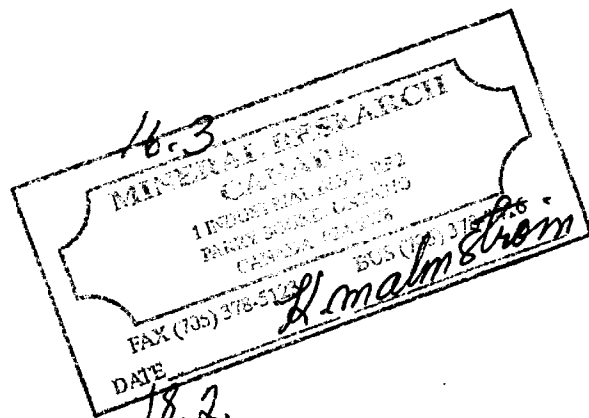
MINERAL RESEARCH CANADA

TEL: (705) 378-2416
FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
PARRY SOUND, ON. CANADA
P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
Hole 89-15 3656	+ 4	1.7	7.0	
	+ 40	58.8		
	+100	25.6		
	+200	2.8		
	+325	1.8		
	-325	9.3		
3657	+ 4	8.2	7.8	
	+ 40	55.4		
	+100	12.0		
	+200	4.2		
	+325	3.7		
	-325	16.5		
3658	+ 4	0	24.4	
	+ 40	0		
	+100	0.1		
	+200	2.9		
	+325	9.3		
	-325	87.7		
3659	+ 4	0.5	16.3	
	+ 40	1.1		
	+100	11.1		
	+200	12.4		
	+325	12.2		
	-325	62.7		
3660	+ 4	0	18.2	
	+ 40	0.1		
	+100	6.5		
	+200	18.4		
	+325	8.2		
	-325	66.8		



SAMPLE LOCATION: MEMBRI. DISTRICT 7040
 SAMPLE ID: note 30-15 # 2631
 SUBMITTER: # 29
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TECH: 347 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 09:28:04 11/23/90
 REPRT 08:18:11 03/30/91
 TOT RUN TIME 0:07:07
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7255 cp

STARTING DIAMETER: 50.00 um
 ENDING DIAMETER: 0.40 um

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.06 um MODAL DIAMETER: 3.81 um

DIAMETER (um)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	95.9	0.1
40.00	100.0	0.1
30.00	100.0	0.1
25.00	99.5	0.2
20.00	99.5	0.5
15.00	98.5	0.9
10.00	93.7	2.9
5.00	82.6	8.1
3.00	67.0	8.6
2.00	33.0	4.0
1.50	77.2	3.6
1.00	69.9	7.3
0.75	61.1	8.8
0.50	55.4	6.6
0.40	49.8	6.6
0.30	45.4	6.4
0.25	40.5	4.9
0.20	36.9	6.6
0.15	31.5	6.8

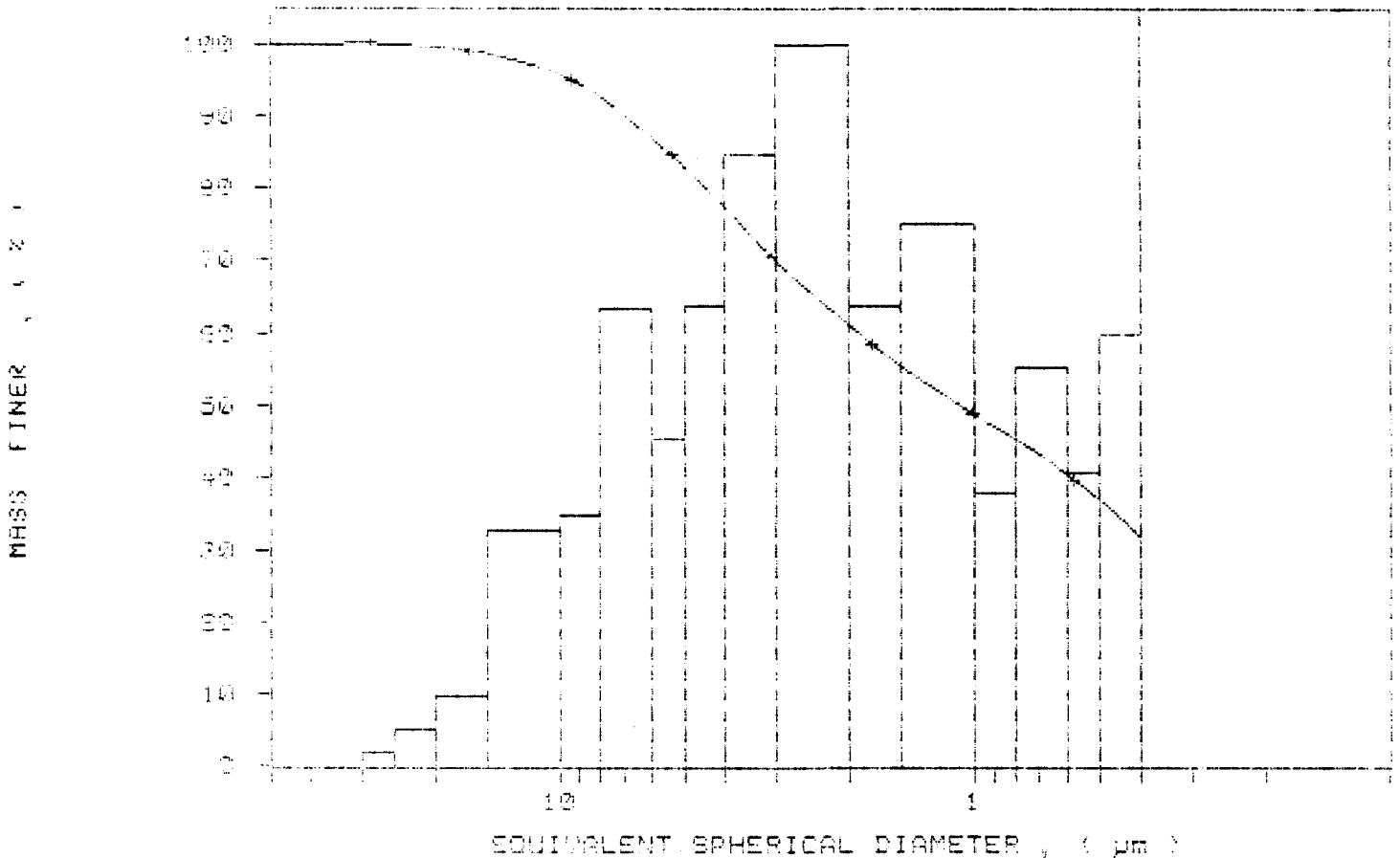
MINERAL RESEARCH CANADA
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8

FAX (705) 378-5175 BUS (705) 378-2416
 DATE *E. Malmstrom*

SAMPLE DIRECTORY/NUMBER: DATA3 /7840
 SAMPLE ID: mole 00-10 # 3051
 SUBMITTER: # 29
 OPERATOR: RM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

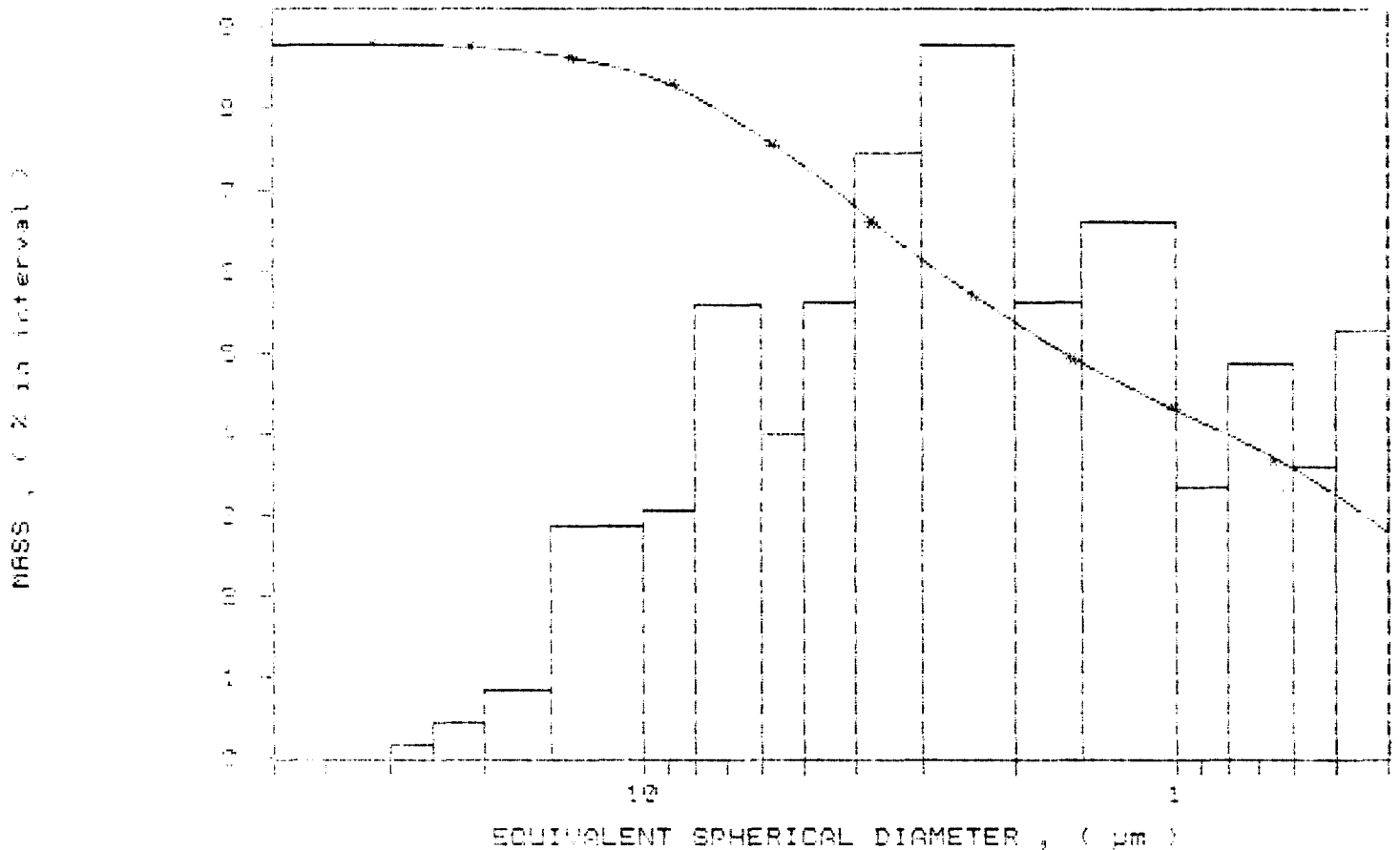
UNIT NUMBER: 1
 START 09:28:04 11/23/90
 REPT 08:18:11 08/30/91
 TOT RUN TIME 0:07:57
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7266 cp

CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY NUMBER: DATES	7540	UNIT NUMBER: 1
SAMPLE ID: note 8-13 # 3651		START 09:28:04 11/23/90
SUBMITTER: # 2:		REPORT 08:18:11 03/30/91
OPERATOR: RA		TOT RUN TIME 0:07:07
SAMPLE TYPE: Clay		SAN DENS: 2.6000 g/cc
LIQUID TYPE: water		LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 24.0 deg C	RUN TYPE: High Speed	LIQ VISC: 0.7256 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTOR/NUMBER: DATAS /7502 UNITY NUMBER: 1
 SAMPLE ID: Note 59-15 # 0652 START 11:14:25 11/23/90
 SUBMITTER: # 29 REPRT 08:26:01 08/20/91
 OPERATOR: RM TOT RUN TIME 0:07:11
 SAMPLE TYPE: Clay SAM DENS: 2.6000 g/cc
 LIQUID TYPE: water LIQ DENS: 0.9942 g/cc
 ANALYSIS TEMP: 24.7 deg C RUN TYPE: High Speed LIQ VISC: 0.7265 cp

STARTING DIAMETER: 50.00 μ m REYNOLDS NUMBER: 0.21
 ENDING DIAMETER: 0.40 μ m FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 21.05 μ m MODAL DIAMETER: 4.22 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	101.0	-1.6
40.00	98.6	2.9
30.00	96.5	-6.2
25.00	99.2	-0.5
20.00	99.5	-0.2
15.00	93.2	6.2
10.00	86.2	7.0
5.00	78.5	7.7
0.750	67.3	11.2
0.500	61.4	5.9
0.400	72.2	10.8
0.300	61.8	10.4
0.200	46.6	15.2
0.150	42.5	4.1
0.100	35.2	7.2
0.0750	31.1	4.1
0.0500	25.0	6.1
0.0300	22.4	2.6
0.0200	16.4	6.0

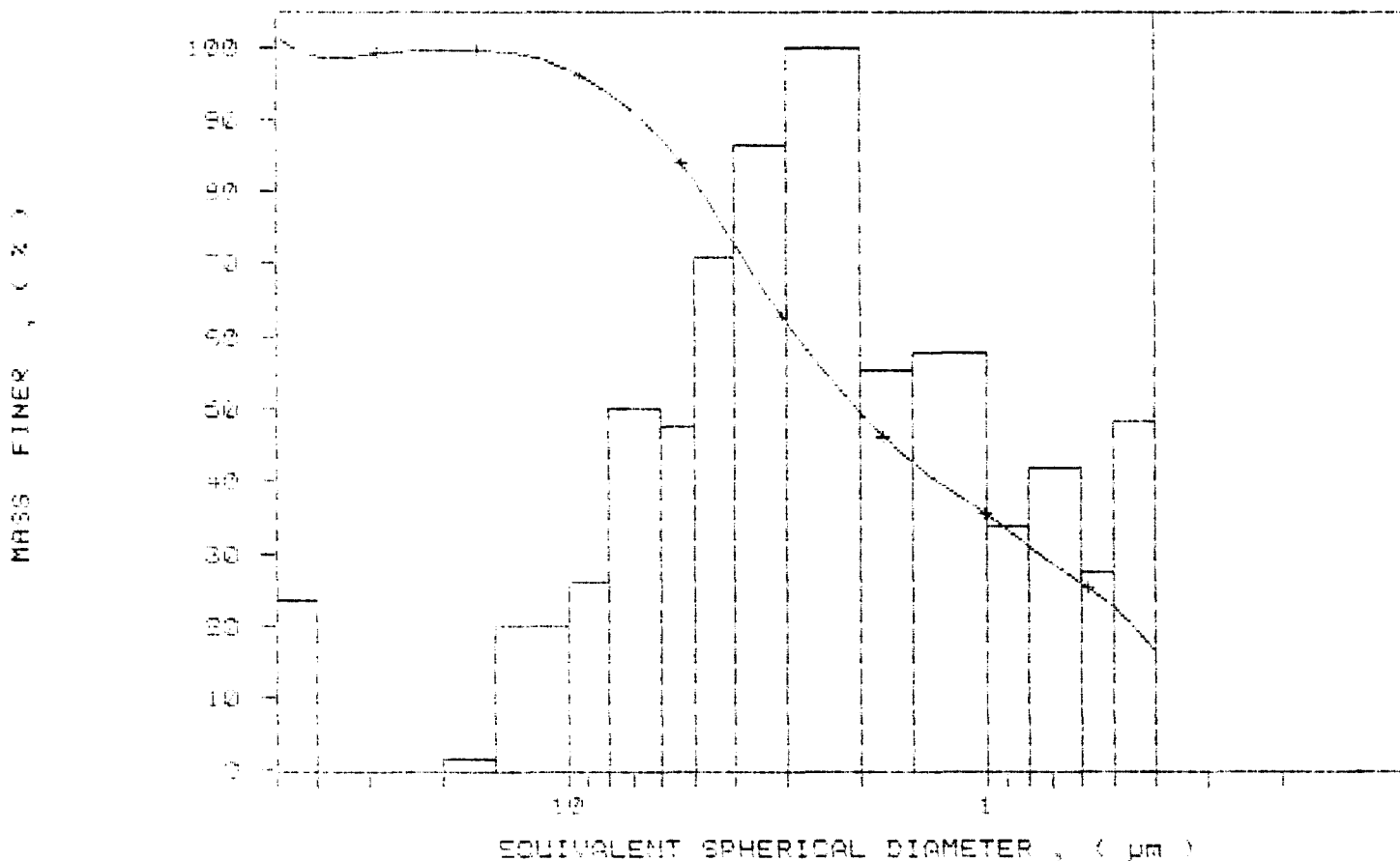
**MINERAL RESEARCH
CANADA**
 1 INDUSTRIAL BLVD. RR2
 FAIRY SOUND, ONTARIO
 CANADA P1A 2W8

FAX (705) 378-5123 BUS (705) 378-2416
 DATE _____ *JRM*

SAMPLE DIRECTORY/NUMBER: DATAS /343
SAMPLE ID: Hole 20-15 # 5552
SUBMITTER: # 29
OPERATOR: RM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 24.7 deg C RUN TYPE: High Speed

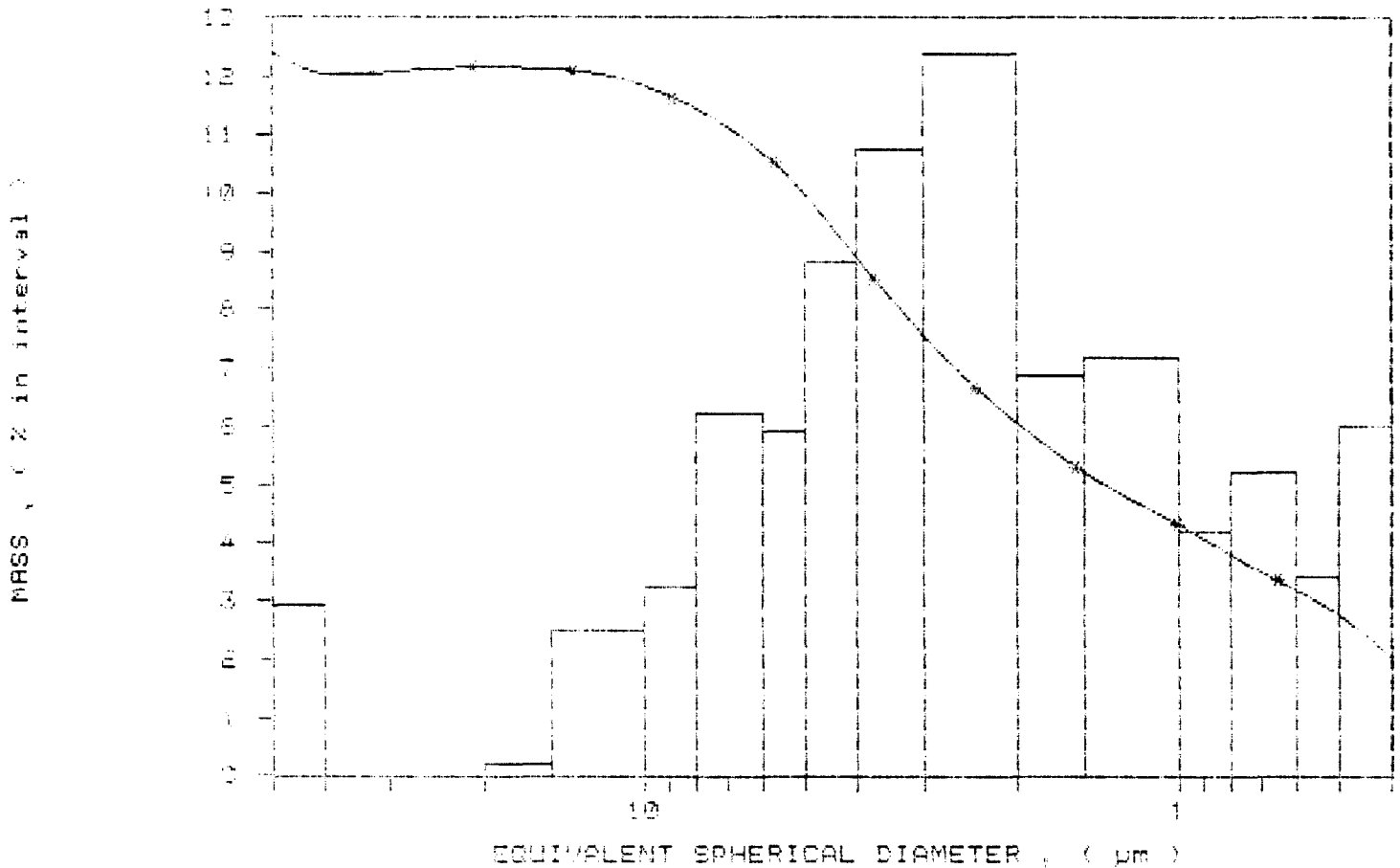
UNIT NUMBER: 1
START 11:14:26 11/23/90
REPRY 08:26:01 08/30/91
TOT RUN TIME 0:07:16
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7265 cp

* CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE LOCATION/NUMBER: DAFS 7945	UNIT NUMBER: 1
SAMPLE ID: Hole 89-15 # 2652	START 11:14:26 11/23/90
SUBMITTER: # 29	REPR 08:26:01 03/30/91
OPERATOR: Kn	TOT RUN TIME 0:07:10
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: water	L10 DENS: 0.9942 g/cc
ANALYSIS TEMP: 24.7 deg C	L10 VISC: 0.7265 cp
RUN TYPE: High Speed	

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER

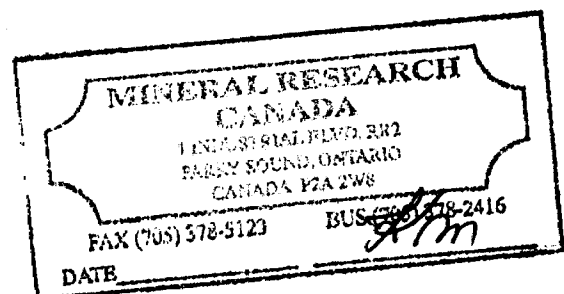


SAMPLE DIRECTORY/NUMBER: DATA / 7251
 SAMPLE ID: Hole 89-15 # 3653
 SUBMITTER: # 29
 OPERATOR: km
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 24.7 deg C RUN TYPE: High Speed
 UNIT NUMBER: 1
 START 14:48:08 11/26/90
 REPT 08:38:27 08/30/91
 TOT RUN TIME 0:04:35
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7266 cp
 STARTING DIAMETER: 50.00 um
 ENDING DIAMETER: 0.10 um
 REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 0.96 um MODAL DIAMETER: 0.97 um

DIAMETER (um)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.1	1.9
40.00	98.2	-0.2
30.00	98.3	-0.6
25.00	99.1	-0.3
20.00	99.2	-0.1
15.00	98.7	0.3
10.00	98.7	0.0
5.00	99.1	-0.1
4.00	99.1	-0.1
3.00	93.0	0.2
2.00	98.0	0.4
1.50	97.3	0.3
1.00	97.2	0.2
0.75	95.7	1.4
0.50	57.3	38.3
0.25	21.3	36.0
0.10	3.3	18.0

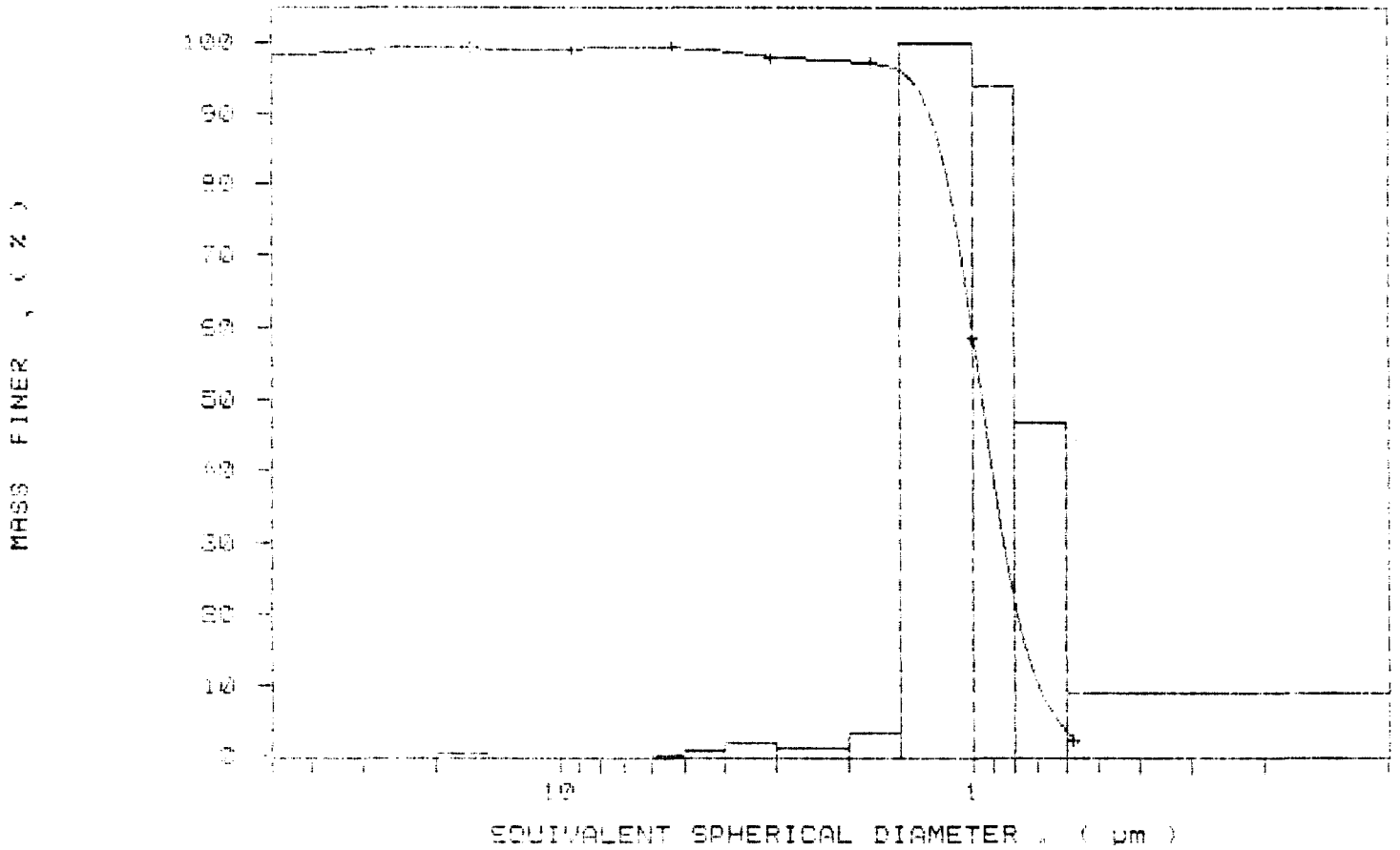


SAMPLE DIRECTORY/NUMBER: DATAS /351
 SAMPLE ID: Hole 89-13 # 3633
 SUBMITTER: # 35
 OPERATOR: km
 SAMPLE Type: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 24.7 deg C

UNIT NUMBER: 1
 START 14:43:06 11/26/90
 REPRY 08:33:27 08/30/91
 TOT RUN TIME 0:04:35
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7260 cp

RUN TYPE: High Speed

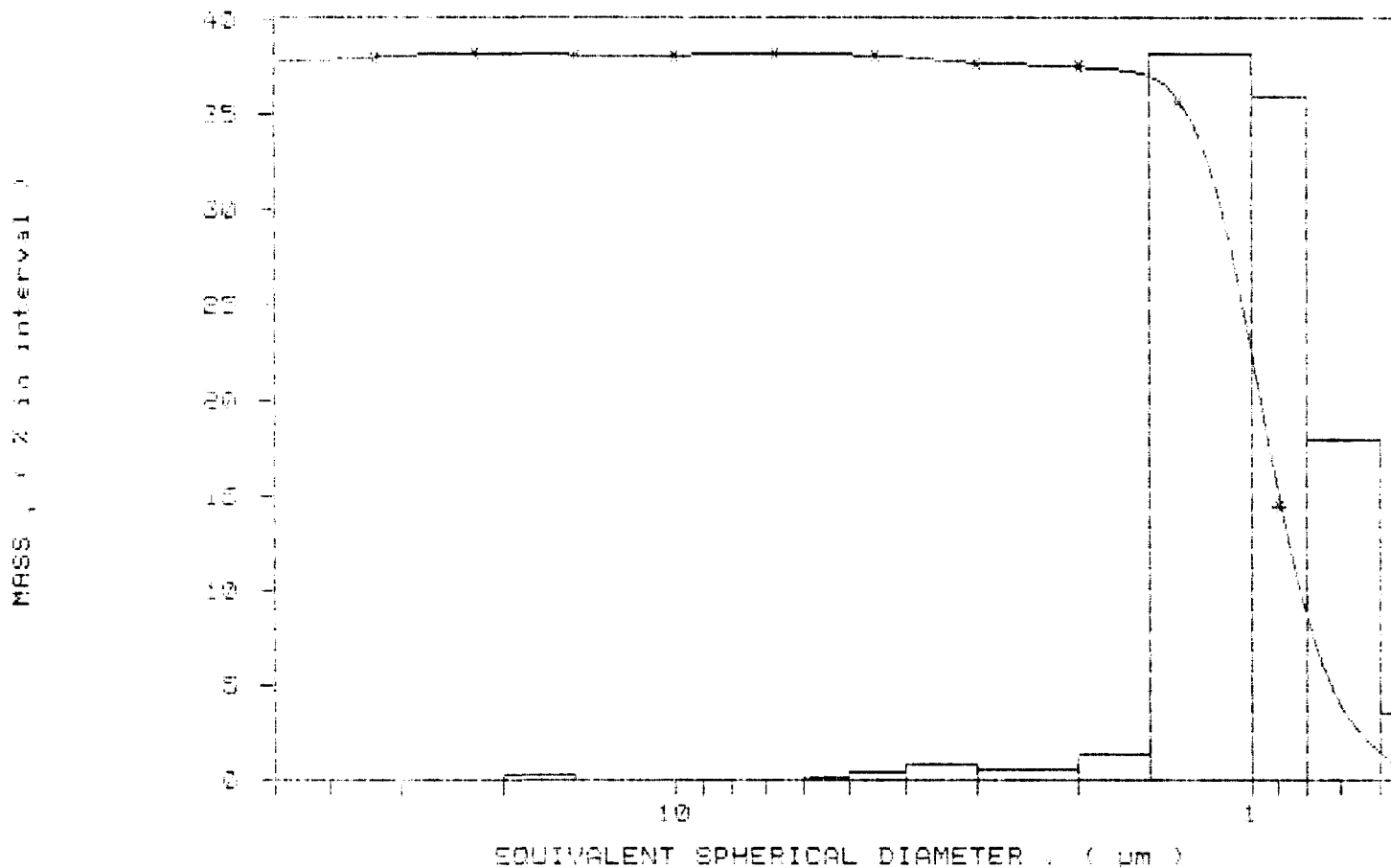
CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY NUMBER: DATAS /051
 SAMPLE ID: Hole 85-10 # 3653
 SUBMITTER: # 25
 OPERATOR: RM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 14:43:06 11/26/90
 REPT 08:33:27 08/30/91
 TOT RUN TIME 0:04:39
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7265 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTOR/NUMBER: DATA 7872
 SAMPLE ID: note 89-13 # 5654
 SUBMITTER: A 23
 OPERATOR: RM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 24.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 13:31:05 11/28/90
 REPORT 08:40:48 08/30/91
 TOT RUN TIME 0:04:15
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7259 cp

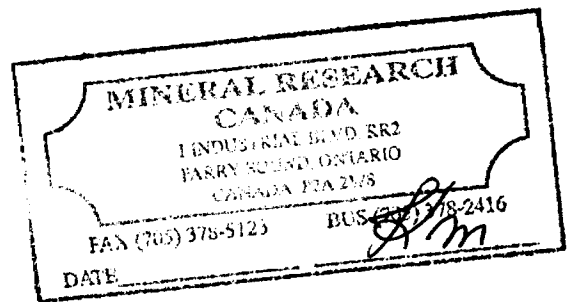
STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.140 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 0.87 μ m MODAL DIAMETER: 0.86 μ m

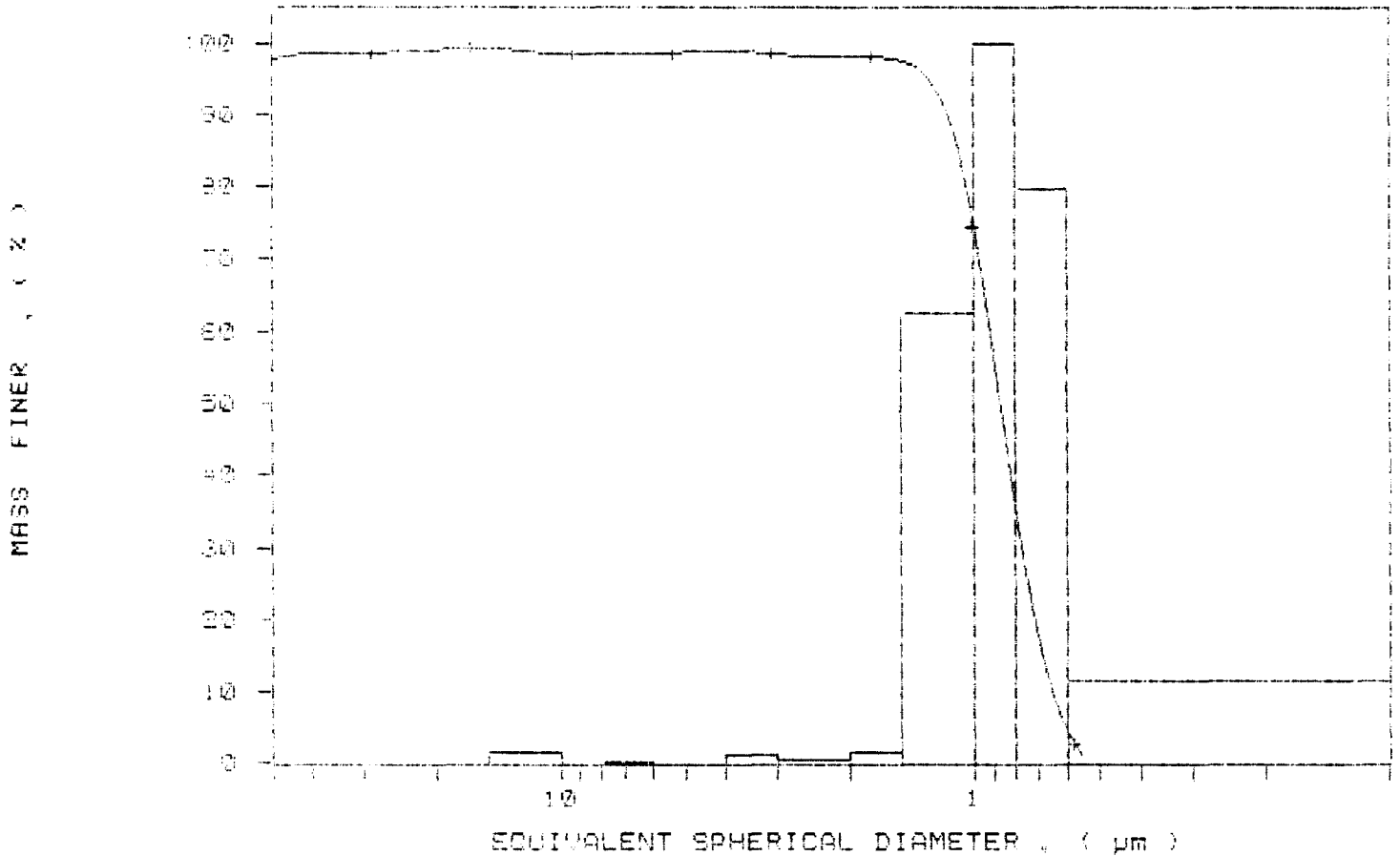
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	57.7	2.3
40.00	56.4	-0.7
30.00	52.5	-0.1
25.00	58.7	-0.2
20.00	99.6	-0.8
15.00	99.2	-0.3
10.00	98.5	0.7
8.00	98.5	-0.0
6.00	98.4	0.1
5.00	98.7	-0.2
4.00	92.5	-0.2
3.00	98.4	0.5
2.00	98.1	0.3
1.50	77.5	0.6
1.00	72.5	24.0
0.750	58.2	08.3
0.500	4.5	30.6



SAMPLE DIRECTORY/NUMBER: DATAS /372
SAMPLE ID: note 89-15 # 3584
SUBMITTER: # 39
OPERATOR: RM
SAMPLE TYPE: Clay
LIQUID TYPE: water
ANALYSIS TEMP: 24.7 deg C RUN TYPE: High Speed

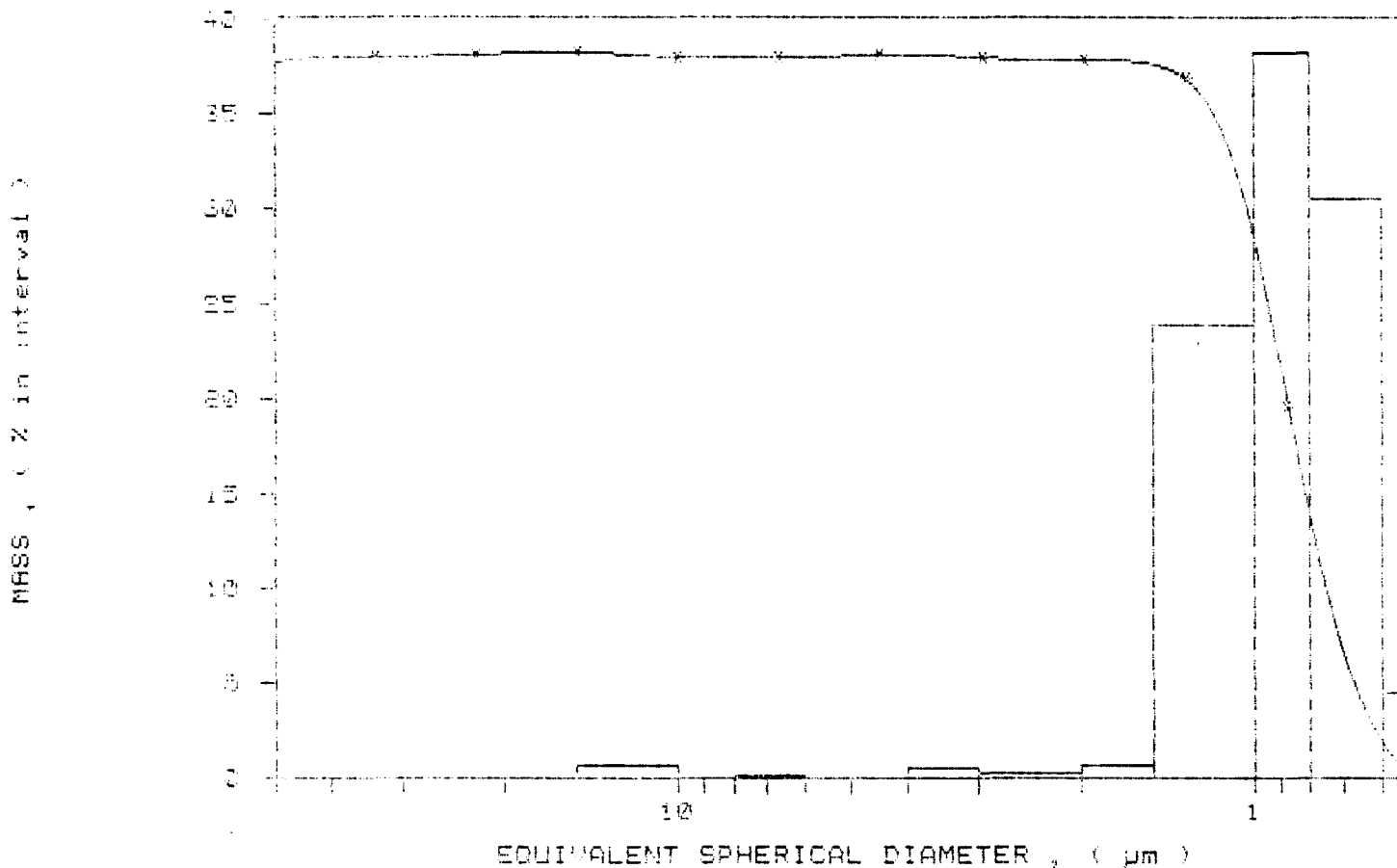
UNIT NUMBER: 1
START 15:31:35 11/28/90
REPT 08:40:43 08/30/91
TOT RUN TIME 0:04:15
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7269 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTOR NUMBER: 10143	787E	UNIT NUMBER: 1
SAMPLE ID: note 89-15 # 3054		START 15:31:35 11/28/90
SUBMITTER: # 25		REPT 08:40:43 08/30/91
OPERATOR: RM		TOT RUN TIME 0:04:15
SAMPLE TYPE: Clay		SAM DENS: 2.6000 g/cc
LIQUID TYPE: water		LID DENS: 0.9942 g/cc
ANALYSIS TEMP: 24.7 deg C	RUN TYPE: High Speed	LID VISC: 0.7269 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY NUMBER: DATA 7274 UNIT NUMBER: 1
 SAMPLE ID: Hole 20-15 # 2635 START 08:55:54 11/29/90
 SUBMITTER: W D REPRT 08:48:01 08/30/91
 OPERATOR: RM TOT RUN TIME 0:06:51
 SAMPLE TYPE: Clay SAM DENS: 2.6000 g/cc
 LIQUID TYPE: water LIQ DENS: 0.9942 g/cc
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed LIQ VISC: 0.7266 cp

STARTING DIAMETER: 50.00 μ m REYNOLDS NUMBER: 0.21
 ENDING DIAMETER: 0.40 μ m FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.97 μ m MODAL DIAMETER: 3.38 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	99.5	0.7
40.00	99.4	0.1
30.00	99.1	0.4
25.00	98.9	0.2
20.00	98.4	0.4
15.00	97.1	1.3
10.00	95.0	4.1
8.00	89.7	5.2
6.00	85.7	6.0
5.00	79.1	4.6
4.00	72.9	6.7
3.00	62.3	10.0
2.00	50.2	12.0
1.50	44.2	5.5
1.00	35.0	5.8
0.75	35.1	0.9
0.50	28.1	6.9
0.25	22.4	5.8
0.10	14.5	7.6

**MINERAL RESEARCH
CANADA**
 1 INDUSTRIAL BLVD. RD2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8

FAX (705) 378-5123 BUS (705) 378-2416
 DATE *RM*

SAMPLE DIRECTORY/NUMBER: DATAS /374

UNIT NUMBER: 1

SAMPLE ID: Hole 09-15 # 0255

START 08:55:54 11/29/90

SUBMITTER: # 99

REPT 08:48:01 08/30/91

OPERATOR: KM

TOT RUN TIME 0:06:51

SAMPLE TYPE: Clay

SAM DENS: 2.6000 g/cc

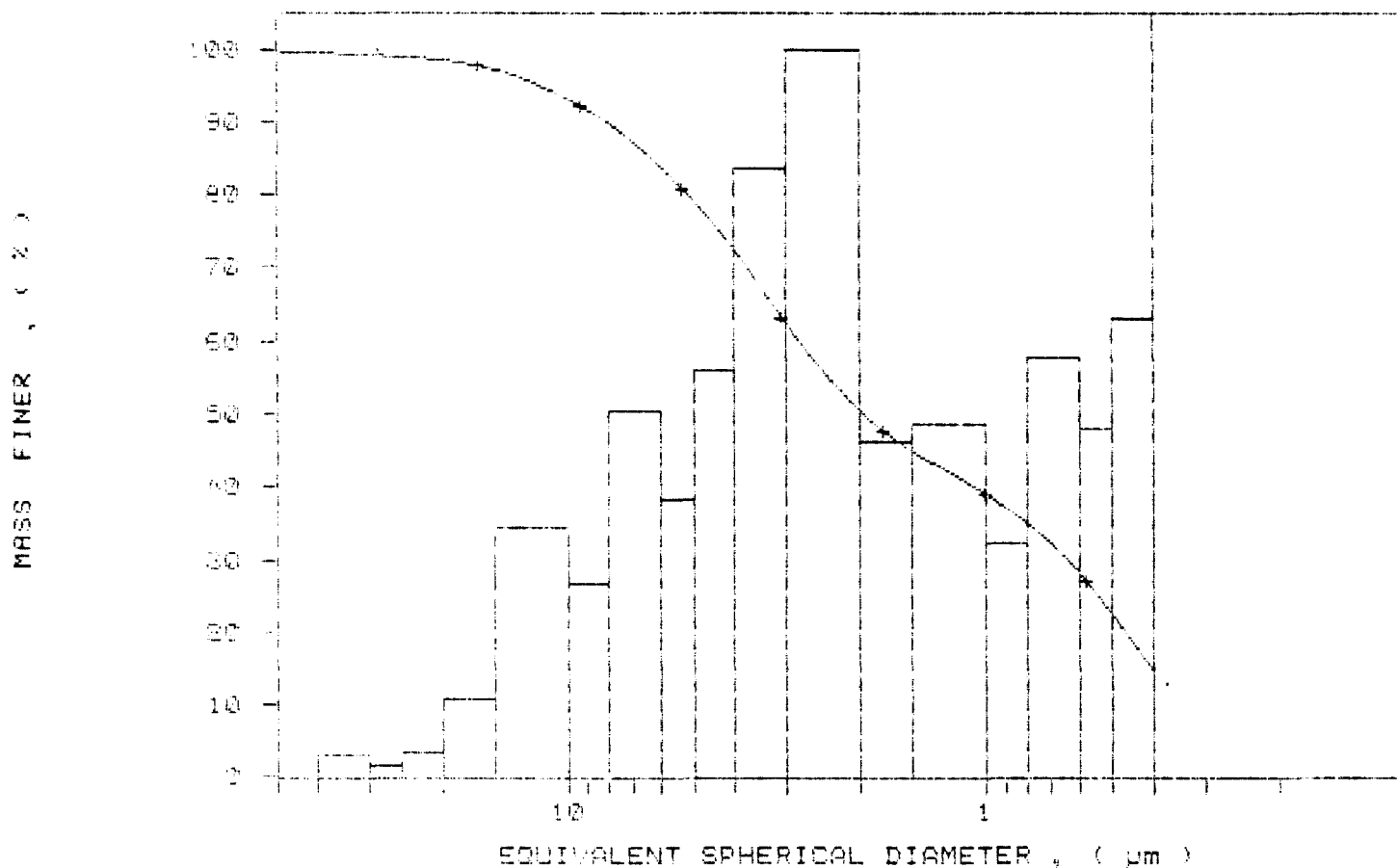
LIQUID TYPE: Water

LID DENS: 0.9942 g/cc

ANALYSIS TEMP: 24.7 deg C RUN TYPE: High Speed

LID VISC: 0.7266 cp

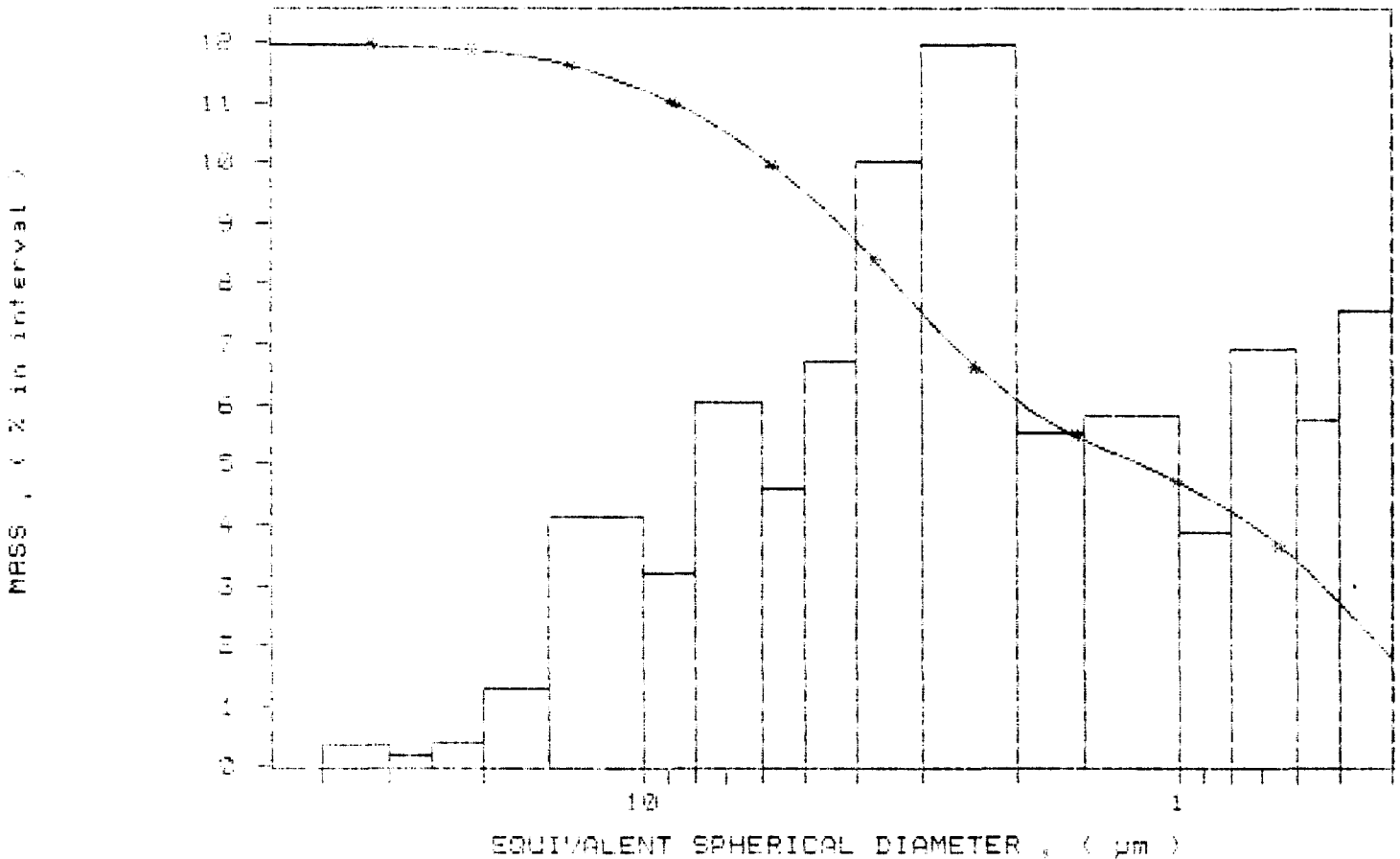
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /374
SAMPLE ID: Hole 89-15 # 3655.
SUBMITTER: # 25
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: water
ANALYSIS TEM: 24.7 deg C

UNIT NUMBER: 1
START 08:55:54 11/29/90
REPRY 08:48:01 03/30/91
TOT RUN TIME 0:06:31
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7266 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SediGraph 5100 V2.00

Clay

PAGE 1

SAMPLE DIRECTOR/NUMBER: DATHS /372
 SAMPLE ID: HOLE 09-10 # 5656
 SUBMITTER: # 22
 OPERATOR: RM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C LIQ TYPE: High Speed

UNIT NUMBER: 1
 START 11:17:31 11/29/90
 REPT 08:55:27 03/30/91
 TOT RUN TIME 0:04:27
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7267 cp

STARTING DIAMETER: 50.00 um
 ENDING DIAMETER: 0.40 um

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION
 MEDIAN DIAMETER: 1.20 um

MODAL DIAMETER: 1.16 um

DIAMETER (um)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	97.0	0.0
40.00	97.5	-0.5
30.00	97.8	-0.3
25.00	98.0	-0.2
20.00	98.2	-0.2
15.00	97.4	0.8
10.00	97.0	0.4
5.00	96.7	0.3
5.00	95.7	1.0
4.00	94.0	1.7
4.00	92.4	1.6
3.00	87.0	5.4
2.00	77.6	9.4
1.50	64.1	13.5
1.00	17.6	46.5
0.75	4.4	13.1
0.50	1.5	2.9

**MINERAL RESEARCH
CANADA**

1 INDUSTRIAL BLVD. RR2
DARYL SCOTT, ONTARIO
CANADA P1A 2V3

FAX (705) 378-5123 BUS (705) 378-2416

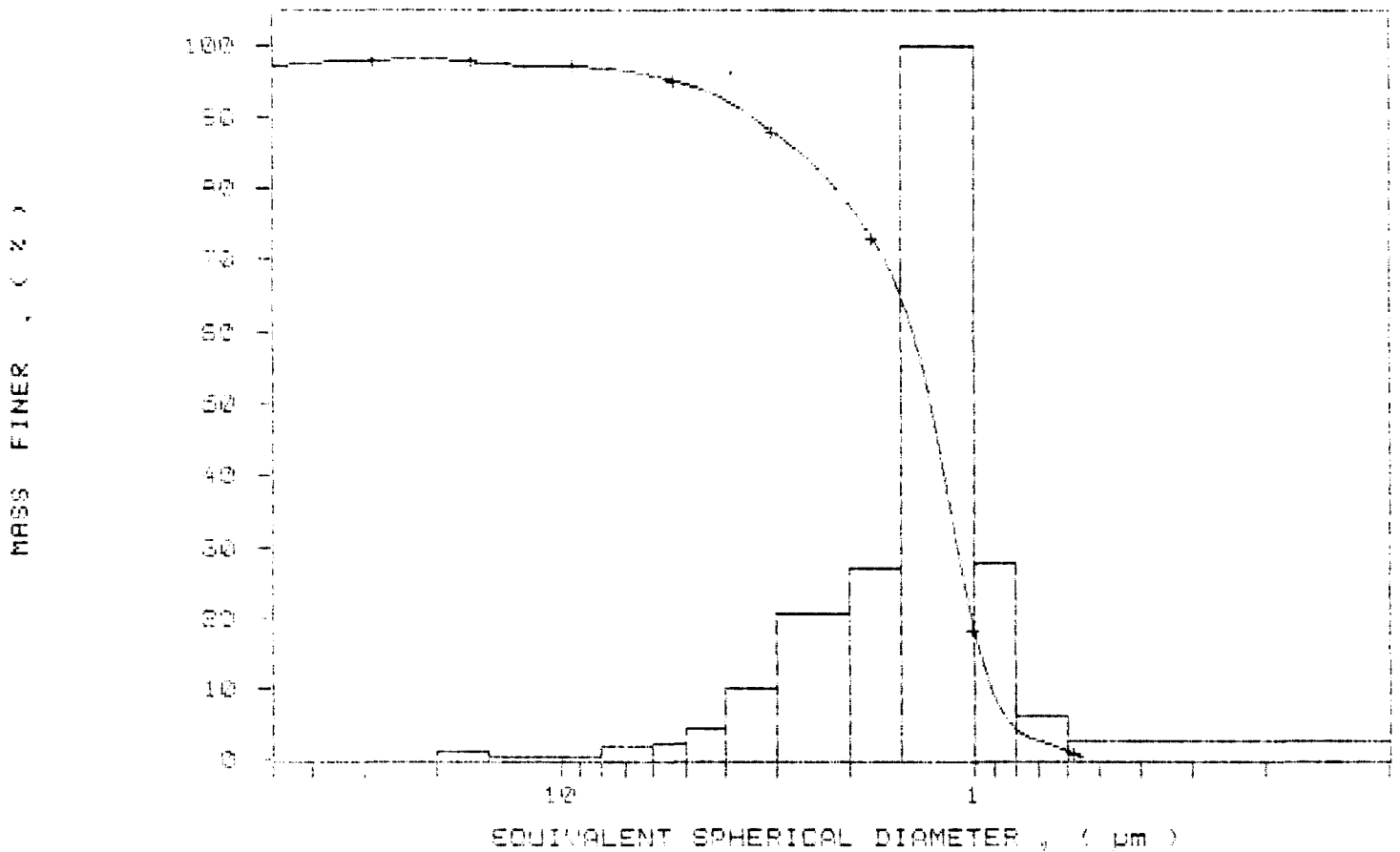
DATE *RM*

SAMPLE DIRECTORY/NUMBER: DATAS 7578
 SAMPLE ID: Hole 89-15 # 0656
 SUBMITTER: # 39
 OPERATOR: km
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 24.7 deg C

UNIT NUMBER: 1
 START 11:17:31 11/29/90
 REPT 09:55:27 02/20/91
 TOT RUN TIME 0:04:57
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7257 cp

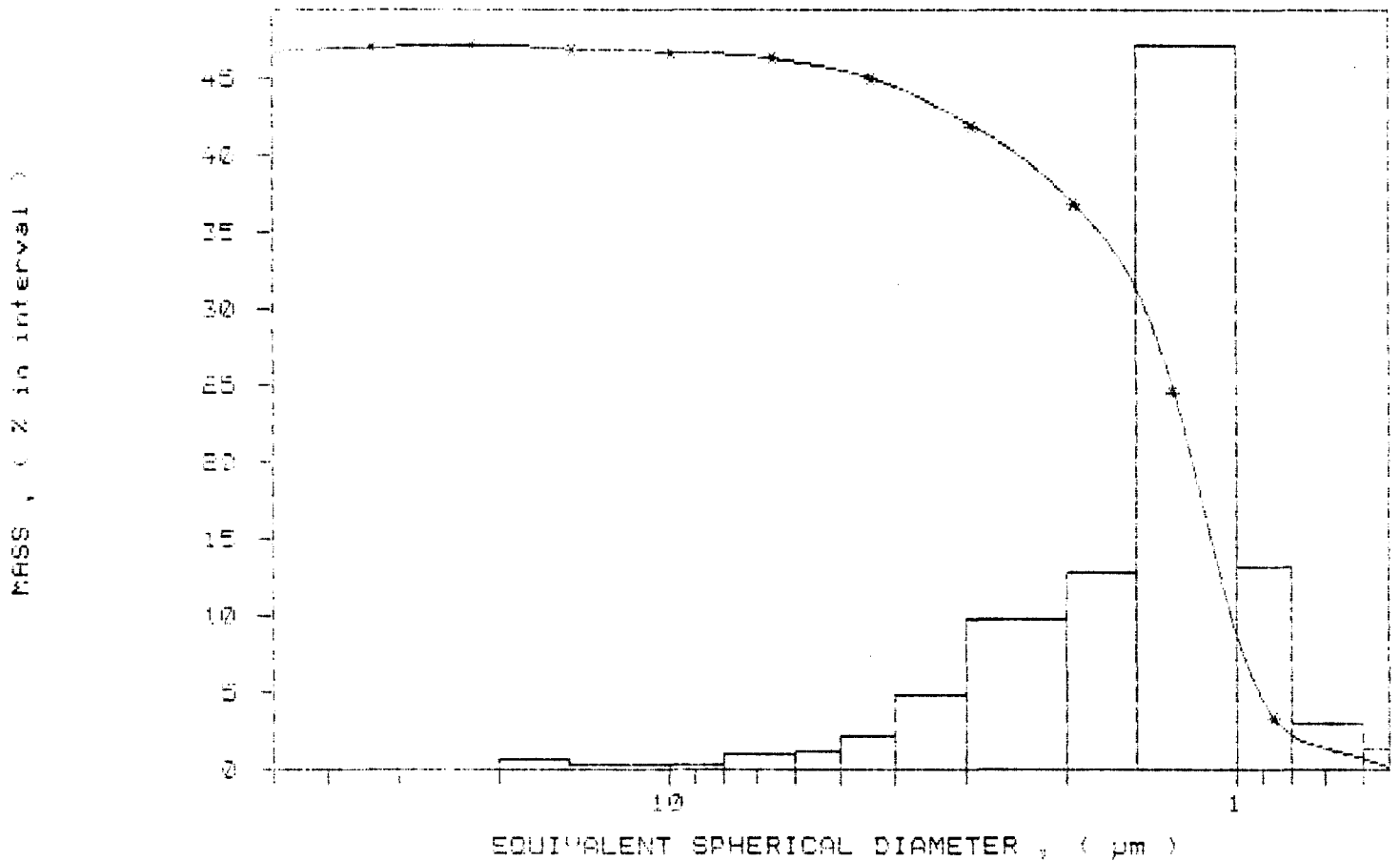
RUN TYPE: High Speed

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY NUMBER: DATA	7870	UNIT NUMBER: 1
SAMPLE ID: hole 33-15 # 3636		START 11:17:31 11/29/50
SUBMITTER: # 33		REPR: 08:55:27 03/30/51
OPERATOR: Km		TOT RUN TIME 0:04:37
SAMPLE TYPE: Clay		SAM DENS: 2.6000 g/cc
LIQUID TYPE: water		LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 20.7 deg C	RUN TYPE: High Speed	LIQ VISC: 0.7267 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA 7885 UNIT NUMBER: 1
 SAMPLE ID: Hole 89-13 S 6657 START 09:07:44 11/30/90
 SUBMITTER: A 20 REPRT 09:08:44 08/30/91
 OPERATOR: RM TOT RUN TIME 0:06:57
 SAMPLE TYPE: Clay SAM DENS: 2.6500 g/cc
 LIQUID TYPE: water LIQ DENS: 0.9942 g/cc
 ANALYSIS TEMP: 24.7 deg C RUN TYPE: High Speed LIQ VISC: 0.7267 cp

STARTING DIAMETER: 50.00 μ m REYNOLDS NUMBER: 0.21
 ENDING DIAMETER: 0.40 μ m FULL SCALE MASS %: 100

MASS DISTRIBUTION

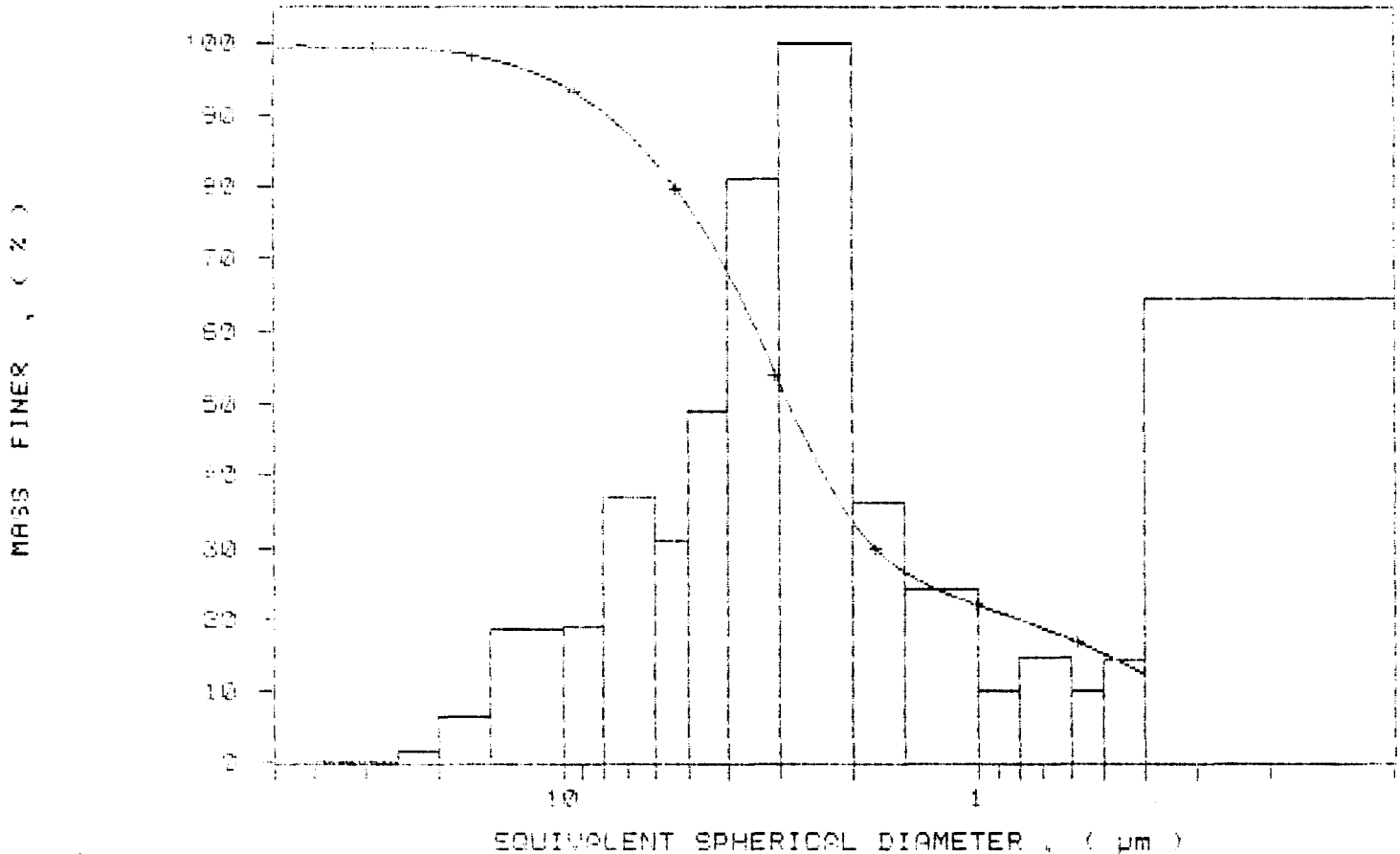
MEDIAN DIAMETER: 2.67 μ m MODAL DIAMETER: 0.12 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	95.3	0.7
40.00	99.3	-0.0
30.00	99.3	0.1
25.00	99.2	0.1
20.00	98.7	0.5
15.00	97.6	1.1
10.00	94.0	3.6
5.00	90.4	3.6
4.00	88.0	7.1
3.00	77.4	8.9
2.00	68.0	9.4
1.50	52.8	13.5
1.00	32.0	19.1
0.75	26.3	6.9
0.50	21.0	4.6
0.30	19.3	2.0
0.20	17.1	2.2
0.15	15.1	2.0
0.10	12.0	2.8

MINERAL RESEARCH CANADA	
1 INDUSTRIAL AVENUE BR2 PARRY SOUND, ONTARIO CANADA P2A 7W5	
FAX (705) 378-5123	BUS (705) 378-2416
DATE	<i>A/m</i>

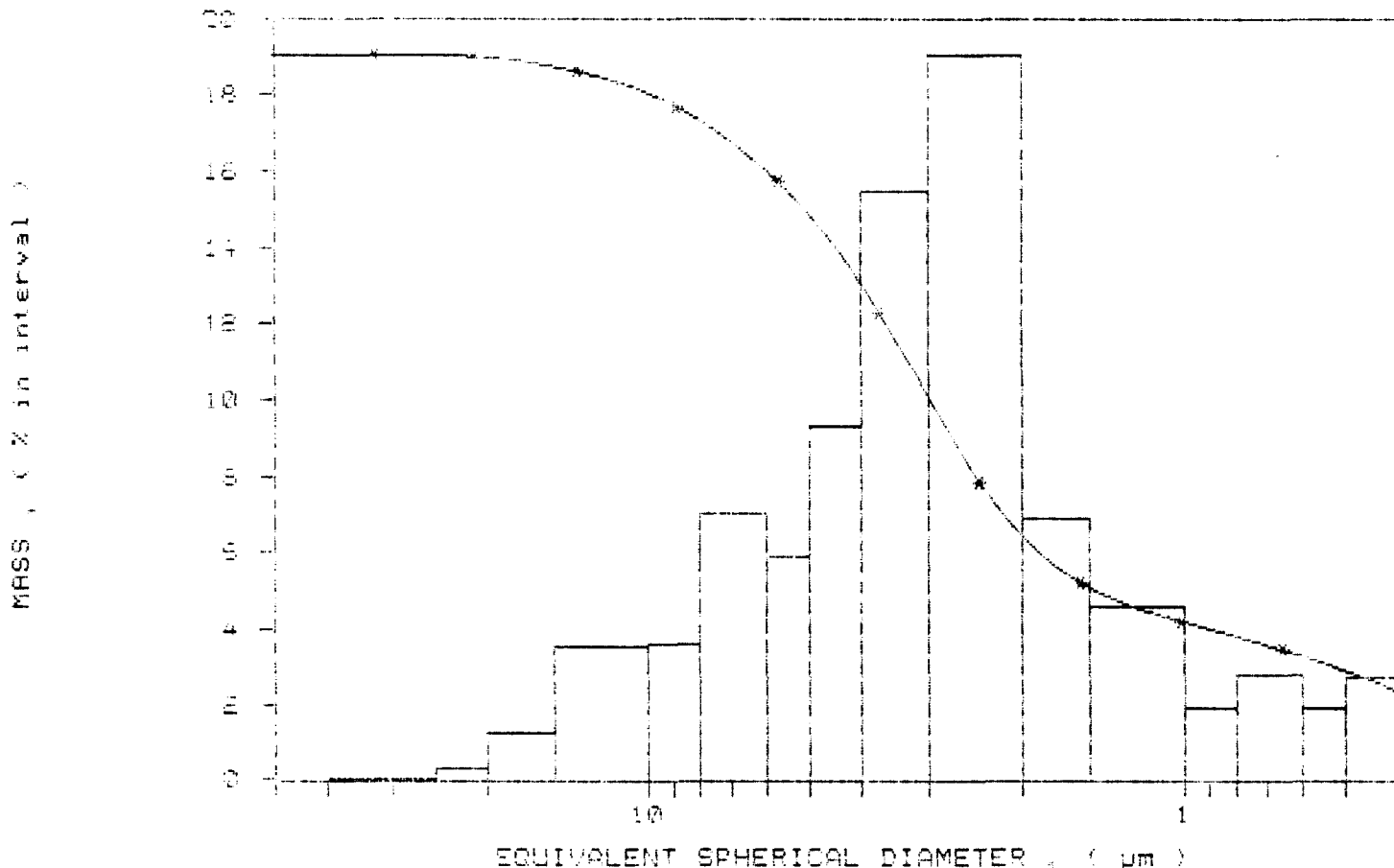
SAMPLE DIRECTORY/NUMBER: DATA8 /985	UNIT NUMBER: 1
SAMPLE ID: Hole 89-15 E 3507	START 09:07:44 11/30/90
SUBMITTER: # 29	REPRT 09:02:44 08/30/91
OPERATOR: KM	TOT RUN TIME 0:06:57
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 24.7 deg C	LIQ VISC: 0.7267 cp
RUN TYPE: High Speed	

* CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY NUMBER: DATES	7985	UNIT NUMBER: 1
SAMPLE ID: Hole 89-15 B 0657		START 09:07:44 11/30/90
SUBMITTER: # 33		REPRT 09:02:44 08/30/91
OPERATOR: KM		TOT RUN TIME 0:06:57
SAMPLE TYPE: Clay		SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water		LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	RUN TYPE: High Speed	LIQ VISC: 0.7267 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY NUMBER: DATA / 897
 SAMPLE ID: Hole 25-13 # 3658
 SUBMITTER: # 39
 OPERATOR: RN
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TECH: 24.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 09:56:30 12/03/90
 REPRT 09:13:55 03/30/91
 TOT RUN TIME 0:06:36
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

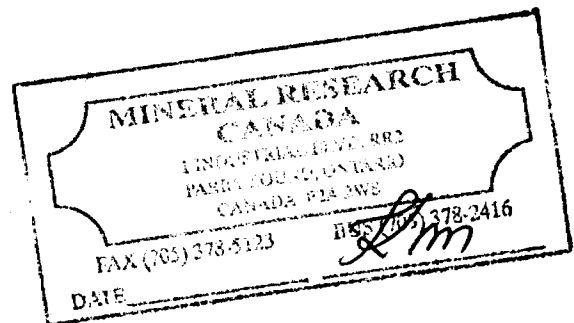
STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

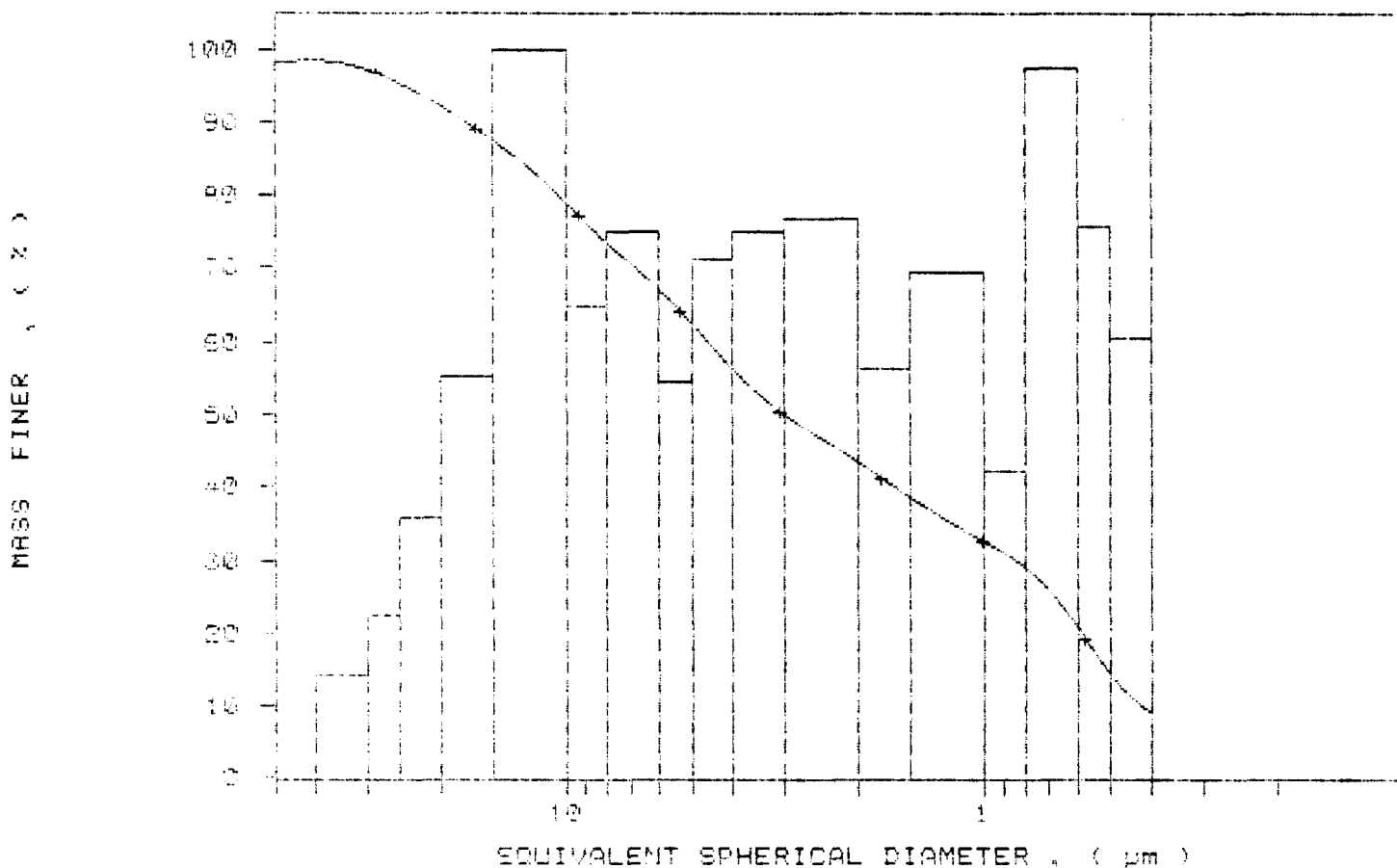
MEDIAN DIAMETER: 3.01 μ m MODAL DIAMETER: 0.57 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	38.0	2.0
40.00	38.5	0.3
30.00	37.1	1.2
25.00	35.2	1.9
20.00	32.1	3.0
15.00	27.4	4.7
10.00	18.0	8.5
8.00	12.4	5.5
6.00	6.0	6.4
5.00	52.4	4.6
4.00	56.0	3.1
3.00	46.0	6.4
2.00	48.4	6.5
1.50	58.6	4.8
1.00	32.7	3.9
0.75	29.1	3.6
0.60	26.6	3.5
0.50	14.6	6.5
0.40	5.2	3.2



SAMPLE DIRECTORY/NUMBER: DATA3 /397	UNIT NUMBER: 1
SAMPLE ID: note 8-10 # 253c	START 09:56:30 12/03/95
SUBMITTER: # 39	REPRT 09:13:55 08/30/91
OPERATOR: RM	TOT RUN TIME 0:06:56
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LIQ DENS: 0.9992 g/cc
ANALYSIS TEMP: 34.7 deg C	LIQ VISC: 0.7269 cp
RUN TYPE: High Speed	

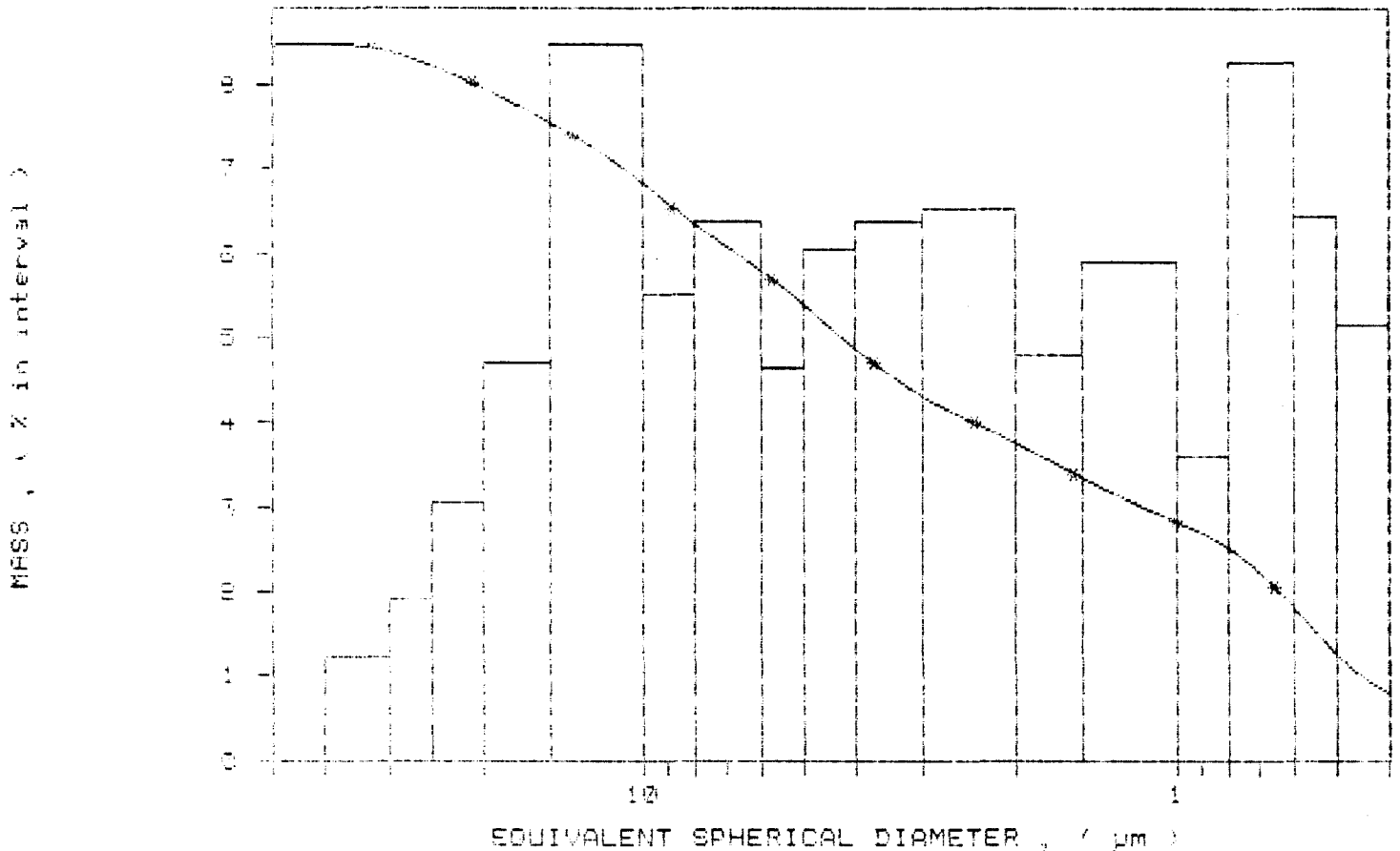
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTOR/NUMBER: DATAS /7397
SAMPLE ID: Hole 89-15 # 6656
SUBMITTER: # 39
OPERATOR: RL
SAMPLE TYPE: Clay
LIQUID TYPE: water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
START 09:56:30 12/03/90
REPT 09:13:55 08/30/91
TOT RUN TIME 0:06:56
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7269 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /399

UNIT NUMBER: 1

SAMPLE ID: Note 89-15 # 3659

START 10:30:25 12/08/90

SUBMITTER: # 25

REPR1 09:21:18 08/30/91

OPERATOR: SM

TOT RUN TIME 0:03:41

SAMPLE TYPE: Clay

SAM DENS: 2.6000 g/cc

LIQUID TYPE: Water

LIQ DENS: 0.9942 g/cc

ANALYSIS TEMP: 54.7 deg C RUN TYPE: High Speed

LIQ VISC: 0.7269 cp

STARTING DIAMETER: 50.00 μ m

REYNOLDS NUMBER: 0.21

ENDING DIAMETER: 0.40 μ m

FULL SCALE MASS %: 100

MASS DISTRIBUTION

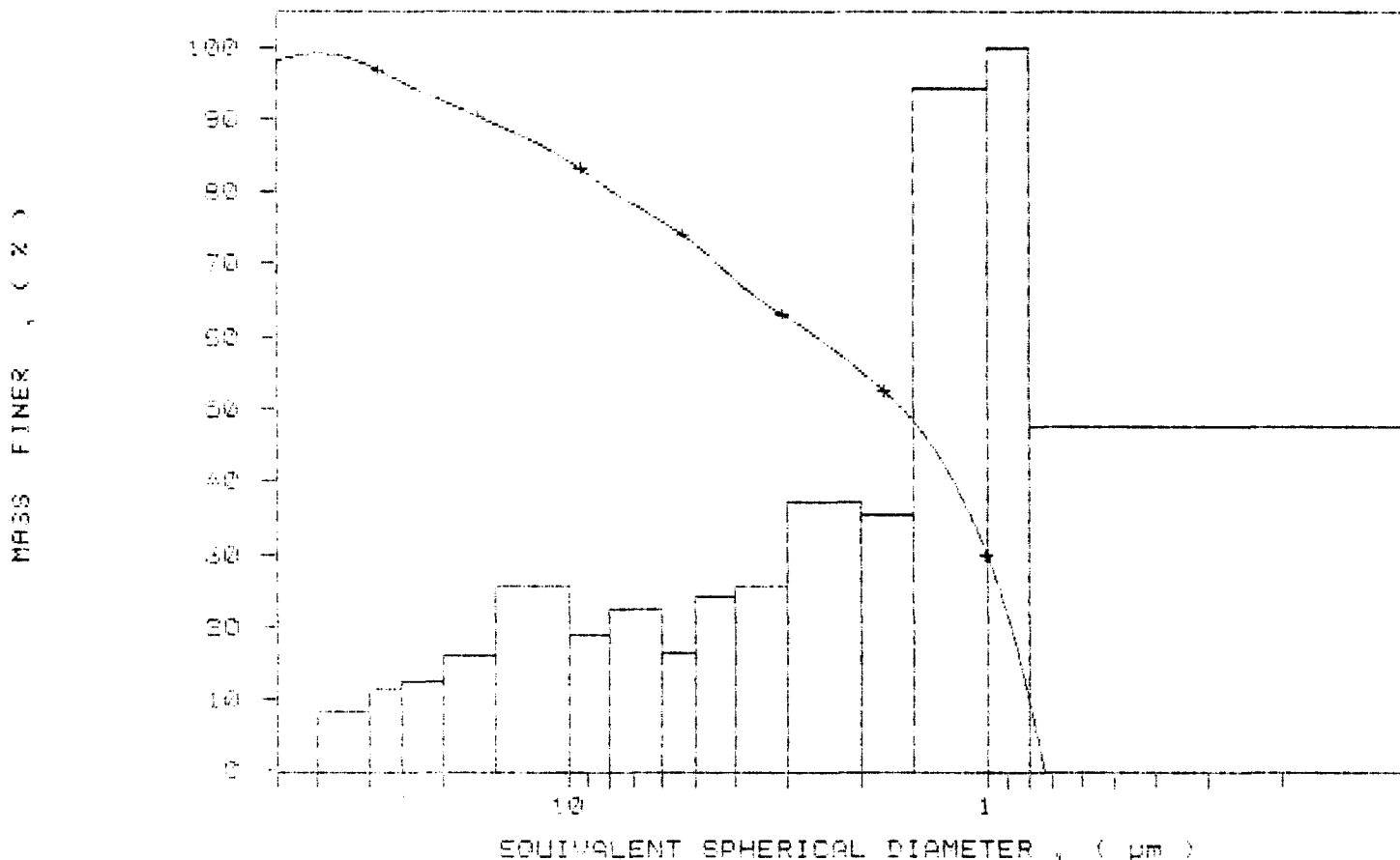
MEDIAN DIAMETER: 1.60 μ mMODAL DIAMETER: 0.69 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	56.0	2.0
40.00	59.0	-1.0
30.00	57.4	1.7
25.00	59.0	2.6
20.00	62.0	2.6
15.00	65.3	3.2
10.00	64.2	5.1
8.00	60.4	3.8
6.00	70.0	9.5
5.00	72.6	2.6
4.00	67.2	4.9
3.00	62.0	3.1
2.00	55.2	7.4
1.50	40.1	7.1
1.00	21.1	18.8
0.50	9.3	19.9



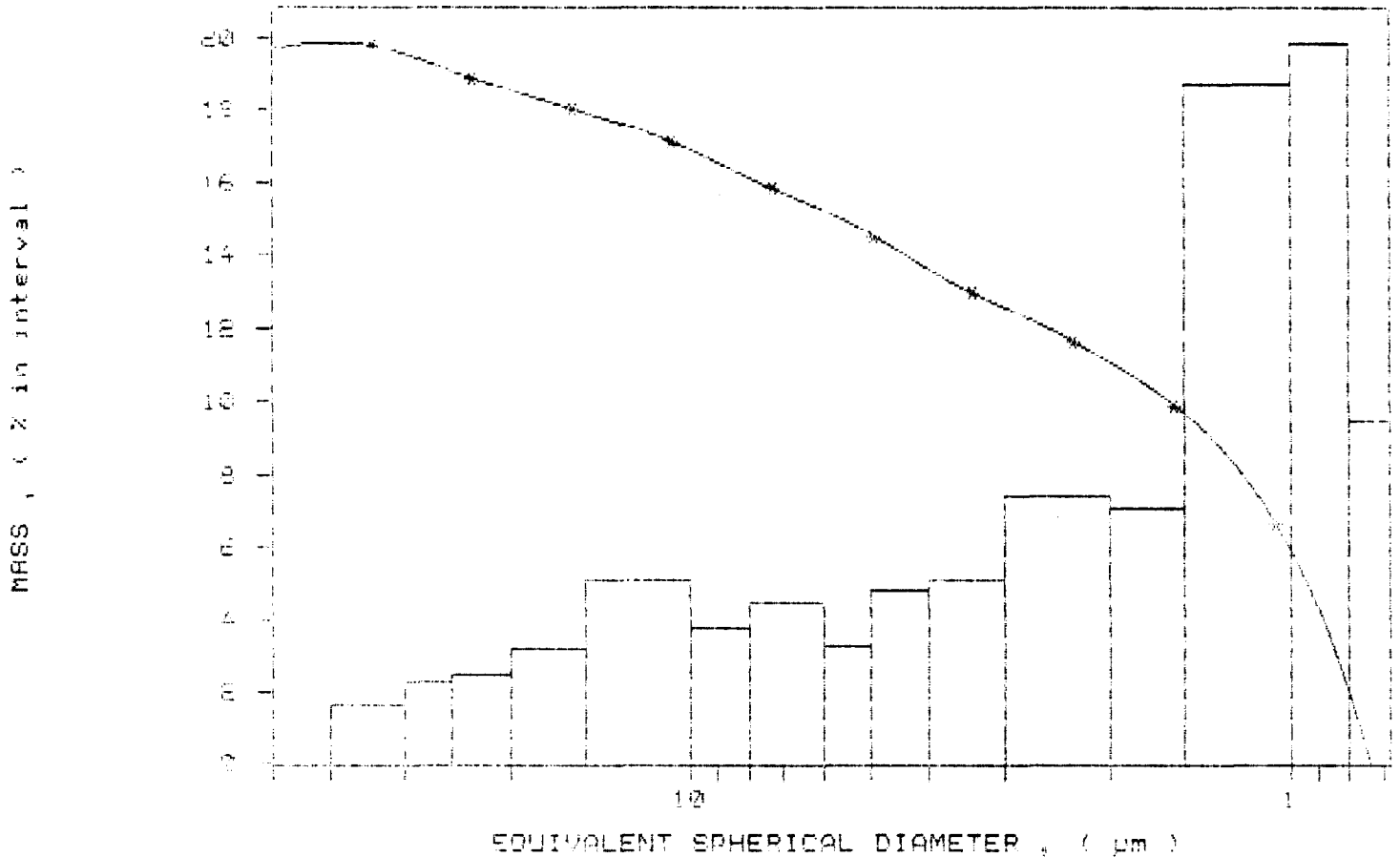
SAMPLE DIRECTORY/NUMBER: DATA 7398	UNIT NUMBER: 1
SAMPLE ID: Hole 80-15 # 5659	START 10:30:25 12/09/90
SUBMITTER: # 25	REPR1 09:21:18 08/30/91
OPERATOR: RM	TOT RUN TIME 0:03:41
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LID DENS: 0.9942 g/cc
ANALYSIS TEMP: 24.7 deg C	LID VISC: 0.7269 cp
RUN TYPE: High Speed	

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY NUMBER: DATA	7398	UNIT NUMBER: 1
SAMPLE ID: Hole 89-15 # 3639		START 10:30:25 12/09/90
SUBBITTER: # 39		REPRY 09:21:18 03/30/91
OPERATOR: KH		TOT RUN TIME 0:03:41
SAMPLE TYPE: Clay		SAM DENS: 2.6000 g/cc
LIQUID TYPE: water		LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	RUN TYPE: High Speed	LIQ VISC: 0.7269 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY NUMBER: DAYAD 7400
 SAMPLE ID: Note 89-13 # 3560
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 24.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 09:23:06 12/08/90
 REPT 09:28:31 08/30/91
 TOT RUN TIME 0:02:42
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

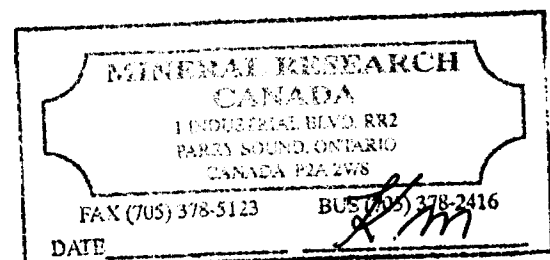
REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.02 μ m

MODAL DIAMETER: 1.53 μ m

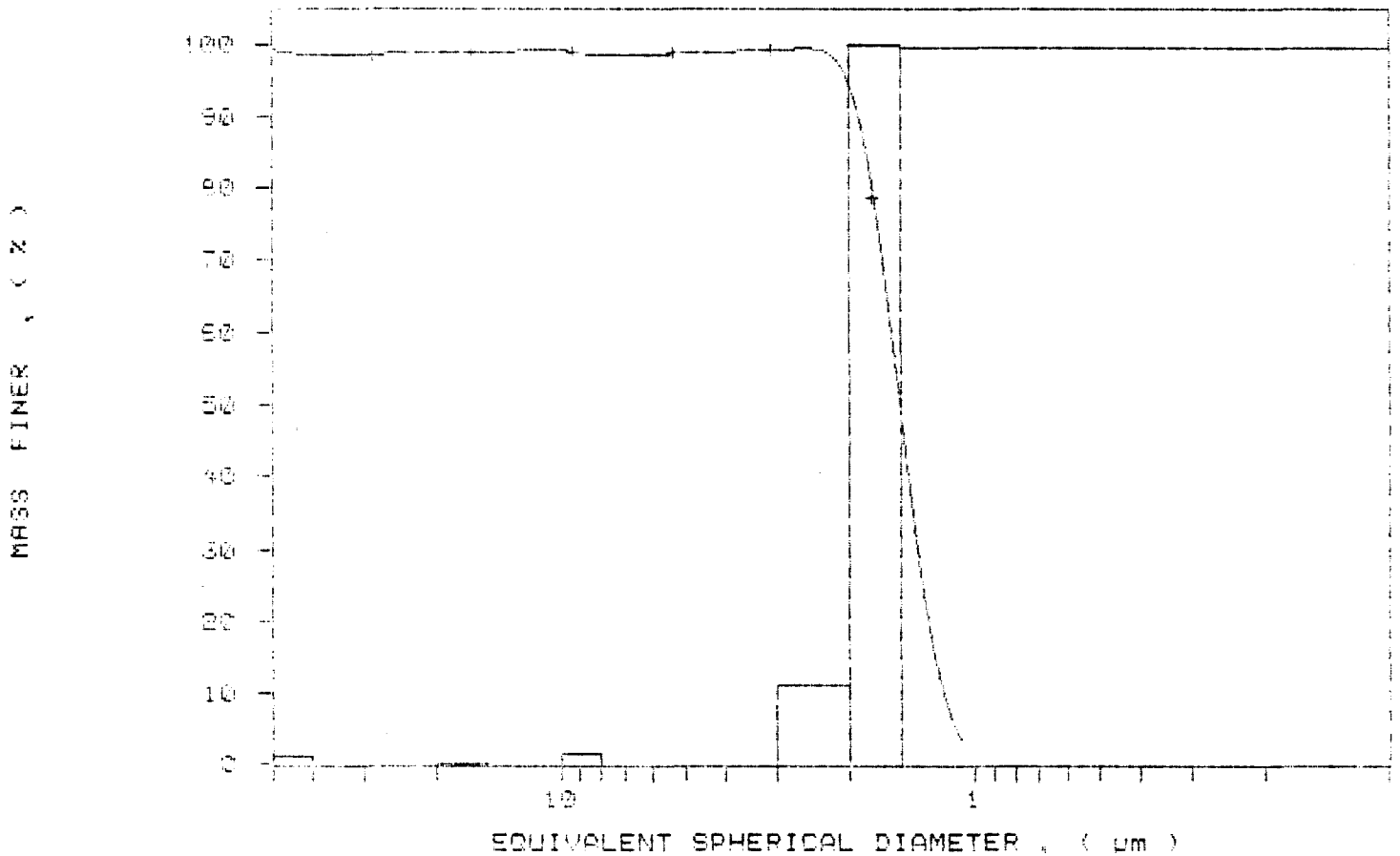
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	55.1	0.9
40.00	78.4	0.6
30.00	92.4	0.6
25.00	98.7	0.3
20.00	99.5	0.2
15.00	99.8	0.2
10.00	99.9	0.3
5.00	99.4	0.8
4.00	98.3	0.2
3.00	98.7	0.2
2.00	98.5	0.2
1.50	99.2	0.3
1.00	95.9	5.4
0.40	46.5	47.0



SAMPLE DIRECTION: NUMBER: DATA 7400
SAMPLE ID: Hole 39-11 # 3650
SUBMITTER: # 59
OPERATOR: RM
SAMPLE TYPE: Clay
LIQUID TYPE: water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
START 09:23:06 12/03/90
REPRY 09:28:31 08/30/91
TOT RUN TIME 0:02:42
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7270 cp

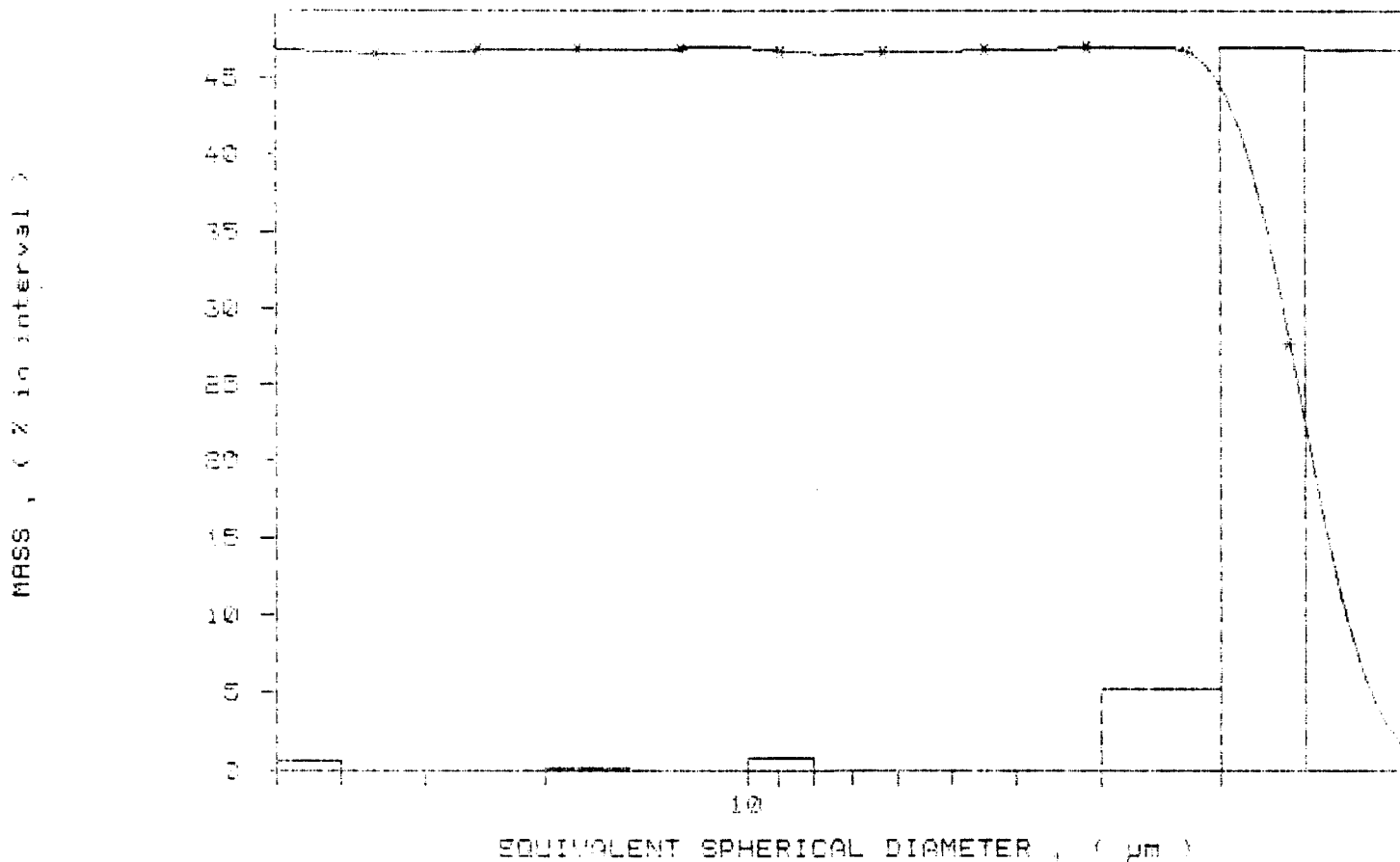
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /400
 SAMPLE ID: Hole 89-15 # 3550
 SUBMITTER: # 33
 OPERATOR: RM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 24.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 09:28:06 12/03/90
 REPT 09:28:31 02/00/91
 TOT RUN TIME 0:02:42
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



2. 15373

ROTARY DRILL HOLE RECORD

Drilling Started: January 31, 1989 Logged By: A. Casselman
Drilling Finished: February 1, 1989 Logged: May 3, 1989
Drilling Co.: Midwest Core: 3.5"
Dip: -90° Core Storage:
Hole Length: 237.0' Mineral Research Canada
Overburden Depth: 79.0' R. R. # 2
Claim No.: P900045 Parry Sound, On
Easting: 3602 E P2A 2W8
Northing: 205 N Hole No. 89-18
Azimuth: 50° 08' 56" W. 82° 10' 34" N.
Location: 1280.0' at 225° To Claim Post No. 1
Property: Kipling

SUMMARY

From	To	Description
0.0'	12.0'	Peat
12.0'	51.0'	Glacial Clay Till
51.0'	56.5'	Gravel
56.5'	79.0'	Glacial Clay Till Pleistocene - Overburden
79.0'	100.0'	Kaolin Silica Sand (kss) Cretaceous
100.0'	102.0'	Clay
102.0'	153.0'	Kss
153.0'	175.0'	Clay
175.0'	176.0'	Sandy Clay
176.0'	178.5'	Kss
178.0'	180.0'	Clay
180.0'	181.75'	Kss
181.75'	182.0'	Clay
182.0'	192.0'	Kss
192.0'	197.0'	Sandy Clay
197.0'	237.0'	Kss

Jan 13, 1984
A. Casselman

Detail Log 89-18

3

From	To	Sample No.	Description
0.0'	12.0'		Peat
12.0'	51.0'		Glacial Clay Till - greenish grey, competent, 2.0 - 5.0% carbonate & 10.0% gneissic clasts up to 1.5", clast-free and more pliable from 12.0' - 23.0', silty near lower contact.
51.0'	56.5'		Gravel/Coarse Sand - green/grey, medium grain, 30.0% silica, 40.0% carbonate clasts, 25.0% gneissic, 5.0% exotics.
56.5'	79.0'		Glacial Clay Till - as previous.
79.0'	83.0'	14351	Kss - medium grain, green/grey. 10.08% kaolin.
83.0'	86.0'	14352	Kss - as above. 14.78% kaolin.
86.0'	90.0'	14353	Kss - as above. 4.81% kaolin.
90.0'	94.0'	14354	Kss - coarse grain, as above, lighter grey, 93.0' - 94.0' - clay - medium competency, pliable, weakly friable. 7.42% kaolin.
94.0'	97.0'	14355	Kss - 94.0' - 95.0' - medium grain, grey/yellow, rare light grey/brown clay layers, 95.0' - 97.0' - clay, light brown, pliable at upper contact, darker brown, friable at lower contact. 24.28% kaolin.
97.0'	100.0'	14356	Kss - 97.0' - 97.75' - medium grain, brown, 97.75' - 99.0' - clay, pliable, dark brown, 99.0' - 100.0' - clay, highly competent, friable, dark brown. 41.95% kaolin.
100.0'	102.0'	14357	Clay - pliable, brown, and light brown. 59.32% kaolin.
102.0'	105.0'	14358	Kss - medium grain, yellow/brown, brown clay clots near upper contact. 16.99% kaolin.
105.0'	110.0'	14359	Kss - as above, no clay, alternating intense to weak yellow. 8.43% kaolin.
110.0'	115.0'	14360	Kss - as above, 9.04% kaolin.
115.0'	120.0'	14361	Kss - as above. 8.89% kaolin.
120.0'	125.0'		Kss - medium grain, white, remainder of hole

dried.

125.0' 130.0' Kss - as above.

130.0' 135.0' Kss - fine grain, white

135.0' 139.0' Kss - fine grain, white, yellow & grey
contamination significant.

139.0' 143.0' Kss - coarse grain, as above, coarsening
downsection to medium grain.

143.0' 147.0' Kss - medium grain, white.

147.0' 153.0' Kss - medium grain, white, much contamination.

153.0' 157.0' Clay - competent, disc-like, greasy, buff, grading
to medium brown.

157.0' 161.0' Clay - competent, disc-like, greasy, buff - 157.0'
- 159.0', then carbonaceous, chocolate brown,
lightening downsection.

161.0' 165.0' Clay - competent, disc-like greasy, medium brown,
carbonaceous, exterior crystal growth &
sulphureous smell.

165.0' 170.0' Clay - very mangled, some silty areas in a more
competent disc-like material with carbonaceous and
illite seams.

170.0' 175.0' Clay - competent, disc-like, as above.

175.0' 176.0' Sandy Clay - competent, disc-like, fine grain,
buff, minor illite.

176.0' 178.5' Kss - medium grain, light brown.

178.5' 180.0' Clay - competent, disc-like, buff, high percentage
illite.

180.0' 181.75' Kss - minor clay seams, light brown seams, buff,
fissile.

181.75' 182.0' Clay - as previous at 178.5 - 180.0'

182.0' 187.0' Kss - medium grain, light brown.

187.0' 192.0' Kss - as above, buff, illitic clay clots.

192.0' 197.0' Sandy Clay - fissile, fine grain, some areas
coarser, very fine, buff, illitic clay clots.

197.0' 202.0' Kss - high clay content, fine grain, very light

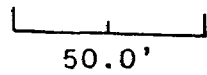
brown, illite.

- 202.0' 207.0' Kss - as above, lower clay content, slightly coarser.
- 207.0' 212.0' Kss - as above.
- 212.0' 215.0' Kss - medium grain, light brown.
- 215.0' 220.0' Kss - as above, medium brown where moist, minor illite and heavies.
- 220.0' 225.0' Kss - medium grain, light brown.
- 225.0' 232.0' Kss - coarse grain in a medium grain matrix, white.
- 232.0' 237.0' Kss - as above, containing (2) Devonian clasts, one is a black siltstone with a large brachiopod, rounded, 2.0", the other is a small fragment 0.5" of angular light grey siliceous dolostone.

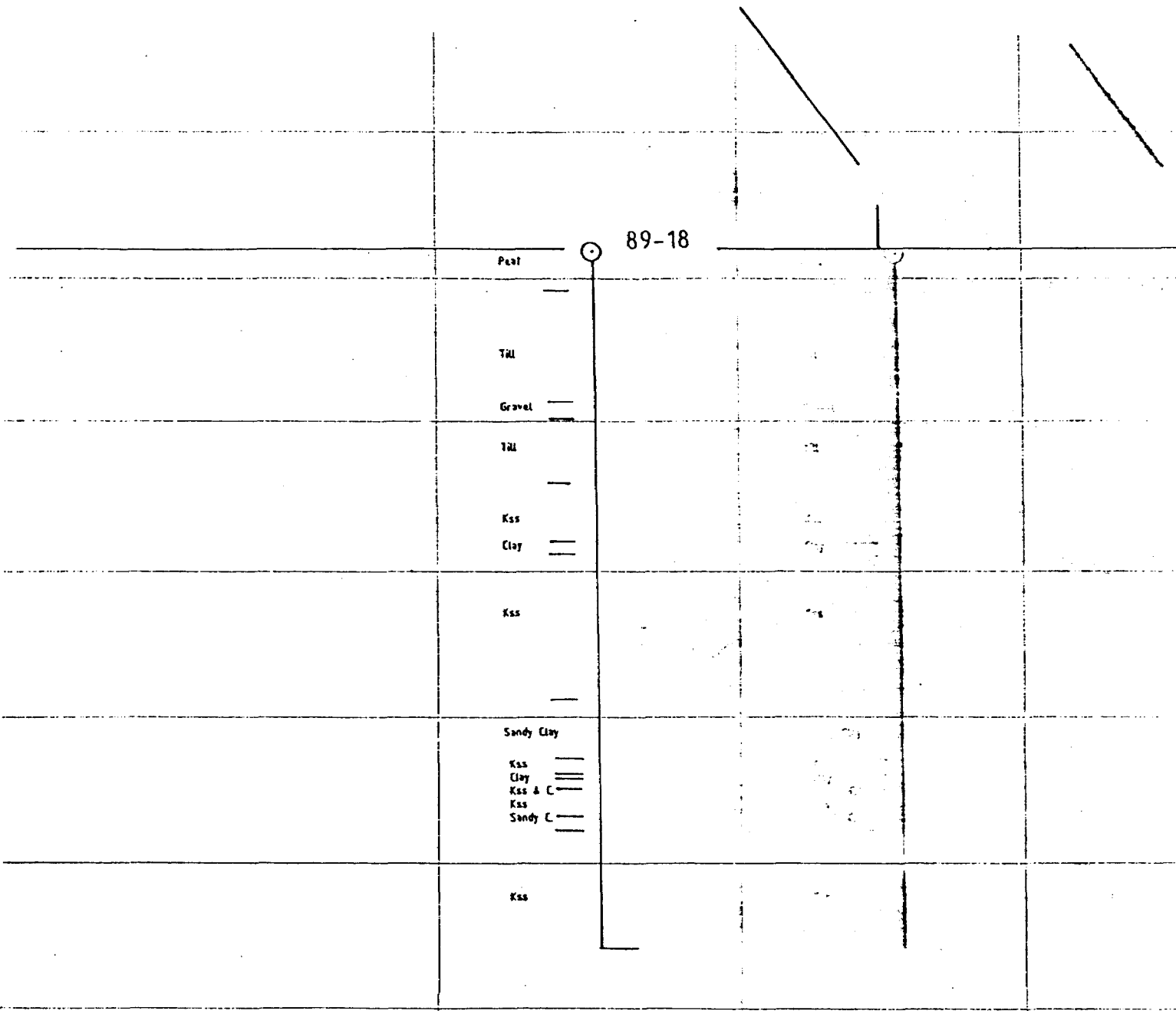
EOH - 237.0'

Section - 89-18

Hole Length: 237.0'
Overburden Depth: 79.0'
Astronomic Azimuth: 50° 08' 56" W. 82° 10' 34" N
Location: 1280.0' at 228° to claim post no. 1
Claim No.: P 900045
Dip Collar: -90°
Northing: 205 N
Easting: 3602 E
Scale: 1.0" = 50.0' or 1:600

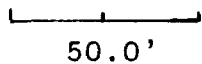


Gridline 3700



Section - 89-18

Hole Length: 237.0'
Overburden Depth: 79.0'
Astronomic Azimuth: $50^{\circ} 08' 56''$ W. $82^{\circ} 10' 34''$ N
Location: 1280.0' at 228° to claim post no. 1
Claim No.: P 900045
Dip Collar: -90°
Northing: 205 N
Easting: 3602 E
Scale: 1.0" = 50.0' or 1:600

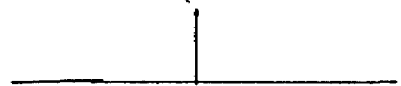


Gridline 3700

89-18



- 14351
- 14352
- 14353
- 14354
- 14355
- 14356
- 14357
- 14358
- 14359
- 14360
- 14361



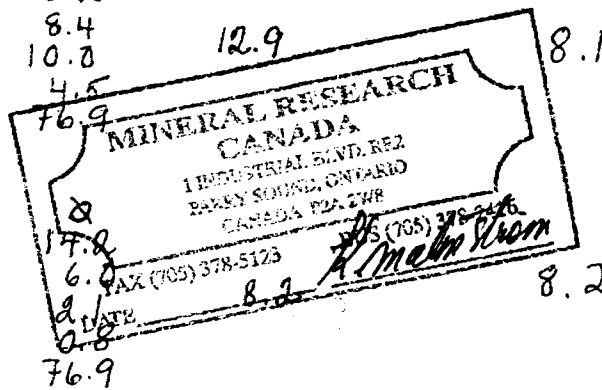
MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
HOLE 89-18	+ 4	1.7		
	+ 40	29.5		
	+100	55.7	12.8	
	+200	2.9		8.2
	+325	0.8		
14351	-325	9.4		
	+ 4	0.5		
	+ 40	82.8		
	+100	8.7	3.6	8.1
	+200	1.5		
14352	+325	0.5		
	-325	6.0		
	+ 4	0.2		
	+ 40	8.4		
	+100	10.8	12.9	8.1
14353	+200	4.5		
	+325	76.9		
	-325	0.2		
	+ 40	17.8		
	+100	6.0		
14354	+200	2.1		
	+325	0.8		
	-325	76.9		
	+ 4	0.2		
	+ 40	65.6		
14355	+100	27.2	4.5	8.2
	+200	1.1		
	+325	0.4		
	-325	5.5		



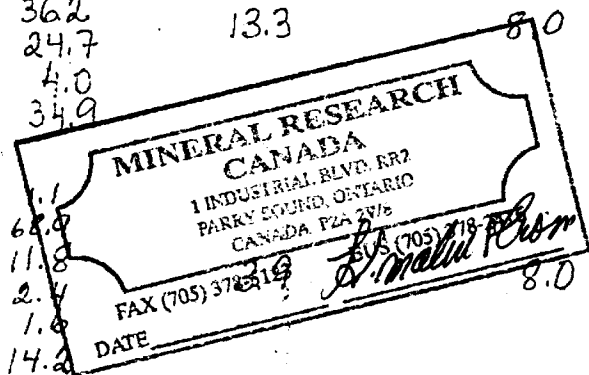
MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
HOLE 89-18 14356	+ 4	0		
	+ 40	0.5		
	+100	46.3	11.7	8.1
	+200	22.9		
	+325	3.1		
	-325	27.2		
14357	+ 4	0		
	+ 40	1.6		
	+100	24.4	12.7	8.0
	+200	33.1		
	+325	4.9		
	-325	36.0		
14358	+ 4	0		
	+ 40	0.2		
	+100	36.2	13.3	8.0
	+200	24.7		
	+325	4.0		
	-325	34.9		
14359	+ 4	1.1		
	+ 40	64.0		
	+100	11.8		
	+200	2.4		
	+325	1.0		
	-325	14.2		
14360	+ 4	0		
	+ 40	54.0		
	+100	30.7	0.8	8.1
	+200	2.0		
	+325	3.2		
	-325	10.1		



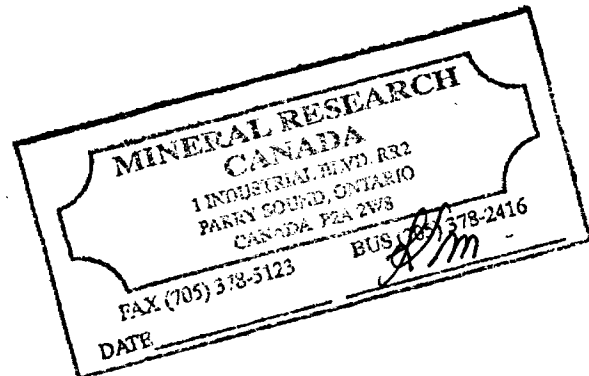
MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
HOLE 89-18 14361	+ 4	2.8	3.1	8.1
	+ 40	66.7		
	+100	13.3		
	+200	4.1		
	+325	1.9		
	-325	11.2		
	+ 4			
	+ 40			
	+100			
	+200			
	+325			
	-325			
	+ 4			
	+ 40			
	+100			
	+200			
	+325			
	-325			
	+ 4			
	+ 40			
	+100			
	+200			
	+325			
	-325			
	+ 4			
	+ 40			
	+100			
	+200			
	+325			
	-325			



Clay

Sedigraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA3 /73
 SAMPLE ID: Hole 89-18 # 14351
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:03:35 08/31/90
 REPRT 15:41:56 08/22/91
 TOT RUN TIME 0:17:52
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7267 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

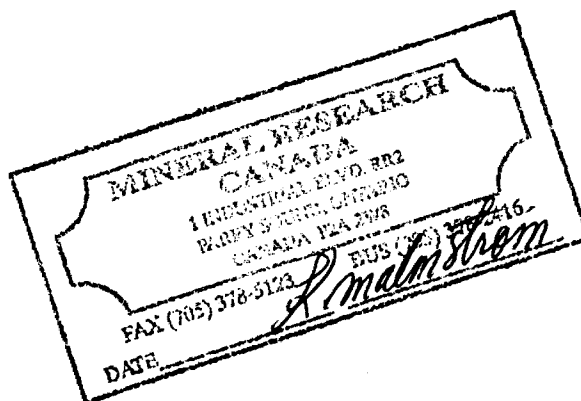
REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.95 μ m

MODAL DIAMETER: 2.16 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	101.0	-1.3
40.00	99.2	2.1
30.00	97.4	1.8
25.00	95.7	1.7
20.00	93.6	2.1
15.00	90.8	2.8
10.00	85.4	5.4
8.00	81.6	3.8
6.00	77.1	4.5
5.00	72.3	4.8
4.00	65.9	6.4
3.00	58.5	7.4
2.00	43.4	15.1
1.50	33.1	10.3
1.00	25.7	7.5
0.80	22.2	3.4
0.60	18.5	3.7
0.50	16.9	1.6
0.40	14.5	2.4



Clay

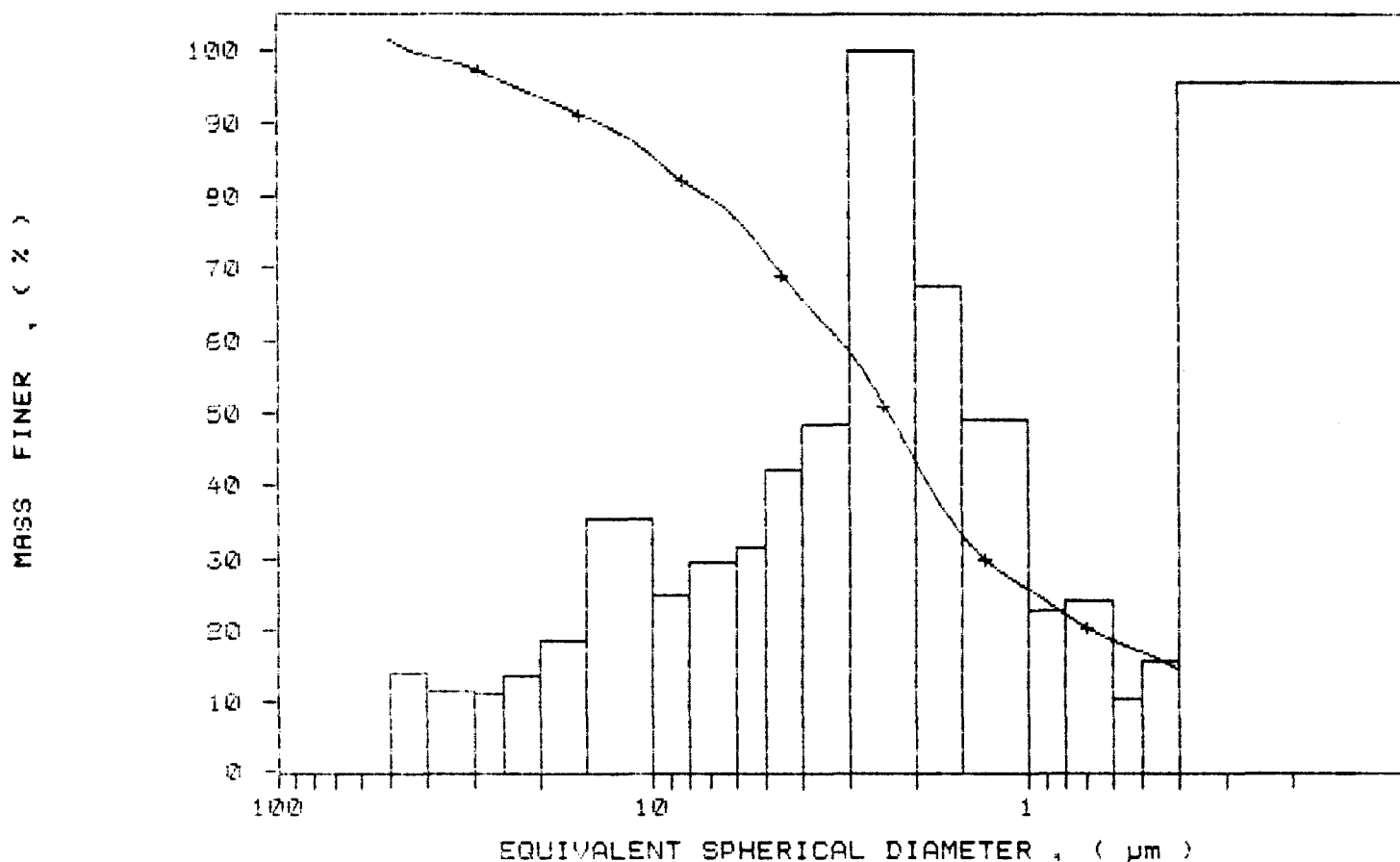
SediGraph 5100 V2.02

PAGE 2

SAMPLE DIRECTORY/NUMBER: DATA3 /73
SAMPLE ID: Hole 89-18 # 14351
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 10:03:35 08/31/90
REPT 15:41:56 08/22/91
TOT RUN TIME 0:17:52
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7267 cp

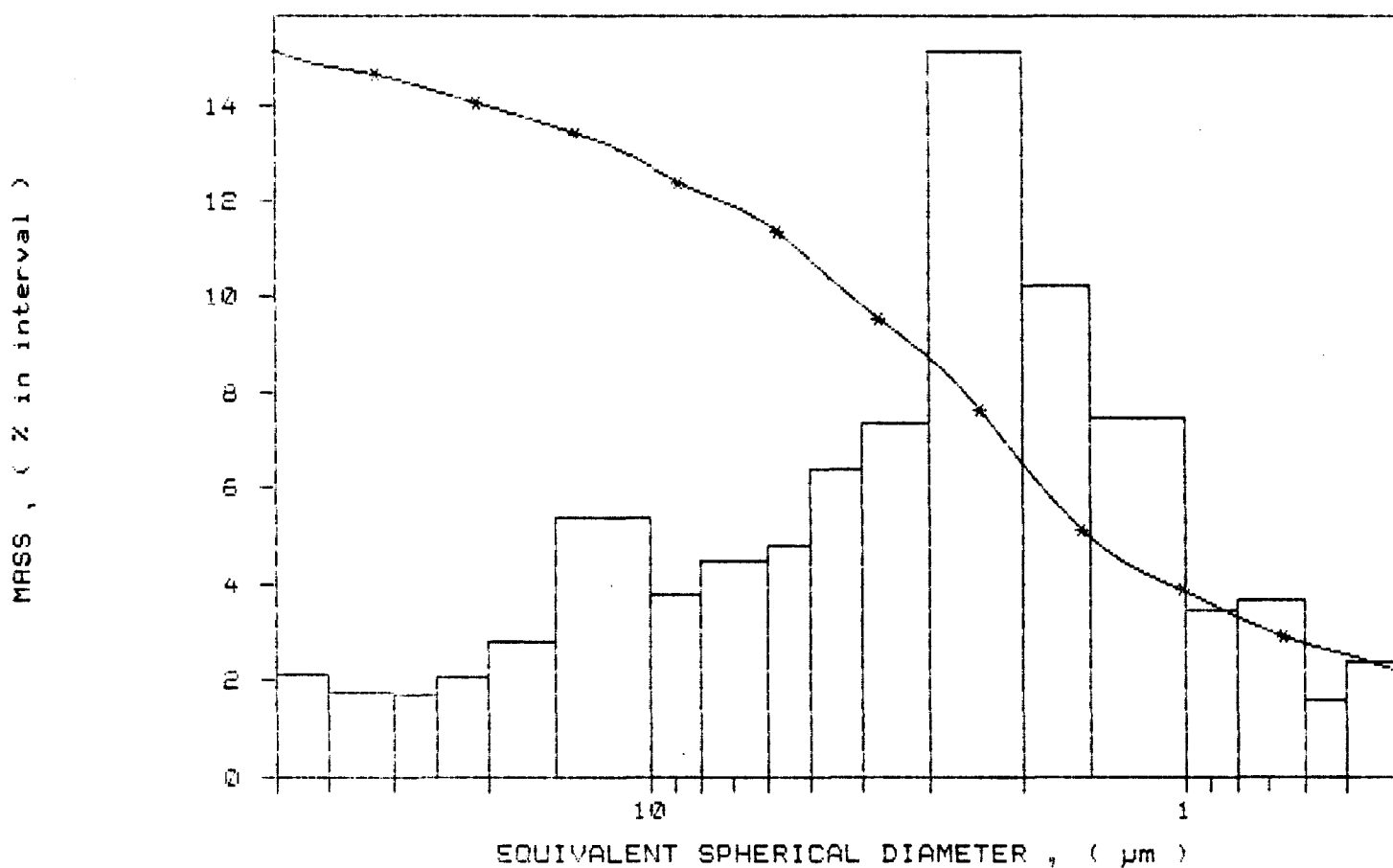
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /73
SAMPLE ID: Hole 89-18 # 14351
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 10:03:35 08/31/90
REPT 15:41:56 08/22/91
TOT RUN TIME 0:17:52
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7267 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /74
 SAMPLE ID: Hole 89-18 # 14352
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:50:15 08/31/90
 REPT 15:46:45 08/22/91
 TOT RUN TIME 0:17:48
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7267 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.76 μ m

MODAL DIAMETER: 3.19 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.4	1.6
40.00	96.7	1.7
30.00	94.9	1.8
25.00	94.5	0.4
20.00	93.1	1.5
15.00	89.5	3.6
10.00	85.0	4.5
8.00	82.8	2.1
6.00	78.7	4.1
5.00	75.2	3.6
4.00	70.5	4.6
3.00	63.1	7.4
2.00	53.4	9.7
1.50	45.9	7.6
1.00	36.8	9.1
0.80	32.9	3.9
0.60	27.6	5.3
0.50	24.2	3.4
0.40	20.7	3.5



Clay

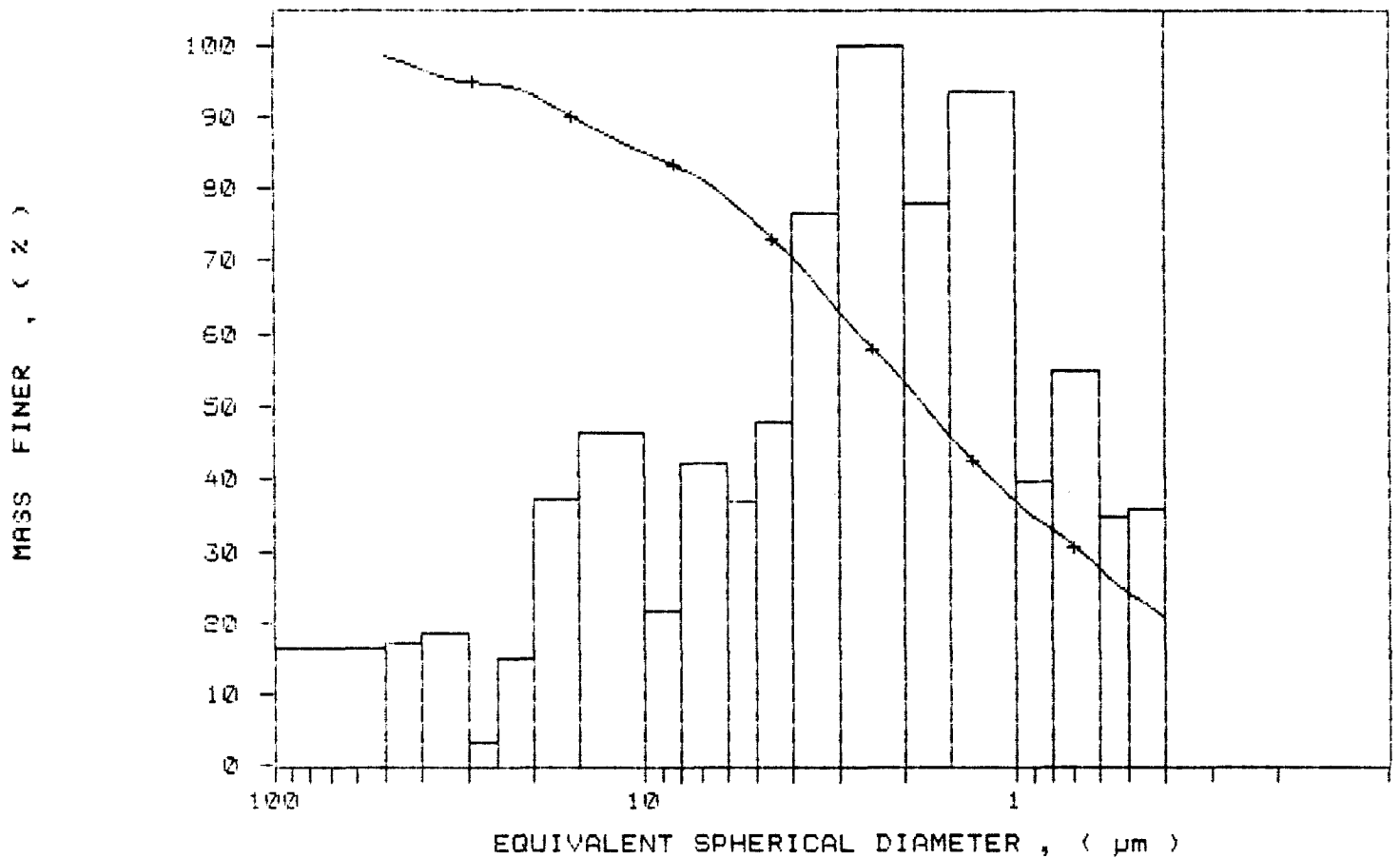
SediGraph 5100 V2.02

PAGE 2

SAMPLE DIRECTORY/NUMBER: DATAS /74
SAMPLE ID: Hole 89-18 # 14352
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 10:50:15 08/31/90
REPRT 15:46:45 08/22/91
TOT RUN TIME 0:17:48
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7267 cp

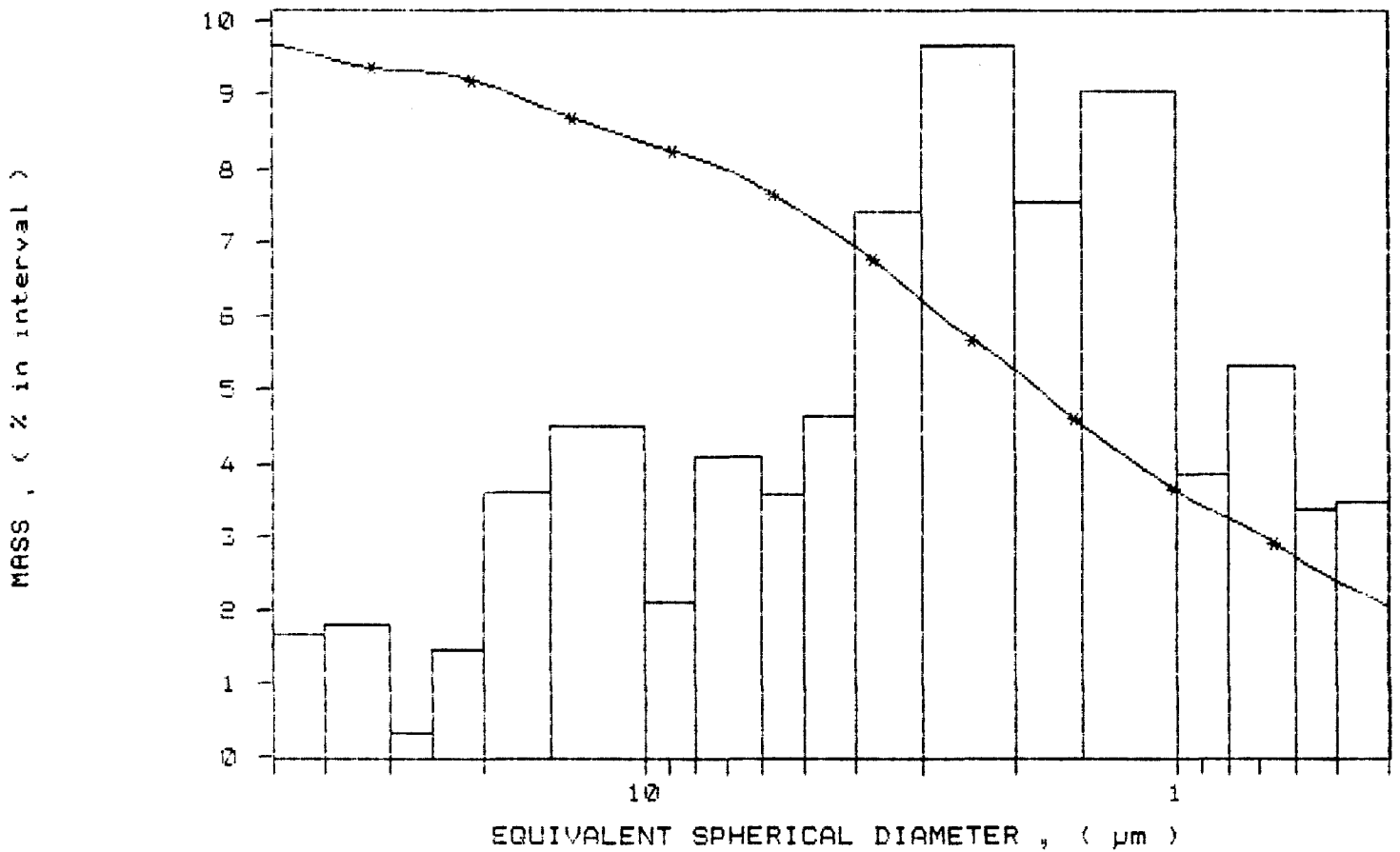
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /74
SAMPLE ID: Hole 89-18 # 14352
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 10:50:15 08/31/90
REPT 15:46:45 08/22/91
TOT RUN TIME 0:17:48
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7267 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /75
 SAMPLE ID: Hole 89-18 # 14353
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 24.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 11:19:19 08/31/90
 REPR1 15:55:22 08/22/91
 TOT RUN TIME 0:17:57
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7266 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.08 μ m MODAL DIAMETER: 1.96 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	97.6	2.2
40.00	97.1	0.7
30.00	96.2	0.9
25.00	94.6	1.7
20.00	91.2	3.4
15.00	88.6	2.6
10.00	84.7	3.9
8.00	82.2	2.5
6.00	78.9	3.3
5.00	75.7	3.2
4.00	71.2	4.5
3.00	65.8	5.3
2.00	47.6	18.2
1.50	30.9	16.8
1.00	19.3	11.5
0.80	16.3	3.0
0.60	12.6	3.7
0.50	10.1	2.6
0.40	5.9	4.2



Clay

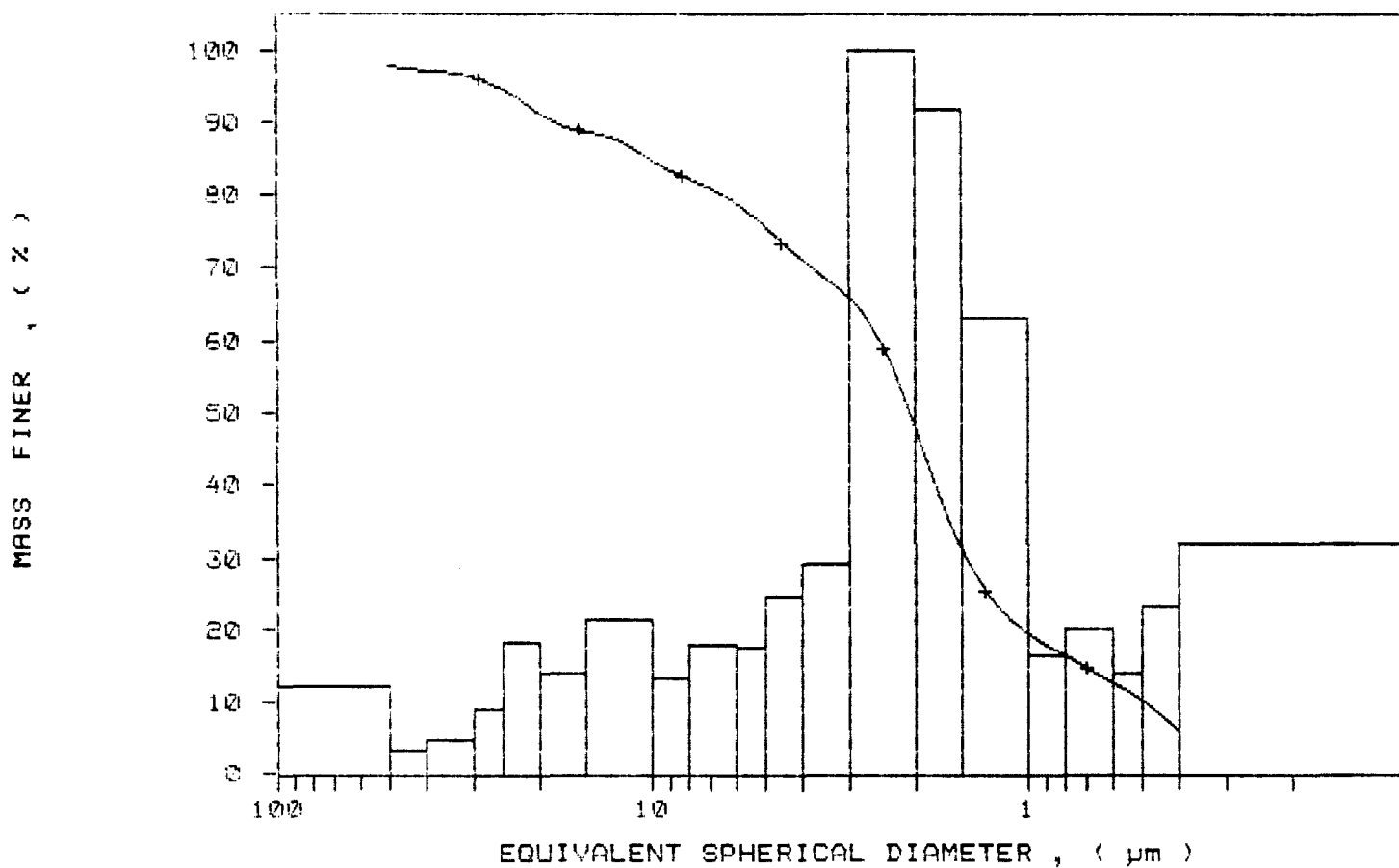
SediGraph 5100 V2.02

PAGE 2

SAMPLE DIRECTORY/NUMBER: DATAS /75
 SAMPLE ID: Hole 89-18 # 14353
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 11:19:19 08/31/90
 REPR 15:55:22 08/22/91
 TOT RUN TIME 0:17:57
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7266 cp

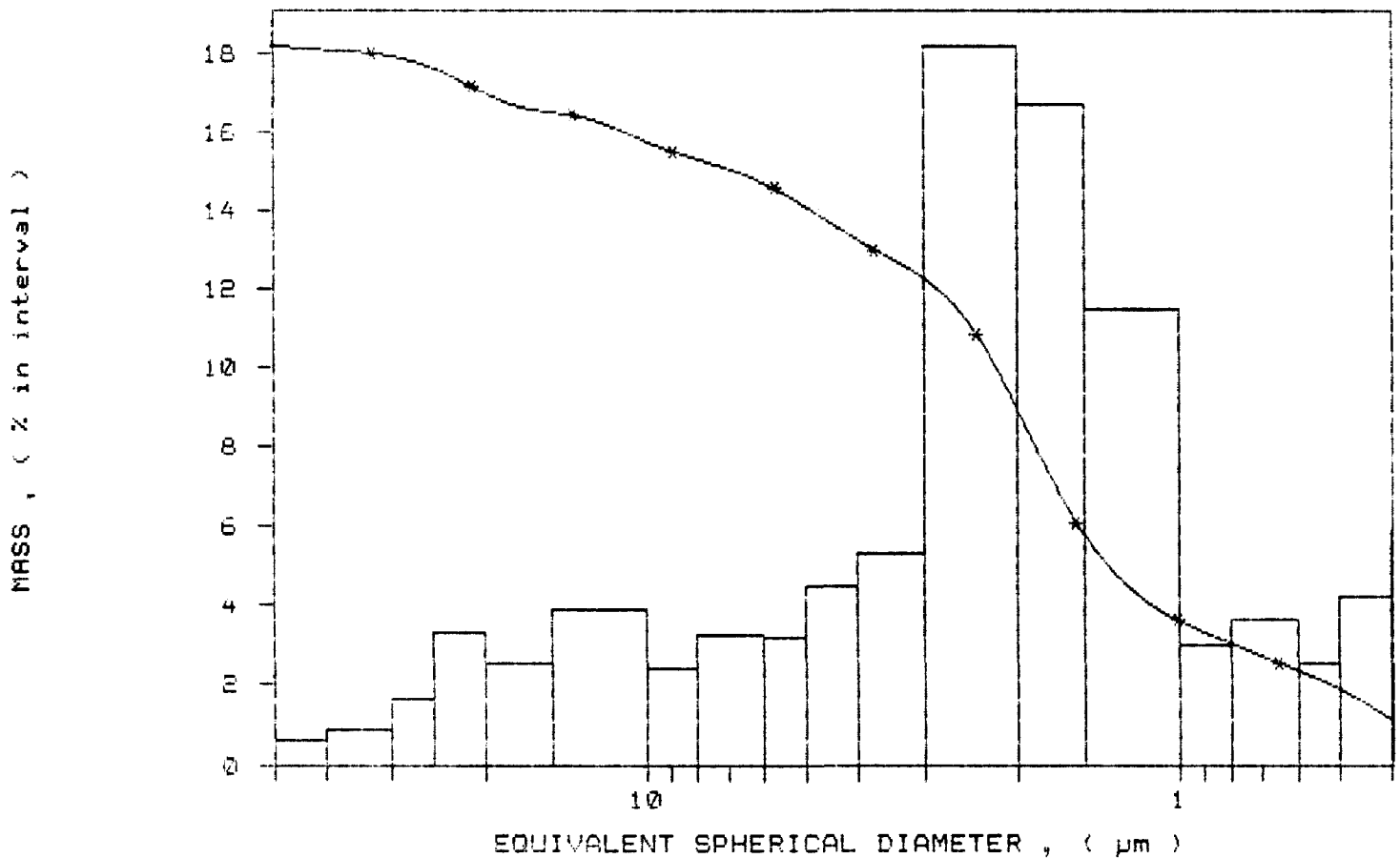
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /75
 SAMPLE ID: Hole 89-18 # 14353
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 11:19:19 08/31/90
 REPT 15:55:22 08/22/91
 TOT RUN TIME 0:17:57
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7266 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS 776
 SAMPLE ID: Hole 89-18 # 14354
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 13:21:20 08/31/90
 REPRT 16:03:39 08/22/91
 TOT RUN TIME @:17:53
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7266 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

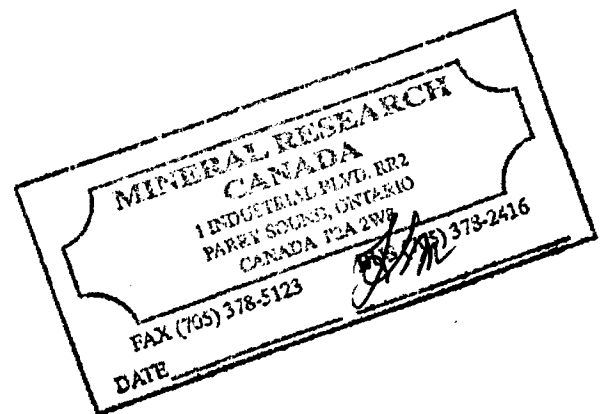
REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.17 μ m

MODAL DIAMETER: 1.41 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	95.4	4.6
40.00	94.6	0.8
30.00	92.8	2.5
25.00	89.9	2.3
20.00	86.6	3.2
15.00	82.5	4.1
10.00	77.0	5.5
8.00	72.5	4.4
6.00	68.4	4.1
5.00	65.9	2.5
4.00	61.7	4.3
3.00	56.1	5.6
2.00	48.8	7.3
1.50	48.1	5.7
1.00	34.0	9.1
0.80	30.1	3.9
0.60	23.9	6.2
0.50	20.2	3.8
0.40	16.4	3.8



Clay

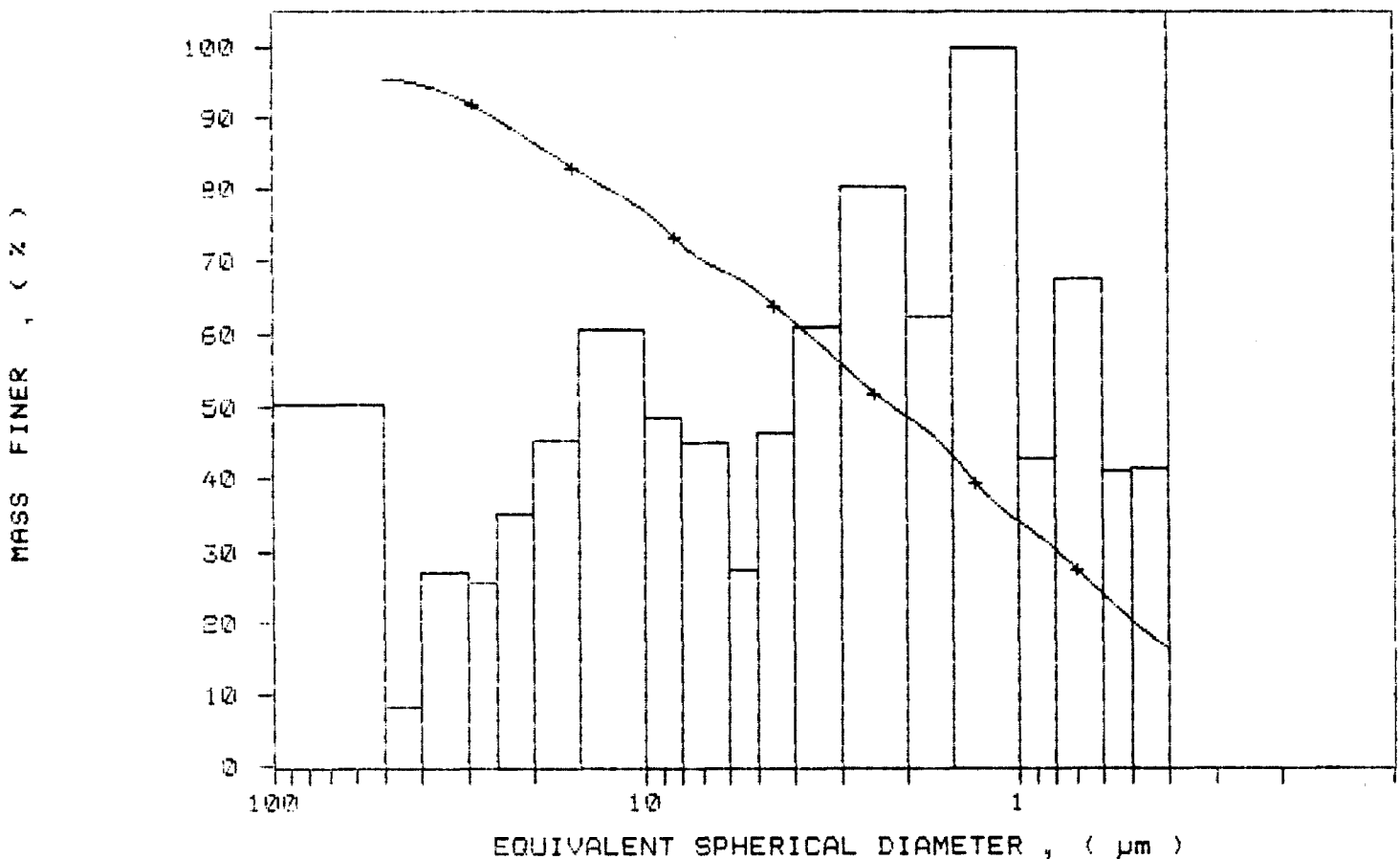
SediGraph 5100 V2.02

PAGE 2

SAMPLE DIRECTORY/NUMBER: DATAS /76
SAMPLE ID: Hole 89-18 # 14354
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 13:21:20 08/31/90
REPR 16:03:39 08/22/91
TOT RUN TIME 0:17:53
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7266 cp

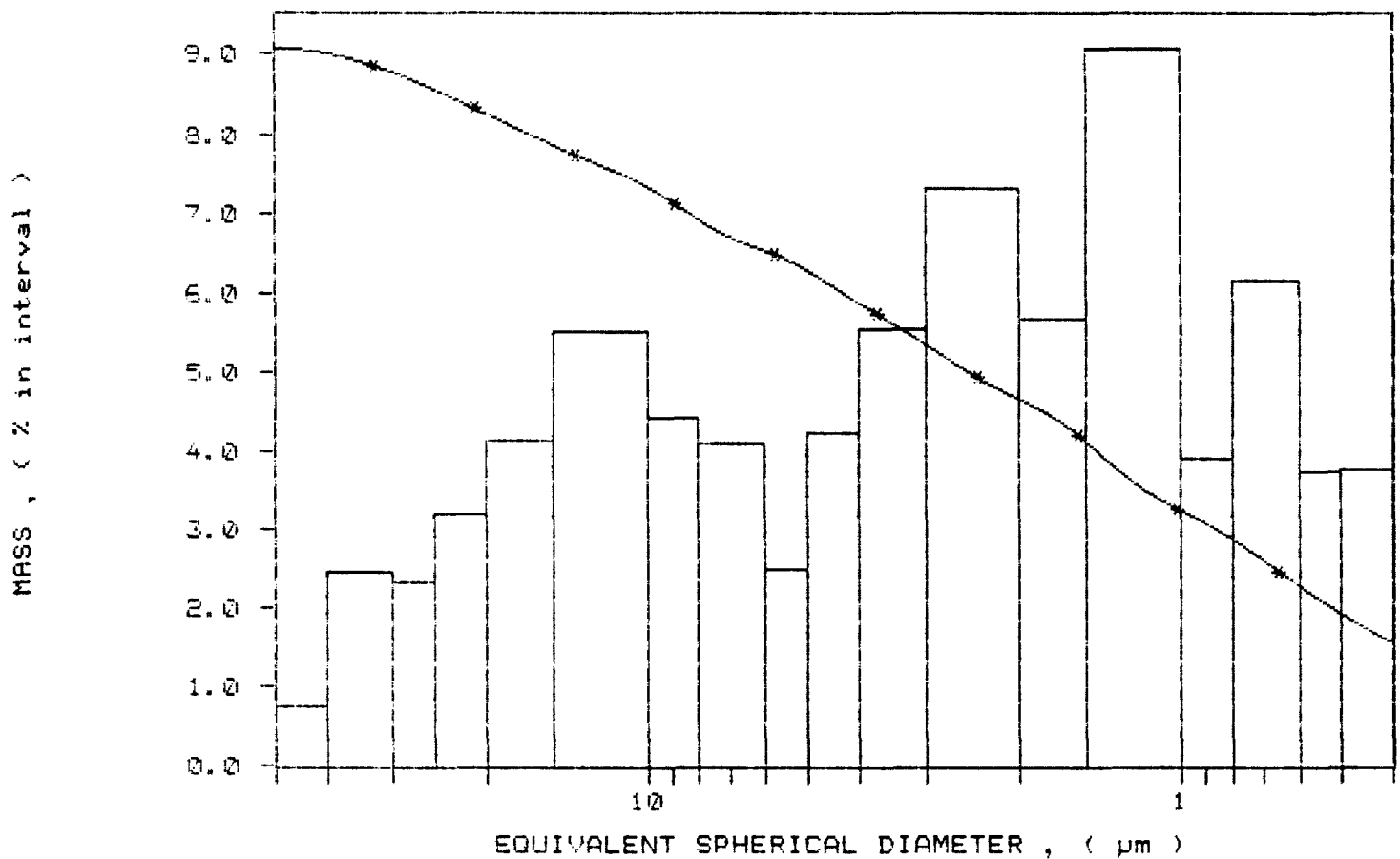
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA9 /76
 SAMPLE ID: Hole 89-18 # 14354
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 13:21:20 08/31/90
 REPR 16:03:39 08/22/91
 TOT RUN TIME 0:17:59
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7266 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA9 /77 UNIT NUMBER: 1
 SAMPLE ID: Hole 89-18 # 14355 START 14:32:27 08/31/90
 SUBMITTER: # 39 REPR 16:11:59 08/22/91
 OPERATOR: KM TOT RUN TIME 0:17:58
 SAMPLE TYPE: Clay SAM DENS: 2.6000 g/cc
 LIQUID TYPE: Water LIQ DENS: 0.9942 g/cc
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard LIQ VISC: 0.7264 cp

STARTING DIAMETER: 50.00 μ m REYNOLDS NUMBER: 0.21
 ENDING DIAMETER: 0.40 μ m FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.11 μ m MODAL DIAMETER: 0.59 μ m

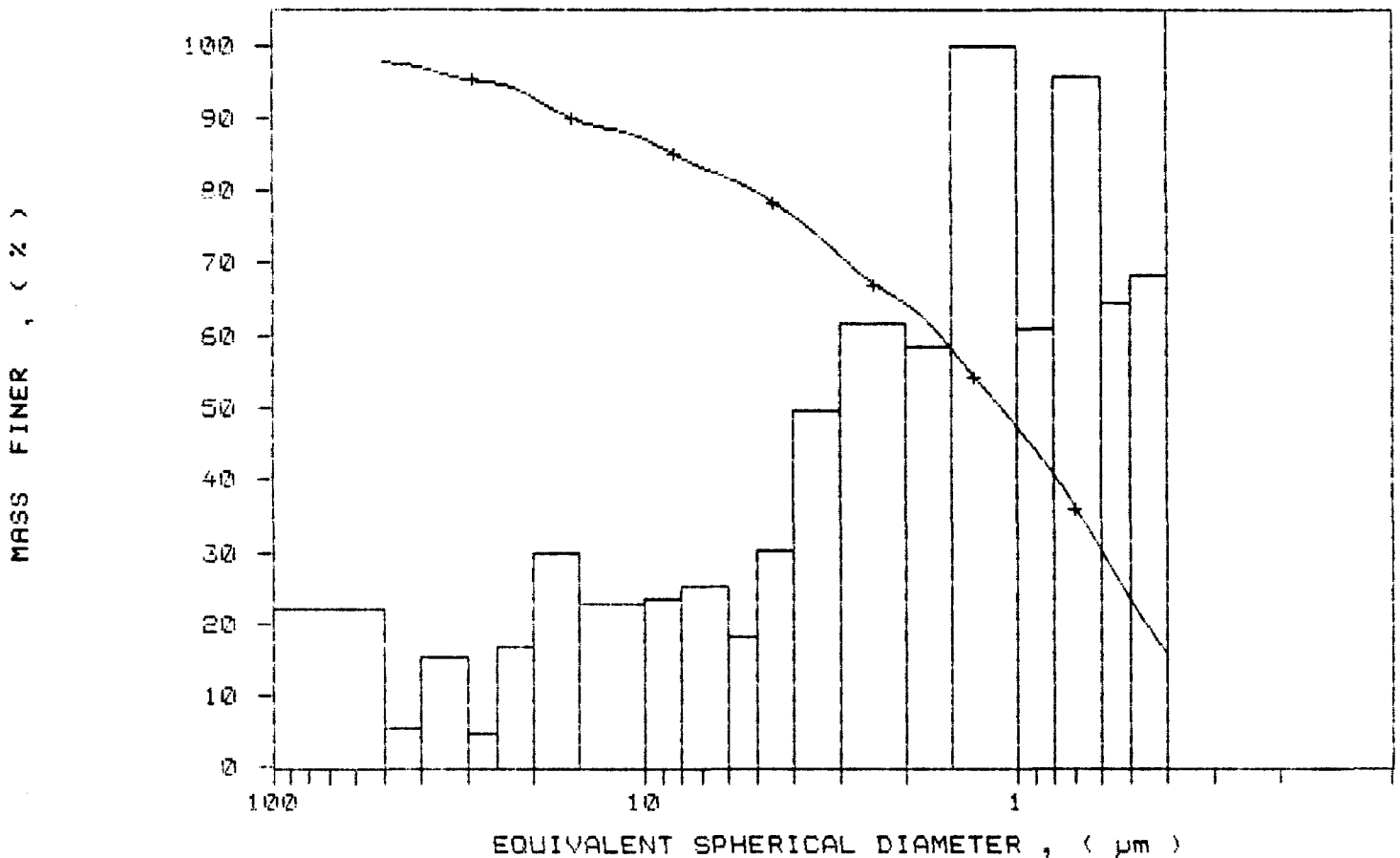
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	97.6	2.4
40.00	97.0	0.6
30.00	95.3	1.7
25.00	94.8	0.5
20.00	92.9	1.8
15.00	89.7	3.3
10.00	87.2	2.5
8.00	84.6	2.6
6.00	81.8	2.8
5.00	79.9	2.0
4.00	76.6	3.3
3.00	71.2	5.4
2.00	64.4	6.7
1.50	58.1	6.4
1.00	47.2	10.9
0.80	40.6	6.6
0.60	30.2	10.4
0.50	28.2	7.0
0.40	15.7	7.5



SAMPLE DIRECTORY/NUMBER: DATAS /77
 SAMPLE ID: Hole 89-18 # 14355
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 14:32:27 08/31/90
 REPR 16:11:59 08/22/91
 TOT RUN TIME 0:17:53
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7264 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



Clay

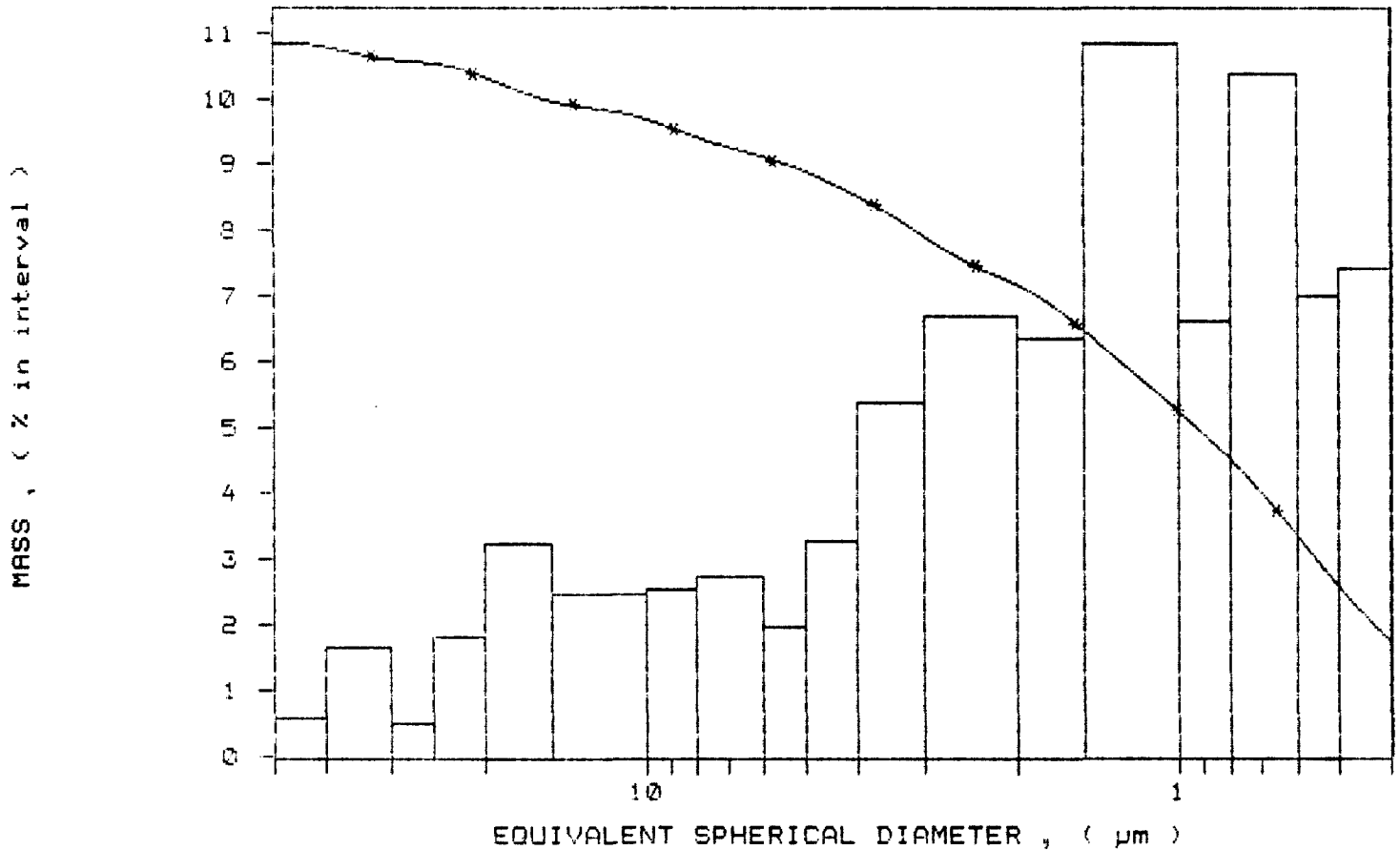
SediGraph 5100 V2.02

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SAMPLE DIRECTORY/NUMBER: DATAS /77
SAMPLE ID: Hole 89-18 # 14355
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 14:32:27 08/31/90
REPT 16:11:59 08/22/91
TOT RUN TIME 0:17:58
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7264 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA3 /78
 SAMPLE ID: Hole 89-18 # 14356
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 14:02:51 08/31/90
 REPRT 16:20:18 08/22/91
 TOT RUN TIME 0:17:56
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7265 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 3.50 μ m

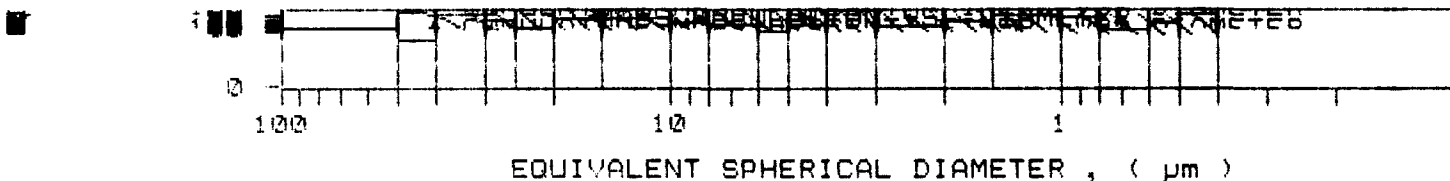
MODAL DIAMETER: 3.51 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	96.0	4.0
40.00	95.5	0.5
30.00	91.6	3.9
25.00	88.0	3.6
20.00	83.8	4.2
15.00	77.8	5.9
10.00	70.3	7.5
8.00	66.0	4.3
6.00	61.1	4.9
5.00	58.0	3.0
4.00	53.3	4.7
3.00	46.2	7.1
2.00	38.0	8.1
1.50	32.4	5.6
1.00	24.4	8.0
0.80	21.0	3.4
0.60	16.1	4.9
0.50	13.0	3.1
0.40	8.8	4.1



SAMPLE DIRECTORY/NUMBER: DATA3 /78
 SAMPLE ID: Hole 89-18 # 14356
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

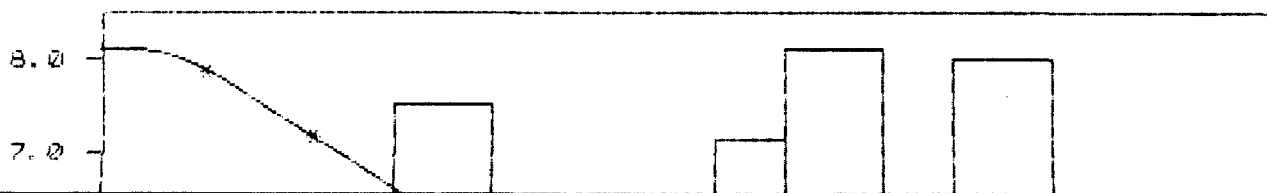
UNIT NUMBER: 1
 START 14:02:51 08/31/90
 REPT 16:20:18 08/22/91
 TOT RUN TIME 0:17:56
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7265 cp



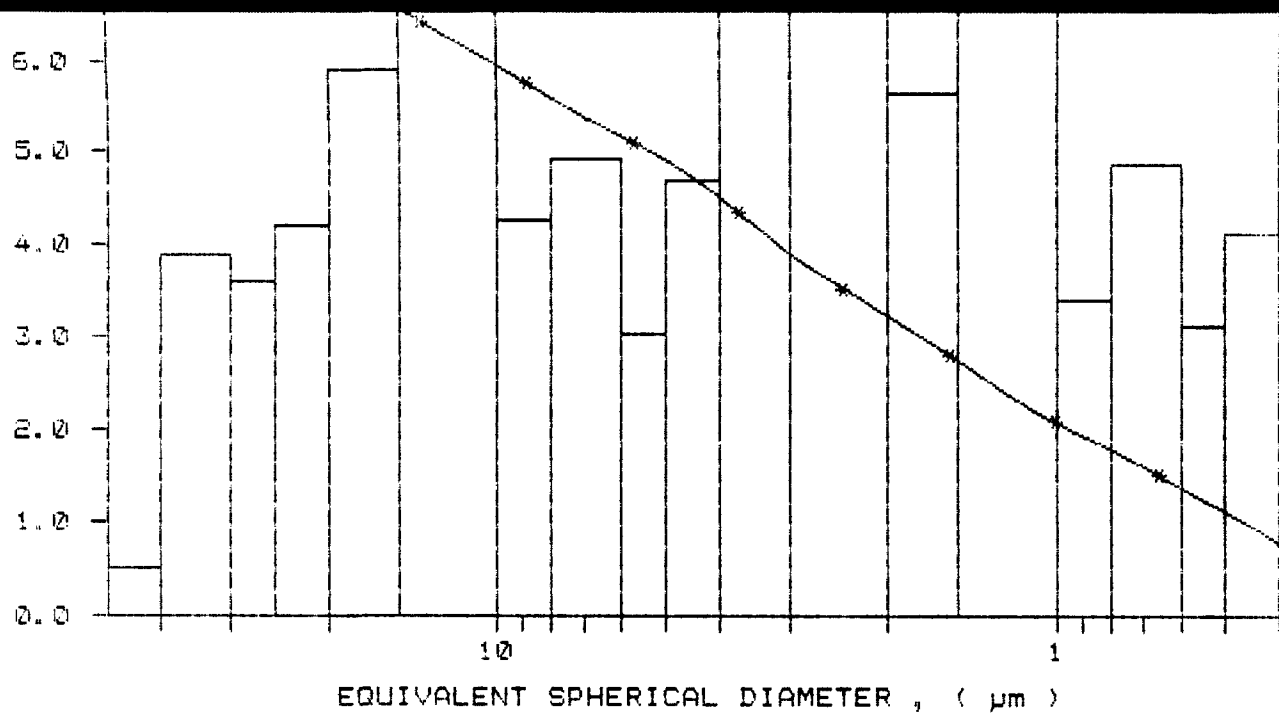
SAMPLE DIRECTORY/NUMBER: DATA3 /78
 SAMPLE ID: Hole 89-18 # 14356
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 14:02:51 08/31/90
 REPT 16:20:18 08/22/91
 TOT RUN TIME 0:17:56
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7265 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



MASS, (% in interval



Clay

SediGraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA3 /80
 SAMPLE ID: Hole 89-18 3 14357
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 11:02:23 09/04/90
 REPT 16:28:39 08/22/91
 TOT RUN TIME 0:18:02
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9948 g/cc
 LIQ VISC: 0.7270 cp

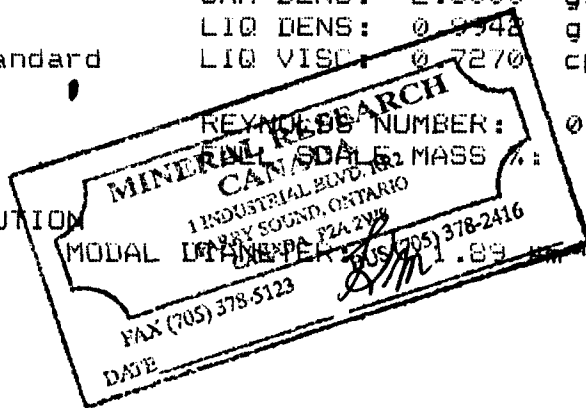
STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 MODAL MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.48 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.2	1.8



40.00	98.9	2.0
30.00	96.9	2.0
25.00	94.9	2.0
20.00	92.6	2.6
15.00	89.1	3.1
10.00	83.4	5.8
8.00	77.9	5.4
6.00	71.5	6.5
5.00	67.8	3.7
4.00	62.2	5.6
3.00	54.9	7.3
2.00	42.4	12.4
1.50	31.2	11.3
1.00	22.0	9.2
0.80	19.1	2.9
0.60	15.7	3.4
0.50	13.6	2.1
0.40	11.2	2.4

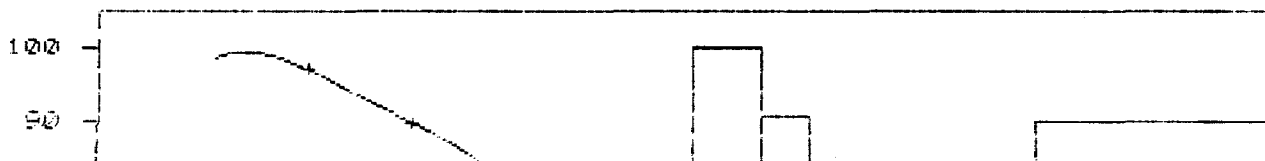
Clay

SediGraph 5100 V2.02

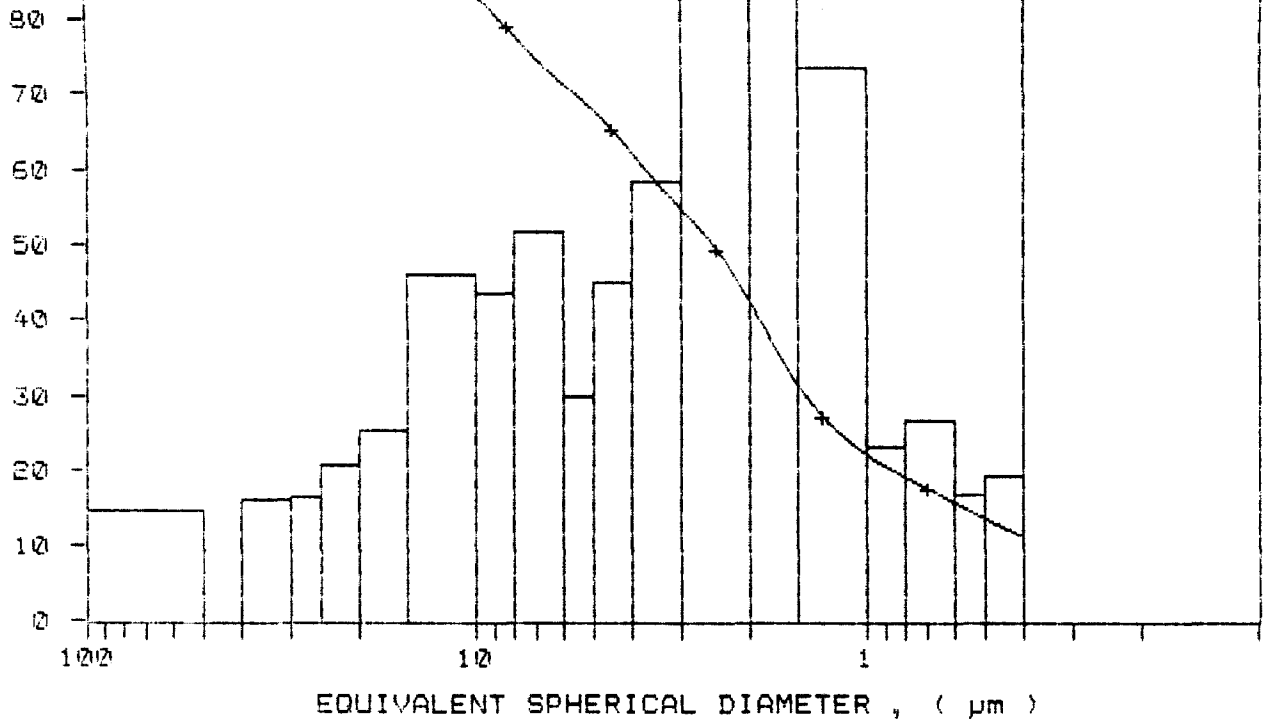
PAGE 2

SAMPLE DIRECTORY/NUMBER: DATAS /80	UNIT NUMBER: 1
SAMPLE ID: Hole 89-18 3 14357	START 11:02:23 09/04/90
SUBMITTER: # 39	REPR 16:28:39 08/22/91
OPERATOR: KM	TOT RUN TIME 0:18:02
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	L10 VISC: 0.7270 cp
RUN TYPE: Standard	

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



MASS FINER , (%)



Clay

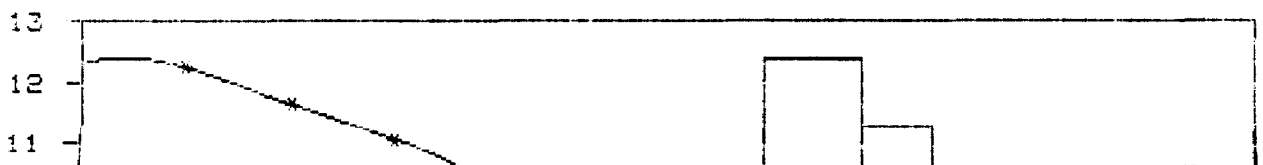
SediGraph 5100 V2.02

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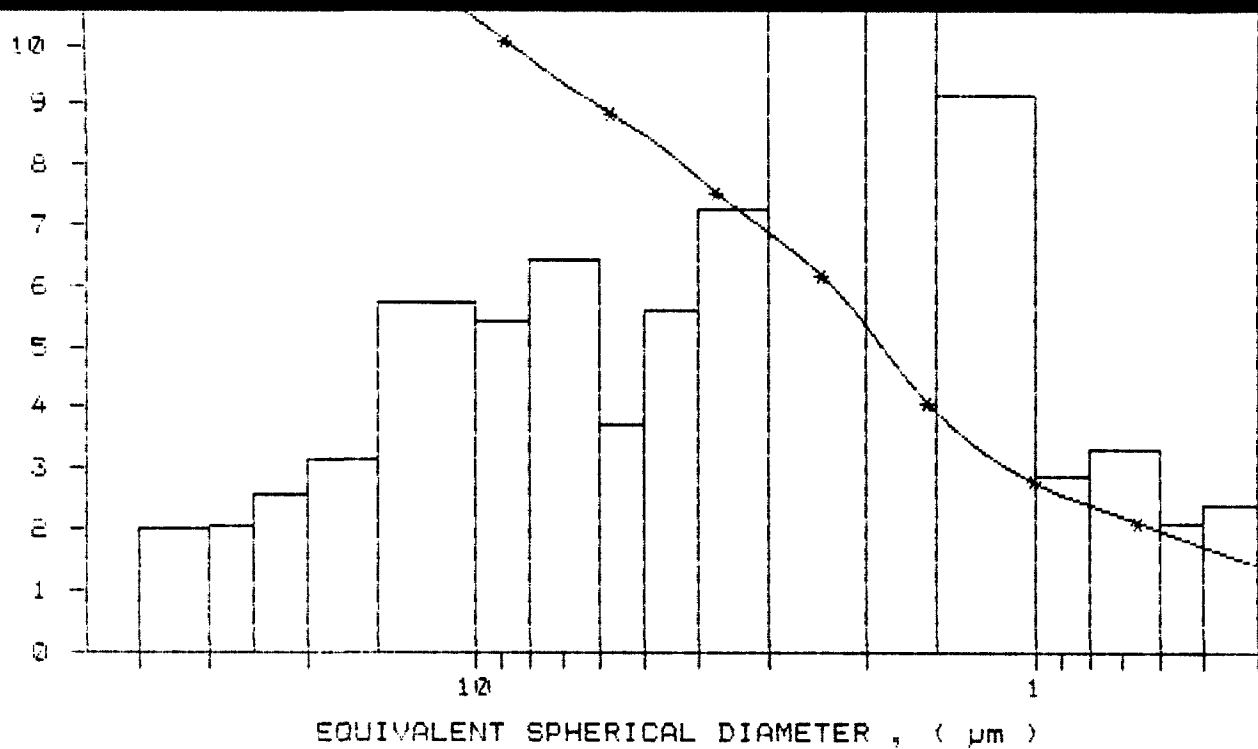
SAMPLE DIRECTORY/NUMBER: DATAS /80
 SAMPLE ID: Hole 89-18 S 14357
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 11:02:23 09/04/90
 REPT 16:28:39 08/22/91
 TOT RUN TIME 0:18:02
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



MASS , (% in interval)



Clay

SediGraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /81
 SAMPLE ID: Hole 89-18 # 14358
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 11:44:57 09/04/90
 REPRT 16:36:59 08/22/91
 TOT RUN TIME 0:18:01
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.942 g/cc
 LIQ VISCOSITY: 0.7270 cp

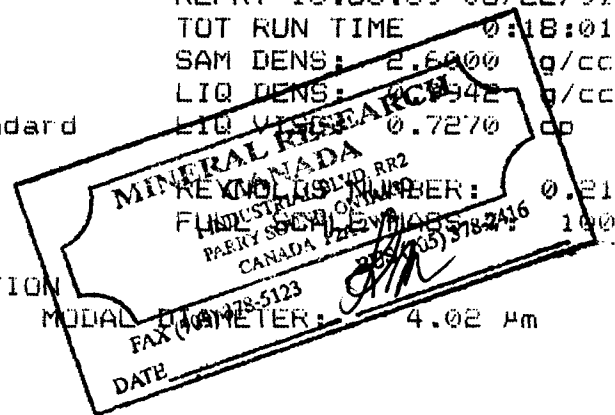
STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.82 μ m

MODAL DIAMETER: 4.02 μ m
 DATE

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
------------------------	------------------------------------	-------------------------------



50.00	96.8	8.7
40.00	96.6	-0.8
30.00	95.5	1.1
25.00	93.7	1.7
20.00	90.9	2.9
15.00	85.8	5.0
10.00	78.8	7.5
8.00	73.7	4.6
6.00	67.9	5.8
5.00	64.0	3.9
4.00	58.5	5.6
3.00	51.4	7.1
2.00	44.0	7.4
1.50	40.0	4.0
1.00	33.9	6.0
0.80	30.7	3.2
0.60	25.2	5.5
0.50	21.7	3.6
0.40	17.7	4.0

Clay

SediGraph 5100 V2.02

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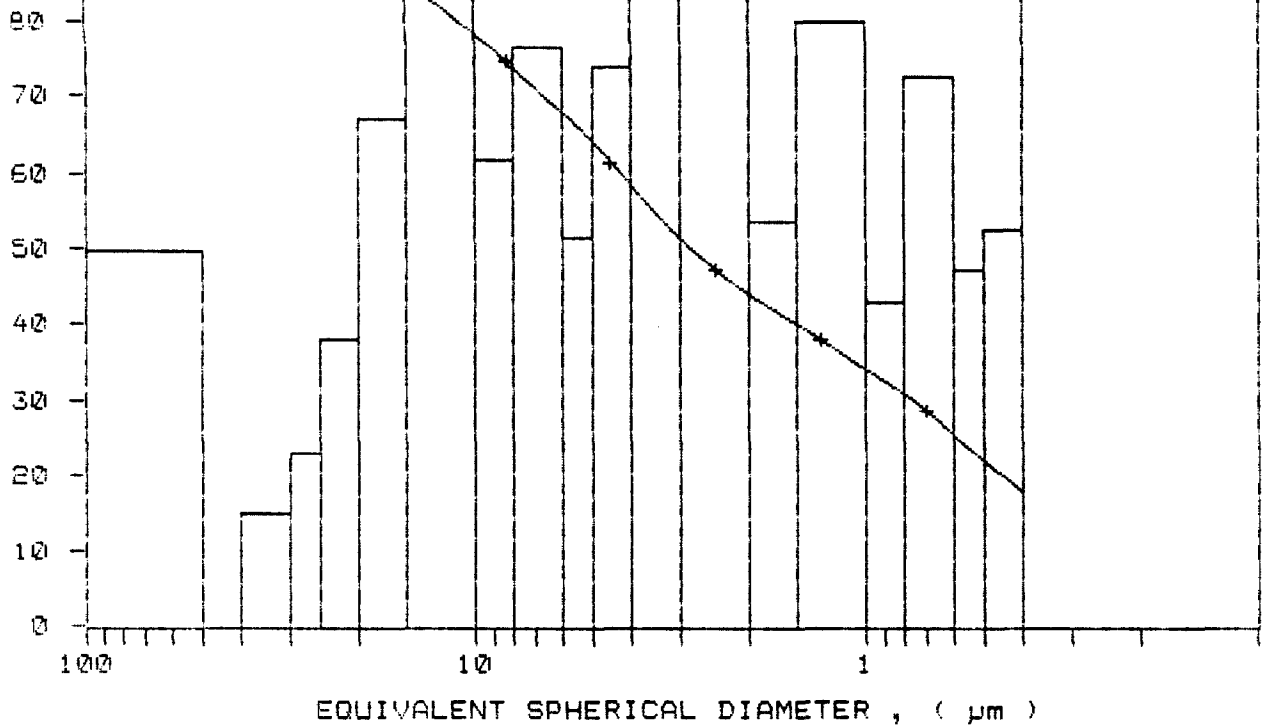
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 SAMPLE ID: Hole 89-18 # 14358
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 11:44:57 09/04/90
 REPRT 16:36:59 08/22/91
 TOT RUN TIME 0:18:01
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



MASS FINER , (%)



Clay

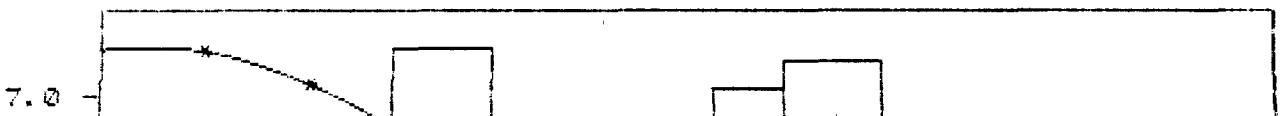
SediGraph 5100 V2.02

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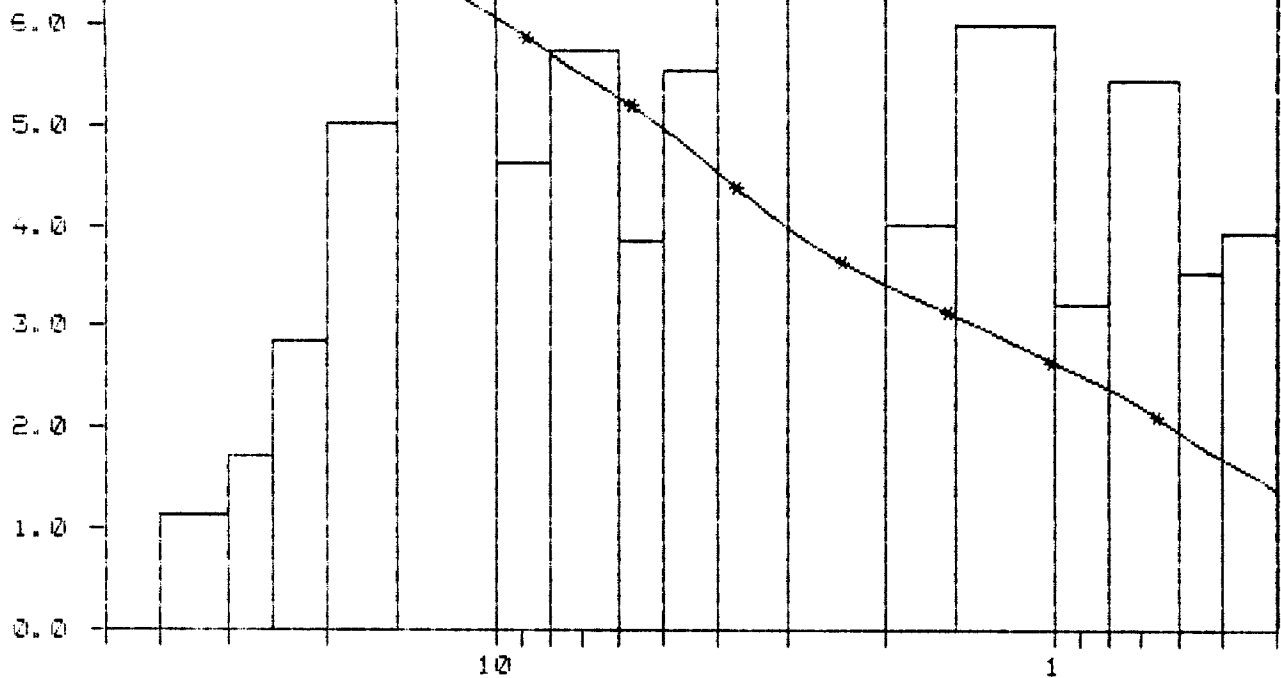
SAMPLE DIRECTORY/NUMBER: DATAS /81
 SAMPLE ID: Hole 89-18 # 14358
 SUBMITTER: # 99
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 11:44:57 09/04/90
 REPT 16:36:59 08/22/91
 TOT RUN TIME 0:18:01
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



MASS , (% in interval)



EQUIVALENT SPHERICAL DIAMETER , (μm)

Clay

SediGraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /82

UNIT NUMBER: 1

SAMPLE ID: Hole 89-18 # 14359

START 08:56:03 09/05/90

SUBMITTER: # 39

REPRT 16:45:19 08/22/91

OPERATOR: KM

TOT RUN TIME 0:17:49

SAMPLE TYPE: Clay

SAN SEALS: 2.6000 g/cc

LIQUID TYPE: Water

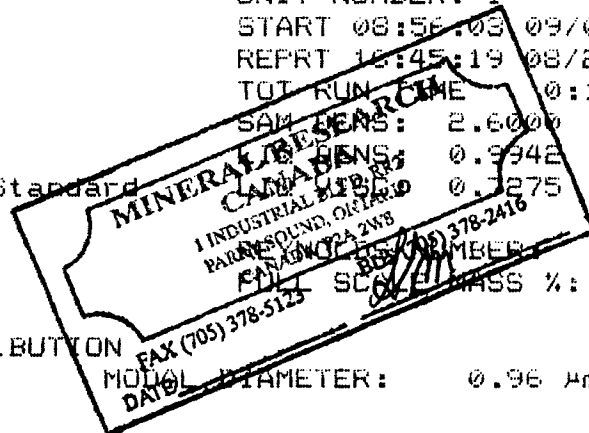
SEALS: 0.9942 g/cc

ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

CP: 0.7275 cp

STARTING DIAMETER: 50.00 μ m

ENDING DIAMETER: 0.40 μ m



MASS DISTRIBUTION

MEDIAN DIAMETER: 2.59 μ m

MOULD DIAMETER: 0.96 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
------------------------	------------------------------------	-------------------------------

MASS %: 100

50.00	99.1	0.9
40.00	95.7	3.4
30.00	93.2	2.5
25.00	91.5	1.7
20.00	88.6	3.0
15.00	84.2	4.4
10.00	77.5	6.7
8.00	73.8	3.7
6.00	68.8	5.0
5.00	65.1	3.7
4.00	59.6	5.5
3.00	53.1	6.5
2.00	44.8	8.3
1.50	38.4	6.5
1.00	27.5	10.9
0.80	20.0	7.5
0.60	10.4	9.6
0.50	5.1	5.3
0.40	0.5	4.4

Clay

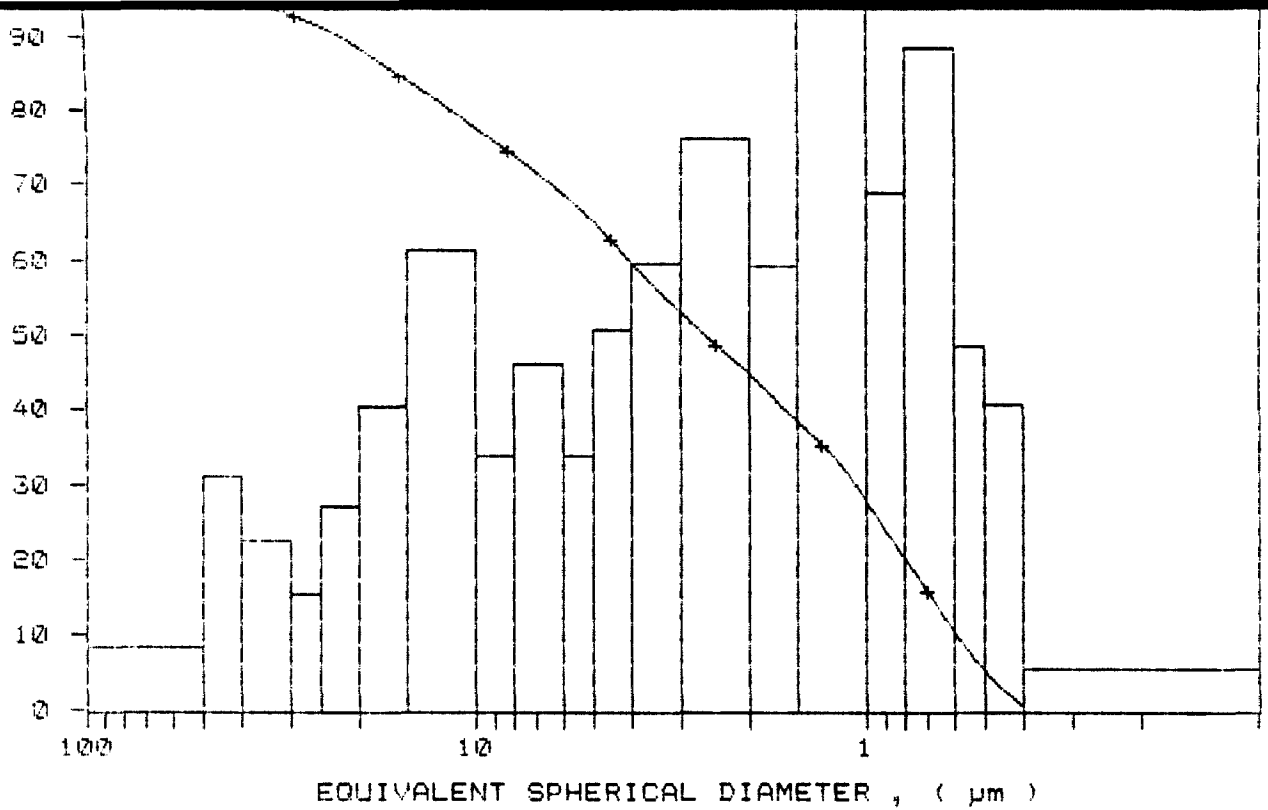
SediGraph 5100 V2.02

PAGE 2

SAMPLE DIRECTORY/NUMBER: DATA3 /82	UNIT NUMBER: 1
SAMPLE ID: Hole 89-18 # 14359	START 08:56:03 09/05/90
SUBMITTER: # 39	REPRT 16:45:19 08/22/91
OPERATOR: KM	TOT RUN TIME 0:17:49
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	LIQ VISC: 0.7275 cp
RUN TYPE: Standard	

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER

MASS FINER , (%)



Clay

SediGraph 5100 V2.02

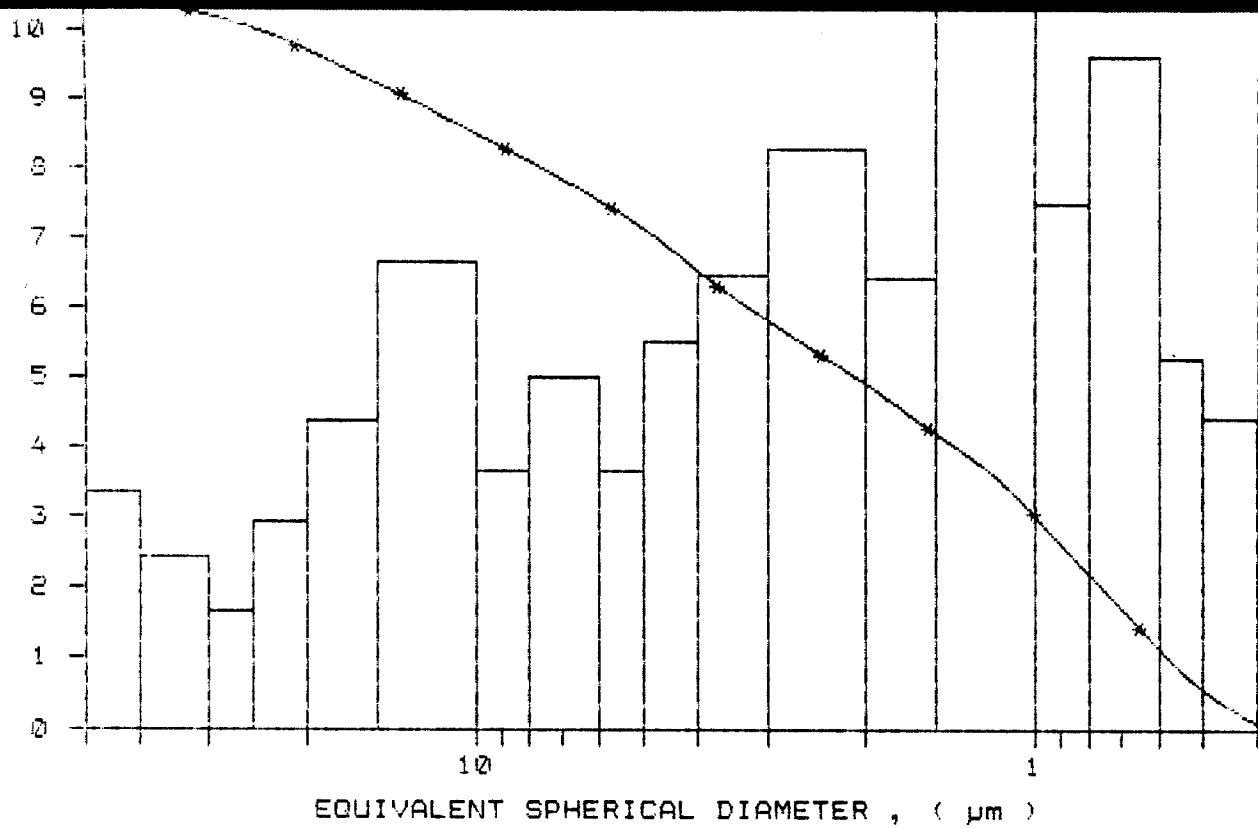
PAGE 3

SAMPLE DIRECTORY/NUMBER: DATAS /82
SAMPLE ID: Hole 89-18 # 14359
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 08:56:03 09/05/90
REPT 16:45:19 08/22/91
TOT RUN TIME 0:17:49
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7275 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER

MASS , (% in interval)



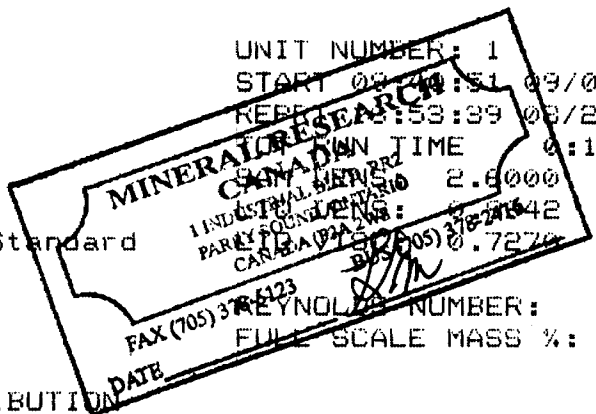
Clay

SediGraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /83
 SAMPLE ID: Hole 89-18 3 14860
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:40:51 09/05/90
 REPT 09:53:39 09/22/91
 RUN TIME 0:18:06
 DENSITY 2.6500 g/cc
 SOLIDS 4.2442 g/cc
 SUSP 0.7274 cp



STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.38 μ m MODAL DIAMETER: 0.66 μ m

DIAMETER	CUMULATIVE MASS FINER	MASS IN INTERVAL
----------	-----------------------	------------------

(μ m)	(%)	(%)
50.00	98.6	1.4
40.00	98.4	0.2
30.00	96.7	1.7
25.00	94.8	1.9
20.00	92.6	2.2
15.00	89.7	2.9
10.00	86.6	3.2
8.00	84.9	1.7
6.00	81.4	3.5
5.00	78.9	2.5
4.00	75.1	3.8
3.00	69.2	5.9
2.00	59.5	9.7
1.50	52.2	7.3
1.00	41.8	10.4
0.80	35.3	6.6
0.60	25.4	9.9
0.50	19.5	5.9
0.40	13.9	5.6

Clay

SediGraph 5100 V2.02

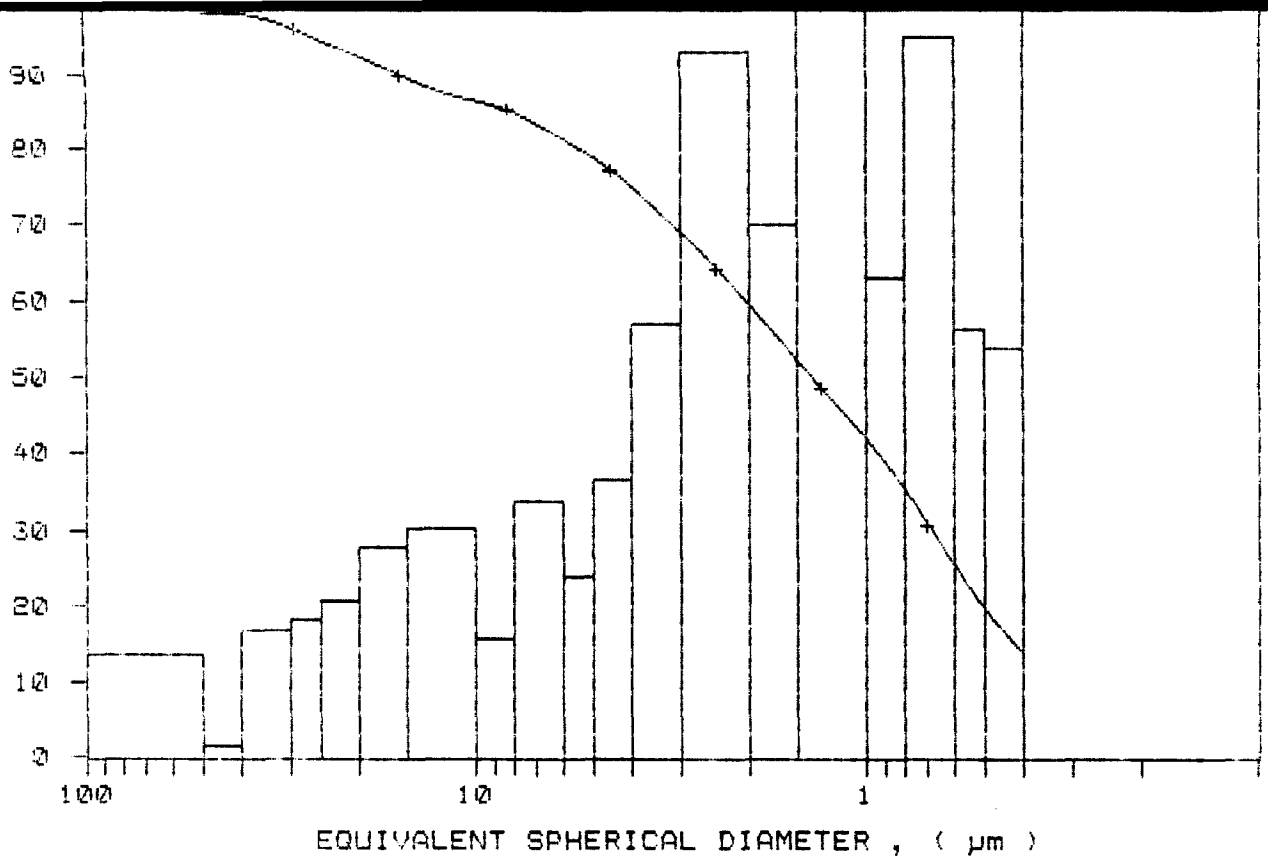
PAGE 2

SAMPLE DIRECTORY/NUMBER: DATAS /83
 SAMPLE ID: Hole 89-18 3 14360
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:40:51 09/05/90
 REPT 16:53:39 08/22/91
 TOT RUN TIME 0:18:06
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER

MASS FINER , (%)



Clay

SediGraph 5100 V2.02

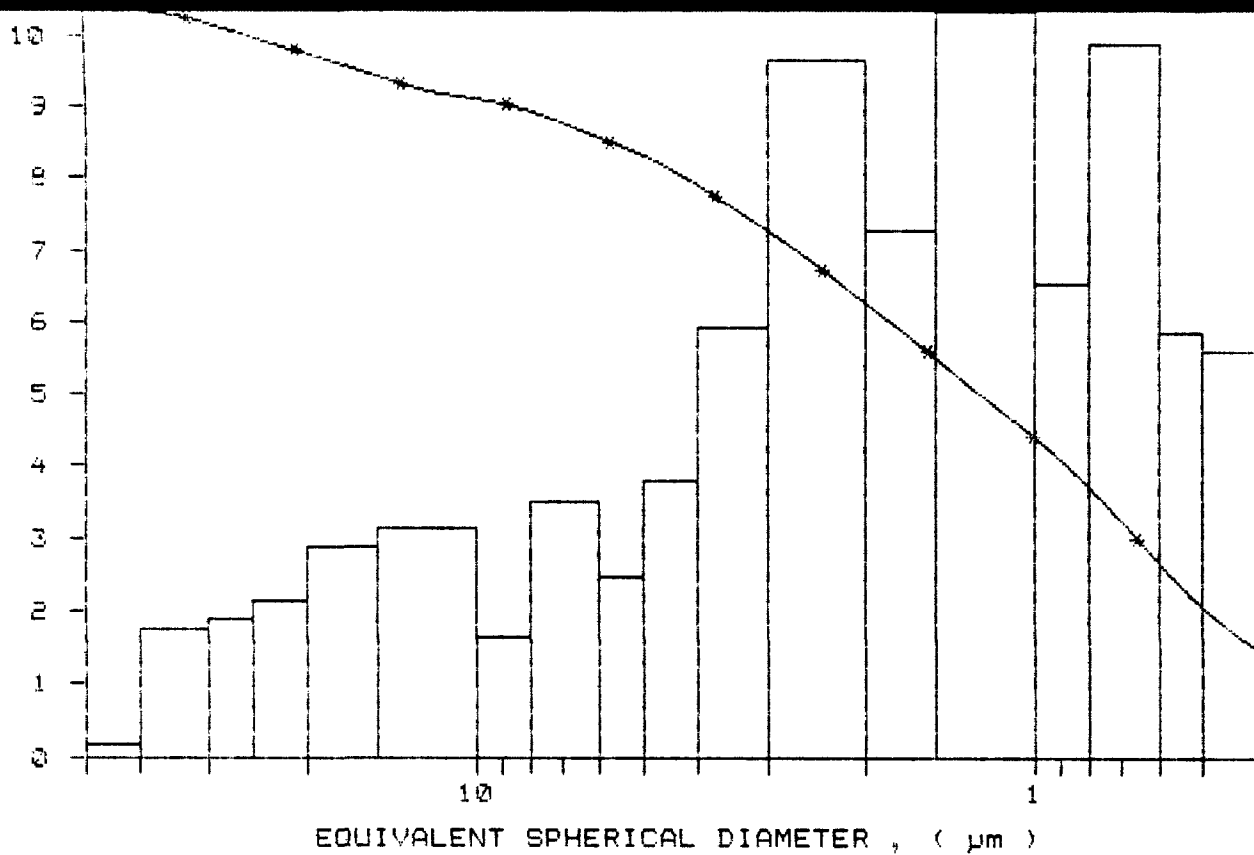
PAGE 3

SAMPLE DIRECTORY/NUMBER: DATAS /83
SAMPLE ID: Hole 89-18 B 14360
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 09:40:51 09/05/90
REPT 16:53:39 08/22/91
TOT RUN TIME 0:18:06
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7270 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER

MASS , (% in interval)



Clay

SediGraph 5100 V2.02

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS 786

SAMPLE ID: Hole 89-16 # 14361

SUBMITTER: # 39

OPERATOR: KM

SAMPLE TYPE: Clay

LIQUID TYPE: Water

ANALYSIS TEMP: 34.7 deg C

RUN TYPE: Standard

STARTING DIAMETER: 50.00 μ m

ENDING DIAMETER: 0.40 μ m

MEDIAN DIAMETER: 1.27 μ m

MASS DISTRIBUTION DATE

MODAL DIAMETER: 0.40 μ m

CUMULATIVE
MASS

MASS
IN

UNIT NUMBER: 1

START TIME: 09:44:33 09/07/90

STOP TIME: 17:01:59 08/22/91

TEST TIME: 0:17:46

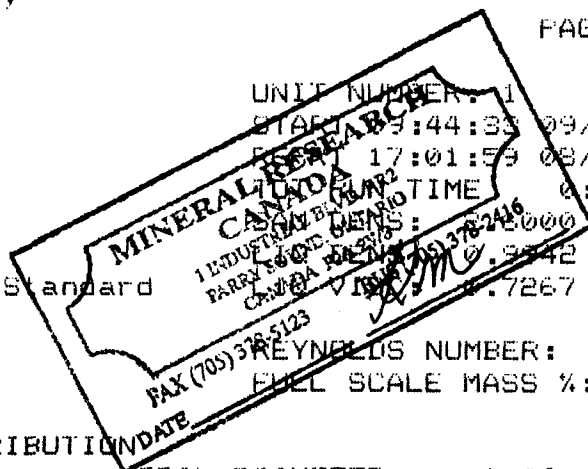
DENSITY: 2.6500 g/cc

WATER: 0.9342 g/cc

CP: 0.7267 cp

REYNOLDS NUMBER: 0.21

FULL SCALE MASS %: 100



DIAMETER (μ m)	FINER (%)	INTERVAL (%)
50.00	99.2	0.8
40.00	98.2	1.1
30.00	95.9	2.3
25.00	94.4	1.4
20.00	92.8	1.7
15.00	90.1	2.7
10.00	85.2	4.9
8.00	82.3	2.9
6.00	78.2	4.1
5.00	74.8	3.4
4.00	70.7	4.1
3.00	65.1	5.6
2.00	57.5	7.6
1.50	52.7	4.7
1.00	46.8	6.0
0.80	43.5	3.3
0.60	38.7	4.8
0.50	35.1	3.6
0.40	29.8	5.3

Clay

SediGraph S100 V2.02

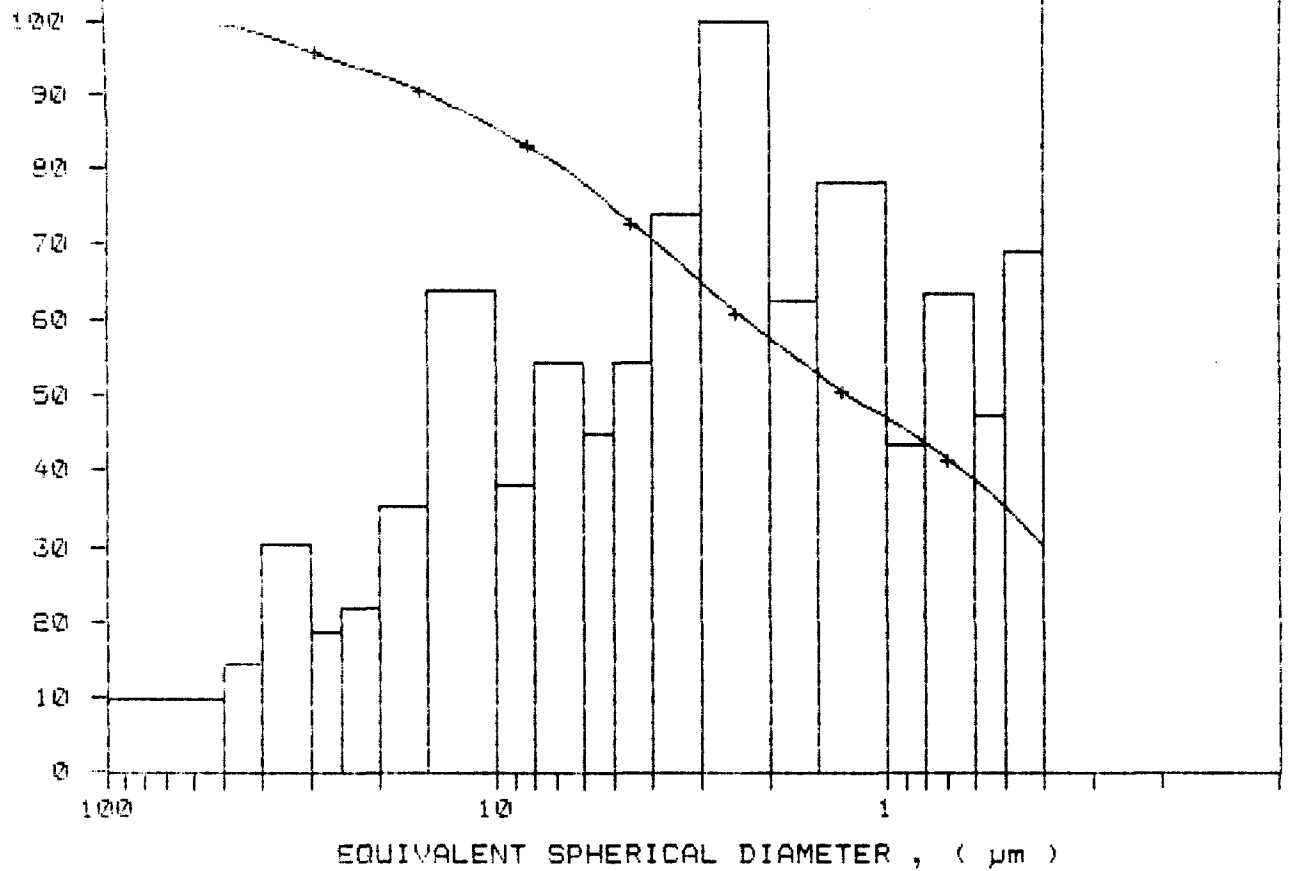
PAGE 2

SAMPLE DIRECTORY/NUMBER: DATAS /86
 SAMPLE ID: Hole 89-18 # 14361
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:44:33 09/07/90
 REPT 17:01:59 08/22/91
 TOT RUN TIME 0:17:46
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7267 cp

+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER

MASS FINER (%)



Clay

SediGraph 5100 V2.02

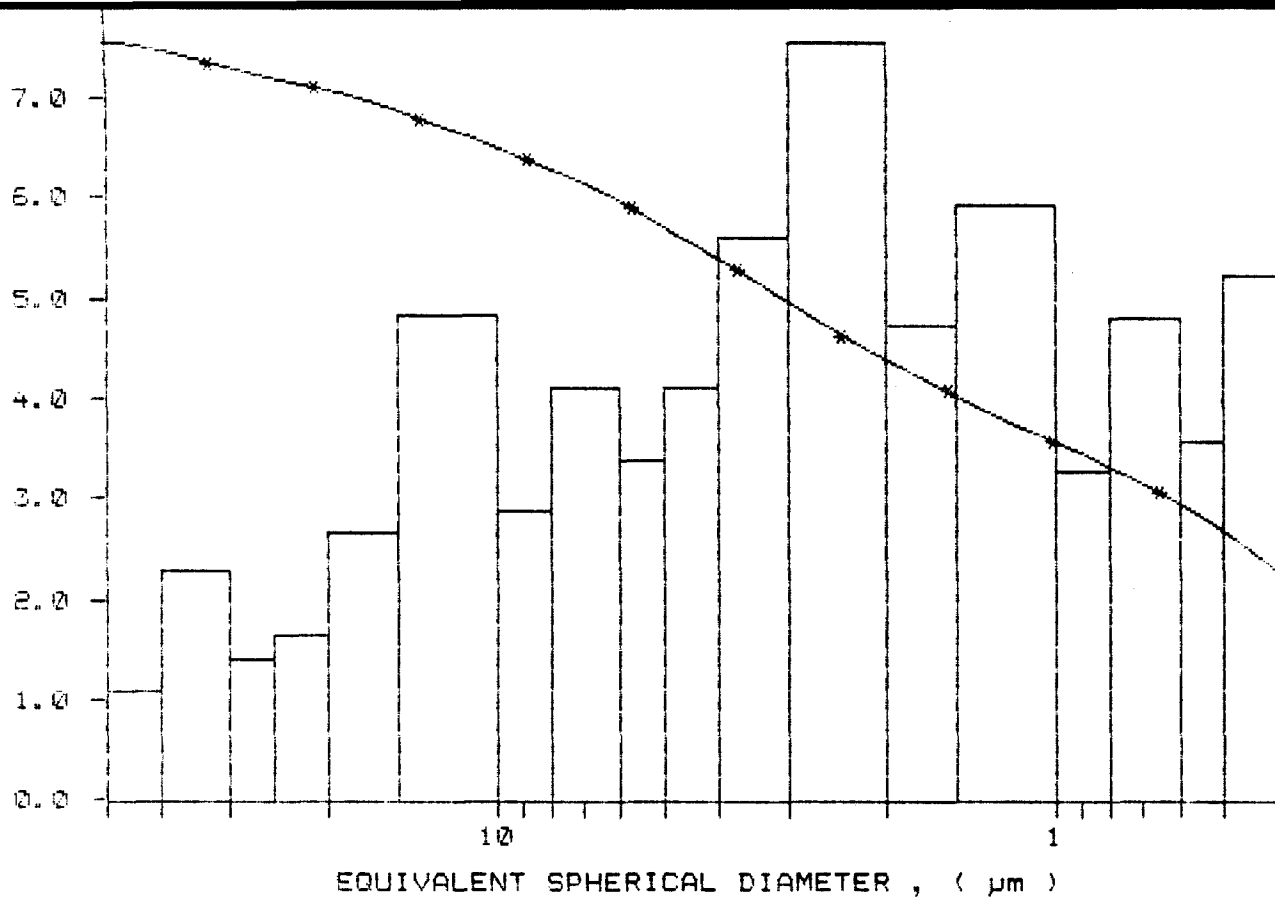
PAGE 3

SAMPLE DIRECTORY/NUMBER: DATAS /86
SAMPLE ID: Hole 89-18 # 14361
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 09:44:33 09/07/90
REPT 17:01:59 08/22/91
TOT RUN TIME 0:17:46
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7267 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER

MASS , (% in interval)



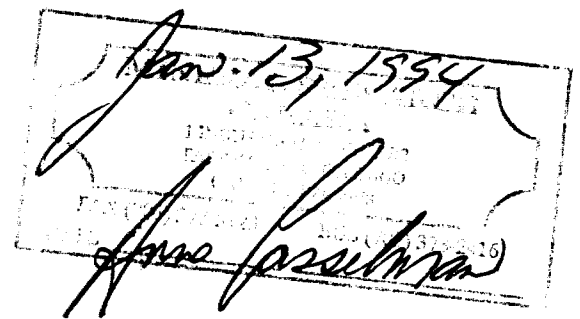
ROTARY DRILL HOLE RECORD

Drilling Started: February 1, 1989
 Drilling Finished: February 2, 1989
 Drilling Co.: Midwest
 Dip: -90°
 Hole Length: 255.0'
 Overburden Depth: 84.0'
 Claim No.: P 900044
 Easting: 3810 E
 Northing: 790 N
 Azimuth: 50° 09' 10" W. 82° 10' 25" N.
 Location: 590.0' at 203° To Claim Post No. 1
 Property: Kipling

Logged By: A. Casselman
 Logged: April 28, 1989
 Core Size: 3.5"
 Core Storage:
 Mineral Research Canada
 R. R. # 2
 Parry Sound, ON
 P2A 2W8
 Hole No.: 89-20

SUMMARY

From	To	Description	
0.0'	8.0'	Peat	
8.0'	12.0'	Sand	
12.0'	35.0'	Glacial Clay Till	
35.0'	41.0'	Sand	
41.0'	42.0'	Glacial Clay Till	
42.0'	48.0'	Sand	
48.0'	76.0'	Glacial Clay Till	
76.0'	77.5'	Cretaceous Clay	
77.5'	84.0'	Glacial Clay Till	Pleistocene - Overburden
84.0'	147.0'	Kaolin Silica Sand (Kss)	Cretaceous
147.0'	148.0'	Sandy Clay	
148.0'	159.0'	Kss	
159.0'	163.0'	Kss & Sandy Clay	
163.0'	178.75'	Kss	
178.75'	183.5'	Clay	
183.5'	185.0'	Sandy Clay	
185.0'	189.0'	Kss & Sandy Clay	
189.0'	197.0'	Sandy Clay	
197.0'	228.0'	Kss	
228.0'	231.0'	Sandy Clay	
231.0'	236.0'	Kss, Sandy Clay & Clay	
236.0'	255.0'	Kss	



 Jan 13, 1984
 A. Casselman

Detail Log 89-20

From	To	Sample No.	Description
0.0'	8.0'		Peat
8.0'	12.0'		Sand - Coarse grain, mixed lithology, very little green grey clay, approximately 50.0% silica, 20.0% carbonate & 25.0% gneissic.
12.0'	35.0'		Glacial Clay Till - competent, green/grey, very fine grain silty content, clast free from 12.0' - 31.5', remainder containing 20.0% carbonate clasts & 20.0% gneissic clasts.
35.0'	41.0'		Sand - green to green/grey, predominantly silica with occasional carbonate clast up to 3.5".
41.0'	42.0'		Glacial Clay Till - as from 31.5' - 35.0'.
42.0'	48.0'		Sand - green/grey to grey, well sorted, predominantly silica - approximately 70.0%.
48.0'	76.0'		Glacial Clay Till - as previous, from 50.0' - 51.0' - granodiorite boulder, from 71.75' - 73.0' - granitic boulder.
76.0'	77.5'	13951	Clay - kaolin clay of Cretaceous age - placed here possibly due to frozen block incorporation by the glacier or mislabelling in the field, pliable, to weakly friable, 76.0' - 76.75' - medium brown, 76.75' - 77.5' - light brown. 61.54% kaolin.
77.5'	84.0'		Glacial Clay Till - as previous.
84.0'	89.0'	13952	Kss - medium grain, grey/yellow. 13.09% kaolin.
89.0'	91.0'	13953	Kss - as above, white, 90.0' - 91.0' - moderately orange. 8.84% kaolin.
91.0'	96.0'	13954	Kss - as above, moderate yellow/orange colouration. 4.41% kaolin.
96.0'	100.0'	13955	Kss - as above. 6.58% kaolin.
100.0'	105.0'	13956	Kss - as above. 6.78% kaolin.

105.0' 110.0' 13957 Kss - as above, from 105.0' - 106.0' - fine grain, white, 106.0' - 110.0'. 10.08% kaolin.

110.0' 115.0' 13958 Kss - medium grain, white. 8.99% kaolin.

115.0' 120.0' 13959 Kss - as above, 119.0' - 120.0' - moderate yellow. 7.75% kaolin.

120.0' 125.0' Kss - medium grain, grading to fine grain, white.

125.0' 130.0' Kss - fine grain, white.

130.0' 135.0' Kss - fine grain, with a band of medium grain, white, minor illite.

135.0' 139.0' Kss - fine grain, white, minor heavies and illite, much grease on interior of bag.

139.0' 143.0' Kss - with a clay seam of 1.0" at 147.75', light grey, kss - 139.0' - 141.75' is fine grain grading to coarse grain, 141.75' - 143.0' - medium grain, white, grease on interior of bag.

143.0' 147.0' Kss - medium grain, grading to coarse grain, 143.0' - 147.0' - alternating from fine to coarse grain, white.

147.0' 148.0' Sandy Clay - competent, fine grain, light grey, minor heavies and illite.

148.0' 151.0' Kss - coarse grain, white.

151.0' 155.0' Kss - as above.

155.0' 159.0' Kss - coarse grain, grading to extremely coarse, white, extremely large percentage of sub-angular yellow chert and smoky quartz.

159.0' 163.0' Kss & Sandy Clay - 2.0" clot of medium grey, fine grain sandy clay at 161.25', kss - fining downsection to fine, alternating light grey and medium brown.

163.0' 167.0' Kss - medium grain, white, minor heavies and illite.

167.0' 171.0' Kss - medium grain, white, with areas of light grey, high percentage of heavies.

171.0' 175.0' Kss - fine grain, white, minor illite.

175.0' 178.75' Kss - medium grain, light brown - from 175.0' - 177.0' - moist, 177.0' - 178.75' - white - dried.

- 178.75' 182.0' Clay - competent, disc-like, greasy, red & buff mottled - from 178.75 ' to 179.0', buff from 179.0' - 180.0', red and buff mottled from 180.0' - 180.25', red from 180.25' - 181.0', red and buff mottled from 118.0' - 182.0'.
- 182.0' 183.5' Clay - competent, disc-like, grading to semi-pliable, red & buff mottled.
- 183.5' 185.0' Sandy Clay - fine grain, light grey with darker laminations.
- 185.0' 189.0' Kss & Sandy Clay - alternating, sandy clay - competent, pliable, light grey, kss - red medium grain, minor illite in sandy clay, grease on interior of bag.
- 189.0' 193.0' Sandy Clay - competent, fine grain, light brown, darker laminations, minor illite, some heavies banding as well as dispersed heavies.
- 193.0' 197.0' Sandy Clay - with clay laminations, competent, sandy clay, light brown clay slightly darker minor heavies and illite.
- 197.0' 201.0' Kss - fine grain, light grey, minor heavies and illite.
- 201.0' 205.0' Kss - fine grain, with numerous coarse clasts, 203.0' - 204.0' - dark, medium and light grey alternating, particularly dark at the coarser portion, the coarse clasts are up to 1.0" - sub-rounded yellow chert and smoky quartz.
- 205.0' 209.5' Kss - very coarse grain, in a white clay matrix, vari-coloured sub-rounded chert.
- 209.5' 216.0' Kss - medium grain, medium brown, rare larger quartz, sub-angular clasts up to 2.0".
- 216.0' 221.0' Kss - medium and coarse grain alternating, light brown, minor illite.
- 221.0' 226.0' Kss - as above, purple laminations in coarse grain portion.
- 226.0' 228.0' Kss - coarse grain in a clay matrix, white with vari-coloured sub-rounded silica clasts.
- 228.0' 231.0' Sandy Clay - competent, fine grain, buff grading to chocolate then to light brown,



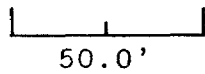
carbonaceous in chocolate portion, large fibrous wood fragments, apparent bark texture - cyad-like, sulphureous smell.

- 231.0' 236.0' Clay, Sandy Clay & Kss - alternating from 231.0' - 234.0', then mottled competent sandy clay & clay, medium grain kss, light brown, slightly darker sandy clay and clay from 234.0' - 236.0', rare larger sub-angular smoky quartz in kss.
- 236.0' 241.0' Kss - medium grain, coarsening downsection, few clay seams of 0.5", medium brown, pliable, and seams of coarse grain material in a white clay matrix, other areas light brown.
- 241.0' 246.0' Kss - medium grain, white, minor illite.
- 246.0' 250.0' Kss - medium grain, coarsening downsection to coarse, white, minor illite.
- 250.0' 255.0' Kss - coarse grain, white, minor illite.

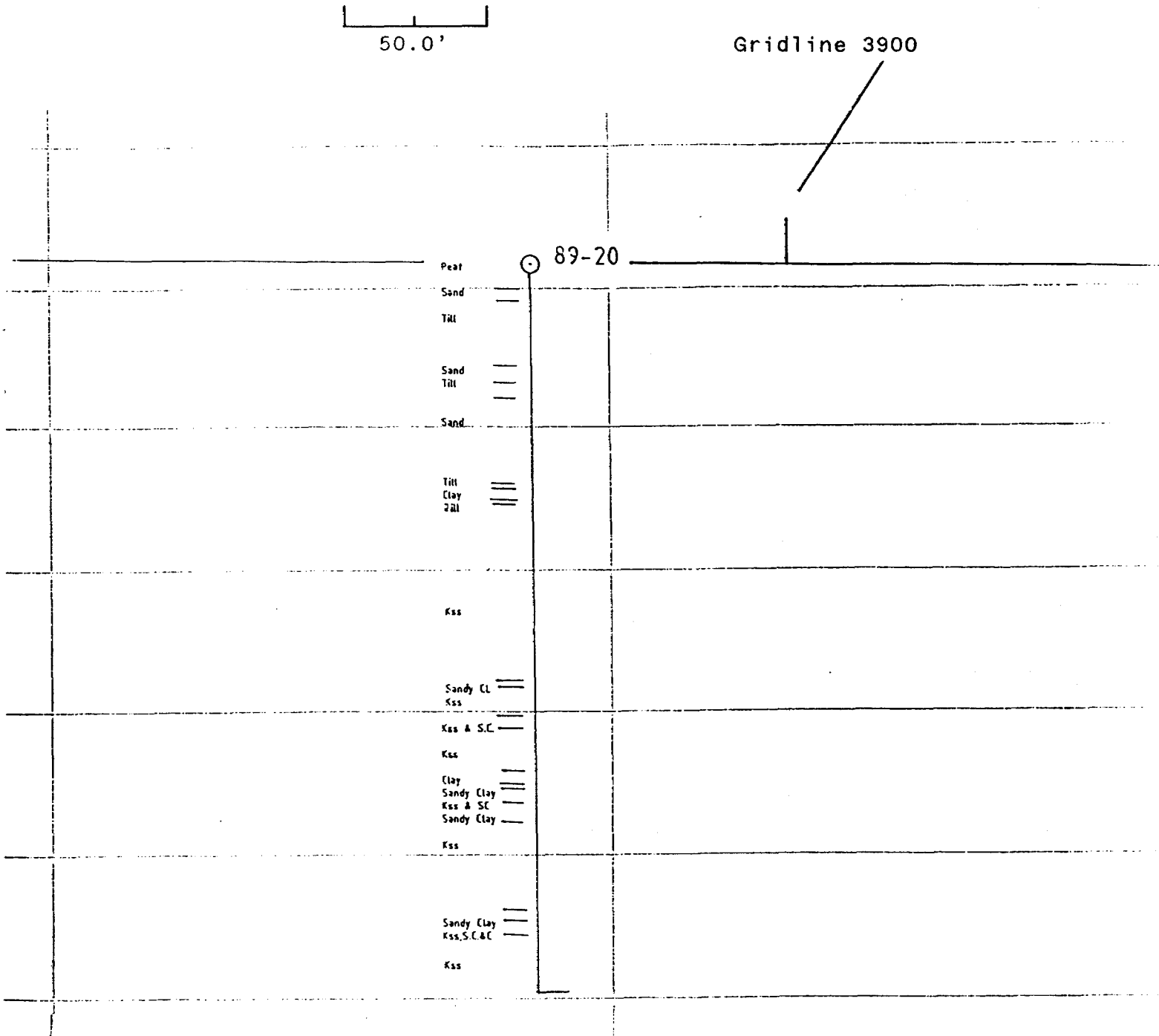
EOH - 255.0'

Section 89-20

Hole Length: 255.0'
Overburden Depth: 84.0'
Astronomic Azimuth: 50° 09' 10" W. 82° 10' 25" N
Location: 590.0' at 203° to claim post no. 1
Claim No.: P 900044
Dip Collar: -90°
Scale: 1.0" = 50.0' or 1:600
Northing: 790 S
Easting: 3810 E

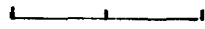


Gridline 3900



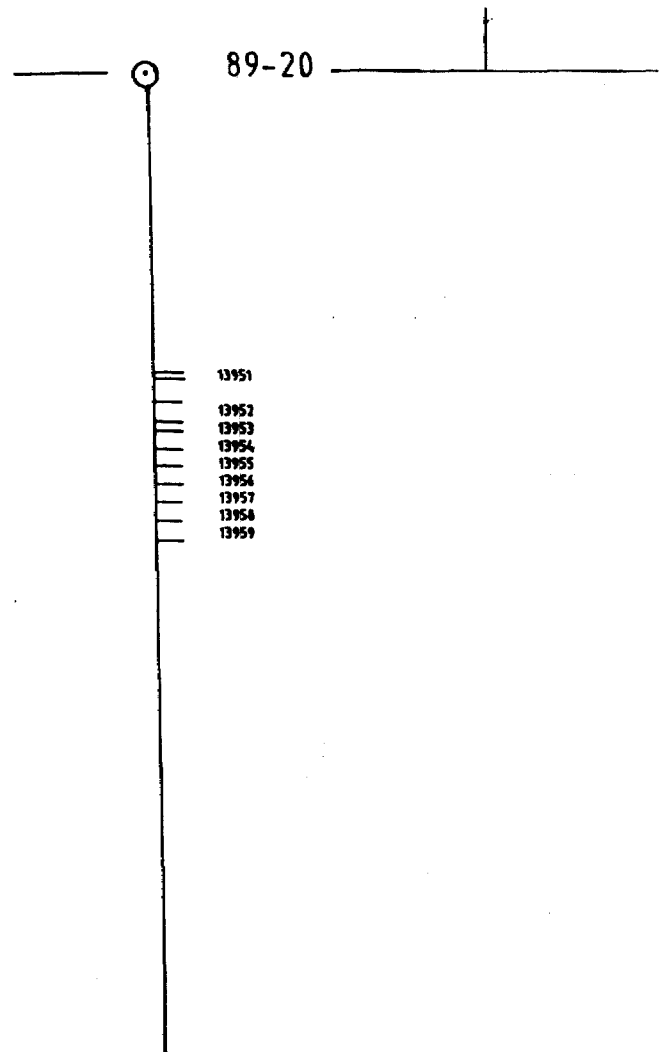
Section - 89-20

Hole Length: 255.0'
Overburden Depth: 84.0'
Astronomic Azimuth: 50° 09' 10" W. 82° 10' 25" N
Location: 590.0' at 203° to claim post no. 1
Claim No.: P 900044
Dip Collar: -90°
Scale: 1.0" = 50.0' or 1:600
Northing: 790 S
Easting: 3810 E



50.0'

Gridline 3900



89-20

13951
13952
13953
13954
13955
13956
13957
13958
13959

MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
<i>Hole 89-20</i> 13951	+ 4	8		
	+ 40	8		
	+100	1.7	13.1	8.0
	+200	15.1		
	+325	13.8		
	-325	69.4		
13952	+ 4	10.0		
	+ 40	68.0		
	+100	11.1	2.6	8.0
	+200	2.1		
	+325	0.9		
	-325	7.9		
13953	+ 4	8.0		
	+ 40	42.4		
	+100	37.4	7.2	8.1
	+200	2.6		
	+325	1.0		
	-325	8.6		
13954	+ 4	8		
	+ 40	38.2		
	+100	49.3	8.3	8.1
	+200	2.4		
	+325	0.9		
	-325	9.2		
13955	+ 4	2.4		
	+ 40	69.4		
	+100	9.7	4.4	8.1
	+200	2.9		
	+325	1.9		
	-325	13.7		

MINERAL RESEARCH CANADA
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8
 FAX (705) 378-5123
 BUS (705) 378-2416
 DATE *4.4*
A. Malmgren

MINERAL RESEARCH CANADA

TEL: (705) 398-2416
 FAX: (705) 398-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
<i>Hole 89-20</i> 13956	+ 4	2.9	2.5	8.0
	+ 40	60.4		
	+100	21.0		
	+200	2.8		
	+325	1.7		
	-325	11.2		
13957	+ 4	1.8	12.8	8.1
	+ 40	40.7		
	+100	19.4		
	+200	4.0		
	+325	3.2		
	-325	30.9		
13958	+ 4	4.4	7.2	8.0
	+ 40	47.2		
	+100	12.0		
	+200	3.2		
	+325	1.8		
	-325	31.4		
13959	+ 4	0.2	5.9	8.1
	+ 40	58.0		
	+100	30.8		
	+200	2.3		
	+325	1.0		
	-325	6.9		
	+ 4			
	+ 40			
	+100			
	+200			
	+325			
	-325			

MINERAL RESEARCH CANADA
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8
 FAX (705) 378-5123
 TEL (705) 378-2416
 DATE _____
AM

SAMPLE DIRECTORY/NUMBER: DATAS 7123
 SAMPLE ID: Hole 89-20 # 13951
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 16:14:31 09/17/90
 REPR 11:17:27 08/28/91
 TOT RUN TIME 0:18:03
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cp

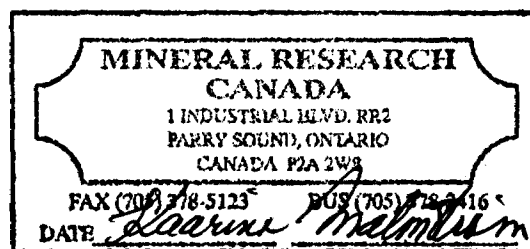
STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.91 μ m MODAL DIAMETER: 2.62 μ m

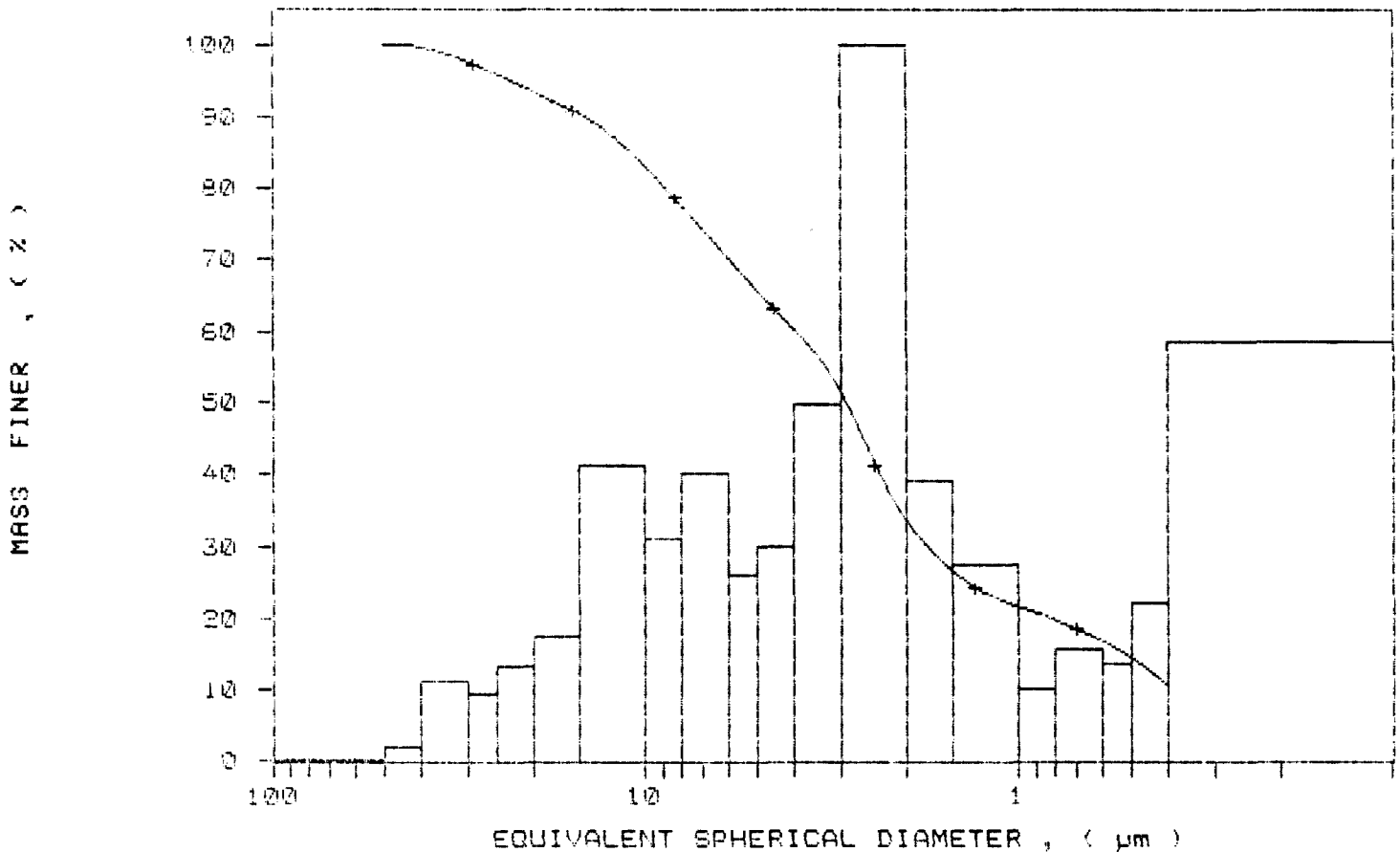
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	99.9	0.1
40.00	99.5	0.4
30.00	97.0	2.0
25.00	95.8	1.7
20.00	93.5	2.4
15.00	90.3	3.2
10.00	82.9	7.4
8.00	77.4	5.5
6.00	70.2	7.2
5.00	65.6	4.7
4.00	60.2	5.4
3.00	51.3	8.9
2.00	33.5	17.8
1.50	26.5	7.0
1.00	21.6	4.9
0.80	19.7	1.8
0.60	16.9	2.9
0.50	14.4	2.4
0.40	10.5	4.0



SAMPLE DIRECTORY/NUMBER: DATAS /123
SAMPLE ID: Hole 89-20 # 13951
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 16:14:31 09/17/90
REPT 11:17:27 08/28/91
TOT RUN TIME 0:18:03
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7271 cp

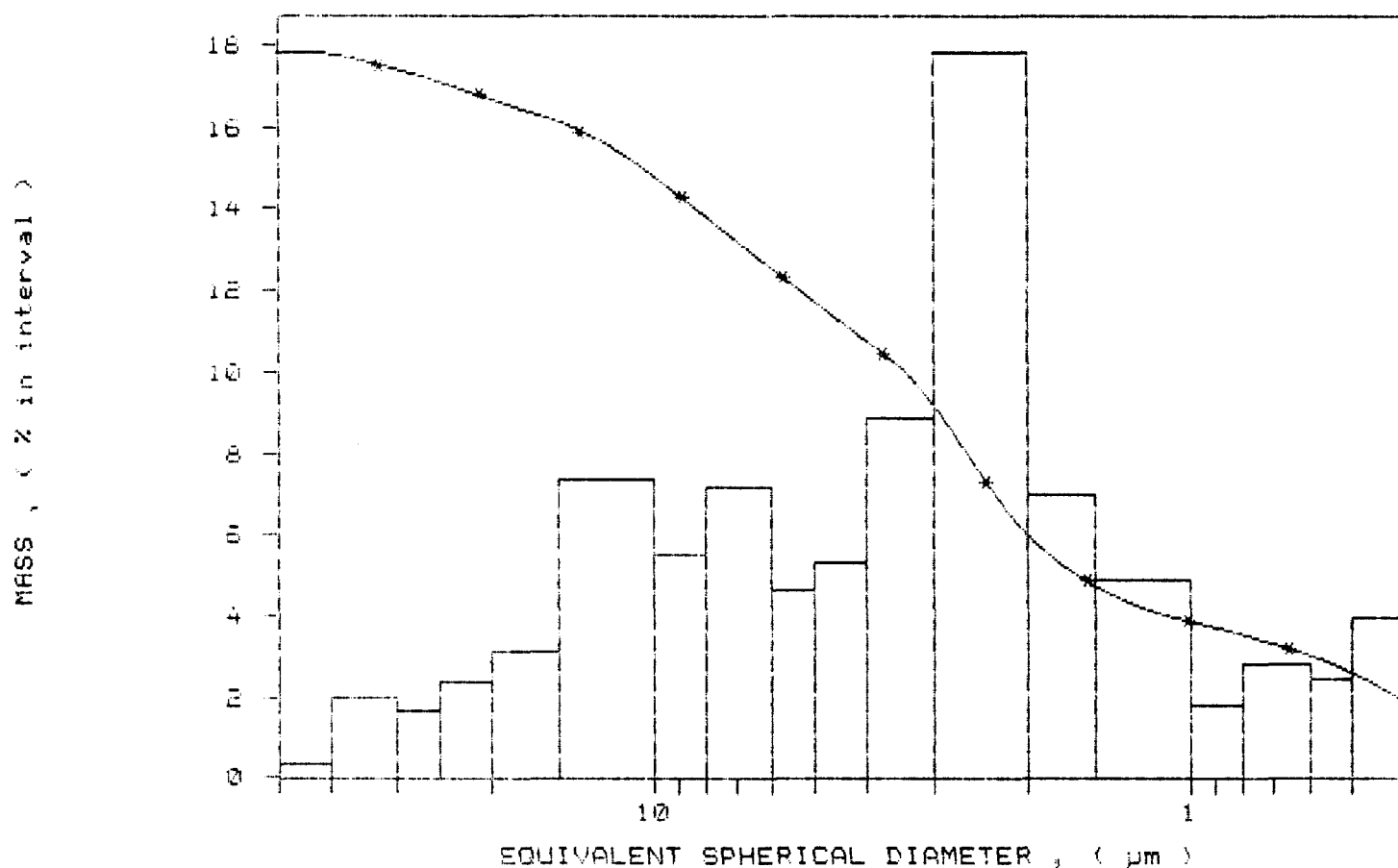
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /123
 SAMPLE ID: Hole 89-20 # 13951
 SUBMITTER: # 29
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 16:14:31 09/17/90
 REPT 11:17:27 03/28/91
 TOT RUN TIME 0:18:03
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SediGraph 5100 v2.03

Clay

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /104
 SAMPLE ID: Hole 89-20 # 13952
 SUBMITTER: # 33
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 08:44:32 10/11/90
 REPR1 12:12:37 08/28/91
 TOT RUN TIME 0:18:12
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7273 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.22 μ m

MODAL DIAMETER: 0.40 μ m

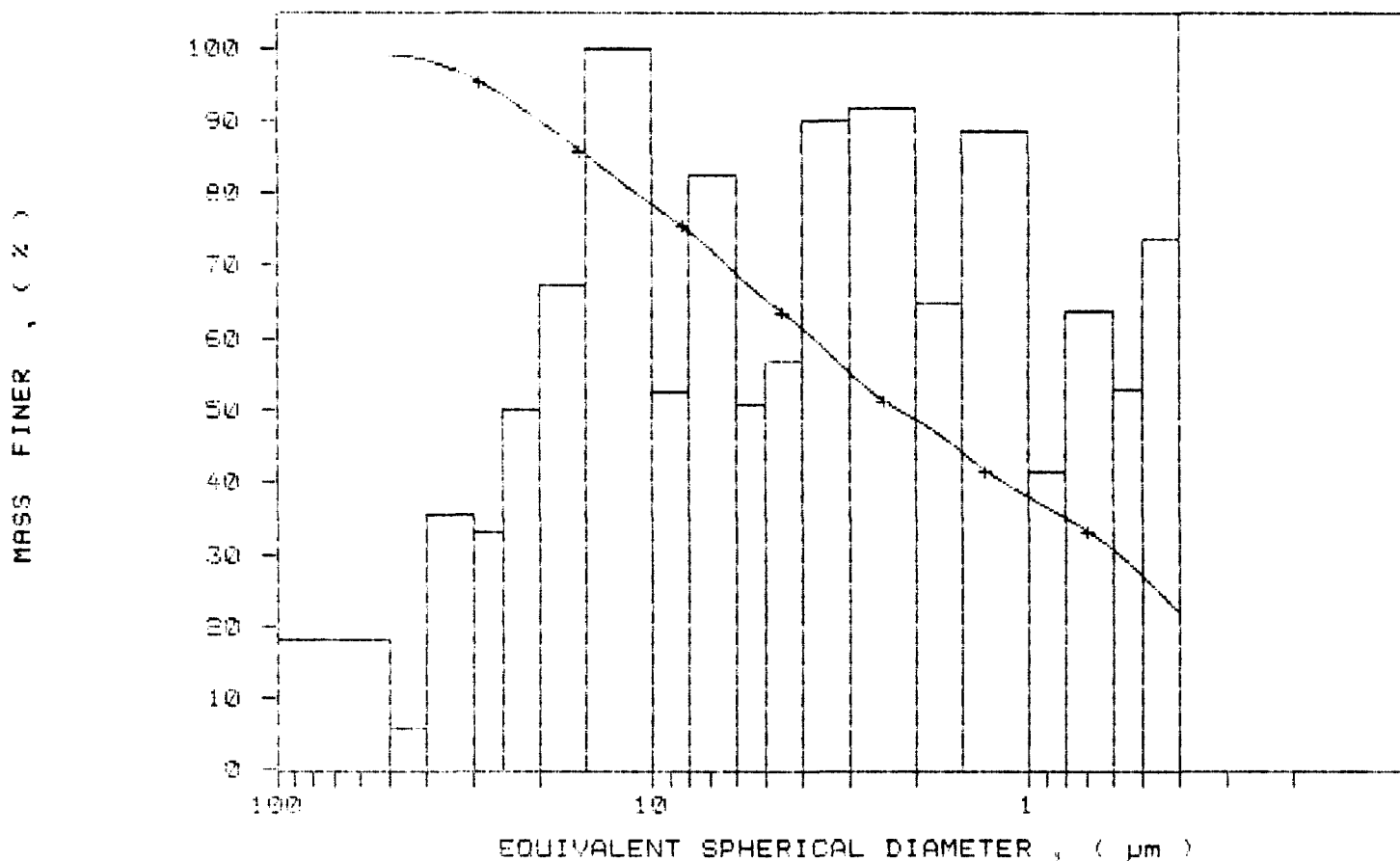
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.7	1.3
40.00	98.3	0.4
30.00	95.8	2.5
25.00	92.5	3.3
20.00	90.0	2.5
15.00	85.3	4.7
10.00	78.3	7.0
8.00	74.6	3.7
6.00	68.9	5.8
5.00	65.3	3.5
4.00	61.4	4.0
3.00	55.1	6.3
2.00	48.7	6.4
1.50	44.1	4.5
1.00	38.0	6.2
0.80	35.0	2.9
0.60	30.6	4.5
0.50	26.9	3.7
0.40	21.7	5.2

**MINERAL RESEARCH
CANADA**
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W6

FAX (705) 378-5123 BUS 705-378-2416
 DATE *[Signature]*

SAMPLE DIRECTORY/NUMBER: DATAS /184	UNIT NUMBER: 1
SAMPLE ID: Hole 89-20 # 18952	START 08:44:32 10/11/90
SUBMITTER: # 39	REPRT 12:12:37 08/28/91
OPERATOR: KM	TOT RUN TIME 0:18:12
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	LIQ VISC: 0.7273 cp
RUN TYPE: Standard	

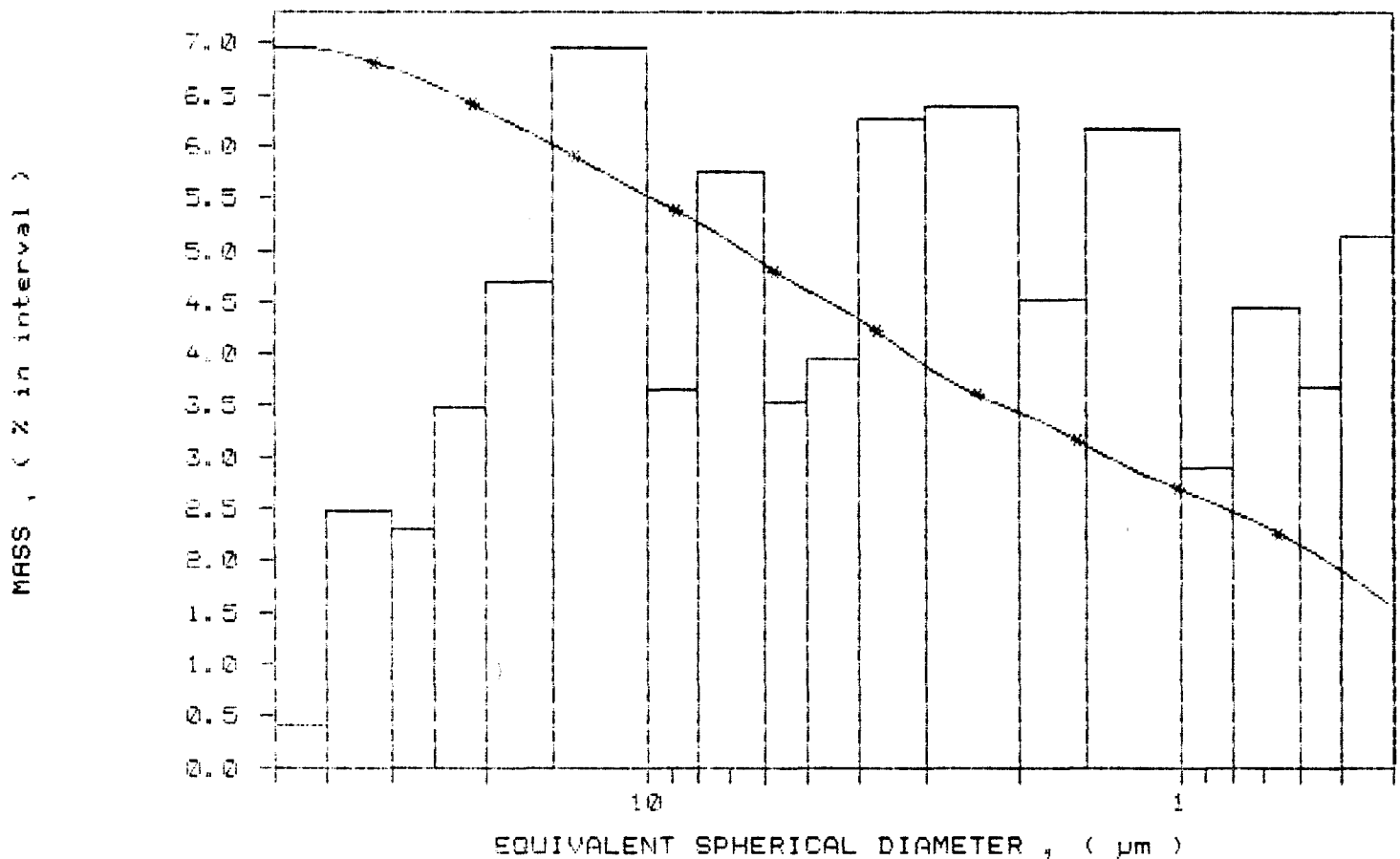
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /194
 SAMPLE ID: hole 89-20 # 13952
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 08:44:32 10/11/90
 REPRT 12:12:37 08/28/91
 TOT RUN TIME 0:18:12
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7273 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS 7185
 SAMPLE ID: Hole 89-20 # 13953
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:17:55 10/11/90
 REPT 12:20:25 08/28/91
 TOT RUN TIME: 0:17:43
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.09 μ m

MODAL DIAMETER: 4.60 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.2	1.8
40.00	99.1	-0.9
30.00	97.2	1.9
25.00	94.8	2.4
20.00	92.1	2.7
15.00	88.0	4.1
10.00	80.7	7.3
8.00	76.6	4.2
6.00	71.4	5.2
5.00	67.5	3.8
4.00	62.6	5.0
3.00	56.7	5.9
2.00	49.2	7.5
1.50	44.0	5.1
1.00	38.1	6.0
0.80	34.5	3.5
0.60	29.6	4.9
0.50	26.6	3.0
0.40	22.6	4.0

**MINERAL RESEARCH
CANADA**

1 INDUSTRIAL BLVD. RR3
 PARKY SOUND, ONTARIO
 CANADA P2A 2W8

FAX (705) 378-5123

BUS (506) 78-2416

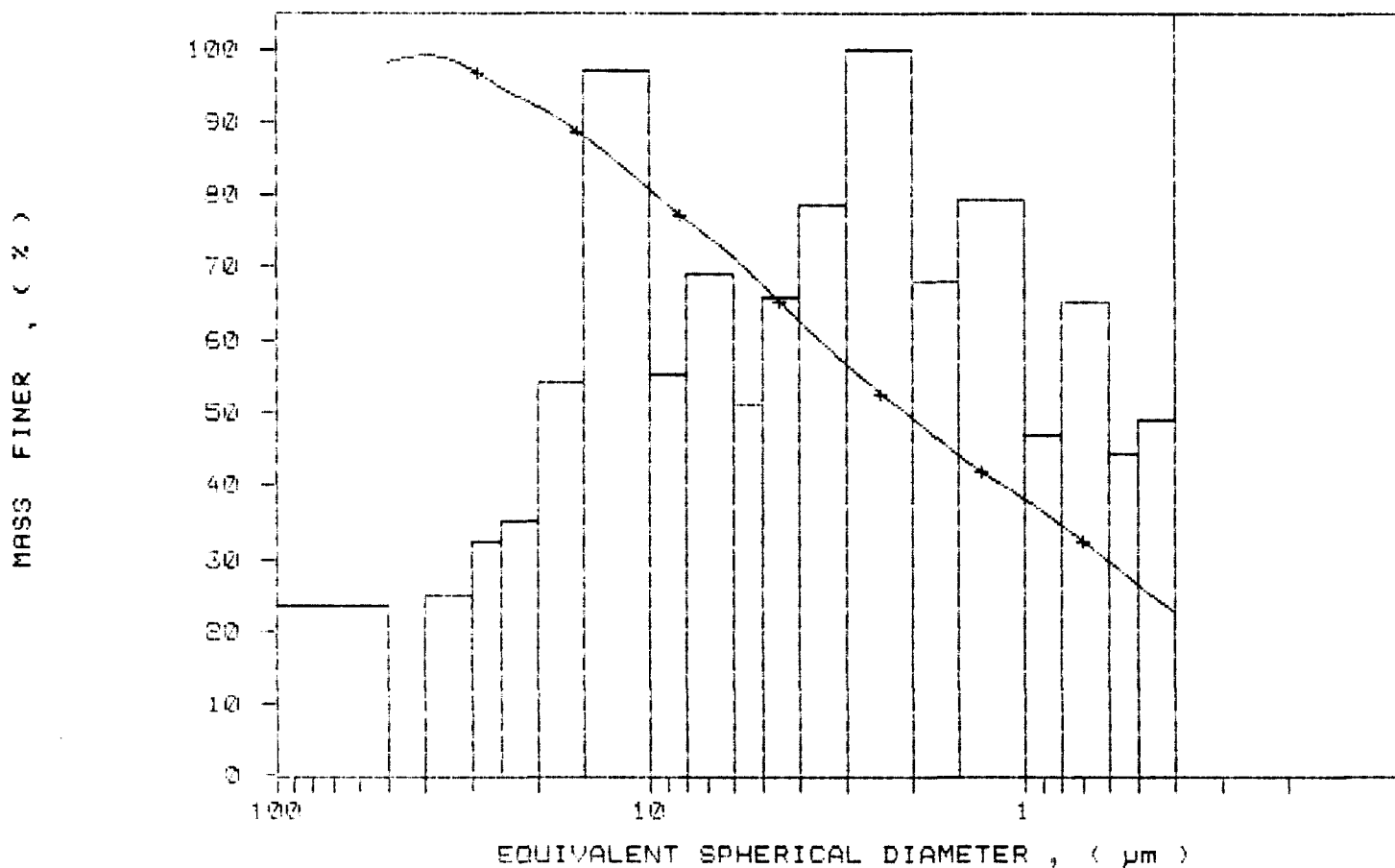
DATE

KM

SAMPLE DIRECTORY/NUMBER: DATAS /185
SAMPLE ID: Hole 89-20 # 19953
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 09:17:55 10/11/90
REPT 12:20:25 08/28/91
TOT RUN TIME 0:17:43
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7268 cp

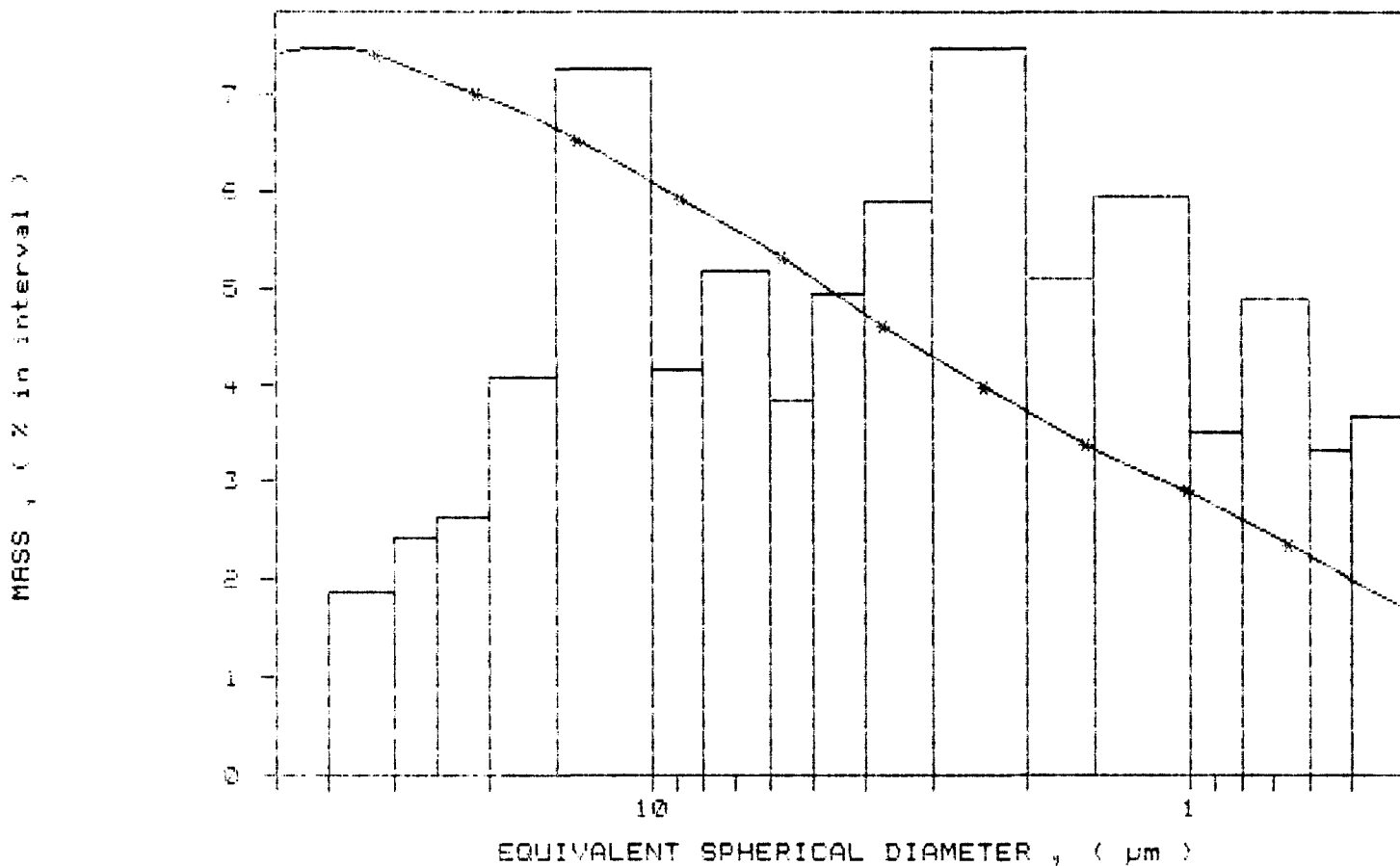
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /185
 SAMPLE ID: Hole 89-20 # 13553
 SUBMITTER: # 99
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:17:55 10/11/90
 REPT 12:20:25 08/28/91
 TOT RUN TIME 0:17:43
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SediGraph 5100 V2.03

SAMPLE DIRECTORY/NUMBER: DATAS /124
 SAMPLE ID: Hole 89-20 # 13954
 SUBMITTER: # 32
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:48:35 09/18/90
 REPRT 11:26:02 08/28/91
 TOT RUN TIME 0:17:52
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7274 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MEDIAN DIAMETER: 1.57 μ m MASS DISTRIBUTION
 MODAL DIAMETER: 0.40 μ m

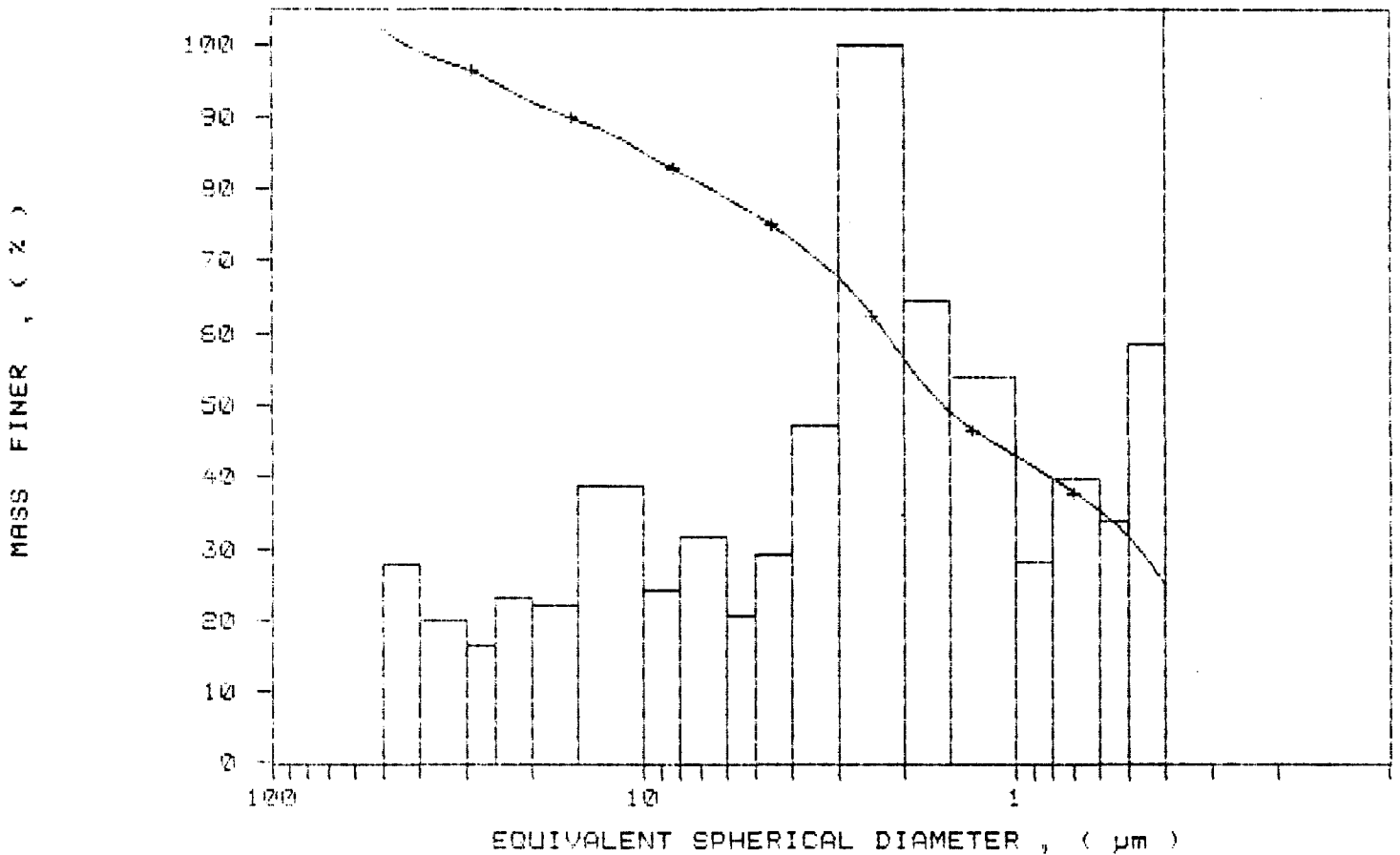
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	102.0	-2.0
40.00	98.9	3.1
30.00	96.6	2.3
25.00	94.7	1.9
20.00	92.6	2.7
15.00	89.5	2.5
10.00	85.1	4.4
8.00	82.4	2.7
6.00	78.8	3.6
5.00	76.4	2.4
4.00	73.1	3.3
3.00	67.7	5.4
2.00	56.4	11.3
1.50	49.1	7.3
1.00	43.0	6.1
0.80	39.8	3.2
0.60	35.3	4.5
0.50	31.4	3.8
0.40	24.8	6.6

MINERAL RESEARCH	
CANADA	
1 INDUSTRIAL BLVD. NR2	
BARRY SOUND, ONTARIO	
CANADA L2A 2W8	
FAX (705) 378-5123	BUS (705) 378-2416
DATE	<i>[Signature]</i>

SAMPLE DIRECTORY/NUMBER: DATAS /124
SAMPLE ID: Hole 89-20 # 13954
SUBMITTER: # S9
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 08:48:35 09/18/90
REPT 11:26:02 08/28/91
TOT RUN TIME 0:17:52
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7274 cp

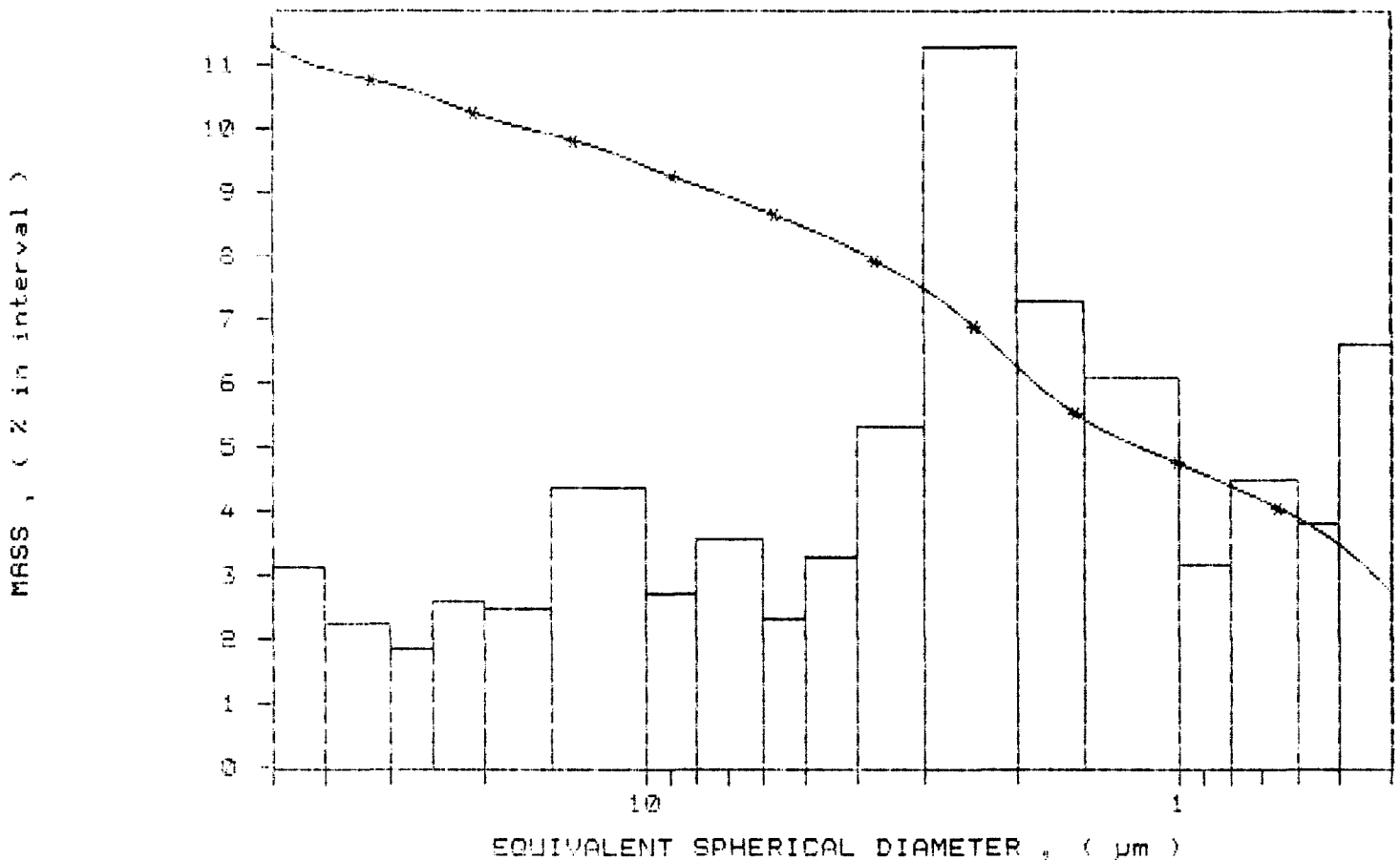
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /124
 SAMPLE ID: Hole 89-20 # 13954
 SUBMITTER: # 33
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 08:48:35 09/18/90
 REPT 11:26:02 08/28/91
 TOT RUN TIME 0:17:52
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7274 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SediGraph 5100 V2.05

SAMPLE DIRECTORY/NUMBER: DATA3 /125
 SAMPLE ID: Hole 89-20 # 13955
 SUBMITTER: # 39
 OPERATOR: Km
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:21:42 09/18/90
 REPR1 11:33:46 08/28/91
 TOT RUN TIME 0:18:00
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7273 cp

STARTING DIAMETER: 50.00 µm
 ENDING DIAMETER: 0.40 µm

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MEDIAN DIAMETER: 3.01 µm MASS DISTRIBUTION MODAL DIAMETER: 2.95 µm

DIAMETER (µm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.5	1.5
40.00	98.4	0.1
30.00	97.4	1.0
25.00	95.7	1.7
20.00	92.9	2.9
15.00	88.7	4.2
10.00	85.4	3.3
8.00	82.5	2.9
6.00	75.3	7.2
5.00	70.3	4.8
4.00	64.2	6.8
3.00	49.7	14.5
2.00	29.2	20.5
1.50	22.7	6.5
1.00	18.6	4.1
0.80	17.3	1.3
0.60	15.7	1.6
0.50	14.0	1.7
0.40	11.5	2.8

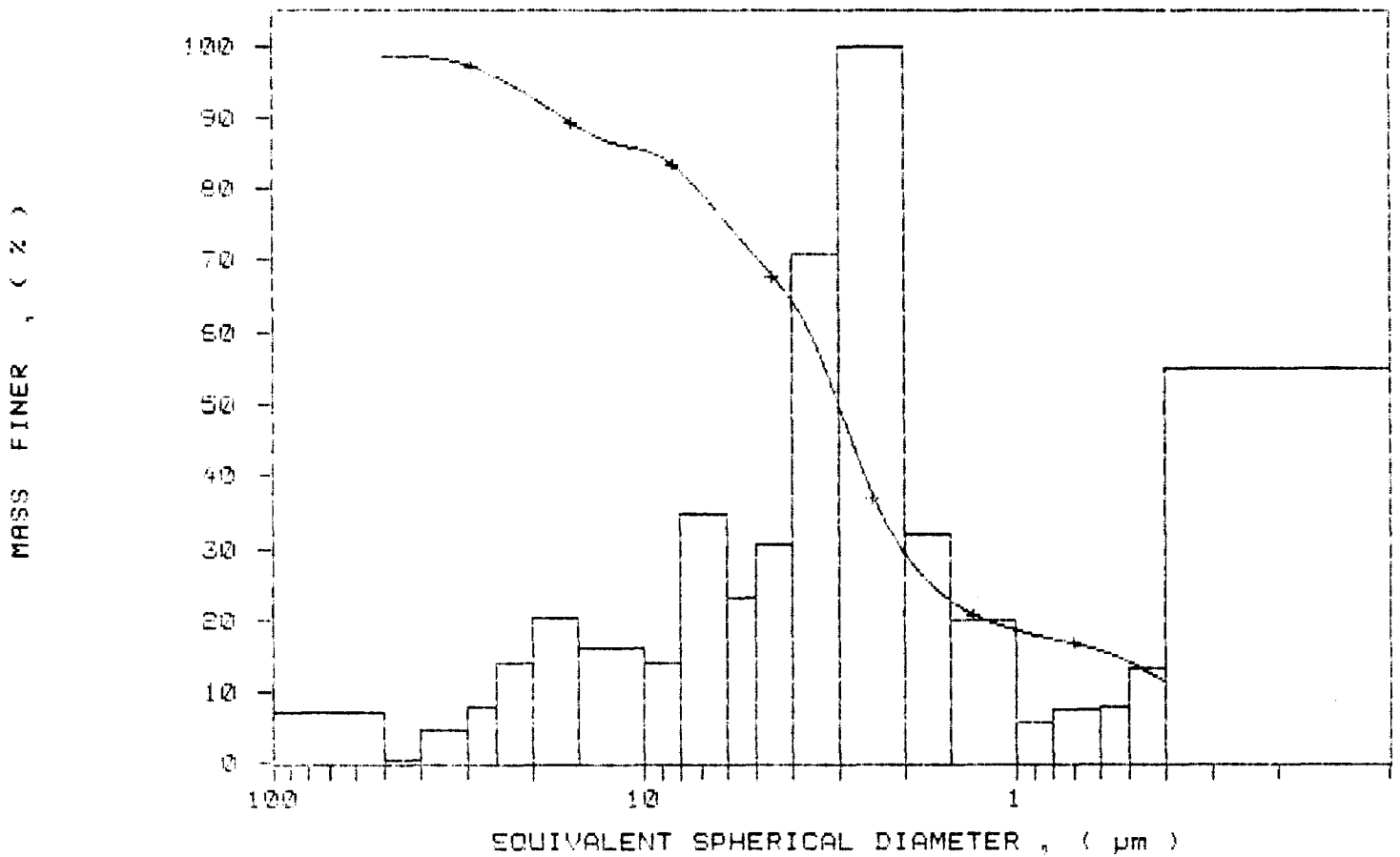
**MINERAL RESEARCH
CANADA**
 1 INDUSTRIAL BLDG. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8

FAX (705) 378-5123 TEL (705) 378-2416
 DATE *[Signature]*

SAMPLE DIRECTORY/NUMBER: DATA3 /125
SAMPLE ID: Hole 39-20 # 13955
SUBMITTER: # 39
OPERATOR: Km
SAMPLE TYPE: Clay
LIQUID TYPE: water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 09:21:42 09/18/90
REPRY 11:33:46 08/28/91
TOT RUN TIME 0:18:00
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7273 cp

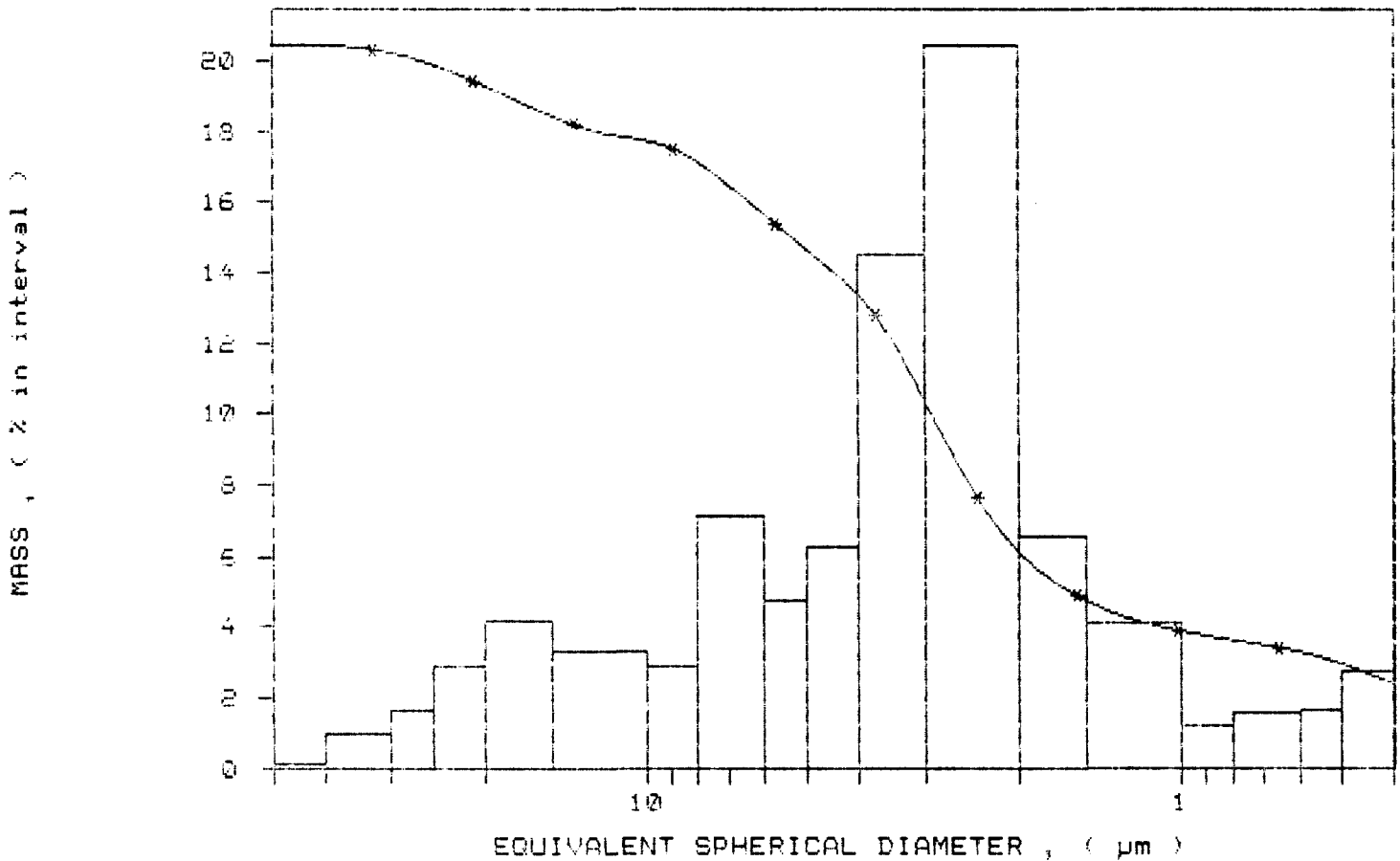
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /125
 SAMPLE ID: Hole 89-20 # 13955
 SUBMITTER: # 39
 OPERATOR: Km
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:21:42 09/18/90
 REPT 11:33:46 08/28/91
 TOT RUN TIME 0:18:00
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7273 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS 7126
 SAMPLE ID: Hole 89-20 # 13956
 SUBMITTER: # 39
 OPERATOR: Km
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:53:49 09/18/90
 REPT 11:41:30 08/28/91
 TOT RUN TIME 0:18:08
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MEDIAN DIAMETER: 1.88 μ m MASS DISTRIBUTION
 MODAL DIAMETER: 0.40 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.7	1.3
40.00	99.0	-0.2
30.00	98.1	0.9
25.00	96.4	1.7
20.00	94.2	2.3
15.00	91.3	2.9
10.00	85.2	6.0
8.00	81.1	4.1
6.00	75.6	5.5
5.00	71.6	4.0
4.00	67.0	4.6
3.00	60.7	6.3
2.00	51.8	8.9
1.50	46.2	5.6
1.00	40.0	6.2
0.80	37.1	2.9
0.60	32.6	4.5
0.50	29.3	3.4
0.40	24.4	4.9

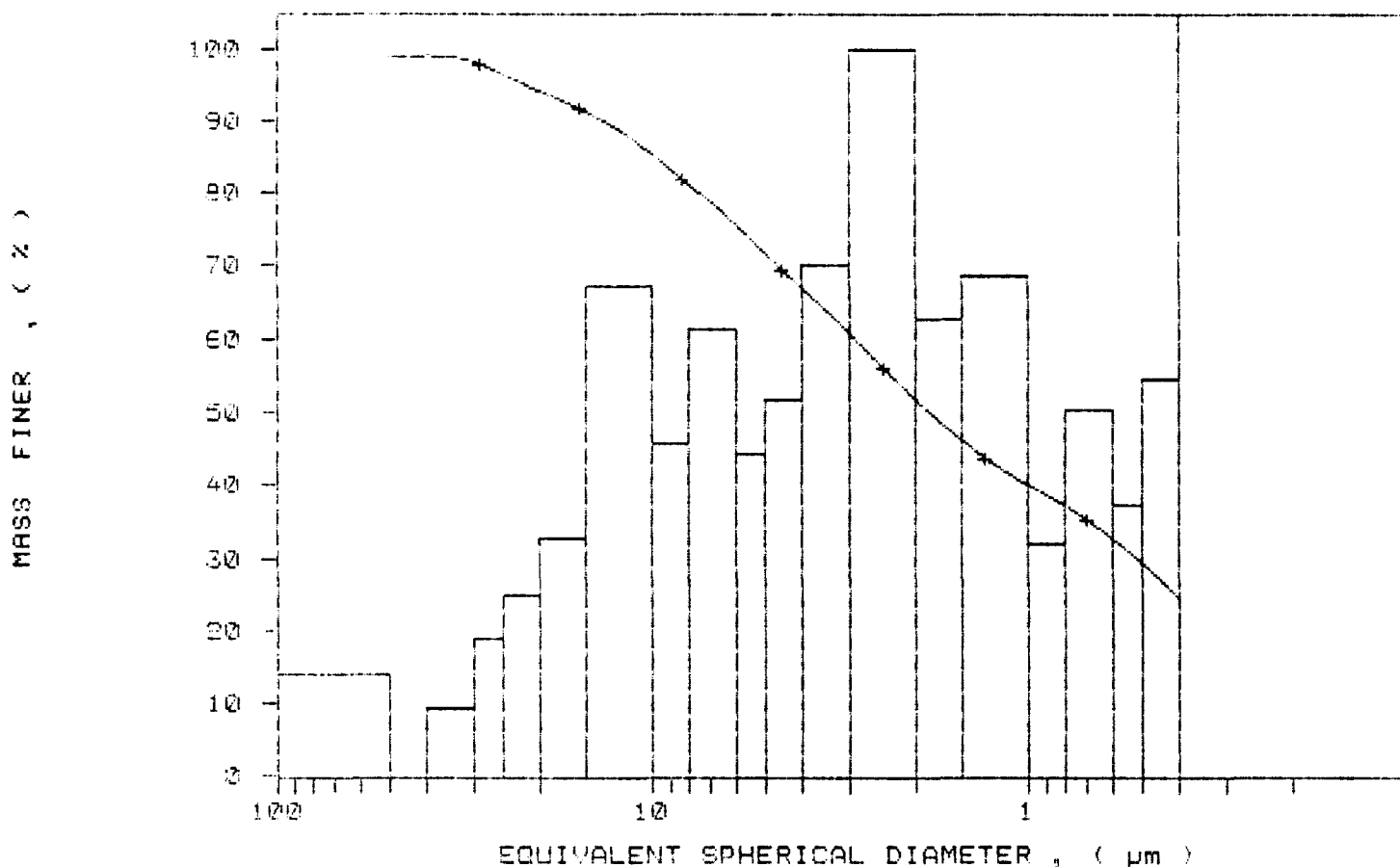
**MINERAL RESEARCH
CANADA**
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8

FAX (705) 378-5123 (705) 378-2416
 DATE *Am*

SAMPLE DIRECTORY/NUMBER: DATA3 /126
 SAMPLE ID: Hole 89-20 # 1395b
 SUBMITTER: # 29
 OPERATOR: Km
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:53:49 09/18/90
 REPT 11:41:30 08/28/91
 TOT RUN TIME 0:18:03
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

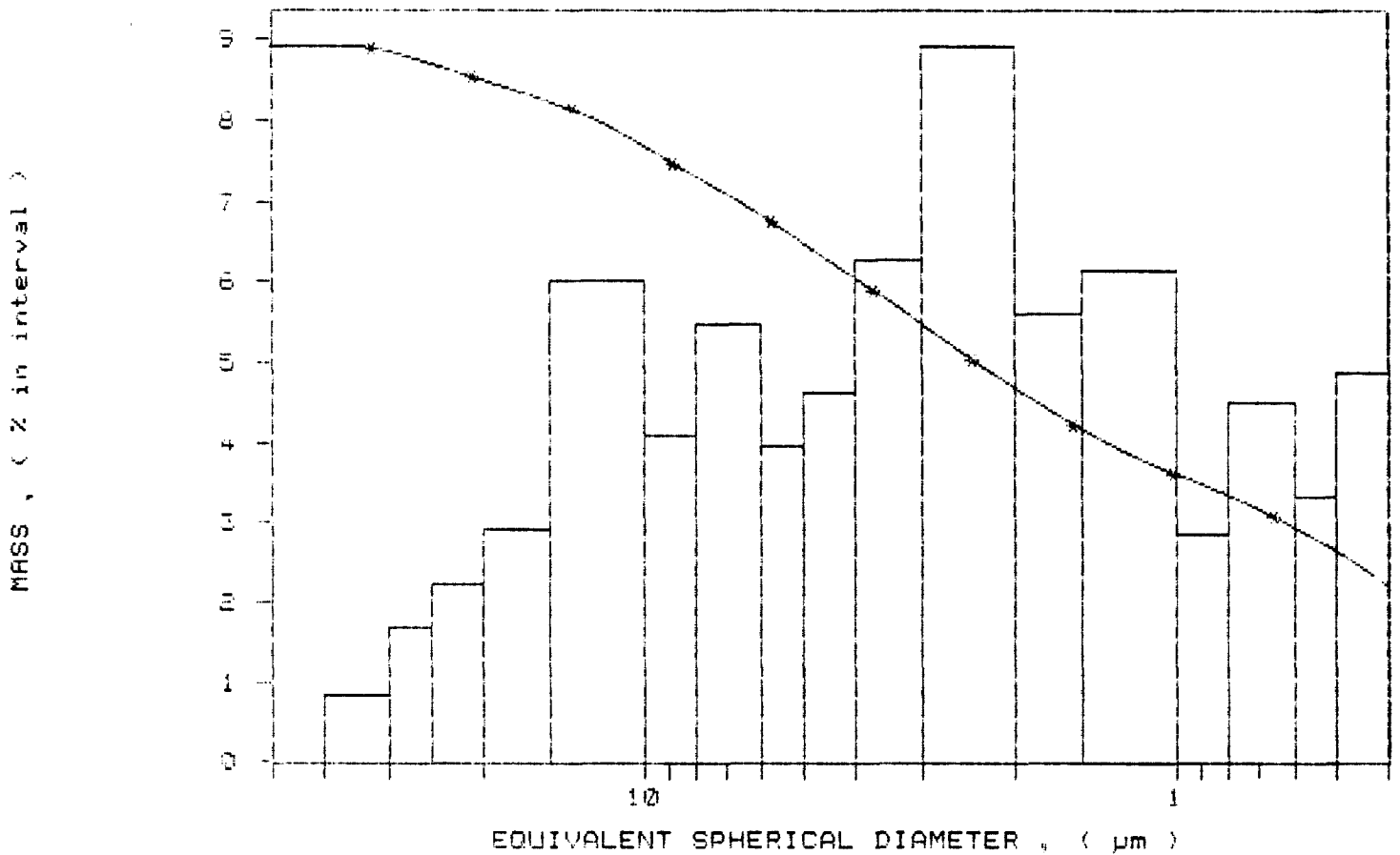
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /126
 SAMPLE ID: Hole 89-20 # 19956
 SUBMITTER: # 29
 OPERATOR: km
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 94.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:58:49 09/18/90
 REPT 11:41:30 08/28/91
 TOT RUN TIME 0:18:03
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /127
 SAMPLE ID: Hole 89-20 # 13957
 SUBMITTER: # 89
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:28:43 09/18/90
 REPRT 11:49:18 08/28/91
 TOT RUN TIME 0:18:06
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.97 μ m

MODAL DIAMETER: 0.40 μ m

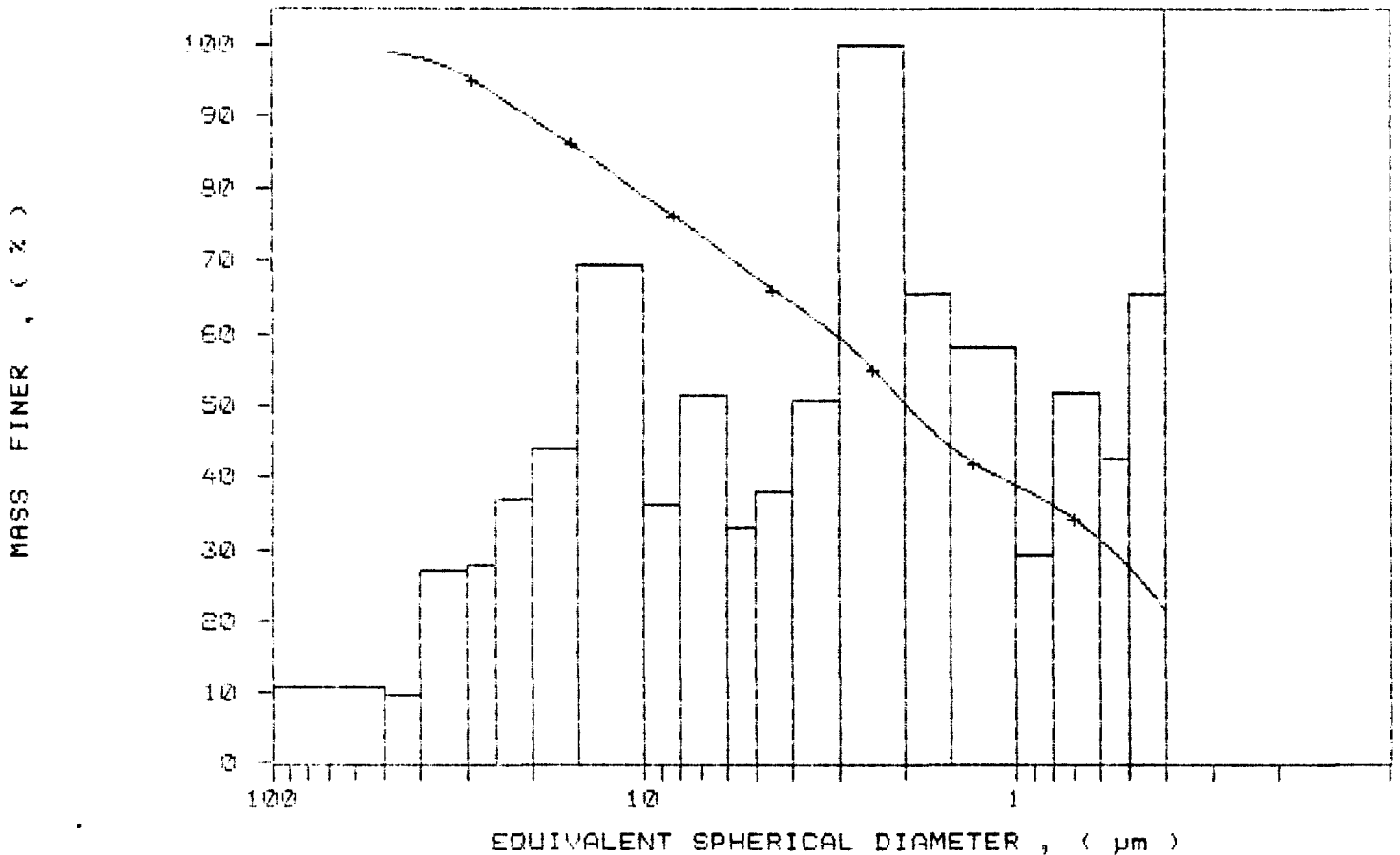
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	99.0	1.0
40.00	98.1	0.9
30.00	95.6	2.5
25.00	93.0	2.6
20.00	89.6	3.4
15.00	85.5	4.1
10.00	79.0	6.4
8.00	75.7	3.4
6.00	70.9	4.8
5.00	67.8	3.1
4.00	64.3	3.5
3.00	59.6	4.7
2.00	50.3	9.2
1.50	44.2	6.1
1.00	38.8	5.4
0.80	36.1	2.7
0.60	31.3	4.8
0.50	27.4	4.0
0.40	21.3	6.1

MINERAL RESEARCH CANADA	
1 INDUSTRIAL BLVD. RR2 FERRY SOUND, ONTARIO CANADA P2A 2W8	
FAX (705) 378-5123	BUS (705) 378-2416
DATE	<i>ASM</i>

SAMPLE DIRECTORY/NUMBER: DATAS /127
SAMPLE ID: Hole 89-20 # 13957
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 10:28:43 09/18/90
REPT 11:49:18 08/28/91
TOT RUN TIME 0:18:06
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7269 cp

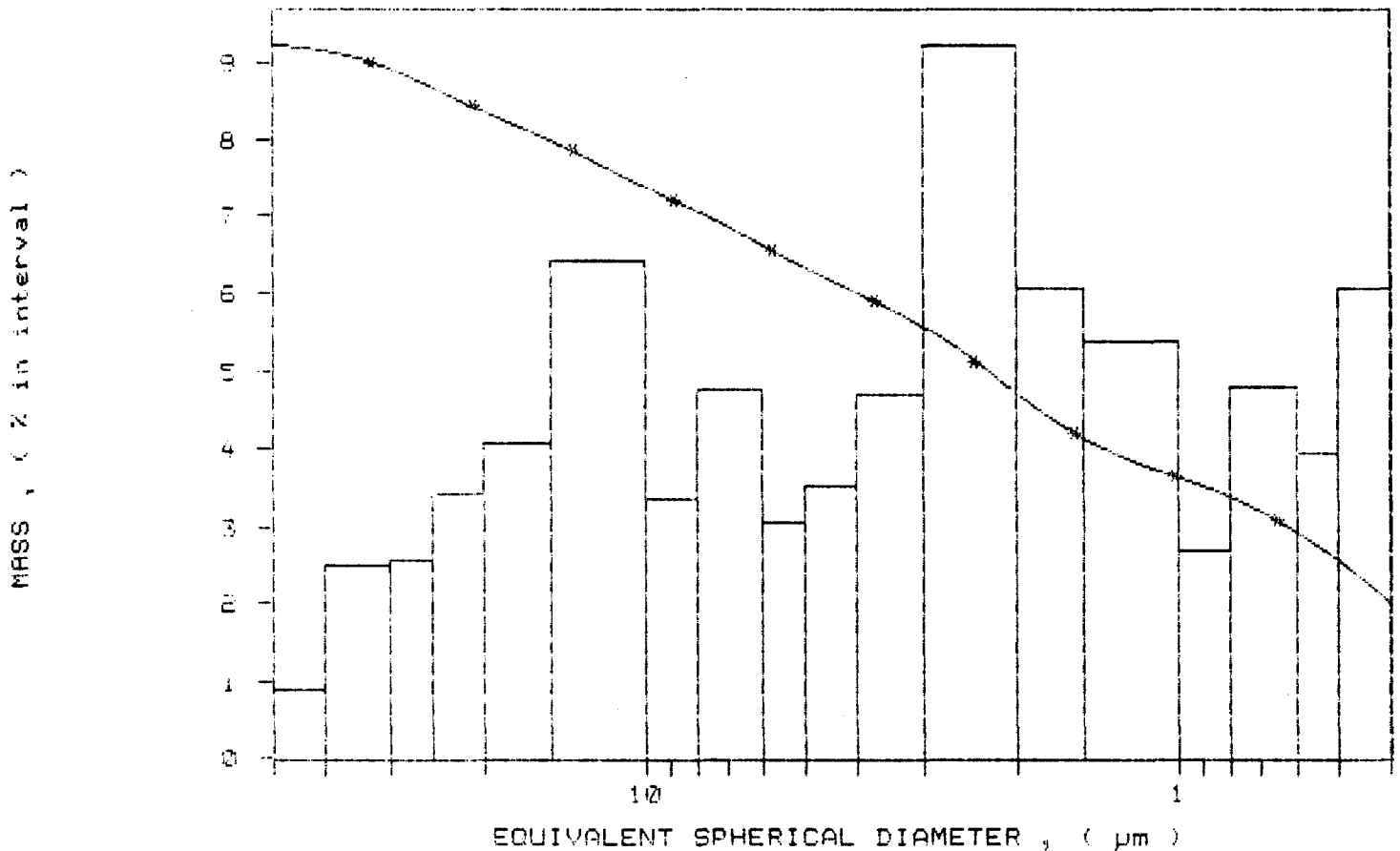
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA /127
 SAMPLE ID: Hole 89-20 # 13957
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:28:43 09/18/90
 REPR 11:49:18 08/28/91
 TOT RUN TIME 0:18:06
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.03

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /128
 SAMPLE ID: Hole 89-20 # 13958
 SUBMITTER: # 39
 OPERATOR: Km
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 13:43:11 09/18/90
 REPR 11:57:07 08/28/91
 TOT RUN TIME 0:18:06
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7262 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.93 μ m MODAL DIAMETER: 2.73 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	99.8	0.2
40.00	98.3	1.5
30.00	96.4	1.9
25.00	94.2	2.2
20.00	90.5	3.7
15.00	86.8	3.7
10.00	82.1	4.6
8.00	77.4	4.7
6.00	71.8	5.6
5.00	68.7	3.1
4.00	64.6	4.2
3.00	51.7	12.8
2.00	25.6	26.1
1.50	18.0	7.7
1.00	14.2	3.8
0.80	13.9	0.7
0.60	12.6	1.3
0.50	11.0	1.7
0.40	7.1	3.8

**MINERAL RESEARCH
CANADA**

1 INDUSTRIAL BLVD. RR2
PARRY SOUND, ONTARIO
CANADA P2A 2W8

FAX (705) 378-5123 BUS (705) 378-2416

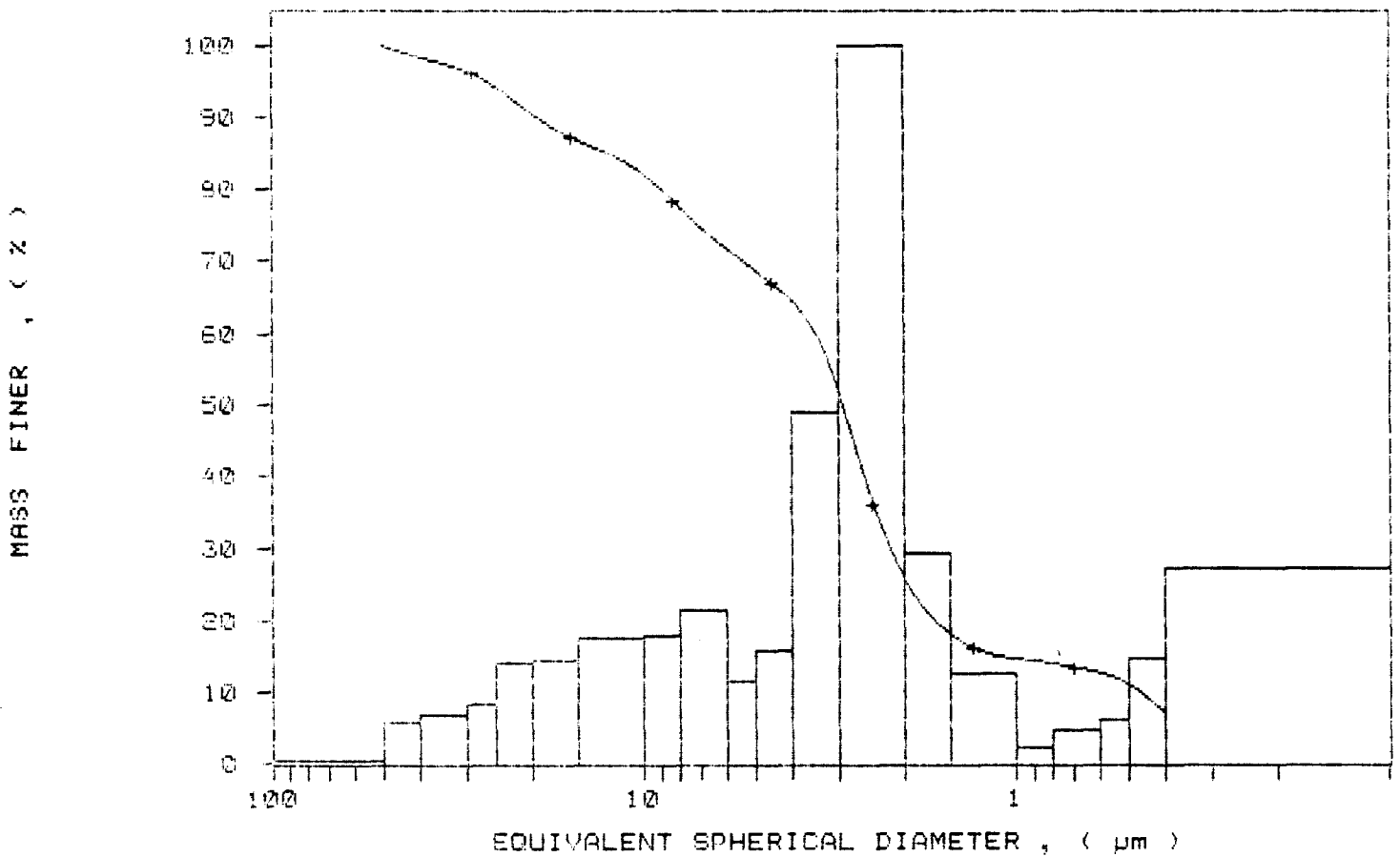
DATE _____ *km*

SAMPLE DIRECTORY/NUMBER: DATAS /128
SAMPLE ID: Hole 89-20 # 10958
SUBMITTER: # 39
OPERATOR: Km
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

RUN TYPE: Standard

UNIT NUMBER: 1
START 13:43:11 09/18/90
REPT 11:57:07 08/28/91
TOT RUN TIME 0:18:06
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7262 cp

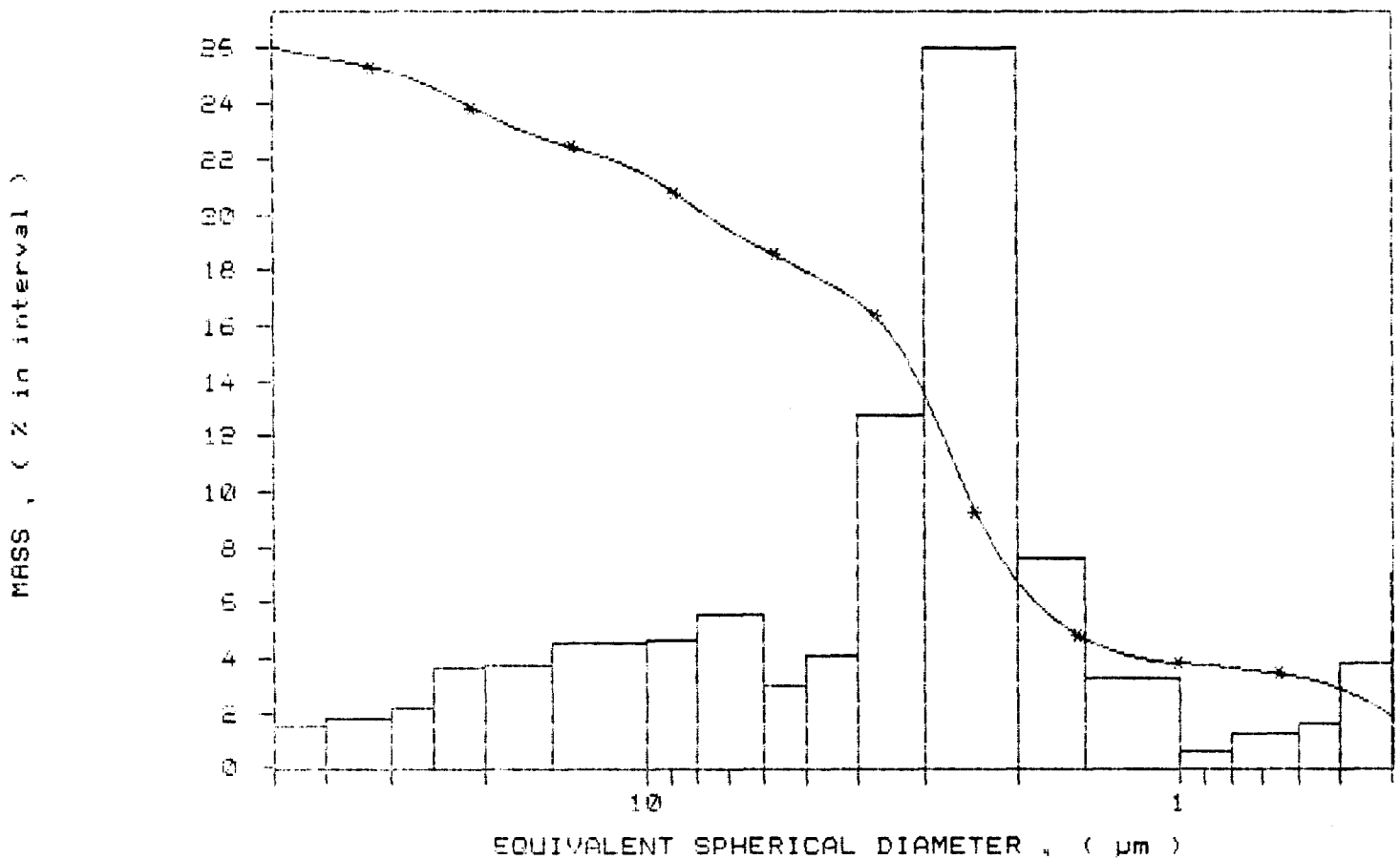
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /128
 SAMPLE ID: Hole 89-20 # 19958
 SUBMITTER: # 39
 OPERATOR: Km
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 13:43:11 09/18/90
 REPT 11:57:07 08/28/91
 TOT RUN TIME 0:18:06
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7262 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /129
 SAMPLE ID: Hole 89-20 # 13959
 SUBMITTER: # 89
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 14:15:57 09/18/90
 REPRT 12:04:51 08/28/91
 TOT RUN TIME 0:18:16
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7262 cp

STARTING DIAMETER: 50.00 µm
 ENDING DIAMETER: 0.40 µm

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MEDIAN DIAMETER: 2.79 µm MASS DISTRIBUTION MODAL DIAMETER: 2.84 µm

DIAMETER (µm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	99.0	1.0
40.00	98.6	1.0
30.00	96.4	1.6
25.00	94.4	2.0
20.00	91.3	3.2
15.00	87.1	4.1
10.00	82.3	4.8
8.00	80.0	2.3
6.00	74.8	5.2
5.00	71.1	3.7
4.00	66.3	4.8
3.00	54.1	12.2
2.00	34.6	19.6
1.50	28.1	6.7
1.00	23.5	4.6
0.80	21.6	1.9
0.60	18.5	3.1
0.50	15.8	2.7
0.40	11.2	4.7

MINERAL RESEARCH CANADA
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8

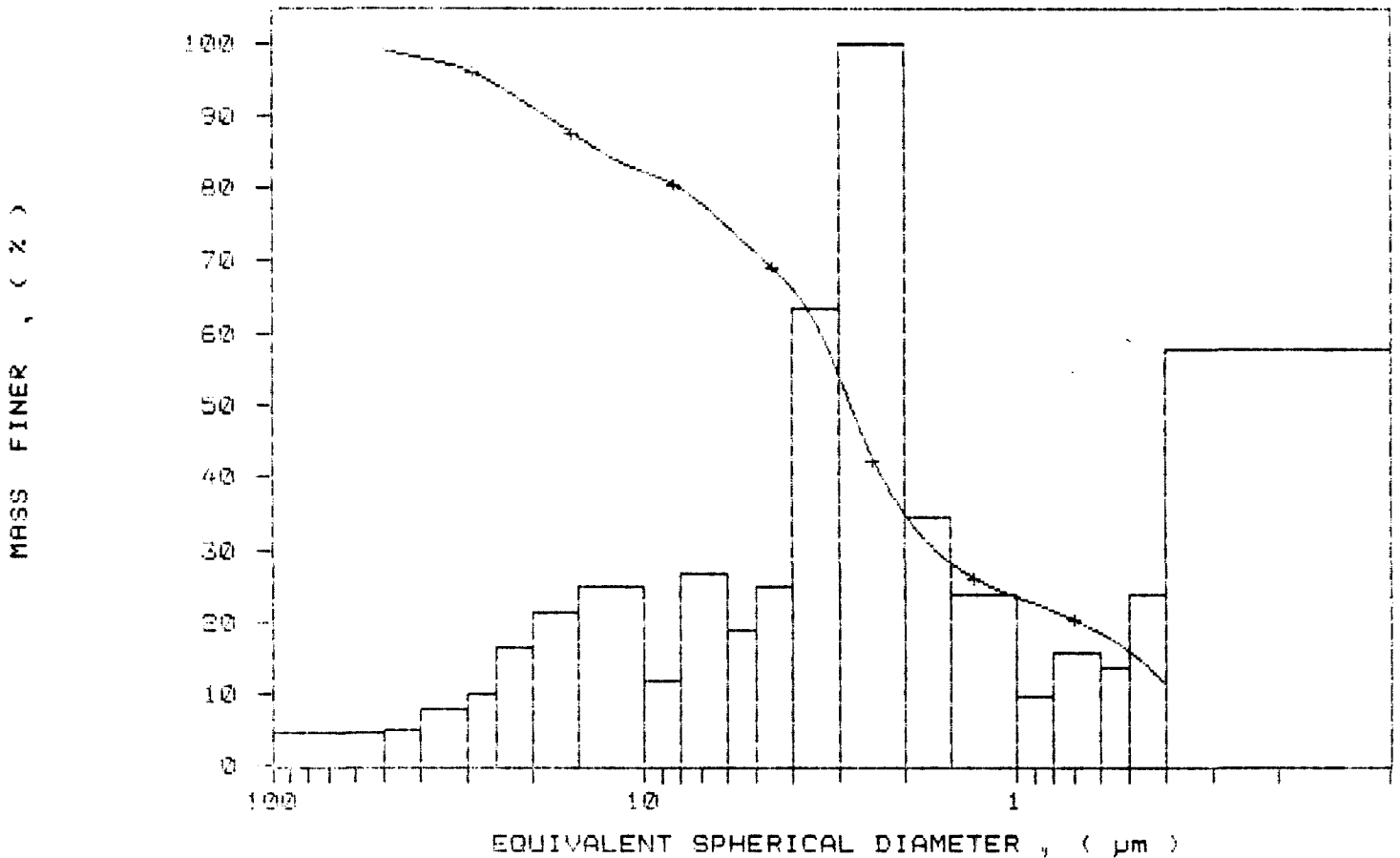
FAX (705) 378-5123 BUS (705) 378-2416

DATE *[Signature]*

SAMPLE DIRECTORY/NUMBER: DATAS /129
SAMPLE ID: Hole 89-20 # 13959
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 14:15:57 09/18/90
REPT 12:04:51 08/28/91
TOT RUN TIME 0:18:16
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7262 cp

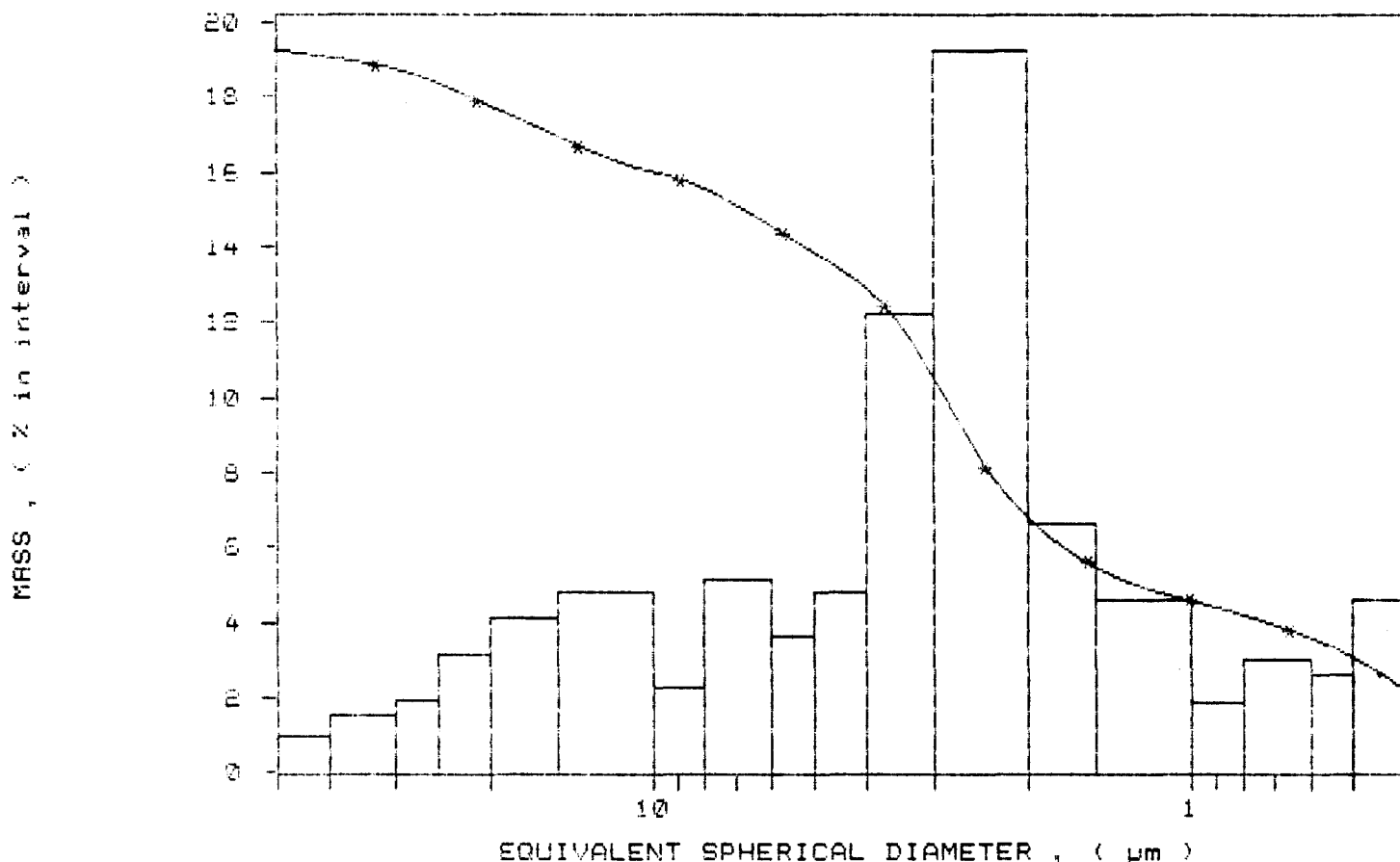
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /129
 SAMPLE ID: Hole 89-20 # 13959
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 14:15:57 09/18/90
 REPRT 12:04:51 08/28/91
 TOT RUN TIME 0:18:16
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7262 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



ROTARY DRILL HOLE RECORD

Drilling Started: February 3, 1989 Drilling Finished: February 4, 1989 Drilling Co.: Midwest Dip: -90° Hole Length: 250.0' Overburden Depth: 84.0' Claim No.: P 900072 Easting: 2990 E Northing: 1600 N Azimuth: 50° 09' 35" W. 82° 11' 11" N. Location: 850.0' at 232° To Claim Post No. 1 Property: Kipling	Logged By: A. Casselman Logged: May 4, 1989 Core Size: 3.5" Core Storage: Mineral Research Canada R. R. # 2 Parry Sound, ON P2A 2W8 Hole Number: 89-24
--	--

SUMMARY

From	To	Description
0.0'	3.0'	Peat
3.0'	84.0'	Glacial Silty Clay Till Pleistocene Overburden
84.0'	95.0'	Kaolin Silica Sand (Kss) Cretaceous
95.0'	97.0'	Clay
97.0'	98.0'	Kss
98.0'	102.0'	Clay
102.0'	102.5'	Kss
102.5'	103.5'	Clay
103.5'	105.0'	Sandy Clay
105.0'	115.5'	Kss
115.5'	118.0'	Clay
118.0'	119.0'	Kss
119.0'	125.0'	Clay
125.0'	135.0'	Sandy Clay
135.0'	161.0'	Kss
161.0'	165.0'	Clay
165.0'	170.0'	Sandy Clay
170.0'	178.0'	Clay & Sandy Clay
178.0'	195.0'	Sandy Clay
195.0'	200.0'	Kss
200.0'	205.0'	Sandy Clay
205.0'	231.0'	Kss
231.0'	235.0'	Sandy Clay
235.0'	250.0'	Kss

Jan 13, 1989

A. Casselman

EOH - 250.0'

Detail Log 89-24

From	To	Sample No.	Description
0.0'	3.0'		Peat
3.0'	84.0'		Glacial Clay Till - green/grey, silty from 3.0 - 24.0' - clast-free, remainder more competent, containing 5.0 - 10.0% carbonate clasts, and 10.0% gneissic clasts.
84.0'	88.0'	151	Kss - medium grain, yellow/grey, 87.5' - 88.0' - white. 8.05% kaolin.
88.0'	92.0'	152	Kss - 88.0' - 90.5' - as above, 90.0' - 92.0' - light grey, weak yellow. 8.23% kaolin.
92.0'	95.0'	153	Kss - as above. 7.85% kaolin.
95.0'	95.5'	154	Clay - pliable, to weakly friable, light grey to yellow brown. 62.05% kaolin.
95.5'	97.0'	155	Clay - competent, friable, dark brown, yellow at upper contact. 65.65% kaolin, 60.0% kaolin & 40.0% quartz by XRD.
97.0'	98.0'	156	Kss - medium grain, yellow/brown, with dark brown clay clots. 46.94% kaolin.
98.0'	102.0'	157	Clay - competent, friable, to weakly pliable, chocolate brown. 61.37% kaolin.
102.0'	102.5'	158	Kss - medium grain, coarsening downsection, chocolate brown. 10.46% kaolin.
102.5'	103.5'	159	Clay - competent, friable, chocolate brown, 62.41% kaolin.
103.5'	105.0'	160	Sandy Clay - medium brown, pliable. 41.59% kaolin, 50.0% kaolin, 44.0% quartz 3.0% illite and 3.0% smectite by XRD.
105.0'	110.0'	161	Kss - fine grain, white, rare yellow and brown impurity bands. 9.09% kaolin.
110.0'	115.5'	162	Kss - as above, increased yellow,

medium grain, light grey at lower contact.
7.54% kaolin.

- 115.5' 118.0' 163 Clay - pliable, light grey, 115.5' - 116.0' - red at upper contact, yellow from 116.0' - 118.0'. 75.44% kaolin, 65.0% kaolin, 40.0% quartz by XRD, 0.95% + 325 mesh, 58.7 GE brightness.
- 118.0' 119.0' 164 Kss - fine grain, light grey to white. 8.99% kaolin.
- 119.0' 120.0' 165 Clay - as form 115.5' - 118.0'. 75.59% kaolin.
- 120.0' 125.0' Clay - medium brown, to buff, some yellow/red areas, haematite staining, greasy, competent, disc-like.
- 125.0' 130.0' Sandy Clay - buff, very fine grain silica, minor illite, pliable, few fine purple laminations.
- 130.0' 135.0' Sandy Clay - with minor clay (chocolate brown, pliable) sections, found in a mottled fashion, generally medium brown, lower clay content than above.
- 135.0' 140.0' Kss - medium grain, light brown, some areas of yellow - sulphureous smell, low clay content, minor heavies.
- 140.0' 143.0' Kss - medium grain, white, dried, low clay content, minor illite and heavies, exterior crystal growth as a white crust.
- 143.0' 147.0' Kss - as above, higher clay content, no exterior crystal growth.
- 147.0' 152.0' Kss - medium grain, light brown, some exterior crustal growth - yellowish, minor yellow chert and heavies.
- 152.0' 156.0' Kss - light brown, darkening downsection, to medium yellow brown, low clay content, high heavies percentage.
- 156.0' 161.0' Kss - 156.0' - 157.0' as above, 157.0' - 158.0' - clay - pliable, competent, buff and yellow as haematite stained areas, 158.0' - 159.0' - kss as previous from 159.0' - 160.0' - clay as previous, 160.0' - 161.0' - kss as previous.
- 161.0' 165.0' Clay - medium yellow/brown, disc-like, semi-pliable, 0.5', kss - as previous as 163.0', then

- clay - medium brown, semi-pliable, disc-like.
- 165.0' 170.0' Sandy Clay - non-competent, medium brown, minor illite, limonite powder clots, seen as orangy to rust spots - tiny randomly dispersed throughout, pliable.
- 170.0' 173.0' Clay & Sandy Clay - mottled, sandy clay - medium brown, very fine grain sandy clay, high illite, interbedded with mottled, chocolate and lighter brown, pliable clay.
- 173.0' 178.0' Clay and Sandy Clay - as above, interbedded in well laminated seams, sandy clay includes purple laminations as well as carbonaceous laminations, sandy clay here is lighter with less clay than above.
- 178.0' 183.0' Sandy Clay - buff, with darker laminations, slightly dried, one medium brown, clay lamination at 182.0', pliable of 3.0".
- 183.0' 188.0' Sandy Clay and Clay - interbedded as at 170.0' - 173.0'.
- 188.0' 190.0' Sandy Clay - mottled as above.
- 190.0' 195.0' Sandy Clay - as above, grading to kss at 190.25', kss - medium grain, to fine grain, light brown, moist, minor illite, and heavies.
- 195.0' 200.0' Kss - fine grain, as above, less moist.
- 200.0' 205.0' Sandy Clay - as previous, grading, downsection to kss at 204.5', medium grain, light brown.
- 205.0' 210.0' Kss - white, medium grain, minor illite, and heavies.
- 210.0' 215.0' Kss - light brown, medium grain, matrix support of larger rounded to sub-angular clasts of milky and smoky quartz, yellow and red chert.
- 215.0' 220.0' Kss - as above, darker brown, moister than above, prolate clasts up to 3.0", silica of orange, green, red, yellow, pink, black, grey and white.
- 220.0' 225.0' Kss - as above, fewer large clasts.
- 225.0' 231.0' Kss - medium grain, as above, from 225.0' - 227.0', 227.0' - 230.0' - coarse grain, sub-rounded clasts up to 1.5", vari-coloured silica clasts as well as clay clots, chocolate brown, and medium brown mottled as well as light grey, up to 2.0".

231.0' 235.0' Sandy Clay - at upper contact, interbedded with, sub-angular smoky and milky quartz clasts, generally buff, minor illite, and carbonaceous material as seams - very minor, chocolate brown, greasy, pliable clay band interbedded with sandy clay at 233.0'.

235.0' 237.0' Kss - light grey, medium grain, large illite/muscovite and minor heavies.

237.0' 240.0' Kss - as above, dried.

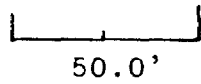
240.0' 245.0' Kss - as above.

245.0' 250.0' Kss - as above.

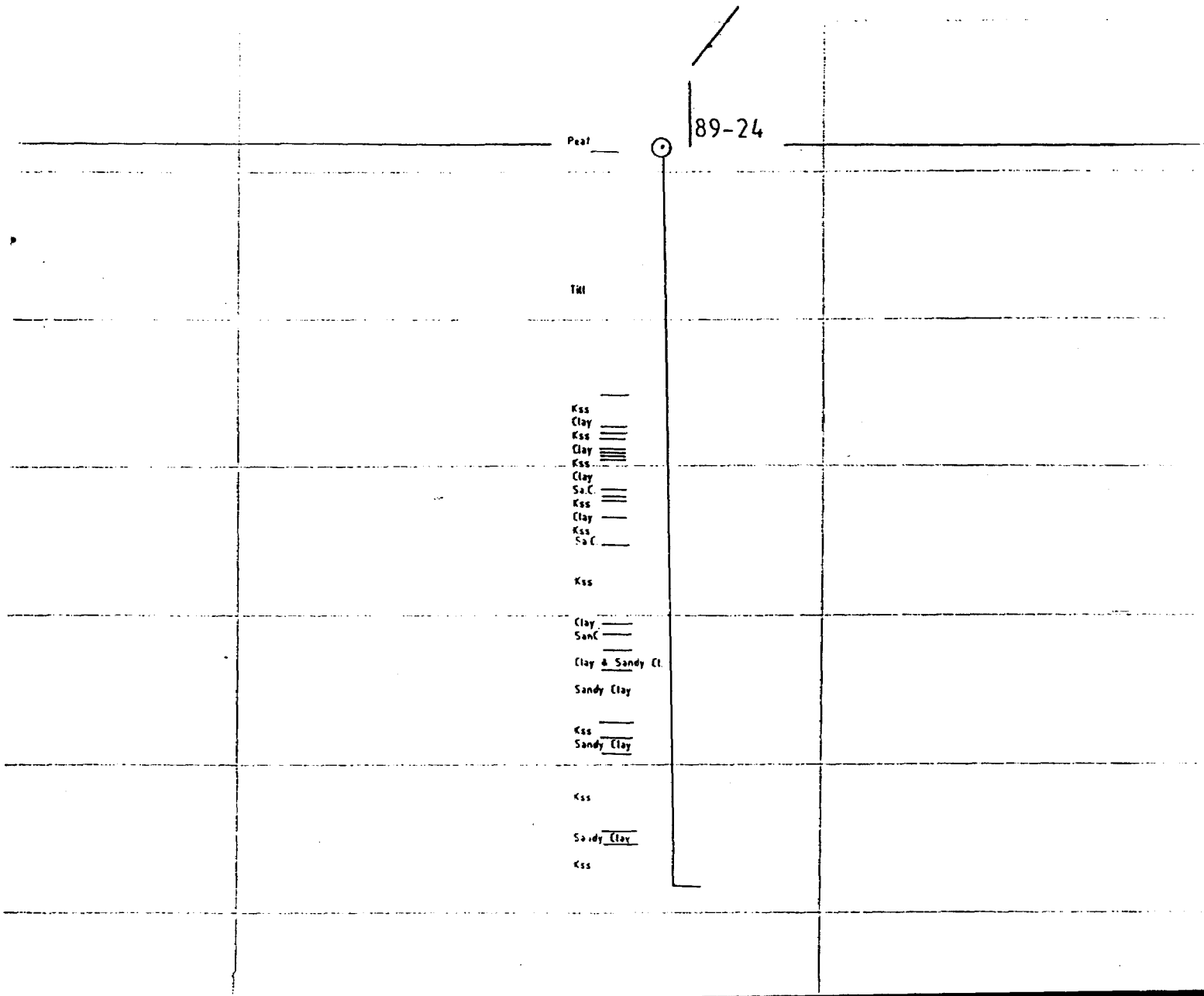
EOH - 250.0'

Section 89-24

Hole Length: 250.0'
Overburden Depth: 84.0'
Astronomic Azimuth: 50° 09' 35" W. 82° 11' 11" N
Location: 850.0' at 232° to claim post no. 1
Claim No.: P 900072
Dip Collar: -90°
Northing: 1600 N
Easting: 2990 E
Scale: 1.0" = 50.0'

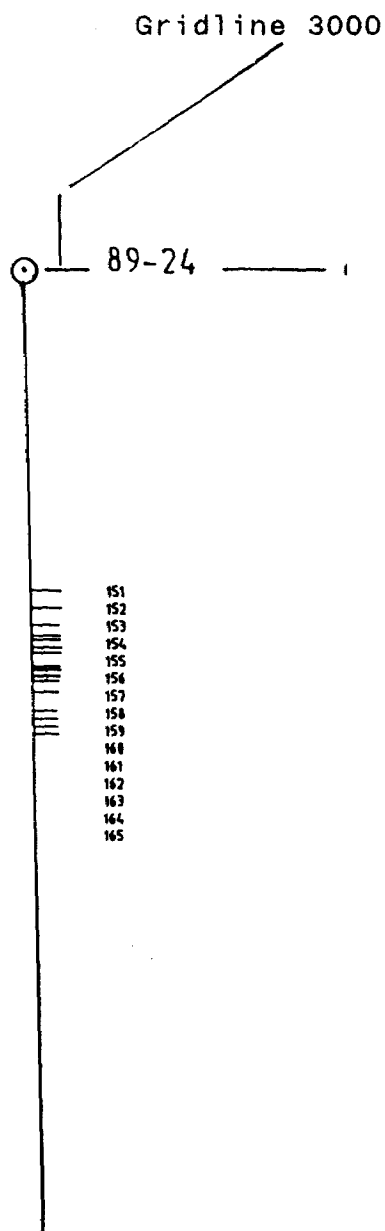
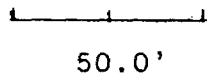


Gridline 3000



Section 89-24

Hole Length: 250.0'
Overburden Depth: 84.0'
Astronomic Azimuth: $50^{\circ} 09' 35''$ W. $82^{\circ} 11' 11''$ N
Location: 850.0' at 232° to claim post no. 1
Claim No.: P 900072
Dip Collar: -90°
Northing: 1600 N
Easting: 2990 E
Scale: 1.0" = 50.0'



MINERAL RESEARCH CANADA

TEL: (705) 378-5123
FAX: (705) 378-5123

1 INDUSTRIAL BLVD. RR2
PARRY SOUND, ON. CANADA
P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
<i>Hole 89-24</i> 151	+ 4	4.7	6.2	8.2
	+ 40	60.4		
	+100	18.2		
	+200	2.6		
	+325	1.2		
	-325	12.9		
152	+ 4	1.8	4.4	8.2
	+ 40	65.9		
	+100	23.1		
	+200	1.9		
	+325	0.9		
	-325	6.4		
153	+ 4	0.2	5.9	8.1
	+ 40	58.8		
	+100	30.8		
	+200	2.3		
	+325	1.0		
	-325	6.9		
154	+ 4	0.2	19.4	8.1
	+ 40	0.4		
	+100	0.5		
	+200	1.5		
	+325	5.6		
	-325	91.0		
155	+ 4	0.1	18.6	8.1
	+ 40	0.3		
	+100	3.5		
	+200	10.4		
	+325	85.7		
	-325			

MINERAL RESEARCH
CANADA
1 INDUSTRIAL BLVD. RR2
PARRY SOUND, ONTARIO
CANADA P2A 2W8
FAX (705) 378-5123
DATE 18.6
L. MacDonald

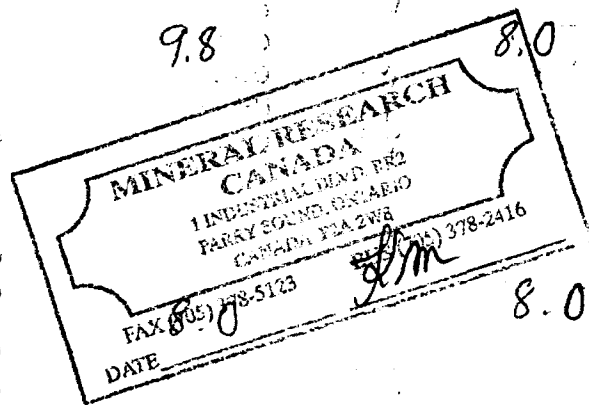
MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
<i>156</i>	+ 4	0	7.2	8.1
	+ 40	54.5		
	+100	33.6		
	+200	2.0		
	+325	1.2		
	-325	8.7		
<i>157</i>	+ 4	0	6.2	8.2
	+ 40	0.7		
	+100	15.3		
	+200	24.2		
	+325	10.8		
	-325	49.0		
<i>158</i>	+ 4	2.5	7.1	8.0
	+ 40	63.3		
	+100	21.0		
	+200	2.1		
	+325	1.1		
	-325	10.0		
<i>159</i>	+ 4	0.9	9.8	8.0
	+ 40	30.9		
	+100	54.2		
	+200	2.6		
	+325	1.7		
	-325	9.7		
<i>160</i>	+ 4	0.3		8.0
	+ 40	25.4		
	+100	61.0		
	+200	1.9		
	+325	1.4		
	-325	10.0		



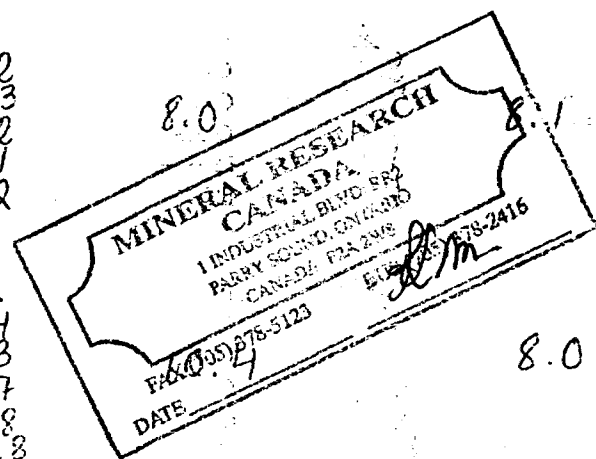
MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
89-24 161	+ 4	4.2	5.0	8.0
	+ 40	49.3		
	+100	29.0		
	+200	2.2		
	+325	1.5		
	-325	13.8		
162	+ 4	2	11.4	8.0
	+ 40	11.7		
	+100	75.5		
	+200	3.0		
	+325	1.4		
	-325	8.4		
163	+ 4	0	8.4	8.0
	+ 40	0		
	+100	0.2		
	+200	0.4		
	+325	6.2		
	-325	93.2		
164	+ 4	0	8.0	8.0
	+ 40	61.2		
	+100	27.3		
	+200	2.2		
	+325	1.1		
	-325	8.2		
165	+ 4	0	8.0	8.0
	+ 40	0.4		
	+100	1.3		
	+200	1.7		
	+325	9.8		
	-325	86.8		



SAMPLE DIRECTORY NUMBER: DATAS 787 UNIT NUMBER: 1
 SAMPLE ID: Hole 03-24 # 151 START 10:49:16 09/07/90
 SUBMITTER: # 39 REPRY 09:15:41 08/28/91
 OPERATOR: KM TOT RUN TIME 0:17:36
 SAMPLE TYPE: Clay SAM DENS: 2.6000 g/cc
 LIQUID TYPE: Water L10 DENS: 0.9942 g/cc
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard L10 VISC: 0.7268 cp

STARTING DIAMETER: 50.00 μ m REYNOLDS NUMBER: 0.21
 ENDING DIAMETER: 0.40 μ m FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.59 μ m MODAL DIAMETER: 2.57 μ m

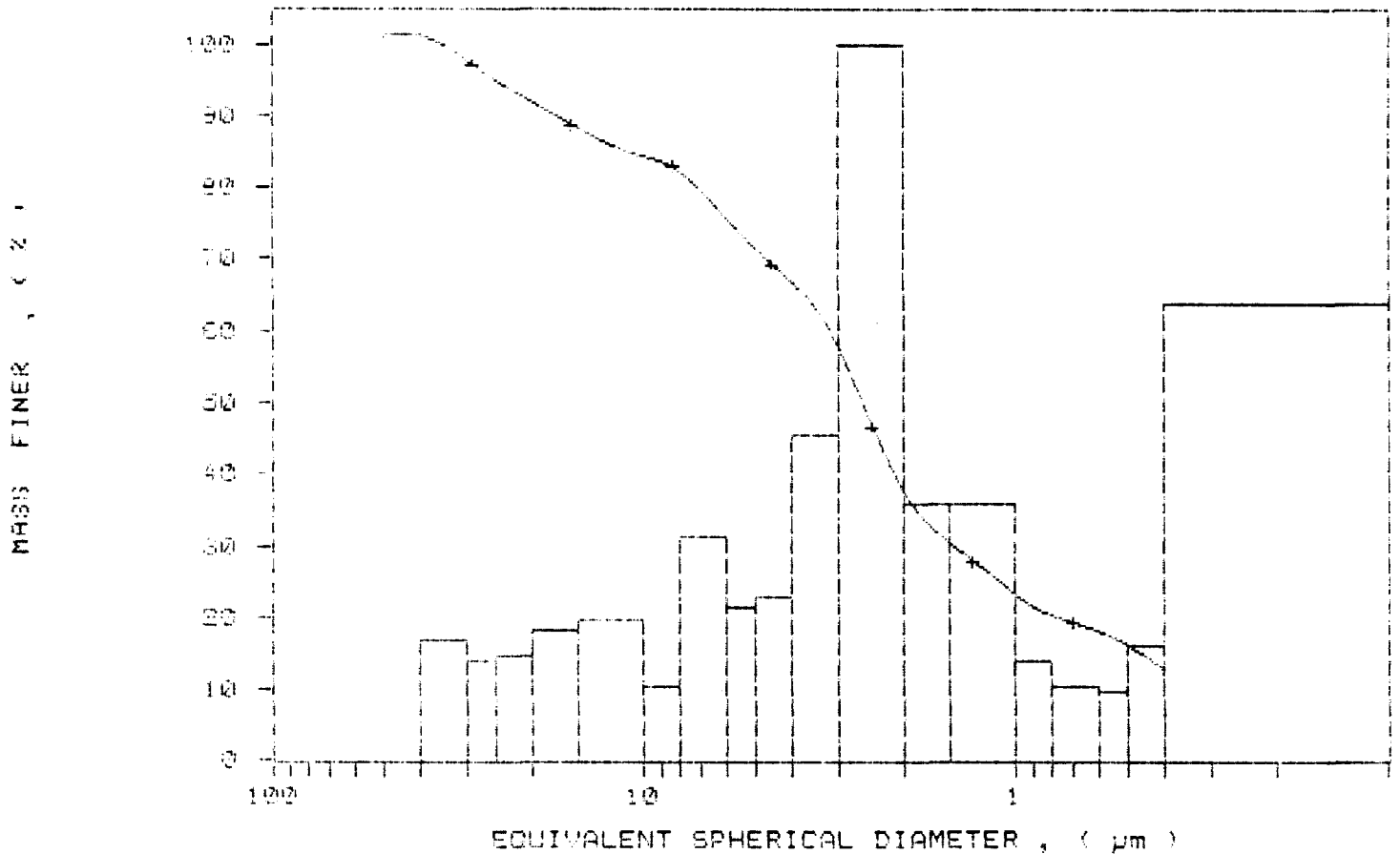
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	101.1	-1.1
40.00	101.2	-0.1
30.00	97.6	3.4
25.00	94.9	2.9
20.00	91.9	3.0
15.00	88.2	3.7
10.00	84.2	4.0
8.00	82.1	2.1
6.00	75.3	6.8
5.00	71.4	4.0
4.00	66.8	4.6
3.00	57.7	9.1
2.00	37.6	20.1
1.50	36.2	1.3
1.00	25.1	11.3
0.80	26.2	1.1
0.60	18.1	8.1
0.50	18.1	0.0
0.40	12.8	5.3



SAMPLE DIRECTORY/NUMBER: DITAS 787
SAMPLE ID: Note 89-24 # 151
SUBMITTER: # 39
OPERATOR: KH
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 10:49:16 09/07/90
REPT 09:15:41 08/28/91
TOT RUN TIME 0:17:36
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7266 cp

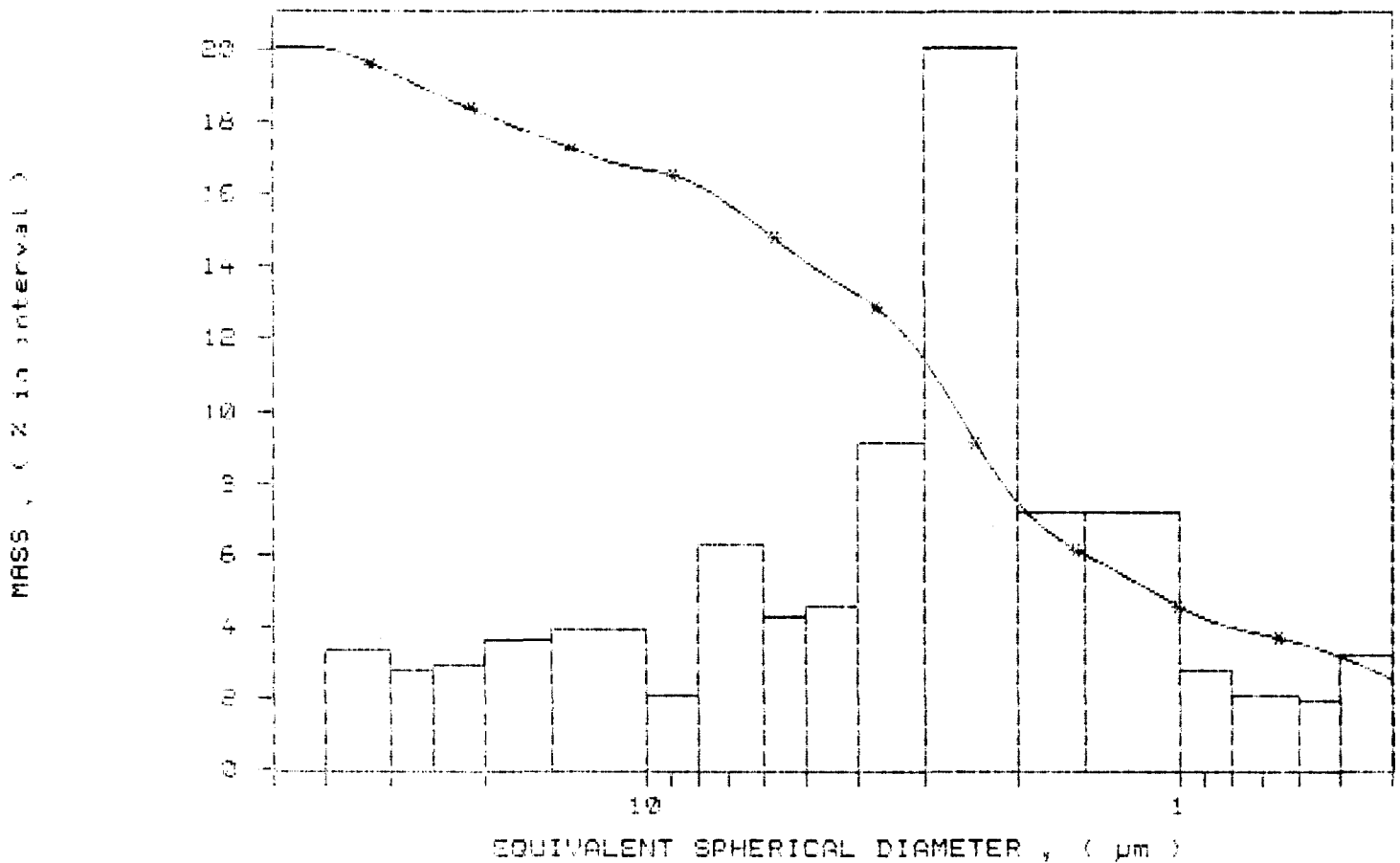
CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /87
 SAMPLE ID: Hole 89-24 # 151
 SUBMITTER: # 35
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:49:16 09/07/90
 REPRY 09:15:41 08/28/91
 TOT RUN TIME 0:17:36
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS 788
 SAMPLE ID: Hole 89-24 # 152
 SUBMITTER: # 35
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 24.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 13:22:54 09/07/90
 REPR1 09:23:39 08/28/91
 TOT RUN TIME 0:18:02
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.00 μ m MODAL DIAMETER: 1.75 μ m

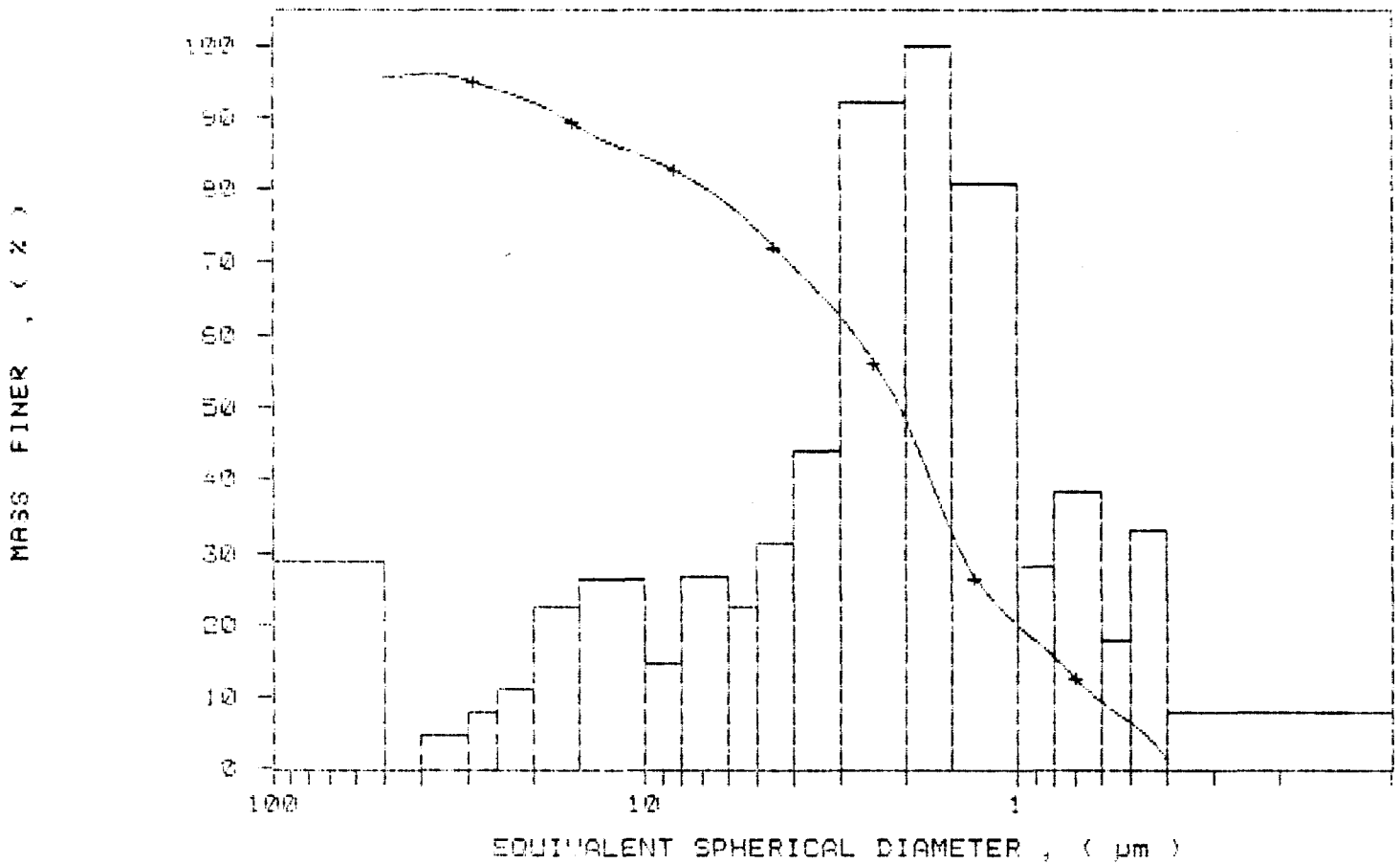
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	95.5	4.5
40.00	95.0	0.5
30.00	95.2	0.8
25.00	93.9	1.3
20.00	92.1	1.8
15.00	88.6	3.5
10.00	84.5	4.1
8.00	82.1	2.3
6.00	77.5	4.2
5.00	74.4	3.6
4.00	69.4	4.9
3.00	62.5	6.9
2.00	48.1	14.5
1.50	32.4	15.6
1.00	19.8	12.7
0.80	15.4	4.4
0.60	9.8	6.0
0.50	6.5	2.8
0.40	1.8	3.2

**MINERAL RESEARCH
 CANADA**
 1 INDUSTRIAL BLVD. RR2
 FERRY BAY, ONTARIO
 CANADA P2A 2W8
 FAX (705) 378-5123
 BUS (705) 378-2416
 DATE *AM*

SAMPLE DIRECTORY/NUMBER: DATA 788
SAMPLE ID: Hole 89-04 # 152
SUBMITTER: # 35
OPERATOR: KN
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 13:22:54 09/07/90
REPT 09:23:39 08/28/91
TOT RUN TIME 0:18:02
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7269 cp

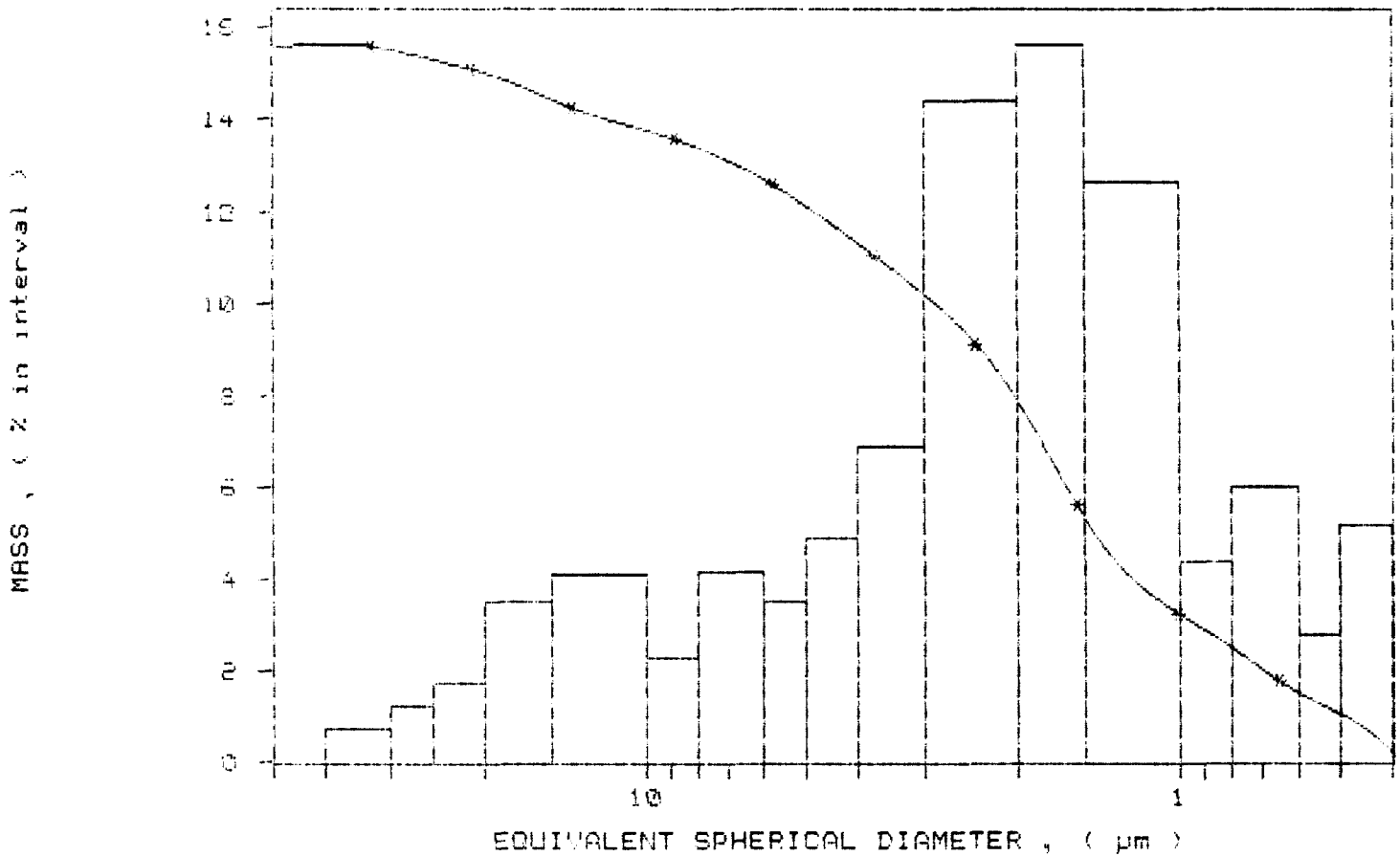
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS 788
 SAMPLE ID: Hole 89-24 # 152
 SUBMITTER: # 29
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 13:22:54 09/07/90
 REPT 09:23:59 08/28/91
 TOT RUN TIME 0:18:02
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 789
 SAMPLE ID: Hole 89-24 # 158
 SUBMITTER: # 20
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 14:00:18 09/07/90
 REPRY 09:31:15 08/28/91
 TOT RUN TIME @:17:28
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

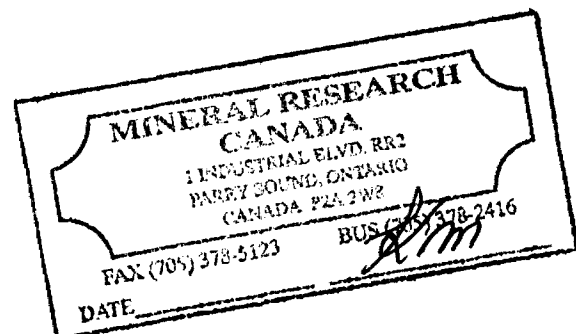
REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.50 μ m

MODAL DIAMETER: 2.12 μ m

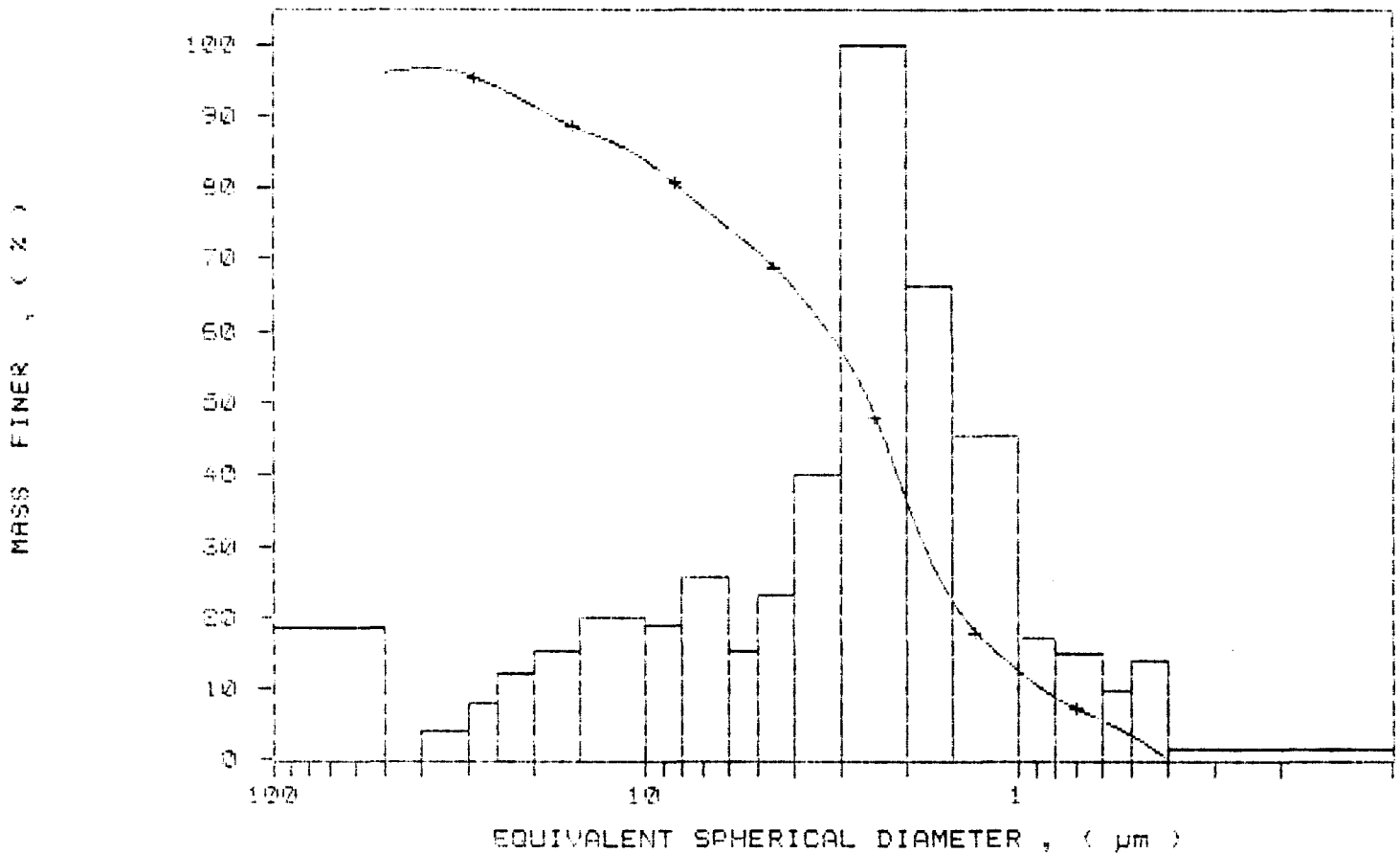
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	96.1	3.9
40.00	95.6	0.6
30.00	95.7	0.9
25.00	94.0	1.7
20.00	91.4	2.6
15.00	88.1	3.3
10.00	83.8	4.3
8.00	79.8	4.1
6.00	74.8	5.0
5.00	71.6	3.3
4.00	66.0	5.0
3.00	57.5	8.5
2.00	36.2	21.3
1.50	22.1	14.1
1.00	12.4	9.7
0.80	8.7	3.7
0.60	5.5	3.2
0.50	3.4	2.1
0.40	0.4	3.0



SAMPLE DIRECTORY/NUMBER: DATA2 /89
 SAMPLE ID: Hole 89-24 # 153
 SUBMITTER: # 35
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 14:00:18 09/07/90
 REPT 09:31:15 08/28/91
 TOT RUN TIME 0:17:28
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

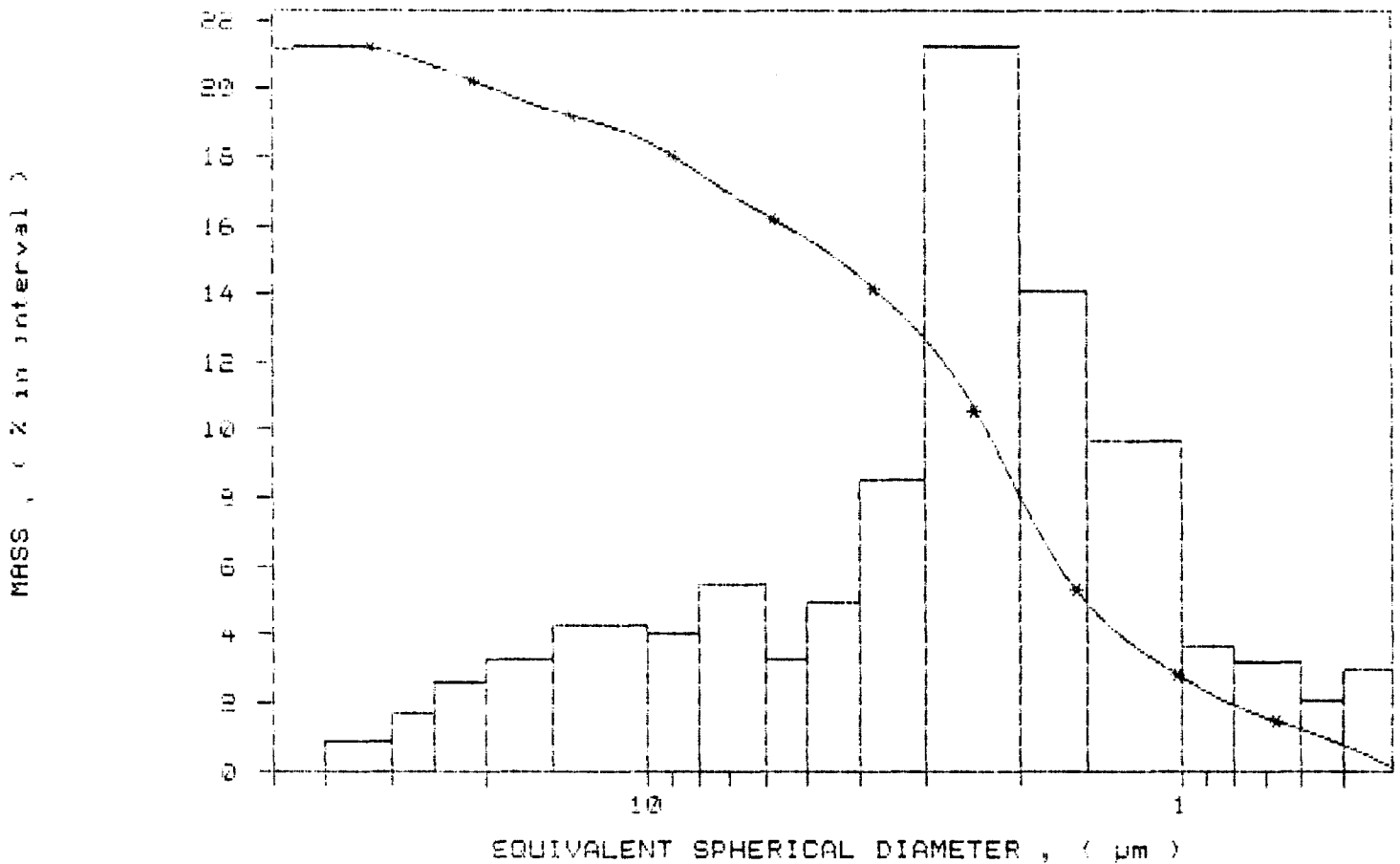
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS 789
 SAMPLE ID: Hole 89-24 # 153
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 14:00:18 09/07/90
 REPT 09:31:15 08/28/91
 TOT RUN TIME 0:17:28
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA 790
 SAMPLE ID: Hole 39-24 # 154
 SUBMITTER: # 35
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

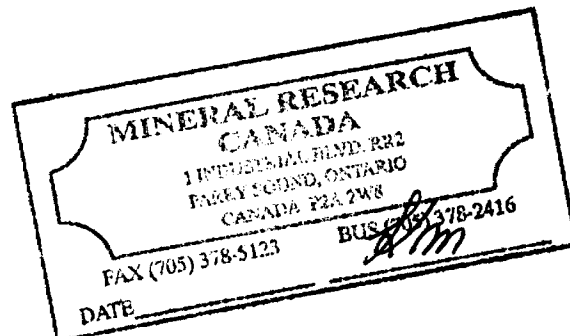
UNIT NUMBER: 1
 START 14:44:59 09/07/90
 REPRY 09:39:51 08/28/91
 TOT RUN TIME 0:18:03
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

STARTING DIAMETER: 50.00 μ m REYNOLDS NUMBER: 0.21
 ENDING DIAMETER: 0.40 μ m FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.45 μ m MODAL DIAMETER: 1.28 μ m

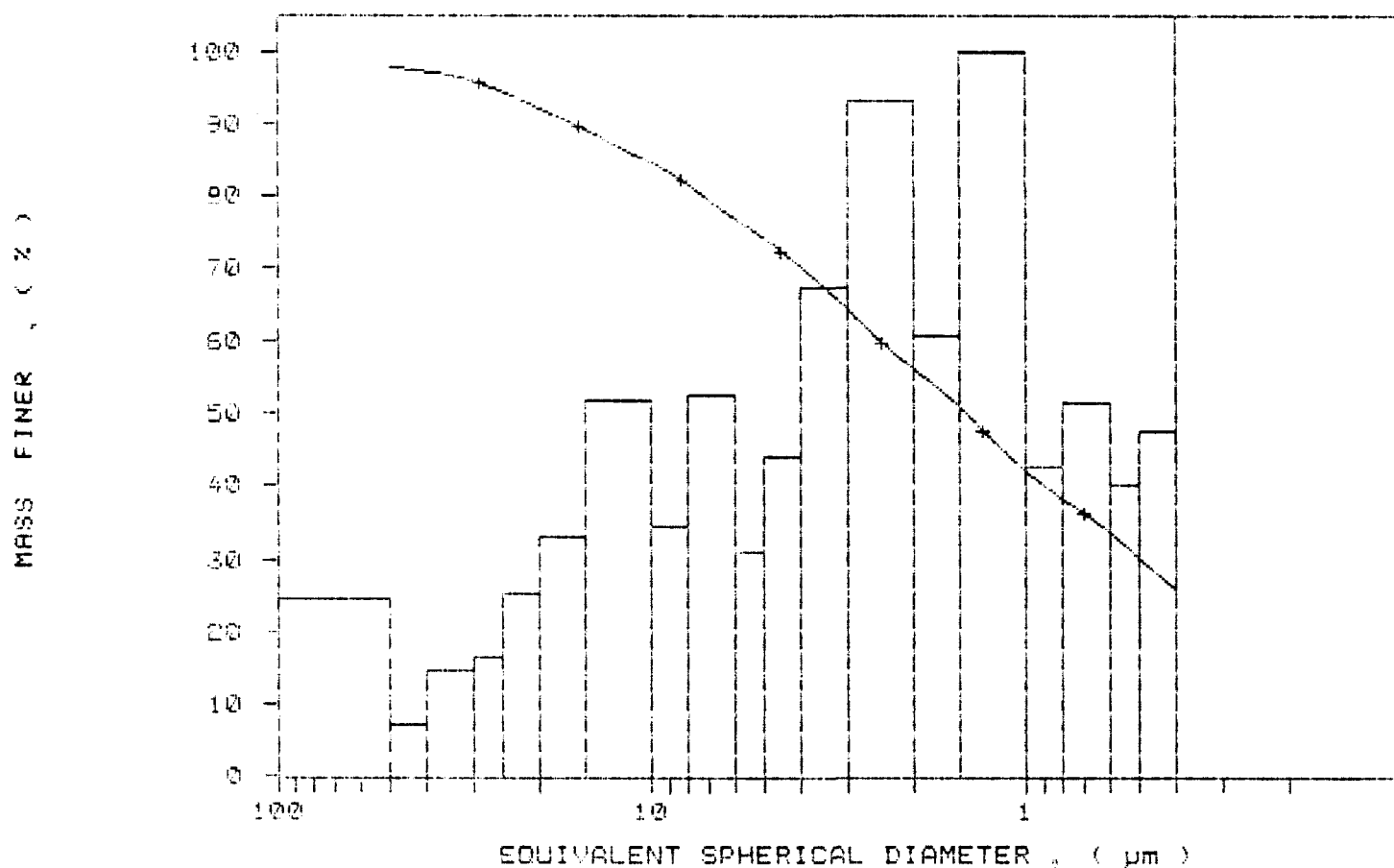
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	97.8	2.2
40.00	97.2	0.6
30.00	95.9	1.3
25.00	94.4	1.5
20.00	92.1	2.3
15.00	89.2	2.9
10.00	84.6	4.6
8.00	81.6	3.0
6.00	76.9	4.6
5.00	74.2	2.8
4.00	70.3	3.9
3.00	64.3	6.0
2.00	56.1	8.2
1.50	50.7	5.4
1.00	41.9	8.8
0.80	38.1	3.8
0.60	33.6	4.5
0.50	30.1	3.5
0.40	25.8	4.2



SAMPLE DIRECTORY/NUMBER: DATAS /90
 SAMPLE ID: Hole 29-24 # 154
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 14:44:59 09/07/90
 REPT 09:39:51 08/28/91
 TOT RUN TIME 0:18:08
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

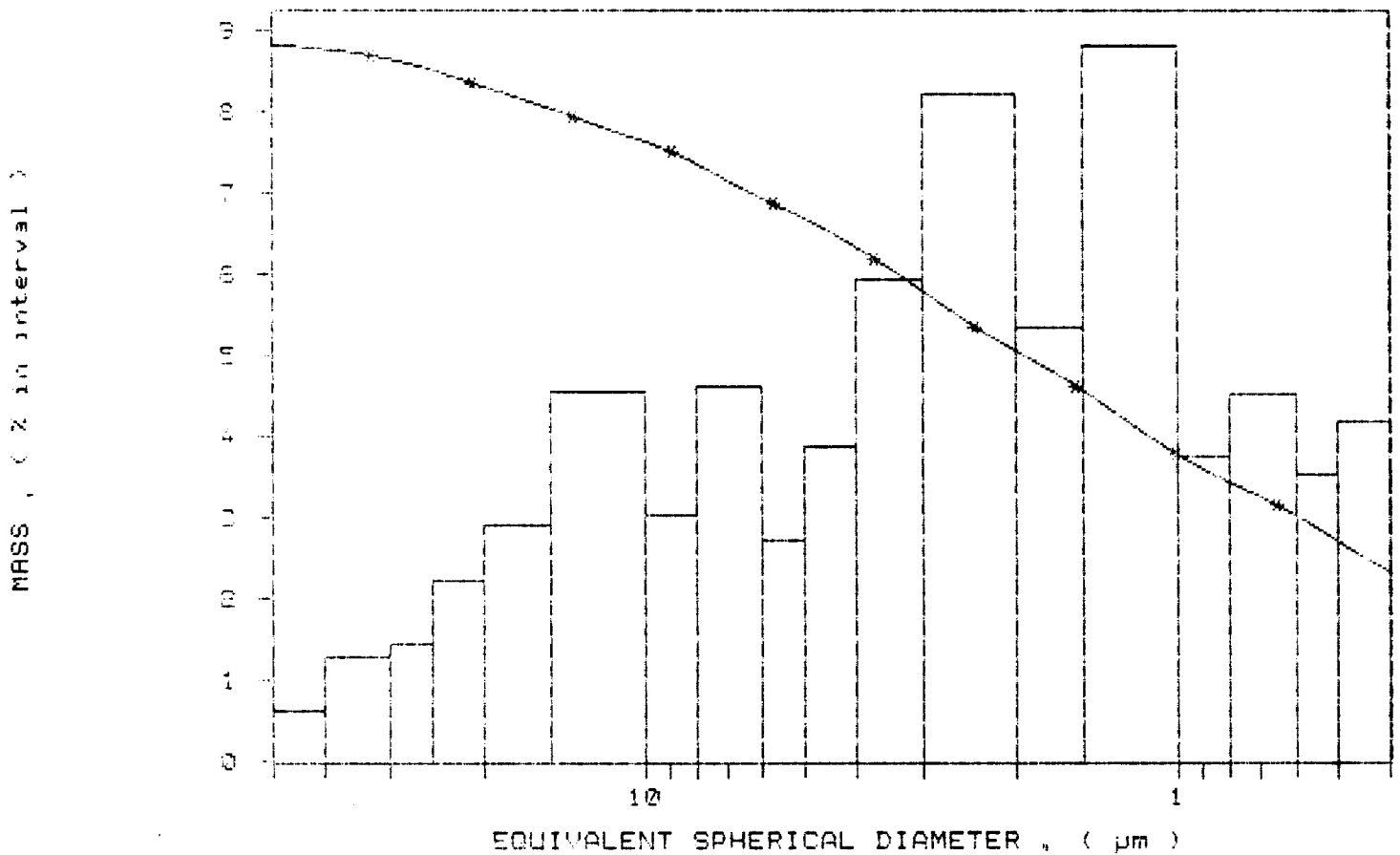
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS 790
 SAMPLE ID: Hole 89-24 # 104
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 14:44:59 09/07/90
 REPRY 09:39:51 08/28/91
 TOT RUN TIME 0:18:00
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /93
 SAMPLE ID: Hole 89-24 # 155
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 08:52:52 09/11/90
 REPT 09:48:23 08/28/91
 TOT RUN TIME 0:17:39
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

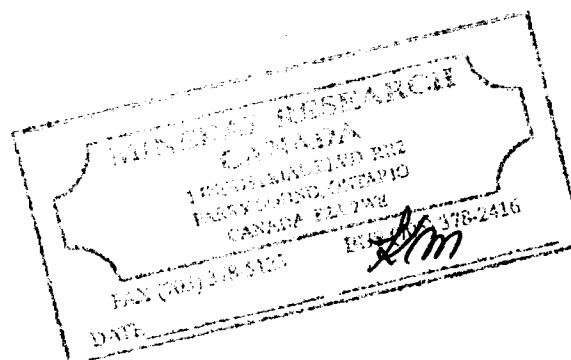
REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.74 μ m

MODAL DIAMETER: 0.40 μ m

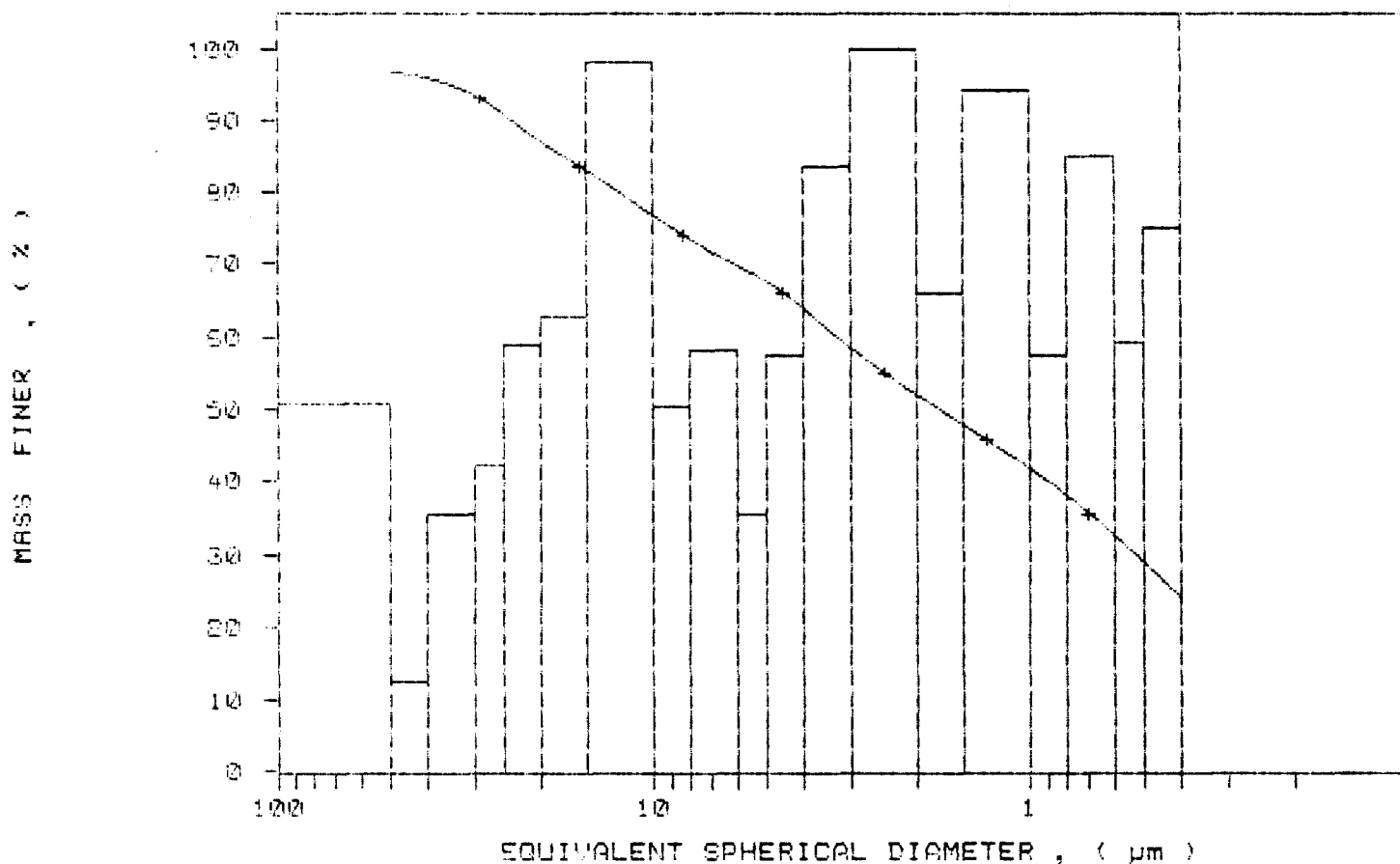
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	96.7	3.3
40.00	95.9	0.8
30.00	93.6	2.3
25.00	90.9	2.7
20.00	87.1	3.8
15.00	83.1	4.0
10.00	76.8	6.3
8.00	73.5	3.2
6.00	69.6	3.7
5.00	67.5	2.3
4.00	63.8	3.7
3.00	58.5	5.4
2.00	52.6	6.4
1.50	47.8	4.2
1.00	41.7	6.1
0.80	38.0	3.7
0.60	32.6	5.5
0.50	28.7	3.8
0.40	23.9	4.8



SAMPLE DIRECTORY/NUMBER: DATAS /93
 SAMPLE ID: note 89-29 W 155
 SUBMITTER: # 29
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 08:52:52 09/11/90
 REPT 09:48:23 08/28/91
 TOT RUN TIME 0:17:39
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cp

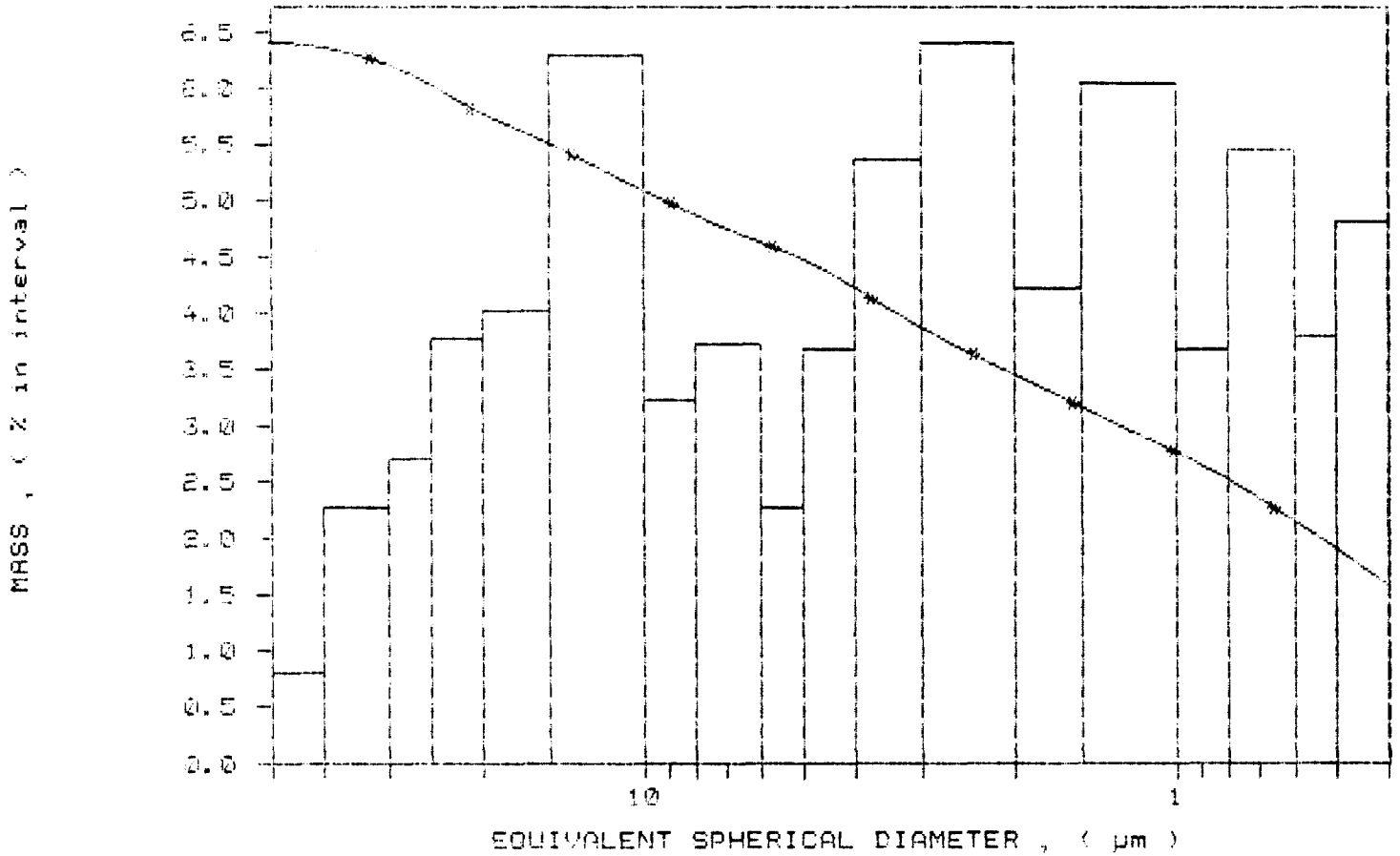
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /99
SAMPLE ID: Hole 39-24 # 155
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 08:52:52 09/11/90
REPRT 09:48:23 08/28/91
TOT RUN TIME 0:17:39
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7271 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

Sedigraph 5100 V2.0E

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /100
 SAMPLE ID: Hole 89-24 # 156
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 24.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:23:37 09/11/90
 REPR 09:56:07 08/28/91
 TOT RUN TIME 0:18:11
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7263 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 4.45 μ m MODAL DIAMETER: 27.24 μ m

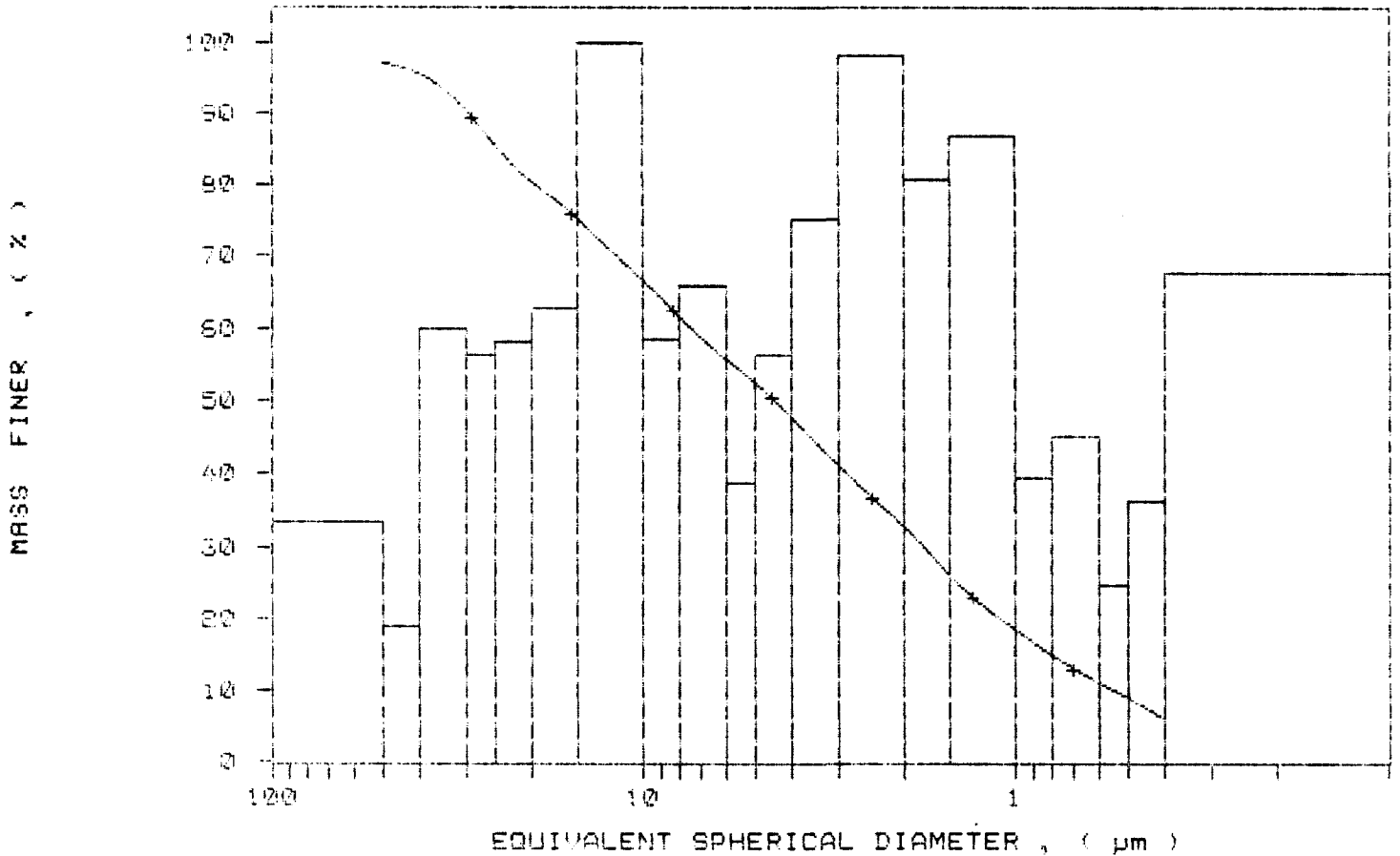
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	97.1	2.9
40.00	95.5	1.6
30.00	90.3	5.1
25.00	85.5	4.9
20.00	80.5	5.0
15.00	75.1	5.4
10.00	66.5	8.6
8.00	61.5	5.0
6.00	55.2	6.7
5.00	52.5	2.8
4.00	47.6	4.9
3.00	41.2	6.5
2.00	32.7	8.4
1.50	25.6	6.9
1.00	18.4	7.4
0.80	14.9	3.4
0.60	11.1	3.9
0.50	9.0	2.1
0.40	5.8	3.1

**MINERAL RESEARCH
 CANADA**
 1 INDUSTRIAL BLVD. #12
 PARRY SOUND, ONTARIO
 CANADA P2A 2Y3
 FAX (705) 378-5123
 HCS (705) 378-2416
 DATE *Alm*

SAMPLE DIRECTORY/NUMBER: DATA3 /100
SAMPLE ID: Hole 89-24 # 156
SUBMITTER: # 29
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 09:23:37 09/11/90
REPRT 09:56:07 08/28/91
TOT RUN TIME 0:18:11
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7268 cp

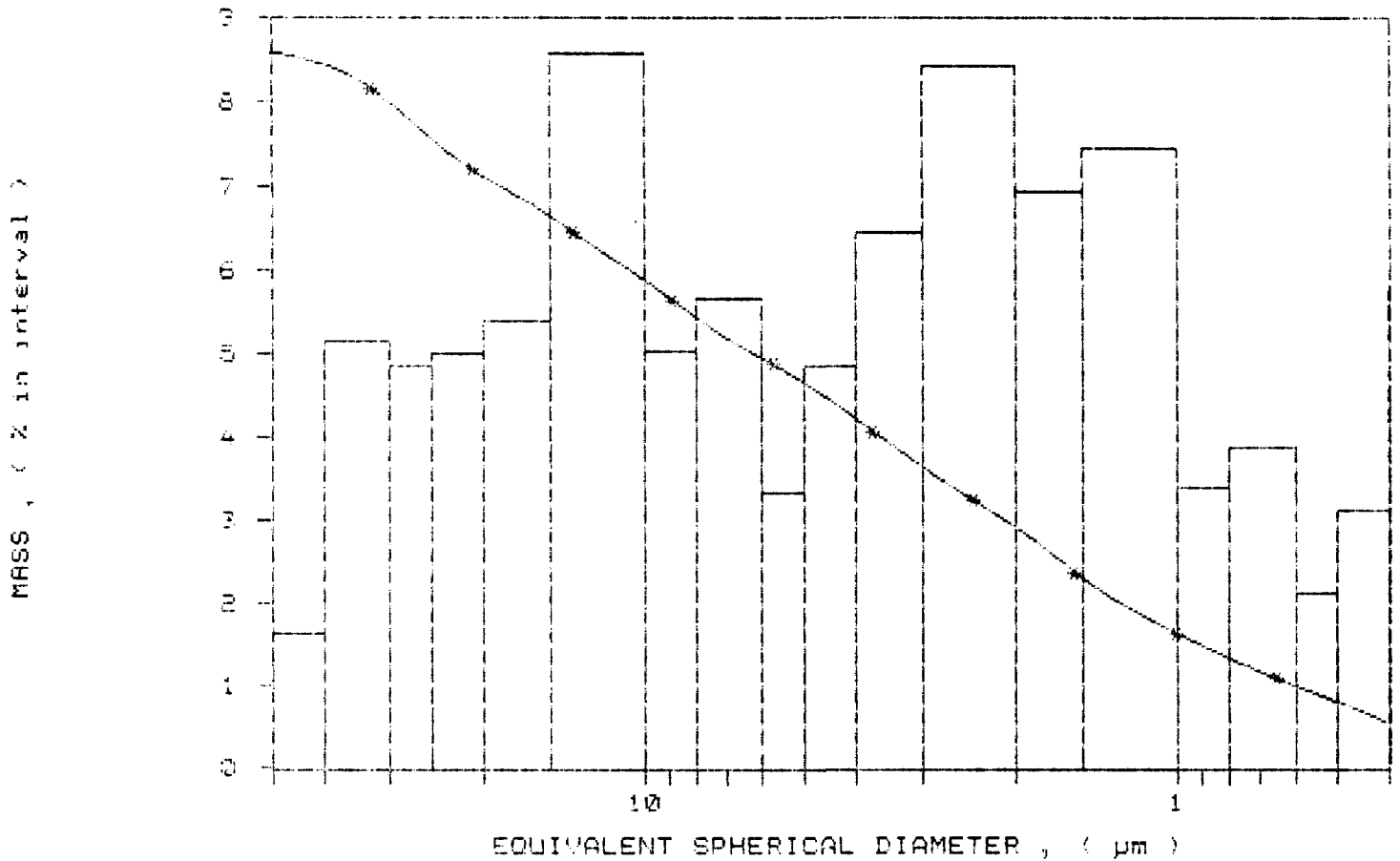
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /100
 SAMPLE ID: Hole 89-24 # 158
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:23:57 09/11/90
 REPT 09:56:07 08/28/91
 TOT RUN TIME 0:18:11
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /102
 SAMPLE ID: Hole 89-24 # 157
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 11:07:09 09/11/90
 REPRY 10:03:53 08/28/91
 TOT RUN TIME 0:17:56
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7265 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

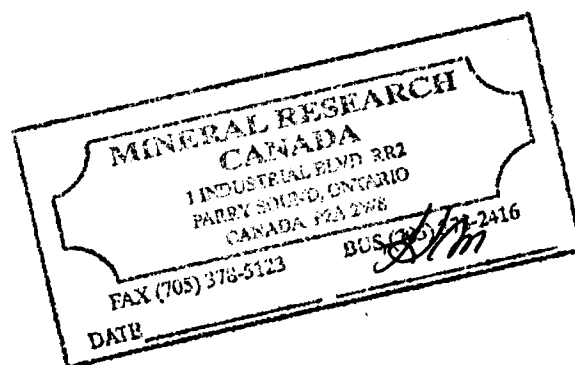
REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 4.45 μ m

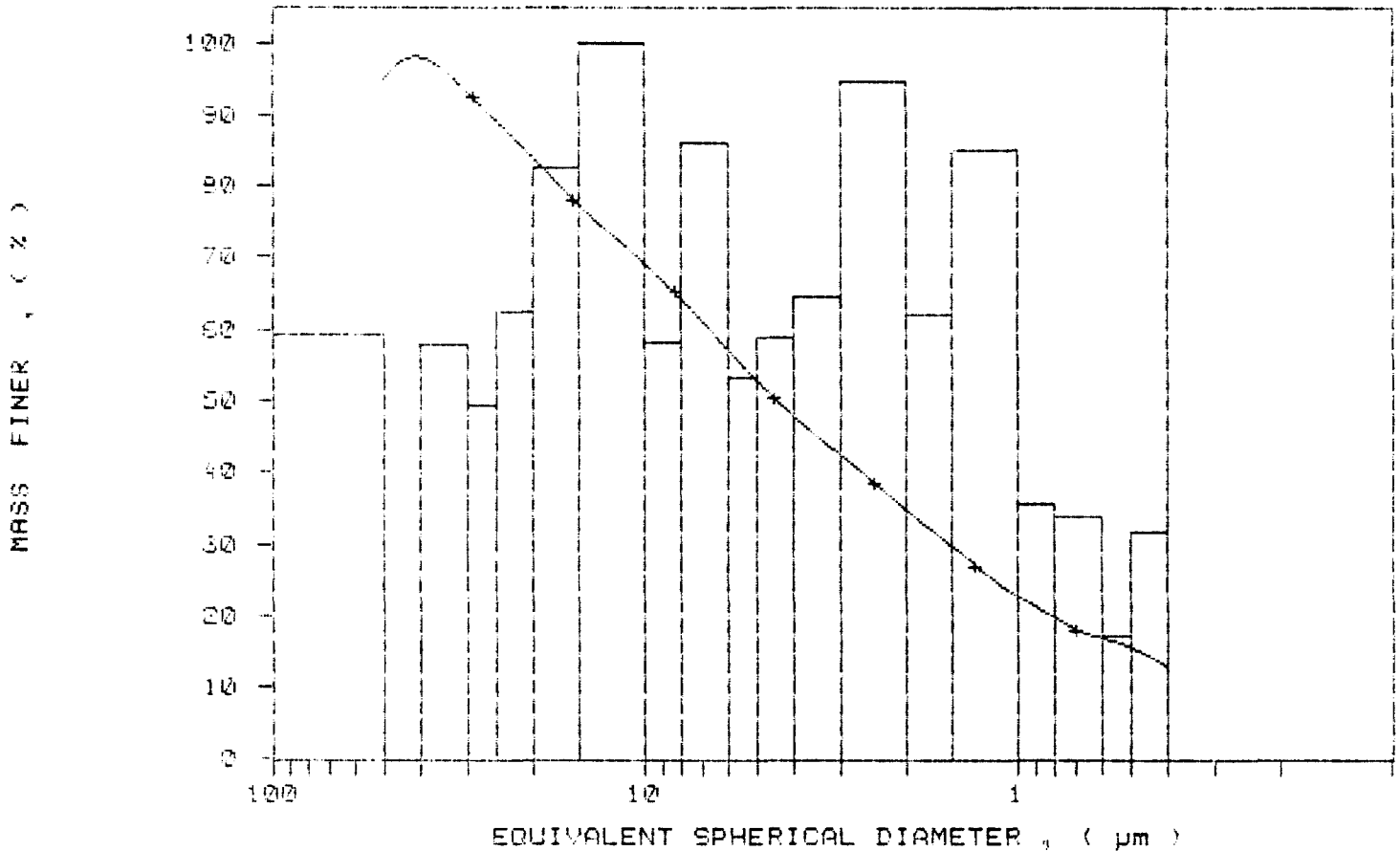
MODAL DIAMETER: 6.28 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	95.1	4.9
40.00	97.9	2.8
30.00	99.1	1.8
25.00	99.6	0.5
20.00	99.9	0.1
15.00	99.9	0.1
10.00	99.9	0.1
8.00	99.9	0.1
6.00	99.9	0.1
5.00	99.9	0.1
4.00	99.9	0.1
3.00	99.9	0.1
2.00	99.9	0.1
1.50	99.9	0.1
1.00	99.9	0.1
0.80	99.9	0.1
0.60	99.9	0.1
0.50	99.9	0.1
0.40	99.9	0.1



SAMPLE DIRECTORY/NUMBER: DATA2 /102	UNIT NUMBER: 1
SAMPLE ID: Hole 89-24 # 157	START 11:07:09 09/11/90
SUBMITTER: # 39	REPT 10:03:53 08/28/91
OPERATOR: KM	TOT RUN TIME 0:17:56
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	LIQ VISC: 0.7265 cp
RUN TYPE: Standard	

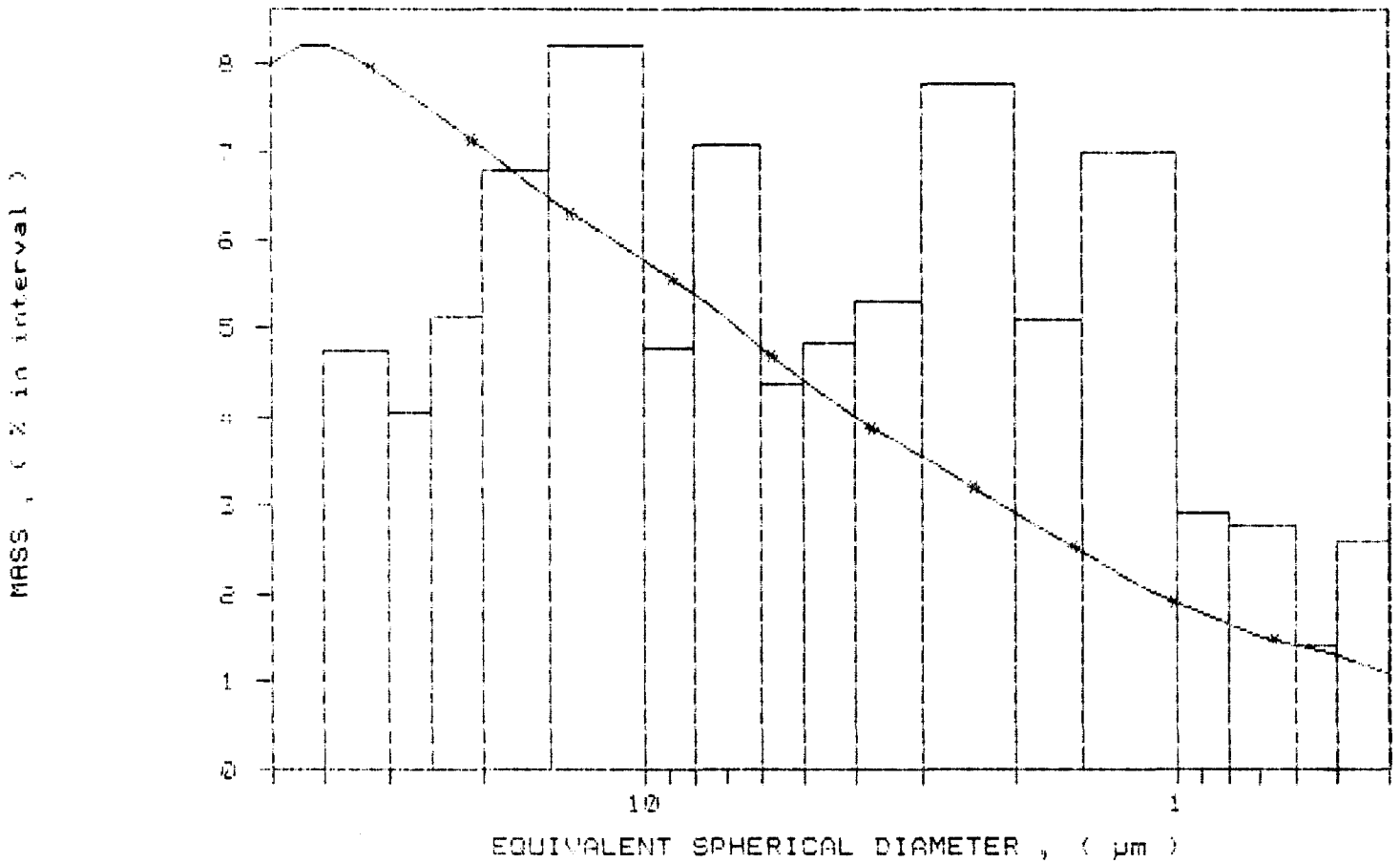
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /102
 SAMPLE ID: Hole 89-24 # 157
 SUBMITTER: # 33
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 11:07:09 09/11/90
 REPT 10:03:53 08/28/91
 TOT RUN TIME 0:17:56
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7265 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.03

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA3 /103
 SAMPLE ID: hole 89-24 # 158
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:27:07 09/12/90
 REPRT 10:11:37 08/28/91
 TOT RUN TIME 0:17:41
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 3.05 μ m MODAL DIAMETER: 2.47 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	96.9	3.1
40.00	95.0	1.9
30.00	93.7	1.3
25.00	91.7	2.0
20.00	88.4	3.3
15.00	83.6	4.8
10.00	78.0	5.6
8.00	75.3	2.7
6.00	68.6	6.6
5.00	63.6	5.0
4.00	57.2	6.4
3.00	49.5	7.7
2.00	35.9	13.6
1.50	27.6	8.3
1.00	18.0	9.6
0.80	13.5	4.6
0.60	10.1	3.3
0.50	8.5	1.2
0.40	4.9	4.6

**MINERAL RESEARCH
 CANADA**
 1 INDUSTRIAL BLVD. RR2
 PARKY BOUND, ONTARIO
 CANADA P2A 2W8
 FAX (705) 378-5123 BUS (705) 378-2416
 DATE *ATM*

Clay

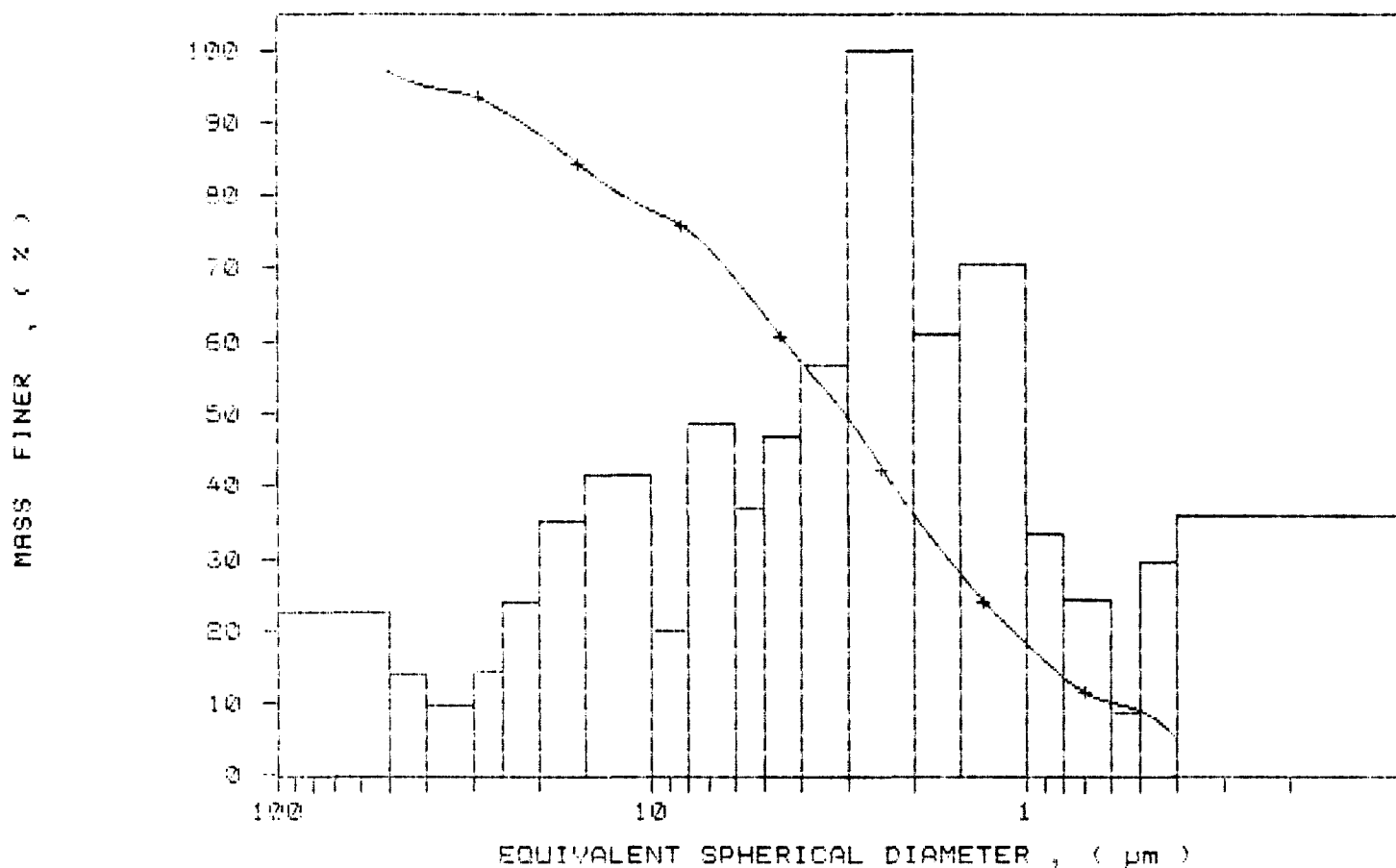
Sediograph 5100 V2.03

PAGE 2

SAMPLE DIRECTORY/NUMBER: DATAS /103
 SAMPLE ID: hole 89-24 # 153
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:27:07 09/12/90
 REPT 10:11:57 08/28/91
 TOT RUN TIME 0:17:41
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

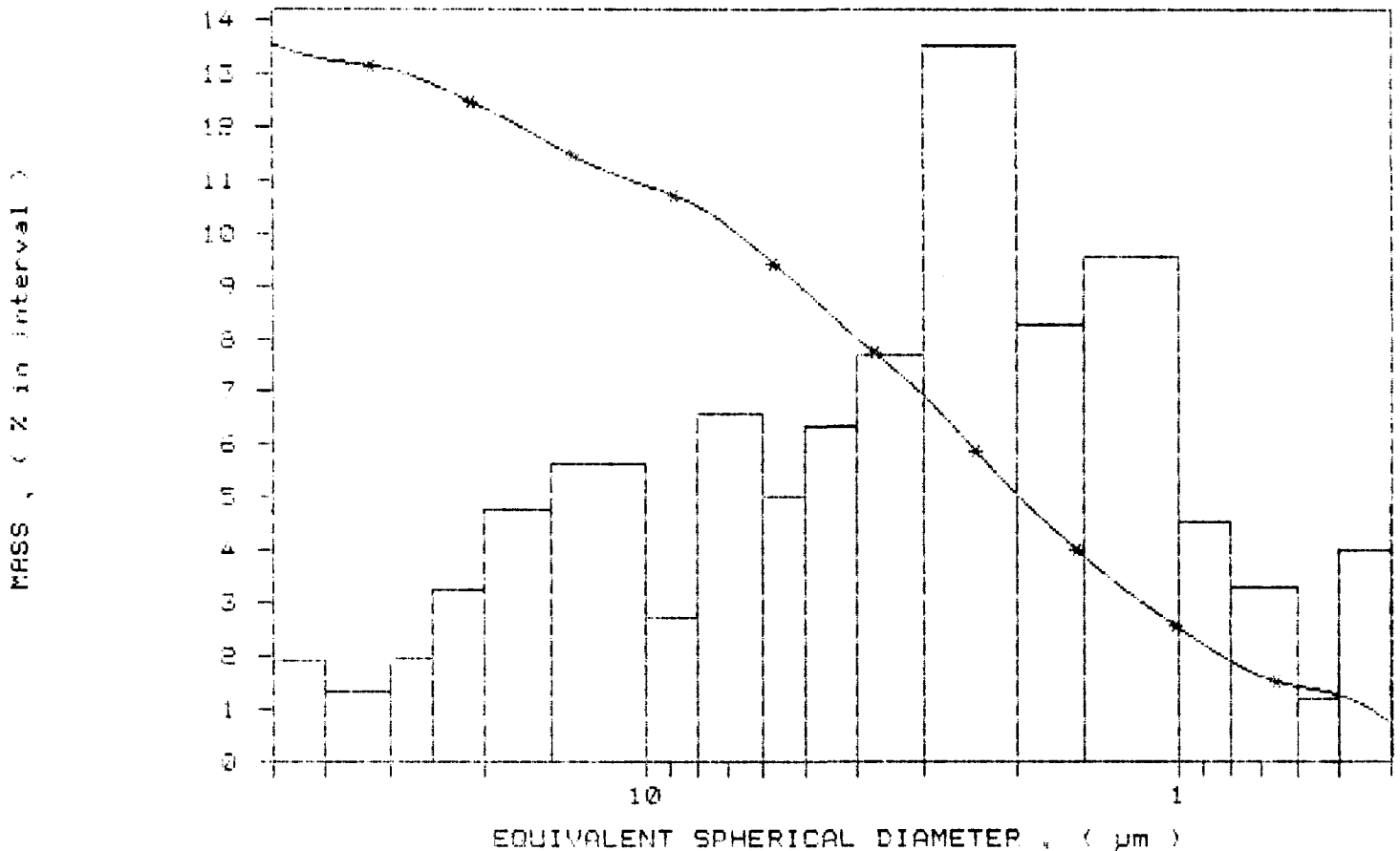
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /105
 SAMPLE ID: hole 89-24 # 158
 SUBMITTER: # 35
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 54.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:27:07 09/12/90
 REPT 10:11:37 08/28/91
 TOT RUN TIME 0:17:41
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.03

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /109
 SAMPLE ID: Hole 89-24 B 159
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:57:11 09/12/90
 REPR1 10:19:20 08/28/91
 TOT RUN TIME 0:17:44
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7267 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.91 μ m MODAL DIAMETER: 1.68 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	97.7	2.3
40.00	96.9	0.8
30.00	93.2	3.7
25.00	90.0	3.2
20.00	86.1	3.8
15.00	82.2	4.0
10.00	76.0	6.2
8.00	72.4	3.6
6.00	67.1	5.3
5.00	62.0	4.1
4.00	57.8	5.3
3.00	50.8	7.0
2.00	39.7	11.0
1.50	30.4	9.4
1.00	22.1	8.3
0.75	19.0	3.0
0.60	16.2	2.8
0.50	14.6	1.4
0.40	11.5	3.2

MINERAL RESEARCH
 CANADA
 1 INDUSTRIAL BLVD. #12
 BARRY BOUND, ONTARIO
 CANADA P2A 1W8
 FAX (705) 373-5123 BUS (705) 378-2416
 DATE *8/10/91*

Clay

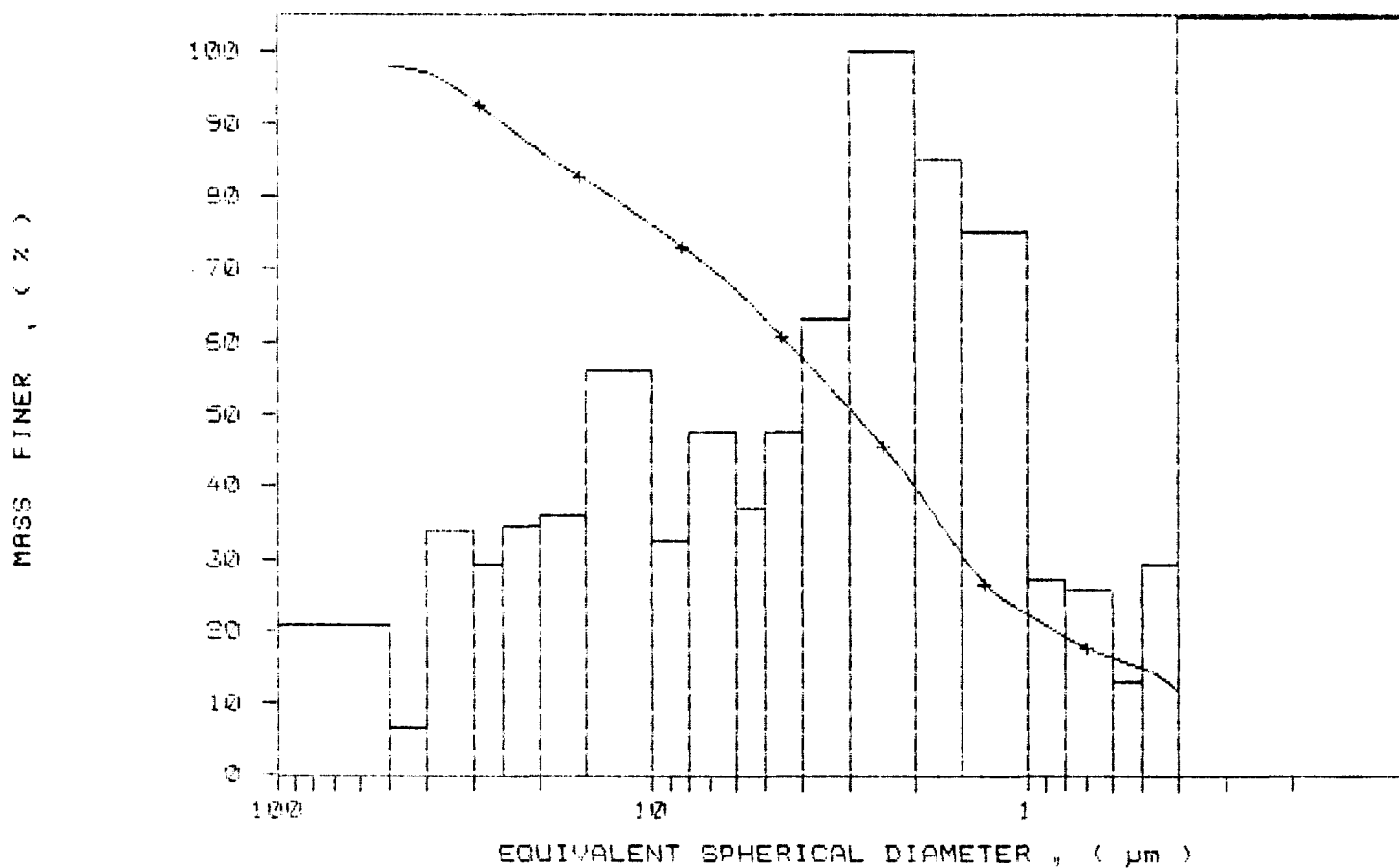
Sedigraph 5100 V2.03

PAGE 2

SAMPLE DIRECTORY/NUMBER: DATAS /109
 SAMPLE ID: Hole 89-24 S 109
 SUBMITTER: # 09
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:57:11 09/12/90
 REPT 10:19:20 08/28/91
 TOT RUN TIME 0:17:44
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7267 cp

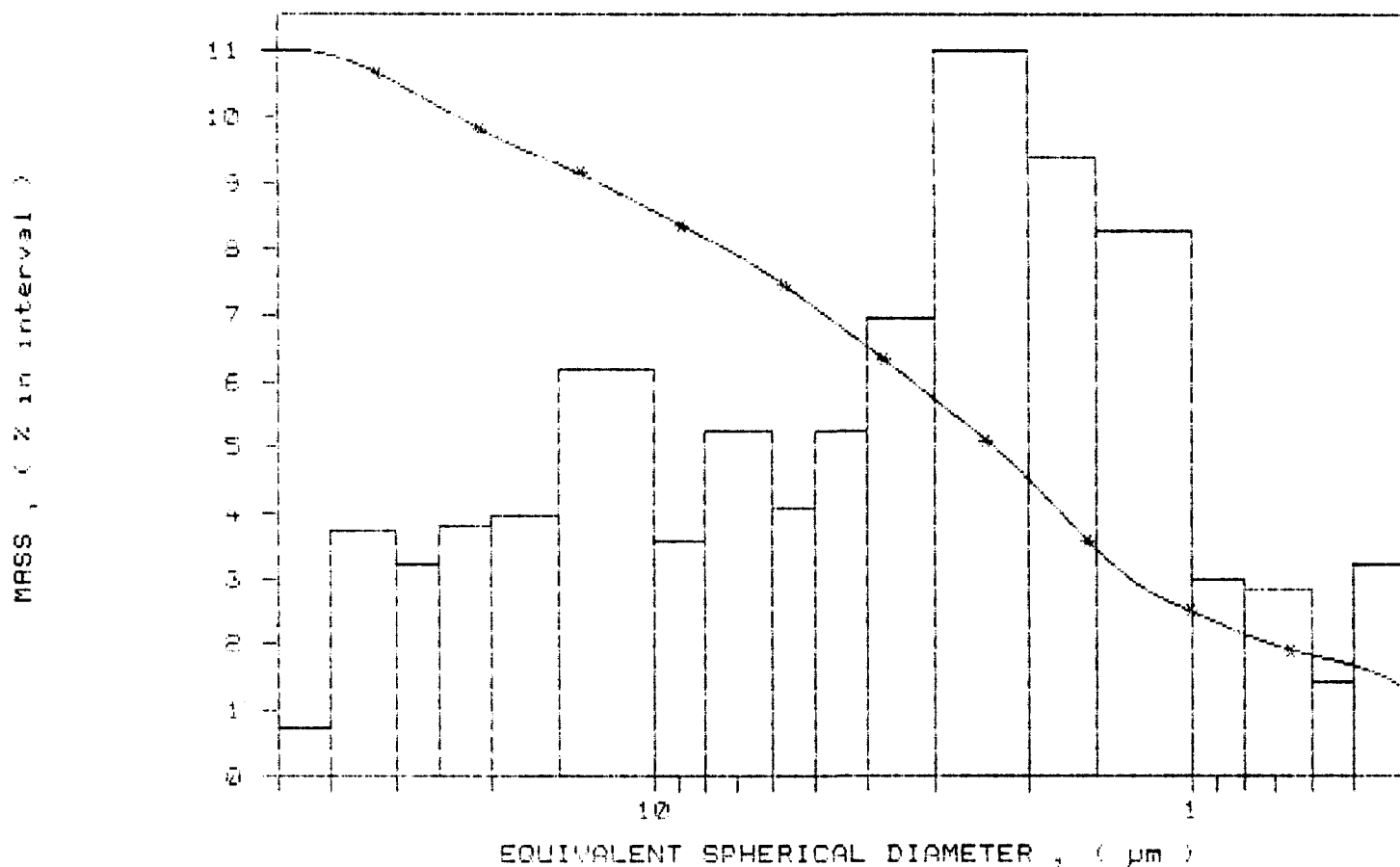
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /109
 SAMPLE ID: Hole 89-24 3 159
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:57:11 09/12/90
 REPT 10:19:20 08/28/91
 TOT RUN TIME 0:17:44
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7267 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /110
 SAMPLE ID: Hole 89-24 # 160
 SUBMITTER: # 35
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 11:43:48 09/13/90
 REPT 10:27:06 08/28/91
 TOT RUN TIME 0:08:01
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7265 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 12.14 μ m

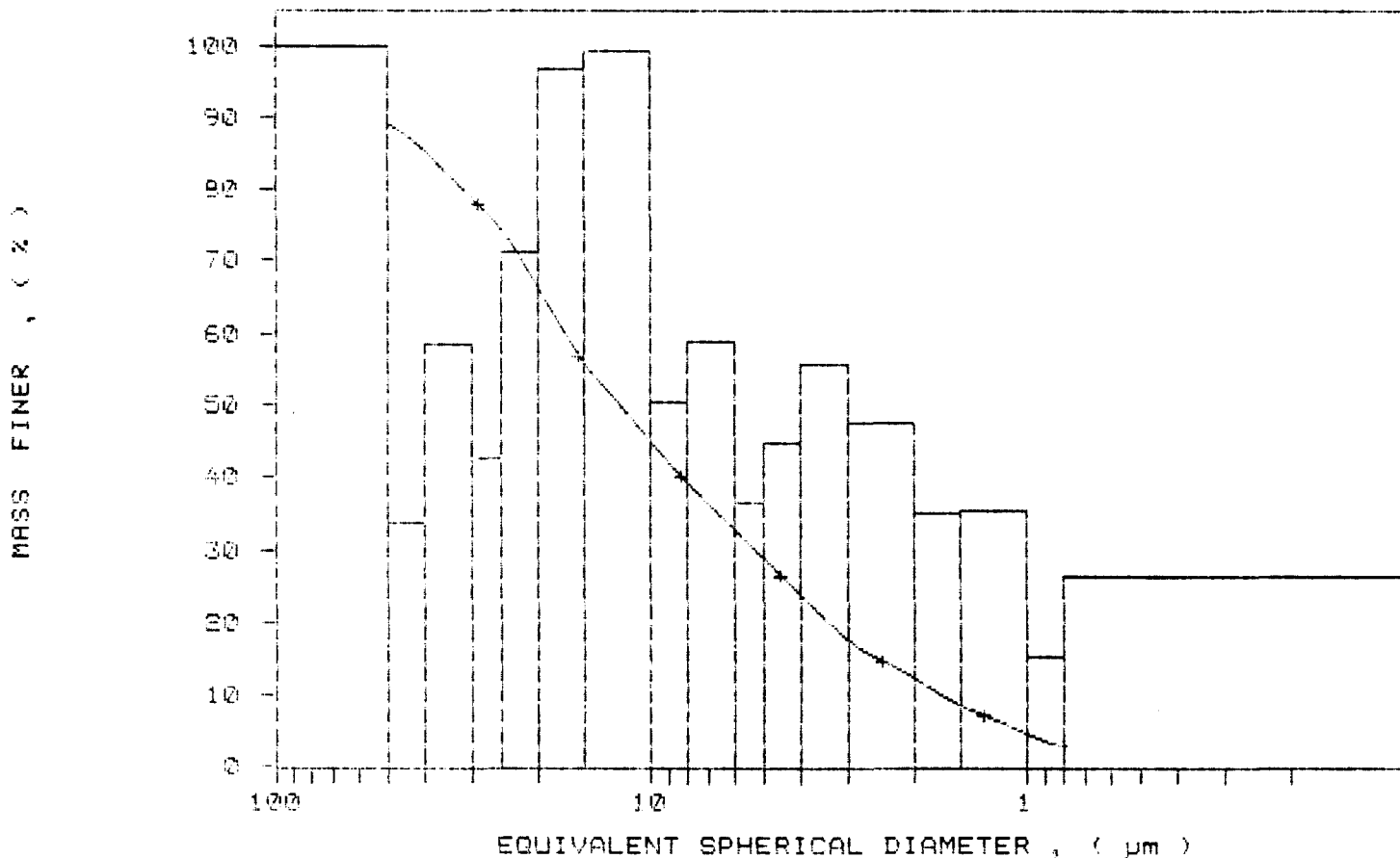
MODAL DIAMETER: 19.10 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	89.0	11.0
40.00	85.3	3.7
30.00	78.9	6.4
25.00	74.2	4.7
20.00	66.3	7.9
15.00	55.7	10.6
10.00	44.8	10.9
8.00	39.2	5.6
6.00	32.8	6.5
5.00	28.7	4.1
4.00	23.8	4.9
3.00	17.6	6.1
2.00	12.4	5.2
1.50	8.5	3.9
1.00	4.6	3.9
0.80	2.9	1.7



SAMPLE DIRECTORY/NUMBER: DATA3 /110	UNIT NUMBER: 1
SAMPLE ID: Hole 20-24 # 160	START 11:43:48 09/13/90
SUBMITTER: # 29	REPR1 10:27:06 03/28/91
OPERATOR: KM	TOT RUN TIME 0:08:01
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	L1Q DENS: 0.9942 g/cc
ANALYSIS TEMP: 24.7 deg C	L1Q VISC: 0.7266 cp
RUN TYPE: Standard	

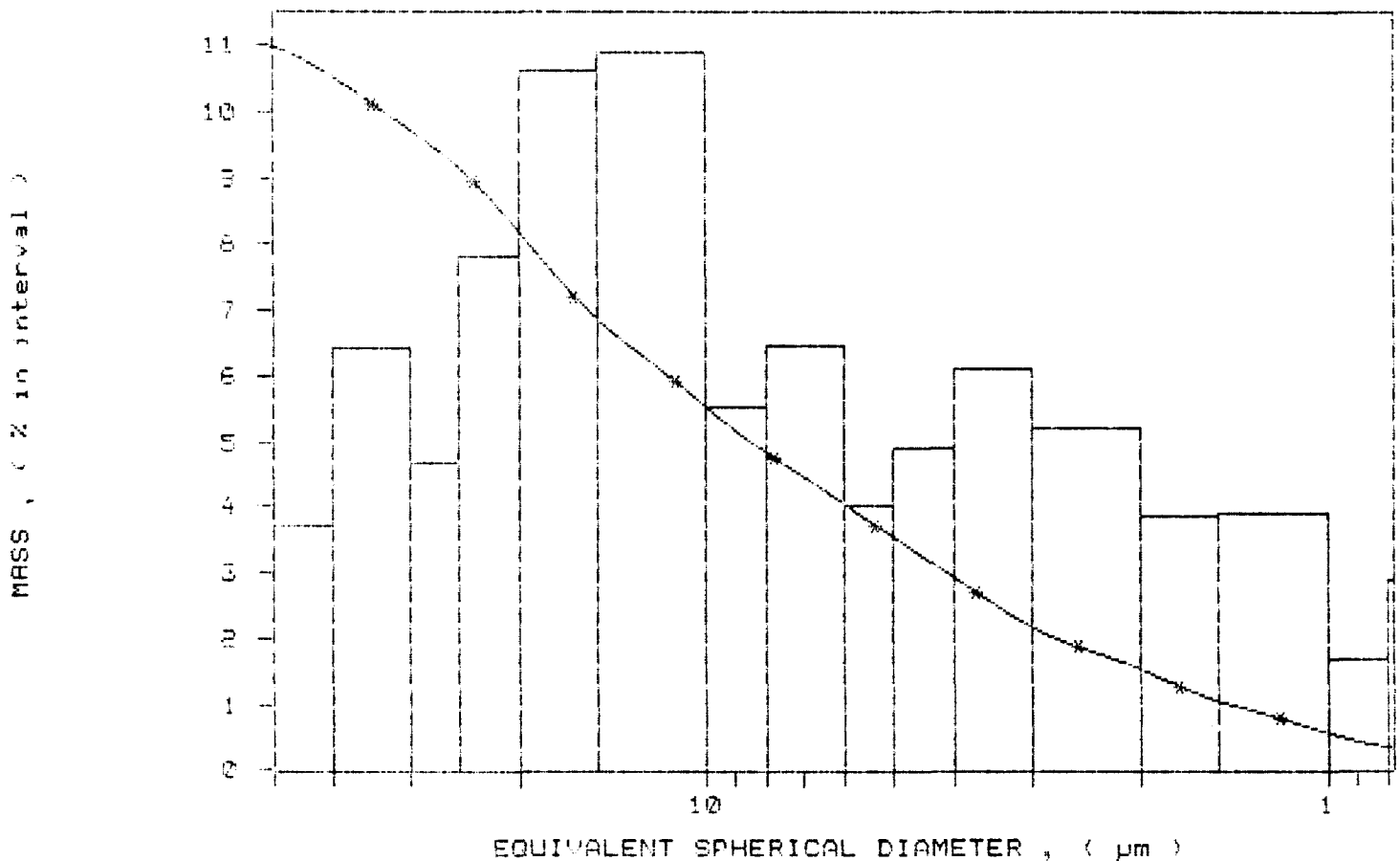
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /110
 SAMPLE ID: Hole 89-24 # 160
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 11:48:48 09/13/90
 REPT 10:27:06 08/28/91
 TOT RUN TIME @:08:01
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7266 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

Sediograph 5100 V2.03

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /116
 SAMPLE ID: Hole 89-24 # 161
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:59:21 09/17/90
 REPT 10:34:45 08/28/91
 TOT RUN TIME 0:17:56
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7273 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.45 μ m

MODAL DIAMETER: 0.40 μ m

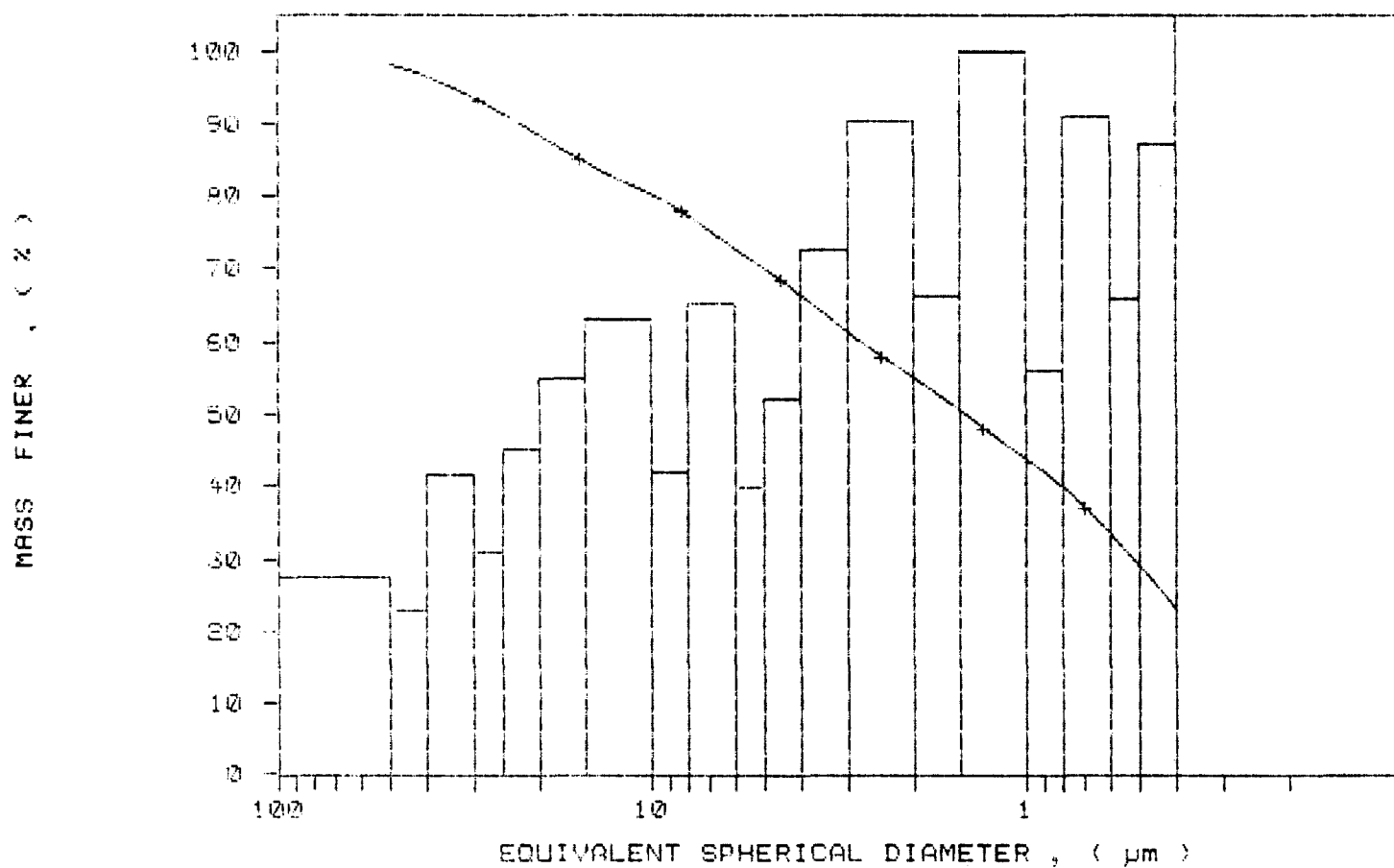
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.1	1.9
40.00	96.5	1.6
30.00	93.6	2.9
25.00	91.5	2.1
20.00	88.4	3.1
15.00	84.6	3.8
10.00	80.2	4.4
8.00	77.3	2.9
6.00	72.3	4.5
5.00	70.6	2.8
4.00	66.4	3.6
3.00	61.4	5.0
2.00	55.1	6.3
1.50	50.5	4.6
1.00	43.6	6.9
0.80	39.7	3.9
0.60	33.4	6.3
0.50	28.9	4.6
0.40	22.9	6.0

MINERAL RESEARCH
 CANADA
 1 INDUSTRIAL SEVE. RR2
 PARKY SOUND, ONTARIO
 CANADA P2A 1V8
 FAX (705) 378-5123
 BUS (705) 378-2416
 DATE *Alm*

SAMPLE DIRECTORY/NUMBER: DATA3 /116
 SAMPLE ID: Hole 89-24 # 161
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:59:21 09/17/90
 REPRY 10:34:45 08/28/91
 TOT RUN TIME 0:17:56
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7273 cp

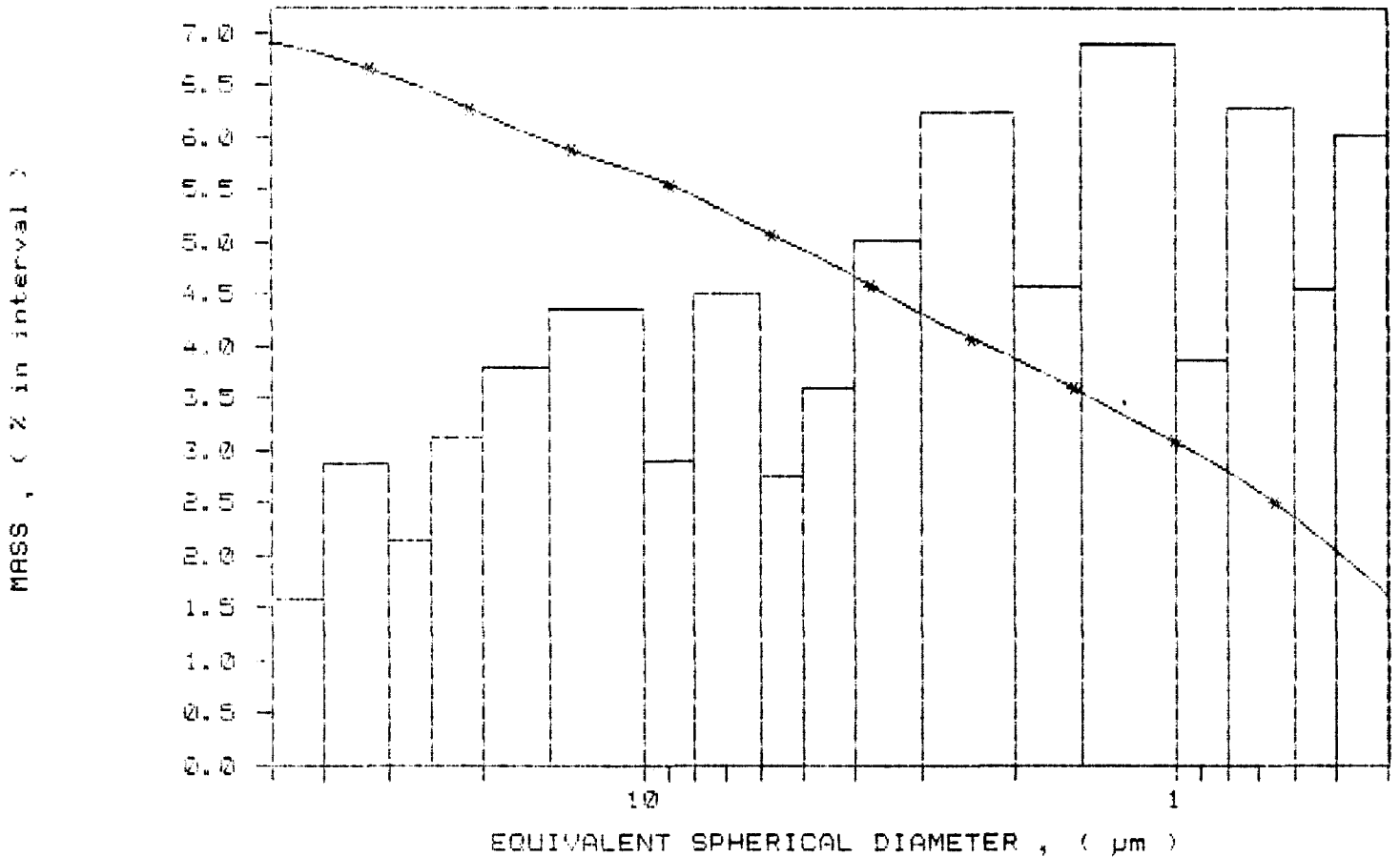
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /116
 SAMPLE ID: Hole 89-24 # 161
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:59:21 09/17/90
 REPR1 10:34:45 08/28/91
 TOT RUN TIME 0:17:56
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7273 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /119
 SAMPLE ID: Hole 89-24 # 162
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 13:31:14 09/17/90
 REPT 10:42:32 08/28/91
 TOT RUN TIME 0:18:06
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.25 μ m

MODAL DIAMETER: 0.40 μ m

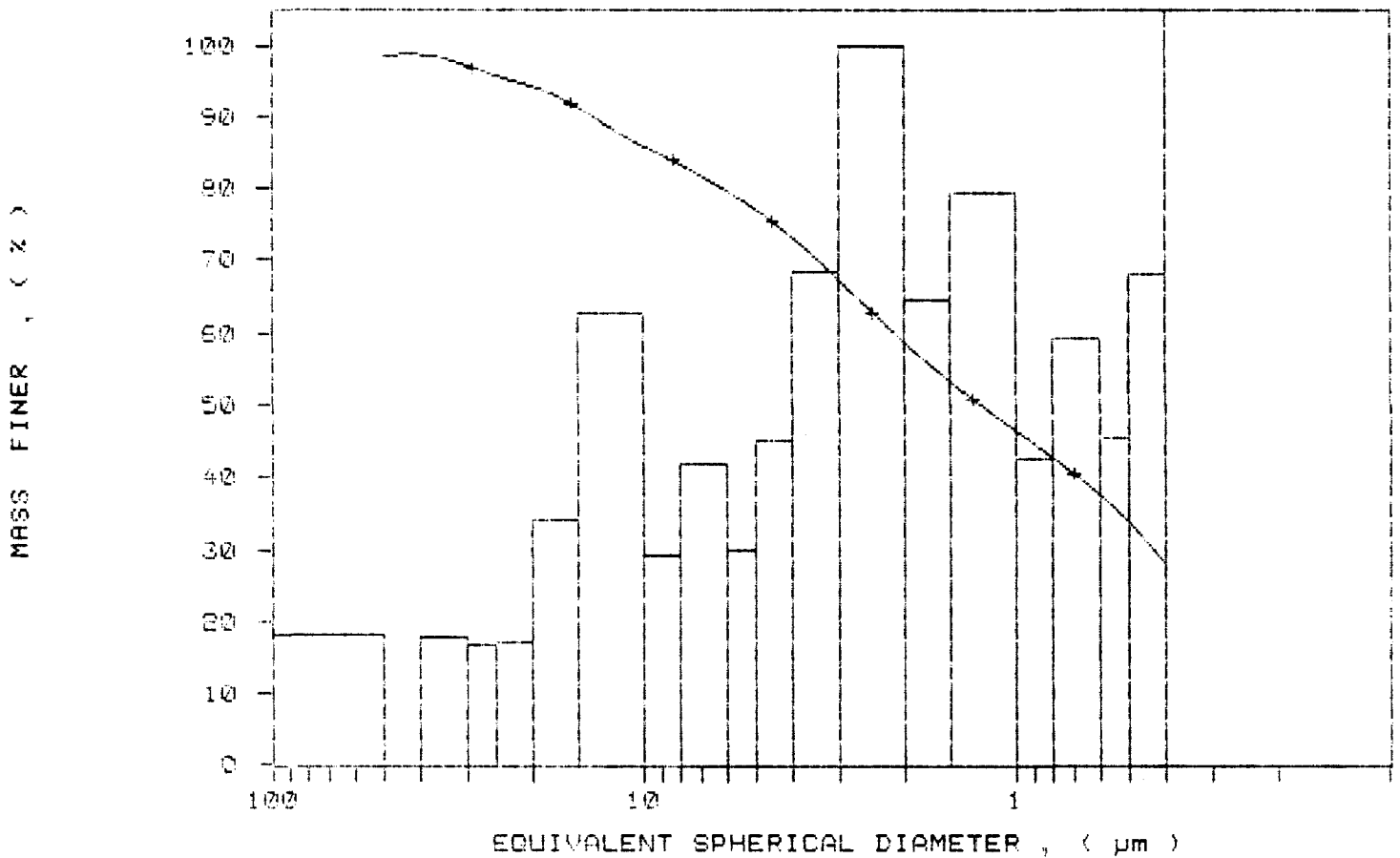
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.4	1.6
40.00	98.6	-0.2
30.00	97.1	1.6
25.00	95.6	1.4
20.00	94.2	1.5
15.00	91.2	2.9
10.00	85.8	5.4
8.00	83.8	2.5
6.00	79.7	6.6
5.00	77.1	2.6
4.00	73.2	6.9
3.00	67.3	6.9
2.00	56.7	8.6
1.50	53.1	6.6
1.00	46.3	6.8
0.80	42.6	3.7
0.60	37.5	5.1
0.50	33.6	3.9
0.40	27.8	5.9



SAMPLE DIRECTORY/NUMBER: DATA3 /119
SAMPLE ID: Hole 89-24 # 162
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 13:31:14 09/17/90
REPRT 10:42:32 08/28/91
TOT RUN TIME 0:18:06
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7271 cp

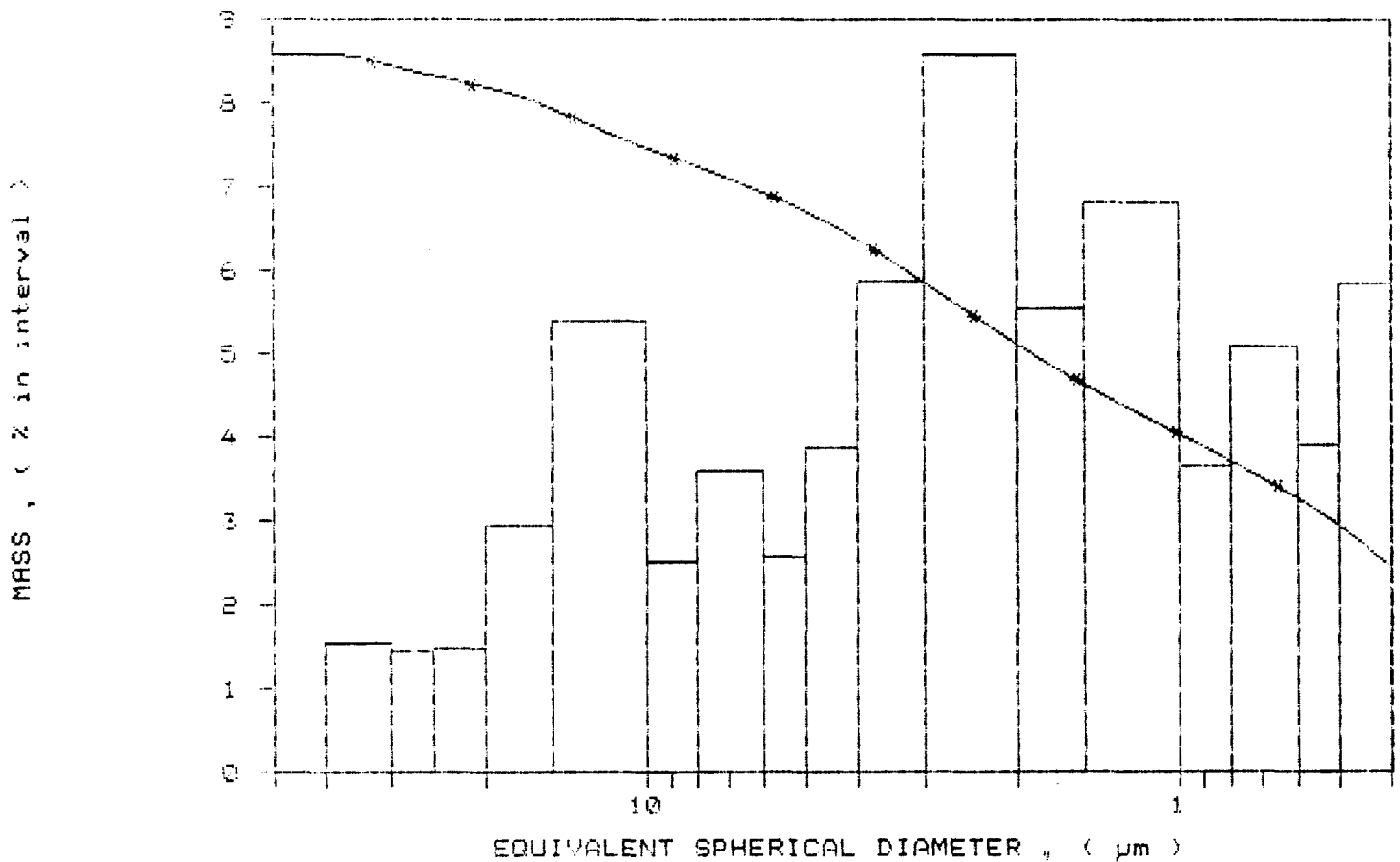
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /119
 SAMPLE ID: Hole 89-24 # 162
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 13:31:14 09/17/90
 REPT 10:42:32 08/28/91
 TOT RUN TIME 0:18:06
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /120
 SAMPLE ID: Hole 89-24 # 163
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 14:11:03 09/17/90
 REPT 10:50:18 08/28/91
 TOT RUN TIME 0:18:02
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

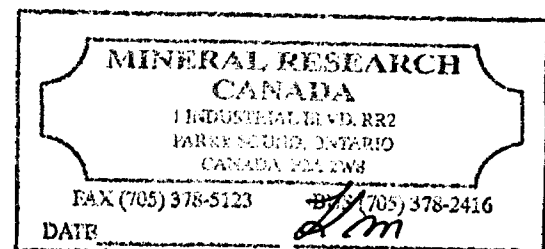
REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.22 μ m

MODAL DIAMETER: 0.50 μ m

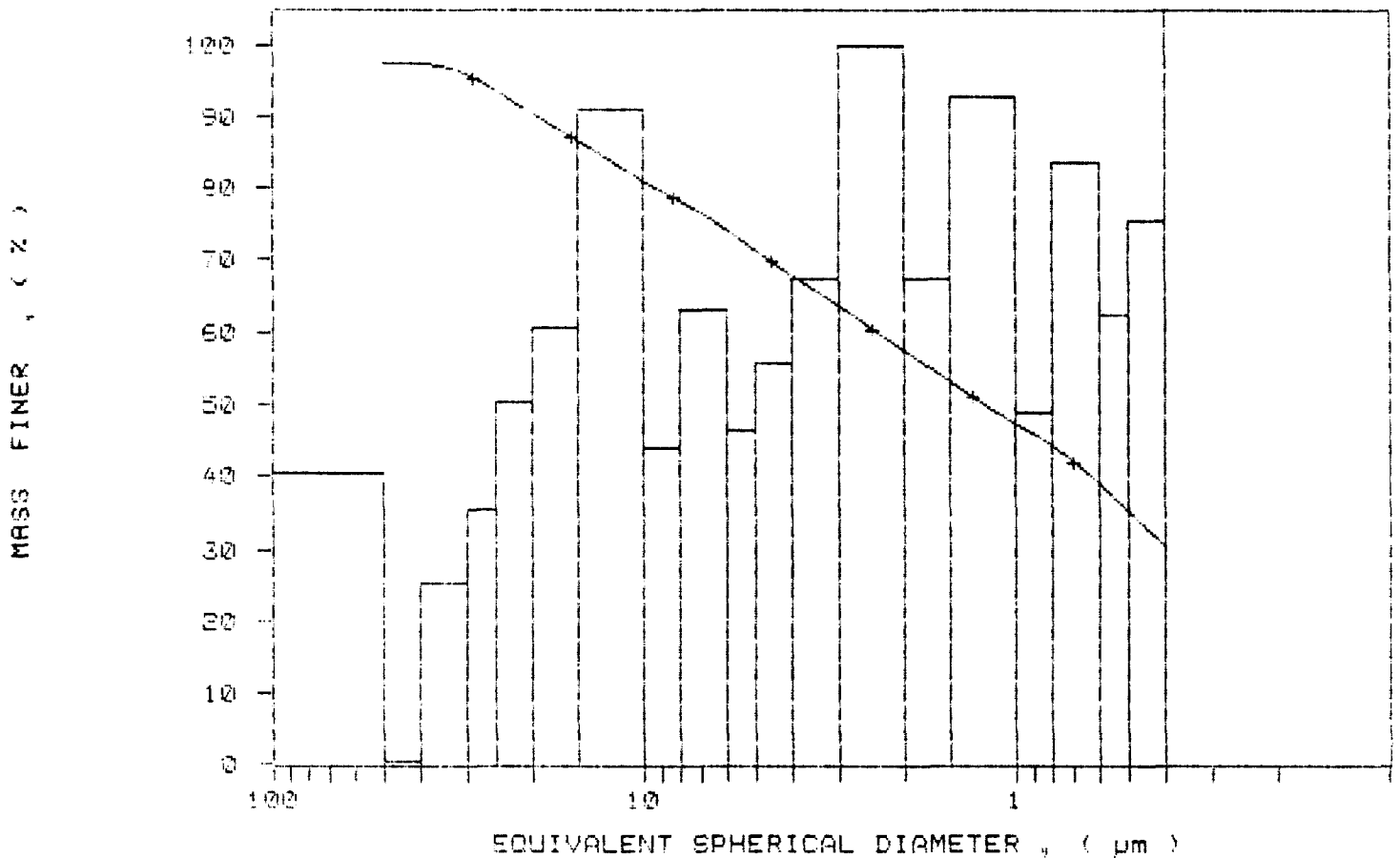
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	57.5	2.5
40.00	57.4	0.0
30.00	95.6	1.6
25.00	98.6	2.2
20.00	90.4	8.2
15.00	86.6	3.8
10.00	80.9	5.7
8.00	78.2	2.8
6.00	74.2	3.9
5.00	71.3	2.9
4.00	67.8	3.5
3.00	63.6	4.2
2.00	57.4	6.2
1.50	55.2	4.2
1.00	47.3	5.8
0.80	44.3	3.1
0.60	39.0	5.2
0.50	35.1	3.9
0.40	30.4	4.7



SAMPLE DIRECTORY/NUMBER: DATA3 /120
SAMPLE ID: Hole 89-24 # 153
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 14:11:03 09/17/90
REPT 10:50:18 08/28/91
TOT RUN TIME 0:18:02
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7271 cp

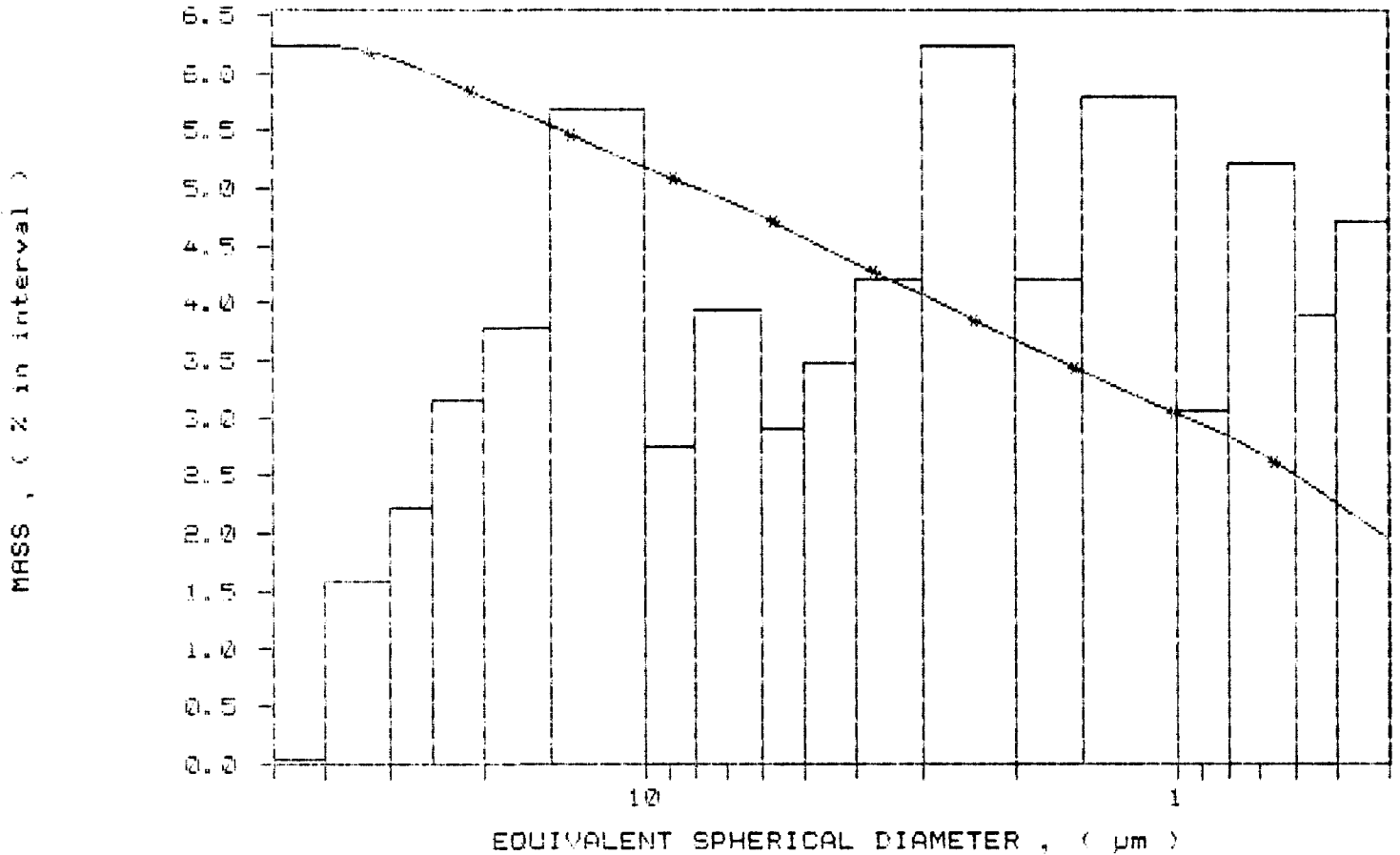
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /120
 SAMPLE ID: Hole 89-24 # 160
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 14:11:03 09/17/90
 REPT 10:50:18 08/28/91
 TOT RUN TIME 0:18:02
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.03

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA9 /121
 SAMPLE ID: Hole 89-24 # 164
 SUBMITTER: # 39
 OPERATOR: km
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 15:01:51 09/17/90
 REPR 10:58:06 08/28/91
 TOT RUN TIME 0:18:07
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7272 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

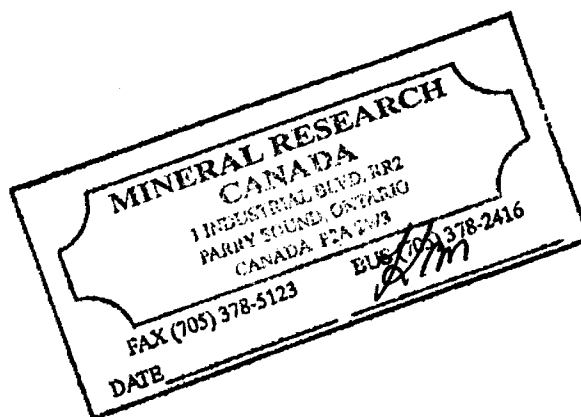
REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.40 μ m

MODAL DIAMETER: 2.48 μ m

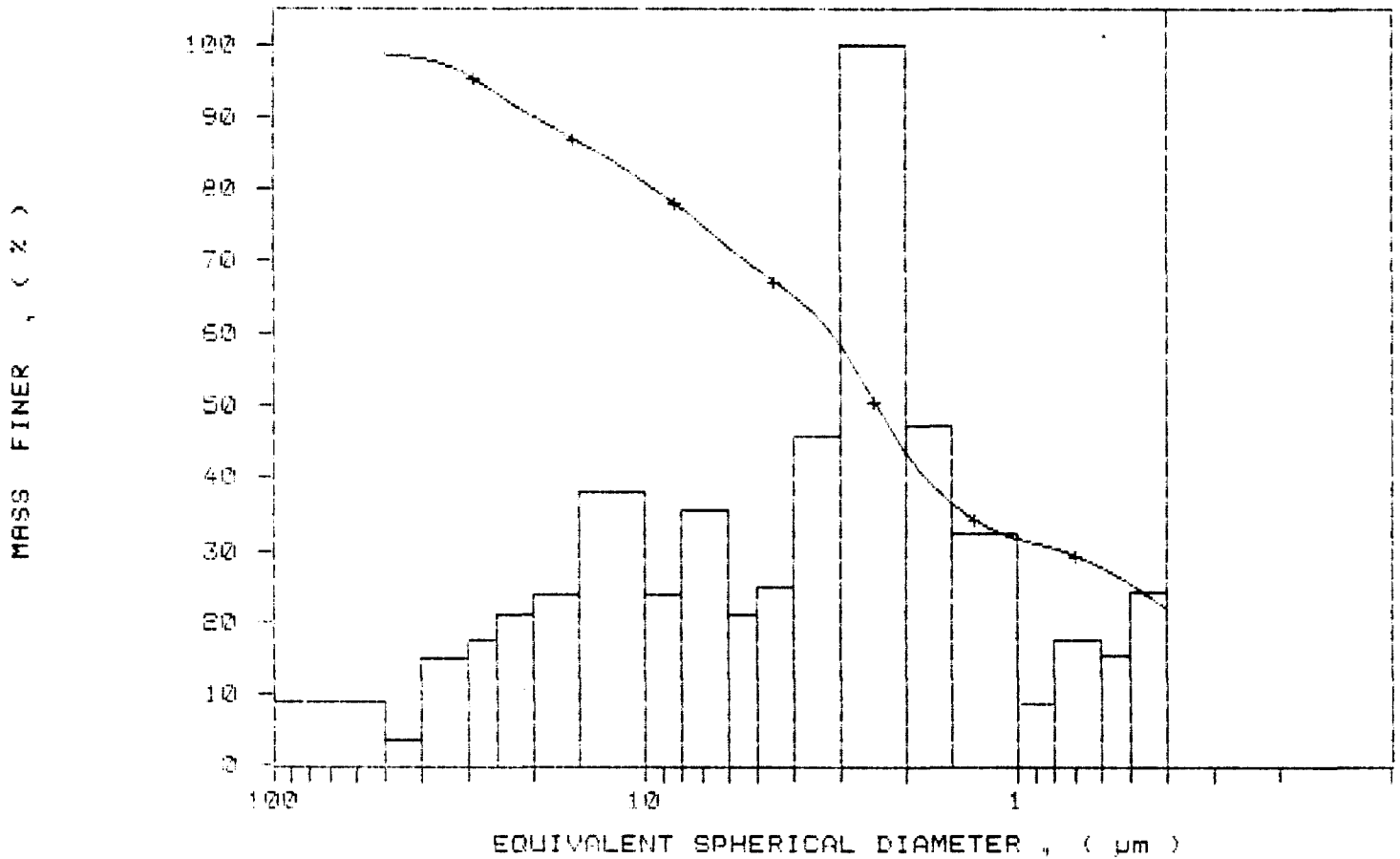
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.6	1.4
40.00	98.1	0.6
30.00	95.8	2.3
25.00	96.2	2.6
20.00	90.1	3.1
15.00	86.3	3.6
10.00	80.8	5.7
8.00	77.3	3.6
6.00	72.0	5.3
5.00	68.8	3.1
4.00	65.1	3.7
3.00	58.6	6.8
2.00	48.4	14.8
1.50	36.4	7.0
1.00	31.6	4.8
0.80	30.3	1.3
0.60	27.7	2.6
0.50	25.3	2.3
0.40	21.7	3.6



SAMPLE DIRECTORY/NUMBER: DATAS /121
 SAMPLE ID: Hole 89-24 # 164
 SUBMITTER: # 29
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 15:01:51 09/17/90
 REPT 10:58:06 08/28/91
 TOT RUN TIME 0:18:07
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7272 cp

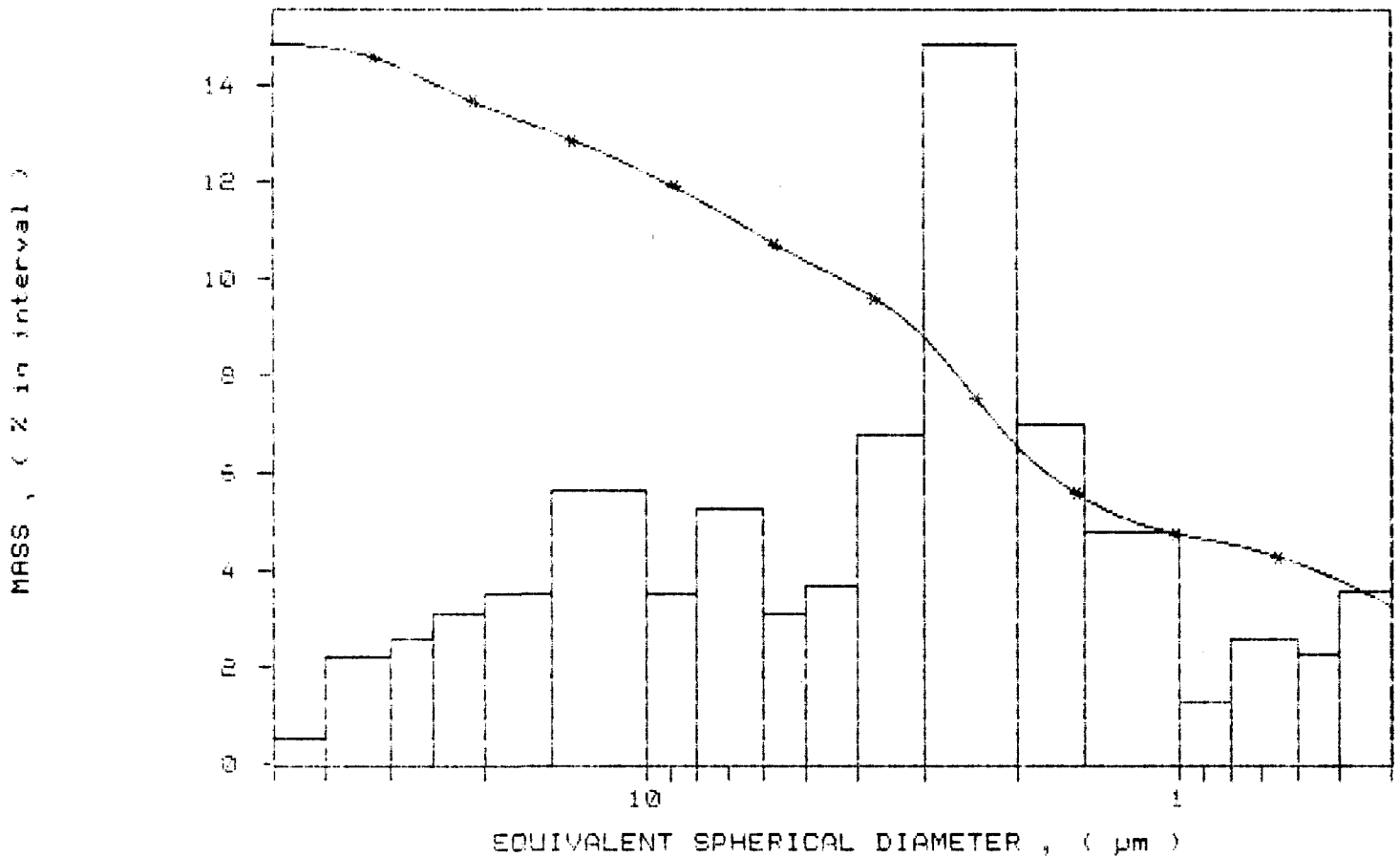
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /121
 SAMPLE ID: Hole 89-24 # 164
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 15:01:51 09/17/90
 REPR1 10:58:06 08/28/91
 TOT RUN TIME 0:18:07
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7272 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

Sediograph 5100 V2.03

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /122
 SAMPLE ID: Hole 29-24 # 165
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 15:41:59 09/17/90
 REPR1 11:05:47 09/28/91
 TOT RUN TIME 0:18:12
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 3.17 μ m

MODAL DIAMETER: 1.96 μ m

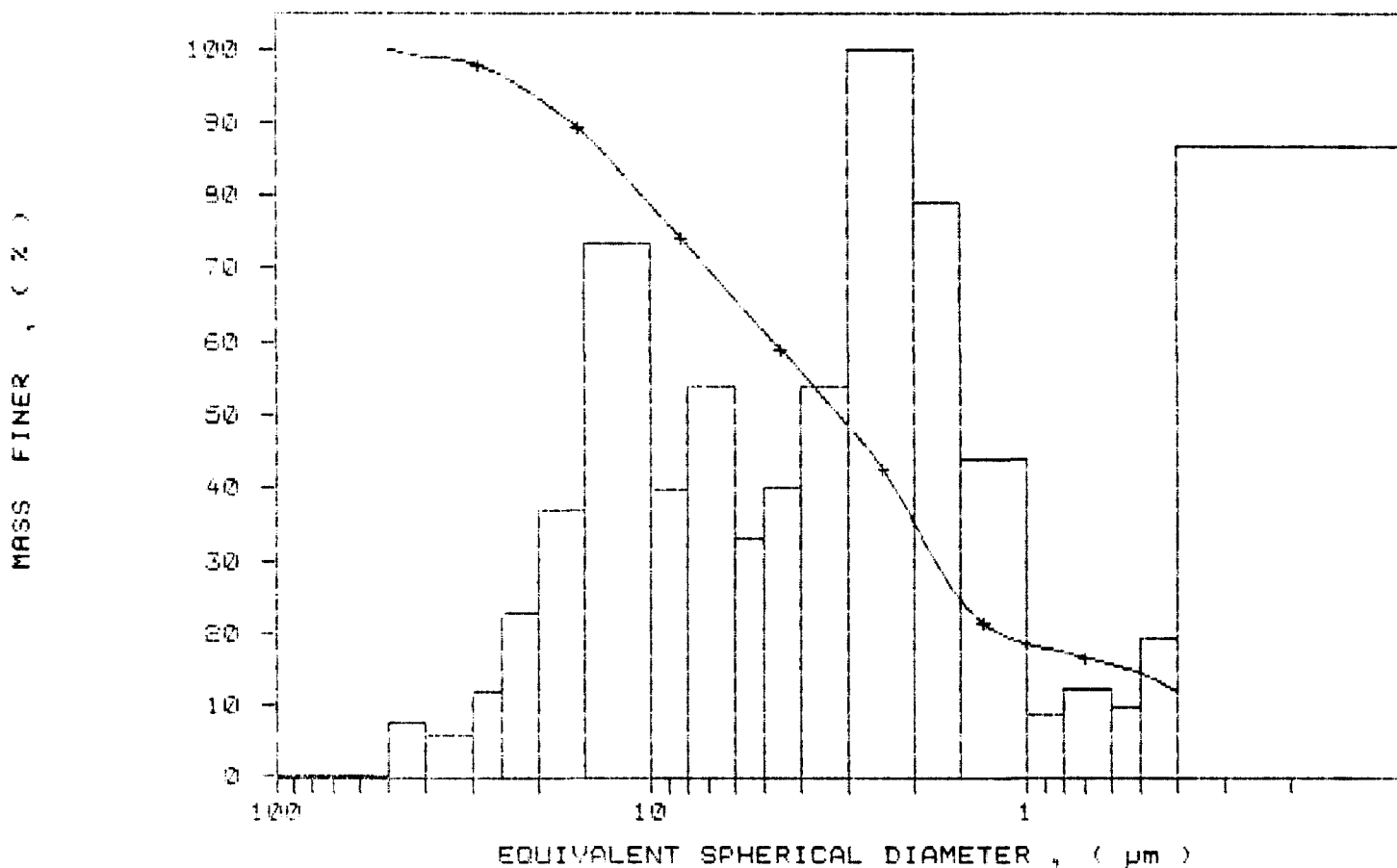
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	100.0	0.0
40.00	98.9	1.0
30.00	98.1	0.8
25.00	96.5	1.6
20.00	93.4	3.1
15.00	88.4	5.0
10.00	78.5	9.9
8.00	73.1	5.4
6.00	65.8	7.3
5.00	61.4	4.5
4.00	55.9	5.4
3.00	48.6	7.3
2.00	35.1	13.5
1.50	24.5	10.7
1.00	18.5	6.0
0.80	17.3	1.2
0.60	15.6	1.7
0.50	14.3	1.3
0.40	11.7	2.6

MINERAL RESEARCH CANADA
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8
 FAX (705) 378-5123
 TEL (705) 378-2416
 DATE _____
km

SAMPLE DIRECTORY/NUMBER: DATAS /122
SAMPLE ID: Hole 29-24 # 165
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 15:41:59 09/17/90
REPT 11:05:47 08/28/91
TOT RUN TIME 0:18:12
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7271 cp

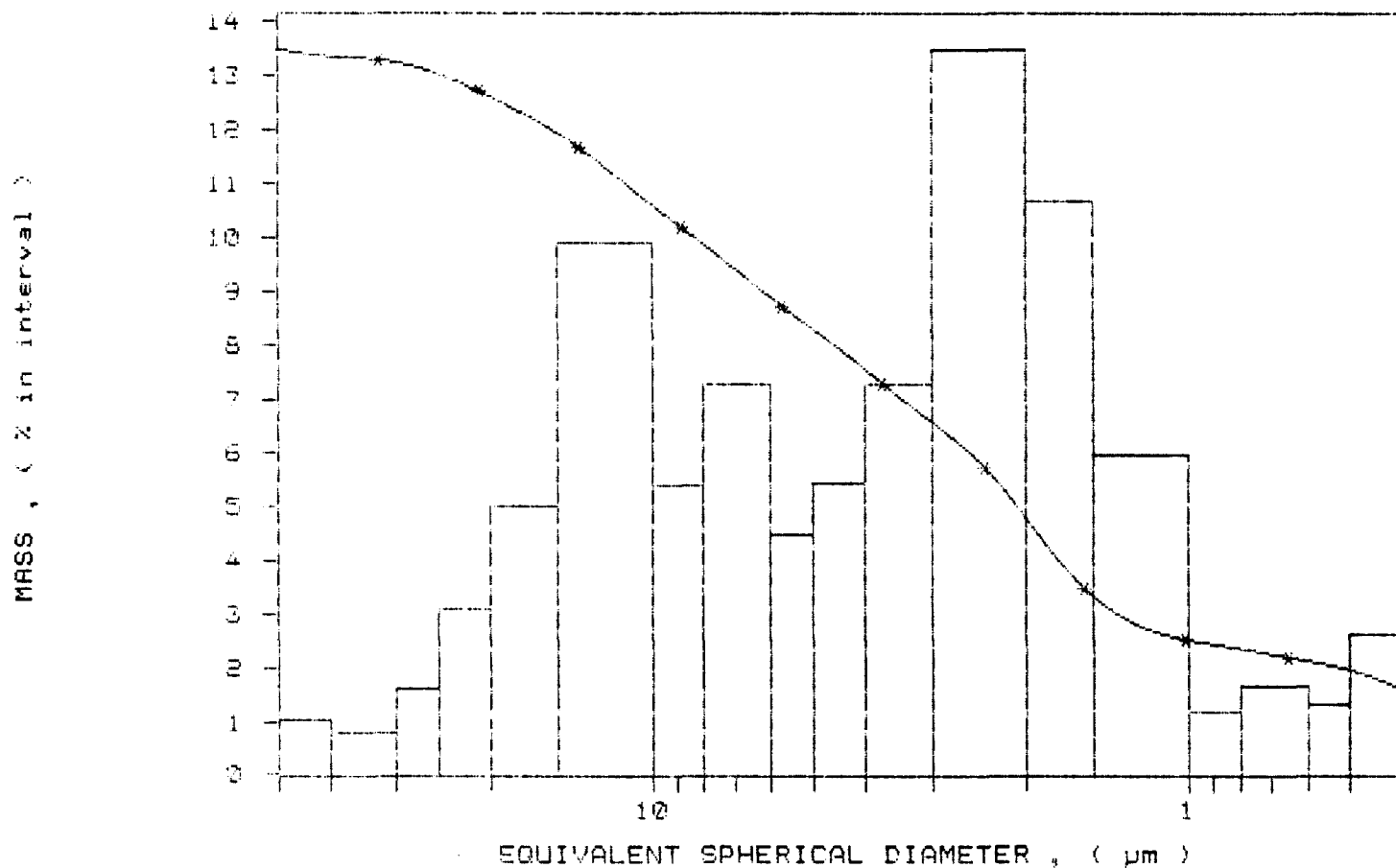
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /122
 SAMPLE ID: Hole 89-24 # 165
 SUBMITTER: # 29
 OPERATOR: RM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 15:41:59 09/17/90
 REPT 11:05:47 08/28/91
 TOT RUN TIME 0:16:12
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7271 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SONIC DRILL HOLE RECORD

Drilling Started: Feb. 4, 1989	Logged By: A. Casselman
Drilling Finished: Feb. 5, 1989	Logged: April 12, 1989
Drilling Co.: J. R. Drilling	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 250.0'	Mineral Research Canada
Overburden Depth: 55.0'	R. R. # 2
Claim No.: P 825805	Parry Sound, ON
Easting: 5779 E	P2A 2W8
Northing: 014 N	Elevation (Original): 333.0'
Azimuth: 50° 08' 51" W. 82° 08' 33" N.	
Location: 870.0' at 196° To Claim Post No. 1	
Property: Kipling	Elevation (Current): 231.0'
N. B.: This hole has been partially excavated -	
Material permanently removed.	Hole No.: 89-23

SUMMARY

From	To	Description
0.0'	6.5'	Peat
6.5'	12.0'	Sand
12.0'	24.0'	Glacial Clay Till
24.0'	27.0'	Gravel
27.0'	55.0'	Glacial Clay Till Overburden - Pleistocene
55.0'	107.5'	Kaolin Silica Sand (Kss) Cretaceous
107.5'	119.5'	Clay
119.5'	121.5'	Kss
121.5'	129.0'	Sandy Clay
129.0'	142.0'	Clay
142.0'	159.0'	Kss
159.0'	185.0'	Sandy Clay
185.0'	211.0'	Kss
211.0'	215.0'	Clay
215.0'	241.0'	Kss
241.0'	243.0'	Sandy Clay
243.0'	250.0'	Kss

MINERAL RESEARCH CANADA
 1 INDUSTRIAL BLVD. RR#
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8
 FAX (705) 378-5123 BUS (705) 378-2418
 DATE *Apr 12 1989* *A. Casselman*

Detail Log 89-23

From	To	Sample No.	Description
0.0'	6.0'		Peat
6.0'	12.0'		Sand - green with a grey tinge, well sorted, 7.0 - 10.0% clay matrix, 60.0 - 70.0% silica, coarsening downsection from 9.75' - 11.0' to coarse grain gravel - graded bedding.
12.0'	24.0'		Glacial Clay Till - green/grey, competent, 10.0 - 15.0% carbonate clasts, & 25.0% gneissic clasts up to 1.5".
24.0'	27.0'		Gravel - grey with a green tinge, coarse grain, minor clay content.
27.0'	55.0'		Glacial Clay Till - calcareous, competent, dark green/brown, as previous.
55.0'	61.0'	12951	Kss - well sorted, medium grain, grey/brown from 55.0' - 55.75', medium grey and light grey from 55.75' - 56.5', fine grain & white from 56.5' - 61.0'. 9.87% kaolin by calculation.
61.0'	67.0'	12952	Kss - poorly sorted, medium grain, coarsening downsection to coarse grain, white, rare 3.0" clasts (dolomitic sandstone - light grey) from 61.0' - 63.5', from 63.5' - 67.0' - grey to yellow brown clay interbedded with kss - poorly sorted coarse grain. 19.14% kaolin by calculation.
67.0'	73.0'	12953	Kss - well sorted, medium grain, light grey. 14.00% kaolin by calculation.
73.0'	79.0'	12954	Kss - well sorted, medium grain, light grey, rare 1.0" light grey clay clots from 78.25' - 78.75'. 8.23% kaolin.
79.0'	85.0'	12955	Kss - as above, clay seam - light brown, 1.0" - 2.0" at 83.0'. 18.05% kaolin by calculation.
85.0'	90.0'	12956	Kss - well sorted, fine grain, white. 7.29% kaolin by calculation.
90.0'	95.0'	12957	Kss - as above. 7.06% kaolin by calculation.

95.0'	100.0'	12958	Kss - well sorted, medium grain, light grey, yellowish from 95.0' - 96.0', lighter grey & rare yellowish colouration from 96.0' - 100.0' - rare lighter grey clay clot of 1.0". 11.47% kaolin by calculation.
100.0'	105.0'	12959	Kss - as above. 12.99% kaolin by calculation.
105.0'	107.5'	12960	Kss - fine grain from 106.0' - 106.75', clay clots near lower contact - as above. 12.91% kaolin by calculation.
107.5'	109.0'	12961	Clay - competent, friable, upper contact light brown with light yellow green colour, grading downsection from dark brown to light brown. 59.34% kaolin by calculation.
109.0'	111.0'	12962	Clay - light grey, pliable, 110.0' - 111.0' - red clots - rare 1.0" kss seams. 72.38% kaolin by calculation.
111.0'	117.5'	12963	Clay - non-competent, pliable, grey, rare 1.0" kss layers - some yellow colouration. 14.84% kaolin.
117.5'	119.5'	12964	Clay - as above, 64.30% kaolin.
119.5'	121.0'	12965	Kss - well sorted, fine grain, white, with a yellow tinge. 9.95% kaolin.
121.0'	121.5'	N/S	Kss - medium brown, medium grain, dried.
121.5'	125.0'	12966	Sandy Clay - medium grey and red mottled, competent, somewhat dried, 64.66% kaolin.
125.0'	129.0'	12967	Sandy Clay - dark brown, with chocolate brown laminations, high illite content and carbonaceous seams of 4.0", medium yellow/brown sandstone clasts with black flecks (tourmaline), 67.54% kaolin.
129.0'	134.0'	12968	Clay - medium brown, grading to black, pliable, 70.91% kaolin.
134.0'	138.0'	12969	Clay - black, pliable, as above, 65.62% kaolin.
138.0'	142.0'	12970	Clay - as above, 58.10% kaolin.
142.0'	147.0'	12971	Kss - black from 142.0' - 146.0', 146.0' - 147.0' - white, medium grain, minor

			illite and heavies, 8.35% kaolin.
147.0'	151.0'	12972	Kss - white, medium grain, as above, 8.66% kaolin.
151.0'	156.0'	12973	Kss - medium grain grading to coarse grain, with high clay content and yellow chert, 14.76% kaolin.
156.0'	159.0'	12974	Kss - medium grain grading to coarse grain, white, high clay content and high percentage yellow chert, 19.14% kaolin.
159.0'	165.0'	12975	Sandy Clay - light grey highly competent, dried, minor illite and heavies, 47.19% kaolin.
165.0'	170.0'	12976	Sandy Clay - as above, more pliable, 35.77% kaolin.
170.0'	175.0'	12977	Sandy Clay - as above, 15.06% kaolin.
175.0'	180.0'	12978	Sandy Clay - as above, 27.52% kaolin.
180.0'	185.0'	12979	Sandy Clay - as above, 44.35% kaolin.
185.0'	191.0'	12980	Kss - medium grain, light brown, minor illite and heavies, 13.24% kaolin.
191.0'	197.0'	12981	Kss - as above, 8.48% kaolin.
197.0'	202.0'	12982	Kss - alternating medium and coarse grain, white, high clay content in coarse portion, 7.57% kaolin.
202.0'	205.0'	12983	Kss - as above, 6.94% kaolin.
205.0'	211.0'	12984	Kss - medium grain, medium brown, 6.99% kaolin.
211.0'	215.0'	12985	Clay - chocolate brown with minor fine grain, white kss interbeds - some black clay, 10.13% kaolin.
215.0'	217.0'	12986	Kss - medium grain, medium brown, minor illite and heavies, 53.97% kaolin.
217.0'	222.0'	12987	Kss - fine grain, well sorted, white, minor illite and heavies, 11.95% kaolin.
222.0'	226.0'	12988	Kss - medium grain, light grey, minor illite and heavies. 7.59% kaolin.
226.0'	229.0'	12989	Kss - medium grain, light grey, frequent

larger clasts (5.0%) from 226.0' - 227.0',
excessive contamination. 48.86% kaolin.

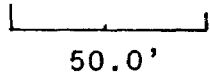
- 229.0' 230.0' 12990 Kss - medium grain, light grey frequent
larger clasts from 229.25' - 229.75' - fine
clay laminations, 7.59% kaolin.
- 230.0' 235.0' 12991 Kss - light brown, fine grain, minor
illite and heavies, frequent larger clasts
from 231.0' - 232.0', three clay laminations,
23.34% kaolin.
- 235.0' 238.0' 12992 Kss - coarse grain, light grey, minor illite
and heavies, some fine grain at bag
contact 13.42% kaolin.
- 238.0' 241.0' 12993 Kss - medium grain, light grey, minor illite
and heavies, 9.52% kaolin.
- 241.0' 244.0' 12994 Sandy Clay - fine grain, light brown, minor
illite and heavies, 20.43% kaolin.
- 243.0' 247.0' 12995 Kss - fine grain, white, minor illite and
heavies, 9.16% kaolin.
- 247.0' 250.0' 12996 Kss - as above, 9.44% kaolin.

EOH - 250.0'

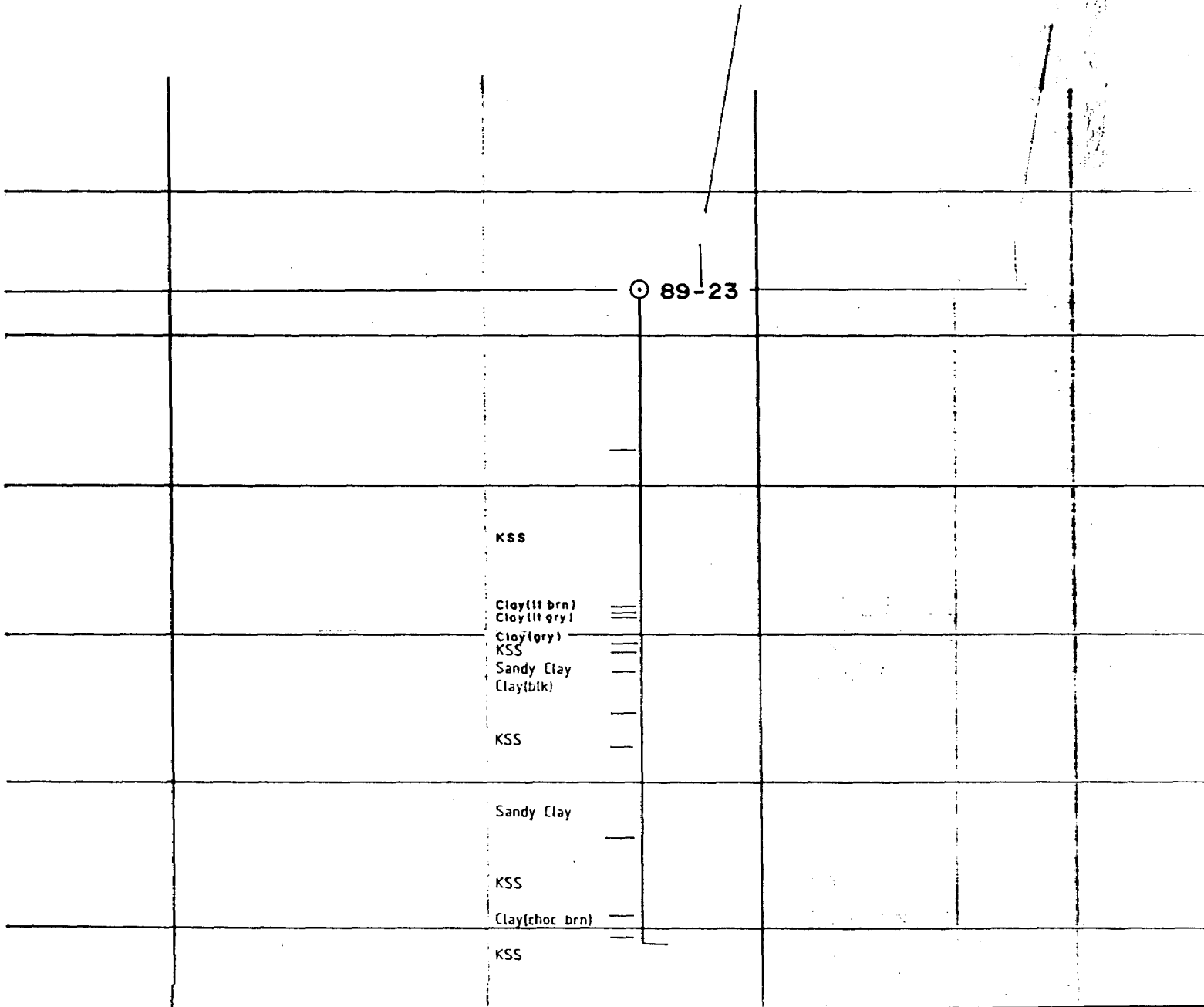
12996

Section 89-23

Claim No.: P 825805
Hole Length: 250.0'
Overburden Depth: 55.0'
Astronomic Azimuth: 50° 08' 51" W. 82° 08' 33" N
Location: 870.0' at 196° to claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 014 N
Easting: 5779 E
Dip: -90°



Gridline 5800

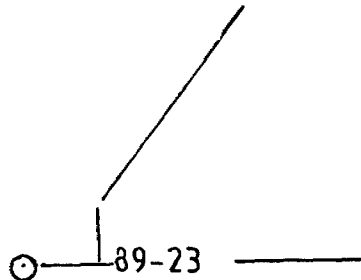


Section 89-23

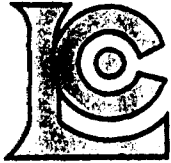
Claim No.: P 825805
 Hole Length: 250.0'
 Overburden Depth: 55.0'
 Astronomic Azimuth: 50° 08' 51" W. 82° 08' 33" N
 Location: 870.0' at 196° to claim post no. 1
 Scale: 1.0" = 50.0' or 1:600
 Northing: 014 N
 Easting: 5779 E
 Dip: -90°

50.0'

Gridline 5800



12966	64.66%
12967	67.54%
12968	70.91%
12969	65.62%
12970	58.10%
12971	8.35%
12972	8.66%
12973	14.76%
12974	19.16%
12975	47.19%
12976	35.77%
12977	15.86%
12978	27.52%
12979	44.35%
12980	13.21%
12981	8.48%
12982	7.57%
12983	6.94%
12984	6.99%
12985	10.13%
12986	53.97%
12987	11.95%
12988	7.59%
12989	48.81%
12990	7.59%
12991	23.34%
12992	13.62%
12993	9.52%
12994	20.43%
12995	8.16%
12996	9.44%



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 3 8

BILLING INFORMATION

Date: 21-JAN-93
Project:
P.O. No.: 0054
Account: KJE

Comments: 930101T

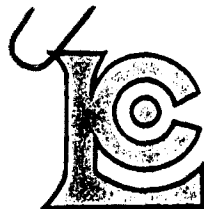
Billing: For analysis performed on
Certificate A9310138

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
80	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	1720.80
Total Cost \$				1720.80
(Reg# R100938885) GST \$				<u>120.46</u>
TOTAL PAYABLE (CDN) \$				1841.26



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

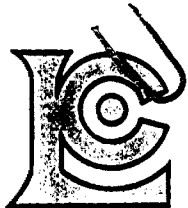
Project:
Comments: ATN: A. CASSELMAN

Page Number :2
Total Pages :2
Certificate Date: 21-JAN-93
Invoice No. :19310138
P.O. Number :0054
Account :KJE

CERTIFICATE OF ANALYSIS A9310138

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
12673	208 226	4.07	< 0.01	0.02	0.48	0.05	0.02	< 0.01	0.08	0.11	93.91	0.14	1.56	100.45
12674	208 226	3.31	< 0.01	0.02	0.43	0.04	0.01	< 0.01	0.08	0.10	95.11	0.07	1.26	100.45
12675	208 226	4.96	< 0.01	0.03	0.42	0.05	< 0.01	< 0.01	0.08	0.11	92.86	0.13	1.86	100.55
12676	208 226	4.30	< 0.01	0.07	0.60	0.04	0.02	< 0.01	0.07	0.11	93.26	0.16	1.65	100.30
12677	208 226	26.86	0.11	0.05	1.28	0.41	0.16	< 0.01	0.11	0.17	60.20	1.19	10.40	100.95
12678	208 226	20.21	0.13	0.04	1.08	0.28	0.11	< 0.01	0.07	0.14	67.59	0.79	8.34	98.79
12679	208 226	3.00	< 0.01	0.02	0.45	0.05	0.02	< 0.01	0.09	0.11	95.85	0.14	1.10	100.85
12680	208 226	18.76	0.13	< 0.01	0.81	0.18	0.11	< 0.01	0.10	0.16	71.83	1.65	7.43	101.20
12681	208 226	20.84	0.30	0.02	0.84	0.19	0.10	< 0.01	0.05	0.16	67.06	1.79	10.17	101.55
12682	208 226	13.50	0.08	0.02	0.72	0.19	0.10	< 0.01	0.12	0.14	79.73	0.81	5.45	100.85
12683	208 226	3.81	0.06	0.08	0.58	0.06	0.06	< 0.01	0.16	0.13	93.53	0.32	1.59	100.40
12684	208 226	3.74	0.02	0.05	0.55	0.06	0.06	< 0.01	0.11	0.12	94.06	0.41	1.45	100.65
12685	208 226	3.63	0.02	0.06	0.58	0.08	< 0.01	< 0.01	0.12	0.12	94.29	0.07	1.34	100.35
12686	208 226	3.93	0.03	0.04	0.70	0.06	0.04	< 0.01	0.09	0.11	93.43	0.27	1.53	100.25
12687	208 226	3.94	0.10	0.03	0.94	0.09	0.03	< 0.01	0.09	0.11	93.03	0.11	1.61	100.10
12688	208 226	10.12	0.06	< 0.01	0.82	0.09	0.04	< 0.01	0.06	0.12	84.78	0.81	4.06	101.00
12689	208 226	7.40	0.04	0.02	0.60	0.08	0.06	< 0.01	0.10	0.13	89.36	0.52	2.62	100.95
12690	208 226	6.84	0.09	0.01	0.94	0.08	0.03	< 0.01	0.08	0.11	89.72	0.33	2.79	101.05
12695	208 226	4.79	0.07	0.03	0.72	0.08	0.06	< 0.01	0.08	0.11	92.79	0.18	1.89	100.80
12966	208 226	25.54	0.15	0.01	2.31	0.38	0.17	< 0.01	0.06	0.14	58.47	0.91	10.11	98.26
12967	208 226	26.68	0.22	0.03	3.31	0.46	0.28	0.04	0.13	0.16	54.61	1.02	12.80	99.74
12968	208 226	28.01	0.46	0.02	1.41	0.28	0.30	< 0.01	0.11	0.17	51.40	1.26	14.68	98.11
12969	208 226	25.92	0.44	0.03	1.36	0.47	0.32	< 0.01	0.13	0.17	51.56	1.28	16.94	98.63
12970	208 226	22.95	0.48	0.04	1.27	0.58	0.34	< 0.01	0.15	0.15	54.00	1.21	18.06	99.24
12971	208 226	3.30	0.08	0.07	1.04	0.19	0.15	< 0.01	0.12	0.12	93.38	0.09	1.41	99.96
12972	208 226	3.42	0.05	0.09	0.65	0.17	0.18	< 0.01	0.13	0.13	93.45	0.21	1.19	99.68
12973	208 226	5.83	< 0.01	0.02	0.52	0.18	0.11	< 0.01	0.04	0.10	90.99	0.22	2.17	100.20
12974	208 226	7.56	< 0.01	< 0.01	0.55	0.16	0.10	< 0.01	0.03	0.10	89.63	0.22	2.91	101.30
12975	208 226	18.64	0.14	0.04	0.90	0.17	0.07	< 0.01	0.10	0.13	72.16	0.72	7.54	100.60
12976	208 226	14.13	0.01	0.03	0.83	0.16	0.11	< 0.01	0.01	0.11	79.52	0.58	5.42	100.90
12977	208 226	5.95	< 0.01	0.03	0.57	0.12	0.08	< 0.01	0.01	0.10	90.89	0.31	2.32	100.40
12978	208 226	10.87	0.02	0.04	0.71	0.15	0.07	< 0.01	0.04	0.12	83.47	0.50	4.26	100.25
12979	208 226	17.52	0.03	0.04	0.87	0.21	0.03	< 0.01	0.03	0.13	75.05	0.65	6.83	101.40
12980	208 226	5.28	< 0.01	0.06	0.52	0.14	< 0.01	< 0.01	0.04	0.11	91.96	0.16	1.97	100.25
12981	208 226	3.35	< 0.01	0.07	0.63	0.10	0.08	< 0.01	0.05	0.10	93.99	0.14	1.36	99.89
12982	208 226	2.99	< 0.01	0.05	0.45	0.09	0.09	< 0.01	0.04	0.10	95.27	0.12	1.14	100.35
12983	208 226	2.74	< 0.01	0.05	0.53	0.08	0.08	< 0.01	0.05	0.10	94.99	0.21	1.09	99.94
12984	208 226	2.76	< 0.01	0.06	0.55	0.06	0.12	< 0.01	0.03	0.10	95.72	0.11	1.03	100.55
12985	208 226	4.00	0.02	0.09	0.55	0.08	0.09	< 0.01	0.10	0.12	93.83	0.21	1.61	100.70
12986	208 226	21.32	0.22	0.03	1.32	0.26	0.12	< 0.01	0.11	0.16	67.39	0.95	9.35	101.25

CERTIFICATION:



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 3 9

BILLING INFORMATION

Date: 21-JAN-93
Project:
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9310139

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
80	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	1720.80
Total Cost \$				1720.80
(Reg# R100938885) GST \$				120.46
TOTAL PAYABLE (CDN) \$				1841.26

89-23



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project:
Comments: ATN: A. CASSELMAN

Page Number : 1
Total Pages : 2
Certificate Date: 21-JAN-93
Invoice No. : 19310139
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS

A9310139

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
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12988	208 226	3.00	0.10	0.05	0.49	0.08	0.13	< 0.01	0.11	0.10	94.67	0.13	1.15	100.00
12989	208 226	19.30	0.19	0.08	1.10	0.24	0.19	< 0.01	0.12	0.15	70.35	1.08	8.34	101.15
12990	208 226	4.13	0.21	0.08	1.37	0.07	0.09	0.01	0.09	0.09	91.78	0.13	1.94	99.99
12991	208 226	9.22	0.15	0.05	0.80	0.13	0.10	< 0.01	0.11	0.12	86.36	0.50	3.84	101.40
12992	208 226	5.30	0.11	0.08	0.69	0.14	0.12	< 0.01	0.12	0.11	91.06	0.52	2.11	100.35
12993	208 226	3.76	0.08	0.07	0.51	0.11	0.09	< 0.01	0.10	0.10	94.44	0.16	1.41	100.85
12994	208 226	8.07	0.14	0.09	0.96	0.14	0.15	< 0.01	0.13	0.12	86.84	0.58	3.27	100.50
12995	208 226	3.62	0.13	0.11	0.97	0.08	0.13	< 0.01	0.12	0.11	92.92	0.28	1.37	99.85
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16104	208 226	19.54	0.21	0.05	1.40	0.29	0.22	0.01	0.11	0.15	70.08	1.11	7.87	101.05
16105	208 226	9.53	0.11	0.05	0.70	0.16	0.15	< 0.01	0.12	0.12	86.04	0.52	3.75	101.25
16106	208 226	26.75	0.18	0.01	1.33	0.48	0.17	< 0.01	< 0.01	0.14	57.94	1.22	10.61	98.85
16107	208 226	10.10	0.12	0.06	0.78	0.15	0.24	< 0.01	0.11	0.12	85.32	0.42	3.88	101.30
16108	208 226	30.34	0.32	0.03	1.66	0.66	0.26	< 0.01	0.10	0.20	51.38	1.12	15.38	101.45
16109	208 226	21.75	0.16	< 0.01	1.19	0.45	0.14	< 0.01	< 0.01	0.13	65.45	1.05	9.03	99.38
16110	208 226	12.76	0.10	0.01	0.91	0.30	0.19	< 0.01	0.07	0.12	80.21	0.94	5.04	100.65
16111	208 226	10.60	0.13	0.05	1.15	0.17	0.17	0.01	0.07	0.12	82.35	0.62	4.50	99.94
16112	208 226	3.73	0.05	0.06	0.47	0.09	0.10	< 0.01	0.08	0.11	93.28	0.21	1.56	99.75
16113	208 226	4.16	0.04	0.07	0.54	0.09	0.08	< 0.01	0.07	0.10	93.21	0.19	1.69	100.25
16114	208 226	14.51	0.14	0.01	0.96	0.39	0.15	< 0.01	< 0.01	0.12	77.17	1.07	5.84	100.40
16115	208 226	3.95	0.05	0.10	0.64	0.09	0.14	< 0.01	0.08	0.11	92.57	0.37	1.59	99.70
16116	208 226	3.64	0.02	0.05	0.43	0.09	0.08	< 0.01	0.05	0.10	93.81	0.12	1.45	99.85
16117	208 226	3.30	0.02	0.06	0.49	0.08	0.10	< 0.01	0.04	0.09	94.15	0.07	1.34	99.75
16118	208 226	4.15	0.03	0.08	0.55	0.10	0.03	< 0.01	0.08	0.10	92.88	0.13	1.65	99.79
16119	208 226	5.96	0.07	0.11	0.69	0.07	0.05	< 0.01	0.08	0.12	90.35	0.56	2.43	100.50
16120	208 226	5.58	0.07	0.08	0.73	0.06	0.04	< 0.01	0.06	0.12	91.40	0.25	1.66	100.05
16121	208 226	3.96	0.03	0.07	0.61	0.05	0.14	< 0.01	0.06	0.10	92.90	0.29	1.62	99.84
16122	208 226	6.99	0.03	0.06	0.46	0.06	0.08	< 0.01	0.06	0.12	89.32	0.18	2.77	100.15
16123	208 226	3.52	0.03	0.07	0.47	0.05	0.03	< 0.01	0.06	0.10	94.12	0.09	1.24	99.79
16124	208 226	3.95	0.04	0.08	0.41	0.06	0.03	< 0.01	0.08	0.11	93.50	0.09	1.54	99.90
16125	208 226	3.35	0.04	0.09	0.48	0.07	0.08	< 0.01	0.09	0.11	93.92	0.11	1.38	99.73
16126	208 226	10.40	0.11	0.09	0.76	0.19	0.16	< 0.01	0.10	0.13	84.53	0.41	4.02	100.90
16127	208 226	3.06	0.07	0.10	0.54	0.07	0.07	< 0.01	0.13	0.11	94.35	0.10	1.11	99.72
16128	208 226	4.65	0.06	0.09	0.53	0.11	0.08	< 0.01	0.09	0.11	92.49	0.29	1.81	100.30
16129	208 226	19.46	0.12	0.04	1.10	0.40	0.19	< 0.01	0.09	0.15	71.04	1.12	7.82	101.55
16130	208 226	2.60	< 0.01	0.07	0.44	0.06	0.05	< 0.01	0.02	0.09	95.89	0.15	0.96	100.35

CERTIFICATION:

B. Caselman

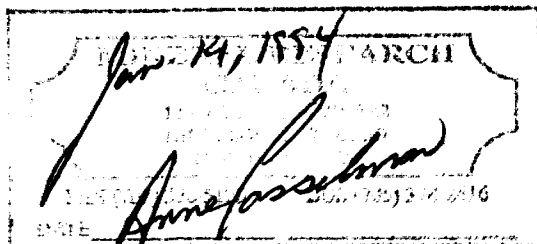
SONIC DRILL HOLE RECORD

Drilling Started: Feb. 8, 1989
 Drilling Finished: Feb. 9, 1989
 Drilling Co.: J. R. Drilling
 Dip: -90°
 Hole Length: 250.0'
 Overburden Depth: 53.0'
 Claim No.: P 825802
 Easting: 5425 E
 Northing: 075 S
 Azimuth: 50° 08' 48" W. 82° 08' 50" N.
 Location: 1350.0' at 205° To Claim Post No. 1
 Property: Kipling

Logged By: A. Casselman
 Logged: April 10, 1989
 Core Size: 3.5"
 Core Storage:
 Mineral Research Canada
 R. R. # 2
 Parry Sound, ON
 P2A 2W8
 Elevation: 324.0'
 Hole No.: 89-29

SUMMARY

From	To	Description
0.0'	5.0'	Peat
5.0'	7.5'	Fluvial Sediments
7.5'	9.75'	Sand
9.75'	44.0'	Glacial Clay Till
44.0'	53.0'	Sand - Overburden - Pleistocene
53.0'	60.0'	Clay Cretaceous
60.0'	61.5'	Sandy Clay
61.5'	80.5'	Kaolin Silica Sand (Kss)
80.5'	81.25'	Clay
81.25'	82.25'	Kss
82.25'	85.25'	Clay
85.25'	89.0'	Sandy Clay
89.0'	112.0'	Kss
112.0'	120.0'	Kss & Clay
120.0'	128.0'	Kss & Sandy Clay
128.0'	161.0'	Kss
161.0'	168.0'	Clay
168.0'	175.0'	Kss & Sandy Clay
175.0'	177.5'	Kss
177.5'	179.75'	Sandy Clay
179.75'	187.0'	Clay
187.0'	188.0'	Sandy Clay
188.0'	216.0'	Kss
216.0'	220.0'	Sandy Clay
220.0'	225.0'	Sandy Clay & Kss
225.0'	250.0'	Kss



Detail Log - 89-29

From	To	Sample No.	Description
0.0'	5.0'		Peat
5.0'	7.5'		Fluvial Sediments - green/grey, very fine grain silty clay, massive, pliable, clasts-free.
7.5'	9.75'		Sand - fine grain, green/grey, 50.0% silica sand, last 0.75' - coarse grain.
9.75'	44.0'		Glacial Clay Till - competent, fissile, calcareous, dark green/brown, 10.0 - 15.0% carbonate, 20.0% gneissic clasts, 34.0' - 44.0' - 30.0% sand, 37.75' - 38.25' - light brown fine to medium grain silica sand lamination.
44.0'	53.0'		Sand - green/grey, medium grain, some clay matrix.
53.0'	60.0'	12651	Clay - competent, friable, chocolate brown, rare silty laminations. 63.04% kaolin by calculation.
60.0'	61.5'	12652	Sandy Clay - lighter brown than above, competent. 51.42% kaolin by calculation.
61.5'	64.0'	12653	Kss - 61.5' - 62.25' - poorly sorted medium grain, white, 62.25' - 64.0' - well sorted. 9.34% kaolin by calculation.
64.0'	68.0'	12654	Kss - as above, medium grain. 10.38% kaolin by calculation.
68.0'	72.0'	12655	Kss - as above. 7.11% kaolin by calculation.
72.0'	76.0'	12656	Kss - well sorted, medium grain, white from 72.0' - 74.5' - light grey from 74.5' - 76.0', yellow from 74.5' - 74.75'. 9.10% kaolin.
76.0'	80.5'	12657	Kss - as above, yellow from 77.25' - 77.75'. 5.95% kaolin.
80.5'	81.25'	12658	Clay - pliable to friable, light yellow brown. 76.58% kaolin by calculation.
81.25'	82.25'	12659	Kss - well sorted, fine grain, light

			grey , frequent clay clots, occasional yellow brown colouration. 17.34% kaolin.
82.25'	85.25'	12660	Clay - as previous, pliable to friable, light yellow brown. 74.71% kaolin by calculation.
85.25'	89.0'	12661	Sandy Clay - light grey, competent. 45.39% kaolin by calculation.
89.0'	96.0'	12662	Kss - 89.0' - 95.0' - well sorted, fine grain, white, light grey clay bands, 95.0' - 96.0' - medium grain. 12.76% kaolin by calculation.
96.0'	100.0'	12663	Kss - as above. 9.80% kaolin by calculation.
100.0'	104.0'	12664	Kss - as above. 9.57% kaolin by calculation.
104.0'	112.0'	12665	Kss - as above. 8.91% kaolin by calculation.
112.0'	120.0'	12666	Kss & Clay - interbedded - kss- well sorted, fine grain, white, yellow/brown areas, clay - pliable, light yellow brown. 48.73% kaolin.
120.0'	125.0'	12667	Kss & Sandy Clay - interbedded, sandy clay - competent, fissile, fine grain, minor illite, buff, kss - fine grain, light brown, entire remainder of hole dried. 23.04% kaolin by calculation.
125.0'	128.0'	12668	Kss & Sandy Clay - as above except kss - medium grain, 11.65% kaolin.
128.0'	132.0'	12669	Kss - medium grain, white, 6.73% kaolin.
132.0'	136.0'	12670	Kss - medium grain, as above, much yellow exterior contamination, 6.46% kaolin.
136.0'	139.0'	12671	Kss - as above, vari-coloured silica. 6.08% kaolin by calculation.
139.0'	143.0'	12672	Kss - as above, one area of clay-rich fine grain kss at 142.0' of 4.0", sulphureous smell, 9.92% kaolin.
143.0'	147.0'	12673	Kss - as above, some clay-rich areas, 10.31% kaolin.

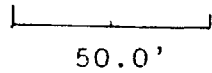
147.0'	150.0'	12674	Kss - medium grain alternating with coarse grain in a white clay matrix, 8.38% kaolin.
150.0'	155.0'	12675	Kss - coarse grain, vari-coloured silica in a white clay matrix, drill gouging of competent material, Devonian clasts at 154.25', medium grey exterior, light brown, interior, fossiliferous, brachiopods, crinoids, colonial corals, partially drill cut, 12.56% kaolin.
155.0'	161.0'	12676	Kss - coarse grain, in a medium grain matrix, light brown, vari-coloured silicas, sub-rounded to sub-angular, 10.89% kaolin.
161.0'	168.0'	12677	Clay - sandy at upper contact, competent, disc-like, greasy, buff, medium grain sandy contact, one kss seam or injection of 3.0" of medium grain light brown, kss at 163.5', 68.0% kaolin.
168.0'	175.0'	12678	Kss & Sandy Clay - interbedded, competent, fissile, clay-rich with medium grain silica mottling grading to sandy clay, buff illitic, kss - medium grain, light grey, 51.16% kaolin.
175.0'	177.5'	12679	Kss - medium grain, coarse vari-coloured silica concentrated at 176.25', medium grey, 7.59% kaolin.
177.5'	179.75'	12680	Sandy Clay - fine grain, medium brown with buff laminations, minor illite, chocolate brown exterior, 47.49% kaolin.
179.75'	187.0'	12681	Clay - competent, disc-like, greasy, chocolate brown, carbonaceous, 52.76% kaolin.
187.0'	188.0'	12682	Sandy Clay - fine grain, medium brown, with buff laminations, minor illite, chocolate brown exterior, 34.18% kaolin.
188.0'	193.0'	12683	Kss - fine grain, white, some minor brown laminations, minor heavies and illite, <i>in situ</i> sulphides, 9.65% kaolin.
193.0'	198.0'	12684	Kss - fine grain, as above, grading to medium grain, at 197.5', banded, sulphureous smell, 9.47% kaolin.
198.0'	203.0'	12685	Kss - coarse grain in a white clay matrix,

			vari-coloured silica, 9.19% kaolin.
203.0'	210.0'	12686	Kss - medium grain, light brown, sawdust contamination, 9.95% kaolin.
210.0'	216.0'	12687	Kss - coarse grain, vari-coloured silica in a light brown clay matrix, 9.97% kaolin.
216.0'	220.0'	12688	Sandy Clay - grading to Kss - fine grain, buff becoming white, minor illite and heavies, concentration of garnet at 219.0', 25.62% kaolin.
220.0'	225.0'	12689	Sandy Clay & Kss - interbedded, competent, fissile, buff kss - medium grain, light brown, minor illite and heavies (garnet), 18.73% kaolin.
225.0'	229.0'	12690	Kss - medium grain, rare coarser clasts, light brown, drilling debris, 17.32% kaolin.
229.0'	233.0'	12691	Kss - medium grain, light brown, two dark yellow clay clots - possible seam at 232.0', larger smoky silica clasts associated, 7.54% kaolin.
233.0'	238.0'	12692	Kss - coarse grain, light brown, vari-coloured silica, 8.63% kaolin.
238.0'	242.5'	12693	Kss - medium grain, one area of coarse grain in a white clay matrix, vari-coloured silica, 10.58% kaolin.
242.5'	245.0'	12694	Kss - as above, coarse grain clasts frequent, one rounded clast - oblate - 2.0" - kidney shaped - split by the drill, dark brown exterior, sandstone, red & grey laminated exterior, some fossil-like structures, 5.59% kaolin.
245.0'	250.0'	12695	Kss - extremely coarse grain in a medium grain matrix, white, vari-coloured silicas, rounded up to 1.5", some white clay matrix, 12.13% kaolin.

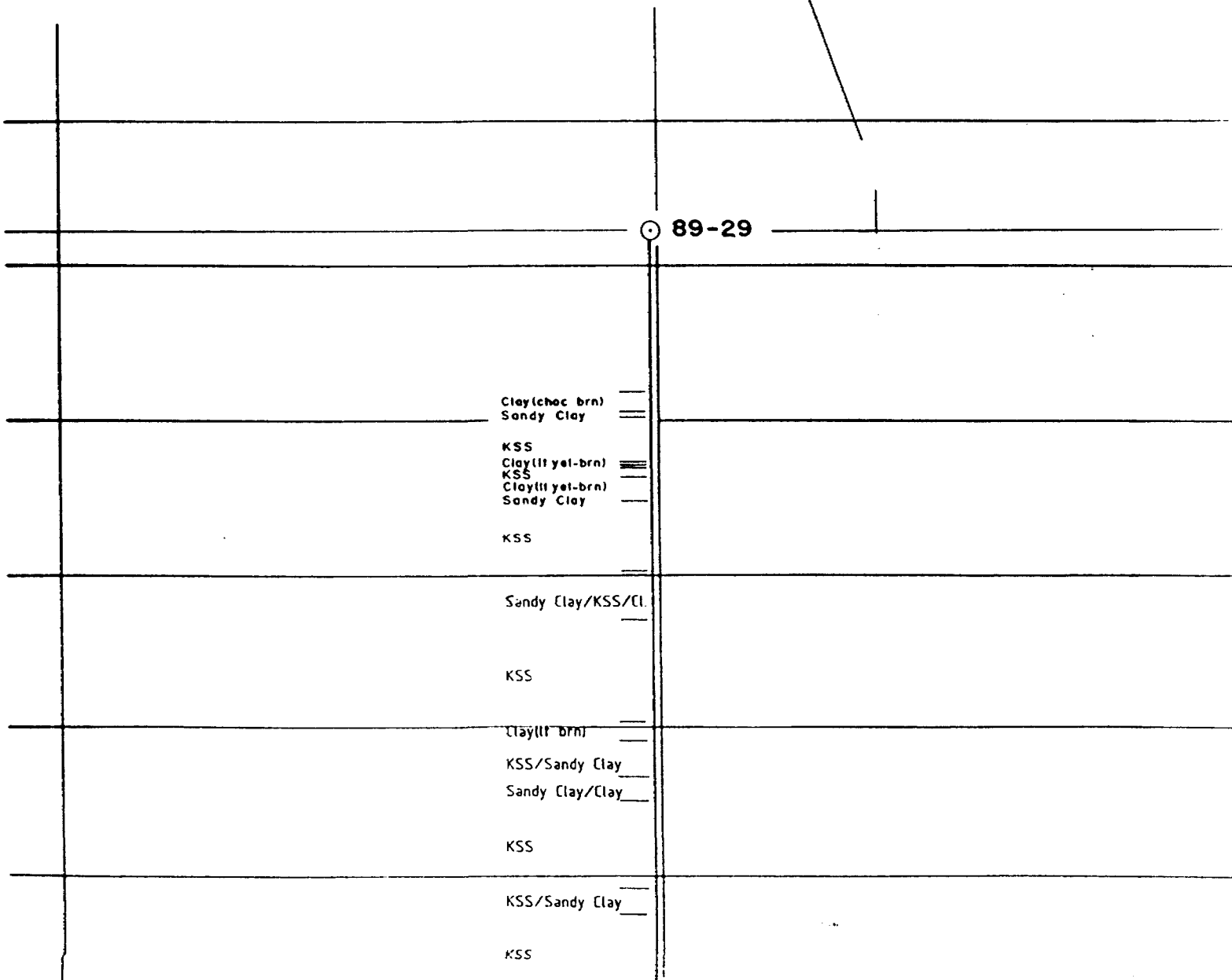
EOH - 250.0'

Section 89-29

Claim No.: P 825802
Hole Length: 250.0'
Overburden Depth: 53.0'
Astronomic Azimuth: 50° 08' 48" W. 82° 08' 50" N
Location: 1350.0' at 205° to claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 075 S
Easting: 5425 E
Dip: -90°

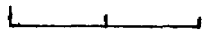


Gridline 5500



Section 89-29

Claim No.: P 825802
Hole Length: 250.0'
Overburden Depth: 53.0'
Astronomic Azimuth: 50° 08' 48" W. 82° 08' 50" N
Location: 1350.0' at 205° to claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 075 S
Easting: 5425 E
Dip: -90°



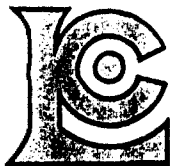
50.0'

Gridline 5500

89-29



12668	11.65%
12669	6.73%
12670	6.44%
12671	6.88%
12672	9.92%
12673	18.31%
12674	8.38%
12675	12.56%
12676	18.89%
12677	68.88%
12678	51.16%
12679	7.59%
12680	67.69%
12681	52.76%
12682	36.18%
12683	9.65%
12684	9.57%
12685	9.19%
12686	9.95%
12687	9.97%
12688	25.82%
12689	18.73%
12690	17.32%
12691	7.54%
12692	8.63%
12693	18.58%
12694	5.59%
12695	12.13%



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 3 8

BILLING INFORMATION

Date: 21-JAN-93
Project:
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9310138

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
80	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	1720.80
Total Cost \$				1720.80
(Reg# R100938885) GST \$				120.46
TOTAL PAYABLE (CDN) \$				1841.26



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project :
Comments: ATN: A. CASSELMAN

Page Number : 1
Total Pages : 2
Certificate Date: 21-JAN-93
Invoice No. : 19310138
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS A9310138

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
2783	208 226	4.81	0.06	0.08	0.67	0.17	0.01	< 0.01	0.13	0.11	92.26	0.14	1.94	100.40
2784	208 226	3.87	< 0.01	0.07	0.53	0.10	0.03	< 0.01	0.10	0.10	93.43	0.09	1.63	99.97
2785	208 226	3.15	< 0.01	0.05	0.43	0.09	0.01	< 0.01	0.09	0.10	95.30	0.10	1.32	100.65
2786	208 226	6.74	0.02	0.03	0.48	0.12	0.02	< 0.01	0.09	0.11	89.95	0.34	2.64	100.55
2787	208 226	29.49	0.24	0.01	1.44	0.44	0.16	< 0.01	0.12	0.18	54.62	1.09	13.28	101.10
2788	208 226	2.42	0.01	0.06	0.62	0.07	0.02	< 0.01	0.08	0.10	95.71	0.19	1.03	100.30
2789	208 226	21.01	0.23	0.03	1.05	0.26	0.10	< 0.01	0.09	0.16	67.73	0.86	9.71	101.25
2790	208 226	8.09	0.03	0.04	0.74	0.11	0.01	< 0.01	0.07	0.11	87.84	0.45	3.42	100.90
2791	208 226	3.78	0.06	0.05	0.82	0.06	0.08	< 0.01	0.07	0.10	93.82	0.33	1.71	100.90
2792	208 226	3.68	< 0.01	0.04	0.75	0.12	0.06	< 0.01	0.06	0.10	93.56	0.16	1.55	100.10
2793	208 226	24.64	0.40	0.01	1.34	0.30	0.14	< 0.01	0.08	0.16	58.07	1.02	13.57	99.74
2794	208 226	2.15	0.01	0.11	1.15	0.08	0.09	< 0.01	0.05	0.09	95.76	0.08	0.96	100.55
2795	208 226	23.67	0.35	< 0.01	1.27	0.28	0.13	< 0.01	0.08	0.16	59.71	1.10	11.68	98.45
2796	208 226	2.10	< 0.01	0.06	0.50	0.08	0.07	< 0.01	0.08	0.10	96.43	0.08	0.84	100.35
2797	208 226	3.06	0.02	0.03	0.54	0.13	0.07	< 0.01	0.06	0.10	94.85	0.11	1.30	100.30
2798	208 226	3.92	0.14	0.07	1.48	0.10	0.13	< 0.01	0.06	0.11	91.67	0.47	1.88	100.05
2799	208 226	2.61	0.02	0.09	0.76	0.09	0.15	< 0.01	0.08	0.11	94.97	0.28	1.04	100.20
2800	208 226	3.04	0.08	0.11	2.87	0.10	0.09	< 0.01	0.07	0.10	88.97	0.17	5.31	100.90
2915	208 226	13.38	0.15	0.01	1.25	0.29	0.12	< 0.01	0.06	0.12	78.04	0.91	5.68	100.00
2916	208 226	3.30	0.02	0.07	0.54	0.17	0.03	< 0.01	0.10	0.10	95.11	0.09	1.24	100.80
2917	208 226	5.23	0.02	0.07	0.49	0.22	< 0.01	< 0.01	0.11	0.12	92.29	0.15	1.98	100.70
2918	208 226	4.38	< 0.01	0.08	0.53	0.20	0.01	< 0.01	0.10	0.10	92.95	0.12	1.70	100.20
2919	208 226	5.14	0.02	0.09	0.54	0.18	< 0.01	< 0.01	0.12	0.12	92.26	0.18	1.91	100.60
2920	208 226	3.40	< 0.01	0.06	0.50	0.14	< 0.01	< 0.01	0.09	0.11	94.27	0.09	1.31	100.00
2921	208 226	2.82	< 0.01	0.06	0.60	0.14	< 0.01	< 0.01	0.07	0.09	94.95	0.13	1.09	99.98
3017	208 226	5.58	0.05	0.04	0.62	0.13	0.02	< 0.01	0.11	0.13	90.48	0.58	2.12	99.87
3018	208 226	4.66	< 0.01	0.07	0.70	0.10	< 0.01	< 0.01	0.10	0.11	92.87	0.38	1.85	100.85
3019	208 226	3.48	0.20	0.08	1.31	0.11	0.07	< 0.01	0.13	0.11	93.19	0.24	1.71	100.65
3020	208 226	2.84	< 0.01	0.04	0.63	0.09	< 0.01	< 0.01	0.05	0.09	95.82	0.18	1.12	100.90
3021	208 226	5.21	0.01	0.06	0.49	0.14	< 0.01	< 0.01	0.10	0.11	92.26	0.13	1.94	100.45
3022	208 226	3.36	< 0.01	0.06	0.50	0.13	< 0.01	< 0.01	0.08	0.10	95.00	0.09	1.18	100.55
3023	208 226	4.03	< 0.01	0.06	0.58	0.15	< 0.01	< 0.01	0.08	0.11	93.69	0.11	1.40	100.25
3024	208 226	3.15	< 0.01	0.07	0.59	0.10	< 0.01	< 0.01	0.08	0.10	94.79	0.13	1.12	100.15
3025	208 226	4.69	0.07	0.12	0.79	0.10	0.04	< 0.01	0.15	0.13	92.00	0.26	1.79	100.15
3026	208 226	4.09	0.07	0.13	0.76	0.10	0.10	< 0.01	0.17	0.14	92.82	0.27	1.48	100.15
3027	208 226	3.26	0.05	0.10	0.83	0.08	0.21	< 0.01	0.14	0.13	94.57	0.21	1.19	100.80
12658	208 226	4.60	0.04	0.10	0.53	0.06	0.04	< 0.01	0.15	0.13	92.19	0.30	1.69	99.84
12659	208 226	2.66	0.03	0.09	0.44	0.04	0.03	< 0.01	0.14	0.12	95.27	0.09	1.01	99.93
12670	208 226	2.55	0.03	0.09	0.45	0.04	0.02	< 0.01	0.14	0.13	95.41	0.15	0.96	99.98
12672	208 226	3.92	0.02	0.09	0.56	0.05	0.03	< 0.01	0.11	0.13	93.79	0.24	1.55	100.50

CERTIFICATION:

B. Coughlin



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project:
 Comments: ATN: A. CASSELMAN

Page Number : 2
 Total Pages : 2
 Certificate Date: 21-JAN-93
 Invoice No. : I9310138
 P.O. Number : 0054
 Account : KJE

CERTIFICATE OF ANALYSIS A9310138

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
12673	208 226	4.07	< 0.01	0.02	0.48	0.05	0.02	< 0.01	0.08	0.11	93.91	0.14	1.56	100.45
12674	208 226	3.31	< 0.01	0.02	0.43	0.04	0.01	< 0.01	0.08	0.10	95.11	0.07	1.26	100.45
12675	208 226	4.96	< 0.01	0.03	0.42	0.05	< 0.01	< 0.01	0.08	0.11	92.86	0.13	1.86	100.55
12676	208 226	4.30	< 0.01	0.07	0.60	0.04	0.02	< 0.01	0.07	0.11	93.26	0.16	1.65	100.30
12677	208 226	26.86	0.11	0.05	1.28	0.41	0.16	< 0.01	0.11	0.17	60.20	1.19	10.40	100.95
12678	208 226	20.21	0.13	0.04	1.08	0.28	0.11	< 0.01	0.07	0.14	67.59	0.79	8.34	98.79
12679	208 226	3.00	< 0.01	0.02	0.45	0.05	0.02	< 0.01	0.09	0.11	95.85	0.14	1.10	100.85
12680	208 226	18.76	0.13	< 0.01	0.81	0.18	0.11	< 0.01	0.10	0.16	71.83	1.65	7.43	101.20
12681	208 226	20.84	0.30	0.02	0.84	0.19	0.10	< 0.01	0.05	0.16	67.06	1.79	10.17	101.55
12682	208 226	13.50	0.08	0.02	0.72	0.19	0.10	< 0.01	0.12	0.14	79.73	0.81	5.45	100.85
12683	208 226	3.81	0.06	0.08	0.58	0.06	0.06	< 0.01	0.16	0.13	93.53	0.32	1.59	100.40
12684	208 226	3.74	0.02	0.05	0.55	0.06	0.06	< 0.01	0.11	0.12	94.06	0.41	1.45	100.65
12685	208 226	3.63	0.02	0.06	0.58	0.08	< 0.01	< 0.01	0.12	0.12	94.29	0.07	1.34	100.35
12686	208 226	3.93	0.03	0.04	0.70	0.06	0.04	< 0.01	0.09	0.11	93.43	0.27	1.53	100.25
12687	208 226	3.94	0.10	0.03	0.94	0.09	0.03	< 0.01	0.09	0.11	93.03	0.11	1.61	100.10
12688	208 226	10.12	0.06	< 0.01	0.82	0.09	0.04	< 0.01	0.06	0.12	84.78	0.81	4.06	101.00
12689	208 226	7.40	0.04	0.02	0.60	0.08	0.06	< 0.01	0.10	0.13	89.36	0.52	2.62	100.95
12690	208 226	6.84	0.09	0.01	0.94	0.08	0.03	< 0.01	0.08	0.11	89.72	0.33	2.79	101.05
12695	208 226	4.79	0.07	0.03	0.72	0.08	0.06	< 0.01	0.08	0.11	92.79	0.18	1.89	100.80
12966	208 226	25.54	0.15	0.01	2.31	0.38	0.17	< 0.01	0.06	0.14	58.47	0.91	10.11	98.26
12967	208 226	26.68	0.22	0.03	3.31	0.46	0.28	0.04	0.13	0.16	54.61	1.02	12.80	99.74
12968	208 226	28.01	0.46	0.02	1.41	0.28	0.30	< 0.01	0.11	0.17	51.40	1.26	14.68	98.11
12969	208 226	25.92	0.44	0.03	1.36	0.47	0.32	< 0.01	0.13	0.17	51.56	1.28	16.94	98.63
12970	208 226	22.95	0.48	0.04	1.27	0.58	0.34	< 0.01	0.15	0.15	54.00	1.21	18.06	99.24
12971	208 226	3.30	0.08	0.07	1.04	0.19	0.15	< 0.01	0.12	0.12	93.38	0.09	1.41	99.96
12972	208 226	3.42	0.05	0.09	0.65	0.17	0.18	< 0.01	0.13	0.13	93.45	0.21	1.19	99.68
12973	208 226	5.83	< 0.01	0.02	0.52	0.18	0.11	< 0.01	0.04	0.10	90.99	0.22	2.17	100.20
12974	208 226	7.56	< 0.01	< 0.01	0.55	0.16	0.10	< 0.01	0.03	0.10	89.63	0.22	2.91	101.30
12975	208 226	18.64	0.14	0.04	0.90	0.17	0.07	< 0.01	0.10	0.13	72.16	0.72	7.54	100.60
12976	208 226	14.13	0.01	0.03	0.83	0.16	0.11	< 0.01	0.01	0.11	79.52	0.58	5.42	100.90
12977	208 226	5.95	< 0.01	0.03	0.57	0.12	0.08	< 0.01	0.01	0.10	90.89	0.31	2.32	100.40
12978	208 226	10.87	0.02	0.04	0.71	0.15	0.07	< 0.01	0.04	0.12	83.47	0.50	4.26	100.25
12979	208 226	17.52	0.03	0.04	0.87	0.21	0.03	< 0.01	0.03	0.13	75.05	0.65	6.83	101.40
12980	208 226	5.28	< 0.01	0.06	0.52	0.14	< 0.01	< 0.01	0.04	0.11	91.96	0.16	1.97	100.25
12981	208 226	3.35	< 0.01	0.07	0.63	0.10	0.08	< 0.01	0.05	0.10	93.99	0.14	1.36	99.89
12982	208 226	2.99	< 0.01	0.05	0.45	0.09	0.09	< 0.01	0.04	0.10	95.27	0.12	1.14	100.35
12983	208 226	2.74	< 0.01	0.05	0.53	0.08	0.08	< 0.01	0.05	0.10	94.99	0.21	1.09	99.94
12984	208 226	2.76	< 0.01	0.06	0.55	0.06	0.12	< 0.01	0.03	0.10	95.72	0.11	1.03	100.55
12985	208 226	4.00	0.02	0.09	0.55	0.08	0.09	< 0.01	0.10	0.12	93.83	0.21	1.61	100.70
12986	208 226	21.32	0.22	0.03	1.32	0.26	0.12	< 0.01	0.11	0.16	67.39	0.95	9.35	101.25

CERTIFICATION:

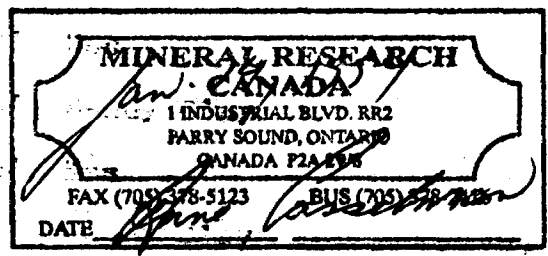
B. Coughlin

SONIC DRILL HOLE RECORD

Drilling Started: February 21, 1989	Logged By: A. Casselman
Drilling Finished: February 21, 1989	Logged: March 7, 1989
Drilling Co.: J. R. Drilling	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 250.0'	Mineral Research Canada
Overburden Depth: 52.0'	R. R. # 2
Claim No.: P 825802	Parry Sound, ON
Easting: 5600 E	P2A 2W8
Northing: BL 00	Initial Elevation: 327.0'
Azimuth: 50° 08' 50 " W. 82° 08' 40" N.	Current Elevation: 330.0'
Location: 1000.0' at 182° To Claim Post No. 1	(Under Overburden stockpile)
Property: Kipling	
Hole Number: 89-50	

SUMMARY

From	To	Description	Interpretation
0.0'	2.0'	Peat	
2.0'	8.0'	Sand	
8.0'	10.0'	Glacial Clay Till	
10.0'	11.0'	Sand	
11.0'	52.0'	Glacial Clay Till	Pleistocene - Overburden
52.0'	110.0'	Kaolin Silica Sand (kss)	Cretaceous
110.0'	126.0'	Clay	
126.0'	179.75'	Kss	
179.75'	182.0'	Sandy Clay	
182.0'	195.0'	Kss	
195.0'	197.0'	Sandy Clay	
197.0	209.0'	Kss	
209.0'	210.0'	Sandy Clay	
210.0'	243.0'	Kss	
243.0'	250.0'	Clay	



EOH - 250.0'

Detail Log - 89-50

From	To	Sample No.	Description
0.0'	2.0'		Peat
2.0'	8.0'		Sand
8.0'	10.0'		Glacial Clay Till
10.0'	11.0'		Sand
11.0'	52.0'		Glacial Sandy Clay Till - rare clasts up to 4.0", dark coloured clay till with sub-rounded to highly angular clasts, clay becoming very dense toward lower contact.
52.0'	55.0'	2101	Kss - coarse grain, fining downsection, 52.0' - 52.5' - contains clasts up to 0.25", small clots of light grey clay. 8.33% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar by XRD.
55.0'	60.0'	2102	Kss - medium grain, light grey. 8.08% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar by XRD.
60.0'	65.0'	2103	Kss - as above. 5.62% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar by XRD.
65.0'	70.0'	2104	Kss - as above, 6.91% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar by XRD, 73.42 GE brightness.
70.0'	73.0'	2105	Kss - coarser grain. 9.42% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar, 73.88 GE brightness.
73.0'	79.0'	2106	Kss - 73.0' - 74.0' - fine grain, clay sections, then medium grain with coarser clasts - clasts up to 0.5", 77.0' - 79.0' - minor illite and heavies. 10.15% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar by XRD, 70.72 GE brightness.
79.0'	84.0'	2107	Kss - medium grain, light brown. 16.53% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar by XRD.
84.0'	89.0'	2108	Kss - as above. 6.71% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar by XRD.
89.0'	94.0'	2109	Kss - coarser grain from 91.0' - 94.0',

- light brown. 6.71% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar by XRD, 74.89 GE brightness.
- 94.0' 100.0' 2110 Kss - coarser grain from 94.0' - 96.0', light brown. 7.77% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar by XRD.
- 100.0' 105.0' 2111 Kss - slightly finer than above. 7.09% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar by XRD.
- 105.0' 107.0' 2112 Kss - slightly coarser grain, frequent darker clasts, high percentage heavies and moisture. 4.58% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar by XRD.
- 107.0' 110.0' 2113 Kss - as above, 7.54% kaolin, 16.0% kaolin, 84.0% quartz, 1.0% k-spar by XRD.
- 110.0' 115.0' 2114 Clay - light brown, greasy, friable. 70.08% kaolin, 80.0% kaolin, 17.0% quartz, 2.0% illite by XRD.
- 115.0' 117.5' 2115 Clay - dark brown, competent, disc-like. 75.52% kaolin, 70.0% kaolin, 17.0% quartz, 2.0% illite by XRD.
- 117.5' 119.0' 2116 Clay - similar to 110.0' - 115.0'. 67.47% kaolin, 70.0% kaolin, 17.0% quartz, 2.0% illite by XRD.
- 119.0' 121.0' 2117 Clay - dark brown, competent, disc-like. 80.78% kaolin.
- 121.0' 126.0' 2118 Clay - pliable, light to medium brown with bands nearly perpendicular to the core, becoming thinly banded towards the lower contact with yellow, red and black laminations. 48.91% kaolin.
- 126.0' 130.0' 2119 Sandy Clay - fine grain, light grey upper contact. 22.15% kaolin.
- 130.0' 136.0' 2120 Kss - white, fine grain, minor illite and heavies, 71.14 GE brightness.
- 136.0' 141.0' 2121 Kss - as above. medium grain.
- 141.0' 145.0' 2122 Kss - as above, coarsening downsection, grey clay banding, vari-coloured silica.
- 145.0' 150.0' 2123 Kss - grading downsection to coarse grain, extremely coarse at 147.0', which is darker

			grey clay with coarse grain material.
150.0'	155.0'	2124	Kss - coarse grain as above, light grey rounded to sub-rounded quartz and yellow chert.
155.0'	160.0'	2125	Kss - medium brown, minor illite and heavies, coarse from 155.0' - 156.0', medium from 156.0' - 160.0'.
160.0'	165.0'	2126	Kss - coarse grain, as previous at (2124).
165.0'	171.0'	2127	Kss - as above.
171.0'	176.0'	2128	Kss - as above.
176.0'	179.75'	2129	Kss - medium grain, light brown, minor illite.
179.75'	182.0'	2130	Sandy Clay - fine grain, quartz, orange/brown & black alternating units (tiger striped), high illite content, 44.56% (48.10%) kaolin, 53.0% quartz, 45.0% kaolin, 2.0% illite.
182.0'	185.0'	2131	Kss - medium brown, light brown, minor illite, 8.84% (7.90%) kaolin.
185.0'	190.0'	2132	Kss - as above, 9.85% (10.56%) kaolin.
190.0'	195.0'	2133	Kss - coarse grain, medium grey, buff, pliable, 2.0" clay clots, 15.87% (19.65%) kaolin.
195.0'	197.0'	2134	Sandy Clay - buff, pliable, minor illite, 36.58% (36.61%) kaolin.
197.0'	200.0'	2135	Kss - extremely coarse grain, some purple sections and clay-rich white sections, 12.78% (8.58%) kaolin.
200.0'	205.0'	2136	Kss - medium grain, light brown, minor illite and heavies, 3.0" clay seams, pliable, medium brown carbonaceous seams, some coarser grain sections, 19.34% (20.96%) kaolin.
205.0'	209.0'	2137	Kss - as above, no clay-rich areas, 9.90% (12.76%) kaolin.
209.0'	210.0'	2138	Sandy Clay - tiger striped as at 2130, 21.37% (35.92%) kaolin.
210.0'	215.0'	2139	Kss - light brown, medium grain, minor

17

illite and heavies, 10.43% (10.05%) kaolin.

215.0' 218.0' 2140 Kss - light green with high clay content from 215.0' - 216.5', medium grain, - washed out, 216.5' - 218.0' - nearly sandy clay at lower contact with polysleeve, medium brown with convolute heavies bands, purplish, 10.76% (12.91%) kaolin, 72.71 GE brightness.

218.0' 225.0' 2141 Kss - light grey, some darker areas, minor illite and heavies, 3.98% (8.0%) kaolin, 70.61 GE brightness.

225.0' 229.0' 2142 Kss - medium to light grey, high clay content, some light grey 1.0" pliable clay clots, 9.16% (10.68%) kaolin.

229.0' 235.0' 2143 Kss - coarse grain, light to medium brown, 9.70% (9.54%) kaolin, 76.24 GE brightness.

235.0' 240.0' 2144 Kss - medium grain, white, minor illite, 7.95% (8.43%) kaolin, 74.86 GE brightness.

240.0' 243.0' 2145 Kss - medium grain, white. dried, 9.54% (8.78%) kaolin.

243.0' 245.0' 2146 Clay - 3.0" - contact of interbedded kss and clay, coarse grain, black sandy clay with high illite, some brown, dried fissile areas, 40.46% (40.99%) kaolin.

245.0' 250.0' 2147 Clay - as above, chocolate brown, 57.95% (60.84%) kaolin.

EOH - 250.0'

Section 89-50

Claim No: P 825802

Overburden Depth: 52.0'

Astronomic Azimuth: 50° 08' 50" W. 82° 08' 40" N

Location: 1000.0' at 182° to claim post no. 1

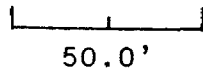
Hole Length: 250.0'

Scale: 1.0" = 50.0' or 1:600

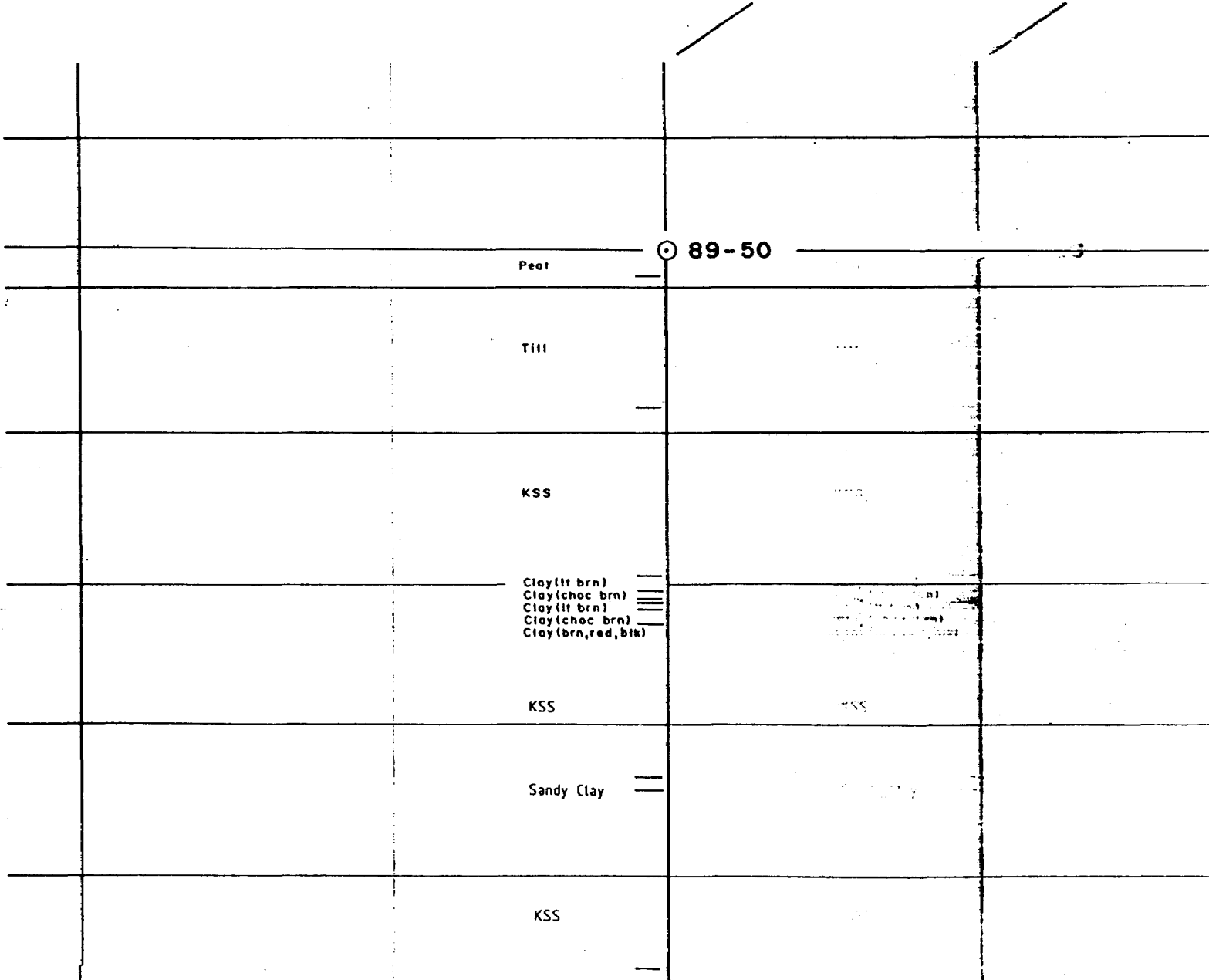
Northing: BL 00

Easting: 5600 E

Dip Collar: -90°

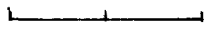


Gridline 5600



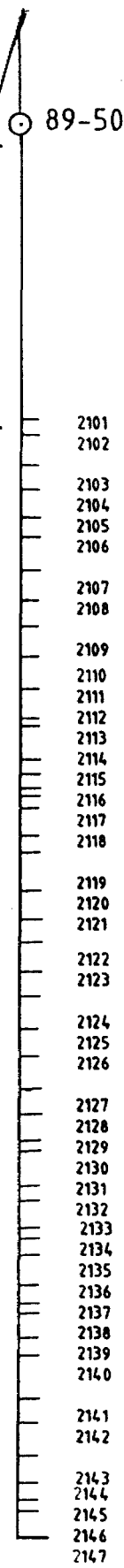
Section 89-50

Claim No: P 825802
 Overburden Depth: 52.0'
 Astronomic Azimuth: 50° 08' 50" W. 82° 08' 40" N
 Location: 1000.0' at 182° to claim post no. 1
 Hole Length: 250.0'
 Scale: 1.0" = 50.0' or 1:600
 Northing: BL 00
 Easting: 5600 E
 Dip Collar: -90°



50.0'

Gridline 5600





Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 3 7

BILLING INFORMATION

Date: 19-JAN-93

Project:

P.O. No.: 0054

Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9310137

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
80	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	1720.80
Total Cost \$				1720.80
(Reg# R100938885) GST \$				120.46
TOTAL PAYABLE (CDN) \$				1841.26



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project:
 Comments: ATN: A. CASSELMAN

Page Number : 1
 Total Pages : 2
 Certificate Date: 19-JAN-93
 Invoice No. : 19310137
 P.O. Number : 0054
 Account : KJE

CERTIFICATE OF ANALYSIS A9310137

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
2130	208 226	17.60	0.45	0.01	0.96	0.28	0.26	< 0.01	0.06	0.18	71.63	0.83	8.70	100.95
2131	208 226	3.49	0.11	0.04	0.65	0.14	0.09	< 0.01	0.05	0.09	94.09	0.20	1.44	100.40
2132	208 226	3.89	0.07	0.04	0.69	0.12	0.03	< 0.01	0.03	0.09	93.28	0.24	1.62	100.10
2133	208 226	6.27	0.08	0.08	0.78	0.16	0.05	< 0.01	0.03	0.11	90.35	0.52	2.38	100.80
2134	208 226	14.45	0.20	0.04	1.00	0.41	0.15	< 0.01	0.09	0.13	77.83	0.98	6.00	101.30
2135	208 226	5.05	0.11	0.11	0.97	0.16	0.04	< 0.01	0.03	0.10	91.47	0.52	2.03	100.60
2136	208 226	7.64	0.14	0.06	1.02	0.23	0.07	< 0.01	0.05	0.11	87.72	0.32	3.33	100.70
2137	208 226	3.91	0.30	0.03	0.79	0.17	0.03	< 0.01	0.08	0.09	93.13	0.13	1.70	100.35
2138	208 226	8.44	1.04	0.07	1.13	0.29	0.10	< 0.01	0.24	0.11	85.18	0.34	4.27	101.20
2139	208 226	4.12	0.49	0.05	0.70	0.18	0.06	< 0.01	0.11	0.10	92.47	0.17	1.84	100.30
2140	208 226	4.25	0.10	0.07	0.74	0.10	0.03	< 0.01	0.04	0.10	92.55	0.29	1.66	99.94
2141	208 226	3.98	0.08	0.04	0.61	0.11	0.03	< 0.01	0.03	0.09	93.57	0.26	1.48	100.30
2142	208 226	3.62	0.10	0.01	0.47	0.09	0.02	< 0.01	0.03	0.09	94.01	0.14	1.45	100.05
2143	208 226	3.83	0.20	0.06	0.96	0.20	0.09	< 0.01	0.08	0.10	93.00	0.10	1.47	100.10
2144	208 226	3.14	0.09	0.03	0.49	0.11	0.08	< 0.01	0.03	0.10	95.30	0.08	1.17	100.65
2145	208 226	3.77	0.14	0.07	1.05	0.19	0.07	< 0.01	0.02	0.09	93.40	0.18	1.48	100.45
2146	208 226	15.98	0.36	0.01	0.81	0.20	0.10	< 0.01	0.02	0.14	73.40	0.87	8.96	100.85
2147	208 226	22.89	0.40	0.04	1.18	0.31	0.14	< 0.01	0.02	0.14	55.59	0.99	16.68	98.39
2267	208 226	11.02	0.11	< 0.01	0.80	0.20	0.14	< 0.01	< 0.01	0.11	83.13	0.79	4.22	100.55
2268	208 226	11.28	0.13	0.01	1.12	0.24	0.18	< 0.01	< 0.01	0.11	81.76	0.92	4.79	100.55
2269	208 226	2.91	0.09	0.04	0.70	0.14	0.10	< 0.01	0.02	0.09	95.84	0.14	1.11	101.20
2270	208 226	3.32	0.04	0.02	0.43	0.16	0.07	< 0.01	0.01	0.09	94.40	0.17	1.21	99.93
2271	208 226	3.95	0.06	0.05	0.67	0.17	0.07	< 0.01	0.02	0.09	93.47	0.27	1.45	100.30
2272	208 226	5.04	0.04	0.03	0.61	0.17	0.07	< 0.01	< 0.01	0.10	92.07	0.25	1.90	100.30
2273	208 226	3.24	0.05	0.05	0.76	0.16	0.07	< 0.01	0.01	0.08	94.85	0.09	1.17	100.55
2274	208 226	3.45	0.04	0.02	0.45	0.13	0.04	< 0.01	0.01	0.09	94.86	0.20	1.16	100.45
2275	208 226	3.42	0.07	0.04	0.72	0.14	0.10	< 0.01	0.01	0.10	93.98	0.37	1.43	100.40
2276	208 226	7.08	0.08	0.05	0.67	0.13	0.09	< 0.01	0.01	0.11	88.72	0.49	2.91	100.35
2277	208 226	7.41	0.09	< 0.01	0.69	0.19	0.12	< 0.01	< 0.01	0.11	87.62	0.73	2.91	99.90
2278	208 226	4.59	0.03	0.03	0.67	0.16	0.05	< 0.01	< 0.01	0.09	93.39	0.20	1.97	101.20
2279	208 226	4.59	0.11	0.09	0.81	0.13	0.08	< 0.01	0.12	0.10	92.44	0.26	1.77	100.50
2280	208 226	3.34	0.07	0.07	0.57	0.17	0.05	< 0.01	0.09	0.09	94.74	0.12	1.20	100.50
2281	208 226	3.20	0.09	0.09	0.64	0.16	0.03	< 0.01	0.11	0.10	94.95	0.23	1.23	100.85
2282	208 226	2.57	0.08	0.08	0.63	0.13	0.03	< 0.01	0.10	0.09	95.21	0.11	0.96	100.00
2283	208 226	3.01	0.07	0.08	0.56	0.13	0.06	< 0.01	0.10	0.09	95.22	0.06	1.12	100.50
2284	208 226	6.39	0.11	0.08	0.80	0.15	0.08	< 0.01	0.10	0.10	90.35	0.28	2.51	100.95
2285	208 226	4.29	0.09	0.08	0.65	0.15	0.09	< 0.01	0.11	0.10	93.32	0.20	1.63	100.70
2286	208 226	3.15	0.08	0.08	0.63	0.17	0.06	< 0.01	0.10	0.10	94.32	0.09	1.16	99.95
2287	208 226	2.50	0.10	0.08	0.66	0.19	0.12	< 0.01	0.11	0.09	95.25	0.06	0.98	100.15
2289	208 226	3.78	0.09	0.07	0.62	0.16	0.07	< 0.01	0.09	0.10	93.90	0.23	1.50	100.60

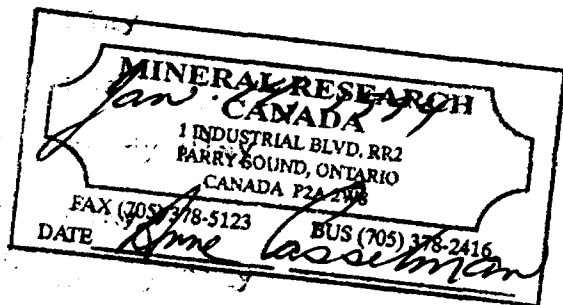
CERTIFICATION: *Jhai D Ma*

ROTARY DRILL HOLE RECORD

Drilling Started: Mar. 1, 1989	Logged By: A. Casselman
Drilling Finished: Mar. 1, 1989	Logged: April 26, 1989
Drilling Co.: Midwest	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 250.0'	Mineral Research Canada
Overburden Depth: 70.0'	R. R. # 2
Claim No.: P 825797	Parry Sound, ON
Easting: 5290 E	P2A 2W8
Northing: 205 S	Elevation: 342.0'
Azimuth: 50° 08' 44" W. 82° 09' 00" N.	
Location: 740.0' at 193° To Claim Post No. 1	
Property: Kipling	Hole No.: 89-70

SUMMARY

From	To	Description
0.0'	1.0'	Peat
1.0'	70.0'	Glacial Clay Till - Overburden - Pleistocene
70.0'	112.0'	Kaolin Silica Sand (Kss) Cretaceous
112.0'	113.25'	Clay
113.25'	114.25'	Kss
114.25'	115.25'	Clay
115.25'	116.0'	Kss
116.0'	118.0'	Sandy Clay
118.0'	138.75'	Kss
138.75'	139.5'	Clay
139.5'	140.0'	Kss
140.0'	143.0'	Sandy Clay
143.0'	146.0'	Clay
146.0'	150.25'	Sandy Clay
150.25'	172.5'	Clay
172.5'	249.25'	Kss
249.25'	250.0'	Sandy Clay



EOH - 250.0'

Detail Log 89-70

From	To	Sample No.	Description
0.0'	1.0'		Peat
1.0'	70.0'		Glacial Clay Till - green/grey, pliable sections interbedded with competent sections, up to 20.0% clasts from 0.5" - 3.0", gneissic.
70.0'	73.0'	13751	Kss - well sorted, fine grain, white frequent till clots. 14.58% kaolin.
73.0'	77.0'	13752	Kss - as above, 3.0" clay layer at 75.0'. 12.25% kaolin.
77.0'	81.0'	13753	Kss - well sorted, fine grain, white, yellow layers. 7.97% kaolin.
81.0'	85.0'	13754	Kss - as above, more intensely yellow. 7.39% kaolin.
85.0'	90.0'	13755	Kss - as above, less yellow. 8.56% kaolin.
90.0'	95.0'	13756	Kss - as above, 94.0' - 95.0', white. 5.24% kaolin.
95.0'	100.0'	13757	Kss - as above. 3.49% kaolin.
100.0'	105.0'	13758	Kss - as above, 102.5' - 105.0' - light grey, medium grain. 6.76% kaolin.
105.0'	109.0'	13759	Kss - as above, weak yellow colouration. 5.52% kaolin.
109.0'	112.0'	13760	Kss - as above, white. 6.30% kaolin.
112.0'	113.25'	13761	Clay - pliable, light yellow. 71.65% kaolin.
113.25'	114.25'	13762	Kss - well sorted, medium grain, light grey/yellow. 11.59% kaolin.
114.25'	115.25'	13763	Clay - as previous. 67.06% kaolin.
115.25'	116.0'	13762	Kss - as previous. 11.59% kaolin.
116.0'	118.0'	13764	Sandy Clay - competent, light grey clay and contacts. 37.42% kaolin.
118.0'	120.0'	13765	Kss - well sorted, medium grain, white to light brown, some yellow colouration,

			minor illite and heavies. 9.75% kaolin.
120.0'	122.0'	13766	Kss - medium grain, white, minor illite and heavies, 6.48% kaolin.
122.0'	124.0'	13767	Kss - as above, 8.05% kaolin.
124.0'	126.0'	13768	Kss - as above, rare larger rounded smoky quartz clasts, 7.06% kaolin.
126.0'	130.0'	13769	Kss - as above, 3.0", pliable clay clots, centre grey, buff rim, 9.59% kaolin.
130.0'	134.5'	13770	Kss - as above, 6.86% kaolin.
134.5'	138.75'	13771	Kss - medium grain, coarsening downsection, becoming increasingly clay-rich, 19.49% kaolin.
138.75'	139.5'	13772	Clay - buff with darker brown and purple laminations, pliable, purple kss clot - 0.5" - medium grain, 70.89% kaolin.
139.5'	140.0'	13773	Kss - medium grain, buff, darker laminations - low clay content, 17.04% kaolin.
140.0'	143.0'	13774	Sandy Clay - high silica content, buff with carbonaceous areas, grading into very fine grain chocolate brown with darker laminations, minor kss, medium grain chocolate brown clots at upper contact, minor illite, 49.44% kaolin.
143.0'	146.0'	13775	Clay - chocolate brown, fissile, disc-like, toward lower contact frequent sandy interbeds, high illite content, highly mould contaminated, lignite fragments, 65.22% kaolin.
146.0'	150.25'	13776	Sandy Clay - as previous, pliable, chocolate brown clay interbeds, 66.28% kaolin.
150.25'	156.0'	13777	Clay - as previous, highly contaminated, 68.61% kaolin.
156.0'	161.0'	13778	Clay - as previous - less lignite, more friable, 64.20% kaolin.
161.0'	166.0'	13779	Clay - as above, highly contaminated, crystal growth on outer surface, 59.95% kaolin.
166.0'	169.0'	13780	Clay - as previous - minor sandy interbeds, 60.58% kaolin.

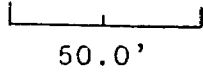
169.0'	172.5'	13781	Clay - as above, 59.39% kaolin.
172.0'	180.0'	13782	Kss - upper contact very dark brown, medium grain, grading to light brown downsection, low clay content, high illite and mafics, 6.68% kaolin.
180.0'	183.0'	13783	Kss - medium grain, clay-poor, dark brown, 9.27% kaolin.
183.0'	188.0'	13784	Kss - medium grain, as above, 11.42% kaolin.
188.0'	193.0'	13785	Kss - medium grain, white to light grey, 2.0" grey clay clot, high heavies content, 10.28% kaolin.
193.0'	198.0'	13786	Kss - as above, rare larger clasts, yellow chert and smoky quartz clasts - rounded, 7.70% kaolin.
198.0'	202.0'	13787	Kss - as above, medium grain, white and light grey, high heavies content, minor illite, some coarse material, 9.59% kaolin.
202.0'	207.0'	13788	Kss - as above, medium grain, white to light grey, high heavies, rare light grey clay clots, 12.18% kaolin.
207.0'	211.0'	13789	Kss - white and grey, medium grain, some coarser material, minor illite, high heavies, 7.11% kaolin.
211.0'	217.0'	13790	Kss - as above, rare larger jasper, pink, green and yellow chert, 7.27% kaolin.
217.0'	218.0'	13791	Kss - fine grain, white, minor illite and heavies, 6.25% kaolin.
218.0'	221.0'	13792	Kss - coarse and medium grain interbedded, highly yellow brown contaminated, 7.57% kaolin.
221.0'	225.0'	13793	Kss - as above, 7.39% kaolin.
225.0'	229.0'	13794	Kss - medium grain, high mafic content, low clay content, white, rare larger clasts, 4.18% kaolin.
229.0'	233.0'	13795	Kss - as above, much drilling debris, rust staining, ear muff in box, 3.34% kaolin.
233.0'	237.0'	13796	Kss - as above, less debris, 4.00% kaolin.

237.0' 242.0' 13797 Kss - as above, 2.66% kaolin.
242.0' 246.0' 13798 Kss - as above, 2.89% kaolin.
246.0' 249.25' 13799 Kss - as above, with minor sandy clay seam
- medium brown, competent, high illite
content at 248.0', 12.23% kaolin.
249.25' 250.0' Sandy Clay - as above.

EOH - 250.0'

Section 89-70

Claim No.: P 825797
Hole Length: 250.0'
Overburden Depth: 70.0'
Astronomic Azimuth: 50° 08' 44" W. 82° 09' 00" N
Location: 740.0' at 193° to claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 205 S
Easting: 5290 E
Dip: -90°



Gridline 5300

89-70

TIII

KSS

Clay(lt yel)/KSS
Sandy Clay

KSS
Clay(lt brn, pur)
KSS/Sandy Cl.
Clay(choc brn)
Sandy Clay

Clay(choc brn)

KSS

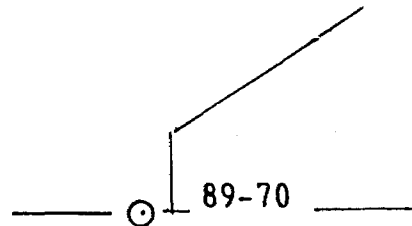
Sandy Clay

Section 89-70

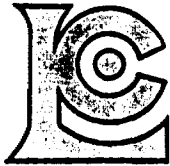
Claim No.: P 825797
 Hole Length: 250.0'
 Overburden Depth: 70.0'
 Astronomic Azimuth: 50° 08' 44" W. 82° 09' 00" N
 Location: 740.0' at 193° to claim post no. 1
 Scale: 1.0" = 50.0' or 1:600
 Northing: 205 S
 Easting: 5290 E
 Dip: -90°

50.0'

Gridline 5300



13766	6.68%
13767	8.85%
13768	7.86%
13769	9.59%
13770	6.86%
13771	19.49%
13772	78.89%
13773	17.84%
13774	49.44%
13775	65.22%
13776	64.28%
13777	68.61%
13778	64.21%
13779	59.95%
13780	64.58%
13781	59.39%
13782	6.68%
13783	9.27%
13784	11.62%
13785	18.28%
13786	7.78%
13787	1.59%
13788	12.18%
13789	7.11%
13790	7.27%
13791	6.25%
13792	7.57%
13793	7.39%
13794	4.18%
13795	3.34%
13796	4.88%
13797	2.64%
13798	2.89%
13799	72.23%



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project: KIPLING
 Comments: ATTN: A. CASSELMAN

Page Number : 1
 Total Pages : 1
 Certificate Date: 25-JUN-93
 Invoice No. : I9315473
 P.O. Number : 0054
 Account : KJE

CERTIFICATE OF ANALYSIS A9315473

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
13766	208 226	2.56	0.07	0.07	0.45	0.07	0.04	< 0.01	0.01	0.05	96.18	0.11	1.06	100.70
13767	208 226	3.18	0.15	0.01	0.63	0.06	0.09	< 0.01	0.18	0.08	94.29	0.11	1.22	100.00
13768	208 226	2.79	0.15	< 0.01	0.50	0.06	0.09	< 0.01	0.19	0.09	94.83	0.10	1.09	99.91
13769	208 226	3.79	0.18	0.01	0.63	0.07	0.10	< 0.01	0.20	0.09	92.65	0.17	1.51	99.41
13770	208 226	2.71	0.19	0.06	0.51	0.06	0.12	< 0.01	0.28	0.11	94.23	0.08	1.01	99.37
13771	208 226	7.70	0.28	0.06	1.56	0.17	0.13	0.01	0.26	0.12	86.03	0.20	3.30	99.82
13772	208 226	28.00	0.19	< 0.01	2.85	0.52	0.13	0.01	0.04	< 0.01	56.03	0.92	11.72	100.45
16264	208 226	21.63	0.33	< 0.01	1.13	0.37	0.19	< 0.01	0.07	< 0.01	60.70	1.27	15.09	100.80
16265	208 226	2.32	0.15	0.02	0.65	0.03	0.09	< 0.01	0.22	0.09	94.61	0.48	0.96	99.63
16266	208 226	5.04	0.19	0.05	0.66	0.04	0.12	< 0.01	0.23	0.11	91.34	0.25	2.06	100.10
16267	208 226	22.09	0.11	< 0.01	1.15	0.21	0.11	< 0.01	0.07	< 0.01	65.57	1.35	9.52	100.20
16268	208 226	7.84	0.18	0.02	0.85	0.11	0.12	< 0.01	0.20	0.11	87.02	0.50	3.21	100.15
16269	208 226	2.27	0.15	0.01	0.43	0.03	0.09	< 0.01	0.20	0.09	94.59	0.13	0.88	98.88
16270	208 226	2.97	0.16	0.02	0.43	0.03	0.10	< 0.01	0.23	0.09	94.50	0.14	1.19	98.87
16271	208 226	2.55	0.04	< 0.01	0.48	0.03	0.04	< 0.01	< 0.01	0.04	95.70	0.10	0.99	100.00
16272	208 226	2.38	0.17	0.01	0.74	0.03	0.09	< 0.01	0.19	0.08	94.59	0.18	1.00	99.47
16273	208 226	2.81	0.16	0.01	1.35	0.03	0.08	0.01	0.19	0.08	93.09	0.19	1.51	99.51
16274	208 226	15.53	0.04	< 0.01	1.17	0.26	0.07	< 0.01	< 0.01	< 0.01	76.10	0.88	7.04	101.15
16275	208 226	6.93	0.18	0.03	0.91	0.09	0.11	< 0.01	0.20	0.11	87.65	0.66	2.80	99.68
16276	208 226	5.38	0.20	0.04	0.78	0.07	0.12	< 0.01	0.25	0.11	90.11	0.30	2.20	99.57
16277	208 226	2.56	0.04	< 0.01	0.41	0.05	0.03	< 0.01	0.01	0.03	95.38	0.10	1.07	99.70
16278	208 226	2.09	0.13	0.03	0.76	0.04	0.08	< 0.01	0.17	0.08	95.36	0.04	0.77	99.56
16279	208 226	0.75	0.06	< 0.01	0.30	0.02	0.03	< 0.01	0.14	0.03	97.50	0.06	0.24	99.15
16280	208 226	2.02	0.01	< 0.01	0.75	0.03	0.01	< 0.01	0.07	0.02	96.59	0.03	0.70	100.25
16281	208 226	3.00	< 0.01	< 0.01	0.22	0.04	< 0.01	< 0.01	< 0.01	< 0.01	95.60	0.07	1.20	100.20
16282	208 226	2.69	< 0.01	< 0.01	0.22	0.03	< 0.01	< 0.01	0.01	0.01	95.59	0.07	1.04	99.70
16283	208 226	2.72	< 0.01	< 0.01	0.41	0.04	< 0.01	< 0.01	0.02	0.02	96.58	0.14	1.13	101.10

CERTIFICATION: *Jan Buehler*



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

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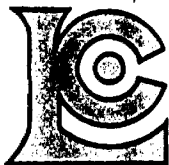
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Comments: ATTN: A. CASSELMAN

Page Number : 1
Total Pages : 4
Certificate Date: 30-JUN-93
Invoice No. : 19315475
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS

A9315475

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
13221	208 226	10.71	0.25	0.09	1.95	0.24	0.14	0.01	0.11	< 0.01	81.40	0.64	5.58	101.15
13222	208 226	5.21	< 0.01	0.04	0.60	0.12	0.02	< 0.01	0.01	< 0.01	91.67	0.42	2.25	100.35
13223	208 226	7.26	< 0.01	0.03	0.65	0.17	0.03	< 0.01	< 0.01	< 0.01	88.66	0.61	3.27	100.70
13224	208 226	10.30	< 0.01	0.02	0.69	0.22	0.06	< 0.01	0.02	< 0.01	83.99	0.75	4.63	100.70
13225	208 226	3.12	< 0.01	0.02	0.42	0.07	< 0.01	< 0.01	< 0.01	< 0.01	94.76	0.31	1.49	100.25
13773	208 226	6.73	< 0.01	0.10	1.91	0.16	< 0.01	< 0.01	0.01	< 0.01	87.56	0.28	3.54	100.35
13774	208 226	19.58	0.01	0.01	1.26	0.34	0.07	< 0.01	< 0.01	< 0.01	68.12	0.90	10.59	100.90
13775	208 226	25.76	0.32	< 0.01	1.27	0.54	0.24	< 0.01	0.05	< 0.01	51.67	1.22	18.81	99.91
13776	208 226	26.18	0.14	< 0.01	1.23	0.42	0.11	< 0.01	< 0.01	< 0.01	59.35	1.13	12.71	101.30
13777	208 226	27.10	0.39	< 0.01	1.18	0.44	0.23	< 0.01	0.04	< 0.01	48.31	1.16	20.88	99.76
13778	208 226	25.36	0.39	< 0.01	1.46	0.55	0.28	< 0.01	0.02	< 0.01	45.57	1.13	24.67	99.46
13779	208 226	23.68	0.56	< 0.01	1.17	0.48	0.28	< 0.01	< 0.01	< 0.01	41.66	0.99	30.90	99.84
13780	208 226	23.93	0.46	< 0.01	1.10	0.66	0.28	< 0.01	< 0.01	< 0.01	51.42	1.19	20.42	99.60
13781	208 226	23.46	0.45	< 0.01	1.71	0.59	0.24	< 0.01	0.01	< 0.01	49.22	1.16	22.09	99.05
13782	208 226	2.64	0.07	0.01	0.83	0.07	< 0.01	< 0.01	< 0.01	< 0.01	95.27	0.26	1.51	100.70
13783	208 226	3.66	0.02	0.04	0.79	0.06	< 0.01	0.01	< 0.01	0.03	93.61	1.05	1.72	101.00
13784	208 226	4.51	0.08	0.02	0.92	0.08	< 0.01	< 0.01	< 0.01	0.02	92.92	0.50	2.05	101.15
13785	208 226	4.06	0.01	0.01	0.55	0.07	< 0.01	< 0.01	< 0.01	0.01	94.51	0.16	1.71	101.15
13786	208 226	3.04	< 0.01	0.01	0.47	0.08	< 0.01	< 0.01	< 0.01	0.02	95.47	0.14	1.33	100.60
13787	208 226	3.79	< 0.01	0.01	0.47	0.08	< 0.01	< 0.01	< 0.01	0.02	94.90	0.17	1.58	101.05
13788	208 226	4.81	0.04	0.03	1.01	0.10	< 0.01	< 0.01	< 0.01	0.03	90.45	0.89	2.14	99.53
13789	208 226	2.81	< 0.01	0.01	0.55	0.07	< 0.01	< 0.01	< 0.01	0.02	95.29	0.07	1.16	100.00
13790	208 226	2.87	< 0.01	< 0.01	0.34	0.06	< 0.01	< 0.01	< 0.01	< 0.01	96.39	0.11	1.18	101.00
13791	208 226	2.47	< 0.01	< 0.01	0.43	0.06	< 0.01	< 0.01	< 0.01	< 0.01	96.46	0.09	1.00	100.55
13792	208 226	2.99	< 0.01	< 0.01	0.42	0.06	< 0.01	< 0.01	< 0.01	0.02	93.44	0.22	1.26	98.45
13793	208 226	2.92	< 0.01	0.03	0.52	0.06	< 0.01	< 0.01	< 0.01	0.02	95.82	0.09	1.18	100.70
13794	208 226	1.65	< 0.01	0.02	0.47	0.03	< 0.01	< 0.01	< 0.01	0.02	97.95	0.06	0.64	100.90
13795	208 226	1.32	0.01	0.03	0.43	0.03	< 0.01	< 0.01	< 0.01	0.02	98.01	0.04	0.53	100.45
13796	208 226	1.58	0.06	0.03	0.43	0.03	< 0.01	< 0.01	0.07	0.06	96.75	0.06	0.58	99.82
13797	208 226	1.05	0.02	0.05	0.52	0.03	< 0.01	< 0.01	0.02	0.03	97.41	0.04	0.38	99.48
16284	208 226	1.14	0.01	0.03	0.36	0.03	< 0.01	< 0.01	< 0.01	0.02	96.98	0.04	0.44	99.08
16285	208 226	4.83	0.01	0.03	0.57	0.06	< 0.01	< 0.01	< 0.01	0.02	91.39	0.30	2.08	99.32
16286	208 226	2.64	0.02	0.06	0.55	0.01	< 0.01	< 0.01	0.04	0.03	95.65	0.11	1.10	100.25
16287	208 226	2.03	< 0.01	0.04	0.55	0.02	< 0.01	< 0.01	0.02	0.02	96.60	0.05	0.80	100.10
16288	208 226	1.77	0.09	0.04	0.52	0.03	< 0.01	< 0.01	0.02	0.03	96.50	0.07	0.79	100.05
16289	208 226	2.50	< 0.01	0.01	0.69	0.03	< 0.01	< 0.01	< 0.01	0.03	96.50	0.07	0.79	100.05
16290	208 226	3.44	0.03	0.05	0.47	0.02	< 0.01	< 0.01	0.01	0.04	95.43	0.07	1.12	99.67
16291	208 226	5.58	0.06	0.05	0.44	0.04	< 0.01	< 0.01	0.02	0.04	94.21	0.11	1.54	99.96
16701	208 226	31.56	0.21	0.02	0.61	0.06	< 0.01	< 0.01	0.07	0.16	53.07	1.14	2.41	98.13
	208 226	8.37	0.56	0.03	1.23	0.54	0.18	< 0.01	0.08	0.06	83.95	0.44	4.23	101.35
					0.82	0.24	0.21	< 0.01						99.00



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 5 4 7 3

BILLING INFORMATION

Date: 28-JUN-93
Project: KIPLING
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9315473

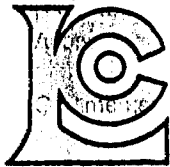
Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
27	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	580.77
Total Cost \$				580.77
(Reg# R100938885) GST \$				40.65
TOTAL PAYABLE (CDN) \$				621.42

COPY



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 5 4 7 5

BILLING INFORMATION

Date: 2-JUL-93
Project: KIPLING
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9315475

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
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131	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	2817.81
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Total Cost \$			2817.81
(Reg# R100938885) GST \$			197.25

TOTAL PAYABLE (CDN) \$ 3015.06

COPY

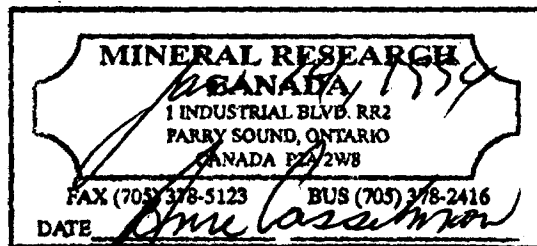
ROTARY DRILL HOLE RECORD

Drilling Started: Mar. 5, 1989
 Drilling Finished: Mar. 6, 1989
 Drilling Co.: Midwest
 Dip: -90°
 Hole Length: 209.0'
 Overburden Depth: 82.5'
 Claim No.: P 825802
 Easting: 5350 E
 Northing: 150 S
 Azimuth: 50° 08' 45" W. 82° 08' 56" N.
 Location: 1740.0' at 210° To Claim Post No. 1
 Property: Kipling

Logged By: A. Casselman
 Logged: April 25, 1989
 Core Size: 3.5"
 Core Storage:
 Mineral Research Canada
 R. R. # 2
 Parry Sound, ON
 P2A 2W8
 Elevation (original): 342.0'
 Elevation (current) : 340.0'
 Hole No.: 89-73

SUMMARY

From	To	Description
0.0'	1.0'	Gravel
1.0'	82.5'	Glacial Clay Till - Pleistocene - Overburden
82.5'	96.0'	Kaolin Silica Sand (Kss) Cretaceous
96.0'	97.5'	Clay
97.5'	122.0'	Kss
122.0'	132.0'	Sandy Clay
132.0'	148.5'	Kss
148.5'	153.0'	Sandy Clay
153.0'	157.0'	Kss & Sandy Clay
157.0'	170.0'	Kss
170.0'	179.0'	Clay
179.0'	209.0'	Kss



EOH - 209.0'

Detail Log - 89-73

From	To	Sample No.	Description
0.0'	1.0'		Gravel - slight clay content - light yellow brown.
1.0'	82.5'	13701 13702	Glacial Clay Till - green/grey, clast-rich sections - up to 15.0%, predominantly carbonate, competent interbedded with highly pliable sections, calcareous.
82.5'	88.0'	13703	Kss - poorly sorted, medium grain, white, 1.0" clay clot. 7.92% kaolin.
88.0'	92.0'	13704	Kss - as above. 8.46% kaolin.
92.0'	96.0'	13705	Kss - as above, 2.0" emerald green band. 8.00% kaolin.
96.0'	97.5'	13706	Clay - pliable, light brown. 79.76% kaolin.
97.5'	100.0'	13707	Kss - as previous. 6.76% kaolin.
100.0'	103.5'	13708	Kss - as above, lighter grey. 7.59% kaolin.
103.5'	108.5'	13709	Kss - well sorted, fine grain, white, clay - 4.0" band of buff pliable clay. 11.22% kaolin.
108.5'	115.0'	13710	Kss - as above, no clay seam. 6.71% kaolin.
115.0'	118.0'	13711	Kss - as above, yellow stain. 6.35% kaolin.
118.0'	122.0'	13712	Kss - as above, coarsening downsection. 7.11% kaolin.
122.0'	127.0'	13713	Sandy Clay - medium grey, grading from medium to fine grain, minor illite and heavies, competent, 25.92% kaolin.
127.0'	132.0'	13714	Sandy Clay - fine grain, as above, 37.59% kaolin.
132.0'	136.0'	13715	Kss - water saturated, medium grain, medium brown, minor heavies, 8.94% kaolin.
136.0'	140.0'	13716	Kss - fine grain, as above, 11.47%

kaolin.

140.0'	145.0'	13717	Kss - as above, medium grain, 7.97% kaolin.
145.0'	148.5'	13718	Kss - 145.0' - 147.0' - low clay content, minor illite and heavies, brown, medium grain, 147.0' - 148.5' - coarse grain, white, normal clay content with 1.0" white pliable clay clots, 7.70% kaolin.
148.5'	153.0'	13719	Sandy Clay - as previous, 2.0" purple clot at 148.75', 29.24% kaolin.
153.0'	157.0'	13720	Kss & Sandy Clay - medium grain, medium grey kss, interbedded with medium grey fine grain sandy clay - minor illite and heavies, 17.57% kaolin.
157.0'	162.0'	13721	Kss - medium grain, grey and brown, low clay content, 5.09% kaolin.
162.0'	166.0'	13722	Kss - medium grain, dark brown, grading to grey, 4.0" of cream clay with rounded silica clasts, smoky quartz and yellow chert, 9.95% kaolin.
166.0'	170.0'	13723	Kss - medium grain, medium brown, with chocolate brown laminations and clay clots and seams up to 4.0", 21.29% kaolin.
170.0'	175.0'	13724	Clay - chocolate brown, pliable grading to black, fissile clay, 56.23% kaolin.
175.0'	179.0'	13725	Clay - black, fissile, as above, 52.61% kaolin.
179.0'	184.0'	13726	Kss - 179.0' - 180.0' - white, coarse grain, highly competent, 180.0' - 184.0' - chocolate brown, grading downsection to white, medium grain, with larger 1.0" - 2.0" rounded smoky quartz and yellow chert clasts, 8.78% kaolin.
184.0'	189.0'	13727	Kss - white, medium grain, with clay sections and associated coarse clasts - 2.0", also rare large 1.0" rounded smoky quartz clasts throughout, 7.82% kaolin.
189.0'	194.0'	13728	Kss - as above, some grey areas, 7.97% kaolin.
194.0'	198.0'	13729	Kss - medium grain, as above, light grey, coarsening downsection, some purple areas

in clay-rich sections, 8.15% kaolin.

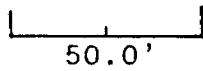
198.0' 205.0' 13730 Kss - as above, 8.15% kaolin.

205.0' 209.0' 13731 Kss - as above.

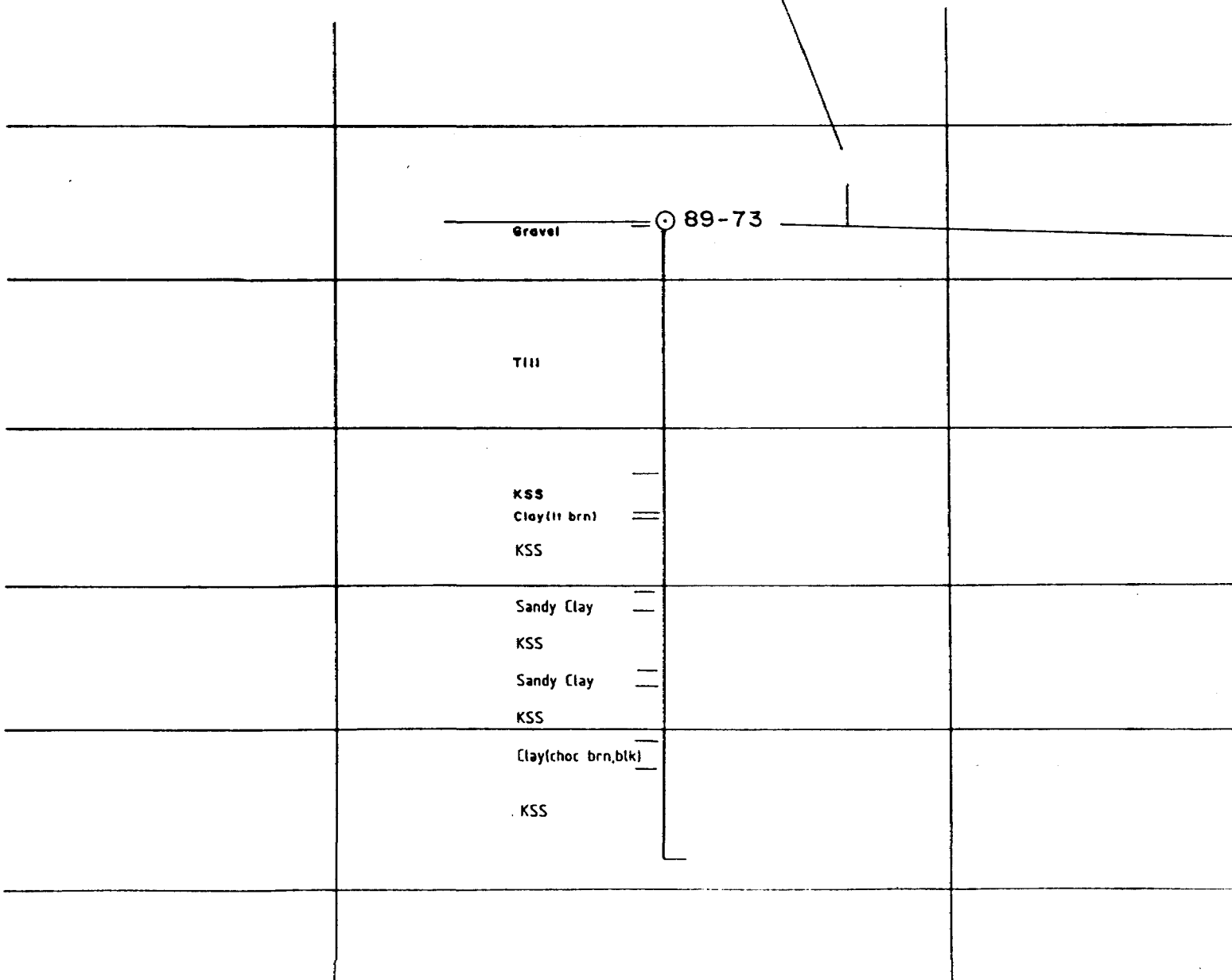
EOH - 209.0'

Section 89-73

Claim No.: P 825802
Hole Length: 206.0'
Overburden Depth: 82.5'
Astronomic Azimuth: 50° 08' 45" W. 82° 08' 56" N
Location: 1740.0' at 210° to claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 150 S
Easting: 5340 E
Dip: -90°



Gridline 5400



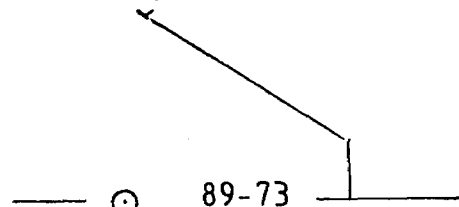
Section 89-73

Claim No.: P 825802
Hole Length: 206.0'
Overburden Depth: 82.5'
Astronomic Azimuth: 50° 08' 45" W. 82° 08' 56" N
Location: 1740.0' at 210° to claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 150 S
Easting: 5340 E
Dip: -90°



50.0'

Gridline 5400



13721	5.89%
13722	9.55%
13723	21.29%
13724	56.29%
13725	52.67%
13726	8.78%
13727	7.82%
13728	7.97%
13729	8.15%
13730	8.15%



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

19315471

BILLING INFORMATION

Date: 25-JUN-93
Project: KIPLING
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9315471

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
45	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	967.95
				Total Cost \$ 967.95
				(Reg# R100938885) GST \$ 67.76
				TOTAL PAYABLE (CDN) \$ 1035.71



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project: KIPLING
 Comments: ATTN: A. CASSELMAN

Page Number :1
 Total Pages :2
 Certificate Date: 25-JUN-93
 Invoice No. : I9315471
 P.O. Number : 0054
 Account : KJE

CERTIFICATE OF ANALYSIS A9315471

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
13226	208 226	2.88	0.11	0.04	0.50	0.09	0.07	< 0.01	0.07	0.03	95.78	0.11	1.21	100.90
13227	208 226	2.10	0.08	0.05	0.32	0.07	0.04	< 0.01	0.08	0.04	96.78	0.10	0.97	100.65
13228	208 226	4.67	0.13	0.08	0.34	0.10	0.06	< 0.01	0.12	0.07	92.39	0.14	1.89	100.00
13229	208 226	19.12	0.19	0.07	0.96	0.32	0.15	< 0.01	0.11	0.12	70.23	0.86	7.96	100.10
13230	208 226	2.52	0.09	0.06	0.35	0.05	0.04	< 0.01	0.08	0.05	95.92	0.19	1.10	100.45
13231	208 226	1.93	0.10	0.03	0.30	0.05	0.03	< 0.01	0.07	0.04	96.93	0.26	0.83	100.60
13232	208 226	1.53	0.02	0.02	0.24	0.04	0.01	< 0.01	0.02	0.03	97.59	0.10	0.67	100.30
13233	208 226	2.39	0.13	0.01	0.41	0.06	0.02	< 0.01	0.02	0.03	96.50	0.14	1.05	100.75
13234	208 226	2.64	0.08	< 0.01	0.26	0.06	0.01	< 0.01	0.02	0.02	96.54	0.17	1.08	100.90
13235	208 226	2.70	0.02	0.01	0.22	0.06	0.01	< 0.01	< 0.01	0.02	96.29	0.17	1.11	100.65
13236	208 226	1.71	< 0.01	< 0.01	0.18	0.04	0.01	< 0.01	< 0.01	0.01	97.69	0.07	0.72	100.45
13237	208 226	1.97	< 0.01	< 0.01	0.20	0.05	< 0.01	< 0.01	< 0.01	0.02	97.40	0.07	0.77	100.55
13238	208 226	2.95	< 0.01	< 0.01	0.24	0.06	< 0.01	< 0.01	< 0.01	0.02	95.51	0.16	1.13	100.10
13239	208 226	3.57	0.04	0.04	0.67	0.09	0.01	< 0.01	< 0.01	0.04	94.16	0.49	1.42	100.55
13240	208 226	2.69	0.02	0.02	0.32	0.07	0.01	< 0.01	0.01	0.03	96.40	0.31	1.09	101.00
13721	208 226	2.01	< 0.01	0.01	0.33	0.08	< 0.01	< 0.01	< 0.01	0.02	97.30	0.13	0.82	100.75
13722	208 226	3.93	0.03	0.01	0.41	0.07	0.01	< 0.01	< 0.01	0.02	94.12	0.25	1.66	100.55
13723	208 226	8.41	0.08	0.03	0.55	0.15	0.06	< 0.01	0.03	0.08	87.14	0.45	3.62	100.60
13724	208 226	22.25	0.44	< 0.01	1.02	0.62	0.25	< 0.01	0.04	0.11	57.36	1.16	17.47	100.75
13725	208 226	20.78	0.41	< 0.01	0.92	0.51	0.22	< 0.01	0.02	0.09	58.70	1.14	18.13	100.95
13726	208 226	3.47	0.03	< 0.01	0.38	0.05	0.01	< 0.01	0.02	0.03	94.72	0.28	1.53	100.55
13727	208 226	3.09	0.02	< 0.01	0.40	0.05	0.01	< 0.01	< 0.01	0.02	95.23	0.31	1.23	100.40
13728	208 226	3.15	0.06	< 0.01	0.37	0.06	0.02	< 0.01	0.02	0.03	95.33	0.26	1.21	100.55
13729	208 226	3.22	0.03	< 0.01	0.48	0.05	0.01	< 0.01	< 0.01	0.03	95.21	0.27	1.30	100.65
13730	208 226	3.70	0.06	< 0.01	0.47	0.06	0.02	< 0.01	0.02	0.03	94.71	0.17	1.46	100.70
16806	208 226	4.75	0.08	< 0.01	0.31	0.12	0.03	< 0.01	0.01	0.04	92.69	0.17	1.84	100.05
16807	208 226	4.29	0.03	< 0.01	0.35	0.14	0.02	< 0.01	< 0.01	0.03	93.86	0.12	1.63	100.50
16808	208 226	3.00	0.02	< 0.01	0.28	0.10	0.01	< 0.01	< 0.01	0.02	95.54	0.12	1.15	100.25
16809	208 226	25.73	0.34	< 0.01	1.18	0.55	0.22	< 0.01	0.03	0.11	53.06	1.07	18.77	101.10
16810	208 226	22.51	0.52	< 0.01	1.22	0.59	0.29	< 0.01	0.05	0.10	50.44	1.04	24.18	100.95
16811	208 226	24.26	0.33	< 0.01	1.63	0.70	0.30	< 0.01	0.04	0.14	60.59	1.17	12.09	101.25
16812	208 226	2.26	0.07	0.07	0.31	0.12	0.04	< 0.01	0.09	0.06	96.19	0.09	0.94	100.25
16813	208 226	3.10	0.06	0.08	0.38	0.13	0.04	< 0.01	0.07	0.06	94.42	0.47	1.25	100.05
16814	208 226	4.57	0.05	0.05	0.29	0.14	0.03	< 0.01	0.04	0.05	93.55	0.18	1.72	100.70
16815	208 226	4.03	0.02	0.02	0.27	0.13	0.02	< 0.01	0.01	0.03	94.51	0.13	1.56	100.75
16816	208 226	4.49	< 0.01	< 0.01	0.29	0.15	0.01	< 0.01	< 0.01	0.03	93.88	0.19	1.82	100.90
16817	208 226	4.15	0.11	0.13	0.59	0.11	0.07	< 0.01	0.14	0.08	93.53	0.17	1.77	100.85
16818	208 226	6.23	0.15	0.15	0.49	0.11	0.09	< 0.01	0.20	0.09	90.35	0.28	2.42	100.55
16819	208 226	2.68	0.07	< 0.01	0.18	0.09	0.03	< 0.01	< 0.01	0.02	95.73	0.19	1.13	100.15
16820	208 226	3.16	0.05	0.02	0.22	0.09	0.04	< 0.01	< 0.01	0.03	95.49	0.20	1.23	100.55

Hart Becker

CERTIFICATION: _____

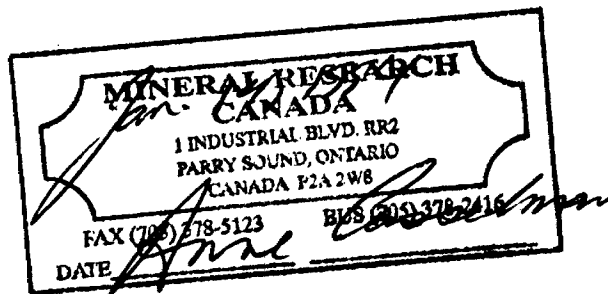
SONIC DRILL HOLE RECORD

Drilling Started: Mar. 2, 1989
 Drilling Finished: Mar. 2, 1989
 Drilling Co.: J. R. Drilling
 Dip: -90°
 Hole Length: 250.0'
 Overburden Depth: 45.0'
 Claim No.: P 825802
 Easting: 5400 E
 Northing: 110 N
 Azimuth: 50° 08' 53" W. 82° 08' 52" N.
 Location: 950.0' at 225° To Claim Post No. 1
 Property: Kipling

Logged By: A. Casselman
 Logged: April 20, 1989
 Core Size: 3.5"
 Core Storage:
 Mineral Research Canada
 R. R. # 2
 Parry Sound, ON
 P2A 2W8
 Hole No.: 89-74

SUMMARY

From	To	Description
0.0'	9.0'	Sand
9.0'	45.0'	Glacial Clay Till - Overburden - Pleistocene
45.0'	85.0'	Kaolin Silica Sand (Kss) Cretaceous
85.0'	87.0'	Clay
87.0'	89.0'	Kss
89.0'	93.0'	Clay
93.0'	123.0'	Kss
123.0'	140.0'	Sandy Clay
140.0'	158.0'	Kss
158.0'	163.0'	Sandy Clay
163.0'	247.0'	Kss
247.0'	250.0'	Clay



EOH - 250.0'

Detail Log - 89-74

From	To	Sample No.	Description
0.0'	9.0'		Sand - yellow brown, coarsening downsection, very little clay, predominantly gneissic clasts, poorly sorted.
9.0'	45.0'		Glacial Clay Till - dark brown, highly to moderately competent, rare clast up to 3.0", predominantly carbonate, 38.0' - 45.0' - fine grain silt within the clay matrix.
45.0'	48.0'	13201	Kss - medium grain, dark brown, lighter sections. 9.34% kaolin.
48.0'	53.0'	13202	Kss - light brown and white alternating sections, medium grain. 8.48% kaolin.
53.0'	58.0'	13203	Kss - white with purple sections, coarsening downsection from medium grain to coarse. 8.30% kaolin.
58.0'	63.0'	13204	Kss - medium grain, coarsening downsection, 4.0" light grey pliable clay at 61.5', brown at lower contact. 12.56% kaolin.
63.0'	68.0'	13205	Kss - medium grain, coarsening downsection, white, rare smoky quartz clasts up to 1.0", minor illite and heavies. 6.28% kaolin.
68.0'	73.0'	13206	Kss - as above. 5.72% kaolin.
73.0'	76.0'	13207	Kss - as above, 3.0" light grey pliable clay clots at 73.5". 8.86% kaolin.
76.0'	80.0'	13208	Kss - as above, no clay clots. 7.67% kaolin.
80.0'	85.0'	13209	Kss - as above. 7.34% kaolin.
85.0'	87.0'	13210	Clay - buff, pliable, poorly disc-like. 64.13% kaolin.
87.0'	89.0'	13211	Kss - medium brown, medium grain, 1.0" medium brown pliable clay clots. 10.84% kaolin.
89.0'	90.0'	13212	Clay - buff, pliable, competent, faint darker laminations. 77.42% kaolin.

90.0'	93.0'	13213	Clay - as above. 66.76% kaolin.
93.0'	94.0'	13214	Kss - water saturated, coarse grain, light brown, fishy smell. 9.06% kaolin.
94.0'	100.0'	13215	Kss - white, medium grain with dark to medium brown clay clots and mottling. 22.13% kaolin.
100.0'	106.0'	13216	Kss - as above. 19.57% kaolin.
106.0'	110.0'	13217	Kss - medium grain, greyish, darker areas, minor illite and heavies. 9.92% kaolin.
110.0'	115.0'	13218	Kss - as above, water saturated, rare 1.0" smoky quartz. 9.87% kaolin.
115.0'	121.0'	13219	Kss - as above, less moisture. 6.99% kaolin.
121.0'	123.0'	13220	Kss - medium grain, white, minor illite and heavies.
123.0'	125.0'	13221	Sandy Clay - competent, medium grey, rare purple laminations, medium grain, minor illite and heavies, 27.11% kaolin.
125.0'	133.0'	13222	Sandy Clay - as above, 13.19% kaolin.
133.0'	135.0'	13223	Sandy Clay - as above, polydrill saturated, 18.38% kaolin.
135.0'	140.0'	13224	Sandy Clay - as above, some areas grading to kss, 26.08% kaolin.
140.0'	145.0'	13225	Kss - medium grain, white, minor illite and heavies, heavies also occur as banding, 7.90% kaolin.
145.0'	150.0'	13226	Kss - white, grading downsection to purple/blue to grey/brown, to buff to purple blue, medium grain, 7.29% kaolin.
150.0'	154.0'	13227	Kss - white grading downsection to medium grey, grading downsection from medium to coarse grain with minor illite and heavies, 5.32% kaolin.
154.0'	158.0'	13228	Kss - coarse grain, 0.25" rounded clasts, yellow chert and smoky quartz in a light brown clay matrix, 11.82% kaolin.
158.0'	163.0'	13229	Sandy Clay - buff, high illite content,

with clay interbeds, pliable, yellow buff, chocolate brown, also clay-rich kss, coarse grain, brown, interbeds in 3.0" - 5.0" sections, 48.41% kaolin.

163.0'	168.0'	13230	Kss - medium/fine grain, dark to medium grey, some haematite stained sections, minor illite and heavies, heavies banding and lower clay content, 6.38% kaolin.
168.0'	174.0'	13231	Kss - as above, 4.89% kaolin.
174.0'	180.0'	13232	Kss - as above, slightly higher clay content, 3.87% kaolin.
180.0'	185.0'	13233	Kss - medium brown, medium grain, large section of drill casing, rust staining surrounding, 6.05% kaolin.
185.0'	191.0'	13234	Kss - medium brown as above, 185.0' - 186.0', then becoming white, medium grain, minor illite and heavies as banding, 5.80% kaolin.
191.0'	197.0'	13235	Kss - as above, rare larger rounded clasts, smoky quartz, 6.84% kaolin.
197.0'	203.0'	13236	Kss - as above, 4.33% kaolin.
203.0'	209.0'	13237	Kss - as above, some areas of low clay content, 4.99% kaolin.
209.0'	214.0'	13238	Kss - as above, alternating with coarse grain areas, medium grain with larger rounded clasts, 7.47% kaolin.
214.0'	221.0'	13239	Kss - coarse material as above, until 216.0', then dark to medium grey, fine grain kss, heavies banding, purple convolute laminations at upper contact, minor illite and heavies, 9.04% kaolin.
221.0'	226.0'	13240	Kss - fine as above, light grey only, 6.81% kaolin.
226.0'	233.0'	13241	Kss - medium grain, darkening downsection from dark grey to light grey to dark yellow brown, 2.0" dark weathered fossiliferous sandstone, - brachiopods & crinoids, Devonian.
233.0'	238.0'	13242	Kss - medium grey, white, coarsening downsection, minor illite and heavies.

238.0' 241.0' 13243 Kss - medium and coarse grain alternating -
as above, minor illite and heavies.

241.0' 245.0' 13244 Kss - as above from 241.0' - 244.0', 244.0'
- 245.0' - buff to brown as well as
laminations of black carbon-rich material.

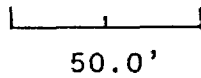
245.0' 247.0' 13245 Kss - coarse grain, dried, larger clasts
rounded smoky quartz in reddish areas.

247.0' 250.0' 13246 Clay - chocolate brown, greasy, highly
competent, carbonaceous seams.

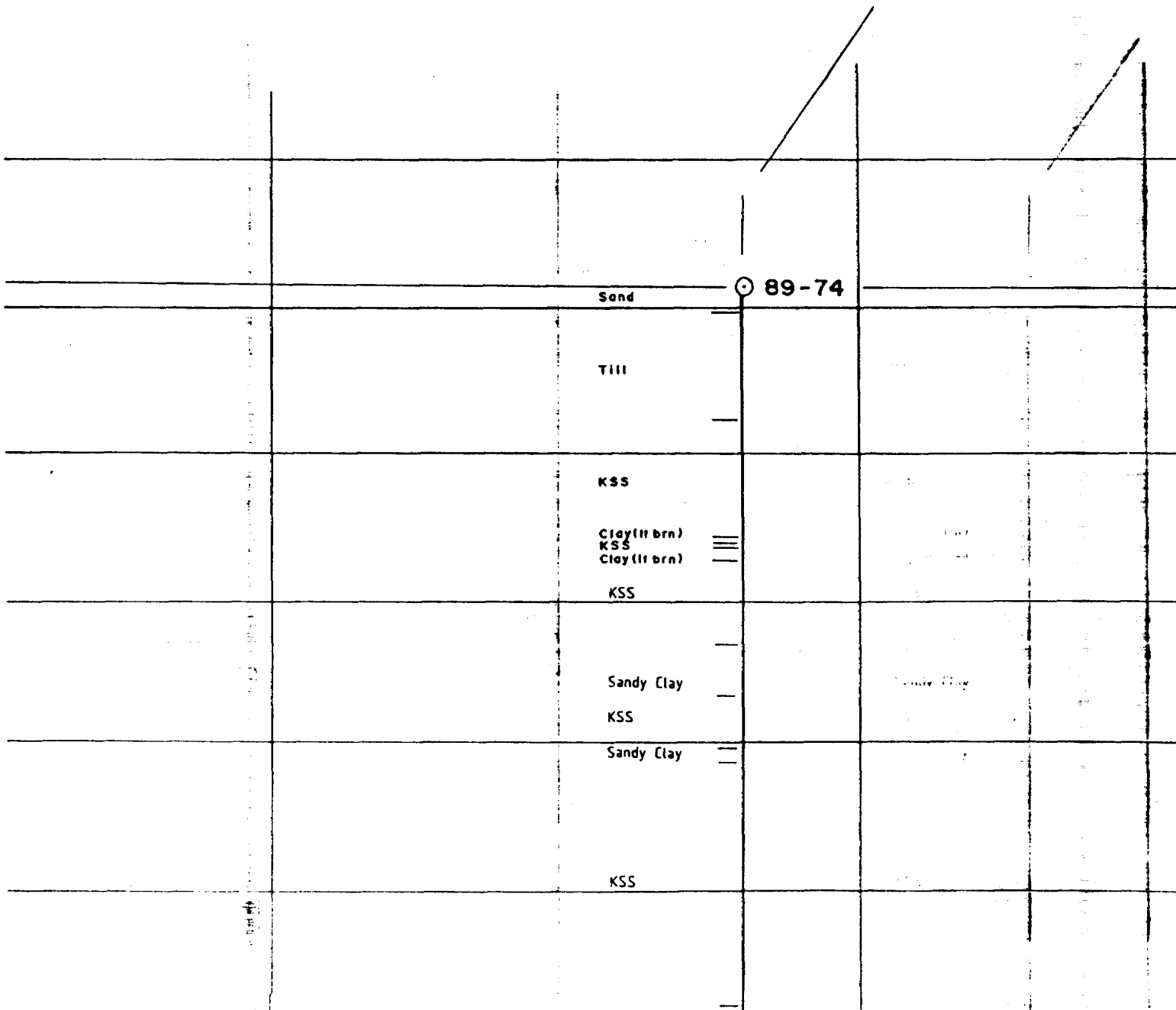
EOH - 250.0'

Section 89-74

Claim No.: P 825802
 Hole Length: 250.0'
 Overburden Depth: 45.0'
 Astronomic Azimuth: 50° 08' 53" W. 82° 08' 52" N
 Location: 950.0' at 225° to claim post no. 7
 Scale: 1.0" = 50.0' or 1:600
 Northing: 110 N
 Easting: 5400 E
 Dip: -90°



Gridline 5400



Section 89-74

Claim No.: P 825802

Hole Length: 250.0'

Overburden Depth: 45.0'

Astronomic Azimuth: $50^{\circ} 08' 53''$ W. $82^{\circ} 08' 52''$ N

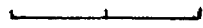
Location: 950.0' at 225° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 110 N

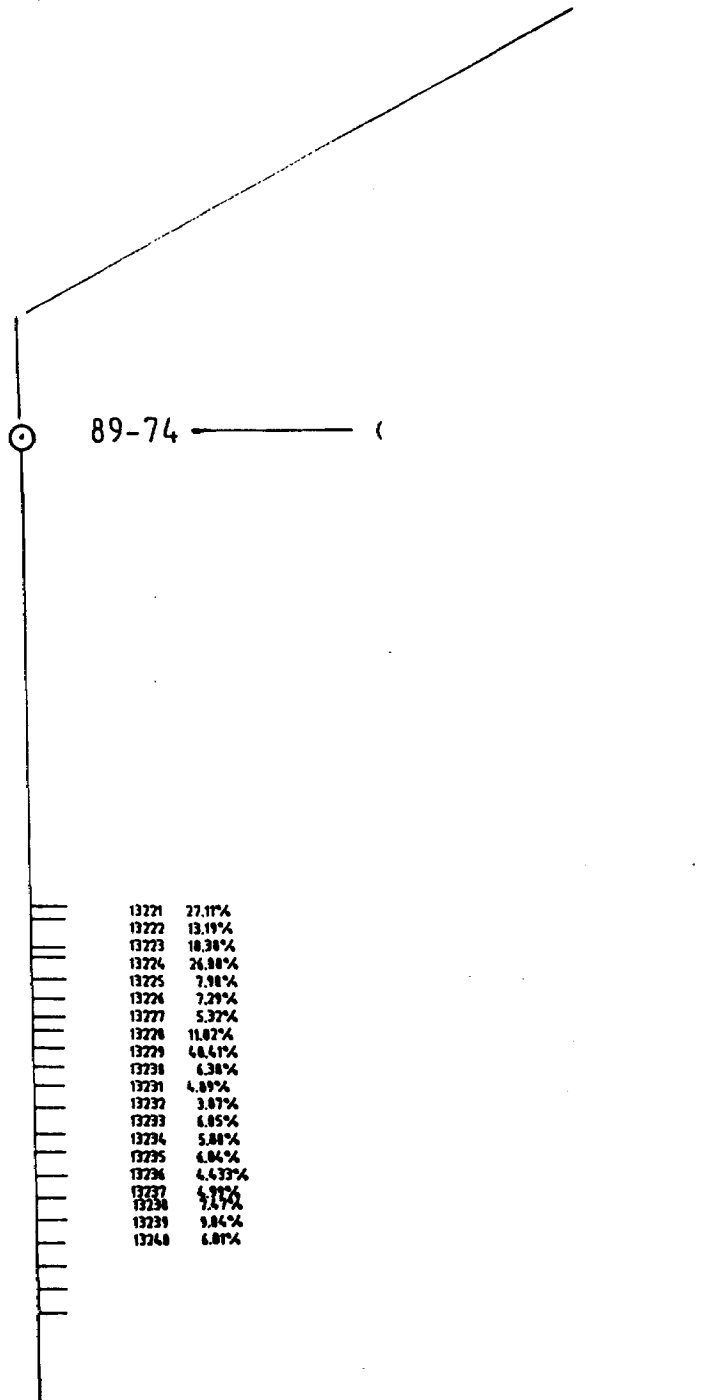
Easting: 5400 E

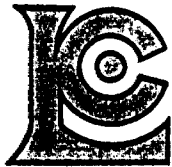
Dip: -90°



50.0'

Gridline 5400





Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 5 4 7 1

BILLING INFORMATION

Date: 25-JUN-93
Project: KIPLING
P.O. No.: 0054
Account: KJE

Comments: 930101T

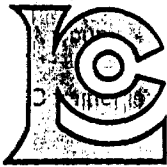
Billing: For analysis performed on
Certificate A9315471

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
45	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	967.95
Total Cost \$				967.95
(Reg# R100938885) GST \$				67.76
TOTAL PAYABLE (CDN) \$				1035.71



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 5 4 7 5

BILLING INFORMATION

Date: 2-JUL-93
Project: KIPLING
P.O. No.: 0054
Account: KJE
Comments: 930101T

Billings are due 30 days after receipt of results for:

Billing: For analysis performed on
Certificate # A9315475
212 Brooksbank Ave.,
North Vancouver, B.C.
V7J 2C1

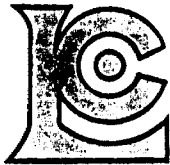
Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
131	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	2817.81
				Total Cost \$ 2817.81
				(Reg# R100938885) GST \$ 197.25
				TOTAL PAYABLE (CDN) \$ 3015.06

COPY



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project: KIPLING
Comments: ATTN: A. CASSELMAN

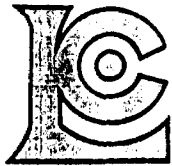
Page Number : 1
Total Pages : 4
Certificate Date: 30-JUN-93
Invoice No. : I9315475
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS A9315475

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
13221	208 226	10.71	0.25	0.09	1.95	0.24	0.14	0.01	0.11	< 0.01	81.40	0.64	5.58	101.15
13222	208 226	5.21	< 0.01	0.04	0.60	0.12	0.02	< 0.01	0.01	< 0.01	91.67	0.42	2.25	100.35
13223	208 226	7.26	< 0.01	0.03	0.65	0.17	0.03	< 0.01	< 0.01	< 0.01	88.66	0.61	3.27	100.70
13224	208 226	10.30	< 0.01	0.02	0.69	0.22	0.06	< 0.01	0.02	< 0.01	83.99	0.75	4.63	100.70
13225	208 226	3.12	< 0.01	0.02	0.42	0.07	< 0.01	< 0.01	< 0.01	< 0.01	94.76	0.31	1.49	100.25
13773	208 226	6.73	< 0.01	0.10	1.91	0.16	< 0.01	< 0.01	0.01	< 0.01	87.56	0.28	3.54	100.35
13774	208 226	19.58	0.01	0.01	1.26	0.34	0.07	< 0.01	< 0.01	< 0.01	68.12	0.90	10.59	100.90
13775	208 226	25.76	0.32	< 0.01	1.27	0.54	0.24	< 0.01	0.05	< 0.01	51.67	1.22	18.81	99.91
13776	208 226	26.18	0.14	< 0.01	1.23	0.42	0.11	< 0.01	< 0.01	< 0.01	59.35	1.13	12.71	101.30
13777	208 226	27.10	0.39	< 0.01	1.18	0.44	0.23	< 0.01	0.04	< 0.01	48.31	1.16	20.88	99.76
13778	208 226	25.36	0.39	< 0.01	1.46	0.55	0.28	< 0.01	< 0.02	< 0.01	45.57	1.13	24.67	99.46
13779	208 226	23.68	0.56	< 0.01	1.17	0.48	0.28	< 0.01	< 0.01	0.09	41.66	0.99	30.90	99.84
13780	208 226	23.93	0.46	< 0.01	1.10	0.66	0.28	< 0.01	< 0.01	0.11	51.42	1.19	20.42	99.60
13781	208 226	23.46	0.45	< 0.01	1.71	0.59	0.24	< 0.01	0.01	0.10	49.22	1.16	22.09	99.05
13782	208 226	2.64	0.07	0.01	0.83	0.07	< 0.01	< 0.01	< 0.01	< 0.01	95.27	0.26	1.51	100.70
13783	208 226	3.66	0.02	0.04	0.79	0.06	< 0.01	0.01	< 0.01	0.03	93.61	1.05	1.72	101.00
13784	208 226	4.51	0.08	0.02	0.92	0.08	< 0.01	< 0.01	< 0.01	0.02	92.92	0.50	2.05	101.15
13785	208 226	4.06	0.01	0.01	0.55	0.08	< 0.01	< 0.01	< 0.01	0.02	94.51	0.16	1.71	101.15
13786	208 226	3.04	< 0.01	0.01	0.47	0.07	< 0.01	< 0.01	< 0.01	0.01	95.47	0.14	1.33	100.60
13787	208 226	3.79	< 0.01	0.01	0.47	0.08	< 0.01	< 0.01	< 0.01	0.02	94.90	0.17	1.58	101.05
13788	208 226	4.81	0.04	0.03	1.01	0.10	0.01	0.01	< 0.01	0.03	90.45	0.89	2.14	99.53
13789	208 226	2.81	< 0.01	0.01	0.55	0.07	< 0.01	< 0.01	< 0.01	< 0.01	95.29	0.07	1.16	100.00
13790	208 226	2.87	< 0.01	< 0.01	0.34	0.07	< 0.01	< 0.01	< 0.01	< 0.01	96.39	0.11	1.18	101.00
13791	208 226	2.47	< 0.01	< 0.01	0.43	0.06	< 0.01	< 0.01	< 0.01	< 0.01	96.46	0.09	1.00	100.55
13792	208 226	2.99	< 0.01	< 0.01	0.42	0.06	< 0.01	< 0.01	< 0.01	< 0.01	93.44	0.22	1.26	98.45
13793	208 226	2.92	< 0.01	0.03	0.52	0.06	< 0.01	< 0.01	< 0.01	0.02	95.82	0.09	1.18	100.70
13794	208 226	1.65	< 0.01	0.02	0.47	0.03	< 0.01	< 0.01	< 0.01	0.02	97.95	0.06	0.64	100.90
13795	208 226	1.32	0.01	0.03	0.43	0.03	< 0.01	< 0.01	< 0.01	0.02	98.01	0.04	0.53	100.45
13796	208 226	1.58	0.06	0.08	0.52	0.03	0.02	< 0.01	0.07	0.06	96.75	0.06	0.58	99.82
13797	208 226	1.05	0.02	0.05	0.44	0.02	< 0.01	< 0.01	0.02	0.03	97.41	0.04	0.38	99.48
13798	208 226	1.14	0.01	0.03	0.36	0.03	< 0.01	< 0.01	< 0.01	0.02	96.98	0.04	0.44	99.08
13799	208 226	4.83	0.01	0.03	0.57	0.06	< 0.01	< 0.01	< 0.01	0.02	91.39	0.30	2.08	99.32
16284	208 226	2.64	0.02	0.06	0.55	0.01	< 0.01	< 0.01	0.04	0.03	95.65	0.11	1.10	100.25
16285	208 226	2.03	< 0.01	0.04	0.52	0.02	< 0.01	< 0.01	< 0.01	0.02	96.60	0.05	0.80	100.10
16286	208 226	1.77	0.09	0.04	0.69	0.03	0.02	< 0.01	0.02	0.03	96.50	0.07	0.79	100.05
16287	208 226	2.50	< 0.01	0.01	0.47	0.02	< 0.01	< 0.01	< 0.01	0.01	95.43	0.07	1.12	99.67
16288	208 226	3.44	0.03	0.05	0.44	0.04	0.01	< 0.01	0.04	0.04	94.21	0.11	1.54	99.96
16289	208 226	5.58	0.06	0.05	0.61	0.06	0.02	< 0.01	0.02	0.04	88.95	0.32	2.41	98.13
16290	208 226	31.56	0.21	0.02	1.23	0.54	0.18	< 0.01	0.07	0.16	53.07	1.14	13.18	101.35
16701	208 226	8.37	0.56	0.03	0.82	0.24	0.21	< 0.01	0.08	0.06	83.95	0.44	4.23	99.00

CERTIFICATION:

Hart Buchler



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project: KIPLING
Comments: ATTN: A. CASSELMAN

Page Number : 1
Total Pages : 2
Certificate Date: 25-JUN-93
Invoice No. : 19315471
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS A9315471

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
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13227	208 226	2.10	0.08	0.05	0.32	0.07	0.04	< 0.01	0.08	0.04	96.78	0.10	0.97	100.65
13228	208 226	4.67	0.13	0.08	0.34	0.10	0.06	< 0.01	0.12	0.07	92.39	0.14	1.89	100.00
13229	208 226	19.12	0.19	0.07	0.96	0.32	0.15	< 0.01	0.11	0.12	70.23	0.86	7.96	100.10
13230	208 226	2.52	0.09	0.06	0.35	0.05	0.04	< 0.01	0.08	0.05	95.92	0.19	1.10	100.45
13231	208 226	1.93	0.10	0.03	0.30	0.05	0.03	< 0.01	0.07	0.04	96.93	0.26	0.83	100.60
13232	208 226	1.53	0.02	0.02	0.24	0.04	0.01	< 0.01	0.02	0.03	97.59	0.10	0.67	100.30
13233	208 226	2.39	0.13	0.01	0.41	0.06	0.02	< 0.01	0.02	0.03	96.50	0.14	1.05	100.75
13234	208 226	2.64	0.08	< 0.01	0.26	0.06	0.01	< 0.01	0.02	0.02	96.54	0.17	1.08	100.90
13235	208 226	2.70	0.02	0.01	0.22	0.06	0.01	< 0.01	< 0.01	0.02	96.29	0.17	1.11	100.65
13236	208 226	1.71	< 0.01	< 0.01	0.18	0.04	0.01	< 0.01	< 0.01	0.01	97.69	0.07	0.72	100.45
13237	208 226	1.97	< 0.01	< 0.01	0.20	0.05	< 0.01	< 0.01	< 0.01	0.02	97.40	0.07	0.77	100.55
13238	208 226	2.95	< 0.01	< 0.01	0.24	0.06	< 0.01	< 0.01	< 0.01	0.02	95.51	0.16	1.13	100.10
13239	208 226	3.57	0.04	0.04	0.67	0.09	0.01	< 0.01	< 0.01	0.04	94.16	0.49	1.42	100.55
13240	208 226	2.69	0.02	0.02	0.32	0.07	0.01	< 0.01	0.01	0.03	96.40	0.31	1.09	101.00
13721	208 226	2.01	< 0.01	0.01	0.33	0.08	< 0.01	< 0.01	< 0.01	0.02	97.30	0.13	0.82	100.75
13722	208 226	3.93	0.03	0.01	0.41	0.07	0.01	< 0.01	< 0.01	0.02	94.12	0.25	1.66	100.55
13723	208 226	8.41	0.08	0.03	0.55	0.15	0.06	< 0.01	0.03	0.08	87.14	0.45	3.62	100.60
13724	208 226	22.25	0.44	< 0.01	1.02	0.62	0.25	< 0.01	0.04	0.11	57.36	1.16	17.47	100.75
13725	208 226	20.78	0.41	< 0.01	0.92	0.51	0.22	< 0.01	0.02	0.09	58.70	1.14	18.13	100.95
13726	208 226	3.47	0.03	< 0.01	0.38	0.05	0.01	< 0.01	0.02	0.03	94.72	0.28	1.53	100.55
13727	208 226	3.09	0.02	< 0.01	0.40	0.05	0.01	< 0.01	< 0.01	0.02	95.23	0.31	1.23	100.40
13728	208 226	3.15	0.06	< 0.01	0.37	0.06	0.02	< 0.01	0.02	0.03	95.33	0.26	1.21	100.55
13729	208 226	3.22	0.03	< 0.01	0.48	0.05	0.01	< 0.01	< 0.01	0.03	95.21	0.27	1.30	100.65
13730	208 226	3.70	0.06	< 0.01	0.47	0.06	0.02	< 0.01	0.02	0.03	94.71	0.17	1.46	100.70
16806	208 226	4.75	0.08	< 0.01	0.31	0.12	0.03	< 0.01	0.01	0.04	92.69	0.17	1.84	100.05
16807	208 226	4.29	0.03	< 0.01	0.35	0.14	0.02	< 0.01	< 0.01	0.03	93.86	0.12	1.63	100.50
16808	208 226	3.00	0.02	< 0.01	0.28	0.10	0.01	< 0.01	< 0.01	0.02	95.54	0.12	1.15	100.25
16809	208 226	25.73	0.34	< 0.01	1.18	0.55	0.22	< 0.01	0.03	0.11	53.06	1.07	18.77	101.10
16810	208 226	22.51	0.52	< 0.01	1.22	0.59	0.29	< 0.01	0.05	0.10	50.44	1.04	24.18	100.95
16811	208 226	24.26	0.33	< 0.01	1.63	0.70	0.30	< 0.01	0.04	0.14	60.59	1.17	12.09	101.25
16812	208 226	2.26	0.07	0.07	0.31	0.12	0.04	< 0.01	0.09	0.06	96.19	0.09	0.94	100.25
16813	208 226	3.10	0.06	0.08	0.38	0.13	0.04	< 0.01	0.07	0.06	94.42	0.47	1.25	100.05
16814	208 226	4.57	0.05	0.05	0.29	0.14	0.03	< 0.01	0.04	0.05	93.55	0.18	1.72	100.70
16815	208 226	4.03	0.02	0.02	0.27	0.13	0.02	< 0.01	0.01	0.03	94.51	0.13	1.56	100.75
16816	208 226	4.49	< 0.01	< 0.01	0.29	0.15	0.01	< 0.01	< 0.01	0.03	93.88	0.19	1.82	100.90
16817	208 226	4.15	0.11	0.13	0.59	0.11	0.07	< 0.01	0.14	0.08	93.53	0.17	1.77	100.85
16818	208 226	6.23	0.15	0.15	0.49	0.11	0.09	< 0.01	0.20	0.09	90.35	0.28	2.42	100.55
16819	208 226	2.68	0.07	< 0.01	0.18	0.09	0.03	< 0.01	< 0.01	0.02	95.73	0.19	1.13	100.15
16820	208 226	3.16	0.05	0.02	0.22	0.09	0.04	< 0.01	< 0.01	0.03	95.49	0.20	1.23	100.55

CERTIFICATION: *Hart Buchler*

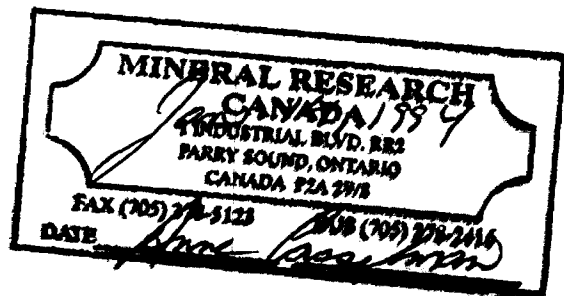
ROTARY DRILL HOLE RECORD

Drilling Started: Mar. 3, 1989
 Drilling Finished: Mar. 3, 1989
 Drilling Co.: Midwest
 Dip: -90°
 Hole Length: 256.0'
 Overburden Depth: 46.0'
 Claim Number: P 825802
 Easting: 5600 E
 Northing: 095 S
 Azimuth: 50° 08' 47" W. 82° 08' 40" N.
 Location: 1300.0' at 181° To Claim Post No.1
 Property: Kipling

Logged By: A. Casselman
 Logged: Mar. 21, 1989
 Core Size: 3.5"
 Core Storage:
 Mineral Research Canada
 1 Industrial Blvd.
 R. R. # 2
 Parry Sound, ON
 P2A 2W8
 Hole No.: 89- 86

SUMMARY

From	To	Description
0.0'	4.0'	Peat
4.0'	13.0'	Glacial Clay Till
13.0'	16.0'	Gravel
16.0'	39.0'	Glacial Clay Till
39.0'	39.25'	Sand
39.25'	46.0'	Glacial Clay Till-Overburden - Pleistocene
46.0'	73.0'	Kaolin Silica Sand (kss) Cretaceous
73.0'	75.0'	Clay
75.0'	77.0'	Kss
77.0'	81.0'	Sandy Clay
81.0'	95.5'	Kss
95.5'	97.0'	Clay
97.0'	99.0'	Kss
99.0'	103.0'	Kss, Sandy Clay & Clay
103.0'	104.75'	Kss
104.75'	106.0'	Clay
106.0'	117.0'	Sandy Clay
117.0'	191.0'	Kss
191.0'	193.0'	Clay
193.0'	195.5'	Kss
195.5'	198.0'	Clay
198.0'	219.0'	Kss
219.0'	220.0'	Clay
220.0'	221.0'	Kss
221.0'	223.0'	Clay
223.0'	256.0'	Kss



Detail Log - 89-86

From	To	Sample No.	Description
0.0'	4.0'		Peat
4.0'	13.0'		Glacial Clay Till - dark green/brown, competent, rare carbonate and gneissic clasts up to 2.0".
13.0'	16.0'		Gravel - yellow brown, gneissic clasts up to 1.0".
16.0'	39.0'		Glacial Clay Till - as above, some sandy sections.
39.0'	39.25'		Sand - medium brown, medium grain.
39.25'	46.0'		Glacial Clay Till - as above.
46.0'	51.0'	2751	Kss - white, medium grain. 72.00 GE brightness 6.23% kaolin.
51.0'	56.0'	2752	Kss - as above. 71.30 GE brightness. 7.22% kaolin.
56.0'	61.0'	2753	Kss - as above, brown & grey clay seams and clots. 6.05% kaolin.
61.0'	66.0'	2754	Kss - as above, minor illite and heavies, up to 0.25" brown clay clots. 75.14 GE brightness. 6.23% kaolin.
66.0'	71.0'	2755	Kss - as above. 11.25% kaolin.
71.0'	73.0'	2756	Kss - as above. 71.94 GE brightness. 7.26% kaolin.
73.0'	75.0'	2757	Clay - medium brown to buff, pliable, darker discontinuous laminations, increasing competency and sand content downsection. 56.71% kaolin.
75.0'	77.0'	2758	Kss - as previous, two light grey, very pliable clay seams near the lower contact. 72.15 GE brightness. 10.61% kaolin.
77.0'	81.0'	2759	Sandy Clay - light grey with darker discontinuous laminations, yellow staining in 0.25" bands, purple clots, minor illite and heavies. 65.59 GE brightness. 37.90% kaolin.

81.0'	86.0'	2760	Kss - white, fine grain, high moisture content, high clay content, minor illite and heavies, purple areas. 69.64 GE brightness. 10.81% kaolin.
86.0'	90.0'	2761	Kss - medium grain, minor illite and heavies, more grey than above. 76.59 GE brightness. 9.62% kaolin.
90.0'	95.5'	2762	Kss - as above, 0.25" smoky quartz clasts. 8.08% kaolin.
95.5'	97.0'	2763	Clay - fissile to pliable, competent to non-competent, buff to medium brown, grading to grey & yellow. 65.57% kaolin.
97.0'	99.0'	2764	Kss - coarse grain clasts up to 0.25", grading to fine grain, darkening downsection. 71.39 GE brightness. 17.32% kaolin.
99.0'	103.0'	2765	Kss - medium grain, brown, 99.0' - 99.25', clay - dark brown, discontinuous laminations, pliable, kss - 99.25' - 99.5' - as above, clay - 99.5' - 101.25' - as above, kss - 101.25' - 101.5' - as above, sandy clay - light grey, minor illite and heavies - 101.5' - 102.0', clay - 102.0' - 102.25' - as above, kss - 102.25' - 102.5' - as above, clay - 102.5' - 103.0' - as above. 66.94 GE brightness. 46.89% kaolin.
103.0'	104.75'	2766	Kss - medium brown, medium grain, 1.0" medium brown, pliable, clay clots. 13.67% kaolin.
104.75'	106.0'	2767	Clay - dark brown, laminated, pliable. 52.68% kaolin.
106.0'	108.0'	2768	Sandy Clay - light grey, pliable, minor illite and heavies, fine grain, polydrill contamination. 45.52% kaolin.
108.0'	113.0'	2769	Sandy Clay - as above, purple discontinuous laminations. 70.65 GE brightness. 27.49% kaolin.
113.0'	117.0'	2770	Sandy Clay - as above. 73.72 GE brightness. 21.92% kaolin.
117.0'	122.0'	2771	Kss - 117.0' - 119.0' - fine grain, white, 119.0' - 122.0' - medium grain, high percentage yellow chert. 75.05 GE

			brightness. 11.04% kaolin.
122.0'	126.0'	2772	Kss - medium grain, white, large percentage yellow chert, minor illite and heavies. 8.76% kaolin. 72.77 GE brightness.
126.0'	130.0'	2773	Kss - as above, coarser grain, 8.63% kaolin.
130.0'	134.0'	2774	Kss - as above, large 0.5" clasts - well rounded smoky quartz, 14.10% kaolin. 73.48 GE brightness.
134.0'	138.0'	2775	Kss - medium grain, finer than above, light brown, minor illite and heavies, 8.76% kaolin.
138.0'	142.0'	2776	Kss - as above, rare larger 0.5" rounded smoky quartz clasts from 140.0' - 142.0' - alternating coarse grain and sandy clay sections - high illite content, 13.70% kaolin.
142.0'	147.0'	2777	Kss - clay-rich, coarse grain, buff, rounded clasts, some fine grain, near sandy clay sections, 10.94% kaolin.
147.0'	151.0'	2778	Kss - as above, 12.96% kaolin.
151.0'	156.0'	2779	Kss - large 0.5" sub-rounded clasts embedded in a medium grain matrix of buff coloured kss, minor illite and heavies, 13.32% kaolin. 75.07 GE brightness.
156.0'	161.0'	2780	Kss - white, medium grain, minor illite and heavies, 26.48% kaolin. 73.20 GE brightness.
161.0'	166.0'	2781	Kss - as above, rare clay-rich areas, 14.89% kaolin.
166.0'	171.0'	2782	Kss - as above, with large 1.0" clasts embedded in a medium grain matrix, high illite content. 11.82% kaolin. 66.66 GE brightness.
171.0'	176.0'	2783	Kss - as above, fewer larger clasts, 12.72% kaolin.
176.0'	181.0'	2784	Kss - as above, 9.80% kaolin. 78.29 GE brightness.
181.0'	186.0'	2785	Kss - as above, 7.97% kaolin. 73.06 GE brightness.
186.0'	191.0'	2786	Kss - as above, from 186.0' - 188.5' - at

188.5' - interbedding with carbonaceous clots and buff to chocolate brown pliable clay seams, 17.06% kaolin.

191.0' 193.0' 2787 Clay - pliable, chocolate brown, lighter laminations, 74.66% kaolin.

193.0' 195.0' 2788 Kss - medium grain, chocolate brown, 6.13% kaolin. 24.34 GE brightness.

195.0' 198.0' 2789 Clay - chocolate brown, high illite and carbon content as seams, pliable, 195.5' - 196.0', 196.0' - 196.75' - highly competent, non-pliable, 196.0' - 197.25' - kss seams, medium grain, dark brown, 197.25' - 198.0' - pliable chocolate to light brown clay, 53.19% kaolin.

198.0' 204.0' 2790 Kss - white, medium grain, minor illite and heavies, 20.48% kaolin. 71.30 GE brightness.

204.0' 212.0' 2791 Kss - medium grain, medium to light brown, minor illite and heavies, 9.67% kaolin.

212.0' 219.0' 2792 Kss - medium grain, medium brown, 9.32% kaolin.

219.0' 220.0' 2793 Clay - black, pliable, mottled with brown, 62.38% kaolin.

220.0' 221.0' 2794 Kss - medium grain, black to chocolate brown, 5.44% kaolin.

221.0' 223.0' 2795 Clay - greasy, disc-like, very dark brown, 59.92% kaolin.

223.0' 231.0' 2796 Kss - medium grain, white, larger yellow chert clasts, much contamination. 5.32% kaolin. 73.08 GE brightness.

231.0' 241.0' 2797 Kss - as above. 7.75% kaolin.

241.0' 246.0' 2798 Kss - as above, more buff - higher clay content, 9.92% kaolin.

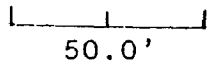
246.0' 251.0' 2799 Kss - as above, 6.61% kaolin.

251.0' 256.0' 2800 Kss - washed out, medium grain, carbonaceous, especially black seams at 253.0' - 253.5', remainder medium brown - very little clay, 7.70% kaolin.

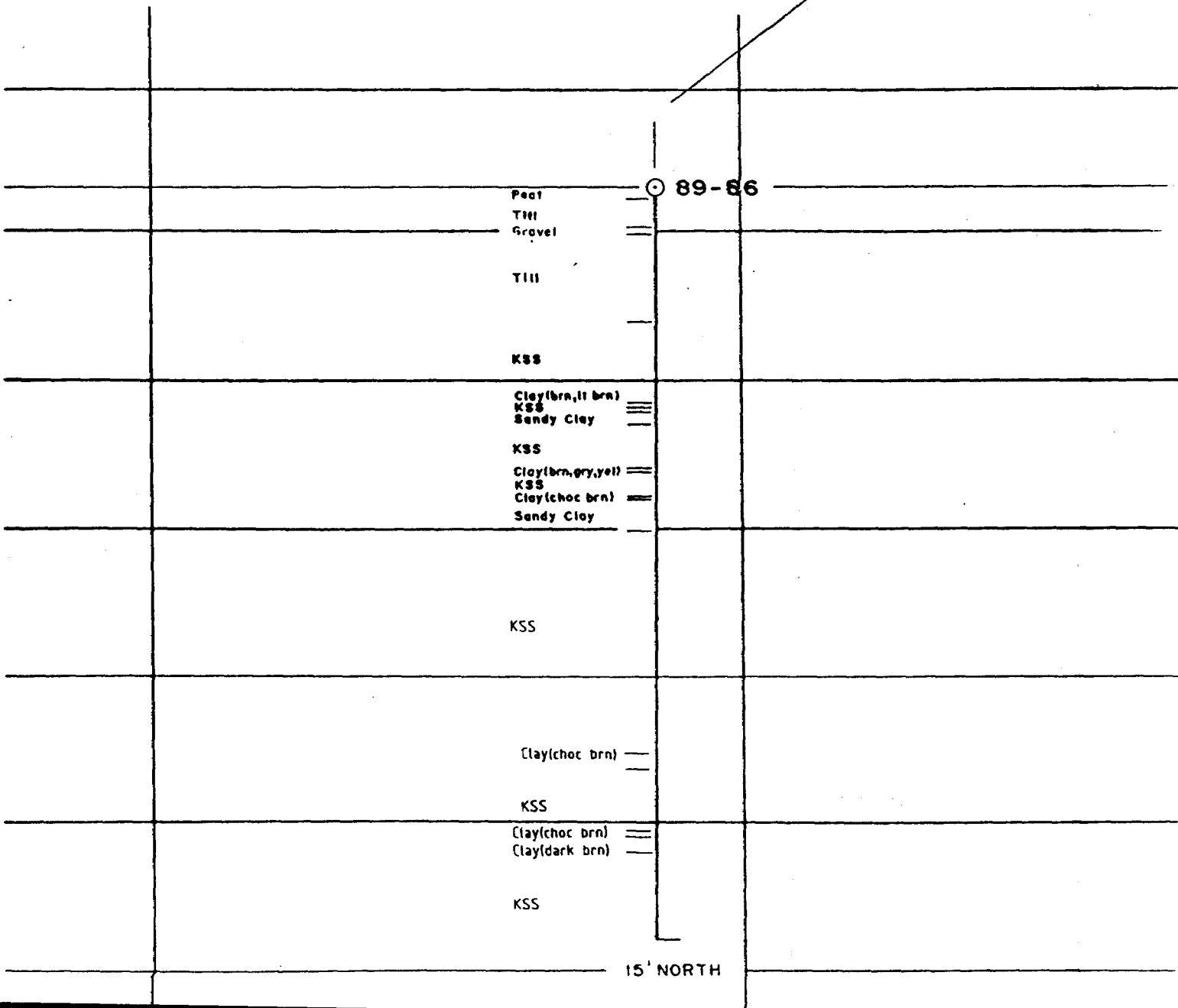
 EOH - 256.0'

Section 89-86

Claim No.: P 825802
 Hole Length: 256.0'
 Overburden Depth: 46.0'
 Astronomic Azimuth: 50° 08' 47" W. 82° 08' 40" N
 Location: 1300.0' at 181° to claim post no. 1
 Scale: 1.0" = 50.0' or 1:600
 Northing: 095 N
 Easting: 5600 E
 Dip: -90°

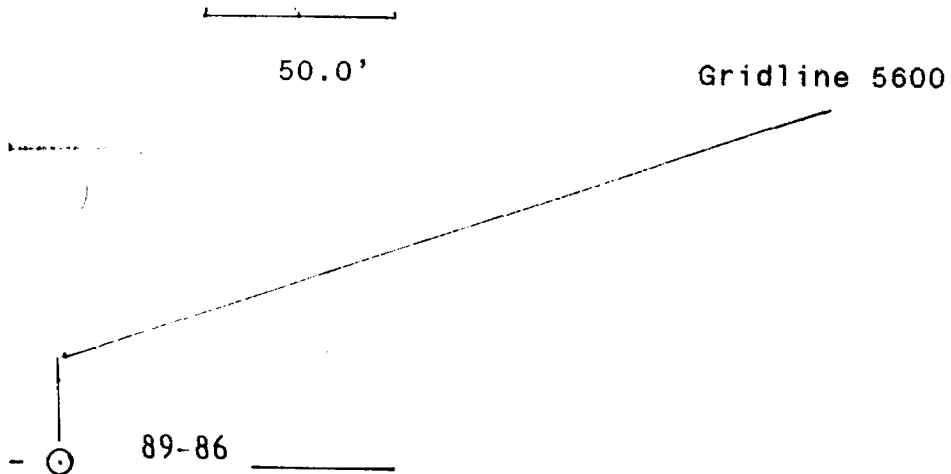


Gridline 5600



Section 89-86

Claim No.: P 825802
 Hole Length: 256.0'
 Overburden Depth: 46.0'
 Astronomic Azimuth: 50° 08' 47" W. 82° 08' 40" N
 Location: 1300.0' at 181° to claim post no. 1
 Scale: 1.0" = 50.0' or 1:600
 Northing: 095 N
 Easting: 5600 E
 Dip: -90°



2772	8.76%
2773	8.63%
2774	14.18%
2775	8.76%
2776	13.78%
2777	18.96%
2778	12.96%
2779	13.32%
2780	26.48%
2781	16.89%
2782	11.82%
2783	12.72%
2784	9.88%
2785	9.97%
2786	17.86%
2787	74.66%
2788	6.13%
2789	51.19%
2790	20.44%
2791	9.67%
2792	9.32%
2793	62.38%
2794	5.64%
2795	58.72%
2796	5.32%
2797	7.75%
2798	9.92%
2799	6.67%
2800	38.32%
2801	7.76%



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 3 7

BILLING INFORMATION

Date: 19-JAN-93
Project:
P.O. No.: 0054
Account: KJE
Comments: 930101T

Billing: For analysis performed on
Certificate A9310137

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
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80	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	1720.80
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Total Cost \$			1720.80
(Reg# R100938885) GST \$			120.46

TOTAL PAYABLE (CDN) \$ 1841.26



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 3 8

BILLING INFORMATION

Date: 21-JAN-93
Project:
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9310138

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
80	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	1720.80
Total Cost \$				1720.80
(Reg# R100938885) GST \$				120.46
TOTAL PAYABLE (CDN) \$				1841.26



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project :
Comments: ATN: A. CASSELMAN

Page Number : 2
Total Pages : 2
Certificate Date: 19-JAN-93
Invoice No. : 19310137
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS A9310137

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
2370	208 226	4.86	0.11	0.11	0.81	0.15	0.14	< 0.01	0.12	0.12	90.89	0.93	1.91	100.15
2371	208 226	3.16	0.14	0.11	0.85	0.18	0.12	< 0.01	0.15	0.11	94.50	0.28	1.18	100.80
2372	208 226	3.11	0.06	0.08	0.50	0.20	0.09	< 0.01	0.10	0.10	94.82	0.14	1.08	100.30
2373	208 226	3.75	0.06	0.07	0.52	0.22	0.07	< 0.01	0.09	0.10	94.55	0.12	1.07	100.85
2374	208 226	4.57	0.06	0.07	0.49	0.28	0.08	< 0.01	0.11	0.10	93.10	0.14	1.47	100.50
2375	208 226	4.10	0.08	0.07	0.49	0.19	0.08	< 0.01	0.12	0.10	93.63	0.14	1.46	100.45
2376	208 226	3.76	0.20	0.08	1.00	0.14	0.09	< 0.01	0.13	0.11	93.49	0.21	1.60	100.80
2629	208 226	4.43	0.09	0.08	0.50	0.11	0.08	< 0.01	0.12	0.11	93.35	0.28	1.69	100.85
2630	208 226	3.20	0.08	0.08	0.49	0.14	0.09	< 0.01	0.12	0.11	94.46	0.14	1.10	100.00
2631	208 226	3.39	0.07	0.08	0.46	0.16	0.08	< 0.01	0.12	0.09	94.63	0.16	1.10	100.35
2632	208 226	3.69	0.08	0.07	0.47	0.14	0.11	< 0.01	0.12	0.10	94.06	0.10	1.27	100.20
2633	208 226	3.78	0.10	0.08	0.51	0.11	0.13	< 0.01	0.11	0.10	93.71	0.14	1.35	100.15
2634	208 226	4.37	0.11	0.09	0.63	0.08	0.04	< 0.01	0.14	0.12	93.20	0.33	1.55	100.65
2635	208 226	4.05	0.08	0.08	0.73	0.08	0.06	< 0.01	0.12	0.10	93.09	0.24	1.50	100.15
2636	208 226	4.32	0.08	0.10	0.66	0.11	0.06	< 0.01	0.12	0.11	92.72	0.44	1.53	100.25
2637	208 226	6.05	0.10	0.09	0.55	0.11	0.10	< 0.01	0.15	0.12	90.37	0.23	2.26	100.15
2638	208 226	11.16	0.17	0.08	0.82	0.20	0.12	< 0.01	0.15	0.13	82.88	0.45	4.24	100.40
2639	208 226	8.01	0.15	0.08	0.83	0.16	0.11	< 0.01	0.14	0.12	87.27	0.56	3.05	100.50
2640	208 226	2.99	0.11	0.10	0.51	0.08	0.11	< 0.01	0.15	0.11	94.51	0.14	1.06	99.98
2641	208 226	4.94	0.14	0.10	0.82	0.11	0.09	< 0.01	0.12	0.11	92.12	0.14	1.88	100.60
2642	208 226	19.08	0.49	0.03	1.07	0.16	0.51	< 0.01	0.03	0.18	65.67	1.02	11.60	99.85
2643	208 226	6.59	0.14	0.08	0.77	0.08	0.11	< 0.01	0.14	0.12	89.07	0.42	2.79	100.30
2644	208 226	2.95	0.13	0.08	0.54	0.07	0.12	< 0.01	0.17	0.12	94.36	0.14	1.21	100.00
2645	208 226	3.41	0.13	0.08	0.51	0.08	0.10	< 0.01	0.16	0.11	94.50	0.10	1.13	100.00
2646	208 226	2.78	0.11	0.08	0.48	0.08	0.08	< 0.01	0.16	0.12	94.53	0.07	1.01	99.51
2647	208 226	3.62	0.11	0.08	0.71	0.14	0.09	< 0.01	0.15	0.11	94.14	0.13	1.40	100.70
2648	208 226	1.93	0.12	0.07	0.89	0.07	0.08	< 0.01	0.12	0.12	97.50	0.06	0.86	101.85
2649	208 226	23.80	0.43	0.03	1.40	0.28	0.49	< 0.01	0.03	0.15	55.80	1.04	16.31	99.77
2650	208 226	3.94	0.11	0.06	0.72	0.09	0.09	< 0.01	0.09	0.12	92.92	0.41	1.52	100.10
2772	208 226	3.46	0.09	0.05	0.50	0.14	0.08	< 0.01	0.12	0.11	94.83	0.10	1.29	100.80
2773	208 226	3.41	0.11	0.08	0.64	0.17	0.09	< 0.01	0.15	0.12	94.51	0.10	1.19	100.60
2774	208 226	5.57	0.12	0.08	0.68	0.16	0.13	< 0.01	0.14	0.13	91.35	0.17	1.97	100.50
2775	208 226	3.46	0.09	0.05	0.46	0.12	0.04	< 0.01	0.12	0.11	94.55	0.10	1.26	100.35
2776	208 226	5.41	0.11	0.07	0.62	0.11	0.06	< 0.01	0.14	0.12	91.27	0.28	2.04	100.25
2777	208 226	4.32	0.12	0.11	0.75	0.10	0.11	< 0.01	0.15	0.12	92.39	0.46	1.58	100.20
2778	208 226	5.12	0.25	0.08	0.86	0.09	0.10	< 0.01	0.11	0.12	91.24	0.34	2.02	100.35
2779	208 226	5.26	0.14	0.08	0.82	0.09	0.09	< 0.01	0.13	0.13	91.73	0.26	1.96	100.70
2780	208 226	10.46	0.17	0.08	1.00	0.17	0.13	< 0.01	0.15	0.14	83.35	0.46	4.02	100.15
2781	208 226	5.88	0.15	0.07	0.81	0.10	0.11	< 0.01	0.14	0.13	90.64	0.35	2.28	100.65
2782	208 226	4.67	0.15	0.06	0.72	0.12	0.09	< 0.01	0.12	0.11	91.80	0.23	1.80	99.88

CERTIFICATION: *Yhai J Ma*



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project:
 Comments: ATN: A. CASSELMAN

Page Number : 1
 Total Pages : 2
 Certificate Date: 21-JAN-93
 Invoice No. : 19310138
 P.O. Number : 0054
 Account : KJE

CERTIFICATE OF ANALYSIS A9310138

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
2783	208 226	4.81	0.06	0.08	0.67	0.17	0.01	< 0.01	0.13	0.11	92.26	0.14	1.94	100.40
2784	208 226	3.87	< 0.01	0.07	0.53	0.10	0.03	< 0.01	0.10	0.10	93.43	0.09	1.63	99.97
2785	208 226	3.15	< 0.01	0.05	0.43	0.09	0.01	< 0.01	0.09	0.10	95.30	0.10	1.32	100.65
2786	208 226	6.74	0.02	0.03	0.48	0.12	0.02	< 0.01	0.09	0.11	89.95	0.34	2.64	100.55
2787	208 226	29.49	0.24	0.01	1.44	0.44	0.16	< 0.01	0.12	0.18	54.62	1.09	13.28	101.10
2788	208 226	2.42	0.01	0.06	0.62	0.07	0.02	< 0.01	0.08	0.10	95.71	0.19	1.03	100.30
2789	208 226	21.01	0.23	0.03	1.05	0.26	0.10	< 0.01	0.09	0.16	67.73	0.86	9.71	101.25
2790	208 226	8.09	0.03	0.04	0.74	0.11	0.01	< 0.01	0.07	0.11	87.84	0.45	3.42	100.90
2791	208 226	3.78	0.06	0.05	0.82	0.06	0.08	< 0.01	0.07	0.10	93.82	0.33	1.71	100.90
2792	208 226	3.68	< 0.01	0.04	0.75	0.12	0.06	< 0.01	0.06	0.10	93.56	0.16	1.55	100.10
2793	208 226	24.64	0.40	0.01	1.34	0.30	0.14	< 0.01	0.08	0.16	58.07	1.02	13.57	99.74
2794	208 226	2.15	0.01	0.11	1.15	0.08	0.09	< 0.01	0.05	0.09	95.76	0.08	0.96	100.55
2795	208 226	23.67	0.35	< 0.01	1.27	0.28	0.13	< 0.01	0.08	0.16	59.71	1.10	11.68	98.45
2796	208 226	2.10	< 0.01	0.06	0.50	0.08	0.07	< 0.01	0.08	0.10	96.43	0.08	0.84	100.35
2797	208 226	3.06	0.02	0.03	0.54	0.13	0.07	< 0.01	0.06	0.10	94.85	0.11	1.30	100.30
2798	208 226	3.92	0.14	0.07	1.48	0.10	0.13	< 0.01	0.06	0.11	91.67	0.47	1.88	100.05
2799	208 226	2.61	0.02	0.09	0.76	0.09	0.15	< 0.01	0.08	0.11	94.97	0.28	1.04	100.20
2800	208 226	3.04	0.08	0.11	2.87	0.10	0.09	< 0.01	0.07	0.10	88.97	0.17	5.31	100.90
2915	208 226	13.88	0.15	0.01	1.25	0.29	0.12	< 0.01	0.06	0.12	78.04	0.91	5.68	100.00
2916	208 226	3.30	0.02	0.07	0.54	0.17	0.03	< 0.01	0.10	0.10	95.11	0.09	1.24	100.80
2917	208 226	5.23	0.02	0.07	0.49	0.22	< 0.01	< 0.01	0.11	0.12	92.29	0.15	1.98	100.70
2918	208 226	4.98	< 0.01	0.08	0.53	0.20	0.01	< 0.01	0.10	0.10	92.95	0.12	1.70	100.20
2919	208 226	5.14	0.02	0.09	0.54	0.18	< 0.01	< 0.01	0.12	0.12	92.26	0.18	1.91	100.60
2920	208 226	3.40	< 0.01	0.06	0.50	0.14	< 0.01	< 0.01	0.09	0.11	94.27	0.09	1.31	100.00
2921	208 226	2.82	< 0.01	0.06	0.60	0.14	< 0.01	< 0.01	0.07	0.09	94.95	0.13	1.09	99.98
3017	208 226	5.58	0.05	0.04	0.62	0.13	0.02	< 0.01	0.11	0.13	90.48	0.58	2.12	99.87
3018	208 226	4.66	< 0.01	0.07	0.70	0.10	< 0.01	< 0.01	0.10	0.11	92.87	0.38	1.85	100.85
3019	208 226	3.48	0.20	0.08	1.31	0.11	0.07	< 0.01	0.13	0.11	93.19	0.24	1.71	100.65
3020	208 226	2.84	< 0.01	0.04	0.63	0.09	< 0.01	< 0.01	0.05	0.09	95.82	0.18	1.12	100.90
3021	208 226	5.21	0.01	0.06	0.49	0.14	< 0.01	< 0.01	0.10	0.11	92.26	0.13	1.94	100.45
3022	208 226	3.36	< 0.01	0.06	0.50	0.13	< 0.01	< 0.01	0.08	0.10	95.00	0.09	1.18	100.55
3023	208 226	4.03	< 0.01	0.06	0.58	0.15	< 0.01	< 0.01	0.08	0.11	93.69	0.11	1.40	100.25
3024	208 226	3.15	< 0.01	0.07	0.59	0.10	< 0.01	< 0.01	0.08	0.10	94.79	0.13	1.12	100.15
3025	208 226	4.69	0.07	0.12	0.79	0.10	0.04	< 0.01	0.15	0.13	92.00	0.26	1.79	100.15
3026	208 226	4.09	0.07	0.13	0.76	0.10	0.10	< 0.01	0.17	0.14	92.82	0.27	1.48	100.15
3027	208 226	3.26	0.05	0.10	0.83	0.08	0.21	< 0.01	0.14	0.13	94.57	0.21	1.19	100.80
12668	208 226	4.60	0.04	0.10	0.53	0.06	0.04	< 0.01	0.15	0.13	92.19	0.30	1.69	99.84
12669	208 226	2.66	0.03	0.09	0.44	0.04	0.03	< 0.01	0.14	0.12	95.27	0.09	1.01	99.93
12670	208 226	2.55	0.03	0.09	0.45	0.04	0.02	< 0.01	0.14	0.13	95.41	0.15	0.96	99.98
12672	208 226	3.92	0.02	0.09	0.56	0.05	0.03	< 0.01	0.11	0.13	93.79	0.24	1.55	100.50

CERTIFICATION:

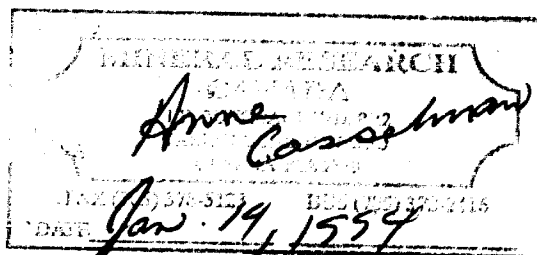
B. Campbell

ROTARY DRILL HOLE RECORD

Drilling Started: Mar. 6, 1989	Logged By: A. Casselman
Drilling Finished: Mar. 7, 1989	Logged: Mar. 16, 1989
Drilling Co.: Midwest	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 241.0'	Mineral Research Canada
Overburden Depth: 38.0'	R. R. # 2
Claim No.: P 825805	Parry Sound, ON
Easting: 5650 E	P2A 2W8
Northing: 050 S	Elevation: 327.0'
Azimuth: 50° 08' 48" W. 82° 08' 38" N.	
Location: 1280.0' at 210° To Claim Post No. 1	
Property: Kipling	Hole No.: 89-88

SUMMARY

From	To	Description
0.0'	3.0'	Peat
3.0'	38.0'	Glacial Clay Till - Overburden - Pleistocene
38.0'	77.5'	Kaolin Silica Sand (Kss) Cretaceous
77.5'	84.0'	Clay
84.0'	97.0'	Kss
97.0'	103.0'	Sandy Clay, Clay & Kss
103.0'	105.0'	Clay & Kss
105.0'	107.75'	Clay
107.75'	108.75'	Sandy Clay
108.75'	109.0'	Clay
109.0'	121.0'	Sandy Clay
121.0'	179.0'	Kss
179.0'	181.0'	Clay
181.0'	185.0'	Sandy Clay
185.0'	226.0'	Kss
226.0'	237.0'	Clay
237.0'	241.0'	Kss



EOH - 241.0'

Detail Log - 89-88

From	To	Sample No.	Description
0.0'	3.0'		Peat
3.0'	38.0'		Glacial Clay Till - medium to dark green/brown, 3.0" clasts - carbonate and gneissic, highly competent, some pliable areas.
38.0'	40.0'	2601	Kss - medium brown, due to surface contamination, coarse grain, fining downsection, layers of brown and purple/grey, rare larger 0.25" clasts of smoky quartz. 9.54% kaolin.
40.0'	43.0'	2602	Kss - 40.0' - 42.75' - as above, 42.75' - 43.0' - fine grain. 6.61% kaolin.
43.0'	47.0'	2603	Kss - as above, medium grain. 5.54% kaolin.
47.0'	50.0'	2604	Kss - as above, 1.0" clay clots, light grey pliable. 15.09% kaolin.
50.0'	54.0'	2605	Kss - 50.0' - 52.0' - medium grain, 52.0' - 53.0' - coarse grain with 4.0" dolostone clast with siliceous particles - gritty, abundant crinoids - Devonian, 53.0' - 54.0' - medium grain, all brown and grey - high moisture retention. 6.91% kaolin.
54.0'	59.0'	2606	Kss - medium grain, minor grey 1.0" pliable clay clots, white, high moisture retention, 0.5' clay bands. 10.13% kaolin.
59.0'	61.0'	2607	Kss - coarse grain, white, high clay content, 1.0" light grey clay clots. 8.53% kaolin.
61.0'	62.0'	2608	Kss - as above, light brown, with high moisture retention. 32.15% kaolin.
62.0'	66.0'	2609	Kss - as above, clay banding and clots. 7.82% kaolin.
66.0'	75.0'	2610	Kss - as above, 66.0' - 75.0' - brown, 74.0' - 75.0' - white, (3.0" of material for a 9.0' length). 7.72% kaolin.
75.0'	77.5'	2611	Kss - coarse grain, grey, brown and grey clay band of 4.0" at 76.0'. 17.77% kaolin.

77.5'	78.0'	2612	Clay - buff, highly competent, pliable, purple grey, white laminations. 68.51% kaolin.
78.0'	82.0'	2613	Clay - buff with wine coloured discontinuous laminations, kss - 79.0' - 80.25' - red, medium grain. 62.58% kaolin.
82.0'	84.0'	2614	Clay - as above, grading to yellow/grey, from highly competent to pliable, open full can of sardines, pudding and soup - possible contamination, 1.0" band of kss - red chert clasts - medium grain. 64.10% kaolin.
84.0'	85.0'	2615	Kss - grey, coarse grain, highly competent, grading to medium grain. 22.03% kaolin.
85.0'	88.0'	2616	Kss - white, medium grain, minor illite and heavies. 10.84% kaolin.
88.0'	91.0'	2617	Kss - as above. 9.24% kaolin.
91.0'	94.0'	2618	Kss - as above. 7.56% kaolin.
94.0'	97.0'	2619	Kss - as above. 11.09% kaolin.
97.0'	99.0'	2620	Sandy Clay, Clay & Kss - all interbedded, clay - buff to yellow to burgundy - pliable, sandy clay - light grey, minor illite and heavies, kss - white to light grey, medium grain, clay - 97.75" - 98.75' - fissile to pliable. 48.18% kaolin.
99.0'	103.0'	2621	Sandy Clay, Clay & Kss - as above, 99.0' - 99.5' - sandy clay, 99.5' - 100.5' - clay, 100.5' - 101.5' - clay, 101.5' - 102.5' - kss, 102.5' - 103.0' - sandy clay. 26.81% kaolin.
103.0'	105.0'	2622	Clay & Kss - as previous description, 103.0' - 103.5' - clay, 103.5' - 104.75' - kss, 104.75' - 105.0' - clay. 31.57% kaolin.
105.0'	107.75'	2623	Clay - buff with red discontinuous laminations, pliable, rare silica clasts, yellow and purple clots. 56.0% kaolin.
107.75'	108.75'	2624	Sandy Clay - light grey with red discontinuous laminations, pliable. 27.70% kaolin.
108.75'	109.0'	2625	Clay - red, pliable, high moisture content.

			51.24% kaolin.
109.0'	112.0'	2626	Sandy Clay - grey, discontinuous darker laminations, minor illite and heavies. 30.63% kaolin.
112.0'	115.0'	2627	Sandy Clay - as above, red & purple laminations. 20.63% kaolin.
115.0'	121.0'	2628	Sandy Clay - as above. 14.28% kaolin.
121.0'	125.0'	2629	Kss - medium grain, white, minor illite and heavies, 11.22% kaolin.
125.0'	130.0'	2630	Kss - as above, 8.10% kaolin.
130.0'	135.0'	2631	Kss - as above, 8.58% kaolin.
135.0'	140.0'	2632	Kss - as above, 9.34% kaolin.
140.0'	145.0'	2633	Kss - as above, some finer grain material, more clay-rich areas, light grey seam of coarser clasts at 143.0', 9.57% kaolin.
145.0'	150.0'	2634	Kss - coarse grain, prevalent chert and smoky quartz, up to 0.75", a siliceous dolostone clast - fossiliferous - brachiopods & crinoids - Devonian, 4.0" - mottled light and dark grey - darker weathered surface, 145.0' - 147.0' - white, 147.0' - 150.0' - red tinge, 11.06% kaolin.
150.0'	155.0'	2635	Kss - medium grain, 150.0' - 152.5' - reddish, 152.5' - 155.0' - white, very coarse grain, 1.0" - large sub-angular clasts - 1.5", 154.0' - 155.0' - medium grain, grey, 10.25% kaolin.
155.0'	158.0'	2636	Kss - white, coarse grain, high percentage heavies, 10.94% kaolin.
158.0'	163.0'	2637	Kss - white, medium grain, with rare larger clasts, minor illite and heavies, light brown, 1.0" pliable clay clots, high clay content. 15.32% kaolin. 72.4 GE brightness. 74.0% +325. 35.0% Kaolin, 65.0% quartz.
163.0'	167.0'	2638	Kss - medium grain, very clay-rich especially at 165.0', 1.0" pliable clay seam at 165.5' - buff, 28.25% kaolin.
167.0'	172.0'	2639	Kss - buff coloured, coarse grain, clay-rich with buff pliable clay interbedded, yellow chert and smoky quartz up to 0.5", Devonian

			dolostone, grey, solitary horn coral, 20.28% kaolin.
172.0'	176.0'	2640	Kss - coarse grain, light grey clay-rich, numerous yellow chert & black shale-like fragments, 7.57% kaolin.
176.0'	179.0'	2641	Kss - coarse grain, dark grey dried, well rounded clasts up to 1.0", shale fragments as above, coarsening downsection, not as clay-rich as previous. 12.51% kaolin. 75.0% Quartz, 25.0% Kaolin.
179.0'	181.0'	2642	Clay - medium brown, with fine darker laminations - 179.0' - 179.25', 179.25' - 179.5' - medium grain kss, brown, 179.5' - 181.0' - clay - black greasy illite rich semi-pliable, 48.30% kaolin.
181.0'	185.0'	2643	Sandy Clay - buff, pliable, high illite content - 181.0' - 182.0', 182.0' - 183.0' - kss - carbon-rich clay clots, coarse grain, black, 183.0' - 184.0' - sandy clay - as previous, 184.0' - 185.0' - medium grain, white kss, 16.68% kaolin.
185.0'	190.0'	2644	Kss - white with black, yellow and brown impurity bands, medium grain, minor illite and heavies, 7.47% kaolin.
190.0'	199.0'	2645	Kss - white, medium grain, much polydrill contaminations, minor illite and heavies, 7.87% kaolin.
199.0'	208.0'	2646	Kss - medium grain, light brown, 7.04% kaolin.
208.0'	217.0'	2647	Kss - as above, coarsening downsection, 9.16% kaolin.
217.0'	225.0'	2648	Kss - dark yellow/brown, medium grain; lenses of more clay-rich material, 4.89% kaolin.
225.0'	226.0'		Kss - black and medium yellow/brown, medium grain, very contaminated.
226.0'	237.0'	2649	Clay - dark brown, fissile, fragmented from 228.0' - 231.0' - then becoming more competent although remaining dried and greasy - much contamination due to mould, 60.25% kaolin.
237.0'	241.0'	2650	Kss - medium grain, white, rare larger smoky

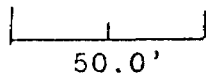
quartz clasts, 9.97% kaolin.

EOH - 241.0'

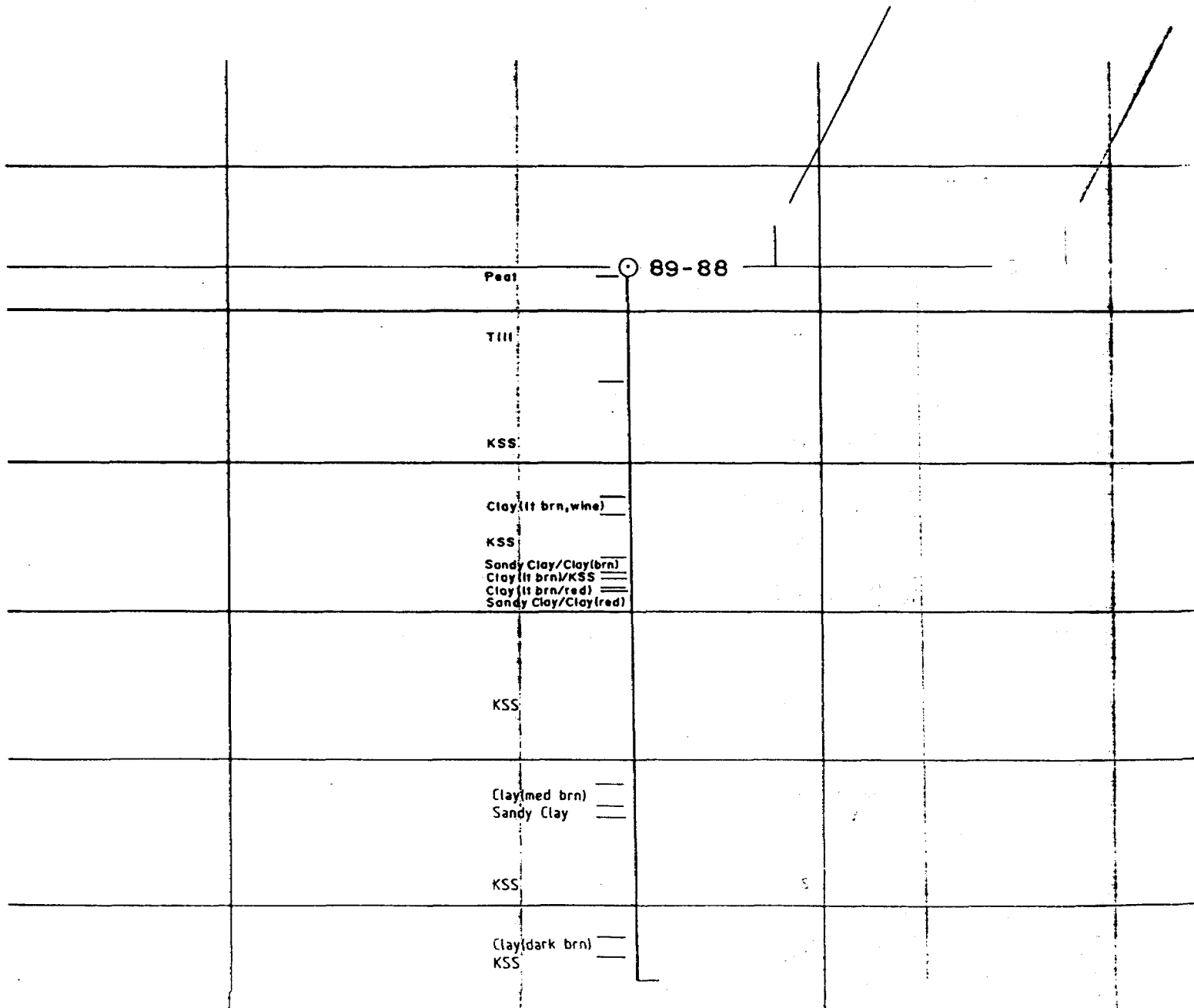
0'

Section 89-88

Claim No.: P 825805
 Hole Length: 241.0'
 Overburden Depth: 38.0'
 Astronomic Azimuth: 50° 08' 48" W. 82° 08' 38" N
 Location: 1280.0' at 210° to claim post no. 1
 Scale: 1.0" = 50.0' or 1:600
 Northing: 050 N
 Easting: 5650 E
 Dip: -90°



Gridline 5700



Section 89-88

Claim No.: P 825805

Hole Length: 241.0'

Overburden Depth: 38.0'

Astronomic Azimuth: $50^{\circ} 08' 48''$ W. $82^{\circ} 08' 38''$ N

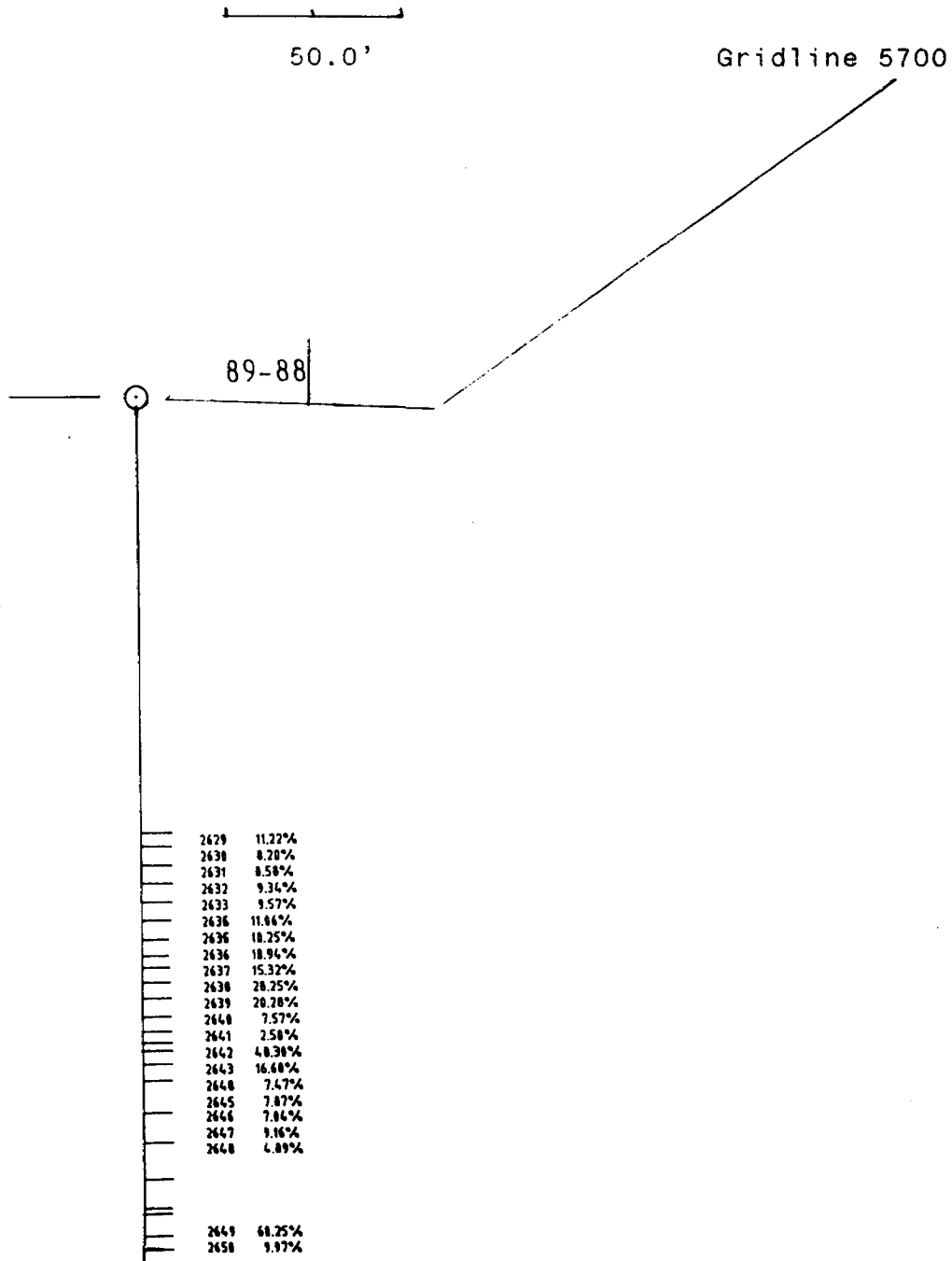
Location: 1280.0' at 210° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 050 N

Easting: 5650 E

Dip: -90°





Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 3 7

BILLING INFORMATION

Date: 19-JAN-93
Project:
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9310137

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
80	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	1720.80
				Total Cost \$ 1720.80
				(Reg# R100938885) GST \$ 120.46
				TOTAL PAYABLE (CDN) \$ 1841.26



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project:
Comments: ATN: A. CASSELMAN

Page Number : 2
Total Pages : 2
Certificate Date : 19-JAN-93
Invoice No. : 19310137
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS A9310137

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
2370	208 226	4.86	0.11	0.11	0.81	0.15	0.14	< 0.01	0.12	0.12	90.89	0.93	1.91	100.15
2371	208 226	3.16	0.14	0.11	0.85	0.18	0.12	< 0.01	0.15	0.11	94.50	0.28	1.08	100.80
2372	208 226	3.11	0.06	0.08	0.50	0.20	0.09	< 0.01	0.10	0.10	94.82	0.14	1.18	100.30
2373	208 226	3.75	0.06	0.07	0.52	0.22	0.07	< 0.01	0.09	0.10	94.55	0.12	1.27	100.85
2374	208 226	4.57	0.06	0.07	0.49	0.28	0.08	< 0.01	0.11	0.10	93.10	0.14	1.47	100.50
2375	208 226	4.10	0.08	0.07	0.49	0.19	0.08	< 0.01	0.12	0.10	93.63	0.14	1.46	100.45
2376	208 226	3.76	0.20	0.08	1.00	0.14	0.09	< 0.01	0.13	0.11	93.49	0.21	1.60	100.80
2629	208 226	4.43	0.09	0.08	0.50	0.11	0.08	< 0.01	0.12	0.11	93.35	0.28	1.69	100.85
2630	208 226	3.20	0.08	0.08	0.49	0.14	0.09	< 0.01	0.12	0.11	94.46	0.14	1.10	100.00
2631	208 226	3.39	0.07	0.08	0.46	0.16	0.08	< 0.01	0.12	0.09	94.63	0.16	1.10	100.35
2632	208 226	3.69	0.08	0.07	0.47	0.14	0.11	< 0.01	0.12	0.10	94.06	0.10	1.27	100.20
2633	208 226	3.78	0.10	0.08	0.51	0.11	0.13	< 0.01	0.11	0.10	93.71	0.14	1.35	100.15
2634	208 226	4.37	0.11	0.09	0.63	0.08	0.04	< 0.01	0.14	0.12	93.20	0.33	1.55	100.65
2635	208 226	4.05	0.08	0.08	0.73	0.08	0.06	< 0.01	0.12	0.10	93.09	0.24	1.50	100.15
2636	208 226	4.32	0.08	0.10	0.66	0.11	0.06	< 0.01	0.12	0.11	92.72	0.44	1.53	100.25
2637	208 226	6.05	0.10	0.09	0.55	0.11	0.10	< 0.01	0.15	0.12	90.37	0.23	2.26	100.15
2638	208 226	11.16	0.17	0.08	0.82	0.20	0.12	< 0.01	0.15	0.13	82.88	0.45	4.24	100.40
2639	208 226	8.01	0.15	0.08	0.83	0.16	0.11	< 0.01	0.14	0.12	87.27	0.56	3.05	100.50
2640	208 226	2.99	0.11	0.10	0.61	0.08	0.11	< 0.01	0.15	0.11	94.51	0.14	1.06	99.98
2641	208 226	4.94	0.14	0.10	0.82	0.11	0.09	0.01	0.12	0.11	92.12	0.14	1.88	100.60
2642	208 226	19.08	0.49	0.03	1.07	0.16	0.51	< 0.01	0.03	0.18	65.67	1.02	11.60	99.85
2643	208 226	6.59	0.14	0.08	0.77	0.08	0.11	< 0.01	0.14	0.12	89.07	0.42	2.79	100.30
2644	208 226	2.95	0.13	0.08	0.64	0.07	0.12	< 0.01	0.17	0.12	94.36	0.14	1.21	100.00
2645	208 226	3.11	0.13	0.08	0.51	0.08	0.10	< 0.01	0.16	0.11	94.50	0.10	1.13	100.00
2646	208 226	2.78	0.11	0.08	0.48	0.08	0.08	< 0.01	0.16	0.12	94.53	0.07	1.01	99.51
2647	208 226	3.62	0.11	0.08	0.71	0.14	0.09	< 0.01	0.15	0.11	94.14	0.13	1.40	100.70
2648	208 226	1.93	0.12	0.07	0.89	0.07	0.08	< 0.01	0.12	0.12	97.50	0.06	0.86	101.85
2649	208 226	23.80	0.43	0.03	1.40	0.28	0.49	< 0.01	0.03	0.15	55.80	1.04	16.31	99.77
2650	208 226	3.94	0.11	0.06	0.72	0.09	0.09	< 0.01	0.09	0.12	92.92	0.41	1.52	100.10
2772	208 226	3.46	0.09	0.05	0.50	0.14	0.08	< 0.01	0.12	0.11	94.83	0.10	1.29	100.80
2773	208 226	3.41	0.11	0.08	0.64	0.17	0.09	< 0.01	0.15	0.12	94.51	0.10	1.19	100.60
2774	208 226	5.57	0.12	0.08	0.68	0.16	0.13	< 0.01	0.14	0.13	91.35	0.17	1.97	100.50
2775	208 226	3.46	0.09	0.05	0.46	0.12	0.04	< 0.01	0.12	0.11	94.55	0.10	1.26	100.35
2776	208 226	5.41	0.11	0.07	0.62	0.11	0.06	< 0.01	0.14	0.12	91.27	0.28	2.04	100.25
2777	208 226	4.32	0.12	0.11	0.75	0.10	0.11	< 0.01	0.15	0.12	92.39	0.46	1.58	100.20
2778	208 226	5.12	0.25	0.08	0.86	0.09	0.10	< 0.01	0.11	0.12	91.24	0.34	2.02	100.35
2779	208 226	5.26	0.14	0.08	0.82	0.09	0.09	< 0.01	0.13	0.13	91.73	0.26	1.96	100.70
2780	208 226	10.46	0.17	0.08	1.00	0.17	0.13	< 0.01	0.15	0.14	83.35	0.46	4.02	100.15
2781	208 226	5.88	0.15	0.07	0.81	0.10	0.11	< 0.01	0.14	0.13	90.64	0.35	2.28	100.65
2782	208 226	4.67	0.15	0.06	0.72	0.12	0.09	< 0.01	0.12	0.11	91.80	0.23	1.80	99.88

CERTIFICATION:

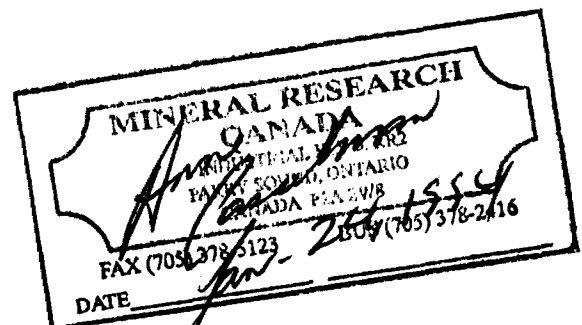
Jhai D Ma

ROTARY DRILL HOLE RECORD

Drilling Started: Mar. 12, 1989	Logged By: A. Casselman
Drilling Finished: Mar. 13, 1989	Logged: Mar. 27, 1989
Drilling Co.: Midwest	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 251.0'	Mineral Research Canada
Overburden Depth: 51.0'	R. R. # 2
Claim No.: P 825805	Parry Sound, ON
Easting: 5700 E	P2A 2W8
Northing: BL 00	Elevation(original): 327.25'
Azimuth: 50° 08' 50" W. 82° 08' 36" N.	
Location: 1020.0' at 210° To Claim Post No. 1	Elevation (current): 335.0'
Property: Kipling	Hole No.: 89-91

SUMMARY

From	To	Description
0.0'	7.0'	Peat
7.0'	46.0'	Glacial Clay Till
46.0'	50.0'	Kaolin Silica Sand (Kss)
50.0'	51.0'	Glacial Clay Till - Overburden - Pleistocene
51.0'	93.0'	Kss Cretaceous
93.0'	95.5'	Clay
95.5'	98.0'	Kss
98.0'	100.0'	Clay, Sandy Clay & Kss
100.0'	113.0'	Kss
113.0'	114.5'	Clay
114.5'	116.0'	Sandy Clay
116.0'	117.0'	Clay
117.0'	121.0'	Sandy Clay
121.0'	125.0'	Sandy Clay & Clay
125.0'	137.0'	Clay
137.0'	142.0'	Clay & Sandy Clay
142.0'	148.0'	Kss
148.0'	154.0'	Clay & Sandy Clay
154.0'	155.0'	Clay
155.0'	171.0'	Kss
171.0'	178.0'	Kss & Sandy Clay
178.0'	182.0'	Kss
182.0'	187.0'	Kss & Sandy Clay
187.0'	251.0'	Kss



EOH - 251.0'

Detail Log - 89-91

From	To	Sample No.	Description
0.0'	7.0'		Peat
7.0'	46.0'		Glacial Clay Till - competent, dark brown, occasional gneissic clast up to 4.0".
46.0'	50.0'		Kss - extremely poor quality, medium grain, dark grey, glacial incorporation.
50.0'	51.0'		Glacial Clay Till - as above.
51.0'	55.0'	2301	Kss - medium grain, dark grey due to surface contamination. 9.72% kaolin.
55.0'	60.0'	2302	Kss - as above, with buff pliable 2.0" clay bands at 56.5' - 57.0'. 14.64% kaolin.
60.0'	65.0'	2303	Kss - medium to coarse grain, coarsening downsection, 1.0" clay seams as above at 60.75'. 9.72% kaolin.
65.0'	69.0'	2304	Kss - dark brown & grey from 65.0' - 66.0' - white, very coarse, light grey, pliable clay seam of 1.0" at 68.5'. 17.49% kaolin.
69.0'	73.0'	2305	Kss - as above, minor heavies, medium brown fine clay seams. 15.14% kaolin.
73.0'	77.0'	2306	Kss - medium grain, white, minor illite and heavies. 8.99% kaolin.
77.0'	81.0'	2307	Kss - as above. 7.57% kaolin.
81.0'	85.0'	2308	Kss - as above. 8.28% kaolin.
85.0'	89.0'	2309	Kss - as above. 7.19% kaolin.
89.0'	91.0'	2310	Kss - as above, light grey pliable clay clots. 12.08% kaolin.
91.0'	93.0'	2311	Kss - as above. 9.47% kaolin.
93.0'	95.5'	2312	Clay - brown, pliable, darker irregular clots of black. 56.00% kaolin.
95.5'	98.0'	2313	Kss - dark brown, coarse grain. 11.42% kaolin.
98.0'	100.0'	2314	Clay, Sandy Clay & Kss - interbedded, buff, yellow and blue/grey pliable clay, fine grain light grey sandy clay, medium grain,

white kss. 44.66% kaolin.

100.0'	103.0'	2315	Kss - medium grain, dark grey. 10.96% kaolin.
103.0'	107.0'	2316	Kss - medium grain, medium grey, deep purple band at 104.5' - 3.0" band. 11.70% kaolin.
107.0'	110.0'	2317	Kss - medium grain, medium grey. 9.22% kaolin.
110.0'	113.0'	2318	Kss - coarse grain, medium grey, high clay content, some purple, polydrill. 10.84% kaolin.
113.0'	114.5'	2319	Clay - medium brown, competent, yellow laminations, pliable, greasy, polydrill. 70.58% kaolin.
114.5'	116.0'	2320	Sandy Clay - non-competent, fine grain, dark brown, polydrill. 26.58% kaolin.
116.0'	117.0'	2321	Clay - medium brown, darker laminations, competent, pliable, polydrill. 70.63% kaolin.
117.0'	121.0'	2322	Sandy Clay - light brown, darker laminations, competent grading to less competent, more sandy grading to medium brown pure clay. 54.68% kaolin.
121.0'	125.0'	2323	Sandy Clay & Clay - interbedded - fine grain buff sandy clay & chocolate brown pliable clay, some carbonaceous material, 50.63% kaolin.
125.0'	131.0'	2324	Clay - semi-pliable, chocolate brown with carbon-rich areas to very dark brown, competent, 52.15% kaolin.
131.0'	137.0'	2325	Clay - light & dark brown mottled, pliable, competent, dark brown at contact, 61.62% kaolin.
137.0'	142.0'	2326	Clay & Sandy Clay - as at 121.0' - 125.0', some lignite fragments, 47.97% kaolin.
142.0'	148.0'	2327	Kss - lightening and coarsening downsection, minor illite and heavies, some haematite staining, 147.0' - 148.0' - very coarse, clay-rich, rounded grey sandstone, low specific gravity - Devonian, 12.68% kaolin.
148.0'	154.0'	2328	Clay & Sandy Clay - chocolate brown pliable

clay, with some darker sections, buff sandy clay, minor illite and heavies, less clay than normal, light brown clay clots, 20.56% kaolin.

- | | | | |
|--------|--------|------|---|
| 154.0' | 155.0' | 2329 | Clay - light brown, pliable, some sand content, high illite, some areas darker, 74.61% kaolin. |
| 155.0' | 164.0' | 2330 | Kss - medium grain, fining downsection, increasing clay content downsection to near sandy clay, medium brown with some grey sections, 13.22% kaolin. |
| 164.0' | 167.0' | 2331 | Kss - very coarse grain, rounded smoky quartz and yellow chert, white, clay minor illite, highly contaminated, 8.76% kaolin. |
| 167.0' | 171.0' | 2332 | Kss - less coarse than above, high contamination, yellow brown, minor illite and heavies, some areas of haematite staining and mineral aggregation. |
| 171.0' | 178.0' | 2333 | Kss & Sandy Clay - interbedded, medium grain, dark grey & medium brown with 0.5" pliable buff fine grain sandy clay, containing 0.125" silica clasts, 20.86% kaolin. |
| 178.0' | 182.0' | 2334 | Kss - coarse grain, white areas remainder yellow/brown, due to contamination - especially at ends, one sandstone clast, light grey, 2.0" - pitted surface - Devonian, 7.95% kaolin. |
| 182.0' | 187.0' | 2335 | Kss & Sandy Clay - as at 171.0' - 178.0', 12.50% kaolin. |
| 187.0' | 193.0' | 2336 | Kss - white with some brown impurity banding, fine grain, minor illite and heavies, 12.89% kaolin. |
| 193.0' | 201.0' | 2337 | Kss - as above, higher illite content, no brown banding. |
| 210.0' | 204.0' | 2338 | Kss - medium to coarse grain, white, minor illite and heavies, depleted in kaolin. |
| 204.0' | 209.0' | 2339 | Kss - as previous. |
| 209.0' | 213.0' | 2340 | Kss - as above, slightly more clay, light brown at upper contact, contamination, pieces of drilling debris causing staining. |
| 213.0' | 218.0' | 2341 | Kss - as above. |

218.0' 222.0' 2342 Kss - as above, less contamination.

222.0' 226.0' 2343 Kss - white, medium grain, coarsening downsection to coarse, minor illite and heavies, rare larger rounded smoky quartz clasts up to 1.0".

226.0' 230.0' 2344 Kss - dried, coarse grain, white, low clay content, smoky quartz and yellow chert.

230.0' 234.0' 2345 Kss - coarse grain, white & yellow brown (contamination), minor illite and heavies.

234.0' 238.0' 2346 Kss - as above - mostly yellow/brown.

238.0' 242.0' 2347 Kss - as above, coarsening downsection, almost entirely white, good clay content, minor illite and heavies.

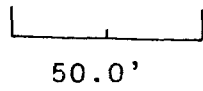
242.0' 246.0' 2348 Kss - fining downsection from coarse to fine, some reddish stained areas, rare larger rounded clasts, black cherts and smoky quartz up to 0.5" in fine grain portion.

246.0' 251.0' 2349 Kss - as above, some contamination.

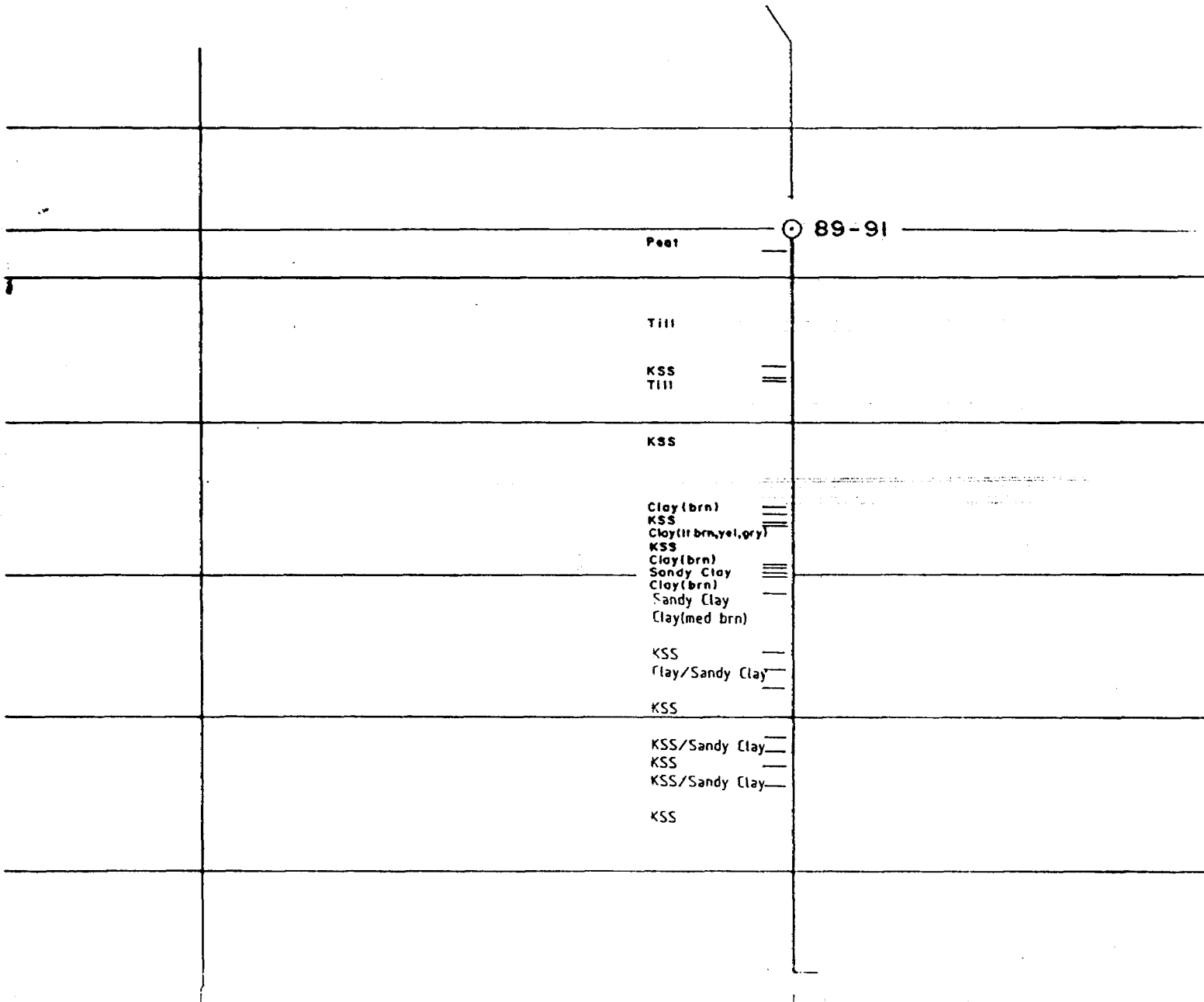
EOH - 251.0'

Section 89-91

Claim No.: P 825805
 Hole Length: 251.0'
 Overburden Depth: 51.0'
 Astronomic Azimuth: 50° 08' 50" W. 82° 08' 36" N
 Location: 1020.0' at 210° to claim post no. 1
 Scale: 1.0" = 50.0' or 1:600
 Northing: 050 N
 Easting: 5700 E
 Dip: -90°

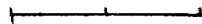


Gridline 5700



Section 89-91

Claim No.: P 825805
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Easting: 5700 E
Dip: -90°



50.0'

Gridline 5700

89-91

2323	51.67%
2324	52.15%
2325	61.67%
2326	47.77%
2327	72.68%
2328	71.56%
2329	74.67%
2330	13.77%
2331	8.76%
2333	26.84%
2334	7.15%
2335	72.58%
2336	72.87%



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project: KIPLING
 Comments: ATTN: ANNE CASSELMAN

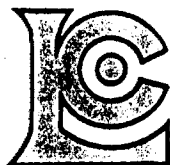
Page Number : 1
 Total Pages : 2
 Certificate Date: 08-SEP-93
 Invoice No. : I9319989
 P.O. Number :
 Account :

CERTIFICATE OF ANALYSIS A9319989

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
2130	208 226	19.00	0.32	0.08	1.20	0.33	0.17	< 0.01	0.13	0.10	69.76	0.88	8.73	100.70
2131	208 226	3.12	0.16	0.06	0.43	0.11	0.06	< 0.01	0.13	0.06	94.77	0.15	1.29	100.35
2132	208 226	4.17	0.17	0.09	0.65	0.13	0.07	< 0.01	0.14	0.07	92.29	0.24	1.53	99.56
2133	208 226	7.76	0.19	0.13	0.78	0.18	0.10	< 0.01	0.16	0.09	87.51	0.49	3.08	100.50
2134	208 226	14.46	0.24	0.10	0.93	0.40	0.18	< 0.01	0.18	0.09	77.17	0.89	5.99	100.65
2135	208 226	3.39	0.19	0.15	0.58	0.11	0.09	< 0.01	0.22	0.10	93.24	0.21	1.31	99.60
2136	208 226	8.28	0.32	0.16	1.02	0.17	0.14	< 0.01	0.23	0.12	85.58	0.32	3.48	99.83
2137	208 226	5.04	0.22	0.14	0.74	0.11	0.09	< 0.01	0.21	0.10	91.64	0.19	1.89	100.40
2138	208 226	14.19	0.43	0.19	1.14	0.19	0.15	< 0.01	0.24	0.11	74.11	0.76	8.78	100.30
2139	208 226	3.97	0.24	0.18	0.56	0.11	0.11	< 0.01	0.29	0.12	93.37	0.16	1.42	100.55
2140	208 226	5.10	0.21	0.16	0.75	0.10	0.08	< 0.01	0.20	0.09	91.08	0.24	1.85	99.87
2141	208 226	3.16	0.17	0.09	0.51	0.08	0.06	< 0.01	0.13	0.07	94.45	0.22	0.29	99.24
2142	208 226	4.22	0.17	0.07	0.64	0.09	0.06	< 0.01	0.11	0.06	92.61	0.25	1.71	100.00
2143	208 226	3.77	0.24	0.10	1.16	0.14	0.06	< 0.01	0.11	0.06	92.53	0.10	1.86	100.15
2144	208 226	3.33	0.13	0.04	0.37	0.10	0.04	< 0.01	0.11	0.06	93.90	0.11	1.30	99.50
2145	208 226	3.47	0.22	0.08	0.80	0.17	0.06	< 0.01	0.12	0.05	93.87	0.16	1.48	100.50
2146	208 226	16.19	0.45	0.08	0.94	0.22	0.13	< 0.01	0.14	0.08	72.00	0.80	9.63	100.65
2147	208 226	24.03	0.45	0.07	1.24	0.30	0.17	< 0.01	0.16	0.07	55.68	0.98	17.08	100.25
2148	208 226	20.00	0.25	0.09	1.18	0.40	0.15	< 0.01	0.16	0.07	67.18	0.88	10.16	100.55
2149	208 226	20.60	0.44	0.06	1.12	0.33	0.25	< 0.01	0.18	0.07	63.44	1.32	11.99	99.81
2150	208 226	24.34	0.53	0.05	1.21	0.67	0.39	< 0.01	0.17	0.05	53.79	1.20	18.40	100.80
2151	208 226	18.95	0.24	0.02	1.16	0.52	0.22	< 0.01	0.10	0.04	70.08	1.20	8.11	100.65
2152	208 226	5.01	0.15	0.05	0.56	0.24	0.05	< 0.01	0.06	0.03	92.10	0.26	2.04	100.55
2153	208 226	8.12	0.15	0.06	0.72	0.20	0.06	< 0.01	0.08	0.04	87.17	0.37	3.27	100.25
2154	208 226	29.47	0.23	0.06	1.11	0.40	0.13	< 0.01	0.09	0.04	56.36	0.99	12.01	100.90
2155	208 226	5.22	0.14	0.04	0.55	0.18	0.04	< 0.01	0.05	0.04	91.46	0.29	2.23	100.25
2156	208 226	3.46	0.14	0.06	0.50	0.08	0.04	< 0.01	0.07	0.04	94.50	0.11	1.44	100.45
2157	208 226	8.24	0.19	0.09	0.89	0.24	0.11	< 0.01	0.11	0.07	85.59	0.89	3.47	99.90
2158	208 226	3.14	0.14	0.04	0.51	0.11	0.06	< 0.01	0.06	0.04	95.07	0.12	1.32	100.60
2159	208 226	4.90	0.18	0.09	0.66	0.12	0.07	< 0.01	0.12	0.06	91.21	0.40	2.07	99.89
2160	208 226	5.09	0.15	0.03	0.49	0.11	0.04	< 0.01	0.06	0.04	90.72	0.19	2.06	98.99
16982	208 226	8.82	0.18	0.06	0.69	0.15	0.07	< 0.01	0.11	0.04	85.94	0.47	3.54	100.10
16983	208 226	6.45	0.26	0.09	1.07	0.12	0.08	< 0.01	0.16	0.07	89.10	0.60	2.65	100.65
16984	208 226	2.82	0.16	0.13	0.93	0.09	0.06	< 0.01	0.14	0.08	93.33	0.83	1.24	99.82
16985	208 226	3.37	0.15	0.10	0.48	0.15	0.06	< 0.01	0.15	0.07	94.62	0.33	1.30	100.80
16986	208 226	2.79	0.18	0.08	0.77	0.15	0.06	< 0.01	0.16	0.06	94.40	0.10	1.24	100.00
16987	208 226	2.65	0.20	0.14	0.70	0.10	0.09	< 0.01	0.22	0.11	94.86	0.38	1.09	100.55
16988	208 226	3.19	0.20	0.13	0.81	0.13	0.08	< 0.01	0.20	0.09	94.09	0.19	1.29	100.40
16989	208 226	3.72	0.21	0.16	0.69	0.17	0.11	< 0.01	0.24	0.10	92.78	0.13	1.43	99.75
16990	208 226	3.44	0.11	0.03	0.59	0.18	0.03	< 0.01	0.09	0.03	93.70	0.22	1.63	100.05

CERTIFICATION:

Hart Buchler



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 9 9 8 9

BILLING INFORMATION	
Date:	10-SEP-93
Project:	KIPLING
P.O. No.:	0054
Account:	KJE
Comments:	930101T
Billing:	For analysis performed on Certificate A9319989
Terms:	Payment due on receipt of invoice 1.25% per month (15% per annum) charged on overdue accounts
Please Remit Payments to:	
CHEMEX LABS LTD. 212 Brooksbank Ave., North Vancouver, B.C. Canada V7J 2C1	

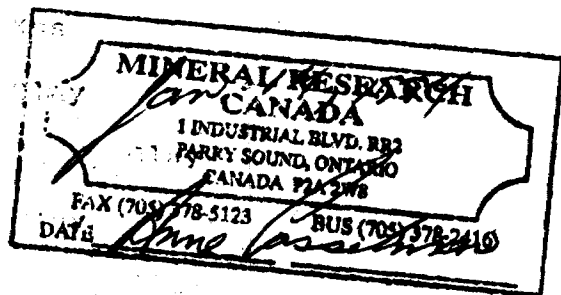
# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
42	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51		903.42 21.51
				Total Cost \$ 903.42
				(Reg# R100938885) GST \$ 63.24
				TOTAL PAYABLE (CDN) \$ 966.66

ROTARY DRILL HOLE RECORD

Drilling Started: Mar. 17, 1989	Logged By: A. Casselman
Drilling Finished: Mar. 17, 1989	Logged: Mar. 28, 1989
Drilling Co.: Midwest	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 150.0'	Mineral Research Canada
Overburden Depth: 50.0'	R. R. # 2
Claim No.: P 825805	Parry Sound, ON
Easting: 5700 E	P2A 2W8
Northing: 190 S	Elevation: 328.75'
Azimuth: 50° 08' 44" W. 82° 08' 36" N.	
Location: 1600.0' at 199° To Claim Post No. 1	
Property: Kipling	Hole No.: 89-92

SUMMARY

From	To	Description
0.0'	5.0'	Peat
5.0'	13.0'	Fluvial Sediments
13.0'	14.0'	Sand
14.0'	50.0'	Glacial Clay Till - Overburden - Pleistocene
50.0'	74.0'	Clay
74.0'	80.0'	Kaolin Silica Sand (Kss) & Clay - Cretaceous
80.0'	85.0'	Kss
85.0'	90.0'	Sandy Clay
90.0'	94.5'	Kss
94.5'	98.0'	Clay
98.0'	101.0'	Sandy Clay
101.0'	108.0'	Clay
108.0'	122.0'	Sandy Clay
122.0'	150.0'	Kss



EOH - 150.0'

Detail Log - 89-92

From	To	Sample No.	Description
0.0'	5.0'	2349	Peat - polydrill.
5.0'	13.0'	2350	Fluvial Sediments - non-competent, dark brown clay.
13.0'	14.0'	2351	Sand - medium grain, medium brown, grading to gravel, maximum clast size up to 4.0".
14.0'	50.0'		Glacial Clay Till - dark brown, competent, rare clast, sub-angular, size up to 3.0", interbedded with dried, clast-free fissile dark brown segmented material.
50.0'	55.0'	2351	Kss - medium and coarse grain alternating, brown, purple and grey banding. 8.44% kaolin.
55.0'	60.0'	2352	Kss - as above, medium grain, no purple. 8.05% kaolin.
60.0'	65.0'	2353	Kss - as above. 8.20% kaolin.
65.0'	70.0'	2354	Kss - white, medium grain, minor illite and heavies, high moisture content. 8.61% kaolin.
70.0'	74.0'	2355	Kss - as above, medium brown, pliable 0.5" clay clots. 11.16% kaolin.
74.0'	76.0'	2356	Clay - medium brown, carbonaceous material, competent, greasy. 56.05% kaolin.
76.0'	80.0'	2357	Kss & Clay - coarse white and brown kss interbedded with 0.25" - 6.0" of wine, medium brown, grey and buff, pliable clay. 38.03% kaolin.
80.0'	85.0'	2358	Kss - dark brown and grey, medium grain, 3.0" buff, pliable clay at 81.0'. 14.91% kaolin.
85.0'	87.0'	2359	Sandy Clay - non-competent, medium grey, fine grain, high moisture. 22.08% kaolin.
87.0'	90.0'	2360	Sandy Clay - grey, competent, minor heavies and illite, 4.0" buff, pliable

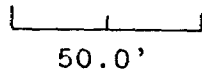
			clay at 89.0'. 41.04% kaolin.
90.0'	94.5'	2361	Kss - medium brown, medium grain. 9.97% kaolin.
94.5'	98.0'	2362	Clay - buff to dark brown, - decreasing pliability, at 96.0' becoming medium brown, fissile disc-like, greasy competent. 78.28% kaolin.
98.0'	101.0'	2363	Sandy Clay - black grading to dark brown greasy buff, fissile, dried, to dark red-brown sandy clay. 66.63% kaolin.
101.0'	104.0'	2364	Clay - pliable, dark brown, grading to red at 103.0' - polydrill. 58.89% kaolin.
104.0'	108.0'	2365	Clay - red, as above, competent, pliable, fine grey laminations. 65.67% kaolin.
108.0'	110.0'	2366	Sandy Clay - light grey with illite and heavies, purple in darker areas. 36.23% kaolin.
110.0'	114.0'	2367	Sandy Clay - as above, purple clots, high moisture content. 25.90% kaolin.
114.0'	118.0'	2368	Sandy Clay - as above. 30.41% kaolin.
118.0'	122.0'	2369	Sandy Clay - as above. 9.47% kaolin.
122.0'	126.0'	2370	Kss - medium grain, white, minor illite and heavies. 12.30% kaolin. 80% quartz, 20.0% kaolin.
126.0'	130.0'	2371	Kss - as above, 8.0% kaolin.
130.0'	134.0'	2372	Kss - as above, 7.87% kaolin.
134.0'	138.0'	2373	Kss - as above, slightly more coarse, 9.49% kaolin.
138.0'	142.0'	2374	Kss - coarse grain, buff coloured, 11.57% kaolin.
142.0'	146.0'	2375	Kss - as above, medium grain from 144.0' - 146.0', 10.38% kaolin.
146.0'	150.0'	2376	Kss - as above, medium grain, 9.52% kaolin.

EOH - 150.0'

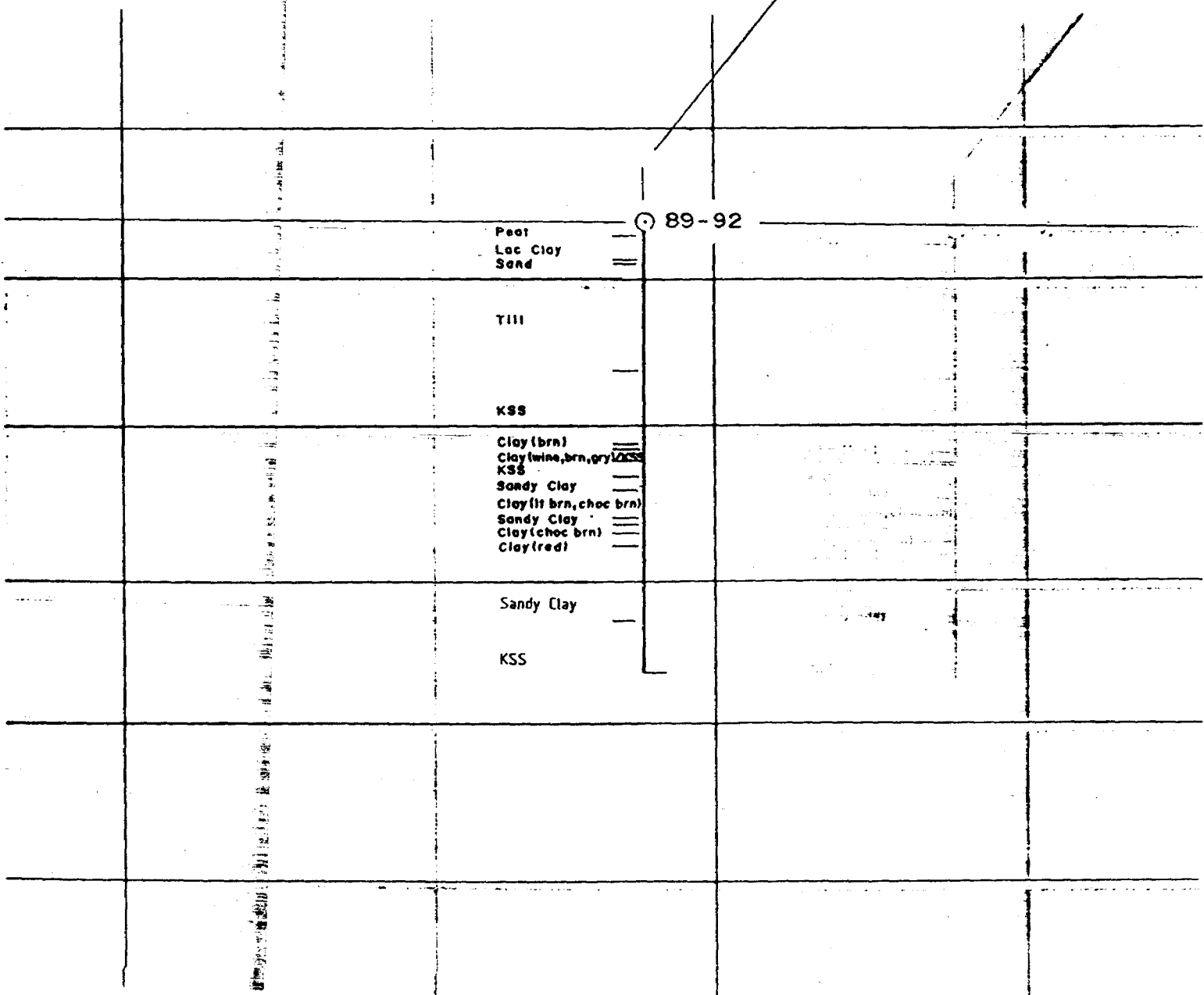
150.0'

Section 89-92

Claim No.: P 825809
 Hole Length: 150.0'
 Overburden Depth: 50.0'
 Astronomic Azimuth: 50° 08' 44" W. 82° 08' 36" N
 Location: 1600.0' at 199° to claim no. 1
 Scale: 1" = 50.0' or 1:600
 Northing: 190 S
 Easting: 5700 E
 Dip: -90°



Gridline 5700



Section 89-92

Claim No.: P 825809

Hole Length: 150.0'

Overburden Depth: 50.0'

Astronomic Azimuth: $50^{\circ} 08' 44''$ W. $82^{\circ} 08' 36''$ N

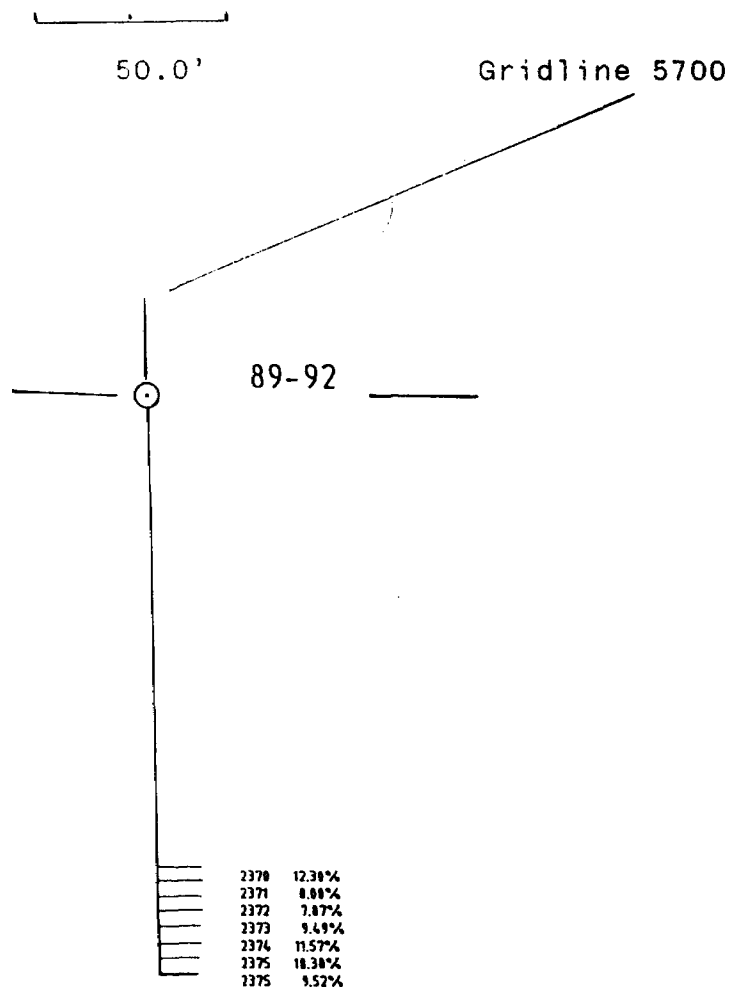
Location: 1600.0' at 199° to claim no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 190 S

Easting: 5700 E

Dip: -90°





Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 3 7

BILLING INFORMATION

Date: 19-JAN-93
Project:
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9310137

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
80	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	1720.80
Total Cost \$				1720.80
(Reg# R100938885) GST \$				120.46
TOTAL PAYABLE (CDN) \$				1841.26



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project:
 Comments: ATN: A. CASSELMAN

Page Number : 2
 Total Pages : 2
 Certificate Date: 19-JAN-93
 Invoice No. : 19310137
 P.O. Number : 0054
 Account : KJE

CERTIFICATE OF ANALYSIS A9310137

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
2370	208 226	4.86	0.11	0.11	0.81	0.15	0.14	< 0.01	0.12	0.12	90.89	0.93	1.91	100.15
2371	208 226	3.16	0.14	0.11	0.85	0.18	0.12	< 0.01	0.15	0.11	94.50	0.28	1.18	100.80
2372	208 226	3.11	0.06	0.08	0.50	0.20	0.09	< 0.01	0.10	0.10	94.82	0.14	1.08	100.30
2373	208 226	3.75	0.06	0.07	0.52	0.22	0.07	< 0.01	0.09	0.10	94.55	0.12	1.27	100.85
2374	208 226	4.57	0.06	0.07	0.49	0.28	0.08	< 0.01	0.11	0.10	93.10	0.14	1.47	100.50
2375	208 226	4.10	0.08	0.07	0.49	0.19	0.08	< 0.01	0.12	0.10	93.63	0.14	1.46	100.45
2376	208 226	3.76	0.20	0.08	1.00	0.14	0.09	< 0.01	0.13	0.11	93.49	0.21	1.60	100.80
2629	208 226	4.43	0.09	0.08	0.50	0.11	0.08	< 0.01	0.12	0.11	93.35	0.28	1.69	100.85
2630	208 226	3.20	0.08	0.08	0.49	0.14	0.09	< 0.01	0.12	0.11	94.46	0.14	1.10	100.00
2631	208 226	3.39	0.07	0.08	0.46	0.16	0.08	< 0.01	0.12	0.09	94.63	0.16	1.10	100.35
2632	208 226	3.69	0.08	0.07	0.47	0.14	0.11	< 0.01	0.12	0.10	94.06	0.10	1.27	100.20
2633	208 226	3.78	0.10	0.08	0.51	0.11	0.13	< 0.01	0.11	0.10	93.71	0.14	1.35	100.15
2634	208 226	4.37	0.11	0.09	0.63	0.08	0.04	< 0.01	0.14	0.12	93.20	0.33	1.55	100.65
2635	208 226	4.05	0.08	0.08	0.73	0.08	0.06	< 0.01	0.12	0.10	93.09	0.24	1.50	100.15
2636	208 226	4.32	0.08	0.10	0.66	0.11	0.06	< 0.01	0.12	0.11	92.72	0.44	1.53	100.25
2637	208 226	6.05	0.10	0.09	0.55	0.11	0.10	< 0.01	0.15	0.12	90.37	0.23	2.26	100.15
2638	208 226	11.16	0.17	0.08	0.82	0.20	0.12	< 0.01	0.15	0.13	82.88	0.45	4.24	100.40
2639	208 226	8.01	0.15	0.08	0.83	0.16	0.11	< 0.01	0.14	0.12	87.27	0.56	3.05	100.50
2640	208 226	2.99	0.11	0.10	0.61	0.08	0.11	< 0.01	0.15	0.11	94.51	0.14	1.06	99.98
2641	208 226	4.94	0.14	0.10	0.82	0.11	0.09	0.01	0.12	0.11	92.12	0.14	1.88	100.60
2642	208 226	19.08	0.49	0.03	1.07	0.16	0.51	< 0.01	0.03	0.18	65.67	1.02	11.60	99.85
2643	208 226	6.59	0.14	0.08	0.77	0.08	0.11	< 0.01	0.14	0.12	89.07	0.42	2.79	100.30
2644	208 226	2.95	0.13	0.08	0.64	0.07	0.12	< 0.01	0.17	0.12	94.36	0.14	1.21	100.00
2645	208 226	3.11	0.13	0.08	0.51	0.08	0.10	< 0.01	0.16	0.11	94.50	0.10	1.13	100.00
2646	208 226	2.78	0.11	0.08	0.48	0.08	0.08	< 0.01	0.16	0.12	94.53	0.07	1.01	99.51
2647	208 226	3.62	0.11	0.08	0.71	0.14	0.09	< 0.01	0.15	0.11	94.14	0.13	1.40	100.70
2648	208 226	1.93	0.12	0.07	0.89	0.07	0.08	< 0.01	0.12	0.12	97.50	0.06	0.86	101.85
2649	208 226	23.80	0.43	0.03	1.40	0.28	0.49	< 0.01	0.03	0.15	55.80	1.04	16.31	99.77
2650	208 226	3.94	0.11	0.06	0.72	0.09	0.09	< 0.01	0.09	0.12	92.92	0.41	1.52	100.10
2772	208 226	3.46	0.09	0.05	0.50	0.14	0.08	< 0.01	0.12	0.11	94.83	0.10	1.29	100.80
2773	208 226	3.41	0.11	0.08	0.64	0.17	0.09	< 0.01	0.15	0.12	94.51	0.10	1.19	100.60
2774	208 226	5.57	0.12	0.08	0.68	0.16	0.13	< 0.01	0.14	0.13	91.35	0.17	1.97	100.50
2775	208 226	3.46	0.09	0.05	0.46	0.12	0.04	< 0.01	0.12	0.11	94.55	0.10	1.26	100.35
2776	208 226	5.41	0.11	0.07	0.62	0.11	0.06	< 0.01	0.14	0.12	91.27	0.28	2.04	100.25
2777	208 226	4.32	0.12	0.11	0.75	0.10	0.11	< 0.01	0.15	0.12	92.39	0.46	1.58	100.20
2778	208 226	5.12	0.25	0.08	0.86	0.09	0.10	< 0.01	0.11	0.12	91.24	0.34	2.02	100.35
2779	208 226	5.26	0.14	0.08	0.82	0.09	0.09	< 0.01	0.13	0.13	91.73	0.26	1.96	100.70
2780	208 226	10.46	0.17	0.08	1.00	0.17	0.13	< 0.01	0.15	0.14	83.35	0.46	4.02	100.15
2781	208 226	5.88	0.15	0.07	0.81	0.10	0.11	< 0.01	0.14	0.13	90.64	0.35	2.28	100.65
2782	208 226	4.67	0.15	0.06	0.72	0.12	0.09	< 0.01	0.12	0.11	91.80	0.23	1.80	99.88

CERTIFICATION: *Jhai D Ma*

ROTARY DRILL HOLE RECORD

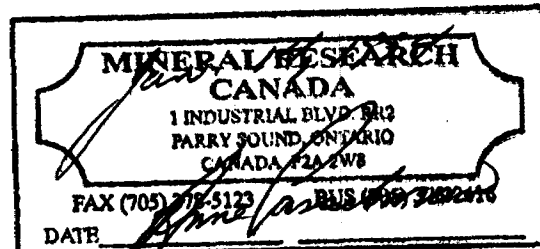
Drilling Started: Mar. 8, 1989
 Drilling Finished: Mar. 9, 1989
 Drilling Co.: Midwest
 Dip: -90°
 Hole Length: 250.0'
 Overburden Depth: 63.0'
 Claim No.: P 825802
 Easting: 5550 E
 Northing: 250 S
 Azimuth: 50° 08' 42" W. 82° 08' 43" N.
 Location: 1870.0' at 186° To Claim Post No. 1
 Property: Kipling

Logged By: A. Casselman
 Logged: Mar. 15, 1989
 Core Size: 3.5"
 Core Storage:
 Mineral Research Canada
 R. R. # 2
 Parry Sound, ON
 P2A 2W8
 Elevation: 324.0'
 Hole No.: 89-98

SUMMARY

From	To	Description
0.0'	9.0'	Peat
9.0'	63.0'	Glacial Clay Till -Overburden - Pleistocene
63.0'	117.0'	Kaolin Silica Sand (Kss) Cretaceous
117.0'	121.5'	Clay
121.5'	135.0'	Sandy Clay
135.0'	250.0'	Kss

EOH - 250.0'



Detail Log - 89-98

From	To	Sample No.	Description
0.0'	9.0'		Peat - much root material & polydrill.
9.0'	63.0'		Glacial Clay Till - medium green/brown, some sandy sections, competent, calcareous, some areas pliable, sections clast-rich, clasts up to 6.0", 10.0' - 11.0' - gravel.
63.0'	69.0'	2251	Kss - medium grain, 63.0' - 64.0' - dark grey due to surface contamination, minor heavies creating grey banding. 10.58% kaolin.
69.0'	73.0'	2252	Kss - as above, 69.0' - 71.25' - coarse grain, at 71.25' - 2.0" of light grey pliable clay, also 1.0" medium grain kss, remainder brown clay, 71.75' - fine grain, with minor illite and heavies, white. 8.63% kaolin.
73.0'	77.0'	2253	Kss - as above, fine grain. 8.94% kaolin.
77.0'	83.0'	2254	Kss - as above, coarsening downsection to coarse grain. 6.08% kaolin.
83.0'	87.0'	2255	Kss - as above. 8.64% kaolin.
87.0'	91.0'	2256	Kss - medium grain, clay seams up to 0.5" and clay clots, purple laminations. 8.89% kaolin.
91.0'	95.0'	2257	Kss - medium grain, coarsening downsection to coarse grain, purple tinge, minor illite and heavies. 9.57% kaolin.
95.0'	99.0'	2258	Kss - purple and brown 95.0' - 97.5', 97.5' - 99.0' - white, rare yellow chert clasts up to 0.5", medium grain. 6.78% kaolin.
99.0'	103.0'	2259	Kss - white, medium grain, rare yellow chert clasts. 9.06% kaolin.
103.0'	107.0'	2260	Kss - as previous, 3.0" of yellow stain at 106.0'. 8.46% kaolin.

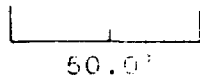
107.0'	111.0'	2261	Kss - as above. 9.22% kaolin.
111.0'	115.0'	2262	Kss - as above, 111.0' - 114.0' - coarse grain. 10.58% kaolin.
115.0'	117.0'	2263	Kss - medium grain, white, red tinge. 8.51% kaolin.
117.0'	120.0'	2264	Clay - pliable, competent, red, 2.0" brilliant scarlet and orange laminated. 44.96% kaolin.
120.0'	121.5'	2265	Clay - red & buff mottled, highly competent, greasy. 52.51% kaolin.
121.5'	125.0'	2266	Sandy Clay - light grey, competent, high illite, increasing sand content downsection. 41.44% kaolin.
125.0'	130.0'	2267	Sandy Clay - as above, well rounded 0.25" yellow chert and smoky quartz clasts at 126.5', 27.90% kaolin.
130.0'	135.0'	2268	Sandy Clay - as above, more buff coloured, 28.56% kaolin.
135.0'	140.0'	2269	Kss - medium grain, light brown, 7.37% kaolin.
140.0'	145.0'	2270	Kss - coarse grain, high clay content, light brown, minor illite, 8.41% kaolin.
145.0'	151.0'	2271	Kss - as above, also minor heavies, 10.0% kaolin.
151.0'	157.0'	2272	Kss - medium grain, medium brown, minor illite and heavies, 15.04% kaolin.
157.0'	160.0'	2273	Kss - as above, 8.20% kaolin.
160.0'	165.0'	2274	Kss - as above, 2.0" rounded milky quartz clasts, 8.73% kaolin.
165.0'	169.0'	2275	Kss - 165.0' - 168.0' - medium grain, yellow/brown, 168.0' - 169.0' - black contact for first 4.0" then becomes white, clay-rich, some 0.5" black pliable clay clots, 165.0' - 166.0' - high moisture content, 8.66% kaolin.
169.0'	172.5'	2276	Kss - white, as above, 4.0" clay seam at 171.5', 171.75' - 175.0' - coarse grain, 17.92% kaolin.

172.5'	175.0'	2277	Kss - clay-poor, white, medium grain, box split, material dried out. 18.76% kaolin. 35.0% kaolin, 60.0% quartz, 5.0% illite.
175.0'	180.0'	2278	Kss - light grey, medium grain, minor illite and heavies, polydrill saturated, evaporated milk container in box, 11.62% kaolin.
180.0'	185.0'	2279	Kss - as above, reddish, 11.62% kaolin.
185.0'	190.0'	2289	Kss - light brown, medium grain, minor illite and heavies, 9.57% kaolin.
190.0'	195.0'	2280	Kss - white, medium grain, with clasts up to 0.25", minor illite and heavies, 8.46% kaolin.
195.0'	201.0'	2281	Kss - white, medium grain, with clast up to 1.0" , sub-rounded to rounded smoky quartz and yellow chert, high clay content, minor illite and heavies, 8.10% kaolin.
201.0'	206.0'	2282	Kss - white, medium grain, clasts as above, more clay-rich alternating coarser sections, 6.51% kaolin.
206.0'	212.0'	2283	Kss - as above, 7.62% kaolin.
212.0'	220.0'	2284	Kss - light brown, medium grain, high clay content, 16.18% kaolin.
220.0'	226.0'	2285	Kss - as above, minor illite and heavies, 10.86% kaolin.
226.0'	242.0'	2286	Kss - medium grain, white, minor illite and heavies, very small amounts of contaminated material, 7.97% kaolin.
242.0'	250.0'	2287	Kss - as above, 6.33% kaolin.

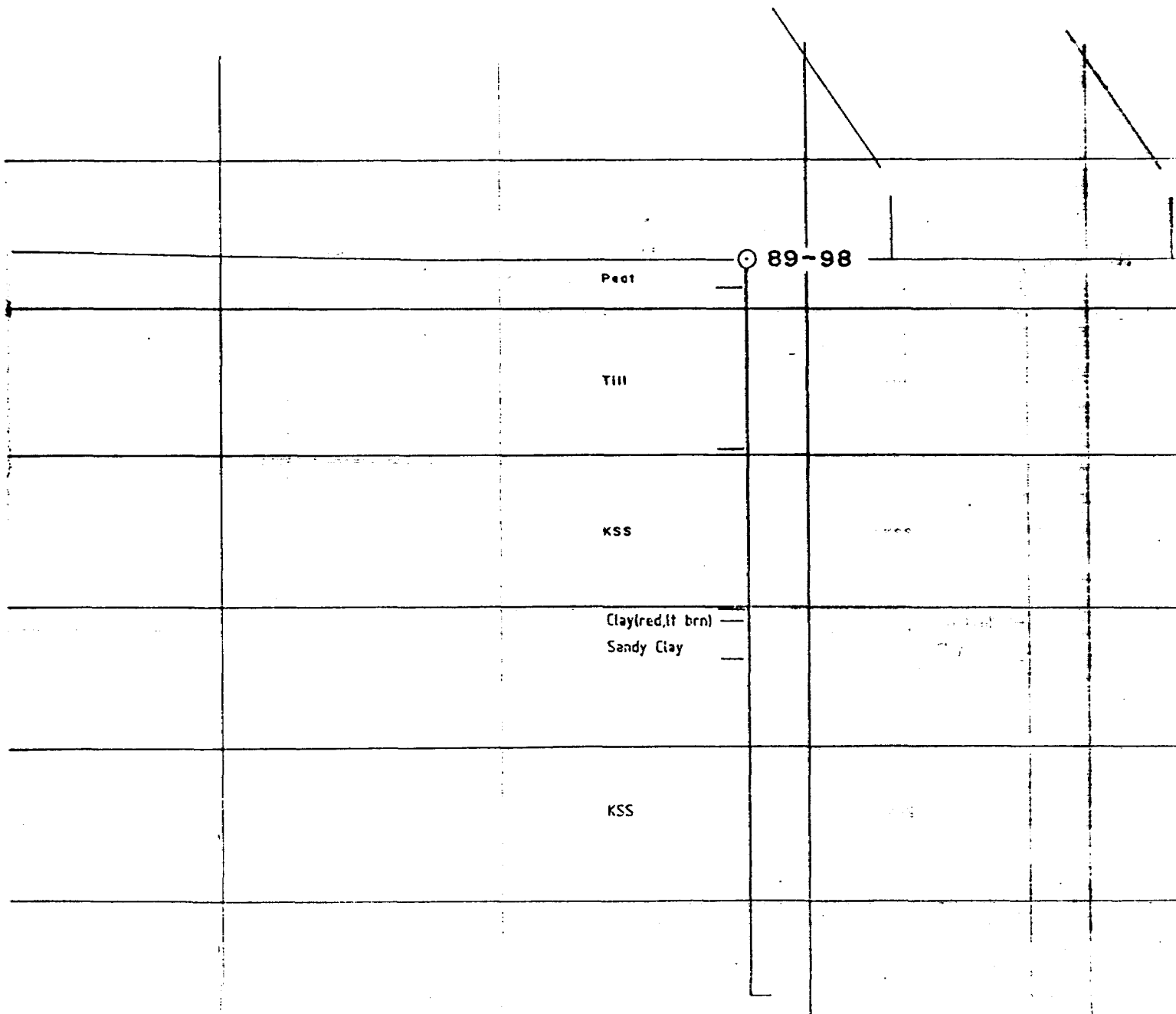
EOH - 250.0'

Section 89-98

Claim No.: P 825805
Hole Length: 250.0'
Overburden Depth: 63.0'
Astronomic Azimuth: $50^{\circ} 08' 42''$ W. $82^{\circ} 08' 43''$ N
Location: 1870.0' at 186° to claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 250 S
Easting: 5550 E
Dip: -90°



Gridline 5600



Section 89-98

Claim No.: P 825805

Hole Length: 250.0'

Overburden Depth: 63.0'

Astronomic Azimuth: $50^{\circ} 08' 42''$ W. $82^{\circ} 08' 43''$ N

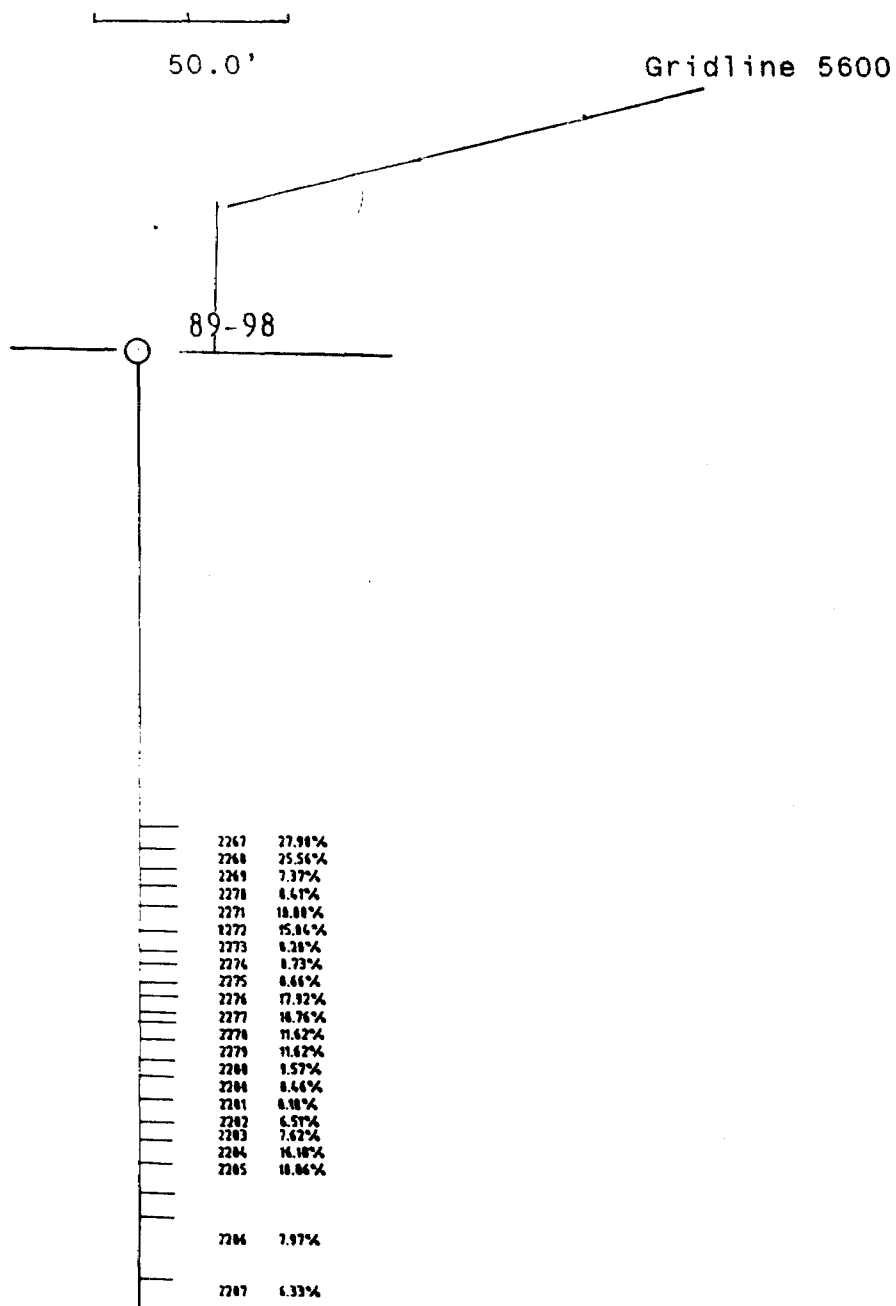
Location: 1870.0' at 186° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 250 S

Easting: 5550 E

Dip: -90°





Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 3 7

BILLING INFORMATION

Date: 19-JAN-93
Project:
P.O. No.: 0054
Account: KJE
Comments: 930101T

Billing: For analysis performed on
Certificate A9310137

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
--------------	---------------------------------	------------	--------------	--------

80	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	1720.80
----	------------------------------	---------------	-------	---------

Total Cost \$ 1720.80
(Reg# R100938885) GST \$ 120.46

TOTAL PAYABLE (CDN) \$ 1841.26



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project :
 Comments: ATN: A. CASSELMAN

Page Number : 1
 Total Pages : 2
 Certificate Date: 19-JAN-93
 Invoice No. : 19310137
 P.O. Number : 0054
 Account : KJE

CERTIFICATE OF ANALYSIS A9310137

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
2130	208 226	17.60	0.45	0.01	0.96	0.28	0.26	< 0.01	0.06	0.18	71.63	0.83	8.70	100.95
2131	208 226	3.49	0.11	0.04	0.65	0.14	0.09	< 0.01	0.05	0.09	94.09	0.20	1.44	100.40
2132	208 226	3.89	0.07	0.04	0.69	0.12	0.03	< 0.01	0.03	0.09	93.28	0.24	1.62	100.10
2133	208 226	6.27	0.08	0.08	0.78	0.16	0.05	< 0.01	0.03	0.11	90.35	0.52	2.38	100.80
2134	208 226	14.45	0.20	0.04	1.00	0.41	0.15	< 0.01	0.09	0.13	77.83	0.98	6.00	101.30
2135	208 226	5.05	0.11	0.11	0.97	0.16	0.04	< 0.01	0.03	0.10	91.47	0.52	2.03	100.60
2136	208 226	7.64	0.14	0.06	1.02	0.23	0.07	< 0.01	0.05	0.11	87.72	0.32	3.33	100.70
2137	208 226	3.91	0.30	0.03	0.79	0.17	0.03	< 0.01	0.08	0.09	93.13	0.13	1.70	100.35
2138	208 226	8.44	1.04	0.07	1.13	0.29	0.10	< 0.01	0.24	0.11	85.18	0.34	4.27	101.20
2139	208 226	4.12	0.49	0.05	0.70	0.18	0.06	< 0.01	0.11	0.10	92.47	0.17	1.84	100.30
2140	208 226	4.25	0.10	0.07	0.74	0.10	0.03	< 0.01	0.04	0.10	92.55	0.29	1.66	99.94
2141	208 226	3.98	0.08	0.04	0.61	0.11	0.03	< 0.01	0.03	0.09	93.57	0.26	1.48	100.30
2142	208 226	3.62	0.10	0.01	0.47	0.09	0.02	< 0.01	0.03	0.09	94.01	0.14	1.45	100.05
2143	208 226	3.83	0.20	0.06	0.96	0.20	0.09	< 0.01	0.08	0.10	93.00	0.10	1.47	100.10
2144	208 226	3.14	0.09	0.03	0.49	0.11	0.08	< 0.01	0.03	0.10	95.30	0.08	1.17	100.65
2145	208 226	3.77	0.14	0.07	1.05	0.19	0.07	< 0.01	0.02	0.09	93.40	0.18	1.48	100.45
2146	208 226	15.98	0.36	0.01	0.81	0.20	0.10	< 0.01	0.02	0.14	73.40	0.87	8.96	100.85
2147	208 226	22.89	0.40	0.04	1.18	0.31	0.14	< 0.01	0.02	0.14	55.59	0.99	16.68	98.39
2267	208 226	11.02	0.11	< 0.01	0.80	0.20	0.14	< 0.01	< 0.01	0.11	83.13	0.79	4.22	100.55
2268	208 226	11.28	0.13	< 0.01	1.12	0.24	0.18	< 0.01	< 0.01	0.11	81.76	0.92	4.79	100.55
2269	208 226	2.91	0.09	0.04	0.70	0.14	0.10	< 0.01	0.02	0.09	95.84	0.14	1.11	101.20
2270	208 226	3.32	0.04	0.02	0.43	0.16	0.07	< 0.01	0.01	0.09	94.40	0.17	1.21	99.93
2271	208 226	3.95	0.06	0.05	0.67	0.17	0.07	< 0.01	0.02	0.09	93.47	0.27	1.45	100.30
2272	208 226	5.04	0.04	0.03	0.61	0.17	0.07	< 0.01	< 0.01	0.10	92.07	0.25	1.90	100.30
2273	208 226	3.24	0.05	0.05	0.76	0.16	0.07	< 0.01	0.01	0.08	94.85	0.09	1.17	100.55
2274	208 226	3.45	0.04	0.02	0.45	0.13	0.04	< 0.01	0.01	0.09	94.86	0.20	1.16	100.45
2275	208 226	3.42	0.07	0.04	0.72	0.14	0.10	< 0.01	0.01	0.10	93.98	0.37	1.43	100.40
2276	208 226	7.08	0.08	0.05	0.67	0.13	0.09	< 0.01	0.01	0.11	88.72	0.49	2.91	100.35
2277	208 226	7.41	0.09	< 0.01	0.69	0.19	0.12	< 0.01	< 0.01	0.11	87.62	0.73	2.91	99.90
2278	208 226	4.59	0.03	0.03	0.67	0.16	0.05	< 0.01	< 0.01	0.09	93.39	0.20	1.97	101.20
2279	208 226	4.59	0.11	0.09	0.81	0.13	0.08	< 0.01	0.12	0.10	92.44	0.26	1.77	100.50
2280	208 226	3.34	0.07	0.07	0.57	0.17	0.05	< 0.01	0.09	0.09	94.74	0.12	1.20	100.50
2281	208 226	3.20	0.09	0.09	0.64	0.16	0.03	< 0.01	0.11	0.10	94.95	0.23	1.23	100.85
2282	208 226	2.57	0.08	0.08	0.63	0.13	0.03	< 0.01	0.10	0.09	95.21	0.11	0.96	100.00
2283	208 226	3.01	0.07	0.08	0.56	0.13	0.06	< 0.01	0.10	0.09	95.22	0.06	1.12	100.50
2284	208 226	6.39	0.11	0.08	0.80	0.15	0.08	< 0.01	0.10	0.10	90.35	0.28	2.51	100.95
2285	208 226	4.29	0.09	0.08	0.65	0.15	0.09	< 0.01	0.11	0.10	93.32	0.20	1.63	100.70
2286	208 226	3.15	0.08	0.08	0.63	0.17	0.06	< 0.01	0.10	0.10	94.32	0.09	1.16	99.95
2287	208 226	2.50	0.10	0.08	0.66	0.19	0.12	< 0.01	0.11	0.09	95.25	0.06	0.98	100.15
2289	208 226	3.78	0.09	0.07	0.62	0.16	0.07	< 0.01	0.09	0.10	93.90	0.23	1.50	100.60

CERTIFICATION:

Phai D Ma

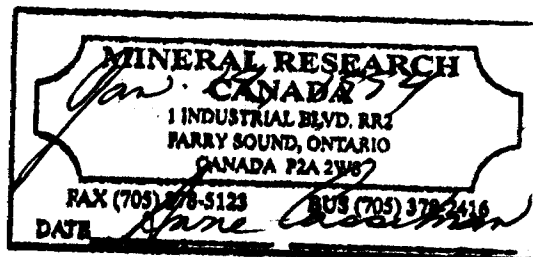
ROTARY DRILL HOLE RECORD

Drilling Started: Mar. 6, 1989
 Drilling Finished: Mar. 7, 1989
 Drilling Co.: Midwest
 Dip: -90°
 Hole Length: 156.0'
 Overburden Depth: 64.0'
 Claim No.: P 825805
 Easting: 5650 E
 Northing: 250 S
 Azimuth: 50° 08' 41" W. 82° 08' 39" N.
 Location: 2000.0' at 200° To Claim Post No. 1
 Property: Kipling

Logged By: A. Casselman
 Logged: Mar. 23, 1989
 Core Size: 3.5"
 Core Storage:
 Mineral Research Canada
 R. R. # 2
 Parry Sound, ON
 P2A 2W8
 Elevation: 329.0'
 Hole No.: 89-99

SUMMARY

From	To	Description
0.0'	15.0'	Peat
15.0'	16.0'	Glacial Clay Till
16.0'	18.0'	Gravel
18.0'	27.0'	Glacial Clay Till
27.0'	30.0'	Sand
30.0'	31.0'	Glacial Clay Till
31.0'	36.0'	Sand
36.0'	64.0'	Glacial Clay Till - Overburden - Pleistocene
64.0'	109.0'	Kaolin Silica Sand (Kss) Cretaceous
109.0'	109.75'	Clay
109.75'	111.0'	Kss
111.0'	116.0'	Clay
116.0'	126.0'	Sandy Clay
126.0'	156.0'	Kss



EOH - 156.0'

Detail Log - 89-99

From	To	Sample No.	Description
0.0'	15.0'	0.0'	Peat - polydrill. Peat - polydrill.
15.0'	16.0'		Glacial Clay Till - dark green/brown, competent, dried, fissile, segmented, calcareous, rare angular to sub-angular gneissic and carbonate clasts up to 0.5", some polydrill.
16.0'	18.0'		Gravel - coarse grain, clasts up to 4.0", predominantly gneissic, sub-angular.
18.0'	27.0'		Glacial Clay Till - as above.
27.0'	30.0'		Sand - medium brown, medium grain, quartz, feldspar & amphibole.
30.0'	31.0'		Glacial Clay Till - as above.
31.0'	36.0'		Sand - as above.
36.0'	64.0'		Glacial Clay Till - as above.
64.0'	66.0'	2901	Kss - white, fine grain, minor illite and heavies. 6.99% kaolin.
66.0'	71.0'	2902	Kss - as above, darker grey - 70.0' - 71.0', grading downsection, clay impurity banding, brown and purple, light grey pliable clay clots in purple band, coarser grain. 7.44% kaolin.
71.0'	76.0'	2903	Kss - medium grain, brown and grey clay impurity bands from 71.0' - 74.0', 74.0' - 76.0' - white, heavies banding. 0.25" chert and smoky quartz clasts, high moisture retention, high clay content. 7.70% kaolin.
76.0'	81.0'	2904	Kss - coarse grain, white, heavies banding. 6.61% kaolin.
81.0'	86.0'	2905	Kss - medium grain, as above. 8.48% kaolin.
86.0'	91.0'	2906	Kss - medium grain grading to coarse grain, medium purple, coarse grain, white, minor illite and heavies. 8.15% kaolin.

91.0'	96.0'	2907	Kss - medium grain, with light grey clay clots, pliable grading to coarse with light grey 1.0" clay bands in medium grain portion. 10.38% kaolin.
96.0'	101.0'	2908	Kss - 96.0' - 99.25' - white medium grain, minor illite and heavies, 99.25' - 101.0' - purple, higher clay content, clay banding, white, high minor illite content. 8.35% kaolin.
101.0'	106.0'	2909	Kss - medium grain, grading to coarse grain, at 105.0', white, minor illite. 8.81% kaolin.
106.0'	109.0'	2910	Kss - as above. 9.42% kaolin.
109.0'	109.75'	2911	Clay - competent, pliable to fissile, yellow/brown. 69.49% kaolin.
109.75'	111.0'	2912	Kss - yellow/brown, medium grain, minor illite and heavies. 8.38% kaolin.
111.0'	116.0'	2913	Clay - pliable, grey with red discontinuous laminations, becoming gradational sandy lower contact. 51.27% kaolin.
116.0'	121.0'	2914	Sandy Clay - grey, pliable, becoming more competent downsection, minor illite and heavies. 36.86% kaolin.
121.0'	126.0'	2915	Sandy Clay - light grey to white (where dried due to exposure) remainder grey some reddish sections, minor illite and heavies, 33.87% kaolin.
126.0'	131.0'	2916	Kss - medium grain, light grey, high percentage yellow chert, minor illite and heavies, 8.35% kaolin.
131.0'	136.0'	2917	Kss - coarse grain, high clay content, coarsening downsection, sub-rounded clasts of smoky quartz, yellow chert, 13.24% kaolin.
136.0'	141.0'	2918	Kss - medium grain, white, high clay content, 11.09% kaolin.
141.0'	146.0'	2919	Kss - coarse grain, fining downsection to medium grain, white, 13.01% kaolin.
146.0'	151.0'	2920	Kss - medium grain, white, minor illite and heavies, 8.61% kaolin.

151.0' 156.0' 2921 Kss - as above, 7.14% kaplin.

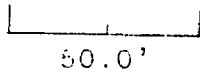
EOH - 156.0'

EOH - 156.0'

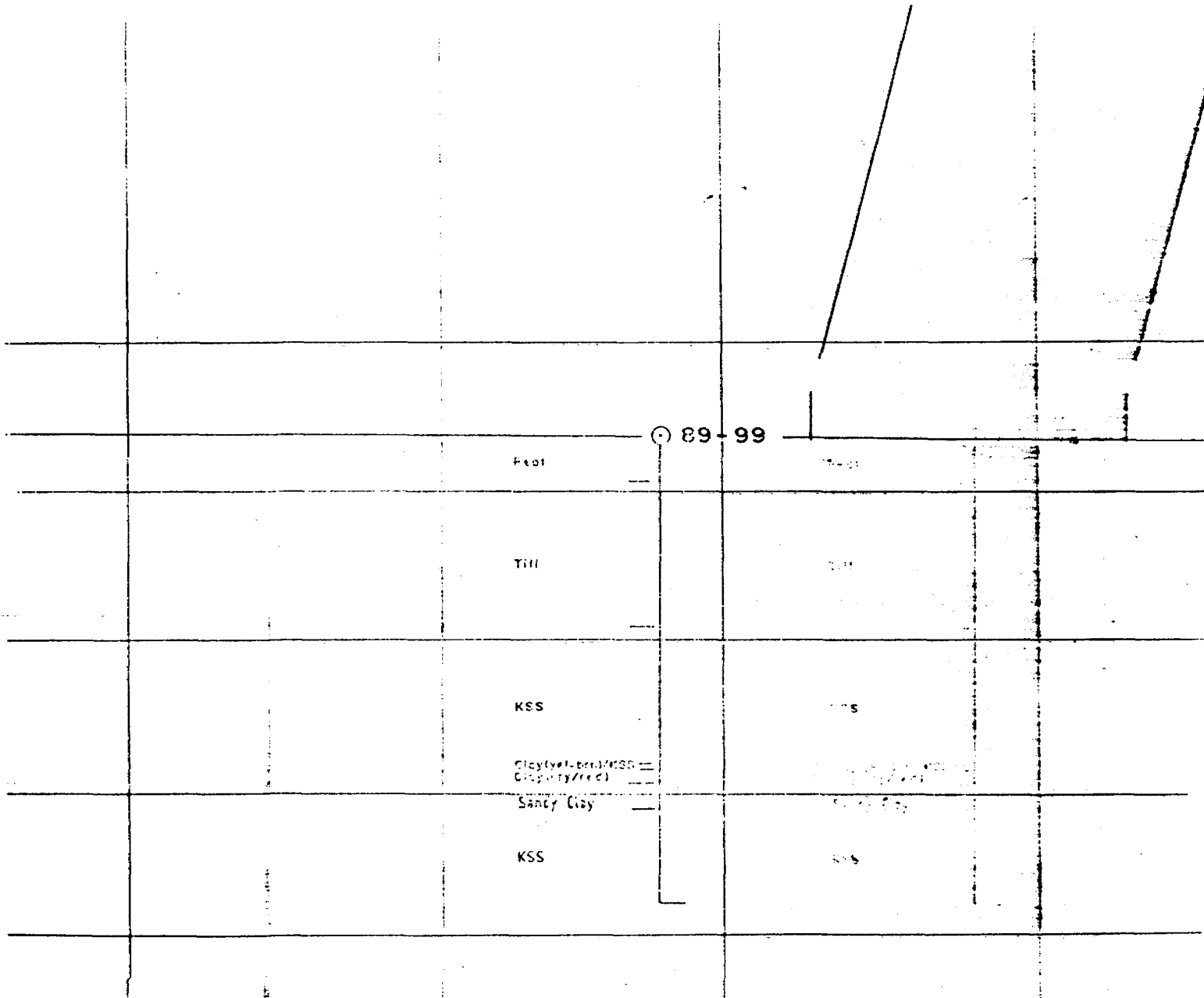
Section 89-99

1998 03 29

Claim No.: P 825805
Hole Length: 156.0'
Overburden Depth: 64.0'
Astronomic Azimuth: $50^{\circ} 08' 41''$ W. $82^{\circ} 08' 39''$ N
Location: 2000.0' at 200° to claim post no. 11
Scale: 1.0" = 50.0' or 1:600
Northing: 250 S
Easting: 5650 E
Dip: -90°



Gridline 5700



Section 89-99

Claim No.: P 825805

Hole Length: 156.0'

Overburden Depth: 64.0'

Astronomic Azimuth: $50^{\circ} 08' 41''$ W. $82^{\circ} 08' 39''$ N

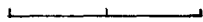
Location: 2000.0' at 200° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 250 S

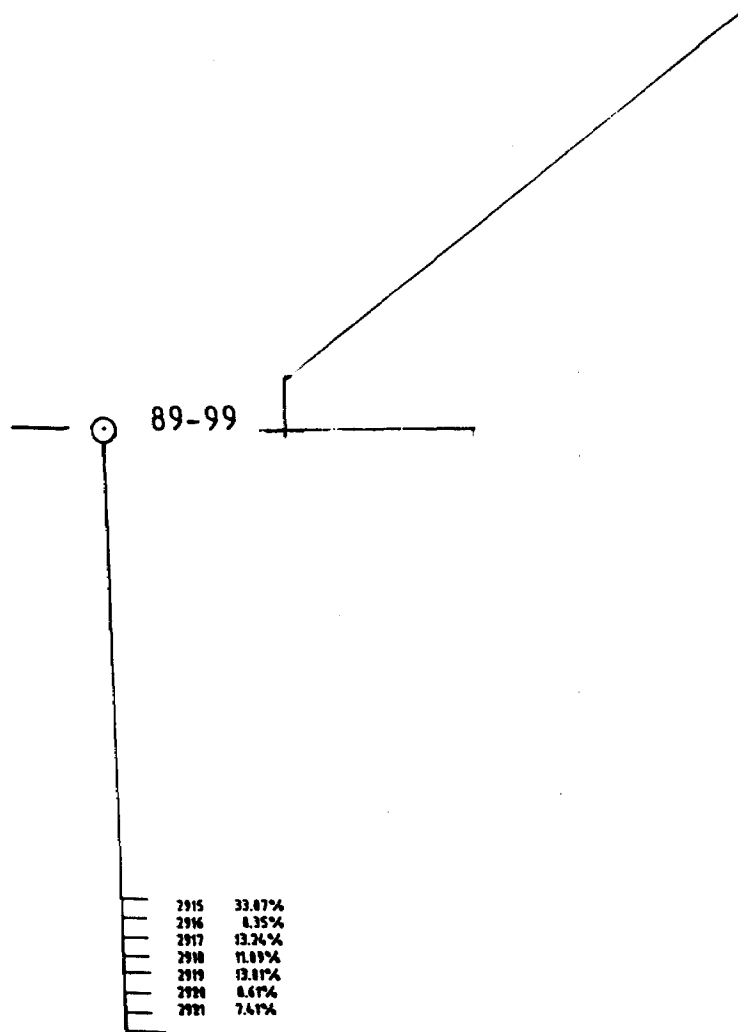
Easting: 5650 E

Dip: -90°



50.0'

Gridline 5700





Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

*

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

19310138

BILLING INFORMATION

Date: 21-JAN-93
Project:
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9310138

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
80	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	1720.80
				Total Cost \$ 1720.80
				(Reg# R100938885) GST \$ 120.46
				TOTAL PAYABLE (CDN) \$ 1841.26



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To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project:
 Comments: ATN: A. CASSELMAN

Page Number :1
 Total Pages :2
 Certificate Date: 21-JAN-93
 Invoice No. :19310138
 P.O. Number :0054
 Account :KJE

CERTIFICATE OF ANALYSIS A9310138

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
2783	208 226	4.81	0.06	0.08	0.67	0.17	0.01	< 0.01	0.13	0.11	92.26	0.14	1.94	100.40
2784	208 226	3.87	< 0.01	0.07	0.53	0.10	0.03	< 0.01	0.10	0.10	93.43	0.09	1.63	99.97
2785	208 226	3.15	< 0.01	0.05	0.43	0.09	0.01	< 0.01	0.09	0.10	95.30	0.10	1.32	100.65
2786	208 226	6.74	0.02	0.03	0.48	0.12	0.02	< 0.01	0.09	0.11	89.95	0.34	2.64	100.55
2787	208 226	29.49	0.24	0.01	1.44	0.44	0.16	< 0.01	0.12	0.18	54.62	1.09	13.28	101.10
2788	208 226	2.42	0.01	0.06	0.62	0.07	0.02	< 0.01	0.08	0.10	95.71	0.19	1.03	100.30
2789	208 226	21.01	0.23	0.03	1.05	0.26	0.10	< 0.01	0.09	0.16	67.73	0.86	9.71	101.25
2790	208 226	8.09	0.03	0.04	0.74	0.11	0.01	< 0.01	0.07	0.11	87.84	0.45	3.42	100.90
2791	208 226	3.78	0.06	0.05	0.82	0.06	0.08	< 0.01	0.07	0.10	93.82	0.33	1.71	100.90
2792	208 226	3.68	< 0.01	0.04	0.75	0.12	0.06	< 0.01	0.06	0.10	93.56	0.16	1.55	100.10
2793	208 226	24.64	0.40	0.01	1.34	0.30	0.14	< 0.01	0.08	0.16	58.07	1.02	13.57	99.74
2794	208 226	2.15	0.01	0.11	1.15	0.08	0.09	< 0.01	0.05	0.09	95.76	0.08	0.96	100.55
2795	208 226	23.67	0.35	< 0.01	1.27	0.28	0.13	< 0.01	0.08	0.16	59.71	1.10	11.68	98.45
2796	208 226	2.10	< 0.01	0.06	0.50	0.08	0.07	< 0.01	0.08	0.10	96.43	0.08	0.84	100.35
2797	208 226	3.06	0.02	0.03	0.54	0.13	0.07	< 0.01	0.06	0.10	94.85	0.11	1.30	100.30
2798	208 226	3.92	0.14	0.07	1.48	0.10	0.13	< 0.01	0.06	0.11	91.67	0.47	1.88	100.05
2799	208 226	2.61	0.02	0.09	0.76	0.09	0.15	< 0.01	0.08	0.11	94.97	0.28	1.04	100.20
2800	208 226	3.04	0.08	0.11	2.87	0.10	0.09	< 0.01	0.07	0.10	88.97	0.17	5.31	100.90
2915	208 226	13.38	0.15	0.01	1.25	0.29	0.12	< 0.01	0.06	0.12	78.04	0.91	5.68	100.00
2916	208 226	3.30	0.02	0.07	0.54	0.17	0.03	< 0.01	0.10	0.10	95.11	0.09	1.24	100.80
2917	208 226	5.23	0.02	0.07	0.49	0.22	< 0.01	< 0.01	0.11	0.12	92.29	0.15	1.98	100.70
2918	208 226	4.38	< 0.01	0.08	0.53	0.20	0.01	< 0.01	0.10	0.10	92.95	0.12	1.70	100.20
2919	208 226	5.14	0.02	0.09	0.54	0.18	< 0.01	< 0.01	0.12	0.12	92.26	0.18	1.91	100.60
2920	208 226	3.40	< 0.01	0.06	0.50	0.14	< 0.01	< 0.01	0.09	0.11	94.27	0.09	1.31	100.00
2921	208 226	2.82	< 0.01	0.06	0.60	0.14	< 0.01	< 0.01	0.07	0.09	94.95	0.13	1.09	99.98
3017	208 226	5.58	0.05	0.04	0.62	0.13	0.02	< 0.01	0.11	0.13	90.48	0.58	2.12	99.87
3018	208 226	4.66	< 0.01	0.07	0.70	0.10	< 0.01	< 0.01	0.10	0.11	92.87	0.38	1.85	100.85
3019	208 226	3.48	0.20	0.08	1.31	0.11	0.07	< 0.01	0.13	0.11	93.19	0.24	1.71	100.65
3020	208 226	2.84	< 0.01	0.04	0.63	0.09	< 0.01	< 0.01	0.05	0.09	95.82	0.18	1.12	100.90
3021	208 226	5.21	0.01	0.06	0.49	0.14	< 0.01	< 0.01	0.10	0.11	92.26	0.13	1.94	100.45
3022	208 226	3.36	< 0.01	0.06	0.50	0.13	< 0.01	< 0.01	0.08	0.10	95.00	0.09	1.18	100.55
3023	208 226	4.03	< 0.01	0.06	0.58	0.15	< 0.01	< 0.01	0.08	0.11	93.69	0.11	1.40	100.25
3024	208 226	3.15	< 0.01	0.07	0.59	0.10	< 0.01	< 0.01	0.08	0.10	94.79	0.13	1.12	100.15
3025	208 226	4.69	0.07	0.12	0.79	0.10	0.04	< 0.01	0.15	0.13	92.00	0.26	1.79	100.15
3026	208 226	4.09	0.07	0.13	0.76	0.10	0.10	< 0.01	0.17	0.14	92.82	0.27	1.48	100.15
3027	208 226	3.26	0.05	0.10	0.83	0.08	0.21	< 0.01	0.14	0.13	94.57	0.21	1.19	100.80
12668	208 226	4.60	0.04	0.10	0.53	0.06	0.04	< 0.01	0.15	0.13	92.19	0.30	1.69	99.84
12669	208 226	2.66	0.03	0.09	0.44	0.04	0.03	< 0.01	0.14	0.12	95.27	0.09	1.01	99.93
12670	208 226	2.55	0.03	0.09	0.45	0.04	0.02	< 0.01	0.14	0.13	95.41	0.15	0.96	99.98
12672	208 226	3.92	0.02	0.09	0.56	0.05	0.03	< 0.01	0.11	0.13	93.79	0.24	1.55	100.50

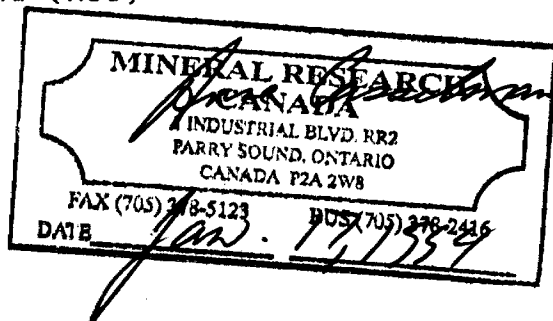
CERTIFICATION: *B. Coughlin*

SONIC DRILL HOLE RECORD

Drilling Started: Mar. 14, 1992	Logged By: A. Casselman
Drilling Finished: Mar. 15, 1992	Logged: Sept. 8, 1992
Drilling Co.: J. R. Drilling	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 250.0'	Mineral Research Canada
Overburden Depth: 145.5'	R. R. # 2
Claim No: P 825792	Parry Sound, ON
Easting: 4900 E	P2A 2W8
Northing: 840 N	Hole No.: 92-3
Azimuth: 50° 09' 10" W. 82° 09' 32" N.	
Location: 530.0' at 253° To Claim Post No. 1	
Property: Kipling	

SUMMARY

From	To	Description
0.0'	145.5'	Glacial Clay Till - Overburden - Pleistocene
145.5'	165.0'	Clay Cretaceous
165.0'	177.5'	Kaolin Silica Sand (Kss)
177.5'	182.0'	Clay
182.0'	186.0'	Sandy Clay
186.0'	240.0'	Kss
240.0'	242.75'	Sandy Clay
242.75'	250.0'	Kss



EOH - 250.0'

Hole located: 91.0 m due west of Pike Creek (Kipling Township)
 : 4900 m E of point 00 on the baseline
 : 840 m N of the baseline
 : 164.5 m at 253° from claim post 1 of P 825792

Detail Log - 92-3

From	To	Sample No.	Description
0.0'	134.0'		Glacial Clay Till - highly competent, calcareous, 129.0' - 130.0' - interlayered red & medium grey, 130.0' - dark green, highly calcareous, up to 35.0% clasts, predominantly carbonate, some gneissic angular, red, highly calcareous also, pieces of drill bit, medium grey sandy clay, red exterior coating - kaolin based - non-calcareous, competent, weakly pliable, 130.0' - 134.0' - predominantly red, mould in exposed sections.
134.0'	141.5'	16401	Glacial Clay Till - red as above, 49.08% kaolin.
141.5'	146.5'	16402	Glacial Clay Till - interbedded red & dark green (typical till) from 141.5 - 145.5', at 145.5' - a 0.5" kss seam centre white, red exterior coating and contacts, lower contact with 1.0" dark green till contacting with medium grey/brown Cretaceous clay, finely laminated with light grey, dark brown & red, 67.54% kaolin.
146.5'	152.0'	16403	Clay - pliable, competent, 145.5' - 149.0' - red and light grey mottled - predominantly red, kss - 0.25" at 146.25' - medium grain, red, some black with the light grey, 149.0 - 151.0' - light to medium grey mottled, high illite content, grey alternating with grey to red to buff mottled then yellow/brown (red & yellow/brown) together in a wavy pattern, 0.5" wider band of 1.0" medium and light grey to yellow brown, 0.5" of medium & light grey with some mottling, to red with minor buff mottling 0.25', then 0.25' of grey with minor red mottling, 151.0' - 152.0' - 0.75' of red with minor buff mottling, last 0.25' - medium grey with minor red, much darker, minor carbonaceous pieces, 63.49% kaolin.
152.0'	155.0'	16404	Clay - competent, pliable, more goeey

than above, medium grey, some carbonaceous material, red/brown, mottling, not as strong as above, predominantly grey, 154.5' - 154.75' - mottling with light yellow/green/red/grey, 68.58% kaolin.

- 155.0' 159.0' 16405 Clay - competent, weakly pliable, somewhat fissile, carbonaceous material increasing downsection, chocolate brown grading to black, fissility increasing downsection, chocolate brown containing darker discontinuous laminations, lignite fragments at 158.0' - black after 158.0' - 159.0', 70.56% kaolin.
- 159.0' 163.0' 16406 Clay - black, fissile, competent, some dark brown discontinuous laminating, carbonaceous, 60.51% kaolin.
- 163.0' 165.0' 16407 Clay - black, highly fissile, becoming more pliable, downsection, at contact with kss, there is approximately 5.0" of black sandy clay with high illite content, relatively sharp contact with kss, disc-like greasy conchoidal-like fracture, 57.39% kaolin.
- 165.0' 167.0' 16408 Kss - first 0.75' 0 hematite/limonite stained rusty yellow colour, then a dark grey band - bimodal distribution medium grain, in a fine grain matrix with some coarser smoky quartz and yellow chert - well rounded to white at 166.0' - 2.0" chocolate brown kss under finer grain grading to previous material from yellow/brown to white, 7.04% kaolin.
- 167.0' 172.0' 16409 Kss - white, medium grain, frequent larger rounded smoky quartz & yellow chert, minor illite and heavies, some purple sections - especially in clay-rich lower section, chocolate brown exterior coating, clasts up to 1.0", lower section has a large percentage chocolate brown, probably due to drill action, lower section is coarse grain in a white clay matrix, Devonian sandstone angular fragment at 169.0', powdery limonite areas as contacts with yellow chert, 18.33% kaolin.
- 172.0' 177.5' 16410 Kss - medium grey, very coarse grain, in a fine grain matrix, grading downsection to a medium grain matrix, rounded larger clasts of smoky quartz and yellow chert up to 1.0", minor clay clots, pliable buff,

red exterior coating, minor illite and heavies, sharp contact with underlying clay, 14.87% kaolin.

- 172.0' 181.0' 16411 Clay - medium grey with red and yellow mottling, red centrally, yellow exterior and yellow bands, some purple from 177.5' - 179.0', 5.0" of kss - white medium grain, red exterior coating at 179.0', 179.0' - 181.0' - red with light buff mottling, more buff downsection - 2.0" of buff & yellow at upper contact with kss, some green with upper yellow, highly competent, fissile becoming predominantly mouldy, red most pliable, 45.59% kaolin.
- 181.0' 182.0' 16412 Clay - red, some buff mottling at lower sandy clay contact, competent, and fissile, illitic, 46.86% kaolin.
- 182.0' 184.0' 16413 Sandy Clay - buff, illitic, darker discontinuous laminations, some purple and yellow areas, 182.5' - clay seam of 4.0" - weakly red & yellow - one very fine concord purple lamination at the lower contact, very fine grain silica, 41.87% kaolin.
- 184.0' 186.0' 16414 Sandy Clay - buff, pliable, illitic, as above, no yellow, 40.41% kaolin.
- 186.0' 190.0' 16415 Kss - reddish at upper contact, white, minor illite and heavies, one sandy clay seam - buff, pliable with purple sections at 187.0' - 1.5", exterior red and yellow coating, 11.37% kaolin.
- 190.0' 196.0' 16416 Kss - as above, upper 2.0', more illite-rich, 6.91% kaolin.
- 196.0' 198.0' 16417 Kss - white, medium grain, rare larger smoky quartz clasts, minor illite and heavies, increasing percentage downsection, 7.77% kaolin.
- 198.0' 203.0' 16418 Kss - medium grain, light buff, frequent larger smoky quartz, coarser grain, in a medium grain matrix, high percentage heavies, minor illite, 198.0' - 201.0' - from 201.0' - 202.25' - white, medium grain, much lower percentage of heavies and illite, no larger clasts, 202.25' - 203.0' - as previous, extremely high concentration of heavies, dark grey clay, yellow chert, 6.46% kaolin.

- 203.0' 208.0' 16419 Kss - at 203.0' - 233.25' - dark grey extremely high percentage heavies with large rounded smoky quartz and yellow chert in medium grain, 203.25' - 203.75' - medium grain, white, minor illite and heavies, 203.75' - 204.0' - dark grey as previous, 204.0' - 205.0' - white, fine grain, coarsening downsection to medium grain, minor illite and heavies, some heavies banding causing grey sections, at 204.5' - 2.0" band of coarse clasts - up to 1.5" rounded vari-coloured silicas with a buff clay coating, 6.23% kaolin.
- 208.0' 211.0' 16420 Kss - medium grain, white, minor illite and heavies banding creating darker sections, 5.67% kaolin.
- 211.0' 217.0' 16421 Kss - coarse grain, white, some medium grey sections, especially at 213.5', 4 Devonian fragments found, angular, dark grey, coral, bryozoans, crinoids, brachiopods, quite pitted, vari-coloured rounded to sub-rounded silica, bi-modal very coarse in a coarse grain matrix, 7.57% kaolin.
- 217.0' 221.0' 16422 Kss - coarse grain, as above, grading to less clay-rich rusty buff, coarse grain with fewer very large clasts, minor illite and heavies, vari-coloured silicas, 5.32% kaolin.
- 221.0' 225.0' 16423 Kss - coarse grain, clasts up to 1.5", light buff, minor illite and heavies, 2.0" sandstone clast, fine grain, sub-rounded dark brown, weathered surface, lighter interior, pitted, one aster-like brown section, some darker laminations, apparent exterior *in situ* sulphide formation - pyrite crust in certain areas as well as some pits, Devonian, 10.61% kaolin.
- 225.0' 229.25' 16424 Kss - extremely coarse grain in a medium grain matrix, light grey, minor illite and heavies, sub-rounded to rounded vari-coloured silicas, 8.15% kaolin.
- 229.25' 233.0' 16425 Kss - medium grain, white, minor illite and heavies, higher than normal percentage illite, larger flake than normal, minor heavies banding, clay-enrichments in bands, garnet banding, very fine grain garnet.

233.0' 237.0' 16426 Kss - as above.

237.0' 240.0' 16427 Kss - medium grain, white, minor illite and heavies, 2.0" buff pliable clay clot at lower contact with sandy clay, heavies as banding, coarse at contact.

240.0' 242.75' 16428 Sandy Clay - buff, pliable, minor purple sections, minor illite and heavies.

242.75' 245.0' 16429 Kss - light grey, fine grain, high percentage heavies, minor illite.

245.0' 250.0' 16430 Kss - fine grain, as above, coarsening downsection to medium grain portion, minor illite and heavies, & heavies as banding.

EOH - 250.0'

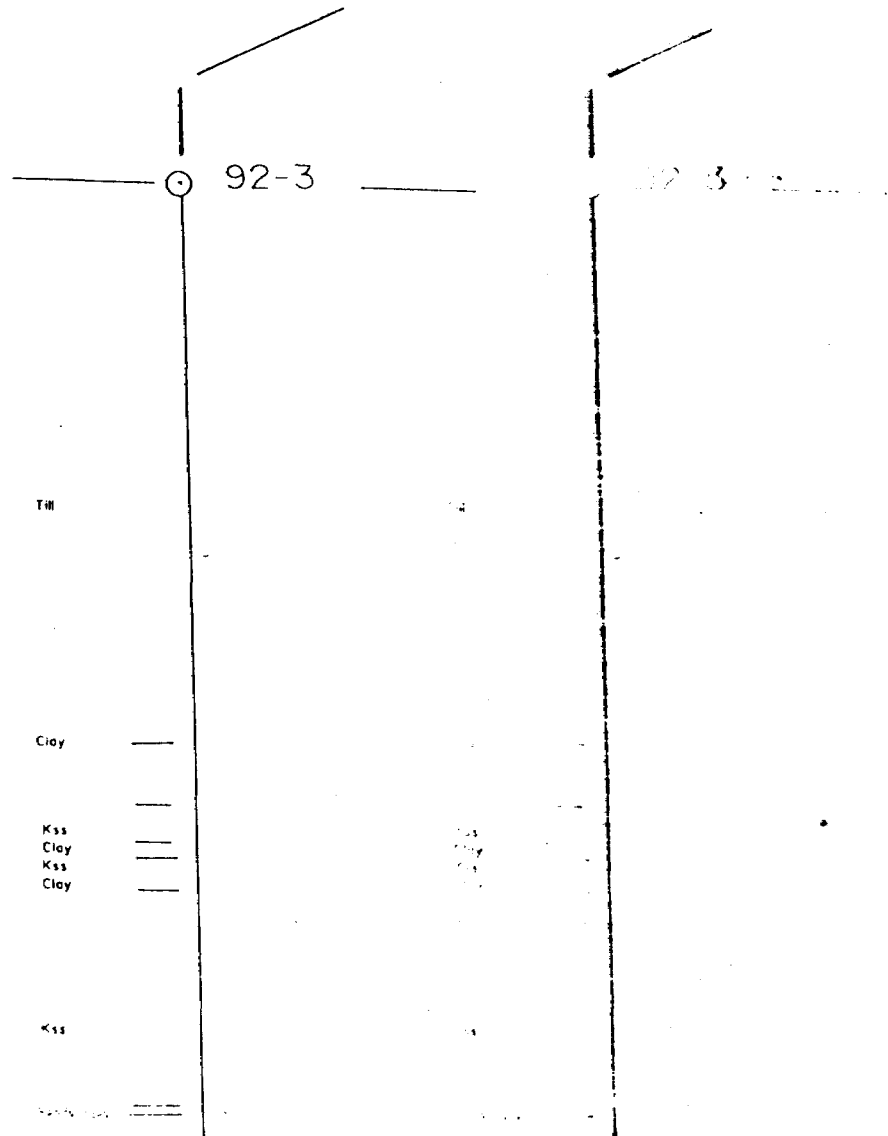
Section 92-3

Section 92-3

Claim No.: P 825792
Hole length: 250.0'
Overburden Depth: 145.0'
Astronomic Azimuth: $50^{\circ} 09' 10''$ W. $82^{\circ} 09' 32''$ N
Location: 530.0' at 253° from claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 840 m N
Easting: 4900 m E
Dip: -90°

50.0'

Gridline 4900



Section 92-3

Claim No.: P 825792

Hole length: 250.0'

Overburden Depth: 145.0'

Astronomic Azimuth: $50^{\circ} 09' 10''$ W. $82^{\circ} 09' 32''$ N

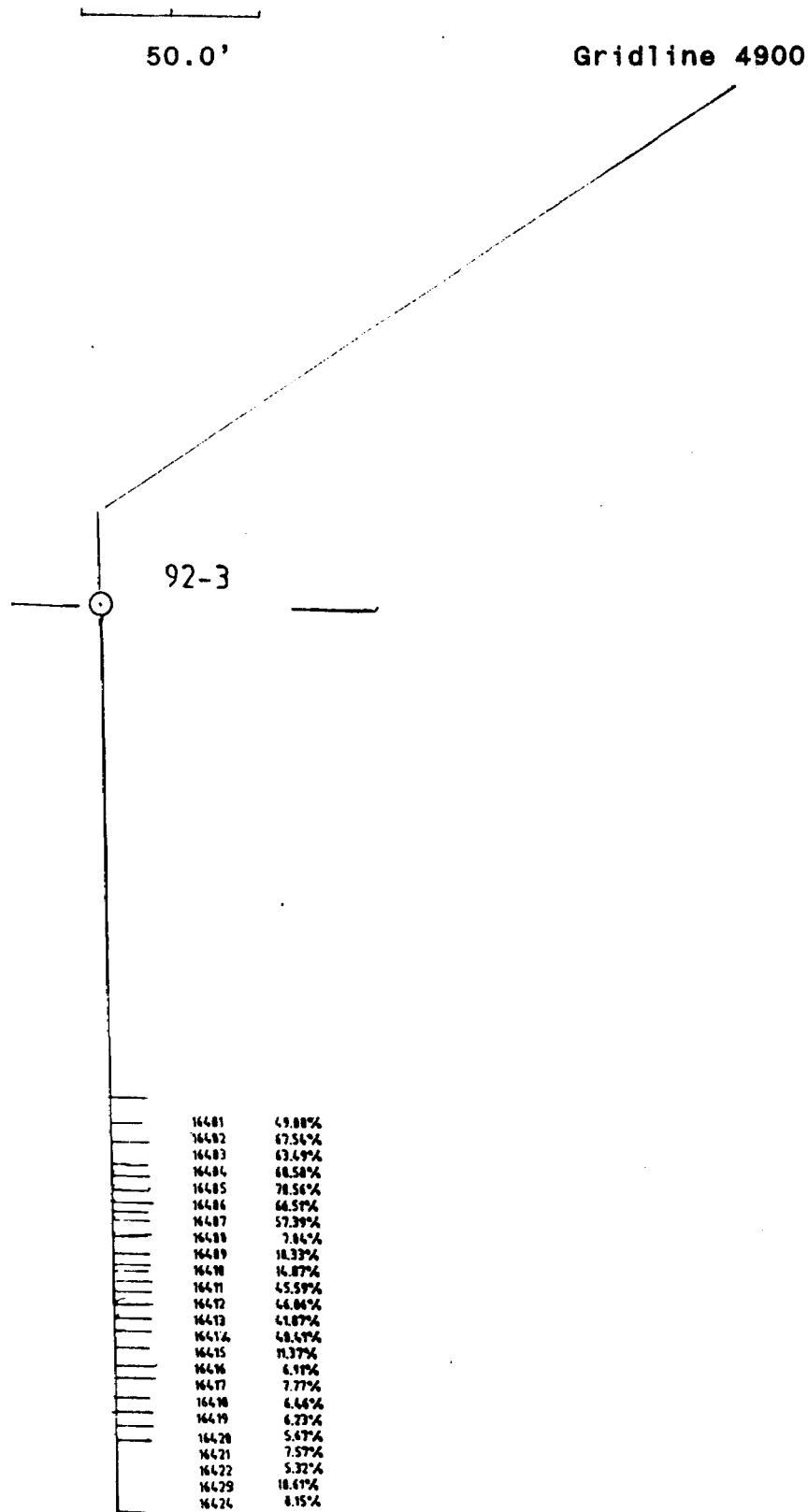
Location: 530.0' at 253° from claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 840 m N

Easting: 4900 m E

Dip: -90°





Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 4 0

BILLING INFORMATION

Date: 21-JAN-93
Project:
P.O. No.: 0054
Account: KJE

Comments: 930101T

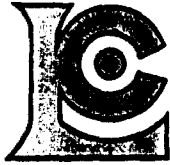
Billing: For analysis performed on
Certificate A9310140

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
102	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	2194.02
Total Cost \$				2194.02
(Reg# R100938885) GST \$				153.58
TOTAL PAYABLE (CDN) \$				2347.60



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project :
 Comments: ATN: A. CASSELMAN

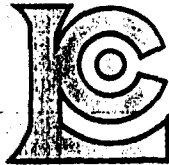
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 P.O. Number :0054
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CERTIFICATE OF ANALYSIS A9310140

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16355	208 226	8.09	0.01	0.08	0.68	0.15	0.04	< 0.01	< 0.01	0.10	87.77	0.46	3.36	100.75
16356	208 226	15.35	0.04	0.06	0.75	0.25	0.08	< 0.01	< 0.01	0.13	77.32	0.76	6.42	101.20
16357	208 226	3.58	< 0.01	0.02	0.34	0.12	< 0.01	< 0.01	< 0.01	0.08	94.26	0.22	1.46	100.10
16358	208 226	3.52	< 0.01	0.04	0.47	0.19	< 0.01	< 0.01	< 0.01	0.08	94.33	0.13	1.29	100.10
16359	208 226	13.69	< 0.01	0.03	0.74	0.22	0.04	< 0.01	< 0.01	0.11	79.57	0.88	5.56	100.85
16360	208 226	2.60	< 0.01	0.06	0.62	0.21	< 0.01	< 0.01	< 0.01	0.08	95.58	0.17	0.98	100.35
16361	208 226	3.35	0.03	0.04	1.34	0.35	< 0.01	< 0.01	< 0.01	0.08	92.88	0.11	1.65	99.86
16362	208 226	32.76	0.16	< 0.01	1.29	0.45	0.17	< 0.01	< 0.01	0.16	50.75	1.38	13.68	100.85
16363	208 226	32.62	0.13	< 0.01	1.51	0.47	0.24	< 0.01	< 0.01	0.17	51.53	1.37	13.25	101.30
16364	208 226	32.76	0.15	< 0.01	3.59	0.58	0.28	< 0.01	< 0.01	0.19	47.96	1.30	13.53	100.35
16365	208 226	31.52	0.12	< 0.01	5.45	0.55	0.25	0.01	< 0.01	0.20	46.87	1.16	13.33	99.48
16366	208 226	25.31	0.04	< 0.01	6.24	0.33	0.19	0.03	< 0.01	0.15	53.93	0.98	12.55	99.77
16367	208 226	28.06	0.07	< 0.01	11.84	0.57	0.23	0.10	< 0.01	0.16	39.77	0.90	16.29	98.01
16368	208 226	28.34	0.06	< 0.01	6.60	0.55	0.23	0.06	< 0.01	0.15	47.92	1.04	14.00	98.97
16369	208 226	22.04	0.06	0.01	3.06	0.45	0.21	0.04	< 0.01	0.14	63.33	0.97	10.24	100.55
16370	208 226	24.10	0.08	< 0.01	8.37	0.43	0.25	0.13	< 0.01	0.14	50.22	0.95	13.91	98.60
16371	208 226	27.58	0.13	0.01	3.35	0.65	0.28	0.04	< 0.01	0.19	54.35	0.98	13.51	101.10
16372	208 226	28.35	0.36	< 0.01	1.22	0.36	0.26	< 0.01	< 0.01	0.20	52.03	1.18	16.97	100.95
16373	208 226	23.08	0.53	0.02	1.39	0.57	0.32	< 0.01	0.10	0.15	49.32	1.16	22.40	99.05
16374	208 226	24.37	0.43	< 0.01	1.39	0.61	0.31	< 0.01	< 0.01	0.14	49.36	1.17	23.56	101.35
16376	208 226	24.01	0.43	< 0.01	1.35	0.61	0.31	< 0.01	< 0.01	0.15	51.90	1.15	21.16	101.10
16377	208 226	3.54	0.07	0.06	1.62	0.09	0.01	< 0.01	< 0.01	0.09	92.85	0.16	1.99	100.50
16378	208 226	3.48	< 0.01	0.07	0.46	0.08	< 0.01	< 0.01	< 0.01	0.12	94.36	0.20	1.37	100.20
16379	208 226	3.77	< 0.01	0.07	0.56	0.08	< 0.01	< 0.01	< 0.01	0.09	94.34	0.09	1.41	100.45
16380	208 226	8.00	0.24	0.22	1.01	0.09	0.14	< 0.01	0.21	0.17	86.61	0.29	3.35	100.35
16381	208 226	2.90	0.16	0.16	0.76	0.04	0.07	< 0.01	0.14	0.12	94.80	0.14	1.16	100.45
16382	208 226	3.20	0.14	0.13	0.59	0.05	0.08	< 0.01	0.15	0.13	94.23	0.15	1.19	100.05
16383	208 226	5.02	0.20	0.14	0.89	0.09	0.10	< 0.01	0.15	0.13	91.32	0.46	2.13	100.65
16384	208 226	4.54	0.17	0.16	0.68	0.06	0.10	< 0.01	0.16	0.13	92.24	0.45	1.83	100.55
16385	208 226	20.78	0.26	0.09	0.98	0.35	0.19	< 0.01	0.13	0.17	68.09	1.40	8.69	101.15
16386	208 226	7.01	0.15	0.14	0.67	0.13	0.10	< 0.01	0.14	0.13	88.49	0.27	2.74	99.98
16388	208 226	3.13	0.11	0.12	0.53	0.05	0.06	< 0.01	0.11	0.11	94.22	0.17	1.19	99.81
16389	208 226	3.97	0.12	0.11	0.51	0.05	0.06	< 0.01	0.11	0.11	93.40	0.11	1.59	100.15
16390	208 226	2.61	0.12	0.12	0.48	0.03	0.07	< 0.01	0.11	0.11	95.62	0.21	1.08	100.55
16391	208 226	3.07	0.09	0.09	0.45	0.03	0.05	< 0.01	0.09	0.09	95.25	0.12	1.30	100.65
16392	208 226	3.45	0.08	0.09	0.49	0.04	0.04	< 0.01	0.07	0.08	93.77	0.25	1.37	99.74
16393	208 226	3.59	0.09	0.08	0.48	0.04	0.05	< 0.01	0.06	0.09	94.11	0.08	1.35	100.05
16394	208 226	2.56	0.12	0.09	0.59	0.03	0.07	< 0.01	0.08	0.09	95.28	0.07	1.08	100.05
16401	208 226	19.37	4.77	0.05	6.53	0.95	1.57	0.04	0.79	0.18	52.52	0.80	12.47	100.05
16402	208 226	26.68	1.41	0.06	2.70	0.49	0.56	0.02	0.25	0.16	54.67	1.12	12.60	100.70

CERTIFICATION: _____

B. Coughlin



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project:
Comments: ATN: A. CASSELMAN

Page Number :3
Total Pages :4
Certificate Date: 21-JAN-93
Invoice No. :19310140
P.O. Number :0054
Account :KJE

CERTIFICATE OF ANALYSIS A9310140

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16403	208 226	25.08	0.33	0.02	9.67	0.40	0.35	0.06	0.11	0.19	48.83	1.04	12.51	98.59
16404	208 226	27.09	0.35	0.04	3.43	0.60	0.42	< 0.01	0.10	0.19	55.01	1.37	11.62	100.25
16405	208 226	27.86	0.39	< 0.01	1.53	0.72	0.40	< 0.01	0.07	0.15	53.79	1.36	14.23	100.50
16406	208 226	23.90	0.56	0.01	1.23	0.71	0.38	< 0.01	0.07	0.14	51.22	1.21	20.85	100.30
16407	208 226	22.67	0.44	< 0.01	1.15	0.66	0.32	< 0.01	0.06	0.12	58.04	1.25	15.67	100.40
16408	208 226	2.78	0.26	0.03	3.21	0.08	0.04	0.01	< 0.01	0.10	91.39	0.27	2.62	100.80
16409	208 226	7.24	0.07	0.02	0.54	0.08	0.04	< 0.01	< 0.01	0.09	88.70	0.39	3.10	100.30
16410	208 226	5.88	0.06	0.02	0.40	0.06	0.01	< 0.01	< 0.01	0.08	91.15	0.35	2.40	100.45
16411	208 226	18.01	0.16	< 0.01	3.47	0.49	0.20	0.01	0.04	0.14	68.54	1.14	7.69	99.90
16412	208 226	18.51	0.17	< 0.01	5.74	0.57	0.23	0.01	0.03	0.19	64.56	1.16	7.94	99.12
16413	208 226	16.54	0.15	< 0.01	1.06	0.38	0.16	< 0.01	0.06	0.12	75.19	1.14	6.43	101.25
16414	208 226	15.96	0.13	< 0.01	1.08	0.34	0.14	< 0.01	0.03	0.11	76.05	1.11	6.49	101.45
16415	208 226	4.49	0.07	0.04	0.58	0.09	0.04	< 0.01	0.03	0.08	92.73	0.31	1.82	100.30
16416	208 226	2.73	0.07	0.03	0.43	0.06	0.02	< 0.01	0.01	0.07	96.04	0.12	1.07	100.65
16417	208 226	3.07	0.05	0.04	0.46	0.06	0.04	< 0.01	0.02	0.07	95.63	0.08	1.10	100.65
16418	208 226	2.55	0.07	0.04	0.40	0.06	0.02	< 0.01	0.02	0.08	96.50	0.14	0.98	100.85
16419	208 226	2.46	0.07	0.07	0.47	0.06	0.04	< 0.01	0.08	0.08	94.57	0.24	0.97	99.12
16420	208 226	2.24	0.06	0.06	0.39	0.05	0.03	< 0.01	0.05	0.07	96.61	0.11	0.88	100.55
16421	208 226	2.99	0.09	0.10	0.48	0.10	0.05	< 0.01	0.10	0.09	95.51	0.04	1.04	100.60
16422	208 226	2.10	0.08	0.09	0.46	0.05	0.04	< 0.01	0.09	0.09	96.13	0.05	0.79	99.98
16423	208 226	4.19	0.08	0.09	0.48	0.08	0.04	< 0.01	0.07	0.09	93.53	0.07	1.62	100.35
16424	208 226	3.22	0.09	0.09	0.46	0.07	0.05	< 0.01	0.08	0.09	95.22	0.14	1.23	100.75
16425	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16426	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16427	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16428	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16429	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16430	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16455	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16456	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16457	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16458	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16459	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16460	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16465	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16466	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16467	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16468	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16469	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16470	-- --	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

CERTIFICATION: B. Coughlin

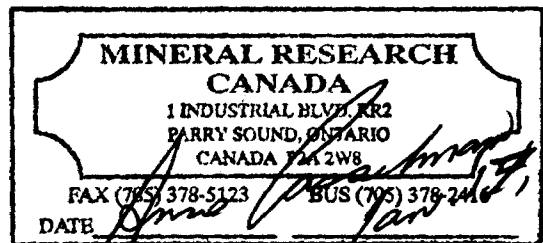
SONIC DRILL HOLE RECORD

Drilling Started: Mar. 14, 1992
 Drilling Finished: Mar. 14, 1992
 Drilling Co.: J. R. Drilling
 Dip: -90°
 Hole Length: 252.0'
 Overburden Depth: 140.0'
 Claim No.: P 1112320
 Easting: 4970 E
 Northing: 1006 N
 Azimuth: 50° 09' 16" W. 82° 09' 33" N.
 Location: 1600.0' at 199° To Claim No. 1
 Property: Kipling

Logged By: A. Casselman
 Logged: Sept. 18, 1992
 Core Size: 3.5"
 Core Storage:
 Mineral Research Canada
 R. R. # 2
 Parry Sound, ON
 P2A 2W8
 Hole No.: 92-4

SUMMARY

From	To	Description	
0.0'	0.5'	Peat	
0.5'	140.0'	Glacial Clay Till	Overburden - Pleistocene
140.0'	172.0'	Kaolin Silica Sand (Kss)	Cretaceous
172.0'	174.5'	Sandy Clay, Kss, & Clay	
174.5'	177.0'	Kss	
177.0'	187.0'	Kss & Sandy Clay	
187.0'	208.0'	Kss	
208.0'	213.0'	Kss & Clay	
213.0'	252.0'	Kss	



EOH - 252.0'

Hole Location : 30.5 m due west of Pike Creek (Kipling Township)
 : 4970 m E of baseline point 00
 : 1006 m N of baseline

Detail Log - 92-4

From	To	Sample No.	Description
0.0'	0.5'		Peat
0.5'	137.0'		Glacial Clay Till - highly competent, calcareous, rare carbonate and gneissic angular clasts.
137.0'	140.0'		Glacial Clay Till/Kss - contact zone- 137.0' - 139.5' - till with external kss contamination, 139.5' - 140.0' - dark grey highly calcareous medium grain kss.
140.0'	143.0'	16451	Kss - medium grey, with lighter sections, much contamination, medium grain, one larger rounded orange chert, 7.39% kaolin.
143.0'	147.0'	16452	Kss - medium grain, alternating dark brown/yellow & white sections, white containing more clay, 5.34% kaolin.
147.0'	152.0'	16453	Kss - medium grain, some slightly coarser areas, 151.0' - 152.0', coarse grain, light buff, more clay in coarse grain sections, minor illite and heavies, increasing in coarse grain sections, prevalent yellow chert, 7.75% kaolin.
152.0'	157.0'	16454	Kss - as above, coarse sections and medium grain sections alternating throughout, light grey clay clots up to 0.5", oblate siltstone angular fragments, white with silicas clasts imbedded at 154.0' - 0.5", 7.92% kaolin.
157.0'	162.0'	16455	Kss - as above.
162.0'	166.0'	16456	Kss - as above, medium grain, grading downsection, 2.0', to coarse 2.0" sharp contact with fine grain.
166.0'	172.0'	16457	Kss - fine grain, medium grey, high percentage illite, more heavies banding - 168.5' - 169.5' - sandy clay - dark buff, fine grain, pliable, minor illite and heavies, areas of dark grey inside, rare large sub-rounded smoky quartz, 0.25".

- 172.0' 174.5' 16458 Sandy Clay, Kss, & Clay - buff, sandy clay - pliable, high illite content, large flake, chocolate brown pliable clay, 4.0" buff with dark brown laminations, kss - buff, fine grain, 2.0" to light brown, pliable sandy clay, to medium grain, medium brown clay 5.0", pliable, high illite, to kss, medium grain light brown, rare larger sub-rounded smoky quartz 0.25", to sandy clay - pliable, buff, darker laminations, purple laminations, minor illite, some medium grain kss mottling.
- 174.5' 177.0' 16459 Kss - medium grain, light brown, rare larger sub-rounded smoky quartz up to 0.25", minor illite and heavies.
- 177.0' 182.0' 16460 Kss & Sandy Clay - all medium grain, light brown, minor illite and heavies, some heavies banding, large flake illite in sandy clay.
- 182.0' 187.0' 16461 Kss & Sandy Clay - as above, rusty coloured exterior contamination, 0.5" band at 183.0' - containing large rounded jasper and clay clots 0.25" and high percentage heavies - garnet?, 11.22% kaolin.
- 187.0' 188.0' 16462 Kss - medium grain with larger clasts grading to fine grain, light brown, minor illite and heavies, 13.77% kaolin.
- 188.0' 193.0' 16463 Kss - fine grain grading downsection to coarse grain, then medium grain, with coarser clasts, minor illite, high percentage heavies in bands as well as dispersed, extremely large sub-rounded milky quartz in fine grain at 188.5', 2.5", medium to dark grey where heavies banding occurs, vari-coloured silicas, 7.95% kaolin.
- 193.0' 199.0' 16464 Kss - medium grain, with frequent larger clasts alternating with coarse grain in a white (light grey in some areas) clay matrix, minor heavies & illite, vari-coloured silica, dark concord purple clay horseshoeshapedclot at 198.0', 9.29% kaolin.
- 199.0' 203.0' 16465 Kss - coarse grain in a medium grain

matrix, light grey, clasts up to 2.5", sub-
rounded vari-coloured silica, minor illite
and heavies, one area
of black-like purple,
minor clay clotting
near larger clasts.



203.0' 208.0' 16466 Kss - coarse grain, in a medium grain
matrix, as above, 203.0' - 205.5' - last
0.5" dark grey, higher percentage of
heavies, banded, after 205.5' - 208.0',
white, clay depleted, rust staining due to
drilling debris, very small percentage
illite and heavies, some clay-rich bands,
close to clay matrix, purple clots.

208.0' 213.0' 16467 Kss & Clay - kss - 208.0' - 210.0' - clay-
rich medium grain, frequent coarse clasts,
buff with some yellowish areas, one area of
sherbet clay surrounded an orange chert,
210.0' - 211.0' - clay - pliable, buff with
medium grain, buff kss mottling at 210.0',
clay is dark green, some black with dark
yellow/green contact with kss, pliable, some
purple laminations at contact with buff
clay, 211.0' - 213.0' - kss - medium grain,
light brown, frequent large smoky quartz and
yellow chert up to 2.0", minor heavies and
heavies banding, garnet?, minor illite.

213.0' 218.0' 16468 Kss - medium grain grading to coarse grain
in a medium grain matrix to coarse grain in
a light grey clay matrix, vari-coloured
silicas, sub-angular to rounded, 7 Devonian
clasts found from 214.0' - 217.75' - 1. -
siliceous dolostone highly irregular
weathering, very pitted, sub-angular, 2.0"
x 1.0", highly
fossiliferous, 33.0%
colonial coral,
brachiopods, crinoids
etc., dark grey,
nearly black in some
areas, *in situ* crystal
growth, very small



spheres are orange brown, 2. - clast is 3.0"
x 2.5" dark grey sandstone, extremely fine
grain, chatter marks, no apparent fossils,

sub-angular, 3. is as 2. but oval in cross section, no apparent fossils, but itself a possible large crinoid section or solitary coral, 4.&5. - small, oblate clasts, black, has very pitted surface, no fossils - other similar but centrally grey, apparent zaphrenis, 6. & 7. - 2 pieces of the same rock possibly split by the action of the drill although not likely, light grey, very pitted, same exterior & interior colour together 3.5", adjoining flat surface shows a solitary horn coral, green around the fossil, one piece shows a purple section near a fossil, angular, *in situ* pyritic growth, silica clasts as part of the rock, dolostone.

- 218.0' 223.0' 16469 Kss - coarse grain in a white clay matrix, some purple near heavies bandings, grading to medium grain, to fine grain, clay-rich, vari-coloured silica, after 219.0' - buff, minor heavies and illite, frequent coarse clasts at 221.0' - large no. of granular clasts, angular - prolate generally red/brown, entirely composed of silica and garnet, garnets as heavies, banding of garnets, some faceted orange/brown (Lakefield Research report July 1993 states inhomogeneity and multicomponent mineral aggregates).
- 223.0' 228.0' 16470 Kss - extremely coarse grain in a buff sandy clay matrix, minor illite - 223.0' - 224.0', 224.0' - 228.0' - kss - fine grain, light brown, minor illite and heavies, some clay enrichment, mottling and heavies banding.
- 228.0' 232.0' 16471 Kss - white, medium grain, small clay clots, minor heavies and illite, half of the core out of the box, not sampled, heavies as laminations, dark banding, 6.81% kaolin.
- 232.0' 237.0' 16472 Kss - as above, 5.42% kaolin.
- 237.0' 242.0' 16473 Kss - as above from 237.0' - 241.0', 241.0' - 242.0' - higher clay content, very light brown/red, 0.25" clay seam - medium brown, some black laminations at 241.75' - minor heavies - dispersed and as banding, minor illite, coarser grain, green/yellow band at 238.75' of 2.0", 6.84% kaolin.
- 242.0' 246.75' 16474 Kss - as at 237.0' - 241.0' - clay clot -

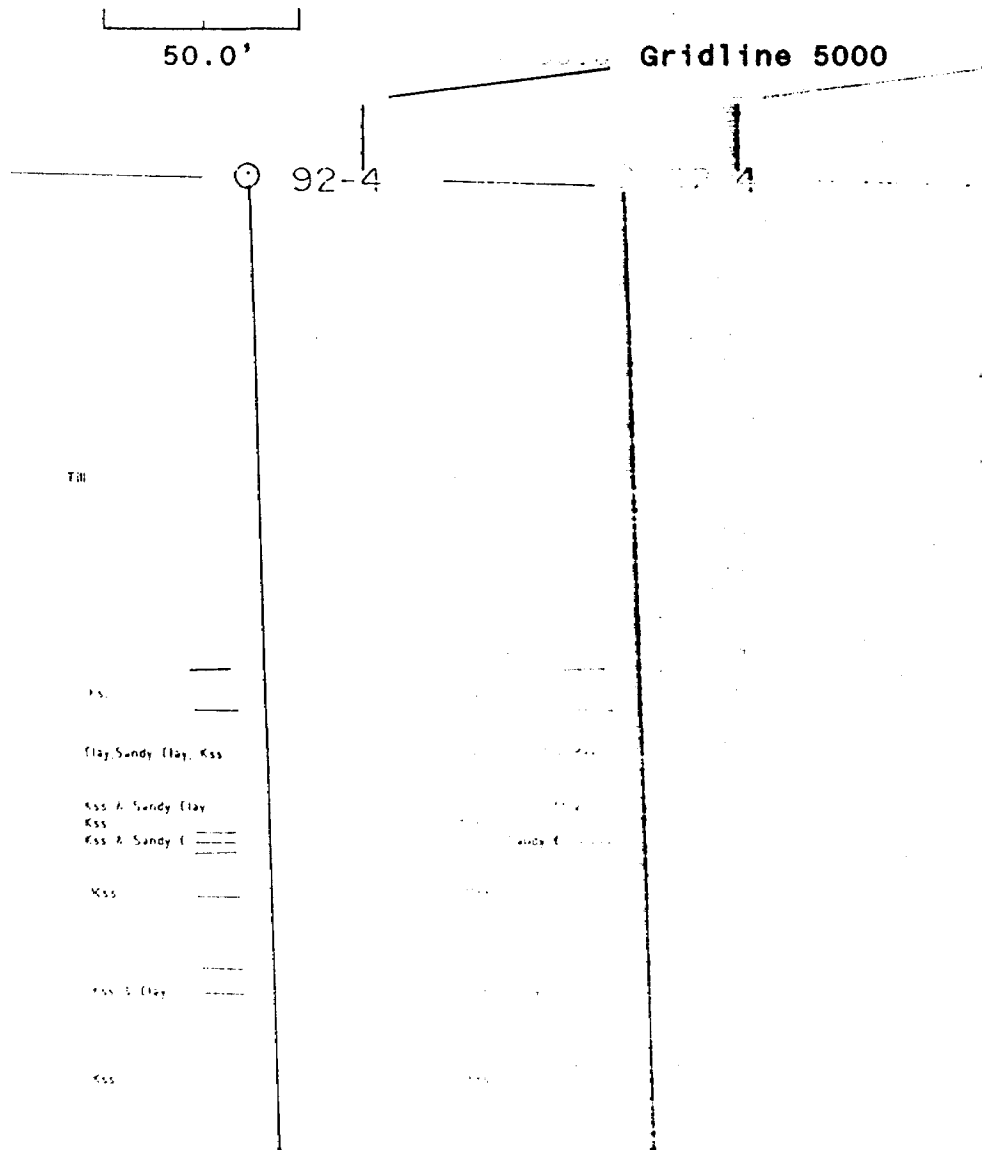
medium brown, pliable at lower contact,
large clasts at lower contact, more
red/brown than above, 8.35% kaolin.

246.75' 252.0' 16475 Kss - nearly sandy clay, buff, fine grain,
chocolate & medium brown mottled, some
illite seams, large flake illite in seams,
minor heavies.

EOH - 252.0'

Section 92-4

Claim No.: P 1112320
Hole Length: 252.0'
Overburden Depth: 140.0'
Astronomic Azimuth: $50^{\circ} 09' 16''$ W. $82^{\circ} 09' 33''$ N
Location: 1600.0' at 199° to claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 1470 N
Easting: 4970 E
Dip: -90°

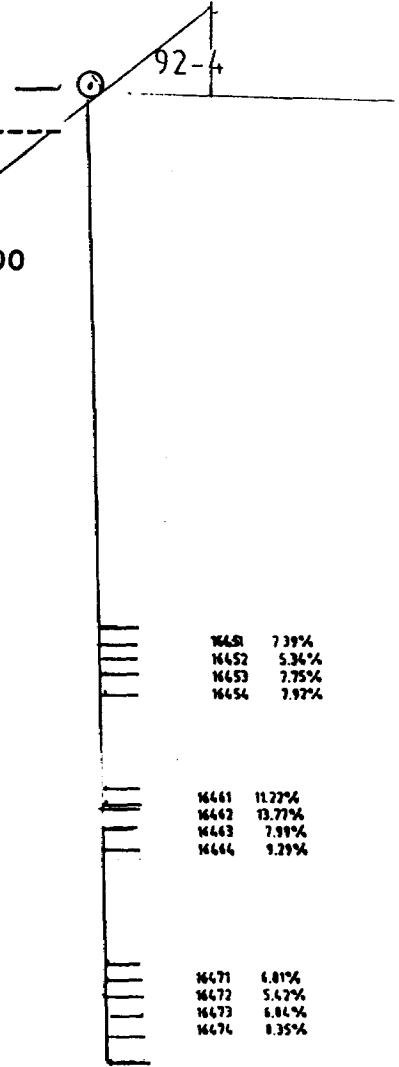


Section 92-4

Claim No.: P 1112320
Hole Length: 252.0'
Overburden Depth: 140.0'
Astronomic Azimuth: $50^{\circ} 09' 16''$ W. $82^{\circ} 09' 33''$ N
Location: 1600.0' at 199° to claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 1470 N
Easting: 4970 E
Dip: -90°

50.0'

Gridline 5000





Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 5 4 7 4

BILLING INFORMATION

Date: 25-JUN-93
Project: KIPLING
P.O. No.: 0054
Account: KJE
Comments: 930101T

Billing: For analysis performed on
Certificate A9315474

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

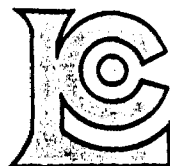
# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
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44	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	946.44
----	-------------------------------------	---------------	-------	--------

Total Cost \$ 946.44
(Reg# R100938885) GST \$ 66.25

TOTAL PAYABLE (CDN) \$ 1012.69

COPY



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project: KIPLING
 Comments: ATTN: A. CASSELMAN

Page Number :1
 Total Pages :2
 Certificate Date: 25-JUN-93
 Invoice No. :19315474
 P.O. Number :0054
 Account :KJE

CERTIFICATE OF ANALYSIS A9315474

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
12691	208 226	2.98	0.12	0.13	0.62	0.06	0.07	< 0.01	0.12	0.06	94.50	0.23	1.14	100.05
12692	208 226	3.41	0.15	0.12	0.73	0.09	0.06	< 0.01	0.11	0.04	94.27	0.08	1.31	100.40
12693	208 226	4.18	0.14	0.13	0.73	0.09	0.06	< 0.01	0.11	0.05	92.49	0.14	1.57	99.70
12694	208 226	2.21	0.15	0.14	0.70	0.05	0.07	< 0.01	0.13	0.06	94.95	0.10	0.95	99.52
16201	208 226	2.47	0.16	0.16	1.30	0.05	0.09	0.01	0.15	0.06	93.74	0.18	1.22	99.59
16202	208 226	3.09	0.09	0.12	0.72	0.07	0.06	< 0.01	0.08	0.04	94.23	0.13	1.28	99.92
16203	208 226	4.34	0.11	0.12	0.64	0.09	0.07	< 0.01	0.10	0.04	92.14	0.16	1.80	99.62
16204	208 226	17.27	0.26	0.07	1.02	0.35	0.16	< 0.01	0.07	0.03	72.26	0.82	8.52	100.85
16205	208 226	9.66	0.14	0.10	0.89	0.18	0.11	< 0.01	0.07	0.03	84.17	0.46	4.33	100.15
16206	208 226	2.98	0.07	0.09	0.70	0.03	0.05	< 0.01	0.03	0.02	94.81	0.10	1.32	100.20
16207	208 226	3.17	0.09	0.07	0.62	0.03	0.05	< 0.01	0.10	0.04	94.69	0.07	1.24	100.20
16208	208 226	3.34	0.09	0.08	0.69	0.04	0.05	< 0.01	0.09	0.05	93.70	0.19	1.34	99.67
16209	208 226	6.05	0.22	0.20	1.11	0.09	0.14	< 0.01	0.25	0.12	88.79	0.26	2.29	99.53
16210	208 226	3.00	0.11	0.07	0.70	0.03	0.07	< 0.01	0.09	0.04	95.03	0.14	1.21	100.50
16211	208 226	3.36	0.09	0.03	0.38	0.05	0.06	< 0.01	0.09	0.04	94.72	0.19	1.31	100.35
16212	208 226	2.44	0.10	0.06	0.63	0.04	0.05	< 0.01	0.08	0.04	95.17	0.15	0.97	99.74
16213	208 226	2.22	0.08	0.02	0.36	0.03	0.04	< 0.01	0.07	0.03	95.59	0.07	0.90	99.42
16214	208 226	2.37	0.07	0.03	0.50	0.04	0.03	< 0.01	0.07	0.03	95.71	0.09	0.95	99.90
16215	208 226	2.46	0.09	0.05	0.55	0.03	0.04	< 0.01	0.09	0.05	95.14	0.10	0.91	99.52
16216	208 226	5.01	0.09	0.04	0.53	0.06	0.06	< 0.01	0.06	0.03	92.09	0.12	1.91	100.00
16217	208 226	5.96	0.17	0.13	0.64	0.09	0.11	< 0.01	0.21	0.09	89.74	0.27	2.18	99.60
16218	208 226	2.63	0.08	0.04	0.41	0.05	0.04	< 0.01	0.09	0.03	95.24	0.12	0.95	99.69
16219	208 226	2.25	0.07	0.01	0.28	0.04	0.04	< 0.01	0.08	0.03	96.74	0.08	0.82	100.45
16220	208 226	2.95	0.07	0.02	0.30	0.05	0.04	< 0.01	0.08	0.03	95.17	0.12	1.00	99.84
16221	208 226	3.88	0.09	0.07	0.65	0.06	0.06	< 0.01	0.09	0.03	93.25	0.19	1.69	100.05
16222	208 226	2.13	0.09	0.03	0.30	0.04	0.04	< 0.01	0.10	0.04	95.79	0.03	0.93	99.53
16223	208 226	3.64	0.10	0.04	0.43	0.07	0.06	< 0.01	0.10	0.03	94.13	0.08	1.53	100.20
16224	208 226	5.77	0.12	0.05	0.84	0.09	0.06	< 0.01	0.09	0.03	89.92	0.19	2.58	99.75
16225	208 226	3.55	0.08	0.07	0.76	0.06	0.04	< 0.01	0.13	0.04	93.37	0.11	1.60	99.82
16226	208 226	22.90	0.15	0.05	1.03	0.42	0.14	< 0.01	0.15	0.04	65.25	0.82	9.87	100.85
16227	208 226	4.88	0.16	0.08	1.87	0.08	0.05	< 0.01	0.10	0.03	90.06	0.31	2.63	100.25
16228	208 226	2.83	0.03	0.03	0.53	0.04	0.01	< 0.01	0.05	0.02	95.46	0.12	1.33	100.45
16451	208 226	2.92	0.19	0.09	0.70	0.11	0.08	< 0.01	0.11	0.06	94.50	0.23	1.36	100.35
16452	208 226	2.11	0.37	0.05	0.57	0.12	0.12	< 0.01	0.10	0.03	95.43	0.12	1.24	100.25
16453	208 226	3.06	0.03	0.07	0.52	0.10	0.02	< 0.01	0.07	0.03	94.72	0.19	1.36	100.20
16454	208 226	3.13	0.07	0.09	0.50	0.10	0.03	< 0.01	0.12	0.06	94.41	0.26	1.32	100.10
16461	208 226	4.43	0.09	0.12	0.63	0.13	0.05	< 0.01	0.15	0.06	92.90	0.17	1.82	100.55
16462	208 226	5.44	0.09	0.12	0.75	0.12	0.06	< 0.01	0.13	0.06	90.86	0.50	2.37	100.50
16463	208 226	3.14	0.08	0.11	0.59	0.09	0.04	< 0.01	0.14	0.04	94.28	0.20	1.33	100.05
16464	208 226	3.67	0.06	0.09	0.53	0.13	0.04	< 0.01	0.11	0.04	93.73	0.16	1.56	100.15

CERTIFICATION:

Hart Buchler



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project: KIPLING
Comments: ATTN: A. CASSELMAN

Page Number : 2
Total Pages : 2
Certificate Date: 25-JUN-83
Invoice No. : 19315474
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS

A9315474

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
6471	208 226	2.96	0.03	0.08	0.79	0.07	0.02	< 0.01	0.06	0.04	94.10	0.62	1.33	100.10
6472	208 226	2.14	0.02	0.05	0.44	0.06	0.01	< 0.01	0.06	0.02	96.90	0.04	0.86	100.60
6473	208 226	2.70	0.06	0.09	0.69	0.07	0.03	< 0.01	0.11	0.04	94.89	0.07	1.15	99.91
6474	208 226	3.30	0.09	0.14	0.67	0.06	0.05	< 0.01	0.16	0.07	93.75	0.06	1.28	99.64

CERTIFICATION:

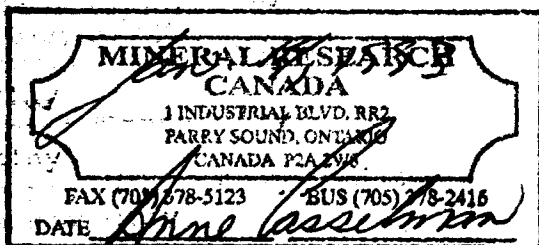
Hart Buchler

SONIC DRILL HOLE RECORD

Drilling Started: Feb. 25, 1992 Drilling Finished: Feb. 26, 1992 Drilling Co.: J. R. Drilling Dip: -90° Hole Length: 248.0' Overburden Depth: 77.0' Claim No.: P825797 Easting: 5050 E Northing: 050 S Azimuth: 50° 08' 45" W. 82° 09' 06" N. Location: 730.0' at 220° To Claim Post No. 1 Property: Kipling	Logged By: A. Casselman Logged: Oct. 2, 1992 Core Size: 3.5" Core Storage: Mineral Research Canada R. R. # 2 Parry Sound, ON P2A 2W8 Hole No.: 92-7
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SUMMARY

From	To	Description	Date
0.0'	0.25'	Peat	
0.25'	7.0'	Lacustrine Clay	
7.0'	77.0'	Glacial Clay Till	Overburden - Pleistocene
77.0'	92.0'	Kaolin Silica Sand (Kss)	Cretaceous
92.0'	97.5'	Kss & Sandy Clay	
97.5'	102.0'	Sandy Clay	
102.0'	107.0'	Kss & Sandy Clay	
107.0'	110.0'	Clay	
111.0'	113.0'	Kss & Sandy Clay	
113.0'	118.0'	Clay	
118.0'	127.0'	Sandy Clay, Clay & Kss	
127.0'	130.0'	Sandy Clay	
130.0'	139.0'	Kss	
139.0'	145.0'	Sandy Clay	
145.0'	193.0'	Kss	
193.0'	198.25'	Sandy Clay	
198.25'	207.0'	Kss	
207.0'	210.5'	Clay	
210.5'	227.5'	Kss	
227.5'	230.0'	Clay	
230.0'	245.0'	Kss & Clay	
245.0'	248.0'	Clay & Sandy Clay	



Hole Location: 85 m due west of Pike Creek (Kipling Township)
 : 5050 m East of baseline point 00
 : 050 m South of Baseline
 : 97.5 m at 326° from claim post 2 of P 825797

EOH -248.0'

Hole Cave in - causing much kss contamination at the end of the hole.

Detail Log - 92-7

From	To	Sample No.	Description
0.0'	0.25'		Peat - had been scraped during set up, on hill near road probably only another 6.0" would have been there naturally.
0.25'	7.0'		Lacustrine Clay - pliable, yellow/brown, some silty content, massive.
7.0'	77.0'		Glacial Clay Till - green/grey, pliable at upper contact (4.0") then becoming increasingly competent and fissile, 33.0' - 52.0' - disc-like and highly competent, 20.75' - 27.0' - containing clasts, gneissic and carbonate, angular, up to 2.0".
77.0'	81.0'		Silica Sand - rusty, no kaolin, weakly calcareous, rare Precambrian clast, some poor kaolin clotting.
81.0'	86.0'	16101	Kss - medium grain, somewhat kaolin depleted, white, some yellow and purple banding, large 3.5" granitic clast at 81.0', very fresh appearance, 5.44% kaolin.
86.0'	92.0'	16102	Kss - medium grain, white, clay-poor, some yellow chert, minor heavies and illite, 6.10% kaolin.
92.0'	97.5'	16103	Kss & Sandy Clay alternating, sandy clay, pliable mottled light and medium brown, some yellow kss, medium grain, light brown, minor illite and heavies, 2.0" of coarse grain, at contact with sandy clay at 96.0', sandy clay moulded, 26.38% kaolin.
97.5'	102.0'	16104	Sandy Clay - mottled with medium brown clay, competent, drill gouging, weakly pliable in sections, minor illite, 49.47% kaolin.
102.0'	107.0'	16105	Sandy Clay & Kss - sandy clay - as above, buff, kss - medium grain, light brown, minor heavies and illite, 24.13% kaolin.
107.0'	110.0'	16106	Clay - pliable, competent, very light yellow/grey, some darker yellow sections, 67.72% kaolin.

110.0'	113.0'	16107	Sandy Clay & Kss - very light grey, medium grain, some purple sections, minor illite and heavies, competent, pliable, then kss medium grain, white, minor illite and heavies then sandy clay as above, to kss - 3.0" with very large flake muscovite, 25.57% kaolin.
113.0'	115.0'	16108	Clay - pliable, competent, buff, becoming chocolate brown, to black (extremely lignite rich) to chocolate, more fissile after buff, buff has red and yellow laminations, minor illite and carbonaceous material, 76.81% kaolin.
115.0'	118.0'	16109	Clay grading to Sandy Clay - very small amount of material for footage, dark buff, some yellow laminations, non-competent, highly pliable clay, less pliable downsection, carbonaceous, last 0.25' sandy clay - buff pliable, highly illitic, lighter and darker laminations throughout, 55.06% kaolin.
118.0'	127.0'	16110	Kss & Sandy Clay, Clay - 1.0' of kss - medium grain, white, minor illite and heavies, to sandy clay, buff, competent, pliable, very fine grain, to clay competent, pliable, buff, minor red and yellow laminations, to sandy clay as above, 32.30% kaolin.
127.0'	130.0'	16111	Sandy Clay - medium grain, pliable, light grey, minor illite and heavies, one yellow sandstone clast with smoky quartz - 0.5", at 128.5', 26.84% kaolin.
130.0'	135.0'	16112	Kss - medium grain, white, minor illite and heavies, interior of bag greasy, dead animal in box, 9.44% kaolin.
135.0'	139.0'	16113	Kss - very small amount in box, very soupy, highly contaminated, as above, a 3.0" clot of sandy clay, highly pliable, very illitic, buff, 10.53% kaolin.
139.0'	145.0'	16114	Sandy Clay - competent, weakly pliable, light grey, minor illite and heavies, 36.73% kaolin.
145.0'	150.0'	16115	Kss - 1.0' - fine grain, medium grey, minor illite and heavies, 1.0' - sandy clay, highly pliable, buff, high illite, 3.0' - medium grain kss - light buff, minor illite

and heavies, high water retention, heavies, high amount of contamination, 10.0% kaolin.

- | | | | |
|--------|--------|-------|---|
| 150.0' | 154.0' | 16116 | Kss - white, medium grain, minor illite and heavies, poor sorting, 9.22% kaolin. |
| 154.0' | 159.0' | 16117 | Kss - medium grain, as above, to coarse grain, last 1.0' light grey, vari-coloured silica, 8.35% kaolin. |
| 159.0' | 163.0' | 16118 | Kss - coarse and medium grain, alternating, clay clotting in coarse portion, minor illite and heavies, light brown, 10.51% kaolin. |
| 163.0' | 167.0' | 16119 | Kss - coarse grain in a medium grain matrix alternating with coarse grain in a buff clay matrix, 160.0' - 161.0' - sandy clay mottling, almost pure buff, pliable, kss containing many large 2.0" well rounded yellow chert clasts, generally medium grey and buff, also small purple clots, 15.09% kaolin. |
| 167.0' | 172.0' | 16120 | Kss - dark grey, coarse grain in a medium grain matrix to coarse grain in a light grey clay matrix, vari-coloured silicas, very small amount of material, 14.13% kaolin. |
| 172.0' | 177.0' | 16121 | Kss - as above, alternating medium extremely coarse grain, in a medium grey clay matrix, some hematite staining, minor illite and heavies, drill gouging, at 172.25' - large 3.5" pitted fossiliferous dolostone (siliceous), light grey, crinoids, brachiopods, <i>in situ</i> formation of black crystals, pyrtite & some garnet as at 92-4, 10.03% kaolin. |
| 177.0' | 180.0' | 16122 | Kss - coarse grain, vari-coloured silicas in a buff clay matrix, 17.70% kaolin. |
| 180.0' | 183.0' | 16123 | Kss - medium grain, light grey, fining downsection, minor illite, rare larger clasts, vari-coloured silica up to 1.0", 2.0" clay clots at 182.0' - pliable, centrally medium grey (half) exterior buff, 8.91% kaolin. |
| 183.0' | 188.0' | 16124 | Kss - medium grain, light brown, minor illite and heavies, very homogeneous, 10.0% kaolin. |
| 188.0' | 193.0' | 16125 | Kss - as above, until last 1.0', coarse |

grain, slightly darker, gradational contact, some light buff pliable clay clots of 2.0", 8.48% kaolin.

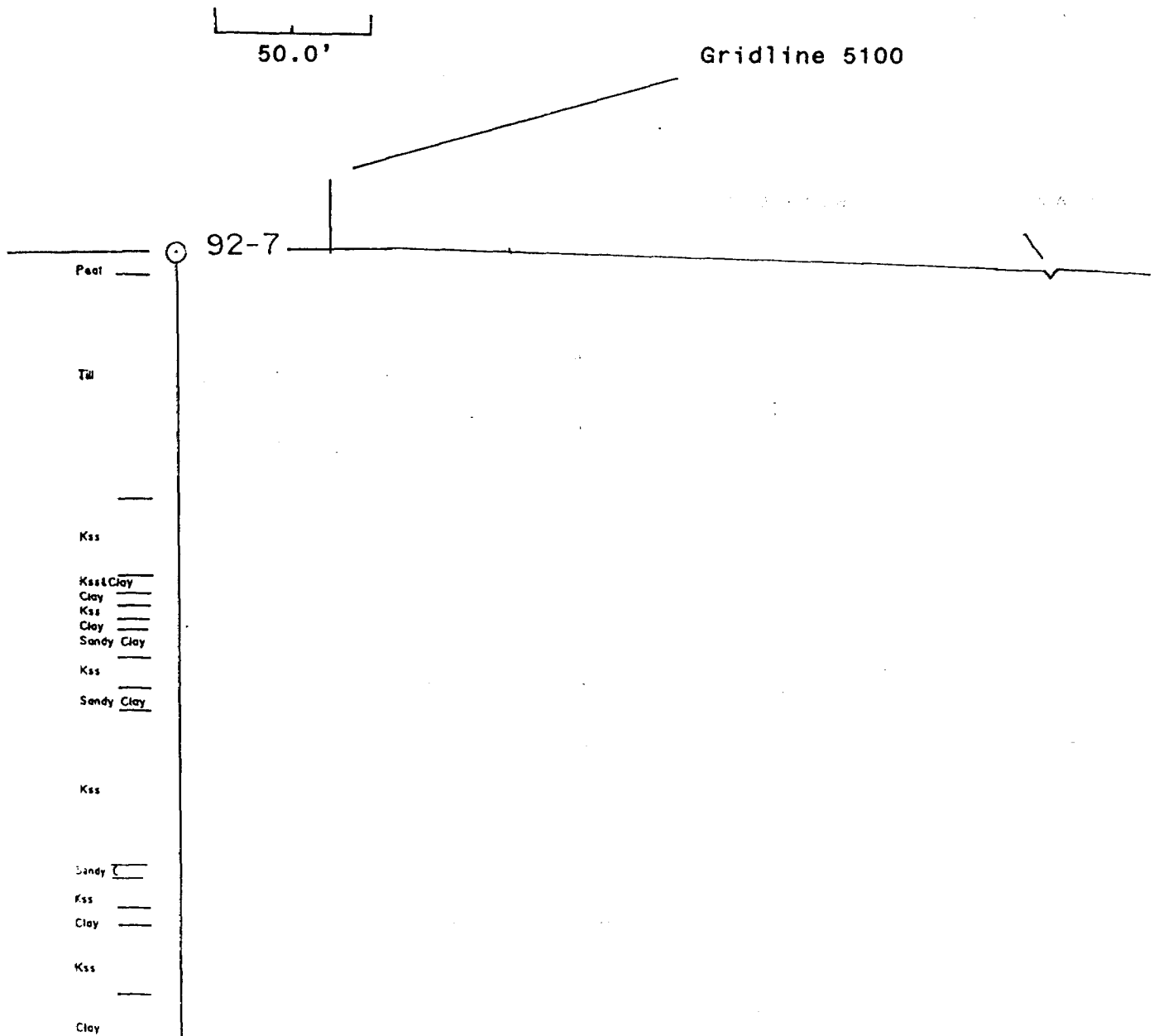
- | | | | |
|---------|---------|-------|--|
| 193.0' | 198.25' | 16126 | Sandy Clay - (actually kss & clay mottled on a fine scale), kss - coarse grain, vari-coloured, clay buff, pliable, drill gouging, 26.33% kaolin. |
| 198.25' | 203.0' | 16127 | Kss - medium grain, with frequent larger clasts, white, vari-coloured silica, 7.75% kaolin. |
| 203.0' | 207.0' | 16128 | Kss - coarse grain, in a medium grain matrix, rounded to sub-angular vari-coloured silicas, progressively more brown, downsection, some clay mottling, 3.0" at 206.0', buff, then a band of dark grey clay impurity, kss - medium grain after clay mottling, clay-poor buff, rare larger clasts, 11.77% kaolin. |
| 207.0' | 210.5' | 16129 | Clay - light to medium brown, yellow at lower contact, first foot fissile, fragmented, after extremely pliable, some silty content, competent, 49.27% kaolin. |
| 210.5' | 214.0' | 16130 | Kss - medium grain, coarse 3.0" at upper contact, other coarse sections of 1.0 - 2.0", upper 1.0' highly contaminated yellow/brown, grey banding, minor heavies and illite, vari-coloured silica, one piece angular Devonian fragment, medium grey dolostone with white areas, brachiopods & crinoids, 6.58% kaolin. |
| 214.0' | 219.0' | 16131 | Kss - extremely coarse grain, in a medium grain matrix, medium yellow/brown, to blue/grey, vari-coloured silica, large, up to 2.0" sub-rounded to well rounded, minor illite and heavies, 7.59% kaolin. |
| 219.0' | 225.0' | 16132 | Kss - as above, lighter in colour after first half of box, minor illite and heavies, 4.63% kaolin. |
| 225.0' | 227.5' | 16133 | Kss - as above, clay-poor yellow/brown, rounded pitted dolostone clast, 2.28% kaolin. |
| 227.5' | 230.0' | 16134 | Clay - chocolate brown, silty, pliable, minor illite, carbonaceous, decreasing silt downsection, darkening downsection, 57.87% kaolin. |

- 230.0' 235.0' 16135 Clay & Kss - 230.0' - 231.0' - kss - as previous, 231.0' - 232.0' - chocolate brown clay, lighter silty areas with yellow chert large, up to 2.0", sub-rounded to well rounded, at 232.0' - gritty tiny clay balls some kss, chocolate brown, 232.0 - 233.0' - as above, clay unit, then 4.0" kss unit - chocolate brown, coarse grain in a medium grain matrix, some small areas of white, 234.25' - 235.0', chocolate brown clay as previous up to 3.0", more milky quartz, some irregular grapestone features, 26.63% kaolin.
- 235.0' 237.0' 16136 Clay & Kss - as above, clay is clast-free, kss containing yellow chert, 42.91% kaolin.
- 237.0' 241.0' 16137 Clay & Kss - as above, last 2.0' kss, first 2.0" is clast-free pliable sandy clay, chocolate brown, highly illitic, one clast an apparent conglomerate and another a very mottled multi-coloured chert (green, white, red, yellow), 18.61% kaolin.
- 241.0' 245.0' 16138 Clay & Kss - as above, alternating kss with clast-free (nearly) silty clay, highly illitic, one rounded siltstone fragment, 38.51% kaolin.
- 245.0' 247.0' 16139 Clay & Sandy Clay - alternating, carbonaceous, chocolate brown, competent, fissile, highly illitic, at 245.75', *in situ* sulphide formation, 2.0" round, pyrite, 51.52% kaolin.
- 247.0' 248.0' 16140 Clay grading to Sandy Clay - clay as above, larger yellow cherts as previous present but much fewer, buff sandy clay, last quarter of the box, large amount of material for one foot, 50.71% kaolin.

EOH - 248.0'

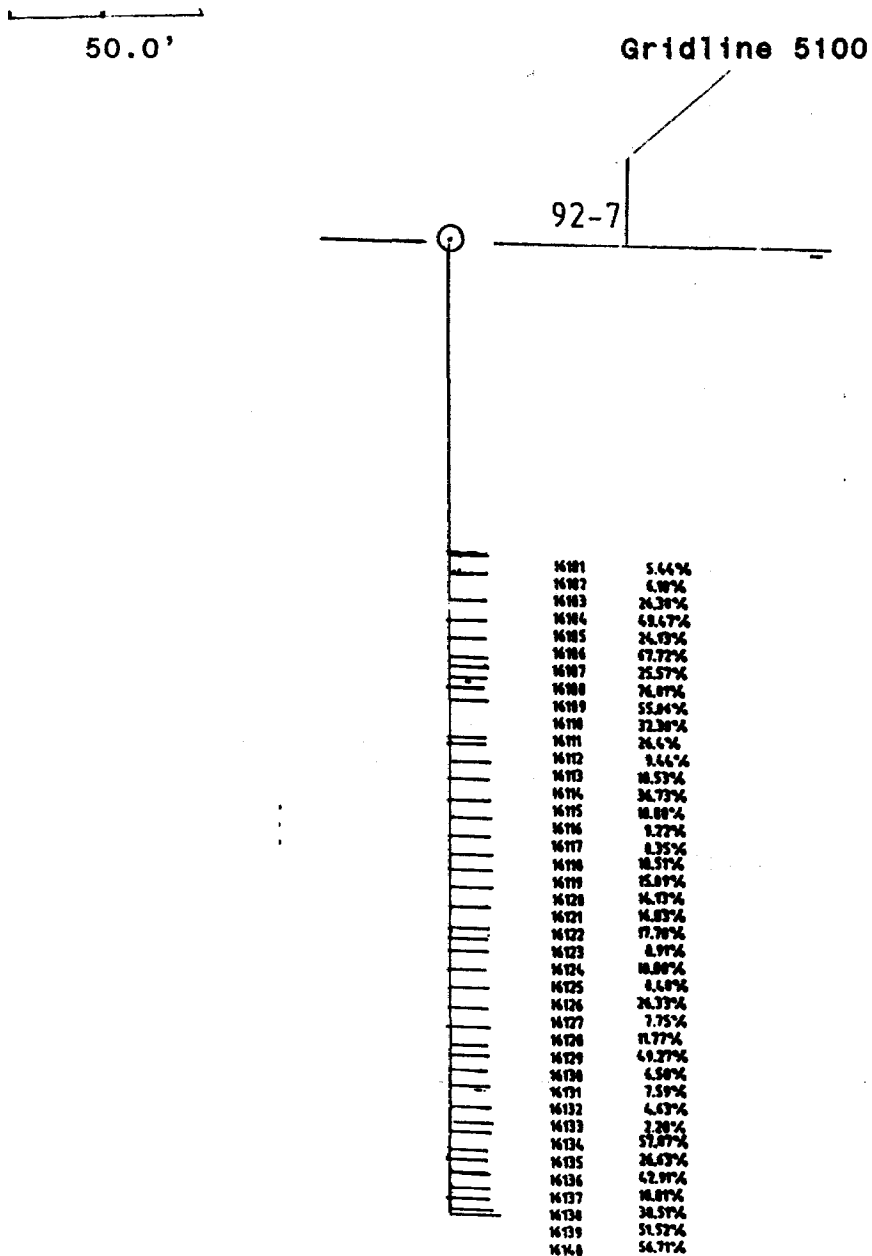
Section 92-7

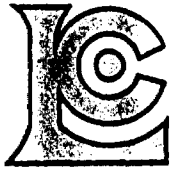
Claim No.: P 825797
Hole Length: 248.0'
Overburden Depth: 77.0'
Astronomic Azimuth: $50^{\circ} 08' 45''$ W. $82^{\circ} 09' 06''$ N
Location: 730.0' at 220° to claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 050 S
Easting: 5050 E
Dip: -90°



Section 92-7

Claim No.: P 825797
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Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project :
 Comments: ATN: A. CASSELMAN

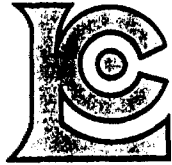
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 Certificate Date: 21-JAN-93
 Invoice No. :19310139
 P.O. Number :0054
 Account :KJE

CERTIFICATE OF ANALYSIS A9310139

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
12987	208 226	4.72	0.07	0.06	0.54	0.10	0.11	< 0.01	0.09	0.09	92.50	0.22	1.81	100.30
12988	208 226	3.00	0.10	0.05	0.49	0.08	0.13	< 0.01	0.11	0.10	94.67	0.13	1.15	100.00
12989	208 226	19.30	0.19	0.08	1.10	0.24	0.19	< 0.01	0.12	0.15	70.35	1.08	8.34	101.15
12990	208 226	4.13	0.21	0.08	1.37	0.07	0.09	0.01	0.09	0.09	91.78	0.13	1.94	99.99
12991	208 226	9.22	0.15	0.05	0.80	0.13	0.10	< 0.01	0.11	0.12	86.36	0.50	3.84	101.40
12992	208 226	5.30	0.11	0.08	0.69	0.14	0.12	< 0.01	0.12	0.11	91.06	0.52	2.11	100.35
12993	208 226	3.76	0.08	0.07	0.51	0.11	0.09	< 0.01	0.10	0.10	94.44	0.16	1.41	100.85
12994	208 226	8.07	0.14	0.09	0.96	0.14	0.15	< 0.01	0.13	0.12	86.84	0.58	3.27	100.50
12995	208 226	3.62	0.13	0.11	0.97	0.08	0.13	< 0.01	0.12	0.11	92.92	0.28	1.37	99.85
12996	208 226	3.73	0.10	0.08	0.70	0.10	0.14	< 0.01	0.11	0.10	93.34	0.21	1.41	100.05
16101	208 226	2.15	0.04	0.04	0.30	0.09	0.10	< 0.01	0.08	0.09	97.50	0.08	0.74	101.20
16102	208 226	2.41	0.04	0.06	0.36	0.09	0.14	< 0.01	0.10	0.10	96.40	0.11	0.87	100.70
16103	208 226	10.42	0.11	0.06	0.61	0.20	0.08	< 0.01	0.11	0.12	84.65	0.59	4.00	100.95
16104	208 226	19.54	0.21	0.05	1.40	0.29	0.22	0.01	0.11	0.15	70.08	1.11	7.87	101.05
16105	208 226	9.53	0.11	0.05	0.70	0.16	0.15	< 0.01	0.12	0.12	86.04	0.52	3.75	101.25
16106	208 226	26.75	0.18	0.01	1.33	0.48	0.17	< 0.01	< 0.01	0.14	57.94	1.22	10.61	98.85
16107	208 226	10.10	0.12	0.06	0.78	0.15	0.24	< 0.01	0.11	0.12	85.32	0.42	3.88	101.30
16108	208 226	30.34	0.32	0.03	1.66	0.66	0.26	< 0.01	0.10	0.20	51.38	1.12	15.38	101.45
16109	208 226	21.75	0.16	< 0.01	1.19	0.45	0.14	< 0.01	< 0.01	0.13	65.45	1.05	9.03	99.38
16110	208 226	12.76	0.10	0.01	0.91	0.30	0.19	< 0.01	0.07	0.12	80.21	0.94	5.04	100.65
16111	208 226	10.60	0.13	0.05	1.15	0.17	0.17	0.01	0.07	0.12	82.35	0.62	4.50	99.94
16112	208 226	3.73	0.05	0.06	0.47	0.09	0.10	< 0.01	0.08	0.11	93.28	0.21	1.56	99.75
16113	208 226	4.16	0.04	0.07	0.54	0.09	0.08	< 0.01	0.07	0.10	93.21	0.19	1.69	100.25
16114	208 226	14.51	0.14	0.01	0.96	0.39	0.15	< 0.01	< 0.01	0.12	77.17	1.07	5.84	100.40
16115	208 226	3.95	0.05	0.10	0.64	0.09	0.14	< 0.01	0.08	0.11	92.57	0.37	1.59	99.70
16116	208 226	3.64	0.02	0.05	0.43	0.09	0.08	< 0.01	0.05	0.10	93.81	0.12	1.45	99.85
16117	208 226	3.30	0.02	0.06	0.49	0.08	0.10	< 0.01	0.04	0.09	94.15	0.07	1.34	99.75
16118	208 226	4.15	0.03	0.08	0.55	0.10	0.03	< 0.01	0.08	0.10	92.88	0.13	1.65	99.79
16119	208 226	5.96	0.07	0.11	0.69	0.07	0.05	< 0.01	0.08	0.12	90.35	0.56	2.43	100.50
16120	208 226	5.58	0.07	0.08	0.73	0.06	0.04	< 0.01	0.06	0.12	91.40	0.25	1.66	100.05
16121	208 226	3.96	0.03	0.07	0.61	0.05	0.14	< 0.01	0.06	0.10	92.90	0.29	1.62	99.84
16122	208 226	6.99	0.03	0.06	0.46	0.06	0.08	< 0.01	0.06	0.12	89.32	0.18	2.77	100.15
16123	208 226	3.52	0.03	0.07	0.47	0.05	0.03	< 0.01	0.06	0.10	94.12	0.09	1.24	99.79
16124	208 226	3.95	0.04	0.08	0.41	0.06	0.03	< 0.01	0.08	0.11	93.50	0.09	1.54	99.90
16125	208 226	3.35	0.04	0.09	0.48	0.07	0.08	< 0.01	0.09	0.11	93.92	0.11	1.38	99.73
16126	208 226	10.40	0.11	0.09	0.76	0.19	0.16	< 0.01	0.10	0.13	84.53	0.41	4.02	100.90
16127	208 226	3.06	0.07	0.10	0.54	0.07	0.07	< 0.01	0.13	0.11	94.35	0.10	1.11	99.72
16128	208 226	4.65	0.06	0.09	0.53	0.11	0.08	< 0.01	0.09	0.11	92.49	0.29	1.81	100.30
16129	208 226	19.46	0.12	0.04	1.10	0.40	0.19	< 0.01	0.09	0.15	71.04	1.12	7.82	101.55
16130	208 226	2.60	< 0.01	0.07	0.44	0.06	0.05	< 0.01	0.02	0.09	95.89	0.15	0.96	100.35

CERTIFICATION: _____

B. Coughlin



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project :
Comments: ATN: A. CASSELMAN

Page Number : 2
Total Pages : 2
Certificate Date: 21-JAN-93
Invoice No. : I9310139
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS A9310139

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16131	208 226	3.00	0.01	0.12	0.57	0.05	0.06	< 0.01	0.02	0.10	95.09	0.31	1.10	100.45
16132	208 226	1.83	< 0.01	0.07	0.47	0.03	0.04	< 0.01	< 0.01	0.09	97.43	0.15	0.65	100.80
16133	208 226	0.90	< 0.01	0.11	0.54	0.01	0.03	< 0.01	0.01	0.08	98.50	0.12	0.36	100.70
16134	208 226	22.86	0.24	0.03	1.03	0.26	0.13	< 0.01	0.01	0.15	64.81	1.13	10.57	101.25
16135	208 226	10.52	0.11	0.06	0.79	0.13	0.09	< 0.01	< 0.01	0.11	82.23	0.46	5.98	100.50
16136	208 226	16.95	0.21	0.03	0.97	0.22	0.16	< 0.01	< 0.01	0.12	71.90	0.81	9.90	101.30
16137	208 226	7.35	0.09	0.09	0.81	0.10	0.10	< 0.01	0.03	0.10	87.43	0.38	4.24	100.75
16138	208 226	15.21	0.21	0.07	0.97	0.19	0.19	< 0.01	0.03	0.13	74.08	0.74	9.25	101.10
16139	208 226	20.35	0.31	0.02	1.03	0.27	0.13	< 0.01	< 0.01	0.13	62.41	0.98	13.85	99.50
16140	208 226	20.03	0.34	0.02	1.01	0.25	0.13	< 0.01	< 0.01	0.13	65.59	0.94	11.47	99.93
16151	208 226	2.83	0.03	0.10	0.49	0.12	0.07	< 0.01	0.06	0.10	95.26	0.09	1.04	100.20
16152	208 226	3.40	0.05	0.08	0.44	0.13	0.13	< 0.01	0.04	0.09	94.56	0.07	1.30	100.30
16153	208 226	3.20	0.02	0.08	0.43	0.13	0.02	< 0.01	0.04	0.10	94.74	0.09	1.19	100.05
16154	208 226	2.57	0.27	0.07	0.52	0.13	0.13	< 0.01	0.06	0.09	94.72	0.06	1.17	99.80
16155	208 226	4.90	0.03	0.08	0.54	0.11	0.04	< 0.01	0.03	0.10	91.76	0.19	1.95	99.74
16156	208 226	4.72	0.02	0.09	0.53	0.11	0.03	< 0.01	0.03	0.11	92.24	0.54	1.79	100.20
16157	208 226	3.80	< 0.01	0.06	0.39	0.13	0.02	< 0.01	0.02	0.09	94.06	0.10	1.41	100.10
16158	208 226	3.13	< 0.01	0.08	0.42	0.13	0.02	< 0.01	0.02	0.09	94.81	0.13	1.14	99.99
16159	208 226	10.98	0.07	0.07	0.67	0.22	0.09	< 0.01	0.04	0.12	83.37	0.80	4.33	100.75
16160	208 226	3.37	< 0.01	0.04	0.35	0.10	0.01	< 0.01	< 0.01	0.08	94.89	0.16	1.29	100.30
16161	208 226	2.75	< 0.01	0.04	0.34	0.08	< 0.01	< 0.01	< 0.01	0.09	95.93	0.10	1.00	100.35
16162	208 226	2.95	0.02	0.06	0.63	0.11	0.04	< 0.01	< 0.01	0.08	95.18	0.14	1.18	100.40
16163	208 226	2.52	0.05	0.05	0.77	0.09	0.01	< 0.01	< 0.01	0.09	95.33	0.06	1.14	100.15
16164	208 226	3.19	0.02	0.07	0.58	0.12	0.02	< 0.01	0.02	0.10	94.61	0.14	1.27	100.15
16165	208 226	3.68	0.01	0.07	0.44	0.09	0.02	< 0.01	0.02	0.10	94.12	0.13	1.41	100.10
16166	208 226	23.18	0.14	0.02	1.29	0.52	0.14	< 0.01	< 0.01	0.14	63.44	0.91	9.46	99.26
16167	208 226	26.75	0.10	0.03	1.63	0.53	0.19	< 0.01	0.03	0.17	60.41	1.08	10.39	101.30
16168	208 226	20.03	0.05	0.01	1.06	0.37	0.12	< 0.01	< 0.01	0.14	70.31	1.03	7.85	101.00
16169	208 226	4.72	< 0.01	0.04	0.45	0.09	0.02	< 0.01	0.01	0.10	92.64	0.24	1.84	100.15
16170	208 226	4.28	< 0.01	0.05	0.44	0.09	0.01	< 0.01	0.01	0.09	93.78	0.21	1.67	100.65
16171	208 226	2.08	< 0.01	0.06	0.39	0.04	0.01	< 0.01	0.01	0.09	96.75	0.10	0.80	100.35
16172	208 226	3.28	< 0.01	0.03	0.50	0.06	0.01	< 0.01	0.02	0.09	94.31	0.17	1.22	99.71
16173	208 226	24.16	0.09	< 0.01	0.96	0.35	0.10	< 0.01	0.02	0.15	64.88	0.98	9.48	101.20
16174	208 226	21.88	0.39	< 0.01	1.34	0.35	0.17	< 0.01	0.06	0.16	58.28	1.05	17.59	101.30
16175	208 226	22.58	0.47	0.09	1.26	0.44	0.31	< 0.01	0.16	0.20	52.14	1.07	21.52	100.25
16176	208 226	3.22	0.06	0.10	0.55	0.09	0.08	< 0.01	0.10	0.13	94.25	0.22	1.29	100.10
16177	208 226	4.33	0.06	0.13	0.53	0.09	0.06	< 0.01	0.12	0.14	92.22	0.22	1.71	99.62
16178	208 226	3.29	0.04	0.11	0.47	0.09	0.04	< 0.01	0.11	0.13	94.53	0.09	1.16	100.05
16179	208 226	3.33	0.02	0.09	0.48	0.07	0.04	< 0.01	0.09	0.13	94.49	0.24	1.20	100.20
16180	208 226	5.87	0.09	0.08	0.81	0.09	0.04	< 0.01	0.08	0.12	90.18	0.23	2.31	99.91

CERTIFICATION:

B. Coughlin



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 3 9

BILLING INFORMATION	
Date:	21-JAN-93
Project:	
P.O. No.:	0054
Account:	KJE
Comments:	930101T
Billing:	For analysis performed on Certificate A9310139
Terms:	Payment due on receipt of invoice 1.25% per month (15% per annum) charged on overdue accounts
Please Remit Payments to:	
	CHEMEX LABS LTD. 212 Brooksbank Ave., North Vancouver, B.C. Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
80	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	1720.80
				Total Cost \$ 1720.80
				(Reg# R100938885) GST \$ 120.46
				TOTAL PAYABLE (CDN) \$ 1841.26

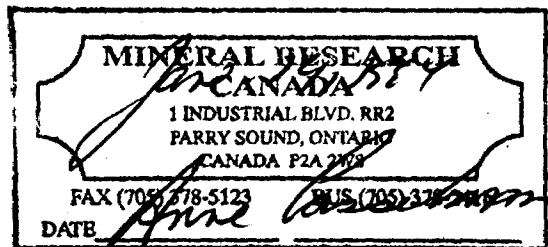
SONIC DRILL HOLE RECORD

Drilling Started: Feb. 26, 1992
 Drilling Finished: Feb. 27, 1992
 Drilling Co.: J. R. Drilling
 Dip: -90°
 Hole Length: 251.0'
 Overburden Depth: 56.0'
 Claim No.: P 825797
 Easting: 5100 E
 Northing: 250 S
 Azimuth: 50° 08' 41" W. 82° 09' 41" N.
 Location: 1150.0' at 214° To Claim Post No. 1
 Property: Kipling

Logged by: A. Casselman
 Logged: Nov. 24, 1992
 Core Size: 3.5"
 Core Storage:
 Mineral Research Canada Inc.
 R. R. # 2
 Parry Sound, ON
 P2A 2W8
 Hole No.: 92-8

SUMMARY

From	To	Description
0.0'	9.5'	Recent Fluvial Sediments
9.5'	12.0'	Gravel
12.0'	13.0'	Glacial Clay Till
13.0'	15.5'	Gravel
15.5'	56.25'	Glacial Clay Till
		Overburden - Pleistocene
56.25'	118.5'	Kaolin Silica Sand (Kss)
		Cretaceous
118.5'	127.0'	Clay
127.0'	144.0'	Kss
144.0'	155.0'	Clay
155.0'	211.5'	Kss
211.5'	212.75'	Sandy Clay
212.75'	215.25'	Clay
215.25'	216.25'	Kss
216.25'	223.0'	Clay
223.0'	224.0'	Kss
224.0'	228.0'	Sandy Clay
228.0'	232.0'	Kss
232.0'	236.0'	Clay, Kss & Sandy Clay
236.0'	238.0'	Kss
238.0'	251.0'	Clay



EOH - 251.0'

Detail Log - 92-8

From	To	Sample No.	Description
0.0'	9.5'		Recent Fluvial Sediments - hole drilled in the bed of Pike Creek, green/grey to yellow/brown silty clay sediments, pliable, some organic material (cleared tag alders), some material scraped.
9.5'	12.0'		Gravel - some clay content, coarse grain, mixed lithology, angular.
12.0'	13.0'		Glacial Clay Till - highly competent, dark green/grey, calcareous.
13.0'	15.5'		Gravel - as above.
15.5'	56.25'		Glacial Clay Till - as previous, fissile, some sandy sections, some clast content, angular carbonate & gneissic clasts, from 23.0' - 28.0' - very light coloured section, pinkish, disseminated or decomposed feldspar material.
56.25'	60.0'	16151	Kss - white, medium grain, minor illite and heavies, much external contamination from overburden, 7.16% kaolin.
60.0'	64.0'	16152	Kss - as above, 8.61% kaolin.
64.0'	68.0'	16153	Kss - medium grain, white from 64.0' - 66.25' - then coarse grain & medium to dark grey, vari-coloured silica, minor illite and heavies, some clay clotting in the coarse portion, 8.10% kaolin.
68.0'	73.0'	16154	Kss - white, coarse grain, vari-coloured silica from 68.0' - 69.0', 69.0' - 73.0' - medium grain, yellow/brown, grey/brown, banded with white, minor illite and heavies, less kaolin than 68.0' - 69.0', 6.51% kaolin.
73.0'	78.0'	16155	Kss - fine grain, buff, heavies as banding as well as dispersed, clay clots, 12.41% kaolin.
78.0'	83.0'	16156	Kss - as above, sharp contact with medium grain at 82.25', 11.95% kaolin.
83.0'	88.0'	16157	Kss - light brown, medium grain, minor heavies and illite, slight coarsening downsection at 84.0', concentration of

heavies and garnet/haematite, extremely small and brittle, 9.62% kaolin.

- | | | | |
|---------|--------|-------|---|
| 88.0' | 91.5' | 16158 | Kss - as above, 7.92% kaolin. |
| 91.5' | 95.0' | 16159 | Kss - buff, fine grain, much heavies banding, minor illite, buff clay mottling with fine purple laminations, pliable, competent, darker clay laminations, 94.0' - 95.0' - buff sandy clay, grading to clay - medium brown, competent, pliable with lighter and darker discontinuous laminations, 27.80% kaolin. |
| 95.0' | 98.0' | 16160 | Kss - medium grain, light brown, minor illite and heavies, higher illite than normal, 8.53% kaolin. |
| 98.0' | 102.0' | 16161 | Kss - medium grain, white, minor illite and heavies, rare larger smoky quartz, 6.96% kaolin. |
| 102.0' | 107.0' | 16162 | Kss - as above, slightly darker, coarser sections that appear yellow/brown, 7.47% kaolin. |
| 107.0' | 112.0' | 16163 | Kss - areas of yellow/brown, medium grey and white, high percentage heavies, minor illite, medium grain, 6.38% kaolin. |
| 112.0' | 117.0' | 16164 | Kss - white, some areas of light grey in slightly coarser portions, minor illite and heavies, vari-coloured silica, heavies banding, clay clotting, some areas of coarse grain in medium grain matrix, 4.0" at beginning very competent, grey clay with silica clasts imbedded with purple laminations, 8.08% kaolin. |
| 117.0' | 118.5' | 16165 | Kss - medium grain, white, minor heavies and illite, some large flake large pliable clay clot, light grey at lower contact, 9.32% kaolin. |
| 118.25' | 121.0' | 16166 | Clay - very pliable, competent, gooey, buff with red & yellow mottling from 118.25' - 119.25', then buff with varying amounts of medium grain silica, probably due to drilling action, 58.68% kaolin. |
| 121.0' | 125.0' | 16167 | Clay - buff from 121.0' - 121.25', 121.25' - 122.25' - red, yellow and buff grading to yellow and buff, 123.5' - 125.0' - grey and buff mottled, some purple, rare silty |

sections, competent, weakly pliable to weakly fissile, 67.72% kaolin.

- | | | | |
|--------|--------|-------|---|
| 125.0' | 127.0' | 16168 | Clay - light grey, some yellow mottling, some sandy content in sections, competent, weakly pliable to weakly fissile, minor illite, 50.71% kaolin. |
| 127.0' | 130.0' | 16169 | Kss - medium grain, poor clay content, light brown, some yellow brown, minor illite and heavies, some clay mottling, 11.95% kaolin. |
| 130.0' | 136.0' | 16170 | Kss - medium grain, white, some grey laminations, yellow sections and clay clot, rare larger smoky quartz and yellow chert, red/orange tinge near clay clot, 10.84% kaolin. |
| 136.0' | 142.0' | 16171 | Kss - medium grain, light brown, some sections of light grey, minor illite and heavies, 5.27% kaolin. |
| 142.0' | 144.0' | 16172 | Kss - medium grain, white, minor illite and heavies, 3.0" of sandy clay at 143.0' - medium brown, with lighter and darker laminations, minor illite, kss after the sandy clay is slightly darker in colour, similar 2.0" of sandy clay at lower contact, 8.30% kaolin. |
| 144.0' | 147.0' | 16173 | Clay - buff, darkening to medium brown, discontinuously laminated, fissile, competent, one area of medium grain, white kss, probable drilling introduction, 61.16% kaolin. |
| 147.0' | 149.0' | 16174 | Clay & Lignite - lignite occurring as large fissile fragments within dark brown pliable clay from 147.0' - 147.5', then chocolate brown silty clay, illitic, 2.0" buff, medium grain clay-rich kss grading to black clay with lignite fragments from 148.0' - 149.0', pliable competent clay, lignite frequently has a rusty film, 55.39% kaolin. |
| 149.0' | 155.0' | 16175 | Clay & Lignite - as above, highly competent, large lignite fragments, some entirely composed of tiny shards of lignite, 57.16% kaolin. |
| 155.0' | 161.0' | 16176 | Kss - medium grain, light brown, minor illite and heavies, 8.15% kaolin. |
| 161.0' | 167.0' | 16177 | Kss - white, medium grain, areas of coarse |

grain in a medium grain matrix, medium grey, minor illite and heavies, concentrations as banding of haematite or garnet nodules, some areas of yellow brown, rusty, perhaps drilling introduction, vari-coloured silica, minor clay clotting, light grey, 10.96% kaolin.

- | | | | |
|--------|--------|-------|---|
| 167.0' | 172.0' | 16178 | Kss - white, medium grain, with frequent coarse vari-coloured silica clasts, 8.33% kaolin. |
| 172.0' | 177.0' | 16179 | Kss - medium grain, white, 172.0' - 173.0' - light grey, coarse clasts in a medium grain matrix, 3.0" rounded Devonian siliceous dolostone, pitted, buff, slightly darker weathered surface, some differential weathering, some faces angular due to drill fragmenting, <i>in situ</i> sulphide formation on surface of clast, iridescent sheen, at 172.0' - vari-coloured silica, one clast half yellow and half white, some apparent kaolin cementing on the surface of clast, clay enrichment on coarse portion, 8.43% kaolin. |
| 177.0' | 182.0' | 16180 | Kss - buff, areas of clay enrichment, heavies concentration as banding, minor illite, 14.89% kaolin. |
| 182.0' | 188.0' | 16181 | Kss - as above, 10.18% kaolin. |
| 188.0' | 194.0' | 16182 | Kss - as above, 8.23% kaolin. |
| 194.0' | 197.0' | 16183 | Kss - medium grain grading to fine grain grading to coarse grain in a medium grain matrix, 196.0' - 197.0' - buff grading to grey in coarse portion, minor illite and heavies, heavies banding, vari-coloured silica, 10.43% kaolin. |
| 197.0' | 201.0' | 16184 | Kss - as above, alternating medium and coarse grain in a medium grain matrix, white and light brown respectively, 10.46% kaolin. |
| 201.0' | 205.0' | 16185 | Kss - coarse grain in a medium grain matrix grading to coarse grain in a buff clay matrix to coarse grain in a medium grain matrix, vari-coloured silica, rounded, jasper and yellow chert, as well as smoky & milky quartz, large percentage heavies, minor illite, 10.23% kaolin. |
| 205.0' | 208.0' | 16186 | Kss - as above, less coarse material, 10.68% |

kaolin.

- | | | | |
|---------|---------|-------|---|
| 208.0' | 211.5' | 16187 | Kss - as above, 211.0' - 211.5' - coarse grain in a buff clay matrix, 8.48% kaolin. |
| 211.5' | 212.75' | 16188 | Sandy Clay - medium brown with lighter and darker laminations, highly illitic, competent, pliable, some kss, medium grain, interbedding at upper contact, carbonaceous, almost tiger striped from 212.0' - 212.75', 24.63% kaolin. |
| 212.75' | 215.25' | 16189 | Clay - pliable, chocolate brown, carbonaceous, darkening downsection from medium to chocolate brown, minor illite, 56.61% kaolin. |
| 215.25' | 216.25 | 16190 | Kss - medium grain, light brown, minor illite and heavies, much exterior brown contamination, 9.29% kaolin. |
| 216.25' | 220.0' | 16191 | Clay - chocolate brown, highly competent, weakly pliable, carbonaceous, becoming sandy in some sections appearing lighter, external crystal growth, some yellow/green limonitic stained areas, 50.63% kaolin. |
| 220.0' | 223.0' | 16192 | Clay - as above, lightening downsection, 60.38% kaolin. |
| 223.0' | 224.0' | 16193 | Kss - buff clay with coarse silica clasts, smoky quartz rounded, then 2.0" chocolate clay, as above, then kss - medium grain, buff, minor illite and heavies, 36.76% kaolin. |
| 224.0' | 228.0' | 16194 | Sandy Clay grading to kss - 224.0' - 225.0' - sandy clay - medium brown with lighter and darker laminations, pliable, illitic, kss - white, fine grain, minor illite and heavies, heavies concentration, high clay content, 22.53% kaolin. |
| 228.0' | 232.0' | 16195 | Kss - as above, less clay content downsection, 10.86% kaolin. |
| 232.0' | 236.0' | 16196 | Clay, Sandy Clay & Kss - clay - chocolate brown to kss to sandy clay to chocolate brown clay - competent, pliable, minor illite and carbonaceous material, kss - chocolate brown becoming white, medium grain, minor illite and heavies, sandy clay - carbonaceous, medium brown, laminated, minor illite, 41.24% kaolin. |

236.0' 238.0' 16197 Kss - chocolate brown, areas of white, clay
clots, light grey up to 2.0", pliable,
medium grain, minor illite and heavies,
11.95% kaolin.

238.0' 243.0' 16198 Clay - 238.0' - 239.0' - very dark brown,
pliable, competent, illitic, carbonaceous,
then highly competent and fissile, some
sandy sections, highly moulded, 51.37%
kaolin.

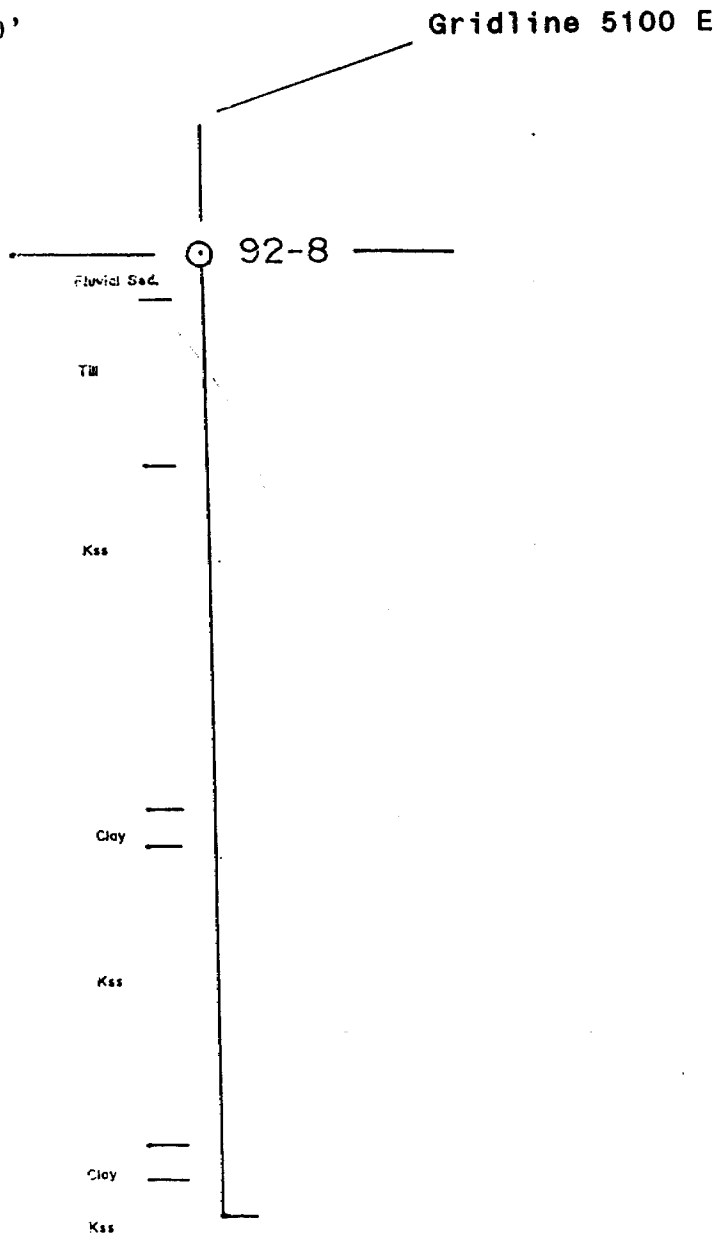
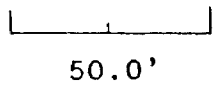
243.0' 247.0' 16199 Clay - as above, highly competent and
fissile, some brown sandy laminations,
highly moulded, 52.03% kaolin.

247.0' 251.0' 16200 Clay - as above, 56.81% kaolin.

EOH - 251.0'

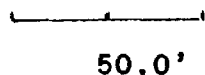
Section 92-8

Claim No.: P 825797
Hole Length: 251.0'
Overburden Depth: 56.0'
Astronomic Azimuth: 50° 08' 41" W. 82° 09' 41" N
Location: 1150.0' at 214° to claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 250 S
Easting: 5100 E
Dip: -90°



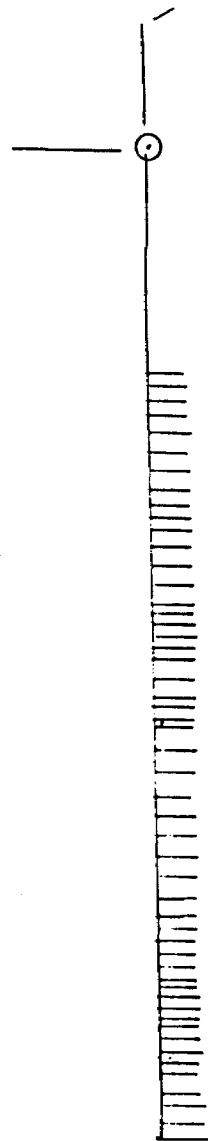
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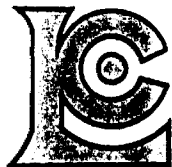


Gridline 5100 E

92-8



16151	7.14%
16152	6.67%
16153	6.80%
16154	6.57%
16155	12.47%
16156	11.95%
16157	3.67%
16158	2.92%
16159	27.00%
16160	6.53%
16161	6.94%
16162	2.67%
16163	6.30%
16164	6.30%
16165	3.37%
16166	58.68%
16167	67.72%
16168	58.71%
16169	11.95%
16170	10.84%
16171	5.27%
16172	8.30%
16173	61.90%
16174	55.39%
16175	57.16%
16176	1.15%
16177	10.86%
16178	1.33%
16179	1.47%
16180	16.87%
16181	10.10%
16182	8.73%
16183	10.47%
16184	10.46%
16185	10.33%
16186	10.60%
16187	6.68%
16188	26.63%
16189	56.67%
16190	3.29%
16191	58.63%
16192	48.30%
16193	26.53%
16194	10.86%
16195	4.17%
16196	11.95%
16197	51.37%
16198	32.83%
16199	54.55%
16200	



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project:
Comments: ATN: A. CASSELMAN

Page Number :2
Total Pages :2
Certificate Date: 21-JAN-93
Invoice No. : I9310139
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS A9310139

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16131	208 226	3.00	0.01	0.12	0.57	0.05	0.06	< 0.01	0.02	0.10	95.09	0.31	1.10	100.45
16132	208 226	1.83	< 0.01	0.07	0.47	0.03	0.04	< 0.01	< 0.01	0.09	97.43	0.15	0.65	100.80
16133	208 226	0.90	< 0.01	0.11	0.54	0.01	0.03	< 0.01	0.01	0.08	98.50	0.12	0.36	100.70
16134	208 226	22.86	0.24	0.03	1.03	0.26	0.13	< 0.01	0.01	0.15	64.81	1.13	10.57	101.25
16135	208 226	10.52	0.11	0.06	0.79	0.13	0.09	< 0.01	< 0.01	0.11	82.23	0.46	5.98	100.50
16136	208 226	16.95	0.21	0.03	0.97	0.22	0.16	< 0.01	< 0.01	0.12	71.90	0.81	9.90	101.30
16137	208 226	7.35	0.09	0.09	0.81	0.10	0.10	< 0.01	0.03	0.10	87.43	0.38	4.24	100.75
16138	208 226	15.21	0.21	0.07	0.97	0.19	0.19	< 0.01	0.03	0.13	74.08	0.74	9.25	101.10
16139	208 226	20.35	0.31	0.02	1.03	0.27	0.13	< 0.01	< 0.01	0.13	62.41	0.98	13.85	99.50
16140	208 226	20.03	0.34	0.02	1.01	0.25	0.13	< 0.01	< 0.01	0.13	65.59	0.94	11.47	99.93
16151	208 226	2.83	0.03	0.10	0.49	0.12	0.07	< 0.01	0.06	0.10	95.26	0.09	1.04	100.20
16152	208 226	3.40	0.05	0.08	0.44	0.13	0.13	< 0.01	0.04	0.09	94.56	0.07	1.30	100.30
16153	208 226	3.20	0.02	0.08	0.43	0.13	0.02	< 0.01	0.04	0.10	94.74	0.09	1.19	100.05
16154	208 226	2.57	0.27	0.07	0.52	0.13	0.13	< 0.01	0.06	0.09	94.72	0.06	1.17	99.80
16155	208 226	4.90	0.03	0.08	0.54	0.11	0.04	< 0.01	0.03	0.10	91.76	0.19	1.95	99.74
16156	208 226	4.72	0.02	0.09	0.53	0.11	0.03	< 0.01	0.03	0.11	92.24	0.54	1.79	100.20
16157	208 226	3.80	< 0.01	0.06	0.39	0.13	0.02	< 0.01	0.02	0.09	94.06	0.10	1.41	100.10
16158	208 226	3.13	< 0.01	0.08	0.42	0.13	0.02	< 0.01	0.02	0.09	94.81	0.13	1.14	99.99
16159	208 226	10.98	0.07	0.07	0.67	0.22	0.09	< 0.01	0.04	0.12	83.37	0.80	4.33	100.75
16160	208 226	3.37	< 0.01	0.04	0.35	0.10	0.01	< 0.01	< 0.01	0.08	94.89	0.16	1.29	100.30
16161	208 226	2.75	< 0.01	0.04	0.34	0.08	< 0.01	< 0.01	< 0.01	0.09	95.93	0.10	1.00	100.35
16162	208 226	2.95	0.02	0.06	0.63	0.11	0.04	< 0.01	< 0.01	0.08	95.18	0.14	1.18	100.40
16163	208 226	2.52	0.05	0.05	0.77	0.09	0.01	< 0.01	< 0.01	0.09	95.33	0.06	1.14	100.15
16164	208 226	3.19	0.02	0.07	0.58	0.12	0.02	< 0.01	0.02	0.10	94.61	0.14	1.27	100.15
16165	208 226	3.68	0.01	0.07	0.44	0.09	0.02	< 0.01	0.02	0.10	94.12	0.13	1.41	100.10
16166	208 226	23.18	0.14	0.02	1.29	0.52	0.14	< 0.01	< 0.01	0.14	63.44	0.91	9.46	99.26
16167	208 226	26.75	0.10	0.03	1.63	0.53	0.19	< 0.01	0.03	0.17	60.41	1.08	10.39	101.30
16168	208 226	20.03	0.05	0.01	1.06	0.37	0.12	< 0.01	< 0.01	0.14	70.31	1.03	7.85	101.00
16169	208 226	4.72	< 0.01	0.04	0.45	0.09	0.02	< 0.01	0.01	0.10	92.64	0.24	1.84	100.15
16170	208 226	4.28	< 0.01	0.05	0.44	0.09	0.01	< 0.01	0.01	0.09	93.78	0.21	1.67	100.65
16171	208 226	2.08	< 0.01	0.06	0.39	0.04	0.01	< 0.01	0.01	0.09	96.75	0.10	0.80	100.35
16172	208 226	3.28	< 0.01	0.03	0.50	0.06	0.01	< 0.01	0.02	0.09	94.31	0.17	1.22	99.71
16173	208 226	24.16	0.09	< 0.01	0.96	0.35	0.10	< 0.01	0.02	0.15	64.88	0.98	9.48	101.20
16174	208 226	21.88	0.39	< 0.01	1.34	0.35	0.17	< 0.01	0.06	0.16	58.28	1.05	17.59	101.30
16175	208 226	22.58	0.47	0.09	1.26	0.44	0.31	< 0.01	0.16	0.20	52.14	1.07	21.52	100.25
16176	208 226	3.22	0.06	0.10	0.55	0.09	0.08	< 0.01	0.10	0.13	94.25	0.22	1.29	100.10
16177	208 226	4.33	0.06	0.13	0.53	0.09	0.06	< 0.01	0.12	0.14	92.22	0.22	1.71	99.62
16178	208 226	3.29	0.04	0.11	0.47	0.09	0.04	< 0.01	0.11	0.13	94.53	0.09	1.16	100.05
16179	208 226	3.33	0.02	0.09	0.48	0.07	0.04	< 0.01	0.09	0.13	94.49	0.24	1.20	100.20
16180	208 226	5.87	0.09	0.08	0.81	0.09	0.04	< 0.01	0.08	0.12	90.18	0.23	2.31	99.91

CERTIFICATION:

B. Coughlin



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project :
 Comments: ATN: A. CASSELMAN

Page Number : 1
 Total Pages : 4
 Certificate Date: 21-JAN-93
 Invoice No. : 19310140
 P.O. Number : 0054
 Account : KJE

CERTIFICATE OF ANALYSIS A9310140

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16181	208 226	4.02	< 0.01	0.07	0.53	0.06	< 0.01	< 0.01	< 0.01	0.09	94.13	0.18	1.51	100.65
16182	208 226	3.25	< 0.01	0.07	0.53	0.05	< 0.01	< 0.01	< 0.01	0.09	94.64	0.11	1.18	99.96
16183	208 226	4.12	< 0.01	0.09	0.53	0.05	< 0.01	< 0.01	< 0.01	0.11	94.04	0.20	1.50	100.70
16184	208 226	4.13	< 0.01	0.07	0.48	0.07	< 0.01	< 0.01	< 0.01	0.10	93.69	0.09	1.58	100.25
16185	208 226	4.04	< 0.01	0.05	0.45	0.08	< 0.01	< 0.01	< 0.01	0.09	93.61	0.25	1.56	100.15
16186	208 226	4.22	< 0.01	0.07	0.45	0.08	< 0.01	< 0.01	< 0.01	0.09	93.25	0.22	1.63	100.05
16187	208 226	3.35	< 0.01	0.09	0.51	0.06	< 0.01	< 0.01	< 0.01	0.10	93.96	0.10	1.78	99.99
16188	208 226	9.73	0.01	0.04	0.59	0.15	0.04	< 0.01	< 0.01	0.11	85.98	0.51	3.90	101.10
16189	208 226	22.36	0.19	0.03	1.11	0.36	0.16	< 0.01	0.03	0.16	65.36	1.10	10.16	101.05
16190	208 226	3.67	< 0.01	0.09	0.61	0.06	0.01	< 0.01	< 0.01	0.10	94.16	0.13	1.53	100.40
16191	208 226	20.00	0.23	0.01	1.10	0.36	0.16	< 0.01	< 0.01	0.14	66.18	1.08	9.90	99.18
16192	208 226	23.85	0.26	< 0.01	1.12	0.45	0.19	< 0.01	< 0.01	0.15	60.37	1.15	11.28	98.85
16193	208 226	14.52	0.03	0.05	0.86	0.15	0.06	< 0.01	< 0.01	0.12	78.18	0.64	6.15	100.80
16194	208 226	8.90	< 0.01	0.07	0.60	0.08	0.03	< 0.01	0.01	0.12	86.60	0.60	3.64	100.65
16195	208 226	4.29	< 0.01	0.06	0.54	0.04	< 0.01	< 0.01	< 0.01	0.10	92.83	0.54	1.84	100.30
16196	208 226	16.29	0.19	0.08	0.91	0.16	0.08	< 0.01	0.01	0.14	72.80	0.77	8.99	100.45
16197	208 226	4.72	0.01	0.12	0.71	0.04	0.02	< 0.01	0.02	0.11	91.97	0.36	2.12	100.20
16198	208 226	20.29	0.31	0.01	1.15	0.22	0.11	< 0.01	< 0.01	0.13	61.48	0.94	14.80	99.46
16199	208 226	20.55	0.31	< 0.01	1.21	0.23	0.12	< 0.01	< 0.01	0.13	60.97	0.95	14.83	99.33
16200	208 226	22.44	0.36	0.04	1.07	0.27	0.15	< 0.01	0.10	0.15	58.10	1.02	15.79	99.50
16301	208 226	2.48	0.04	0.01	0.60	0.04	< 0.01	< 0.01	< 0.01	0.07	95.65	0.14	1.09	100.15
16302	208 226	3.83	< 0.01	0.03	0.57	0.04	< 0.01	< 0.01	< 0.01	0.07	93.95	0.25	1.50	100.30
16303	208 226	4.44	< 0.01	< 0.01	0.44	0.05	< 0.01	< 0.01	< 0.01	0.07	93.43	0.17	1.89	100.55
16304	208 226	27.28	0.12	< 0.01	1.09	0.43	0.14	< 0.01	< 0.01	0.15	59.19	1.26	11.50	101.20
16305	208 226	25.15	0.07	0.01	0.97	0.32	0.09	< 0.01	< 0.01	0.15	63.34	1.16	10.04	101.30
16306	208 226	8.75	< 0.01	0.05	0.76	0.09	0.02	< 0.01	< 0.01	0.11	87.34	0.51	3.55	101.20
16307	208 226	4.05	< 0.01	0.06	0.44	0.04	< 0.01	< 0.01	< 0.01	0.09	94.02	0.24	1.67	100.65
16308	208 226	3.33	< 0.01	0.06	0.49	0.04	< 0.01	< 0.01	< 0.01	0.09	95.37	0.12	1.28	100.80
16309	208 226	2.76	< 0.01	0.07	0.42	0.03	< 0.01	< 0.01	< 0.01	0.09	95.48	0.10	0.99	99.98
16310	208 226	4.93	< 0.01	0.07	0.45	0.03	0.01	< 0.01	< 0.01	0.10	92.18	0.09	2.01	99.90
16311	208 226	5.10	< 0.01	0.08	0.44	0.02	0.01	< 0.01	< 0.01	0.10	92.25	0.09	2.13	100.25
16312	208 226	9.91	< 0.01	0.08	0.46	0.03	0.01	< 0.01	< 0.01	0.12	86.30	0.24	4.07	101.25
16313	208 226	4.35	< 0.01	0.08	0.55	0.03	< 0.01	< 0.01	< 0.01	0.10	93.42	0.21	1.76	100.55
16314	208 226	4.06	< 0.01	0.08	0.58	0.04	0.01	< 0.01	0.01	0.10	93.18	0.15	1.74	99.97
16315	208 226	4.71	< 0.01	0.10	0.58	0.04	0.01	< 0.01	0.01	0.10	92.48	0.15	2.00	100.20
16316	208 226	4.31	0.02	0.11	0.69	0.05	0.03	< 0.01	0.03	0.10	92.47	0.13	1.80	99.75
16351	208 226	3.62	0.01	0.10	0.61	0.11	0.02	< 0.01	0.01	0.10	93.61	0.31	1.54	100.05
16352	208 226	4.73	< 0.01	0.11	0.66	0.10	0.02	< 0.01	0.01	0.10	92.74	0.31	1.77	100.55
16353	208 226	6.41	0.01	0.10	0.59	0.12	0.03	< 0.01	0.01	0.11	90.56	0.42	2.81	101.20
16354	208 226	5.29	< 0.01	0.09	0.55	0.11	0.02	< 0.01	< 0.01	0.11	91.64	0.34	2.24	100.40

CERTIFICATION:

B. Coughlin



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 4 0

BILLING INFORMATION

Date: 21-JAN-93
Project:
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9310140

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
102	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	2194.02
Total Cost \$				2194.02
(Reg# R100938885) GST \$				153.58
TOTAL PAYABLE (CDN) \$				2347.60



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212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 0 1 3 9

BILLING INFORMATION

Date: 21-JAN-93
Project:
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9310139

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
80	A-12 W.R.A ICP Prep Quote	18.00 3.51	21.51	1720.80
Total Cost \$				1720.80
(Reg# R100938885) GST \$				120.46
TOTAL PAYABLE (CDN) \$				1841.26

SONIC DRILL HOLE RECORD

Drilling Started: Mar. 8, 1992	Logged By: A. Casselman
Drilling Finished: Mar. 9, 1992	Logged: Mar. 29, 1993
Drilling Co.: J. R. Drilling	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 250.0'	Mineral Research Canada
Overburden Depth: 42.0'	R. R. # 2
Claim No.: P825798	Parry Sound, ON
Easting: 5250 E	P2A 2WB
Northing: 290 N	Hole No.: 92-9
Azimuth: 50° 08' 57" W. 82° 09' 05" N.	
Location: 850.0' at 175° To Claim Post No. 1	
Property: Kipling	

SUMMARY

From	To	Description
0.0'	42.0'	Glacial Clay Till Overburden - Pleistocene
42.0'	47.0'	Kaolin Silica Sand (Kss) Cretaceous
47.0'	50.0'	Kss & Clay
50.0'	57.0'	Kss
57.0'	67.0'	Clay
67.0'	79.0'	Sandy Clay
79.0'	98.0'	Kss
98.0'	102.0'	Sandy Clay
102.0'	108.0'	Kss
108.0'	109.5'	Sandy Clay
109.5'	142.0'	Kss
142.0'	150.0'	Kss & Sandy Clay
150.0'	160.5'	Kss
160.5'	183.0'	Clay
183.0'	178.5'	Kss
178.5'	183.0'	Sandy Clay
183.0'	201.0'	Kss
201.0'	212.5'	Sandy Clay
212.5'	244.5'	Kss
244.5'	250.0'	Clay

EOH - 250.0'

N.B. - severe labelling problem by drillers from 36.0' - 97.0'.

Detail Log - 92-9

From	To	Sample No.	Description
0.0'	42.0'		Glacial Clay Till - competent, fissile, calcareous, dark green/brown, frequent gneissic and carbonate clasts.
42.0'	44.0'	17001	Kss - white, medium grain, minor illite and heavies, calcareous exterior at upper footage, 7.34% kaolin.
44.0'	47.0'	17002	Kss - as above, 8.00% kaolin.
47.0'	50.0'	17003	Kss & Clay - 47.0' - 47.5' - kss - as above, 47.5' - 48.0' - clay - highly pliable, competent, yellow/brown, some medium brown and purple mottling, 48.0' - 49.0' - coarse grain, vari-coloured silica, 49.0' - 50.0' - fine grain, white, minor illite and heavies, 19.24% kaolin.
50.0'	57.0'	17004	Kss - as above, coarser with some clay clotting at lower bag contact, 10.18% kaolin.
57.0'	62.0'	17005	Clay - competent, pliable, grey first 4.0", then light yellow, minor grey mottling, some dried, fissile due to ariel exposure, becoming grey after 59.0' - some yellow mottling, red & buff mottled from 61.0' - 61.25', then grey, silty & illitic, 70.41% kaolin.
62.0'	67.0'	17006	Clay - competent, weakly pliable, grey & yellow mottled, grading to yellow/green, grey & red mottled to grey, 67.72% kaolin.
67.0'	72.0'	17007	Sandy Clay - light grey, competent, illitic, some darker purple laminations, 47.14% kaolin.
72.0'	75.0'	17008	Sandy Clay - as above, lower clay content, 45.95% kaolin.
75.0'	79.0'	17009	Sandy Clay - as above, 7.47% kaolin.
79.0'	85.0'	17010	Kss - white, medium grain, minor illite and heavies, 9.34% kaolin.

85.0'	91.0'	17011	Kss - as above, 10.03% kaolin.
91.0'	98.0'	17012	Kss - as above, slightly coarser, 8.13% kaolin.
98.0'	102.0'	17013	Sandy Clay - light grey, minor illite and heavies, 17.04% kaolin.
102.0'	106.0'	17014	Kss - fine grain, light grey, minor illite and heavies, 15.57% kaolin.
106.0'	109.5'	17015	Sandy Clay - as previous, 29.44% kaolin.
109.5'	115.0'	17016	Kss - medium grain, white, minor illite and heavies, 13.24% kaolin.
115.0'	120.0'	17017	Kss - medium grain, as above, coarsening downsection to coarse grain vari-coloured silica, white, minor illite and heavies, drill core gouging, 7.92% kaolin.
120.0'	124.0'	17018	Kss - as above from 120.0' - 123.0', 123.0' - 124.0' - medium grain, some yellow staining, as previous, Devonian clast at 122.5', pitted dolostone, buff, 2.0", angular, fossiliferous, crinoid, 13.85% kaolin.
124.0'	128.0'	17019	Kss - medium grain, as above, 7.52% kaolin.
128.0'	132.0'	17020	Kss - as above.
132.0'	137.0'	17021	Kss - as above, some drilling debris, fining downsection to fine grain.
137.0'	142.0'	17022	Kss - as above, medium grain.
142.0'	150.0'	17023	Kss - as above from 142.0' - 144.0', sandy clay from 144.0' - 150.0' - fine grain, light grey, illitic, very pliable, competent, heavies concentrations, becoming finer grain downsection.
150.0'	155.0'	17024	Kss - as above, fine grain.
155.0'	160.5'	17025	Kss - drill core gouging, medium grain, white, minor illite and heavies, 159.0' - 160.5' - coarse grain, vari-coloured silica, buff, pliable, clay clotting.
160.5'	163.0'	17026	Clay - competent, fragmented, medium yellow/brown, pliable, highly moulded.

163.0'	169.0'	17027	Kss - coarse grain, vari-coloured silica in a medium grain matrix from 163.0' - 164.0', becoming medium grain, white, minor illite and heavies.
169.0'	171.0'	17028	Kss - medium grain, white, minor illite and heavies, heavies banding.
171.0'	175.0'	17029	Kss - as above, at 171.5' large clast, drill cut Devonian, 5.5", fossiliferous, corals, crinoids, brachiopods, stylolitic-like laminations, darker grey sections, light grey overall, cherty area, 174.0' - banded chert/dolostone, grey, sub-rounded, chert as rip up clasts and well as laminations yellow/brown.
175.0'	178.5'	17030	Kss - as above.
178.5'	181.0'	17031	Sandy Clay - fine grain, illitic, grey becoming buff, more clay-rich downsection.
181.0'	189.0'	17032	Kss - white, becoming light grey, minor illite and heavies, fine grain.
189.0'	193.0'	17033	Kss - white, as above.
193.0'	196.0'	17034	Kss - as above.
196.0'	201.0'	17035	Kss - as above.
201.0'	203.0'	17036	Sandy Clay - buff, illitic, pliable, competent, darker more clay-rich sections.
203.0'	207.0'	17037	Sandy Clay - as above, drill core gouging.
207.0'	212.5'	17038	Sandy Clay - as above.
212.5'	215.0'	17039	Kss - fine grain, white, minor illite and heavies.
215.0'	218.0'	17040	Kss - medium grain, light grey, minor illite and heavies, high liquid content, washed out, drilling debris with some rusty staining, less pliable downsection, sulphureous smell, some hematitic laminations.
218.0'	222.0'	17041	Kss - as above, becoming white, Devonian clast at 221.5' - 1.5", angular convolute laminations, darker upper surface lighter lower surface bonded silica grains on exterior as well as <i>in situ</i> hematite nodules on the exterior.

222.0'	225.0'	17042	Kss - medium grain, as above, white, high percentage heavies, 0.5' sandy clay at 228.5', dark buff, illitic, competent, pliable, kss fine grain 224.0' - 225.0'.
225.0'	228.0'	17043	Kss - fine grain, light brown to white, minor illite and heavies, clay-rich in areas.
228.0'	231.0'	17044	Kss - as above, heavies concentrations.
231.0'	234.0'	17045	Kss - as above.
234.0'	237.0'	17046	Kss - as above.
237.0'	239.5'	17047	Kss - as above, light brown, yellow & grey at lower contact.
239.5'	243.0'	17048	Clay - chocolate brown, competent, pliable, illitic, some lighter sandy sections, carbonaceous, less pliable downsection, sulphureous smell, some hematitic laminations.
243.0'	244.5'	17049	Kss - fine grain, minor illite and heavies for first third, second third clay-rich chocolate brown, sandy clay, last third yellow and medium brown laminated.
244.5'	250.0'	17050	Clay - chocolate brown, competent, very pliable, carbonaceous, illitic.

EOH - 250.0'

Section 92-9

Claim No.: P825798

Hole Length: 250.0'

Overburden Depth: 42.0'

Astronomic Azimuth: 50° 08' 57" W. 82° 09' 05" N

Location: 850.0' at 175° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 290 N

Easting: 5250 E

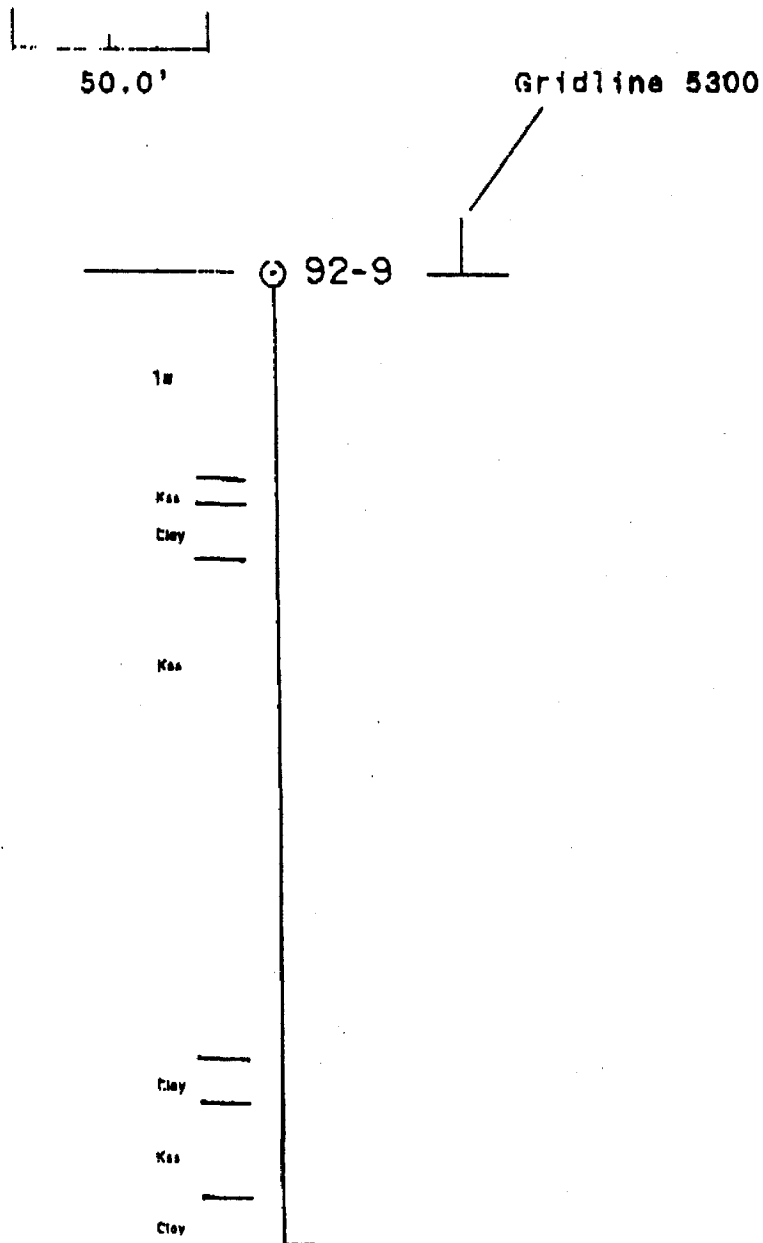
Dip: -90°

50.0'

Gridline 5300

Section 92-9

Claim No.: P825798
Hole Length: 250.0'
Overburden Depth: 42.0'
Astronomic Azimuth: 50° 08' 57" W, 82° 09' 05" N
Location: 850.0' at 175° to claim post no. 1
Scale: 1.0" = 50.0' or 1:600
Northing: 290 N
Easting: 5250 E
Dip: -90°

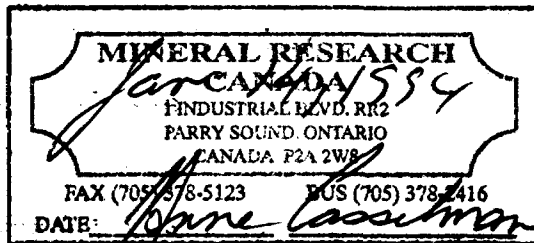


SONIC DRILL HOLE RECORD

Drilling Started: Feb. 27, 1992	Logged By: A. Casselman
Drilling Finished: Feb. 28, 1992	Logged: Jan. 27, 1993
Drilling Co.: J. R. Drilling	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 240.0'	Mineral Research Canada
Overburden Depth: 60.0'	R. R. # 2
Claim No.: P 825798	Parry Sound, ON
Easting: 5205 m E	P2A 2W8
Northing: 800 m N	Hole No.: 92-10
Azimuth: 50° 08' 58" W. 82° 09' 07" N.	
Location: 700.0' at 178° To Claim Post No. 1	
Property: Kipling	

SUMMARY

From	To	Description
0.0'	55.5'	Glacial Clay Till
55.5'	60.0'	Contact - Cretaceous/Pleistocene
60.0'	80.0'	Kaolin Silica Sand (Kss) Cretaceous
80.0'	89.0'	Clay
89.0'	97.0'	Sandy Clay
97.0'	138.0'	Kss
138.0'	139.0'	Clay
139.0'	238.5'	Kss
238.5'	240.0'	Clay



EOH - 240.0'

Core Barrel & Casing Broken & stuck at 240.0'

Detail Log - 92-10

From	To	Sample No.	Description
0.0'	55.5'		Glacial Clay Till - dark green/brown, competent, calcareous, frequent large - up to 3.5" angular clasts - gneissic and carbonate, silty in sections.
55.5'	60.0'	16701	Contact Zone - dark green, slightly calcareous kss, mostly fine grain, with chocolate and medium brown pliable clay mottling, perhaps our 'seam' - perhaps a thin clay seam mangled by drilling action, upper contact with a large Devonian clast - buff/yellow sandstone, 21.19% kaolin.
60.0'	64.0'	16702	Kss - white, fine becoming medium grain, one coarse portion of 4.0" at 62.0', minor illite and heavies, some heavies banding, 7.72% kaolin.
64.0'	69.0'	16703	Kss - medium grain, white, minor illite and heavies, heavies banding, 6.10% kaolin.
69.0'	73.0'	16704	Kss - as above, 9.77% kaolin.
73.0'	77.0'	16705	Kss - as above, 5.62% kaolin.
77.0'	80.0'	16706	Kss - medium grain, light brown, minor illite and heavies, clay enrichment of 0.5" at 79.0' - chocolate brown, pliable, and at 77.0' - white clay with larger vari-coloured silica embedded, some rust and purple clotting near chocolate, 10.30% kaolin.
80.0'	84.0'	16707	Clay - medium brown, with red and yellow/orange mottling, becoming tinged downsection, highly competent, weakly fissile, grey & purple spots, silty, becoming less silty downsection, 47.92% kaolin.
84.0'	85.0'	16708	Clay - buff & red mottling grading to grey & yellow mottling, weakly pliable, competent, silty, illitic, 46.81% kaolin.
85.0'	89.0'	16709	Clay - as above, yellow & grey grading to buff and red grading to yellow & grey, silty, drill core gouging, 51.75% kaolin.

kaolin.

- 89.0' 93.0' 16710 Sandy Clay - pliable, competent, drill core gouging, light grey with frequent purple mottling and rare yellow and orange laminations, illitic, 23.59% kaolin.
- 93.0' 97.0' 16711 Sandy Clay - & Kss - 93.0' - 93.5' - medium grain, light brown, minor illite and heavies, sandy clay - buff, competent, pliable, minor purple areas, 21.59% kaolin.
- 97.0' 100.0' 16712 Kss - fine grain, clay-rich, light brown, illitic, minor heavies, minor drilling debris, 13.22% kaolin.
- 100.0' 102.0' 16713 Kss - as above from 100.0' - 101.0', 3.0" clay seam, medium brown, pliable, medium grain, light brown, minor illite and heavies, 17.29% kaolin.
- 102.0' 107.0' 16714 Kss - medium grain, as above, some heavies banding, cubic pyrite & garnet, 8.03% kaolin.
- 107.0' 112.0' 16715 Kss - as above, 8.91% kaolin.
- 112.0' 117.0' 16716 Kss - white, coarse grain, vari-coloured silica, minor illite and heavies, 11.42% kaolin.
- 117.0' 122.0' 16717 Kss - light grey, fine grain, minor illite and heavies, heavies banding, minor drilling contamination, 10.84% kaolin.
- 122.0' 127.0' 16718 Kss - as above, 7.34% kaolin.
- 127.0' 132.0' 16719 Kss - white, some rusty contamination, fine grain, minor illite and heavies, 131.0' - 132.0' - coarse grain, vari-coloured silica in a white clay matrix, 9.87% kaolin.
- 132.0' 137.0' 16720 Kss - medium grey, minor heavies and illite, 136.25 - 137.0' - vari-coloured silica, coarse grain in a medium grain matrix, 9.32% kaolin.
- 137.0' 138.0' 16721 Kss - buff, medium grain, extremely clay-rich, non-competent, highly pliable, 26.30% kaolin.
- 138.0' 139.0' 16722 Clay - very pliable, non-competent, medium brown, minor laminations of darker material, minor illite, 60.71% kaolin.

- 139.0' - 143.0' 16723 Kss - medium grain, white, minor illite and heavies, medium brown, pliable clay mottling, first 2.0', 18.96% kaolin.
- 143.0' - 148.0' 16724 Kss - as above, 1.0' of fine grain - 143.5' - 144.5', 143.5' - angular fossiliferous - gastropods, crinoids, coral, in dolostone, medium and light grey mottled, highly pitted, 2.5", 8.71% kaolin.
- 148.0' - 152.0' 16725 Kss - medium grain, white, minor illite and heavies, 151.5' - 152.0' - coarse grain vari-coloured silica, 10.96% kaolin.
- 152.0' - 157.0' 16726 Kss - coarse grain in a medium grain matrix, vari-coloured silica, minor heavies and illite, white, 11.01% kaolin.
- 157.0' - 162.0' 16727 Kss - medium grain, white, minor illite and heavies, 6.05% kaolin.
- 162.0' - 167.0' 16728 Kss - as above, 8.84% kaolin.
- 167.0' - 172.0' 16729 Kss - as above from 167.0' - 169.5', at 169.5' - 1.0" of buff illitic sandy clay with darker and medium brown laminations, 1.0" smoky quartz at lower sandy clay contact, 10.91% kaolin.
- 172.0' - 177.0' 16730 Kss - as previous, 5.22% kaolin.
- 177.0' - 182.0' 16731 Kss - medium grain, white, partially contaminated with rusty staining, almost devoid of kaolin, only 1.0' of material for a five foot sample, vari-coloured silica - jasper, 1.24% kaolin.
- 182.0' - 189.0' 16732 Kss - as above, some drilling debris, small areas appear almost normal - with minor illite and heavies, one area of clay enrichment or clotting, 3.49% kaolin.
- 189.0' - 195.0' 16733 Kss - medium grain, white, high percentage heavies, minor illite, areas of clay-enrichment, almost a sandy clay seam, medium brown, clay content increasing downsection and fining downsection until 194.0' - then medium grain, darker grey with intense heavies banding of apparent garnets, 10.28% kaolin.
- 195.0' - 201.0' 16734 Kss - medium grain, with frequent larger clasts, pinkish hue in clay extreme

yellow/brown contamination, clay-rich, vari-
coloured silica, minor illite and heavies,
8.13% kaolin.

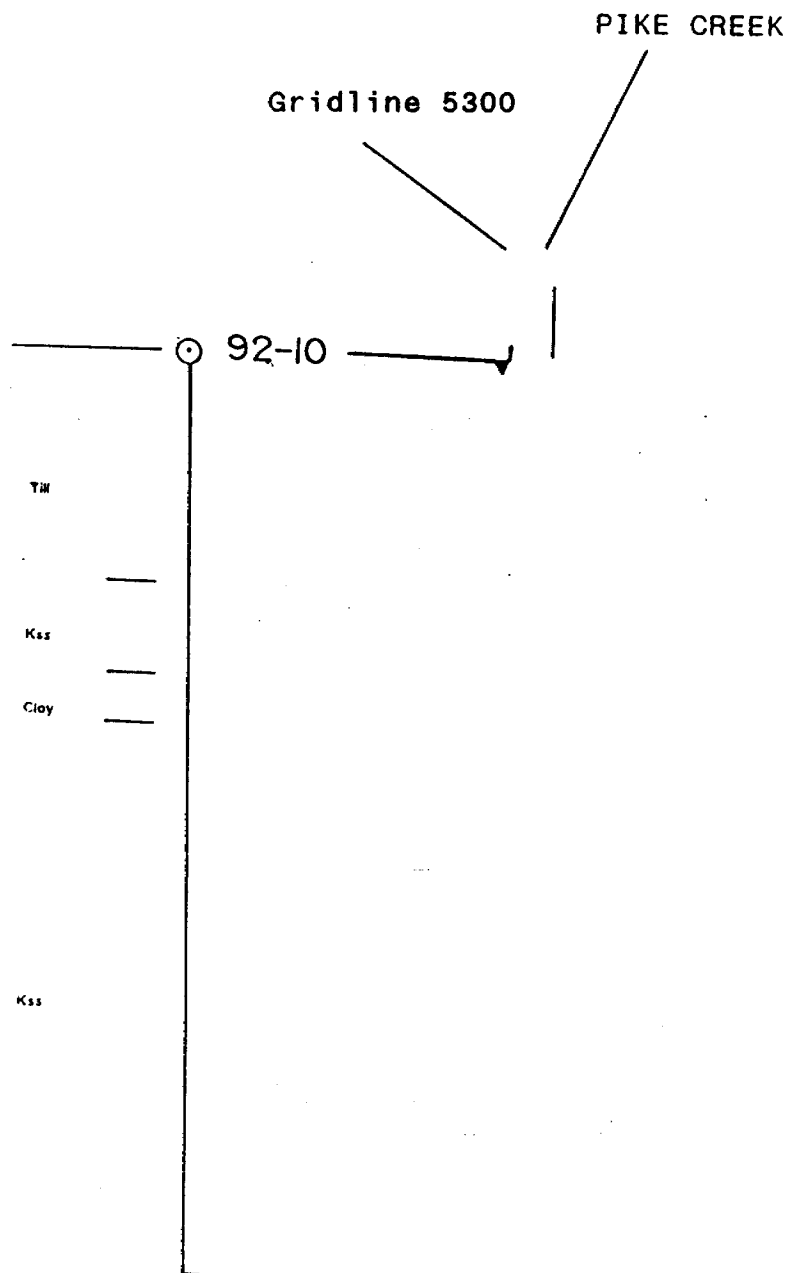
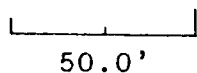
- 201.0' 207.0' 16735 Kss - as above, 10.38% kaolin.
- 207.0' 213.0' 16736 Kss - fine grain, some coarse pinkish 0.25'
sections, heavies banding, garnet, minor
illite, some clay-rich portions, 7.77%
kaolin.
- 213.0' 219.0' 16737 Kss - as above, medium grain, intense garnet
banding, 8.68% kaolin.
- 219.0' 225.0' 16738 Kss - as above, slightly darker, 3.85%
kaolin.
- 225.0' 229.0' 16739 Kss - medium grain, frequent large sub-
angular clasts, one granitic gneissic,
garnetiferous clast, yellow/brown, very low
kaolin content, shale fragment, 3.54%
kaolin.
- 229.0' 232.0' 16740 Kss - as above, 3.11% kaolin.
- 232.0' 236.0' 16741 Kss - rusty yellow/brown, medium grain,
minor illite and heavies, rare coarser
clast, 5.52% kaolin.
- 236.0' 238.5' 16742 Kss - as above, 237.75' - 238.5' - chocolate
brown, sulphureous small, clay-rich,
carbonaceous, one 2.0" pitted angular
chocolate brown clast of dolostone at lower
kss contact, 4.99% kaolin.
- 238.5' 240.0' 16743 Clay - chocolate brown, pliable, competent,
becoming crumbly downsection, darkening
downsection, large rounded silica clasts -
smoky quartz embedded at upper contact, some
yellow laminations at upper contact, and
apparent crystals, drill core gouging,
73.72% kaolin.

EOH - 240.0'

0'

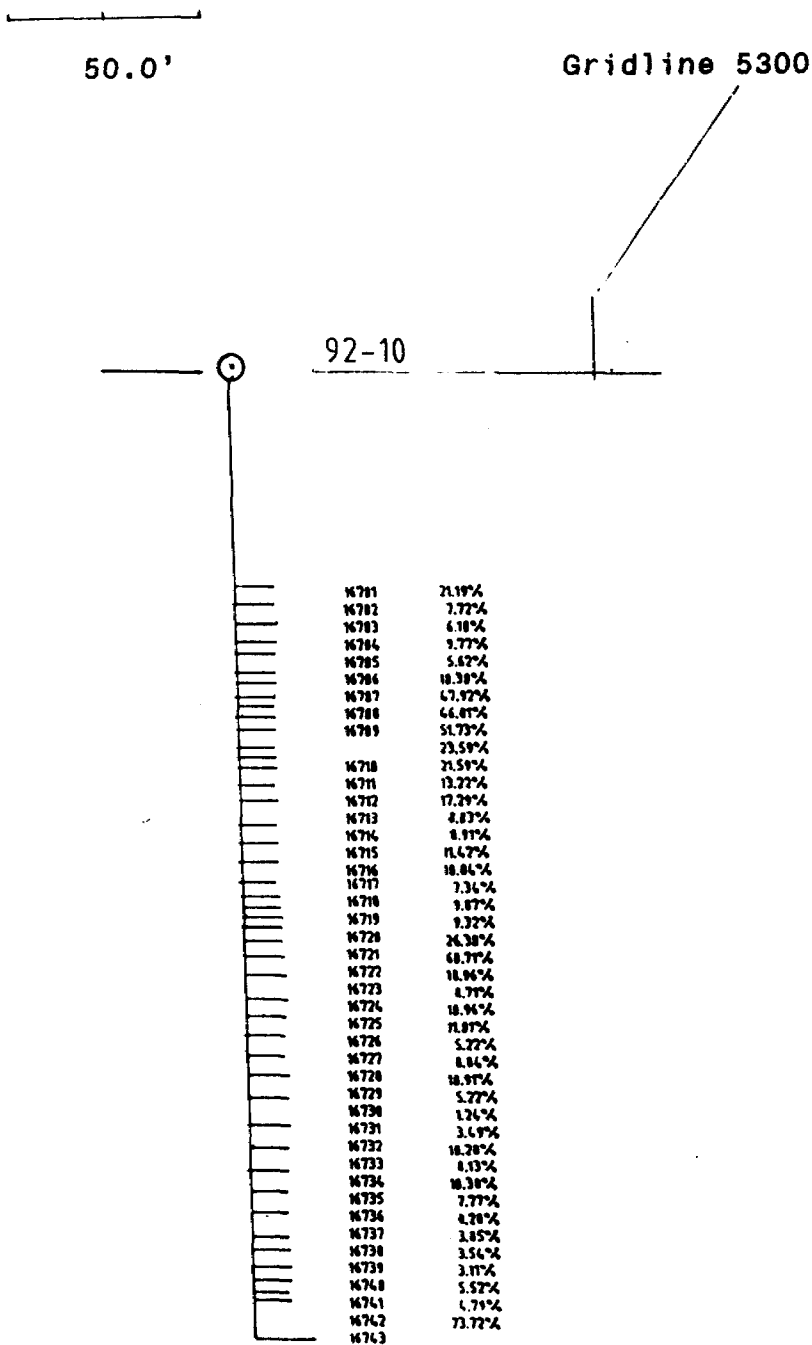
Section - 92-10

Claim No.: P 825898
Hole Length: 240.0'
Overburden Depth: 60.0'
Scale: 1.0" = 50.0' or 1:600
Azimuth: 50° 08' 58" W, 82° 09' 07" N
Location: 700.0' at 178° to claim post no. 1
Northing: 5205 E
Easting: 800 N
Dip: -90°



Section - 92-10

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Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

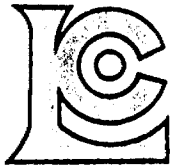
Project: KIPLING
Comments: ATTN: A. CASSELMAN

Page Number : 1
Total Pages : 4
Certificate Date: 30-JUN-93
Invoice No. : 19315475
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS A9315475

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
13221	208 226	10.71	0.25	0.09	1.95	0.24	0.14	0.01	0.11	< 0.01	81.40	0.64	5.58	101.15
13222	208 226	5.21	< 0.01	0.04	0.60	0.12	0.02	< 0.01	0.01	0.01	91.67	0.42	2.25	100.35
13223	208 226	7.26	< 0.01	0.03	0.65	0.17	0.03	< 0.01	< 0.01	< 0.01	88.66	0.61	3.27	100.70
13224	208 226	10.30	< 0.01	0.02	0.69	0.22	0.06	< 0.01	0.02	< 0.01	83.99	0.75	4.63	100.70
13225	208 226	3.12	< 0.01	0.02	0.42	0.07	< 0.01	< 0.01	< 0.01	< 0.01	94.76	0.31	1.49	100.25
13773	208 226	6.73	< 0.01	0.10	1.91	0.16	< 0.01	< 0.01	0.01	< 0.01	87.56	0.28	3.54	100.35
13774	208 226	19.58	0.01	0.01	1.26	0.34	0.07	< 0.01	< 0.01	< 0.01	68.12	0.90	10.59	100.90
13775	208 226	25.76	0.32	< 0.01	1.27	0.54	0.24	< 0.01	0.05	< 0.01	51.67	1.22	18.81	99.91
13776	208 226	26.18	0.14	< 0.01	1.23	0.42	0.11	< 0.01	< 0.01	< 0.01	59.35	1.13	12.71	101.30
13777	208 226	27.10	0.39	< 0.01	1.18	0.44	0.23	< 0.01	0.04	< 0.01	48.31	1.16	20.88	99.76
13778	208 226	25.36	0.39	< 0.01	1.46	0.55	0.28	< 0.01	0.02	< 0.01	45.57	1.13	24.67	99.46
13779	208 226	23.68	0.56	< 0.01	1.17	0.48	0.28	< 0.01	< 0.01	0.09	41.66	0.99	30.90	99.84
13780	208 226	23.93	0.46	< 0.01	1.10	0.66	0.28	< 0.01	< 0.01	0.11	51.42	1.19	20.42	99.60
13781	208 226	23.46	0.45	< 0.01	1.71	0.59	0.24	< 0.01	0.01	0.10	49.22	1.16	22.09	99.05
13782	208 226	2.64	0.07	0.01	0.83	0.07	< 0.01	< 0.01	< 0.01	< 0.01	95.27	0.26	1.51	100.70
13783	208 226	3.66	0.02	0.04	0.79	0.06	< 0.01	0.01	< 0.01	0.03	93.61	1.05	1.72	101.00
13784	208 226	4.51	0.08	0.02	0.92	0.08	< 0.01	< 0.01	< 0.01	0.02	92.92	0.50	2.05	101.15
13785	208 226	4.06	0.01	0.01	0.55	0.08	< 0.01	< 0.01	< 0.01	0.02	94.51	0.16	1.71	101.15
13786	208 226	3.04	< 0.01	0.01	0.47	0.07	< 0.01	< 0.01	< 0.01	0.01	95.47	0.14	1.33	100.60
13787	208 226	3.79	< 0.01	0.01	0.47	0.08	< 0.01	< 0.01	< 0.01	0.02	94.90	0.17	1.58	101.05
13788	208 226	4.81	0.04	0.03	1.01	0.10	0.01	0.01	< 0.01	0.03	90.45	0.89	2.14	99.53
13789	208 226	2.81	< 0.01	0.01	0.55	0.07	< 0.01	< 0.01	< 0.01	< 0.01	95.29	0.07	1.16	100.00
13790	208 226	2.87	< 0.01	< 0.01	0.34	0.07	< 0.01	< 0.01	< 0.01	< 0.01	96.39	0.11	1.18	101.00
13791	208 226	2.47	< 0.01	< 0.01	0.43	0.06	< 0.01	< 0.01	< 0.01	< 0.01	96.46	0.09	1.00	100.55
13792	208 226	2.99	< 0.01	< 0.01	0.42	0.06	< 0.01	< 0.01	< 0.01	< 0.01	93.44	0.22	1.26	98.45
13793	208 226	2.92	< 0.01	0.03	0.52	0.06	< 0.01	< 0.01	< 0.01	0.02	95.82	0.09	1.18	100.70
13794	208 226	1.65	< 0.01	0.02	0.47	0.03	< 0.01	< 0.01	< 0.01	0.02	97.95	0.06	0.64	100.90
13795	208 226	1.32	0.01	0.03	0.43	0.03	< 0.01	< 0.01	< 0.01	0.02	98.01	0.04	0.53	100.45
13796	208 226	1.58	0.06	0.08	0.52	0.03	0.02	< 0.01	0.07	0.06	96.75	0.06	0.58	99.82
13797	208 226	1.05	0.02	0.05	0.44	0.02	< 0.01	< 0.01	0.02	0.03	97.41	0.04	0.38	99.48
13798	208 226	1.14	0.01	0.03	0.36	0.03	< 0.01	< 0.01	< 0.01	0.02	96.98	0.04	0.44	99.08
13799	208 226	4.83	0.01	0.03	0.57	0.06	< 0.01	< 0.01	< 0.01	0.02	91.39	0.30	2.08	99.32
16284	208 226	2.64	0.02	0.06	0.55	0.01	< 0.01	< 0.01	0.04	0.03	95.65	0.11	1.10	100.25
16285	208 226	2.03	< 0.01	0.04	0.52	0.02	< 0.01	< 0.01	< 0.01	0.02	96.60	0.05	0.80	100.10
16286	208 226	1.77	0.09	0.04	0.69	0.03	0.02	< 0.01	0.02	0.03	96.50	0.07	0.79	100.05
16287	208 226	2.50	< 0.01	0.01	0.47	0.02	< 0.01	< 0.01	< 0.01	0.01	95.43	0.07	1.12	99.67
16288	208 226	3.44	0.03	0.05	0.44	0.04	0.01	< 0.01	0.04	0.04	94.21	0.11	1.54	99.96
16289	208 226	5.58	0.06	0.05	0.61	0.06	0.02	< 0.01	0.02	0.04	88.95	0.32	2.41	98.13
16290	208 226	31.56	0.21	0.02	1.23	0.54	0.18	< 0.01	0.07	0.16	53.07	1.14	13.18	101.35
16701	208 226	8.37	0.56	0.03	0.82	0.24	0.21	< 0.01	0.08	0.06	83.95	0.44	4.23	99.00

CERTIFICATION: *Hart Buchler*



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

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CERTIFICATE OF ANALYSIS A9315475

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16702	208 226	3.05	0.01	0.01	0.42	0.07	< 0.01	< 0.01	< 0.01	0.01	96.09	0.21	1.28	101.20
16703	208 226	2.41	0.03	0.02	0.48	0.10	< 0.01	< 0.01	< 0.01	0.02	95.50	0.07	0.98	99.64
16704	208 226	3.86	0.03	0.03	0.58	0.10	0.01	< 0.01	< 0.01	0.03	94.22	0.20	1.61	100.70
16705	208 226	2.22	< 0.01	< 0.01	0.45	0.09	< 0.01	< 0.01	< 0.01	< 0.01	97.32	0.09	0.93	101.15
16706	208 226	4.07	0.14	0.04	0.64	0.12	0.04	< 0.01	0.01	0.03	92.51	0.26	1.76	99.63
16707	208 226	18.93	0.24	0.02	1.29	0.15	0.16	< 0.01	0.07	0.12	70.18	1.32	8.47	100.95
16708	208 226	18.49	0.16	< 0.01	1.30	0.21	0.13	< 0.01	< 0.01	0.09	71.01	1.07	8.51	101.00
16709	208 226	20.44	0.20	< 0.01	3.33	0.45	0.21	< 0.01	0.06	0.15	65.78	1.21	9.32	101.15
16710	208 226	9.32	0.10	0.03	0.74	0.19	0.08	< 0.01	0.02	0.07	86.13	0.52	4.19	101.40
16711	208 226	8.53	0.15	0.06	1.14	0.18	0.08	< 0.01	0.04	0.07	85.65	0.53	3.81	100.25
16712	208 226	5.22	0.04	0.03	0.71	0.10	0.02	< 0.01	< 0.01	0.03	92.52	0.38	2.27	101.35
16713	208 226	6.83	0.08	0.02	0.76	0.14	0.04	< 0.01	< 0.01	0.05	89.63	0.42	2.96	100.95
16714	208 226	3.17	0.08	0.04	0.52	0.09	0.02	< 0.01	0.01	0.03	94.61	0.25	1.30	100.15
16715	208 226	3.52	0.04	0.01	0.47	0.13	< 0.01	< 0.01	< 0.01	0.01	95.00	0.10	1.48	100.80
16716	208 226	4.51	0.01	0.01	0.38	0.14	< 0.01	< 0.01	< 0.01	0.02	94.04	0.14	1.88	101.15
16717	208 226	4.28	0.06	0.03	0.51	0.09	0.02	< 0.01	< 0.01	0.03	93.86	0.33	1.82	101.05
16718	208 226	2.90	0.08	0.06	0.58	0.06	0.03	< 0.01	0.04	0.04	96.14	0.23	1.22	101.40
16719	208 226	3.90	0.10	0.01	0.53	0.07	0.05	< 0.01	0.10	0.07	93.85	0.25	1.54	100.50
16720	208 226	3.68	0.11	0.04	0.64	0.08	0.06	< 0.01	0.12	0.09	93.49	0.54	1.50	100.35
16721	208 226	10.39	0.19	0.06	0.88	0.23	0.13	< 0.01	0.21	0.12	83.64	0.41	4.63	100.90
16722	208 226	23.98	0.22	< 0.01	1.23	0.47	0.22	< 0.01	0.04	0.09	64.50	1.02	9.23	101.00
16723	208 226	7.49	0.17	0.04	0.64	0.19	0.11	< 0.01	0.20	0.11	88.08	0.29	3.13	100.45
16724	208 226	3.44	0.14	0.03	0.51	0.13	0.07	< 0.01	0.18	0.08	94.70	0.12	1.35	100.75
16725	208 226	4.33	0.08	0.02	0.58	0.14	0.03	< 0.01	0.06	0.06	93.60	0.21	1.73	100.85
16726	208 226	4.35	0.08	< 0.01	0.56	0.18	0.02	< 0.01	0.03	0.04	93.03	0.12	1.68	100.10
16727	208 226	2.39	0.08	0.02	0.56	0.08	0.03	< 0.01	0.08	0.04	96.01	0.10	1.03	100.45
16728	208 226	3.49	0.09	0.02	0.54	0.09	0.03	< 0.01	0.06	0.04	94.50	0.12	1.30	100.30
16729	208 226	4.31	0.07	0.02	0.59	0.10	0.03	< 0.01	0.06	0.03	92.98	0.18	1.86	100.25
16730	208 226	2.06	0.07	0.02	0.46	0.06	0.03	< 0.01	0.06	0.04	95.59	0.11	0.90	99.41
16731	208 226	0.49	0.07	0.04	0.66	0.02	0.02	< 0.01	0.07	0.04	98.50	0.10	0.27	100.30
16732	208 226	1.38	0.10	0.07	0.54	0.03	0.05	< 0.01	0.14	0.06	97.21	0.11	0.63	100.35
16733	208 226	4.06	0.12	0.07	0.77	0.07	0.06	< 0.01	0.13	0.08	93.44	0.49	1.71	101.00
16734	208 226	3.21	0.12	0.03	0.81	0.10	0.03	< 0.01	0.08	0.04	94.11	0.06	1.45	100.05
16735	208 226	4.10	0.11	0.05	0.90	0.14	0.05	< 0.01	0.10	0.06	93.23	0.16	1.81	100.70
16736	208 226	3.07	0.14	0.05	1.64	0.07	0.04	< 0.01	0.08	0.06	93.17	0.38	1.70	100.40
16737	208 226	3.43	0.09	0.05	1.24	0.07	0.03	0.01	0.06	0.06	92.72	0.68	1.64	100.10
16738	208 226	1.52	0.09	0.04	0.92	0.04	0.03	< 0.01	0.07	0.05	95.59	0.42	0.81	99.59
16739	208 226	1.40	0.71	0.04	0.85	0.07	0.11	< 0.01	0.14	0.06	94.69	0.23	1.10	99.41
16740	208 226	1.23	0.32	0.10	1.36	0.05	0.08	0.01	0.13	0.08	95.40	0.43	0.85	100.05
16741	208 226	2.18	0.16	0.04	0.86	0.10	0.06	< 0.01	0.11	0.06	94.82	0.13	1.12	99.65

CERTIFICATION: *Hautschke*



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

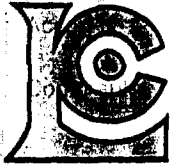
Project: KIPLING
 Comments: ATTN: A. CASSELMAN

Page Number : 3
 Total Pages : 4
 Certificate Date: 30-JUN-93
 Invoice No. : 19315475
 P.O. Number : 0054
 Account : KJE

CERTIFICATE OF ANALYSIS A9315475

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16742	208 226	1.97	0.12	0.09	1.33	0.08	0.03	< 0.01	0.04	0.04	94.79	0.27	1.54	100.30
16743	208 226	29.12	0.20	0.01	2.69	0.59	0.19	< 0.01	< 0.01	< 0.01	53.07	1.15	13.58	100.65
16751	208 226	3.87	0.50	0.16	0.83	0.18	0.19	< 0.01	0.19	0.09	91.59	0.14	1.73	99.48
16752	208 226	3.11	2.21	0.07	1.02	0.33	0.70	0.01	< 0.01	0.02	88.17	0.17	3.20	99.02
16753	208 226	7.33	0.82	0.01	0.72	0.29	0.28	< 0.01	0.07	0.02	87.89	0.23	3.67	101.35
16754	208 226	28.44	0.91	0.03	1.25	0.66	0.40	< 0.01	0.11	< 0.01	53.44	1.00	12.93	99.19
16755	208 226	26.51	0.37	0.02	1.00	0.45	0.19	< 0.01	< 0.01	0.02	53.31	1.07	18.22	101.20
16756	208 226	32.16	0.22	0.01	1.47	0.65	0.19	< 0.01	< 0.01	0.01	52.32	1.09	13.34	100.50
16757	208 226	27.00	0.20	0.01	1.39	0.46	0.17	< 0.01	< 0.01	0.02	58.07	1.10	12.03	100.45
16758	208 226	2.46	0.02	< 0.01	0.48	0.17	< 0.01	< 0.01	< 0.01	0.02	95.50	0.20	1.05	99.94
16759	208 226	5.50	< 0.01	< 0.01	0.69	0.26	< 0.01	< 0.01	< 0.01	< 0.01	90.98	0.36	2.49	100.35
16760	208 226	1.88	0.02	< 0.01	0.72	0.22	< 0.01	< 0.01	< 0.01	< 0.01	95.59	0.14	0.88	99.50
16761	208 226	2.02	< 0.01	< 0.01	0.42	0.25	< 0.01	< 0.01	< 0.01	< 0.01	95.60	0.12	0.92	99.39
16762	208 226	5.05	0.10	0.04	0.70	0.24	0.05	< 0.01	0.06	0.04	91.39	0.26	2.16	100.10
16763	208 226	5.42	0.19	0.13	0.71	0.21	0.10	< 0.01	0.21	0.14	90.51	0.18	1.76	99.57
16764	208 226	3.62	0.12	0.09	0.59	0.19	0.05	< 0.01	0.13	0.06	94.01	0.19	1.45	100.50
16765	208 226	5.06	0.11	0.07	0.62	0.20	0.06	< 0.01	0.10	0.06	91.23	0.23	2.07	99.82
16766	208 226	4.28	0.26	0.22	0.86	0.15	0.15	< 0.01	0.34	0.19	91.50	0.24	1.45	99.65
16767	208 226	3.10	0.11	0.09	0.66	0.12	0.06	< 0.01	0.11	0.06	94.41	0.15	1.38	100.25
16768	208 226	4.39	0.25	0.20	0.95	0.15	0.13	< 0.01	0.31	0.18	91.59	0.12	1.45	99.73
16769	208 226	2.78	0.22	0.06	1.23	0.17	0.03	< 0.01	0.03	0.04	94.62	0.11	1.39	100.70
16770	208 226	3.22	0.22	0.11	1.22	0.20	0.06	< 0.01	0.12	0.07	93.61	0.13	1.44	100.40
16771	208 226	5.04	< 0.01	0.02	0.59	0.28	< 0.01	< 0.01	< 0.01	< 0.01	92.25	0.28	2.04	100.55
16772	208 226	4.41	0.11	0.09	0.44	0.23	0.06	< 0.01	0.12	0.07	92.63	0.10	1.82	100.10
16773	208 226	2.43	0.18	0.12	1.37	0.09	0.07	< 0.01	0.15	0.07	93.99	0.09	1.25	99.82
16774	208 226	3.94	0.13	0.12	0.68	0.11	0.07	< 0.01	0.14	0.08	92.59	0.18	1.56	99.61
16775	208 226	2.18	0.07	0.07	0.67	0.10	0.03	< 0.01	0.06	0.04	95.50	0.06	0.94	99.73
16776	208 226	3.33	0.10	0.07	0.90	0.10	0.03	< 0.01	0.08	0.04	93.90	0.10	1.49	100.15
16777	208 226	4.67	0.15	0.01	2.16	0.10	0.01	0.01	< 0.01	0.03	90.80	0.16	2.80	100.90
16778	208 226	2.05	0.08	0.04	0.95	0.08	0.01	< 0.01	0.03	0.03	95.09	0.05	0.95	99.37
16779	208 226	3.06	0.14	0.10	1.35	0.10	0.04	0.01	0.11	0.08	93.50	0.10	1.33	99.92
16780	208 226	3.27	0.22	0.18	1.66	0.11	0.09	< 0.01	0.24	0.17	92.59	0.16	1.06	99.76
16781	208 226	4.62	0.06	0.06	0.70	0.12	0.02	< 0.01	0.02	0.03	92.10	0.36	1.88	99.98
16782	208 226	4.13	0.06	0.07	0.60	0.14	0.02	< 0.01	0.03	0.04	93.01	0.25	1.56	99.92
16783	208 226	3.13	0.08	0.08	0.60	0.12	0.03	< 0.01	0.07	0.05	95.23	0.16	1.15	100.70
16784	208 226	4.20	0.15	0.08	1.60	0.10	0.06	< 0.01	0.07	0.04	91.92	0.35	2.12	100.70
16785	208 226	6.12	0.10	0.06	0.70	0.12	0.06	< 0.01	0.06	0.05	90.71	0.25	2.51	100.75
16786	208 226	1.84	0.03	0.03	0.52	0.05	0.02	< 0.01	0.03	0.02	96.50	0.05	0.83	99.93
16787	208 226	2.12	0.05	0.08	0.83	0.08	0.01	< 0.01	0.02	0.02	91.92	0.17	5.25	100.55
16788	208 226	4.40	0.09	0.08	0.88	0.14	0.03	< 0.01	0.07	0.04	92.64	0.32	1.89	100.60

CERTIFICATION: *Jantl Buchler*



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 5 4 7 5

BILLING INFORMATION

Date: 2-JUL-93
Project: KIPLING
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9315475

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
131	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	2817.81
			Total Cost \$	2817.81
			(Reg# R100938885) GST \$	197.25
			TOTAL PAYABLE (CDN) \$	3015.06

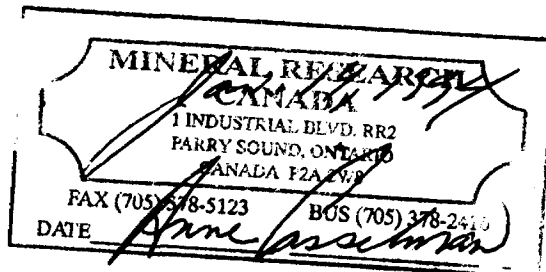
COPY

SONIC DRILL HOLE RECORD

Drilling Started: Mar. 5, 1992	Logged By: A. Casselman
Drilling Finished: Mar. 5, 1992	Logged: Feb. 15, 1993
Drilling Co.: J. R. Drilling	Core Size: 3.5"
Dip: -90°	Core Storage:
Hole Length: 250.0'	Mineral Research Canada
Overburden Depth: 68.0'	R. R. # 2
Claim No.: P 825800	Parry Sound, ON
Easting: 5300 m E	P2A 2W8
Northing: 750 m N	Hole No.: 92-11
Azimuth: 50° 09' 08" W. 82° 08' 53" N.	
Location: 470.0' at 215° To Claim Post No. 1	
Property: Kipling	

SUMMARY

From	To	Description
0.0'	67.0'	Glacial Clay Till
67.0'	69.0'	Sand
69.0'	77.0'	Kaolin Silica Sand (Kss)
77.0'	84.0'	Glacial Clay Till Overburden - Pleistocene
84.0'	88.0'	Kaolin Silica Sand (Kss) Cretaceous
88.0'	101.0'	Clay
101.0'	104.5'	Kss
104.5'	110.0'	Kss & Sandy Clay
110.0'	211.0'	Kss
211.0'	216.0'	Kss & Sandy Clay
216.0'	229.25'	Kss
229.25'	232.0'	Clay & Sandy Clay
232.0'	235.0'	Lignite
235.0'	245.5'	Clay
245.5'	246.0'	Lignite
246.0'	250.0'	Clay



Detail Log - 92-11

From	To	Sample No.	Description
0.0'	67.0'		Glacial Clay Till - competent, dark green/brown, calcareous, frequent large gneissic and carbonate clasts.
67.0'	69.0'		Sand - extremely fine grain, yellow/brown, highly calcareous, some clay content.
69.0'	72.0'		Kss/Till contact - extremely calcareous, dark green/brown, medium grain, highly competent.
72.0'	77.0'	16751	Kss - medium brown, medium grain, poor clay content, partially contacting with Pleistocene, 9.80% kaolin.
77.0'	84.0'		Glacial Clay Till - as above.
84.0'	85.5'	16752	Kss - as above, 7.87% kaolin.
85.5'	88.0'	16753	Kss - medium grain, with one area of coarse clasts, vari-coloured silica, intense pliable clay mottling, weakly pliable downsection, discontinuous lighter and darker laminations of light brown to white, one area of yellow, minor illite, 18.56% kaolin.
88.0'	90.0'	16754	Clay - as above, some kss mottling, highly competent, 72.00% kaolin.
90.0'	92.5'	16755	Clay - as above, no kss mottling, last 0.75' chocolate brown, highly carbonaceous, competent, weakly pliable, 67.11% kaolin.
92.5'	97.0'	16756	Clay - competent, weakly pliable, yellow & orange mottled with buff from 92.5 - 93.5', the 2.0" of chocolate brown clay becoming medium brown with lighter and darker discontinuous laminations, 78.89% kaolin.
97.0'	101.0'	16757	Clay - yellow and dark buff mottled, almost entirely yellow at 100.0' - from 4.0", carbonaceous, pliable, competent, some kss contamination, 68.35% kaolin.
101.0'	104.5'	16758	Kss - medium grain, light brown, minor illite and heavies, external yellow

contamination, 6.23% kaolin.

104.5'	110.0'	16759	Kss & Sandy Clay - kss - as above, sandy clay from 108.0' - 109.5' - pliable, medium grain, light brown clay - pliable, as mottling, drill core gouging, 13.92% kaolin.
110.0'	114.0'	16760	Kss - as above, slightly coarser, 4.76% kaolin.
114.0'	118.0'	16761	Kss - coarse grain, vari-coloured silica, white, minor illite and heavies, 5.11% kaolin.
118.0'	122.0'	16762	Kss - extremely coarse grain, in a medium brown clay matrix grading to normal medium grain, white kss with minor illite and heavies, 12.78% kaolin.
122.0'	127.0'	16763	Kss - medium grain, white, minor illite and heavies, 126.0' - 127.0' coarse grain, vari-coloured silica, garnetiferous haematitic siliceous conglomerate at 125.0' - oblate, two clasts of 1.5", 13.72% kaolin.
127.0'	128.0'	16764	Kss - coarse as above, some clay mottling then medium grain as above, 9.16% kaolin.
128.0'	132.0'	16765	Kss - as above, medium grain, extremely coarse grain from 128.0' - 128.5' - vari-coloured silica, one sandy clay clot, buff, pliable in the coarse portion, 12.81% kaolin.
132.0'	136.0'	16766	Kss - as above, medium grain, some finer areas, 10.84% kaolin.
136.0'	140.0'	16767	Kss - as above, 7.85% kaolin.
140.0'	143.0'	16768	Kss - as above, some heavies banding, 11.11% kaolin.
143.0'	146.0'	16769	Kss - light brown, as above, high percentage heavies (garnet) - frequent coarse vari-coloured silica clasts in a medium grain matrix from 142.0' - 143.0', 7.04% kaolin.
146.0'	150.0'	16770	Kss - coarse grain in a medium grain matrix as above, large pitted chocolate brown dolostone clasts with cemented silica and garnet on exterior, 8.15% kaolin.
150.0'	153.5'	16771	Kss - as above, less heavies, some clay mottling at 153.0' - 2.0' buff pliable

illitic sandy clay then medium grain, 150.0' - 151.5' - highly garnetiferous, 151.5 - 153.0' - buff with frequent larger clasts, 12.76% kaolin.

- | | | | |
|--------|--------|-------|---|
| 153.5' | 157.0' | 16772 | Kss - coarse grain, in a medium grain matrix, light brown, some purple areas, especially near large dolostone clast, drill cut, angular, crinoidal, pitted dark grey, lighter interior at 156.0', 11.16% kaolin. |
| 157.0' | 162.0' | 16773 | Kss - as above, more matrix, higher percentage heavies (garnet), garnetiferous hematitic siliceous conglomerate 1.0" at 161.5', oblate, fewer large vari-coloured silica clasts, one area of powdered red/brown, bean shaped area at 161.75' - highly garnetiferous, 6.15% kaolin. |
| 162.0' | 167.0' | 16774 | Kss - medium grain, white, minor illite and heavies, clay mottling, pliable, buff at upper contact, white with some areas of chocolate, coarse grain, 9.97% kaolin. |
| 167.0' | 172.0' | 16775 | Kss - medium grain, white, minor illite and heavies, garnetiferous haematitic siliceous conglomerate found downsection, 5.52% kaolin. |
| 172.0' | 177.0' | 16776 | Kss - as above, 8.43% kaolin. |
| 177.0' | 182.0' | 16777 | Kss - as above, 179.0' - 180.0' - coarse grain in a medium grain and clay matrix, clay - mottled medium and light brown, 180.0' - 182.0' - highly garnetiferous with several large loosely aggregated garnetiferous haematitic siliceous conglomerates, 11.82% kaolin. |
| 182.0' | 187.0' | 16778 | Kss - medium grain, buff, minor illite, high percentage garnet & heavies, 5.19% kaolin. |
| 187.0' | 192.0' | 16779 | Kss - as above, some areas of sandy clay - buff, pliable, illitic, 7.75% kaolin. |
| 192.0' | 197.0' | 16780 | Kss - as above, 8.28% kaolin. |
| 197.0' | 201.0' | 16781 | Kss - coarse grain vari-coloured silica in a medium grain matrix, first half buff the 0.5' of clay mottling with kss, clay - pliable medium and light brown, after medium grain, light brown, minor illite and heavies, then frequent large rounded clasts in a medium grain matrix in last 0.5', 2 |

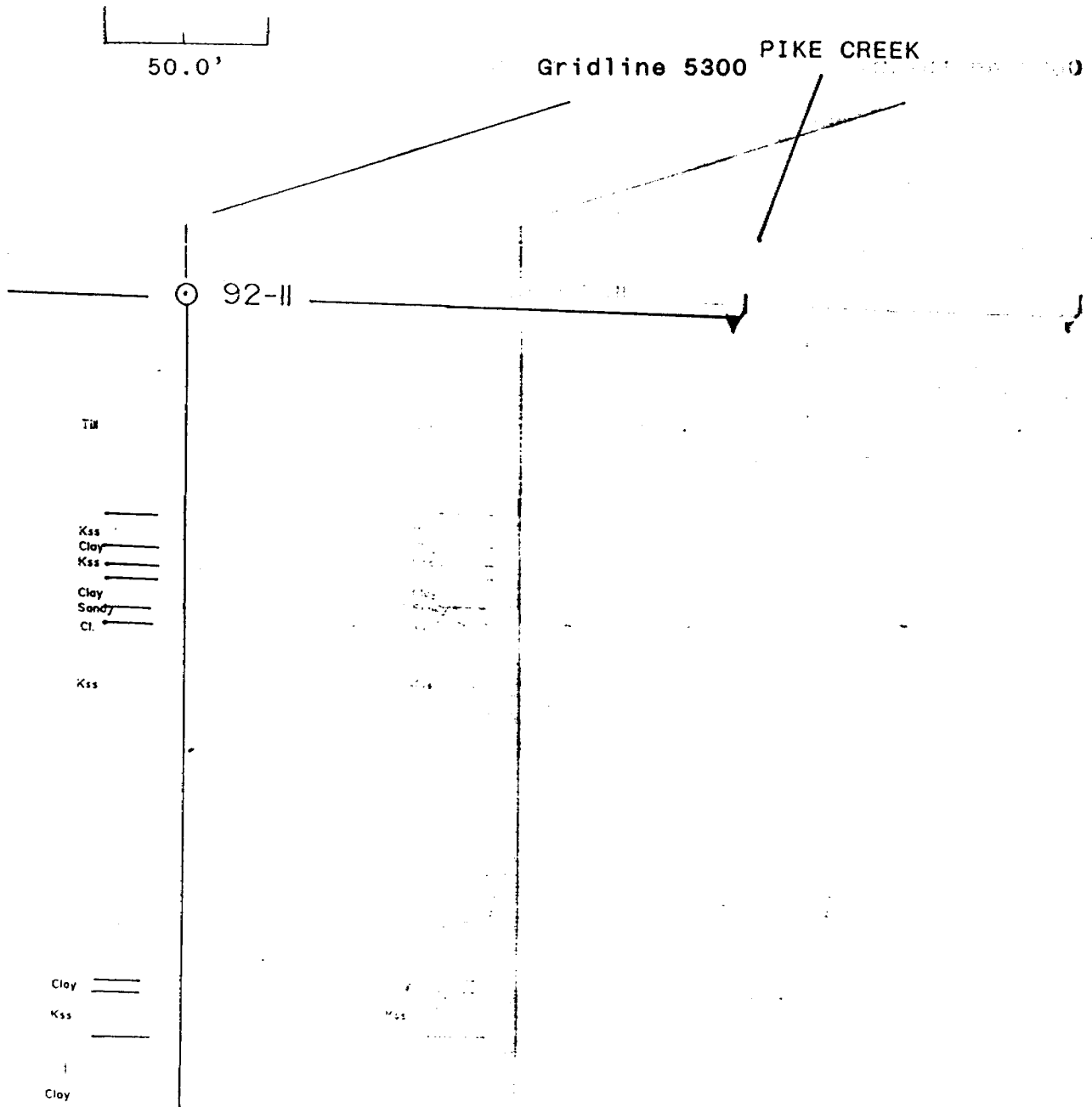
			dolostone clasts - grey exterior, lighter interior, pitted colonial coral, 11.70% kaolin.
201.0'	205.0'	16782	Kss - as above, large dolostone at 203.5', very large solitary horn coral, 10.46% kaolin.
205.0'	209.0'	16783	Kss - as above from 205.0' - 206.0', then becoming medium grain with minor illite and heavies, buff, 7.92% kaolin.
209.0'	213.0'	16784	Sandy Clay & Kss - medium grain, white kss with alternating fine grain sandy clay - pliable, dark buff, highly illitic, garnetiferous hematitic conglomerate, very large - drill cut at kss/sandy clay contact, high percentage garnet and hematite as heavies, 10.63% kaolin.
213.0'	216.0'	16785	Sandy Clay, Clay & Kss - as above, clay clots - pliable, medium brown and buff with discontinuous laminations, some carbonaceous material, sandy clay - as above - more clay-rich, 15.49% kaolin.
216.0'	219.0'	16786	Kss - chocolate brown, medium grain, minor illite and heavies, 4.66% kaolin.
219.0'	222.0'	16787	Kss - as above, last 2.0' coarse grain, beginning as coarse grain in a medium grain matrix, chocolate brown, minor illite and heavies, vari-coloured silica, 5.37% kaolin.
222.0'	225.0'	16788	Kss - coarse grain, as above, 4.0" of dark brown, illitic, pliable sandy clay at 224.0', 11.14% kaolin.
225.0'	229.25'	16789	Kss - medium grain, light brown, some yellow, external chocolate brown contamination, grading to coarse grain, vari-coloured silica, minor illite and heavies, 7.32% kaolin.
229.25'	232.0'	16790	Clay & Sandy Clay - alternating, extremely competent, chocolate brown clay, weakly fissile, carbonaceous, interbedded with buff illitic carbonaceous sandy clay, sulphureous smell, 70.25% kaolin.
232.0'	235.0'	N/S	Lignite - one solid piece - no clay.
235.0'	237.0'	16791	Clay - as above, 78.84% kaolin.

237.0'	242.0'	16792	Clay - as above, lower half lighter in colour due to areal exposure, excess core in the other box marked save, 79.59% kaolin.
242.0'	245.5'	16793	Clay - as previous, some rusty areas near first few feet as well as areas of powdery haematitic or lignitic material, some areas silty, 77.14% kaolin.
245.5'	246.0'	N/S	Lignite
246.0'	250.0'	16794	Clay - as above, upper 1.5' - highly lignitic, 71.14% kaolin.

EOH - 250.0'

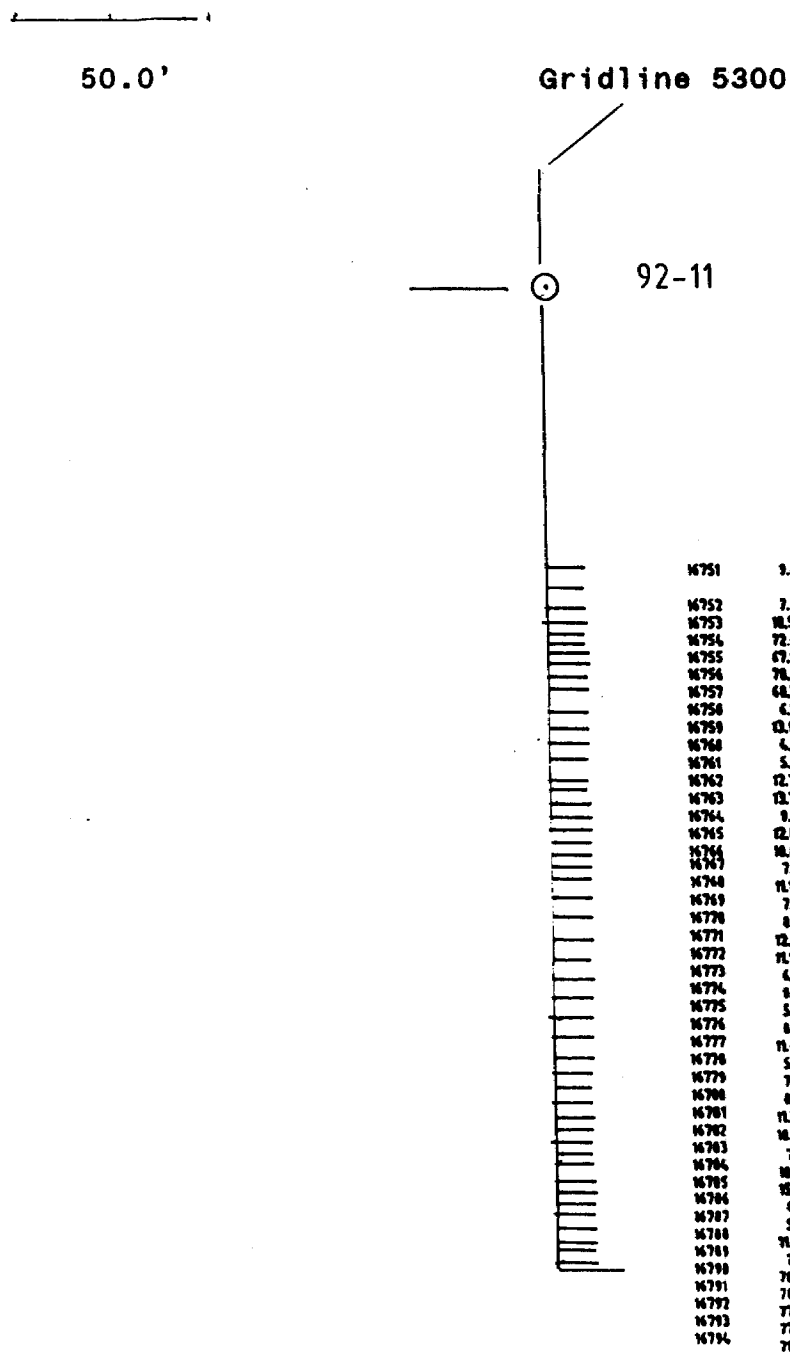
Section 92-11

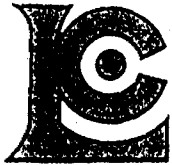
Claim No.: P 835800
Hole Length: 250.0'
Overburden Depth: 68.0'
Scale: 1.0" = 50.0' or 1:600
Astronomic Azimuth: 50° 09' 08" W. 82° 08' 53" N
Location: 470.0' at 215° to claim post no. 1
Northing: 750 N
Easting: 5300 E
Dip: -90°



Section 92-11

Claim No.: P 835800
 Hole Length: 250.0'
 Overburden Depth: 68.0'
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 Dip: -90°





Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project: KIPLING
 Comments: ATTN: A. CASSELMAN

Page Number: 3
 Total Pages: 4
 Certificate Date: 30-JUN-91
 Invoice No.: 19315475
 P.O. Number: 0054
 Account: KJE

CERTIFICATE OF ANALYSIS A9315475

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16742	208 226	1.97	0.12	0.09	1.33	0.08	0.03	< 0.01	0.04	0.04	94.79	0.27	1.54	100.30
16743	208 226	29.12	0.20	0.01	2.69	0.59	0.19	< 0.01	< 0.01	< 0.01	53.07	1.15	13.58	100.65
16751	208 226	3.87	0.50	0.16	0.83	0.18	0.19	< 0.01	0.19	0.09	91.59	0.14	1.73	99.48
16752	208 226	3.11	2.21	0.07	1.02	0.33	0.70	< 0.01	< 0.01	0.02	88.17	0.17	3.20	99.02
16753	208 226	7.33	0.82	0.01	0.72	0.29	0.28	< 0.01	0.07	0.02	87.89	0.23	3.67	101.35
16754	208 226	28.44	0.91	0.03	1.25	0.66	0.40	< 0.01	0.11	< 0.01	53.44	1.00	12.93	99.19
16755	208 226	26.51	0.37	0.02	1.00	0.45	0.19	< 0.01	< 0.01	0.02	53.31	1.07	18.22	101.20
16756	208 226	31.16	0.22	0.01	1.47	0.65	0.19	< 0.01	< 0.01	0.01	52.32	1.09	13.34	100.50
16757	208 226	27.00	0.20	0.01	1.39	0.46	0.17	< 0.01	< 0.01	0.02	58.07	1.10	12.03	100.45
16758	208 226	2.46	0.02	< 0.01	0.48	0.17	< 0.01	< 0.01	< 0.01	0.02	95.50	0.20	1.05	99.94
16759	208 226	5.50	< 0.01	< 0.01	0.69	0.26	< 0.01	< 0.01	< 0.01	< 0.01	90.98	0.36	2.49	100.35
16760	208 226	1.88	0.02	< 0.01	0.72	0.22	< 0.01	< 0.01	< 0.01	< 0.01	95.59	0.14	0.88	99.50
16761	208 226	2.02	< 0.01	< 0.01	0.42	0.25	< 0.01	< 0.01	< 0.01	< 0.01	95.60	0.12	0.92	99.39
16762	208 226	5.05	0.10	0.04	0.70	0.24	0.05	< 0.01	0.06	0.04	91.39	0.26	2.16	100.10
16763	208 226	5.42	0.19	0.13	0.71	0.21	0.10	< 0.01	0.21	0.14	90.51	0.18	1.76	99.57
16764	208 226	3.62	0.12	0.09	0.59	0.19	0.05	< 0.01	0.13	0.06	94.01	0.19	1.45	100.50
16765	208 226	5.06	0.11	0.07	0.62	0.20	0.06	< 0.01	0.10	0.06	91.23	0.23	2.07	99.82
16766	208 226	4.28	0.26	0.22	0.86	0.15	0.15	< 0.01	0.34	0.19	91.50	0.24	1.45	99.65
16767	208 226	3.10	0.11	0.09	0.66	0.12	0.06	< 0.01	0.11	0.06	94.41	0.15	1.38	100.25
16768	208 226	4.39	0.25	0.20	0.95	0.15	0.13	< 0.01	0.31	0.18	91.59	0.12	1.45	99.73
16769	208 226	2.78	0.22	0.06	1.23	0.17	0.03	< 0.01	0.03	0.04	94.62	0.11	1.39	100.70
16770	208 226	3.22	0.22	0.11	1.22	0.20	0.06	< 0.01	0.12	0.07	93.61	0.13	1.44	100.40
16771	208 226	5.04	< 0.01	0.02	0.59	0.28	< 0.01	< 0.01	< 0.01	< 0.01	92.25	0.28	2.04	100.55
16772	208 226	4.41	0.11	0.09	0.44	0.23	0.06	< 0.01	0.12	0.07	92.63	0.10	1.82	100.10
16773	208 226	2.43	0.18	0.12	1.37	0.09	0.07	< 0.01	0.15	0.07	93.99	0.09	1.25	99.82
16774	208 226	3.94	0.13	0.12	0.68	0.11	0.07	< 0.01	0.14	0.08	92.59	0.18	1.56	99.61
16775	208 226	2.18	0.07	0.07	0.67	0.10	0.03	< 0.01	0.06	0.04	95.50	0.06	0.94	99.73
16776	208 226	3.33	0.10	0.07	0.90	0.10	0.03	< 0.01	0.08	0.04	93.90	0.10	1.49	100.15
16777	208 226	4.67	0.15	0.01	2.16	0.10	0.01	0.01	< 0.01	0.03	90.80	0.16	2.80	100.90
16778	208 226	2.05	0.08	0.04	0.95	0.08	0.01	< 0.01	0.03	0.03	95.09	0.05	0.95	99.37
16779	208 226	3.06	0.14	0.10	1.35	0.10	0.04	0.01	0.11	0.08	93.50	0.10	1.33	99.92
16780	208 226	3.27	0.22	0.18	1.66	0.11	0.09	< 0.01	0.24	0.17	92.59	0.16	1.06	99.76
16781	208 226	4.62	0.06	0.06	0.70	0.12	0.02	< 0.01	0.02	0.03	92.10	0.36	1.88	99.98
16782	208 226	4.13	0.06	0.07	0.60	0.14	0.02	< 0.01	0.03	0.04	93.01	0.25	1.56	99.92
16783	208 226	3.13	0.08	0.08	0.60	0.12	0.03	< 0.01	0.07	0.05	95.23	0.16	1.15	100.70
16784	208 226	4.20	0.15	0.08	1.60	0.10	0.06	< 0.01	0.07	0.04	91.92	0.35	2.12	100.70
16785	208 226	6.12	0.10	0.06	0.70	0.12	0.06	< 0.01	0.06	0.05	90.71	0.25	2.51	100.75
16786	208 226	1.84	0.03	0.03	0.52	0.05	0.02	< 0.01	0.03	0.02	96.50	0.05	0.83	99.93
16787	208 226	2.12	0.05	0.08	0.83	0.08	0.01	< 0.01	0.02	0.02	91.92	0.17	5.25	100.55
16788	208 226	4.40	0.09	0.08	0.88	0.14	0.03	< 0.01	0.07	0.04	92.64	0.32	1.89	100.60

CERTIFICATION:

Hart Schler



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

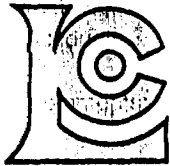
Project: KIPLING
 Comments: ATTN: A. CASSELMAN

Page Number : 4
 Total Pages : 4
 Certificate Date: 30-JUN-93
 Invoice No. : 19315475
 P.O. Number : 0054
 Account : KJE

CERTIFICATE OF ANALYSIS A9315475

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16789	208 226	2.89	0.13	0.07	1.09	0.13	0.04	< 0.01	0.10	0.05	93.50	0.26	1.42	99.69
16790	208 226	27.75	0.16	0.03	1.39	0.45	0.09	< 0.01	< 0.01	< 0.01	55.86	1.01	13.67	100.45
16791	208 226	31.14	0.20	0.02	1.44	0.42	0.14	< 0.01	0.01	< 0.01	49.01	1.03	15.96	99.39
16792	208 226	31.44	0.29	0.03	1.63	0.66	0.27	< 0.01	0.05	< 0.01	47.94	1.09	16.75	100.15
16793	208 226	30.47	0.37	0.03	3.17	0.53	0.33	0.01	0.04	< 0.01	43.06	1.09	19.82	98.93
16794	208 226	28.10	0.29	0.03	2.00	0.51	0.44	< 0.01	0.05	< 0.01	51.53	1.29	16.30	100.55
16801	208 226	4.34	0.07	0.07	0.57	0.20	0.03	< 0.01	0.02	0.01	93.43	0.15	1.93	100.85
16802	208 226	27.41	0.20	0.03	1.37	0.54	0.15	< 0.01	0.03	< 0.01	57.55	1.17	11.83	100.30
16803	208 226	3.87	0.02	0.06	0.50	0.06	0.01	< 0.01	< 0.01	0.02	93.99	0.42	1.89	100.85
16804	208 226	3.67	0.03	0.07	0.55	0.10	0.01	< 0.01	0.01	0.02	94.24	0.24	1.68	100.65
16805	208 226	3.64	0.02	0.06	0.41	0.10	0.01	< 0.01	< 0.01	0.01	94.31	0.12	1.79	100.50

CERTIFICATION: *Hart Buchler*



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 5 4 7 5

BILLING INFORMATION

Date: 2-JUL-93
Project: KIPLING
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9315475

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
131	A-12 W.R.A ICP O-5 lb prep quote	18.00 3.51	21.51	2817.81
			Total Cost \$	2817.81
			(Reg# R100938885) GST \$	<u>197.25</u>
			TOTAL PAYABLE (CDN) \$	3015.06

COPY

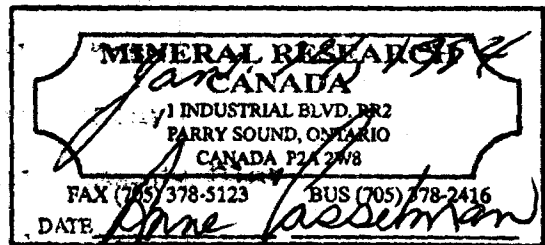
SONIC DRILL HOLE RECORD

Drilling Started: Mar. 3, 1992
 Drilling Finished: Mar. 4, 1992
 Drilling Co.: J. R. Drilling
 Dip: -90°
 Hole Length: 250.0'
 Overburden Depth: 47.0'
 Claim No.: P 825807
 Easting: 5550 E
 Northing: 640 N
 Azimuth: 50° 09' 05" W. 82° 08' 47" N.
 Location: 1260.0' at 231° To Claim Post No. 1
 Property: Kipling

Logged By: A. Casselman
 Logged: Feb. 19, 1993
 Core Size: 3.5"
 Core Storage:
 Mineral Research Canada
 R. R. # 2
 Parry Sound, ON
 P2A 2W8
 Hole No.: 92-12

SUMMARY

From	To	Description
0.0'	17.0'	Recent Fluvial Sediments
17.0'	47.0'	Glacial Clay Till Overburden - Pleistocene
47.0'	52.0'	Contact Zone Pleistocene/Cretaceous
52.25'	56.75'	Clay
56.75'	83.0'	Kaolin Silica Sand (Kss)
83.5'	95.5'	Clay
95.5'	163.75'	Kss
163.75'	168.0'	Clay
168.0'	172.0'	Clay & Sandy Clay
172.0'	217.0'	Kss
217.0'	222.0'	Clay
222.0'	224.0'	Sandy Clay
224.0'	233.5'	Kss
233.5'	238.0'	Clay
238.0'	242.0'	Kss
242.0'	250.0'	Clay



Detail Log 92-12

From	To	Sample No.	Description
0.0'	17.0'		Recent Fluvial Sediments - fine grain clay-rich silt - dark green/brown, with some rust staining.
17.0'	47.0'		Glacial Clay Till - dark green/brown, calcareous, frequent gneissic and carbonate clasts.
47.0'	52.25'	16801	Kss - slightly calcareous exterior, fine grain, coarsening downsection to coarse grain, vari-coloured silica, minor illite and heavies, 10.99% kaolin.
52.25'	56.75'	16802	Clay - buff, pliable, competent, some kss contamination, some carbonaceous material, darkening downsection, 69.39% kaolin.
56.75'	62.0'	16803	Kss - medium grain, light brown, with some darker and yellow areas, minor illite and heavies, two 3.0" sandy clay seams at 58.0' & 60.0', medium brown, pliable, illitic, 9.80% kaolin.
62.0'	67.0'	16804	Kss - medium grain, light brown, frequent coarse vari-coloured silica, clay enrichment downsection, chocolate brown and buff clay clotting, 9.29% kaolin.
67.0'	72.0'	16805	Kss - as above, some areas of clay enrichment somewhat dried in upper portion due to areal exposure, white clay clotting, powdery yellow/brown hematite areas, 9.22% kaolin.
72.0'	77.0'	16806	Kss - as above, 12.03% kaolin.
77.0'	79.0'	16807	Kss - as above, 10.86% kaolin.
79.0'	83.0'	16808	Kss - medium grain, white, grading downsection to medium grey, some external yellow/brown contamination, minor illite and heavies, clay enrichment at lower contact - approximately 1.0', 7.59% kaolin.
83.0'	90.0'	16809	Clay - pliable, to weakly fissile, non-competent, medium brown darkening

downsection, yellow at upper contact, some mottling with kss due to drilling action, 84.0' - 90.0' - chocolate brown - almost black, carbonaceous, large lignitic fragments, 65.14% kaolin.

90.0'	94.0'	16810	Clay - chocolate brown, weakly pliable, as above, 56.99% kaolin.
94.0'	95.5'	16811	Clay - as above, for first 0.5' - then becoming highly pliable and medium brown from very dark chocolate brown with yellow laminations, lightening downsection, 61.42% kaolin.
95.5'	98.0'	16812	Kss - medium grain, white, minor illite and heavies, external chocolate brown contamination, 5.72% kaolin.
98.0'	102.0'	16813	Kss - medium grain, with coarser vari-coloured silica in certain horizons with associated heavies causing a grey colouration, 7.85% kaolin.
102.0'	106.0'	16814	Kss - coarse grain in a medium grain matrix, white, some clay clotting, less heavies concentration, drill core gouging, white pliable clay clots, 11.57% kaolin.
106.0'	110.0'	16815	Kss - as above, one Devonian clast - pitted, light grey, sub-rounded at 109.0', 10.20% kaolin.
110.0'	114.0'	16816	Kss - as above, medium brown, lighter and darker laminations, 4.0" pliable medium brown clay seam at 111.0', 11.37% kaolin.
114.0'	118.0'	16817	Kss - as above, 10.57% kaolin.
118.0'	122.0'	16818	Kss - as above, powdery hematitic areas and black areas, 15.77% kaolin.
122.0'	127.0'	16819	Kss - medium grain, white, minor illite and heavies, 6.78% kaolin.
127.0'	132.0'	16820	Kss - as above, some sandy clay clotting, medium brown, illitic, 8.00% kaolin.
132.0'	137.0'	16821	Kss - as above, 8.23% kaolin.
137.0'	142.0'	16822	Kss - as above, 7.47% kaolin.
142.0'	147.0'	16823	Kss - medium grain, light to medium grey where heavies (garnet) concentrate, very

high percentage heavies some rusty areas, larger vari-coloured silica, minor illite, 7.54% kaolin.

- 147.0' 152.0' 16824 Kss - medium grain, as above, rusty becoming white and heavies free, dried for last third of the core, 8.51% kaolin.
- 152.0' 157.0' 16825 Kss - as above, very small amounts of a very white powdery mineral (not kaolin), 7.19% kaolin.
- 157.0' 161.0' 16826 Kss - as above, coarse grain, vari-coloured silica, light brown, 9.90% kaolin.
- 161.0' 163.75' 16827 Kss - as above (medium brown), until 162.5' - a 1.0" pliable medium brown clay seam, then fine grain kss, medium yellow/brown with minor illite and heavies, much external carbonaceous contamination, yellow area as well as black areas at lower contact, 9.72% kaolin.
- 163.75' 167.0' 16828 Clay - black, fissile, almost half carbonaceous material, *in situ* sulphide formation apparent lignite replacement, elongated, oval in cross section, some lighter buff sections in clay, highly competent, drill core gouging, lightening downsection and becoming more pliable and less carbonaceous, 41.72% kaolin.
- 167.0' 168.0' 16829 Clay - competent, fissile, greasy, angular disc-like, buff and yellow becoming medium brown, 76.41% kaolin.
- 168.0' 172.0' 16830 Clay & Sandy Clay - alternating, pliable, competent chocolate brown mottled with lighter brown clay, sandy clay - illitic very fine grain, some yellow at upper contact, 55.49% kaolin.
- 172.0' 179.0' 16831 Kss - medium grain, light brown, minor illite and heavies, some darker sandy clay areas, high percentage apparent garnets, small area of white powdery mineral, 11.59% kaolin.
- 179.0' 184.0' 16832 Kss - as above, becoming darker brown and very clay-rich sandy clay, medium grain, pliable, some areas of coarse grain in a medium grain matrix with clay clotting, light brown, pliable, 17.65% kaolin.

184.0'	189.0'	16833	Kss - medium grain, coarser areas, garnet concentrations, some clay enrichment, light brown, minor illite, 10.99% kaolin.
189.0'	194.0'	16834	Kss - medium grain, light brown, carbonaceous in some areas, minor illite and heavies, some sandy clay, 8.46% kaolin.
194.0'	199.0'	16835	Kss - as above, some areas of powdery white mineral, extremely coarse grain clasts in medium grey horizons that have garnet concentrations, 8.96% kaolin.
199.0'	204.0'	16836	Kss - extremely coarse grain in a medium grain matrix, some white pliable clay clotting, white, several Devonian clasts, round to sub-angular, dark grey, extremely fossiliferous, coral, 11.57% kaolin.
204.0'	207.0'	16837	Kss - as above, much external contamination, yellow/brown, 12.23% kaolin.
207.0'	209.0'	16838	Kss - as above, fewer large clasts, generally smaller than previous, 10.38% kaolin.
209.0'	212.0'	16839	Kss - medium brown and yellow from 205.0' - 211.0', sulphureous smell, coarse grain, some medium grain matrix, <i>in situ</i> sulphide formation - pyrite crystals on the surface of a dolostone clast, dark sub-rounded, fossiliferous, 211.0' - 212.0' - medium grain, medium brown, minor illite and heavies, becoming fine grain, nearly sandy clay, 14.94% kaolin.
212.0'	217.0'	16840	Kss - medium grain, as above, some coarser clasts, some sandy clay clotting, <i>in situ</i> sulphide formation at 212.25' - pyritic cementing of silica grains to form four conglomerate clasts, prolate along the bedding plane, sulphureous smell, 11.90% kaolin.
217.0'	220.0'	16841	Clay - chocolate brown, competent, fissile, carbonaceous, 70.68% kaolin.
220.0'	222.0'	16842	Clay - chocolate brown, lighter than above, less carbonaceous material, pliable, 84.41% kaolin.
222.0'	224.0'	16843	Sandy Clay - light brown, pliable, fine grain, illitic, alternating with black carbonaceous laminations, sulphureous smell,

36.30% kaolin.

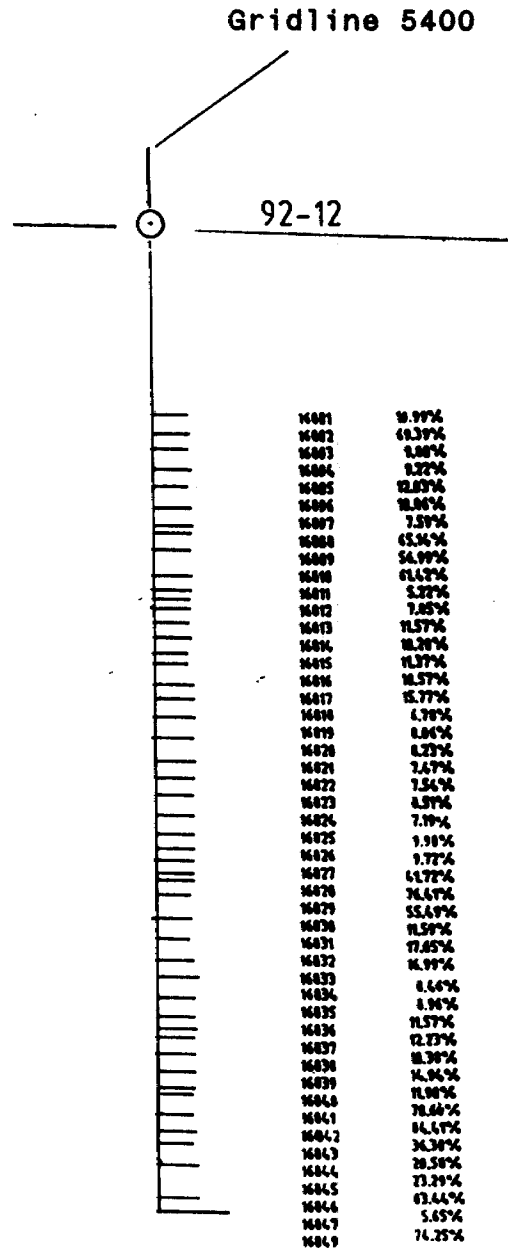
- 224.0' 228.0' 16844 Kss - fine grain, with large lignitic fragments, light brown, minor illite, 20.58% kaolin.
- 228.0' 233.5' 16845 Kss - at 228.0' - 2.0" chocolate brown pliable clay, then 2.0" of sandy clay as previous, then chocolate brown medium grain kss, minor illite, then sandy clay, 23.29% kaolin.
- 233.5' 236.0' 16846 Clay - chocolate brown, competent, weakly pliable, carbonaceous, 83.44% kaolin.
- 236.0' 242.0' 16847 Kss - medium grain, chocolate brown, high percentage illite, very moist, 5.65% kaolin.
- 242.0' 250.0' 16848 Clay - chocolate brown, fissile, competent, carbonaceous, red hematitic powdery areas, 74.25% kaolin.

EOH - 250.0'

Section 92-12

 Claim No.: P825802
 Hole Length: 250.0'
 Overburden Depth: 47.0'
 Scale: 1.0" = 50.0' or 1:600
 Astronomic Azimuth: 50° 09' 05" W. 82° 08' 47" N
 Location: 1260.0' at 231° to claim post no. 1
 Northing: 640 N
 Easting: 5550 E
 Dip: -90°

 50.0'





Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project: KIPLING
 Comments: ATTN: A. CASSELMAN

Page Number : 4
 Total Pages : 4
 Certificate Date: 30-JUN-93
 Invoice No. : I9315475
 P.O. Number : 0054
 Account : KJE

CERTIFICATE OF ANALYSIS A9315475

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16789	208 226	2.89	0.13	0.07	1.09	0.13	0.04	< 0.01	0.10	0.05	93.50	0.26	1.42	99.69
16790	208 226	27.75	0.16	0.03	1.39	0.45	0.09	< 0.01	< 0.01	< 0.01	55.86	1.01	13.67	100.45
16791	208 226	31.14	0.20	0.02	1.44	0.42	0.14	< 0.01	0.01	< 0.01	49.01	1.03	15.96	99.39
16792	208 226	31.44	0.29	0.03	1.63	0.66	0.27	< 0.01	0.05	< 0.01	47.94	1.09	16.75	100.15
16793	208 226	30.47	0.37	0.03	3.17	0.53	0.33	0.01	0.04	< 0.01	43.06	1.09	19.82	98.93
16794	208 226	28.10	0.29	0.03	2.00	0.51	0.44	< 0.01	0.05	< 0.01	51.53	1.29	16.30	100.55
16801	208 226	4.34	0.07	0.07	0.57	0.20	0.03	< 0.01	0.02	0.01	93.43	0.15	1.93	100.85
16802	208 226	27.41	0.20	0.03	1.37	0.54	0.15	< 0.01	0.03	< 0.01	57.55	1.17	11.83	100.30
16803	208 226	3.87	0.02	0.06	0.50	0.06	0.01	< 0.01	< 0.01	0.02	93.99	0.42	1.89	100.85
16804	208 226	3.67	0.03	0.07	0.55	0.10	0.01	< 0.01	0.01	0.02	94.24	0.24	1.68	100.65
16805	208 226	3.64	0.02	0.06	0.41	0.10	0.01	< 0.01	< 0.01	0.01	94.31	0.12	1.79	100.50

Handwritten signature

CERTIFICATION:



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 5 4 7 5

BILLING INFORMATION

Date: 2-JUL-93
Project: KIPLING
P.O. No.: 0054
Account: KJE

Comments: 9301011

Billing: For analysis performed on
Certificate A9315475

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
131	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	2817.81
Total Cost \$				2817.81
(Reg# R100938885) GST \$				197.25
TOTAL PAYABLE (CDN) \$				3015.06

COPY



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project: KIPLING
 Comments: ATTN: A. CASSELMAN

Page Number : 1
 Total Pages : 2
 Certificate Date: 25-JUN-93
 Invoice No. : 19315471
 P.O. Number : 0054
 Account : KJE

CERTIFICATE OF ANALYSIS A9315471

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
13226	208 226	2.88	0.11	0.04	0.50	0.09	0.07	< 0.01	0.07	0.03	95.78	0.11	1.21	100.90
13227	208 226	2.10	0.08	0.05	0.32	0.07	0.04	< 0.01	0.08	0.04	96.78	0.10	0.97	100.65
13228	208 226	4.67	0.13	0.08	0.34	0.10	0.06	< 0.01	0.12	0.07	92.39	0.14	1.89	100.00
13229	208 226	19.12	0.19	0.07	0.96	0.32	0.15	< 0.01	0.11	0.12	70.23	0.86	7.96	100.10
13230	208 226	2.52	0.09	0.06	0.35	0.05	0.04	< 0.01	0.08	0.05	95.92	0.19	1.10	100.45
13231	208 226	1.93	0.10	0.03	0.30	0.05	0.03	< 0.01	0.07	0.04	96.93	0.26	0.83	100.60
13232	208 226	1.53	0.02	0.02	0.24	0.04	0.01	< 0.01	0.02	0.03	97.59	0.10	0.67	100.30
13233	208 226	2.39	0.13	0.01	0.41	0.06	0.02	< 0.01	0.02	0.03	96.50	0.14	1.05	100.75
13234	208 226	2.64	0.08	< 0.01	0.26	0.06	0.01	< 0.01	0.02	0.02	96.54	0.17	1.08	100.90
13235	208 226	2.70	0.02	0.01	0.22	0.06	0.01	< 0.01	< 0.01	0.02	96.29	0.17	1.11	100.65
13236	208 226	1.71	< 0.01	< 0.01	0.18	0.04	0.01	< 0.01	< 0.01	0.01	97.69	0.07	0.72	100.45
13237	208 226	1.97	< 0.01	< 0.01	0.20	0.05	< 0.01	< 0.01	< 0.01	0.02	97.40	0.07	0.77	100.55
13238	208 226	2.95	< 0.01	< 0.01	0.24	0.06	< 0.01	< 0.01	< 0.01	0.02	95.51	0.16	1.13	100.10
13239	208 226	3.57	0.04	0.04	0.67	0.09	0.01	< 0.01	< 0.01	0.04	94.16	0.49	1.42	100.55
13240	208 226	2.69	0.02	0.02	0.32	0.07	0.01	< 0.01	0.01	0.03	96.40	0.31	1.09	101.00
13721	208 226	2.01	< 0.01	0.01	0.33	0.08	< 0.01	< 0.01	< 0.01	0.02	97.30	0.13	0.82	100.75
13722	208 226	3.93	0.03	0.01	0.41	0.07	0.01	< 0.01	< 0.01	0.02	94.12	0.25	1.66	100.55
13723	208 226	8.41	0.08	0.03	0.55	0.15	0.06	< 0.01	0.03	0.08	87.14	0.45	3.62	100.60
13724	208 226	22.25	0.44	< 0.01	1.02	0.62	0.25	< 0.01	0.04	0.11	57.36	1.16	17.47	100.75
13725	208 226	20.78	0.41	< 0.01	0.92	0.51	0.22	< 0.01	0.02	0.09	58.70	1.14	18.13	100.95
13726	208 226	3.47	0.03	< 0.01	0.38	0.05	0.01	< 0.01	0.02	0.03	94.72	0.28	1.53	100.55
13727	208 226	3.09	0.02	< 0.01	0.40	0.05	0.01	< 0.01	< 0.01	0.02	95.23	0.31	1.23	100.40
13728	208 226	3.15	0.06	< 0.01	0.37	0.06	0.02	< 0.01	0.02	0.03	95.33	0.26	1.21	100.55
13729	208 226	3.22	0.03	< 0.01	0.48	0.05	0.01	< 0.01	< 0.01	0.03	95.21	0.27	1.30	100.65
13730	208 226	3.70	0.06	< 0.01	0.47	0.06	0.02	< 0.01	0.02	0.03	94.71	0.17	1.46	100.70
16806	208 226	4.75	0.08	< 0.01	0.31	0.12	0.03	< 0.01	0.01	0.04	92.69	0.17	1.84	100.05
16807	208 226	4.29	0.03	< 0.01	0.35	0.14	0.02	< 0.01	< 0.01	0.03	93.86	0.12	1.63	100.50
16808	208 226	3.00	0.02	< 0.01	0.28	0.10	0.01	< 0.01	< 0.01	0.02	95.54	0.12	1.15	100.25
16809	208 226	25.73	0.34	< 0.01	1.18	0.55	0.22	< 0.01	0.03	0.11	53.06	1.07	18.77	101.10
16810	208 226	22.51	0.52	< 0.01	1.22	0.59	0.29	< 0.01	0.05	0.10	50.44	1.04	24.18	100.95
16811	208 226	24.26	0.33	< 0.01	1.63	0.70	0.30	< 0.01	0.04	0.14	60.59	1.17	12.09	101.25
16812	208 226	2.26	0.07	0.07	0.31	0.12	0.04	< 0.01	0.09	0.06	96.19	0.09	0.94	100.25
16813	208 226	3.10	0.06	0.08	0.38	0.13	0.04	< 0.01	0.07	0.06	94.42	0.47	1.25	100.05
16814	208 226	4.57	0.05	0.05	0.29	0.14	0.03	< 0.01	0.04	0.05	93.55	0.18	1.72	100.70
16815	208 226	4.03	0.02	0.02	0.27	0.13	0.02	< 0.01	0.01	0.03	94.51	0.13	1.56	100.75
16816	208 226	4.49	< 0.01	< 0.01	0.29	0.15	0.01	< 0.01	< 0.01	0.03	93.88	0.19	1.82	100.90
16817	208 226	4.15	0.11	0.13	0.59	0.11	0.07	< 0.01	0.14	0.08	93.53	0.17	1.77	100.85
16818	208 226	6.23	0.15	0.15	0.49	0.11	0.09	< 0.01	0.20	0.09	90.35	0.28	2.42	100.55
16819	208 226	2.68	0.07	< 0.01	0.18	0.09	0.03	< 0.01	< 0.01	0.02	95.73	0.19	1.13	100.15
16820	208 226	3.16	0.05	0.02	0.22	0.09	0.04	< 0.01	< 0.01	0.03	95.49	0.20	1.23	100.55

Hart Buchler

CERTIFICATION: _____



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 5 4 7 1

BILLING INFORMATION

Date: 25-JUN-93
Project: KIPLING
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9315471

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
--------------	---------------------------------	------------	--------------	--------

45	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	967.95
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Total Cost \$ 967.95
(Reg# R100938885) GST \$ 67.76

TOTAL PAYABLE (CDN) \$ 1035.71

COPY



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project: KIPLING
Comments: ATTN: A. CASSELMAN

Page Number :2
Total Pages :2
Certificate Date: 25-JUN-93
Invoice No. :19315471
P.O. Number :0054
Account :KJE

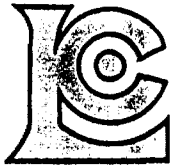
CERTIFICATE OF ANALYSIS

A9315471

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16821	208 226	3.27	0.01	< 0.01	0.21	0.10	0.01	< 0.01	< 0.01	0.02	94.95	0.13	1.26	99.99
16822	208 226	2.95	0.03	0.01	0.28	0.10	0.01	< 0.01	< 0.01	0.02	95.16	0.13	1.12	99.83
16823	208 226	2.98	0.22	< 0.01	2.30	0.17	< 0.01	0.03	< 0.01	< 0.01	92.80	0.08	1.93	100.55
16824	208 226	3.36	0.18	< 0.01	1.91	0.15	< 0.01	0.02	< 0.01	< 0.01	92.81	0.18	1.89	100.55
16825	208 226	2.84	< 0.01	< 0.01	0.24	0.14	< 0.01	< 0.01	< 0.01	< 0.01	96.14	0.04	1.11	100.55

CERTIFICATION:

Hart Bickler



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 5 4 7 1

BILLING INFORMATION

Date: 25-JUN-93
Project: KIPLING
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9315471

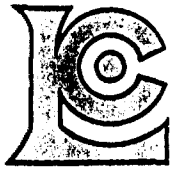
Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
45	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	967.95
Total Cost \$				967.95
(Reg# R100938885) GST \$				67.76
TOTAL PAYABLE (CDN) \$				1035.71

COPY



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

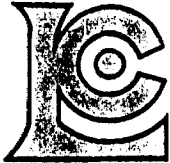
Project: KIPLING
Comments: ATTN: ANNE CASSELMAN

Page Number : 1
Total Pages : 1
Certificate Date: 07-SEP-93
Invoice No. : 19319990
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS A9319990

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16826	208 226	3.91	0.17	0.11	0.66	0.15	0.08	< 0.01	0.15	0.07	93.73	0.08	1.56	100.70
16827	208 226	3.84	0.17	0.08	0.52	0.09	0.09	< 0.01	0.14	0.08	93.05	0.14	1.77	99.98
16828	208 226	16.48	0.49	0.03	1.98	0.18	0.14	< 0.01	0.12	0.04	54.41	0.93	22.71	97.52
16829	208 226	30.18	0.22	0.04	1.53	0.52	0.17	< 0.01	0.15	0.03	54.62	1.10	12.07	100.65
16830	208 226	21.92	0.27	0.06	1.08	0.32	0.14	< 0.01	0.14	0.07	66.70	0.99	9.51	101.20
16831	208 226	4.58	0.18	0.07	0.69	0.11	0.07	< 0.01	0.12	0.07	92.48	0.15	1.77	100.30
16832	208 226	6.92	0.14	0.08	0.58	0.12	0.08	< 0.01	0.11	0.06	89.62	0.32	2.64	100.70
16833	208 226	4.34	0.36	0.09	1.84	0.10	0.08	0.01	0.11	0.07	90.46	0.62	2.09	100.15
16834	208 226	3.34	0.13	0.08	0.49	0.09	0.06	< 0.01	0.11	0.07	94.71	0.26	1.20	100.55
16835	208 226	3.54	0.13	0.11	0.64	0.10	0.06	< 0.01	0.11	0.09	93.43	0.43	1.28	99.93
16836	208 226	4.57	0.18	0.09	0.76	0.18	0.06	< 0.01	0.13	0.07	91.80	0.16	1.70	99.71
16837	208 226	4.83	0.17	0.08	0.66	0.24	0.06	< 0.01	0.13	0.09	91.82	0.11	1.78	99.98

CERTIFICATION: *Hart Buchler*



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 9 9 9 0

BILLING INFORMATION

Date: 9-SEP-93
Project: KIPLING
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9319990

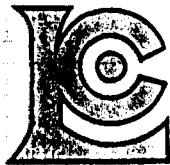
Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
12	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	258.12
Total Cost \$				258.12
(Reg# R100938885) GST \$				18.07
TOTAL PAYABLE (CDN) \$				276.19

COPY



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

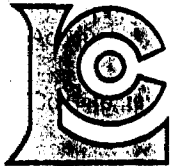
Project: KIPLING
Comments: ATTN: ANNE CASSELMAN

Page Number : 1
Total Pages : 1
Certificate Date: 05-SEP-93
Invoice No. : 19319993
P.O. Number : 0054
Account : KJE

CERTIFICATE OF ANALYSIS A9319993

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16838	208 226	4.10	0.17	0.05	0.43	0.20	0.07	< 0.01	0.14	0.07	93.72	0.08	1.31	100.35
16839	208 226	5.90	0.15	0.07	0.78	0.27	0.06	< 0.01	0.12	0.06	89.64	0.15	2.67	99.88
16840	208 226	4.70	0.16	0.10	1.05	0.22	0.07	< 0.01	0.14	0.07	90.06	0.29	3.56	100.45
16841	208 226	27.92	0.42	0.03	1.33	0.58	0.20	< 0.01	0.13	0.05	50.50	1.02	18.64	100.85
16842	208 226	33.34	0.29	0.01	1.30	0.65	0.19	< 0.01	0.11	0.07	47.67	1.07	15.82	100.55
16843	208 226	14.34	0.30	0.06	1.32	0.27	0.10	< 0.01	0.11	0.06	70.64	0.66	13.17	101.05
16844	208 226	8.13	0.20	0.06	0.80	0.28	0.07	< 0.01	0.10	0.06	83.46	0.36	6.45	99.98
16845	208 226	9.20	0.19	0.06	1.36	0.27	0.09	< 0.01	0.11	0.04	82.13	0.37	6.65	100.50
16846	208 226	32.96	0.33	0.01	1.62	0.66	0.28	< 0.01	0.12	0.04	45.48	1.05	18.22	100.80
16847	208 226	2.23	0.09	0.09	0.88	0.20	0.02	< 0.01	0.08	0.04	95.31	0.16	1.16	100.25
16848	208 226	29.33	0.41	0.01	4.98	0.61	0.34	0.03	0.10	0.03	45.48	1.02	18.10	100.45
16851	208 226	4.41	0.12	0.06	0.52	0.17	0.03	< 0.01	0.09	0.04	92.62	0.15	1.70	99.92
16852	208 226	22.05	0.38	0.04	1.60	0.40	0.17	0.01	0.12	0.06	62.16	1.17	12.55	100.70
16853	208 226	6.86	0.40	0.06	1.10	0.16	0.12	< 0.01	0.12	0.05	88.31	0.39	2.90	100.45
16854	208 226	3.64	0.09	0.03	0.38	0.11	0.02	< 0.01	0.08	0.04	93.98	0.22	1.12	99.72
16855	208 226	2.86	0.23	0.07	0.60	0.12	0.07	< 0.01	0.09	0.04	94.27	0.13	1.10	99.59
16856	208 226	25.13	0.33	0.05	1.50	0.51	0.23	< 0.01	0.11	0.05	61.18	1.20	10.77	101.05
16857	208 226	3.14	0.10	0.01	0.27	0.10	0.02	< 0.01	0.07	0.04	95.00	0.11	0.97	99.84
16858	208 226	4.12	0.10	0.02	0.38	0.06	0.02	< 0.01	0.08	0.04	93.71	0.18	1.20	99.92
16859	208 226	3.93	0.11	0.05	0.41	0.10	0.02	< 0.01	0.10	0.05	93.31	0.16	1.40	99.65
16860	208 226	6.95	0.33	0.08	2.14	0.17	0.04	0.02	0.10	0.04	86.60	0.43	3.03	99.93
16861	208 226	30.74	0.27	0.03	1.29	0.61	0.20	< 0.01	0.13	0.04	54.16	1.05	12.38	100.90
16862	208 226	20.44	0.24	0.03	1.36	0.37	0.18	< 0.01	0.11	0.06	68.22	1.19	8.43	100.65
16863	208 226	22.77	0.25	0.02	4.87	0.55	0.25	< 0.01	0.11	0.10	61.02	1.27	9.63	100.85
16864	208 226	18.45	0.21	0.03	3.05	0.48	0.20	< 0.01	0.09	0.11	69.20	1.07	7.91	100.80
16865	208 226	9.63	0.13	0.04	0.82	0.24	0.08	< 0.01	0.08	0.04	84.49	0.69	3.73	99.98
16866	208 226	4.88	0.10	0.04	0.48	0.16	0.03	< 0.01	0.08	0.06	91.62	0.43	1.79	99.68
16867	208 226	7.10	0.13	0.09	0.85	0.19	0.06	< 0.01	0.10	0.05	87.54	0.44	3.31	99.87
16868	208 226	8.19	0.13	0.07	0.57	0.22	0.06	< 0.01	0.11	0.06	87.97	0.37	2.69	100.45
16869	208 226	4.50	0.09	0.02	0.38	0.13	0.02	< 0.01	0.07	0.03	93.88	0.14	1.21	100.50
16870	208 226	2.81	0.07	0.03	0.40	0.11	0.01	< 0.01	0.06	0.04	95.68	0.19	0.87	100.30
16871	208 226	4.54	0.09	0.06	0.44	0.10	0.02	< 0.01	0.09	0.04	92.69	0.11	1.45	99.64

CERTIFICATION: *Haut Buchler*



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC. *

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 9 9 9 3

BILLING INFORMATION

Date: 7-SEP-93
Project: KIPLING
P.O. No.: 0054
Account: KJE
Comments: 930101T

Billing: For analysis performed on
Certificate A9319993

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
32	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	688.32
Total Cost \$				688.32
(Reg# R100938885) GST \$				48.18
TOTAL PAYABLE (CDN) \$				736.50

COPY

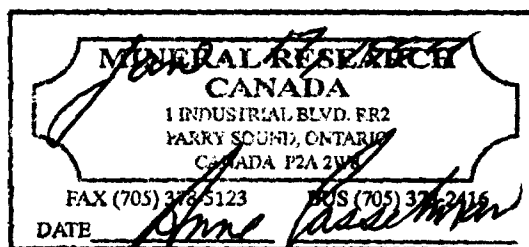
SONIC DRILL HOLE RECORD

Drilling Started: Mar. 1, 1992
 Drilling Finished: Mar. 1, 1992
 Drilling Co.: J. R. Drilling
 Dip: -90°
 Hole Length: 240.0'
 Overburden Depth: 55.0'
 Claim No.: P 825802
 Easting: 5500 E
 Northing: 360 N
 Azimuth: 50° 08' 59" W. 82° 08' 49" N.
 Location: 500.0' at 269° To Claim Post No. 1
 Property: Kipling

Logged By: A. Casselman
 Logged: Mar. 23, 1993
 Core Size: 3.5"
 Core Storage:
 Mineral Research Canada
 R. R. # 2
 Parry Sound, ON
 P2A 2W8

SUMMARY

From	To	Description
0.0'	55.0'	Glacial Clay Till Overburden - Pleistocene
55.0'	60.0'	Contact Zone - Kaolin S. S. - Glacial/Cretaceous
60.0'	61.5'	Clay
61.5'	78.0'	Kaolin Silica Sand (Kss)
78.0'	86.25'	Clay
86.25'	96.0'	Sandy Clay
96.0'	101.0'	Kss/Sandy Clay
101.0'	137.0'	Kss
137.0'	142.0'	Clay & Kss - alternating
142.0'	147.0'	Kss
147.0'	152.0'	Kss & Clay
152.0'	157.0'	Kss
157.0'	163.0'	Clay & Kss
161.0'	163.0'	Clay
163.0'	167.0'	Sandy Clay
167.0'	176.5'	Kss
176.5'	184.0'	Sandy Clay
184.0'	235.5'	Kss
235.5'	240.0'	Clay



EOH - 240.0'

Detail Log - 92-15

From	To	Sample No.	Description
0.0'	55.0'		Glacial Clay Till - competent, calcareous, dark green/brown, frequent gneissic and carbonate clasts - angular up to 3.5", some sandy areas.
55.0'	60.0'	16951	Contact Zone Kss - calcareous, dark green/brown, medium grain, 4.0% kaolin.
60.0'	61.5'	16952	Clay - chocolate brown with lighter brown discontinuous laminations, pliable, competent, external kss contamination, 58.33% kaolin.
61.5'	65.0'	16953	Kss - medium grain, light brown, minor illite and heavies, a finer, darker more clay-rich portion from 63.0' - 64.0', 7.32% kaolin.
65.0'	69.0'	16954	Kss - white, medium grain, minor illite and heavies, one area of yellow more clay-rich material, 6.91% kaolin.
69.0'	73.0'	16955	Kss - as above, some fine grain areas, 6.03% kaolin.
73.0'	78.0'	16956	Kss - as above, slightly coarser grain, 7.01% kaolin.
78.0'	81.0'	16957	Clay - drill core gouging, fragmented, medium brown with yellow discontinuous laminations, pliable, 74.61% kaolin.
81.0'	86.25'	16958	Clay - competent, silty, less so downsection, buff & yellow mottled to buff, red and yellow mottled to red and buff mottled to red, yellow & buff to buff & yellow with some purple areas to red & buff mottled, weakly pliable, 53.72% kaolin.
86.25'	91.0'	16959	Sandy Clay - buff, fine grain, grading downsection to clay-rich, fine grain, kss, some purple areas, some heavies, high percentage illite and large flake muscovite, 19.92% kaolin.
91.0'	96.0'	16960	Sandy Clay - as above, 15.54% kaolin.
96.0'	101.0'	16961	Kss/Sandy Clay - as above, less clay-rich, nearly kss, 16.0% kaolin.

101.0'	106.0'	16962	Kss - as above, 7.39% kaolin.
106.0'	111.0'	16963	Kss - fine grain, white, heavies banding in grey areas, minor illite and heavies, 8.94% kaolin.
111.0'	114.0'	16964	Kss - medium grain, white, minor illite and heavies, 4.81% kaolin.
114.0'	117.0'	16965	Kss - as above, large percentage heavies as garnet - some banding, 6.08% kaolin.
117.0'	122.0'	16966	Kss - medium grain, white, minor illite and heavies (garnet), rare larger smoky quartz clasts, 9.29% kaolin.
122.0'	127.0'	16967	Kss - white, medium grain grading downsection to coarse grain, vari-coloured silica, minor illite and heavies, 13.29% kaolin.
127.0'	132.0'	16968	Kss - as above, 9.01% kaolin.
132.0'	137.0'	16969	Kss - as above from 132.0' - 136.0', 136.0' - 137.0' - medium grain, yellow/brown with 3.0" of pliable light and medium brown discontinuous laminations, 13.70% kaolin.
137.0'	142.0'	16970	Clay & Kss - buff, pliable, competent, clay with some purple from 137.0' - 138.0', kss mottling first 3.0", 138.0' - 139.0' - kss/sandy clay - medium grain, yellow/brown, 139.0' - 140.0' - light yellow, medium grain kss, 140.0' - 142.0' - competent, pliable, buff with discontinuous medium brown laminations and coarse grain kss mottling at lower contact, 36.28% kaolin.
142.0'	147.0'	16971	Kss - clay-rich, with some light brown clay mottling at upper contact becoming medium grain, white, with minor heavies and illite, 11.98% kaolin.
147.0'	152.0'	16972	Kss & Clay - kss - 147.0' - 149.5' - medium grain, light brown, some clay mottling, clay-rich, larger clasts, 149.5' - 150.5' - clay - chocolate brown, fragmented, drill core gouging, pliable, 150.5' - 152.0' - kss - medium grain white, minor illite and heavies, rare larger sub-rounded vari-coloured silica,

23.32% kaolin.

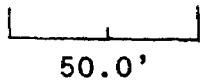
- 152.0' 157.0' 16973 Kss - medium grain, white, some yellow/brown contamination, frequent larger vari-coloured silica, minor illite and heavies, some finer grain grey areas, 6.25% kaolin.
- 157.0' 161.0' 16974 Clay & Kss - alternating - kss - medium brown, coarse grain in a medium grain matrix, some clay mottling from 157.0' - 158.0', 158.0' - 158.5' - clay - highly pliable, competent, medium brown with chocolate brown mottling, 158.5' - 159.5' - kss - medium grain, medium brown, minor illite and heavies, 159.5' - 160.5' - first 3/4 medium brown, pliable, competent chocolate brown, last 0.5' kss coarse grain, light brown with clay mottling, 34.30% kaolin.
- 161.0' 163.0' 16975 Clay - chocolate brown, competent, weakly pliable, more so downsection, illitic, some lighter silty laminations alternating, 50.10% kaolin.
- 163.0' 167.0' 16976 Sandy Clay - grading to Kss - light brown, fine grain, illitic, 18.28% kaolin.
- 167.0' 171.0' 16977 Kss - light brown, medium grain, minor illite and heavies, 9.70% kaolin.
- 171.0' 176.5' 16978 Kss - medium grain, white, minor illite and heavies, some clay clotting, buff, pliable at 171.0', last 1.5', clay-rich, light brown, 7.92% kaolin.
- 176.5' 184.0' 16979 Sandy Clay - buff, competent, weakly pliable, illitic, some chocolate clay mottling, fine grain, drill core gouging, fragmented in areas, 47.16% kaolin.
- 184.0' 191.0' 16980 Kss - medium grain, white, minor illite and heavies, 4.76% kaolin.
- 191.0' 196.0' 16981 Kss - as above, 5.39% kaolin.
- 196.0' 199.0' 16982 Kss - medium grain, becoming coarse grain in a medium grain matrix, vari-coloured silica, minor illite and heavies, 198.0' - 199.0' - buff, pliable illitic sandy clay, 22.33% kaolin.
- 199.0' 203.0' 16983 Kss - fine grain, light grey, minor illite and heavies, 16.33% kaolin.

203.0'	208.0'	16984	Kss - as above, high percentage heavies, drilling debris, 7.14% kaolin.
208.0'	212.0'	16985	Kss - medium grain, grading to coarse grain, minor illite and high percentage heavies, white, 8.53% kaolin.
212.0'	216.0'	16986	Kss - white, coarse grain, vari-coloured silica, Devonian siltstone clast, light grey, <i>in situ</i> hematite formation on surface, fossiliferous, unidentifiable, coral? at 213.0', 7.06% kaolin.
216.0'	220.0'	16987	Kss - as above from 216.0' - 217.0', 217.0' - 220.0' - medium grain, white, minor illite and heavies, 6.71% kaolin.
220.0'	225.0'	16988	Kss - as above, medium grain, high percentage heavies, garnet, some finer areas, 8.08% kaolin.
225.0'	230.0'	16989	Kss - light brown, medium grain, with frequent larger clasts, minor illite and heavies, sulphureous smell, 9.42% kaolin.
230.0'	235.0'	16990	Kss - as above, medium brown and grey, some yellow areas, 8.71% kaolin.
235.0'	237.5'	16991	Kss - chocolate brown, some yellow as above, some chocolate brown clay mottling, 13.04% kaolin.
237.5'	240.0'	16992	Clay - competent, chocolate brown, weakly pliable, yellow mottling, some sandy laminations, sulphureous smell, 59.19% kaolin.

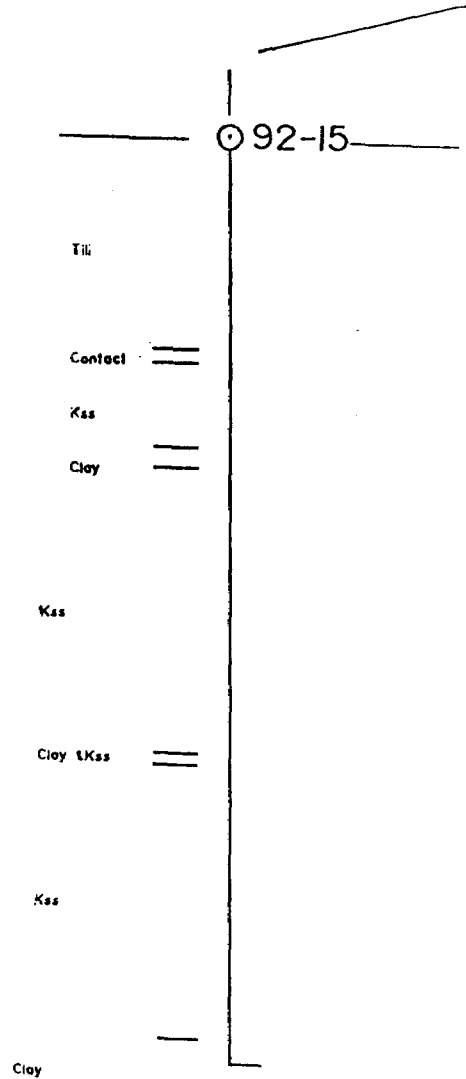
EOH - 240.0'

Section - 92-15

Claim No.: P 825802
Hole Length: 240.0'
Overburden Depth: 55.0'
Astronomic Azimuth: $50^{\circ} 08' 59''$ W. $82^{\circ} 08' 49''$ N
Location: 500.0' at 269° to claim post no. 1
Scale: 1.0" = 50.0'
Northing: 360 N
Easting: 5500 E
Dip: -90°



Gridline 5500

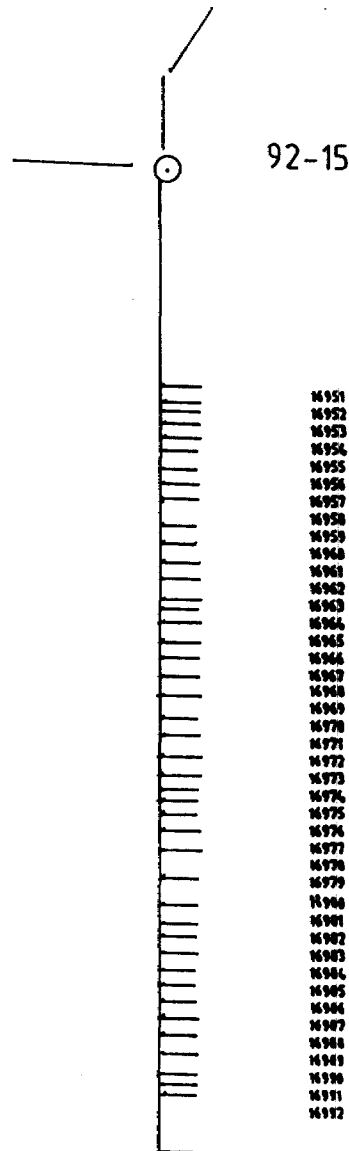


Section - 92-15

Claim No.: P 825802
 Hole Length: 240.0'
 Overburden Depth: 55.0'
 Astronomic Azimuth: 50° 08' 59" W. 82° 08' 49" N
 Location: 500.0' at 269° to claim post no. 1
 Scale: 1.0" = 50.0'
 Northing: 360 N
 Easting: 5500 E
 Dip: -90°

50.0'

Gridline 5500





Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 9 9 8 9

BILLING INFORMATION

Date: 10-SEP-93
Project: KIPLING
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9319989

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
42	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	903.42
Total Cost \$				903.42
(Reg# R100938885) GST \$				63.24
TOTAL PAYABLE (CDN) \$				966.66



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Page Number : 1
 Total Pages : 2
 Certificate Date: 08-SEP-93
 Invoice No. : 19319989
 P.O. Number : 0054
 Account : KJE

Project : KIPLING
 Comments : ATTN: ANNE CASSELMAN

CERTIFICATE OF ANALYSIS

A9319989

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
2130	208 226	19.00	0.32	0.08	1.20	0.33	0.17	< 0.01	0.13	0.10	69.76	0.88	8.73	100.70
2131	208 226	3.12	0.16	0.06	0.43	0.11	0.06	< 0.01	0.13	0.06	94.77	0.15	1.23	100.85
2132	208 226	4.17	0.17	0.09	0.65	0.13	0.07	< 0.01	0.14	0.07	92.29	0.24	1.53	99.56
2133	208 226	7.76	0.19	0.13	0.78	0.18	0.10	< 0.01	0.16	0.09	87.51	0.49	3.08	100.50
2134	208 226	14.46	0.24	0.10	0.93	0.40	0.18	< 0.01	0.18	0.09	77.17	0.89	5.99	100.65
2135	208 226	3.39	0.19	0.15	0.58	0.11	0.09	< 0.01	0.22	0.10	93.24	0.21	1.31	99.60
2136	208 226	8.28	0.32	0.16	1.02	0.17	0.14	< 0.01	0.23	0.12	85.58	0.32	3.44	99.83
2137	208 226	5.04	0.22	0.14	0.74	0.11	0.09	< 0.01	0.21	0.10	91.64	0.19	1.89	100.40
2138	208 226	14.19	0.43	0.19	1.14	0.19	0.15	< 0.01	0.24	0.11	74.11	0.76	8.78	100.50
2139	208 226	3.97	0.24	0.18	0.56	0.11	0.11	< 0.01	0.29	0.12	93.37	0.16	1.42	100.55
2140	208 226	5.10	0.21	0.16	0.75	0.10	0.08	< 0.01	0.20	0.09	91.08	0.24	1.85	99.87
2141	208 226	3.16	0.17	0.09	0.51	0.08	0.06	< 0.01	0.13	0.07	94.45	0.22	0.29	99.24
2142	208 226	4.22	0.17	0.07	0.64	0.09	0.06	< 0.01	0.11	0.06	92.61	0.25	1.71	100.00
2143	208 226	3.77	0.24	0.10	1.16	0.14	0.06	< 0.01	0.11	0.06	92.53	0.10	1.86	100.15
2144	208 226	3.33	0.13	0.04	0.37	0.10	0.04	< 0.01	0.11	0.06	93.90	0.11	1.30	99.50
2145	208 226	3.47	0.22	0.08	0.80	0.17	0.06	< 0.01	0.12	0.05	93.87	0.16	1.48	100.50
2146	208 226	16.19	0.45	0.08	0.94	0.22	0.13	< 0.01	0.14	0.08	72.00	0.80	9.63	100.65
2147	208 226	24.03	0.45	0.07	1.24	0.30	0.17	< 0.01	0.16	0.07	55.68	0.98	17.08	100.25
2323	208 226	20.00	0.25	0.09	1.18	0.40	0.15	< 0.01	0.16	0.07	67.18	0.88	10.16	100.55
2324	208 226	20.60	0.44	0.06	1.12	0.33	0.25	< 0.01	0.18	0.07	63.44	1.32	11.99	99.81
2325	208 226	24.34	0.53	0.05	1.21	0.67	0.39	< 0.01	0.17	0.05	53.79	1.20	18.40	100.80
2326	208 226	18.95	0.24	0.02	1.16	0.52	0.22	< 0.01	0.10	0.04	70.08	1.20	8.11	100.65
2327	208 226	5.01	0.15	0.05	0.56	0.24	0.05	< 0.01	0.06	0.03	92.10	0.26	2.04	100.55
2328	208 226	8.12	0.15	0.06	0.72	0.20	0.06	< 0.01	0.08	0.04	87.17	0.37	3.27	100.25
2329	208 226	29.47	0.23	0.06	1.11	0.40	0.13	< 0.01	0.09	0.04	56.36	0.99	12.01	100.90
2330	208 226	5.22	0.14	0.04	0.55	0.18	0.04	< 0.01	0.05	0.04	91.46	0.29	2.23	100.25
2331	208 226	3.46	0.14	0.06	0.50	0.08	0.04	< 0.01	0.07	0.04	94.50	0.11	1.44	100.45
2333	208 226	8.24	0.19	0.09	0.89	0.24	0.11	< 0.01	0.11	0.07	85.59	0.89	3.47	99.90
2334	208 226	3.14	0.14	0.04	0.51	0.11	0.06	< 0.01	0.06	0.04	95.07	0.12	1.32	100.60
2335	208 226	4.90	0.18	0.09	0.66	0.12	0.07	< 0.01	0.12	0.06	91.21	0.40	2.07	99.89
2336	208 226	5.09	0.15	0.03	0.49	0.11	0.04	< 0.01	0.06	0.04	90.72	0.19	2.06	98.99
16982	208 226	8.82	0.18	0.06	0.69	0.15	0.07	< 0.01	0.11	0.04	85.94	0.47	3.54	100.10
16983	208 226	6.45	0.26	0.09	1.07	0.12	0.08	< 0.01	0.16	0.07	89.10	0.60	2.65	100.65
16984	208 226	2.82	0.16	0.13	0.93	0.09	0.06	< 0.01	0.14	0.08	93.33	0.83	1.24	99.82
16985	208 226	3.37	0.15	0.10	0.48	0.15	0.06	< 0.01	0.15	0.07	94.62	0.33	1.30	100.80
16986	208 226	2.79	0.18	0.08	0.77	0.15	0.06	< 0.01	0.16	0.06	94.40	0.10	1.24	100.00
16987	208 226	2.65	0.20	0.14	0.70	0.10	0.09	< 0.01	0.22	0.11	94.86	0.38	1.09	100.55
16988	208 226	3.19	0.20	0.13	0.81	0.13	0.08	< 0.01	0.20	0.09	94.09	0.19	1.29	100.40
16989	208 226	3.72	0.21	0.16	0.69	0.17	0.11	< 0.01	0.24	0.10	92.78	0.13	1.43	99.75
16990	208 226	3.44	0.11	0.03	0.59	0.18	0.03	< 0.01	0.09	0.03	93.70	0.22	1.63	100.05

CERTIFICATION:

Hart Buchler



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project: KIPLING
Comments: ATTN: ANNE CASSELMAN

Page Number :2
Total Pages :2
Certificate Date: 08-SEP-93
Invoice No. : 19319989
P.O. Number : 0054
Account

CERTIFICATE OF ANALYSIS

A9319989

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16991 16992	208 226 208 226	5.15 23.38	0.15 0.28	0.03 0.02	0.86 2.43	0.23 0.44	0.05 0.19	< 0.01 0.01	0.07 0.10	0.03 0.04	89.50 60.74	0.26 1.14	3.35 11.02	99.69 99.79

CERTIFICATION:

Hart Bichler



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

INVOICE NUMBER

I 9 3 1 9 9 8 9

BILLING INFORMATION

Date: 10-SEP-93
Project: KIPLING
P.O. No.: 0054
Account: KJE

Comments: 930101T

Billing: For analysis performed on
Certificate A9319989

Terms: Payment due on receipt of invoice
1.25% per month (15% per annum)
charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

COPY

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
42	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	903.42
Total Cost \$				903.42
(Reg# R100938885) GST \$				63.24
TOTAL PAYABLE (CDN) \$				966.66



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 5175 Timberlea Blvd., Mississauga,
 Ontario, Canada L4W 2S3
 PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
 PARRY SOUND, ON
 P2A 2W8

Project: KIPLING
 Comments: ATTN: ANNE GASSELMAN

Page Number : 1
 Total Pages : 2
 Certificate Date: 08 SEP-93
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CERTIFICATE OF ANALYSIS A9319989

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOT %	TOTAL %
2130	208 226	19.00	0.32	0.08	1.20	0.33	0.17	< 0.01	0.13	0.10	69.76	0.88	6.73	100.70
2131	208 226	3.12	0.16	0.06	0.43	0.11	0.06	< 0.01	0.13	0.06	94.77	0.15	1.29	100.35
2132	208 226	4.17	0.17	0.09	0.65	0.13	0.07	< 0.01	0.14	0.07	92.29	0.24	1.53	99.56
2133	208 226	7.76	0.19	0.13	0.78	0.18	0.10	< 0.01	0.16	0.09	87.51	0.49	3.08	100.50
2134	208 226	14.46	0.24	0.10	0.93	0.40	0.18	< 0.01	0.18	0.09	77.17	0.89	5.99	100.65
2135	208 226	3.39	0.19	0.15	0.58	0.11	0.09	< 0.01	0.22	0.10	93.24	0.21	1.31	99.60
2136	208 226	8.28	0.32	0.16	1.02	0.17	0.14	< 0.01	0.23	0.12	85.58	0.32	3.48	99.83
2137	208 226	5.04	0.22	0.14	0.74	0.11	0.09	< 0.01	0.21	0.10	91.64	0.19	1.89	100.40
2138	208 226	14.19	0.43	0.19	1.14	0.19	0.15	< 0.01	0.24	0.11	74.11	0.76	8.78	100.30
2139	208 226	3.97	0.24	0.18	0.56	0.11	0.11	< 0.01	0.29	0.12	93.37	0.16	1.42	100.55
2140	208 226	5.10	0.21	0.16	0.75	0.10	0.08	< 0.01	0.20	0.09	91.08	0.24	1.85	99.87
2141	208 226	3.16	0.17	0.09	0.51	0.08	0.06	< 0.01	0.13	0.07	94.45	0.22	0.29	99.24
2142	208 226	4.22	0.17	0.07	0.64	0.09	0.06	< 0.01	0.11	0.06	92.61	0.25	1.71	100.00
2143	208 226	3.77	0.24	0.10	1.16	0.14	0.08	< 0.01	0.11	0.06	92.53	0.10	1.86	100.15
2144	208 226	3.33	0.13	0.04	0.37	0.10	0.04	< 0.01	0.11	0.06	93.90	0.11	1.30	99.50
2145	208 226	3.47	0.22	0.08	0.80	0.17	0.06	< 0.01	0.12	0.05	93.87	0.16	1.48	100.50
2146	208 226	16.19	0.45	0.08	0.94	0.22	0.13	< 0.01	0.14	0.08	72.00	0.80	9.63	100.65
2147	208 226	24.03	0.45	0.07	1.24	0.30	0.17	< 0.01	0.16	0.07	55.68	0.98	17.08	100.25
2323	208 226	20.00	0.25	0.09	1.18	0.40	0.15	< 0.01	0.16	0.07	67.28	0.88	10.15	100.55
2324	208 226	20.60	0.44	0.06	1.12	0.33	0.25	< 0.01	0.18	0.07	63.44	1.32	11.99	99.81
2325	208 226	24.34	0.53	0.05	1.21	0.67	0.39	< 0.01	0.17	0.05	53.79	1.20	18.40	100.80
2326	208 226	18.95	0.24	0.02	1.16	0.52	0.22	< 0.01	0.10	0.04	70.08	1.20	8.11	100.65
2327	208 226	5.01	0.15	0.05	0.56	0.24	0.05	< 0.01	0.06	0.03	92.10	0.26	2.04	100.55
2328	208 226	8.12	0.15	0.06	0.72	0.20	0.06	< 0.01	0.08	0.04	87.17	0.37	3.27	100.25
2329	208 226	29.47	0.23	0.06	1.11	0.40	0.13	< 0.01	0.09	0.04	56.36	0.99	12.01	100.90
2330	208 226	5.22	0.14	0.04	0.55	0.18	0.04	< 0.01	0.05	0.04	91.46	0.29	2.23	100.25
2331	208 226	3.46	0.14	0.06	0.50	0.08	0.04	< 0.01	0.07	0.04	94.50	0.11	1.44	100.45
2333	208 226	8.24	0.19	0.09	0.89	0.24	0.11	< 0.01	0.11	0.07	85.59	0.89	3.47	99.90
2334	208 226	3.14	0.14	0.04	0.51	0.11	0.06	< 0.01	0.06	0.04	95.07	0.12	1.32	100.60
2335	208 226	4.90	0.18	0.09	0.66	0.12	0.07	< 0.01	0.12	0.06	91.21	0.40	2.07	99.89
2336	208 226	5.09	0.15	0.03	0.49	0.11	0.04	< 0.01	0.06	0.04	90.72	0.19	2.06	98.99
16982	208 226	8.82	0.18	0.06	0.69	0.15	0.07	< 0.01	0.11	0.04	85.94	0.47	3.54	100.10
16983	208 226	6.45	0.26	0.09	1.07	0.12	0.08	< 0.01	0.16	0.07	89.10	0.60	2.65	100.65
16984	208 226	2.82	0.16	0.13	0.93	0.09	0.06	< 0.01	0.14	0.08	93.33	0.83	1.24	99.82
16985	208 226	3.37	0.15	0.10	0.48	0.15	0.06	< 0.01	0.15	0.07	94.62	0.33	1.30	100.80
16986	208 226	2.79	0.18	0.08	0.77	0.15	0.06	< 0.01	0.16	0.06	94.40	0.10	1.24	100.00
16987	208 226	2.65	0.20	0.14	0.70	0.10	0.09	< 0.01	0.22	0.11	94.86	0.38	1.09	100.55
16988	208 226	3.19	0.20	0.13	0.81	0.13	0.08	< 0.01	0.20	0.09	94.09	0.19	1.29	100.40
16989	208 226	3.72	0.21	0.16	0.69	0.17	0.11	< 0.01	0.24	0.10	92.78	0.13	1.43	99.75
16990	208 226	3.44	0.11	0.03	0.59	0.18	0.03	< 0.01	0.09	0.03	93.70	0.22	1.63	100.05

CERTIFICATION:

Hart Buchler



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.
PARRY SOUND, ON
P2A 2W8

Project: KIPLING
Comments: ATTN: ANNE CASSELMAN

Page Number : 2
Total Pages : 2
Certificate Date: 08-SEP-93
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CERTIFICATE OF ANALYSIS A9319989

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
[REDACTED]	208 226	5.15	0.15	0.03	0.86	0.23	0.05	< 0.01	0.07	0.03	89.50	0.26	3.35	99.69
	208 226	23.38	0.28	0.02	2.43	0.44	0.19	0.01	0.10	0.04	60.74	1.14	11.02	99.79
16992	110 188	23.38	0.15	0.03	0.86	0.23	0.05	< 0.01	0.07	0.03	89.50	0.26	3.35	99.69

CERTIFICATION: Hautschler

SONIC DRILL HOLE RECORD

Drilling Started: February 12, 1989 Logged By: A. Casselman
 Drilling Finished: February 13, 1989 Logged: Mar. 20, 1989
 Drilling Co.: J. R. Drilling Core Size: 3.5"
 Dip: -90° Core Storage:
 Hole Length: 232.0' Mineral Research Canada
 Overburden Depth: 77.0' R. R. # 2
 Claim No.: P 900095 Parry Sound, ON
 Northing: 215 N P2A 2W8
 Easting: 2810 E Hole Number: 89-32
 Azimuth: 50° 08' 57" W. 82° 11' 18" N.
 Location: 1600.0' at 230° To Claim Post No. 1
 Property: Kipling

SUMMARY

From	To	Description
0.0'	3.0'	Peat
3.0'	4.5'	Sand
4.5'	9.0'	Fluvial Sediments
9.0'	14.75'	Peat
14.75'	15.0'	Sand
15.0'	16.0'	Peat
16.0'	16.75'	Sand
16.75'	55.0'	Glacial Clay Till
55.0'	77.0'	Sand Pleistocene - Overburden
77.0'	85.0'	Kaolin Silica Sand (Kss) Cretaceous
85.0'	86.0'	Sandy Clay
86.0'	87.25'	Kss
87.25'	100.0'	Sandy Clay
100.0'	104.0'	Kss
104.0'	106.0'	Sandy Clay
106.0'	186.0'	Kss
186.0'	187.0'	Clay
187.0'	188.0'	Sandy Clay
188.0'	232.0'	Kss

Date: *Apr 13, 1994*
 Signature: *A. Casselman*
 Title: *Mineral Research Canada*
 Location: *Parry Sound, ON*

181.0' 186.0' Kss - increasing clay content downsection, decreasing silica grain size, increasing illite content.

186.0' 187.0' Clay - grey and buff mottled, highly competent, friable.

187.0' 188.0' Sandy Clay - grey, fine grain, minor illite and heavies.

188.0' 193.0' Kss - medium grain, medium grey, minor illite and heavies.

193.0' 195.0' Kss - coarse grain, dark brown, minor illite and heavies.

195.0' 202.5' Kss - medium grain, light brown, high illite content.

202.5' 205.0' Kss & Clay - medium brown, medium grain, kss is interbedded or as clots (highly disrupted material), buff to medium brown clay that contains large angular to sub-rounded, smoky quartz and yellow chert clasts of up to 1.0".

205.0' 209.0' Kss & Clay - as above, less clay content, clay found only as seams - semi-pliable.

209.0' 214.0' Kss - as above, less clay, dark brown.

214.0' 219.0' Kss - as previous, clay has purple laminations as some form of reduction reaction.

219.0' 224.0' Kss - medium grain, medium brown, minor illite.

224.0' 229.0' Kss - as previous with buff to medium brown clay clots and seams.

229.0' 232.0' Kss - coarse grain, light brown, minor illite and heavies.

EOH - 232.0'

Detail Log 89-32

From	To	Sample No.	Description
0.0'	3.0'		Peat
3.0'	4.5'		Sand - brown, well sorted, fine grain, predominantly silica.
4.5'	9.0'		Fluvial Sediments - very fine grain silty clay, massive, pliable, green/grey, clast-free.
9.0'	14.75'		Peat
14.75'	15.0'		Sand - as previous.
15.0'	16.0'		Peat
16.0'	16.75'		Sand - as previous.
16.75'	55.0'		Glacial Clay Till - medium brown, somewhat sandy, competent, 5.0% carbonate clasts & 5.0% gneissic clasts up to 2.0", some areas clast-free and are more pliable - 40.0' - 55.0' & 16.75' - 33.0'.
55.0'	770'		Gravel - interbedded with units of sand and gravel (medium brown feldspathic sands with high carbonate content), coarsening downsection.
77.0'	78.0'	2651	Kss - white, medium grain, very little surface contamination. 9.47% kaolin.
78.0'	84.0'	2652	Kss - as above, 8.51% kaolin.
84.0'	85.0'	2653	Kss - as above, 9.11% kaolin.
85.0'	86.0'	2654	Sandy Clay - medium brown, discontinuous laminations, wispy to mottled, interbedded with fine grain sand and darker clay units, competent, disc-like. 47.82% kaolin.
86.0'	87.25'	2655	Kss - medium grain, much brown exterior contamination from above clay unit. 15.32% kaolin.
87.25'	90.0'	2656	Sandy Clay - as previous, 46.61% kaolin.
90.0'	96.0'	2657	Sandy Clay - as previous, highly laminated, higher fine silica content, 39.47% kaolin.

96.0' 100.0' 2658 Sandy Clay - medium brown clay laminated with dark brown clay grading to black, high fine silica content. 40.53% kaolin.

100.0' 104.0' 2659 Kss - coarse grain, coarsening downsection to 0.5" clasts, minor heavies, rare light grey clay clots. 7.47% kaolin.

104.0' 106.0' 2660 Sandy Clay - as previous. 47.52% kaolin.

106.0' 112.0' 2661 Kss - medium grain, medium grey, 7.90% kaolin.

112.0' 117.0' 2662 Kss - as above, rare light grey, clay clots. 6.08% kaolin.

117.0' 122.0' 2663 Kss - as above, 4.28% kaolin.

122.0' 128.0' Kss - medium grain, coarsening downsection to coarse, white, rare larger sub-rounded smoky quartz clasts and yellow chert, some yellow exterior crystal growth as a crust (this occurs for the remainder of the hole).

128.0' 134.0' Kss - medium grain, white, prevalent amounts of yellow chert, minor illite.

134.0' 140.0' Kss - as above.

140.0' 145.0' Kss - as above, 140.0' - 144.0' - containing light grey clay clots, 144.0 - 145.0' - darker (medium grey) and much finer - high heavies content.

145.0' 148.0' Kss - fine grain as above, from 145.0' - 146.0', 146.0' - 148.0' - as previous medium grain.

148.0' 152.0' Kss - as above at 146.0' - 148.0'.

152.0' 158.0' Kss - as above.

158.0' 163.0' Kss - as above, higher illite content.

163.0' 167.0' Kss - as above, higher moisture and heavies content.

167.0' 172.0' Kss - as above.

172.0' 175.0' Kss - medium brown, fine grain, minor illite and heavies.

175.0' 181.0' Kss - as above.

Section 89-32

Overburden Depth: 77.0'
Astronomic Azimuth: $50^{\circ} 08' 57''$ W. $82^{\circ} 11' 18''$ N
Location: 1600.0' at 230° to claim post no. 1
Hole Length: 232.0'
Dip Collar: -90°
Northing: 215 N
Easting: 2910 E
Scale: 1.0" = 50.0' or 1:600



50.0'

Gridline 3000



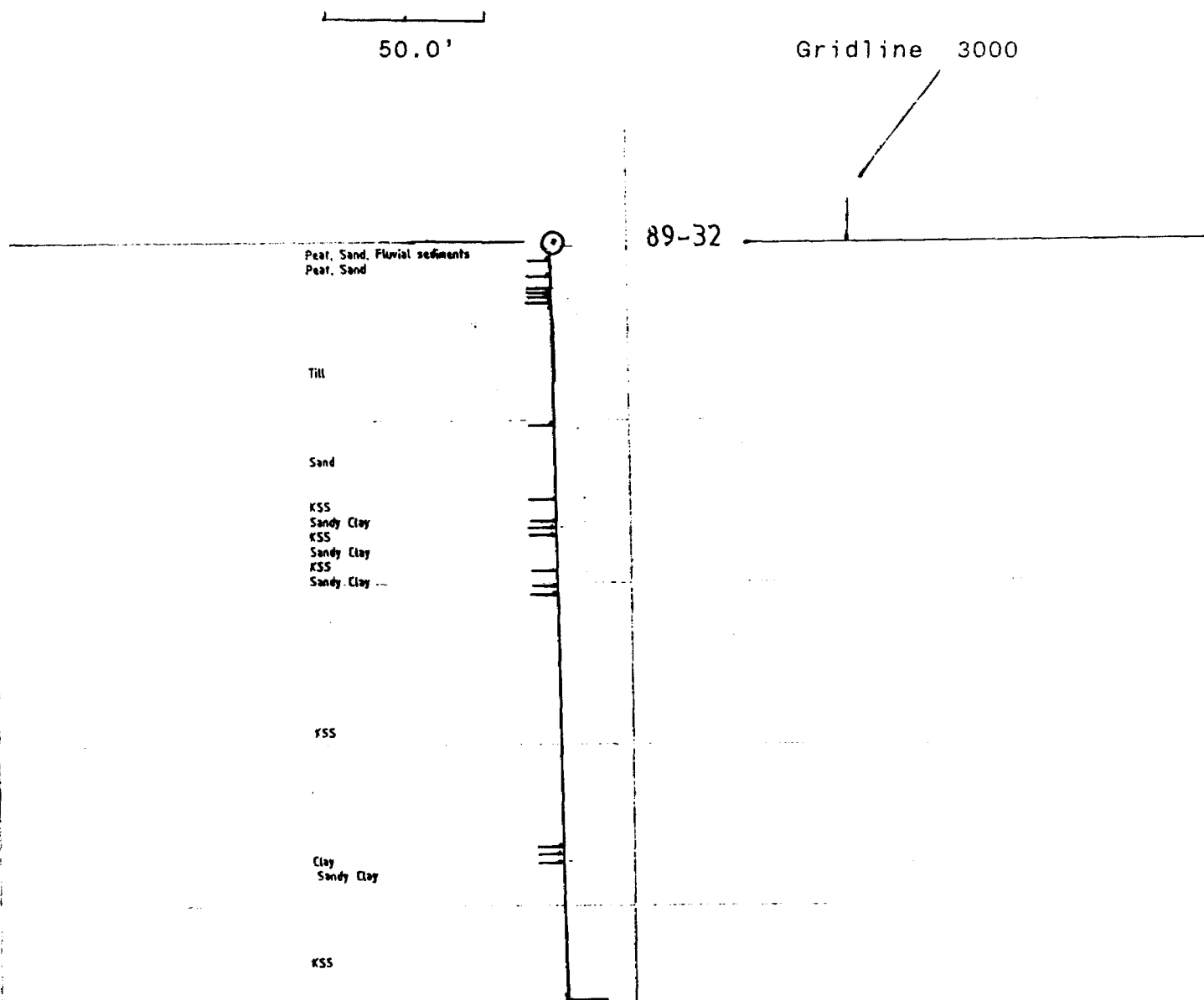
89-32



- 2651
- 2652
- 2653
- 2654
- 2655
- 2656
- 2657
- 2658
- 2659
- 2660
- 2661
- 2662
- 2663

Section 89-32

Overburden Depth: 77.0'
Astronomic Azimuth: $50^{\circ} 08' 57''$ W. $82^{\circ} 11' 18''$ N
Location: 1600.0' at 230° to claim post no. 1
Hole Length: 232.0'
Dip Collar: -90°
Northing: 215 N
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Scale: 1.0" = 50.0' or 1:600



MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ONT. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
<i>Hole 89-32</i> <i>2651</i>	+ 4	6.5	4.4	7.9
	+ 40	62.6		
	+100	15.8		
	+200	2.3		
	+325	1.6		
	-325	11.4		
<i>2652</i>	+ 4	18.7	4.0	7.9
	+ 40	49.2		
	+100	10.7		
	+200	2.7		
	+325	2.1		
	-325	16.6		
<i>2653</i>	+ 4	6.4	5.8	7.9
	+ 40	54.7		
	+100	19.8		
	+200	3.0		
	+325	1.9		
	-325	14.2		
<i>2654</i>	+ 4	2	16.4	8.0
	+ 40	4.7		
	+100	37.1		
	+200	23.1		
	+325	5.9		
	-325	29.2		
<i>2655</i>	+ 4	0.3	14.5	8.0
	+ 40	9.1		
	+100	75.3		
	+200	3.2		
	+325	2.2		
	-325	9.9		

**MINERAL RESEARCH
CANADA**

1 INDUSTRIAL BLVD. RR2
PARRY SOUND, ONTARIO
CANADA P2A 2W8

FAX (705) 378-5123 TEL (705) 378-2416

DATE: *St. Martin's*

MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
<i>Note 89-32</i> 2656	+ 4	Ø	11.7	7.9
	+ 40	8.4		
	+100	61.7		
	+200	10.0		
	+325	2.9		
	-325	17.0		
2657	+ 4	Ø	11.0	8.0
	+ 40	3.7		
	+100	68.4		
	+200	6.7		
	+325	2.6		
	-325	18.6		
2658	+ 4	Ø	13.1	7.9
	+ 40	Ø		
	+100	1.2		
	+200	6.4		
	+325	11.4		
	-325	81.0		
2659	+ 4	Ø	8.5	7.9
	+ 40	6.1		
	+100	79.9		
	+200	3.2		
	+325	2.1		
	-325	8.7		
2660	+ 4	Ø		
	+ 40	0.1		
	+100	57.9		
	+200	14.6		
	+325	4.4		
	-325	23.0		

MINERAL RESEARCH CANADA

15.2
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8

7.9

FAX (705) 378-5123 BUS (705) 378-2416

DATE *dlm*

MINERAL RESEARCH CANADA

TEL: (705) 378-2416
 FAX: (705) 378-5123

1 INDUSTRIAL BLVD., RR2
 PARRY SOUND, ON. CANADA
 P2A 2W8

ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %	pH (20% SOLIDS)
<i>Hole 89-32</i> <i>2661</i>	+ 4	<i>2</i>	<i>10.5</i>	<i>8.0</i>
	+ 40	<i>34.5</i>		
	+100	<i>53.9</i>		
	+200	<i>2.1</i>		
	+325	<i>1.6</i>		
	-325	<i>7.9</i>		
 <i>2662</i>	+ 4	<i>2.7</i>	<i>6.4</i>	<i>7.9</i>
	+ 40	<i>49.7</i>		
	+100	<i>28.4</i>		
	+200	<i>3.7</i>		
	+325	<i>2.1</i>		
	-325	<i>13.4</i>		
 <i>2663</i>	+ 4	<i>18.3</i>	<i>4.5</i>	<i>8.0</i>
	+ 40	<i>42.4</i>		
	+100	<i>21.3</i>		
	+200	<i>3.0</i>		
	+325	<i>1.7</i>		
	-325	<i>13.3</i>		
	+ 4			
	+ 40			
	+100			
	+200			
	+325			
	-325			
	+ 4			
	+ 40			
	+100			
	+200			
	+325			
	-325			

MINERAL RESEARCH CANADA
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8

FAX (705) 378-5123 TEL (705) 378-2416

DATE _____ *[Signature]*

SAMPLE DIRECTORY/NUMBER: DATAS /186
 SAMPLE ID: Hole 29-32 # 2651
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:28:33 10/11/90
 REPT 12:24:22 08/28/91
 TOT RUN TIME 0:17:41
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

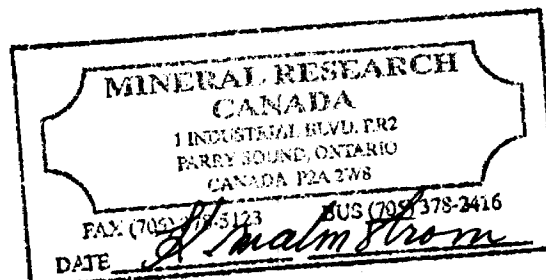
STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 9.42 μ m MODAL DIAMETER: 21.95 μ m

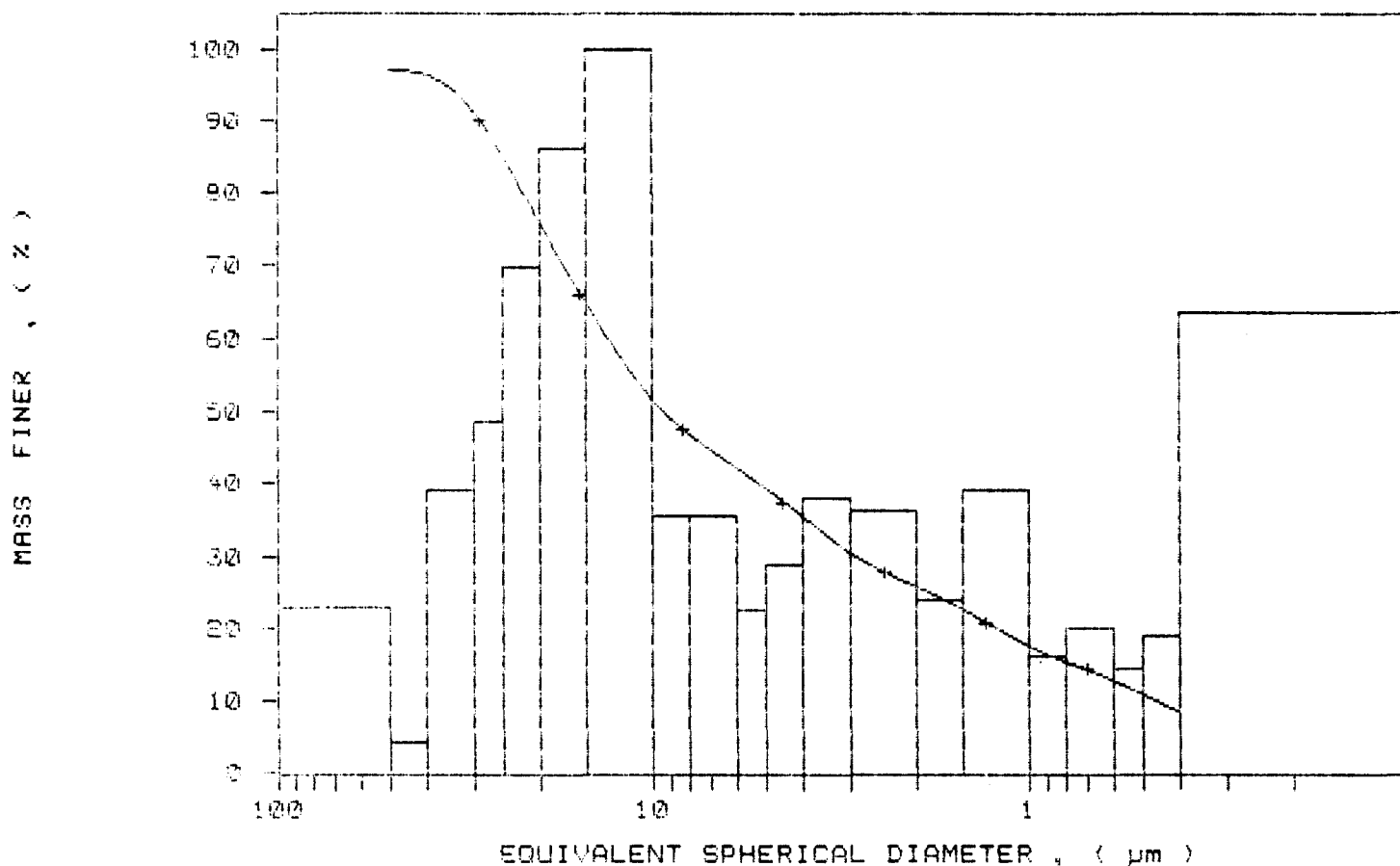
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	97.0	3.0
40.00	96.4	0.6
30.00	91.3	5.1
25.00	84.9	6.4
20.00	75.8	9.1
15.00	64.5	11.3
10.00	51.5	13.1
8.00	46.6	4.6
6.00	42.1	4.7
5.00	39.2	3.0
4.00	35.4	3.8
3.00	30.4	5.0
2.00	25.7	4.8
1.50	22.5	3.2
1.00	17.4	5.1
0.80	15.3	2.1
0.60	12.7	2.6
0.50	10.8	1.9
0.40	8.8	2.5



SAMPLE DIRECTORY/NUMBER: DATAS /186
 SAMPLE ID: Hole 89-32 # 2651
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:28:33 10/11/90
 REPT 12:24:22 08/28/91
 TOT RUN TIME 0:17:41
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

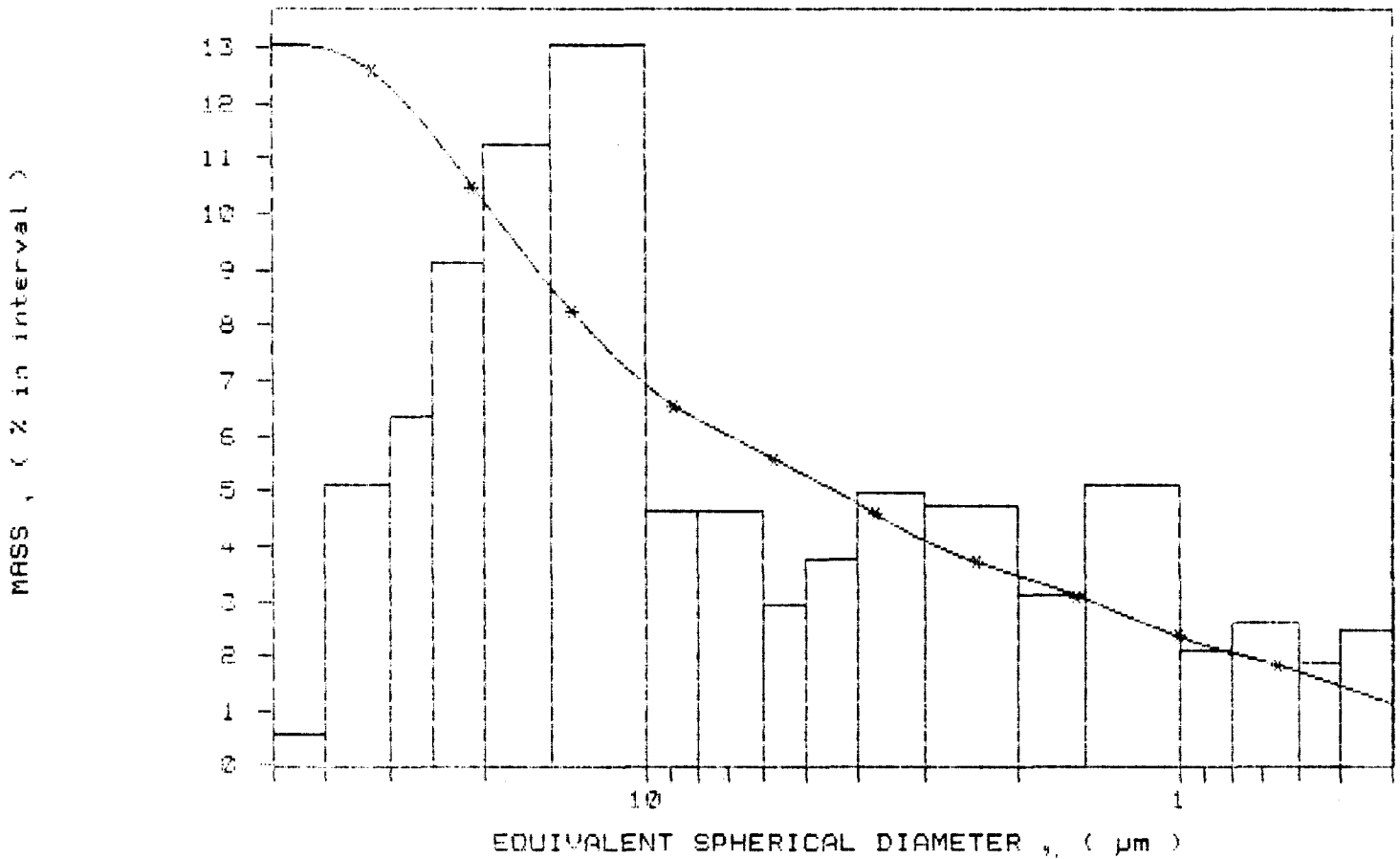
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /186
 SAMPLE ID: Hole 89-32 # 2651
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 10:28:33 10/11/90
 REPT 12:24:22 08/28/91
 TOT RUN TIME 0:17:41
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /187
 SAMPLE ID: Hole 89-32 # 2652
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 16:08:45 10/11/90
 REPR 12:33:10 08/28/91
 TOT RUN TIME 0:18:08
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.00 μ m

MODAL DIAMETER: 3.00 μ m

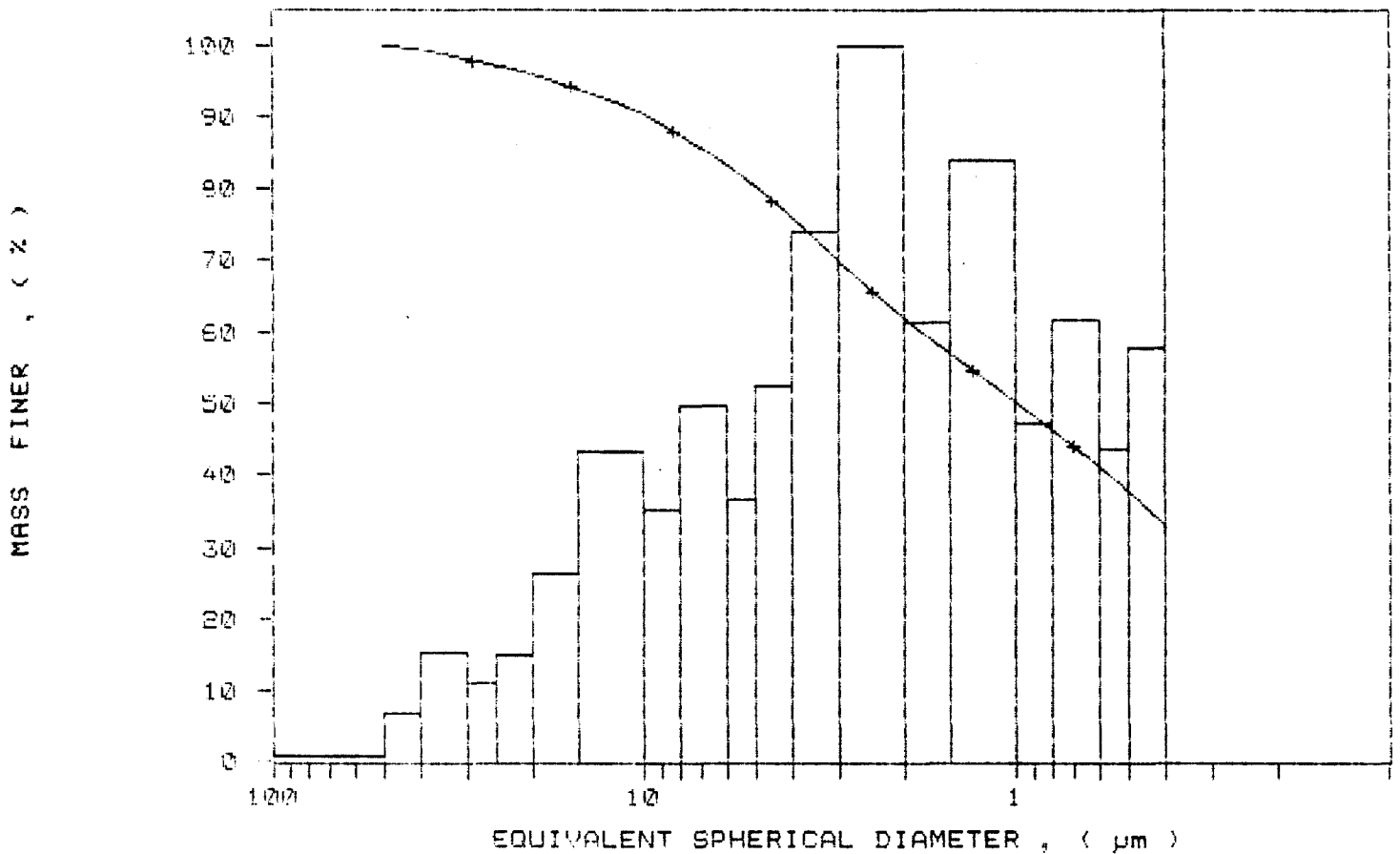
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	99.9	0.1
40.00	99.8	0.6
30.00	98.1	1.3
25.00	97.2	0.9
20.00	96.0	1.2
15.00	95.8	2.1
10.00	90.2	3.5
8.00	87.4	2.9
6.00	83.3	4.1
5.00	80.3	3.0
4.00	76.1	4.3
3.00	70.0	6.0
2.00	61.9	8.1
1.50	56.9	5.0
1.00	50.1	6.8
0.80	46.2	3.9
0.60	41.2	5.0
0.50	37.6	3.6
0.40	32.9	4.7



SAMPLE DIRECTORY/NUMBER: DATA3 /187
SAMPLE ID: Hole 89-32 # 2652
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
START 16:08:45 10/11/90
REPT 12:33:10 03/28/91
TOT RUN TIME 0:18:08
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7268 cp

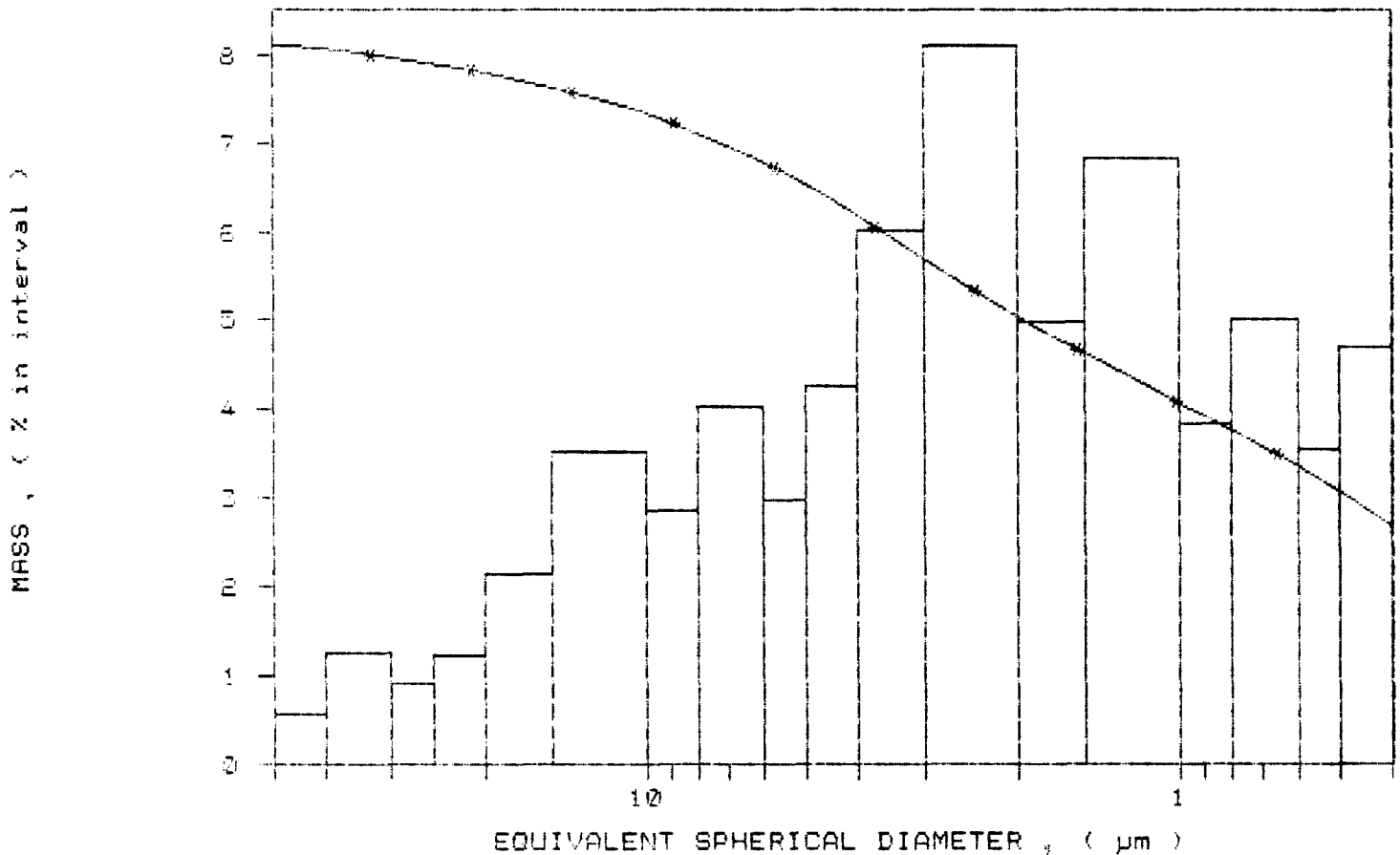
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /187
 SAMPLE ID: Hole 89-92 # 2652
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 16:08:45 10/11/90
 REPT 12:33:10 08/28/91
 TOT RUN TIME 0:18:08
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

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PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA3 /188
 SAMPLE ID: Hole 89-52 # 2653
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:55:35 10/12/90
 REPR1 12:40:59 08/28/91
 TOT RUN TIME 0:17:39
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.14 μ m MODAL DIAMETER: 4.02 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	95.9	4.1
40.00	95.9	-0.0
30.00	95.4	0.5
25.00	95.2	0.1
20.00	94.8	0.4
15.00	93.5	1.3
10.00	89.6	4.0
8.00	86.6	3.0
6.00	81.9	4.6
5.00	78.3	3.6
4.00	73.4	4.9
3.00	67.1	6.3
2.00	59.5	7.6
1.50	54.3	5.1
1.00	48.1	6.3
0.80	44.4	3.7
0.60	39.3	5.1
0.50	35.5	3.5
0.40	31.2	4.7

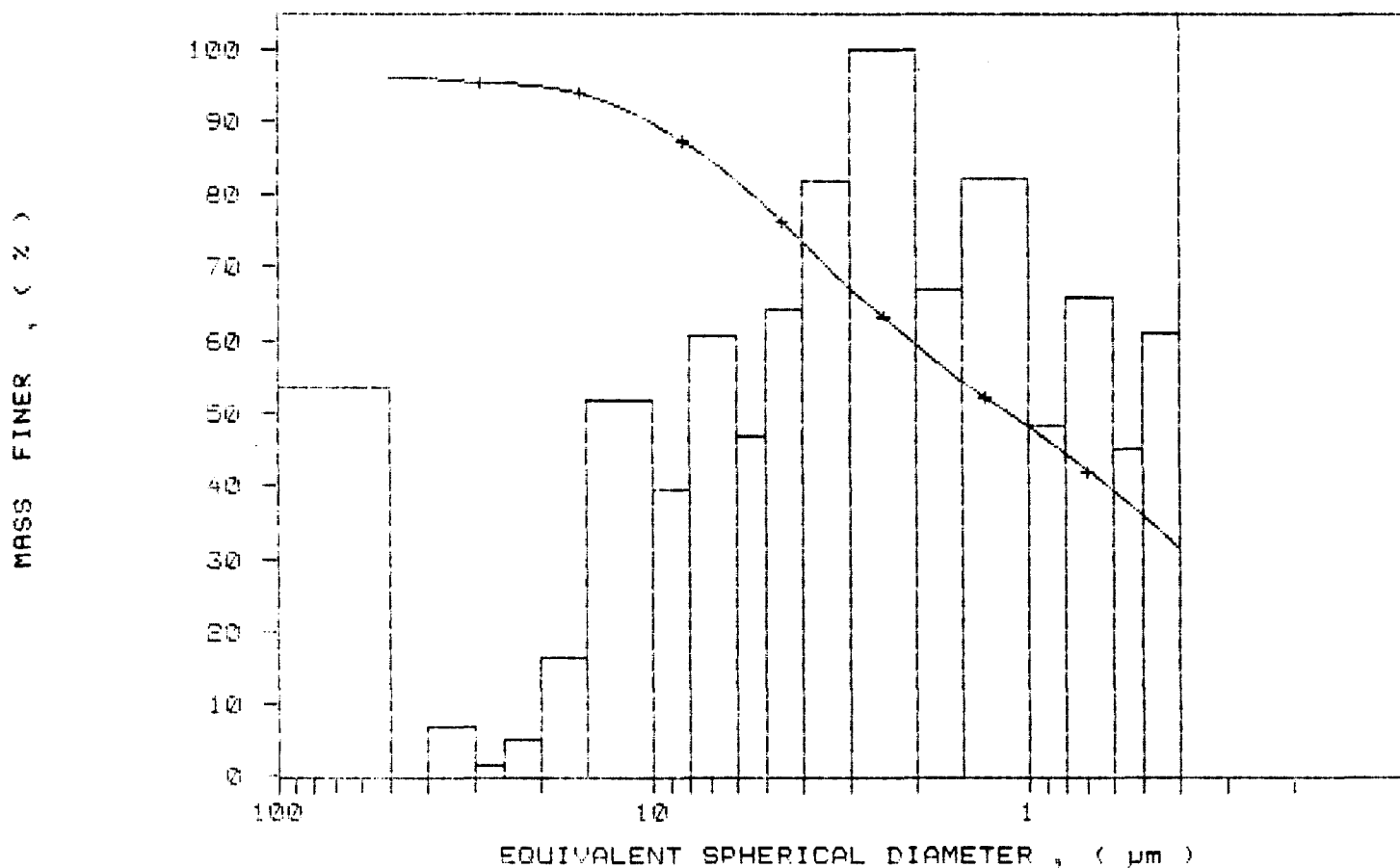
**MINERAL RESEARCH
 CANADA**
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8
 FAX (705) 378-5123
 DATE

BUS 378-2416
km

SAMPLE DIRECTORY/NUMBER: DATAS /188
 SAMPLE ID: Hole 89-52 # 2633
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:55:35 10/12/90
 REPRT 12:40:59 08/28/91
 TOT RUN TIME 0:17:39
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

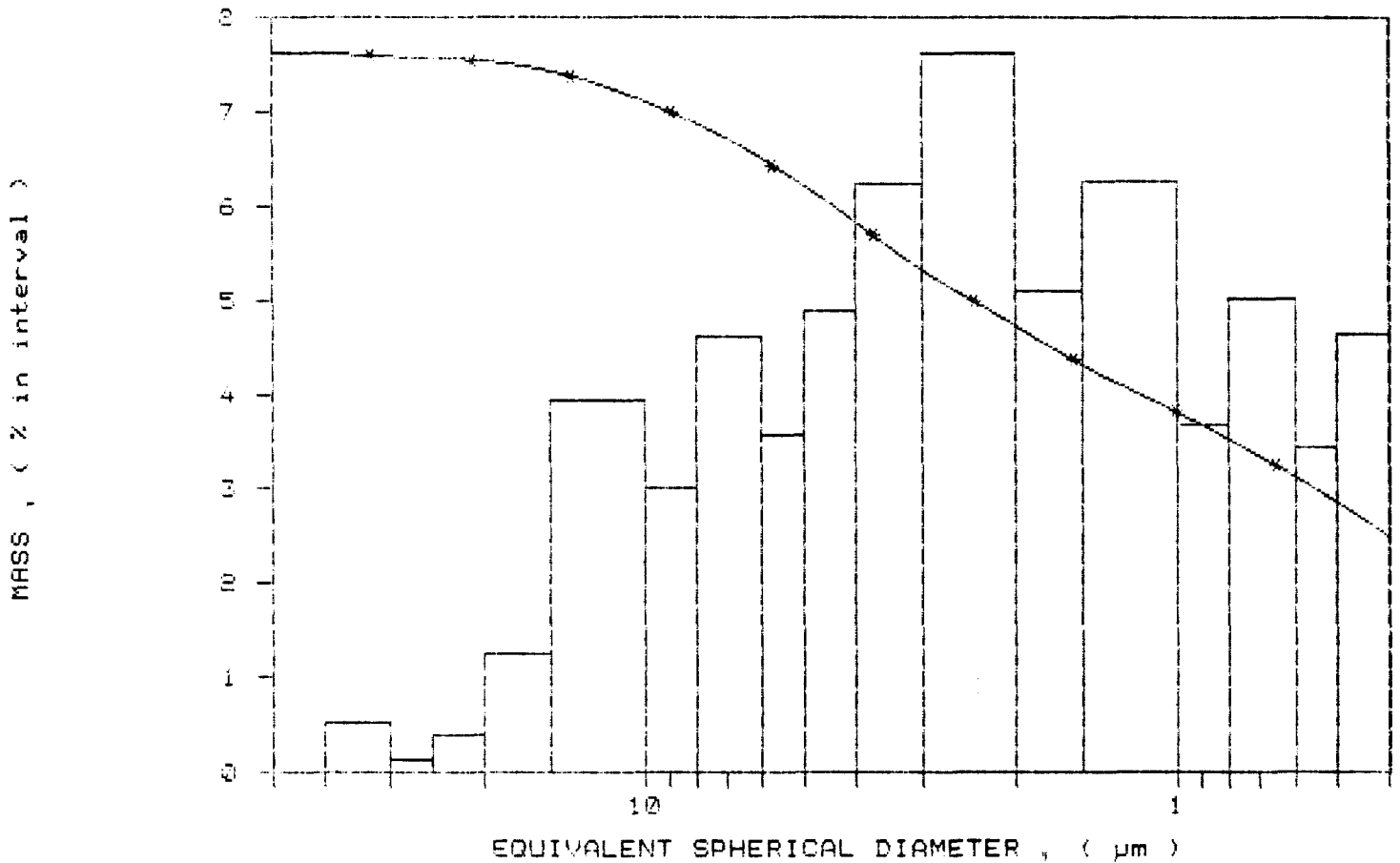
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /188
 SAMPLE ID: Hole 89-32 # 2653
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: Standard

UNIT NUMBER: 1
 START 09:55:35 10/12/90
 REPT 12:40:59 08/28/91
 TOT RUN TIME 0:17:39
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

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PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /196
 SAMPLE ID: Hole 89-92 # 2654
 SUBMITTER: # 39
 OPERATOR: km
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 13:48:10 10/16/90
 REPR1 12:48:47 08/28/91
 TOT RUN TIME 0:07:08
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.68 μ m

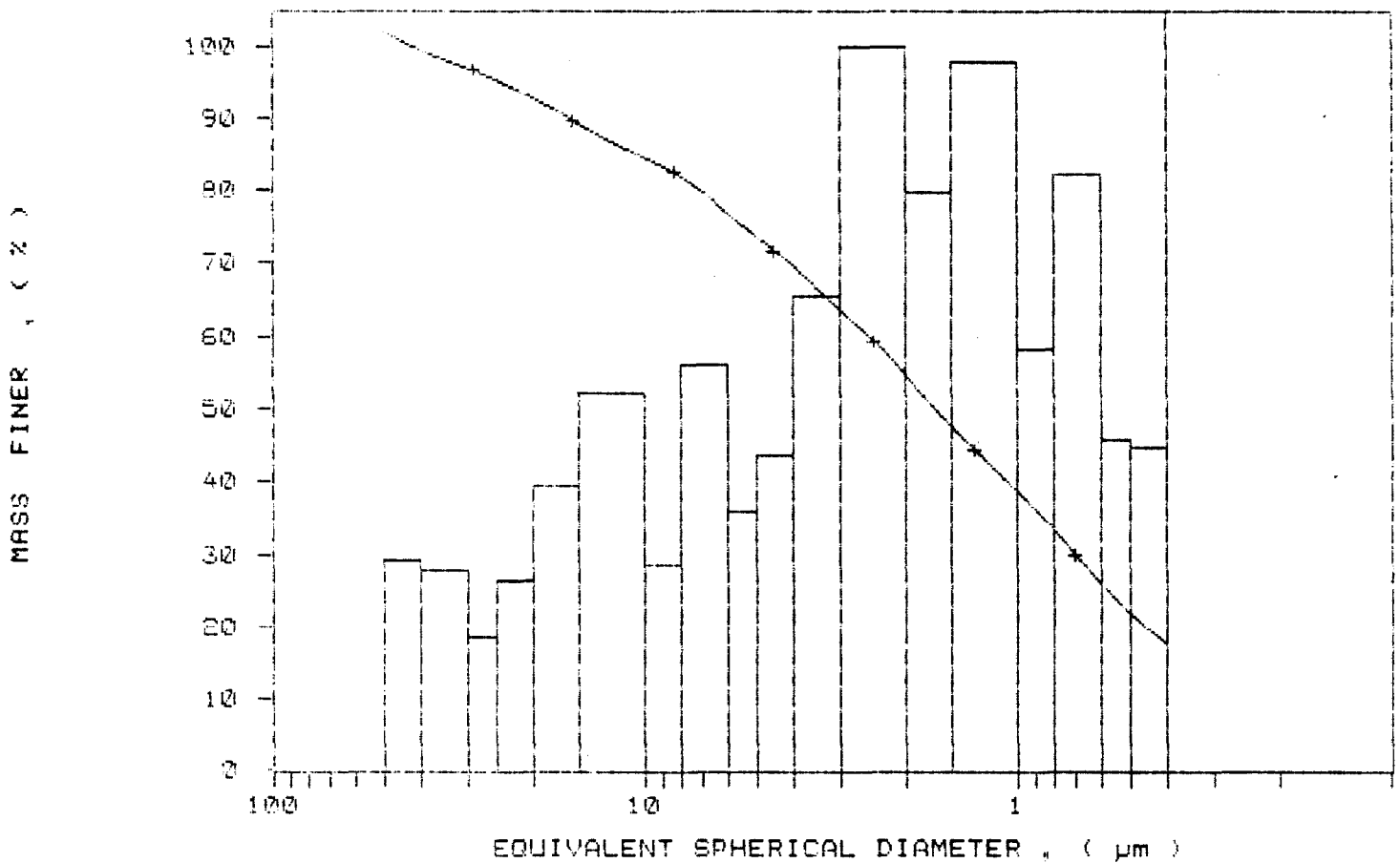
MODAL DIAMETER: 1.92 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	102.0	-2.0
40.00	99.4	2.6
30.00	96.9	2.5
25.00	95.2	1.7
20.00	92.8	2.4
15.00	89.2	3.6
10.00	84.5	4.7
8.00	81.5	2.6
6.00	76.8	5.1
5.00	73.5	3.3
4.00	69.6	4.0
3.00	63.6	5.9
2.00	54.6	9.0
1.50	47.4	7.2
1.00	38.6	8.9
0.80	33.3	5.3
0.60	25.8	7.4
0.50	21.7	4.2
0.40	17.6	4.1



SAMPLE DIRECTORY/NUMBER: DATA9 /196	UNIT NUMBER: 1
SAMPLE ID: Hole 89-32 # 2654	START 13:48:10 10/16/90
SUBMITTER: # 39	REPRT 12:48:47 08/28/91
OPERATOR: km	TOT RUN TIME 0:07:08
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	LIQ VISC: 0.7269 cp
RUN TYPE: High Speed	

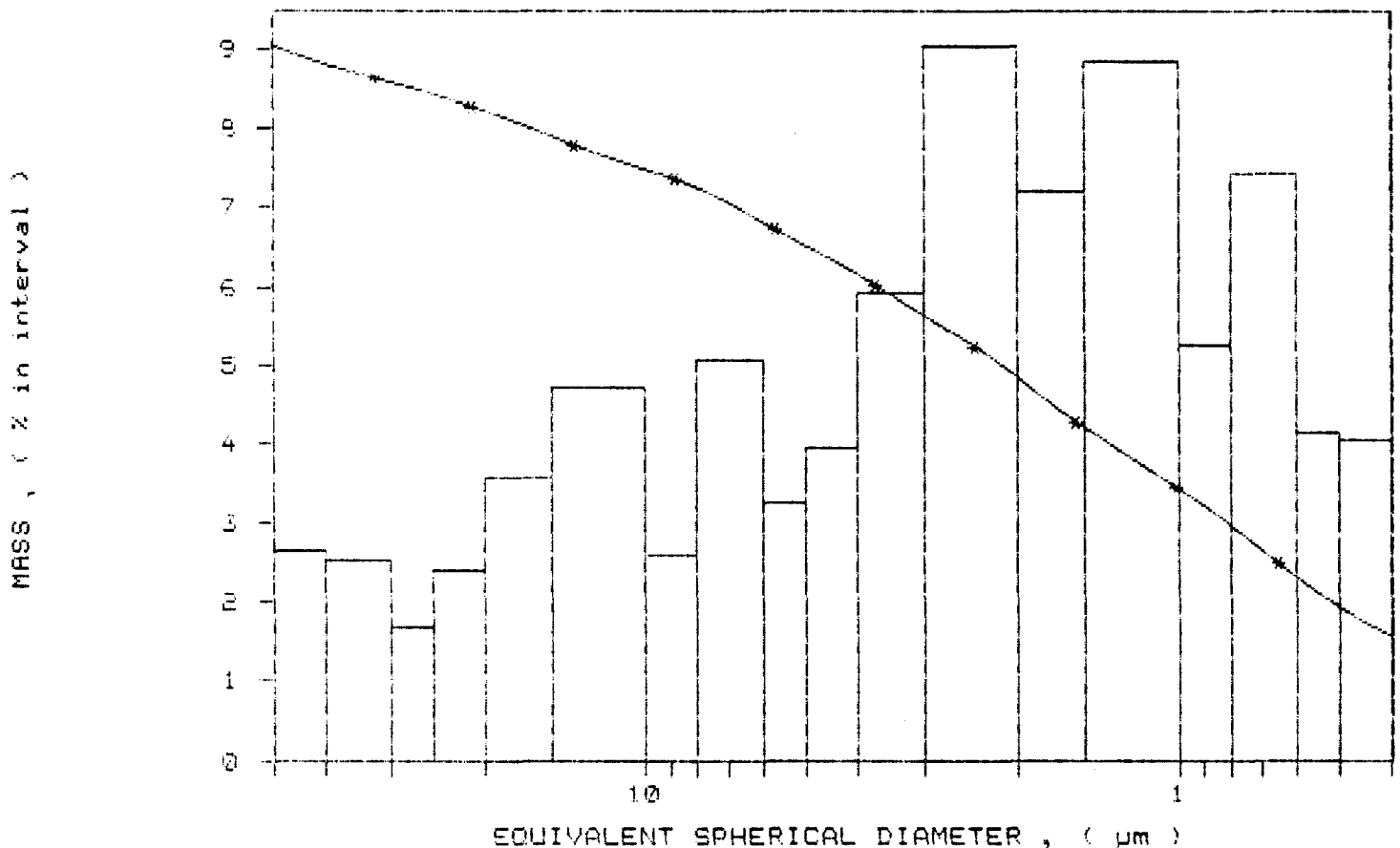
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /196
 SAMPLE ID: Hole 89-32 # 2654
 SUBMITTER: # 39
 OPERATOR: Km
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 13:48:10 10/16/90
 REPT 12:48:47 08/28/91
 TOT RUN TIME 0:07:08
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /197
 SAMPLE ID: Hole 89-32 # 2655
 SUBMITTER: #739
 OPERATOR: Km
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 14:07:58 10/16/90
 REPT 12:56:36 03/28/91
 TOT RUN TIME 0:07:08
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

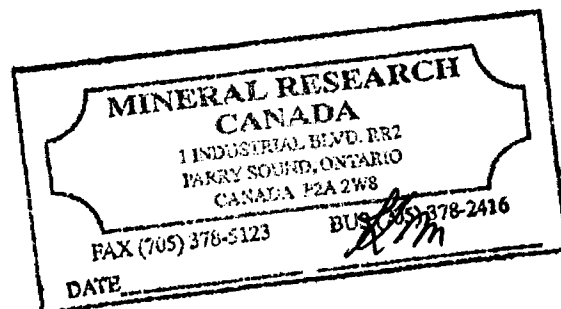
STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.56 μ m MODAL DIAMETER: 0.40 μ m

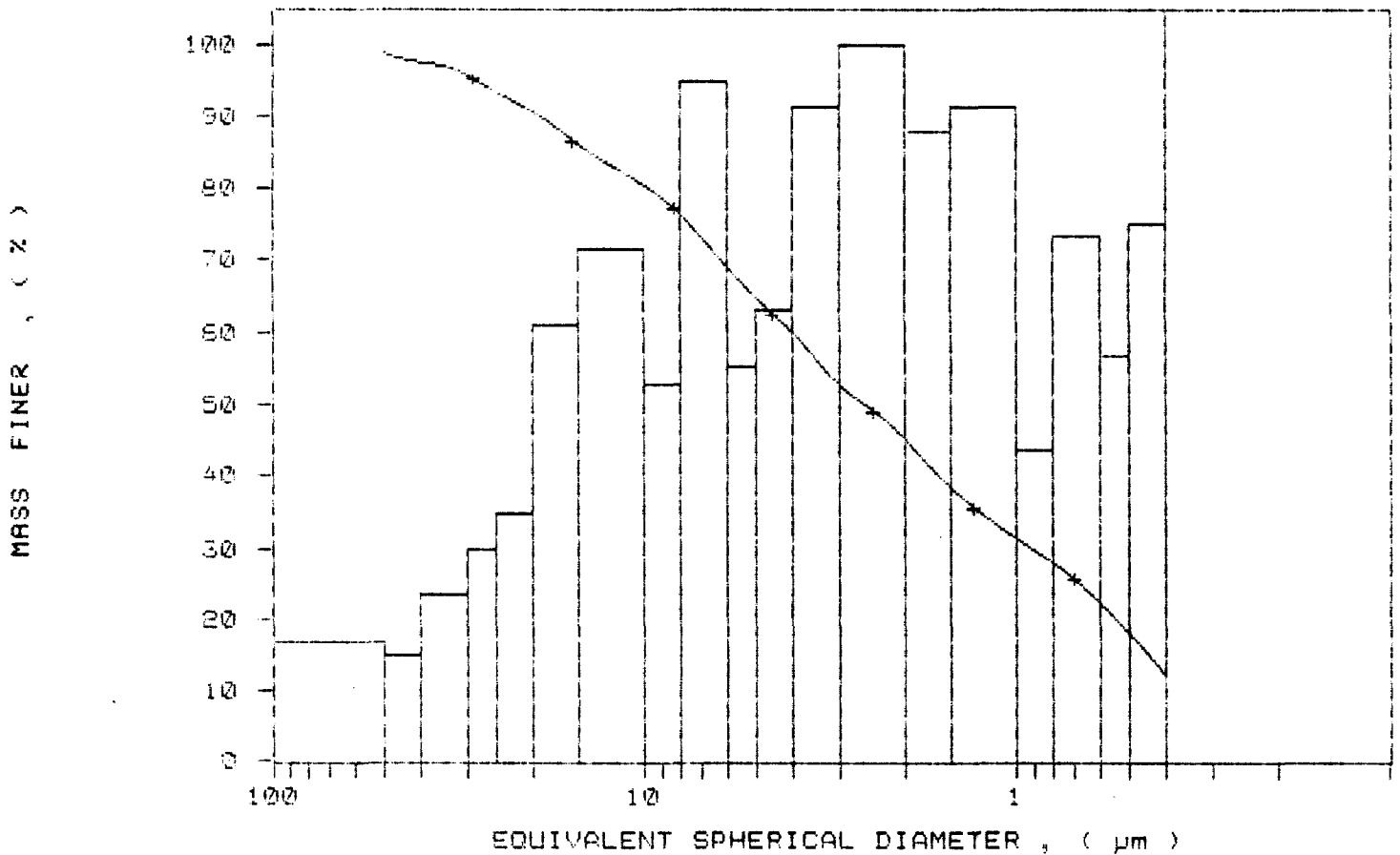
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	98.7	1.3
40.00	97.5	1.2
30.00	95.7	1.8
25.00	93.4	2.3
20.00	90.7	2.7
15.00	85.6	4.7
10.00	80.4	5.5
8.00	76.3	4.1
6.00	69.0	7.3
5.00	64.7	4.3
4.00	59.9	4.9
3.00	52.6	7.0
2.00	45.1	7.7
1.50	38.3	6.8
1.00	31.3	7.1
0.80	27.9	3.4
0.60	22.2	5.7
0.50	17.8	4.4
0.40	12.0	5.8



SAMPLE DIRECTORY/NUMBER: DATAS /197
SAMPLE ID: Hole 89-92 # 2655
SUBMITTER: # 39
OPERATOR: km
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

UNIT NUMBER: 1
START 14:07:58 10/16/90
REPT 12:56:36 08/28/91
TOT RUN TIME 0:07:08
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7269 cp

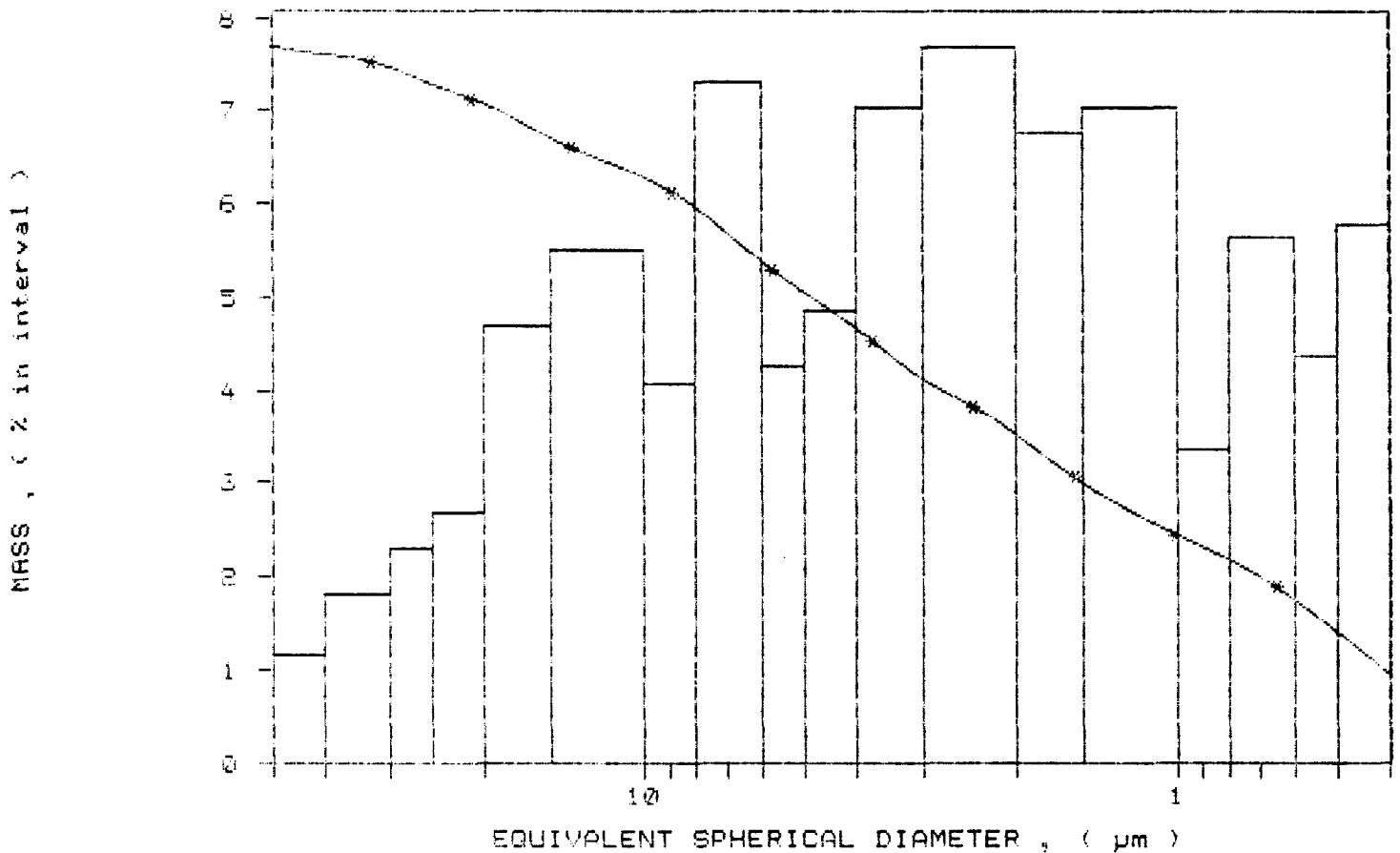
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /197
 SAMPLE ID: Hole 89-32 # 2655
 SUBMITTER: # 39
 OPERATOR: Km
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 14:07:58 10/16/90
 REPT 12:56:36 08/28/91
 TOT RUN TIME 0:07:08
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

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PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA3 /198
 SAMPLE ID: Hole 89-82 # 2656
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 14:27:35 10/16/90
 REPR1 13:04:24 08/28/91
 TOT RUN TIME 0:07:13
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.55 μ m

MODAL DIAMETER: 0.87 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	97.8	2.2
40.00	98.1	-0.3
30.00	96.9	1.1
25.00	95.5	1.4
20.00	94.0	1.5
15.00	91.0	3.0
10.00	86.0	4.9
8.00	82.3	3.8
6.00	77.4	4.8
5.00	74.1	3.3
4.00	69.3	4.8
3.00	64.2	5.1
2.00	56.2	8.0
1.50	49.3	6.9
1.00	39.7	9.6
0.80	33.4	6.2
0.60	27.2	6.2
0.50	23.8	3.5
0.40	18.2	5.6

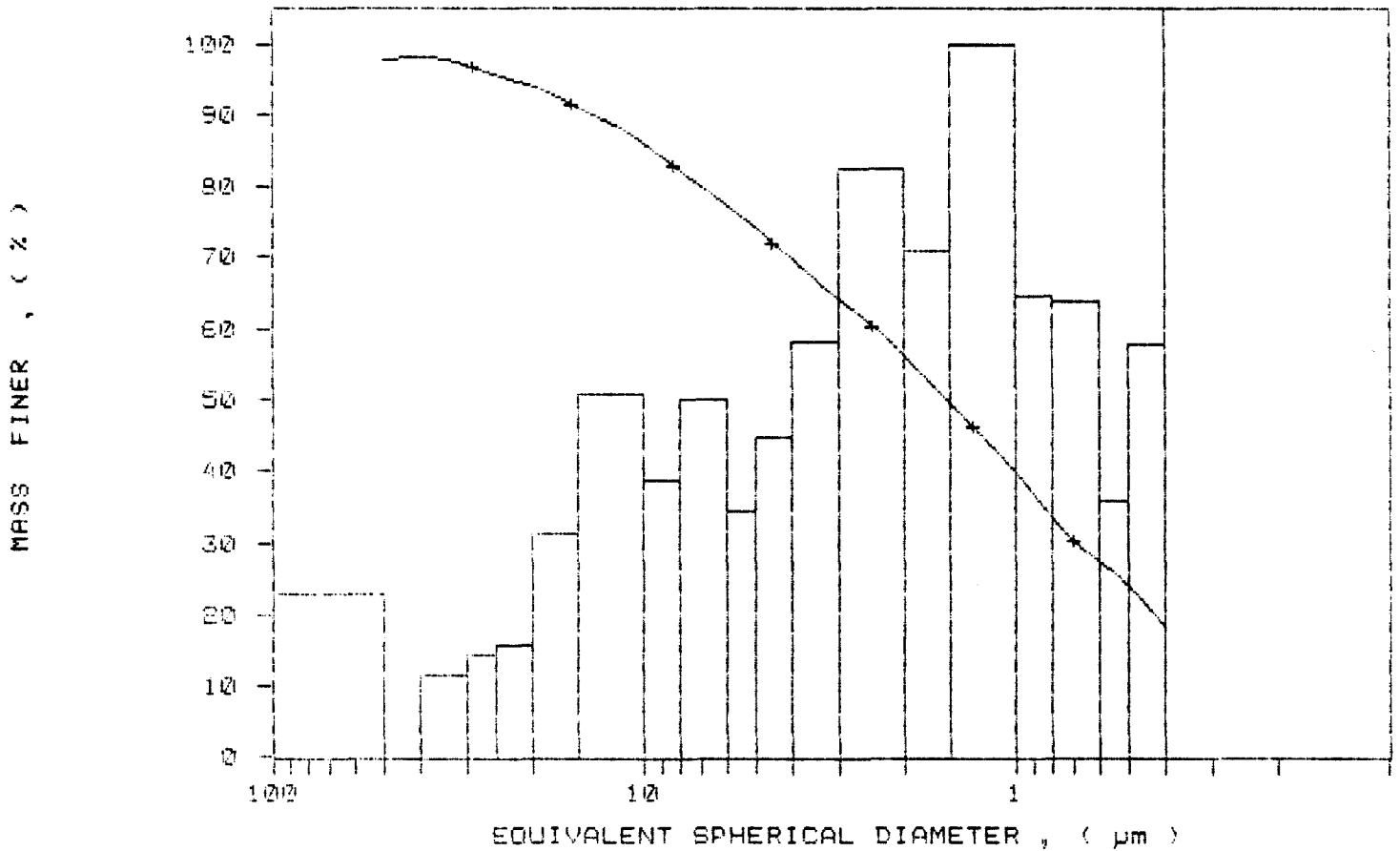
**MINERAL RESEARCH
 CANADA**
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8
 FAX (705) 378-5123
 BUL (705) 378-2416
 DATE

SAMPLE DIRECTORY/NUMBER: DATAS /198
SAMPLE ID: Hole 89-32 # 2656
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: water
ANALYSIS TEMP: 34.7 deg C

UNIT NUMBER: 1
START 14:27:35 10/16/90
REPT 13:04:24 08/28/91
TOT RUN TIME 0:07:13
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7269 cp

RUN TYPE: High Speed

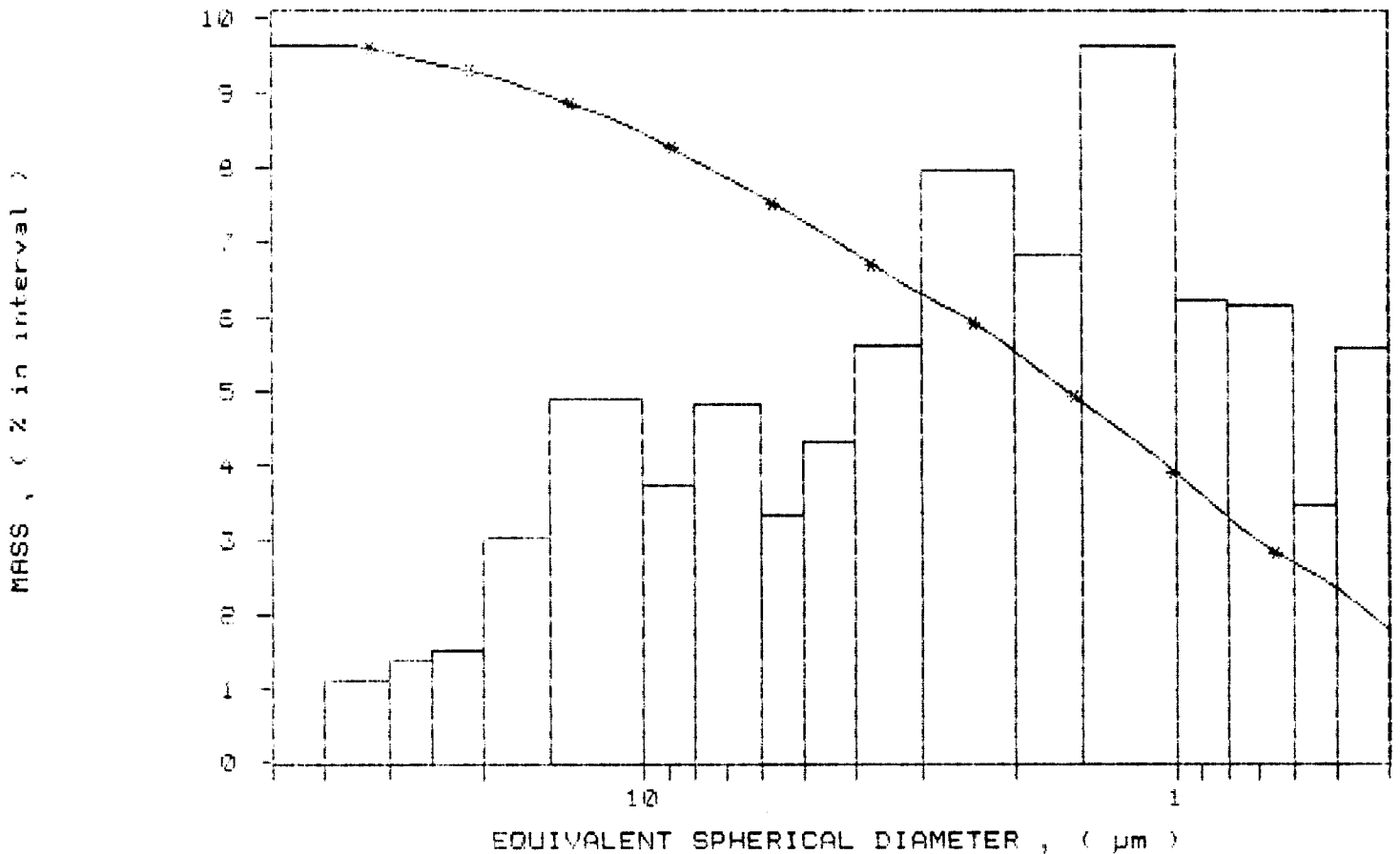
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /198
SAMPLE ID: Hole 89-32 # 2656
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C

UNIT NUMBER: 1
START 14:27:35 10/16/90
REPT 13:04:24 08/28/91
TOT RUN TIME 0:07:13
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7269 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

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PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /207

UNIT NUMBER: 1

SAMPLE ID: Hole 89-92 # 2657

START 13:29:57 10/29/90

SUBMITTER: # 99

REPR1 13:12:11 08/28/91

OPERATOR: KM

TOT RUN TIME 0:07:11

SAMPLE TYPE: Clay

SAM DENS: 2.6000 g/cc

LIQUID TYPE: Water

LID DENS: 0.9942 g/cc

ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

LID VISC: 0.7272 cp

STARTING DIAMETER: 50.00 µm

REYNOLDS NUMBER: 0.21

ENDING DIAMETER: 0.40 µm

FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.20 µm

MODAL DIAMETER: 0.40 µm

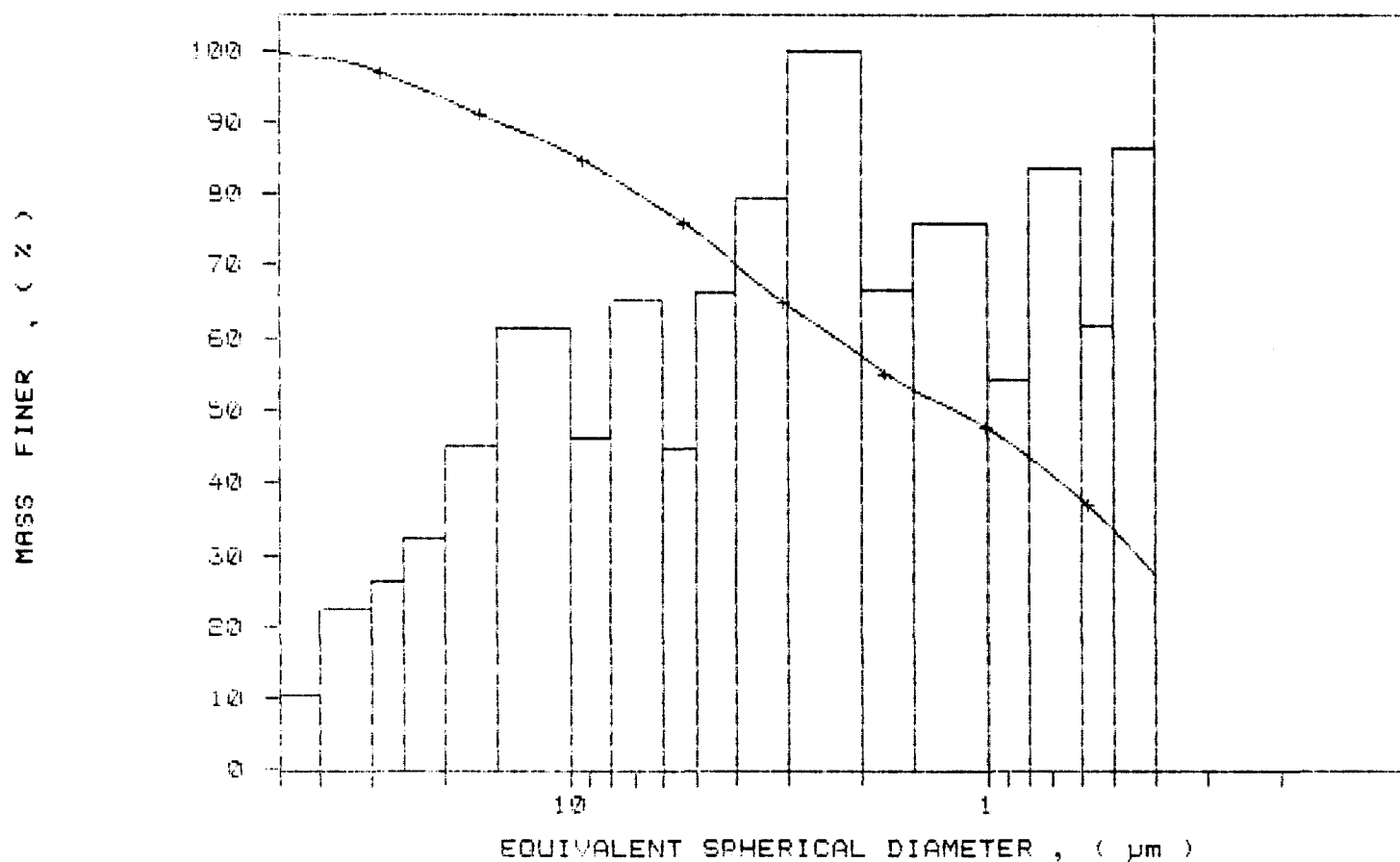
DIAMETER (µm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	99.7	0.3
40.00	98.9	0.8
30.00	97.3	1.6
25.00	95.5	1.9
20.00	93.2	2.3
15.00	90.0	3.2
10.00	85.7	4.3
8.00	82.4	3.3
6.00	77.8	4.6
5.00	74.7	3.2
4.00	70.0	4.7
3.00	64.4	5.6
2.00	57.4	7.0
1.50	52.8	4.7
1.00	47.4	5.3
0.80	43.6	3.8
0.60	37.7	5.9
0.50	33.4	4.4
0.40	27.3	6.1

**MINERAL RESEARCH
CANADA**
 1 INDUSTRIAL BLVD. RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8
 FAX (705) 378-5123
 (705) 378-2416
 DATE

SAMPLE DIRECTORY/NUMBER: DATAS /207
 SAMPLE ID: Hole 89-92 # 2057
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

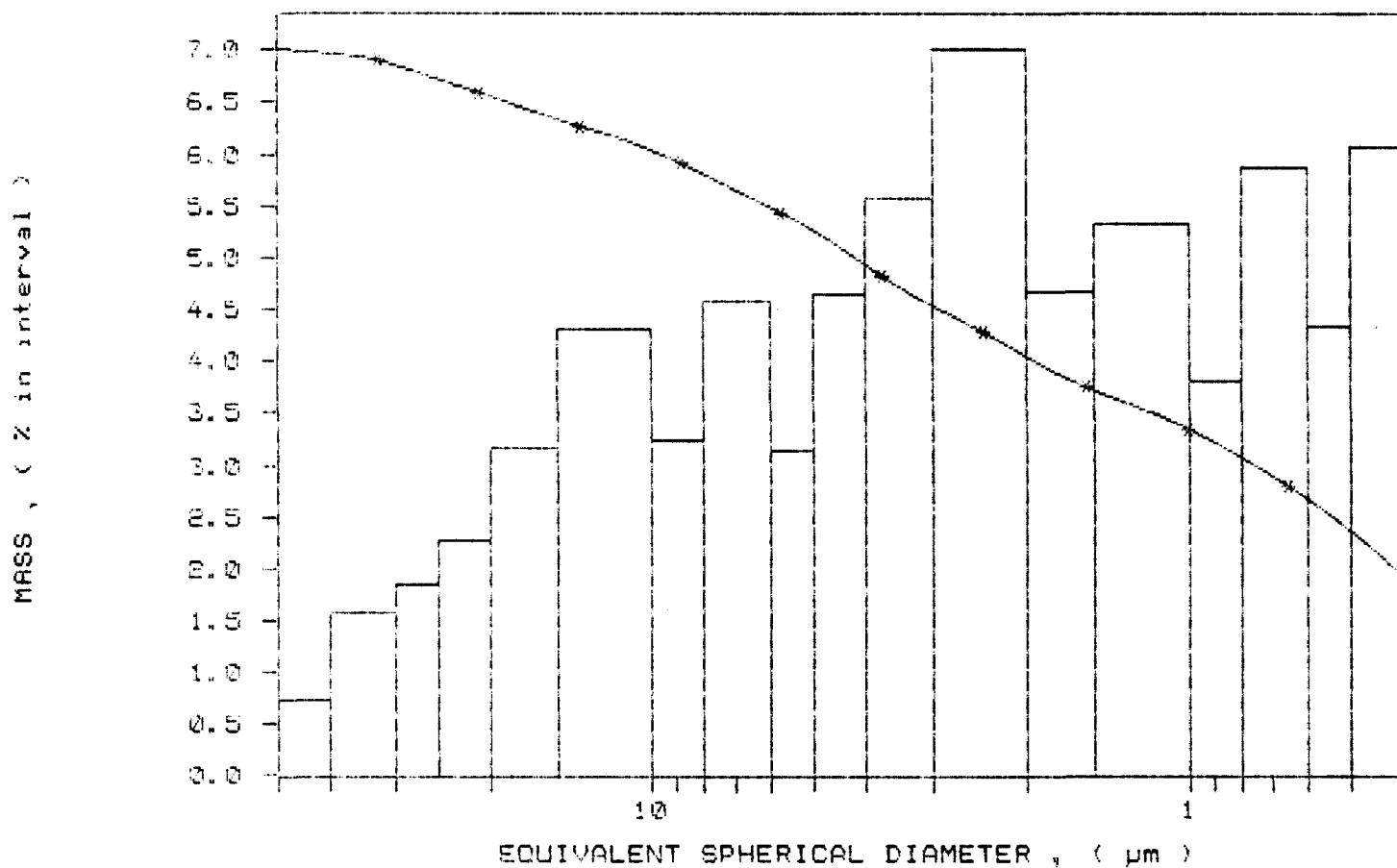
UNIT NUMBER: 1
 START 13:29:57 10/23/90
 REPT 13:12:11 08/28/91
 TOT RUN TIME 0:07:11
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7272 cp

* CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /207	UNIT NUMBER: 1
SAMPLE ID: Hole 89-92 # 2657	START 13:29:57 10/23/90
SUBMITTER: # 39	REPT 13:12:11 08/28/91
OPERATOR: KM	TOT RUN TIME 0:07:11
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	L10 DENS: 0.9942 g/cc
ANALYSIS TEMP: 24.7 deg C	L10 VISC: 0.7272 cp
RUN TYPE: High Speed	

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

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PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /208
 SAMPLE ID: Hole 89-32 # 2658
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 13:59:37 10/29/90
 REPT 19:20:03 08/28/91
 TOT RUN TIME 0:06:48
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

STARTING DIAMETER: 50.00 µm REYNOLDS NUMBER: 0.21
 ENDING DIAMETER: 0.40 µm FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.90 µm MODAL DIAMETER: 4.62 µm

DIAMETER (µm)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	100.7	-0.7
40.00	99.7	1.0
30.00	97.5	2.2
25.00	95.1	2.4
20.00	91.9	3.2
15.00	87.1	4.8
10.00	78.6	8.5
8.00	73.4	5.2
6.00	66.7	6.7
5.00	62.4	4.3
4.00	56.8	5.6
3.00	50.7	6.1
2.00	43.2	7.5
1.50	39.2	3.9
1.00	34.2	5.0
0.80	31.2	3.0
0.60	26.9	4.3
0.50	23.0	3.1
0.40	19.2	4.7

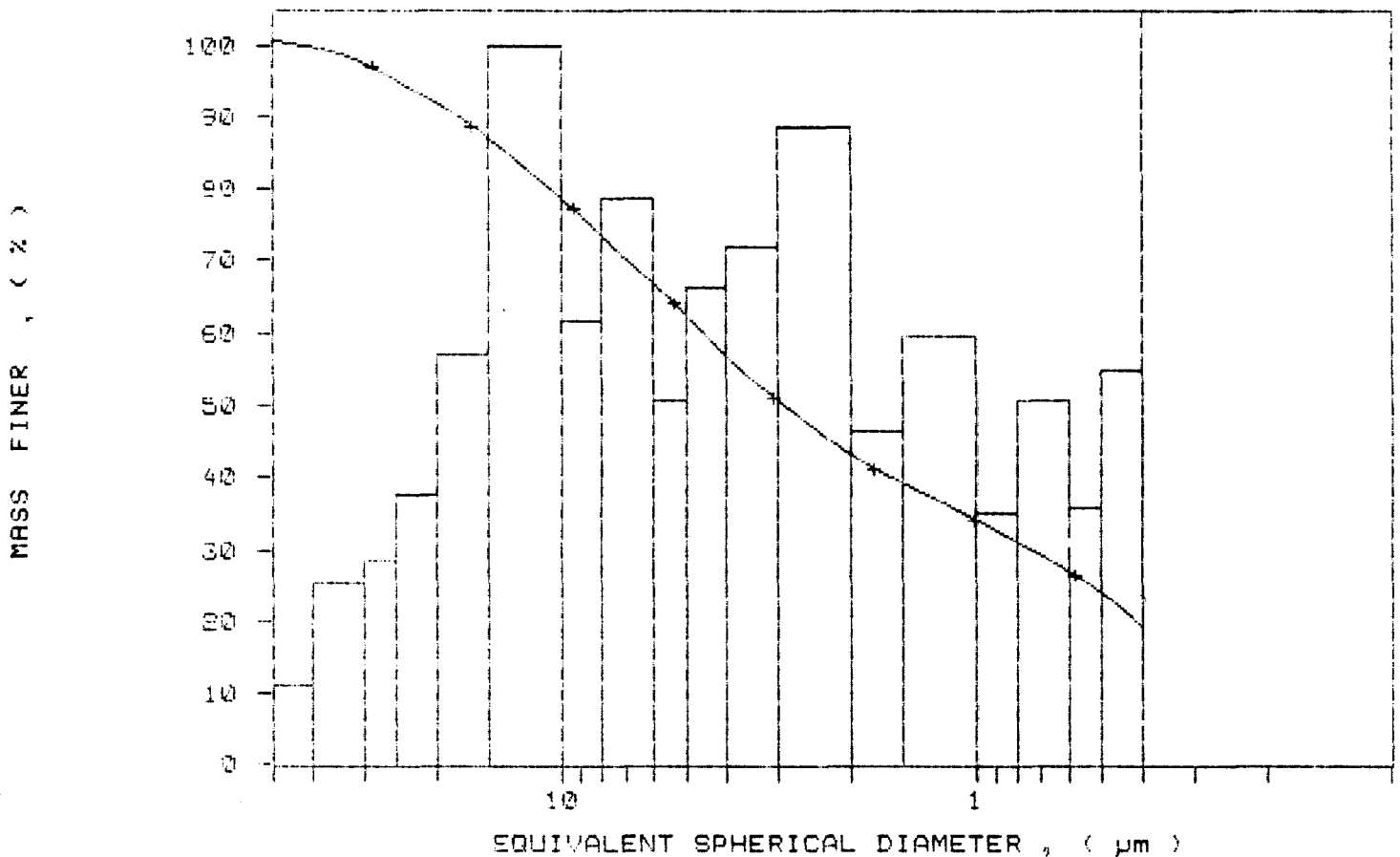
**MINERAL RESEARCH
 CANADA**
 1 INDUSTRIAL BLVD RR2
 PARRY SOUND, ONTARIO
 CANADA P2A 2W8

FAX (705) 378-5123
 DATE _____

BUS (705) 378-2416
[Signature]

SAMPLE DIRECTORY/NUMBER: DATA3 /208	UNIT NUMBER: 1
SAMPLE ID: Hole 89-32 # 2658	START 13:53:37 10/23/90
SUBMITTER: # 39	REPT 13:20:03 08/28/91
OPERATOR: KM	TOT RUN TIME 0:06:48
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	LIQ VISC: 0.7269 cp
RUN TYPE: High Speed	

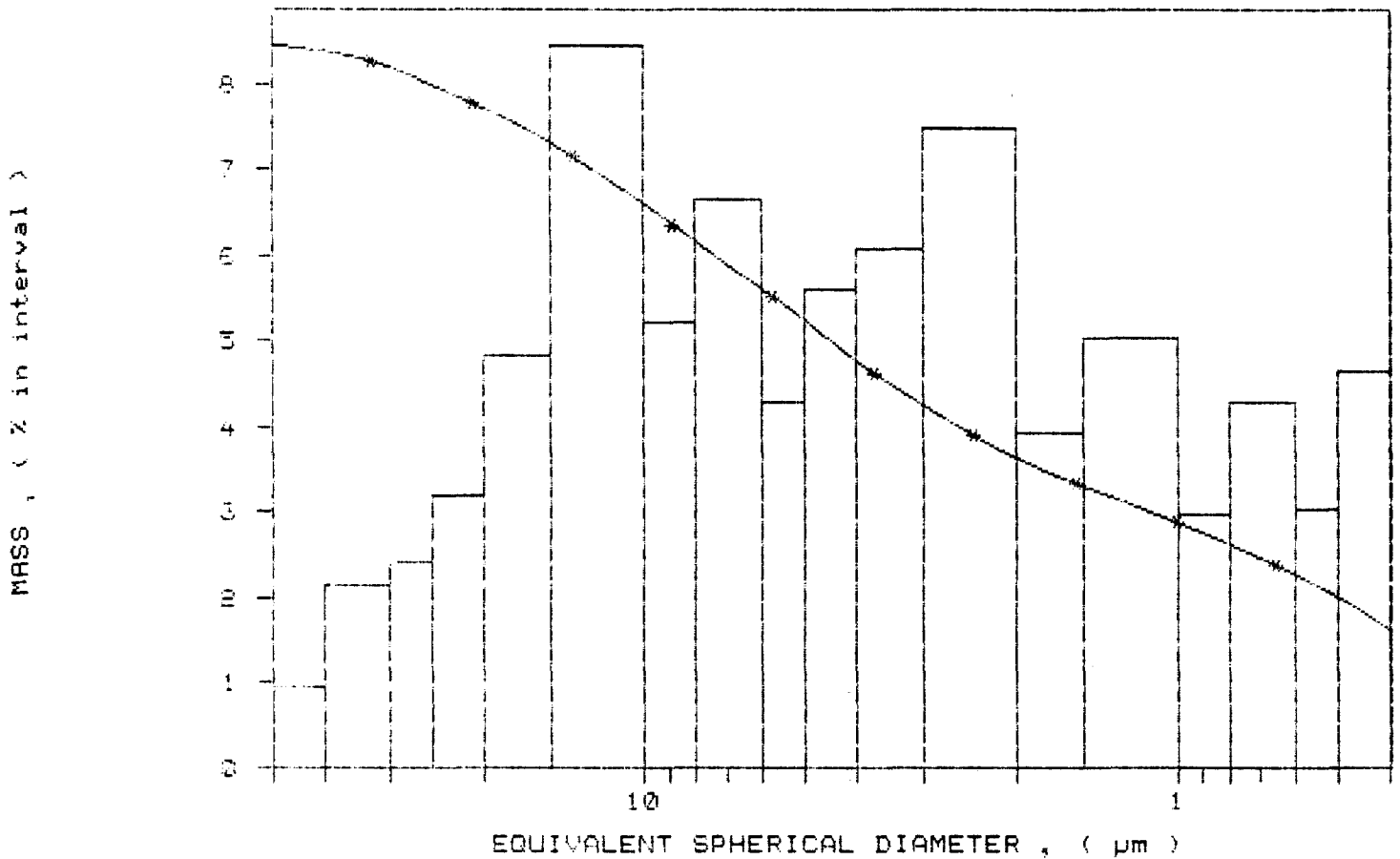
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /208
 SAMPLE ID: Hole 89-32 # 2658
 SUBMITTER: # 99
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 13:53:37 10/23/90
 REPT 13:20:03 08/28/91
 TOT RUN TIME 0:06:48
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7269 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /209
 SAMPLE ID: Hole 89-82 # 2659
 SUBMITTER: # 35
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 08:40:06 10/24/90
 REPT 13:27:52 08/28/91
 TOT RUN TIME 0:07:11
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7272 cp

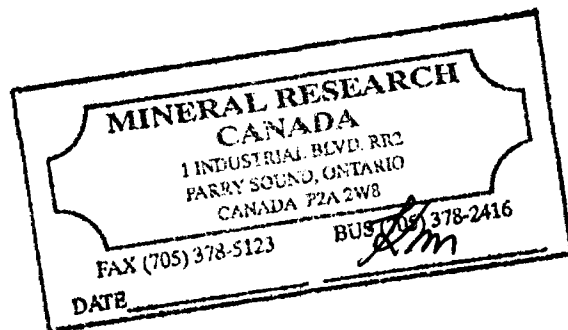
STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

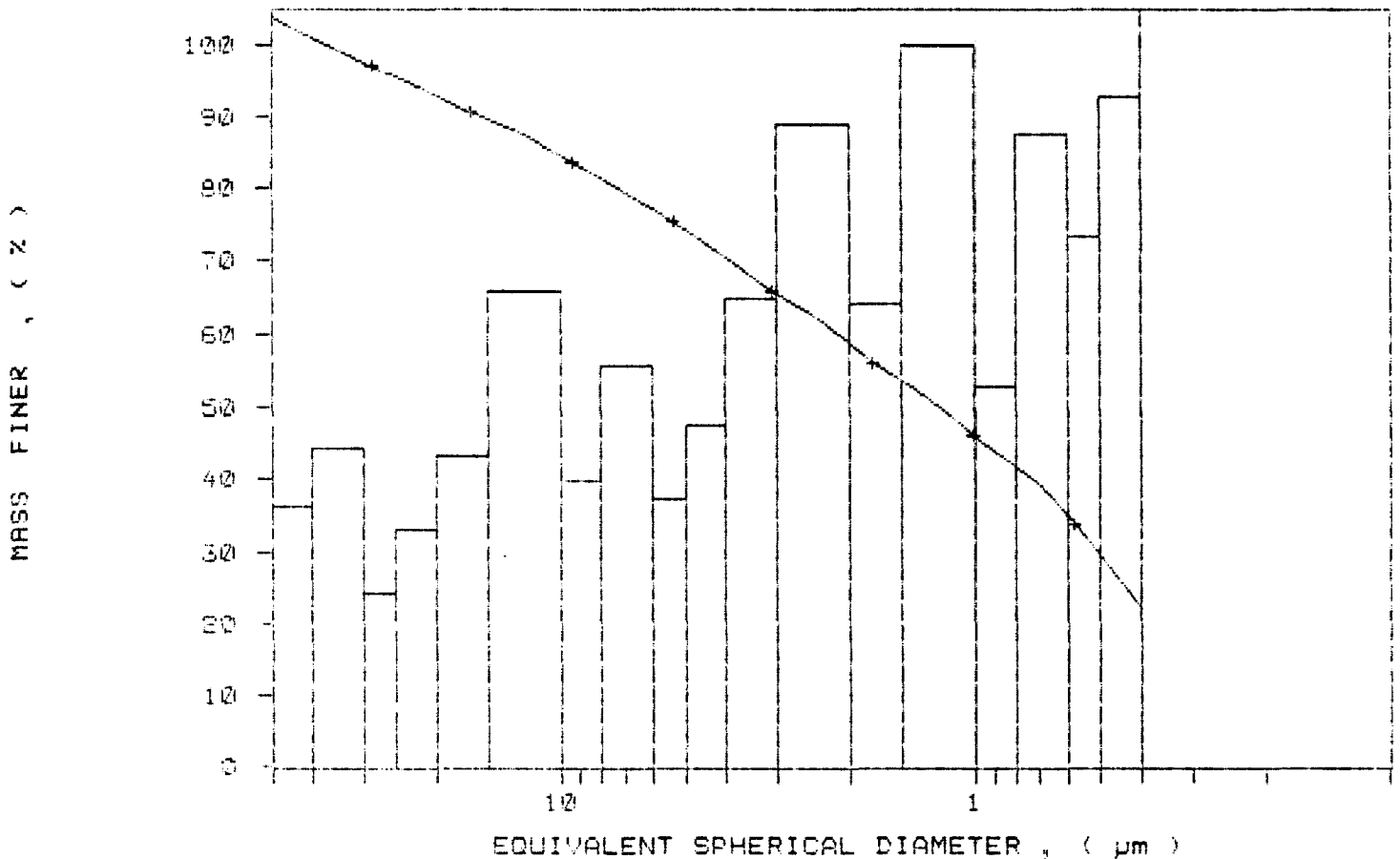
MEDIAN DIAMETER: 1.22 μ m MODAL DIAMETER: 0.40 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	100.7	-6.7
40.00	100.9	2.8
30.00	97.5	3.4
25.00	95.6	1.9
20.00	93.0	2.6
15.00	89.6	3.4
10.00	84.5	5.1
8.00	81.4	3.1
6.00	77.1	4.3
5.00	74.2	2.9
4.00	70.5	3.7
3.00	65.5	5.0
2.00	58.6	6.9
1.50	53.6	5.0
1.00	45.9	7.7
0.80	41.8	4.1
0.60	35.1	6.8
0.50	29.4	5.7
0.40	22.2	7.2



SAMPLE DIRECTORY/NUMBER: DATAS /209	UNIT NUMBER: 1
SAMPLE ID: Hole 89-52 # 2659	START 08:40:06 10/24/90
SUBMITTER: # 39	REPR 13:27:52 03/28/91
OPERATOR: KM	TOT RUN TIME 0:07:11
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: Water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	RUN TYPE: High Speed
	LIQ VISC: 0.7272 cp

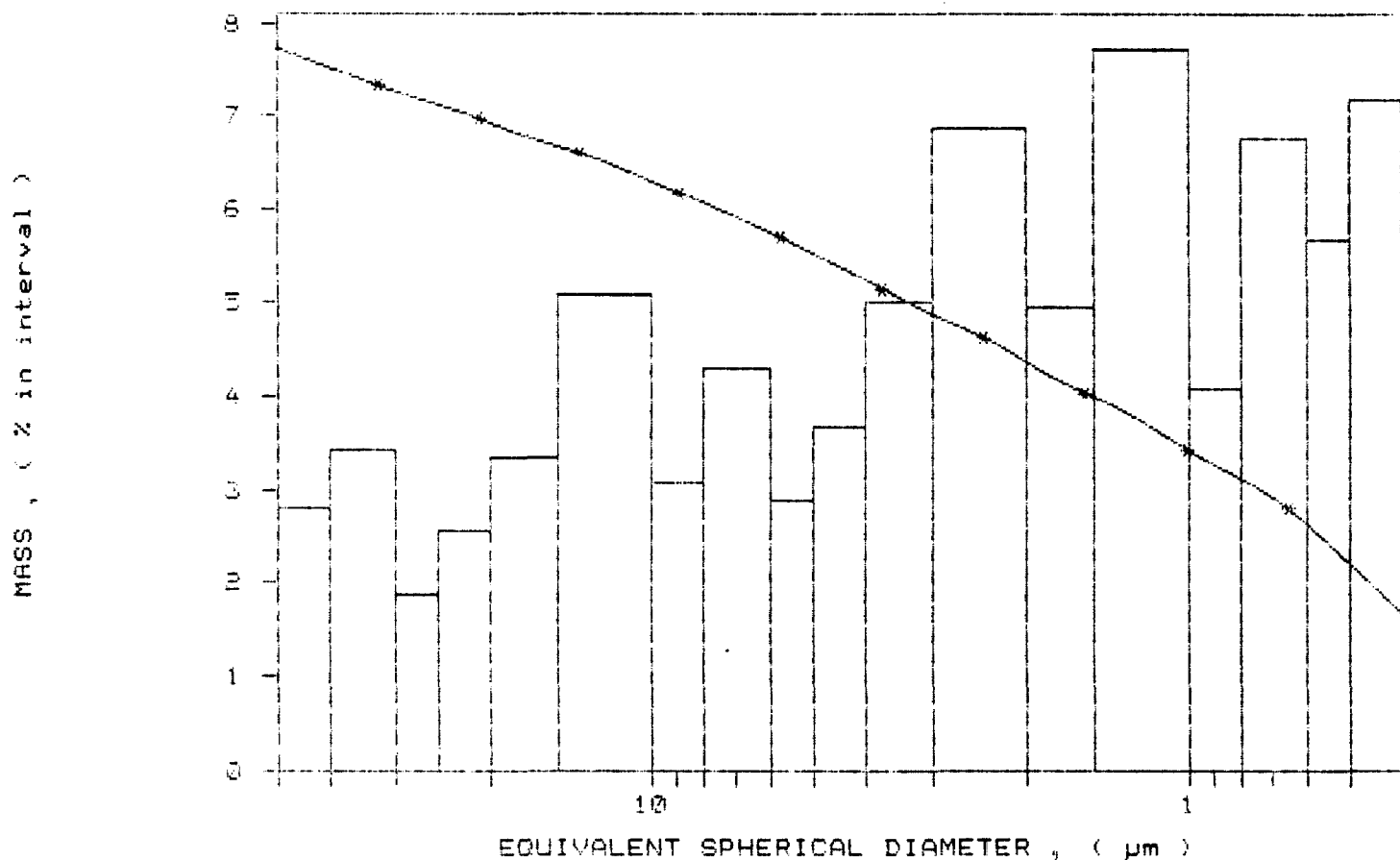
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA9 /209
SAMPLE ID: Hole 89-32 # 2659
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
START 08:40:06 10/24/90
REPT 13:27:52 08/28/91
TOT RUN TIME 0:07:11
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7272 cp

MASS POPULATION VS. DIAMETER
* CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.03

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATA3 /210
 SAMPLE ID: Hole 89-52 # 2660
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 09:46:33 10/24/90
 REPR 13:35:41 08/28/91
 TOT RUN TIME 0:07:16
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

STARTING DIAMETER: 50.00 μ m
 ENDING DIAMETER: 0.40 μ m

REYNOLDS NUMBER: 0.21
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 3.99 μ m MODAL DIAMETER: 5.23 μ m

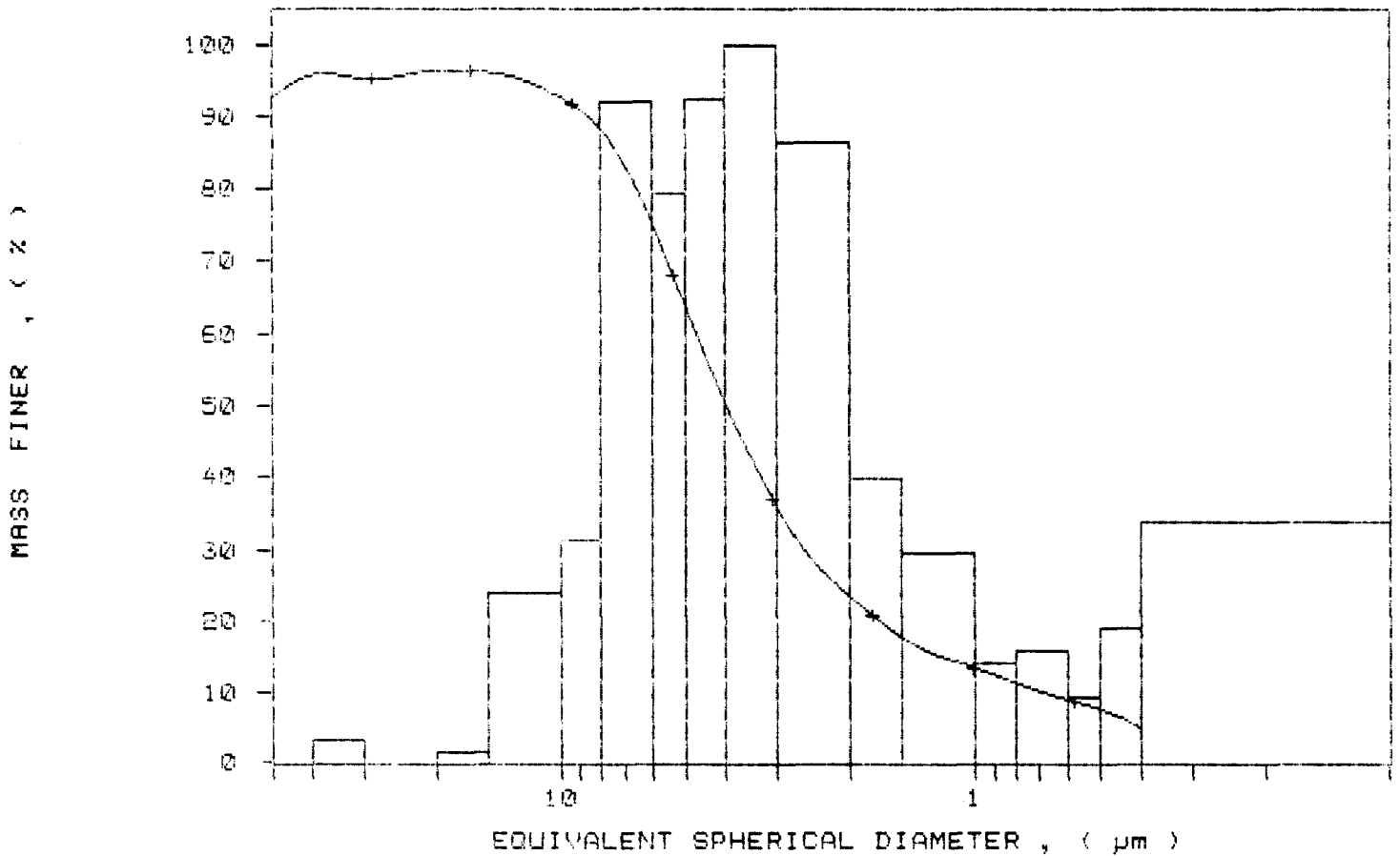
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	92.6	7.4
40.00	95.7	-3.2
30.00	95.2	0.5
25.00	95.5	-0.3
20.00	96.4	-0.9
15.00	96.2	0.3
10.00	92.7	3.5
8.00	88.2	4.5
6.00	74.9	13.3
5.00	63.5	11.4
4.00	50.1	13.3
3.00	35.8	14.4
2.00	23.3	12.4
1.50	17.6	5.7
1.00	13.3	4.3
0.80	11.3	2.0
0.60	9.0	2.3
0.50	7.6	1.4
0.40	4.9	2.8

**MINERAL RESEARCH
 CANADA**
 1 INDUSTRIAL BLVD. RR2
 BARRY SOUND, ONTARIO
 CANADA P2A 2W8
 FAX (705) 378-5123
 BLS (705) 378-2416
 DATE *KM*

SAMPLE DIRECTORY/NUMBER: DATA3 /210
SAMPLE ID: Hole 89-52 # 2660
SUBMITTER: # 59
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
START 09:46:33 10/24/90
REPT 13:35:41 08/28/91
TOT RUN TIME 0:07:16
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7270 cp

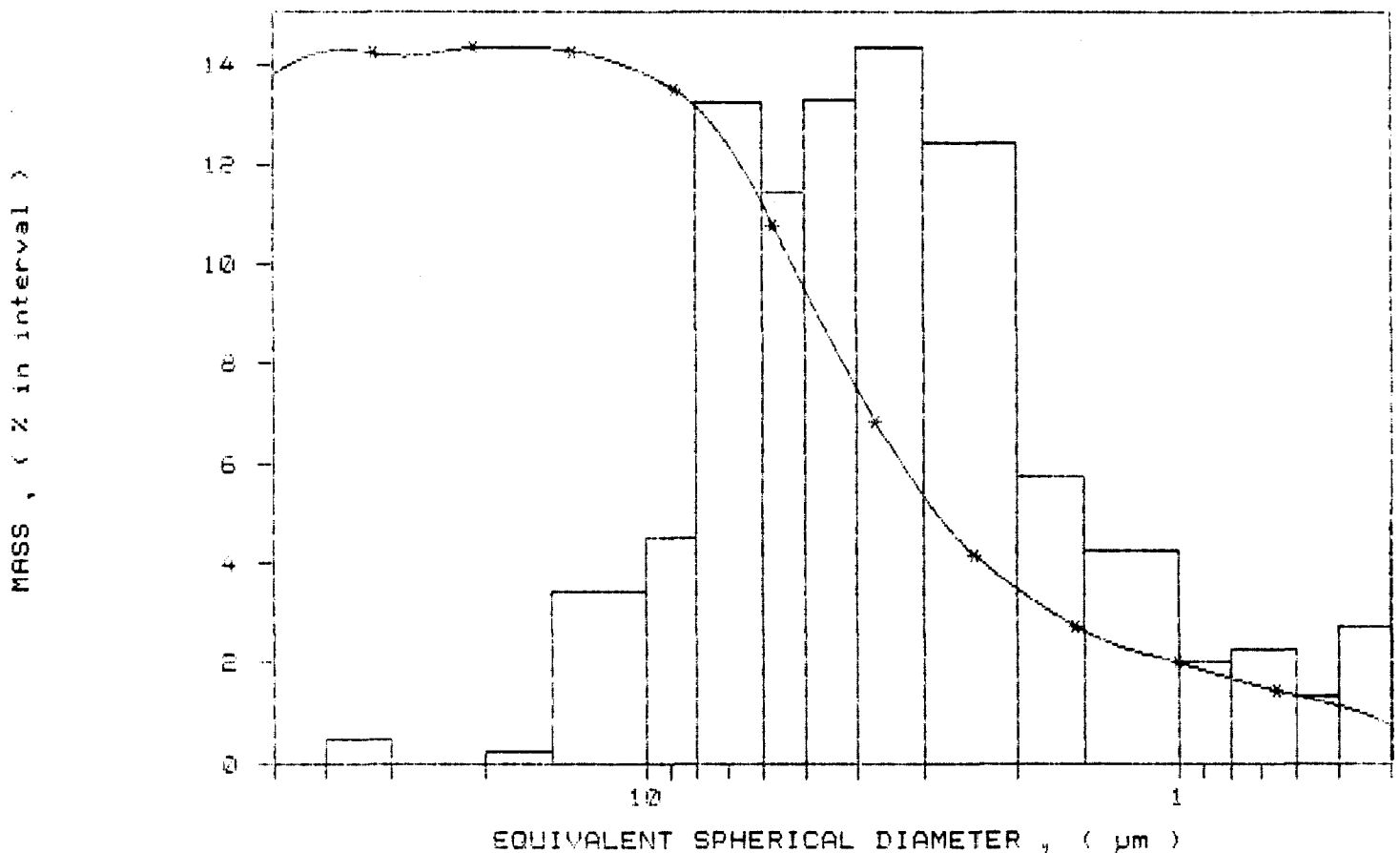
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /210
 SAMPLE ID: Hole 89-32 # 2660
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 09:46:33 10/24/90
 REPT 13:35:41 08/28/91
 TOT RUN TIME 0:07:16
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 v2.03

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /214

UNIT NUMBER: 1

SAMPLE ID: Hole 89-32 # 2661

START 13:54:16 10/24/90

SUBMITTER: # 39

REPR1 14:10:27 08/28/91

OPERATOR: KM

TOT RUN TIME 0:06:46

SAMPLE TYPE: Clay

SAM DENS: 2.6000 g/cc

LIQUID TYPE: Water

LIO DENS: 0.9942 g/cc

ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

LIO VISC: 0.7266 cp

STARTING DIAMETER: 50.00 μ m

REYNOLDS NUMBER: 0.21

ENDING DIAMETER: 0.40 μ m

FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.01 μ m

MODAL DIAMETER: 0.40 μ m

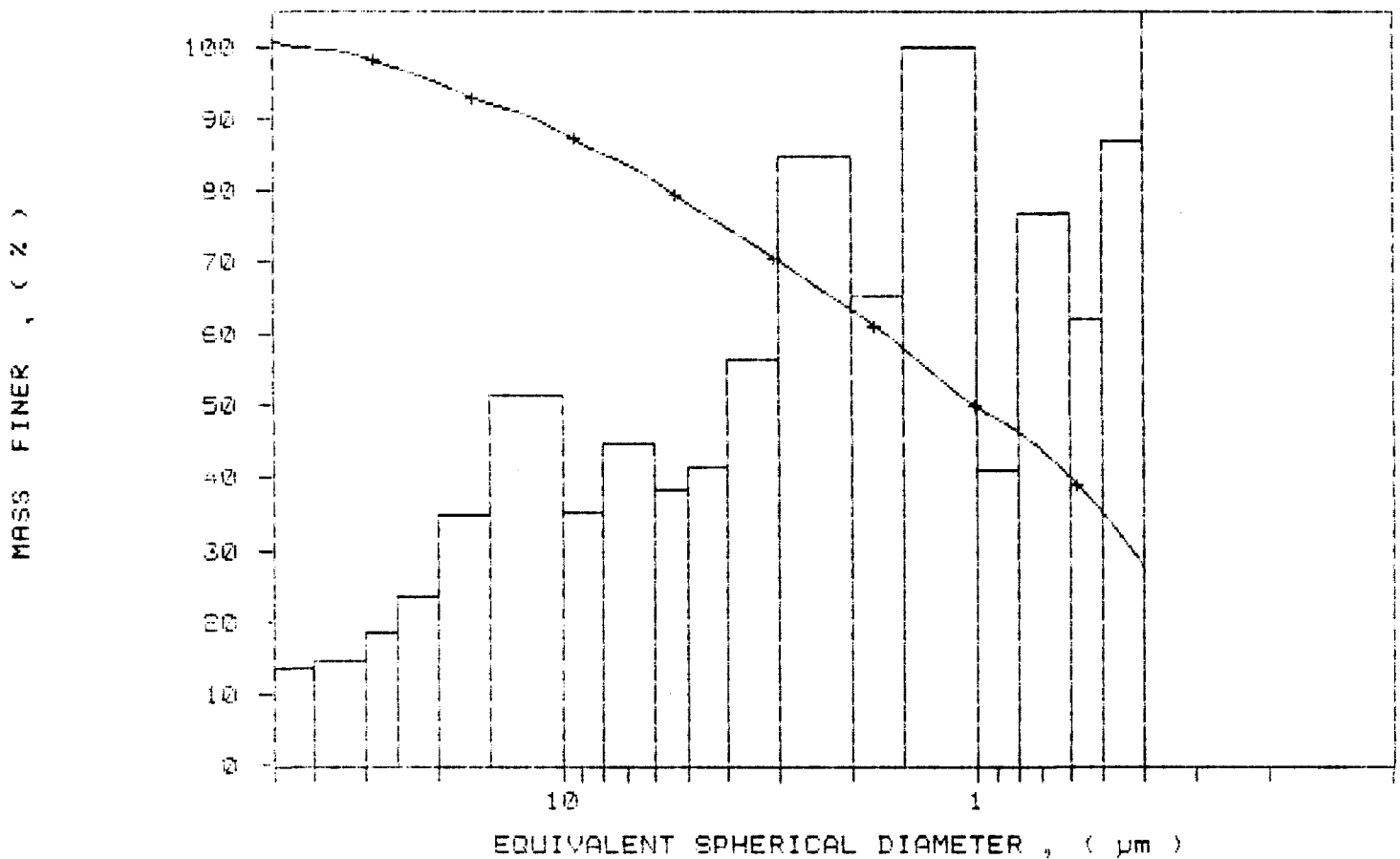
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	100.0	-0.8
40.00	99.7	1.1
30.00	98.5	1.2
25.00	96.5	1.5
20.00	95.0	1.9
15.00	92.1	2.9
10.00	87.9	4.2
8.00	85.0	2.9
6.00	81.4	3.7
5.00	78.2	3.1
4.00	74.8	3.4
3.00	70.2	4.6
2.00	63.3	6.9
1.50	58.0	5.3
1.00	49.8	8.2
0.80	46.4	3.4
0.60	40.2	6.3
0.50	35.1	5.1
0.40	28.0	7.1

MINERAL RESEARCH
CANADA
1 INDUSTRIAL BLVD. RR2
PARRY SOUND, ONTARIO
CANADA P2A 2W8
FAX (705) 378-5123 BUS (705) 378-2416
DATE *dm*

SAMPLE DIRECTORY/NUMBER: DATA3 /214
 SAMPLE ID: Hole 39-32 # 2661
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 13:54:16 10/24/90
 REPR 14:10:27 08/28/91
 TOT RUN TIME @:06:46
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7266 cp

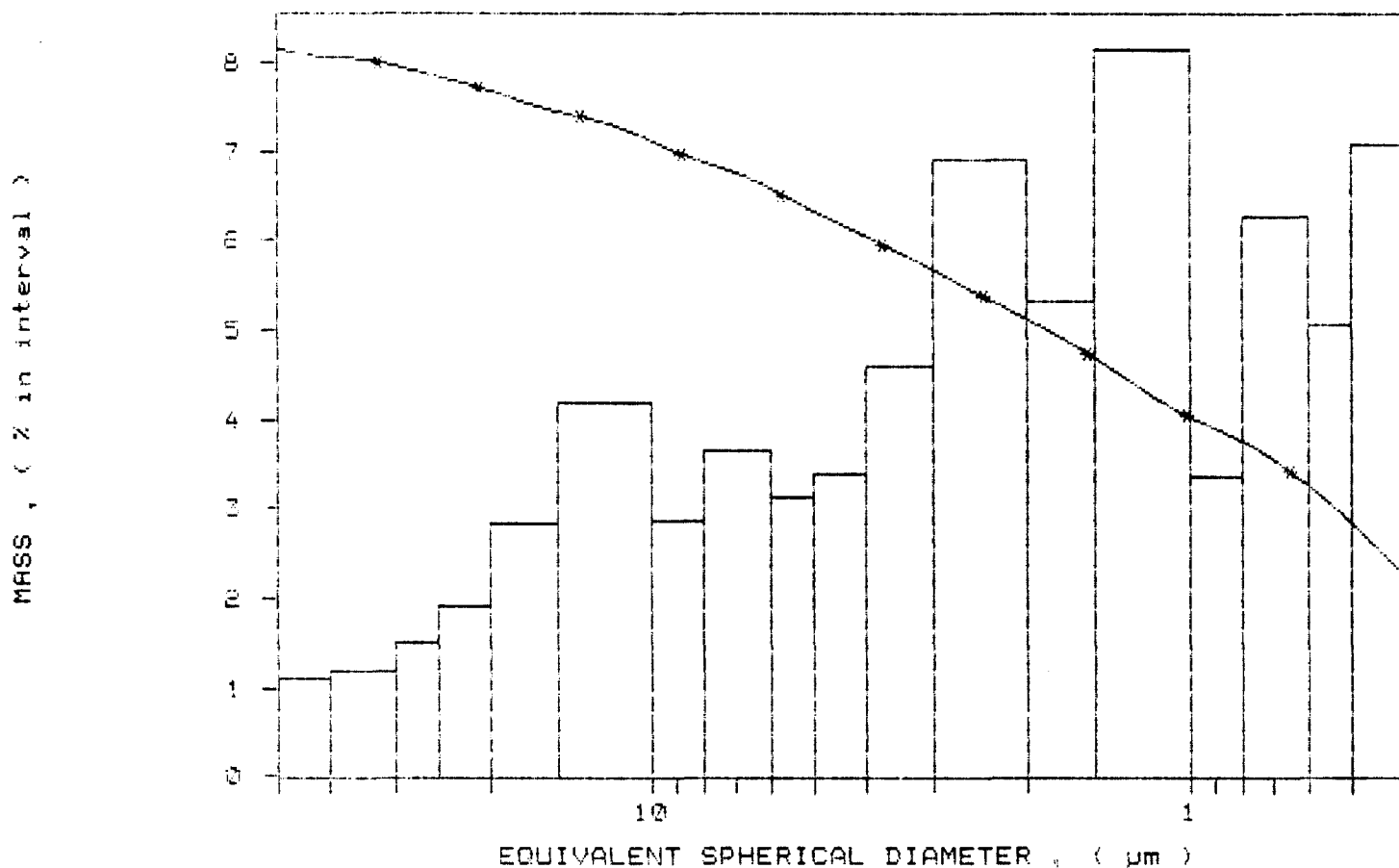
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /214
 SAMPLE ID: Hole 89-82 # 2661
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 13:54:16 10/24/90
 REPRY 14:10:27 08/28/91
 TOT RUN TIME 0:06:46
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7266 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



Clay

SediGraph 5100 V2.03

PAGE 1

SAMPLE DIRECTORY/NUMBER: DATAS /212 UNIT NUMBER: 1
 SAMPLE ID: Hole 09-32 # 2662 START 10:45:49 10/24/90
 SUBMITTER: # 39 REPRT 13:43:31 08/28/91
 OPERATOR: KM TOT RUN TIME 0:06:48
 SAMPLE TYPE: Clay SAM DENS: 2.6000 g/cc
 LIQUID TYPE: water LIQ DENS: 0.9942 g/cc
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed LIQ VISC: 0.7270 cp

STARTING DIAMETER: 50.00 μ m REYNOLDS NUMBER: 0.21
 ENDING DIAMETER: 0.40 μ m FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 3.49 μ m MODAL DIAMETER: 3.46 μ m

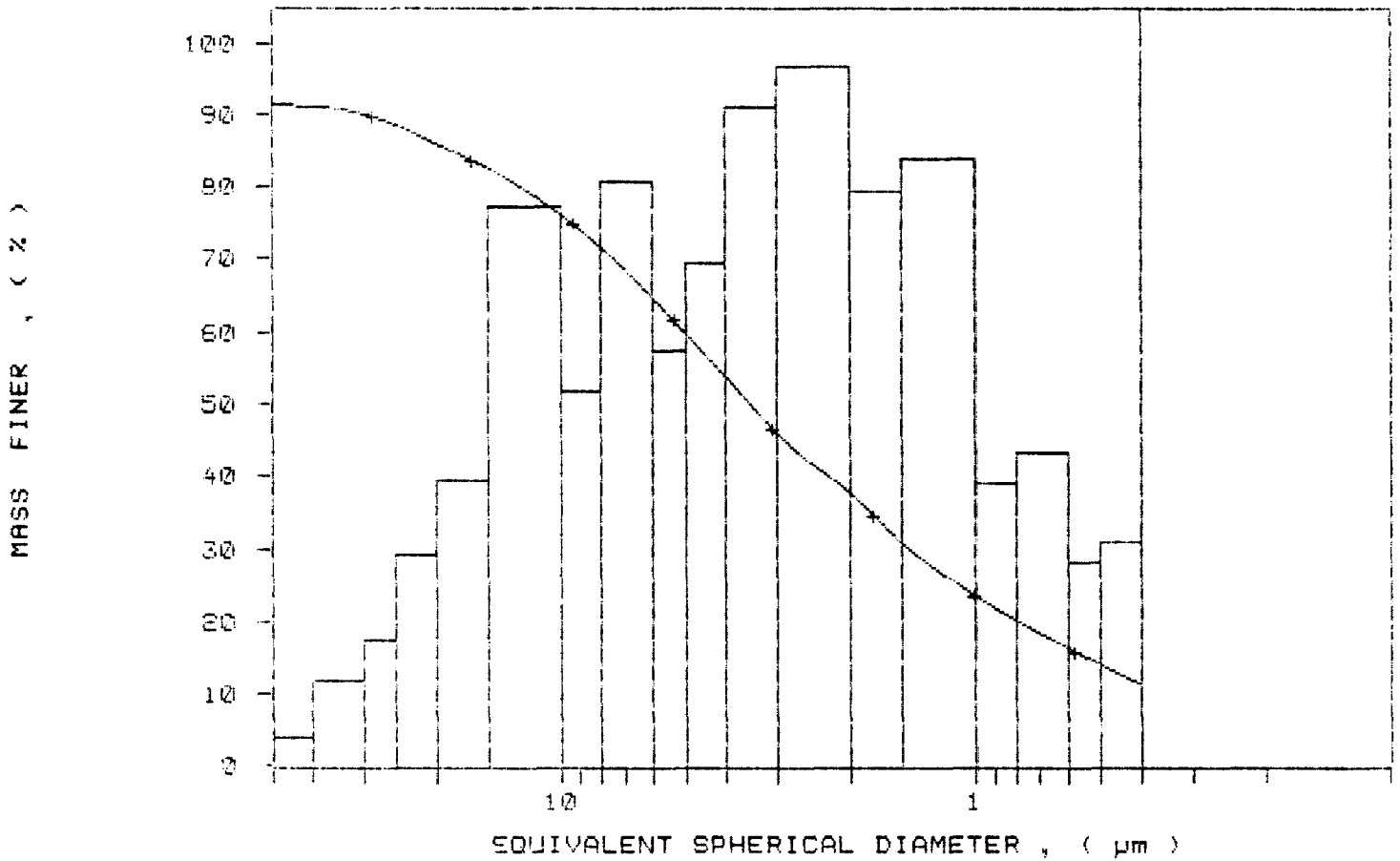
DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	91.4	0.6
40.00	91.1	0.4
30.00	90.6	1.0
25.00	88.5	1.5
20.00	86.6	2.5
15.00	82.6	3.4
10.00	76.0	6.6
8.00	71.6	4.4
6.00	64.6	7.0
5.00	59.7	4.9
4.00	53.7	6.0
3.00	45.9	7.8
2.00	37.6	8.3
1.50	30.7	6.8
1.00	23.6	7.2
0.80	20.2	3.4
0.60	16.4	3.7
0.50	14.0	2.4
0.40	11.3	2.7

**MINERAL RESEARCH
 CANADA**
 1 INDUSTRIAL BLVD. RR2
 FERRY SOUND, ONTARIO
 CANADA P2A 2W8

FAX (705) 378-5123 BUS (705) 378-2416
 DATE *[Signature]*

SAMPLE DIRECTORY/NUMBER: DATA9 /212	UNIT NUMBER: 1
SAMPLE ID: Hole 89-32 # 2662	START 10:45:49 10/24/90
SUBMITTER: # 59	REPT 13:43:31 08/28/91
OPERATOR: KM	TOT RUN TIME 0:06:48
SAMPLE TYPE: Clay	SAM DENS: 2.6000 g/cc
LIQUID TYPE: water	LIQ DENS: 0.9942 g/cc
ANALYSIS TEMP: 34.7 deg C	LIQ VISC: 0.7270 cp
RUN TYPE: High Speed	

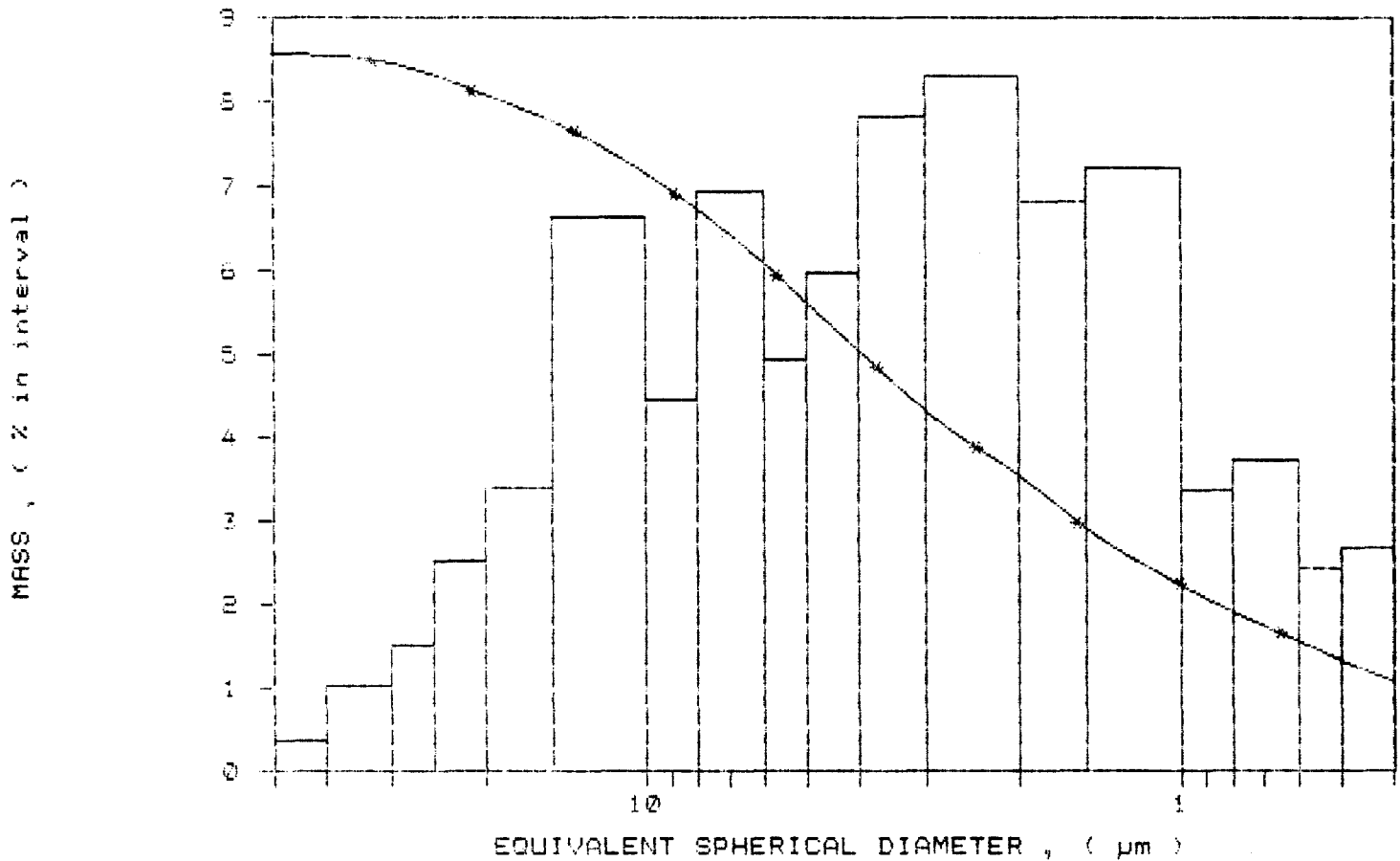
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /212
 SAMPLE ID: Hole 89-32 # 2662
 SUBMITTER: # 99
 OPERATOR: RM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 10:45:49 10/24/90
 REPRY 13:43:31 08/28/91
 TOT RUN TIME 0:06:48
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7270 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA3 /213
 SAMPLE ID: Hole 89-32 # 2668
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 11:32:14 10/24/90
 REPR 13:51:21 08/28/91
 TOT RUN TIME 0:06:47
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

STARTING DIAMETER: 50.00 μ m REYNOLDS NUMBER: 0.21
 ENDING DIAMETER: 0.40 μ m FULL SCALE MASS %: 100

MASS DISTRIBUTION

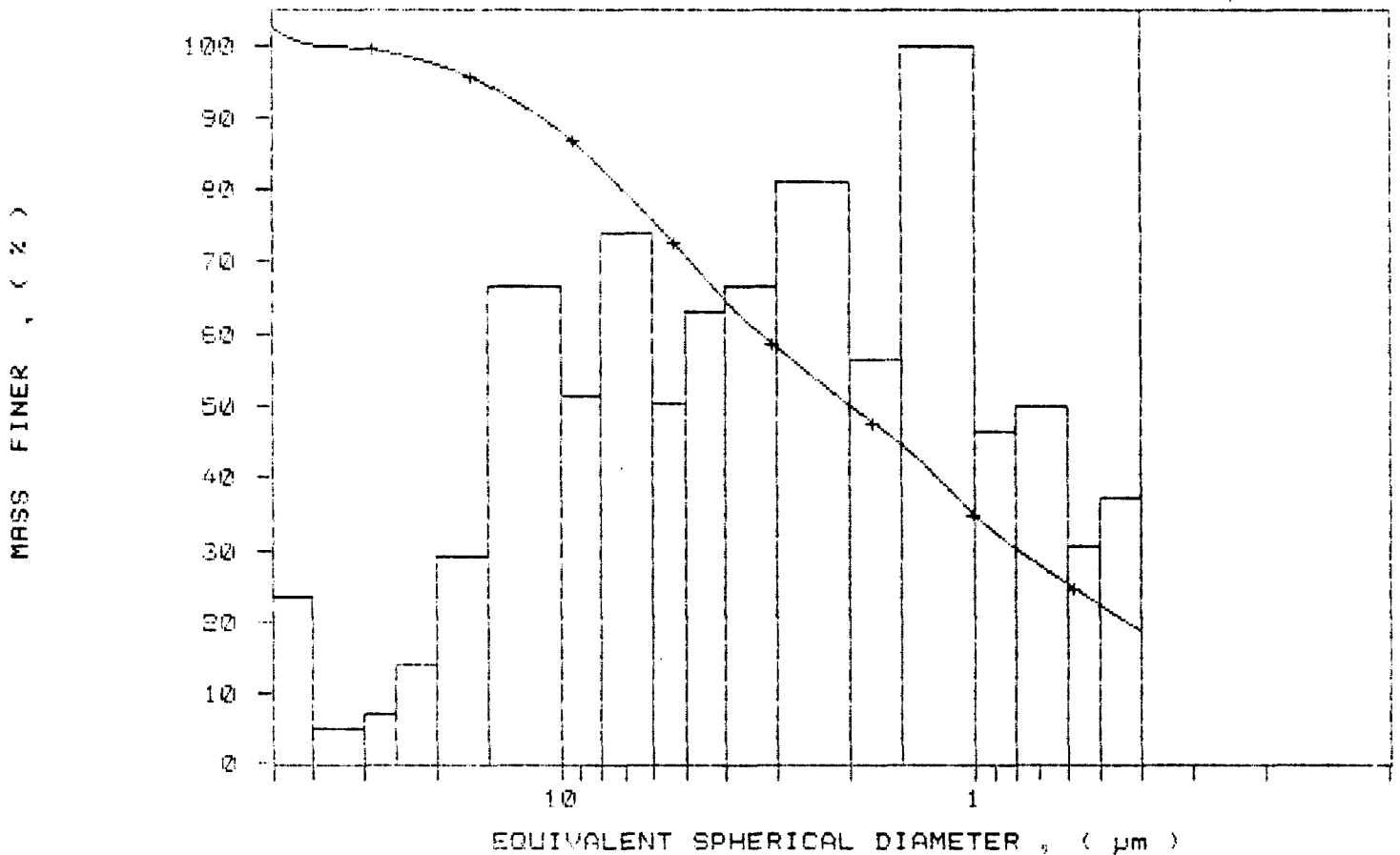
MEDIAN DIAMETER: 1.99 μ m MODAL DIAMETER: 4.68 μ m

DIAMETER (μ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
50.00	102.4	-2.4
40.00	100.1	2.3
30.00	99.5	0.5
25.00	98.8	0.7
20.00	97.4	1.4
15.00	94.6	2.9
10.00	88.0	6.5
8.00	83.0	5.1
6.00	75.7	7.3
5.00	70.8	4.9
4.00	64.6	6.2
3.00	58.1	6.5
2.00	50.1	8.0
1.50	44.6	5.5
1.00	34.6	9.8
0.80	30.3	4.6
0.60	25.4	4.9
0.50	22.4	3.0
0.40	18.7	3.6



SAMPLE DIRECTORY/NUMBER: DATAS /213
SAMPLE ID: Hole 89-02 # 2663
SUBMITTER: # 39
OPERATOR: KM
SAMPLE TYPE: Clay
LIQUID TYPE: Water
ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed
UNIT NUMBER: 1
START 11:32:14 10/24/90
REPT 13:51:21 08/28/91
TOT RUN TIME 0:06:47
SAM DENS: 2.6000 g/cc
LIQ DENS: 0.9942 g/cc
LIQ VISC: 0.7268 cp

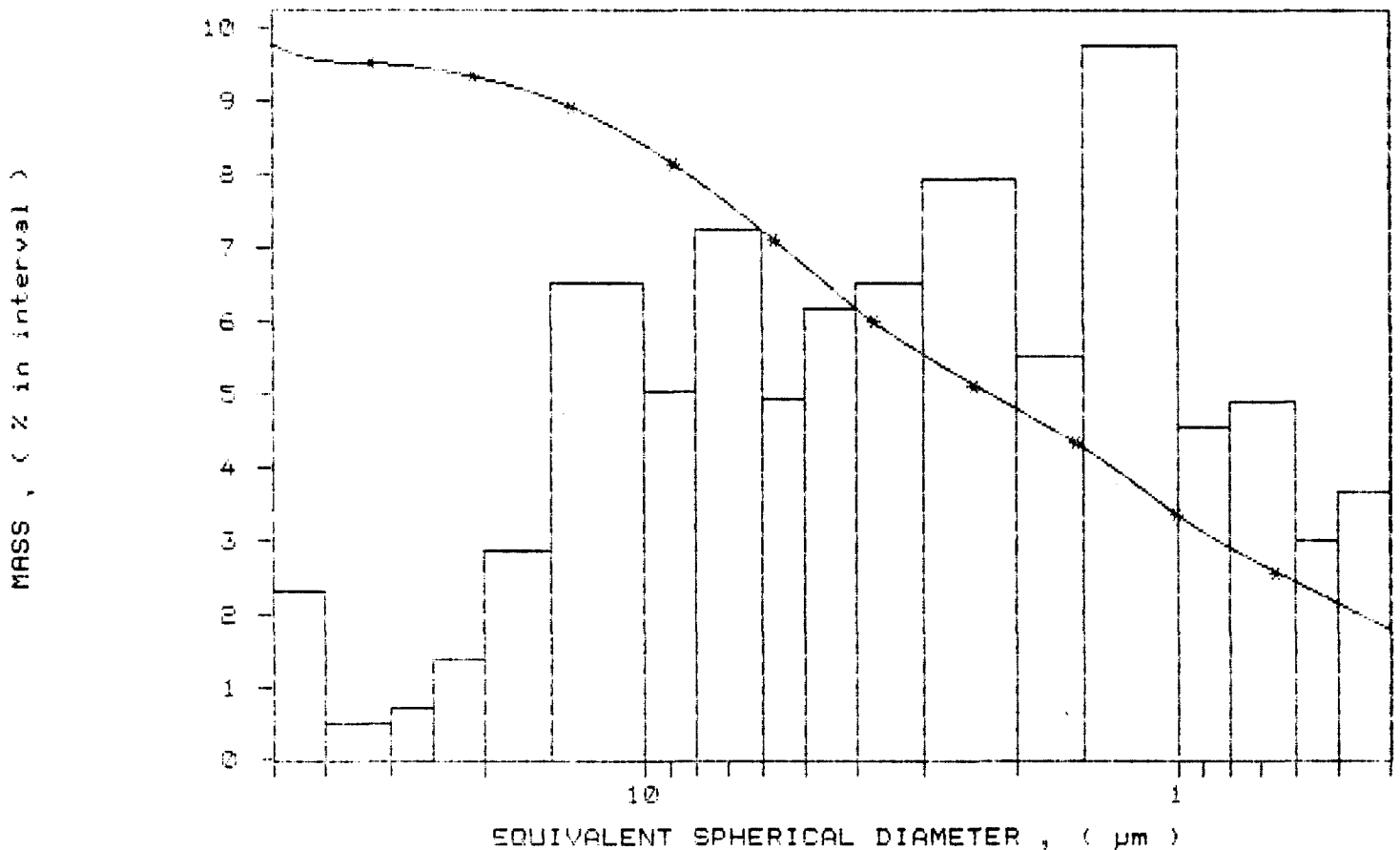
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATAS /213
 SAMPLE ID: Hole 89-32 # 2683
 SUBMITTER: # 39
 OPERATOR: KM
 SAMPLE TYPE: Clay
 LIQUID TYPE: Water
 ANALYSIS TEMP: 34.7 deg C RUN TYPE: High Speed

UNIT NUMBER: 1
 START 11:32:14 10/24/90
 REPT 13:51:21 03/28/91
 TOT RUN TIME 0:06:47
 SAM DENS: 2.6000 g/cc
 LIQ DENS: 0.9942 g/cc
 LIQ VISC: 0.7268 cp

MASS POPULATION VS. DIAMETER
 * CUMULATIVE MASS PERCENT FINER VS. DIAMETER





42J01NE8150 2.15373 KIPLING

900

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Geoscience Approvals Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (705) 670-5853
Fax: (705) 670-5863

April 18, 1994

Our File: 2.15373
Transaction #: W9460.00035
W9460.00037

Mining Recorder
Ministry of Northern
Development and Mines
60 Wilson Avenue
1st Floor
Timmins, Ontario
P4N 2S7

Dear Sir:

**RE: Approval of Assessment Work on mining claims 825800 et al. in
Kipling and Emerson Townships.**

The assessment credits for "Other Authorised Work", section 18(9) of the Mining Act Regulations, as listed on the original Report of Work, have been approved as of April 18, 1994.

Please indicate this approval on the claim record sheets.

If you have any questions please contact Dale Messenger at 670-5858.

Yours sincerely,

Ron C. Gashinski
Senior Manager, Mining Lands Section
Mining and Land Management Branch
Mines and Minerals Division

DEM/lis

Enclosures:

cc: ✓ Assessment Files Office
Toronto, Ontario

Resident Geologist
Timmins, Ontario



Ministry of Northern Development and Mines

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number

W9460.00035

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 150 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7251.

2.15373

- Instructions:
- Please type or print and submit in duplicate.
 - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
 - A separate copy of this form must be completed for each Work Group.
 - Technical reports and maps must accompany this form in duplicate.
 - A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s) <i>Great Lakes Kamin Inc.</i>	Client No. <i>221553</i>
Address <i>100 Shirley Ave. Kitchener, ON N2B 2E1</i>	Telephone No. <i>(519) 744-9556</i>
Mining Division <i>Porcupine</i>	Township/Area <i>Kipling/Emerson</i>
Date Work Performed From: <i>Nov. 6, 1989</i>	To: <i>Feb. 5, 1993</i>

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	
Physical Work, Including Drilling	
Rehabilitation	
Other Authorized Work	<i>Subsection 15(7)</i>
Assays	<i>NRA</i>
Assignment from Reserve	

RECEIVED
APR 07 1994
MINING LANDS BRANCH

RECORDED
JAN 27 1994
Receipt

Total Assessment Work Claimed on the Attached Statement of Costs \$ *32,097.00*

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 90 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
<i>Anne Casselman</i>	<i>Mineral Research Canada Inc.</i>
<i>Kacim Alabostian</i>	<i>R.R. # 2 Pary, Ont, ON P2A 2W8</i>
<i>Chavez Labs Ltd.</i>	<i>5175 Timberline Blvd. Mississauga, ON L4W 2S3</i>

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.

Date: *JAN. 17/94*

Recorded Holder or Agent Signature: *[Signature]*

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and after its completion and annexed report is true.

Name and Address of Person Certifying: *Anne Casselman - Mineral Research Canada Inc.*

Telephone No.: *1705 378-2416*

Date: *Jan 24, 1994*

Certified by Signature: *Anne Casselman*

For Office Use Only

Total Value of Recorded	Date Recorded	Mining Recorder	RECEIVED JAN 27 1994 (1st rec'd) PORCUPINE MINING DIVISION
<i>32,097</i>	<i>JAN. 27, 1994</i>	<i>[Signature]</i>	
	Deemed Approval Date <i>Apr 27, 1994</i>	Date Approved	

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units
N/A	825800	1
N/A	825802	1
N/A	825805	1
N/A	825806	1
N/A	825807	1
N/A	825809	1
N/A	825792	1
N/A	825797	1
N/A	825798	1
N/A	900044	1
N/A	900045	1
N/A	900092	1
N/A	1089038	1
N/A	1089039	1
N/A	1089040	1
N/A	1089041	1
N/A	1089042	1
78+14		

Total Number of Claims

Value of Assessment Work Done on this Claim	Value Applied to this Claim
\$ 1012.88	0
\$ 3245.82	0
\$ 2,371.06	0
1,400.00	0
\$ 2,699.96	0
5,320	0
552.48	0
2,854.48	0
2,109.86	0
1,305	0
1,595	0
2,175	0
0	400.00
0	400.00
0	400.00
0	400.00
0	400.00
32,097.78	31,200

Total Value Work Done

Total Value Work Applied

Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
\$ 1012.88	0
\$ 3245.82	0
\$ 2,371.06	0
1,400.00	0
\$ 2,699.96	0
4956.48	363.52
552.48	0
2320.22	534.26
2,109.86	0
1,305	0
1,595	0
2,175	0
0	0
0	0
0	0
0	0
0	0
31,200	897.78

Total Assigned From

Total Reserve

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

1. Credits are to be cut back starting with the claim listed last, working backwards.
2. Credits are to be cut back equally over all claims contained in this report of work.
3. Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

Signature

Date

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units
N/A	1089043	1
N/A	1089044	1
N/A	1089045	1
N/A	1089046	1
N/A	1089047	1
N/A	1089048	1
N/A	1089049	1
N/A	1089050	1
N/A	1089051	1
N/A	1089052	1
N/A	1089053	1
N/A	1089054	1
N/A	1089055	1
N/A	1089056	1
N/A	1089057	1
N/A	1089058	1
N/A	1089059	1
Total Number of Claims		

Value of Assessment Work Done on this Claim	Value Applied to this Claim
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
0	400
Total Value Work Done	Total Value Work Applied

Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
Total Assigned	Total Reserve

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

- Credits are to be cut back starting with the claim listed last, working backwards.
- Credits are to be cut back equally over all claims contained in this report of work.
- Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

Signature

Date



Ministry of Northern Development and Mines
 Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit
 État des coûts aux fins du crédit d'évaluation

Transaction No./N° de transaction

W9460.00035

SEE AMENDED

Mining Act/Loi sur les mines

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4^e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type WRA 23.02 x 539 = 12,407.78		
	LAB Seeligraph 101 x 130 x 50% = 6,565		
	monitore 101 x 45 x 50% = 2,272.50		
	rotap 101 x 105 x 50% = 5,302.50		
	PH 46 x 10 x 50% = 230.00		
Supplies Used Fournitures utilisées	Type Seeligraph 19 x 130 = 2,470.00		
	monitore 19 x 45 = 855.00		
	rotap 19 x 105 = 1,995.00		
			32,097.78
Equipment Rental Location de matériel	Type		
Total Direct Costs Total des coûts directs			

2. Indirect Costs/Coûts indirects

Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work. Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement			
Mobilization and Demobilization Mobilisation et démoblisation			
Sub Total of Indirect Costs Total partiel des coûts indirects			
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs) Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)			

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note: Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

- Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
- Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit \$28,740 x 0.50 = Total Assessment Claimed \$14,370

Remises pour dépôt

- Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
- Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Certification Verifying Statement of Costs

I hereby certify: that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as President I am authorized (Recorded Holder, Agent, Position in Company)

to make this certification

Valeur totale du crédit d'évaluation Evaluation totale demandée



Attestation de l'état des coûts JAN 27 1994

J'atteste par la présente: que les montants indiqués sur le rapport de travail ci-joint ont été engagés pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de PROCURER GENERAL je suis autorisé (titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature [Signature] Date JAN. 17/94



Ministry of Northern Development and Mines

(Ontario)

Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

ANNEXED

Transaction No./N° de transaction W9460.0005

Page (1)

Persons information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 169 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7284.

Les renseignements personnels contenus dans la présente formule ont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adressez toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 169, rue Cedar, 4^e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7284.

1. Direct Costs/Coûts directs

2. Indirect Costs/Coûts indirects

Table with 4 columns: Type, Description, Amount Montant, Totals Total global. Rows include Wages Salaires, Contractor's and Consultant's Fees, Supplies Used, and Equipment Rental.

Table with 4 columns: Type, Description, Amount Montant, Totals Total global. Rows include Transportation, Feed and Lodging, and Mobilization and Demobilization.

Total Direct Costs Total des coûts directs \$1772.00

Sub Total of Indirect Costs Total partiel des coûts indirects \$14370.00

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification.

Note: Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet.

Filing Discounts

- 1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit.

Remises pour dépôt

- 1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné.

Total Value of Assessment Credit x 0.50 = Total Assessment Claimed

Valeur totale du crédit d'évaluation x 0.50 = Évaluation totale demandée

Certification Verifying Statement of Costs

I hereby certify: that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

Attestation de l'état des coûts

J'atteste par la présente: que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

That as President I am authorized to make this certification

Et qu'à titre de Président je suis autorisé à faire cette attestation.

Signature and Date fields with handwritten entries.



Ministry of
Northern Development
and Mines

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number

W9460.00037

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 100 Cedar Street Sudbury, Ontario, P3L 6A5, telephone (705) 670-7264.

- Instructions:
- Please type or print and submit in duplicate.
 - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
 - A separate copy of this form must be completed for each Work Group.
 - Technical reports and maps must accompany this form in duplicate.
 - A sketch, showing the claims the work is assigned to, must accompany this form.

2. 15373

(2)

Recorded Holder(s) <i>Great Lakes Canada Inc.</i>	Client No. <i>221553</i>
Address <i>100 Shirley Ave. Kitchener, ON N2B 2E1</i>	Telephone No. <i>(519) 744-5756</i>
Mining Division <i>Porcupine</i>	Township/Area <i>Easton Kipling</i>
Days Work Performed From: <i>Oct. 11, 1970</i>	To: <i>Feb. 22, 1977</i>

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	
Physical Work, including Drilling	<i>RECORDED</i>
Rehabilitation	<i>FEB 25 1994</i>
Other Authorized Work	Receipt: _____
Assays	
Assignment from Reserve	

Subsection (18) ?

Total Assessment Work Claimed on the Attached Statement of Costs \$ ~~24705~~ *1885*

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
<i>Anne Casselman</i>	<i>Mineral Research Canada Inc.</i>
<i>Kenneth Malmstrom</i>	<i>P.O. #2, P.O. Box 201, PA. P.O.</i>
<i>J.R. Drilling</i>	<i>Gen. Del. Harboursville, MB R0T 2X0</i>

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date <i>JAN. 17/94</i>	Recorded Holder or Agent (Signature) <i>[Signature]</i>
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Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.

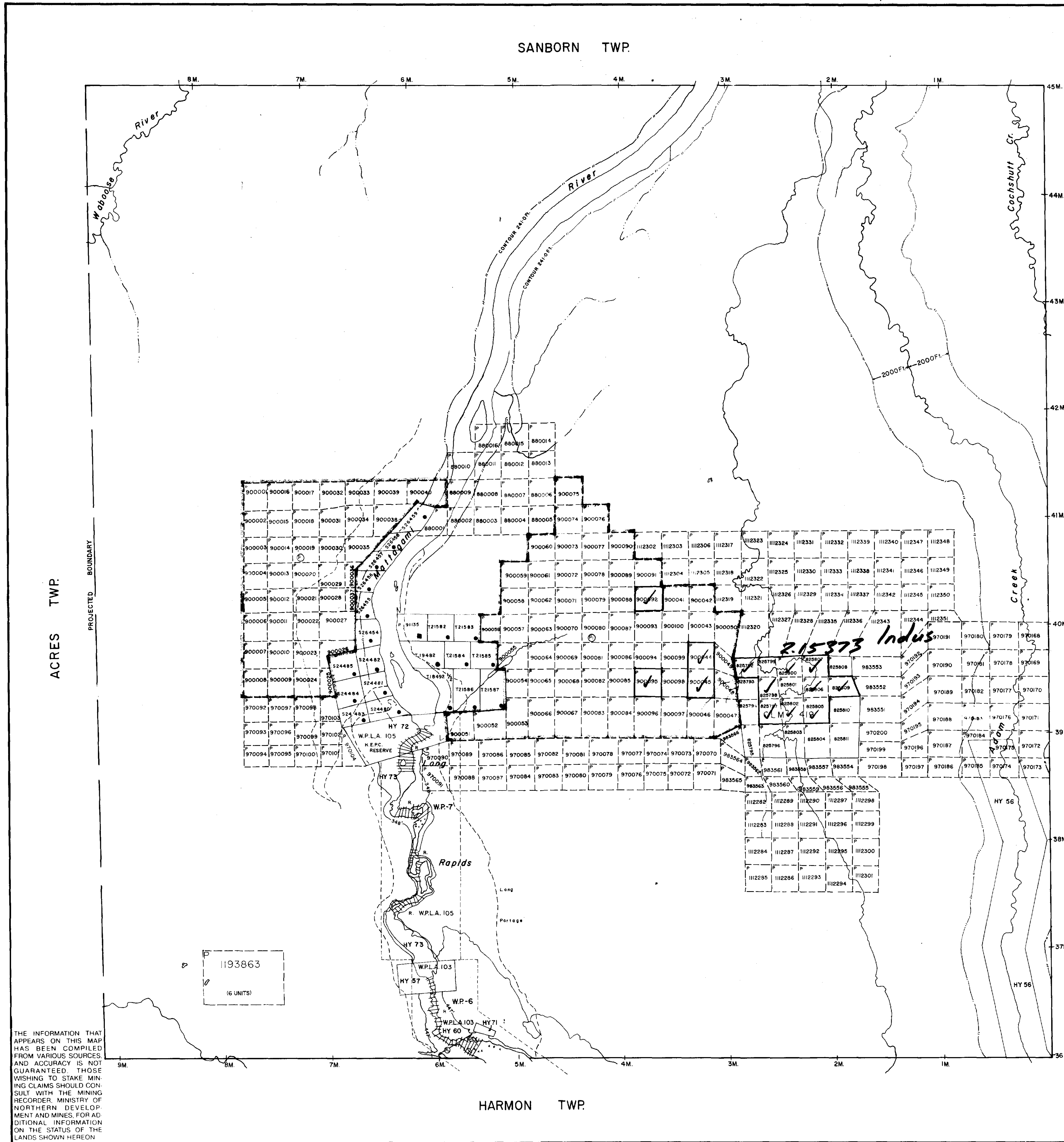
Name and Address of Person Certifying
Anne Casselman - Mineral Research Canada Inc.

Telephone No. *(705) 375-2916* Date *Jan. 24, 1994* Certified by (Signature)
Anne Casselman

For Office Use Only

Total Value Cr. Recorded <i>\$1,885</i>	Date Recorded <i>FEB. 25, 1994</i>	Mining Recorder <i>[Signature]</i>
	Deemed Approval Date <i>MAY 26, 1994</i>	Date Approved
	Date Notice for Amendments Sent	

RECEIVED
(1st Rec'd)
JAN 27 1994
FEB 25, 1994
TB
PORCUPINE MINING DIVISION



THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
- TOWNSHIP, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES
- LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LEASE SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LICENSE OF OCCUPATION	
ORDER-IN-COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEES BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 83, SUBSEC. 1.

NOTES

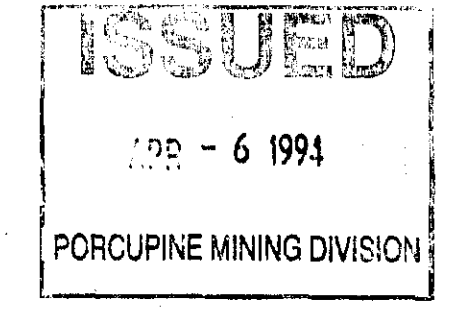
FLOODING RESERVATION TO CONTOUR ELEVATION 241.0 FT. FROM GRAND RAPIDS TO TAILWATER OF KIPLING 6 ST. RESERVED FOR ONTARIO HYDRO.
 FLOODING RESERVATION ON ADAM CREEK EXTENDED TO 2000' EACH SIDE OF CENTERLINE OF CREEK, RESERVED FOR ONTARIO HYDRO.

AREAS WITHDRAWN FROM DISPOSITION

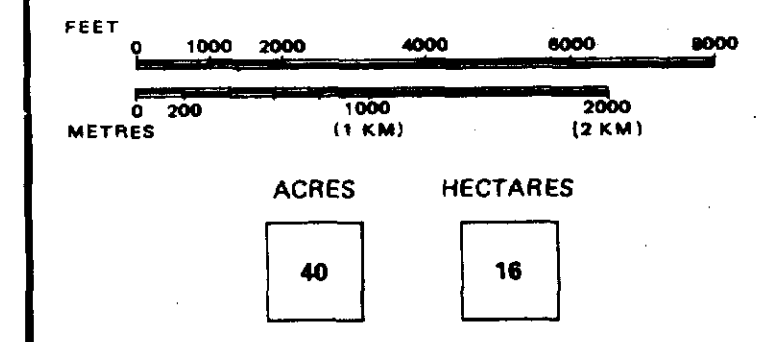
- M.R.O. - MINING RIGHTS ONLY
- S.R.O. - SURFACE RIGHTS ONLY
- M.+S. - MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

LAND NOT OPEN FOR STAKING, SEC. 3(1) OF THE MINING ACT, R.S.O. 1980.



SCALE: 1 INCH = 40 CHAINS



**TOWNSHIP OF
KIPLING**

**DISTRICT
COCHRANE
MINING DIVISION
PORCUPINE**

Ontario Ministry of Natural Resources Ministry of Northern Development and Mines
 ACTIVATED AUG. 18/93 BY D.C. / CHECKED BY L.K.

Date JULY 1986 Plan No. G-896
 National Topographic Series

